Salary Linked Home Finance: Reducing interest rate, inflation and idiosyncratic salary risks

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Outline

- What is salary linked home finance?
- Motivation for its development
  - Advantages and risks for the homeowner
  - Advantages for pension investors
- Likely returns
  - Salary growth
  - Comparative returns
- Issues
  - Risks and management
  - Obstacles to its introduction
- Discussion

Salary linked home finance

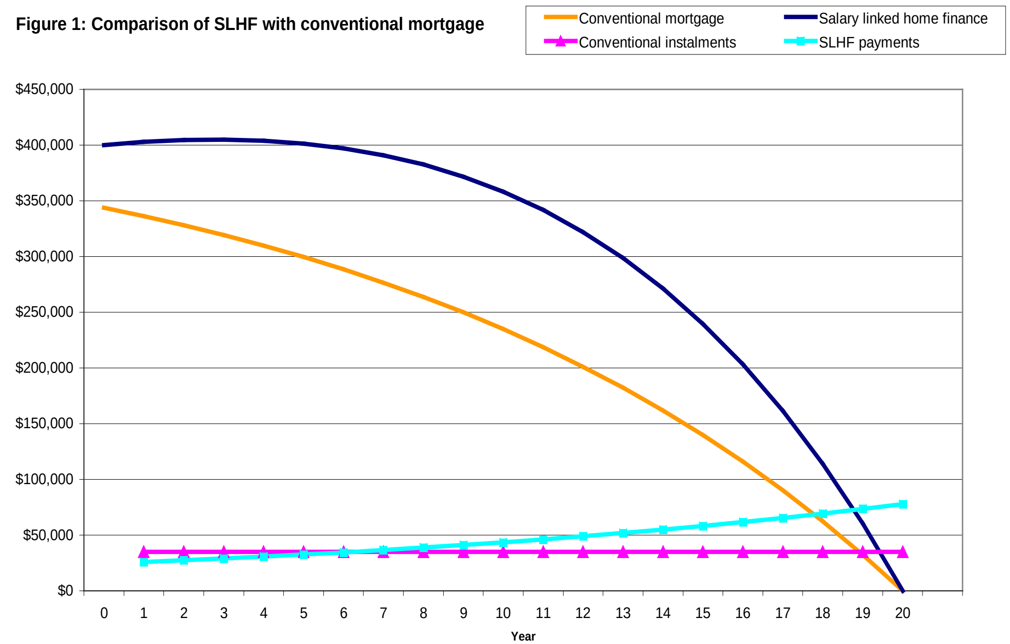
Superannuation (pension) funds ⇨ pooling vehicle ⇨ homeowner

- Interest rates do affect repayments or term
- Investment return = rate of growth in salaries

To begin:
% = AMOUNT / (TERM x INCOME)
e.g. $400,000 / (20 years X $100,000) = 20%

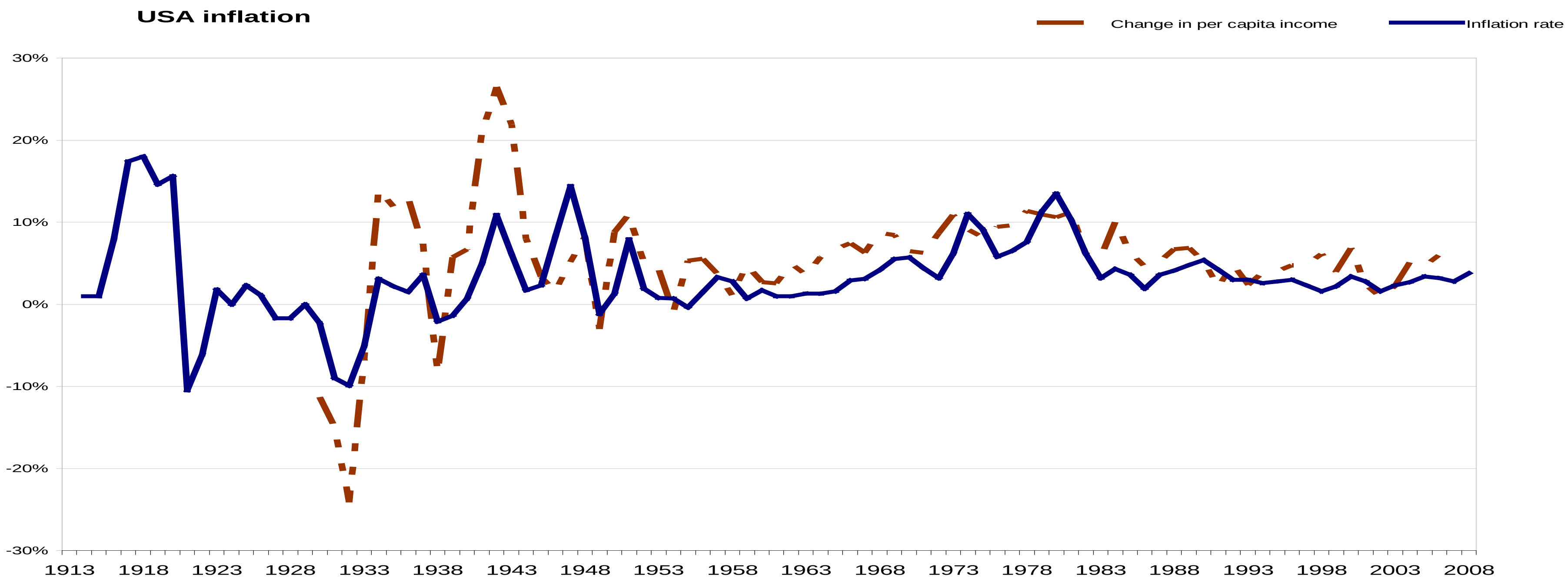
To repay early:
AMOUNT = (TERM x INCOME) x %
e.g. $402,000 = (15 years x $134,000) x 20%
(The amount outstanding can increase before it reduces)

