

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)

0 References

Fetch References

0 Citations

Fetch Citations

Do you have a job opening that you would like to promote on SSRN?

Place Job Opening (https://www.ssrn.com/index.cfm/en/Announcements-Jobs/)

We use cookies that are necessary to make our site work. We may also use additional cookies to analyze,

paper statistics and to improve our content and your digital experience. For more information, see our [Cookie](#)

[Policy \(https://www.elsevier.com/legal/cookiepolicy\)](https://www.elsevier.com/legal/cookiepolicy)

DOWNLOADS

158

[Cookie Settings](#)

Accept all cookies

ABSTRACT VIEWS

1 Citations

47 References

PlumX Metrics



(https://plu.mx/ssrn/a/?ssrn_id=1091483)
 Related journals

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

Follow



Social Security, Pensions & Retirement Income eJournal (https://papers.ssrn.com/sol3/JELJOUR_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

Submit a Paper > (<https://hq.ssrn.com/submission.cfm>)

SSRN Quick Links

SSRN Rankings

About SSRN

(<https://www.facebook.com/SSRNcommunity/>)

([https://www.linkedin.com/company/493409?](https://www.linkedin.com/company/493409?trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany_493409%2Cidx%3A0)

[trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany_493409%2Cidx%3A0](https://www.linkedin.com/company/493409?trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany_493409%2Cidx%3A0)

(<https://twitter.com/SSRN>)

Copyright (<https://www.ssrn.com/index.cfm/en/dmca-notice-policy/>)

Terms and Conditions (<https://www.ssrn.com/index.cfm/en/terms-of-use/>)

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/>)

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