 Download This Paper (Delivery.cfm/SSRN_ID1091483_code908624.pdf?abstractid=1091483&mirid=1)

Open PDF in Browser (Delivery.cfm/SSRN_ID1091483_code908624.pdf?abstractid=1091483&mirid=1&type=2)

 Add Paper to My Library

Share:    

A Lifecycle Analysis of Defined Benefit Pension Plans

Michigan Retirement Research Center Research Paper No. WP 2003-053

49 Pages

Posted: 14 Feb 2008

David McCarthy (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=348415)

Imperial College Business School

Date Written: February 1, 2003

Abstract


This paper employs a lifecycle model from the consumption-savings literature to examine the tradeoffs between defined benefit and defined contribution pension plans. We examine the effects of varying risk aversion, varying initial income and financial wealth, and varying wage processes (that may be correlated with returns on the risky asset).

Results indicate that wage-indexed claims are not an optimal vehicle for retirement policy if the decision to participate is made early in life, because individuals hold most of their wealth in their human capital and would not wish to increase their exposure to income shocks. Later in life, after most of a worker's human capital has been converted to financial assets, defined benefit pension plans help increase diversification by reducing exposure to financial market risk. The access that defined benefit plans provide to annuities markets and possible guaranteed rates of return over the risk-free rate increase the value of defined benefit plans to workers. The model also predicts that wage-indexed claims will be more valuable when equity markets provide low expected returns or are highly variable and when annuity markets are inefficient.

The model illustrates two economic functions performed by defined benefit plans. Firstly, DB plans pool individual wage risks. This allows older workers to buy a wage-linked security that increases their exposure to wage risks. Secondly, they create a group annuities market that reduces the cost of adverse selection.

[Suggested Citation](#) >

[Show Contact Information](#) >

 Download This Paper (Delivery.cfm/SSRN_ID1091483_code908624.pdf?abstractid=1091483&mirid=1)

Open PDF in Browser (Delivery.cfm/SSRN_ID1091483_code908624.pdf?abstractid=1091483&mirid=1&type=2)

47 References

1. Steven G Allen , L Robert , Ann A Clark , Mcdermed
Pensions, Bonding and Lifetime Jobs
Journal of Human Resources , volume 28 , issue 3 , p. 463 - 481 Posted: 1993
Crossref (https://doi.org/10.2307/146155)
2. David F Babbell , Jeremy Gold , Craig B Merrill
Fair Value of Liabilities: The Financial Economics Perspective
North American Actuarial Journal , volume 6 , issue 1 Posted: 2002
Crossref (https://doi.org/10.1080/10920277.2002.10596027)
3. Marianne Baxter
Social Security as a Financial Asset: Gender-Specific Risks and Returns
Journal of Pension Economics and Finance , volume 1 , issue 1 Posted: 2001
Crossref (https://doi.org/10.3386/w8329)

We use cookies that are necessary to make our site work. We may also use additional cookies to analyze, improve, and personalize our content and your digital experience. For more information, see our [Cookie Policy](#)

4. Bodie , Alan L Zvi , Robert C Marcus , Merton
Defined Benefit versus Defined Contribution Pension Plans: What are the Real Tradeoffs
Business in the US Economy Posted: 1989

[Cookie Settings](#)

Accept all cookies

0 Citations

Fetch Citations



Do you have negative results from your research you'd like to share?

[Submit Negative Results \(https://www.ssrn.com/index.cfm/en/Negative-Results/\)](https://www.ssrn.com/index.cfm/en/Negative-Results/)

Paper statistics

DOWNLOADS	154
ABSTRACT VIEWS	1,934
RANK	338,107

1 Citations

47 References

PlumX Metrics

https://plu.mx/ssrn/a/?ssrn_id=1091483

Related eJournals

Macroeconomics: Consumption, Saving, & Wealth eJournal (https://papers.ssrn.com/sol3/ELJOUR_Results.cfm?form_name=journalBrowse&journal_id=1154232)

Follow

Social Security, Pensions & Retirement Income eJournal (https://papers.ssrn.com/sol3/ELJOUR_Results.cfm?form_name=journalBrowse&journal_id=1500139)

Follow



View more >

Recommended Papers

Guaranteeing Defined Contribution Pensions: The Option to Buy-Back a Defined Benefit Promise (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=299807&rec=1&srcabs=1091483&pos=1)By Marie-eve Lachance (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=300185) and Olivia S. Mitchell (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=41556)Understanding the Defined Benefit Versus Defined Contribution Choice (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=755064&rec=1&srcabs=1091483&pos=2)By Tongxuan Yang (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=97924)Who Chooses Defined Contribution Plans? (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=958494&rec=1&srcabs=1091483&pos=3)By Jeffrey R. Brown (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=155077) and Scott J. Weisbenner (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=160511)

View more >

Feedback

[SSRN Quick Links](#) 

[SSRN Rankings](#) 

[About SSRN](#) 

 [\(https://www.facebook.com/SSRNcommunity/\)](https://www.facebook.com/SSRNcommunity/)

 [trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany_493409%2Cidx%3A1](https://www.linkedin.com/company/493409?trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany_493409%2Cidx%3A1)

[trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany_493409%2Cidx%3A1](https://www.linkedin.com/company/493409?trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany_493409%2Cidx%3A1)

 [\(https://twitter.com/SSRN\)](https://twitter.com/SSRN)

[\(http://www.elsevier.com/\)](http://www.elsevier.com/)

[Copyright \(https://www.ssrn.com/index.cfm/en/dmca-notice-policy/\)](https://www.ssrn.com/index.cfm/en/dmca-notice-policy/)

[Terms and Conditions \(https://www.ssrn.com/index.cfm/en/terms-of-use/\)](https://www.ssrn.com/index.cfm/en/terms-of-use/)

[Privacy Policy \(https://www.elsevier.com/legal/privacy-policy\)](https://www.elsevier.com/legal/privacy-policy)

All content on this site: Copyright © 2023 Elsevier Inc., its licensors, and contributors. All rights are reserved, including those for text and data mining, AI training, and similar technologies. For all open access content, the Creative Commons licensing terms apply.

We use cookies to help provide and enhance our service and tailor content.

To learn more, visit [Cookie Settings](#).



[\(http://www.relx.com/\)](http://www.relx.com/)

<https://papers.ssrn.com/sol3/updateInformationLog.cfm?process=true>