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## THE IMPACT OF THE GLOBAL ECONOMIC AND FINANCIAL CRISIS ON THE PENSION REFORMS

Resume The relevance of the article is caused by the crisis in government pension system in many developed countries, due to not only the demographic factors, but to the challenges of the global economic and financial crisis. The financial crisis has significantly impacted traditional as well as the most modern pension systems all over the world. The analysis of the impact of the global crisis will provide the opportunity to determine further prospects of pension system's development. The objective of this paper is to definite actions to be taken to support private and public pension systems reforms in the post financial crisis period.

**Key words:** pension reforms, pension assets, pension crisis.

Анотація Актуальність статті, зумовлена тим, що у багатьох розвинутих країнах державне пенсійне забезпечення перебуває у кризі, зумовленій, не лише демографічними чинниками але й викликами світової фінансової-економічної кризи. Фінансова криза стала жорстким випробуванням як для традиційних пенсійних систем, так і для найбільш модернізованих всього світу. Аналіз впливу глобальної кризи надасть можливість визначити перспективи подальшого розвитку пенсійних систем. Мета даної роботи полягає в визначенні дій, що сприятимуть реформам системи приватного та державного пенсійного забезпечення в після кризових період та виходу пенсійної системи з кризи.

Ключові слова: пенсійна реформа, пенсійна криза, пенсійні активи.

The financial crisis has quickly turned into an economic crisis with major implications for all public programs, including pension systems. Pensions have long been the subject of fierce controversy. Although few would argue against the need for pensions, a debate has raged for more than a century over the most appropriate way to provide them. This is because pensions can be provided through a variety of mechanisms which differ in their advantages and disadvantages. The debate is not just about the pros and cons of one approach to pension provision compared with another, but about whether, and how, different approaches can be combined to produce an optimal retirement income system. Whether to rely on pay-as-you-go financed public pensions or funded private pensions for the provision of retirement income is a central question in debates about pension reforms during the crisis [1, p.2].

Some of the reasons for current study about the financing sources with the relation to the effect of population ageing on pension costs. Little attention has been given to the effects of the pension reforms during the post financial crisis period in recent research: A. Asimakopulos and J. C. Weldon, On Private Plans In The Theory Of Pensions; On the Theory of Government Pen-

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sion Plans, 1950-1968; Alan S. Blinder, Private Pensions and Public Pensions: Theory and Fact, 1982; D.Blake, Pension Economics, 2008; R. Holzman, Pension reform, financial market development and economic growth, 1997; Diamond, P. Social Security Reform 2002).

The main objective of the paper is to describe recent pension reforms and analyze their consequences for now and long-term future. The paper aims to explain the impact of the financial and economic crisis on private and public pension systems and assets allocation. In order to make a comprehensive analysis of different national pension systems the changes in pension assets, policy actions legislated in response to the crisis were evaluated.

The financial crisis has significantly impacted pension systems all over the world tempting governments to make policy changes in response to the increased pension deficits they are facing. The crisis exacerbates the existing financial imbalance in the public pension systems by reducing contribution revenues sharply while leaving expenditures constant or even higher. The crisis also resulted in a sharp drop in financial asset values which affects pensions provided by funded pillars.

The current financial crisis has had a major impact on global pension assets, with the OECD estimating declines of \$5.4tn (over 20%) at the end of 2008. This is putting pressure on funding levels for defined benefit pension plans, and has served a severe blow to members of defined contribution (DC) plans close to retirement, denting confidence in many DC systems [2].

