Funding a Long Retirement

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DISCLAIMER

In addition to the usual AIA Disclaimer you should be aware of the following:

- I retired in 2008. Before that I was principal at Southport Special School – a school for severely disabled children.
- I have qualifications in education and psychology but I have no qualifications or experience in accounting, economics, finance or law.
- As I have no adviser licence, you would be extremely foolish to act on any investment or taxation advice from me.

In this session:

- I will not be telling **you** how to invest.
- I will tell you how **I** invest – and why.

There could be a lot of life left at the end of the money – Longevity Risk

Life Expectancy

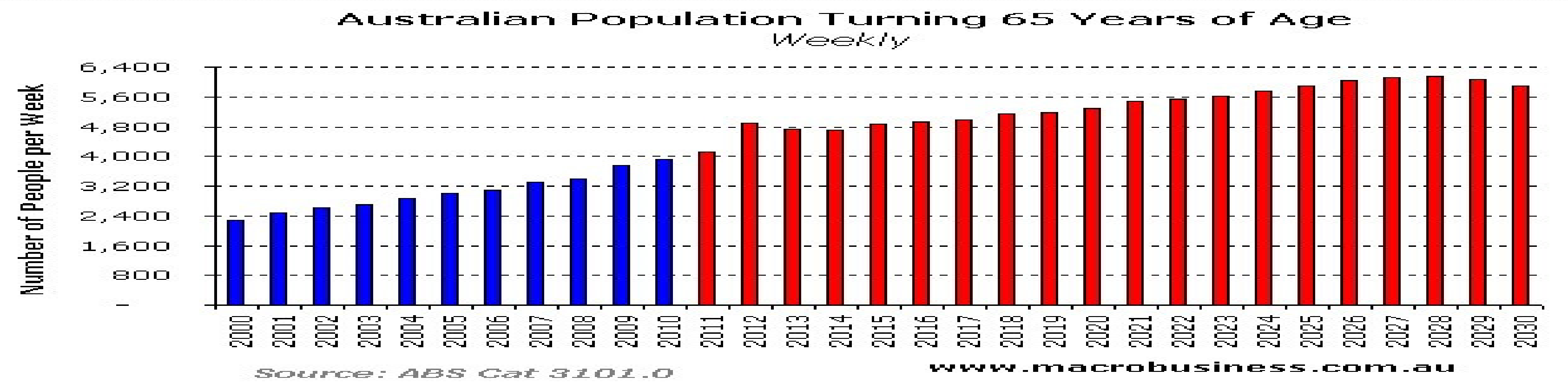
- 50 per cent of males currently aged 65 will survive beyond age 84
  - **But around 5 % of that group will survive beyond age 97**

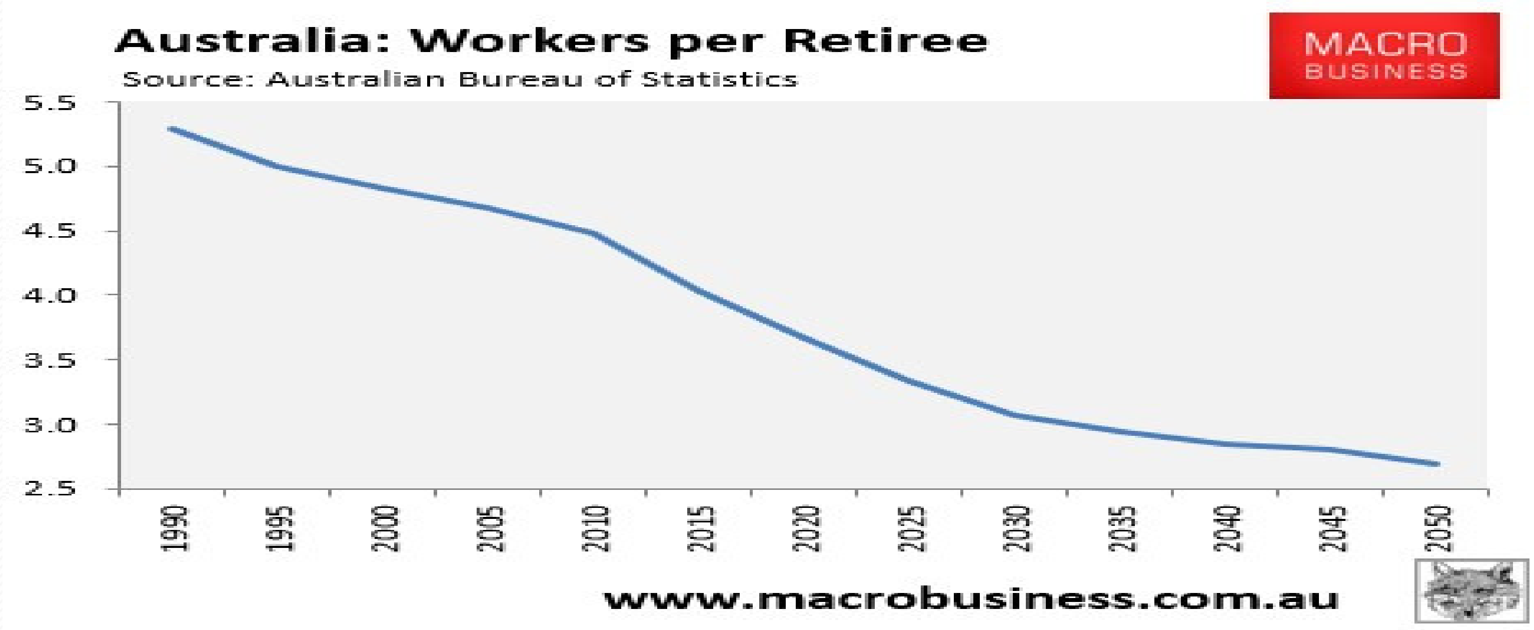
- 50 per cent of females currently aged 65, will survive beyond age 88
  - **But around 5 % if that group will survive beyond age 100**

How do I plan?

