## OXFORD

# State of the Art paper

# Varieties of top incomes?

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# Abstract

Focusing on the advanced political economies, this article critically reviews the recent scholarship on the evolution of top incomes over the past few decades. The existing literature shows that the determination of top incomes is complex, multifaceted and bound up with factors associated with both politics and economics. Technological change and globalization are vital sources of change in contemporary capitalism, but the continued diversity in top income shares across the advanced capitalist world suggests that these forces alone cannot account for the empirical patterns. Instead, there is compelling evidence that power and politics, including government policy, trade union and left party strength, institutions and financialization, all play a pivotal role in regulating distributive outcomes. It is argued that future research will require a plurality of methodological approaches in order to clarify the complex causal process that drives top-end income concentration.

**Key words:** income inequality, top incomes, advanced political economies, technological change, globalization, financialization, institutions

**JEL classification:** D3 distribution, F6 economic impacts of globalization, G3 corporate finance and governance, P1 capitalist systems, P5 comparative economic systems

## 1. Introduction

Common ground is hard to find in our polarized age. But one issue has been a source of agreement for a diverse group, ranging from Bill Gates to Pope Francis, and from the World Economic Forum to Oxfam. Although they disagree on how to address it, these disparate voices form part of a growing global consensus that income inequality is a serious concern (Wike, 2013). Income inequality has become one of the defining issues of contemporary capitalism, and growing income disparities have been blamed for a number of societal ills, including financial instability, rising populism, ecological destruction and various health problems (Wilkinson and Pickett, 2010). With increasing attention focused on inequality, terms like the 'one percent' and the 'ninety-nine percent' have entered into popular

discourse. Academics, politicians, activists and journalists now use these statistical categories as shorthand for the groups involved in political struggles around the distribution of income.

Recent empirical research on top incomes has provided much of the impetus for the burgeoning interest in inequality (e.g. Alvaredo *et al.*, 2013; Piketty, 2014; Alvaredo *et al.*, 2017). Two key findings have emerged from this research. First, the income share of the top 1% has risen across the advanced capitalist world since the early 1980s. Second, despite recent increases, there is still considerable cross-national diversity in top incomes. In parts of continental Europe and Scandinavia, the top percentile's income share has increased only very slightly over the past few decades and remains low today. Yet in the English-speaking world, and especially in the USA, the top percentile's share has surged, climbing to levels not seen since the early twentieth century.

These empirical patterns point to an interesting puzzle. How do we account for this continued diversity in top incomes in the advanced political economies? What are the principal causes of these historical and cross-national variations in distributive outcomes at the top? Why does the USA stand out as an extreme case of top-end income concentration? With reference to these questions, the purpose of this state-of-the-art will be to critically review the recent literature on top incomes. This review is needed precisely because most of the action has taken place at the apex of the income hierarchy. In the most unequal societies, gains at the very top have propelled changes in the overall distribution of income. A specific focus on top incomes is also warranted because the forces that concentrate income at the top may be unique in comparison to the other facets of income inequality (Autor, 2014; Huber et al., 2015, pp. 18-19). Insightful reviews of top incomes already exist (McCall and Percheski, 2010; Keister, 2014; Keister and Lee, 2014; Medeiros and Ferreira de Souza, 2015; Kenworthy, 2017;). But an in-depth review of the state-of-the-art on the cross-national variations in top incomes in the advanced political economies has yet to be developed. The discussion here has particular relevance for the wider literature on comparative capitalisms and the debate on how best to identify and explain cross-national patterns of convergence and divergence (Deeg and Jackson, 2007).

What the existing literature reveals is that the determination of top incomes is complex and multifaceted. The evolution of top income shares cannot be simply reduced to market processes of globalization and technological change. Although market processes can act as powerful forces for income dispersion, continued diversity in top incomes points to a need to move beyond markets and examine the role of political and social factors. One of these factors is government policy. In particular, marginal top income tax rates have been identified as a key policy predictor: countries that have reduced top rates the most have seen the largest increases in top income shares. Important as government policy may be, it can, however, only serve as a proximate cause of variations in top incomes across time and space. To get at the ultimate causes of this variance, a recent body of literature points to power and politics in explaining distributive outcomes. Taking cues from power resources theory (PRT), this literature shows the decisive role of left party and trade union strength, financialization and political institutions in shaping top-end income concentration in the advanced political economies.

Though the study of top incomes has come a long way in a short period, there are still many avenues for further exploration. The bulk of cross-national empirical evidence on the drivers of top incomes is derived from 'panel-of-countries' regression analysis (Atkinson and Brandolini, 2006). These studies help to pinpoint the causal factors associated with crossnational variation of top incomes. But the causal process at work is highly complex and is arguably best tackled with a plurality of methodological approaches. As a complement to panel-of-countries approaches, case studies and small-N comparisons have the potential to garner rich and detailed information on the complex interplay of factors that shape the evolution of top incomes across time and space.

The remainder of the article is organized as follows. Section 2 outlines the trends in top incomes across the advanced capitalist world. The next four sections of the article then discuss the various explanations that have been given for these trends. Section 3 focuses on the market story, which emphasizes the role of technological change and globalization; Section 4 looks at the role of government policy, especially top marginal income tax rates; and Sections 5 and 6 survey the literature on power and politics. To derive a sense of the bigger picture, Section 7 distills the key findings of existing studies, and proposes several avenues for future research. Section 8 concludes with a brief summary.

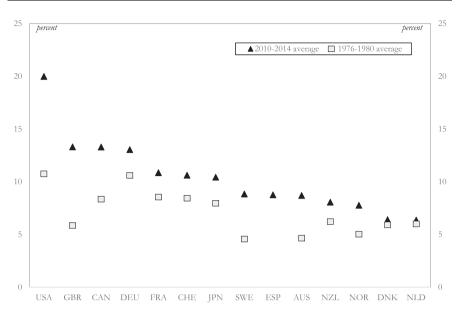
#### 2. Trends in top incomes

In *Capital in the Twenty-First Century*, Thomas Piketty (2014, p. 3) notes that historical debates about distribution were based on 'a relatively limited set of firmly established facts together with a wide variety of purely theoretical speculations'. But in recent years all this has changed. In the span of a couple of decades, the empirical record has improved so that researchers now have an extensive grasp of the historical and cross-national patterns of wealth and income distribution. What was once, in Piketty's (2014, p. 2) words, a 'debate without data', has become a vibrant area of research, with coverage being extended both historically and geographically, and with measures and techniques becoming ever more refined.

