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# Political economy of higher education and socio-economic crises: global and national perspectives

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**ABSTRACT.**

Based on a quantitative history of higher education (HE), the paper shows how a revival of public funding can reverse a mechanism of public-private substitution of HE income and drive a sustainable and fairer HE system capable of playing a key part in the counter-cyclical transformations of the socio-economic system necessary to overcome the crisis. Escaping the mechanism of substitution also widens the current focus of the political-economic funding settlement of HE on the individual economic returns and gives recognition to its collective economic returns as well as its non-economic benefits. The paper also explores how a change in the process of internationalisation of HE might generate countercyclical transformations at the global level. The crisis might offer an opportunity to contribute to address the global HE tetralemma and its competing demands of growth, democracy, equity and the environment.

***Keywords:*** *Enseignement supérieur, financement, crise, global/ national.*

Ce papier montre, à partir d'une histoire quantitative de l'enseignement supérieur (ES), qu'un renouvèlement de l'effort public visant à inverser le mécanisme de substitution public-privée du financement de l'ES peut conduire à un système soutenable financièrement et plus juste, capable de jouer un rôle clef dans les transformations socio-économiques contra-cycliques nécessaires à la résolution de la crise. Echapper au mécanisme de substitution permettrait également d'élargir les choix d'économie politique de l'ES au-delà des seuls rendements individuels financiers en reconnaissant davantage les bénéfices collectifs, économiques ou non. Le papier explore également comment un changement du processus d'internationalisation de l'ES peut contribuer à adresser le tetralemma de l'ES global lié aux tensions entre les demandes en terme de croissance, démocratie, équité et environnement.

***Mot clés:*** *Higher education, funding, crisis, global/ national.*

## Introduction

This paper explores the historical relationship between the public/private funding of the expansion of higher education and the long waves of the economy. It examines the role that global and national countercyclical transformations of higher education have played and might play in the resolution of past and contemporary socio-economic crises. Section A examines the connections between the questions of sustainability, equity and quality in higher education and broader economic issues. It proposes to look at these issues historically through the combination of the lens of the regulation approach and the methodology of quantitative history. Section B presents an analysis of key trends and patterns in the funding and expansion of higher education in the UK, France and the USA since the 1920s. The findings show that past increases in private resources have not necessarily corresponded to additional funding. This suggests that the intensification of cost-sharing policies in higher education might turn into public-private substitution of funding and provision leading to a transfer rather than an increase of resources with strong implications for equity and quality. This trend can be traced back to the 1973 crisis and has been accelerated by the 2008 crisis. Section C offers scenari and explores the ways in which a revival of public funding complemented by an additional rather than substitutive diversification of income would rebalance the public-private structure of income and drive a sustainable higher education system. This would play a key part in the essential counter-cyclical transformations of the socio-economic system necessary to overcome the crisis. Escaping the mechanism of substitution will widen the focus of the higher education funding settlement beyond the sole individual economic returns giving more recognition to its collective economic returns as well as its non-economic benefits. Section D explores the ways in which the process of internationalisation of higher education might contribute to countercyclical transformations at the global level. The crisis might represents an opportunity to address the global higher education tetralemma defined as the needs for higher education institutions to contribute to jointly address the competing demands of growth, democracy, equity and the environment.

## A. ECONOMIC CRISIS AND THE PUBLIC/PRIVATE DIMENSIONS OF HIGHER EDUCATION: DEBATES, THEORY AND METHODS

This paper uses a political economy approach to explore the interconnected political and economic processes related to the complex arbitrations between the public (taxes) and private (fees, donations, commercial activities) costs and the individual (productivity, social capital, health…) and social (GDP, social cohesion, democracy, culture…) benefits related to higher education. Some of these costs and benefits are easier to identify or (and) measure than others. This generates dilemmas related to sustainability, equity and quality which are particularly strong during crisis times. I will look at these issues historically by exploring the funding and development of higher education in the USA, UK and France since the 1920s using the method of quantitative history. The regulation approach offers a lens to connect these data with broader and long term socio-economic transformations.

### A.1. CRISIS AND SUSTAINABILITY, EQUITY AND QUALITY

Most countries seek to pursue the massification of higher education while ensuring the progression of equity and quality. Reaching these objectives conjointly implies raising sufficient resources per student. Tensions between sustainability, equity and quality have increasingly been debated since the 2008 downturn. The crisis has further questioned the public funding of higher education and its socio-economic impact – a difficult concept to define and measure. These dilemmas are not a new but represent the strengthening of the dominance of the economic agenda over the social, political and cultural traditional ones. Importantly, the focus of the economic agenda itself has shifted with the increasing importance given to the control of taxation and public spending over the more traditional emphasis on the productive agenda of education. In other words, higher education is increasingly seen as a cost rather than as an investment. This

raises the question of the potential development of a clash between the agendas of the knowledge economy and austerity. This section discusses this hypothesis by exploring the political economy of higher education through the interconnected questions of sustainability, equity and quality.

The dilemma about how to fund a mass quality HE has produced various responses since the 1970s downturn. The retreat of state funding was combined with various policies ranging from light form of cost-sharing to full scale marketization (Johnstone, 2004; Teixeira et al, 2006)) which raised equity and quality concerns (although the free of charge postwar "Golden Age" of higher education was also unequal). I will argue that the increasingly marketised higher education systems develop mechanisms that mirror the ones which are at the root of the crisis of the socio-economic system raising key concerns regarding sustainability, equity and quality.

**Questions of sustainability: public-private funding/public-private good/public-private debt**

A first connection between the analysis of the current economic crisis and the higher education debates relates to the public/private dimensions. Questions of sustainability of higher education are increasingly conditioned by larger economic debates about fiscal policy. A key driver of the neoliberal response to the 1970s crisis has been the reduction of the role of the State and taxation in order to liberate the market forces towards a better allocation of resources. However, the sustainability of such system ensured in theory by the automatic reversal of the short-term inequalities by a longer-term trickledown of wealth generated by higher economic growth has been contested (Krugman, 2008; Piketty, 2014; Stiglitz, 2012), the more so since the 2008 crisis.

These macroeconomic policy debates impacted on higher education in various ways. Firstly, the question of the control of public funding and taxation increased the competition for resources between education and other public funded sectors and between levels of education. This trend combined with a movement of marketization led to an increase of private funding or (and) provision of higher education. These trends led to overlook higher education as public good offering externalities (Macmahon, 2013) and to increasingly consider higher education as a private good driven by the investment made by students to boost their prospective income. Indeed, the human capital theory approach of higher education as an investment by individuals in themselves to increase their productivity and income, was early translated to the macro level of a country investing in its higher education system to increase its wealth and justified the post-war public investment until the post 1970s anti-state agenda reversed it to a narrow individual version.

The response to the 2008 crisis intensified the shift from public to private higher education in many countries. This is surprising as the immediate analysis of the crisis pointed to the responsibility of the financial system and the levels of private debt masking the levels of inequalities. However, the discourse slowly shifted the responsibility for the crisis from the (still rather alarming) level of private debt to the public debt (although the latter might be seen as the consequence rather than a cause of the crisis). The question of the relationship between growth and deficit which currently dominate the national, European and global policy debates increasingly influence the recent funding policies seeking to address the problems of sustainability in higher education. Those policies tends to increasingly focus on the control of public resources and underplay or ignore key issues related to private funding - such as the growth of students' private debt fuelled by levels of inequalities and the risk of instability associated to other private resources linked to volatile financial markets. Two key reasons might explain this. First, the underestimation of the social returns from higher education makes it difficult to argue for macroeconomic externalities and non-economic dimensions of higher education (Collini, 2010). The second issue is an overestimation of private returns from higher education and the overlooking of the potential problems raised by their strong variations. The 2008 crisis has led to revise the graduate premium and employment perspectives in many countries. The crisis uncovered some flaws in the design of the articulations between fees, grants and loans which could affect the enrolment of some categories of students or (and) could lead to revisit the

estimates of the number of students defaulting on their loans. The difference between individual cost and private returns can impact access but has also led some to fear the possibility of a higher education bubble. Thus, cost sharing might lead to private debt and repayment default overwritten by the taxpayers, ironically leading to more (deferred) public expenditure- which was exactly what these policies were designed to combat (Carpentier 2012). Thus, marketised funding models do not necessarily integrate or adapt to the historical variations of the social and individual costs and returns.

**Questions of inequalities**

A second key dimension connecting the economic and higher education debates is the question of inequalities. The economic downturn might be seen as a crisis of inequalities generated by the build-up of tensions between the creation and redistribution of growth uncorrected by taxation and masked by the rise of private debt. In a sense, higher education can be considered as both a creator and a receiver of those inequalities. Social inequalities tend to be reproduced in schools explains a great deal of the inequalities at the higher education level (Bourdieu and Passeron, 1964). This was interpreted differently. For proponents of cost-sharing, this means fees are not responsible for inequalities (free higher education systems are also unequal). Worst, the absence of fees would increase inequalities as graduates earn more and massively come for higher income groups. As a result, they argue that money should be spending on school rather than universities and that a system of fees, grants and loans would be more equitable (Johnstone, 2004; Barr, 2003). However, we will see that others have expressed doubt on the capacity of cost-sharing arrangements to compensate for socio-economic inequalities. Callender and Jackson have shown that debt aversion can deter participation to higher education from lower income groups despite the availability of grants and loans (2005). Moreover, income differential across subjects and professions are not always reflected by the differential of fees raising questions of fairness. In any case, barriers at school levels should not absolve higher education policy (including funding policy) and institutional practices from their responsibilities in maintaining, strengthening or addressing these pre-existing socio-economic inequalities.

