

# FOCUS on

## Top Incomes and Taxation in OECD Countries: Was the crisis a game changer?

May 2014



Directorate for  
Employment, Labour  
and Social Affairs

The share of the richest 1% in total pre-tax income has increased in most OECD countries in the past three decades, particularly in some English-speaking countries but also in some Nordic (from low levels) and Southern European countries. Today, they range between 7% in Denmark and the Netherlands up to almost 20% in the United States. This increase is the result of the top 1% capturing a disproportionate share of overall income growth over the past three decades: up to 37% in Canada and even 47% in the United States. This explains why the majority of the population cannot reconcile the aggregate income growth figures with the performance of their incomes. At the same time, tax reforms in almost all OECD countries reduced top personal income tax rates as well as rates of other taxes affecting the highest income earners. The crisis did put a temporary halt to these trends – but it did not undo the previous surge in top incomes. In some countries, top incomes had already largely recovered in 2010. To respond to these trends, governments have several options at hand to increase effective taxation paid by top income recipients without necessarily raising their marginal rates, to improve tax compliance and to reduce tax avoidance.

Inequality and policies to restore equal opportunities have moved to the forefront of the political debate in many countries. Topping the bestseller lists is Thomas Piketty's 700-page study of how the very richest in society are accumulating an ever-increasing proportion of national incomes (*Capital in the Twenty-first Century*). After the OECD's flagship publications *Growing Unequal?* in 2008 and *Divided we Stand* in 2011, new analysis by the OECD uses data developed by Piketty and collaborators on top incomes to look at trends across countries, and identify concrete policy options to ensure a fairer distribution of resources and promote more inclusive growth.

### Income shares have soared at the very top

In many countries, income inequality has been growing because rich households have been doing much better than both low- and middle-income families. The share of top-income recipients in total gross income increased significantly in most countries over the past three decades. The rise was most spectacular in the United States, where the share of the richest 1% in all pre-tax income has more than doubled since 1980, reaching almost 20% in 2012. Top earners also fared very well in several other English-speaking countries including Australia, Canada, Ireland and the United Kingdom (Figure 1).



Note: Incomes refer to pre-tax incomes, excluding capital gains, except Germany (which includes capital gains). Latest year refers to 2012 for the Netherlands, Sweden and the United States; 2011 for Norway and the United Kingdom; 2009 for Finland, France, Italy and Switzerland; 2007 for Germany; 2005 for Portugal; and 2010 for the remaining countries.

Source: OECD calculations based on the World Top Income Database.

A striking change is also observed in countries which have a history of a more equal income distribution. Between 1980 and the late 2000s, the share of the top 1% increased by 70% in Finland, Norway and Sweden, reaching around 7-8%. By contrast, top earners saw their share grow much less in some of the continental European countries, including France, the Netherlands and Spain.

Even within the group of top-income earners, incomes became more concentrated, tilting towards the richest of the rich. In the United States, the share of the top 0.1% grew from 2% to over 8% of total pre-tax incomes from 1980 to 2010. By comparison, the top 0.1% account for 4-5% of total pre-tax incomes in Canada, the United Kingdom and Switzerland, and close to 3% in Australia, New Zealand and France.

Moreover, not much movement is observed at the top of the income distribution: from one year to the next, not more than 30% leave the group of the richest 1% in the United States, Canada and France, compared to around 40% in Australia and Norway, for instance. These exit rates tend to be stable over time; the probability of staying in the top 1% group in the United States, for example, has remained more or less at the same level since the 1970s (Kopczuk et al., 2010).

### The crisis put a halt to the surge of top income shares, but only temporarily

Top earnings are more sensitive to changes in the business cycle than the incomes of other groups: the average income of the top 1% moves up and down faster than the incomes of the rest of the population when the economy expands or contracts. Therefore, during the first two years of the Great Recession, the richest 1% saw their real incomes fall significantly : by 3% in 2008 and a further 6.6% in 2009 on average across the nine OECD countries for which data are available (Figure 2). The Great Recession thus put an end, at least temporarily, to the increase in the share of income flowing to the richest groups – it did, however, not undo the rise in top income shares recorded over the past decades. Further, in 2010, top incomes had already started to recover in many countries. On average, real incomes of the top 1% increased by 4% in 2010, while the lower 90% of the population saw their real incomes stagnate.

