

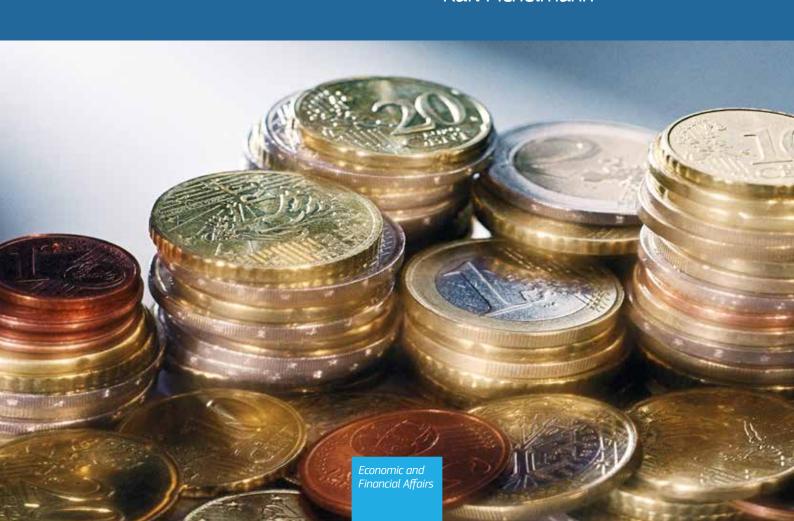
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When 'Secular Stagnation' meets Piketty's capitalism in the 21st century. Growth and inequality trends in Europe reconsidered

Karl Pichelmann



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### **European Commission**

Directorate-General for Economic and Financial Affairs

# When 'Secular Stagnation' meets Piketty's capitalism in the 21st century

Growth and inequality trends in Europe reconsidered

Karl Pichelmann

### Abstract

Europe not only continues to struggle to leave the legacies of the crisis behind it; economic growth remains also weighed down by unfinished macroeconomic adjustment and sluggish implementation of reforms, as well as long-standing poor productivity growth trends. Against that background, the spectre of "secular stagnation" has been haunting both pundits and policymakers for some time. In weighing the question of whether slow growth in Europe and other advanced countries reflects some kind of ongoing stagnation problem, it's important to be clear on the concept. Moreover, in view of the hotly debated bi-causal interaction between lacklustre economic growth and growing inequalities in the distribution of income and wealth fuelled by Piketty's recent bestseller, it may be useful to recall some of the fundamental insights about capital accumulation, growth and distribution in order to take a look at the secular stagnation hypothesis from this angle as well. Against that background, the paper first reviews the secular stagnation hypothesis and variants thereof, discussing its plausibility and confronting it with the empirical evidence from a European perspective. It then looks into the nexus between growth patterns and the trends in the distribution of income and wealth. Finally, it offers some policy conclusions that can be derived from the analysis.

JEL Classification: E20, O40.

**Keywords**: secular stagnation, growth trends, demand shortfall, inequality, social fabric.

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The opinions expressed in this paper do not necessarily reflect the views of the European Commission.

"...to ensure equilibrium conditions of prosperity over a period of years it will be essential, either that we alter our institutions and the distribution of wealth in a way which causes a smaller proportion of income to be saved, or that we reduce the rate of interest sufficiently to make profitable very large changes in technique or in the direction of consumption which involve a much larger use of capital in proportion to output. Or, of course, as would be wisest, we could pursue both policies to a certain extent."

J.M. Keynes (1937), Some economic consequences of a declining population, Eugenics Review XXIX, No. 1

### INTRODUCTION

Economic indicator readings for the first half of 2015 have brightened the near term outlook for economic activity in the euro area, alleviating concerns that the economy could again go into reverse. However, the expected pace of recovery remains weak, making little inroads into persistently high unemployment. Europe not only continues to struggle to leave the legacies of the crisis behind it; economic growth remains also weighed down by unfinished macroeconomic adjustment and sluggish implementation of reforms, as well as long-standing poor productivity growth trends. Against that background, the spectre of "secular stagnation" has been haunting both pundits and policymakers for some time, in particular in Europe. Indeed, there is still a serious risk that anaemic growth could become the new, dismal normal of the euro area. Over and above the implications for economic welfare and social cohesion, such an outcome would obviously also impose a major strain on the new and still largely untested EU policy co-ordination framework.

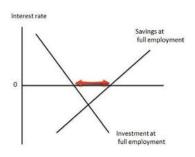
But while the term "secular stagnation" was widely repeated, it was not commonly understood. Barry Eichengreen, in his blog, pointed out that "secular stagnation, we have learned, is an economist's Rorschach test". It can mean different things to different people. In weighing the question of whether slow growth in Europe and other advanced countries reflects some kind of ongoing stagnation problem, it's important to be clear on the concept. Moreover, in view of the hotly debated bi-causal interaction between lacklustre economic growth and growing inequalities in the distribution of income and wealth fuelled by Piketty's recent bestseller, it may be useful to recall some of the fundamental insights about capital accumulation, growth and distribution in order to take a look at the secular stagnation hypothesis from this angle as well. In fact, inequality could well be seen the defining challenge of our time (Krugman 2013).

The plan of this paper is as follows. Section 2 reviews the secular stagnation hypothesis and variants thereof, discussing its plausibility and confronting it with the empirical evidence from a European perspective. Section 3 looks into the nexus between growth patterns and the trends in the distribution of income and wealth. Finally, section 4 offers some policy conclusions that can be derived from the analysis.

