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Has the Middle Secured Its Share of Growth or Been Squeezed?

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Abstract

In striking contrast to the notion that democracy is under threat because ‘the middle’ has been ‘squeezed’ over recent decades, Iversen and Soskice (2019) in their book, *Democracy and Prosperity*, present an optimistic account about the future of democracy. We examine their key assumption that the symbiosis between democracy and advanced capitalism is underpinned by electorally decisive middle-class voters that secure a constant share of economic growth. Using comprehensive data on income trends, we show that this claim does not stand up to scrutiny: Median income has often lagged behind the mean in household surveys, rather than kept pace with it as Iversen and Soskice claim. Strong real income growth has generally not compensated the middle for lagging behind. The varying fortunes of the middle in securing its share of economic growth have implications for the broader debate about inequality and democracy.

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1. Introduction

The notion that ‘the middle’ has been ‘squeezed’ over recent decades in the rich countries plays a central role in current commentary and debates, being widely portrayed as representing a major threat to democracy. This is reflected in political science research, with studies that see the middle’s interests being subverted by the increasing political influence of the rich (Bartels 2009, Hacker and Pierson 2011, Gilens 2014) or studies that see the middle being hollowed out by technological change setting in motion a political backlash against globalisation (Rodrik 2018, Kurer and Palier 2019). In striking contrast, Iversen and Soskice (2019) in their new book, *‘Democracy and Prosperity: Reinventing Capitalism through a Turbulent Century’*, are much more sanguine about the current state and future prospects of democratic capitalism. This is based on a model of the functioning of democracy in advanced countries that sees the middle securing a constant share of economic growth, and on that basis supporting the knowledge economy and political parties that advance it. Here we show that this claim does not stand up to scrutiny: rather than securing a constant share of growth in a consistent fashion across advanced democracies, the middle has fared very differently over time across them in relative, and also in absolute, terms.

Iversen and Soskice’s claim about the economic position of the middle is central to their understanding of a ‘symbiotic relation between democracy and advanced capitalism’ (Iversen and Soskice 2019: 32). What politically sustains this symbiotic relationship is a large electoral constituency of decisive middle-class voters that benefits from advanced capitalism in the form of rising living standards and rewards the political parties promoting the institutions that sustain advanced capitalism (Iversen and Soskice 2019: 30-32). Their model further implies that these middle-class voters care primarily about economic growth and are not too concerned about rising income disparities between the rich and the poor – as long as they secure a constant share of economic growth and their own risks of becoming poor are negligible (Iversen and Soskice 2019: 157-158). This benign assumption about the economic situation of the middle is highly consequential for their optimistic view about democracy and advanced capitalism. If, as we demonstrate, the middle has often not kept up with overall economic growth, this has to be incorporated in understanding how democratic politics function and have been evolving across the rich countries.

We present our re-assessment of the economic position of the middle in three steps. First, we set out the basis for Iversen and Soskice’s key claim, resting primarily on how the ratio of median income to mean income has evolved in household surveys, and provide a critical assessment. We extend their evidence base in terms of countries and time-period covered and set out how these indicators have evolved since the 1980s for advanced countries. On this basis we demonstrate that the middle has not in fact consistently kept pace with the mean: instead, in some countries it has lagged behind and in others it has kept up or even done better.

We then focus on the supplementary argument advanced by Iversen and Soskice that even where the median has lagged behind the mean, relatively high absolute income growth for the middle have in some cases served to satisfy decisive middle-class voters that their interests are being served. We show that this has not generally been the case; absolute income growth rates around the middle have varied widely across the advanced countries but stagnation is as likely as not.

Finally, we return to the claim that the middle have secured a constant share of economic growth and show that the median-to-mean ratio observed in surveys, on which Iversen and Soskice rely, is problematic in several respects. We show that these figures are distorted by the fact that top incomes are not well estimated in household surveys. We then demonstrate that the divergence between growth in median income and GDP per capita is often considerably wider than that between the median and the mean in surveys. This serves to further undermine the notion that the middle has secured a constant share of growth.

We conclude by bringing out the implications for assessment of the economic position of ‘the middle’ and how it changes over time, a crucial element in the broader debate about inequality and democracy.