**Table 1** Global pension assets (P13)

Markets	Assets (USD bn)	%GDP (in local currency)		
US	13,196	93		
Japan	3,152	61		
UK	1,791	80		
Canada	1,213	84		
Australia	996	93		
Netherlands	990	120		
Switzerland	583	113		
Germany	411	12		
Brazil	392 22			
South Africa	201	63		
France	178	6		
Ireland	102	43		
Hong Kong	85	41		
Total assets	23,29	70		

Source: Towers Watson «2010 Global Pension Asset Study»

Global institutional pension fund assets in the 13 major markets increased by 15% during 2009, from US\$20 trillion to over US\$23 trillion, according to Towers Watson's Global Pension Assets Study (see table 1). The P13 refers to the 13 largest pension markets included in the study which are Australia, Canada, Brazil, France, Germany, Hong Kong, Ireland, Japan, Netherlands, South Africa, Switzerland, the UK and the US. The P13 accounts for more than 85% of global pension assets. The growth is in sharp contrast to a 20% fall in asset values during 2008 and brought assets back to 2006 levels. The study also reveals that the global pensions balance sheet strengthened by around 10% in 2009, compared to a 25% fall in 2008. According to the study,

pension assets now amount to 70% of the average global GDP, down from 76% a decade earlier, but substantially higher than the equivalent figure in 2008 of 58%.

The global financial crisis was a huge wake-up call and problems of poor systemic design in the industry point to increased likelihoods of further periods of financial distress in future. While the recovery of markets will be welcomed, it is hoped that it will not stifle recognition of these as major issues for national governments and companies to address.

	1-year	Growth rates to 2009e (Local Currency)				
Market	31.12.07-31.12.08	1-year	5-year	10-year		
	actual	31.12.08- 31.12.09	31.12.04- 31.12.09	31.12.99-31.12.09		
US	-23,30%	12,20%	2,50%	2,60%		
Japan	-12%	6,10%	-0,90%	0,80%		
UK	-26,50%	13,60%	4,30%	2,80%		
Netherlands	-16%	14,20%	4,90%	5,60%		
Canada	1,50%	12,70%	8%	3,10%		
Australia	-17,20%	8,50%	9,40%	10.4.4%		
Switzerland	-11,60%	12,80%	0,20%	2%		
Germany	1,10%	6,80%	6,70%	4,30%		
France	-6%	13,80%	2,60%	5,90%		
Ireland	-26,50%	12,20%	2,70%	3,80%		
Hong Kong	-8,70%	23,30%	12,9.1%	14%		
Total assets	-10,60%	15,60%	6,60%	6,60%		

**Table 2** Global pension assets growth rates

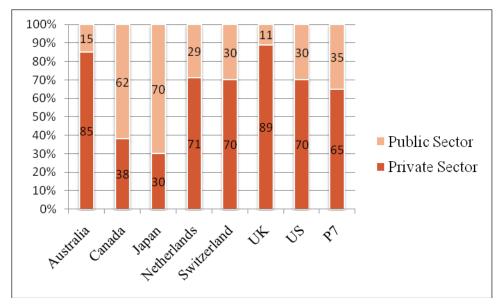
Source: Watson Wyatt "2010 Global Pension Asset Study"

## 1. Global asset data for the P13:

- On average global pension assets (measured in local currency) grew by over 16% in 2009, compared with an 11% fall in 2008, improving the ten-year average growth rate to almost 7%;
- Despite losing market share in the past ten years the US, Japan and the UK remained the largest pension markets in the world, accounting for 57%, 14% and 8% respectively of total pension global fund assets;
- All countries saw significant growth in pension assets in 2009 (measured in local currency), except Japan which still has a negative five-year growth rate;
- In terms of ten-year CAGR (in local currency terms), these are mostly positive, with Brazil (18%), Hong Kong (14%), the Netherlands (12%) and Australia (10%) having the highest and Japan (1%), Switzerland (2%), US (3%) and the UK (3%) having the lowest (see table 2);
- The Netherlands now has the largest proportion of pension assets to GDP (120%), followed by Switzerland (113%) and Australia (93%).
- 2. Asset Allocation for the P7 (The P7 refers to the 7 largest pension markets, over 94% of total assets in the study, and excludes Brazil, Germany, France, Ireland, Hong Kong and South Africa):
  - Bond allocations for the P7 countries increased from 25% in 2005 to 32% in 2008, but fell back to 27% in 2009. Allocation to equities rose significantly during 2009 to reach 54%;

Other assets, especially real estate and to a lesser extent hedge funds, private equity and commodities, have grown from 12% to 17% in the last five years.