The empirical work of Piketty and his collaborators has focused on mapping the income shares of top earners (e.g. top decile, top percentile, top 0.001%). Recent advances in measurement techniques allow researchers to estimate the income shares of groups further down the distributional hierarchy as well (e.g. bottom 50%, middle 40%).<sup>1</sup> This ability to identify different groups within the distribution gives income share measures an advantage over the more conventional Gini coefficient (Atkinson *et al.*, 2011, pp. 19–29; Alvaredo *et al.*, 2017, pp. 27–30). Although the Gini elegantly expresses inequality through a single number, it cannot illuminate which groups are driving distributional changes. As Alvaredo *et al.* (2017, p. 27) explain, a country may experience an increase in the top income share alongside declining poverty in the bottom of the distribution. If these two changes offset each other, the Gini remains constant. This gives the false impression that the distribution of income is not changing, when in fact the income share of the middle class is being squeezed.

Figure 1 encapsulates some of the main findings on patterns of top incomes for the advanced political economies in 1976–1980 and 2010–2014. All of the countries that appear in this figure have experienced some increase in income inequality over the past few decades.

1 These advances involve combining tax, survey and national accounts data to develop 'distributional national accounts' (Alvaredo *et al.*, 2017, pp. 31–32). On the strengths and weaknesses of survey and tax data, see Alvaredo *et al.* (2017, pp. 27–30), Atkinson *et al.* (2011, pp. 19–29) and Burkhauser *et al.* (2012, pp. 371–372).



**Figure 1** Income shares of the top 1% in various countries, 1976–1980 and 2010–2014. *Notes*: Calculations are based on simple averages. Data are pre-tax national income. *Source*: World Wealth and Income Database (wid.world). Style inspired by Angeles *et al.* (2017).

Yet what the figure also shows is that there is still considerable diversity in the share of income going to the top one percent. The top percentile's share of income increased only slightly in Denmark and the Netherlands, but it roughly doubled in countries like Sweden, the USA and the UK. In the most recent years for which data are available, the income share of the top percentile is low in the Netherlands (6.4%) and Denmark (6.4%), moderate in Japan (10.4%) and France (10.9%) and high in Germany (13.1%) and Canada (13.3%). The USA is a noticeable outlier at the high end of the scale, with the top percentile now taking a 20% share of income.

For advanced political economies with the highest levels of inequality, gains at the top have also fueled disparities in the overall distribution of income. Table 1, based on data from the *World Inequality Report 2018*, illustrates these dynamics (Alvaredo *et al.*, 2017, pp. 45–46). In more unequal North America, the income of the total population grew by 63% from 1980 to 2016, but this growth was highly skewed in favor of those at the top. The top decile in North America captured 67% of total income growth over this period, and over half of those gains went to the top percentile. In more equal Europe, even with the inclusion of the highly unequal UK, the total income growth, and the percentages of income captured, are more evenly spread across the distribution.

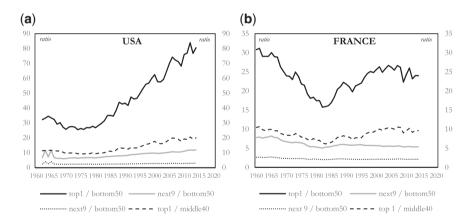
Figure 2 provides further evidence of how gains at the top are fueling inequality in the most unequal societies. Panel A in the figure shows the average income ratios for various groups in the USA from 1962 to 2014. The average income of someone in the top percentile was 32 times higher than someone in the bottom 50% in the early 1960s and 80 times higher in 2014. In the early 1960s the ratio of the top percentile's average income to the middle 40% (i.e. the fiftieth to the ninetieth percentile) was 11, and almost doubled to 20 by

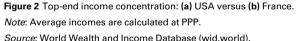
		ive real income ult, 1980–2016	Share of real incon by income groups,	ne growth captured 1980–2016
	Europe	Canada-USA	Europe	Canada-USA
Full population	40%	63%	100%	100%
Bottom 50%	26%	5%	14%	2%
Middle 40%	34%	44%	38%	32%
Top 10%	58%	123%	48%	67%
Top 1%	72%	206%	18%	35%
Top 0.1%	76%	320%	7%	18%
Top 0.01%	87%	452%	3%	9%
Top 0.001%	120%	629%	1%	4%

Table 1 Top-end income concentration: Europe versus North America

Notes: Income calculated at purchasing power parity (PPP). Twenty-five Western and Eastern European countries are included in the Europe grouping.

Source: Alvaredo et al. (2017: 45-46).





2014. At the same time, the relative income increases of the next nine (i.e. the ninetieth to the ninety-ninth percentile) have been more modest: they increased from 7 to 12 times larger than the bottom 50% but have hardly moved relative to the middle 40%. As Panel B in the figure shows, the situation in more equal France has been completely different. Since the early 1960s, the average incomes of the top percentile and the next 9% have both declined relative to the middle 40% and the bottom 50%.

One final development worth mentioning is the changing composition of top incomes in the advanced political economies. Income from capital (dividends, interest, rents, etc.) remains vital to those at the top, but labor income (wages, salaries, stock options, etc.) has become much more central since the 1980s. In contrast to the nineteenth century image of the rich as idle rentiers living off investments, those at the top of the income hierarchy today tend to be the working rich (Atkinson *et al.*, 2010, p. 690; OECD, 2011, pp. 350–351).

