Global Lessons for Inclusive Growth

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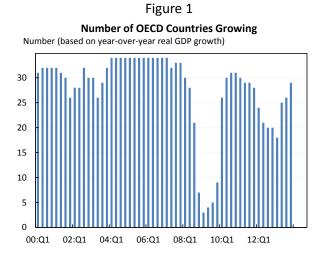
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As prepared for delivery

Good morning, and thank you for the chance to speak to this distinguished audience today.

Five years ago, economic policymakers in the United States and many other countries around the world were faced with one of the most tumultuous and trying periods since the 1930s. Ireland and some other euro area countries went through a second round of crisis in 2012.

Today, the countries of the Organization for Economic Cooperation and Development (OECD) are in the best position they have been in since the crisis began, although in some cases "best" is still a term understood as relative to the crisis itself. The United States economy has now grown for four straight years. Although our growth rate in the first quarter was just above zero, a significant portion of this weakness was due to some of the worst winter weather in fifty years. Forecasters generally expect the economy to rebound in the second quarter—as reflected in a range of data for March and, especially, the strong job gains in April. Likewise, the euro area has posted positive growth for three consecutive quarters. In fact, of the 34 OECD member states, 29 grew from the fourth quarter of 2012 to the fourth quarter of 2013, up from 20 during the preceding year (Figure 1). Ireland was, unfortunately, one of the five OECD economies that contracted in 2013, a reflection of the severity of the crisis that unfolded here over the last several years. However, the unemployment rate here has been falling and the recovery is projected to strengthen over the next years, with investment and trading-partner growth picking up, and the health of the banking system improving.



But substantial challenges remain. The United States has seen its unemployment rate cut by more than a third from its peak in 2010, but it is still unacceptably high, particularly due to long-term unemployment, which is our largest cyclical challenge. President Obama is pushing investments in areas like infrastructure and support for the long-term unemployed to expand aggregate demand and help speed the economic recovery. The euro area has not seen its unemployment rate meaningfully fall from its all-time high, and youth unemployment is an extremely serious issue in a number of countries. Ireland has seen its unemployment rate fall from a peak over 15 percent to 11.8 percent in March, in line with the euro area average, but this is partly due to emigration and like the United States it also faces the challenge of long-term unemployment.

I am confident that we will finish digging out of the hole left by the Great Recession in the United States, and that with the right policies Ireland and the other countries of Europe can continue to recover and strengthen following the euro area crisis.

But even after we do, we will still face the major challenges that we faced in the decades leading up to the crisis—specifically the failure of economies across the OECD to generate sustained gains in incomes for middle-class households, and the failure to combat sustained reductions in real market incomes for many households at the bottom of the income distribution. It is this challenge I want to focus on today.

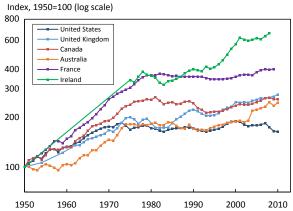
I will primarily discuss the United States, although many of the issues we face are common across the Anglo-Saxon countries, or even the OECD economies more broadly. In the course of the discussion I will provide some context and contrast with Ireland and other countries.

Defining the Challenge

Let me start by defining the challenge in the most fundamental terms: how the typical family is doing in the economy. A number of indicators are useful in this regard but one that is available across a range of countries for a long period of time is the average income for the bottom 90 percent of households. After generally rising strongly in most OECD economies in the decades up to about 1980, this measure of income has been roughly flat since then (Figure 2). Ireland had a strong burst of income growth through the 1990s, but also slowed in the 2000s. Here I should offer the important caveat that income measures including employer contributions to health insurance and other benefits are, at least in the United States, still rising slightly.

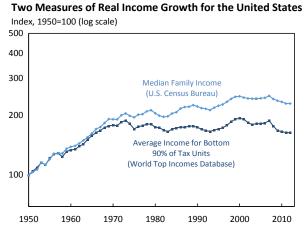
Figure 2

Growth in Real Average Income for the Bottom 90 Percent



In the case of the United States, and I suspect other countries as well, the evolution of average incomes for the bottom 90 percent broadly tracks median household income (Figure 3). The story it tells is stark: even while the overall economy expended from 2001 through 2007 the typical family did not share in the broader economic gains, the first time an economic expansion did not translate into rising middle-class incomes. And then incomes fell in the Great Recession—meaning that overall there has been no net increase in incomes since the late 1990s.