Figure 1: Comparison of SLHF with conventional mortgage



Motivation

- Liquidity constraints and the inflation tilt
  - Younger couples cannot borrow enough
- Usury and idiosyncratic salary risks
  - Interest rates fall heavily on the unlucky
- Smoothed inflation protected investment returns for pensioners
  - Pensioners need inflation protection, but cannot deal with equity market risks



Advantages and risks for the homeowner

Advantages

- More money now - 48 x income
- No interest rate risk
- Simple to understand, easy to budget
  - No compound interest requirements

Earning $100,000 pa	Maximum Amount Borrowed	Initial instalments
20 year variable rate mortgage	$370,790	$35,000
20 year salary linked home finance	$400,000	$25,515
Difference	7.9%	-27.1%

These calculations include loadings appropriate to current market conditions

Risks

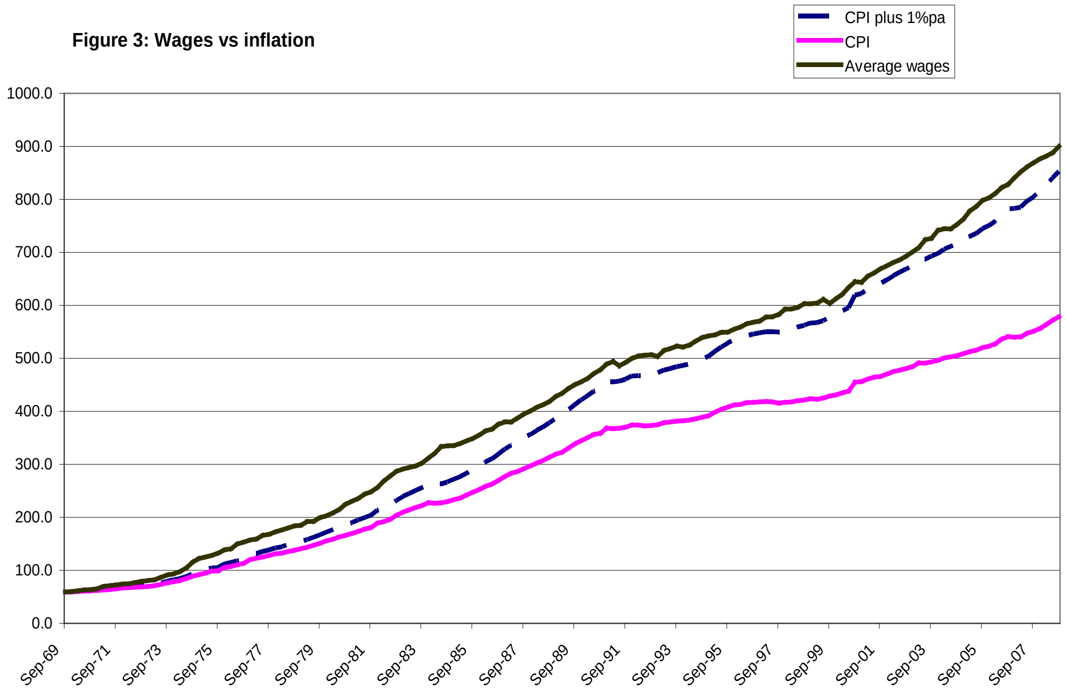
- Unemployment
  - A smaller problem for experienced workers
  - Bigger house so may lose more
- Salary reductions
  - Especially if overtime involved
  - But can renegotiate terms
- Negative equity
  - Can be allowed to transfer to new house
- Will pay more in future
  - Must give fastidious warnings - video responses?