### 2. GETTING OUT OF (SECULAR) STAGNATION

The revival of a debate about secular stagnation started in late 2013. Is it possible that the US and other major global economies might not return to full employment and strong growth without the help of unconventional policy support? That question – put in the frame of the old idea of "secular stagnation" - was raised by former U.S. treasury secretary and Harvard professor Lawrence Summers in a talk hosted by the IMF, and further explored and elaborated in a panel contribution at the AEA meeting 2014 in Philadelphia and in two subsequent comments in the FT. It should be noted

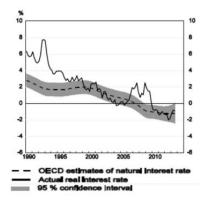
that Summers was careful to depict secular stagnation as a contingency to be insured against – not a fate to which we ought to be resigned. His remarks clearly struck a chord and led to an intense debate among both pundits and policymakers (see the overview in Teulings and Baldwin, eds. 2014).



The basic tenet of the Keynesian-flavour secular stagnation hypothesis is a chronic shortfall of aggregate demand due to an excess of private savings over private investments, which can only be eliminated by a significantly negative real interest rate – loosely speaking, households are not spending enough and firms are not investing enough even at near-zero interest rates (quote Summers: "With short-term interest rates constrained by the zero lower bound, real rates may not be able to fall enough to spur enough investment to lead to full employment"). Summers offers several explanations why the level of spending at any given set of interest rates is likely to have declined. Investment demand may have been reduced due to a slower growth of the labour force and perhaps slower productivity growth.

Consumption may be lower due to a sharp increase in the share of income and wealth held by the very wealthy and the rising share of income accruing to capital. (Those with very high incomes have a relatively low propensity to consume, and virtually all the income gains in the United States have gone to those with very high incomes.) Risk aversion has gone up as a consequence of the crisis and saving – by both government and consumers – has risen. The crisis increased the cost of financial intermediation and left major debt overhangs. Declines in the cost of durable goods, especially those associated with information technology, meant that the same level of saving purchases more capital every year. And lower (expected) inflation is encouraging consumers and investors to delay spending, and to redistribute income and wealth from high-spending debtors to low-spending creditors. Overall, the result is a glut of savings that firms are unable to invest at any interest rate greater than zero. Thus, the advanced countries find themselves with extraordinarily low interest rates as this glut of savings floods the market, and yet with not enough investment to absorb it or to sustain a respectable rate of growth.

However, as Summers points out, a strategy that relies on interest rates significantly below growth rates for long periods of time virtually guarantees the emergence of substantial bubbles and dangerous build-ups in leverage. Note that standard economic theorising actually rules out the long-term possibility of the (real) interest rate staying below the rate of growth as this would violate the no-Ponzi game condition.



Empirical estimates for the "Wicksellian" natural interest rate for the Euro area indeed suggest that it may well have moved into negative terrain (see left-side chart, OECD 2014). However, a setting where real equilibrium interest rates are negative for decades is fundamentally instable and incompatible with capitalism as we know it; in consequence, unsurprisingly, this case is basically ignored by card-carrying members of the economics profession. Note also, that savings rates tend to fall as growth declines, with the benchmark theory maintaining that at zero growth the net savings rate will be zero as well. Thus, a permanent savings glut hypothesis rests on shaky theoretical and empirical grounds.

And obviously, the savings glut explanation needs to be put in a global perspective. As Barry Eichengreen has stressed, what matters for interest rates is not U.S. (or EU, my addition) saving but global saving, since funds can move

across borders. In fact, global saving has held stable for the last 15 years at 23 to 24 percent of global GDP. Looking ahead, with China rebalancing its economy toward consumption, there is some reason to think that the global saving rate will come down. Still, savings-investment imbalances across world regions will in all likelihood continue to characterise the global economy, making a fundamental case for trade integration, FDI and the free movement of capital.

Turning to persistent investment shortfalls (over and above the hysteresis-related fallout from the crisis), this is the issue where the demand-side explanations meet with supply-side fundamentals. Growing gaps in public investment in both tangible and intangible infrastructure investment, including education and training, are evident for many observers. Yet it is difficult to imagine that public spending could compensate for persistent weakness in private investment, not least given high levels of public debt. Thus, obviously, a sobering supply-side narrative can also be told; indeed, the specific term "secular stagnation" is one familiar to an earlier generation of economists. Many believed that the Great Depression had permanently changed the long-term trend rate of economic growth that was possible given the rate of growth of the population, technological progress and the decline of investment opportunities, among other things. The principal spokesman for this view was the Harvard economist Alvin Hansen (1938). The role of demographics has long been considered as crucial in that respect. Just recall that in Samuelson's

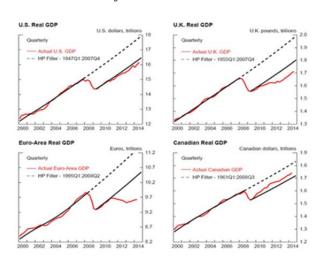
consumption-loan model the natural rate of interest equals the rate of population growth; in slightly more general formulations, the crucial variable is the rate of population growth (set equal to the rate of labour force growth) plus the rate of technical progress (total factor productivity growth).