- If I want a 95% certainty that the money will not run out:
  - **I need to plan for a retirement of at least 30 years possibly longer!**

Can we rely on the age pension?
Too many boomers - Not enough taxpayers





If I want my money to last:

- **Minimise Taxes**
  - Superannuation in retirement saves tax
  – "the best tax break this side of the Bahamas"

- **Minimise Fees**
  - How many 'professionals' are you feeding?

- **Ensure my income keeps pace with inflation**
  - If inflation is 3%, prices will double in 24 years
  - A dollar will then buy half of what it can buy now

Super is <u>not</u> an investment
A tax structure to hold investments

Tax Paid by Super fund

Accumulation Fund

- 15% tax on concessional contributions
  - 30% tax if income exceeds $250,000
- 0% tax on non-concessional contributions
- **15% tax on investment earnings**
- **10% tax on capital gains**
- Cannot touch it until retirement
- No requirement to take a withdrawal

Pension Fund

- **0% tax on investment earnings**
- **0% tax on capital gains**
- Required to take minimum pension
- Only available after retirement
- No more contributions

Tax Paid by member

Lump Sum

Age 56 - 59 Tax Concession

- $200,000 tax free allowance from the concessional component

Aged 60+ Tax-exempt

- No maximum withdrawal limit - I can withdraw the whole lot!

Pension

Age 56 – 59 Tax Concession

- Non-concessional component – tax free
- Remainder: normal tax but with a 15% tax rebate

Age 60+ Tax-exempt

- not even reported as income
- Non-super income enjoys low marginal rates and tax offsets

Tax may also be payable on Death

Pension fund pays no tax - Over 60, I pay no tax

What's the catch?

Minimum Pension Withdrawals – in Cash – regardless of investment return

Age of Retiree	Percentage Factor
Less than 65	4%
65 - 74	5%
75 - 79	6%
80 - 84	7%
85 - 89	9%
90 – 94	11%
95 and over	14%

Eventually all my money will be
removed from this tax haven

Super is just super!

Tax benefits available to every taxpayer - employed or not

Retail / Industry super funds decide which investments

- I choose between funds

Self Managed Super Fund (SMSF) - Trustees become their own fund manager

- Trustee (YOU!) become Chief Investment Officer
  - Decide which investments – risk, return, asset allocation - members needs

- Trustee (YOU!) become Chief Compliance Officer
  - Responsible for all compliance / paperwork – severe penalties

Retail Super (Industry) Funds – Fees

A great business for advisers, fund managers and the media

Managed funds charge fees – the source of their income

- Management Expense Ratio (MER) - a percentage of my capital (1-2%)
- Conflict of interest – sales or advice (CBA, NAB, WBC,ANZ,AMP)
- Seldom outperform long-term index - underperformance correlates with fees

Funds Under Management (FUM) – prime concern

- Comparative fund performance most important – attract more FUM
- My investment return is determined by my asset allocation - my risk profile

Wealth management - very profitable business - Banks, Perpetual, AMP

- 1% of $2 trillion = $20bn per year
- Can afford expensive advertising – media nurtures this business

Retail Super Fund

Pays a regular pension - until it stops!

Sell units with each pension payment (Units represent both capital and income)

- Continue selling until all unit are sold – or I die!
- Do I spend them now or later?
- No more contributions

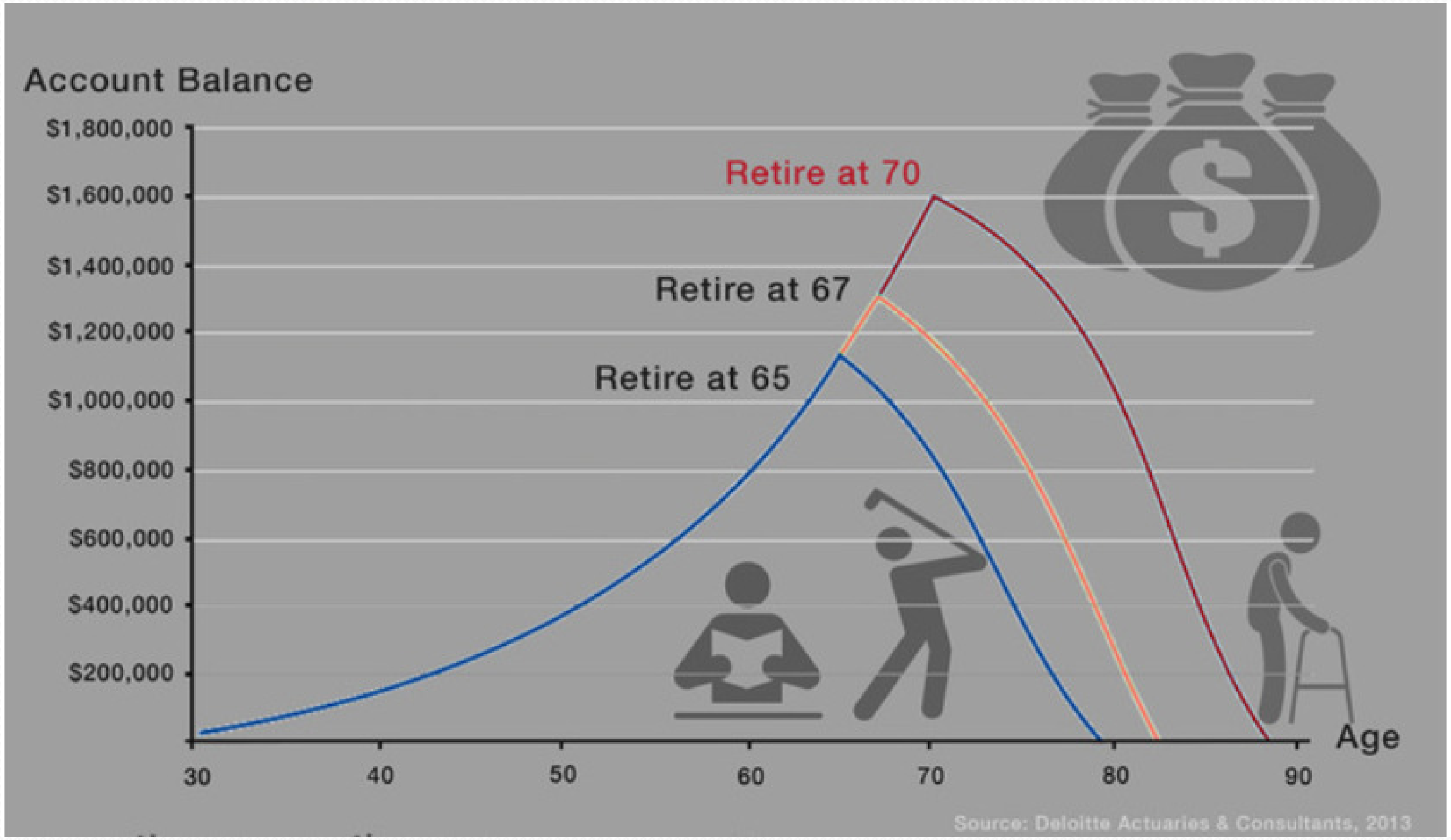
How long will the pension last?

