

Explaining the Evolution of Income Inequality

# Can fiscal redistribution undo skill-biased technical change?

## Evidence from the French experience

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**Abstract**

The inequality of labor earnings among working-age individuals has gone up in all western countries during the past 25 years, either through rising wage inequality (US, UK) or through rising unemployment (Continental Europe). Policy regimes did matter a great deal, however, as far as the inequality of disposable income is concerned. In a country like France, transfers to the unemployed were sufficiently massive to prevent income inequality from rising. This paper argues that the way fiscal redistribution has managed to counteract skill-biased technical change in countries like France is somewhat paradoxical. The same distributive stability could have been obtained at a lower cost by following a job subsidies strategy rather than an income maintenance strategy, simply because it is always less costly to have people at work producing something. We explore several potential explanations for this paradox. © 1999 Published by Elsevier Science B.V. All rights reserved.

*JEL classification:* E24; H21; I38

*Keywords:* Unemployment; Income inequality; Job subsidies

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## 1. Introduction

The inequality of labor earnings among working-age individuals has been rising at a very high rate in all western countries during the past 25 years. This has occurred not only in the United States and the United Kingdom, where this phenomenon has taken the well-known form of rising wage inequality among employed individuals, but also in Continental European countries, where it has mostly taken the form of rising unemployment and under-employment. The fact that such a phenomenon of rising earnings inequality has occurred in all countries, irrespective of policy regimes, strongly suggests the existence of a common cause. The theory of skill-biased technical change, although it often looks like a ‘black box’, has the merit to point out the type of ‘universal’, structural factors that might have been at work. The point is that all western countries have gone through the same basic transformation of their productive systems during the past 25 years, with the decline of manufacturing employment and the shift to the services, and that this transformation has been accompanied in all those countries by the rise of inequality among would-be workers.

Policy regimes did matter a great deal, however, as far as the inequality of disposable income is concerned. While tax and transfer policy changes in the US and in the UK did tend to amplify the phenomenon of rising earnings inequality, most Continental European countries managed on the contrary to counteract this trend. This is exemplified by the case of France, where the distribution of disposable income has been remarkably stable during the past 25 years, as Fig. 1 illustrates. The inequality measure used in Fig. 1 is crude, but it is telling: Fig. 1 shows plots of the income share of the top 10% of the taxpayer distribution of taxable income (which we note ‘P90-100’), the share of the top 5% (‘P95-100’), the share of the top 1% (‘P99-100’) and the share of the top 0.5% (‘P99.5-100’). The striking fact is the remarkable stability of those figures. Over the entire 1970–1996 period, P90-100 fluctuates around 33–34%, P95-100 fluctuates around 22–23%, P99-100 fluctuates around 8–9% and P99.5-100 fluctuates around 5–6%. Nominal taxable income has been multiplied by 10 over this period, and real taxable income has almost doubled, but its distribution has remained virtually unchanged. Income concentration was somewhat declining during the 1970s and somewhat rising during the 1980s–1990s, but both trends are extremely small.<sup>1</sup> In contrast, the rise of income concentration observed in

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<sup>1</sup> These figures refer to the distribution of taxable income among taxpayers, and therefore exclude a number of social transfers (unemployment benefits are taxable, but family benefits and safety nets, such as the ‘RMI’, are not), which suggest that the small upward trend observed during the 1980s and 1990s would probably be even smaller if all components of disposable income were taken into account. All figures refer to pre-income-tax, net-of-payroll-tax taxable income, but changes in income tax burdens over the period are far too small to alter any of the conclusions.

