# How risky does the public think their investments are?

Presentation to the Society of Actuaries in Ireland

by

John Caslin and Damian Fadden

on

20th April 2009

# Agenda

➢ Background

➢ Survey description

➢ Survey findings

➢ Updated investment tables

➢ Possible conclusions

# *It's the outcome, stupid*

➢ Kevin Murphy (24th May 2005)
  - Paper to the Society of Actuaries in Ireland
    - Actuarial profession needs investment tables

➢ "…*build a deep insight into the outcomes that are possible from the various products which we are involved in with our clients.*"

➢ "*a simple investment table*" based on long-term investment assumptions.

# *How risky is my investment?*

➢ Paper presented to the Society of Actuaries in Ireland in November 2007

➢ Aimed to develop Kevin Murphy's original work

- New set of "*simple investment tables*" based on "bootstrap" technique
  - Repeated random sampling of actual daily data

# *How risky is my investment?*

- One of the suggestions that evening was to conduct research into consumer attitudes to investing
  - Presentation of results of research

- Review of "*simple investment tables*" from the original paper

# Irish Equity Fund

| | 1% of returns less than | 5% of returns less than | 25% of returns less than | Mean return | 25% of returns greater than | 5% of returns greater than | 1% of returns greater than |
|---|---|---|---|---|---|---|---|
| Calendar Month | -10.5% | -7.1% | -2.3% | 1.0% | 4.3% | 9.3% | 13.0% |
| Calendar Year | -25.6% | -16.2% | -0.8% | 12.9% | 25.0% | 47.4% | 65.5% |
| Five Calendar Year Annualised | -6.9% | -1.9% | 5.7% | 12.9% | 17.2% | 26.2% | 33.0% |
| Five Calendar Year Period | -30.1% | -9.3% | 31.8% | 83.7% | 121% | 220% | 316% |

**Data set: Daily returns from 1st October 1996 to 21st November 2007.**

6

# Survey Description

# Survey Description

- First ever survey in Ireland of consumers' attitudes to investing

- Research funded by Society of Actuaries in Ireland

- Millward Brown IMS 'omnibus' survey

- Dates 14th to 29th October 2008
  - *A quiet time for financial markets …*

# Survey Description

➢ Twelve questions

- Investment experience
- Awareness of available investment types
- Rank investments by return
- Rank investments by risk
- Experience of financial advice
- Reliability of financial advice
- Awareness of Financial Regulator

➢ Randomised Control Trial

- Analysis of impact of provision of risk & return information on ranking of investments in terms of risk & return

# Survey Description
## Profile of Participants

➢ 1,006 participants in the survey

➢ 50:50 split between males and females

➢ Spread across age ranges:
- 15 – 34          41%
- 35 – 54          34%
- 55+               25%

# Survey Description
## Profile of Participants

➢ Spread across Social classification

- ABC1 as white collar workers to include managers, professionals and clerical workers
- C2DE as blue collar workers to include manual workers, trades people (both skilled and unskilled) as well as those on State support
- ABC1        39%
- C2DE        52%

➢ Working status

- 75% working
- 25% not working

# Survey Description

- ➢ Making the data available for further research

- ➢ Request to Society of Actuaries in Ireland

- ➢ Share results

# Survey Findings

## Spot the Small Rounding Errors

# Survey Findings
## "Do you have any investments?"

| | | Gender | | Age Group | | | Social Class | |
|---|---|---|---|---|---|---|---|---|
| | All | M | F | 15-34 | 35-54 | 55+ | ABC1 | C2DE |
| Yes | 45% | 49% | 41% | 33% | 55% | 53% | 53% | 39% |
| No | 48% | 45% | 51% | 55% | 42% | 44% | 38% | 56% |
| Not Sure | 2% | 1% | 3% | 1% | 2% | 2% | 2% | 2% |
| Blank | 5% | 5% | 5% | 10% | 1% | 2% | 7% | 4% |