But is the crisis likely to permanently affect the income distribution? Financial crises seem to have no clear-cut permanent effect on top incomes. Saez (2013) examined the impact of past recessions and found that “falls in income concentration due to economic downturns are temporary unless drastic regulation and tax policy changes are implemented and prevent income concentration from bouncing back”, as witnessed in the period following the Great Depression of the 1930s. In any event, even at the deepest point of the crisis, top 1% shares were at historic highs in almost all countries.

## 2 Real incomes at the top fell during the crisis but recovered quickly

Percentage changes in real incomes across income groups, average of nine OECD countries, 2008 to 2010



Note: Incomes refer to pre-tax incomes, excluding capital gains. Nine OECD countries for which data are available for these years are Australia, Canada, Denmark, Japan, New Zealand, Norway, Spain, Sweden and the United States, Source: OECD calculations based on the World Top Income Database.

## Data on top incomes

Conventional household income surveys do not accurately capture incomes of top earners because of limits in coverage and/or statistical significance. Data from tax files are better suited to achieve this goal. This report makes extensive use of data from the World Top Income Database (<http://topincomes.parisschoolofeconomics.eu/>) prepared by Facundo Alvaredo, Tony Atkinson, Thomas Piketty, Emmanuel Saez and various collaborators. It includes data on top incomes, income distribution and, where possible, on wealth derived from tax files from 28 countries (18 OECD countries).

Estimating income shares from tax files involves a number of steps and combination with external data sources: the number of tax payers needs to be related to the size of the adult population (individuals or families); the income of taxpayers needs to be related to comparable total household income; and interpolation is needed to derive percentile shares from grouped tabulations (usually Pareto imputation).

Tax data are not without limitations, however. First, many countries face problems of tax evasion and tax avoidance, leading to under-declaration of income. Second, tax-exempt income such as fringe benefits or imputed rent is left out of the analysis as the data report only income that is potentially taxable. If a growing share of capital income is tax exempt or a withholding tax is levied, this can affect the analysis of top income shares. Third, the tax unit – individuals or couples – varies between countries and over time, though this can bias the estimates of the income share in both directions depending on the joint distribution of incomes of husbands and wives. For all these reasons, considerable care is needed when comparing top income shares across countries and over time.

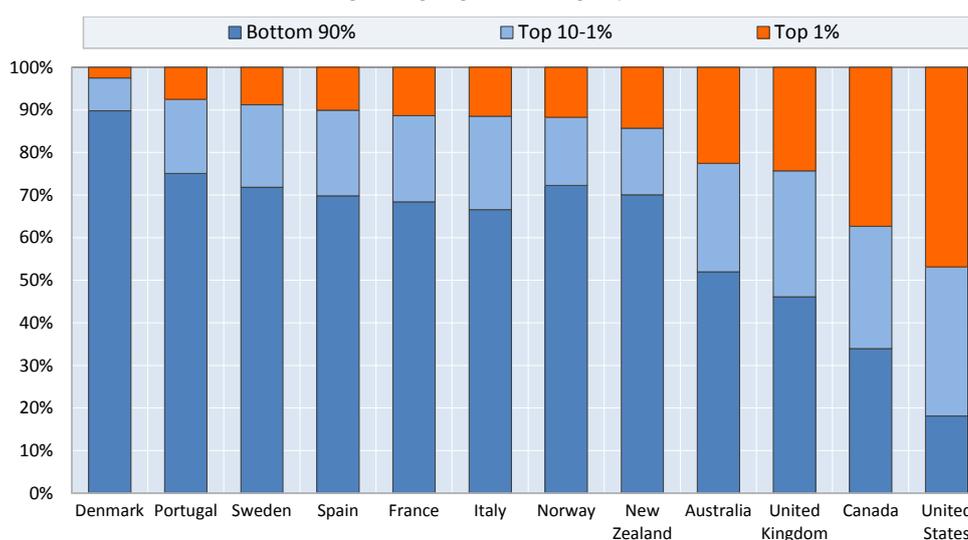
### Over the long run, top earners captured a sizeable share of the pie