- It is designed to expire - it is only a matter of time
- Hopefully, beyond my use-by date

How long it lasts – it depends:-

- How many units I started with
  - that depends on how much I accumulate
- How many units are sold with each payment
  - that depends on the size of each payment and the unit price
- How fast the unit prices are growing – investment return
  - that depends on my risk profile / asset allocation

This is not a pension but a return of my capital
My choice: save more – eat less – get better return



We regard this as normal!

How many years before it runs out?

What is the effect of fees?

$500,000 Spending	%	Earning 1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
$20,000	4%	28.91	35.00	46.90							
$25,000	5%	22.43	25.80	31.00	41.04						
$30,000	6%	18.32	20.48	23.45	28.01	36.72					
$35,000	7%	15.49	16.99	18.93	21.60	25.68	33.40				
$40,000	8%	13.42	14.53	15.90	17.67	20.10	23.79	30.73			
$45,000	9%	11.84	12.69	13.72	14.99	16.62	18.85	22.23	28.55		
$50,000	10%	10.59	11.27	12.07	13.02	14.21	15.73	17.79	20.91	26.72	
$55,000	11%	9.58	10.13	10.77	11.52	12.42	13.53	14.95	16.88	19.78	25.16
$60,000	12%	8.74	9.21	9.73	10.34	11.05	11.90	12.94	14.27	16.09	18.80
$65,000	13%	8.04	8.44	8.88	9.38	9.95	10.62	11.43	12.42	13.68	15.38
$70,000	14%	7.45	7.78	8.16	8.58	9.06	9.60	10.24	11.01	11.95	13.14
$75,000	15%	6.93	7.23	7.55	7.91	8.31	8.77	9.29	9.90	10.63	11.53
$80,000	16%	6.49	6.74	7.02	7.33	7.68	8.07	8.50	9.01	9.59	10.29
$85,000	17%	6.09	6.32	6.57	6.84	7.14	7.47	7.84	8.26	8.75	9.31
$90,000	18%	5.74	5.95	6.17	6.41	6.67	6.96	7.28	7.64	8.04	8.51
$95,000	19%	5.43	5.62	5.81	6.03	6.26	6.51	6.79	7.10	7.45	7.84
$100,000	20%	5.15	5.32	5.50	5.69	5.90	6.12	6.37	6.64	6.94	7.27

Ignores inflation

Retail Super Pension Funds

Benefits of hands-free investment come at a high cost

- High fees – compounded = lower returns
- Selling units to pay for each pension payment - exposed to volatile market
  - manage volatility – need diversified / conservative portfolio
- Conservative portfolio = lower returns

- Lower returns = longevity risk

- **Guaranteed to run out of money – the only question is when!**

- My adviser accepts no responsibility when the money runs out
- Age pension is insurance against longevity risk

- Welcome to Centrelink -

Inflation

A dollar ain't what it used to be

Year	Milk	Bread	Beer	Car
1970	$0.25	$0.21	$0.22	$2,967
2010	$3.73	$3.79	$3.31	$39,990

Source: ABS Data cube 6403.0.55.001, www.holden.com.au. As at 31 December 2010

- Inflation - toxic for people on fixed incomes (cash/bonds) – punishes savers
  - Inflation is a bigger problem for retirees than workers
  - wages are indexed to inflation

- Governments favour inflation – helps to pay off debt – rewards borrowers

If I don’t know how long I am going to live - How do I manage longevity risk?

- **Retain my assets – only live off the investment income**
  - Set for life! – I can live for ever!
  - If I eat the capital – eventually there be no capital and no income!

