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Tax cuts or social investment? Evaluating the opportunity cost of French employment strategy

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Tax expenditures are widely used by French governments as employment and social policies. Such programmes together amounted to more than 1.3 points of GDP in 2011. Thanks to a systematic review of academic policy evaluations, we assess the efficiency of the different parts of such policies, showing that at least €6 billion is used for policies whose cost is greater than €62,500 per year and job created, and €0.5 billion for policies whose cost is greater than €160,000 per year and job created. We examine the replacement of these tax expenditures by direct public funding for (publicly or privately delivered) "quality" jobs addressing specific social needs. We discuss the conditions under which at least comparable employment performances could be achieved (factoring in the crowding out of privately funded jobs and the properties of created jobs in terms of the service provided or the characteristics of suppliers and consumers) as well as any positive economic and social externalities.

Key words: Tax expenditures, unemployment policy, labour cost, personal services, social investment
JEL classifications: H3, J38, J68

1. Introduction

The European strategy in the fight against unemployment has for a long time been to reduce labour costs. This is particularly true for France, where policies aimed at lowering labour costs through tax expenditures (especially exemption from payroll taxes) have been widely used since the early 1990s. Such programmes together amounted to more than 1.3 points of GDP in 2011. While this strategy has been evaluated many times in France, its cost/efficiency has not been compared to the cost/efficiency of an alternative strategy. In this paper, we systematically collect existing local estimations to

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propose a global reasoning on the cumulated effect of the tax and social contribution exemptions. We then analyse the opportunity cost of an alternative policy.

This paper is thus a contribution of applied theory on employment strategies that consists in comparing the impact of the current French employment strategy with the one of an alternative employment strategy based on a 'social investment' perspective. The former strategy, based on tax expenditure, puts emphasis (and public resources) on purely structural labour cost reduction, the state delegating to the market the determination of the content and the quality of created jobs; the latter strategy, 'social investment', uses the leverage of public means to monitor the creation of (public or private) quality jobs to provide high-quality social services. By social investment policies, we mean policies that invest in cognitive and non-cognitive skills development (early childhood education and care, education and lifelong training), policies that help make efficient use of human capital (through policies supporting the employment of women and lone parents, through active labour-market policies, but also through specific forms of labour-market regulation and social protection institutions that promote flexible security), while fostering greater social inclusion (notably by facilitating access to the labour market for groups that have traditionally been excluded) (Morel *et al.* 2012). In this paper, we consider quality childcare jobs and quality care jobs for frail elderly to be typical social investment services, since these two kinds of care jobs allow for family members of the cared person (mostly women) to enter or stay in the labour market, since quality early childcare and education services are key to developing cognitive and non-cognitive skills, and since quality care jobs are inclusive for those who hold them.

While we acknowledge the multidimensional characteristics of employment policies (reduction in unemployment, quality of output/jobs, labour-market dualisation, in-work evolution of employees, etc.), we restrain our analysis to the single employment dimension. We analyse the conditions under which the replacement of the less efficient of the tax expenditures by direct public funding for 'quality' jobs (publicly or privately delivered) addressing specific social needs would achieve at least comparable employment outcomes. Importantly, we focus on the immediate employment effect of our alternative policy; indeed, we consider that in times of high unemployment, it would not be politically feasible to give up an existing policy with a positive employment effect in favour of another with an expected benefit in a hypothetical long term but with short-term losses in terms of employment.

The use of tax expenditure as a substitute or complement to traditional welfare state programmes has received a great amount of attention as regards the US case (e.g. Howard, 1997; Hacker, 2002). While the *hidden welfare state* is usually smaller in Europe than in the USA, it is far from negligible, especially in France (Adema *et al.*, 2011). In France, there were more than 80 different tax expenditure schemes related to social protection (either modifying social protection funding or using tax expenditure for social protection purposes) in 2011.[1]

[1] In France, the budgetary loss associated with these tax expenditures amounted to €79 billion, compared with €673 billion of direct gross public social expenditure: €42 billion by renouncing earmarked social contributions and €37 billon in 'tax breaks for social purposes' according to the OECD terminology (Adema *et al.*, 2011). These estimates are expressed in initial revenue loss and are reproduced from Zemmour (2013). Since 1994, most of the losses for the social security system in terms of payroll taxes have, however, to be compensated by a state subsidy to the social security funds.

We know from the literature (mostly but not solely on the US case) that the use of tax expenditures for employment and social purposes has several major drawbacks both on the labour market and in terms of social policy. On the labour market, tax expenditures targeting low-wage jobs are highly suspected of promoting labour-market dualisation by promoting low-wage and low-quality jobs (Palier and Thelen, 2010; Gautié and Schmitt, 2010; Emmenegger *et al.*, 2012). In Europe, this is especially the case in care activities (Devetter and Jany-Catrice, 2010; Morel, 2012; Bailly *et al.*, 2013), and this affects the quality of services delivered (Simonazzi, 2009). In terms of social policy, tax expenditures used to subsidise private social services (care, health insurance, etc.) are suspected of exacerbating the unequal provision of social services, fostering risk selection by insurance providers and having significant windfall effects (Hacker, 2002; Howard, 1997).

However, the reason for the massive use of tax expenditure programmes in France has been their ability to foster job creation in the private sector rather than their social policy dimension. These programmes (payroll tax cuts and tax subsidies for households employing providers of personal services), among other things, are aimed at offsetting the relatively high level of the French minimum wage by reducing the cost of labour at the minimum wage and immediately above. In spite of their poor performances in terms of social outcomes and job quality, tax expenditures have become one of the cornerstones of the French strategy to reduce unemployment. Similar strategies have been identified in several other European countries.[2]

Much academic work has been done to review this policy. The relatively consensual diagnosis is that it is costly and only moderately efficient, but that it has a globally positive employment outcome (Zemmour, 2013). Thus, abandoning these tax expenditures is not seen as a viable political option since it would raise unemployment, compounding the prevailing situation of mass unemployment.

