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Pension Systems after the Storm: France and the United Kingdom in a Comparative Analysis

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Abstract

All pension systems have been affected by the financial and economic crisis, although in different ways. This paper analyses the effects of the crisis on pension systems and the resulting responses and changes, and offers a theoretical interpretation of these responses. This interpretation focuses on the relationships between pension systems and broader socioeconomic institutional configurations, and between pension systems and other core, formative economic institutions, in order to explain the effects of the crisis, the nature of the reforms adopted by governments and the future outlook for pension systems. From this perspective, a comparative analysis of two pension systems with different approaches, the French system that relies heavily on social insurance and the primarily market-based British system, appears relevant in the interest of assessing how similar pressures and disruptions can produce different impacts and responses. The analysis shows that these pension systems' responses to the crisis have preserved the main institutional features of each configuration, and even reinforce some of them. Nevertheless, it appears that both systems are converging toward an institutionalization of a twofold social welfare system. The French system attempts to preserve the pension rights of core-workers on a mandatory social insurance basis, while non-standard workers benefit from tax-funded social solidarity measures. In the British system, the State intervenes to both extend secure pension fund enrolment to low income groups and to reinforce safety nets for lower income retirees. Finally, the recent changes have not called into question the fundamental logic of either pension system, although concerns are on the rise in respect of their future adequacy and sustainability.

JEL classifications: H55, P10, P52

Keywords: welfare state, social security, pension systems, financial crisis, institutional interactions

1. Introduction

All pension systems have been affected by the financial and economic crisis, although in different ways. This paper analyses the effects of the crisis on pension systems and the resulting responses and changes, and offers a theoretical interpretation of these responses. This interpretation focuses on the relationships between pension systems and broader socioeconomic institutional configurations and between pension systems and other core, formative economic institutions, in order to explain the effects of the crisis, the nature of the reforms adopted by governments and the future outlook for pension systems.

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From this perspective, a comparative analysis of the reactions of the French and British pension systems, with their different approaches, is of interest for several reasons.

Firstly, they are at opposite ends of the European spectrum of pensions. The French system relies heavily on mandatory social insurance and pay-as-you-go schemes, and continues to involve a large number of separate pension schemes. The British system is essentially market-based and relies on personal savings and corporate pension schemes, in addition to a weak basic public scheme. Comparative literature on the subject of welfare states often sees the French system as an ideal type conservative-corporatist welfare regime and the British system as an ideal type liberal welfare regime.

Secondly, with regard to comparing the reactions of the pension systems after the crisis, it is important to select countries that, like the UK and France, are in relatively similar demographic positions in terms of ageing populations, such that demographic pressures come to bear on them in the same way.

Thirdly, and from a broader point of view, the entire economies of France and the United-Kingdom appear quite different. The oft-cited Variety-of-Capitalism (V-of-C) has promoted a dichotomist distinction between Liberal Market Economies (LMEs, as in Anglo-Saxon countries) and Coordinated Market Economies (CMEs, of which Germany is the most common example) (Hall and Soskice, 2001). From this standpoint, the United-Kingdom can be considered a paradigmatic LME, while France shares many of the institutions typically found in CMEs (Culpepper, 2008). Other V-of-C approaches present different typologies, including additional ideal type varieties (Amable, 2003). Nevertheless, from our point of view, the analytical strength of this approach does not lie so much in the respective strengths of the different typologies as in its focus on institutional interactions and relationships between types of political economies and types of welfare states. It also suggests that, despite the fact that they face similar pressures (demographic changes, European integration, globalization), there is no systematic convergence between the different national models or institutions. This is a result of the strength of institutional interactions: as the overall economic advantages of an economy are not reached by the selection, in each area, of the best institutions, but rather are founded on the interdependencies and complementarities existing between institutions, structural changes, even after a crisis, are not necessarily possible or appropriate in view of overall economic performance.

As this analysis entails an in-depth of the institutional interactions between pension systems and other core economic institutions, and particularly the relationships between pension systems, the labour market and the financial system, this comparison has been limited to these two single, yet representative, countries.

The **first part** studies the main features and outcomes of the French and British pension systems from an institutional perspective. It positions each system in relation to ideal type of pension systems and the usual typologies (Bonoli, 2003, Bonoli and Shinkawa, 2005) and stresses the impact of institutional interactions on interpretations of post-crisis pension system responses. It focuses in particular on the importance of two institutions - the labour market and the financial market - to explain respective pension systems changes in France and the UK.

The **second part** examines the various effects of the crisis on the French and British pension systems and the changes involved in one or the other of these systems, based on institutional configurations and interactions. In France, the interest of core workers - i.e. workers providing the skills essential to the survival and growth of their companies and whom companies try to retain through a combination of permanent contracts and employment benefits (Gazier and Petit, 2007) - seems to have played a leading role in preserving high labour productivity levels, while in the United Kingdom, the financial market-based approach has restricted many responses in the pension system.

Finally, the **last part** concludes with the responses to the crisis adopted by the French and British governments, and their impact on the future adequacy and sustainability of their pension systems. It appears that recent reforms in both countries have allowed the previous institutional configurations to be maintained. Nevertheless, both systems have also reinforced an already established dual welfare system, divided between those who can afford market-based social protection (British system) or who are employed as standard core-workers in a career path qualifying them for a full pension (French system) and those who will benefit from means-tested minimum pensions. It can therefore be concluded that the configuration of each system has perhaps reached its limits, in the sense that concerns are on the rise in respect of their future adequacy and sustainability.

2. Institutional configurations: French and British pension systems at opposite ends of the spectrum

French and British pension systems appear well suited to an assessment of the varied responses to and effects of the recent crisis: on one hand, they present a relatively comparable demographic position in terms of the proportion of older people (those 65 years and over represent 16% of the total population in both countries) and the old age dependency ratio[2] (25.6 in France and 24.9 in the UK), while on the other hand they are organised within different, even opposite, institutional configurations, representing the best examples of public and private pension system amongst all the European countries.