- **Retail super does not meet my needs**
  - Lower returns - Consuming capital
  - Guaranteed to run out of money!
- **But I want to use the tax advantages of super**
  - Only a SMSF allows me to separate income from capital
  - Only property and shares can provide **inflation-proof** income
- **How much capital is enough to generate income security?**
  - That depends on the investment return

Assume I need $60,000 pa (ASFA)

Capital	Need to earn	Times Income
$3,000,000	2%	50
$2,000,000	3%	33.3
$1,500,000	4%	25
$1,200,000	5%	20
$1,000,000	6%	16.66
$857,413	7%	14.28
$750,000 *	8%	12.5
$666,666 *	9%	11.1
$600,000 *	10%	10

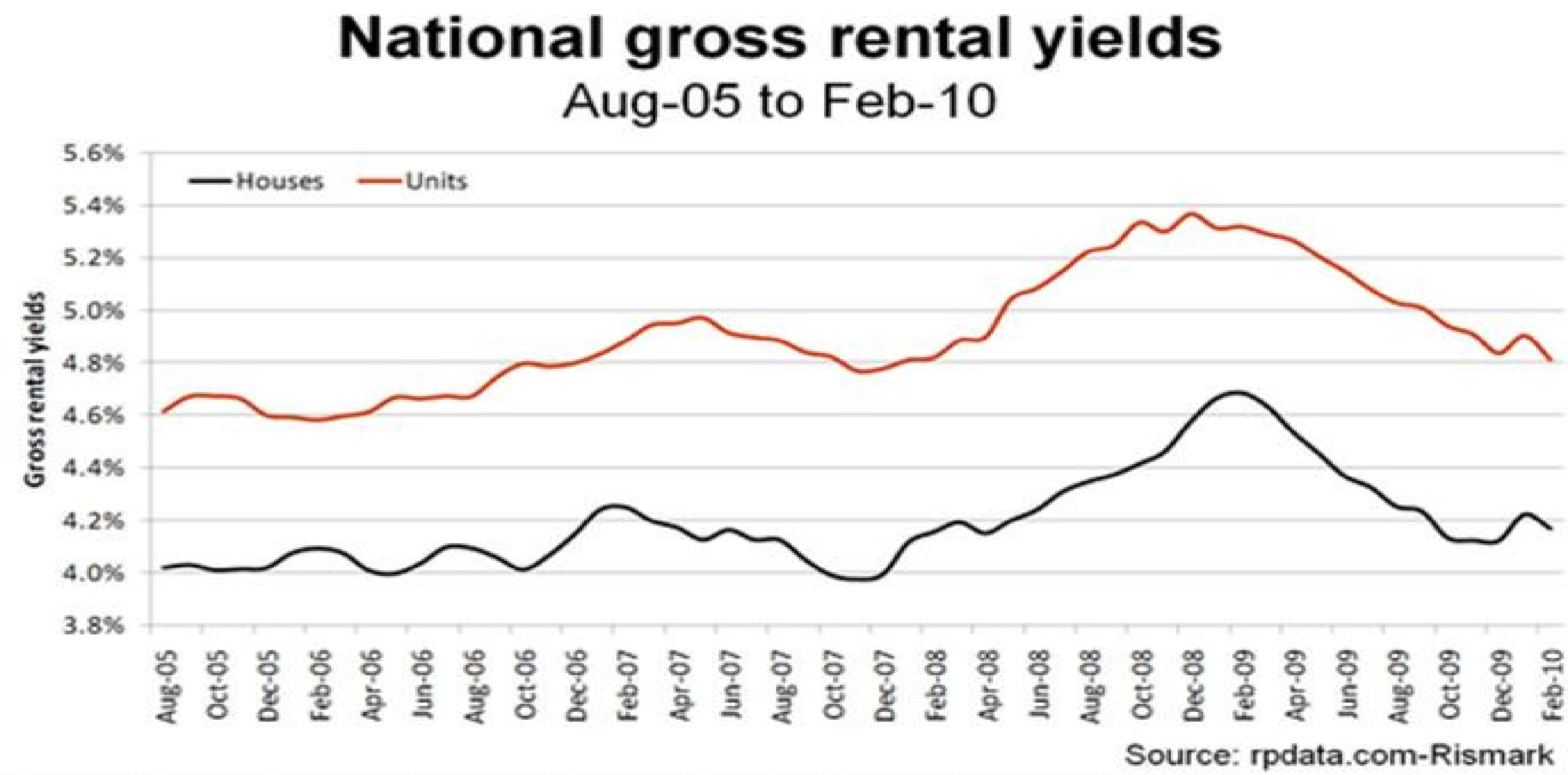
* Maybe also part age pension

Retirement Income needs to grow with rising prices

Asset Classes

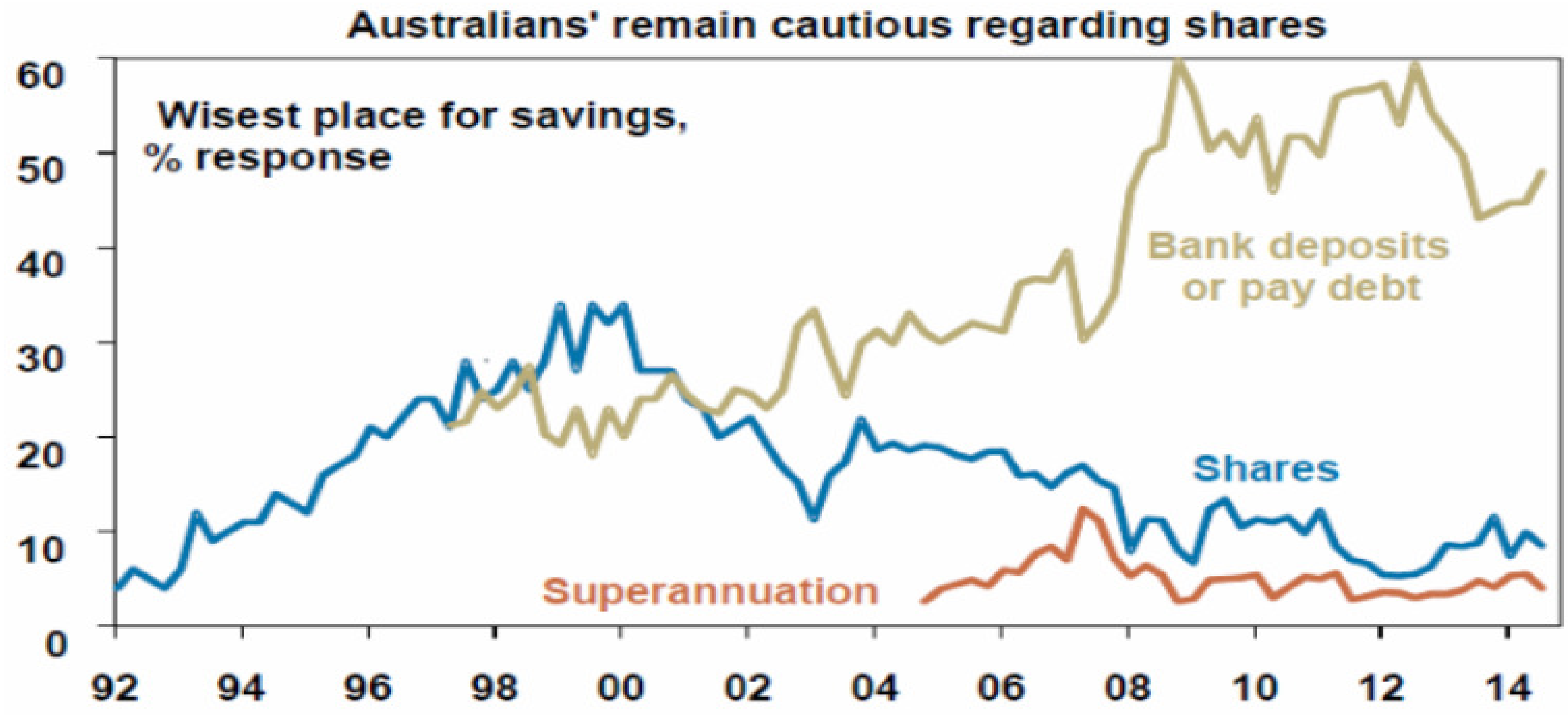
	Income	Income Growth	Capital Growth	Stability / Volatility	Liquidity
Cash	✓	X	X	✓	✓
Bonds	✓	X	X	✓	✓
Property	✓	✓	✓	?	X
Shares	✓	✓	✓	X	✓

Some prefer property for income



Net yield - after costs - is a bit less!

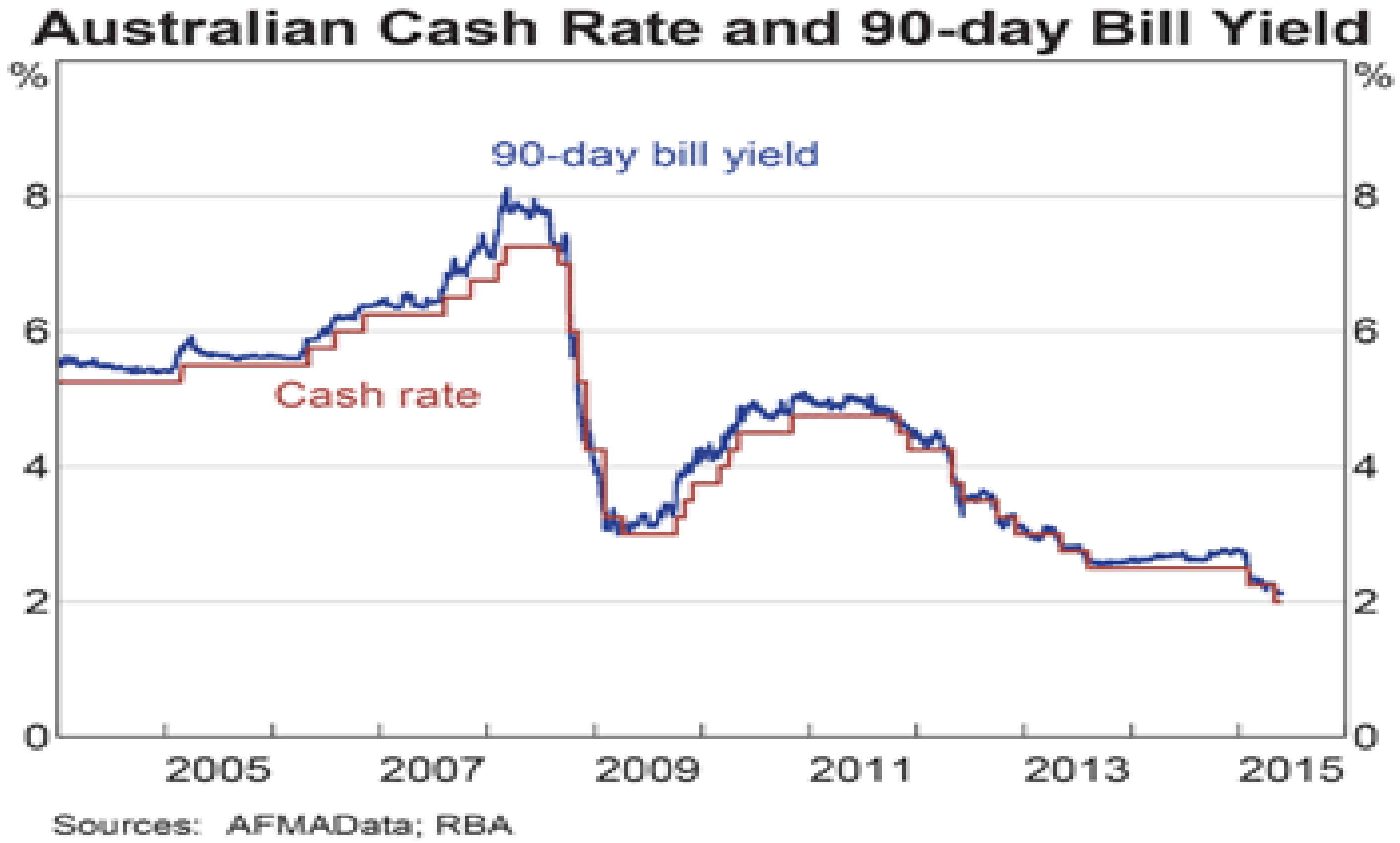
Bank Deposits: Income and Safety



Source: Westpac/Melbourne Institute, AMP Capital

How "safe" is this income?