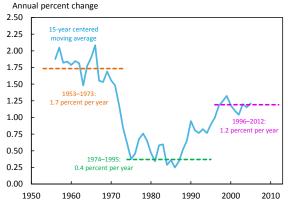
Figure 3



The reasons for these income trends vary from country to country, but two broad factors are generally at play with different degrees of importance in different countries. The first factor is productivity growth. In the United States, total factor productivity growth (the total amount of output from a given quantity of capital and labor inputs) grew rapidly in the wake of World War II, partly as military innovations were commercialized, but then slowed dramatically in the wake of the oil shocks in the early 1970s. Productivity growth has made a partial recovery starting with the new economy in the mid-1990s that has generally continued with rapid technological progress today (Figure 4). As a result, slower productivity growth than in the 1950s and 1960s is part of the story in the United States, but only a small part, especially in the last two decades.

Figure 4

Growth in U.S. Total Factor Productivity

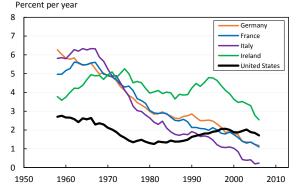


The data suggest that Ireland is largely similar to the United States in this regard, showing a noticeable increase in its measured productivity growth beginning in the 1990s. And while that boom period has given way to a slowdown in productivity growth in more recent years, Ireland's productivity still continues to grow at a solid rate consistent with an economy continuing to converge.

In contrast, slowing productivity growth is a much more important part of the story of why incomes have not risen in continental Europe. Several of the large European economies had very rapid productivity growth in the decades after World War II as they rebuilt their economies and took advantage of effective institutions to move closer to catching up to the technological frontier generally represented by the United States (Figure 5). But these were temporary supports to productivity growth, and as the rebuilding from World War II receded and the distance to the frontier narrowed, many continental European economies have continued to see their productivity growth slow in a broadly continuous process without experiencing the type of new economy rebound the United States did. There has been a lot of innovation in Europe, but it is still generally not cumulating in a way that is sufficient to be reflected in the aggregate productivity statistics. As a result, continental European economies went from productivity growth greatly exceeding that in the United States to productivity growth that falls well short.

Figure 5

15-Year Centered Moving Average of Annual Labor Productivity Growth



In the United States to a greater degree, and in other OECD countries to varying degrees, the bigger source of the failure to generate sustained gains in middle-class incomes has been the fact that productivity growth has not translated into a commensurate increase in incomes for the middle class. The gap between aggregate productivity growth and the measure of middle class income growth I have been using is particularly stark in the United States, United Kingdom and France (Figure 6). This gap was has been somewhat less pronounced but has become more noticeable recently in Ireland. The increase in inequality these charts reflect is the subject of the next part of my talk.

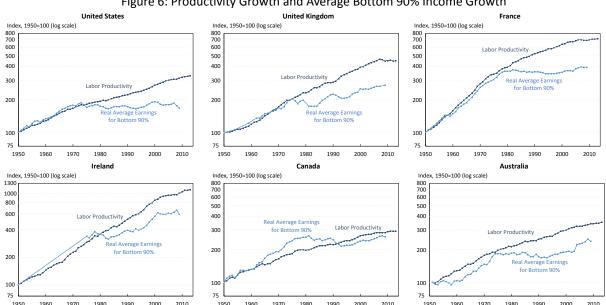


Figure 6: Productivity Growth and Average Bottom 90% Income Growth

Sources of the Increase in U.S. Inequality

Traditionally, economic research and discussions have focused on inequality within labor income. Partly that is because labor compensation represents the majority of income and has, with important caveats I will discuss in a moment, been the largest driver of inequality. Partly it is that we have better theories of labor markets and better data on them. One of the useful contributions of the much-discussed new book by Thomas Piketty, *Capital in the Twenty-First Century*, is to highlight that there are other important sources of inequality that derive from capital rather than labor. In this section of the talk I will engage with his work in explaining the rise of inequality in the United States in recent decades.