[2] The old age dependency ratio is defined as the ratio between the number of elderly persons (aged 65 and over) and the number of persons of working age (from 15 to 64).

2.1. Institutional features of the French and British pension systems

Esping-Andersen's work (1990) on the subject of the institutional configurations of welfare states remains a relevant starting point for an analysis of national social welfare schemes. He uses the concept of welfare state regimes or models to explain the relatively stable institutional arrangements between the three welfare providers – the family, the State and the market. As we will see below, the British and French pension systems can be considered as being relatively similar to the main institutional features of two ideal-types, those of the liberal regime and of the conservative-corporatist regime, even if it must be kept in mind that no pension system, in reality, is ever a 'pure' one (Arts, Gelissen, 2002).

An ideal type market-based old age welfare regime or liberal regime, is founded on the market and on personal responsibility to provide welfare. Individual savings, private insurance and pension funds are the core providers of welfare, with incentives supplied by the State (in the form of tax relief, subsidies, etc.). Other welfare mechanisms must necessarily be limited, so as not to disturb the market, with the State interfering as little as possible, playing only a 'residual' role. Social benefits provided by the State are granted under income-based conditions, constituting a lower end 'safety-net' (flat-rate benefits). This regime promotes high employment levels, including non-standard employment arrangements.

Conversely, an ideal type old-age social insurance-based regime is characterized by interventions intended to preserve the status of its memberships (conservative), and its funding is largely covered by mandatory social insurance. The end goal of this regime is to guarantee revenue to workers, on the basis of their former income levels. It thus maintains class differences and the income gap. Professional solidarity plays an essential role, particularly for workers who are well positioned workers on the labour market and providing workers with social security benefits tied to their professional position. The mandatory social insurance provides ideal protection to job market insiders. On the other hand, it offers poor protection to non-standard workers who are excluded both from standard work arrangement and standard social welfare protection.

The current configurations of the French and British pension systems can respectively be related to these old-age welfare regime ideal-types.

The British pension system includes a mandatory first tier, which is funded on a pay-as-you-go (PAYG) basis by National Insurance Contributions (NICs) and is a flat rate benefit. The second tier is also mandatory for employees, although with a wider range of choices. The State Second Pension (S2P)[3] is financed on a PAYG basis. However individuals can choose to 'opt out' of the

[3] S2P or state second pension is a supplementary pension which is provided by the State, and which replaced the SERPS (State Earnings Related Pension), in April 2002. The S2P was initially earnings-related but from April 2007 becomes a flat-rate benefit, even though contributions are earnings-related.

State scheme in favour of a private pension (contracting-out)[4]. Private sector occupational schemes, personal pensions and stakeholder pensions are all personally funded. The third tier consists entirely of voluntary private savings.

The architecture of the French pension system is founded on a variety of pension schemes. Wage-earners in the private sector benefit from a pay-as-you-go first pillar funded by social contributions paid by employers and employees, which can provide a pension of 50% of an employee's average wage. They also benefit from a mandatory pay-as-you-go points-based second pillar. The second pillar is funded by mandatory social contributions and managed by the management and labour representatives (unions). It accounts for 40% of the average pension for a private sector retiree. Wage-earners in the public sector enjoy a pay-as-you-go pension scheme, funded by social contributions as a percentage of earnings and a contribution by the public employer (calculated so as to balance the funds received and disbursed). Many "special schemes" still exist at big companies, like in the railway sector (RATP and SNCF) and the electricity and gas sector (EDF-GDF). These are also funded by mandatory social contributions on a PAYG basis. Self-employed workers have their own pension schemes which currently function the same way as those for private sector wage-earners. The different public pension schemes ensure solid protection and social cover, leaving no space for the development of private pension funds.

Table 1 – French and British pension systems: Key points for comparison

	France	United Kingdom
Macroeconomic data		
% of public pensions in GDP (old age and survivors), 2005[a]	12.4	5.7
Public deficit (% of GDP – 2009[b])	-7.5	-11.5
Public debt (% of GDP – 2009[b])	77.6	68.1
Demography		
65 and over (% of total population)	16.2	16.0
Old age dependency ratio[b]	25.6	24.9
Retirees and old age persons revenues[c]		
Older people (65 years and more) income sources (% of total		

[4] Contracting-out refers to leaving the State Second Pension (S2P) in order to accrue benefits in an alternative pension scheme. There are two possibilities for this: a salary-related pension scheme (defined benefits) or a money purchase scheme under an occupational, personal or stakeholder pension scheme (defined contributions). Beneficiaries pay a reduced rate of National Insurance Contributions if they contract out to an occupational pension scheme, or they receive a National Insurance rebate if they contract out to a personal or stakeholder pension scheme. From April 2012, the government is ending contracting out on a money purchase basis and will slightly reduce the contracted-out rebate (see Table 1).

household disposable income, mid-2000s)		
Public transfers	86.7	49.8
Work	6.4	11.9
Capital	6.9	38.3
Total	100	100
Minimum level pension (euros per month)[d]		
Single pensioner (2007)	621.3	573.8
Couple (2007)	1114.5	872.2
Single pensioner (2010)	708.9	636.5
Couple (2010)	1157.5	971.5
Basic State pension		
Single (2007)		407
Couple (2007)		558.4
Single (2010)		468.7
Couple (2010)		749.5
Minimum level pension, Number of beneficiaries (thousands)[d]		
2007	586	3337
2010	580	3337
At risk of poverty rate (%) for pensioners[b,e]		
2008	8.8	28.4
2010	7.6	22.9
Aggregate replacement ratio[b,f]		
2008	0.66	0.43
2010	0.67	0.48
Payroll tax rates, state pensions (% on wages)[g]		
Employees (2010)	10.55	11.0
Employers (2010)	15.6	12.8
Employees' contracted-out rebate (salary-related schemes)		1.6
Employers' contracted out rebate (salary-related schemes)		3.7
Employees (2012)	10.5	12
Employers (2012)	15.6	13.8
Employees' contracted-out rebate (salary-related schemes)		1.4

