Financial Exceptionalism?
Employment, Earnings and Inequality

By OLIVER DENK*

Is the labor market for finance different from other labor markets? I bring together international evidence on employment, earnings and inequality and contrast finance with other industries. Finance is a small sector in most advanced economies, and its employment share has remained steady over the past quarter-century. With respect to many other employment characteristics, however, finance is special. Financial sector workers have higher earnings; receive more of their pay in bonuses; are disproportionately represented among the top 1 percent; earn large wage premiums; and raise labor income inequality.

* Denk: Organisation for Economic Co-operation and Development (OECD), Economics Department, 2 rue André Pascal, 75775 Paris CEDEX 16, France (e-mail: Oliver.Denk@oecd.org). This draft: December 2016. I would like to thank Priscilla Fialho and Peter Hoeller for valuable comments on the paper. The analyses reported have benefited from countless discussions with numerous people over the past four years; I am particularly grateful to Boris Cournède and Peter Hoeller, my co-authors on several occasions. The views expressed in the paper are my own and not necessarily shared by the OECD or its member countries.

Have employment trends in advanced economies been different for finance than other industries? How do earnings in finance compare with those elsewhere? And does financial sector employment influence earnings inequality? These are the central questions I shed light on in this paper. The paper takes a bird's-eye view, contrasting trends and patterns across advanced countries, with a particular focus on Europe.

A good understanding of the role of the financial sector labor market in modern economies is important. The popular presumption seems to be that financial sector employment and pay are "too high". Salaries and bonuses in finance feature for example regularly in debates on inequality, particularly since the global financial crisis. Growth of financial sector employment and overly high pay in finance, if true, can reduce welfare, by misallocating labor in the economy and redistributing consumption to high-earning financial sector workers.

The main findings are as follows. First, the financial industry is a small sector in most countries and financial sector employment has remained constant over the past quarter-century. Second, workers in finance are paid more than workers in other industries and they are concentrated at the top of the earnings distribution. Third, financial sector employment increases labor income inequality, offsetting 6.5 percent of all redistribution through the tax-and-transfer system. Several of these results draw on relevant findings from my own earlier research (Cournède, Denk and Hoeller 2015; Denk 2015a, 2015b).

The paper is composed of three main sections. Section I compares employment in finance across countries and time. Section II contrasts earnings in finance with those in other industries, with a particular focus on top earners. Section III presents estimates on the wage premium in finance and the contribution of financial sector employment to labor income inequality. The final section offers a brief conclusion.

I. Employment

This section looks at the employment share of finance, i.e. the share of workers in finance, drawing on work with Boris Cournède and Peter Hoeller (Cournède, Denk and Hoeller 2015). Advanced countries are taken to be OECD countries. The data come from two industry-level sources: the EU- and WORLD-KLEMS database (O'Mahony and Timmer 2009) and the OECD Structural Analysis (STAN) database. For most countries industries are classified according to ISIC Rev. 4, for the others I use ISIC Rev. 3. The definition of finance is the same with both classifications, so this does not come with a drawback. The data end in 2011, with neither of the two data sources having been updated since. Where country data are available in both databases, EU/WORLD-KLEMS is preferred due to its larger coverage (more countries and more years). Finance includes workers in banks, insurance companies and other financial institutions.

Data are available for 21 countries since 1970. Taking the unweighted average of these countries shows that the employment share of finance increased between 1970 and 1990, from 2.2 to 3.4 percent (Figure 1). Since then, the employment share stayed broadly flat, attaining 3.5 percent in 2011. Individual economies display a similar pattern. Financial sector employment is higher in the United States than in the OECD on average, but it has declined somewhat since its peak in the late 1980s. A similar decline can be observed for the United Kingdom, where employment in finance peaked in the early 1990s. The employment share in the euro area behaved virtually the same as in the OECD as a whole. Japan is the only economy among these four, in which financial sector employment has recently increased, albeit after an earlier decline.