The gyrations of markets during the past few years have presented pension funds with very difficult strategic asset allocation choices. During the crisis, some funds sold out of equities to address solvency issues, some drifted out of equities and into bonds by not rebalancing, while others maintained their strategic mix and rebalanced to prior equity percentages. The result overall was a phase of de-risking, but not in a measured way and this has largely been reversed as equity markets have rebounded and risk allocations rebuilt.



**Chart 1.** Public vs. Private sector Source: Watson Wyatt «2010 Global Pension Asset Study»

Let us look at some figures, which represent the pension assets for public and private sectors (see chart 1). 70% of pension assets in Japan and 62% of Canadian assets are hold by public sector. In the UK and Australia the private sector holds respectively 89% and 85% of total assets.

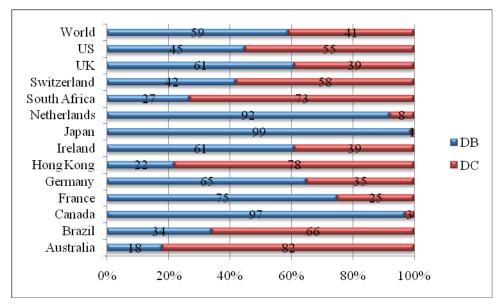
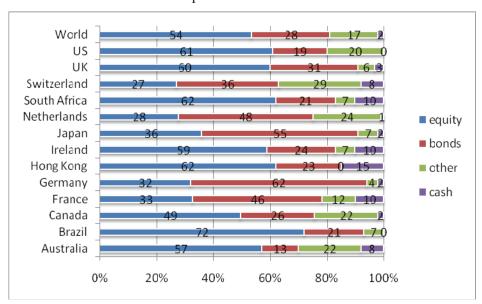


Chart 2. DB/DC plans split, 2009 (%) Source: Watson Wyatt «2010 Global Pension Asset Study»

- 3. Defined Benefit (DB) vs. Defined Contribution (DC) for the P7 (see chart 2):
- During the ten-year period from 1999 to 2009, the CAGR of DC assets was 6% against a rate of 2% for DB assets;
- DC assets now comprise 42% of global pension assets compared with 32% in 1999;
- Australia has the highest proportion of DC pension assets, having increased them from 78% to 82% of overall assets between 1999 and 2009;
- The countries that show a larger proportion of DC assets than DB assets are the US,
   Australia and Switzerland while Japan and Canada are close to 100% DB.



**Chart 3.** Asset allocation, 2009 (%) Source: Watson Wyatt «2010 Global Pension Asset Study»

At the end of 2009 the average global asser allocation of the 7 largest markets was 54,4% equities, 29,9% bonds, 1,3% cash and 17,4% other assets (inludes property and other alternatives). The largest allocation to "risky" assets occur in the US, the UK and Australia. More conservative investment strategies – more bonds and less equities – occur in the Netherlands, Switzerland and Japan (see chart 3).

Highly changeable market conditions in short periods of time will have caused serious disruptions for pension funds. In order to get back on track, they will be reviewing all options, including extra contributions from sponsors, contingent funding arrangements, investment strategy reviews, hedging strategies and pension insurance buy-ins, not to mention changes to benefits structures including fund closures.