Usually, academic evaluations of public policies are aimed at investigating how efficient a public policy is in achieving its explicit goals (including the side effects of the policy). In our approach, we adopt the same evaluative perspective in a more comprehensive way. Our idea is not solely to compare the cost and the outcome of the evaluated policy (number of jobs created for a given level of payroll tax and income tax exemptions), but to determine whether an alternative use of public expenditure would do better in achieving the same goals. Among the numerous and diverse tax expenditures related to employment and social protection, we choose to focus on two tax expenditure programmes: the 'general exemption' of employers' contributions targeted at low wages, and the tax expenditures officially labelled as part of the public policy aimed at promoting 'personal service jobs'. This focus was chosen because these two programmes represent two paradigmatic examples of the French employment strategy over the past three decades. They are also amongst the most expensive ones. And finally, these policies have been among the most analysed and evaluated French tax expenditures. We are thus able to build our reasoning on a set of realistic and careful assumptions based on the literature.

From a methodological point of view, we combine an analytical approach with a comprehensive analysis of empirical results from the literature. Thanks to the systematic

[2] Morel (2015) analyses the impact of the European Commission recommendations for the development of such policies across Europe. For evaluations of such schemes in Austria, Belgium, Finland, France, Germany and Sweden, see Carbonnier and Morel (2015).

collection of these evaluations, we are able to consider the impact not only of a full removal of the policies, but also of marginal change such as the partial removal of payroll tax exemption, or decrease of ceilings or subsidy rates.

This methodology allows us to compute not only the theoretical result that, *at some point*, one policy outperforms the other, but it also allows an empirical estimation of the public budget that could be shifted from a policy onto another in the French context. This approach situates our contribution at the crossroad between public economics, political economy (by addressing the trade-off between two concurrent economic strategies) and public finance (by discussing the effective use of considerable public resources—more than one point of GDP). In these matters, order of magnitude is as relevant as the theoretical mechanism.

The remainder of the paper is structured as follows: Section 2 presents the argument and the reasoning; Section 3 presents the tax expenditure programmes that we intend to analyse; Section 4 assesses a comprehensive understanding of these policies thanks to the collection of the main results of existing academic evaluations of these programmes; Section 5 exposes the conditions under which these tax expenditures could be replaced by publicly funded social services without increasing unemployment; and Section 6 concludes.

Our results could be summarised as follows: given the decreasing marginal efficiency of tax expenditures in terms of job creation, there is a tipping point from which it would be preferable to replace tax expenditures by fully and directly publicly funded social services (provided either privately or publicly), from a pure employment point of view. We find that current exemption programmes have overreached this tipping point. Under very conservative assumptions, we compute that it is possible to transfer at least €6 billion (out of €27 billion) from tax expenditure to social investment programmes with a positive outcome in terms of employment, not to mention other positive externalities.

2. Evaluating the opportunity cost of tax expenditures

We argue that the concept of opportunity cost should be applied to the use of public resources, and in this instance to tax expenditure programmes. Some would consider it sufficient, to keep a public programme running (in the present case, a tax expenditure), to know for certain that the programme in question is a source of improvement. However, this is incomplete reasoning: it might be the case that maintaining programme *P* is better than terminating it, yet it might also be the case that another programme *P'* could do even better. In the latter case, *P* should be replaced by *P'*. First because efficiency requires the optimal use of available resources; second because in present times, states face not only budgetary constraints (the necessity to balance resources—e.g. taxes plus borrowings—with expenditures, including financial costs), but credit constraints as well. Hence, if both programmes *P* and *P'* cannot be implemented together, the benefits of programme *P'* should be considered as the opportunity cost of programme *P*.

Indeed, some public investment expenditures, considered socially necessary and even economically profitable in the long run, are not realised due to the lack of sufficient funds available. The uncertainty in the financial markets and the current level of public debt and deficit in regard to the European Growth and Stability Pact criteria may prevent governments from going ahead with these investments, even if their

expected return more than offsets their cost (including financial costs).[3] This is typically the case of social investments (Vandenbrouke *et al.*, 2011; Morel *et al.*, 2012): there is now a political consensus that public expenditures in childcare, education, higher education, training or work–life balance policies should simultaneously be economically efficient, prevent social inequalities and address social needs.

Such social investment is not realized in a free-market regime both because markets always under-produce goods or services with positive externality and because strong budget constraints restrain the access to these social investment services to a very small share of the population although those services would be beneficial for the whole population. Hence, only public intervention may realize these social investments. In most countries, the public sector already has the technology and skills to manage this type of programme: in France, for instance, a small part of jobs in childcare or elderly care activities are currently entirely publicly funded and delivered either by public services, or by (publicly financed) private structures or associations. However, in many countries, including France, a large share of the necessary social investments is postponed for financial reasons. In France this is the case, for instance, for childcare (the government acknowledges a need for additional places, evaluated at between 350,000 and 500,000[4]).

Yet, the French government every year spends €27 billion as tax expenditure (tax breaks, social contribution exemptions, etc.[5]), either solely to foster employment (the general exemption programme) or to subsidise private demand for at-home services that are not publicly addressed (the personal service jobs programme). These policies share some objectives with the social investment perspective (creating employment, addressing social needs). However, the two types of programmes differ in their overall economic strategy: current policies try to make low-skilled jobs compatible with a high minimum wage by lowering the cost of labour; in doing this, they also subsidise the development of a sector characterised by cheap services, of low or at least uncertain quality (Bailly *et al.*, 2013), and low-quality jobs (associated with a low apparent labour productivity). Conversely, the hope underpinning a social investment strategy is that high labour costs may become sustainable provided that the quality of goods and services produced thanks to this strategy is increased and guaranteed, which will translate into a higher apparent labour productivity, not only within the personal service sector but also among the general population of beneficiaries.[6]

Concerning the ability of the government (and indirectly the taxpayer) to monitor the use of public funds, in the case of tax expenditure, there is no way to control the quality of services and the quality of jobs created, nor the actual distribution of aid (the wealthiest people in fact benefit disproportionally from tax credit programmes [Carbonnier, 2015]. Public financing of social services (be they publicly or privately provided) may address these concerns as long as a clear contract is associated to the public funding, and the public authorities are able to monitor and evaluate the usage

[3] That is also why some advocate excluding such programmes from the Maastricht criteria constraint (Vandenbrouke *et al.*, 2011). The focus on the structural deficit rather than the total deficit in the TSCG supports the view that investments in general should be considered apart from other public expenditure.