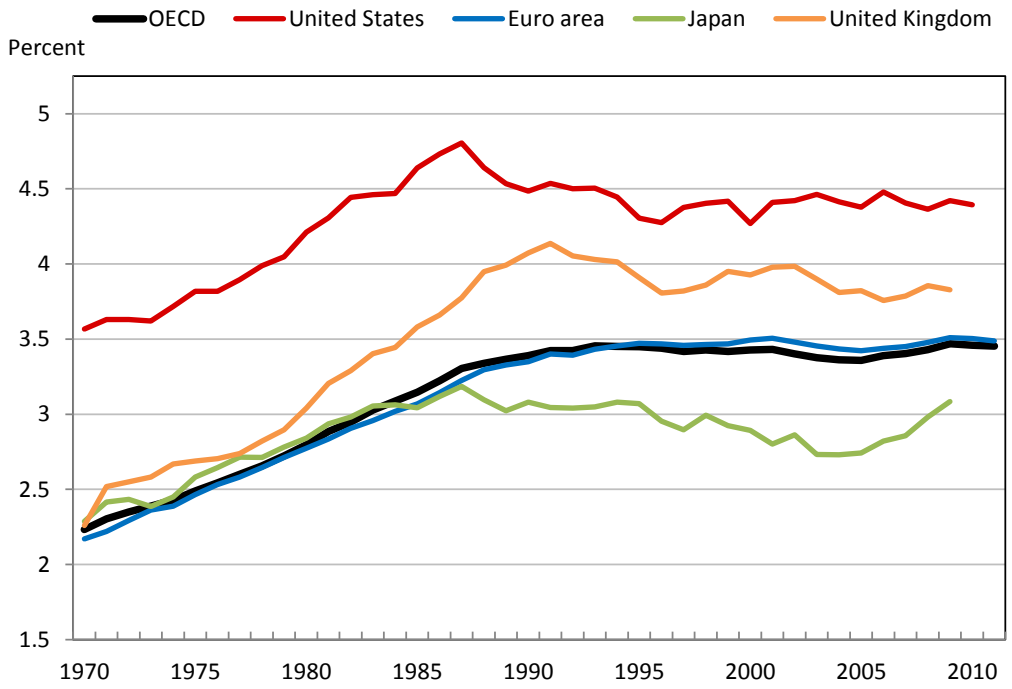

FIGURE 1. THE EMPLOYMENT SHARE OF FINANCE OVER TIME

Notes: The employment share of finance is the number of people working in finance as a percent of total employment. Data are based on ISIC Rev. 4 if available, ISIC Rev. 3 otherwise. Finance includes banks, insurance companies and other financial institutions. Estimations are based on Cournède, Denk and Hoeller (2015) using EU/WORLD-KLEMS database and OECD STAN database.

Finance is a small industry in nearly all countries (Figure 2). The sole exception is Luxembourg, where 11 percent of workers are in finance. Next in the ranking are five Anglo-Saxon countries: Canada, Ireland, the United States, Australia and the United Kingdom. At the other end of the scale are five European countries, three of which in Eastern Europe: Portugal, Finland, the Slovak Republic, Estonia and the Czech Republic. Excluding Luxembourg, the employment share of finance varies from 1½ percent in Portugal to 4½ percent in Canada. The small size of the industry implies that wage differences of finance with other industries have to be very large for financial sector employment to have a measurable effect on the earnings distribution.