As a result of the crisis there is a heightened awareness of the need to be better prepared in future and to think differently about how markets can be buffeted by extreme events. An important characteristic of this new environment is the acknowledgement by asset owners of much increased complexity and the recognition that the appropriate governance for a chosen investment strategy is critical. This will increasingly lead investors to either prioritizing higher governance and allocate proportionate resources or simplifying their investment strategies to minimize cost and avoid value destruction. This will become all the more important as pensions and financial services regulators seek to spell out what governance standards funds should adhere to and their broader responsibilities. Funds in the past have had a very light touch applied on these issues, but the massive size and sphere of their influence make pension funds ripe for greater regulatory influence.

Consequently, no pension system, however structured, has been immune to the crisis. Funded pension arrangements are recovering gradually from the financial crisis. Despite this good news, some of the structural challenges faced by private pension systems are yet to be addressed. In particular, the ongoing shift towards defined contribution arrangements calls for an overhaul of regulatory approaches, with default investment options that deliver risk mitigation as members approach retirement. There is also a need to strengthen disclosure requirements and to implement effective financial education programs.

In addition, the main issues that the largest pension fund markets faced during the financial crisis include:

- liquidity;
- the management of credit/collateral risk;
- asset manger underperformance;
- new challenges in strategic asset allocation.

The major objectives of pension systems are poverty relief, consumption smoothing (i.e. redistribution from ones young to ones older self), insurance, and redistribution. That's why policy should address the multiple objectives of pensions.

First of all to avoid elderly poverty with the help of non-contributory basic pensions.

This policy pays a tax-financed pension at a flat rate, on the basis of age and residence rather than contributions. The contributory principle assumed workers with long, stable employment, so that coverage would grow. History has not sustained this argument. To explain why, consider the way the world has changed over the past 60 years [4]. Social policy in 1950 was based on a series of assumptions:

- The world was made up of independent nation states;
- International mobility was limited;
- The stable nuclear family with male breadwinner and female caregiver was the norm;
- Skills once acquired were lifelong;
- Employment was generally full time and long term.

Though not true even then, these assumptions held well enough to be a realistic basis for social policy.

- The world today is very different:
- There is increasing international competition;
- The nature of work is changing, with more fluid labour markets:
- International mobility is increasing, and likely to continue to do so;
- The nature of the family is changing, with more fluid family structures, and with rising labour-market activity by women.

Secondly, there is a need for a redefining retirement: later and more flexible retirement. Longer healthy life combined with a constant or declining retirement age creates problems of pension finance. An important part of the solution is that pensionable age should rise in a rational way as life expectancy increases. This is all the more the case since work is generally less physically demanding than in the past.

Retirement should not only be later on average, but should also give individuals greater choice over how and how fast they move from full-time work to complete retirement. Mandatory full retirement was introduced in the nineteenth century to move out of the labour force older workers who were reducing the productivity of younger workers. That argument made sense historically, but no longer. Thus mandatory retirement is no longer necessary. In addition, increased choice about when to retire, and whether fully or partially is desirable, both to promote output growth (by encouraging older workers to continue to be active), and as a response to in-

dividual preferences. Thus greater flexibility is desirable for its own sake, irrespective of problems of pension finance [4].

The next is consumption smoothing. Simple economics argues that policy should allow people to choose their own pension provider in a competitive market, such choice, it is argued, benefiting the individual in the same way as choice and competition for clothes, cars, restaurants and iPods. In the case of pensions, the analytical error is mistaken use of first-best analysis.

The economics of information explains why the model of the well-informed consumer does not hold in many areas of social policy. In the context of pensions, there is evidence that consumers are badly informed. A survey revealed that 50% of Americans did not know the difference between a stock and a bond. Most people with an individual account do not understand the need to shift from equities to bonds as they age. And virtually nobody realises the significance of administrative charges for pensions.

Recent lessons from behavioural economics also yield powerful lessons, explaining such phenomena as procrastination (people delay saving, do not save, or do not save enough), inertia (people stay where they are), and immobilisation (where conflicts and confusion lead people to behave passively).