It is important to note that socio-economic inequalities intersect with other forms of inequalities related to ethnicity, gender and religion (Morley and Lugg, 2009). Moreover, inequalities are not only about access but also about participation, success and social capital (Brennan and Naidoo, 2008). These inequalities are not only driven by financial barriers but also practices developed by universities related to recruitment and support of students (Burke, 2012). This raises the question of the channelling of inequalities through institutional differentiation or stratification. Thus, questions of inequalities in higher education should be addressed at all levels (society, school, higher education) and integrate all dimensions (financial and non-financial). The historical lens of this paper will show that higher education funding models must be part of much larger socio-economic transformations to address equity concerns.

**Questions of quality, efficiency and outcome**

Questions of quality and efficiency depend on various conceptions of the aims and outcome expected from of higher education and how (or whether) to measure it. This mirrors some economic debates on the relation between wealth and welfare. Debates on the GDP and other wealth indicators are in some way quite similar to those on the evaluation of teaching and research. Higher education policy has been largely influenced by broader economic debates on the efficiency of the market and the state. The analysis of the qualitative impact of the public/private structure has been, sometimes literally, translated to most social sectors including education. Contested concepts of efficiency, quality and outcome have been unproblematically imported, and sometimes interchangeably, to the higher education world. Interestingly, Harvey and Green made a very helpful distinction between five groups of interrelated conceptualisations of quality which apply to higher education. Quality can be viewed as exceptional, as perfection (or consistency), as fitness for purpose, as value for money and as transformative (1993). These various dimensions of quality can be complementary or in tensions and we will see that since the

1970s crisis, there has been a tendency to focus on the value for money dimension. There is good case for combining several dimensions of quality to jointly address the questions of sustainability and equity. This is important as questions of quality are intimately linked to those of funding and equity (McCowan, 2007). Although an increase or decrease of resources does not necessarily lead to an increase or a decrease of the quality. This is at the heart of the debates on the differential effect of public or private resources on quality. Questions of quality are also inherently linked with equity. For example, variations of quality (which may or may not be the result of variations in funding) within and across institutions can be seen as channelling inequalities.

Proponents of the increase of private resources have based their argument on the ground of quality and efficiency at several levels. For instance, they argue that a rise in fees might be seen as developing students' motivation and preventing drop out (Barr, 2003; Gary-Bobo and Trannoy, 2005) while stimulating competition between institutions leading to the improvement of the overall quality. Others have questioned the link between the fees and quality of higher education. Criticisms include the lack of evidence of the effect of fees on students' performance motivations (Flacher et al., 2013), the imperfect market and information to students (Brown, 2010) and the problematic shift from the student as a co-producer to the student customer and its impacts on teaching and learning (Barnett, 2010; Williams, 2013). Other studies questions whether the additional funding generated by a fee increase was necessarily directed towards the activities contributing to student experience or invested in other activities to attract recruitment (Carpentier, 2012). Diversification of income initially introduced for diluting risks and improving efficiency have been criticised as sources of instability related to market instability. Other issues questions whether differences in access to these additional income increase the overall quality or deepen the stratification of the system.

The similarities between the economic and higher education debates led to formulate the following questions. Does the public/private structure matter in relation to sustainability, equity and quality of higher education systems? What are the historical links between the socioeconomic transformations and the level and structure of higher education funding and expansion?

## A.2. THEORETICAL FRAMEWORK: THE REGULATION APPROACH

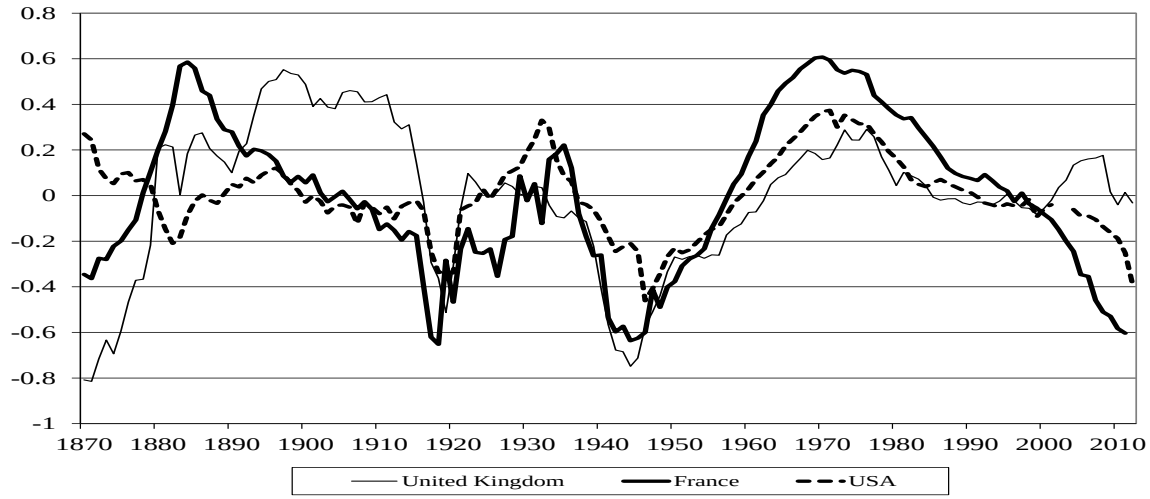
Questions of sustainability, equity and quality in higher education are dynamic and multifaceted and are explored in an interdisciplinary context. I combine the theoretical lens of the regulation approach focusing on the long-term transformations of the capitalist system with the approach of the history of education and its tradition of dialogue with social science (McCulloch, 2011; Hobsbawm, 1997) and reflection on past and present (Aldrich, 2006; Lowe, 2003).

### Historical relationship between the social sphere and the transformation of the economy

The regulation theory "belongs to the tradition of political economy, since it recognizes that the most crucial institutions of capitalism emerge out of social and political processes" (Boyer, 2007). Within this framework, the historical connections and tensions between the level of development of the social activities driving human development (including education) and the economic structure explain the upturns and downturns of the economy expressed by the Kondratiev cycle (Boccara, 1988; Fontvieille, 1976; Marx, 1894). Four cycles of approximately fifty years have been identified, each showing expansion and depression phases: 1790–1820/1820–1848; 1848–1870/ 1870–1897; 1897–1913/1913–1945; 1945–1973/1973–?. Kondratiev cycles can be considered as the product of internal systemic connections and tensions between wealth and welfare in which education plays a key role. Crises are caused by the recurrent build up of tensions between production and distribution of growth and represents the cyclical reemergence of socioeconomic inequalities, which eventually contribute to the disruption of economic efficiency and profitability. Reversibly, economic recovery depends on periodic transformations of the socioeconomic structure contributing to the reduction of inequalities and the revival of productivity. In other words, economic crises represent critical turning points when the social justice and economic agendas are "forced" to meet in order to revive the system. The

following will suggest that the fluctuations of social spending on human development (including education) can be undesrstood as parts of this cyclical process of transformation of the socio-economic system.

**Figure 1. Public expenditure on education (1990 Geary-Khamis $) (second order deviation from the regression curve and 9- year moving averages) 1870-2012**




*Source: Carpentier 2001, 2006; Carry, 1999; updated. See annexes.*

## The 1945 reversal of the relationship between education and economic growth

Louis Fontvieille initiated a research programme of quantitative histories of funding in education France (Carry, 1999; Fontvieille, 1990; Fontvieille and Michel, 2002), Germany (Diebolt, 1997), the UK (Carpentier, 2001, 2003) and the US (Carpentier, 2006b) which revealed that the link between education and economic crises is not as straightforward as we might think. These studies identified a shift from countercyclical to procyclical expenditure on education after 1945. This led to formulate the hypothesis of a reversal of the relationship between education and economic growth: the role of education shifted from a corrector of crises to a driver of the postwar growth.

Until 1945, the countercyclical expansion of public funding in education was a key driver of economic recovery. During pre1945 crises, the transfer of the overaccumulated capital towards productive social spending (such as education) rebalanced the productive forces and produced a qualitative shift in production, reducing inequalities and reviving the perspectives of growth and profitability. Thus, crises offered opportunities to realign the economic structure, social change and technological innovation. Education played a key role to in the crisis as a period of reassessment of the connections between technological and social systems contributing to develop a new socio-technological paradigm driving the recovery (Freeman and Loucã, 2001).

The procyclical expansion of public funding in education (and other social activities) during the economic upturn of the 4th Kondratiev cycle (1945-1973) led to the assumption that education became a driver of growth rather than a corrector of crisis. This represented a dramatic departure from the productivity model born out of the first industrial revolution in the sense that growth became driven by the qualitative development of productive forces rather than the reduction of their cost. At the heart of this historical shift is the idea that the cumulative quantitative changes that operated during the preceding crises have produced a qualitative transformation of the system (Michel, 1999). This major change was facilitated by the intense shocks of the great depression which showed the limit of the market economy (Keynes, 1936) and the market society (Polanyi, 1944) and the necessity for state intervention to correct them. The impact of the great depression combined with the changes in attitudes regarding solidarity and a higher acceptance of taxation (Piketty 2014) provoked by World War two created a socio-economic context favourable to the development of a new regime of production based on a fairer redistribution of wealth. This post-war fordist regime ensured a virtuous circle between mass production and consumption (Boyer and Saillard, 2002; Jessop and Sum, 2006). In this

model, productivity gains were translated into redistributive wage policies and public funded investment in productive social spending that, in return, increased productivity levels. For once, overaccumulation of capital seemed to be under control and productivity and consumption in fine tune. The virtuous circle between growth and public funding in education was broken by the downturn of the 1970s, characterized by the apparition of stagflation. This time, the attempts to divert the overaccumulated capital and restore profitability did not drive the expansion of the social sphere, but rather found other channels – the financial system and new markets created by the deregulation of public services. The slowdown of public funding in education following the post 1970s downturn contrasts with what happened during previous downturns and questions the effectiveness of the current austerity policies that have been accelerated since 2008.

