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Aïmane Abdelsalam, Léo Vigny

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Aïmane Abdelsalam
Univ. Lille, CNRS, UMR 8019 - CLERSE - Centre Lillois d'Études et de Recherches sociologiques et Économiques
aimane.abdelsalam@univ-lille.fr

Léo Vigny
Sciences Po - Laboratory for Interdisciplinary Evaluation of Public Policies
leo.vigny@orange.fr

www.sciencespo.fr/liepp

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Abstract

The 1980s marked the transition from demand-driven Fordist policies to supply-driven ones, emphasizing budgetary discipline and competitiveness. However, this shift did not signal the end of fiscal interventionism but rather its transformation. In this paper, we introduce a novel indicator that encompasses all government-to-business wealth transfers, including direct expenditures and tax expenditures. This new measure offers a clearer picture of the level of government support for businesses. Findings reveal that French public aid surged over three decades, reaching 8% of GDP by 2019, making it the fastest growing budget item since the 1990s. Fiscal policy has not been abandoned in the post-Fordist era; it is now employed as a supply-side strategy rather than a demand-side one. We also evaluate this fiscal policy, showing that while state aid has a limited impact on employment and investment, it significantly boosts corporate margins after the Great Financial Crisis.

Keywords: fiscal policy, tax expenditures, public aid, subsidies.

JEL: H25, H32, H61, H83

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Introduction

The Fordist growth regime was based on a virtuous circle between consumption and investment (Boyer, 2022, chapter 4). As describe by the traditional post-Keynesian accelerator mechanism, capital formation was determined by the speed of consumption growth (Blecker & Setterfield, 2019, p. 148). Increased labor productivity allowed wages and profits to grow, guaranteeing the social stability of capital accumulation.

This era was characterized by a specific set of institutions. Labor market regulations and unions' strength enabled stable wage increase. Monetary policy was oriented towards growth. The Fordist period was also associated with particular state interventions: the development of the Keynesian Welfare State (Jessop, 1993). The Keynesian Welfare state characterizes the development of new institutions and economic policies that promote growth and social welfare through the use of fiscal policy.

Before World War II, the state's role was largely confined to regalian functions. During the Fordist era, however, state involvement progressively extended into broader domains (André & Delorme, 1983). Following the war, social security systems and public services expanded markedly, with fiscal policy deployed to boost aggregate demand and sustain economic growth. Government expenditures grew at a faster pace than overall output.

The 1980s were a turning point. The long crisis of the 1970s eroded the Fordist compromise. New growth regimes took place (Baccaro & Pontusson, 2016). It required new fiscal policy regimes. Social spending and public services extensions were abandoned. Budgetary discipline became the new mantra for fiscal policy. These new compromises led to a decade of austerity after the Great Financial Crisis (Ortiz & Matthew, 2021).

Should this new era have meant the end of fiscal interventionism? Despite a brief resurgence of counter-cyclical fiscal policy in the aftermath of the GFC, Fordist fiscal policies have been progressively abandoned. However, new forms of state intervention emerged in the post-Fordist era (Alami & Dixon, 2020; Lepont & Thiemann, 2024). This new interventionism is marked by a strong pro-market orientation. It is less concern with income growth and well-being than with competitiveness and profitability. In the post-Fordist era, fiscal policy tends to focus more on supply than on demand.

In this paper we intend to document the resurgence of fiscal interventionism in the post-Fordist era: in the form of public aid to businesses. It is quite difficult to keep track of it, given the multiplicity of forms that aid can take. To capture its evolution, we constructed a new indicator that englobe multiple forms of fiscal support, especially direct expenditure and tax expenditure. It provides a better image of the evolution of fiscal public aid that ones provided by Eurostat and the European Commission. We have chosen to study the case of France because it is a paradigmatic example of state interventionism (Schmidt, 2003).

The paper offers three significant contributions to the study of new state interventionism and fiscal policy. First, how to measure it? Through a critical review of the existing literature, we introduce a novel indicator of public aid to businesses. It includes all transfers of wealth from the government to the corporate sector without material or financial compensation. We apply it to the French case, but it can be generalized to other countries. Second, how has it evolved? We measure the volume of fiscal support at the aggregate level in France since 1949. Our results show that it reached 8 GDP points in 2019. It is the fiscal intervention that experienced the fastest budget increase since the 1990s. Finally, is it an effective public policy? We evaluate the effectiveness of this new form of fiscal interventionism. It is inefficient in terms of employment and investment but tends to increase corporate margins.

The first section provides a literature review on fiscal interventionism in 21st century (1). Then we define the notion of public aid (2) and how to measure it (3). We documented its evolution at the aggregate level since 1949 (4). After that, we discussed its impacts on growth, investment and employment (5) and finished with some concluding elements (6).

I. Fiscal interventionism in the 21st century: a literature review

According to Wagner's law, State fiscal interventionism should increase with the level of development. "The more civilized society becomes, the more expensive the state becomes" (Wagner, 1876). The elasticity of public spending to growth in economic activity is said to be greater than 1. The increase in public spending is due to the emergence of three new needs (Lamartina & Zaghini, 2011). First, economic growth require that the state manage infrastructure and natural monopolies in order to improve economic efficiency (Henrekson, 1993). Second, real income growth facilitates the emergence of new social needs for "superior goods" such as education, culture and health. Finally, the expansion of economic activity, primarily urbanization, increase the complexity of society. Due to this complexification, the need for public protection and regulation activities increase, in particular higher public spending on law and order.

The Fordist period seems to confirm Wagner intuition. It was characterized by a sharp increase of the level of public spending. However, the crisis of the Fordist regime and the advent of post-Fordist growth regimes initially suggested that the state would be less fiscally interventionist. Three kinds of explications have been advanced to explain the adoption of fiscal conservatism: the State fiscal crisis, the transformation socio-politic cleavages and the adoption of new institutions.

1.1. The State fiscal crisis

Several arguments have been put forward to explain the rise of fiscal conservatism. The first set of factors deal with the ability of the State to raise taxes and finance expenditures. State

intervention should have declined because it entered in a fiscal crisis (O'Connor, 1973). The increasing demand for government expenditure should in the long run contradict the necessity of capitalist accumulation (ibid., chapter 3). The development of capitalist production necessitates an increasing socialization of the cost (infrastructure, formation of the labor force) that are financed through taxes. Fiscal receipts are collected on the wealth produced: wages and profits. The amputation of a part of the output could reduce profit reinvested or demand addressed to production. This phenomenon is amplified by the growing productivity gap between the private and public sector.

Recent decades have also been marked by the process of globalization. Globalization is understood as an increased flow of goods, services, capital, migration, the spread of technologies in which transnational compagnies (TNC) play a key role. In this context, TNC have the opportunity to develop their economic activities where tax level is low. Because of globalization, states are in fiscal competition (Genschel & Schwarz, 2011). It lead to social and fiscal dumping and exerts pressure to cut spending (Genschel, 2004). Tax competition is another factor that could lead to the State fiscal crisis.

The financialization of western public finance allow to postpone the fiscal crisis (Streeck, 2017). However, the increase in public debt eventually led to a budget crisis. Investors may become reluctant to lend to the state. Putting an end to the secular increase in public debt requires to abandon the Keynesian interventionist policy and to adopt a "leaner state". Government had to balance their budget and implement austerity policy. This "consolidation state" should have led to a reduction a fiscal interventionism (Streeck, 2017).

1.2. Fiscal conservatism: a political project

Another set of factors relates to the new political balance of power in mature capitalist societies. Left-wing parties, historically associated with the working class, have traditionally been more inclined to use fiscal policy and increase government spending, whereas right-wing parties, typically more fiscally conservative, have favored policies aimed at curbing spending growth. Numerous studies concur that, prior to the 1980s and 1990s, the partisan effect was the primary factor explaining the growth of public spending (Pierson, 1996; Huber & Stephens, 2002; Allan & Scruggs, 2004; Korpi, 2006; Potrafke, 2017).

