

# An Approach for Estimating Market Returns for Life Settlements

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London UK

..the question is: what are  
the returns which can be  
reasonably expected from  
investments in life  
settlements?

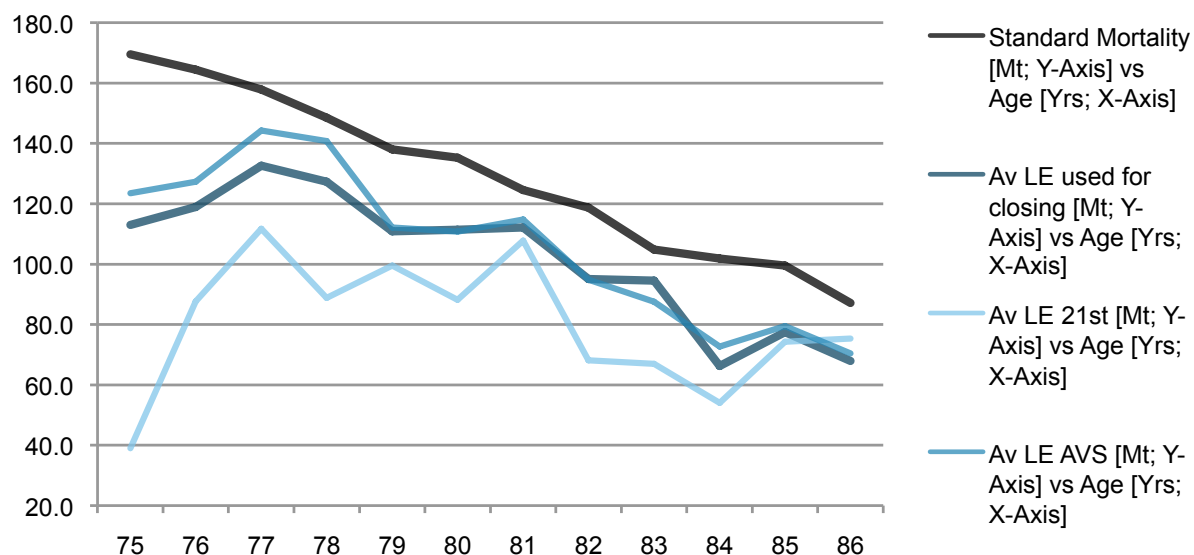
# Level of projected IRR

What is the real return which can be expected from an investment in life settlements?

- Medical underwriting of the medical underwriters is consistently on clearly distinct levels, and consequently also the respective projected IRR.
- But obviously there can't be all underwriters right! And what can investors expect as realized returns?

## Projected IRR\*:

- AVS:
  - Average: 20.9%
  - Median: 16.6%
- LE used for closing:
  - Average: 24.3%
  - Median: 21.0 %
- 21<sup>st</sup> Services:
  - Average: 37.4%
  - Median: 30.3%



\*Source: AAP life settlement transaction data; secondary main market, May 2013 to April 2014; all trades where all three LE are available.

# Estimating a 'real' IRR

**However a 'realized' IRR can be estimated by combining:**

- ..probabilistic cash flows which refer to 'experienced' mortality
- ..with actual market prices.

The following IRR calculator was used:

- Used model: probabilistic
- Underlying data and assumptions: average policy ('dummy trade')
  - Gender: male
  - Smoking status: non smoker
  - Age: 80.5 years
  - Market life expectancy: 96 months
  - Policy type: Universal life
  - Face amount: USD 2 Mio
  - Premiums: averaged projected premiums of a cohort of actually closed transactions and mirroring the above characteristics