Taking a dynamic view shows that from 1975 up to the crisis, the top percentile managed to “capture” a very large fraction of the growth in pre-tax incomes, especially in English-speaking countries: around 47% of total growth went to the top 1% in the United States, 37% in Canada and above 20% in Australia and the United Kingdom. By contrast, in Nordic countries, but also in France, Italy, Portugal and Spain it was the bottom 99% of the population which benefited more growth, receiving about 90% of the increase in total pre-tax income between 1975 and 2007 (Figure 3).

The “bottom 99%” obviously is a very large and heterogeneous group; therefore, a closer look needs to be taken at the evolution of incomes in different sub-groups. For example, Figure 3 splits this group into the upper-middle class (top 10-1%) and the bottom 90%. About 80% of total income growth has been captured by the top 10% in the United States, and around two thirds in Canada. In Australia and the United Kingdom, the top 10% benefited from about half of the income growth. Income growth was shared more equally in other OECD countries for which data are available, but in all cases the top of the distribution benefited from growth proportionally more than the rest of the population.

### 3 In some countries, one fifth or more of total income growth was captured by the top 1%

Share of income growth going to income groups from 1975 to 2007



Note: Incomes refer to pre-tax incomes, excluding capital gains  
Source: OECD calculations based on the World Top Income Database.

The disproportionate surge in top incomes also helps explain why so many people have not felt their incomes rising in line with national GDP growth. From the mid-1970s to the late 2000s, the United States average income grew at an annual rate of 1%. However, the vast majority of the population did not see their incomes rising by anything close to this rate. In fact, if one strips out the growth that went to the top 1%, the annual growth rate of the remaining 99% was only 0.6%. Excluding the top income percentile may also change considerably the country ranking in terms of annual income growth. For instance, average real income growth is lower in France than in the United States over the period, but France performed better than the United States when considering income growth of the bottom 99%.

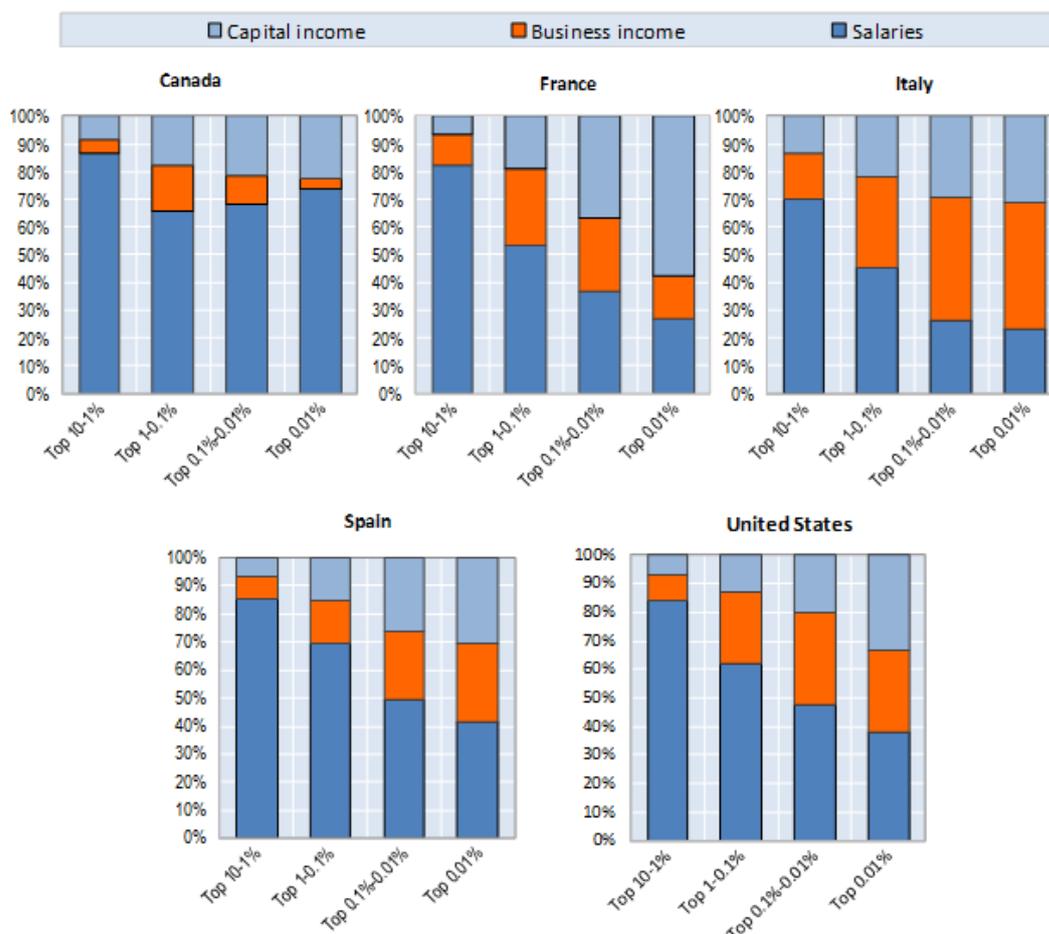
### Further up the ladder, income is increasingly generated by capital and business income