A fall of 75% in income in 10 years!



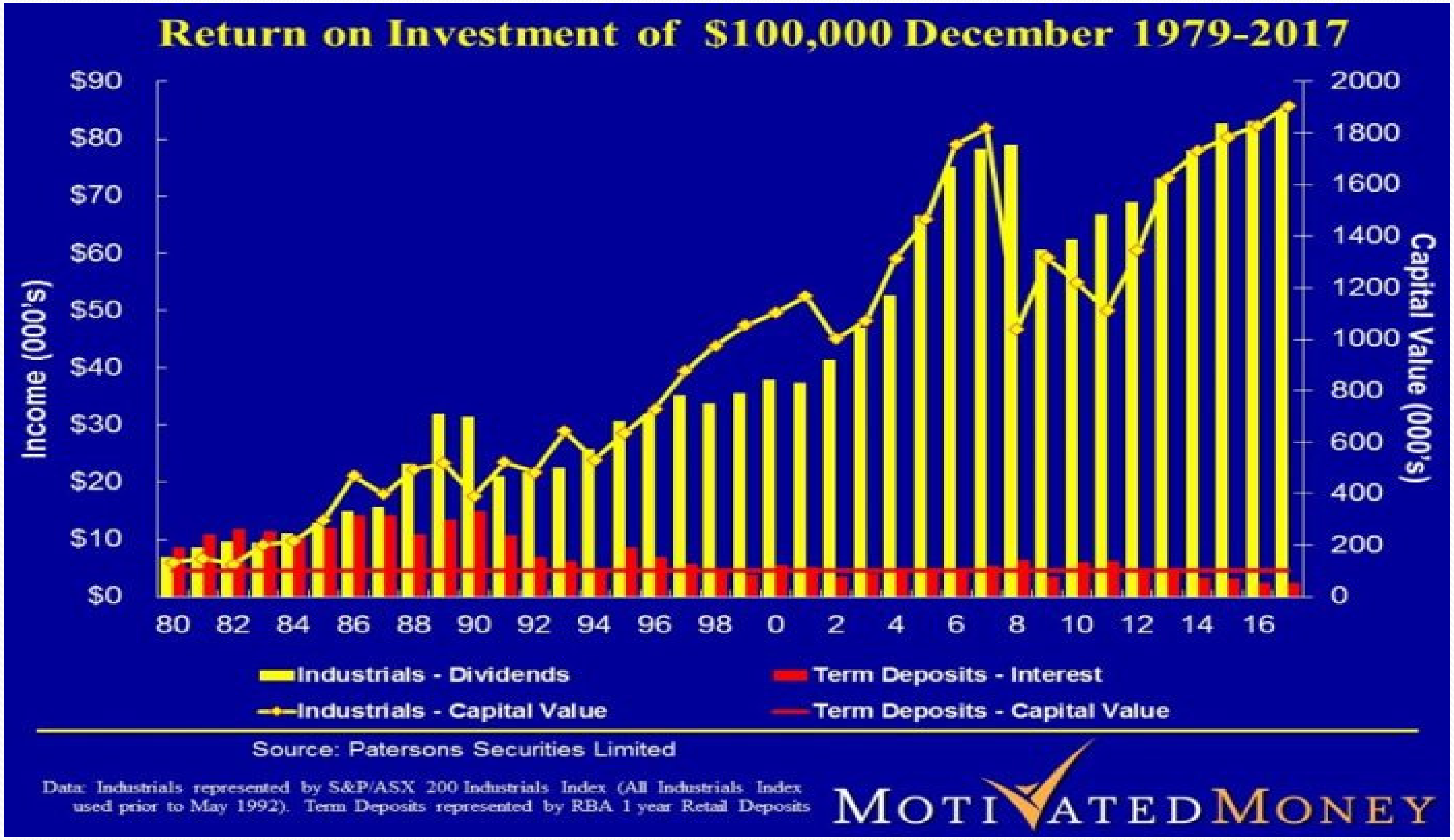
For **income** I prefer shares!

	at 16 August 2017				
Company	Market Price	Annual Dividend	Yield	Imputation credit	**Gross Yield**
CBA	$79.84	$4.32	5.41%	1.85	**7.73%**
NAB	$31.32	$1.98	6.32%	0.85	**9.03%**
WBC	$32.74	$1.88	5.74%	0.81	**8.20%**
TLS	$4.33	$0.31	7.16%	0.13	**10.23%**
CSL	$126.00	$1.76	1.40%	0.00	**1.40%**

How to make money in the share market

- **Trading**
  - Buy low – sell high
  - Depends on rising **prices**
  - **Prices** set by market
    - Market sentiment
  - **Price** Volatility
    - Market Risk
  - Leveraged bets on **prices**
  - **Depends on Liquidity**
- **Investing**
  - Share in company **profits**
    - Regular dividends
  - Growing **profits**
    - Growing dividends
    - Growing share price
    - **Long term holders benefit from both**
  - Risk is lower **profits**
  - Risk is bankruptcy

For a long retirement
Shares are safe : Cash is risky!



But wait; there's more!