The report on five years of savings behavior across Britain has shown an overall increase in the amount Britons have managed to save from 2005 to 2009. In 2005 the average monthly amount saved per capita was 70.23 pounds, whereas in 2009 this amount increased to 83.87 pounds and represents the highest level since the Savings Survey began (Launched in December 2004, the National Savings and Investments (NS&I) Savings Survey monitors trends in people's savings habits on a regular basis, at a national and regional level and is published quarterly) [5]. Despite being increasingly squeezed by economic conditions income, the amount put aside by Britons as a percentage of income remained stable in 2008 and 2009 at 6.06% (see table 3).

 2005
 2006
 2007
 2008
 2009

 6.02%
 6.25%
 5.86%
 6.06%
 6.06%

**Table 3** Amount saved as a percentage of income in the UK in 2005-2009 (%)

According to the mentioned above, guidelines for the design of individual accounts are suggested:

- Use automatic enrolment;
- Keep choices simple: for most people, highly constrained choice is a deliberate and welfare-enhancing feature of good pension design (though one of the options could be to allow individual choice);
  - Design a good default option for people who make no choice;
- Decouple fund administration from fund management, with centralised administration and fund management organised on a wholesale, competitive basis.

There is no single best pension system. Thus what is optimal will differ across countries and over time. Pension systems look different across countries; this is as it should be. That said, the policies just discussed are potentially relevant to a wide range of countries.

The analysis makes it clear that however severe the impact of the financial crisis, this pales with respect to the coming demographic crisis and that countries need to make sure that whatever actions they take now do not impose bigger financial burdens when they will be even more constrained than they are today.

Benjamin Franklin once famously remarked that there were two certainties in life, death and taxes. When Franklin made this observation, in the eighteenth century, most people died young. We should not be surprised, then, that he did not include living to a ripe old age in his list of life's certainties. Living to a great age is not a certainty today. For growing numbers of people, though, it is a distinct possibility [1]. Children born in the year 2000 in France, Germany, the UK and the USA can, on average, expect to live for more than 77 years. Their Japanese counterparts have an average life expectancy of over 80 years. The problem is not that people are living too long, but that they are retiring too soon.

Countries	1995	2000	2010	2020	2030	2050
The US	<b>!</b>				<u> </u>	
Population	100	104,8	113	119,8	124,7	172,2
The share of pensioners	19,2	19	20,4	27,6	36,8	38,4
Germany	<u>'</u>	•	•	<u> </u>	<u>'</u>	<u>'</u>
Population	100	100	97,2	94,2	90,6	81,2
The share of pensioners	22,3	23,8	30,3	35,4	49,2	51,9
France	•	<del>.</del>	•	<del>.</del>	•	•
Population	100	102,2	104,9	106,9	107,8	106,1
The share of pensioners	22,1	23,6	24,6	32,3	39,1	43,5
Italy	<u>'</u>	·	•	<u>'</u>	<u>'</u>	<u>'</u>
Population	100	100,1	98,2	95,3	91,9	82,6
The share of pensioners	23,8	26,5	31,2	37,5	48,3	60
The UK	<u>'</u>	·	•	•	•	<u>'</u>
Population	100	101	102,2	103,5	103,9	102
The share of pensioners	24,3	24,4	25,8	31,2	38,7	41,2
Canada	'	•	!		'	
Population	100	105	113,2	119,7	123,1	122,7
The share of pensioners	17,5	18,2	20,4	28,4	39,1	41,8
Sweden	•	!	•			
Population	100	101,8	103,8	105,7	107	107
The share of pensioners	17,4	26,9	29,1	35,6	39,4	38,6

**Table 4** Demographic trends (population in 1995=100%)

In many developed countries the share of people over 60 years in 2007 was 20% of all the population. By the 2050 every third person will have been over 60 years old.

The main problem of Ukrainian demographic situation is also aging. According to the forecast of the Institute of Demography and Social Research of the National Academy of Science, in 2010-2025 the ratio of pensioners to working population will have reached 50%, and by year 2050-76%. Nowadays this ratio is 30% out of all population (see table 4).