#### 3. Technological change and globalization: a story of markets

How do we account for these trends in top incomes? One approach suggests that rising inequality is a result of market processes. Anchored in the neoclassical marginal productivity theory, this literature emphasizes how changes in the supply and demand for the various factors of production bring about shifts in the distribution of income (Mankiw, 2013). Ever since the pioneering work of Jan Tinbergen (1975), technology has served as a necessary reference point for studies of income inequality. In simple terms, technological change has raised the demand for, and in turn, the remuneration of, workers with the requisite skills and education. Low-skilled workers that fail to adapt to advances in technology are faced with unemployment and wage stagnation. Thus, for the 'skill-biased technological change' argument, rising inequality is the outcome of a race between education and technology (Goldin and Katz, 2008). Wage differentials result primarily from differentials in the quantity and quality of education (ibid., pp. 2–3).

Initially developed to explain general changes in income inequality, technology is also invoked to explain runaway increases in top incomes. For example, the 'superstar' theory maintains that top earners have scarce and unique talents (Rosen, 1981; Gabaix and Landier, 2008; Kaplan and Rauh, 2013). Recent advances in information and communications technology have expanded the scale of markets for these talents, resulting in substantial pay increases for superstar athletes, entertainers, investors and managers (Brynjolfsson and McAfee, 2011).

In the market-based analysis, globalization aids and abets the un-equalizing tendencies of technological change. What Tinbergen is to the technology side of this story, Eli Heckscher and Bertil Ohlin are to the globalization side. Anchored in the assumption of Ricardian comparative advantage, the Heckscher–Ohlin model predicts that international trade will reward the owners of the abundant factors of production and harm the owners of the scarce factors within a given country (Heckscher and Ohlin, 1991). Over the past four decades, free trade has brought about a 'geographical reallocation of global production,' with developing countries specializing in unskilled, labour-intensive goods and advanced countries specializing in capital and technology-intensive goods (Bourguignon, 2015, pp. 76–77). People in the bottom of the income distribution tend to own unskilled labour, while ownership of capital and high-skilled labor are concentrated at the top. The model predicts that globalization will bring wage stagnation and unemployment for the relatively scarce factor of unskilled labor in advanced countries, as workers from developing countries, especially from China and India, enter into the global labor market.<sup>2</sup> Capital and high-skilled labor, the

2 Mahutga et al. (2017, pp. 185–186) add nuance to the standard model, showing how the consolidation of global production networks (GPN) amplifies the effects of the developing world's imports on the wages of low-skilled workers in the advanced countries. As an intervening process GPN put downward pressure on low-skilled wages in the advanced countries through three channels: (a) Expansion of the pool of low-skilled labour in the developing world; (b) Weakening of the bargaining power of firms in the developing world vis-à-vis lead firms; (c) Heightening the perception of economic insecurity amongst low-skilled workers in advanced countries.

comparatively scarce factor in advanced countries, will see income gains from globalization, boosting returns and expanding the scale of the market for top-end talent (Kaplan and Rauh, 2013, p. 53).

While trade globalization has dominated the market story, less attention has been paid to financial globalization (Ernst and Escudero, 2008, p. 40; Jaumotte *et al.*, 2013, p. 274). When it comes to the distributive effects of foreign direct investment (FDI), the Heckscher-Ohlin theorem leads to a simple prediction. Assuming that capital flows from capital abundant (advanced) countries to capital scarce (developing) countries, FDI will increase inequality for both sender and receiver. This is because relatively high skill-intensive inward FDI for the developing country is often low skill-intensive outward FDI for the advanced country (Jaumotte *et al.*, 2013, p. 284). FDI flows from advanced to developing countries therefore increase the relative demand for skilled labor in both countries, exacerbating top-end income inequality in both (ibid., p. 285).

At its core, the market story is focused on skills, and specifically, on the differential capacities of factor owners to adapt to the exogenous forces of technological change and globalization. Some evidence suggests that market processes are central to the explanation of rising income inequality more generally (cf. Handel, 2003; Autor, 2014; Huber and Stephens, 2014). But there are compelling reasons to doubt whether the skills-centered market story can account for changing patterns of top incomes across time and space.

Consider, first of all, runaway incomes at the very top in some advanced political economies. As mentioned earlier, most of the increases in top incomes have been driven by gains at the apex of the hierarchy. But as Piketty (2014, p. 314) explains, there is little to differentiate members of the top decile in terms of their skills, including years of education, educational quality or professional experience. The skills-centered market account runs into further trouble in relation to income gains within the top percentile. Members of the top percentile display even greater uniformity in skills than the top decile, and yet from 1980 to 2014 the pre-tax income growth of the top 0.01% in the USA was more than double that of the top 1% (Piketty *et al.*, 2018, p. 578).

If the advanced political economies are equally subjected to the exogenous forces of technology and globalization, then the market story falls short simply because of the considerable variation in top incomes shown in Figure 1. But what if technological change and globalization are treated as explanatory variables rather than exogenous constraints? Several cross-national studies, involving panel-of-countries regression analysis, have explored empirically the impact of technology and globalization on top income shares.

As shown in Table 2, these studies provide conflicting evidence for the market story. Dünhaupt's (2014) proxies for technological change and financial globalization show no significant effect on the top percentile's share of income, while trade openness compresses top income shares. Huber *et al.* (2017) report no significant impact for globalization on top incomes, while technological change reduces them. Taking a longer-term perspective, Roine *et al.* (2009) find that trade openness slightly compresses top income shares, while technological change reduces them. Taking a longer-term perspective, Roine *et al.* (2009) find that trade openness slightly compresses top income shares, while technological change is insignificant. Others report precisely the opposite. Flaherty's (2015) weighted index of economic globalization is shown to have no impact on top income shares. But his measures of trade openness and financial globalization are both found to significantly enhance the income share of the top percentile (see also Neal, 2013). To complicate matters further, Cabral *et al.* (2016) find that financial globalization has a large positive impact on top income shares.