More recently, an attempt to formalise the idea of secular stagnation has been provided by Eggertson and Mehrotra (2014). In their paper they propose a simple overlapping-generations New-Keynesian model in which a permanent (or very persistent) slump is possible without any self-correcting force to full employment. The trigger for the slump is a deleveraging shock which can create an oversupply of savings. Other forces that work in the same direction and can both create or exacerbate the problem are a drop in population growth and an increase in income inequality. High savings, in turn, may require a permanently negative real interest rate. In contrast to earlier work on deleveraging, their model does not feature a strong self-correcting force back to full employment in the long-run, absent policy actions. Successful policy actions include, among others, a permanent increase in inflation and a permanent increase in government spending. The authors also establish conditions under which income redistribution can increase demand. Policies such as committing to keep nominal interest rates low or temporary government spending, however, are less powerful than in models with temporary slumps. They claim that their model sheds light on the long persistence of the Japanese crisis, the Great Depression, and the slow recovery out of the Great Recession.

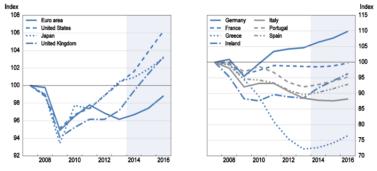
While their model is certainly elegant and thought inspiring, the notion of the natural rate of interest being permanently negative is hard to swallow and relies on a specific formulation of savings behaviour in an OLG context; moreover, capital and investment are yet to be incorporated into the model. Still, their analysis sheds good light on the conditions for an economy to remain mired in a permanent recession or, put alternatively, for a liquidity trap of arbitrary duration.

The empirical evidence on secular stagnation having set in after the Great Recession differs considerably across countries and major world regions. While the overall hit on the level of real GDP has been almost universal, the post-crisis slowdown in growth rates of GDP has been particularly pronounced in Europe. In the euro area as a whole, economic growth has been mediocre at best, hysteresis effects have been significant, and monetary and fiscal policies may not have been sufficiently accommodative in view of strong deleveraging pressures on private and public agents and systemic constraints in the set-up of EMU. Obviously, these effects have been even more acute in the vulnerable countries.

### Trajectories of real GDP







But how plausible is it for stagnation to become really secular? Starting from a supply-side perspective, current medium term projections by ECFIN staff provide a scenario where the EA economy would eventually move partially back towards a pre-crisis growth rate, corrected for capital growth which appears to have been too high in the pre-crisis boom. This baseline scenario does not include any further growth impulses from structural reforms but is largely based on three assumptions: First, currently high levels of unemployment would not lead to long lasting hysteresis effects, second, about 2/3s of the TFP growth decline could be recovered in the medium term and third, firms and households make use of investment opportunities offered by favourable reversals in supply side trends, but will not benefit from further reductions in capital cost. Under these conditions secular stagnation would be avoided and average growth rates over the next 10 years could be at around 1.4%; this also takes into account a closing of the output gap.

Looking at the supply side factors, there are two downside risks. First, hysteresis effects could be longer lasting than assumed in this projection. Apart from the standard arguments for hysteresis effects which are related to skill degradation of long term unemployed, an additional hysteresis risk appears in the current juncture, namely delayed wage adjustments in a low inflation environment. However, looking at the evidence on negative growth rates of both nominal and real unit labour costs in EA economies with high unemployment, this risk appears small. A stronger downside risk is associated with the assumed recovery of trend TFP growth to 0.6% in the medium term. This implies a reversal of a long lasting downward TFP trend and can thus be seen as an optimistic assumption. If this trend reversal does not occur but TFP growth remains at 0.4% (or even declines further to 0.3% in case the downward trend persists), this could shave off 0.2% to 0.3% from the average trend growth projection over 2014-2023.

A more fundamental challenge to this projection is probably coming from concerns about demand side factors which are related to debt overhang and deleveraging needs in many EA countries. ECFIN analysis of deleveraging scenarios indeed suggests that the deleveraging process leads to a prolonged slowdown of growth (over half a decade or so), but this process stabilises and the growth slowdown is not permanent. During this period private sector debt remains high and declines only slowly because of denominator effects. An important reason for debt remaining high initially is the fall of inflation which raises the real interest rate. This leads to a vicious circle of reductions in private consumption and investment aggravating the negative demand effect. However, as price and wage adjustment slows down, the real interest rate declines, domestic demand stabilises and the deleveraging process gains momentum, eventually resulting in a return of employment and investment rates to baseline level over the medium term. In an open economy setting, additional stabilisation is provided by an improvement of external competiveness.

But obviously, these scenarios are subject to the criticism that current DSGE models may stress equilibrating mechanisms too much and neglect possibly insufficient price and wage adjustments (coordination failures), negative confidence effects and heightened risk aversion because of increased uncertainty. And, monetary policy may find itself overburdened with macro challenges given the current configuration of economic policy settings, including the SGP and, in particular, its debt rule.

In conclusion, the strong Keynesian version of the secular stagnation hypothesis – in the reading of this paper the version based on a permanently negative natural rate of interest - appears to stand on shaky grounds, both theoretically and empirically, and fundamentally inconsistent with capitalism as we know it. However, this does not mean that chronic shortfalls of demand associated with prolonged periods of weak growth can be ruled out. On the contrary, it points to the need to address structural demand weaknesses and to augment the arsenal of the more traditional structural reform options. Failure to do so runs the risk "to be condemned to oscillating between inadequate growth and unsustainable finance" (Summers).