# Survey Findings
## Investment awareness and experience

| | First Mention | Total Mention | Prompted Awareness | Ever Done? |
|---|---|---|---|---|
| **Savings / Deposit** | 48% | 62% | 56% | 51% |
| **Private Pension** | 5% | 23% | 62% | 12% |
| **Shares** | 12% | 33% | 57% | 7% |
| **Property to Rent** | 6% | 29% | 62% | 9% |
| **Property to Sell** | 3% | 21% | 59% | 4% |
| **Prize Bonds** | 2% | 15% | 61% | 11% |
| **Tracker Bonds** | 2% | 10% | 50% | 4% |
| **Life Policy** | 4% | 25% | 63% | 20% |
| **Currency Fund** | - | 4% | 38% | 2% |
| **Fixed Income** | - | 2% | 30% | 1% |
| **Other ways** | 1% | 2% | 1% | 1% |
| **Not aware of any** | 10% | 16% | 2% | - |
| **No reply/Not invested** | 7% | 7% | 12% | 38% |

15

# Survey Findings
## Attitude to risk and return when investing

| | | Gender | | Age Group | | | Social Class | |
|---|---|---|---|---|---|---|---|---|
| | All | M | F | 15-34 | 35-54 | 55+ | ABC1 | C2DE |
| Most Concerned with Risk | 28% | 29% | 27% | 23% | 31% | 29% | 25% | 28% |
| Equally concerned with risk and return | 39% | 36% | 41% | 39% | 40% | 37% | 40% | 37% |
| Most concerned with return | 20% | 22% | 18% | 19% | 20% | 21% | 25% | 18% |
| Don't know | 13% | 13% | 13% | 19% | 9% | 13% | 10% | 17% |

# Survey Findings
## Source of past investment advice

| | | Gender | | Age Group | | | Social | |
|---|---|---|---|---|---|---|---|---|
| | **All** | **M** | **F** | **15-34** | **35-54** | **55+** | **ABC1** | **C2DE** |
| **Bank** | 27% | 29% | 25% | 18% | 24% | 26% | 30% | 23% |
| **Building Society** | 7% | 8% | 6% | 5% | 6% | 4% | 7% | 7% |
| **Stockbroker** | 2% | 3% | 1% | 2% | 2% | 2% | 3% | 2% |
| **Solicitor** | 5% | 6% | 4% | 3% | 4% | 5% | 6% | 3% |
| **Private Bank** | 1% | 2% | 1% | 0% | 2% | 1% | 1% | 1% |
| **Investment Advisor** | 4% | 5% | 3% | 2% | 5% | 3% | 4% | 3% |
| **Independent Fin. Advisor** | 3% | 4% | 3% | 2% | 4% | 3% | 4% | 2% |
| **Financial Advisor** | 6% | 6% | 6% | 3% | 7% | 4% | 8% | 3% |
| **Elsewhere** | 6% | 7% | 4% | 3% | 6% | 5% | 8% | 3% |
| **No** | 47% | 42% | 51% | 44% | 32% | 39% | 38% | 54% |
| **Don't know** | 13% | 13% | 14% | 17% | 6% | 9% | 15% | 13% |

# Survey Findings

## Reliability of investment advice as seen by those who received it

|  | | Gender | | Age Group | | | Social | |
|---|---|---|---|---|---|---|---|---|
|  | All | M | F | 15-34 | 35-54 | 55+ | ABC1 | C2DE |
| **Rely without question** | 24% | 22% | 27% | 24% | 27% | 22% | 26% | 26% |
| **Occasional Doubt** | 39% | 40% | 37% | 37% | 37% | 42% | 37% | 39% |
| **Sometimes Question** | 22% | 24% | 19% | 24% | 21% | 21% | 23% | 18% |
| **Always question** | 13% | 13% | 14% | 14% | 13% | 14% | 12% | 15% |
| **Don't know** | 2% | 1% | 4% | 2% | 2% | 2% | 2% | 1% |

# Survey Findings
## Informative investment advice – returns information

| | | Gender | | Age Group | | | Social Class | |
|---|---|---|---|---|---|---|---|---|
| | All | M | F | 15-34 | 35-54 | 55+ | ABC1 | C2DE |
| **Very informative** | 24% | 20% | 29% | 23% | 28% | 21% | 27% | 23% |
| **Informative** | 55% | 60% | 49% | 51% | 56% | 57% | 57% | 54% |
| **Neither** | 12% | 11% | 13% | 17% | 9% | 13% | 11% | 13% |
| **Not informative** | 4% | 4% | 4% | 4% | 2% | 7% | 2% | 6% |
| **Not at all informative** | 4% | 4% | 3% | 5% | 4% | 2% | 3% | 3% |
| **Don't know** | 1% | - | 1% | 0% | 1% | 1% | - | 1% |