The 1980s marked the beginning of neoliberal politics. It is as an era and a project for restoring the power of the capitalist and manager class (Duménil & Lévy, 2004; Harvey, 2005). Neoliberal policies are generally aimed at abandoning Keynesian macroeconomic management through fiscal policy. The Welfare State is expected to be scaled back, with social insurance, education, and healthcare increasingly framed as individual responsibilities (Harvey, 2005; Palley, 2020).

In terms of macroeconomic policy, it symbolized by the shift from the Keynesian to the monetarist paradigm. This change was also a process of social learning (Hall, Peters, 1993). Keynesian demand management failed to halt stagflation in the 1970s. Monetarism was a coherent alternative adopted by conservative government in 1980s to solve the crisis. It had also been progressively adopted by left-wing parties during following decades. This policy paradigm was initially normative, emphasizing the importance of monetary and supply-side policies. It progressively became normalized and necessitarian (Hay, 2004).

Fiscal conservatism is a cornerstone of this political project. It has been adopted by political parties all across the political specter, even traditional left-wing parties. The third way, led by Tony Blair (Labour) or Gerard Schröder (SPD), symbolize this new "pro-austerity" left.

1.3. Fiscal conservatism as a product of institutions

The final set of factors pertains to institutions that promote the adoption of restrictive budgetary policies. At the national level, these institutional changes primarily involved fiscal administration and central banks. New laws were introduced to limit or prohibit deficits. For instance, the German "debt brake" restricts annual structural deficits to 0.35% of GDP and was incorporated into the German constitution in 2009 (Articles 109 and 115). Similarly, since 2008, the French loi de programmation des finances publiques has outlined multi-year plans for state income and expenditures to achieve a balanced budget. While the French fiscal framework is less conservative than its German counterpart, the objectives are the same: to limit deficits and curb expenditure growth.

The relationship between the treasury and the central bank is also a key factor in assessing the existence of state budgetary constraints and its capacity to spend (Lavoie, 2013; Nersisyan & Wray, 2021). In the post-Fordist era, this relation has been shaped by the "central bank independence" principle Hartwell (2019). Central bank should follow rules and limits discretionary interventions. The rules are set according to the New Macroeconomic Consensus framework (Arestis & Sawyer, 2003, 2010; Arestis, 2009). The primary objective of monetary policy is to control inflation. Direct advances and interventions in sovereign secondary markets are restricted or outright prohibited. This new institutional framework can result in growing debt burdens that impose constraints on the state.

The European integration favored the adoption a fiscal conservatism. The European Central Bank have been shaped according german wishes (Bibow, 2013). Any support to fiscal policy was prohibited. The European fiscal policy framework is also very restrictive. It is governed by three key principles (Ferreiro et al., 2012b,a). Governments are encouraged to reduce public deficits and lower public debt levels, with a concurrent focus on decreasing public spending and taxation. These objectives align with the Ordoliberal tradition, which emphasizes the importance of maintaining low deficits and adhering to sound fiscal policies (Lechevalier, 2015).

Since creation of the Euro zone, this framework has become more and more restrictive (Barnes et al., 2012). The Maastricht Treaty (1992) set targets of a 3% public deficit and a 60% debt/GDP ratio. While not directly limiting public spending, it imposed balanced budget requirements, which had a pro-cyclical effect. The Stability and Growth Pact (1997) further emphasized balanced budgets, with penalties for exceeding the deficit limits. The SixPack (2011) strengthened fiscal oversight through the "European semester", monitoring public spending growth and introducing a debt-reduction requirement. Then the Treaty on Stability, Coordination, and Governance (2012) mandated structural deficit limits of 0.5% of GDP. And the Two-Pack (2013) allowed the European Commission to review national budgets before parliamentary approval.

The new EU budgetary rules (2024) are still very conservative. Maastricht Treaty's targets are maintained. Countries with excessive debt must reduce it by 0.5-1% annually, depending on debt levels, and deficits above 3% of GDP must be reduced to 1.5% during growth periods. If the new rules offer some flexibility in the adjustment timeline, important spending reductions are still required under this new framework (Darvas et al., 2024).

International institutions have also championed austerity policy. Their positions on economic policy have been summarized in the "Washington Consensus" (Williamson, 2009). Even if there is some ambiguities on the role of fiscal policy, sounds fiscal policy is a core idea of the Washington consensus (Marangos, 2009). For example, policies recommendation by the IMF advocated in substantial expenditures reductions. Financial packages have been conditioned to the adoption of structural reform, e.g. reduction of government spending. These conditions have led to substantial public expenditure cuts (Rickard & Caraway, 2019).

1.4. Fiscal interventionism in the 21st century

The advent of fiscal conservatism has not, however, buried state interventions. Recent works have even emphasized the return of state interventionism (Alami & Dixon, 2020; Gabor, 2023; Lepont & Thiemann, 2024). This literature has led to the emergence of several concepts: "state capitalism," "investor state," or "derisking state," which often encompass the same interventions but articulate them around different institutional logics. However, all these works have highlighted the growing importance of state interventionism in the post-Fordist era.

The return of state interventionism accelerated with the Great Financial Crisis and the COVID-19 pandemic. Yet, recent state interventions differ significantly from those of the Fordist era. The "positive state," which directly intervened through fiscal policy and public ownership, has been replaced by new forms of state action (Prontera & Quitzow, 2022). States now utilize sovereign wealth funds, public investment banks, tax incentives, public-private partnerships, or regulatory measures. This new fiscal interventionism does not signify a return to demand-side policies but represents an expansion of supply-side policies.

These new forms of state intervention have spurred the resurgence of "state capitalism" (Alami & Dixon, 2024). This broad and flexible concept refers to a configuration of capitalism where the state assumes a new and stronger role (Alami et al., 2022). Direct control of production, through full public ownership, has been replaced by new forms of government participation: the incorporation of private sector management methods, the development of public-private ownership, and new forms of industrial policy (Musacchio et al., 2015). Public funds or public procurement also play a critical role (Wright et al., 2021). This new capitalist state is characterized by a pro-market orientation.

The impact of the rise of state capitalism on fiscal interventionism is ambiguous. On one hand, some forms of intervention require fiscal measures. On the other hand, the pro-market orientation of this new interventionism has led to reduced tax rates, which could constrain fiscal interventionism. Alternative forms of fiscal policy are more likely to be adopted.

The "derisking state" provides a more precise description of the institutional logic behind these new state interventions (Gabor, 2023). The state mobilizes private capital to achieve public policy objectives by adjusting the risk, price, and return of private investments. It employs monetary, fiscal, and regulatory tools to derisk private assets. The choice of derisking instruments—loans, guarantees, equity shares, tax credits—depends on domestic macroeconomic conditions and geopolitical priorities. In this perspective, the rise of institutional financial actors, such as pension funds, insurance companies, or hedge funds, partially replacing the welfare state, necessitates low inflation to preserve asset values. Consequently, the resulting "derisking" policy is characterized by inflation targeting by central banks.

The "derisking state" employs various forms of fiscal policy to achieve its goals (Gabor & Braun, 2023). In the context of ecological transition, a weak "derisking state" limits its actions to raising carbon prices, while a stronger "derisking state" provides direct or indirect subsidies for green investments. These policies primarily rely on incentives— "carrots" without "sticks" (Tirole, 2017). The rise of the "derisking state" explains the return of fiscal interventionism.

The "investor state" literature offers another interpretation of new fiscal interventionism (Lepont & Thiemann, 2024). As with the "derisking state," these interventions aim not to replace private actors but to stimulate and encourage their participation in strategic sectors.

This new interventionism is compatible with austerity (Lepont, 2024), as governments "invest" in politically significant areas while cutting back on others, such as social protection and public housing.