Decomposing the Increase in Inequality

Following Piketty, we can decompose inequality into three components:

- Inequality within labor income;
- Inequality within capital income;
- The division of income between labor and capital.

All three of these have different causes, dynamics and policy implications. Piketty does not quantify the relative contribution of these components in any of the countries he studies, but he asserts that inequality within labor income has been the predominant story in the United States.

I have tried to quantify the changes in inequality in the United States into the three sources using a combination of data from the Piketty and his co-author Emmanuel Saez, the U.S. Congressional Budget Office (CBO), and the U.S. National Income and Product Accounts (NIPA). There are a lot of issues with volatility, systematic measurement error that results from using administrative tax data in an environment of changing tax policies, and definitional nuances around what should be classified as labor or capital income. Nonetheless, a few broad points come through from this decomposition.

In the United States, the top 1 percent's share of total income rose from 8 percent in 1970 to 17 percent in 2010, according to the Piketty-Saez data. Throughout this period the top 1 percent's share of labor income rose steadily while its share of capital income only began a sustained rise around 1990 (Figure 7a and 7b). Overall, the 9 percentage point increase the share of income Piketty and Saez find going to the top 1 percent from 1970 to 2010 is accounted for by: 68 percent increased inequality within labor income, 32 percent increased inequality within capital income and 0 percent a shift in income from labor to capital. That is broadly consistent with the emphasis on labor, although it says that capital is reasonably important too.

Figure 7a: Based on Piketty/Saez Data

Share of Total, Labor, Capital Income Accruing to Top 1%

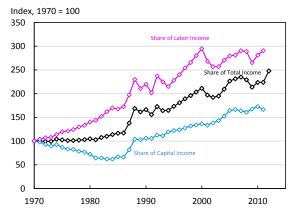
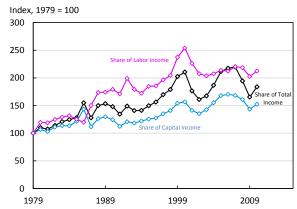


Figure 7b: Based on CBO Data

Share of Total, Labor, Capital Income Accruing to Top 1%



But capital is a lot more important when looking at the extreme upper end of the income distribution or more recent periods. Table 1 shows the relative importance of the distribution of income within labor in explaining the increased share of income going to the top in different data sets and different periods.

Table 1 . Increase in Income Share Accounted for by Inequality Within Labor Income

	Top 10%	Top 1%	Top 0.1%	Top 0.01%
Income Excluding Capital Gains				
1970-2010 (Piketty-Saez)	83%	68%	53%	39%
1980-2010 (Piketty-Saez)	71%	54%	59%	35%
1990-2010 (Piketty-Saez)	64%	51%	53%	37%
1980-2010* (CBO)	73%	48%		
1990-2010* (CBO)	73%	43%	-	
Income Including Capital Gains				
1970-2010 (Piketty-Saez)	80%	63%	47%	33%
1980-2010 (Piketty-Saez)	67%	50%	52%	30%
1990-2010 (Piketty-Saez)	61%	45%	44%	30%
1980-2010* (CBO)	70%	42%		
1990-2010* (CBO)	64%	31%		

Note: Values for any given year calculated as a centered three-year moving average.

The higher up the income scale you go, the lesser the importance of inequality within labor income in explaining the overall increase in inequality, and the commensurately more important the degree of inequality within capital income. There is also a strong temporal pattern as well, with inequality within capital income becoming increasingly important over time. The relevant CBO data only go back to 1979 and do not show any finer cuts than the top 1 percent, but they tell a similar story both in terms of the overall magnitudes and in terms of within-capital inequality being more important higher up the income scale.

Inequality Within Labor Income

The topic of inequality within labor income has been studied extensively. As a factual matter, the incomes at the very top of the income distribution (top 0.1 percent) are about 40 percent managers in non-financial industries, about 20 percent financial professionals, and the remaining 40 percent spread across law, medicine, real estate, entrepreneurship, arts, media, sports, and other occupations. Explanations put forward for this phenomenon include the increased return to skills, especially given the increased national and global reach of corporations, entertainment and sports, the slowdown in increases in educational attainment, and changes in norms and corporate governance.