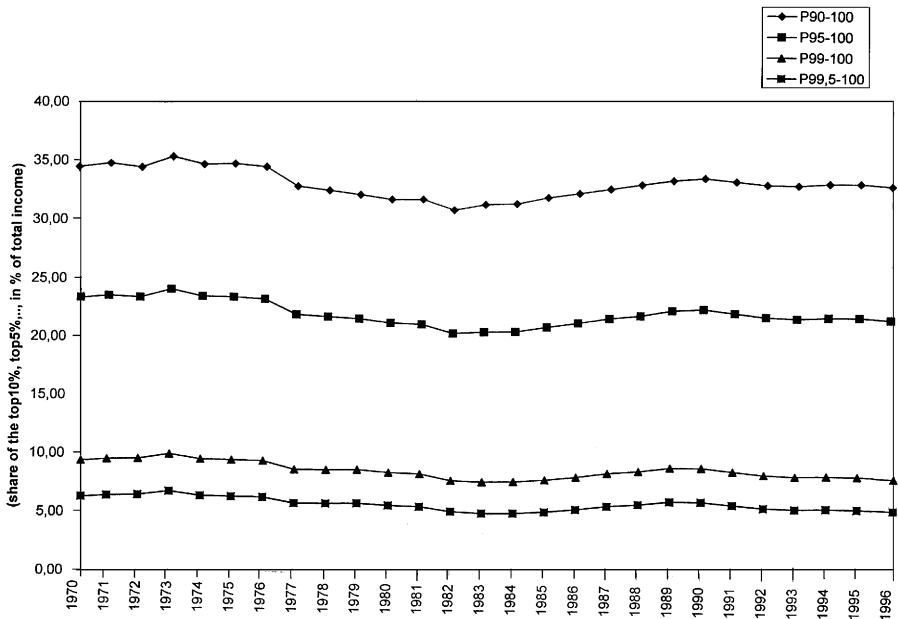


Fig. 1. Income inequality in France from 1970 to 1996.

Source: Author's computation based on annual tax returns data (see Piketty (1988, Tables 3-3, p. 27)).

the U.S. and in the U.K. is of a much larger magnitude. For instance, by using a similar kind of data, Feenberg and Poterba (1993) have shown that the income share of the top 0.5% of the U.S. taxpayer distribution of taxable income has gone up from around 6% in the late 1970s to 12% in the late 1980s. While the 1980s and 1990s have been years of exploding income inequality in the US, these decades have been characterized by a stable income distribution in France. This basic fact is confirmed if one uses inequality measures that take into account, in a better manner, the bottom part of the distribution. For instance, the interdecile ratio P90/P10 of the household distribution of disposable income per consumption unit has gone up from 4.9 in 1979 to 5.9 in 1986 in the US, while it has been extremely stable (around 3.5) in France.<sup>2</sup>

What is remarkable is that the French income distribution has been extremely stable despite the fact that the unemployment rate has grown from less than 3%

<sup>2</sup> See Atkinson et al. (1995, pp. 40, 47). Since the early 1990s, the P90/P10 ratio seems to exhibit a slight upward trend in France, but its size is so small that it is 'very close to the precision limits of the statistical measure' (see INSEE, 1996, pp. 36–37).

in the early 1970s to more than 12% in 1996, while no such upward trend occurred in the US. Moreover, unemployment rates measure only part of the under-employment situation in France. The France/US gap is indeed even more spectacular if one looks at employment rates: employment–population ratios were virtually identical in France and in the US in 1970 (64.6% in France, 64.4% in the US), but by 1996 the US ratio (73.6%) had become almost 25% higher than the French ratio (58.5%), although female participation has gone up in similar proportions in both countries.<sup>3</sup> Using the French household income surveys run by INSEE in 1979, 1984, 1989 and 1994, Bourguignon and Martinez (1997) have shown that the inequality of primary incomes among working-age households has grown substantially in France since the late 1970s. That is, the rise of social transfers (financed by the continuous rise of the tax burden paid by employed workers and firms) is entirely responsible for the relative stability of the distribution of disposable income: without those transfers, disposable income inequality would have gone up at a comparable rate in France and in the US. Unemployment benefits are the single largest category of such transfers: alone, they currently sum up to about 3% of GNP. Various safety nets, such as the universal minimum income scheme created in 1988 (the ‘RMI’), which is currently received by more than one million households (for a total of about 23 million households in France), have also contributed to counteract the rise of primary income inequality, especially regarding individuals who are no longer entitled to unemployment benefits.<sup>4</sup>

What can be learned from this French experience? One interpretation would be that fiscal redistribution has managed to beat skill-biased technical change. In this paper, however, we argue that the way fiscal redistribution has done so is somewhat paradoxical. The same stability of the income distribution could have been obtained at a lower cost by using a ‘job subsidies’ strategy rather than an ‘income maintenance’ strategy, simply because it is less costly to keep disposable income inequality stable by having everybody at work producing something rather than by having a large fraction of the labor force out of work. The aim of this paper is to describe this paradox and to suggest a number of potential explanations. Section 2 describes a simple model showing why the job subsidies strategy is very likely to be superior to the income maintenance strategy. Section 3 then explores the reasons why policy-makers and society as a whole did choose to adopt the income maintenance strategy.