These new forms of interventionism align with the institutional and political evolutions of the post-Fordist era. Post-Fordist political compromises "do not make the state or particular institutions of the state (...) irrelevant" (Harvey, 2005, p.78). Instead, they represent a reorientation of state activities toward supply-side policies. These interventions are also compatible with contemporary institutions, particularly European budgetary rules. They often

take the form of tax credits or guarantees that are not recorded as direct expenditures. New fiscal interventionism combines new government spending or socio-fiscal measures with austerity. On the supply side, tax breaks, tax credits, and subsidies benefit companies, while on the demand side, social spending and public services are reduced.

This new interventionism has led to a sharp increase in a particular fiscal policy tool: public aid to companies. This aid can take various forms, including tax credits, tax breaks, or direct subsidies. It represents a supply-side policy that aligns with austerity measures in other traditional fiscal policy areas. Today, state aid is one of the major components of this new fiscal interventionism.

II. Defining public aid to businesses

Public aid to businesses is nowadays a major form of fiscal intervention. However, there is no standardized statistical indicator that corresponds to it. This absence is paradoxical considering how the quantitative logic and evaluative culture dominate public management (Supiot, 2015).

This lack is understandable, as it is difficult to define what constitutes public aid. While the term may seem relatively simple to grasp at first glance, in practice it refers to a wide range of interventions. Public aid "are provided in very diverse forms and modalities, making their definition and evaluation often delicate and sometimes arbitrary" (Dutailly, 1984). The issue is not new and remains complex because already existing concepts do not refer to the same scopes[1] and thus the same amounts (Clements et al., 1995; Schwartz & Clements, 1999; Pearce, 2003).

This point has been highlighted in France by The General Commission for Strategy and Foresight, a service of the French Prime Minister: "[there is] no exhaustive and consolidated annual inventory of public economic interventions, as the schemes and data sources are numerous and the methods of intervention varied" and that "the very scope of these interventions [can differ] depending on the definition of business aid adopted" (Aussilloux et al., 2020). In this perspective, the definition of the scope is crucial to clarify the notion. First, we expose already existing concepts of "public fiscal and budgetary aid to businesses" and then we propose our own concept and define its scope.

2.1. Established concepts

The first concept that attempts to measure state aid is found in national accounts. The category D3, e.g. subsidies, is defined as "current unrequited payments which general government [...] make to resident producers" (Eurostat, 2010). These are direct expenditures that flows without

[1] Public aid, public intervention, economic intervention, State aid, public support, subsidies, transfers, etc.

counterpart from the general government to all institutional sectors (in particular, households and non-financial corporations). However, the scope of this indicator remains too narrow. Certain financial transfers to companies are not classified as subsidies but are instead categorized as other current transfers (D7) or capital transfers (D9). Including subsidies, current transfers, and capital transfers offers a more comprehensive measure of government support. Despite this adjustment, the scope remains too restrictive. Public aid includes various forms of intervention, not just direct expenditures. Tax expenditures also constitute fiscal support, though they are not recorded as expenditures under the national accounts definition, except for certain tax credits. Tax expenditures refer to all expenditures made through the tax system (Brixi et al., 2004). They represent forgone government revenue through mechanisms such as tax exemptions, credits, and deductions (Morel et al., 2020). These measures alter the tax system's structure and ultimately function as an alternative form of fiscal policy designed to support businesses.

Another measure of public support is proposed by the European Union. Due to the importance of undistorted competition within the internal market, Member States have established a legal framework to regulate public policies that support firms (OECD, 2001; Mause & Gröteke, 2017). State aid encompasses all "aid granted by the State or through State resources in any form whatsoever which distorts or threatens to distort competition by favoring certain undertakings or the production of certain goods"[2]. All interventions can be considered as State aid if it presents the following four characteristics: a transfer of public resources; an economic advantage granted without compensation; the selective nature of the intervention, which does not concern all companies; and an impact on trade between Member States (Derenne et al., 2007). In principle, any interventions meeting these criteria is considered as public aid and is contrary to the Treaty on the European Union or at the very least to its underlying spirit. In practice, however, some aid are considered compatible with the common market if it is considered as a legitim exemption. Indeed, European Union law has gradually admitted certain exceptions while establishing a control system to regulate the economic Member States interventions. Without aiming for an exhaustive presentation, de minimis rule and the General Block Exemption Regulation (GBER) are two common examples of possible exceptions. The first one posits that below a certain amount[3], aid cannot affect trade between Member States and the second one lists all categories of aid that are compatible with the internal market.

The European Commission provides a measure through the State Aid Scoreboard, which tracks both the content and the annual amounts allocated by the general government of each European Union member country to firms. Since 2000, the cost relative to GDP has remained relatively stable in the main Eurozone member states, with a significant increase in 2020 due to the COVID-19 pandemic. The European Commission estimated this cost at roughly €9

[2] Article 107, *Official Journal of the European Union, Treaty on the Functioning of the European Union*, 2012.
[3] Sums not exceeding 200,000 euros, granted over a three-year period, are not considered State aid.

billion in 2000 for France (0.6% of GDP), which has now increased to approximately €45 billion in 2022 (1.69% of GDP, with 0.94% for non-crisis aid).

Subsidies fall within the scope of the European definition only if they are selective. This definition also encompasses all other forms of selective aid to the private sector that beneficiate from GBER. The European Commission's indicator is problematic because it does not account for economic interventions directed at all firms within the national territory. All forms of public aid not recorded in the State Aid Scoreboard are considered non-existent, leading to a significant underestimation of public support (see below).

2.2. Definition and scope

Our work is based on analyses conducted by the French administration, which has long been producing reports on public aid to firms. It has employed two approaches to study this issue: either evaluating only a part of the public aid or a specific scheme, or producing a report with an overview of all existing schemes. The first approach is more prevalent in administrative and economic literature compared to the second.

In the first case, the approach focuses on specific cases. It generally aims to evaluate the scope and efficiency of particular programs from a microeconomic perspective. To move towards a more comprehensive approach, a review of these studies can be conducted to integrate all the dispersed information from administrative reports and available statistical data.

In the second case, the approach is global. The issue is to evaluate the level of fiscal support at the macroeconomic level. The administration defines ex ante what constitutes the scope of public aid and then provides both an overview and a global quantification, albeit only for one or several years (Commissariat Général du Plan, 2003; Conseil d'Orientation pour l'Emploi, 2006; Inspection générale des finances, Inspection générale de l'Administration, Inspection générale des affaires sociales, 2007; Conseil des Prélèvements Obligatoires, 2010; Inspection Générale des Finances, 2013, 2024).

Our work is based on the second approach. Building on insights gained from it, we propose a general definition of public aid as: a transfer of wealth from the general government sector to the corporate sector that is certain and provided without financial or material compensation for the former.Our concept is not limited to what is typically referred to as business or industrial policy, as most public aid to firms is not classified as such by the public administrations that provide it. A significant portion of fiscal support for companies is considered part of employment policies (e.g., social contribution reductions on low wages), research policies (e.g., research and innovation tax credits), competitiveness policies (e.g., tax credit for competitiveness and employment), or support for specific sectors (e.g., tax expenditures related to VAT in the catering sector). In contrast to the EU definition, the selectivity criterion is abandoned. We adopted a more general criterion, including all transfers flowing from various

public budgets to the corporate sector. We adopted the same definition of the state as that used in national accounting. The state refers to the public administration sector, which includes all institutional units that operate under the legal authority of the government and whose outputs are not sold at economically significant prices (Eurostat, 2010).

We restricted our concept of aid to fiscal transfers, excluding all non-fiscal interventions from the scope of our indicator (regulatory protection for example). Furthermore, not all forms of public fiscal support are included in our scope. We restrict our focus to fiscal interventions that do not result in any form of compensation to the state. Consequently, equity investments or instruments related to public financial guarantees are excluded. For example, the public sector can support companies by taking equity stakes; in this case, the government acquires assets in the form of shares that can be sold later. Similarly, loans represent only a potential cost for the administration, as they are expected to be repaid by firms. They constitute a cost to public finances only if the firm defaults. The financial cost incurred by the public authority in the form of interest payments is recorded as a subsidy in national accounting. Therefore, while equity investments and financial guarantees are economic measures in favor of firms, they do not truly constitute public aid because the state could potentially benefit from these actions in the future.