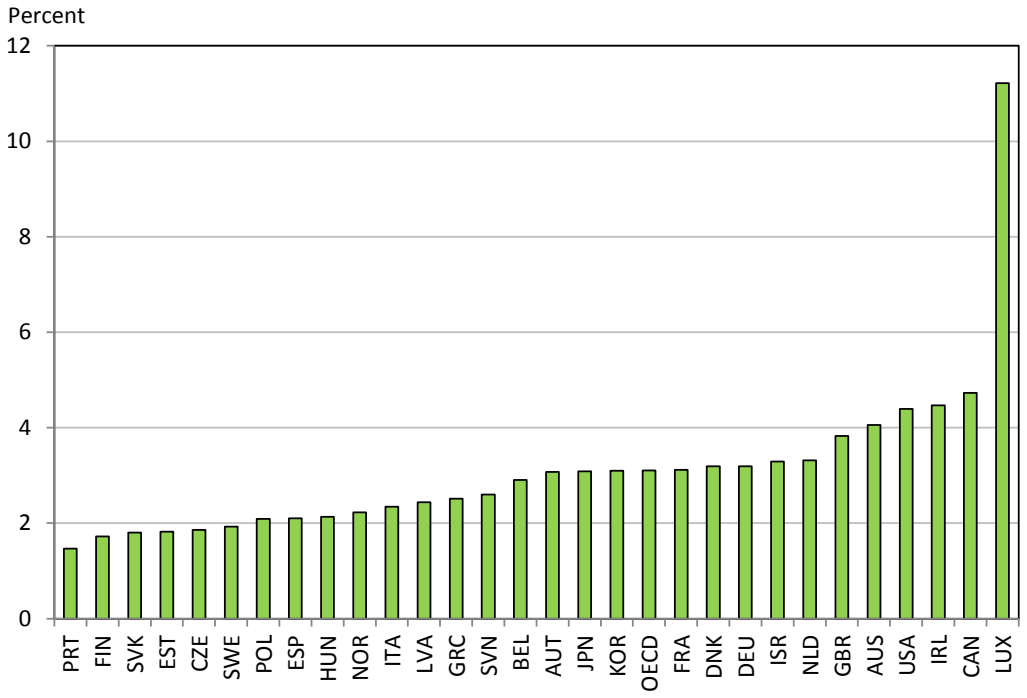

FIGURE 2. THE EMPLOYMENT SHARE OF FINANCE ACROSS COUNTRIES

Notes: The employment share of finance is the number of people working in finance as a percent of total employment. Data are based on ISIC Rev. 4 if available, ISIC Rev. 3 otherwise. Finance includes banks, insurance companies and other financial institutions. The year of observation varies between 2006 and 2012, depending on data availability. Estimations are based on Cournède, Denk and Hoeller (2015) using EU/WORLD-KLEMS database and OECD STAN database.

II. Earnings

This section uses European data to compare earnings and their composition (salaries and bonuses) between finance and other industries. Data beyond Europe are not available in harmonized form across countries. The data source I use is the Eurostat Structure of Earnings Survey (SES) from 2010. This is an employer-based survey and so excludes the self-employed. The main variable of interest is annual labor earnings before taxes and social security contributions. The focus is on full-time employees. Denk (2015a) provides details on the data construction.

In every European country, earnings per employee are much higher in finance than other industries (sum of the blue and red portions of the bar in Figure 3).

This is the same finding as for the United States (Philippon and Reshef 2012). Taking the unweighted average across countries, the average financial sector employee earns 65 percent more than the average worker outside finance. This earnings difference exhibits some variation across countries, ranging from 29 percent in Finland to 109 percent in Portugal. Bonuses take a larger fraction in total labor income for finance (14 percent) than other industries (8 percent).

