



The Impact of the Global Financial Crisis on Social Security and Pensions

Chris Daykin

Chairman, Pensions, Benefits and Social Security Section of the IAA





Causes of Global Financial Crisis - 1

- troubles in sub-prime mortgage market (especially in US)
- poor underwriting and risk management within the banks
 lending too much compared to value of assets
 loans too high relative to borrowers' ability to repay
- risks passed on and accepted through securitisation
- bonus culture incentivised excessive risk-taking
- increasingly widespread securitisation of loans
- …without understanding underlying risk characteristics
- > many financial institutions affected, even some insurers



Causes of Global Financial Crisis - 2

- rating agencies often awarded AAA because of issuer
 shortcomings in rating agencies' models and analysis
- similarities with reinsurance 'spiral' of the 1980s
- many securities downgraded from end of 2007
- general concerns about the weakness of some banks
- …and uncertainty about true financial position
- interbank lending dried up
- governments concerned about possible "run on the bank"



Causes of Global Financial Crisis - 3

- banks stopped lending to individuals and to businesses
- ...with knock-on effects on the rest of the economy
- high levels of gearing in many parts of financial sector
- exposure of financial institutions to systemic risk
- inflated property and equity prices
- …irrational exuberance of a period of rising market prices
- leading to extreme volatility in financial markets
- global financial interdependence
- \succ ...combination of all these and other factors as well



Impact on the Economy - 1

- global recession
- severe and immediate impact on banks
- > ...and, more generally, crisis in the financial sector
- impact spreading out to the manufacturing sector
- companies unable to borrow or to refinance
- Iower growth/lower demand throughout the economy
- company failures domino effect
- Iay-offs, restructuring and rising unemployment

Impact on the Economy - 2

- increased government expenditure and public borrowing
- different views on most effective government response
- falling inflation and risk of deflation
- impact on international trade
- dangers of national protectionism hindering recovery
- > economic insecurity for many workers



Impact on Financial Markets - 1

- collapse of equity markets and ensuing volatility
- significant falls in values of real estate
- currency realignments and volatility
- Iower risk-free interest rates
 - flight to quality and security
 - interest rates reduced by central banks
- significantly wider credit spreads on corporate bonds
- correlations between major investment markets



Impact on Financial Markets - 2

- write-downs on loans and related securities
 - > especially asset-backed securities, credit default swaps, etc.
- reduced availability of credit to the private sector
 widespread resulting liquidity problems
- severe impact on balance sheets of financial institutions
 - ➤ ...and pension funds as well
- government intervention in some private sector banks
- collapse of some significant financial players



Public Perceptions of Social Security

- ➤ stability
- security
- absence of direct link to volatile markets
- not affected by toxic assets
- effective government guarantee is important
- increased popularity for social security
- ...beware of inflated expectations of the protection offered



Public Perceptions of Funded Pensions

- volatility and uncertainty
- exposure to defaults and market losses
- Iosses from all investment classes
- demand for more guarantees and underpinning
- need to save more to offset losses
- …but loss of confidence in market-based solutions



Implications for Social Security

- review of individual accounts systems
- need for safer default strategies for individual accounts
- rekindled interest in underpinning guarantees
- balance between DB and DC
- additional financing problems for DB social security



Need to strengthen guaranteed income

- greater interest in non-contributory demogrants
- universal basic pension provides strong foundation
- DC exposure should be balanced by DB underpin
- only government can really guarantee income



Investment of DC Individual Accounts

- default option should not be too exposed to volatility
- …but danger of low returns if too conservative
- demands for better communication of risk
- life-styling approach is attractive as default
 - reasonable exposure to return-seeking assets for younger workers
 - gradually reduce volatility over 5 to 10 years before retirement
 - scope for several different life-style options with different targets



Financing problems for DB social security

reduced contribution income

- Iow earnings growth
- higher unemployment
- employers facing financial challenges
- increased benefit expenditure
 - unemployment benefit
 - higher sickness and disability claims
- poor returns on buffer funds



Implications for Funded Pension System

- fall in confidence in funded pensions
- impact on retirement income and individual choice
- impact on sponsors and providers of pension plans
- design of retirement provision



Fall in Confidence in Funded Pensions

- > exposure of individuals to volatile markets is worrying
- importance of reducing investment return expectations
- DB pension plans could 'weather the storm'
- ...but may become more risk-averse and more costly
- crisis adds to pressure to close schemes
- Funding levels reduced



Impact on Retirement Incomes and Individual Choice

- reduction in value of accumulated pension savings
- higher cost of purchasing annuities
- > only solution may be to defer retirement
- ...but what happens to those who cannot defer?
- volatility of outcomes leads to inequity between cohorts



Impact on Sponsors and Providers of Pension Plans

- severe impact on assets of mark-to-market valuation
- Iiabilities for accounting purposes may also have fallen
- …but not as much as the assets
- regulatory liabilities increased by lower risk-free yields
- in some cases accounting liabilities reduced
- cost of funding defined benefits increased
- weakening of employer covenant of concern to trustees
- ...but often impossible to accelerate deficit correction



Risks facing Occupational Pension Plans

- insolvency of employer
- weak employer covenant
- > poor investment performance
- increasing longevity
- administrative failures
- failure to meet regulatory requirements
- poor risk management by trustees



Influence of Risk on Major Design Issues

> who carries the main risks?