We have also chosen to include all forms of subsidies in our indicator, including subsidies on products (D.3.1). While these subsidies may also benefit households depending on price dynamics and market structures, we believe they serve as a tool to facilitate the circulation of goods, supporting both businesses and households. From an economic perspective, the distinction between subsidies on production and subsidies on products is not necessarily meaningful, as both ultimately affect product prices in the same way (Ruffle, 2005).

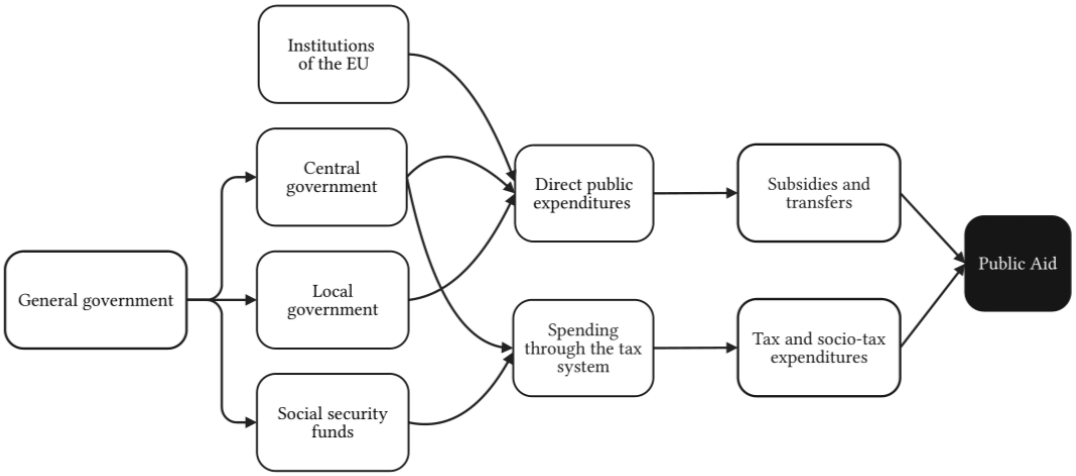


Figure 1: Conceptual definition of public aid to firms

Public aid manifests in two primary forms, as indicated in Figure 1: tax expenditures and subsidies. Tax expenditures are understood as public expenditures made through the tax system (Brixi et al., 2004; Burman et al., 2008); they encompass all reductions in compulsory levies that deviate from a standard fiscal norm, thereby reducing the business's tax liability. Subsidies refer to direct public expenditures that are explicitly translated into budget allocations to businesses. Both forms of aid administratively involve the three public budgets: central government, local authorities and social security funds.

III. Measuring public aid

To measure public aid to businesses, it is necessary to combine two types of data:

- National accounting data for direct public expenditures (explicit budgetary charges benefiting to firms).
- Administrative accounting data for tax expenditures (support provided through the tax system).

The former refers to subsidies and transfers recorded in national accounts[4]. Data provided concerned subsidies (D3), capital transfers (D9R), specifically investment aids (D92R) and other capital transfers (D99R), along with additional transfers classified under D.75.

The latter refers to reductions in public revenue resulting from modifications to the standard tax system. The social security budget is also affected, with reductions in its financial resources referred to as socio-tax expenditures. Both tax and socio-tax expenditures reflect public efforts to deviate from the standard tax framework. These expenditures encompass all measures that cumulatively result in a loss of revenue for the state budget and represent a deviation from a reference fiscal norm (i.e., a deviation from the baseline legislation).

The administration does not calculate the net cost of tax and socio-tax expenditures—i.e., the cost that would account for any additional public revenue generated by behavioral changes induced by the preferential tax measure. Instead, it provides a gross cost estimate through various methods, such as simulations and reconstructions of the taxable base, particularly from tax declaration data. In other words, the administration offers a static rather than dynamic estimate of the expenditures associated with these preferential measures.

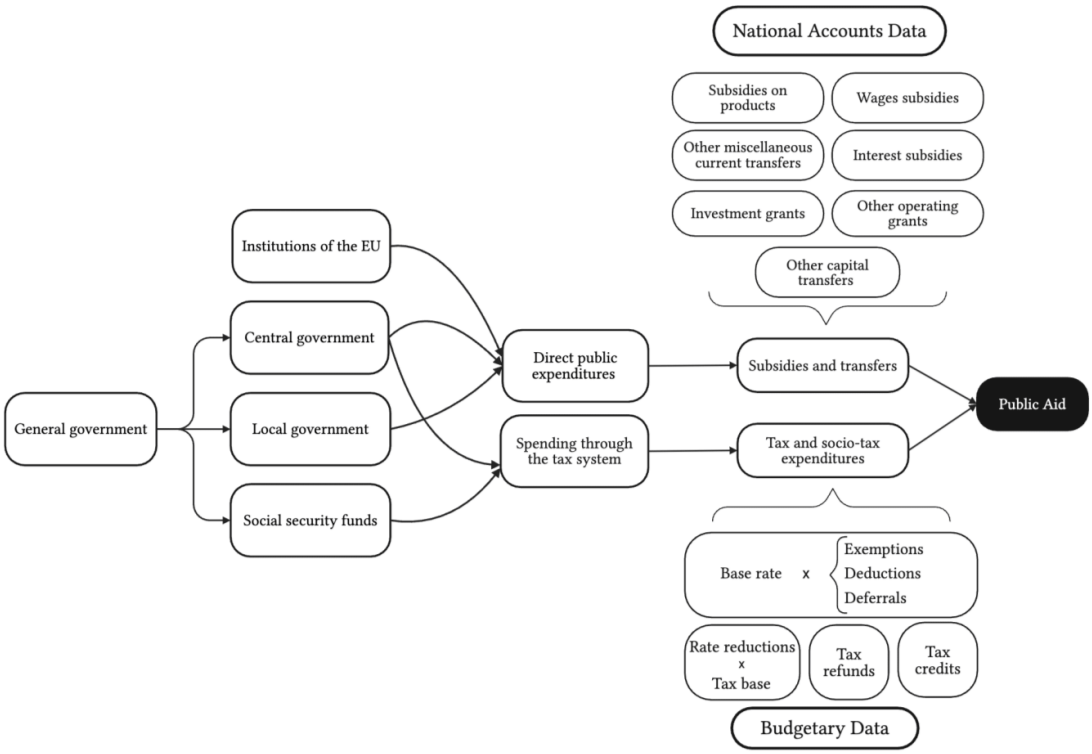
These expenditures are unpacked between classified tax expenditures ("*dépenses fiscales classées*"), which are officially recognized as such by the administration, and declassified expenditures

[4] Reflected in the generation of income account, the secondary distribution of income account, and the capital account of non-financial corporations.

("*dépenses fiscales déclassées*"), which have been removed from the scope but continue to be recorded (in some cases) and quantified. We excluded declassified expenditures from our indicator, as they are regarded as mere tax calculation methods rather than genuine tax expenditures.

There is no standardized source for tax expenditure data. The Global Tax Expenditure Database (GTED) provides informations on tax expenditure at the international level (Beznoska et al., 2023; Redonda et al., 2024). However, it suffers from three significant limitations: it only provides data from the late 1990s onward, covering just the last two decades; it includes only tax expenditures at the central government level, thus excluding socio-tax expenditures from social security administrations; and it incorporates declassified tax expenditures.

Figure 2: Components of public aid to firms



Using data from French administrative sources, the work involved decomposing, organizing, and consolidating the information to ultimately total all measures legally benefiting companies, as listed in Volume II of the Ways and Means Report ("*Projet de loi de finances*") and in Appendix 5 of "*Projet de loi de financement de la Sécurité Sociale*", the French equivalent for the Budget Resolutions. These appendices indicate the beneficiaries of the measures, whether they are businesses or households. The quantification effort, therefore, involved annually accounting for all measures benefiting firms based on the different compulsory levies they pay, namely, all provisions related to corporate tax, product taxes, employers' actual social

contributions, and a set of others[5]. Although the data starts from 1949, there is a break in the series since tax expenditures are only quantified since 1979. The deviations from the standard fiscal norm were still in their infancy and would only accumulate over time. There were only 55 between 1979 and 1984 compared to 138 between 2015 and 2020[6].