# Survey Findings
## Informative investment advice – risk information

| | All | Gender | | Age Group | | | Social Class | |
|---|---|---|---|---|---|---|---|---|
| | | M | F | 15-34 | 35-54 | 55+ | ABC1 | C2DE |
| **Very informative** | 19% | 19% | 19% | 21% | 20% | 17% | 18% | 23% |
| **Informative** | 53% | 58% | 46% | 48% | 55% | 53% | 58% | 49% |
| **Neither** | 14% | 12% | 17% | 14% | 13% | 16% | 15% | 14% |
| **Not informative** | 6% | 6% | 7% | 8% | 5% | 7% | 4% | 8% |
| **Not at all informative** | 5% | 4% | 5% | 5% | 5% | 3% | 2% | 5% |
| **Don't know** | 3% | 1% | 5% | 4% | 1% | 3% | 3% | 2% |

# Survey Findings
## Awareness of relevant regulator

| | | Gender | | Age Group | | | Social Class | |
|---|---|---|---|---|---|---|---|---|
| | **All** | **M** | **F** | **15-34** | **35-54** | **55+** | **ABC1** | **C2DE** |
| **Irish Stock Exchange** | 6% | 6% | 6% | 6% | 8% | 3% | 5% | 7% |
| **Dept of Finance** | 11% | 12% | 10% | 12% | 10% | 11% | 9% | 11% |
| **Financial Regulator** | 40% | 44% | 36% | 38% | 44% | 37% | 47% | 35% |
| **Dept of Justice, Equality & Law Reform** | 5% | 5% | 5% | 5% | 6% | 4% | 5% | 5% |
| **Irish Financial Services Regulatory Authority** | 13% | 13% | 13% | 11% | 18% | 9% | 15% | 12% |
| **National Consumer Agency** | 3% | 5% | 2% | 3% | 4% | 3% | 3% | 3% |
| **Pensions Board** | 2% | 2% | 1% | 1% | 2% | 2% | 1% | 2% |
| **Don't know** | 41% | 37% | 44% | 45% | 32% | 46% | 36% | 44 % |

# RETURN RANKINGS

## WITH & WITHOUT CARD

## ALL THOSE WHO INVESTED

# Card

| | 1 in a 100 chance of returns less than.. | 1 in 20 chance of returns less than | 1 in 4 chance of returns less than | Average return | 1 in 4 chance of returns greater than | 1 in 20 chance of returns greater than | 1 in a 100 chance of returns greater than.. |
|---|---|---|---|---|---|---|---|
| Fixed Income Fund | -4.6% | -1.4% | 3.2% | 6.6% | 10.0% | 15.0% | 18.8% |
| Mixed Fund | -15.0% | -8.5% | 1.4% | 9.4% | 16.8% | 29.3% | 38.8% |
| Currency Fund | -23.5% | -14.3% | 0.3% | 13.2% | 24.5% | 45.5% | 62.2% |
| Shares (Irish Equity Fund) | -25.6% | -16.2% | -0.8% | 12.9% | 25.0% | 47.4% | 65.5% |

**Source:** *How risky is my investment?* **Tables 3 to 6; Calendar Year Returns**

# Card *v.* Survey Results

- Card: Average 5-year annualised return rankings
- 1. Currencies
- 2. Shares (Irish Equity Fund)
- 3. Mixed Fund
- 4. Fixed Income Fund
- Property & deposits not shown

- Survey: No. 1 (best) return rankings *with* card
- 1. Deposits
- 2. Bonds
- 3. Property
- 4. Mixed Fund
- 5. Shares
- 6. Currencies

24

# Possible Conclusions?

➢ Viewed as a simple card reading exercise one might conclude:

- Presentation too complex or poorly explained
- Poor card reading skills in the area of investment
- Lack of understanding of the importance of statistics in investing
- Timing of survey influenced result
- Return ranking may be dependent on recent past performance (a "*recency*" effect)
  - Gambling approach to investing?