Author(s)	Years	Countries	Measure(s)	Method(s)	Findings
Cabral <i>et al.</i> (2016)	1970–2004	Twelve developed and three developing countries	Five classes from top 10% to top 0.1%		[+ve]: financial openness (external assets and liabilities % GDP and equity cross- holding % GDP). [-ve]: top marginal tax rates. [no effect]: population growth, GDP per capita, trade openness (imports and exports % GDP), central government spending % GDP
Dünhaupt (2014)	1980–2010	Thirteen OECD countries	Gini and top 1%	OLS (fixed and random effects)	<ul> <li>[+ve]: stock market capitalization, net dividend payments of non-financial corporations. [-ve]: union density, trade openness (imports and exports % GDP), GDP per capita and top marginal tax rates. [no effect]: left cabinet strength (left government party seats as % of total legislative seats), FDI outflows as % GDP, technological change (ratio of business expenditure on R&amp;D to GDP)</li> </ul>
Flaherty (2015)	1990–2010	Fourteen OECD countries	Тор 1%	OLS (fixed effects)	MODEL #1 [+ve]: trade openness (imports and exports % GDP), economic globalization (weighted index of FDI stocks, portfolio investment, trade and income payments to foreign nationals), unemployment rate, FIRE operating surplus. [-ve]: government consumption % GDP, union density, labour's share of national income. [no effect]: accession of

#### Table 2 The main findings of 'panel-of-countries' approaches to top incomes

S. B. Hager

Author(s)	Years	Countries	Measure(s)	Method(s)	Findings
					women to labour force, stock market capitalization % of GDP, private sector credit % of GDP. <u>MODEL #2</u> [+ve]: financial globalization (external assets and liabilities % GDP), Gini, banking sector liberalization, banking sector supervision, financial reform. [-ve]: capital taxation (levies on capital transfers or assets % GDP), indirect taxes (taxes on goods and services % total taxes)
Godechot (2016)	1970–2011	Eighteen OECD countries	Top 10%, top 1%, top 0.1%, top 0.01%	OLS (fixed effects)	<ul> <li>[+ve]: finance and insurance % GDP, union density, volume of stocks traded % GDP, shares in bank assets % GDP. [-ve]: imports, non-financial firms' financial income % gross operating surplus, non-financial firms' financial assets % GDP, household debt % GDP. [no effect]: GDF per capita, household mutual funds % GDP</li> </ul>
Huber <i>et al.</i> (2017)	1960–2012	Eighteen OECD countries	Тор 1%	Prais Winsten regressions (fixed effects and random effects)	[+ve]: stock market capitalization % GDP, secular center and right government % seats of all governing parties, veto points (index of presidentialism, bicameralism, federalism, and referenda), private tertiary education spending % total

#### Table 2 Continued

continued

Table 2 Continued					
Author(s)	Years	Countries	Measure(s)	Method(s)	Findings
					tertiary education spending. [-ve]: union density and centralization, codetermination rights of works councils, top marginal tax rates. [no effect] value added of financial intermediation % GDP, outward FDI, capital market openness, trade openness (imports and exports % GDP), GDP per capita, welfare state spending
Neal (2013)	ca. 1950–2008	Ten OECD countries	Top 1%	OLS	[+ue]: economic openness (imports and exports % GDP), conservative political ideology, technological change (stock of domestic patents). [-ue]: union density, government size (ratio of central government expenditure to GDP,
Roine <i>et al.</i> 2009	Twentieth century (until 2004 for some countries)	Sixteen countries, mostly Rich (top 1%), upper GLS developed middle class, ninety to ninety- ninth percentile, bottom 90%	Rich (top 1%), upper middle class, ninety to ninety- ninth percentile, bottom 90%	GLS	tax rates [+ve]: GDP per capita, financial development (bank deposits and stock market capitalization). $[-ve]$ : banking crises, top marginal tax rates. $[no effect]$ : government spending % GDP, trade openness (imports and exports % GDP), technological change (agricultural share
					сопшинен

Table 2 Continued					
Author(s)	Years	Countries	Measure(s)	Method(s)	Findings
Scheve and Stasavage (2009) 191	1916-2000	Thirteen countries	Top 1%, top 10 to 1%, top 10%	OLS	of production % GDP, stock of domestic patents) [+ <i>we</i> ]: decentralized (firm-level) bargaining relative to sectoral bargaining. [ <i>-we</i> ]: left government, union density. [ <i>no effect</i> ]: centralized (national-level) wage bargaining relative to sectoral bargaining
Note: GDP, gross domestic pr least squares; R&D, research a	oduct; FDI, foreign dire and development; SGMI	Note: GDP, gross domestic product; FDI, foreign direct investment; GLS, generalized least squares; OECD, Organization for Economic Co- least squares; R&D, research and development; SGMM, system generalized methods of moments; FIRF, finance, insurance and real estate.	l least squares; OECD, O s of moments; FIRE, final	rganization for Econorr ace, insurance and real e	Note: GDP, gross domestic product; FDI, foreign direct investment; GLS, generalized least squares; OECD, Organization for Economic Co-operation and Development; OLS, ordinary least squares; R&D, research and development; SGMM, system generalized methods of moments; FIRE, finance, insurance and real estate.

Conflicting results in the existing studies bring into doubt the market story as a definitive explanation for top incomes in advanced political economies. Technological change and globalization may act as powerful forces for income dispersion. But continued crossnational diversity suggests that there are other factors that influence both the magnitude and the rate of change in top income shares. What are these other factors? In recent years, a growing body of literature has augmented the market story by analyzing the role of government policy in shaping distributive outcomes at the top.

#### 4. Enter government policy

The effects of government policy on the distribution of income are wide-ranging. In broad terms, government sets the rules for the market, and so labor market and financial market regulations, education policy, as well as laws governing property rights, monopoly, contract, licensing and bankruptcy, are all potential determinants of top incomes (Piketty *et al.*, 2014; Reich, 2015).<sup>3</sup> In their book *Fed Power*, Jacobs and King (2016, p. 3) scrutinize the role of monetary policy as an 'inequality generator,' particularly in the USA. In the lead-up to the global financial crisis, the Federal Reserve fuelled inequality by prioritizing price stability over employment (despite its dual mandate). In the aftermath of the crisis, quantitative easing favored the super-rich by inflating asset prices. Due to controversies surrounding their crisis response, central bank officials in the USA, the UK and the Eurozone, have now been drawn into a debate about the distributive impact of monetary policy (Giles, 2014).