Franking Credits = Tax already paid

Franking Credits = pre-payment of tax

Example – dividend of $70 in cash, franking credits of $30

	47%	39%	30%	15%	0%
Dividend (cash)	$70	$70	$70	$70	$70
Franking Credits	$30	$30	$30	$30	$30
Assessable Income	$100	$100	$100	$100	$100
Tax Payable	$47	$39	$30	$15	$0
Less Franking Credits	$30	$30	$30	$30	$30
Net Tax Payable (cash)	**$17**	**$9**	**$0**	**-$15**	**-$30**
Tax Refund (cash)				**$15**	**$30**

Company tax = prepayment of personal tax

Franking Credits = Tax Paid

Assume: 1) the only source of income is dividends
2) those dividends enjoy full dividend imputation

Outside Super: I can earn more than **$96,250** pa and pay no additional tax

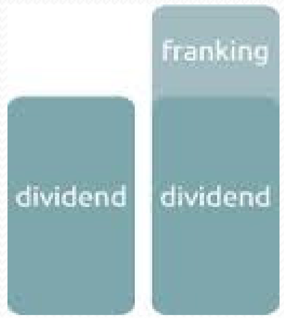
- Dividend: $96,250 (70%)
- Franking Credit: $ 41,250 (30%)
- Taxable Income: $137,500

Tax payable (Tax rates 2016-17)

- Tax payable on $137,500: $41,257
- Tax already paid: $41,250
- Tax payable: $ 7
- **Franking credits cover all the tax payable:**

A super pension fund pays no tax

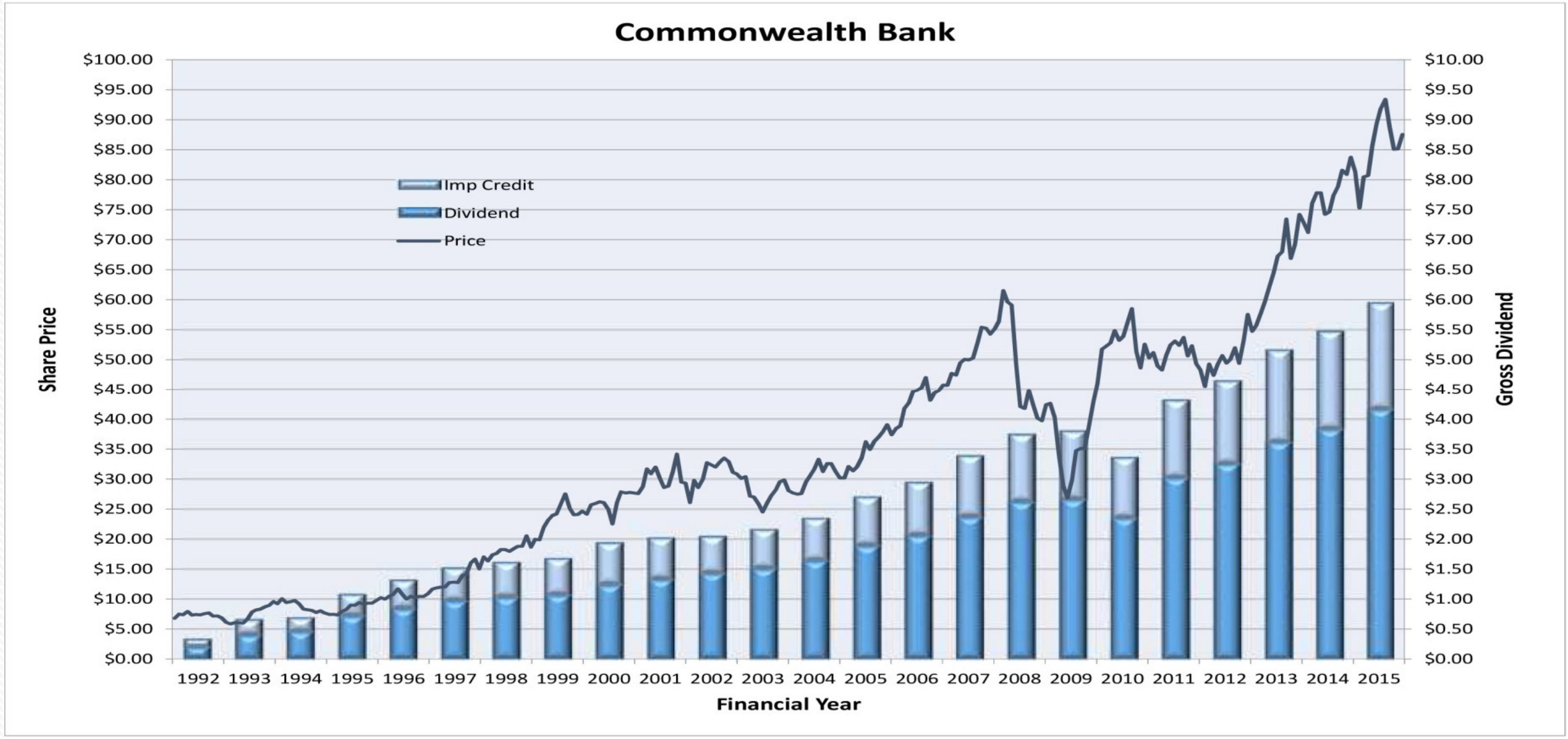
- Dividend $ 96,250
- Imputation Credit (Refund) $ 41,250
- **Total Income** **$137,500**



- For every $7.00 in dividends, the ATO send another $3.00!
- **Franking Credits deliver 42% more income!**