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<sup>3</sup> See Piketty (1997b, p. 49, note 12). These figures refer to the ratio between total employment and the 15-to-64-year-old population.

<sup>4</sup> The ‘RMI’ is the most visible safety net in France, but it is far from being the only one: for instance, the invalidity benefit (AAH) has nearly 600,000 recipients and the single-parent minimum-income scheme (API) has more than 150,000 recipients (it is difficult to determine the total number of recipients of the various pre-retirement schemes, but it probably represents over 500,000 individuals in their 50s).

## 2. A simple model of fiscal redistribution and skill-biased technical change

Consider the following simple model. Assume that the labor force is divided into a fraction  $m_L$  of low-skill workers and a fraction  $m_H$  of high-skill workers ( $m_L + m_H = 1$ ).<sup>5</sup> Workers can be unemployed ( $m_0$ ), or they can be employed in a low-skill job ( $m_1$ ) or in a high-skill job ( $m_2$ ) ( $m_0 + m_1 + m_2 = 1$ ). Low-skill workers can only take low-skill jobs. Production is given by a standard, constant-returns-to-scale production function  $F(m_1, m_2)$ .<sup>6</sup> We note  $w_1$  and  $w_2$  the total labor costs associated to low-skill and high-skill jobs, and  $y_0$ ,  $y_1$  and  $y_2$  the net incomes of unemployed workers, workers employed in low-skill jobs and workers employed in high-skill jobs. Assume that, in the initial situation, the production function  $F(m_1, m_2)$  and the labor costs  $w_1$  and  $w_2$  are such that full employment prevails:  $F_1(m_L, m_H) = w_1$  and  $F_2(m_L, m_H) = w_2$ , so that  $m_0 = 0$ ,  $m_1 = m_L$  and  $m_2 = m_H$ . Net incomes  $y_1$  and  $y_2$  are related to labor costs  $w_1$  and  $w_2$  by a tax rate  $t$ , which includes payroll and other taxes, the revenues of which are used to finance some public good  $g$  (i.e.  $g = t(m_L w_1 + m_H w_2) = tF(m_L, m_H)$ ,  $y_1 = (1 - t)w_1$  and  $y_2 = (1 - t)w_2$ ).

Assume that skill-biased technical change can be described by a shift in the production function such that the new production  $G(m_1, m_2)$  exhibits lower marginal returns to low-skill labor than the initial production function  $F(m_1, m_2)$ :  $G_2(m_L, m_H) = w_2$ , but  $G_1(m_L, m_H) = w'_1 < w_1$ .<sup>7</sup> The consequence is that if low-skill labor cost  $w_1$  remains at the same level, then the demand for low-skill labor will decline and low-skill unemployment will go up. If low-skill labor cost fully adjusts downwards so as to restore full-employment equilibrium on the labor market (i.e.  $w_1$  goes all the way down to  $w'_1$ ) and the tax/transfer system is unchanged, then income inequality goes up: public spendings  $g' = t(m_L w'_1 + m_H w_2) = tG(m_L, m_H)$  go down,  $y'_1 = (1 - t)w'_1$  goes down and  $y'_2 = (1 - t)w_2$  remains at the same level, so that both  $y'_2/y'_1 > y_2/y_1$  and  $y'_2 - y'_1 > y_2 - y_1$ . This is roughly what happened in countries like the US and the UK.

<sup>5</sup> For the time being, we take labor supply as inelastic (see Section 3 below).

<sup>6</sup> For simplicity, we ignore the capital input. All results can easily be extended to a model with capital as long as capital income can be taxed in the same way as skilled labor. If capital income cannot be taxed (for instance because of tax competition in Europe; see Section 3 below), the results can be different: in case job subsidies lead employers to create very few extra jobs and to boost their profits (rather than high-skill labor compensation) and these extra profits cannot be taxed away, then the income maintenance might be superior to job subsidies.