Despite these wide-ranging effects, the most frequently cited role of government in shaping top incomes is through fiscal policy. Progressive taxation and transfer payments redistribute income downward and reduce the *post-tax* income share of those at the top. Tax policies can also have an indirect impact on *pre-tax* income, as lower marginal income tax rates provide incentives for top earners, especially corporate executives, to either work harder and invest more money, or to grab 'rents' and bargain for higher compensation (Piketty *et al.*, 2014; Kenworthy, 2016).<sup>4</sup>

The most reliable posttax data on top incomes is for the USA. Piketty *et al.* (2018, p. 598), argue that the declining progressivity of the US fiscal system has contributed to rising inequality. Their findings show that the US system of taxes and transfers is slightly progressive, but that the gap between the effective tax rates of the top percentile and the bottom half of the population has steadily narrowed since the 1950s. They attribute the decline in the effective tax rate on top incomes primarily to falling corporate and estate taxes, which took around 20% of the top percentile's income share in the 1960s, but only 10% in 2014 (ibid., p. 600).<sup>5</sup>

- 3 In addition to an active role, Hacker and Pierson (2010, pp. 170–171) explain how policy 'drift'—a term which 'describes the politically driven failure of public policies to adapt to the shifting realities of a dynamic economy and society'—influences distributive outcomes.
- 4 Another aspect of fiscal policy relevant to top incomes is tax evasion. In a landmark study, Alstadsæter *et al.* (2017) estimate the distribution of offshore wealth for Denmark, Norway and Sweden. They find that on average 3% of total personal taxes are evaded, which rises to about 30% for people in the top 0.01% of wealth distribution. According to their estimate, the top 0.01% owns about 50% of offshore wealth, representing about 25% of its total wealth.
- 5 The top percentile in the USA has received <1% of all transfer payments over the past few decades. Although transfer payments influence the distribution of income within the bottom 99%, they do not reveal much about the spectacular gains at the top (see Hager, 2014, pp. 174–176; Hager, 2016, pp. 45–47).

Pre-tax data on top incomes are more extensive and offer reasonably consistent findings. On the whole, existing studies identify a significant correlation between top marginal income tax rates and pre-tax top income shares (Neal, 2013, pp. 94–95; Scheve and Stasavage, 2016, p. 76). For most advanced countries, top marginal tax rates have declined since the early 1980s, but the depth of these cuts has varied considerably (Alvaredo *et al.*, 2013, p. 7). In France, the top tax rate in 2010 was only 10% lower than it was in 1950, while in the USA it was 50% lower (ibid., p. 7). Cross-nationally, tax cuts are strongly correlated with rising top incomes. At the firm level, there is a strong correlation between lower top marginal income tax rates and higher CEO pay in different countries (Piketty *et al.*, 2014, p. 263–266).

There is ample evidence to suggest that government policy, especially fiscal policy, plays a crucial role in shaping top incomes in advanced political economies. But this observation merely raises another question. How exactly do we explain the variations in the policies that influence distributive outcomes? According to Piketty (2014, pp. 330–335), the answer boils down to a combination of political and social factors: namely, changing 'social norms' and the relative bargaining power of social groups. Yet as Piketty (2017, p. 562) himself admits, these factors 'often appear exogenous and exterior' to his analysis (see also Jacobs, 2017).

Lane Kenworthy (2016) offers a simple but persuasive example of how political and social factors may not be exogenous but integral to the evolution of top incomes. As he observes, not only are top marginal tax rates strongly correlated with pre-tax top income shares, but the relationship between them grows stronger over time. In other words, top tax rates and top income shares were weakly correlated in the postwar period (1960–1964), but more recently (2005–2009) this correlation is much tighter (Piketty *et al.*, 2014, p. 253). According to Kenworthy (2016), this change may have to do with shifting relations of power between social groups. He posits that the strength of unions in the postwar period may have allowed workers to resist executive pay increases, even in the wake of substantial cuts to top marginal rates, like those implemented by the Kennedy Administration in the USA in 1963. Nowadays, with unions considerably weakened, CEOs face far less opposition when boosting their pay in response to tax cuts.

Kenworthy's hypothesis is entirely plausible, and the example illustrates the importance of placing political and social factors, especially power relations, at the center of the analysis. There is a long tradition in the social sciences literature of situating power and politics into the analysis of distributive outcomes. The insights from this literature have been incorporated into the study of top incomes, resulting in a more holistic, systemic, and crossdisciplinary account of their evolution across time and space.

#### 5. Power and politics (I): partisanship and trade unions

Much of the discussion within the existing literature on power relations and institutions is animated by PRT (Brady *et al.*, 2013, p. 875). Originally developed in the late-1970s and early-1980s to explain cross-national variation in welfare state regimes (Stephens, 1979; Korpi, 1983), PRT also offers a more general framework for analyzing income distribution and has been the main theoretical reference point in the literature on top incomes (Hacker and Pierson, 2010; Volscho and Kelly, 2012; Dünhaupt, 2014; Flaherty, 2015; Huber *et al.*, 2017).

Inspired by Marx's class analysis, the 'classic' formulations of PRT take the structural cleavage in capitalist societies between workers and capitalists as their analytical point of

departure (Huber *et al.* 2017, p. 19). The main resource of workers is their labor power; for capitalists, it is the ownership of economic assets. Unlike labor power, economic assets are easily transferable, scarce and concentrated. Workers thus find themselves at a structural disadvantage in capitalist society: they are legally free to sell (or more accurately rent) their labor power on the market, but in doing so they must submit to the control of management during the workday (Stephens, 1979, pp. 18–19).

One of the core claims of PRT is that employees can decrease their structural disadvantage by banding together in unions and left-wing political parties. Worker influence thus depends on the degree of unionization, and the degree of centralization in wage bargaining. The idea is that unions and collective bargaining enhance worker power by enabling them to overcome collective action problems. Thus, unions and left parties empower employees to pry concessions from employers, who are otherwise narrowly interested in profit-making. In this way, PRT prioritizes power and class conflict in explaining distributive outcomes (McCarthy, 2017, p. 20). The prediction of PRT is straightforward: as the power of unions and left-wing parties increases, income inequality should decrease. In a modified class framework, the top 1% implicitly serves as a rough proxy for a capitalist class of top executives and major shareholders, while the bottom 99% serves as a rough proxy for workers.