For the vast majority of people, wages and salaries make up the most important part of their income; even among those in the top 10 to 1% earnings from work

account for shares of 70% in Italy to more than 85% in Canada. But, not surprisingly, the weight of wages falls higher up the income ladder, with the exception of Canada (Figure 4). In the five countries for which data are available the share of capital income (excluding capital gains) is the largest. The richest rich, the top 0.01%, receive about 20% of their income from capital in Canada and almost 60% in France.

In addition to the important role played by capital income at the top of the income ladder, higher labour compensation has also been driving the rapid rise of top incomes. The share of wages in total incomes of the rich has grown especially in Canada and the United States. That said, income from capital and business activities has also increased in the more recent years, especially in the United States.

**4 The share of capital income increases moving up the very top of the income ladder**  
Income composition of top income groups



Note: Incomes refer to pre-tax incomes, excluding capital gains. Data refer to 2007 (Italy 2005), latest date available.  
Source: OECD calculations based on the World Top Income Database.

## What drives the upward trend in top income shares?

Several factors are behind the surge in top incomes. Frequent explanations are related to globalisation, skill-biased technological change and the change in compensation practices for top executives, including the use of bonuses and stock options.

The “superstars” theory suggests that globalisation and rapid progress in information technology have helped make the market for top performers global. Employers want to hire not only skilled workers but the best of them from the global market, leading to a large wage gap between the very best workers and those who are ranked just below them in terms of skills. However, if this was the main driver, we should have observed the surge in the share of top income across all market economies, but this is not the case; top income shares have grown only modestly in countries such as Japan or France even though these countries were affected by these global changes as much as the English-speaking countries.

Another explanation refers to the “financialisation” of markets. The rise in the income share of top earners in English-speaking countries coincides with the rapid development of the financial sector where compensation has been rising rapidly. However, financial professionals account for only a small fraction of earners in the top percentile and their (rising) wages do not account for a large fraction of the increased top income shares. That said, top earners working in other industries may be affected by the financial sector development, partly through the increasingly important role of stock options in top executives’ remuneration.