Our method is valid on other country than France. It requires a combination of national accounts and administrative data.

IV. Public aid in France since 1949: a comprehensive and longitudinal quantification

French public aid to businesses experienced a sharp increase since 1949 (Figure 3). This change took place during the last three decades: the amount of public aid almost double. This sharp increase illustrates the new form of fiscal interventionism associated with the post-Fordist era. While growth of operating and social spending has been limited, fiscal support to businesses increased dramatically. In 2019, public aid represented 8 GDP points, around 200 billion or 14,3 percent of public expenditures. Thus, our estimates are two to four times higher than those from the National Accounts or the European Commission (*State Aid Scoreboard*).

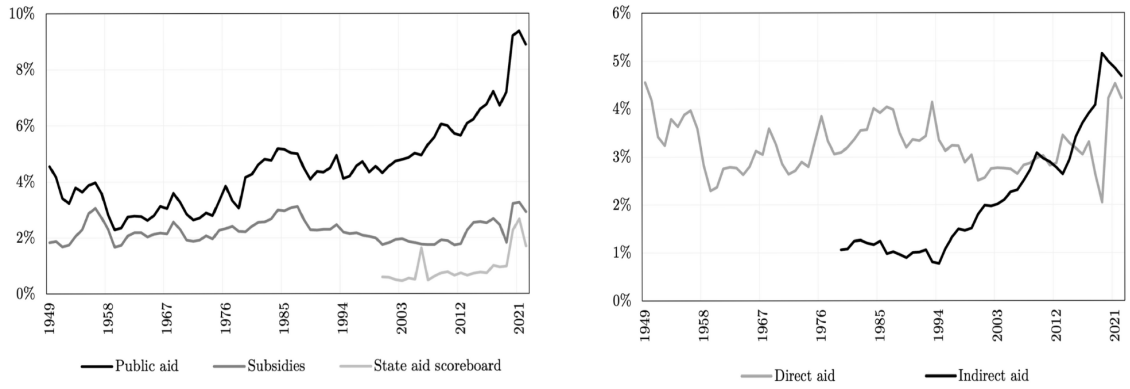


Figure 3: Public (direct and indirect) aid, subsidies and state aid to firms (as a percentage of GPD), 1949-2022

Source: Authors' calculations based on Appendices to Finance Bills, Assessment of Ways and Means, Volume 2; Social Security Financing Bills, Appendices 5, Presentation of Measures for the Exemption of Contributions and Their Compensation; Annual reports Acoss-Urssaf ; Non-financial corporations (S11) and unincorporated enterprises accounts (S14AA), Annual National Accounts (2020 Base); State aid scoreboard, European Commission. Direct aid encompassed subsidies and transfers, recorded in national accounting, whereas indirect aid refers to tax and socio-tax expenditures (including tax credits).

[5] The database has already been presented and used at an aggregate level (Abdelsalam et al., 2022; Abdelsalam & Delatte, 2023; Abdelsalam et al., 2025), but it has not yet been integrated with other subsidies and transfers to form the public aid category.

[6] The full timeline is 55 between 1979 and 1984, 69 between 1985 and 1990, 76 between 1991 and 1996, 74 between 1997 and 2002, 110 between 2003 and 2008, 139 between 2009 and 2014, and 138 between 2015 and 2020.

Public aid was limited to between 2 and 4 points of GDP from 1949 to the end of the 1990s. It declined from 1949 to 1958. Then, it is rather stable. There is also a modest increase in 1979, approximately 1 GDP point, attributed to the inclusion of tax expenditures in our indicator calculation (data are unavailable prior to this period as the concept did not yet exist). However, this does not alter the overall dynamic; public aid remained limited from 1949 until the end of the 1990s. After that, it experienced a dramatic increase.

The evolution of the composition public aid reveals the apparition of a new form of fiscal policy, i.e. indirect support mechanisms (Figure 3), reflecting a transformation in state interventionism. Over time, direct subsidies, traditionally aimed at specific sectors or firms, have gradually been overtaken by indirect forms of aid such as tax and socio-tax expenditures. This change indicates a broader strategy of supporting corporate sector through tax exemption while direct financial transfers remain stable.

What kind of help do these public aid programs provide? To investigate this issue, we break down fiscal support according to the stages of economic cycle: accumulation, production, and distribution (Figure 4). The first phase, accumulation, concern the investment in production capacity. Public authorities can either provide direct financial support for investment or reduce corporate tax burdens (tax expenditures). These latter measures aim to lower the cost of taxation on profit, thereby allowing a larger share of it to be allocated towards self-financing. Interventions during the production phase encompassed employment subsidies, production tax and social contribution exemptions. The latter accounts for the bulk of the taxes paid by French companies. These interventions aim to reduce the costs associated with the use of capital and labor during the production process.

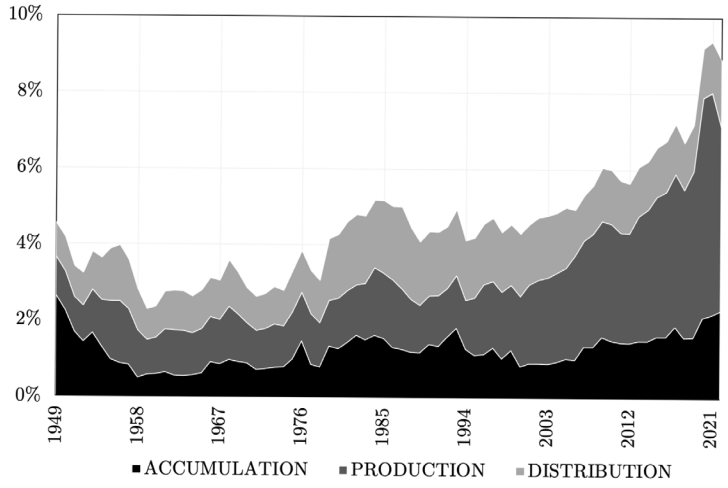


Figure 4: Interventions during the stages of the economic cycle

Source: Authors' calculations based on Appendices to Finance Bills, Assessment of Ways and Means, Volume 2; Social Security Financing Bills, Appendices 5, Presentation of Measures for the Exemption of Contributions and Their Compensation; Annual reports Acoss-Urssaf; Non-financial corporations (S11) and unincorporated enterprises accounts (S14AA), Annual National Accounts (2020 Base).

Finally, during the distribution phase, firms receive support to bring their products to market. This includes general assistance for foreign trade, product subsidies, and tax reliefs related to VAT and excise duties. These measures aim to reduce the prices of goods and services to stimulate sales.

The state intervenes at every stage of a firm's economic cycle; however, public aid is predominantly concentrated in the production phase. In France, particular emphasis has been placed on labor costs. By the end of the 1990s, labor costs were regarded as the principal weakness of the French economy (L'Horty et al., 2019). However, the policies did not target direct wage reductions as they did in Germany (Krzywdzinski, 2014). Public aid programs were introduced to reduce the tax burden associated with employment[7]. These programs aimed to decrease the tax costs associated with labor, which are considered part of labor costs, without affecting net wages. This led to the introduction of several tax reduction initiatives, including employer social contribution exemption programs (1993, 2003, 2014, 2019), the extension of tax credit for research and development (2000, 2004, 2008), and the introduction of the tax credit for competitiveness and employment in 2013 (CICE).