### EU-28 Spring Forecast 2015



Figures above horizontal bars are annual growth rates.

At the current juncture, however, some optimism may be justified that the Europe could break out from the low growth-low inflation "stagnation trap". Supported by further easing of monetary policy via the expanded asset purchase programme of the ECB and a more neutral stance of fiscal policy, the drop in oil prices and the weaker euro exchange rate, the momentum in economic activity is forecasted to accelerate over the horizon of the next 18 months (European Commission, Spring Forecast 2015). However, while reaching a pace well above potential, it will still leave Europe with a significantly negative output gap at the end of 2016.

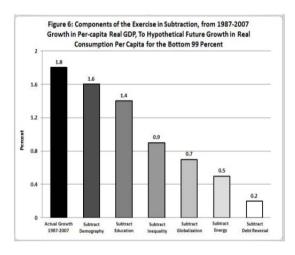
European policy makers have taken up this challenge. In its Annual Growth Survey for 2015, the Commission proposes that the EU pursue an integrated approach to economic policy built around three

main pillars, all of which must act together – boosting investment, accelerating structural reforms and pursuing responsible growth-friendly fiscal consolidation. Indeed, standard pro-growth policies – labelled as structural reforms or supply-side policies – get a new focus when viewed from a demand side perspective.

First, as most saving behaviour is slow moving, boosting investment is the most suitable way of stimulating demand in the current environment. This is fairly undisputed and, in fact, efforts are ongoing at the European level to put an additional investment package – the so-called Juncker investment plan - on track.



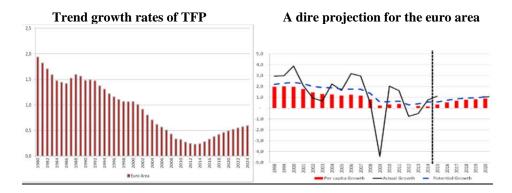
Second, standard theory suggests that the steady-state capital stock grows at the sum of the growth rates of productivity and labour inputs. Thus, policies that stimulate innovation and increase efficiency and those that boost employment will raise the neutral "Wicksellian" interest rate and help to elude the zero-lower-bound problem, making evident the need to put together the major ingredients of a renewed push to boost jobs, growth and investment along these lines. In fact, determined implementation of pro-growth structural policies appears all the more essential given the scepticism of some pundits regarding the evolution of fundamental growth drivers.



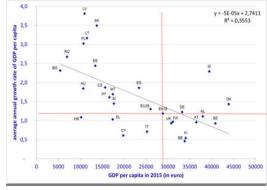
Indeed, starting from a traditional supply-side perspective, Bob Gordon (and others) has proclaimed the end of growth as faltering innovation confronts headwinds such as demography, education, inequality, globalization, energy/environment, and the overhang of consumer and government debt. Gordon offers an "exercise in subtraction" from the average US growth rate over the period 1987-2007 to arrive at a prediction that future growth in consumption per capita could fall below 0.5 for the bottom Specifically, Gordon has argued that electricity, the internal combustion engine and indoor plumbing were infinitely more important for boosting productivity and enhancing living standards than anything produced by the dot.com boom. Personal electronics may be great for playing games, but they are not so good for raising productivity. And there is no great invention equivalent to electricity or the internal combustion engine on the horizon.

However, as Eichengreen among others has argued, for economic historians this argument flies in the face of 200 years of experience. Pessimists have been predicting slowing rates of invention and innovation for two centuries, and they have been consistently wrong. (It should be recognised, though, that Gordon has significantly toned down his innovation pessimism in later contributions.) Many economists are much more optimistic, arguing that the effects of the IT revolution will become cumulatively larger as they are applied in conjunction with robotic and biological advances. For example, Andrew McAfee and Erik Brynjolfsson's influential books on the march of the robots identify many reasons for believing that the "second machine age" is only just starting. Martin Wolf, among others, is taking this possibility and the risk of large-scale "technological unemployment" very seriously indeed. In fact, the evidence that we are learning how to use intelligent machines to replace first unskilled and eventually skilled labour suggests that we have an income distribution problem, not a growth problem stemming from lack of innovation.

Still, Europe's productivity growth problem is more than evident. Already before the crisis, trend growth rates of total factor productivity have continuously fallen over the past three decades. And the crisis years have dealt another blow to productivity growth, not least via the impact of pronounced investment shortfalls. In combination with the stagnant/declining working-age population this results in a dire medium-term projection for potential per-capita growth in the euro area, even under the assumption of a recovery towards pre-crisis productivity growth rates.



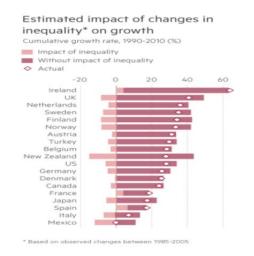
Projected convergence and divergence patterns in the EU 2015-2020



Source: Commission Services 2014

### SECULAR STAGNATION AND INCOME DISTRIBUTION

Inequality has become a hot topic in the public debate. The width and the intensity of the debate following Piketty's book is a strong indicator for that. The financial crisis and its fall-out have fuelled a widely-held perception of unfair burden-sharing in society. However, already before the crisis growing inequalities in the distribution of income and wealth and of opportunities in life in general have prompted rising concerns. Inequality is now also firmly established on the radar screen of international organisations such as the IMF and the OECD, not least because the growth and market integration process cannot enjoy sustained democratic support if benefits from growth accrue to just a small share of the population but fail to extend to society at large.