## Trends in income taxation

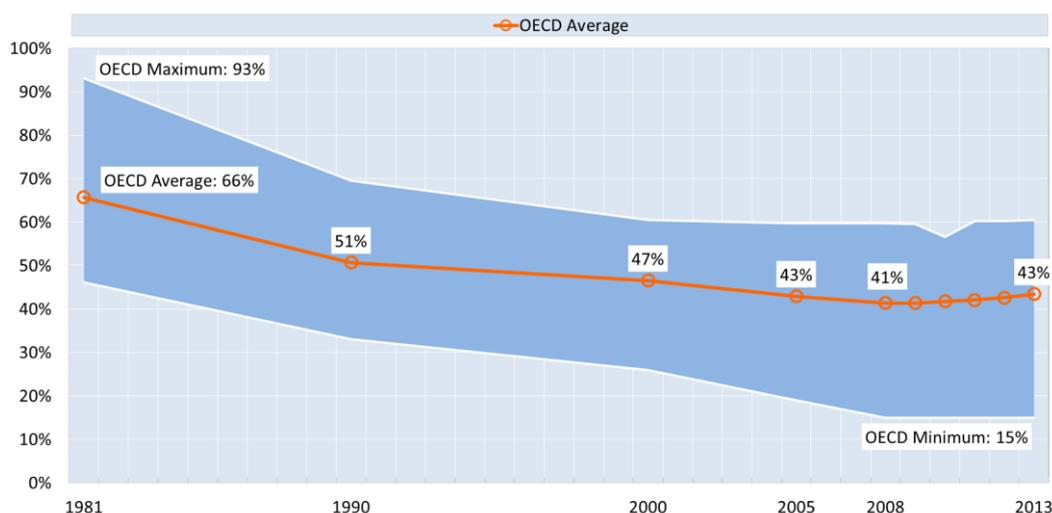
Last but not least, institutional factors such as changes in tax policies have contributed to the rise in top incomes and may have also driven the change in compensation practices in turn. During the “Golden Age” of post-war prosperity, pay norms used to limit large wage gaps; but these norms have been gradually eroded. At the same time, progressive income and inheritance taxes, which drove a large *drop* of top income shares between the 1920s and the 1970s, have been substantially reduced in recent decades (see Atkinson et al., 2011). While top tax rates were equal to or above 70% in half of the OECD countries in the mid-1970s, this rate had been halved in many countries by the end-2000s.

OECD countries have seen a general reduction in their top statutory personal income tax rates (PIT), inclusive of surtaxes and sub-central income taxes. The OECD-wide average top statutory rate declined in each of the last three decades: from 66% in 1981 to 51% in 1990 and to 41% in 2008, when the crisis started (Figure 5). While the decline was most pronounced during the 1980s, reforms in the most recent decade prior to the crisis resulted in a further reduction of top statutory rates of 6 percentage points or more in 11 countries.

The decline in the top statutory rate was not uniform across countries in the past decade. Some OECD countries, such as the Czech and the Slovak Republics and Hungary, moved to a single-rate PIT structure with their top statutory rates dropping from 32% to 15% in the Czech Republic, to 16% in Hungary and from 38% to 19% in the Slovak Republic.

### 5 Until the crisis, top income tax rates were falling rapidly

Top statutory personal income tax rates in the OECD area, maximum, minimum and average, 1981 to 2013

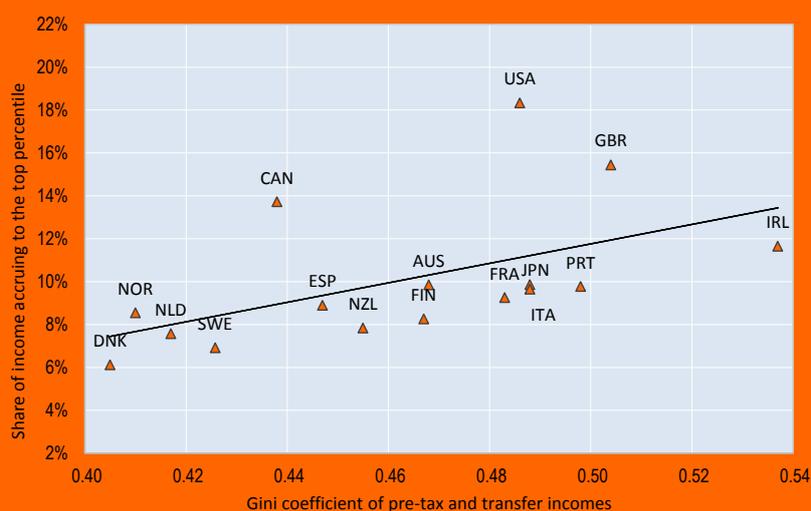


Source: OECD (2012), *Taxing Wages*, and OECD CTPA tax statistics.