These factors are also important in explaining changes in other parts of the earnings distribution, along with institutional factors like the decline in unionization, which has played a significant role in declining relative incomes in the middle of the distribution (Figure 8). The decline in the inflation-adjusted value of the minimum wage has also had a particularly large impact on the bottom of the distribution.

^{*} CBO estimates for 2010 are of that year alone.

Figure 8

U.S. Union Membership and Top 10% Income Share
Percent

Top 10%
Income Share

Union
Membership

Rate

Inequality Within Capital Income

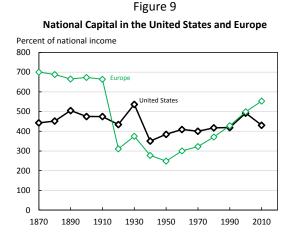
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The second source of increased inequality is the distribution of capital income. This is due to increased income inequality (the savings of which generates wealth inequality), the fact that those at higher wealth levels tend to get higher returns, and the reductions in tax rates on capital income in recent decades.

1915 1925 1935 1945 1955 1965 1975 1985 1995 2005

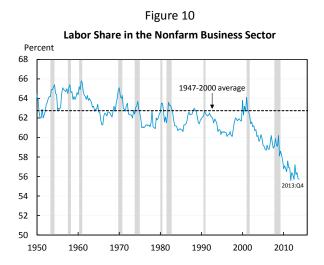
This issue has been much less studied than labor income inequality, and it clearly merits much more attention given its increasing importance over time—including the fact that it explains the majority of the increase in inequality for the very top of the income distribution over the last forty years and more broadly for the last twenty years.

Piketty points to the relationship between the return to wealth and a nation's economic growth rate as the crucial determinant for changes in inequality. In Europe, total wealth was seven times annual income in 1870 but the wealth destruction in the first half of the twentieth century cut this to about $2\frac{1}{2}$ annual income by 1950, with a partial recovery since then (Figure 9). The United States, which lost less wealth in the first half of the twentieth century and which had greater annual economic growth, has had much steadier wealth at about four times annual income for the last 140 years. The crux of Piketty's argument is that higher growth rate in the United States has resulted in a society with a higher income level relative to the accumulated wealth from the past.



The Division of Income Between Capital and Labor

Wealth is much more unequally distributed than labor income. As a result, when the labor share income falls, all else being equal, that results in greater inequality. In Europe, the share of income going to labor has been falling since about 1970—roughly the inverse of the overall rise in wealth. In contrast, in the United States, a marked decline in the labor share of income occurred only after 2000 (Figure 10).



The relative importance of this factor in the overall increase in inequality is harder to consistently quantify because both the Piketty-Saez and CBO data I discussed before do not exhibit a declining labor share of income after 2000, in part due to source and definitional differences from the standard NIPA data. Assuming the NIPA data is correct in aggregate, we find that the income shift from labor to capital is responsible for roughly 20 percent of the increase in inequality since 1970.

The Outlook for Inequality

The most striking argument in Piketty's book is that to the degree that growth rates slow in the future because of demographic or other factors, this will inevitably lead to a sustained increase in inequality. Specifically, his argument is that the distribution of wealth is a function of the after-tax rate of return on capital minus the growth rate of GDP, or r - g. Intuitively, wealth grows with r while wages grow with g. Piketty observes that over the next century g will slow because of demographic and potentially other factors as well. If r does not fall by as much as g, then Piketty argues that wealth will become proportionately more important than income, raising the share of income going to capital and thus raising overall inequality. Piketty further argues that the increased importance of wealth will also result in the increased importance of inherited wealth.

This thesis is intriguing and an important source of concern, although it is unclear how likely it is. Piketty's prediction is that the capital share of income will rise, pushing in the direction of increased inequality. But this is only one of the determinants of inequality. While the trends may continue to shift in that direction, a more important factor to date has been the inequality within

labor income, and while Piketty implicitly takes this to be fixed, there is no *a priori* basis to predict whether it will rise or fall in the future because it is a function of unpredictable technological developments, norms, institutions, and public policies.