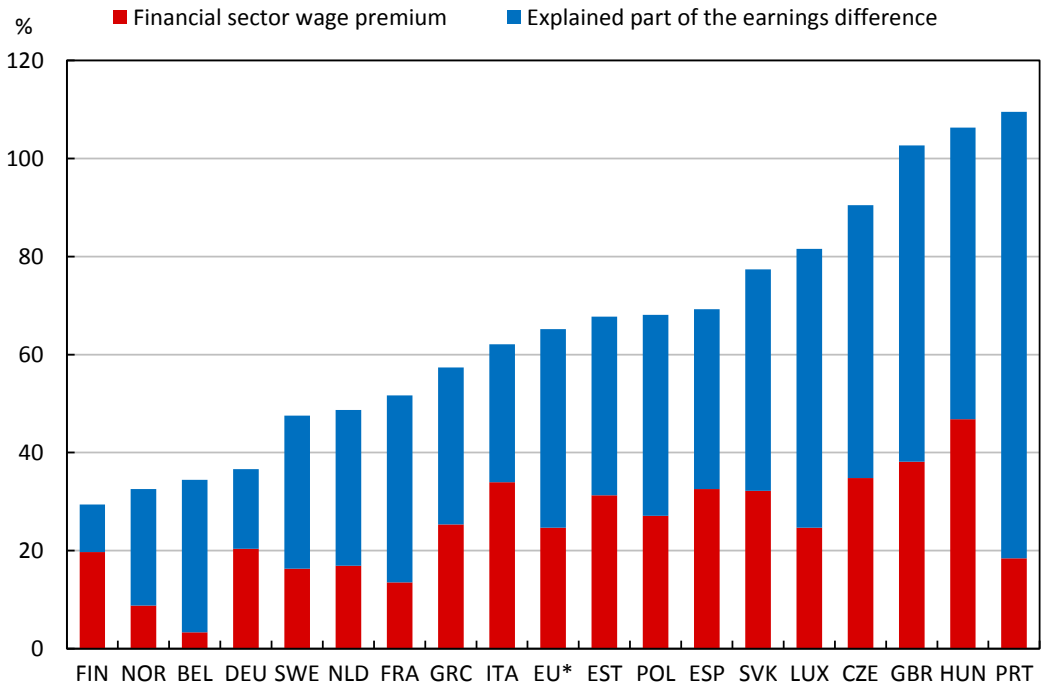

FIGURE 3. THE EARNINGS DIFFERENCE BETWEEN FINANCE AND OTHER INDUSTRIES

Notes: The earnings difference is the percentage by which average earnings in finance exceed those in other industries. The blue portion of the bar indicates the reduction in the earnings difference when controlling for composition effects due to age, gender, education, length of firm tenure, employees in the firm, geographical location of the firm, type of financial control, level of wage bargaining, type of employment contract, number of overtime hours paid and occupation. The red portion of the bar indicates the residual earnings difference or financial sector wage premium. The year of observation is 2010 (2006 for Germany). Finance includes banks, insurance companies and other financial institutions. Estimations are based on Denk (2015a) using Eurostat Structure of Earnings Survey.

Another way of illustrating how much higher earnings in finance are than elsewhere is to plot the share of financial sector employees across the earnings distribution. I divide the earnings distribution in 100 percentiles and calculate the share of financial sector employment in each percentile (Figure 4). The share of

financial sector employees rises along the earnings distribution in an exponential manner, with increases becoming particularly large towards the top. In this micro-dataset, finance makes up 4 percent of total employment – the equivalent figure is less than 1 percent for the bottom 20 percent in the earnings distribution, 13 percent for the following 8 deciles except the top 1 percent and 19 percent for the top 1 percent. Denk (2015a) shows the analogous graph for each of the 18 countries in the sample.