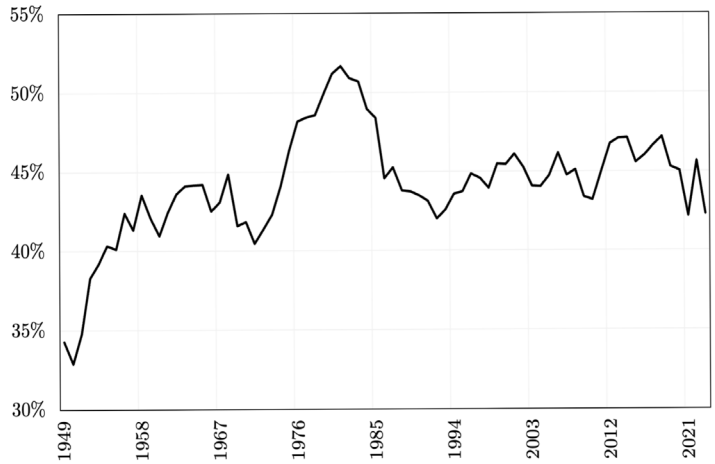


Figure 5: Net tax effort of non-financial corporations

Source: Authors' calculations based on Appendices to Finance Bills, Assessment of Ways and Means, Volume 2; Social Security Financing Bills, Appendices 5, Presentation of Measures for the Exemption of Contributions and Their Compensation; Annual reports Acoss-Urssaf; Non-financial corporations (S11) and unincorporated enterprises accounts (S14AA), Annual National Accounts (2020 Base).

The net tax effort is defined as the proportion of their net income that is appropriated by the general government after accounting for the aid provided (Abdelsalam, 2024). The substantial

[7] Due to the specificities of the French welfare state, a significant portion of the corporate tax burden is linked to wages.

increase in public aid has not led to a reduction in businesses' net tax effort, with only a modest decrease observed since 2013 (Figure 5). Instead, it has contributed to the stabilization of this effort. Notably, the net tax effort tends to be procyclical; its stabilization during a period of very low growth due to the Eurozone crisis underscores the influence of public aid. Prior to the 2010s, the decline in the tax effort was primarily attributable to the rising value-added produced by the corporate sector. However, since then, it has been driven by the implementation of extensive public aid programs.

V. Is public aid to firms an effective tool of fiscal policy?

Since their implementation, public aid to businesses has been the subject of numerous evaluations. Theses evaluation have mainly been conducted on a program-by-program basis. Given the wide array of public aid schemes, there is a pressing need for a comprehensive global assessment. This requires revisiting the theoretical foundations that justify such aids, offering a critique from a theoretical standpoint, and highlighting their limited empirical effectiveness. Particular attention should be paid to programs involving reductions in social security contributions and the two largest initiatives: the *Crédit d'Impôt Recherche* (CIR) and the *Crédit d'Impôt pour la Compétitivité et l'Emploi* (CICE)[8].

5.1. Assessment of aid aimed at reducing labor costs and supporting competitiveness

In France, public aid in the form of social contributions reduction (including the transformation of the CICE) aimed to reduce labor costs to promote employment of low-skilled workers on one hand, and to improve the international competitiveness on the other hand. Reducing labor costs for resident companies is seen as a way of improving the trade balance, curbing deindustrialization and supporting national employment.

In neoclassical microeconomic framework, a reduction in labor-related taxes has two primary hypothetical effects. First, it leads to an increase in employment due to the lower relative cost of labor, and second, an increase in output resulting from lower prices.

[8] The CICE was introduced in 2013 and transform in 2019 in social contribution permanent exemption. It aims to improve French corporate competivity by decreasing their tax burden. This program has resulted in an annual corporate tax cut of 20 billion euros. Its effect was low and subject to vast controversy. Because of the size of the program, its implementation led to numerous evaluations. There were mostly realized by research teams from the Laboratory for Interdisciplinary Evaluation of Public Policies (LIEPP), the French Observatory on Economic Conjoncture (OFCE) and the Theory and Public Policy Evalutation CNRS Federation (TEPP) under the supervision of the Prime Minister cabinet.

The first effect is known as substitution. Companies are encouraged to adopt a less capital-intensive production process. The relative decrease in labor costs incites businesses to use labor (which is relatively inexpensive) instead of capital. Similarly, the reduction in the relative cost of unskilled labor compared to skilled labor leads to a substitution effect among these inputs. As a result, unskilled labor will be utilized in greater quantities due to its lower cost relative to other inputs (Beffy & L'Angevin, 2005; Bock et al., 2015). However, the elasticity of substitution between capital and labor, one of the foundations of these labor cost reduction policies, is not supported by empirical estimates (Sterdyniak, 2002; Husson, 2015). In the post-Keynesian framework, production is seen as result of the use of complementary input (Blecker & Setterfield, 2019, p.17), not substitutable. So the substitution effect does not work.

The second effect, known as the volume effect, occurs when firms transmit cost reductions by lowering sale prices or reinvesting the increased profits generated from the reduced tax burden. Additionally, a competitiveness effect may arise from price reductions in export sectors (Schott, 2004). Together, these effects can lead to an increase in demand and production. However, the observed effects on external competitiveness are, at best, moderate, as competitiveness does not primarily hinge on cost factors (Malgouyres, 2019; Garsaa & Levratto, 2019).

In the post-Keynesian theory, prices are regarded as relatively rigid and respond minimally to fluctuations in demand. This result is supported by a growing empirical literature (Melmies, 2010). If the transmission of labor cost reduction to the price is only partial, as supported by the literature (Carbonnier, 2007; Kosonen, 2015; Benzarti & Carloni, 2019), then the volume effect is diminished, along with job creation.

Prices[9] systematically adjust more strongly in response to increases than to decreases, particularly regarding labor costs (Fabiani et al., 2006) and also for taxes on products (Carbonnier, 2008; Politi & Mattos, 2011; Benzarti et al., 2020). If price reactions to changes in costs are asymmetric, suggesting that reductions in compulsory levies are not reversible without consequences. If firms only partially pass on cost reductions but nearly fully pass on cost increases, the removal of exemptions will result in higher prices. This price increase, coupled with unchanged net wages, leads to a decline in purchasing power and a deterioration of price competitiveness. This suggests that the effects of reductions in compulsory levies on businesses may lead to a permanent increase in the share of profits within value added, even

[9] In a neo-Schumpeterian and post-Keynesian framework, prices are determined by two key elements (Bloch, 2018): i) the cost-plus principle, whereby firms calculate their costs and apply a markup on these costs; and ii) the concept of price leadership, which posits that the most competitive firm sets a reference price that other firms subsequently follow. According to the cost-plus principle, when costs fluctuate within a given market structure, firms should ideally reflect both increases and decreases in costs in their prices due to competitive pressures. However, in practice, firms' responses are asymmetrical; they tend to pass on price increases more readily than decreases.

if these contributions were reinstated, as firms are likely to raise their prices rather than reduce their margins (hysteresis or lock-in phenomenon) (Abdelsalam et al., 2022).

Ultimately, public aid designed to reduce labor costs or enhance labor-cost competitiveness tend to produce the opposite effects from those they claim to address (Botte, 2024). Mechanisms aimed at decreasing labor costs may disincentivize firms from investing in the renewal of their productive equipment and improving labor productivity. Consequently, firms' competitiveness diminishes, prompting policymakers to justify new aid measures and wage moderation policies.

Finally, given the budgetary framework, these measures must be financed, and the associated macroeconomic balancing appears to further limit the positive effects of these policies on growth and employment. This is because their financing leads to a reduction in demand for businesses, both directly through public procurement and indirectly through an increase in the fiscal burden on households (Plane, 2012; Abdelsalam, 2024).

Table 1: CICE evaluations on employment, wages, economic activity, and competitiveness.