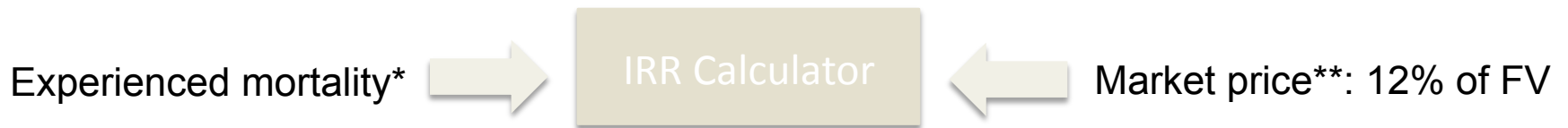
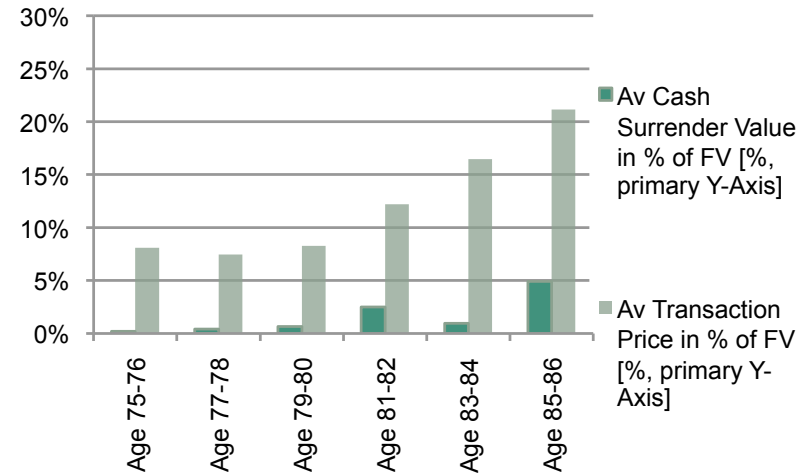
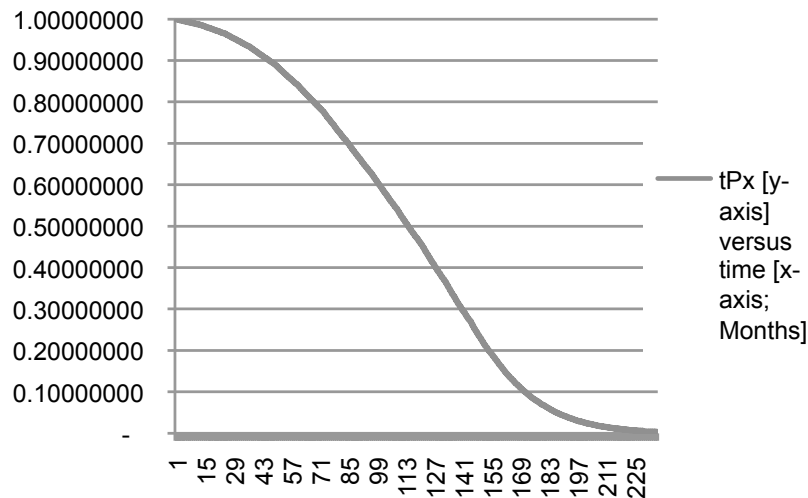
# The realized mortality

## Calculation of the mortality experience

– Data base: Fasano Associates

- Subset: males with age 75 to 85 which were underwritten from 2008 to 2012
- Medical underwriting by Fasano: LE 90-126 months
  - Medical underwriting by Fasano had nothing to do with the analysis itself. It was just used to identify lives similar to that seen in the market.
  - The typical medical underwriting used for such transactions in the past is about 96 months which represents a blended 21<sup>st</sup> Services/AVS underwriting.
- Fasano extracted the actual mortality experienced from this cohort relative to the mortality that would be expected based on the Fasano mortality tables at a mortality rating of 100%.
  - The actual mortality of this cohort turned out to be 145% of the expected mortality (no provision of IBNR).
  - Translated in life expectancy this would be a LE of 114 months.