Employers' contracted-out rebate (salary-related schemes)		3.4
Eligibility requirement (2010)[g,h]		
Legal retirement age, Men	62	65
Legal retirement age, Women	62	60
Number of qualifying years (French 'regime général' and UK Basic state pension)	42	30

a. *OECD 2009.*

b. *Eurostat.*

c. *OECD, 2011, Pensions at a glance, p. 147. Income from work includes both earnings (employment income) and income from self-employment. Capital income includes private pensions as well as income from the returns on non-pension savings).*

d. *Pension Policy Institute (U.K.) and DREES (France). France: 'Minimum vieillesse's level. UK: Guaranteed minimum level: pension credit.*

e. *Cut-off point: 60% of median equivalised income after social transfers.*

f. *Ratio of income from pensions of persons aged between 65 and 74 years and income from work of persons aged between 50 and 59 years.*

g. *Department of Wage and Pensions (U.K.) and Commission des comptes de la sécurité sociale, France. Payroll taxes: France: Private sector employees, both first and second pillars, UK: Class 1 National Insurance Contributions (State pensions, statutory sick pay, statutory maternity pay).*

h. *In France, the legal retirement age for both men and women will gradually increase from 60 in 2010 to 62 in 2017. In UK, the legal retirement age for women will gradually increase to 65 for women between 2010 and 2020.*

These two pension systems are quite different as the British pension system is mainly supported by the market while the French one relies on public PAYG schemes. Although both systems are founded on three tiers (basic, complementary and voluntary), the weight and the logic for each component differ markedly. In the UK, the contrast between public and private retirement income funding is fundamental. State pensions benefits are offered and calculated in the same way for all retirees, regardless of job affiliation. Conversely, in France employment status matters because of the variety of pension schemes, which are dependent on particular occupations. Consequently, the rights and duties of one category of workers (employees in the public or the private sector (general), the self-employed, and employees at specific companies such as EDF, GDF, SNCF, Banque de France, etc.) are relatively different from those of other categories. Nevertheless, the average replacement ratio for pensioners is high in France (for the first tier alone, it can be as high as 50% of the average of the best 25 years of salary after a full career), compared to 14 % of average earnings for the Basic State Pension in the UK. These differences are even stronger when taking into account of the aggregate replacement ratio, which is defined as the income from pensions of persons aged 65-74 years relative to the income from the work of persons aged 50-59 years (Table 1): under 50% in UK (43%), while this indicator is more than 65 % in France.

As enrolment in the public pension system (general and complementary) is compulsory, the proportion of income from public transfers stands at around 86.7% (Table 1) for older people in France, but is less than 50% in the UK. In France, public pensions represent 12.5 % of GDP, compared with about 6% of GDP in the UK.

In the UK, private sources of income for people aged 65 years and more are high, coming from work (12%) and from private pensions and other capital-based incomes (38%) (Table 1). The inequalities between retirees are related in particular to their ability to subscribe to a private pension – occupational or personal – during their professional career, through either a pension fund or an insurance provider. In addition, some British retirees have access to voluntary private pensions (AVCs) or other private savings and earnings that help to increase their retirement income. In France, private pensions - occupational or personal - are weak in relation to public pensions (accounting for less than 3% of the total pension benefits provided by under public pension schemes).

Under these conditions, the risk of poverty (cut-off point: 60% of median equivalised income) among British pensioners is nearly three times as high as the risk among French pensioners (more than 25 % in UK but less than 10 % in France). The number of beneficiaries of the minimum pension is below 0.6 million in France (less than 5% of retirees), while the beneficiaries of the pension credit[5] stand at some 3.3 million in UK, or roughly one fourth of those ages 60 years and over.

In France, social contributions devoted to financing public pensions represent more than 26% of the wages of private sector employees. In the United-Kingdom, payroll tax rates are significantly lower (23.8% for Class 1 National Insurance Contributions, but they also finance statutory sick pay and statutory maternity pay), and they are reduced for both the employee and the employer if the employee is enrolled in an employer's pension scheme (contracting-out, see Table 1).

These different pension systems' institutional features are important to consider in assessing the responses to and effects of the crisis. Furthermore, the institutional configurations of these pension systems must not be considered separately, as they are closely tied to other economic areas that substantially limit responses and changes to counteract the crisis.

[5] Pension credit is the main means-tested benefit for pensioners and is intended to ensure that they do not have to live on incomes below a "guaranteed" minimum level. These amounts may be more for pensioners with disabilities, caregiving responsibilities or certain housing costs such as mortgage interest payment. The pension credit includes another component, the savings credit, which ensures that those who have made some private provisions for their retirement will be better off than those who have made no such provisions.

2.2. Institutional interactions and expectations about responses to the crisis

Many recent comparative economic studies have stressed that the overall performance and advantages of an economy depend not on a set of the best institutions in each area, but on the relationships and complementarities between institutions in different areas (Hall and Soskice, 2001, Hall, 2005, Aoki, 1994, 2001, Amable, 2009, Kenworthy, 2010). These studies also show that different economies do not interpret similar pressures in the same way, and, despite increasing globalization, there is a lack of convergence between economies.