<sup>7</sup> In practice, it would be more realistic to assume that skill-biased technical change is such that the marginal product of high-skill labor has increased while the marginal product of low-skill labor has remained at the same absolute level (or at least did not increase as much). This is just a question of scaling up all variables by a constant factor, and this can easily be integrated into the formal analysis.

Assume however that the government does not want to let the market process lead to such a rise of income inequality. There are two strategies to prevent income inequality from rising: the income maintenance strategy and the job subsidies strategy (or any mixture of the two). In the income-maintenance strategy, low-skill labor cost is forced to remain at the same level  $w_1$  (via unchanged payroll taxes and a rigid minimum wage and/or collective agreements between unions and employers). Consequently, low-skill labor demand drops from  $m_L$  to  $m'_L < m_L$  such that  $G_1(m'_L, m_H) = w_1$ . We now have  $m_0 = m_L - m'_L$ ,  $m_1 = m'_L$  and  $m_2 = m_H$ , i.e. the unemployment rate has gone up from 0 to  $m_L - m'_L > 0$ . Assuming that the elasticity of substitution between low- and high-skill labor is not infinite, complementarity between the two types of labor implies that the marginal product of high-skill labor needs to go down from  $w_2 = G_2(m_L, m_H)$  to  $w'_2 = G_2(m'_L, m_H) < w_2$ .<sup>8</sup> Output goes down to  $Y_{IM} = m'_L w_1 + m_H w'_2 = G(m'_L, m_H)$ . In order to avoid the unemployment-induced rise of income inequality, the government needs to raise the tax rate from  $t$  to  $t'$  in order to finance a transfer  $y_0$  to the unemployed. If the government wants to guarantee to low-skill unemployed workers the same income level as that of low-skill employed workers, and if he wants at the same time to maintain the same ratio  $y'_2/y'_1 = w_2/w_1$  as in the initial situation and the same ratio of public spendings  $g' = tG(m_L, m_H)$ , then  $t'$  must satisfy  $t'(m'_L w_1 + m_H w'_2) = t(m_L w_1 + m_H w_2) + (m_L - m'_L)(1 - t)w_1$ . This is roughly what happened during the 1980s and 1990s in a country like France, except that in practice the income level of the unemployed  $y_0$  has been lower than the income level of low-skill employed workers  $y'_1$  (although not that much lower), which explains why income inequality has increased a little bit.

In the job subsidies strategy, the government lets the low-skill labor cost adjust to its new equilibrium value  $w'_1 < w_1$ , so that full employment is preserved ( $m_0 = 0$ ,  $m_1 = m_L$  and  $m_2 = m_H$ ) and output  $Y_{JS} = m_L w'_1 + m_H w_2 = G(m_L, m_H)$  is larger than the income-maintenance output  $Y_{IM} = m'_L w_1 + m_H w'_2 = G(m'_L, m_H)$ . In order to avoid the market-induced rise of income inequality, the government cuts the tax rate on low-skill labor from  $t$  to  $t_L < t$ , so that the net income of low-skill workers  $(1 - t_L)w'_1$  does not decline (or at least does not decline all the way from  $(1 - t)w_1$  to  $(1 - t)w'_1$ ), and raises the tax rate on high-skill labor from  $t$  to  $t_H > t$ , so that the funding for public spendings does not decline (or at least does not decline too much). For instance, if the government wants to maintain the same ratio  $y'_2/y'_1 = w_2/w_1$  as in the initial situation and the same level of public spendings  $g' = tG(m_L, m_H)$ , then  $t_L$  and  $t_H$  must satisfy  $(1 - t_H)/(1 - t_L) = w'_1/w_1$  and  $t_L m_L w'_1 + t_H m_H w_2 = t(m_L w_1 + m_H w_2)$ . Since the job subsidies output  $Y_{JS}$  is larger than the income maintenance output

<sup>8</sup> For instance, if  $G(m_1, m_2) = (\mu m_1^{(\sigma-1)/\sigma} + (1 - \mu)m_2^{(\sigma-1)/\sigma})^{\sigma/(\sigma-1)}$ , then  $G_{12} > 0$  as long as  $\sigma < +\infty$ .