2. Re-assessing the Evidence from Median-to-Mean Ratios

Iversen and Soskice (2019: 21-25) support their claim that the middle classes in rich countries have secured a constant share of the productive capacity of the economy by showing that the ratio of median to mean income for the working age population has mostly been stable in 14 OECD countries over the period from around 1985 to 2010. Stability in the median-to-mean ratio, according to Iversen and Soskice (2019: 22), represents a situation where ‘the net income of the decisive voter keeps up with the capacity of the economy to generate income’.

In re-assessing this claim, we extend the countries covered to 22 advanced democracies, with data from around 1985 to 2016. We draw on the same data source, the OECD’s Income Distribution Database (IDD), for the 14 countries covered in Iversen and Soskice and use mostly Luxembourg Income Study (LIS) data to add eight additional countries. While we are broadly able to replicate Iversen and Soskice’s data,¹ our extended sample provides a more reliable test of the change in the middle’s relative position, with 8 more country cases and going beyond the height of the global financial crisis (the median-to-mean income ratio generally narrows in recessions).²

Table 1 shows the evolution of the median-to-mean ratio for working-age households and then all households in the 22 OECD countries. It is hard to support the case for stability in the ratio from these figures. The ratio for working-age households declined between 1985 and 2016 in nine of the fourteen countries that Iversen and Soskice examined, with the average fall among these nine countries being 4.6 percentage points. Adding the additional countries, the median/mean ratio for working-age households declined between 1985 and 2016 in thirteen out of twenty-two, the fall being marginal in two (Belgium and Norway). The average decline across these thirteen countries was 3.9 percentage points. Across the whole, a number of countries have seen exceptionally strong declines (in the order of the decline: New Zealand,

¹ We provide a replication with 2010 as the end year in the supplementary materials (Table A1). Our figures then differ from Iversen and Soskice’s for three countries for different reasons. For the UK, Iversen and Soskice present the median-to-mean ratio as stable but the OECD data show that it declined quite significantly. For Canada we use the OECD’s ‘old income definition’ throughout, including 2010, whereas Iversen and Soskice seem to have switched to the ‘new definition’ for that year. For the USA, we go back to 1984 where Iversen and Soskice start at 1995.

² In extending the data to 2016, we need to take the change in the OECD IDD’s income definition implemented around 2010 into account. For the 2016 data, we use an adjustment factor based on the percentage difference between the new and old figures for the median and the mean in the overlap year when both are provided. The correlation between adjusted and unadjusted median-to-mean income ratios is 0.97.

United States, Finland, Austria, Sweden, Germany, Australia and Denmark). On the other hand, a significant minority of countries saw the median rise more rapidly than the mean (notably the Netherlands, Ireland, Greece, Switzerland, France and Spain). So rather than a common pattern of the median holding its position relative to the median, it is the varying fortunes of the middle across rich countries over recent decades in these terms that is the striking feature.

Table 1: Median-to-mean income ratios in 22 OECD countries

Country	Working-age population (18-65 years)			Entire population		
	1985 ^a	2016 ^b	<i>Change 1985-2016</i>	1985 ^a	2016 ^b	<i>Change 1985-2016</i>
Australia	0.917	0.877	-0.040	0.905	0.842	-0.064
Austria	0.953	0.902	-0.050	0.949	0.895	-0.054
Belgium	0.944	0.940	-0.004	0.933	0.928	-0.005
Canada	0.915	0.886	-0.029	0.900	0.871	-0.029
Denmark	0.960	0.921	-0.039	0.958	0.901	-0.057
Finland	0.964	0.912	-0.051	0.958	0.895	-0.063
France	0.842	0.872	0.030	0.841	0.868	0.027
Germany	0.929	0.887	-0.042	0.900	0.879	-0.021
Greece	0.830	0.865	0.035	0.822	0.862	0.040
Ireland	0.837	0.889	0.052	0.814	0.889	0.075
Israel	0.861	0.879	0.018	0.857	0.872	0.015
Italy	0.885	0.896	0.011	0.893	0.879	-0.014
Japan	0.879	0.885	0.007	0.882	0.861	-0.020
Netherlands	0.867	0.925	0.059	0.853	0.911	0.058
New Zealand	0.922	0.827	-0.095	0.898	0.811	-0.087
Norway	0.949	0.930	-0.018	0.945	0.921	-0.024
Portugal	0.858	0.856	-0.002	0.855	0.846	-0.009
Spain	0.855	0.877	0.022	0.856	0.869	0.013
Sweden	0.944	0.902	-0.042	0.939	0.884	-0.055
Switzerland	0.837	0.869	0.033	0.835	0.866	0.030
United Kingdom	0.876	0.854	-0.022	0.839	0.829	-0.010
United States	0.892	0.821	-0.072	0.879	0.808	-0.071

^a Year 1985 used, except for: Switzerland (1982); Sweden (1983); France, Italy, US (1984); Finland, Greece, Norway (1986); Austria, Ireland (1987); Portugal (1990).