Under the variety-of-capitalism approach (Hall and Soskice, 2001, Amable, 2003), the United-Kingdom appears to be a paradigmatic Liberal Market Economy (LME, the typical example of which are the USA and the United Kingdom), while France is closer to a Coordinated Market Economy (CME, the archetype of which is often given as Germany), as it shares many of the same institutions as found in CMEs. This distinction between types of political economies emphasizes the role of institutions, which structure their overall coordination. Depending on the type of economy, they differ in the areas of product-market competition, the labour market and labour relations, social security, the education system and the financial systems. This institutional approach stresses, in particular, the role of institutional complementarities that reinforce the differences between types of economies. Institutional complementarities imply that nations with a particular type of coordination in one sphere of the economy tend to develop complementary policies in other spheres as well, creating mutually reinforcing effects (Aoki, 1994). According to Hall (2005), the concept of institutional complementarity posits that one (or more) institution(s) may enhance the effects of another institution (or of several others).

Several empirical studies have shown that there is a correspondence between types of political economies and types of welfare states. Liberal market economies are accompanied by liberal welfare states, whose emphasis on means-testing and low levels of benefits reinforce the flexibility of the labour market that firms need in order to manage their labour relations. Conversely, social protection mechanisms in coordinated market economies tend to support corporatist strategies (Hall and Soskice, 2001). The concept of complementarity may give the impression of a highly functionalistic and deterministic system, but empirical comparisons have shown that the alignment between institutions is far from perfect, such that the terms of ‘institutional interaction’ entail less determinism. The alignment between institutions often appears as an ‘unintended’ result of incremental adaptations and is always the result of complex historical evolution (Jackson, 2005). In short, institutions are neither randomly distributed across nations nor are they perfectly and harmoniously complementary (Hall and Gingerich, 2004).

The concept of a hierarchy of institutional forms posits that one or more institutions are more important than the others in upholding or changing the institutional architecture as a whole (Boyer, 2005). According to Jackson (2005), given two institutional domains (ID1 and ID2), models of complementarity and hierarchy may take several general forms:

1) ID1 → ID2

2) ID1 ← ID2

3) ID1 ←→ ID2

ID1 ↘
4) ID3 or economic outcome
ID2 ↗

In 1) and 2), the operation of an ID influences the design of the other and implies a form of institutional hierarchy. In 3), mutual interactions exist between ID1 and ID2, but an institutional hierarchy can also exist if the effects are stronger in one direction than the other. In 4), both institutional domains are seen as independent variables whose interactions have important effects on some third institution (ID3) or economic outcome.

When applied to the operation of pension systems, this framework brings a number of major institutional interactions and institutional hierarchies to the fore. Among the relationships between pension systems and other institutions, two institutions appear more important than the others: the financial system and the labour market (Tyrell and Schmidt, 2001, Mitchell and Turner, 2009). But the relationships between financial system, labour market and pension system are different in different types of economies. The constraints they exert on the evolution of pension systems are also expressed in different ways.

The British pension system is integrated with a financial and economic context marked by predominant financial markets and by the leading role of London as a financial market place (Davis, 2003). The development of occupational pension schemes has promoted the growth of the banking and insurance sector and of the financial markets. Pension funds are largely invested in equities and, in return, the corporate governance is oriented more toward shareholder interests. The flexibility of the labour market, as shown by the low level of rigidity of employment index (Table 2) is partly the result of this mode of governance. These characteristics partly explain the higher employment rate in the UK.

Financial intermediation represents a major share of gross added value and employs 1.2 million workers. Insurance and financial services correspond to more than one fourth of total service exports. Market capitalisation represented 137% of GDP in 2007 and 129% in 2009, after a 70% drop in 2008. Pension fund assets accounted for 79% of GDP in 2007, 64% in 2008 and 80% in 2009, according to OECD estimates (Table 2).

Table 2 - Indicators of interactions between pension system, labour market and financial market

	France	United Kingdom
Financial system		
Market capitalisation (% of GDP)[a, b]		
2007	107.31	137.27
2008	52.7	69.69
2009	75.14	128.68
2010	75.25	138.33
Insurance and financial services (% of service exports)[c]		
2007	1.91	28.51
2008	1.67	29.11
2009	2.44	27.18
2010	2.63	24.28
Pension funds assets (% of GDP)[d, e]		
2007	6.91	78.90
2008	7.00	64.30
2009	8.10	80.51
2010	8.55	u.d.
Labour market		
Average exit age from the labour force[f]		
Male, 2007	59.5	63.6
Female, 2007	59.4	61.7
Male, 2009	60.3	64.1
Female, 2009	59.8	62
Employment rate 55-64[f]		
Male, 2007	40.5	66.3
Female, 2007	36.0	48.9

Male, 2010	42.1	65
Female, 2010	37.5	49.5
Employment rate 65-69		
Male, 2007	4.3	20.6
Female, 2007	2.4	11.1
Male, 2010	5.3	24.2
Female, 2010	3.2	15.7
Unemployment of older workers[f]		
55-59 unemployment rate, 2007	5.0	3.4
55-59 unemployment rate, 2010	7.3	4.8
Number of unemployed aged 55-64 years, 2007 (thousands)	135.9	131.0
Number of unemployed aged 55-64 years, 2010 (thousands)	226.6	196.8
Productivity per hour (GDP per hour worked, pps, in 2009)[f]	131.7	107.1
Rigidity of employment index (2009)[a] Note: measures the regulation of employment, specifically the hiring and firing of workers and the rigidity of working hours). Comprised between 0 (low rigidity) and 100 (high rigidity). *Source: World Bank Indicators*	52	10

a. *World Bank Indicators.*

b. *Share price times the number of shares outstanding, listed companies.*

c. *World Bank, Balance of Payments.*

d. *OECD, Pension Indicators Database.*

e. *Assets of both pension funds and pension insurance contracts.*

f. *Eurostat*

Conversely, the French pension system is founded on a PAYG basis. Financing for large companies is obtained more commonly through banks, even if there has also been a development in equity markets since the 1990s. Corporate governance at large firms is managed via corporate cross-shareholding and hard-core shareholders. In the French economy, corporate governance is dominated by the interests of the largest companies. As Hancké (2002, p.30) notes, large firms in France have become the 'central node of political economy, decision making, a position previously held by the state'. Large public firms have a central role to play as welfare leaders. These large companies have many corporatist social protection schemes that are often similar to those in the public sector.