[4] 'Petite enfance: il manque près de 500 000 places d'accueil', *Le Parisien*, 16 February 2013.

[5] This amount only includes our two selected programmes; smaller programmes with similar purposes are not included. Here and in the remainder of the paper, figures on public tax expenditures are reproduced from public reports reviewed in Zemmour (2013).

[6] Nelson and Stephens (2012) demonstrate that social investment policies are correlated with the development of high-quality, highly productive and highly paid jobs.

of the public funding in such a way that contracts can be ended when the performance is not there.

The purpose of this paper is not to analyse or promote the virtues or positive externalities that one may expect from a social investment strategy (interested readers may refer to Esping-Andersen [2009] or Morel *et al.* [2012], among many others). It is to determine the conditions under which the partial or total termination of tax expenditures related to social policy in order to finance publicly delivered jobs in the social investment service sector will be at least neutral in terms of employment. However, a rigorous economic reasoning cannot rely solely on cost comparison. Indeed, the efficiency of tax expenditures may be highly nonlinear (that of the first and the last euro dedicated to the tax expenditure may be very different). We must thus determine locally the area of (in)efficiency of different measures. By contrast, the public financing of a service will probably crowd out certain privately financed jobs. This windfall effect is also taken into consideration in our general reasoning and calculation.

Using a review of the evaluative academic literature and the tools of public economy, we propose a systematic reasoning with a marginal approach to determine the conditions under which part of tax expenditures could be outperformed by a specific type of public provision of social investment services. More specifically, we take into account both the windfall effect of existing tax expenditures and the potential windfall effect of publicly funded social services.

3. Presentation of the two tax expenditure programmes

In France, there are currently 460 different types of tax expenditures (including 80 that are linked to social protection and employment policy), plus 50 social contribution breaks and exemptions. However, for the sake of simplicity, we will focus here on the two most expensive tax expenditure programmes aimed at fighting unemployment: general social contribution exemptions, and tax expenditures on jobs in personal services. These programs have been designed to conciliate two conflicting political goals that have been the cornerstone of French employment strategy since the mid-1990s: 1) maintaining a relatively high level of net minimum wage (which is binding in France and suffers no exception); and 2) reducing the labour cost to stimulate labour demand.

3.1. Social contribution exemptions

This policy, implemented incrementally between 1993 and 2007 and still in force (see Palier, 2005, chapter 6; and Zemmour, 2012, chapter 1, for details), consists of payroll tax cuts targeted at low wages. The tax cuts solely concern employer 'social contributions' (payroll tax) paid to *la sécurité sociale* (social insurance funds for sickness, invalidity, old age pensions and family benefits). Exemptions are a degressive function of the gross wage; they apply to employees of private firms (household employees are excluded) between 1 and 1.6 times the minimum wage (which was 7,51€ net per hour in January 2015). Payroll tax cuts concern 50% of the labour force.

In 2014, the maximum exemption (at the minimum wage level) amounts roughly to €4,500 per year (€4,700 for small firms), putting the labour cost at the minimum wage level at €20,200 (as opposed to €24,700). Due to this exemption policy, payroll taxes and social contributions (the tax wedge) constitute only 34% of the labour cost at the minimum wage, compared with 46% without exemptions. Put differently, the state actually bears about 18% of the labour cost at the minimum wage level.

This exemption from social security contributions is not associated with reduced benefit entitlements for the employees concerned. As a counterpart, the state is legally committed to compensate social security funds, paying the total amount of the exempted contributions out of its budget. Thus, the policy is not a mere tax cut, but rather a tax transfer from payroll taxes to the government's general tax revenue (taxes other than payroll taxes, such as income tax or VAT). This is probably why this policy has attracted so much attention in academic and official circles, whereas ordinary tax expenditures are often under-considered. In 2011, the amount of this 'general exemption' was €20 billion (one point of GDP).

Nevertheless, because there are many more tax exemption than the ones under study here, it is highly important to keep in mind that the amount of public expenditure that could potentially be shifted from tax cuts to social investment may be far greater than those presented here, which are assessed on the most conservative basis.

3.2. Tax expenditures on personal service jobs

The French "personal service jobs" sector includes gardening, housecleaning, as well as childcare, elderly care or care for disabled adults. Hence, it does not have a functional or economic consistence: it combines all kinds of services, delivered by household employees, associations and firms directly in the home (Carbonnier, 2009; Devetter and Jany-Catrice, 2010; Morel, 2012; and Carbonnier and Morel, 2015). The sector's unity is institutional: these activities are officially labelled as *'services à la personne'* (personal service jobs) and are eligible for a string of specific tax expenditures. Certain tax expenditures are targeted solely at personal service jobs for 'fragile' people (children under 6, frail elderly persons), whereas others are only conditional on hiring an employee in the household. Table 1 summarises the different tax expenditures targeted at personal service jobs.