This regulation approach therefore put the 2008 crisis in a much wider frame. The crisis would not represent the end of the boom of the 1990s but the deepening of (or possibly a conclusion to) the structural economic downturn of the 1970s necessitating profound social, technological and environmental transformations. The paper explores the role that global and national countercyclical transformations of higher education have played and might play in the resolution of socio-economic crises including the current one. Thus as the 2008 crisis is a test for the neoliberal model of deregulation and marketization, it is also the first test of the sustainability of the cost-sharing model and its implications on equity and quality. Mirroring the debates on the economic crisis, the state and the market, some argue that the solution to the higher education crisis is to scale back the marketisation trend while other argue for its intensification.

## **A.3.** METHODOLOGY: QUANTITATIVE HISTORY

This research examines key historical trends and patterns in the funding and expansion of higher education in the UK, France and the USA since the 1920s. The historical statistics collected cover the financial resources for higher education and associated enrolment indicators related to student and staff. The dataset have been constructed by using the methodology of quantitative history, which can be defined as a retrospective history ruled by principles of national accounting. This method offers a coherent and exhaustive system of data collation, enabling homogenous statistical series that are comparable across time and space (Marscewski, 1961).

UK Data are for universities until 1994. Afterwards, data relating to advanced courses in polytechnics and advanced further education (they became universities after the 1992 Higher Education Act and are commonly called post-1992 institutions) are included. French and USA data relate to all higher education institutions receiving public money. The UK data draws on the work of Carpentier (2004, 2012) and have been updated and refined with data on enrolment and staff and finer analysis of private funding. French data on funding draw on Carry (1999) and have been updated and complemented by series on enrolment updated with official data. US Data were gathered by the National Center for Education Statistics (NCES) and published by the US Department for Education, the Bureau of Statistics and from 1938 by the Census Bureau. It was also necessary to collect and process demographic and economic data over the period. These were extracted from the works of B. R. Mitchell and A. Maddison, T. Piketty as well as the Statistical Abstract for the US, the Annuaire Statistique de la France and Insee for France and the Annual Abstract of Statistics for the UK. All economic and educational series are expressed in purchasing power parity in 1990 Geary-Khamis US$ (PPP). PPP is a conversion rate that quantifies the amount of a country's currency necessary to buy in the market of that country the same quantity of goods and services as a dollar in the US. Such a tool is necessary in order to give a comparative estimate of the value of educational expenditure eliminating differences in price level between countries. The PPP indices series are derived from A. Maddison and updated.

# B. TRENDS IN HIGHER EDUCATION AND ECONOMIC CYCLES

This section compares and contrasts key trends and patterns in the historical expansion and composition of enrolment to the evolution of the level and structure of higher education income and considers the impact on the effort devoted to higher education and some qualitative effects.

## B.1. THE EXPANSION AND STRUCTURE OF MASSIFICATION

Before looking at the changes in the funding structure and level, the historical changes in the level and compositions of enrolment shows that the expansion of higher education was, and remains, influenced by a combination of economic, social, cultural and political transformations.

**Key stages of expansion and transfomations**

All three systems have reached the 50% participation rates defined by Trow as the threshold to universal higher education (1974). This took place at different paces with the USA far ahead and involved key stages including a first phase of massification in the 1960s associated with strong public funding and a second phase in the 1990s (Charle and Verger, 2012) in a very different funding context. Figure 1 shows that the rise of access is not only the result of demographic changes but is also driven by the widening of participation to social groups beyond the tradition white middle class full time student which was the norm until the mid-20th century. This process (still at work) results from changes in higher education policy reflecting broader socio-economic transformations. The expansion is also the product of the transformation of higher education provision itself and of the forms and types of enrolment. These trends and patterns of expansion enrolment suggests that changes in funding policy was a key driver of the expansion and democratisation but not the only one. It is important to consider the connections and tensions between the trends in enrolment and funding as the result of the interaction, and at times the competition between the economic, political, social and cultural rationales. Beyond the commonalities, the transformations of the student body reflect economic and non-economic processes played in each countries.

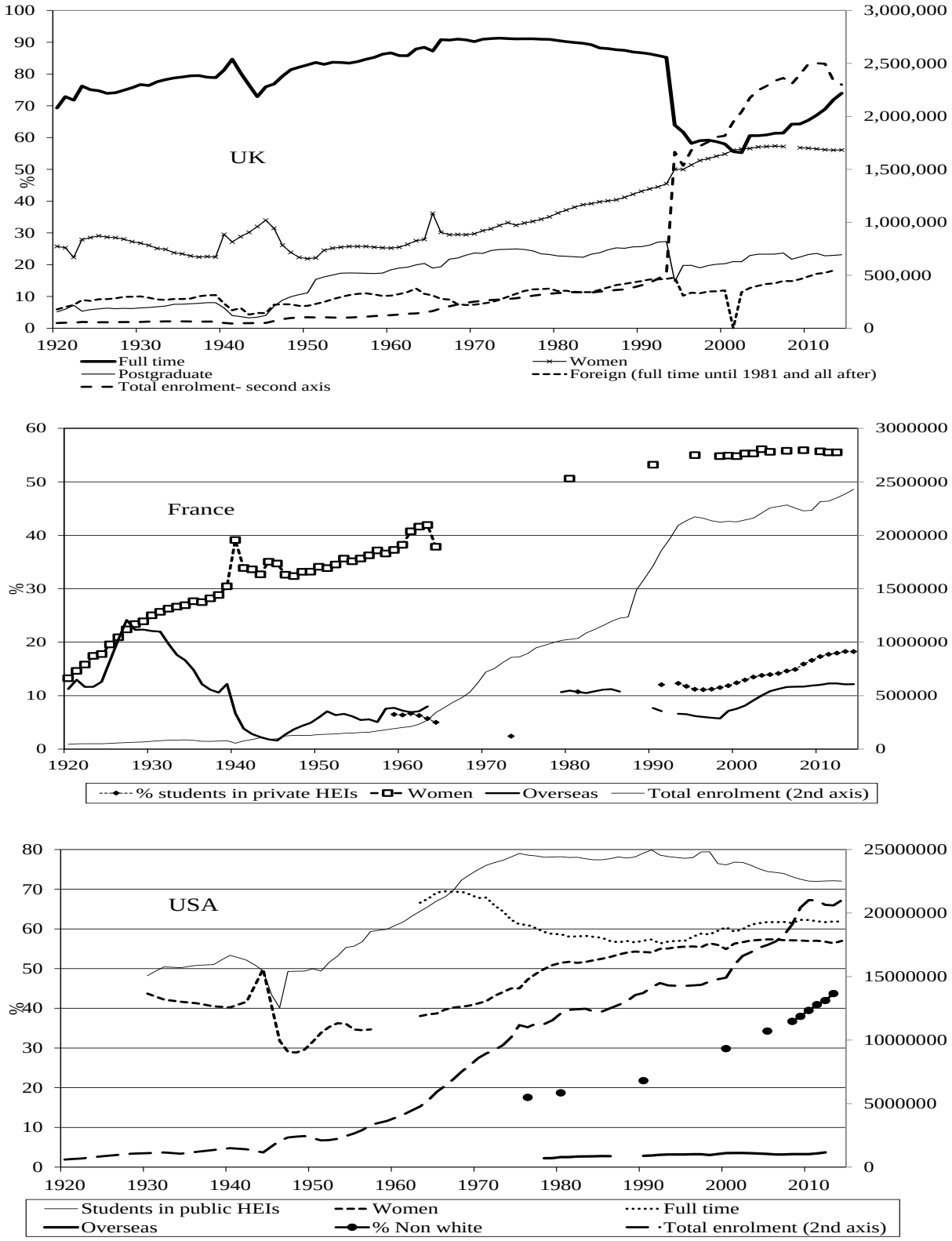
**The compositions of the student body**

Looking back reveals dramatic changes in the student body of the three countries and commonalities and notable differences based on a mix of convergence process and historical traditions. Of course, the various forms of inequalities revealed by the continuities and changes of the student body are intersected and difficult to disentangle.

Figure 1 shows that gender was a key driver of the increase in enrolment in all three countries. The movement started in the 1950s with parity reached in the early 1980s in the USA and France and a decade later in the UK. However, the notable gendered differences in access and participation between institutions and between subjects suggests the persistence of some forms of inequalities (Dyhouse, 2010).

Social class is a powerful lens to explain the expansion of higher education. In all three countries, although more students from lower income groups accessed higher education, there is no catch up in terms of participation rates with higher income groups. The Age Participation Index in the UK shows that the participation gap between income groups has not been much reduced since the 1950s (Bolton, 2010). Recent figures show that the participation rates of the highest and lowest income groups were respectively 41.2% and 21% in 2008 (DIUS, 2008). French data for 2009 shows that manual workers and professionals represent respectively 30% and 17.5% of the total population and 10% and 30% of the student population (MEN, 2014). Differences between socio-economic categories are not only about access but also participation and success. US data for 2004 show that the "odds of completing a degree program for students who were in the highest income quartile were 2.08 times the odds for those in the lowest income quartile (Ross et al, 2012, , p. 9). As observed for gender, differences between institutions suggest the channelling of social inequalities through stratification (Reay et al, 2005).