- how can the major risks be shared differently?
- > what can be done to make the risks more acceptable?



Decline of DB Occupational Plans

increased costs arising from

- ➤ greater longevity
- Iower interest rates
- Iower expected real rates of return on investments
- increasing guarantees and benefits mandated by legislation
- effect of accounting standards on reporting pension cost
- volatility of results from mark-to-market asset valuation
- corporate focus shifting from long-term to short-term
- plan closures highlight cost of buying out benefits
- …and significance of contingent liabilities



Options for sharing longevity risk

- closure of plans to new entrants or to further accrual
- reduce accrual rate for future service
- > move from final average salary to career average salary

less exposed to individual member risk

- Sharing increased cost between sponsor and employees
 - higher employee contributions
 - adjustable employee contributions in response to deficits
- raise pension age at which unreduced benefits are paid



Sharing longevity risk through targeting cash benefit

- define the benefit as a capital sum at retirement...
- …and convert to pension using current annuity value
- \succ e.g. cash balance plans with variable accumulation
- other DB plans could be structured this way
- employer bears investment risk prior to retirement
- member bears investment and longevity risk at retirement
- > annuity provider bears longevity risk after retirement



Sharing longevity risk through discretionary benefits

- define lower level of guaranteed benefits
- apportion emerging surplus to supplement benefits
- make revaluation of average salary subject to conditions
- have no (or low) guaranteed post retirement increases...
- …and award increases as bonuses from surplus
- reduce generosity of early leaver benefits
- offer additional benefits as options paid for by members



Risk Structure of DC Individual Accounts

- investment risk is carried by individuals
 - > apart from guarantees from pension provider
- risk of higher expenses may also fall on individuals
- increased longevity is met by:
 - reduced pension benefits for those reaching retirement
 - ➤ or later retirement to offset the effect
- > insolvency of sponsor only affects future accrual
- Iongevity and investment risk passed to annuity provider
- potential insolvency of pension fund or annuity provider



Risk-sharing in DC Plans

mitigation of investment risk by guaranteed returns...

- ...cash balance with discretionary interest distributions
 ...guarantees in variable annuity products by insurers
 traditional with-profits contracts achieve shared risk
 ...with insurer not employer bearing investment risk
 longevity risk mitigated by guaranteed annuity terms
 any guarantees require capital support or strong sponsor
 guarantees from employer negate key principle of DC
 - Imited appetite by financial institutions to provide guarantees



Risk-sharing DC Plans – Collective DC

- fixed contribution rate for employer
- member has a target pension but not guaranteed
- target pension is adjusted
 - > upwards when financial conditions are good
 - > downwards when financial conditions are poor
- > pensions in payment are guaranteed
 - by purchasing non-increasing annuities from insurers
 - actuarial control of pension revaluation process



SPECTRUM OF RISK

Defined Benefit	Conditional Indexation	Collective DC	Traditional DC
Known benefit	Target	benefit	Unknown benefit
Sponsor	guarantee	No sponsor	guarantee
No link to funding	Indexation conditional	Benefits conditional	100% link to funding
Sponsor has all risks	Member/sponsor share risks	Members share risks	Each member has all risks

The 4th PBSS Colloquium TOSHI CENTER Hotel, Tokyo, Japan – 4–6 October 2009



Risks in the decumulation phase

traditional annuities pass the longevity risk to insurers...
...some of the cost is passed on in annuity price
insurers carry investment risk unless assets matched
...although cost of interest guarantee is in annuity price
pensioners dislike cost and lack of investment flexibility
insurers fear concentration of systemic longevity risk
...and reinvestment risk when assets are too short
alternative is programmed withdrawal (draw-down)



Risk-sharing in the decumulation phase

Alternative mechanisms for adjusting the balance of risks:

- programmed withdrawal and deferred annuitisation
- unit-linked annuities
- with-profits annuities
- annuitised fund
- Successive temporary annuities



Conclusions

- global financial crisis will stimulate further reforms
- > we will learn to live with market volatility
- DB social security will return to favour
- careful consideration needed for DC default funds
- employer-sponsored DB under even more strain
- possible opportunities for hybrid DB/DC arrangements
- challenges for annuitisation and decumulation phase