The biggest tax expenditures targeted at personal service jobs are the personal income tax credit and the personal income tax reduction.[7] Together, they amounted to €3 billion in 2011.[8] In this field, social contribution exemptions are also substantial (€2 billion in 2011); some apply to all types of jobs, whereas others are targeted at certain caring activities. In a way, these exemptions mirror the general exemptions on low wages, to which personal service jobs provided at home for individual employers (households) are not eligible. Unlike the 'general exemptions', these targeted exemptions are not compensated by the state to *la sécurité sociale* (this is thus a pure revenue loss for the fund).

Together, tax expenditures dedicated to personal service jobs amounted to €5.9 billion in 2011. A substantial share of them is devoted to care activities, but the estimate according to which 60%[9] are dedicated jobs with a social purpose (mainly care activities) is undoubtedly an exaggeration.

Some of the tax expenditures reported in Table 1 are delivered outside beneficiaries' households, but they are very similar: they mostly concern childcare expenditures, and together amount to €1 billion.

[7] The credit is refundable, whereas the reduction is not. The credit is restricted solely to bi-active households (or active singles), whereas the reduction is open to households including inactive people. From this, Devetter and Jany-Catrice (2010) infer that the reduction may subsidise caring activities for the elderly, whereas the credit mostly funds 'convenience' services, and residually childcare (Zemmour, 2013). However, statistics show that a large proportion of the tax reduction benefited robust young mono-active couples without children under 6.

[8] Amounts are expressed in 'initial revenue loss'; see OECD (2010) for a definition. Data are from French official reports and are collated in Zemmour (2013).

[9] Updated computation from Devetter and Jany-Catrice (2010); see appendices of Zemmour (2013) for details.

Table 1. *Tax expenditures targeted at personal service jobs*

Tax or social contribution concerned	Type of tax expenditure	Measure	Initial revenue loss in 2011 (billion euros)
Personal income tax	Tax reduction	Tax reduction for personal services at home (including childcare), if inactivity in the household	1.3
Personal income tax	Tax credit	Tax credit for personal services at home (including childcare), if active single or bi-active couple	1.7
Employer contributions	Contribution reduction	Employer contribution reduction targeted at personal service jobs	2
VAT	Exemption and reduced rate	VAT exemption or reduction on personal services provided at home by firms or associations	0.9
		TOTAL Personal service jobs	5,9
		Share dedicated to social services (higher bound, Zemmour [2013])	3,6
		Other tax expenditures with a similar function	
Personal income tax	Tax reduction	Tax reduction for childcare (out of home)	0.9
Personal income tax	Reduced rate	Reduced taxation for certified child caregivers	0.1
		TOTAL	6.9

3.3. A strategy comparable but of higher amplitude to that of many other countries in Europe

Comparable policies have been implemented elsewhere in Europe, although France is probably the country where the share of public resources spent have been the highest. In general, these policies are comparable to many others that aim at stimulating labour demand by lowering labour cost, while keeping the net wage unchanged. This

follows the line of OECD recommendation to lower the 'tax wedge' that one can read in the periodical 'employment outlook' publication. Conversely, this policy is rather different from the strategy of 'making work pay' that aims at raising the post-tax labour income in order to stimulate labour supply. That is typically the case of the 'Working Tax Credit' in the UK, the 'Prime Pour l'Emploi' in France or the 'Earned Income Tax Credit' in the USA.

Exemptions of social contributions on low wages (for all the private sector) while keeping net wage and social entitlement unchanged have been implemented in Belgium since 1983 (currently named 'réduction structurelle' of employer contribution, with a cost higher than two points of GDP in 2010). Austria has also a similar program. The Netherlands implemented some exemptions on low wages (SPAK reform implemented in 1997) and suppressed them in 2003; 'mini-jobs' in Germany follow a similar strategy of labour cost reduction but strongly differ in that lower social contributions are associated with reduced entitlement to social protection.

Specific programs of labour cost reduction targeted at personal service jobs (through social contribution exemptions as well as through personal income tax credit for employers) have been a common trait of policies implemented in several European countries: the cases most similar to the French one are to be found in Sweden, Finland and Belgium (for detailed analyses of these policies, see Carbonnier and Morel [2015]).

4. Existing evaluation of these tax expenditures

4.1. Evaluation of the general exemption policy

This policy has always been understood as an employment policy. As such, the main question addressed by evaluations has been to determine the policy's efficiency in terms of job creation/preservation. According to the general consensus, exemptions targeted at low wages do foster the creation of low-wage jobs, but the marginal efficiency of targeted exemption decreases with the wage level (an extensive review can be found in Rémy [2006] and Bunel *et al.* [2012]).

The first reason for this comes from incidence properties. Workers paid at the minimum wage have virtually no bargaining power (they are paid more than the wage they would be able to obtain in a bargaining process) (Malinvaud, 1998), so it is plausible that if employers' contributions are reduced, they will not be able to negotiate a pay rise, thereby resulting in labour cost decreases. Conversely, employees paid above the minimum wage have non-zero bargaining power; consequently, they are able to prevent their employer from pocketing the entire amount of any contribution exemption. Gruber (1994), Anderson and Meyer (1997, 2000) as well as Murphy (2007) show through natural experiments in the USA that the higher the wage, the lower the share of the payroll tax exemption benefiting the employer in decreases in labour costs.

The second reason is that the labour cost elasticity of labour demand is higher for low-skilled jobs (Hammermesh, 1996); put differently, employers' hiring behaviour is more sensitive to labour costs for low-skilled jobs. Thus, the same amount of exemption entails a stronger increase in demand for labour when targeted at low-skilled jobs (i.e. low wages).

If it is consensual that the impact of payroll tax cuts on employment is greater for low wages than for high wages, then the actual level of these impacts remains non-consensual. Several robust estimates of this elasticity exist, mainly in the Nordic countries.