## Are top income shares a good predictor for overall inequality?

How do top income shares relate to overall income inequality? Top income shares measure the concentration of pre-tax income at the top of the distribution but do not provide any information on the shape of the remaining parts of the income distribution. A commonly used summary indicator of overall inequality is the Gini coefficient which is 0 when everybody has the same income and 1 when one person has all the income. The Gini coefficient before taxes and transfers and the share of pre-tax income in the top percentile are positively related, albeit rather loosely (Figure 6). Some countries, as France and the United States display similar pre-tax Gini coefficients but very different shares of the top 1 percent income. Likewise, the share of income flowing to the top 1% of earners is similar in Norway and Portugal while the Gini coefficient is nine points higher in Portugal than in Norway. Italy, Japan and Portugal have some of the highest pre-tax and transfer Gini coefficients among OECD countries but the top percentile shares are relatively small compared to the United States or the United Kingdom. The two measures provide different country rankings in term of inequality.

### 6 Top percentile income shares and pre-tax Gini coefficients of income inequality



Source: World Top Income Database for top 1% pre-tax income share, OECD Income Distribution Database for Gini coefficient, <http://www.oecd.org/els/soc/income-distribution-database.htm>. Data refer to 2007 (Portugal 2005).

The Gini coefficient is more sensitive to income changes at the middle than at the tails of the distribution because it indicates the spread of the income distribution or deviation from the mean - while top income shares do not tell anything about the middle and the bottom of the income distribution. While the two indexes in terms of cross-country levels show only a weak correlation, their trends are more strongly positively associated (e.g. Leigh, 2007), suggesting that to some extent similar factors affect both the top and the other parts of the income distribution. However, the impact of top income shares on post-tax and transfer *disposable* income inequality is far from being mechanical, since the tax and transfer system typically reduces income disparity significantly. As the redistributive impact of the tax system can change over time, changes in the top income shares do not systematically reflect changes in overall inequality in terms of disposable income.

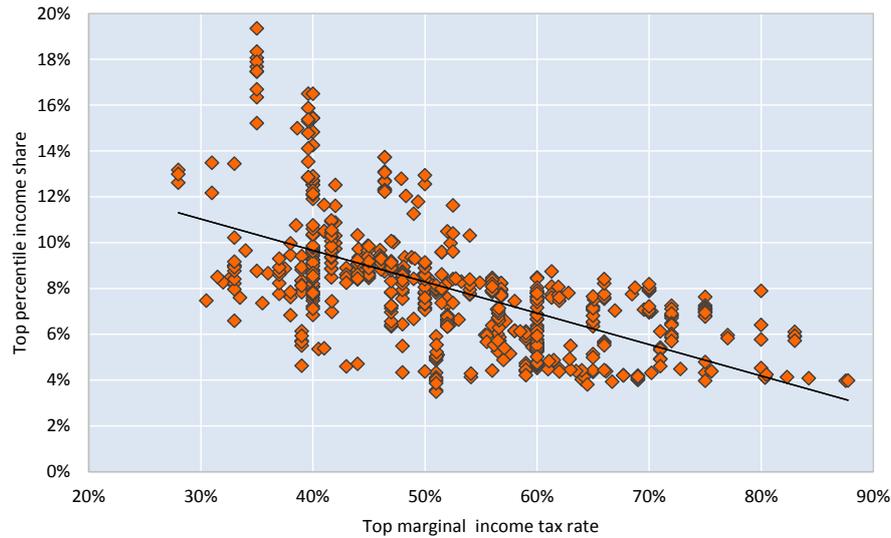
The crisis stopped this trend of decline. As part of the measures taken since the economic downturn in 2008, several countries increased PIT rates, mostly as a revenue-raising measure. Since 2008, 21 OECD countries have increased their top PIT rate, while only three countries reduced it during the same period. In Portugal, France and Italy, for example, the increase focused on high-income individuals by including a surtax on the rate in the highest income bracket. In addition, in 2013, ten countries raised their top PIT rates and Japan is planning to increase the rate by 2015. The United Kingdom, on the other hand, reduced its top PIT rate from 50% to 45% in 2013, partly reversing the increase from 40% implemented in 2010. Some countries have introduced tax base broadening measures (Australia, Austria, Denmark, the Netherlands), or a reduction in tax credits (France, Greece, the United Kingdom).