**Figure 2. Enrolment structure**




*Source: See annexes*

Ethnicity is an important lens to understand the expansion, the process of inequalities and changes in the student body. This is particularly the case in the USA where access to higher education was a key component of the civil right movement. The 1965 Higher Education Act increased federal aid for widening participation. Statistics are not available in France where, many will argue, ethnicity might be a pertinent lens to understand social and higher education inequalities. Statistics in the UK exist but are more recent than in the US and show a catching up

in participation rates for ethnic minorities overall as well as notable differences between the countries of origins. Again it is important to note that differences in access of ethnic minorities according to institutions are observed in the three countries.

Figure 1 also that the place of international students in the expansion of national systems is different according to countries depending on a combination of political, economic and cultural rationales. The share of international students in France is fluctuant overall and increases over the whole period expanding significantly during the 1920s and the last decade. In the US, the share of international students is linear and relatively low at 5% since the 1980s. In the UK, the share of international students is high and increasing to nearly 18% today. Most of the increase was until 2000 due to EU students and the dynamics has since then shifted towards non EU students. We will see that these dynamics are linked with income generation.

**Institutional differentiation or stratification**

The progress and changes in the structure in the student body differ according to higher education institutions signalling that in some cases stratification might channel inequalities rather than driving diversity (Watson, 2014). The differences between pre and post1992 universities in the UK, Grandes Ecoles and Universités in France and Ivy leagues, state universities and community colleges in the USA are deeply entrenched and important to keep in mind as they impact on the distribution of enrolment, available resources as well as real or perceived quality or reputation. Stratification can explain inequalities not only in relation to access but also inequalities through the whole cycle of higher education related to participation, experience and success (completion and drop out data) and employment prospect. In the US, enrolment was equally shared between public and private institutions until the 1950s. After that, the increase in total enrolment was driven by public higher education which increased their share to 80% until the mid-1970s. The distribution remained stable until the late 1990s when private provision was revived and increased its share to 30%. In France, the public sector presided over the expansion until a rise in in private enrolment from 10% to 20% took place in the late 1990s. In the UK, private provision remains at the margins although it is increasingly considered as a potential way to increase capacity building (King, 2009, Middlehurst and Fielden, 2011). Currently, the number of students enrolled in private provision is evaluated at 160000 (Hughes et al., 2013), about 5% of the total enrolment. Importantly, about 40% of the students were from non EU countries.

These trends shows that access and participation initially responded to a variety of rationales before the financial constraints started having a key effect on the pace and shape of expansion. It is difficult and early to conclude about the impact of the crisis on enrolment. Geiger identifies a setback in US enrolment and changes in its composition (Geiger, 2010) which Goldin and Katz have anticipated and interpreted as a potential sign of the end of the US human capital century (2008). In the UK, official data shows that enrolment has slowdown since crisis and that the rise of fees, especially for part-time students. Is the crisis of 2008 validating the clash between austerity and knowledge economy? Is cost-sharing crisis-proof? To explore this, I will focus on the historical links between the expansion and the dynamics of public-private funding.

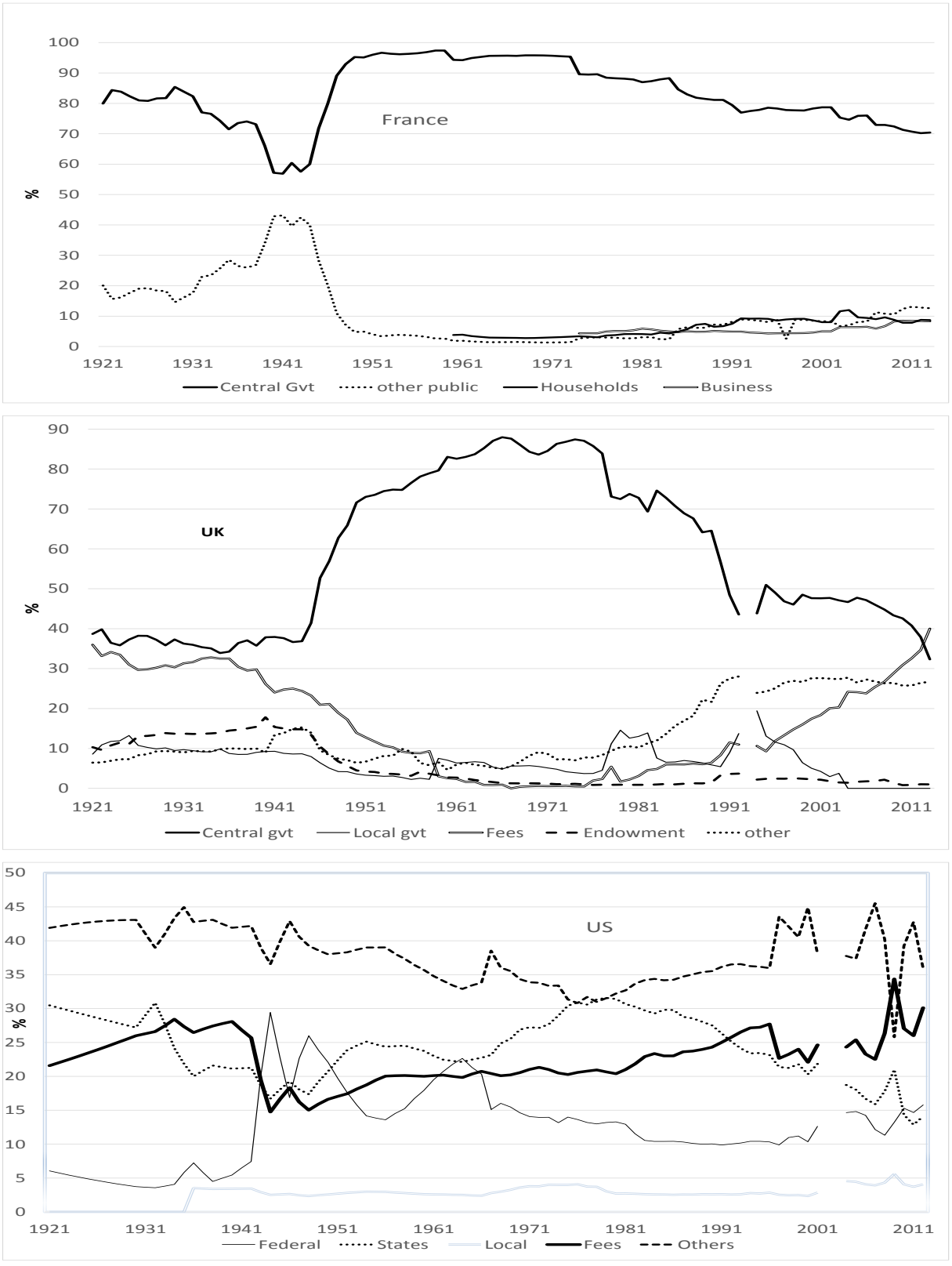
## **B.2.** CYCLICAL CHANGES IN INCOME AND SUBSTITUTION

Historical data reveal strong links between the trends in the level and structure of funding in higher education and the fluctuations of the economy expressed by the kondratiev cycle.

**The interwar downturn and the last countercyclical expenditures**

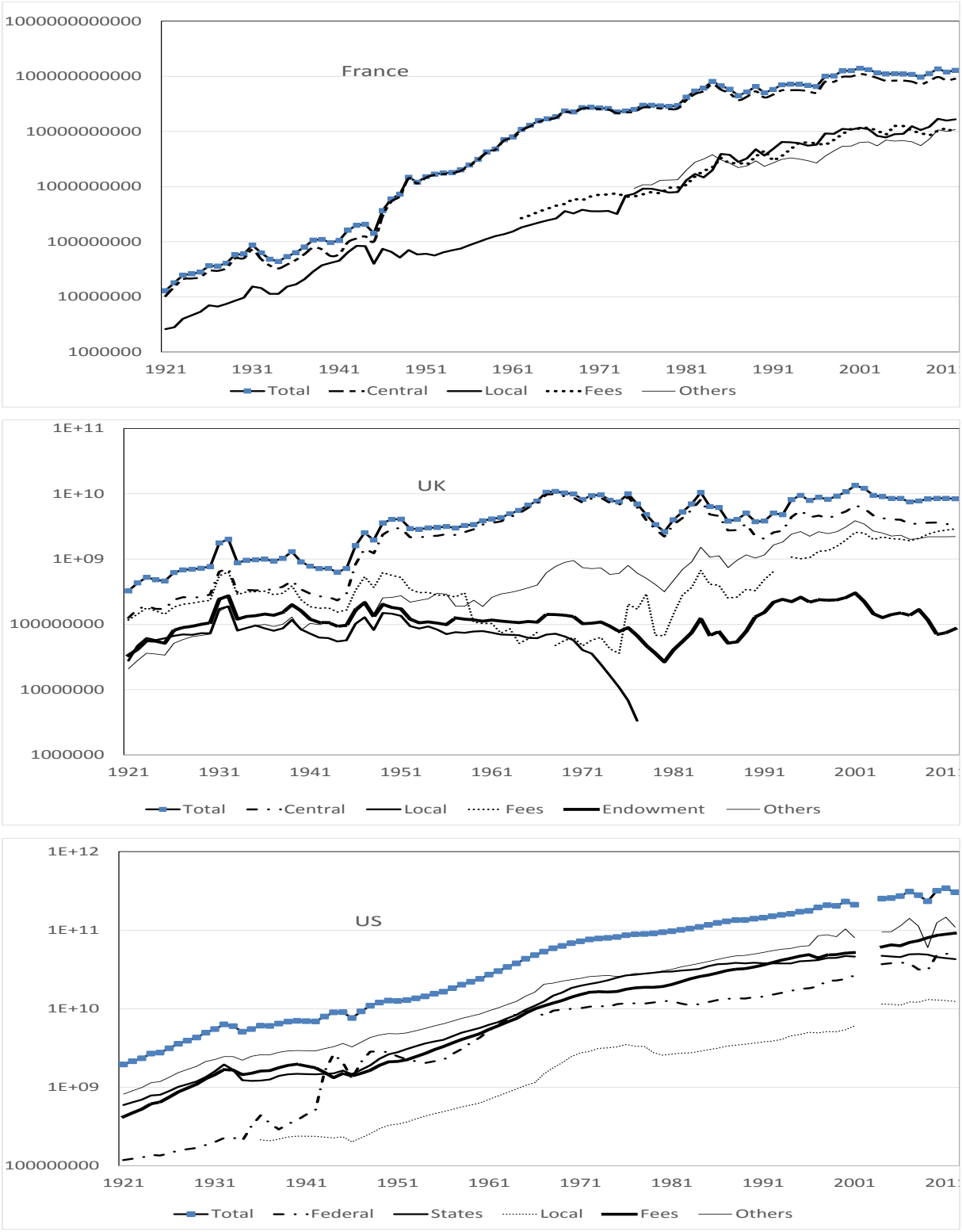
The interwar era is considered as a key depressive phase of Kondratiev cycle. Despite the prevalence of an anti-public spending discourse and tough fiscal lines following the great depression, Figures 3 and 4 suggest that the impact on higher education funding was not as strong and sustained as suggested by the policy rhetoric. Cuts were implemented but only briefly affected the trends of expenditure. One can observe a countercyclical expansion of higher education funding over the whole period in the three countries (Carpentier, 2003).