^b Year 2016 used, except for: New Zealand (2014); Denmark, Germany, Ireland, Japan, Switzerland (2015).

Notes and sources: Income data are real disposable household incomes, adjusted for household size (square root equivalence scale) and inflation (consumer-price index, 2015=100). Data for 1985 are from the OECD Income Distribution Database (IDD) (assessed 2019-04-09) based on the ‘old income definition’, and Luxembourg Income Study microdata LIS 2019 for Australia, Austria, Belgium, France, Ireland, Spain and Switzerland. Data for 2016 are from the OECD’s IDD for all countries, based on the ‘new income definition’.

This picture looks even more varied when we switch from working-age to all households. Focusing on the working-age population is typically justified on the basis that retirees typically have little market income (Nolan and Thewissen 2018: 35, Pontusson and Weisstanner 2018: 38). However, this is problematic in the median-voter framework employed in Iversen and Soskice given the high voter turnout among elderly people (Kenworthy and Pontusson 2005: 458). It is likely, therefore, that the median income for the total adult population is a more

accurate indicator for the position of the ‘median voter’ than the median for the working-age population. The right-hand columns of Table 1 show that the decline in median-to-mean ratios has been larger for all households than for working-age households for several of the countries where both declined, notably Australia, Denmark, Finland and Sweden, though the opposite is the case for others (including the UK). The number of countries seeing a decline increases because in Italy and Japan the ratio for the total population fell (albeit marginally), whereas it held steady for the working-age population.

So irrespective of the precise period, countries and households covered, the overall pattern is that the median to mean ratio declined noticeably in a substantial proportion of countries and rose in a smaller but also substantial proportion. The fact that these deviations in both directions offset each other are not to be confused with general stability across countries. This hardly represents strong evidence for the proposition that median-income voters succeed in claiming a more or less constant share of average income.

3. Relative Shifts and Absolute Growth

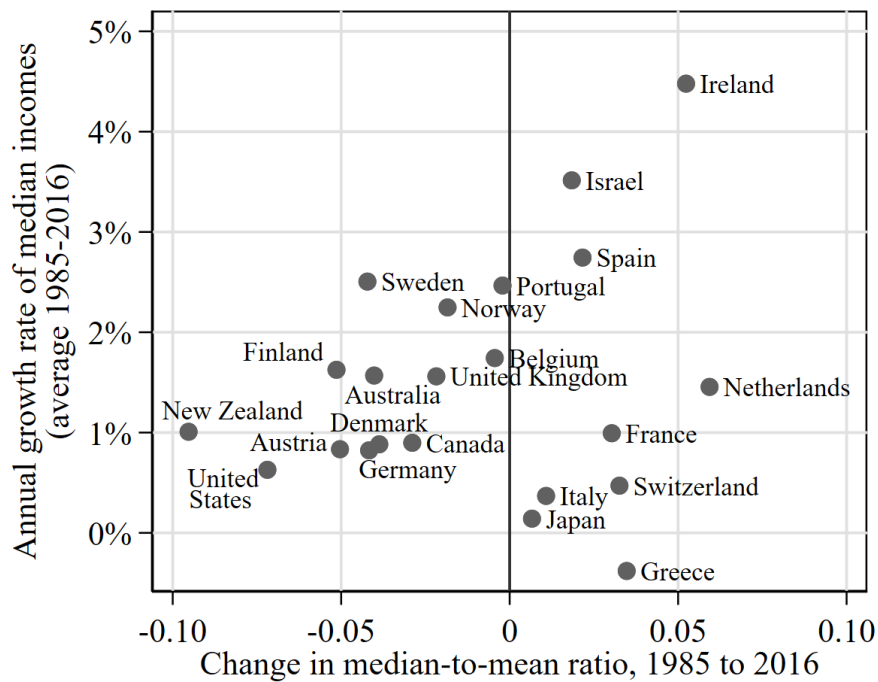
Median-to-mean income ratios are purely *relative* in nature and do not tell us anything about the extent of *absolute* change in the middle’s position. Hence, small declines in the middle’s relative share might be inconsequential if the middle is ‘compensated’ by securing rising levels of economic prosperity. This is what Iversen and Soskice (2019: 23), based on the examples of Germany and New Zealand, seem to argue: ‘Even in cases where relative income of the median has slightly slipped, the middle group of income earners is thus clearly enjoying rising incomes despite increasing inequality.’