Table 3 - Interactions between pension system, labour market and financial market

	Labour market	**Pension system**	**Financial market**
France	Pursuit of high worker productivity Economic advantages linked to large companies ('Champions nationaux') Importance of core workers Importance of company-specific skills Rigid labour market Exclusion of workers with allegedly 'lower' productivity levels (older and younger workers, workers with disabilities, women with young children)	Core workers rewarded by the welfare system: people having worked full careers, full time are better protected Importance of 'special' pension schemes Funding provided by social insurance, with a strong link between social contributions and benefits. The mandatory second pillar covers all employees (private sector) and the self-employed	Pensions are funded on a PAYG basis; the mandatory first and second pillars provide solid cover, so there is no room for employers' pension funds Companies are financed by bank loans, even if stock markets have been developing in recent decades.
United Kingdom	Pursuit of high labour market flexibility, made possible by deregulation Better alignment between supply and demand Active labour policy sustained by fiscal and social advantages '*Workfare*' policies: working perceived as the best form of social protection, as illustrated by a high employment rate even among old age workers Relatively low rate of mandatory social contributions	Promotion of personal savings, insurance, and market-based welfare Lower State pension benefit Relatively high State pension age Measures in place to encourage people to continue working beyond the legal retirement age Flexible pension system: possibility of combining part-time work with retirement Improved portability of pension rights (DC plans)	Financial markets play a leading role in the economy Companies are mainly financed by the financials markets (high market capitalisation) Pension funds, banks and insurance providers are the key actors in pension funding Pension funds are largely invested in equities, while corporate governance is oriented more toward shareholder interests Incentives are offered by the government to contract more DC plans, even for lower income groups

The French economic model is characterized by high productivity per hour as well as per capita (table 2). Employment rates are weaker than in the United Kingdom, particularly for younger and older workers. Productivity gains are obtained by excluding lower productivity workers such as unskilled workers, young workers, women with young children, older workers and workers with disabilities. Furthermore, the internal labour market plays a central role, in the accumulation of specific skills, because the education system and business are relatively independent (Gautié, 2004, p. 36). Thus, large firms rely heavily on core-workers who enjoy a high degree of job security, working full-time under permanent or long term employment contracts, while the companies encourage these workers to invest in company-specific skills. This economic strategy is supported by the social welfare system as a whole. The 'régimes spéciaux' provide strong incentives to undertake company-specific human resources investments and to protect them. More generally, the close ties that exist between social contributions and pension entitlements ensure a reward for the workers with full length careers, as well as a high return on their contributions.

In short, the labour market appears to be the leading institution that guides pension system changes in France. In the UK, the financial markets place strong constraints on the pension system. The following section assesses the extent to which these hierarchies have shaped the evolution of both pension systems, especially after the crisis.

3. Pension systems and the crisis: attempts to uphold core institutional features

The institutional configurations, and institutional interactions in particular, outlined above are key in assessing the post-crisis responses and changes in both pension systems. In France, the preservation of core workers' rights continues to play an essential role as a mean of maintaining high worker productivity levels, while in the United Kingdom, the logic of the financial markets has limited the possible responses within the pension systems.

3.1. The French pension system still based on social insurance

In the French PAYG pension system, the first effect of the crisis on the retirement system was financial, as retirement benefits are paid directly from workers' current social contributions.

A decrease in employment and a reduction in wage growth reduced the revenue on which social contributions are levied. In 2008, private sector wages increased by less than in the previous year and decreased in 2009 (-1.2%). At the same time, the number of retirees has continued to increase. As a result, the private sector's mandatory pension schemes show a deficit, which has led to an increased budget deficit. The deficit among private sector pension schemes represented more than 10% of the public deficit in 2008 and about 7% in 2009 and 2010, although this share is in fact larger, account taken of the support allotted by the State to 'special schemes' and public sector schemes[6].

The crisis has increased the number of non-standard workers and the unemployed, who have less protection under the French pension system. Retirement benefits depend on the duration of the insurance cover (41 years for a full pension after 2012, 42 after 2017) and social contributions. But the pension rights accumulated by young workers are low, due to an increase in the length of studies and the consequently later entry on the job market (Bontout et *al.*, 2009). At the other extreme of the professional scale, unemployed older workers encounter many difficulties in obtaining a new position. The employment rate among older workers is particularly low in France and, as a result of the crisis, the number of unemployed people aged 55-64 increased by 67% between 2007 and 2010 (see Table 2). For those with incomplete careers, periods of unemployment, part-time jobs, temporary jobs, or inactivity, it is more difficult to attain full pension rights entitlement, and their replacement rates are accordingly weaker (Colin and Mette, 2003).

With the economic crisis, the role of the 'Fonds de solidarité vieillesse' and of the 'minimum vieillesse'[7] has been reinforced, helping to differentiate between insurance and solidarity. Beneficiaries of the minimum pension enjoyed an additional benefit of €200 in 2008, and the level of the minimum pension has been increased (to 6.9% in 2009). The objective is to reduce the old-age poverty rate (currently some 10-12% of the retirees). Still in this idea of reinforcing the role played by means-tested benefits and minimum pensions, the 'minimum contributif' (contributory minimal pension) of the private sector's first pillar pension is granted under certain revenue conditions[8]. A strategy of means-tested benefits was then introduced to the social insurance-based system, with entitlement to the 'minimum contributif' being limited to the smallest pensions. In the near future, and as a result of the crisis, the role played by the 'Fonds de solidarité vieillesse' and means-tested benefits is expected to increase.