**Figure 3. Income structure 1921-2013**




*Source: See annexes.*

**Figure 4. Evolution of higher education income 1921-2013 (1990 Geary Khamis $)**




*Source: See annexes.*

## The post war growth and the rise of public funding in higher education

The economic upturn (1945-1973) of the 4th Kondratiev cycle covers the construction of the post-war higher education system based on taxation and public funding. Although the tax funded model was already significant before the war, the share of public resources increased dramatically from 1945 to 1973. Figure 3 and 4 clearly shows that public funding was the key driver of the dynamics of expansion of the 1960s to 1980s in all three countries. This can be linked to the key role played by education in the development of a state funded fordist model' dynamics of growth. This took various forms depending on the historical traditions of the

country. For instance, in the US, the economic rationale combined with political and geopolitical factors such as World War 2 (the GI Bill offered higher education grants to veterans) and the cold war with the sputnik effect in 1958 which led to increase federal loan. Public funding in US higher education was initially driven by land Grant associated to the Morrill Acts of 1862 and 1890. However, this public investment dramatically increased, initially driven by local government in the 1950s and the States from the mid-1960s which combined with federal and local governments culminated in a total public funding share of nearly 50% in the mid-1970s. In the UK, that share remained stable at around 50% from the 1920s to the War before increasing dramatically from 50% in 1945 to 90% in the mid-1970s. In France, the postwar growth was led almost uniquely by central government funding (Musselin, 2004).

**The post 1970s: the crises of 1973 and 2008 and the retreat of the State**

The 1970s crisis radically transformed the levels and structure of funding in higher education in the three countries. The downturn led to the erosion of the public funding model and the re-emergence of private funding and provision. Funding continued to increase but the share of public resources receded in all three countries. This was driven by the implementation of various models of cost-sharing and new or re-emerging private resources such as donations, alumni, commercial activities, investment income, private research funding. The reversal is striking in the UK where public funding dropped from 90% to less than 30% today due to an increase of fees and endowment. The transformation is less obvious in France although the share of private resources increase to nearly 20% equally distributed between fees and other private resources. In the US, the changes combined a decline of the share of states' funding and a surge of share of fees from 20% to 30% and other private resources in the mid-1970s including a huge expansion of endowments in the mid-1990s (which latter collapsed after the 2008 crisis).

**Public, private resources and overall income: substitution or addition?**

The ways in which the post-1970s slowdown of public funding and the re-emergence of private resources are historically articulated have key implications for global resources and potential effects on equity and quality. Figure 3 suggests that private funding has been a response to the cyclical fluctuations in public funding. The question is whether the re-emergence of private resources acted as a cushion against public austerity (Williams, 1998, p. 93) or as additional income. Figure 4 reveals differences in the ways in which trends in public and private funding were articulated in the three countries with different implications for overall resources. From the 1970s to the 1990s, the transformation of the income structure in the UK was driven by private funding, which acted as a partial substitute for public funding rather than an additional income (Carpentier, 2010). This trend had been only partially reversed by the reactivation of public funding in the 2000s and revived after the 2008 crisis. Similar substitutive trends happened in France but at a lower scale. Until recently, the parallel curves in the USA show that public and private resources were sustained (Figure 4). However, the curves are not parallel anymore due to a stagnation of the former and a declining trend of the latter caused by the collapse of endowments. Time will tell whether 2008 constitutes only a pause in this trend or a turning point highlighting the increasing vulnerability of USA institutions to market forces. The effect of substitution or additional resources on equity and quality are considered next.

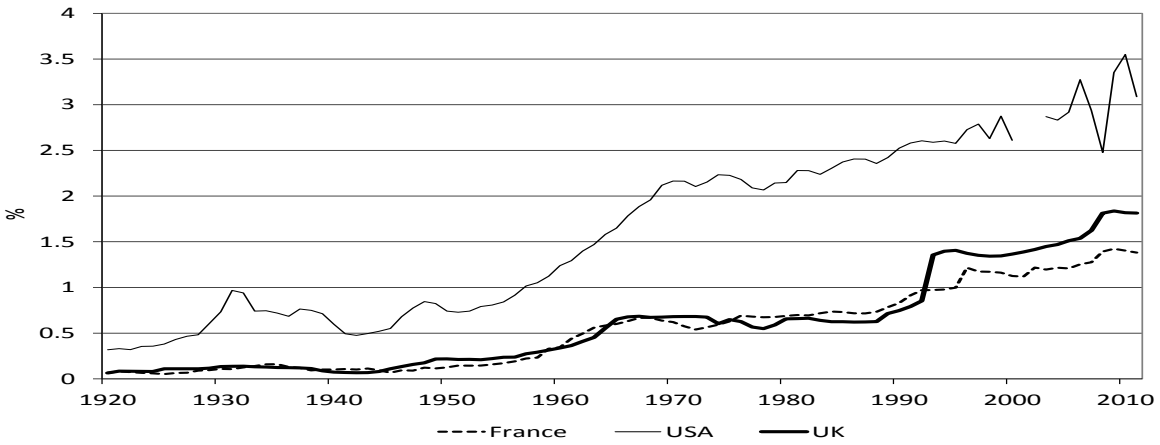
## **B.3.** IMPLICATIONS IN TERMS OF EFFORT AND EFFECT

Do the changes in the public/private structure matter? What are the effects of the cumulative or substitutive mechanisms when trends in enrolment, equity and quality are considered?

**Effort**

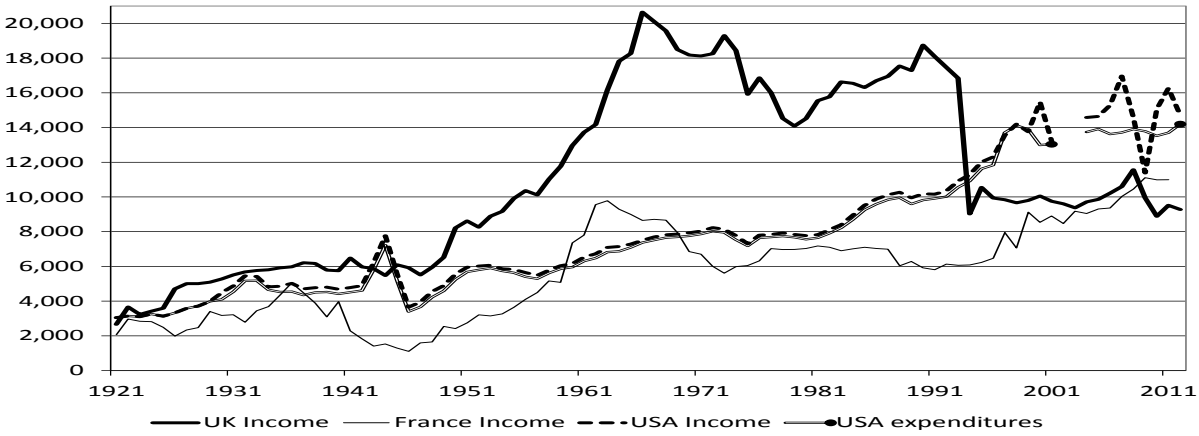
Until 2008, the absence of substitution explains why USA expenditure as share of GDP is twice as high as that of France and the UK. We will see in the next section that some key changes revealed by the 2008 crisis question whether this virtuous cycle could be broken.