# Card *v.* Survey Results

- Card: Average 5-year annualised return rankings
- 1. Currencies
- 2. Equities
- 3. Mixed Fund
- 4. Fixed Income
- Property & deposits not shown

- Survey: No. 1 (best) return rankings *without* card
- 1. Deposits
- 2. Bonds & Property
- 3. Mixed Fund
- 4. Shares
- 5. Currencies

# RISK RANKINGS

## WITH & WITHOUT CARD

## ALL THOSE WHO INVESTED

# Card *v.* Survey Results

- Card: Risk rankings (width of 90% CI)
- 1. Shares (39.9%)
- 2. Currency (37.5%)
- 3. Mixed Fund (23.9%)
- 4. Bonds (10.5%)
- Property & deposits not shown

- Survey: No. 1 (most risky) risk rankings *with card*
- 1. Shares
- 2. Property
- 3. Currencies
- 4. Deposits
- 5. Mixed Fund
- 6. Bonds

28

# Card *v.* Survey Results

- Card: Risk rankings (width of 90% CI)
- 1. Shares (39.9%)
- 2. Currency (37.5%)
- 3. Mixed Fund (23.9%)
- 4. Bonds (10.5%)
- Property & deposits not shown

- Survey: No. 1 (most risky) risk rankings *without card*
- 1. Shares
- 2. Property
- 3. Currencies
- 4. Mixed Fund
- 5. Deposits & Bonds

# Possible Conclusions?

➤ Better understanding of risk than return

➤ Timing of survey may have illustrated risk more & helped uniform rankings by "WITH" card & "**_WITHOUT_**" card groups

➤ Little difference between with & without card results

- Information ignored?
  - No context in which to analyse the information

# Survey Difficulties

- Difficult to distinguish between:
    - Asset classes that generate returns
    - Vehicles through which investors access returns
    - Vehicles may change risk/reward characteristics of underling asset class
- Difficult to distinguish between geared & un-geared investments

# "Simple Investment Tables"

## REVISED

# Illustration of Risk & Return

➤ How do authorised advisers illustrate the relative risks & potential returns of the funds they recommend?

➤ "*Simple Investment Tables*" might be used for relative comparisons rather than a stand-alone table for an asset class

# Irish Equity Fund

| | 1% of returns less than | 5% of returns less than | 25% of returns less than | Mean return | 25% of returns greater than | 5% of returns greater than | 1% of returns greater than |
|---|---|---|---|---|---|---|---|
| Five Calendar Year Annualised | **-6.9%** | **-1.9%** | **5.7%** | **12.9%** | **17.2%** | **26.2%** | **33.0%** |
| Five Calendar Year Annualised *UPDATED* | -22.4% | -16.7% | -8.1% | **0.6%** | 5.0% | 15.6% | 23.6% |

Update shows lack of stability in the results over time.

**Original Data Set: Daily returns from 1st October 1996 to 21st Nov. 2007.**

**Revised Data Set: Daily returns from 1st October 1996 to 29th March 2009.**

34

# Currency Fund

| | 1% of returns less than | 5% of returns less than | 25% of returns less than | Mean return | 25% of returns greater than | 5% of returns greater than | 1% of returns greater than |
|---|---|---|---|---|---|---|---|
| Five Calendar Year Annualised | **-5.5%** | **-0.8%** | **6.4%** | **13.2%** | **17.3%** | **25.7%** | **32.0%** |
| Five Calendar Year Annualised *UPDATED* | -5.4% | -1.0% | 5.8% | **12.0%** | 15.9% | 23.8% | 29.6% |

Update shows stable risk profile & diversification benefits of Currency Fund

**Original Data Set: Daily returns from 30th Mar. 2005 to 21st Nov. 2007.**

**Revised Data Set: Daily returns from 30th Mar. 2005 to 29th Mar. 2009.**

# Fixed Income Fund

| | 1% of returns less than | 5% of returns less than | 25% of returns less than | Mean return | 25% of returns greater than | 5% of returns greater than | 1% of returns greater than |
|---|---|---|---|---|---|---|---|
| Five Calendar Year Annualised | 1.4% | 2.9% | 5.0% | **6.6%** | 8.1% | 10.3% | 11.9% |
| Five Calendar Year Annualised *UPDATED* | 0.7% | 2.3% | 4.5% | **6.5%** | 7.7% | 10.1% | 11.8% |

Update shows stable risk profile & diversification benefits of Fixed Income Fund

**Original Data Set: Daily returns from 1st October 1996 to 21st Nov. 2007.**

**Revised Data Set: Daily returns from 1st October 1996 to 29th March 2009.**

# Consensus Fund

| | 1% of returns less than | 5% of returns less than | 25% of returns less than | Mean return | 25% of returns greater than | 5% of returns greater than | 1% of returns greater than |
|---|---|---|---|---|---|---|---|
| Five Calendar Year Annualised | **-2.5%** | **0.7%** | **5.4%** | **9.4%** | **12.3%** | **17.6%** | **21.4%** |
| Five Calendar Year Annualised *UPDATED* | -9.0% | -5.6% | -0.5% | 3.8% | 6.9% | 12.5% | 16.6% |

Update shows lack of stability in the returns.