The interactions between patterns of economic growth and the trends in the distribution of income and wealth are complex and go both ways. It is now widely acknowledged that excessive inequality can have negative implications for long-term growth and macroeconomic stability. Inequality creates "negative externalities" for growth for a series of factors including higher social conflict, increased rent-seeking behaviour leading to misallocation of resources, lower social mobility leading to underinvestment in human capital, restricted access to education for low income groups and deviant behaviour. Empirical studies have corroborated the view that highly unequal societies experience shorter periods of high growth and that growth is less effective at lowering poverty. Moreover, from a purely demand side perspective, consumption may be structurally depressed due to a sharp increase of income held by the very wealthy and the rising share of income accruing to capital.

Source: OECD (2014)

At the same time, recent work by Thomas Piketty (for a friendly review see for example Solow, more critical with some serious jibes embedded in praise see Summers, 2014) suggested that absent redistributive policy action lower growth will inevitably lead to higher concentrations of wealth and a rising share of national income accruing to capital. But this conclusion has faced serious critique (Krusell, Smith 2014, and Rognlie 2015). Recall that one of the basic relations in Piketty's book – derived from standard growth theory - is that the wealth income ratio (or, alternatively, the capital-output ratio) equals the ratio of the net savings rate relative to the growth rate (determined by the growth rate of the population and the rate of technical progress).

### W/Y = s/g

Assuming a constant (and positive) net savings rate, Piketty argues that the wealth-income ratio will rapidly rise in the future as g is bound to fall significantly (broadly equivalent to an assumption of secular stagnation; but obviously, with g approaching zero, the wealth-income ratio will become infinitely large). If one further assumes that the rate of return to capital is largely insensitive to how much capital is accumulated, a cut in g by half (both considered as plausible by Piketty) would imply a doubling of capital's share in income and bring back levels of inequality similar to those in the 19<sup>th</sup> century since capital is so unevenly distributed today.

However, as argued above in the context of the discussion of the savings glut hypothesis, benchmark theory maintains that, at zero growth, capital is maintained at a constant level, i.e. the net saving rate is zero, in sharp contrast with Piketty's assumption. More generally, the prediction arising out of this literature is that savings rates tend to fall, not rise, as growth falls. Thus, neither the textbook Solow growth model nor a 'micro-founded' model of growth predicts anything like the drama implied by Piketty's argumentation. In both cases, theory suggests that the wealth—income ratio would increase only modestly as growth falls.

But even if Piketty's projection of a rising wealth-income ratio (or capital-output ratio) was ultimately to come true, a key question is whether the rate of return on capital will not be bound to fall substantially under such circumstances; if so, the capital owners' claim on aggregate output may not be larger than before and the tendency for concentration of income arising via this channel will be fairly limited. In fact, recent work by Rognlie (2015) finds that although the net capital share has at times seen dramatic shifts both up and down, away from housing its long-term movement has been quite small, and there is not strong reason to suspect that this pattern will change going forward.

Thus, these authors argue that declining overall growth is simply not a powerful force for generating high inequality, and they would not want to make predictions based on it. What they put forward, instead, is that wealth dispersion in the Western world – which is very large and most definitely a compelling target of theoretical and empirical study – has primary determinants much different than those emphasised in Capital in the Twenty-First Century. These include, mentioning but a few, educational institutions, skill-biased technical change, globalisation, changes in the structure of capital markets, and the working of housing markets. It is to these forces that those who care about inequality should be devoting their attention, and to which policy reforms ought to be targeted. Similarly critical is Summers, who doubts that Piketty's theory emphasizes the right aspects even where capital accumulation is concerned. Looking to the future, his guess is "that the main story connecting capital accumulation and inequality will not be Piketty's tale of amassing fortunes. It will be the devastating consequences of robots, 3-D printing, artificial intelligence, and the like for those who perform routine tasks... And the trends are all in the wrong direction,

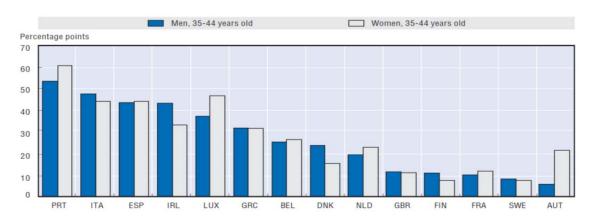
particularly for the less skilled, as the capacity of capital embodying artificial intelligence to replace white-collar as well as blue-collar work will increase rapidly in the years ahead."

Before now briefly sketching some main trends in the distribution of income, it may useful to recall three different (re-)distributional dimensions:

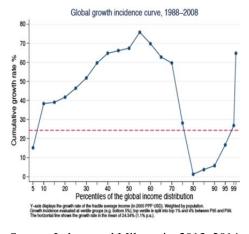
- 1. Broadening the pre-market distribution of endowments (including inheritances), education and skill formation, and in general enhance opportunities for all;
- 2. Improving the market distribution of gross wages and salaries, as well as of other types of revenues (such as income from capital);
- 3. Compressing the ex-post market distribution: lowering inequality of net disposable incomes (after tax and transfers, including transfers in-kind, and the provision of public goods and services)

General broad-based education and skill formation is the most important equalising driver of the pre-market distribution. However, endowment structures have changed to the disadvantage of (low-skilled) workers via trade integration and labour migration. Moreover, pre-market distributions have tended to grow more unequal due to the rising importance of fairly concentrated inheritances after a long period of capital accumulation uninterrupted by war time destruction. In some cases, limited social mobility has contributed to constrain access to good education perpetuating inequality in initial conditions. Indeed, work by the OECD found that in higher inequality countries, children born to poorly educated parents tended to do worse academically than those in lower inequality countries. This suggested inequality hurts growth by leaving more people with inadequate skills.