None found any significant impact of payroll tax decrease on employment. For some, this may be due to the fact that the reduction in payroll tax examined was not targeted at low wages. Bohm and Lind (1993) and Bennmarker *et al.* (2009) for Sweden, and Korkeamäki and Uusitalo (2009) for Finland, set regional difference-in-difference estimates (taking advantage of regional payroll tax reforms), and found no effect on employment. Huttunen *et al.* (2013), also implementing difference-in-difference methodology (per age categories) to assess the impact of a Finnish payroll tax cut targeting older workers on low wages, found no impact at the extensive margins and a small impact at the intensive margins.

Estimates for the French case mainly simulate the impact of a payroll tax cut based on assumptions (and not estimates) of this elasticity. The hypotheses assume far stronger elasticity of employment to payroll tax cuts than estimated in other countries. Even if international comparisons shed doubt on French micro-simulations (they probably overestimate the efficiency of these social contribution exemptions[10]), we have kept these results for our exercise. Taking these overestimated results ensures that our calculations are conservative, and that the shift to social investment is in fact probably more profitable than what we present here.

The various existing simulations of the impact of payroll tax cuts in France allow us to compute a 'cost per job created'. Empirical measurement summarised in Bunel *et al.* (2012) suggests that the cost (in terms of tax expenditure) per job created comprises between €10,000 and €70,000, with an average of €24,000. However, the measured cost has changed in recent studies, partly because of methodological issues, partly because these studies focused on the last wave of exemptions, targeted at relatively higher wages (between 1.3 and 1.6 times the minimum wage), which are probably less efficient. Among the seven studies published since 2004 and reviewed by Bunel *et al.* (2012), only one puts the value below €24,000, while the other six present point estimates higher than €38,000 per job. In their study, Bunel *et al.* (2012) conclude that the cost per directly created job comprises between €39,000 and €48,000.

For the remainder of the present work, we consider as a reference the work of Bunel *et al.* (2012), which presents the advantage of being consistent with the most recent estimates. Moreover, the focus of this study was to examine the effects of a partial termination of exemptions under different scenarios. Bunel *et al.* (2012) compute the direct job destruction expectable if exemptions are reduced by 25% (€5 billion). Unsurprisingly, they find that the result strongly depends on the design of the exemption reduction: a reduction of €5 billion, among all exemptions across the board, could destroy up to 166,000 jobs, whereas it would destroy many fewer jobs if the €5 billion reduction only concerned higher wages. Bunel *et al.* calculate that if the exemptions were targeted only at jobs paid between 1 and 1.35 times the minimum wage, the reduction would destroy less than half the number of jobs: fewer than 80 000 jobs.[11]

[10] The periods of expansion of exemptions (1993–2000 and 2005–2007) are also periods of economic booms.

[11] Bunel *et al.* (2012) add that the marginal cost of job creation through exemption is probably much higher in labour-intensive sectors (28% of the labour force): for these specific jobs, the same redesigning of exemptions (exclusion of jobs above 1.35 times the minimum wage) would generate a marginal gain of up to €210,000 per job destroyed. Considering the labour force ratio in such labour-intensive sectors and the evaluation of the removal of the contribution exemption above 1.35 times the minimum wage, we calculate that this termination would allow a public savings of €1.4 billion.

According to this result, the marginal cost of job creation for exemptions close to the median wage is €62,500[12] (which is more than twice the total labour cost of a decent job[13]). Furthermore, it is important to keep in mind that, according to the comparison of the French evaluation hypotheses with the actual foreign estimates, this figure is undoubtedly a lower bound of the actual cost per job created of such measures.

4.2. Evaluations of tax expenditures dedicated to personal service jobs

The personal service job sector has been far less evaluated in terms of job creation than the exemption policy. The major part of subsidies is provided through the income tax reduction/credit for household service consumption. It consists of the reimbursement through a tax rebate of 50% of expenses under the annual ceiling.[14] Evaluations have been made using different natural experiments: when the tax reduction was first set in 1992 (Marbot, 2013); when the ceiling was cut in 1998 (Garbinti, 2011); when it increased again in 2003 (Carbonnier, 2009); and when the tax reduction was turned into a tax credit for active households, thereby making the poorest households, who do not pay income tax, eligible (Marbot and Roy, 2011).

These studies allow us to capture not the overall, but the marginal effect of this tax credit for different groups of beneficiaries. Carbonnier (2015) presents a meta-analysis of these estimates, with recalculations of the estimate derived from unlikely assumptions. He also takes inflation into account to obtain comparable values of the public cost per job created. It appears that the initial setting of the tax reduction in 1992 with a ceiling of €3,800 euros per year created 27,556 equivalent full-time jobs at a cost of €39,113 per job created. The 1998 reduction in the ceiling from €13,720 to €6,860 destroyed 613 jobs, with a savings of €228,222 per job destroyed. The 2003 increase in the ceiling from €6,900 to €10,000 created 553 jobs at a cost of €159,494 per job created. The 2007 shift from tax reduction to tax credit for active households created 1,727 jobs at a cost of €77,360 per job created (Carbonnier, 2015).

Thanks to interpolations, and a re-evaluation according to inflation of total spending and values of the present ceiling, it is possible to assess the savings in terms of tax expenditure that would be achieved by different reforms of the income tax reduction/credit for household service consumption. Cutting the ceiling back to €7,000 euros per year would save €0.5 billion, or more than €160,000 per job destroyed. Cutting it to €5,000 per year and returning to the tax reduction (as opposed to a tax credit) would save €1 billion, or €77,000 per job destroyed. Table 2 gathers the information on savings and job destruction of possible reforms of general social contribution reductions and income tax reductions for household service consumption.

If we combine the sums devoted to the general programme of payroll tax exemptions and the tax cuts dedicated to personal services, tax expenditures dedicated to subsidising low-wage jobs amounted to €27 billion in 2011[15] (Zemmour, 2013). Based on the

[12] This corresponds to a cut of €5 billion to exemptions through the redesigning of exemptions, excluding jobs above 1.35 times the minimum wage, and slightly reinforcing the exemption targeting the lowest wages. The author computes that this reform would destroy fewer than 80,000 jobs; this corresponds to a gain of €62,500 per job (see pp. 89–92 of Bunel *et al.* [2012]).