**Figure 5. Funding in higher education as a share of the GDP: 1921-2012**




*Source: See annexes.*

**Figure 6. Resources per student (1990 Geary Khamis $) 1921-2012**




*Source: See annexes.*

In a context of a sustained expansion of enrolment, the strong public and private US investments explain the stronger and sustained growth of the spending per student in the USA over the whole period. The UK context tells a different story with substantial fluctuations of resources per students revealing periodic clashes between funding and enrolment policies (the sudden slump in 1994 is partly explained by the integration of the pre1992 universities in our database which have lower funding per student although it is important to note that the overall decrease started earlier. In France, clashes between funding and access are also observable but less substantial than in the UK. The impact of the 2008 crisis on funding per student is common to all three countries. It signals the risk ahead on total funding as well as an unequal distribution of funding across institutions generating further stratification.

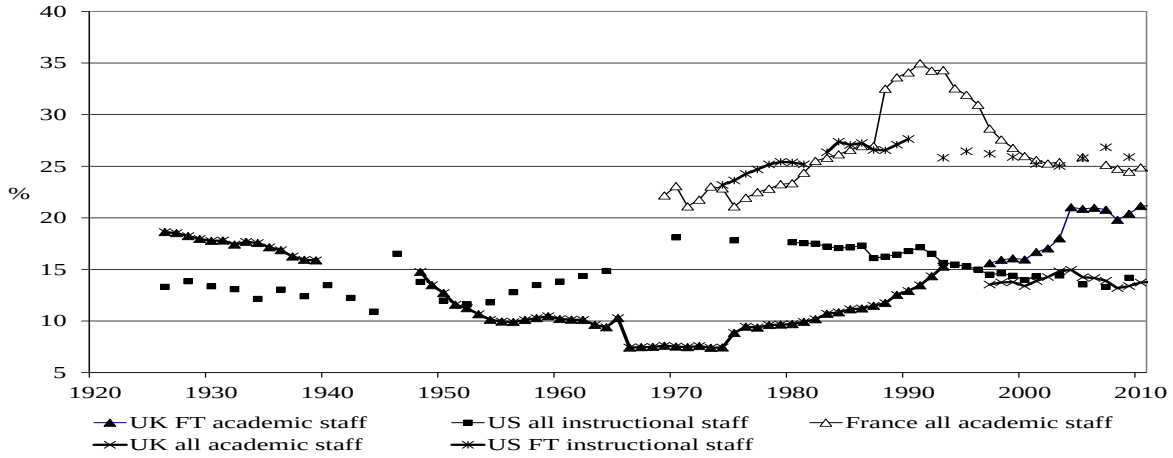
## Some effects on the ground

The effects of the historical articulations and tensions between funding, student and staff enrolment are well reflected by the student/staff ratio. Two things must be considered in relation to this ratio. First, it strongly varies across institutions (ranging from 10 to 30 in the UK for example). Secondly, a decrease of the ratio might mean many things such as a rise in staffing but also a drop in participation. It can also mask trends of casualisation and de-professionalisation of staff. It is thus a proxy for pedagogic effort which has something to say about quality but needs to be contextualised with other aspects of the teaching and learning experience such as student's graduation, dropout which will considered in the next section.

Figure 7 shows a decrease in the number of student/staff in the UK in the 1960s. This shows that this key period of expansion of enrolment is accompanied by a strong investment

including in staff recruitment not only to maintain but to lower the ratio. The increase of the ratio in the 1970s is the result of the clash between the continuous expansion of enrolment and the emerging budgetary constraints. The deterioration is halted in the mid-1990s not so much by the increase in funding than the increase of part-time and fixed-term staff (the diversity of staff in this category should be acknowledged with the effect on quality depending on whether individuals have chosen or no to work part-time or on short-term contract and how this affects their working conditions). In the UK, the share of part-time staff increased from 20% in 1970 to 50% today. Importantly, a third of all staff and 40% of academic staff are classed as atypical, a vast group defined as "working arrangements that are not permanent, involve complex employment relationships and/or involve work away from the supervision of the normal work provider" (HESA, 2008). In the UK, the increase of student per staff also tells us about inequalities between institutions linked to resources as pre 1992 universities have a higher ratio than post 1992 as shown by the increase of the ratio after the latter are included in the data.

**Figure 7. Number of students per staff 1921-2012**




*Source: See annexes.*

In the US, the stabilisation of the student/staff ratio has been ensured by the rise of part-time staff whose share increased from 15% to 55% from 1995 to 2013. In France the ratio was already high during the golden age of expansion but increased dramatically after the 1970s crisis when budget started diminishing and enrolment kept on rising. This was reversed in the 1990s due to a timid increase of public funding as share of GDP which boosted recruitment combined to a slowdown in enrolment (figure 2). This trends reveal key connections and recent tensions between enrolment, funding, structure and qualitative indicators. The next section reflects on those by looking at the historical trajectory of each country and propose some potential scenari.

# C. HISTORICAL TRAJECTORIES & SCENARIOS SUBSTITUTION ?

In this section, I look at the historical trajectories of the three countries and the potential lessons to be drawn from that. Public/private dynamics plays on sustainability, equity sand quality.

## C.1. UK- COST SHARING OR DEFFERED PUBLIC FUNDING?

### Looking back: the road to cost-sharing

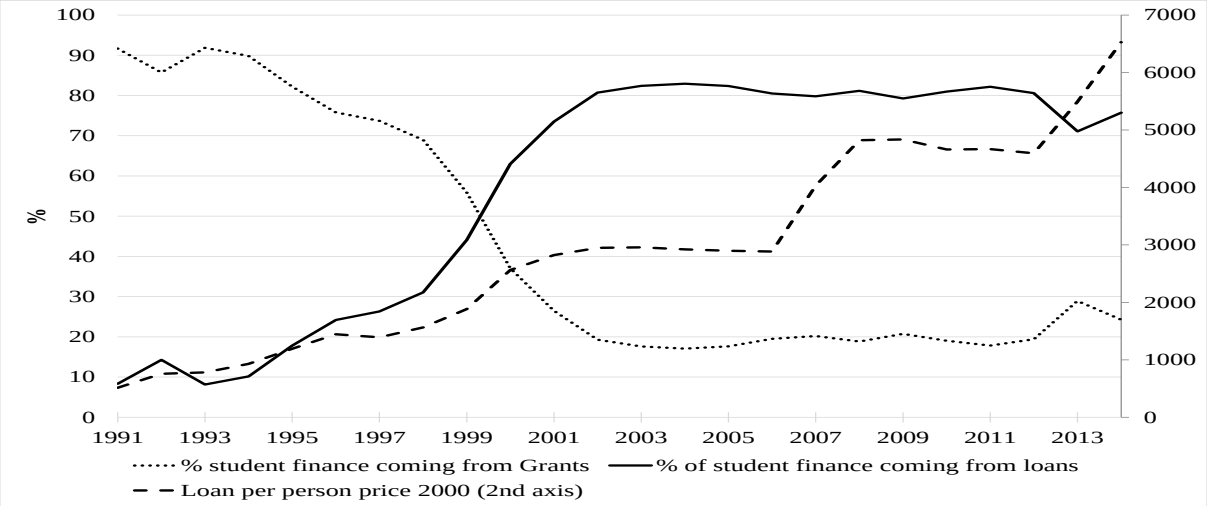
The complexity and volatility of the UK political economy is shown by the changes in policy over the last 50 years (Shattock, 2012). In 1962, higher education became free and grants were offered to all students to cover their fees and maintenance. Limited fees were reintroduced for the first time in 1967 for overseas students. In 1981 uncapped full-cost fees for non EU students were introduced. In 1990, loans were introduced. In 1998, £1000 upfront fees for domestic students were introduced and grants were abolished and replaced by loans. In 2006, variable deferred fees of up to £3000 were introduced in England with loans for all and means tested maintenance grants we reinstated. In 2012, variable fees rose to up to £9000 in England with

maintenance grants of up to £3.4K for full time for British nationals from households earning less than 25K and loans for British and EU students. Graduates earning less than £21K do not repay loans and there is a 30 year' prescription for repayment. Importantly, grants and state subsidised loans have been extended to the private sector (BIS, 2012; Dearden et al., 2011).

**What happened since 2008: causes and possible implications**

Cost-sharing took a new turn after the 2008 crisis with an increase of private resources coinciding with a deactivation of public resources. The reduction of public funding in higher education which started under new labour was accelerated by the 2012 Reform which combined a sharp increase of fees with the suppression of the teaching grant to institutions and the reduction of public research funding. Figure 3 show that other private resources continued to increase but have proved to be instable and exposed to the economic crisis. Investment income declined by 30% in the UK in 2011. The unprecedented reduction in public spending coinciding with the increase in private resource marks a clear shift towards public/private substitution of funding (with attempts by the government to compensate with private provision).

**Figure 9. Student finance 1991-2012**




The key issue behind substitution is whether the rise of private funding leads to a transfer rather than increase of resources. This has strong implications for sustainability, equity and quality. Firstly, Figure 1 shows some concerns on equity. 2012/13 Enrolment data show a decrease of 7.4% of undergraduate UK students (19% for part-time) (HESA, 2014). Secondly, the government estimates that 45% of loans won't be refunded either because graduates earn below the income threshold, reach the 30 year writing off or avoidance. Thus, the new system might cost more to taxpayers through deferred public funding writing off loans than an upfront public funded system. Thirdly, the differential access to private resources might further increase stratification and the variations in quality across institutions. Scott argues that "both ideas, of a 'system' and of the 'public', are now contested in the new age of a higher education 'market' (2014, 162). Since the 2008 crisis, there has been a lot of uncertainty which were reflected in the 2015 election. Labour sought to reduce the fee cap to £6K (Germany has suppressed fees and the question is whether they are ready to reactivate public funding and increasing the level of resources). The conservatives will remove the cap on the number of students that universities can recruit and will further facilitate the entry for private providers (the question is about the impact on deferred public spending with a student debt estimated at £44K - higher than the US).