Moreover, economic theory is unclear about whether slowing growth would in fact result in a rise in r-g. In general when growth rates fall, the ratio of capital to income rises, and the increased prevalence of capital drives down the rate of return on capital. Whether the return on capital falls more or less than the growth rate depends on how substitutable capital and labor are, with less substitutability meaning that the extra capital will be less useful thus driving its return down more. Unfortunately, the degree of this substitutability has not been clearly established, although Piketty's assumption that it is sufficient to prevent a large fall in the rate of return on capital is a plausible reading of the aggregate data.

In addition, the return on capital is also determined by individuals' willingness to provide funds, that is, to save, and with slower consumption growth on the horizon (in part because of longer periods of retirement), individuals should be willing to save more for a given rate of interest—further driving down the interest rate and the return on capital.

As a result it is ambiguous whether or not r-g would increase or decrease as a result of lower growth rates. In fact, many standard economic models imply that r would fall by more than g so that lower growth rates would actually lead to a reduction in r-g and consequently push in the direction of less inequality.

It is worth noting that, separate from Piketty's argument about increases in the capital *share*, it is plausible that continuing increases in income inequality within capital income in the United States will occur simply as a result of the large increases in inequality within labor income that have already occurred.

The Relationship Between Inequality and Growth

Next I want to discuss the relationship between inequality and growth. There are lots of complicated directions of causality between the two making it difficult to be fully confident about the theoretical or empirical links between the two, but it is possible to make tentative conclusions.

The Effect of Inequality on Growth

There is a voluminous microeconomic literature on ways that specific policies affect efficiency and distribution. The traditional finding in canonical areas like progressive taxation and income support for low-income households is that there a tradeoff between equity and efficiency, the famous "leaky bucket" coined by Arthur Okun. The modern microeconomic evidence is more mixed, finding some income support policies can positively affect both equity and efficiency. Moreover, the policy mix itself has changed. For example in the United States, traditional welfare programs have been eclipsed by tax credits that reward work, and welfare programs themselves have been substantially reformed.

Moreover, there is a question as to whether the individual microeconomic studies aggregate up into the same finding in general equilibrium where there are a range of possible links between inequality and growth. In addition, the micro studies of policy changes themselves tell you nothing about the impact of exogenous changes of inequality on overall growth.

The traditional theoretical macroeconomic literature also emphasized a tradeoff between greater equality and growth: One point often emphasized is that to the degree that high-income households save more, greater inequality would translate into more savings and investment, and in turn, a higher level of output. Also, linking to microeconomic foundations, the traditional macroeconomic literature assumed that greater inequality provides a greater incentive for education, investment and entrepreneurship to capture those income gains.

A newer theoretical literature has also identified a number of mechanisms by which greater equality could increase the level of output or growth. This literature starts from the observation that the traditional emphasis on the quantity of capital, even if true, is dwarfed by the importance of the quality of capital, technology, and entrepreneurship. Moreover, pervasive market failures and incomplete markets mean that the efficiency of outcomes may depend on the distribution of income. In particular, this approach emphasizes a number of channels by which inequality could harm growth: (1) by reducing access to the education necessary for the full population to reach its full potential; (2) by reducing entrepreneurship and risk taking; (3) by undermining the trust necessary for a decentralized market economy and increasing monitoring costs; and (4) by leading to increased political instability, growth-reducing policies and uncertainty.

Until recently the macroeconomic evidence was ambiguous and it would be fair to say that at a minimum it tended to rule out large negative effects of more progressive policies on economic growth. But the latest cross country regressions from Jonathan Ostry, Andrew Berg and Charalambos Tsangarides at the International Monetary Fund (IMF) using a better data set are more encouraging—with the caveat that one should never place too much weight on any cross-country regressions, no matter how well implemented. The IMF study finds that: (1) inequality is bad for both the magnitude and sustainability of growth; (2) progressive policies, by themselves, are neutral for the magnitude and sustainability of growth (with a small caveat that very large amounts of redistribution—those that redistribute above the 75 percentile of income—could have a small negative effect on growth); and thus (3) to the degree that progressive policies improve the distribution of income, they can improve the magnitude and sustainability of growth.