[13] Details to be found in Section 5.

[14] This ceiling is the maximum amount of household expenditure eligible for a tax credit/reduction. The ceiling was first set at €3,800, increased to €13,720 in 1995, cut to €6,900 in 1998, increased to €10,000 in 2003 and is now set at €12,000 plus €1,500 per dependent child or elderly person.

[15] General exemptions amount to €20 billion. Tax expenditures on personal service jobs amount to €7 billion.

Table 2. *Marginal cost per created jobs and volume of tax expenditure*

Limitation of tax expenditures	Marginal cost per created job	Volume
General exemption above 1.35 times the minimum wage solely in labour-intensive sectors	€210,000	€1.4 billion
Income tax cuts for personal services above €6,900 per year	€160,000	€0.5 billion
Income tax cuts for personal services above €5,000 and tax credit	€77,000	€1 billion
General exemptions above 1.35 times the minimum wage (all sectors)	€62,500	€5 billion
Income tax cuts for personal services above €5,000, tax credit and general exemptions above 1.35 times the minimum wage (all sectors)	€62,500	€6 billion

most conservative hypotheses mentioned above, we can assume that at least €6 billion creates less than one job for each €62,500 spent: €5 billion from exemptions, €1 billion from personal service jobs. Among these €6 billion, the amount necessary to create one job is sometimes even much higher than €62,500.

5. Creating decent jobs on public funds

Existing evaluations of the job creation effects of payroll tax cuts and income tax credits and reductions are purely quantitative. However, we also know that many of these jobs are of poor quality: part time, no access to training and upward professional mobility, weaker social protection, etc. (Gautié and Schmitt, 2010; Emmenegger *et al.*, 2012). This is especially the case for care jobs (Bailly *et al.*, 2013; Morel, 2012).

In the previous section, we stressed that some of the expenditures aimed at supporting the development of these jobs may have low marginal efficiency. In the following section, we ask whether part of the money devoted (through tax expenditure) to the support of these jobs could be used for the direct creation of entirely publicly financed jobs of higher quality. These publicly funded jobs may be actually provided by public institutions or private ones (profit or non-profit), so the issue of the public versus private quality of employees' selection and monitoring is not at stake here. We have established under very conservative assumptions that at least €6 billion is spent, with a marginal effect of less than one job created for €62,500 spent. We analyse below the conditions under which the creation of decent publicly funded jobs would have a better effect on employment.

We thus compute the cost of a decent job, and determine the employment effect of the public financing of such a job in the social service sector. We take into account the fact that this public funding may have windfall effects through the eviction of privately funded jobs. Before assessing the eviction rate, we evaluate the total cost of a decent job.

5.1. What is the cost of a decent job?

The notion of job quality is complex and does not depend solely on the wage level. The interested reader may refer to several works on this topic (e.g. Clark, 2005; Davoine

et al., 2008; see Dahl *et al.* [2009] for an extensive review). For what follows, we intend to determine the possible accounting cost of a decent job for low-skilled workers. As amply demonstrated, low-skilled workers are nowadays most likely to be unemployed, or to occupy atypical jobs (Emmenegger *et al.*, 2012); they are primarily targeted by the programmes under focus above. We consider a typical decent job to be a full-time job, paid at the minimum wage, with a thirteenth month (which is standard for core workers of the private sector in France), providing entitlements to paid training leave (which is necessary to have the prospect of upward mobility) and complete access to social protection (including complementary health insurance). We also consider overhead costs (a manager paid twice the minimum wage for 20 workers); we neglect the cost of fixed capital, which is low in the social service sector. The direct cost of such a job is estimated at slightly below €30,000[16] per year (in 2013).

This labour cost corresponds to a net annual wage (before personal income tax) of €14,500. The difference between the net wage and the labour cost may appear high, but 40% of the cost (€12,500) consists of payroll tax and complementary health insurance. The remainder is overhead costs.

A simplistic comparison shows that with less money, one gains better jobs (we will come back to the eviction effect in the section below). To ensure this gain in quality, one needs, however, to make sure that the jobs created by direct public financing are of quality. For enforcing these quality requirements, quality monitoring and evaluation are necessary, as well as a conditioning of the financing to the achievement of the quality requirement. A system of authorization or label may be implemented to allow for receiving public financing: this label should require the quality conditions presented above; the quality of the services provided as well as the jobs created should be controlled regularly to see whether the contract would be continued. Similar systems already exist in a number of countries, including France for the case of elderly care direct allocation (APA) (see Bailly *et al.*, 2013).

One should notice that the social gain of quality jobs in term of physical and mental health (or the actual social cost of poor-quality jobs) may well be added in an alternative cost comparison. Excluding these effects from our calculation (for simplicity) leads us to overestimate the actual cost of social investment.

5.2. Job creation, job eviction and the net employment effect

The public financing of X jobs does not necessarily generate a net job creation of X. Indeed, public job creation is likely to crowd out some privately funded jobs that would have existed otherwise. There are thus intermediate steps to go from the number of publicly financed jobs to the net employment effect of this alternative policy.

On the one hand, the French state every year spends at least €6 billion to subsidise low-quality jobs, at a price higher than €62,500 per job created. The corresponding number of created jobs is thus inferior to 96,000.[17] On the other hand, the total cost of a job at this wage level—including management costs and full-rate social security

[16] The minimum gross wage is €17,330, the thirteenth month is an extra €1,445 and employer contributions (including training leave) amount to €7,886. The employer contribution to complementary health insurance is estimated at €400. An additional manager for each 20 people employed, paid twice this wage (including the thirteenth month, etc.), adds a cost of €2,700 per person employed. The total annual cost per job is €29,731.