## C.2. FRANCE: LIMITED SUBSTITUTION AND UNDERFUNDING

**A public sector of higher education**

In France, the level of public spending has remained predominant over the whole period despite a start of erosion since the 1980s. The growth of private income remains moderate

although postgraduate and disguised fees have gradually increased since the 1990s to reach 10%. While the question of fees is sensitive in France, the high level of private provision is noticeable (see figure 1)- a much more controversial issue in the UK where private funding is accepted. Substitution took place in France but has been limited so far. The renewed effort to fund education in the mid-1990s diminished with the adoption of stricter budgets from governments in place since 2001 (Carpentier, 2006a). As a result, and in a context where enrolment was stable, funding per student and student/staff ratio have stagnated.

**The needs for renewed public investment**

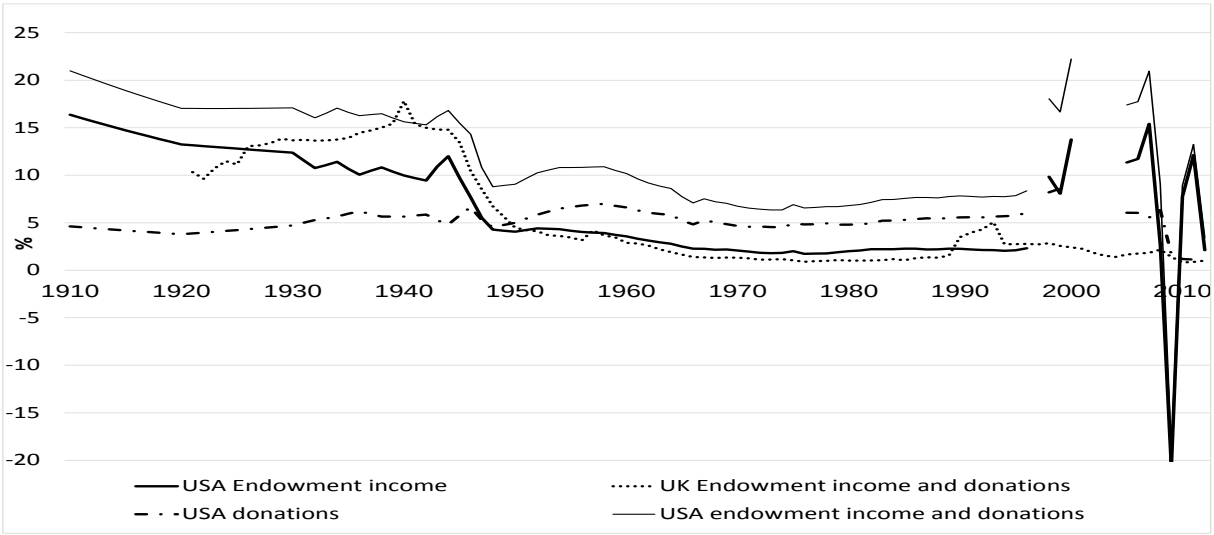
So far, France has only mildly adopted cost-sharing. At the same time, the idea to develop a sustainable and equitable public service of higher education of high quality requires a substantial increase of public investment. In other words, this implies a strengthened social contract to pursue an efficient tax based efficient model of funding supported by public spending promoting quality and fair access in schools and higher education institutions. This will be essential to ensure equitable access and address other forms of inequalities such as student drop out.

## C.3. USA: FIRST SIGNS OF SUBSTITUTION AND VULNERABILITY?

**Until 2000: a diversification income without substitution**

Private funding and provision have always been important in the USA but public funding has also been a key driver through direct provision and student aid and research funding for civil and military purpose. So high fees have always coincided with high public spending and other private resources like endowments' income. This explained the higher spending per student as well as a share of GDP compared to France and the UK.

**Figure 8. Income from endowments and donations as a share of higher education income 1910-2013**




**After 2000 and 2008: desactivation of public funding and the start of substitution?**

There are signs that this virtuous circle could be threatened with some observers mentioning a perfect storm (Weisbrod and Asch, 2010). A first issue emerged in the early 2000s with an unusual slowdown of public funding accelerated by the 2008 crisis (Douglass, 2010). A second key issue relates to the instability of private resources revealed by the devastating effect of the 2008 crisis on donations and returns from endowments (Figure 8). Universities registered a loss of US$120 billions in endowment in 2009 (Anderson, 2010, p. 18), which explains the slump in income per student in figure 3. Although the loss was concentrated on the big not-for-profit universities and meant that endowment returns reverted to their level of 2000, other institutions never recovered or had to operate massive cuts. The third issue is the sustainability of the fee regime linked to key debates about students' debt and the development of a bubble based on a growing disconnect between the investment in higher education and the real return (which are

unfairly redistributed). This is a problem as fees and loans are tied to federal aid. Geiger and Heller argues that "student loans have been an indispensable component of privatization" (2011, p. 9). There is a specific problem with some for-profit institutions, some of dubious quality with uncapped fees whose students automatically benefit from federal aid. The key question is whether the post 2008 era constitutes the beginning of a durable substitution trend and for what implications. There are alarming signs regarding equity and quality with the decrease of participation and the increase in student drop out and student/staff ratios. Goldin and Katz refer to the historical steady and relatively egalitarian supply of education which was the key driver of US growth. They raised concerns about setbacks in educational attainment since the 1980s that they connect to the re-emergence of inequalities damaging the long-term perspective of growth (2008). This paper suggests that cyclical public underfunding has a strong responsibility in this.

Since 2008, the trends towards public/private substitution in crisis times bring key challenges for all three countries: the instability of private resources is combined with the fragilisation of public funding traced back the 1980s which limit the sustainability of the system and tends to push policy makers and institutions to operate some trade off in terms of equity and quality.

# D. GLOBAL AND NATIONAL PERSPECTIVES

Looking at those issues in a global context brings a mix of opportunities and challenges. On the one hand, the marketization of the social sphere followed the 1970s downturn and preceded the current form of economic globalisation. On the other hand, the global emphasis on the deregulation of markets and the mobility of capital based on fiscal competition has strengthened the public/private substitution of funding and provision of higher education raising equity and quality concerns. Higher education faces, like other social sectors of human development, a vacuum left by the gradual retreat of the collective space of taxation and actions.