To put these findings in context, I apply them to the recent U.S. experience. Since 2009 the United States has made three sets of permanent (or semi-permanent) changes to its tax code relative to the policies that were previously in effect: (1) many of the high-income tax cuts that were initially passed in 2001 and 2003 were allowed to expire in 2013; (2) a new 0.9 percent tax on earnings dedicated to Medicare, and a parallel 3.8 percent tax on unearned income, both for high-income households, went into effect in 2013; and (3) tax credits for lower-income households with children and college students were expanded for 16 million households by an average of \$900 (these expansions expire after 2017, but President Obama has proposed to make them permanent). Taken together these policies will reduce the Gini coefficient, a standard measure of inequality, by 0.6 index points—the equivalent of about half a decade of increased inequality.

Using the parameters from the IMF study, these tax changes would add 0.06 percentage point to the annual growth rate. After a decade this would translate into about an extra \$500 for a typical family of four. And this is on top of the direct benefits of the tax cuts.

Moreover, these estimates do not include the most significant piece of progressive legislation we have passed, the Affordable Care Act, which substantially extends the reduction in inequality and, using the IMF parameters, the growth impacts that I have been discussing.

I would not rest my entire case on one study, especially when it is by necessity not a randomized or natural experiment. But it is suggestive and important because at the very least it is becoming even harder to argue that reducing inequality is bad for growth. And it is becoming increasingly likely that it is good for growth.

The Effect of Growth on Inequality

There has been much less attention in the opposite direction of causality—how *growth* affects inequality. There was a "Kuznets Curve" literature on the effect of the *level* of output on inequality, but this is now largely considered to be a non-relationship.

Piketty's work has an interesting potential implication that growth could reduce inequality, although he does not explicitly spell this point out in his book. Specifically, raising g relative to r will reduce inequality. Intuitively, raising g increases the relative importance of wages relative to the importance of wealth. This means that the labor share increases, reducing inequality.

This linkage is more speculative than the inequality to growth link I was just discussing. As I discussed earlier there are theoretical issues with this link and I am not aware of any comprehensive empirical evidence. But it is an intriguing idea that merits further consideration.

Some Policy Implications

In the last part of my talk I want to outline some policy implications from this discussion. Not all of the lessons I will talk about are economically desirable or politically feasible for all countries, but they give a sense of some of the approaches that could be considered.

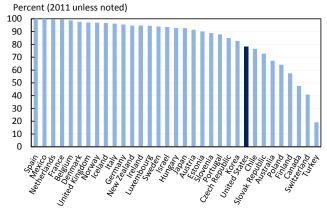
I will talk about policies in four general areas:

The first set is policies that directly expand both growth and opportunity. Regardless of your view on the evidence about the relationship between inequality and growth, to the degree that policies directly advance both objectives they should command broad support. One leading example in this area is preschool, which has among the highest returns of any area of investment. France, Spain, and Belgium have close to 100 percent pre-school enrollment for 4-year olds (Figure 11). Here in Ireland, nearly 95 percent of 4-year olds are enrolled in early childhood education. President Obama would like all Americans to have high-quality preschool and several States and cities are already moving forward on this goal. A range of other policies including

expanded access to college and improved demand-driven training also have the potential to improve both growth and ensure that the benefits of growth are shared.

Figure 11

Enrollment Rates at Age 4 in Early Childhood and Primary Education



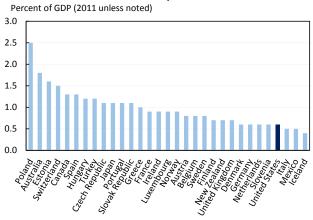
The second set of policies are ones that increase growth. Economists understand that there are three ingredients of growth: labor, capital, and what we can broadly call technology.

Countries have or are pursuing different approaches to expand labor. In France, for example, you see policies aiming at encouraging more births. In Japan, Abenomics is focused on increasing women's labor force participation. Over the past twenty years, Ireland has made tremendous progress in increasing women's labor force participation, with the participation rate for women ages 25 to 54 rising from less than 50 percent in the early 1990s to more than 70 percent in 2010. This large increase reflected a variety of factors, including earlier investments in expanding women's access to education, improvements in parental leave and childcare systems, as well as an increase in labor demand in the 1990s. In the United States, we are also focused on building on earlier gains in women's labor force participation, and additionally, we are working to expand our labor supply through commonsense immigration reform.