The substantial reduction in top rates of personal income tax that occurred in almost all OECD countries over the last three decades has been closely associated with rising top income shares. The decline in top rates of income tax leads to a reduction in the tax burden carried by high earners and thus increases their post-tax income. Higher disposable income makes it easier for individuals to save and accumulate capital which eventually increases incomes further. Reducing top rates of income tax reduces the incentive to engage in tax planning to avoid or evade tax, so leads to more income being declared for income tax purposes.

Therefore, it is not surprising that a strong negative correlation is found between trends in the top marginal income tax rate and the share of pre-tax income accruing to the top percentile in all OECD countries for which data are available. Such strong correlation is also apparent when pooling this information across OECD countries over the last 35 years (Figure 7).

## 7 There is a strong correlation between top tax rates and top pre-tax income shares

Pooled top marginal tax rates and top percentile income shares in 17 OECD countries, 1975-2012



Note: Incomes refer to pre-tax incomes, excluding capital gains. Countries include Australia, Canada, Denmark, Finland, France, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States.  
Source: World Top Income Database for top 1% pre-tax income share, OECD CTPA tax statistics for income tax rates.

## Other taxes affecting top earners

Top earners and their share in total incomes are not only affected by personal income taxation. Other taxes which play a role for top incomes were also lowered in past decades. Some countries introduced a system of “dual taxation” whereby taxes on capital incomes were lowered relative to taxes on personal labour income. The average statutory corporate income tax rate declined from 47% in 1981 to 25% in 2013 and taxes on dividend income for distributions of domestic source profits fell from 75% to 42% (Figure 8).

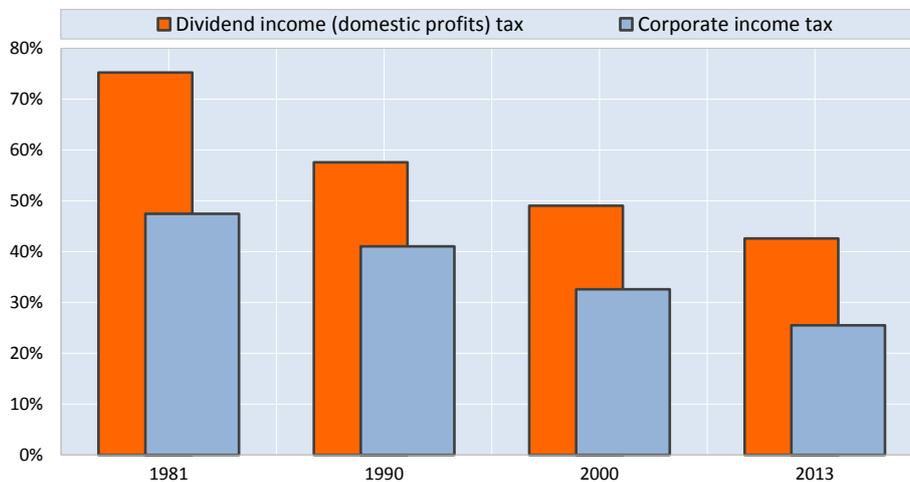
Several countries abolished or decreased net wealth taxes and inheritance taxes. Net wealth is only taxed in a few OECD countries and taxes on immovable property represent a small percentage of overall taxation.

Wealth taxes are sometimes considered to be a form of double or triple taxation; but decreasing marginal tax rates for top incomes and tax exemptions for capital income may result in top income groups accumulating more capital and wealth and transmitting this through bequests to younger generations, continually concentrating power and privilege.