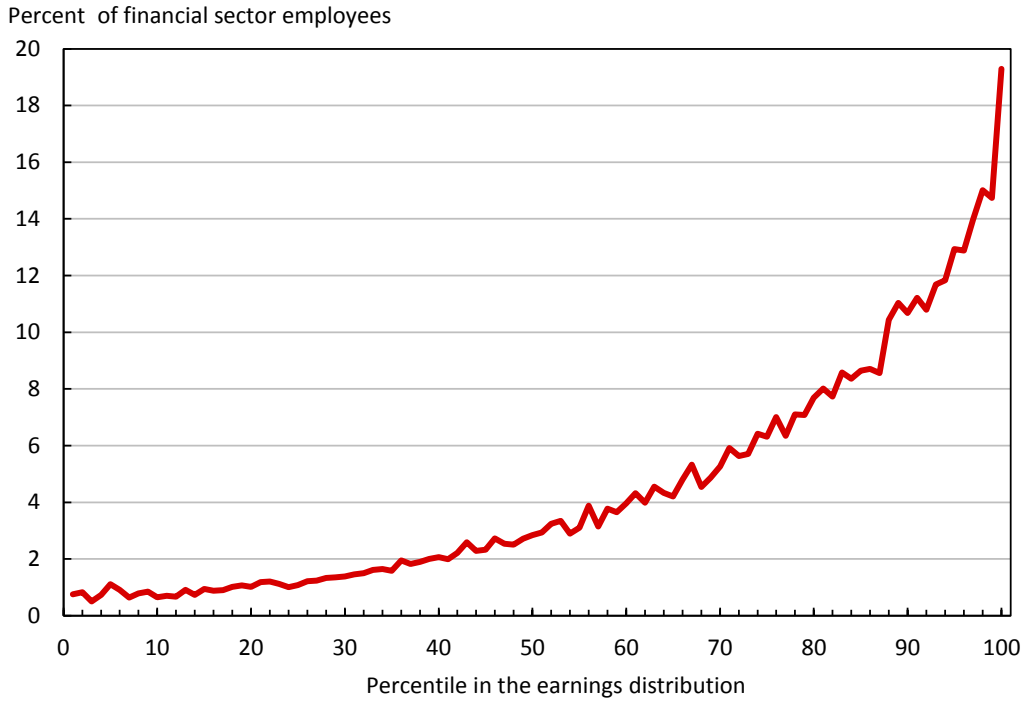

FIGURE 4. FINANCIAL SECTOR EMPLOYEES IN THE EARNINGS DISTRIBUTION

Notes: The figure shows the share of financial sector employees in each percentile of the earnings distribution. The line is constructed from the unweighted average of 18 European countries. The year of observation is 2010 (2006 for Germany). Finance includes banks, insurance companies and other financial institutions. Estimations are based on Denk (2015a) using Eurostat Structure of Earnings Survey.

Hence, financial sector workers are particularly strongly represented at the top of the earnings scale. In Denk (2015b), I characterize the industry composition of the 1 percent highest paid employees in European countries. This sample is also based on the SES, but results differ slightly as it includes part-time employees.

Finance is the industry with the most employees among the top 1 percent, followed by manufacturing and wholesale & retail (Figure 5). However, what distinguishes finance from manufacturing and wholesale & retail is that it is a smaller industry than these two. Conditional on being in finance, the probability of earning a top 1 percent labor income is 3.8 percent for a financial sector worker. The equivalent number is 0.9 percent for a worker in manufacturing or wholesale & retail. Denk (2015b) shows the analogous graph for each of the 18 countries in the sample.