## D.1. IS COUNTERCYCLICITY REALISTICS IN A GLOBAL WORLD?

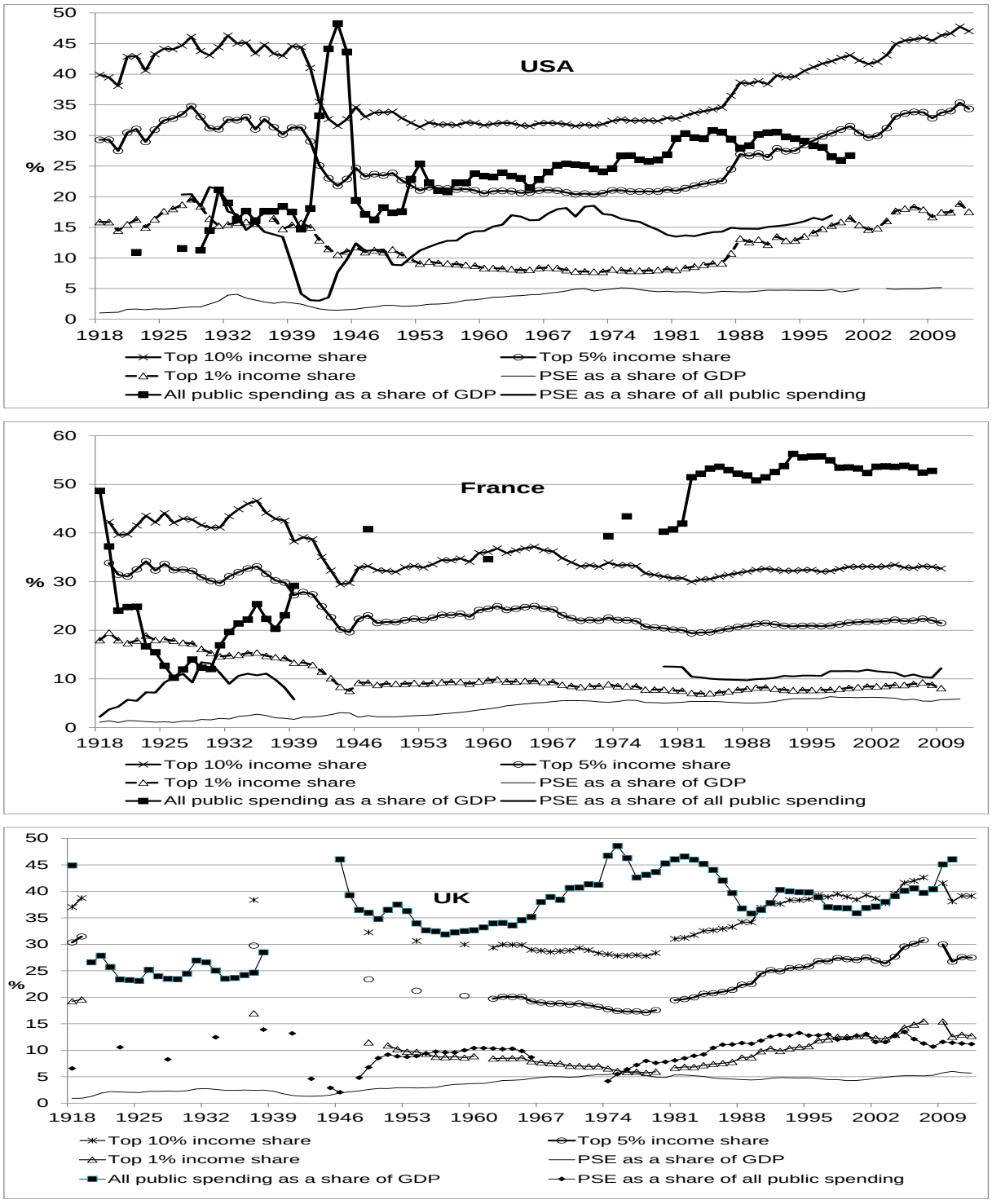
### From counter to procyclical policy

The long view shows that the austerity policies implemented to address the 1970s downturn were a historical exception rather than the norm. During the pre1945 crises of 1840s, 1870s and 1930s, the tax-based funding of the expansion of the social sphere was key to divert the over-accumulated capital towards activities generating new sources of productivity and a fairer redistribution of resources to eventually launch a new cycle of growth and profits. In complete opposition to such mechanisms, the neoliberal response to the 1970s downturn was based on the idea that limitation of taxation and public spending would revive growth and employment. This attempt to divert the overaccumulated capital and restore profitability did not drive the expansion of the social sphere, but rather found other channels—the financial system and new markets created by the deregulation of public services. Can globalisation explain the changes in the crisis exit strategy and its culmination to the 2008 global crisis?

### Globalisation and the commodification of the social sphere

Although the international mobility of capital also contributed to reduce overaccumulation during previous crises, such as the 1870s and the 1930s, the transnational financialization of the economy has been much stronger under the latest phase of globalization, which started in the 1980s. This has favoured the export of overaccmualted capital rather than its use for the development of the social sphere at the national level. Moreover, domestic and international pressure for lower taxation combined with the adoption of new global common marketisation practices, such as the structural adjustment policies, regional treaties or the General Agreement on Trade in Services (GATS) to push further the commodification of the social sphere. The reduction of public funding towards these services created new markets and sources of profits for underused capital. As a result, most social activities witnessed a slowdown of their public funding and the re-emergence of private resources and providers..

**Figure 10. Public spending (PS), education and socioeconomic indicators, 1918–2008. 1870-2012**




*Source: On income: Alvaredo, F., Atkinson, T., Piketty, T and Saez, E. The World Top Incomes Database. http://g mond.parisschoolofeconomics.eu/topincomes/. Other indicators: Carpentier (2007) updated.*

Figure 10 reveals variations in the correlation between the distribution of income, overall and education public spending. The interwar downturn is characterised by an increase in the effort towards public funding and education as well as a diminution of the share of the top income groups. The post-war era led to an increase of public spending and education combined with of fairer redistribution of resources based on taxation (Piketty, 2014). This trend was reversed by the 1970s downturn which, unlike the 1930s, led to a slowdown of the public funding including in education and to a re-concentration of wealth at the top (especially in the USA and the UK). The sudden increase in public funding after 2008 in the UK is the consequence of the crisis rather than its cause and is not connected to the social sphere. The attempt to overcome the crises of capital by a transfer of resources from the public funded social sphere to the global

financial sphere has spectacularly backfired in 2008. The crisis retrospectively explains the fragility of the illusionary growth of the 1990s and the absence of a resolution of the structural productive and redistributive weaknesses building up since the 1970s crisis. The unsustainable levels of inequality which were masked by cheap products and private debts were finally exposed in 2008. The contemporary global, European and national economic policy debates centre on the search for an alternative space of expansion of the social infrastructure of human development (Carpentier and Michel, 2010; Michel and Vallade 2007)). In higher education, like all social sectors, the question is whether to finish the marketization job or to reflect on an alternative.

## **D.2.** GLOBALISATION AND FUNDING AND PROVISION OF HE

Globalisation has accelerated the internationalisation of higher education but also reshaped national systems and the practices of higher education institutions.

**Pressure on public funding of higher education and the growth of marketisation**

Universities have always been worldwide institutions (Scott, 1998). However, economic globalization, with its stress on free trade and low taxation has not only accelerated but also transformed global higher education. It increased the marketization of higher education national systems by putting further pressure on public funding and by initiating new global practices, such as the GATS, acted as a multiplier of public/private substitution of funding and provision worldwide. In a context of global constraint on public funding, pressures for private income generation in advanced higher education systems have increasingly coincided with pressures for the search (for non-public) capacity-building from less advanced systems (Carpentier and Unterhalter, 2011; Carpentier et al., 2011; Oketch, 2003). Thus, lower income countries are deprived from public funding to develop their higher education systems in the way older systems did (Naidoo, 2010; Schendel and McCowan, 2015). It questions the potential of a catching up and whether followers will be able to reach a threshold to ensure sustainability, equity and quality as other systems did before trends in public/private substitution emerged in the late 1970s.

**Public/private substitution and the internationalisation of higher education**

Globalisation has also led to an acceleration and a diversification of the forms of internationalisation including old (students and staff mobilities) and new (joint and dual programmes, franchising, international branch campuses, Distance e-learning) forms of mobilities **(**Altbach, and Knight, 2007). There are active debates on the impacts of these new trends. The increasing tensions between the global agendas related to the knowledge economy and neoliberal austerity have changed the way universities engage with the process of internationalisation. A stronger income generation agenda behind the internationalisation of higher education sits alongside, and increasingly in tension with, the more traditional, political and cultural rationales.

In relation to sustainability, the key global concerns raised by this paper is whether the resources generated by international activities contribute to a public/private substitution rather than offering additional capacity building for a country. Another concern is the transformation of the practices of public universities when acting as private providers abroad (Ball, 2012) and the fact that their core funding increasingly depends on global markets which can be volatile and escape their control. Some question the rise of fees and a potential financial bubble in international higher education (Altbach, 2008). Questions of equity relate to the potential of global higher education to create or address inequalities within and between nations. Student mobility and cross-border higher education have the potential to reduce inequality but there are again concerns about doing this in a heavily marketised environment as shown by the impact on the commodification of education through GATs on inequalities or trends in brain drain (Roberston, 2006). Moreover, a rise of fees for international student as part of a substitution for public funding raises an issue about the governments' offer of international scholarships thqt is problematic for global social justice (Carpentier, 2010). Finally, the public/private substitution of funding may produce quality concerns if the increased financial commitment demanded from international students is not matched by sufficient public resources to raise the resources per

student dedicated to student experience (Carpentier, 2012). This also applies to cross-border higher education. Becker has shown that many of the first offshore campuses failed because of their focus on short term income generation without taking on board equity and quality (2009). Thus, a public/private substitution angle shows that global higher education narrowly conceived as a solution to national financial problems can in the long term prevent both host and providing countries from achieving their respective goal of capacity building and income generation.

## D.3. GLOBAL SOLUTION AND THE TETRALEMMA

Key global and national questions are worth exploring. Can the current focus on low taxation and marketisation drive a sustainable, equitable and ethical system of higher education? Can global higher education respond to socio-economic demands and funding imperatives at home while addressing socio-environmental challenges which are increasingly global?

### The tetrallema

The focus on the sole global market of higher education fails to engage with the tetrallema of global challenges such as Growth, Equity, Democracy and Sustainability (Unterhalter and Carpentier, 2010) and delays the creation of global public goods through higher education (Marginson, 2010; Stiglitz, 2012). In its present form, the expansion of global HE is the result of a solution to national funding concerns rather than a global project. Could there be a new space for global higher education beyond the market space filled by the GATS which would respond to equity and quality concerns? Many countries had to create specific quality assurance institutions to regulate the unreliable quality of some of the international providers within their borders but there are no global institutions looking at equity and quality. League tables tend to focus on research and excellence rather than the spread of quality across and within countries. Promising alternative indicators are emerging seeking to integrate new methodologies and wider criteria such as the measure of social impact (Marginson, 2012). Global higher education needs changes in policy and practice beyond marketization. This include the creation of global institutions capable of leading a reflection about the possibility of accessing higher education as part of the extension of the right to post compulsory rather than as a privilege (McCowan, 2010).

### A countercyclical transformation to tackle the tetralemma

Changes in global practices are especially important during times of crisis which stretch the tetralemma to the limit as the tensions related to economic growth challenge democracy (rise of nationalism), equity (testing social cohesion) and sustainability (overlooking ecological problems). A revival of public funding in education contributing to realign the imperatives of sustainability, equity and quality of higher education might be part of much broader countercyclical economic, social, technological and environmental transformations to offer a response to the tetrallema.

# Conclusion

Has cost-sharing failed the test of the 2008 crisis? It has been heavily challenged by the rise of inequality and the post 2008 acceleration of the deactivation of public funding started in the 1980s. More broadly, the historical lens shows that the complex articulations between the costs and benefits of higher education depend on external and internal factors which are in constant motion and often in tension. Thus, a change in the context (such as the 2008 crisis) can lead to unanticipated outcome and turn cost-sharing into a public/private substitution raising concerns about sustainability, equity and quality. Concerns that the unsustainability of the loan system might lead to higher deferred public spending underline the centrality of an upfront public funding towards higher education. Previous historical crises show that the development of countercyclical public funding of the social sphere (including in higher education) had offered effective economic recovery. Thus, changes in the funding settlement in higher education by reactivating public funding and ensuring that private funding is additional rather than substitutive must be part of wider transformations funded by a fairer taxation and driven by a broader social contract recognising the public good of higher education.

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