To assess this empirically, for the same 22 countries Figure 1 plots the relationship between relative income growth, as captured by shifts in the median-to-mean ratios discussed above, and absolute income growth as reflected in average annual growth of median income in real terms. In the countries where median-to-mean ratios declined, the middle has not generally been compensated by high absolute growth rates. In fact, to the contrary, the middle’s average annual growth rates have been below one percent in the US, Austria, Germany, Denmark and Canada (and one percent in New Zealand). In only a few countries such as Sweden or Norway (and to a lesser extent Finland and Australia) has the median lagging behind the mean been accompanied by relatively high absolute median income growth.

Across all the countries, there is in fact little or no relationship between relative shifts and absolute growth for the middle.³ This is a striking finding in light of the extensive recent literature on inequality and growth (see Nolan and Thewissen 2018). Among the countries where the middle held up well in relative terms, high-growth cases such as Ireland, Israel or Spain can be contrasted with Greece, Japan, Italy, Switzerland or France, where real incomes grew by less than 1% per year on average.

³ The correlation coefficient is 0.22 (N=22, p=0.32), but is driven almost entirely by the Irish case; without Ireland, the correlation drops to 0.03 (N=21, p=0.90).

Figure 1: Relative income shifts (median-to-mean ratios) and absolute income growth



Note: Figures for the working-age population; inflation-adjusted using consumer-price index (2015=100).

4. The Middle's Share of Economic Prosperity

Now returning to the median-to-mean ratio as a measure of the middle maintaining its share, Iversen and Soskice argue that disproportionate gains going to the top may not be particularly salient for the middle class, but fail to take into account how this biases the figures they actually present. The household surveys from which those are drawn generally do not fully capture what is going on at the very top, reflecting the many difficulties in ensuring that the relatively small and highly distinctive set of households involved are sampled, respond, and give comprehensive information on their incomes. The estimates of top income shares from a combination of administrative tax data and national accounts, pioneered by Atkinson and Piketty and now available for a large number of countries in the World Inequality Database, have transformed perceptions of inequality levels and trends (Atkinson and Piketty 2007, Atkinson, et al. 2011, Alvaredo, et al. 2013). Available estimates for rich countries are shown in Table 2, and a marked increase in the share of total income before tax going to the top 1% is seen for most since the mid/late-1980s.

Table 2: Top 1% Shares

Country	Years	Around 1985	Around 2016	Change 1985-2016
Australia	1985-2016	4.8%	9.1%	4.3%
Austria	1987-2016	5.6%	8.2%	2.5%
Belgium	1990-2016	6.9%	6.7%	-0.2%
Canada	1985-2010	8.9%	13.6%	4.7%
Denmark	1985-2015	7.8%	10.3%	2.5%
Finland	1986-2016	3.9%	7.3%	3.4%
France	1984-2014	7.5%	10.8%	3.3%
Germany	1985-2015	9.1%	11.1%	2.0%
Greece	1986-2016	6.6%	10.8%	4.2%
Ireland	1987-2015	6.1%	10.7%	4.6%
Italy	1984-2016	4.5%	7.5%	3.0%
Japan	1985-2010	8.4%	10.4%	2.1%
Netherlands	1985-2016	5.3%	6.2%	1.0%
New Zealand	1985-2014	5.5%	8.1%	2.6%
Norway	1986-2016	4.5%	8.4%	3.8%
Portugal	1990-2016	8.7%	7.4%	-1.3%
Spain	1985-2016	8.0%	9.8%	1.9%
Sweden	1983-2016	5.7%	8.3%	2.5%
Switzerland	1982-2015	8.6%	10.7%	2.1%
United Kingdom	1985-2016	7.2%	11.7%	4.6%
United States	1984-2014	12.5%	20.2%	7.7%

Source: World Wealth and Income Database WID.world.