Left (and Christian Democratic) governments are expected to implement policies, especially progressive income tax rates, to reduce top income shares. Unionized workers are often more successful in boosting wages relative to their nonunionized counterparts, reducing the amount of 'rent' going to top executives and shareholders (Shin, 2014, p. 1343; Ahlquist, 2017, p. 8). In countries where workers are legally represented on corporate boards, unions have a crucial say in the setting of executive compensation and can directly oppose large increases in the ratio of CEO-to-worker pay. Unions can also organize campaigns and rally public opinion against runaway pay at the top. Finally, in addition to their roles within the workplace and civil society, unions shape distributive outcomes through their direct involvement in the political arena, pushing for more egalitarian policies (Hacker and Pierson, 2010; Western and Rosenfeld, 2011, p. 518; Brady *et al.*, 2013, pp. 874–876).

Empirical research points to a significant role for partisanship. In the USA, Bartels (2008) notes that the spectacular rise in the top percentile's income share since the 1980s has proceeded apace regardless of which party holds the presidency (Hacker and Pierson, 2010, pp. 162–164). More rigorous research confirms Bartels' observation: the partisan affiliation of the president has little bearing on distributive outcomes at the top (Kenworthy, 2010; Volscho and Kelly, 2012, p. 688). But Volscho and Kelly (2012, p. 692) do find that rightward congressional shifts are associated with increases in the top percentile's income share, while Keller and Kelly (2015) show that financial deregulation increases the income share of the top 0.01%. Deregulation is bound up with partisanship because it tends to decline when Democrats gain control of the presidency and the Senate.

Cross-nationally, Scheve and Stasavage (2009) report a modest influence for left government on top income shares, while Huber *et al.* (2017, p. 16) find that secular center and right-wing governments have a large effect on top incomes. Neal (2013, p. 93) also uncovers a positive and significant relationship between top income shares and the ideology of the ruling party.

Union strength is a central variable in PRT, and research reveals that it has a meaningful impact on top incomes. Evidence from the firm level in the USA indicates that unionization decreases the compensation of top executives by 12%, mostly because of lower stock-based

compensation in unionized firms (Gomez and Tzioumis, 2011, p. 17). In US industries with high levels of unionization, the gap between executive and nonexecutive pay is narrower (Shin, 2014, p. 1366).

It remains to be seen whether this relationship between unionization and executive compensation exists cross-nationally (Ahlquist, 2017, p. 9). At the aggregate level, union density has been declining in most advanced political economies since the early 1980s, and this decline has been most pronounced in those countries where top incomes have experienced the largest gains. In the studies surveyed in Table 2, the rate of unionization is one of the few variables that is consistently reported to have a meaningful impact on top incomes. These findings provide ample support for Lin and Tomaskovic-Devey's (2013, pp. 1301–1303) claim that '[i]n previous literature, declining union density tends to be the single most important institutional predictor of increased income inequality.'

The effect of bargaining centralization on top incomes is less clear-cut. Huber *et al.* (2017, p. 16) find that the centralization of bargaining enhances the political clout of workers and provides a check on top income growth. Scheve and Stasavage's (2009, pp. 233–234) study shows that over the past three decades decentralized (firm-level) bargaining is associated with rising inequality relative to sectoral bargaining. Yet their results also reveal that centralized (national-level) bargaining has no significant effect on top income shares, bringing into question the argument that solidaristic pay institutions reduce top-end income concentration.

To sum up, the empirical evidence provides a great deal of confirmation for the role of partisanship and trade unions. In line with classic PRT, partisanship has been shown to have a significant impact on top income shares, and union strength provides what is perhaps the most robust predictor of top incomes across time and space. Yet as important as political parties and unions are, they do not exhaust the explanation of distributive outcomes. The literature on power and politics draws attention to other factors outside of the scope of classic PRT. Of these other factors, political institutions and financialization are two of the most prominent in the determination of top incomes.

#### 6. Power and politics (II): institutions and financialization

Since it first emerged, PRT has inspired a substantial literature, some of which has identified shortcomings in the classical formulation (see Brady, 2009). Perhaps most relevant to the study of top incomes is the criticism that classic PRT neglected political institutions (Brady, 2009; Iversen and Soskice, 2009, p. 439). Electoral systems of proportional representation tend to favor left-wing government, while majoritarian systems favor right-wing government. Furthermore, presidentialism, super-majoritarianism and bicameral legislatures, are all characterized by extensive veto points, which encourage policy drift and empower special interests to block progressive policy reforms (Huber *et al.*, 2017). Veto points render a government susceptible to capture through lobbying and campaign financing, engendering a feedback loop from money to power to (more) money (Reich, 2015, pp. 82–83; Scheve and Stasavage, 2016, pp. 16–17).

For the USA, Enns *et al.* (2014) find that institutional design, especially the supermajoritarian Senate, engenders a status quo bias that increases top income shares. In their analysis, this status quo bias is conditional on a high degree of ideological polarization, and on an already-existing high level of inequality. The fact that institutional gridlock depends on high levels of inequality suggests that policy has been captured. Hacker and Pierson's (2010) mostly qualitative account illustrates how rising inequality in the USA gives the organized interests of the super-rich a political advantage relative to middle class institutions like trade unions, allowing them to consolidate power, entrench the status quo and further augment their fortunes.

There are, however, reasons to question whether the logic of 'institutional design creating gridlock and capture' applies outside of the USA (Scheve and Stasavage, 2016, p. 17). Problems in generalizing the institutional story become clear in Hopkin and Shaw's (2016) study of 'winner-take-all' politics in the UK. The UK represents a 'most similar' case given its own staggering levels of top-end inequality (see Figure 1). And yet, as Hopkin and Shaw demonstrate, the UK political system is strikingly different from that of the USA. A centralized executive branch—along with effective enforcement of party discipline—insulate the UK policy-making processes from capture. With that being said, the cross-national evidence is scant, but Huber *et al.* (2017, p. 16) do uncover a positive and statistically significant relationship between institutional veto points and top income shares.