[6] PAYG public pension schemes are 'automatically' at equilibrium as public employers pay a social contribution calculated to balance revenue with disbursements.

[7] The 'Fonds de solidarité vieillesse' (old-age solidarity fund) was created in 1993 to support all old-age benefits with no link to social contributions. The fund finances the old-age minimum pension and the additional pension amount for people who have raised children, and offsets any social contributions not paid by pensioners during limited periods of unemployment. The 'Allocation de solidarité aux personnes âgées – ASPA' (old-age solidarity allowance) is a means-tested minimum old-age pension benefit granted to persons of retirement age (65 years or 60 years in the case of disability). The ASPA old-age allowance supplements the pension received by the pensioner up to amount of the 'minimum vieillesse' (see Table 1).

[8] The level of the first pillar pension (private sector) cannot be lower than a specific minimum, calculated based on the duration of the social insurance. The second pillar pension is then added to this minimum level. But from 2010, this minimum will be granted only to retirees for whom the total pensions (all schemes combined) are less than a certain sum.

Despite increased public deficit due to the crisis, the French PAYG system has been preserved, with some adjustments, like those introduced by the pension reform of 2010 (Table 4). And despite there being more non-standard workers and unemployed people, the French pension system remains focused on the objectives of ensuring and preserving solid protection for core-workers, who are necessary to companies' competitiveness. The crisis has reinforced a current trend among firms, consisting in focusing on their remaining standard workers as a way to maintain high productivity levels (Palier and Thelen, 2010). In this way, core-workers, and more generally those who will work a full-length career, have been relatively shielded from the crisis and from the recent pension system reforms.

The dualism of the labour market is compounded by a dualism among pensioners, between those who have paid social contributions throughout their careers and who are entitled to a full pension, and those who receive solidarity allowances funded by taxes. Consequently, the crisis has not dismantled the founding principles of the French pension system, but has instead reinforced an existing trend towards dualism (Palier and Thelen, 2010), with the new and heightened objective of poverty reduction for some retirees and the ongoing objective of income maintenance for others.

The design of the labour market and the interests of core-workers seem to have played the leading role in responses to the crisis and in the recent reforms of the French pension system. As there is an increase in the number of non-standard workers, the system has lost its capacity to be all-encompassing, and to ensure a high level of protection for all workers. This trend has been excerbated by the crisis.

3.2. The UK pension system constrained by financial markets

Compared to France, the crisis impact in the United Kingdom is strongly linked to the pension funds situation, as they dominate the British pension system. These funds represent an important part of the whole economy (see Table 2) and are characterized by a close dependence on financial markets (Impavido and Tower, 2009, Pino and Yermo, 2010).

British pension funds are divided in two categories, Defined Contribution (DC) pension schemes and Defined Benefit (DB) pension schemes, and the impacts of the crisis on each one are different. In the first case, each scheme member has an individual account into which are paid employers' and employees' contributions. At retirement age, the benefits, which depend on the contributions paid and on the return on investment, are paid in a lump sum or, more commonly, are converted into an annuity. The investment risk is borne in full by the scheme member. In the second case (DB), benefits at retirement age depend on career length and on the wage level at the end of the career, and the level of benefits is guaranteed by the plan's sponsor, which assumes the investment risk.

In 2009, among the 23.8 million British workers, nearly 4 million paid into a DC pension scheme, while 3.5 million were enrolled in a DB pension scheme.

The crisis has directly affected older workers with DC plans, whose retirement savings have dropped, as these were 80% invested in equities. To avoid receiving from a reduced pension, they must postpone their retirement until they have offset part of their losses. Employment rates among older workers show that the 55-64 age group was less concerned by the decrease in employment rates over the 2007-2010 period, but at the same time, the number of unemployed older workers has increased dramatically (see Table 2).

As regards DB pension plans, the financial crisis has led to a decrease in the 'funding ratio', i.e. the schemes' assets relative to their current and future liabilities, from 118% in 2007 to 97% in 2008 and down to 76% in February 2009 (OECD). In order to conform to solvency rules, DB plans are trying to increase their contributions, although more than 80% have reporting a deficit, reaching £122.1bn in 2009 (Pension Protection Fund, 2009). The Pension Protection Fund[9], a public organisation created by the 2004 Pension Act to guarantee savings, provides financial support to failing pension plans. The State guarantees the system financially, which leads to an increase in public deficit (0.1% of GDP).

Already affected by earlier crises (the Maxwell Affair in 1990 and the financial crisis of the early 2000s), even before the current crisis pension funds had decreased their portfolios' exposure to equities (Davies, 2004, Lagoutte, 2006). Nevertheless, the proportion of equities remains high, accounting for more than 50% of the aggregate portfolio.

Pressures linked to underfunded funds have accelerated the trend of closing DB pension plans to new members (only 13% of DB pension plans were still open to new members in 2009 (Association of Consulting Actuaries, 2009)). Most employers now suggest that their workers opt for DC individual savings accounts, in which the plan members bear the investment risk (Monperrus-Veroni, 2009).