Where the share of income going to the top is increasing markedly, failure to fully capture that in surveys can have a marked impact on measured change in mean income, whereas the median will be only marginally affected. The extent of this bias is very difficult to assess, since the degree to which top incomes are actually captured in these surveys has not been established in a consistent fashion, and the definition of income and of income recipient unit differ between the surveys and tax-based estimates. However, illustrative calculations underline the point that the survey-based median-to-mean ratios on which Iversen and Soskice rely are not robust. If the surveys missed half the income going to the top 1% throughout, then the change in the ‘true’ median-to-mean ratio would be at least -0.02 greater than that observed in the surveys in countries where the top 1% share has risen by 4 percentage points. In the more extreme case of the USA, where the top 1% rose by almost 8 percentage points, the under-estimation would be that much greater.

Finally, we question whether comparing growth in the median with mean disposable household income is in fact the most appropriate benchmark for the assessment of Iversen and Soskice’s claim, which is that the middle class secure a more or less constant share of the *productive capacity of the economy* for themselves. A more obvious point of reference would be GDP (or GNI) per head. Table 3 shows the overall and annual real growth rates for the median of the working-age population compare with the corresponding figures for growth in GDP per capita. These show that growth in the median has lagged behind that in GDP per head in 19 out of 22 countries over the period, the only exceptions being Israel, Portugal and Spain.

Table 3: Real income growth of median and GDP per capita (1985-2016)

Country	Years	Median		GDP per capita	
		Total growth	Annual growth	Total growth	Annual growth
Australia	1985-2016	49%	1.6%	59%	1.9%
Austria	1987-2016	24%	0.8%	48%	1.6%
Belgium	1985-2016	54%	1.7%	57%	1.8%
Canada	1985-2016	28%	0.9%	42%	1.3%
Denmark	1985-2015	26%	0.9%	40%	1.3%
Finland	1986-2016	49%	1.6%	63%	2.1%
France	1984-2016	32%	1.0%	46%	1.4%
Germany	1985-2015	25%	0.8%	55%	1.8%
Greece	1986-2016	-11%	-0.4%	17%	0.6%
Ireland	1987-2015	125%	4.5%	262%	9.3%
Israel	1985-2016	109%	3.5%	97%	3.1%
Italy	1984-2016	12%	0.4%	44%	1.4%
Japan	1985-2015	4%	0.1%	29%	1.0%
Netherlands	1985-2016	45%	1.5%	58%	1.9%
New Zealand	1985-2014	29%	1.0%	38%	1.3%
Norway	1986-2016	67%	2.2%	95%	3.2%
Portugal	1990-2016	64%	2.5%	44%	1.7%
Spain	1985-2016	85%	2.7%	81%	2.6%
Sweden	1983-2016	83%	2.5%	94%	2.8%
Switzerland	1982-2015	16%	0.5%	40%	1.2%
United Kingdom	1985-2016	48%	1.6%	89%	2.9%
United States	1984-2016	20%	0.6%	46%	1.5%

Note: Growth rates for the working-age population; inflation-adjusted using consumer-price index (2015=100). GDP per capita data from OECD ‘Level of GDP per capita and productivity’ dataset (assessed 2019-04-09).

The factors underlying this divergence between growth in median income as shown by household surveys and GDP as measured in the national accounts are complex and have to be interpreted with care. Nolan et al. (2018) develop and apply a framework for doing so, showing for example that declines in average household size and differences between consumer and producer price changes play a role. However, increases in corporate profits and in the share of national income going to capital rather than labour are also important. These will not be fully reflected in household income as measured in surveys, so the comparison between the median and mean in those surveys is likely to exaggerate the extent to which the middle has secured ‘its share’ of growth in the productive capacity of the economy.

5. Conclusions

Iversen and Soskice (2019) present an optimistic account of the future of democratic capitalism. In sharp contrast to the extensive recent literature on the ‘squeezed middle’ in rich countries, they contend that what electorally decisive middle-class voters care about is securing ‘a more or less constant share of the productive capacity of the economy for themselves’ (Iversen and Soskice 2019: 158), and that they have been successful in doing so in the advanced economies. In this note we have shown that the evidence does not support this claim. Median income has often lagged behind the mean in household surveys, rather than kept pace with it as Iversen and Soskice claim. Strong real income growth has generally not compensated the middle for lagging behind the mean. The gap between median and mean will be even wider

than the surveys show as they miss some of the increasing share of income going to the top. The divergence between growth in median income and GDP per capita is often even wider than that between the median and mean, further undermining the claim that the middle has secured 'its share'.