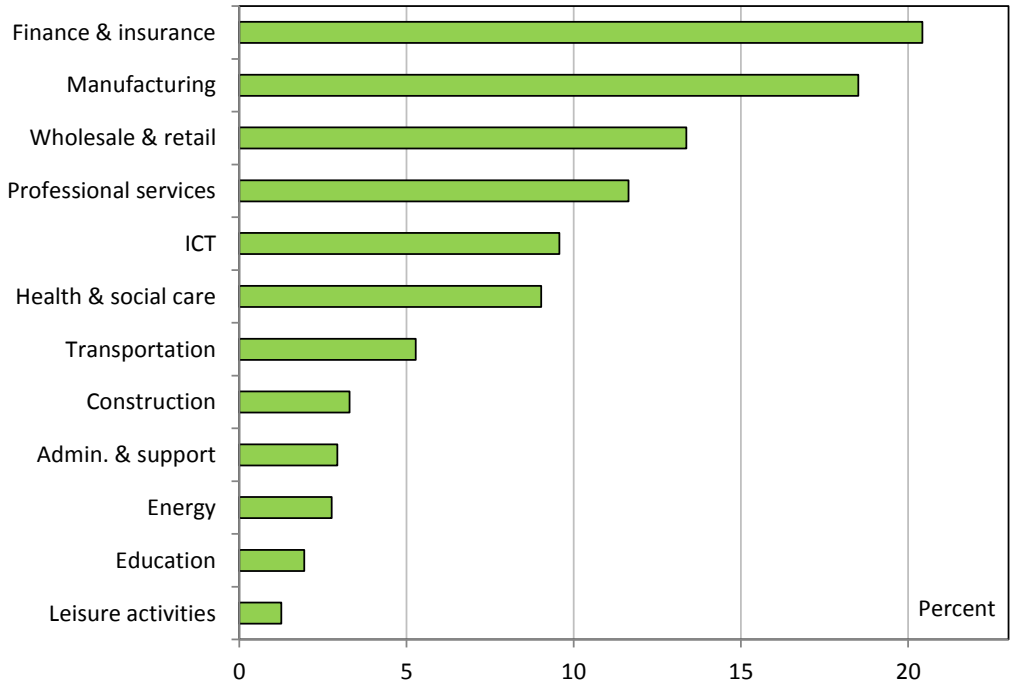

FIGURE 5. THE INDUSTRY COMPOSITION OF THE TOP 1 PERCENT

Notes: The figure shows the share of employees in each industry among the top 1 percent earners. The bars are constructed from the unweighted average of 17 European countries. The year of observation is 2010. Finance includes banks, insurance companies and other financial institutions. Estimations are based on Denk (2015b) using Eurostat Structure of Earnings Survey.

III. Inequality

At least part of the much higher earnings of financial sector workers is likely to be explained by better skills of the workers, the geographical location where they work and so on. If the entire difference between financial sector earnings and earnings elsewhere is explained by such composition effects, finance effectively does not contribute to labor income inequality. In an accounting sense, finance accounts for some part of earnings inequality. However, in an economic sense, it would not, since if these workers were employed in another industry they would earn the same, and hence labor income inequality would be unchanged.

For finance to contribute to labor income inequality, a financial sector employee would therefore have to earn more in finance than elsewhere. If he did not work in finance, he would earn less. This in turn would reduce labor income inequality since, as the preceding section showed, many financial sector workers are higher up in the earnings distribution. Essentially, removing such a so-called financial sector wage premium would take away more from high-income earnings than low-income earnings, since there are more financial sector workers among high- than low-income earners.

In Denk (2015a), I run regressions of the natural logarithm of annual labor earnings based on the same dataset as in Figures 3 and 4 controlling for a very wide range of observable characteristics: age, gender, education, length of firm tenure, geographical location of the firm and many others. The average wage premium is 25 percent of earnings (the red portion of the bar in Figure 3). It varies from 3 percent in Belgium to 47 percent in Hungary.

Summarizing the analysis so far, financial sector employment increases labor income inequality due to the simultaneity of the concentration of financial sector workers at the top of the distribution and the existence of a financial sector wage premium. This mechanism is reinforced due to the financial sector wage premium

rising along the earnings distribution, which gives high-income financial sector workers a larger boost from working in finance than low-income financial sector workers (Denk, 2015a). For financial sector employees in the bottom half of the earnings distribution, the wage premium is around 15 percent (Figure 6). The wage premium then increases along the earnings distribution and reaches close to 40 percent for financial sector workers among the top 10 percent. The financial sector wage premium is therefore at its maximum precisely at the point of the earnings distribution, where earnings are highest and the proportion of financial sector workers is largest.