$Y_{IM}$ , it is obvious that the net income levels  $y'_1$  and  $y'_2$  generated by this objective function are both higher in the wage subsidies strategy than in the income maintenance strategy.

This 'job subsidy' strategy has been advocated by Drèze and Malinvaud in their well-known 'policy initiative for Europe', in which they recommend to finance massive low-wage payroll tax cuts by shifting the tax burden to skilled labor.<sup>9</sup> This strategy has also been endorsed in various ways by many other economists, including mainstream 'Keynesian' macroeconomists.<sup>10</sup> Note that job subsidies need to be 'universal', i.e. to apply to all low-skill jobs (old and new), in order to be efficient: if they apply only to previously unemployed workers, job subsidies simply induce substitution between different types of low-skill workers, with no net job creation. Universal job subsidies are obviously very costly, but the key point is that in equilibrium they are always less costly than the transfers associated to the income maintenance strategy:  $y'_2$  is larger in the job subsidies strategy than in the income maintenance strategy, which means that skilled workers end up with a higher net income when they have to pay for job subsidies to employed unskilled workers than when they have to pay for the transfers to unemployed unskilled workers. This result holds as long as the elasticity of low-skill labor demand is positive, i.e. as long as the marginal product  $w'_1$  is strictly positive (if  $w'_1 = 0$ , then both strategies are equivalent).

The key assumption for this result is that the income maintenance strategy attempts to keep income inequality stable by offering transfer payments  $y_0$  to the unemployed which are set at the same level as the net income  $y'_1$  of employed unskilled workers (or, more generally, not too much below that level). If the income maintenance strategy involved relatively small transfer payments  $y_0$ , then the job subsidies strategy would obviously require to raise the tax burden on high-skill labor, so that it would not Pareto-dominate the income maintenance strategy. But the point is that in a country like France, the transfers associated to the income maintenance strategy have been relatively generous (so as to keep income inequality stable), so that in equilibrium the tax burden on high-skill labor could actually be cut if the transfer money was used to cut low-wage payroll taxes. In other words, assuming that we want to keep income inequality constant, then the efficient, market-friendly way to do it is to counteract the technical-change-induced change in relative labor prices by letting relative prices adjust and by correcting the negative distributive consequences through taxes and transfers, rather than by forcing relative prices to remain the same and by compensating the induced rise in unemployment by income transfers.

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<sup>9</sup> See, e.g., Drèze and Malinvaud (1994).

<sup>10</sup> See, e.g., Phelps (1994) and Blanchard and Fitoussi (1998).

However, this is not the strategy that has been followed by French policy-makers. The financial resources mobilized by successive French governments in order to finance job subsidies and ‘active’ spendings to fight unemployment are of a much smaller magnitude than the resources spent on income transfers to the unemployed. The only attempt to implement universal low-wage payroll tax cuts was initiated in 1993, and the current cost of this program is about 0.4% of GNP, i.e. more than 10 times less than the resources devoted to ‘passive’ spendings. This program was designed so as to minimize its short-term cost: the payroll tax exemption represents about 10% of total labor cost at the level of the minimum wage, but the tax exemption is withdrawn at very high marginal rate, so that employers are back to the statutory payroll tax rate at the level of 1,3 minimum wages. In addition, the specific parameters of this program have been changed every year since it was introduced,<sup>11</sup> and its very existence is strongly debated during every budgetary discussion (this program is generally regarded by French politicians as excessively costly). To the extent that such policies need to be perceived as extremely stable in order to have significant effects on employers’ and consumers’ behavior, this high level of uncertainty probably does not contribute to compensate the relatively modest financial means devoted to this program.

### **3. Why did we use income maintenance rather than job subsidies?**

One simple explanation would be that people in France believe that the elasticity of labor demand is equal to zero (or is close to zero), in which case using the income transfer money in order to finance wage subsidies would be (almost) useless. This explanation is unconvincing, however: we believe that there exists a relative consensus in France (and elsewhere) about the impact of labor costs on job creation. To a large extent, everybody agrees that if French employers and consumers could pay low-skill labor as little as employers do in the US, then they would probably create many more jobs (what is controversial is whether we should do it; see below). In France, labor intensity is particularly low in low-wage sectors such as retail trade and hotels and restaurants: as of 1996, those two sectors alone account for more than half of the total employment/population gap between the two countries.<sup>12</sup> This simple ‘natural

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<sup>11</sup> See CSERC (1996).