While the crisis has led to a closure of many DB plans, private funded pensions are not in peril. The financial market and equities purchases have been bolstered by the promotion of DC plans, whether in the form of company schemes or personal pensions. Byrne's study of DC plan investments shows that these plans offer funds that are heavily invested in equities, at a rate of 65% to 90% (2007). Furthermore, the National Employment Saving Trusts (NEST), which will be launched in 2012, will hasten the predominance of DC schemes. UK employees will automatically be enrolled in this new system of workplace pensions, outlined in the Pension Act of 2008, unless they are already members

[9] The Pension Protection Fund (2005) was established to pay compensation to members of eligible defined benefit pension schemes, where there is a qualifying insolvency event in relation to the employer and where there are insufficient assets in the pension scheme to cover Pension Protection Fund levels of compensation.

of an occupational pension scheme that has contribution rates above those of the new system (employers will have to contribute 3% of worker's earnings, employees will pay in 4% of their salary and tax-relief of 1% will also be given). It will continue to be based on low-risk assets, particularly for people close to retirement age (based on a life-cycle portfolio strategy), and a Central Agency Guarantee[10] will protect members against investment risks.

Guarantees for low income groups have also been reinforced. In 2009, low income retirees enjoyed supplementary pension benefits and a more generous indexing of the first tier pension and the pension credit. Furthermore, means-tested benefits (pension and saving credits), which affect 25% of British retiree households, have been improved to offset the loss of income caused by the falling value of financial assets.

The crisis has thus led to the strengthening of private pensions, extended to previously excluded groups and with a bigger role played by DC pension plans. In more and more cases, investment risk is being transferred to the beneficiaries, reinforcing the market-based aspect of the British pension system. But the State has been involved in this dynamic by encouraging people to choose the 'life-cycle' investment strategy, and by strengthening the safety-net for lower income groups (Natali, 2008).

These two different models demonstrate the importance of institutional interdependencies in respect of the pension systems' possibilities for evolution. The last section will examine how the crisis will affect the near future of pension systems.

4. Discussion and outlook: pension systems after the crisis, adequacy and sustainability in the balance

The effects of the crisis on pension systems have been serious and are still of major concern (unemployment, financing problems, loss of pension funds' investment values). But in the end, has the crisis truly affected the operations of pension systems through the present day? A study of the effects of the crisis on pension systems shows that previous institutional configurations and interactions are important in explaining the systems' changes and responses. Now the question arises: are the responses relevant and sufficient in view of with the crisis and the foreseeable challenges of the future? Or are institutional interactions creating constraints that make it too difficult to enact the needed structural changes?

[10] This new system of pension savings account (NPSS) is based on a life-cycle portfolio strategy, and will benefit from a National Agency Guarantee, intended to protect members from financial market fluctuations. This system will gradually be instituted between 2012 and 2017. It will help to reinforce and increase the security of private pensions, but will also favour labour market flexibility.

4.1. Responses to the crisis by the French and British governments

In summary, the British public authorities' responses to the crisis have taken two routes: supporting lower income groups and strengthening pension funds particularly by expanding the groups they cover. Reforms introduced in 2012 have changed the S2P from an 'earnings-related' to a flat rate pension. The possibility to contracting-out is preserved, but will be limited to a qualifying scheme from April 2012 (Table 4).

This generosity towards poor people is not contrary to the market-based approach of the pension system or the limitation of the public pension burden, as the shift towards DC pension plans is also facilitated by safety nets (Emmerson, 2003). This choice supports the financial services industry and favours financial market stability.

This orientation, which promotes means-tested rather than wages-based benefits, makes it possible to limit the burden on companies, to increase the flexibility of the labour market specific to LMEs, and to encourage the development of private pensions. This is a fundamental concern for the whole of the British economy, as the British pension system cannot be dissociated from the role played by pension funds and insurance companies, key indicators of financial system performance. As regards the importance of financial services to British national wealth, and the international scale of such services with London as the major financial centre, public authorities are monitoring their policies in order to bolster the pension funds industry and, in this way, to sustain their economic advantages.

British responses to the crisis have maintained the existing institutional configurations, as a result of the interactions between institutions based on high labour market flexibility, financial market performance at an international scale, and active markets.

Table 4 – Recent pension system reforms

France	United-Kingdom
2010 law: Gradual increase in the legal retirement age (62 years for a full career of 42 years) required to qualify for a full pension, through 2017-2018 Increase in the number of qualifying years required to obtain a full pension (lengthening the contributory period to 42 years; for incomplete careers, the pension amount is reduced (‘decote’) or the pensioner must postpone his/her retirement until the age of 67) Increase in the minimum pension Increase in the social contributions paid by civil-servants (similar to those of private sector employees)	Pension Act 2011: State Pension Age increased from 60 to 65 for women by 2018, and then from 65 to 66 between 2018 and 2020 for both men and women Reform of the State pensions (2012): Decrease in the number of qualifying years required to qualify for the basic State pension (30 years), with an increase in basic pension benefits Reform of the mandatory second tier (workplace pensions): automatic enrolment measures with mandatory social contributions for both employers and employees, creation of the National Employment Savings Trust that can be used by any employer, although the possibility of investing the mandatory social contributions in qualified employers’ pension funds will remain open

In France, the effects of the crisis have led to an increased deficit among public pension schemes and, consequently, to increased public deficit overall, linked to higher unemployment and more non-standard workers that limit the amount of contributions. Nevertheless, the PAYG system is maintained, and core workers’ pension rights are relatively shielded. The crisis has accentuated the need for a pension system reform (Conseil d’Orientation des Retraites, 2010), and policy responses have been oriented towards an increase in the period of social contributions and a greater role for minimum pensions (Table 4), and will certainly lead to even greater differentiation between workers able to attain the full period of social contributions and those who do not qualify for a full pension and will instead receive social solidarity benefits. As a result, the most important change linked to the crisis is a confirmed endorsement of a new combination of social insurance with a minimum income guarantee.

4.2. Future adequacy and sustainability of French and British pension systems

The recent crisis has emphasized the vulnerability of both public and private pension schemes, and their challenges in view of the possibility of structural reforms. Substantial risks persist in the pension systems, in terms of both adequacy (ensuring adequate revenue for retirees) and sustainability (possibility of financing the system and ensuring a fair redistribution between generations).