At the same time, we need to improve investment, not just the quantity of investment but also its quality—which many countries have helped to achieve with business tax reform. Ultimately, the goal of such reform is to make the tax system more neutral so that business decisions are made to maximize returns rather than to minimize taxes – and President Obama has proposed a reform along these lines that would cut the top rate to 28 percent, broaden and reform the tax base, and reform the international system to reduce base erosion while improving competitiveness.

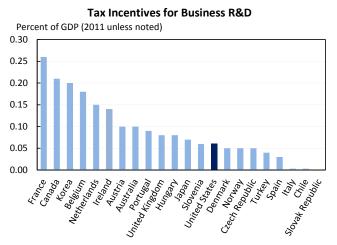
Moreover, it is not just private investment but also public investment in areas like infrastructure. For nearly every OECD country, this type of investment is a small share of GDP (Figure 12). However, one positive story is that many countries have successfully demonstrated how to leverage private capital for investments in infrastructure, including the European Investment Bank (EIB), the United Kingdom, and Canada, while Australia has placed a great deal of emphasis in recent years on improving its already very advanced public-private partnership model. President Obama is proposing a substantial increase in U.S. investment in infrastructure.

Figure 12
Investment in Inland Transportation Infrastructure



Another key area is technological advancement, which depends on a legal and regulatory environment that encourages and rewards innovation, as well as policies like public investments in research and tax subsidies for business research. Tax incentives for research correct the externality that derives from the fact that firm-level innovation generates significant economywide spillovers. The United States was one of the pioneers of tax incentives for business research but has since fallen to 13th out of the 22 OECD countries for which data are available, when measured as a share of GDP. Countries like France, Canada and Korea now lead in this area, with Ireland among the top 10 (Figure 13). That is why President Obama is proposing to make the R&E (Research & Experimentation) tax credit permanent, reforming and expanding it as part of revenue-neutral business tax reform.

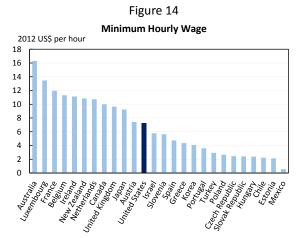
Figure 13



In addition, another way to expand total factor productivity is trade that allows greater specialization and focus on comparative advantage, which highlights the importance of agreements like the Trans Pacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (T-TIP). Through free trade agreements such as the T-TIP and TPP, diverse nations can work under the same trade and investment commitments, raising international trade standards and decreasing regulatory bottlenecks.

All of these policies to expand and improve labor, capital and technology will increase the size of the pie. Moreover, to the degree that Piketty is right, then by raising g these policies will reduce r – g and thus increase the relative importance of labor as compared to capital, and increase the labor share of income.

The third set of policies is aimed at ensuring that everyone shares in the benefits of growth. Currently, countries including Switzerland and the United States are focused on raising their minimum wages, while Germany is in the process of establishing one. In our case, President Obama's proposal to raise the minimum wage from \$7.25 per hour to \$10.10 per hour would benefit 28 million workers and move our minimum wage more closely in line with both its past inflation-adjusted value and with the current value in other OECD countries (Figure 14). Ireland first established a minimum wage in 2000, and it has been estimated to support the wages of more than 80,000 workers here. I was especially intrigued to learn that the minimum wage in Ireland has generally been lifted a bit quicker than inflation, whereas in the United States we face the continual erosion of the minimum wage due to inflation—something President Obama's proposal would fix.



One place where the United States is a model and many other countries could potentially learn from us is the Earned Income Tax Credit (EITC), which provides a match of up to \$0.45 for each \$1 earned by lower-income workers. The EITC has been very successful in reducing poverty, rewarding work, and encouraging increased labor force participation.

Part of ensuring that everyone shares in the benefits of growth is making sure that the process of enhancing medium- and long-term fiscal sustainability does not move in the opposite direction. One element of this is that deficit reduction be done in a balanced manner that in addition to entitlement reform include additional high-income revenue. In the United States we have returned tax rates for high-income households to what they were in the 1990s, but the Administration's proposals for additional revenue are centered around limiting tax benefits for high-income households, specifically an across-the-board limitation of the value of tax benefits in areas like housing, health care and pensions to 28 cents on the dollar for high-income households, which is less than the up to 39.6 cent value of the current deductions and exclusions. The Netherlands, for example, has already enacted this type of idea for its mortgage interest benefit.