<sup>12</sup> See Piketty (1997b) for a systematic study of the evolution of the industry structure of total employment in France and in the US over the course of the century. The employment share of the trade and hotels/restaurant sectors has always been higher in the US than in France, but the gap was quickly narrowing during the 1950s, 1960s and 1970s, and this convergence process has stopped since the late 1970s. In comparison, full convergence has occurred and 1996 employment/population ratios are very similar across the two countries in high-wage sectors (such as business services).



experiment' evidence is consistent with standard econometric estimates of the elasticity of labor demand, which all suggest that the latter is significantly higher than zero, especially as far as low-skill labor is concerned.<sup>13</sup>

A more promising explanation has to do with the transition problem associated to the job subsidies strategy. It is only in the long-run equilibrium that the tax burden imposed on skilled labor in the job subsidies strategy is smaller than in the income maintenance strategy. In the short-run, i.e. before firms and consumers fully adjust to the new relative price structure by creating new low-skill jobs, new financial resources are needed to pay at the same time for the transfers to the unemployed and the low-wage payroll tax cuts. One possibility would be to temporarily raise the tax burden on high-skill labor, before gradually reducing it below its initial level as the new equilibrium is being reached. But this would imply that the net income of high-skill workers does decline in the short-run, and/or that high-skill labor cost goes up (so that some high-skill jobs will be destroyed). Given that low-skill labor demand is more elastic than high-skill labor demand (see above), the net job creation effect of such a policy would probably still be positive in the short-run, as Drèze and Malinvaud have forcefully argued. But such a policy is very difficult to pass for short-lived governments: the political costs are immediate, while the benefits become significant only in the long-run. It is especially easy for political opponents to emphasize the 'retrograde' implications of such a policy: more low-wage jobs, less high-wage jobs, less incentives to acquire skills, etc. In contrast, income transfers to the unemployed grow gradually, at the same rate as the unemployment rate, and their immediate necessity is always felt very strongly by public opinion (jobless workers need to eat . . .). In a sense, no real choice was ever made: although the total financial costs of the income transfer strategy are eventually larger than those associated to wage subsidies, the problem was never raised in these terms.

It is also likely that the budgetary and monetary discipline imposed by European integration did not help: it would have been politically easier (and economically more natural) to finance the short-run deficits implied by massive low-wage payroll tax cuts by issuing debt (or by printing money), rather than by temporarily raising the tax burden on high-skill labor and/or capital income (especially in a context of severe tax competition between European countries to attract capital and skills . . .).

This transition problem is probably part of the explanation. The reason why it cannot be the whole story, however, is because many governments have proven in the past that they were able to mobilize huge financial resources in a very short time when their country had to face a dramatic situation (wars,

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<sup>13</sup> See, e.g., the survey of labor demand elasticity estimates by Hammermesh (1993).

natural disasters . . .) or to solve a problem that was seen as vital for their country (see for instance the huge transfers to the former East Germany that followed German unification). If European governments and public opinions had been fully convinced that massive low-wage payroll tax cuts were the way to go, then they would probably have been able to mobilize adequate financial resources.

We believe that the most important explanation is more ‘ideological’ in nature. The job subsidies strategy requires that the logic and the role of the price system be completely accepted by political parties and public opinion. The very idea that we should reduce the price of low-skill labor in order to induce selfish employers to create more jobs is indeed not neutral: it is based on the view that prices (including labor prices) have a purely instrumental role, and that we should disregard the ethical and moral values that might be attributed to the level of prices per se. Such an instrumental view of the price system sounds totally trivial to most economists, but in fact it is not. It is unavoidable that prices carry information not only about the organization of production and the exchange of goods and services, but also about the human value and self-esteem of the workers whose labor is being ‘priced’. Needless to say, this is ultimately a matter of what weight one decides to put on those different concerns: in a world where millions of different types of goods and services are being produced and exchanged every day, the price system and the selfish rationality of employers and consumers is probably the only viable way of organizing the economy, and reducing low-skill labor cost is probably the only effective way to induce millions of small employers to offer more labor services to their consumers and to create jobs for jobless workers. But these ‘ideological’ concerns explain why unions and traditional left-wing parties have a hard time with the job subsidies strategy: they were probably too close to their Marxist origins and the traditional view of inequality as a pure capital/labor conflict to become fully convinced that wage subsidies and fiscal manipulations of the price system were the way to go. In contrast, right-wing parties have had troubles with the job subsidies strategy for the same reasons as they usually have troubles with the income maintenance strategy: they dislike massive fiscal redistribution and tax progressivity.