### Summary measure of intergenerational persistence in below upper secondary education



Trends in market distribution are easier to assess empirically and show, almost unequivocally, that over the past thirty years inequality has been rising in high-income advanced economies (including some of the more egalitarian European countries) and falling in developing countries. This is in line what one would expect in an era of globalisation.



median (with 9 out of 10 people in this group coming from 'resurgent Asia'). But after the global median, the gains rapidly decrease, becoming almost negligible around the 80th–90th global percentiles with the overwhelming majority in that group of 'losers' coming from the 'old, conventional' rich world. But not just anyone from the rich world. Rather, the 'losers' were predominantly the people who in their countries belong to the lower halves of national income distributions. Gains are then shooting up again for the global top 1%. As a result, growth in the income of the top 5% accounted for 44% of the increase in global income between 1988 and 2008.

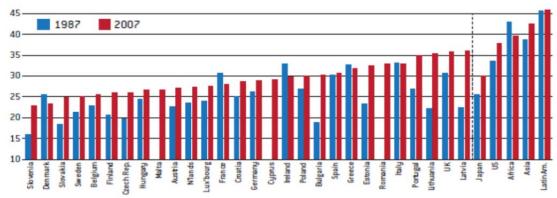
The particular supine S-shaped global growth incidence curve indicates

that the largest gains were realised by the groups around the global

Source: Lakner and Milanovic, 2013, 2014

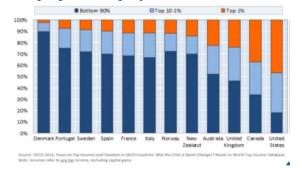
However, globalisation is certainly not the only, and probably not even the main culprit for widening income disparities. Notably, indeed, the trend towards growing inequalities has set in already before the emergence of countries such as China and India as significant players on the global trading scene. Besides globalization, advances in technologies (in particular ICT) have been identified as a further push factor. New technologies have increased the demand for skills (skill-biased technological change), the return to education and, thus, the wage premium to skills affecting wage dispersion. Drastic advances in communication and transportation technologies in cheap labour countries provide firms located in the developed countries the incentives to outsource most of the routine production (of both blue and white collar). Thus both the computerization of routine tasks and offshore outsourcing contribute to the rising trend in inequality More recently, the advancing of information technology has led to develop a richer version of the skill-biased technological change theory, whereby technology complements highly educated workers engaged in abstract tasks and substitutes for middle-skilled workers performing routine tasks, while it has less impact on low-skilled workers performing manual tasks – in particular in non-tradable services - requested by the high-skilled (the so-called labour market polarization hypothesis). This prediction was corroborated by data showing that wage growth polarised and relative employment of middle-skilled declined.

### Gini index of income inequality post taxes and transfers, 1987 and 2007



Source: Bruegel based on Standardised World Income Inequality Database.

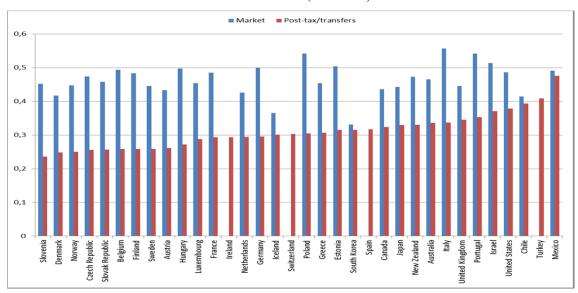
### Share of pre-tax income growth going to income groups 1975-2007



In many advanced economies, growing inequalities have been driven predominantly by a rising share of market income accruing to the very top of the distribution, probably reflecting increased possibilities for unfettered rent extraction. Institutional labour market developments, such as the erosion of trade union bargaining power, are likely to have been contributing factors as well. Last but not least, policy has shown a growing inclination to shy away from interfering directly with the market income distribution.

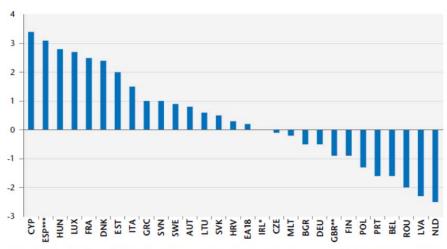
While several European countries exhibit a relatively high dispersion of the market income distribution – almost on par with the US -, the perception of "egalitarian Europe" is largely based on the fact that inequality of the post-market distribution is much smaller than elsewhere, reflecting the higher degree of redistribution via taxes and transfers. The value of the Gini coefficient of disposable income for the EU28 falls from 51.3% to 30.6% once social transfers (including pensions) are included (EU SILC 2012 data). However, it is also true that weaker redistribution via the entire tax and benefit system was one of the culprits of higher income inequality prior to the crisis; in particular with respect to the bottom half of the distribution. Such changes in overall redistribution were mainly driven by benefits; taxes also played a role but to a lesser extent.