[17] It is actually far less, since the rate of €62,500 per job destroyed is the marginal cost for the last of the €6 billion and the previous euros may be saved at a far lower cost in terms of job destruction (see Table 2).

contributions—does not exceed €30,000. With a budget of €6 billion, 200,000 jobs can thus be publicly funded (these jobs may be either public or private, but in any case deliver a service paid for directly by the state[18]).

However, we cannot infer from these two statements alone that it is preferable to cancel exemptions and replace them with publicly funded jobs. The 'windfall effect' that applies to tax expenditure has a flipside when jobs are publicly funded: public job creation may crowd out some privately funded jobs that would have existed in absence of the policy. Consequently, the net effect of a policy of provision of public jobs is the difference between the jobs publicly funded and the number of jobs privately funded liable to disappear because of the windfall effect. The reasoning may be briefly formalised as follows:

D is the public expenditure dedicated to the provision of new social services (through job creation);

T is the number of privately funded jobs that would have existed without the public provision of social services and that would disappear due to the public provision (T[19] is the size of the windfall effect expressed in terms of jobs);

R is the unit cost of a publicly funded job (€30 000); and

C is the marginal unit cost of jobs subsidised through tax expenditures.

The direct job creation through D is thus not $N_1=D/R$ but $N_2=D/R-T$. If the public provision of social services is funded through the cancellation of tax expenditures, the net job creation is not $N_1–N_0=D/R-D/C$ but only $N_2-N_0=D/R-D/C-T=D(C-R)/(RC)-T$.

Let z be the share of jobs that are not created by public provision but actually transferred from the private to the public sector $z=T/(D/R)$. z is the eviction rate of private jobs due to the public provision of social services. Here, the shift creates jobs if $N_2-N_0>0$; that is, if $1-R/C>z$. Together, z—the eviction rate—and the C/R ratio—the cost of tax expenditure per job created as a proportion of the cost of a decent job—delimit the cases where it is preferable to cut tax expenditures and to prefer public provision or not (see Figure 1), from a purely quantitative perspective.

This form of (marginal) reasoning allows us to plan a marginal implementation of the policy. For instance, if the marginal cost paid per created job C is really high (for instance €160,000 per job or $C/R=5.3$ for the income tax reduction for household services above €7,000 per year), it is almost always preferable to go for public provision in employment terms, even if the eviction rate is high (up to 81%). Conversely, when the marginal cost per created job is equal to the cost of direct creation or slightly higher (for instance €39,000 or $C/R=1.3$ for the complete removal of the income tax reduction for household services), public provision is only preferable if the eviction rate z is very low (only 23%).

If we consider a case with C superior or equal to €62,500 (as is the case for the jobs created by the last €6 billion mentioned in Section 4), then the eviction rate should not be higher than 52% to be sure that the net effect on employment is positive. It should be borne in mind that this evaluation is based on very conservative assumptions.

Empirically, the eviction rate z (thus the efficiency of public provision) depends on the type of social service provided. When the provision of a social service addresses needs that were previously unsatisfied because demanders' budget constraints were too tight, the eviction rate is almost 0. As we noted in Section 4.2, this could be

[18] Such a scheme is already in force for frail elderly people in France.

[19] T is in fact a growing function of D.

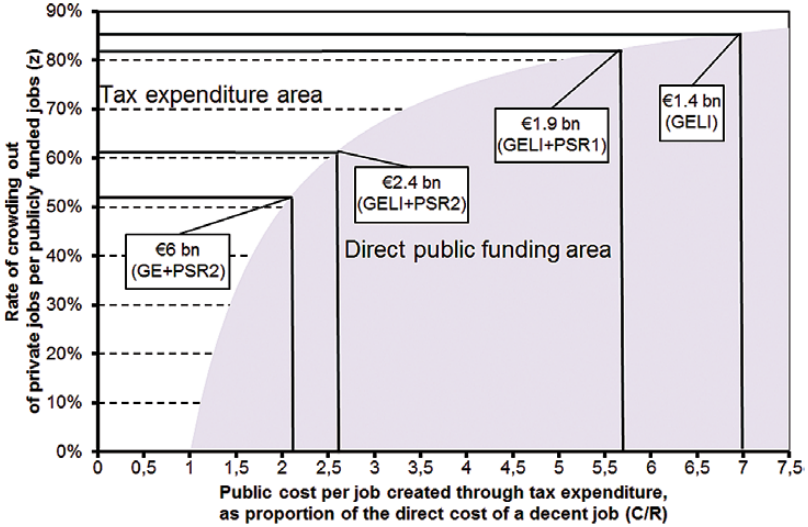

Fig. 1. Note: *GELI stands for removing general exemption above 1.35 times the minimum wage solely in labour-intensive sectors (*general exemption labour intensive: GELI*); GE stands for removing all the general exemption above 1.35 times the minimum wage (*general exemption GE*); PSR1 stands for decreasing ceiling of the income tax cut for household services down to €7,000 per year (*personal services reduction PSR1*); PSR2 stands for removing the possibility of a tax credit and reducing the ceiling of income tax cuts for household services above €5,000 (*personal services reduction PSR2*). The grey area corresponds to the cases where the public funding of jobs is preferable to tax expenditure schemes from a purely quantitative employment perspective. For instance, if the C/R ratio is 7 (which is the case for the social contribution above 1.35 times the minimum wage in the labour-intensive sectors), direct public funding is preferable as long as the eviction rate z is lower than 85.7%. Put differently, public funding is preferable to tax expenditures as long as the creation of 100 jobs publicly funded (public or private) destroys strictly less than 86 privately funded jobs.*

typically the case for childcare for households with the lowest incomes. It could also be the case of appropriate care for relatively frail elderly people in relatively low-income families (in case the frailty is not too strong, the social benefit aimed at frail people is not available, and they are too expensive at market price, even with fiscal policies). Consequently, the targeting of public services at populations whose consumption of social services is rationed (because of their low income or their high needs) will reinforce efficiency. Therefore, fulfilling the condition of an eviction rate weaker than 52% seems fairly realistic. Moreover, in that specific case, positive externalities are obvious at least by allowing caregivers (mostly working-age women) to occupy a better job.