Article	Employment	Wages	Economic activity	Competitiveness
Gilles et al. (2016)	+45,000 to +115,000	–	0	ULC decrease
Guillou et al. (2016)				ULC decrease
Carbonnier et al. (2016)	0	+	+ Profit for small and medium businesses	
Gilles et al. (2017)	+ workers and – executives	–	0	
Carbonnier et al. (2017)	0		0	
Monin & Castillo (2018)				Production prices decrease
Gilles et al. (2018)	+255,000 between 2013–2015	+		
Carbonnier et al. (2018)	0	+		
Guillou (2018)			No effect on investment	
Ducoudré et al. (2018)	+110,000 to +330,000		0	
Ducoudré & Yol (2020)	+170,000 in 2017		0	Positive effect
Gilles et al. (2021)	Positive effect (services)		0	

Note: '0' indicates no effect detected. Empty cells (marked as '–') indicate that the variable was not within the scope of the study.

According to post-Keynesian theoretical framework, public aid aimed to reduce production cost does not seem to be efficient. Empirically, studies that have attempted to demonstrate the expected causal chains do not yield convincing results 1. The CICE tax exemption amounted to 20 billion euro a year. In the best case, the CICE lead to the creation of 170 000 new jobs per year[10]. The French government spent, in the best case, 120 000 euros per new job created, mostly in the service sector. According to other study, it did lead to any job creation. It also has had virtually no impact on investment but led to small labor cost reduction.

5.2. Assessment of aid aimed at supporting innovation

Another important objective of French businesses support is R&D. From a neoclassical perspective this specific public aid is justified because of market failures. Firms that invest in R&D often generate knowledge and innovations that benefit other firms, yet they are not fully compensated for these positive externalities. This market failure, where the private returns on R&D are less than the social returns, necessitates public intervention to encourage R&D investment. Public support, such as subsidies or tax credits, is crucial because markets alone do not provide sufficient incentives for firms to undertake R&D, particularly when the gains extend beyond the firm itself. Indeed, the broader economic benefits of innovation are not fully internalized by individual firms, as innovation tends to "spill over" to other economic actors who do not share in the initial costs of R&D (Nelson, 1959; Arrow, 1962). Therefore, public intervention is justified to bridge the gap between private and social returns, ensuring that innovation is pursued to its full potential.

Proponents of public aid for businesses often contend that these measures aim to enhance companies' innovation capacity, in addition to generating employment effects. Despite the French government's notably generous financial assistance, private sector R&D efforts remain lower than those in other advanced economies, such as Germany, South Korea, and the United States. According to the estimations, the main program that aims to stimulate R&D, the Research Tax Credit (CIR)[11] operates more defensively than offensively (Aussilloux et al., 2020). Its short-term impact is primarily to mitigate the decline in private R&D spending and to prevent the relocation of R&D centers abroad. Furthermore, a significant portion of CIR benefits is concentrated among large corporations, despite the scheme having the least significant impact on these firms: positive effects of the CIR for small and medium-sized enterprises (SMEs) but non-significant effects for large firms (Harfi & Lallement, 2020).

[10] This the most generous evaluation that only prevail for 2017.
[11] Introduced in 1983, the CIR is now the most generous tax incentive among OECD countries relative to GDP. Its primary objective is to stimulate economic growth and employment. In 2019, the combined budgetary cost of the research tax credit (CIR) and the innovation tax credit (CII) approached €6.6 billion, with the CIR accounting for the majority of this expenditure.

At the macroeconomic level, the growth of indirect R&D aids has closely mirrored that of corporate R&D efforts, suggesting a simple potential effect of addition (one euro in tax expenditure generates only one euro in additional R&D spending by firms). The ratio of gross domestic expenditure on R&D (GERD) to GDP increased by 0.16pp between 2007 and 2019, while the ratio of direct and fiscal aids for R&D relative to GDP rose by just under 0.18pp between 2007 and 2018. In other words, the overall increase in public support for R&D (+0.18pp) has resulted in a slightly lower rise in corporate R&D efforts (+0.16pp), indicating a marginally negative leverage effect of public aid.

Econometric studies aiming to measure the effects of R&D aid often pose the following question: for every euro of public R&D aid received, how much does the company spend on R&D? The goal is to calculate a fiscal aid return rate, also called Bang for the Buck (BFTB) or incrementality ratio (IR), which relates the total observed variation in R&D expenditures carried out by companies (including the subsidized portion) to the total variation in the amount of aid. This approach seeks to evaluate the effectiveness of public intervention by determining whether it stimulates additional private investment in R&D or merely replaces it.

$$\text{BFTB} = \frac{\Delta \text{ R\&D expenditure}}{\Delta \text{ Public Aid}} = \frac{\Delta \text{ Private R\&D expenditure} + \Delta \text{ Public Aid}}{\Delta \text{ Public Aid}} = 1 + \frac{\text{Private R\&D expenditure}}{\Delta \text{ Public Aid}}$$

If BFTB:
- = 1 : additionality effect (private R&D expenditure is equal to the amount of public aid);
- > 1 : crowding-in (or leverage) effect (private R&D expenditure exceeds the amount of public aid);
- < 1 : partial crowding-out effect (private R&D expenditure is lower than the amount of public aid);
- = 0 : total crowding-out effect (despite the public aid, no private R&D expenditure is undertaken).

Public aid for R&D—of which the CIR represents a significant cost—is often considered non offensive in the literature, as it results in a mere additional effect. This implies that each euro of public support leads only to an equivalent increase in private R&D spending, without generating a substantial multiplier effect (Duguet, 2004, 2012; Mulkay & Mairesse, 2013; Lhuillery et al., 2013; Sterlacchini & Venturini, 2019; Bozio et al., 2019; Appelt et al., 2020).

If public aid does not significantly stimulate corporate R&D efforts, it is largely because such aid represents only one of several determinants. Qualitative factors, such as the presence of a dynamic local ecosystem, play a crucial role in influencing the location of R&D activities by multinational firms (Jacobides et al., 2018). This involves a region endowed with a reservoir of competencies, encompassing know-how, scientific, and technical skills (Colovic, 2010; Belderbos et al., 2020), and characterized by synergies among various actors, manifesting through collaboration, coordination, and cooperation (Castañer & Oliveira, 2020) between the administrative sphere, the entrepreneurial sphere, and the research sphere (Sivitanidou & Sivitanides, 1995; Abramovsky et al., 2007; Belderbos et al., 2017). Firms benefit significantly from being integrated into local ecosystems, as it enables them, on the one hand, to save on coordination and transaction costs associated with distance, and, on the other hand, to gain an absolute competitive advantage over their rivals through network effects and learning processes.

Ultimately, understanding the weakness of France's R&D efforts necessitates addressing the erosion of its industrial base. Public financial aid is constrained by the limited effectiveness of leverage, which is intrinsically linked to the characteristics of the French productive landscape, characterized by a decline in manufacturing and medium-high technology industries (Le Ru, 2012). As deindustrialization progresses, wealth generation increasingly detaches from industrial activity, resulting in a diminishing share of industrial added value. This trend restricts the potential for R&D expenditures, particularly given the sector's inherent R&D intensity. Despite the decline of the industrial sector, its contribution to R&D remains significant, primarily due to its higher intensity. R&D intensity is measured by comparing R&D expenditures within specific sectors to their respective value added. Although the industrial sector's overall contribution to the economy is diminishing, it continues to allocate a larger proportion of its resources to R&D compared to the service sector. Specifically, manufacturing industries account for over two-thirds of corporate R&D expenditures, while services contribute less than one-third. Thus, the substantial weight of industry in R&D today, despite its relative decline, can be attributed to an increase in R&D intensity within the industrial sector. Thus, the CIR serves as a compensatory mechanism for France's economic structure, which is less conducive to R&D investment due to declining value added in its most R&D-intensive sectors. Without public support, the private sector's R&D efforts would likely have been lower; conversely, these efforts would likely have been greater had France retained an industrial structure similar, for example, to Germany's. In particular, medium-high technology industries would contribute significantly more to private sector research. Simulation results suggest that if France had maintained Germany's industrial structure while preserving the research intensity of its firms, the private sector's R&D expenditure could have reached approximately 2.74% of French GDP—nearly one percentage point higher than Germany's R&D efforts (Balcone & Schweitzer, 2019).