### Gini-coefficients (late 2000s)



Still, the welfare state has prevented inequality going from bad to worse in the first years of the Great Recession. However, as the jobs crisis persists there is a growing risk of further rising inequality. Indeed, with the economic crisis, changes in inequality were determined by *falling* disposable incomes, in particular at the bottom of the income distribution. These latter developments have important policy implications as they are associated with a rise in poverty and social exclusion.

### Change in Gini-coefficient 2008-2013, equivalised disposable incomes

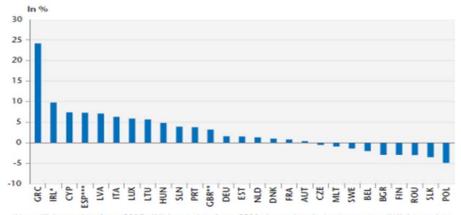


Note: (\*) last data from 2012. (\*\*) last data from 2011 due to break in time series. (\*\*\*) last data from 2012 due to break in time series.

Source: Eurostat

Poverty is a multidimensional concept which relates not only to the lack of income and wealth but also to the distribution of resources and the provision of public good and services. Trends in poverty indicators are therefore influenced by different economic developments and by how the income distribution is affected. The apparently muted response of poverty at aggregate EU level during the crisis hides in fact marked differences between Member States: while most of the former EU15 Member States did not experience particularly strong changes in recent years, those countries most severely hit by the crisis recorded steep increases in severe material deprivation and low work intensity rates starting from 2010. Among New Member States, those less affected by the crisis continued along a downward path consistent with economic convergence (e.g. Poland, Slovakia, Czech Republic), while in countries such as Bulgaria, Romania, Hungary, Latvia and Lithuania such downward trend reversed dramatically.

### Change in the risk of anchored poverty 2008-2013



Note: (\*) latest data from 2012. (\*\*) latest data from 2011 due to breaks in time series. (\*\*\*) latest data from 2012 due to breaks in time series.

Source: Furnostat.

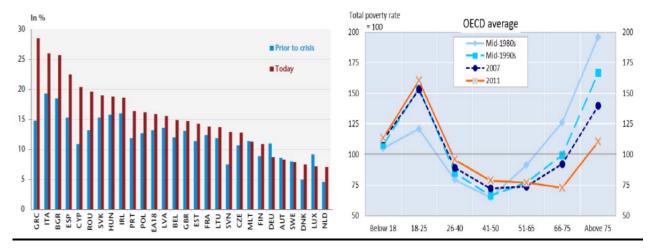
Measures of inequality, such as the Gini index, and poverty indicators do not always evolve in close connection. In fact, in most countries measures of relative poverty (e.g. the at-risk of poverty rate) did not change or even decreased during the 2008-2009 recession, despite an increase in absolute poverty. This is because in some countries median incomes were also severely affected, provoking a shift in the relative poverty threshold, while strong increases in material deprivation were the result of the strong deterioration of the labour market situation in many EU countries. Absolute poverty in particular appears strongly connected with the capacity of the economy to create jobs and to reduce the extent of long-term unemployment, as absolute poverty is explained by the loss of labour income, dissipation of financial wealth and loss of entitlements to government transfers, which occurs typically after long unemployment spells. A second crucial element is the existence of a safety net which effectively supports the most vulnerable groups which face the greatest difficulties to reintegrate in the labour market.

Expenditures on social protection as a percentage of GDP have risen in virtually all Member States, with a steep increase registered in the first phase of the crisis (2008-10). This reflects the combined effect of a drop in the denominator (the GDP) but also the role of automatic stabiliser played by the social protection system. In most Member States, this effectively prevented or contained a rise in poverty. After the outburst of the financial crisis, despite a reduction of real social protection expenditure per head, social expenditure as a percentage of GDP did not fall or even increased in most vulnerable countries, since fiscal consolidation packages generally preserved this type of expenditures as compared to other spending.

Remarkably, over the past 30 years youth replaced the elderly as the group experiencing the greater risk of income poverty and the recent crisis has further accentuated this trend. Indeed, the high and rising share of young people who are Not in Employment or Education or Training (hence NEETs) in many countries is indicative of a growing challenge to education systems and to integrate young people into the labour market providing them with more and better job opportunities.

NEETs 15-29 years

### Risk of income poverty across age groups



### 4. CONCLUDING REMARKS

Tackling the challenge arising from secular stagnation tendencies and growing inequalities requires combining monetary, fiscal and structural policies in an integrated approach effectively, acting both on the demand and supply sides of our economies.

Even if the secular stagnation hypothesis may not hold in its strong form, chronic aggregate demand weaknesses may lead to ultra-loose monetary policies for some time to come. This requires careful management and international coordination, supported by micro-prudential supervision, macro-prudential oversight and policy action if necessary, to avoid financial instabilities and/or harmful protectionist action. Trade integration, FDI and free capital flows are essential to handle savings-investment imbalances across world regions.