Recent literature has also built upon classic PRT by taking into account the role of financialization in altering power relations. One of the transformations associated with financialization has been the shift in corporate strategy toward shareholder value (van der Zwan, 2014, p. 104). According to the existing literature, there are three main ways that shareholder value boosts top incomes. First, it leads to a rise in income from dividends, interest payments and capital gains, which tend to be heavily concentrated at the top (Flaherty, 2015, p. 422). Second, in order to boost short-term stock prices, it encourages workforce downsizing and the distribution of savings to shareholders through increased dividend payouts (Dünhaupt, 2014, p. 13; Jung, 2015). Third, as a strategy to align the interests of managers with owners, it facilitates rising executive compensation through enhanced performance-related pay (Dünhaupt, 2014, p. 12).

Another transformation associated with financialization concerns the regime of accumulation, and the shift from production to finance as the center of profit-making (Krippner, 2005; van der Zwan, 2014). Under this financialized regime of accumulation, the financial sector takes an increasing share of corporate profits, creating rents that are captured by top traders and managers in financial institutions (Godechot, 2016, p. 497). With the financialization of accumulation, the nonfinancial sector also finds itself increasing engaged in financial activities. Lin and Tomaskovic-Devey (2013, p. 1294) suggest that nonfinancial corporations' increasing reliance on financial income leads to the reallocation of resources from productive to financial units, which raises the incomes of elite workers at the expense of unskilled workers (see also Kus 2013, p. 485).

An extensive body of evidence has found a linkage between shareholder value and rising top income shares. Focusing on the USA, Shin (2014) analyzes the relationship between CEO compensation and an index of shareholder value orientation, which combines measures of institutional ownership, board independence and the percentage of incentive pay in CEO remuneration. Shin demonstrates that US firms with a greater orientation toward shareholder value pay their CEOs more. There is also a temporal dimension to the analysis: when US firms strengthen their commitment to shareholder value, the pay of their CEOs increases the following year. Jung (2015, p. 1362) also finds that large US corporations with block-holding institutional investors and shareholder-value-oriented managers are more likely to engage in downsizing. A cross-national study reveals a significant gap between

CEO pay in the USA relative to other countries (Fernandes *et al.*, 2013). The authors attribute higher executive compensation in the USA to the 'shareholder-centric' nature of US corporate governance, which is proxied by institutional ownership and board independence.<sup>6</sup> What is more, the study also finds that CEOs of non-US firms that have adopted shareholder value strategies tend to receive higher remuneration. As Table 2 indicates, top incomes have been found to be positively and significantly correlated with dividend payments to shareholders (Dünhaupt, 2014; Godechot, 2016).

What about the financialization of the regime of accumulation? Cross-national studies offer conflicting assessments of the relationship between the financial sector's share of profits and top incomes (Flaherty, 2015; Godechot, 2016; cf. Huber *et al.*, 2017, p. 17). As Godechot (2016, p. 495) points out, however, top salaries in the financial sector drive earnings inequality in the USA, France and the UK (see also Godechot, 2012).

Evidence on the relationship between the financialization of nonfinancial corporations and top incomes is limited. Examining the French case, Ignacio Alvarez (2015) finds that the financial income of nonfinancial corporations is a powerful predictor of declining wage shares. For the USA, Lin and Tomaskovic-Devey (2013) show that increasing financial income for nonfinancial corporations is associated with decreases in labor's share of income, increases in top executives' share of compensation and greater earnings dispersion. Godechot (2016) is the only researcher to make a direct, cross-national link between the financialization of nonfinancial corporations and top income shares and reports no meaningful relationship between the two.

Integrating institutions and financialization into the study of top incomes adds considerable nuance to the classic PRT account. Though it is difficult to generalize beyond the US case, the institutional design of the political system matters to distributive outcomes at the top. Evidence shows that the rise of shareholder value has transformed power relations in the firm, fueling income gains for top managers and shareholders at the expense of workers. The effects of a financialized regime of accumulation have not been as well documented, but salaries in finance have been shown to be a major driver of top-end income concentration.

### 7. The bigger picture

What does the existing literature tell us? Perhaps the most obvious message is that there is no single determining factor that accounts for evolving patterns of top incomes in the advanced political economies over the past few decades. Income inequality is multifaceted and complex, and the evolution of top incomes cannot simply be reduced to market processes. Technological change and globalization may act as powerful forces for concentrating income at the very top. But marked cross-national variation in the share of income going to the top percentile indicates that other factors are at play.

The empirical record consistently shows that government policy plays a pivotal role in shaping top incomes. When marginal income tax rates are slashed, top incomes soar. Yet these variations in policy do not simply emerge out of thin air. While political factors

6 According to Fernandes *et al.* (2013, p. 361), the CEO pay discrepancy between shareholder-centric and non-shareholder-centric firms is due to greater risks incurred by executives in the former. Studies of financialization are more likely to explain rising executive pay in terms of rent extraction and managerial power (see Bivens and Mishel, 2013). are largely exogenous to the framework of Piketty and his collaborators, more holistic, cross-disciplinary, social science perspectives place them at the forefront. This social science literature illustrates the importance of power and politics to distributive outcomes. The strength of left parties and trade unions are two of the most effective predictors of cross-national variation in top incomes, providing forceful evidence in support of PRT in its classical guise. Augmenting classic PRT to take into account financialization and political institutions is especially valuable for tracing the spectacular rise of top incomes in the USA, where the orientation toward shareholder value has resulted in skyrocketing executive pay, and where institutional veto points create conditions for policy gridlock and capture.

What the existing literature reveals is a considerable degree of causal complexity in the evolution of top incomes. At the heart of this causal complexity is a self-reinforcing feedback loop of income and power: increasing income concentration is a power resource for top earners, which they mobilize to shape policy and corporate strategy in their interests, which, in turn, has the effect of further concentrating income at the top (Huber *et al.*, 2017). Existing research offers a rich and detailed account of how this feedback loop operates in the US context, but despite recent efforts, other advanced political economies have not yet been subjected to the same amount of careful scrutiny (Hopkin and Lynch, 2016).