5.3. Restoring margin during the secular stagnation?

During the post-Fordist period, growth trends of Western economies were lower than before during the Fordist period (Podkaminer, 2015). This period of secular stagnation was characterized by low growth of GDP, unemployment and low productivity gains. During secular stagnation, any fall in aggregate demand will reinforce the depressionary dynamic and cause lower rate of capacity utilization (Hein, 2016). Since the GFC and the Eurozone crisis, most of European countries, including France, have since been stuck in a situation of lower growth and higher unemployment.

The fall of the growth of aggregate demand cause a fall of the level of profit margins (Steindl, 1985). Because of the secular stagnation corporate margins did recover fully after the GFC. In this context, the most notable effect of public aid has been the support for corporate profit margins, particularly in an environment where international competitive pressures and chronically weak aggregate demand constantly threaten profitability. One could describe the logic behind public aid policies, particularly tax and social contribution exemptions, as a

mechanism to counteract the adverse effects of the secular stagnation after the GFC, while paradoxically reinforcing it through a feedback loop.

In order to measure the *ex post* impact of general government intervention on the profit-to value-added ratio (Π/*Y)* of non-financial corporations (NFCs), we will calculate two measures of profit: before and after redistribution. Pre-redistribution profit is defined as corporate profit prior to the redistributive operations of both the fiscal component (CL_{NFC}) and the budgetary component (G_S), while post-redistribution profit accounts for the impact of these two components[12]:

$$II_{pre\text{-}gov} = \frac{II \quad CL_{NFC} - G_S}{Y} = \frac{B2G + D12 + D29 - D39}{B1G} \qquad (1)$$

$$II_{post\text{-}gov} = \frac{II - CL_{NFC} + G_S}{Y} = \frac{B2G - D51 - D91P + D75 + D92R}{B1G} \qquad (2)$$

Instead of merely reducing labor costs, public aid programs acted as "capital crutches" aimed at sustaining corporate margins. Figure 6 show that the massive introduction of public aid in the 2010s helped restore company margins against a backdrop of weak growth, weak aggregate demand and falling labor productivity.

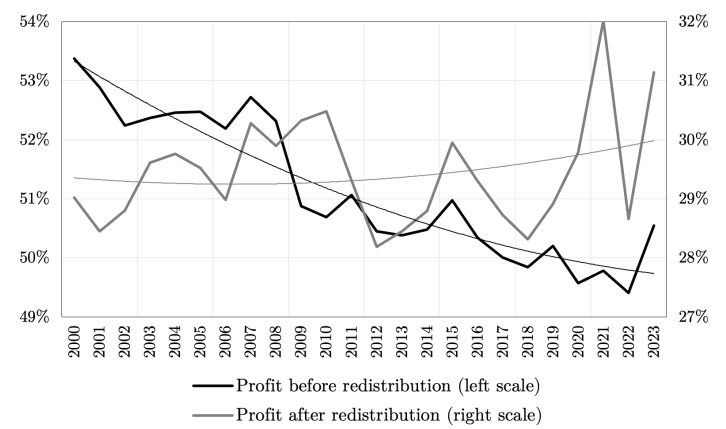


Figure 6: Government impact on the profit-to-value-added ratio (II/Y) of NFCs

Source: Insee, 2020 Base. Authors' calculations

[12] Profit before and after redistribution is derived from national accounts data. Pre-redistribution profit is measured as the gross operating surplus (B2G), adjusted by adding back all taxes and contributions, including employers' social contributions (D12), other taxes on production (D29)—specifically, taxes on wages and labor (D291) and miscellaneous taxes on production (D292)—while subtracting subsidies on production (D39). Post redistribution profit is calculated by deducting the following from the gross operating surplus: taxes on income (D51) and capital taxes payable (D91), while adding subsidies and transfers, which include miscellaneous current transfers (D75), capital transfers receivable (D9)—specifically, investment grants receivable (D92R), and other capital transfers receivable (D99R).

Public aid may reinforce this depressive regime rather than counteract it. The implementation of public support programs could slow down rather than stimulate business investment and labor productivity. Productivity gains result from the interaction between growth (KaldorVerdoorn law) (McCombie, 1982; Thirlwall, 1983) and competition (Shaikh, 1978). Competition forces companies to reduce production costs by mechanizing the production process, i.e. by increasing productivity. Public aid enable company to reduce cost and restore profit margins without productivity gains.

It could have two adverse effects on long-term productivity growth. Firstly, it alleviates the competitive pressure for companies to renew their equipment and improve labor productivity, these policies inadvertently undermine firms' competitiveness, creating a self-reinforcing cycle that justifies further aid and calls for wage moderation. Secondly, it could also exacerbate productivity gaps with foreign competitors. If cost reduction is achieved through fiscal intervention and not productivity gains, sooner or later fiscal intervention might not be large enough to compensate this gap. Public aid might temporarily protect domestic industry. But in the end, exposed sectors' productivity has to reach level close to foreign competitors to be sustainable.

The diversion of state financial resources to restore profit margins could also amplify the depressive effect of public aid. If they replace other public spending, with a high multiplier effect, or are financed by additional taxes, they will further reduce aggregate demand and growth.

Conclusion

The post-Fordist era has not led to the end of fiscal policy but rather to a reorientation of its objectives and tools. Traditional Keynesian fiscal policy has been abandoned due changing political compromises and institutions. However, new form of public intervention has been emerging. Public aid to businesses is one of them.

Public aid is defined as *a transfer of wealth from the general government sector to the corporate sector that is certain and provided without financial or material compensation for the former*. This definition encompassed direct expenditures and tax and socio-tax expenditures. We provide a direct measure of it at the aggregate level for France using national accounts data alongside budgetary accounting data. It rose dramatically in the last three decades. At the sectoral level it led to the reduction of the net tax effort (only during production cycle) sheltered services and industry sectors.

From a post-Keynesian point of view, this fiscal policy is inefficient. It will not create new jobs, because the substitution effect and the volume effect do not work. Nor is it capable of stimulating R&D spending. It has only helped to restore profit margins in a context of secular stagnation. However, it probably reinforces the tendencies of this depressive regime.

Two lessons can be drawn from the French case. First, the development of public aid programs is a case of very ineffective fiscal policy. Expansionist fiscal policy is as the traditional remedy in post-Keynesians economics. Functional finance stipulate that the state should adjust the level of public deficit to reach full employment (Forstater, 1999). This position is also justified by the Godley balances where the net acquisition of private asset of the private sector depends on the net deficit of the public sector.

We believe that it is necessary to look at the content of fiscal policies. The French case shows that certain forms of fiscal policy could cause stagnation because they channel public resources towards corporate profits. We believe that expansionary fiscal policy should be only directed use to stimulate investment and consumption. Keynes in his own view was first concern with public investment more than other kind of expenditures (Câmara & Vernengo, 2004).

Second, fiscal policy should be concerned with domestic demand (investment and consumption) and capacity production as well. Recent post-Keynesian works advocate to take into account supply-constraints (Mason & Jayadev, 2023). The fundamental problem with supply side constraint is not the allocation of scare resources as in mainstream economics but the collective organization of production. Stimulating aggregate demand may not be enough, especially in an open economy.

Industrial policy in France has undergone a significant transformation since the 1980s. Large-scale privatizations, the end of the national champions policy, and broad market deregulation have redefined the state's role in the economy. Public aid programs have since emerged as a cornerstone of French industrial policy, intersecting with employment policy to curb deindustrialization, reduce low-skilled unemployment, and foster new strategic sectors. However, production subsidies are not the most effective instruments for shaping production capacity (Bossie & Mason, 2020); public investment and strategic planning are generally more impactful. Furthermore, most recent public aid in France is offered without conditionality—a critical component for effective industrial policy (Mazzucato & Rodrik, 2023). As a result, these aids may fall short of their intended goals, merely bolstering corporate profit margins according to 22 managerial and shareholder preferences.

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Sciences Po - LIEPP
27 rue Saint Guillaume
75007 Paris - France
+33(0)1.45.49.83.61
liepp@sciencespo.fr