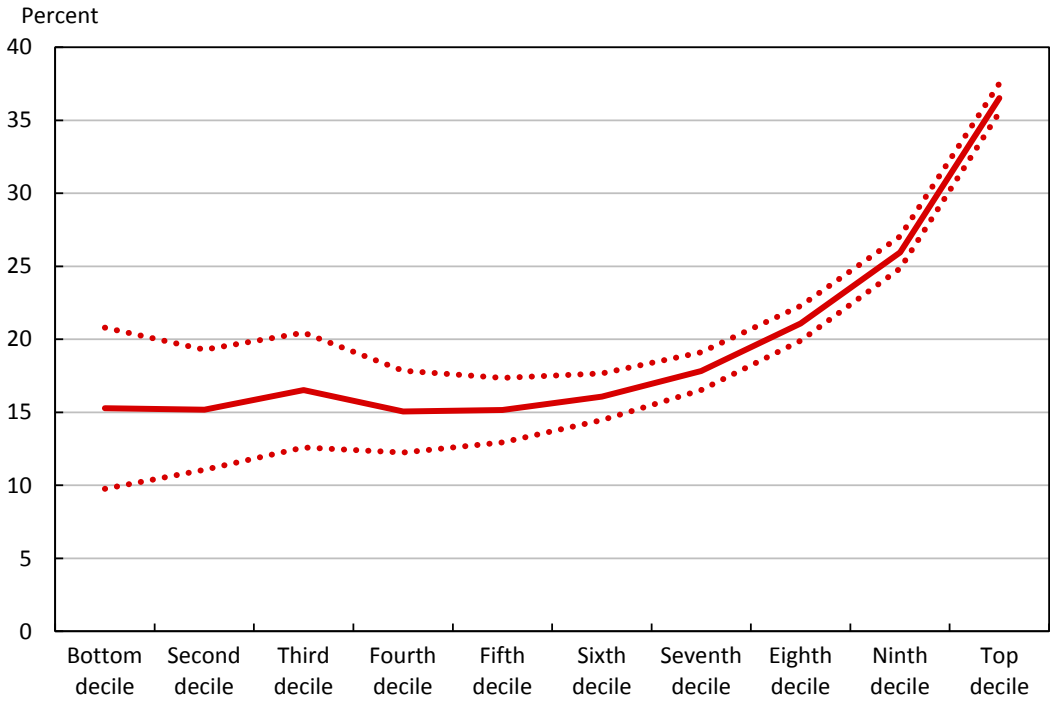

FIGURE 6. THE FINANCIAL SECTOR WAGE PREMIUM ALONG THE EARNINGS DISTRIBUTION

Notes: The financial sector wage premium is the percentage by which average earnings in finance exceed those in other industries, after controlling for composition effects due to age, gender, education, length of firm tenure, employees in the firm, geographical location of the firm, type of financial control, level of wage bargaining, type of employment contract, number of overtime hours paid and occupation. The three lines are constructed from unweighted averages of 18 European countries; the dotted ones indicate the 90 percent confidence band. The year of observation is 2010 (2006 for Germany). Finance includes banks, insurance companies and other financial institutions. Estimations are based on Denk (2015a) using Eurostat Structure of Earnings Survey.

Finance therefore contributes to labor income inequality in an economic sense through the wage premium, an effect that is further exacerbated by the rise of the wage premium along the earnings distribution, and the concentration of financial sector workers at the high end of the distribution. In Denk (2015a), I use the Gini coefficient to estimate the effect of the wage premium on earnings inequality. The Gini coefficient is a common inequality measure that scores 0 when everybody has the same income and 1 when all the income goes to only one person. On average across European countries, the financial sector wage premium contributes 0.65 Gini points to the Gini coefficient. This is not huge, but neither can it be discarded as insignificant. It contrasts, for example, with a reduction in the Gini coefficient due to all redistribution through taxes and transfers by 10 Gini points. Further, the Gini coefficient tends to downplay income patterns at the extremes of the distribution, so this metric may not capture all of the effects.

IV. Conclusion

Finance is special in that few workers work in finance, but those who do tend to earn a lot, and as I argued unjustifiably so. The result is that one in five of the top 1 percent earners in Europe works in finance, even though the industry makes up only 4 percent of the overall work force. Excessive financial sector pay can have real economic consequences. It increases labor income inequality at the top and therefore redistributes consumption to high-earning employees in finance.

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