The recent French experience illustrates in a very clear way the important role played by these ‘ideological’ concerns. Right-wing governments were unable to implement massive job subsidies because they wanted at the same time to offer an income tax cut to high-income taxpayers. Left-wing parties did support massive low-wage payroll tax cuts during the 1995 presidential campaign,<sup>14</sup> but

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<sup>14</sup> At that time, the main proposal of current Prime Minister Lionel Jospin was to create a base exemption around the minimum wage level for the health insurance and family benefit employer contributions, and to finance this base exemption by increasing the marginal payroll tax rate on the fraction of wages above that level, thereby introducing structural progressivity in the social contributions schedule.

once right-wing governments started endorsing this strategy (although in a very limited way), they started saying that such tax cuts were useless, and their 1995 proposal was replaced by the shortening of the working week to 35 hours as the key economic proposal of the socialist party. Left-wing parties won the 1997 general election with this program, and they are now applying it. Although most socialist leaders privately admit that they much preferred the job subsidies approach, the reason why it was replaced by the ‘35 hours’ is because the latter definitely looked more ‘socialist’: instead of reducing the price of low-skill labor in order to encourage selfish employers to create more jobs, we propose a national alliance based upon work-sharing, revenue-sharing and solidarity between all.

In addition to this general ideological problem with the price system, the perceptions about the types of jobs that low-wage subsidies are likely to create have also played an important role. Unions and traditional left-wing parties are still strongly attached to the view of manufacturing jobs as the superior form of human labor. This attachment is probably misplaced, especially concerning young workers (as a matter of fact, the vast majority of young generations prefers to work in a shop or in a bar rather than in a factory . . .), but the consequence is that many people in France believe that it is better to pay income transfers to the unemployed rather to pay job subsidies so as to induce employers and consumers to create millions of ‘lousy jobs’ by using more labor-intensive services (more workers in shops, more domestic services, more bars, hotels and restaurants, etc . . .).

Note that this is equivalent to a simple labor supply explanation: if skill-biased technical change forces the marginal product of low-skill workers to fall below their disutility of labor, then it is obvious that the income maintenance strategy is optimal. That is, if the unemployed prefer to have a lot of free time with their income transfer rather than to have a job, then there is no point in subsidising work. However, this is not the way unemployment is usually described: many unemployed workers would prefer to have a job rather than to feel useless, including for a given income. This is confirmed by the fact that the creation of the ‘RMI’ in 1988, although it did provide an incentive not to work that was substantially higher for single individuals than for couples, did not result into a larger employment rate decline for the former than for the latter (all other things equal).<sup>15</sup> As long as the elasticity of labor demand is not too close to zero and/or the disutility of labor is not too high, which seems like the most likely case, the job subsidies strategy is always superior to the income maintenance strategy.

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<sup>15</sup> See Piketty (1997a).

Finally, the fact that the U.S. and the U.K. could hardly serve as role models for Continental Europe during the 1980s and 1990s did contribute to exacerbate the ‘ideological’ problems associated to the job subsidies strategy. The point is that the US and the UK did not create jobs by subsidizing low-skill labor: they created jobs by letting low-skill wages go down (or lag behind higher-skill wages). The unsurprising consequence is that anybody in France who would argue for the need to cut low-skill labor cost would be immediately accused of planning to do it at the expense of low-skill workers, ‘like in the US’. This reflects more than a purely conjunctural problem: there simply exists no major historical example where a deliberate strategy of fiscal redistribution would have managed to cut the labor cost of a particular group of workers while preserving its level of disposable income. It is therefore not surprising that the way fiscal redistribution can counteract skill-biased technical change is primarily perceived in terms of income transfers to those who have been excluded from the labor market.

## Acknowledgements

I am grateful to Tony Atkinson and Andrea Ichino for helpful comments.

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