Both the French and British pension systems are expected to become less generous in the future. The reduction in the replacement rate or benefit ratio is more significant in France, although the initial level was higher (Table 5). Poverty among pensioners is likely to rise, due to a combination of intermittent careers, more difficulty in meeting the eligibility criteria for a full pension and reduced pension entitlements. The new role for minimum pensions will be to limit this poverty, with more people undoubtedly becoming dependent on this minimum.

The forecast for British public pension expenditures anticipates a rise higher than in France (nearly 3% of GDP against 1%). It could be argued that, in the UK, the projected increase in pension expenditures is coupled with improvements to the benefit ratio, as an indicator of pension adequacy. This trend could be the result of recent reforms, which provide for improved protection and security for lower-income people. But this increase must be interpreted with caution, in view of the low starting point for the benefit ratio.

The sustainability of the French pension systems still remains an issue. When assessed in terms of expectations regarding the participation of older workers or the improvement in cover by private pensions (European Commission, 2010, p. 17, OECD, 2011, p. 18), the performance of the French model appears very poor. These two indicators are difficult to raise in the French institutional context. In respect of old age workers, no reforms were undertaken in France to improve their labour market participation, other than increasing the number of qualifying years and postponing the legal retirement age. In a context in which economic advantage depends on high worker productivity, the participation of older workers will most likely remain below the 50% Lisbon target. No tangible results have yet been obtained from the launch of two new types of savings-based pension fund schemes in 2003, designed to give impetus to private pensions and to offset future losses owing to less generous public pensions[11]. Furthermore, the financial crisis, which has had a severe impact on economic performance (rise in public deficit and debt, high unemployment rates, etc.), is also limiting the confidence of economic agents in market-based funding. Compounded with a cultural aversion to private pension schemes, this makes the idea of structural pension reforms a real challenge.

In the UK, the performance of the future pension system is related to global economic performance in terms of safe and appropriate returns from

[11] The 'Plan d'Epargne Retraite Populaire' (PERP) is based on individual participation in schemes managed by insurance companies, banks and mutual funds under the control of a committee with the participation of representatives of the enrolled members. The 'Plan d'Epargne Retraite Collectif' (PERCO) represents a fully-funded occupational pension scheme based on employers' voluntary participation and employee participation. Contributions paid in are frozen until the employee retires. Despite tax incentives, these schemes account for only a weak proportion of workers' savings.

financial markets and relatively high employment rates on the labour markets. The system's evolution will depend in part on the trend in growth potential. In terms of adequacy, results will be linked to other parameters, including tax, budget and social policies.

Table 5 – Future adequacy and sustainability of the French and British pension systems

	Adequacy		**Sustainability**		
	Gross average replacement rate*	Benefit ratio**	Projected public expenditures on pensions (% of GDP)	Employment rate projections (55-64)	Projected participation rates of older workers (55-64)
French pension system	2006: 66.2	2007: 63	2010: 13.5	2007: 38.9	2007: 41
	2046: 50.2	2060: 48	2050: 14.5	2060: 47.4	2060: 49.3
British pension system	2006: 60.4	2007: 35	2010: 6.7	2007: 57.8	2007: 59.7
	2046: 58.1	2060: 37	2050: 9.4	2060: 68.9	2060: 71.1
Sources	(Social Protection Committee (2009, p.5)	(European Commission, 2009b, p. 97)	(European Commission, 2009b, p. 87)	(European Commission, 2009b, p. 327)	(European Commission, 2009b, p.322)

*Notes: *Theoretical replacement rate are calculated for an hypothetical worker (base case), with a given earnings and career profile (and a corresponding affiliation to pension schemes) and by taking into account enacted reforms of pension systems (in 2010). Defined based on pre-taxed income ** Average pension in relation to the average wage at time t.*

The recent EU projections appear to indicates that the British pension system might be more sustainable than the French one (Table 5) over the long-term. On the other hand, the French pension system, with its higher benefit ratios, would be more adequate. Nevertheless its generosity is declining, putting the pension system's capacity to protect the entire population at risk. In both cases, budget consolidation is fundamental in order to reduce public deficit and debt, and to contribute to funding the future rise in public pension expenditures linked to the demographic outlook.

5. Conclusion

This study has stressed the importance of institutional interactions considering the current paths of pension systems and their possibilities for change. The French and British models were of particular interest in pursuing this objective, because they are clear opposites, founded on different funding mechanisms and different roles for the State and the market. In short, they operate under very different philosophies. The crisis has led to certain responses and changes and has sped up some previously enacted reforms, but it has not dismantled the fundamental principles of the either system.

Nevertheless, the British and French pension systems are converging in one respect: there is a trend towards an increased dualism in both of them and toward greater challenges in providing comprehensive cover. This has led to the creation of more minimum income guarantees for people who cannot afford a market-based pension in the British system and for non-standard workers who do not qualify for full pension rights under the French system. The crisis has only reinforced this trend.

Changes related to the crisis have resulted in an increased segmentation, both among workers and among pensioners (in France), and have increased State interventions (in the UK). To some extent, these changes have themselves made it possible to maintain the primary features of existing institutional arrangements (social insurance in France, pension funds in the United-Kingdom). But the issue of how far these changes can be pursued, before previous institutional arrangements and coordination must be called into question, remains unresolved. Further State intervention and revenue guarantees are likely in the end to appear inconsistent with labour market flexibility and market coordination in the United Kingdom, while a higher number of atypical workers can be expected to eventually weaken the coalition that sustains social insurance in France. Yet the path to a 'pension regime shift', involving a radical change in the foundations of the system (Weaver, 2010), still seems distant in both countries, despite the increased difficulties encountered in each.

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