In fact, with short-term policy rates at the zero lower bound, conventional monetary policy is approaching its limits. The European Central Bank will continue to play a key role in the overall policy setting of the euro area. The ECB has the exclusive responsibility for monetary policy in the Euro area. It has taken a number of important measures to ease the monetary policy stance and enhance its transmission to broader financial conditions, notably through its Asset Backed Securities purchase programme which started in October 2014. Combined with the covered bond programme and the Targeted Longer-Term Refinancing Operations programme, the overall impact of these three measures on the balance sheet of the ECB will be significant. It is expected that the size of the balance sheet will steer toward the size reached at the beginning of 2012. These measures should support economic activity as they work their way through the economy

Member States, for their part, have the critical responsibility of delivering an appropriate fiscal stance. The examination of the draft budgetary plans submitted by Member States indicates a broadly neutral fiscal stance in the euro area in 2015, following a halt in consolidation in 2014. This appears to strike an appropriate balance between fiscal sustainability requirements and cyclical stabilisation concerns.

Nevertheless, the assessment of budgetary plans also points to possible scope for improvements in the fiscal stance. First, several euro area countries still face a risk of non-compliance with the Stability and Growth Pact. Maintaining a neutral aggregate fiscal stance, while some Member States are called to increase their efforts in order to comply with the SGP, implies a degree of fiscal support coming from the exploitation of the fiscal space available in other Member States. Second, more efforts should be made to prioritise productive investment, raise the quality of public expenditure and make tax systems fairer and more efficient.

Moreover, determined structural reform action addressing both demand and supply side constraints is called for. Indeed, standard pro-growth policies – labelled as structural reforms or supply-side policies - get a new focus when viewed from a demand side perspective.

First, as most saving behaviour is slow moving, boosting investment is the most suitable way of stimulating demand in the current environment. This is why the European Commission has put forward an additional investment package – the so-called Juncker investment plan. It should be noted, however, that it is more than just about the additional money and the new European Fund for Strategic Investment. It is as much – or perhaps even more - about finance reaching the real economy and about an improved investment environment. Second, standard theory suggests that the steady-state capital stock grows at the sum of the growth rates of productivity and labour inputs. Thus, policies that stimulate innovation and increase efficiency and those that boost employment will make the investment push viable over the medium term. Third, structural reform efforts need to support rebalancing in the Euro area. This means for the vulnerable countries, and including France and Italy, to further strengthen reallocation processes from nontradeables to tradeables sectors, addressing the inefficiencies in the sheltered sectors of the economy. But the creditor countries need to play their part as well by removing structural impediments to stronger domestic demand and, thus, allowing for more balanced growth across the area as a whole. Last but not least, migratory flows can to some extent alleviate the pressures from unfavourable demographic developments.

Still, however, over the medium-term a scenario might prevail by which the pace of productivity growth will be slower in the EU than in the emerging economies. Such a trend combined with demographic and climate change constraints in the EU would make agendas for structural reform, greater competition, trade opening, the transition to more knowledge-based economies, and deeper European integration and international cooperation even more necessary, while at the same time less socially acceptable if in this process too many people are left behind. The EU will have to develop a project integrating adequately fairness issues. While tackling excess inequality is primarily a domestic challenge, co-ordinated action at both the European and the global level could help generating synergies and avoiding negative spillovers. Policy efforts should concentrate on affecting the pre-market and the post-market

distribution to tackle excessive inequality calling for a package comprising the following main elements of redistribution and inclusive employment policies:

- Reforming tax and benefit systems and access to social protection: Government transfers (both cash and in-kind, including health) have an important role to play to safeguard low-income households, providing a social safety net for the weakest groups of society. Besides the overall level of social protection expenditure, its composition and effectiveness are crucial dimensions to be considered as in many instances, within a given envelope, important efficiency gains can be achieved by avoiding duplication and ensuring appropriate targeting.
- In terms of governance at the Community level, it may be considered to
  - specifically monitor and benchmark national shock absorption and adjustment capacities with a view to further strengthening stabilisation properties and in this context identify good and practices in terms of reforms;
  - in particular, introduce systemic stress-testing of social security systems in monitoring and surveillance processes, with a view to establishing adequate floors and minimum efficiency standards of social safety nets including their financing;
  - still, mistakes and failures cannot be ruled out and "unknown unknowns" do occur; thus, appropriate emergency mechanisms should be put in place as well. This could include, for example, a European Emergency Social Facility as a conditional and temporary support instrument to bolster national social safety nets under well-defined exceptional circumstances.
- There is also scope for reviewing some tax provisions: on the one hand increased income shares point towards higher tax capacity among top-income households, on the other hand the international mobility of factors makes redistributive income taxation less effective; as a result, (reform of) wealth or inheritance taxes and better coordinated tax reforms could be contemplated. In general, efforts to tackle tax evasion and the erosion of tax bases should be supported both at the EU and the international level.
- Boosting employment and career prospects ("more and better jobs"): Facilitate and encourage access to employment, notably for groups facing difficulties with labour market integration, and address labour market segmentation.
- Investment in human capital: Safeguard access to general and high skilled education; promote up-skilling of the workforce, better training and education for the low-skilled. Strengthen inclusive pre-school programmes, in particular for children from disadvantaged households.
- Inclusive housing policies are in all likelihood an important element to counteract tendencies for a growing concentration of incomes and wealth arising from the unfettered working of housing markets in many countries.

Slow growth prospects and rising inequalities are a real threat to the social fabric in Europe at the current juncture and over the medium-term. This is a fact and denial is not a strategy. Perhaps belatedly, policy makers in Europe have taken up the challenge. And more determined action may still be needed.

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