To be sure, the panel-of-countries analyses that dominate the cross-national study of top incomes are illuminating. Though they often generate conflicting results, the empirical record of these studies identify consistently significant causal factors associated with cross-national variation of top incomes. But while these studies specify causal processes that are common across countries, they are less effective in detecting the causal processes that are unique to one country or to small groupings of countries. Thus, future research employing case studies and small-N comparisons has the potential to complement the findings of the panel-of-countries studies in Table 2 by developing a richer and more detailed set of observations on the complex interplay of factors that determine top incomes and their variations across time and space (Hall, 2003, pp. 388–389).

One avenue for future research would be to explore in greater depth how systems of firm governance in different countries affect top incomes. In existing studies, union strength is consistently shown to be one of the most effective predictors of top income shares. These findings offer compelling evidence in favor of classic PRT, but more work needs to be done to explicate the precise causal process at work and how it unfolds in particular institutional contexts. PRT emphasizes the conflictual nature of distributive outcomes. If the presence of strong unions is negatively correlated with top incomes, then the implication for PRT is that workers have successfully resisted managers and shareholders in their attempts to boost executive compensation and dividend payouts.

Yet these firm-level dynamics may involve more than just conflict. According to the 'varieties of capitalism' (VoC) literature, distributive outcomes reflect cooperative relationships that emerge from national skill profiles. Production in coordinated market economies with relatively low inequality requires skills that are industry, firm and/or country-specific (Iversen and Soskice, 2009, p. 445). Since skills-specific production is risky for employees and employers alike, both actively support more egalitarian policies. Insights from both PRT and VoC could therefore be combined to explore the patterns of conflict and cooperation that underpin distributive outcomes at the firm-level (Brazys and Regan, 2017, p. 415). Huber *et al.* (2017, p. 19) speculate that management-labor cooperation may occur on the input side (e.g. skills training), but that a 'fundamental conflict' over firm surplus still characterizes the output side. Strong unions are in a better position to cooperate with management in production but are also able to 'win more often in the contest for the share of the nation's income' (ibid., p. 19). More research into the precise mechanisms of wage bargaining, the setting of executive pay, the role of workers, management and owners in company decision-making will help to flesh out the firm-level dynamics of top income determination.

Another avenue for future research would focus on the policy-making process. As mentioned earlier, Hopkin and Shaw's (2016) study of the UK as a 'most similar' case brings into doubt the generalizability of Hacker and Pierson's (2010) largely institutional account of 'winner-take-all-politics' in the USA. But more in-depth research is needed on the role of government institutions and partisan politics in explaining the evolution of top incomes in 'most different' cases. In other words, the richness and detail of Hacker and Pierson's account of 'winner-take-all-politics' in the USA could be extended to 'winner-take-less-politics' in countries like the Netherlands and Denmark. An analysis of the major events, legislative contestations and historical turning points would garner insights into the limited growth of top incomes in these countries over the past few decades. This exercise would allow researchers to better gauge the extent to which these countries are immune to the policy capture that has allowed interest groups in the USA to shape distributive outcomes in their favor.

Finally, future research efforts would also do well to map the preferences of those at the top of the income hierarchy. In the USA, survey data is now being collected on the political preferences of the top 1% (Page *et al.*, 2013). This preliminary research confirms some of the long-standing assumptions about the US political economy: namely, that the preferences of those at the top differ markedly from the rest of the population, and that policy-making outcomes tend to reflect the interests of the affluent. Research into the political ideology of the directors of S&P 1500 corporations in the USA shows that conservative boards pay CEOs more than liberal boards (Gupta and Wowak, 2016). The extension of this type of research to other countries would help determine whether there are variations in policy preferences at the top in different geographical contexts. If the top percentile's preferences in relatively equal societies are congruent with those below them in the income hierarchy, then this could lend itself to more cooperative relations and egalitarian outcomes within the institutional machinery of both government and firm.

Further research on political preferences would also provide needed sociological depth to categories like the top 1%. Existing studies of top incomes overwhelmingly adopt the traditional class framework of PRT. But rarely do these studies reflect on how well the statistical abstractions of deciles and percentiles translate into the categories of social class (Piketty 2014, p. 252). At the same time, class need not be the only analytical category through which top-end inequality is explored. Preliminary research reveals the heavily racialized and gendered dimensions of the income hierarchy. In the USA, whites make up 91% of the top percentile, but only 69% of the bottom 90% (Keister, 2014, p. 357). Meanwhile, 97.8% of US households in the top percentile are male-led, but only 70% of households in the bottom 90% (Keister and Lee, 2014, pp. 18–19). A picture of the cross-national variations in the gender composition of top incomes is only now starting to emerge (Atkinson *et al.*, 2016). The evidence indicates that women's representation in top income groups has increased over time in advanced political economies. But women still face a 'glass ceiling': they are underrepresented at the top, and their representation in groups at the very top is limited (Atkinson *et al.*, 2016). Cross-nationally, the racial and ethnic dimensions of top incomes are still woefully under-researched.

#### 8. Conclusion

The study of top incomes has made remarkable progress over the past decade. Thanks to the painstaking efforts of Piketty and his collaborators, an impressive collection of primary data on top incomes has now been assembled for many countries over vast stretches of time. What is more, the geographical and temporal scope of the data on top incomes are being constantly expanded, and the statistical techniques ever-more refined. The spectacular successes of these empirical research efforts point to the growing public interest in income inequality as one of the defining features of contemporary capitalism.

Piketty and his collaborators offer an impressive account of *how* top incomes have evolved across time and space. Yet when it comes to the pivotal question of *why* continued diversity in top incomes still exists across the advanced capitalist world, Piketty's analysis falls short because it treats politics as exogenous. Much of the analytical heavy-lifting has thus been done by other researchers who have systematically uncovered a complex interplay of social and political factors that shape distributive outcomes at the top.

Despite the proliferation of research on top incomes in recent years, there is still ample room for further exploration. The extension of in-depth case study research beyond the US experience would aid our understanding of the causal processes at work in the determination of top incomes in various national contexts. Given what is at stake, researchers should feel plenty of motivation to undertake further in-depth research of top income shares. After all, rising income inequality comes with serious consequences. The better the grasp researchers have of the causes of top-end income concentration, the more effective they will be in assessing what, if anything, can be done to slow or even reverse it.

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