Advantages for superannuation investors

- Superannuation benchmark
  - Inflation protection
  - Also want to offer participation in productivity improvements

- Yield is attractive
  - Inflation + productivity + promotions

- Low risk of missing benchmark
  - Homeowner's salary provides primary security
  - Value of the house provides significant collateral
  - Investment in large number of homeowners provides diversification



Statistics obtained from RBA website

Likely returns: salary growth

- Increases over the working life
  - Actuaries of defined benefit funds
  - National statistics
  - Panel Studies

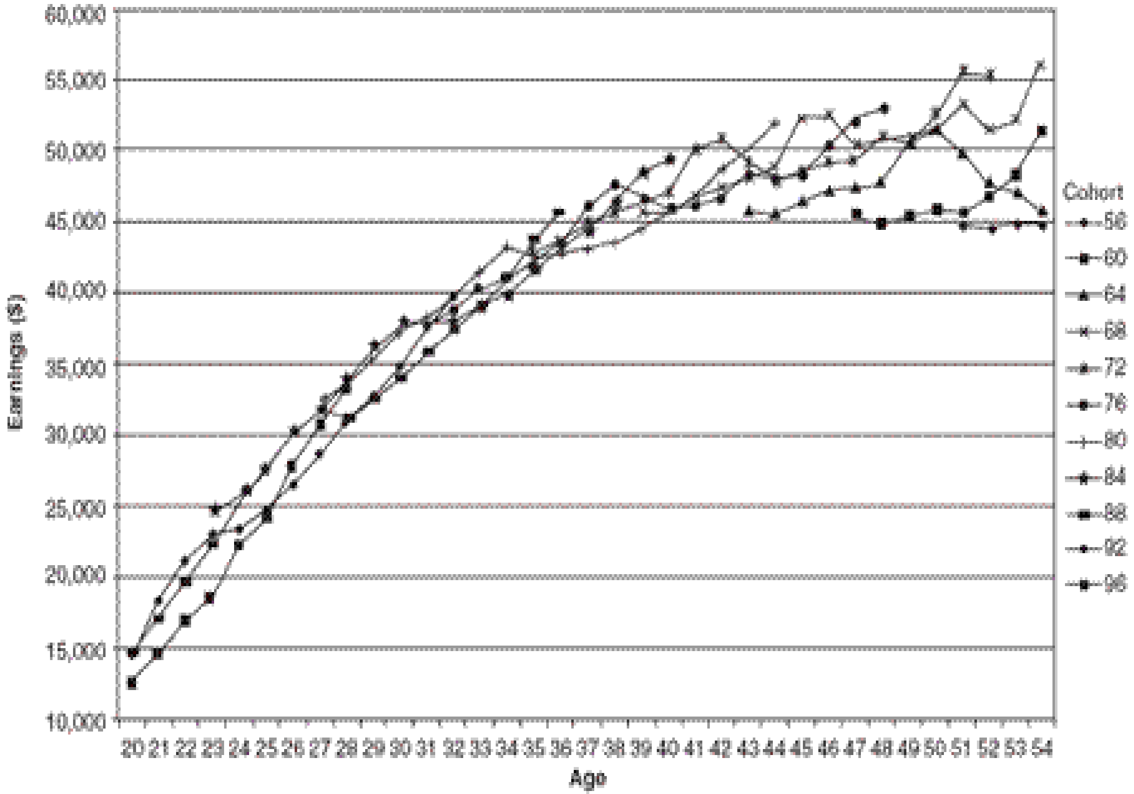
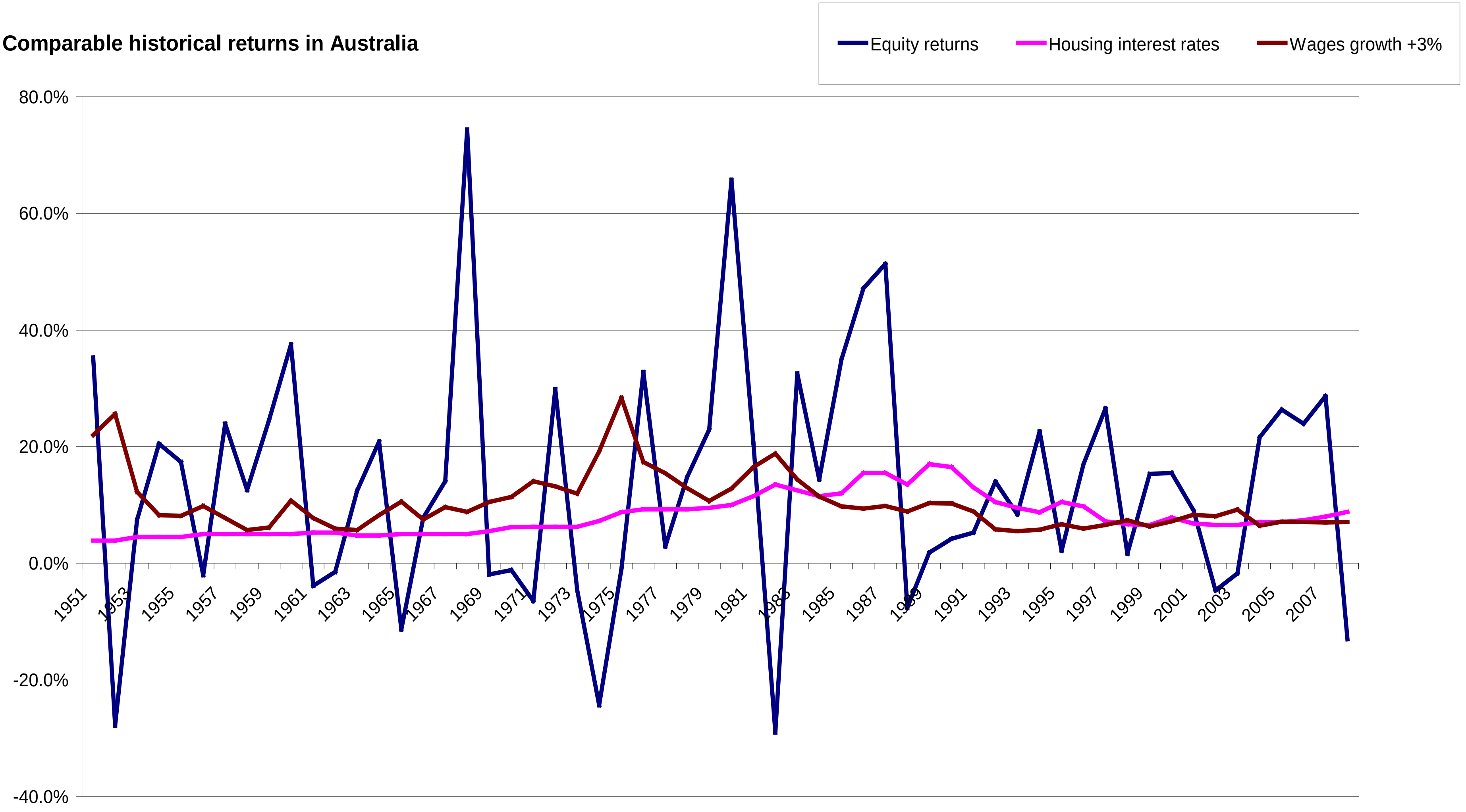