Job creation in other social investment sectors (education, public health, training, etc.) is also unlikely to crowd out market-provided jobs. On the contrary, housekeeping services (except for frail elderly people), which are currently subsidised through tax expenditures, are typically a sector where public provision (as well as the public subsidising of the private sector) is almost inefficient (except for allowing rich people to pay less taxes). Indeed, a large share of tax credit actually subsidizes comfort services (such as cleaning, ironing or gardening) for affluent people (Carbonnier and Morel, 2015). Hence, these services would not be evicted by social investment. In addition, they would only slightly be reduced by tax cut reductions, as the public cost per job created of these tax cuts is several times the actual cost of these jobs: few jobs are created in comparison to already existing jobs benefiting from these tax cuts as windfall

effect. Therefore, few jobs would be destroyed by the decrease of these tax cuts in comparison to remaining jobs.

5.3. Tax pressure, national accounting and public budget balance

As stated in the introduction, one of the main obstacles to the implementation of social investment programmes is the constraint of balancing the public budget. In the present case, this would not be an issue, since the shift from tax expenditure to social investment is neutral with regard to the public budget. In fact, it apparently raises both apparent tax revenue and apparent public expenditure by the same amount but does not increase budget deficit.

We examine the reduction of two kinds of tax expenditure: exemptions of employer social security contributions (€5 billion) and personal income tax credit/reduction (€1 billion). What are the consequences for the national accounts?

The earmarking of some tax revenue for social security funds currently covers employer social contribution exemptions. This trick is done by transferring the loss of revenue generated by exemptions to the government's general budget. Consequently, social contribution exemptions affect the government's general budget rather than that of the social security fund. Their cancellation will thus raise general government revenue by €5 billion. This €5 billion, we argue, could be more efficiently spent by funding social service jobs.

A (big) reduction of personal income tax breaks will entail an increase in tax revenue by the same amount.[20] This new revenue of €1 billion, we argue, could be more efficiently spent by financing publicly delivered social service jobs.

Together, the shift allowing the investment of €6 billion on social investment programmes will raise apparent tax pressure by €6 billion and apparent public expenditure by €6 billion. Yet, this apparent change is conventional and attributable to the fact that tax expenditure is recorded as lower tax revenue and not as expenditure: it does not reflect a higher level of government intervention, but rather a change in the form of government intervention.[21] More important given the institutional constraint at work, this shift is neutral for the general budget balance under the Maastricht/Growth and Stability Pact definition.

Additionally, this reform would be neutral for aggregate household income, since the lower tax expenditure is exactly compensated by the provision of in-kind services of the same value. However, it is obviously not necessarily neutral from a distributional point of view (the beneficiaries of new social services would mostly not be the same households as those who used to benefit from tax expenditures). More precisely, if publicly funded jobs target the social needs of households with constrained budgets, the shift would increase the overall redistribution of the French tax and transfer system.

6. Conclusion

Tax expenditures do not just have a budgetary cost. In times when public finances are strongly constrained (both by the expected volatility of interest rates on government

[20] The termination of certain types of income tax reductions may be an incentive for households to use other forms of tax reductions more intensively. Thus, the actual gain from the termination of such personal income tax reductions/credits may be slightly smaller than the cost of the tax credit itself.

[21] Put differently, it would affect France's ranking according to its gross tax level and public expenditure, but would leave its level of net social expenditure (as proposed by Adema *et al.* [2011]) unchanged.

bonds and by the European treaties), the cost of a relatively inefficient policy is also to crowd out other public expenditures that could be more efficient and have positive social outcomes.

While the adoption of a social investment perspective depends partly on normative views and partisan politics, it seems to us that a bias towards the status quo also plays a role in government choices. Indeed, it is a common view that social investment may have positive economic outcomes in the future and that employment-targeted tax expenditures are relatively inefficient. But the latter are maintained, since their termination would unavoidably increase unemployment in the short run, which would be politically unacceptable.

In this paper, we have studied the conditions under which an alternative scenario would be viable. We find that switching the budget currently devoted to the less efficient share of tax expenditures (those targeting the highest wages or households with the highest income) to the public financing of social services would not have detrimental effects for employment in the short run. Based on existing literature and on very conservative assumptions, we show that at least €6 billion (0.3 points of GDP) could be switched from tax expenditure programmes to social investment programmes. This switch would have a positive employment effect as long as the eviction of existing jobs is lower than 52%. This can certainly be achieved if new social programmes are targeted at households with the greatest needs and the lowest incomes.

More generally, we consider that the latter result tends to support the view that an incremental move from current economic strategies based on the subsidising of low-skilled jobs in favour of a 'high-quality' path could be both politically and economically sustainable. The main limitations inherent to our methodology are twofold. First, to complete our analysis, an empirical evaluation of the eviction rate (i.e. the destruction of privately funded jobs when publicly funded jobs are created) would be useful. This analysis should be conducted in the specific context of social services sector with a demand strongly constrained. Second, our reasoning is static and in partial equilibrium; however, we have sketched two different employment strategies; below short-term employment effects, both strategies correspond to different economic paths, with different sectorial specialization, etc. These dimensions have necessarily long-term social and economic impact that could be compared further. In addition, more evaluations would be required on a larger set of tax expenditures to be exhaustive, since the present analysis is restrained to only a quarter of the total amount of tax expenditures related to social and employment policy. However, as a first result, it shows it is difficult to claim that there is no financial means to develop further a social investment strategy in France.

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