The evidence presented and discussed here can be related to the broader literature on the 'squeezed middle'. What is meant by 'the middle' and what constitutes being 'squeezed' varies remarkably across studies and disciplines. Economists generally take income as the distinguishing feature, and see those within a certain distance of the median as the 'middle income class'.⁴ Being 'squeezed' may then refer to a shrinking proportion of households being 'around the middle' – 'polarisation' – and/or a shrinking share of income accruing to them. OECD (2019) shows that such a 'shrinkage' does indeed seem to have occurred from the mid-1980s/early-1990s up to the crisis in most of the rich countries, and see this as an indication of the declining economic 'weight' or importance of the middle income class in the economy. This is consistent with the conclusion we reached about the middle based on the median. Of course, 'middle class' may alternatively be seen in terms of the occupation-based distinctions that sociologists generally employ, level of education may be taken as the central marker, or the focus may be on how people see themselves and their attitudes and aspirations. Bringing together and reconciling the findings from these disparate literatures on how the middle has been faring is a pressing priority if the impacts on political behaviour are to be understood. In income terms, though, the middle has often failed to maintain its share.

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⁴ Various income ranges have been employed in this context, in for example Krueger (2012), Pew Research Center (2015), Reeves et al. (2018) for the US, and Atkinson and Brandolini (2013), Nolan and Thewissen (2018), and OECD (2019) comparatively.

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ONLINE APPENDIX

Table A1: Median-to-mean income ratios with 2010 as the end year

Country	Working-age population (18-65 years)			Entire population		
	1985 ^a	2010 ^b	<i>Change</i> 1985- 2010	1985 ^a	2010 ^b	<i>Change</i> 1985- 2010
Australia	0.917	0.868	-0.049	0.905	0.857	-0.048
Austria	0.953	0.909	-0.043	0.949	0.900	-0.049
Belgium	0.944	0.939	-0.005	0.933	0.932	-0.001
Canada	0.915	0.875	-0.040	0.900	0.868	-0.033
Denmark	0.960	0.938	-0.023	0.958	0.924	-0.034
Finland	0.964	0.921	-0.043	0.958	0.905	-0.053
France	0.842	0.887	0.045	0.841	0.877	0.036
Germany	0.929	0.896	-0.033	0.900	0.880	-0.020
Greece	0.830	0.877	0.047	0.822	0.862	0.040
Ireland	0.837	0.890	0.053	0.814	0.873	0.059
Israel	0.861	0.865	0.004	0.857	0.844	-0.013
Italy	0.885	0.894	0.009	0.893	0.883	-0.009
Japan	0.879	0.892	0.014	0.882	0.866	-0.016
Netherlands	0.867	0.889	0.022	0.853	0.876	0.023
New Zealand	0.922	0.871	-0.051	0.898	0.849	-0.049
Norway	0.949	0.944	-0.005	0.945	0.933	-0.012
Portugal	0.858	0.824	-0.034	0.855	0.805	-0.050
Spain	0.855	0.898	0.043	0.856	0.876	0.020
Sweden	0.944	0.933	-0.011	0.939	0.922	-0.016
Switzerland	0.837	0.888	0.052	0.835	0.878	0.042
United Kingdom	0.876	0.845	-0.030	0.839	0.822	-0.017
United States	0.892	0.835	-0.057	0.879	0.816	-0.063

^a Year 1985 used, except for: Switzerland (1982); Sweden (1983); France, Italy, US (1984); Finland, Greece, Norway (1986); Austria, Ireland (1987); Portugal (1990).

^b Year 2010 used, except for: Japan, New Zealand (2009).

Notes and sources: Income data are real disposable household incomes, adjusted for household size (square root equivalence scale) and inflation (consumer-price index, 2015=100). Data for 1985 and 2010 are from the OECD Income Distribution Database (IDD) (assessed 2019-04-09) based on the 'old income definition', and Luxembourg Income Study microdata (LIS 2019) for Australia, Austria, Belgium (1985 only), France, Ireland (1985), Spain and Switzerland.