FIGURE 2 Predicted earnings, men

Comparative returns



Risks and management

- Managing anti-selection
  - Less attractive to those expecting big promotions
  - But may want money now – anyway
  - Model to distinguish ex-ante salary growth expectations
  - Adjust loadings to match ex-ante expectations
- Managing moral hazard
  - Less incentive to work if "taxed" more, balanced by
  - Desire to make up lost earnings
  - Floors and ceilings to rate of increase
  - Access to ATO tax certificates
- Credit and reputational risks
- Operational risks
- The need for government involvement?
  - All ICLs extracting government from subsidies

Obstacles to its introduction

- Challenges faced by similar instruments
  - Inflation linked bonds
  - Shared equity mortgages
- Joseph Stiglitz on TIPS; three difficulties:

… some never understood that the government's tax receipts also went up with inflation and thus indexed bonds actually reduced the government's real risk

…some misguided inflation hawks thought that indexing would reduce the resolve of government to fight inflation

…The experience in England from the perspective of bond traders was that these bonds were a failure …people bought them for their retirement and did not trade them …

Discussion

- Would you want one?
  - If you were 26 and needed finance
  - If you were 66 and needed security
- What would be a fair expected return?
  - In comparison with existing mortgages
  - In comparison with alternative assets
- Are there insurmountable risks?
  - Anti-selection and moral hazards
  - Operational and credit risks
- Who will be the first to invest?