Ensuring everyone shares in the benefits of growth would be, from my perspective, a sufficient motivation for these policies. But as I discussed in the previous section, there is also the possibility that these policies could raise growth rates and increase the sustainability of economic expansions, which would be an added bonus. Regardless, there is no compelling reason to believe well-designed policies would meaningfully reduce the level or growth rate of output.

<u>Finally</u>, the fourth set of policies is concerned with wealth. The rise in inequality we are seeing is increasingly driven by disparities in wealth and the returns to that wealth. This is especially true, at least in the United States, at the very top of the income distribution. One way to address wealth is with taxes at the individual level, and the United States has raised tax rates for high-income households on capital gains and dividends, and has also increased the tax rate on very large estates, although all of these capital tax rates remain below what they were prior to 1997.

It is also important to focus on the corporate level, particularly preventing a race-to-the-bottom in corporate taxation. When countries compete with each other to lower corporate tax rates and provide preferences this not only risks their fiscal health, it also distorts the allocation of global capital and threatens to increase the portion of inequality stemming from capital income inequality. The Base Erosion and Profits Shifting (BEPS) process at the OECD which the G20 has endorsed is particularly important addressing on aspect of this broader set of issues. President Obama has also proposed, building on what other countries like Japan have done, a minimum tax on the overseas earnings of corporate subsidiaries which would help prevent stateless income that is not taxed anywhere while reducing the incentives for other countries to engage in tax competition.

But it is just as important for our concern about wealth inequality to focus on what we can do to help middle-class and moderate-income families accumulate wealth. In recent years a number of countries, including Italy, New Zealand, the United Kingdom and the United States, have started to take advantage of the fact taught to us by behavioral economics that automatic enrollment and other sensible default options can increase retirement security and wealth creation. Ireland has also looked to move towards auto-enrollment in recent years. President Obama has proposed legislation that would build on this progress by ensuring that nearly all workers had access to a pension at their work with auto-enrollment in tax preferred accounts for those that did not have an employer-sponsored plan.

Conclusion

To conclude, I am optimistic. The United States, Ireland, and other OECD countries have a lot of potential for productivity growth. We have a lot of low-hanging fruit in terms of policies that can both reduce inequality and increase economic growth. And these policies would promote the type of inclusive growth that would manifest itself in higher median incomes, lower poverty rates, and broader, more inclusive growth. I can tell you that the Administration in the United States is very focused on all of these areas and I am hoping that we can work together to draw lessons from each other's experiences and to cooperate on economic policies that would help advance these goals.

Notes to figures

Figure 1

Source: National sources; CEA calculations.

Figure 2

Note: Ireland data is based to 1943=1950=100 and missing for 1944-1974. U.K. and Canada

series have breaks in 1990 and 1982, respectively. Australia is indexed to 1951=100.

Source: World Top Incomes Database; CEA calculations.

Figure 3

Source: World Top Incomes Database; U.S. Census Bureau; CEA calculations.

Figure 4

Source: Bureau of Labor Statistics; CEA calculations.

Figure 5

Source: Conference Board; CEA calculations.

Figure 6

Note: See notes on slide 2.

Source: Conference Board; World Top Incomes Database; CEA calculations.

Figure 7

Source: Piketty & Saez (2013); CEA calculations.

Table 1

Source: Piketty & Saez (2013); Congressional Budget Office (2013); CEA calculations.

Figure 8

Source: World Top Incomes Database; Economic Policy Institute.

Figure 9

Source: Piketty (2014); CEA calculations.

Figure 10

Source: Bureau of Labor Statistics; CEA calculations.

Figure 11

Note: Data for Canada as of 2010.

Source: OECD.

Figure 12

Note: Data for Switzerland, Hungary, Japan, Portugal and Denmark as of 2010. Data for Belgium as of 2009. Data for Greece and Ireland as of 2007. U.S. figures updated to 2013 based on OMB data.

Source: OECD; U.S. Office of Management and Budget; CEA calculations.

Figure 13

Note: Data for Belgium, Ireland, Australia, Spain and Chile as of 2010.

Source: OECD.

Figure 14 Note: Data as of 2012.

Source: OECD.