**Original Data Set: Daily returns from 1st October 1996 to 21st Nov. 2007.**

**Revised Data Set: Daily returns from 1st October 1996 to 29th Mar. 2009.**

# Improving the "*Simple Investment Tables*" Diversification

| Time Period | Irish Equity | Currency Fund | Fixed Income |
|---|---|---|---|
| 2001* | - 4.5% | 14.1% | 3.6% |
| 2002 | -23.0% | 16.2% | 9.5% |
| 2003 | 23.2% | 11.3% | 4.2% |
| 2004 | 25.0% | - 9.7% | 8.6% |
| 2005 | 20.5% | 10.7% | 6.5% |
| 2006 | 30.0% | 11.1% | - 1.7% |
| 2007 | - 27.2% | 7.0% | - 0.5% |
| 2008 | - 64.1% | 2.5% | 5.3% |
| 2009 (to end of March) | - 9.2% | 9.3% | -1.1% |

Source: MoneyMate. *The return for 2001 is from 1st March 2001 to 31st December 2001. Category: MoneyMate Irish Individual Pensions.  Irish Equity: Average return of Irish Equity funds in the category;  Fixed Income: Average Return of Fixed Income funds in the category.  Currency Fund: Insight Currency Fund.  The returns shown are based on the bid-to-bid performance of the funds and do not relate to the returns on a policy linked to the funds. The value of a policy linked to any one of these funds can fall as well as rise and investors may get back less than the amount invested. Changes in exchange rates may have an adverse effect on the value, price or income from investments linked to these investments.  Income may fluctuate in accordance with market conditions and taxation arrangements.  The returns shown are before taxation.  These returns have not been achieved without risk of loss.

# Possible Conclusions

# Key Strengths of Survey

- ➢ Part of an omnibus survey
  - Bias of "*willing participant*" in survey is diminished

- ➢ A large representative sample of the Irish population aged over 15 years

- ➢ Could not be described as '*industry sponsored*'

- ➢ RCT allows us to draw some conclusions with a modicum of certainty

# Consumer Survey

➢ Overall investment awareness is low

➢ As is experience with investments

➢ Quite high trust in financial advice received

➢ Banks figure prominently as investment advisers

➢ Reasonable awareness of role of Financial Regulator
  - But 41% "don't know" who regulates the industry

# Consumer Survey
# Integrating Risk & Return

➢ All respondents able to grasp risk ranking

➢ Ranking of risk & return may have a "*recency*" effect

➢ Proportion equally concerned with risk & return when investing is just 39%

- May suggest an inability to synthesise risk & return considerations of investing

- Or, including "don't knows", about 50% of people had a blasé approach to the issue

# Randomised Controlled Trial on Return & Risk Ranking

➢ Consumer education websites might consider focusing on statistics of risk & return

➢ Educational implications: Focus on statistical concepts rather than doing examples

➢ Opportunity for a new TV program focusing on return & risk issues in investing

# Review of Simple Tables

➢ Risk & return profile of bond & currency fund very stable

➢ Lack of stability of results for Irish Equity fund & Managed funds

- Important indicator of the reliability of the statistics
- Volatility of volatility is useful in portfolio allocation decisions
- Do investors need a rethink of the proportion of equities in managed funds & pension funding?

➢ Simple investment tables don't highlight diversification issues sufficiently well

# Regulation of Investment Advice

➢ Disclosure adequate for the "*initiated*"

➢ Lack of foundation or context or framework to understand disclosure information

➢ More consumer education needed especially in the area of portfolio construction

➢ Quantitative measures of risk & return need to be communicated to investors

# Acknowledgements

# How risky does the public think their investments are?

Presentation to the Society of Actuaries in Ireland

by

John Caslin and Damian Fadden

on

20th April 2009