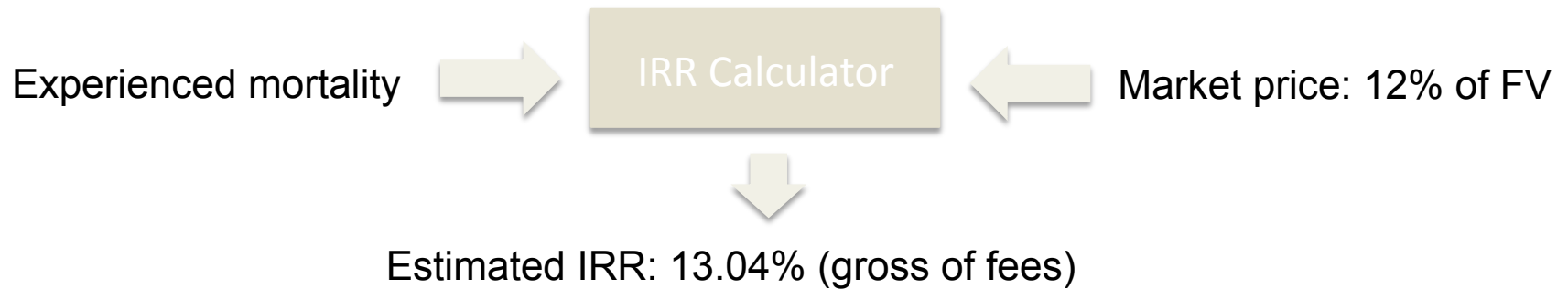
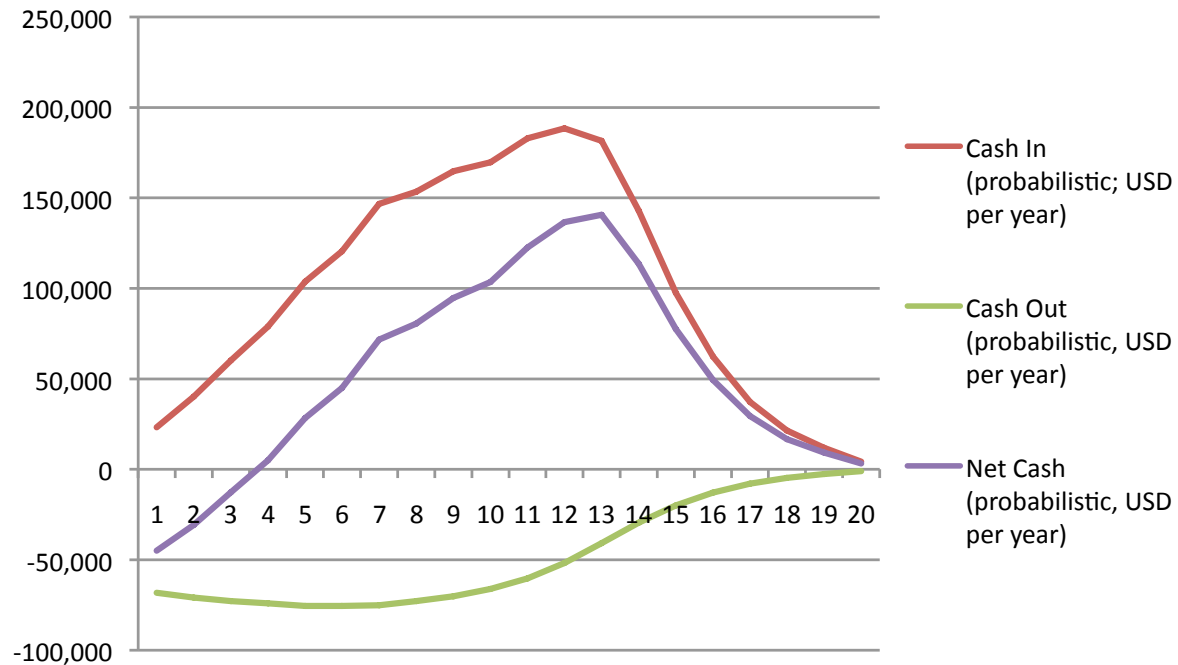
# Estimation of IRR



\* Source: Fasano Associates; mortality curve referring to a defined cohort of male insured which were underwritten between 2008 and 2012.

\*\*Source: AAP LS transaction data; estimated average transaction price net of CSV of the defined cohort in the main secondary market.

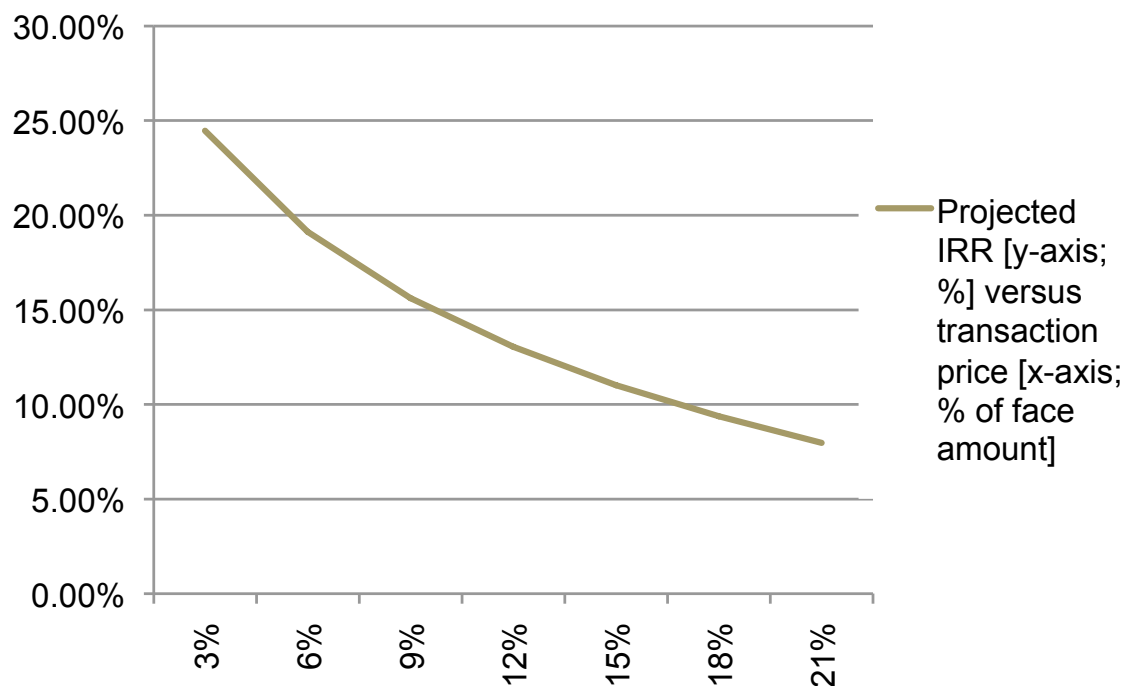
# Estimation of IRR



# Sensitivity of IRR regarding purchase price

Purchase prices influence the return potential.