Realised capital gains are concentrated at the top of the income distribution. If one were to include such capital gains in pre-tax income top income shares would rise by up to 5 percentage points, especially in periods of economic expansion. Statutory tax rates on capital gains on shares range from 12% in Belgium to more than 55% in Greece and Denmark. In around half of OECD countries, capital gains made on shares are only subject to corporate income tax but not to personal income tax.

## 8 Other taxes affecting top earners have gone down too

Dividend income and corporate income statutory tax rates, OECD average, 1981-2013



Source: OECD CTPA tax statistics, [www.oecd.org/tax/tax-policy/tax-database.htm](http://www.oecd.org/tax/tax-policy/tax-database.htm)

## Options for tax reforms

There is renewed interest in changing tax rules for top income recipients in many OECD countries. But increasing taxes for top income earners tends to involve difficult trade-offs. On the one hand, it is often assumed that higher top marginal tax rates would result in lower economic growth, largely via disincentive effects. On the other hand, lower inequality resulting from such tax changes may reduce persistent differences in income, wealth and power between socio-economic groups.

The historically high levels and the sustained rise in the share of top income recipients in total income are often taken as signs that top earners' "capacity to pay" tax has increased. Furthermore, this coincides with a period where public finances are tight and governments are seeking new sources of revenue.

A most direct way to ensure that top income earners pay a higher share of taxes is to raise marginal tax rates on income as well as other taxes which affect them. While there may be some concerns that such measures may not be as effective as intended with regard to raising tax revenues, some recent analysis suggests that there is still some scope to increase top tax rates to maximise tax revenues (see IMF, 2013). There are, however, several options for tax reforms that increase the average tax rate paid by top income recipients without necessarily raising their marginal rates, such as:

- Abolishing or scaling back a wide range of those tax deductions, credits and exemptions which benefit high income recipients disproportionately;
- Taxing as ordinary income all remuneration, including fringe benefits, carried interest arrangements and stock options;

- Considering shifting the tax mix towards a greater reliance on recurrent taxes on immovable property;
- Reviewing other forms of wealth taxes such as inheritance taxes;
- Examining ways to harmonise capital and labour income taxation;
- Increasing transparency and international cooperation on tax rules to minimise "treaty shopping" (when high-income individuals and companies structure their finances to take account of favourable tax provisions in different countries) and tax optimisation;
- Broadening the tax base of the income tax, so as to reduce avoidance opportunities and thereby the elasticity of taxable income;
- Developing policies to improve transparency and tax compliance, including continued support of the international efforts, led by the OECD, to ensure the automatic exchange of information between tax authorities.

### A comprehensive policy strategy is needed to tackle overall inequality

The tax policy avenues above will help ensure that wealthier individuals contribute their part towards more inclusive growth. However, in many countries, the rise in overall inequality has also been driven by low-income households falling behind in relative and, sometimes, in real terms. Therefore, a *comprehensive* policy strategy is needed to tackle overall inequality and promote equality of opportunities, which includes effective and well-targeted transfer policies and other social policies, as well as labour market and education policies.

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### Further reading:

Divided We Stand: Why Inequality Keeps Rising, [www.oecd.org/social/inequality.htm](http://www.oecd.org/social/inequality.htm)  
Taxing Wages 2014, Special Feature "Changes in structural labour income tax progressivity", [www.oecd.org/tax/tax-policy/taxing-wages.htm](http://www.oecd.org/tax/tax-policy/taxing-wages.htm)  
Förster, M., A. Llena-Nozal and V. Nafilyan (2014), "Trends in Top Incomes and their Taxation in OECD Countries", OECD SEM Working Paper n°159, [www.oecd.org/els/workingpapers](http://www.oecd.org/els/workingpapers)

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### Source:

Please source this note as: OECD (2014), "Focus on Top Incomes and Taxation in OECD Countries: Was the crisis a game changer?". This note as well as all figures and underlying data can be downloaded via [www.oecd.org/social/inequality.htm](http://www.oecd.org/social/inequality.htm)

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