The pension crisis in Ukraine influences all state finances and threatens the economical growth. High pension contributions reduce net earnings which are encouraged to shadow profits, to search for work abroad. The Pension Fund cannot cover the expenditures on pensions. This leads to the growth of budget subsidies for pensions, budget cuts on education, health, roads, etc. The expenditures on pensions in Ukraine are the highest in Europe – 18% of GDP in 2009, compared to 7% of GDP in OECD countries [3]. The average pension in 2009 was 40% of average wage. It is clear that the changes in the proportion of lifespan of the work conducted and lifespan conducted on pensions are necessary.

The following steps to overcome the crisis of pension system in Ukraine are:

- 1. Raising retirement age and the minimum length of service retirement;
- 2. Stimulating retirement delays;
- 3. Limiting the size of high pensions and early retirement benefits list;
- 4. Developing state compulsory funded pension system model on the principle of quasigovernment bonds and creating individual accounts.

All these steps should take maximum of the positive and considering negative experience of other countries.

The most interesting pension reforms are currently being held in Greece. The Greek government announced a pension reform as part of the austerity plan meant to help the state out of its debt crisis. At 12.7% of GDP it has the largest budget deficit in Europe. The main feature of the reform is to postpone actual retirement age by two years, on average, to 63 years by eliminating all incentives to retire early and bringing women's retirement age in line with men's. At present, men retire at 65 years maximum and women at 60 years, a gap that has been condemned by EU courts.

This time, there was no other option but to impose a reform, the Government is trying to cut down the state social budget expenses after years of mismanagement of social funds. Civil servants have organized mass strikes against the reform. The pension reform will also include clean-up measures by introducing a strict separation of healthcare and pension funds, and an independent entity to manage funds after a swirl of accusations of mismanagement of social funds [7, p.1].

On the other hand, In Spain the government Supports Increase of Retirement Age. The government had approved a plan to raise retirement age from 65 to 67 years gradually from 2013 to help the social security system cope with an aging population. According to Spain's National Statistics Institute in 2059 there would be one pensioner for every working age person, making the solidarity pension system unsustainable and reform inevitable.

The proposal will still be subjected to harsh debate, judging by the reaction of two major labor unions who have rejected the idea, and the country's employers' union arguing instead for an increase to 70 years.

Finally, the Bulgarian Government is set on extending the work period to be eligible for a full pension. Currently, Bulgarian workers need to contribute for a minimum of 37 years for men and 34 years for women to be eligible for a full pension at age 60 [7, p.2]. According to one proposal, the minimum retirement age would be raised to 63 years for both men and women with at least 40 years of contributions for men and 37 for women. Another idea is to increase retirement age gradually to 65 years by 2022 with a minimum of 37 years of contributions.

To sum up, the effect of the financial and economic crisis on pension systems depends on category of pension schemes people belong to (defined contribution, defined benefit, PAYG or fully funded) and if they are already retirees, close to retirement or still have many years of contributing ahead of them.

The impact of the crisis on investment returns has been greatest among pension funds in the countries where equities represent over a third of total assets invested. These countries have also experienced the sharpest drops in equity allocations. With rising unemployment and falling tax revenues squeezing public finances, the governments face budget deficits of nearly 9% of national income on average in 2010. This leaves little room for more generous public pensions. Some countries have already had to cut back on future public spending on pensions. But private pension schemes have also been badly hit by plunging stock markets, and the way they operate needs to change. We must take into account the fact that global pension assets are still below their

2007 levels. In terms of the pension assets to GDP ratio, it is back to 2003 levels. Definite contribution (DC) plans become the dominant global model.

It is clear that reforms should include better regulation, more efficient administration, clearer information about risks and rewards of different options and an automatic switch to less risky investments as people near retirement.

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