- Market prices change, and the purchase price influences the realizable IRR for investors.
- A purchase price at 21% of FV limits the IRR to 7.97% whereas a purchase price of 3% offers an IRR of 24.47% (all figures gross of fees).

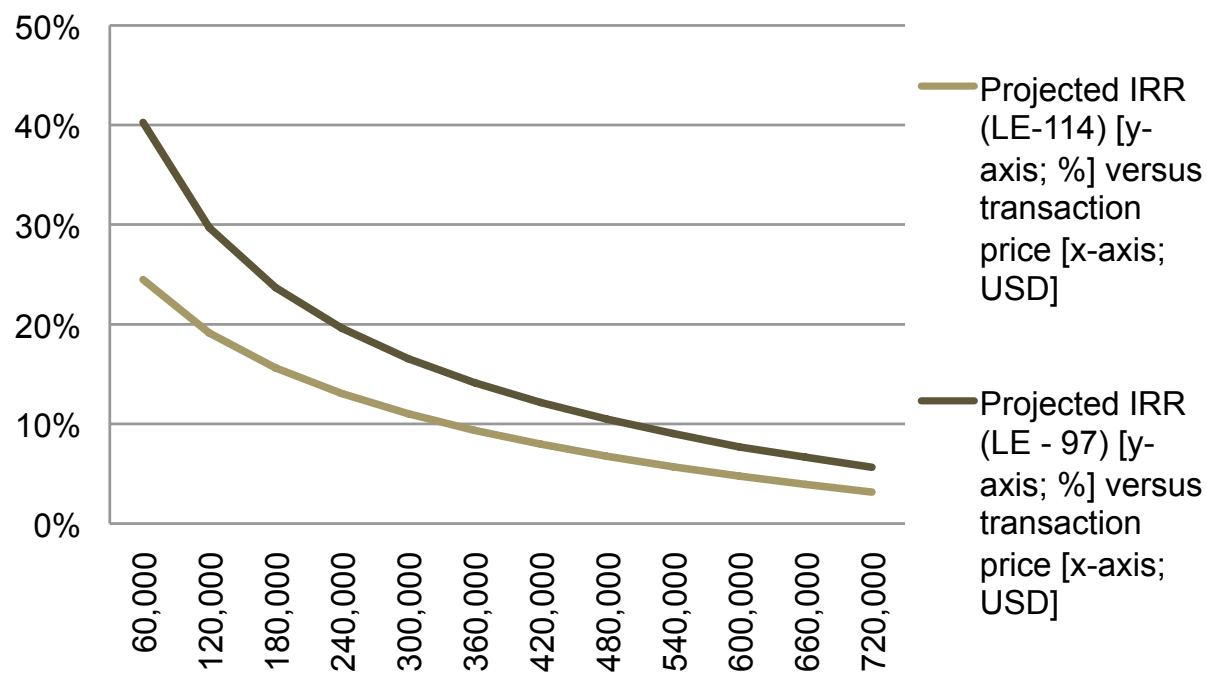




# Different LE lead to different projected IRR

Different LE lead to different projected IRR.

- The shorter the used LE the higher the projected IRR which can be shown to investors.
- The projected IRR below are calculated against the same prices, so different LE lead to different projected IRR.



# The influence of fees

Fees decrease the IRR to investors.

– **Expected gross IRR at a purchase price of 12% of FV: 13.04%**

- Applied fees:

- Management fees: 1% of assets p.a. (value of policies + cash)
- Structure fees (fund structure, audit, servicing, tracking etc.): 0.5% of assets p.a.
- Performance fees: none

- Calculation value of assets:

- Value of policies pool: constant at 12% of face value (maturing policies leave the pool, remaining policies increase in value over time)
- Cash reserve: USD 104'119 (estimated liquidity needs for premiums and fees until the pool becomes cash flow positive in month 39).

– **Expected net IRR at a purchase price of 12% of FV: 11.53%.**

- **Please be aware that this figure reflects an 'optimal' case (mortality is secure, minimum cash requirements and so forth).**