Dividends (and Prices) go up

Because profits go up



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Profits go up

Because of some profits reinvested

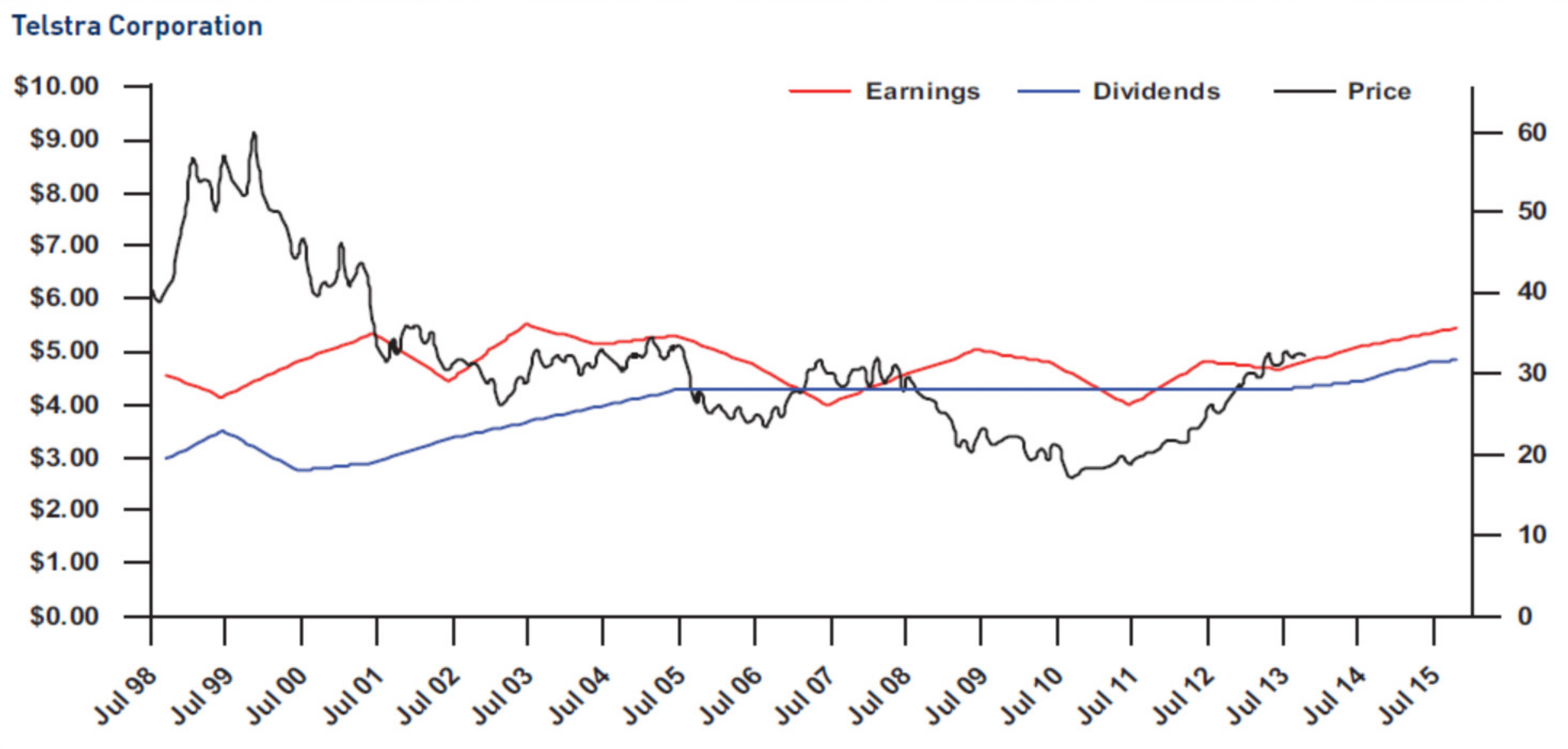
		10%	50%	50%
Year	**Capital**	**Earning**	**Retained**	**Dividend**
1	10,000	1,000	500	500
2	10,500	1,050	525	525
3	11,025	1,103	551	551
4	11,576	1,158	579	579
5	12,155	1,216	608	608
6	12,763	1,276	638	638
7	13,401	1,340	670	670
8	14,071	1,407	704	704
9	14,775	1,477	739	739
10	15,513	1,551	776	776

How much is reinvested in a term deposit?

Warren Buffett Pty Ltd
Earn more – reinvest more

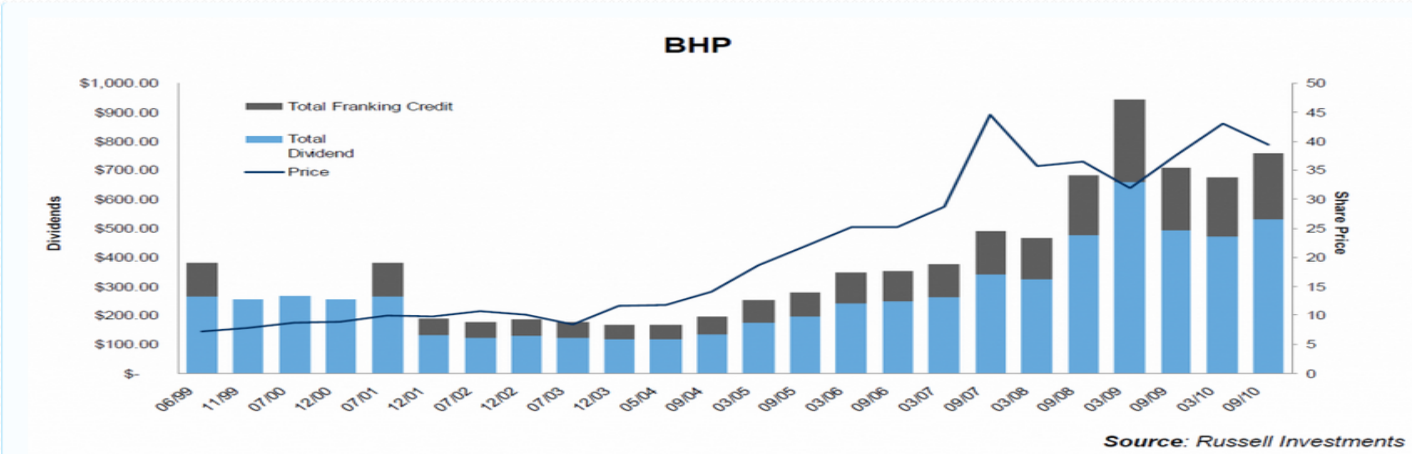
		20%	100%	0%
Year	**Capital**	**Earning**	**Retained**	**Dividend**
1	10,000	2,000	2,000	0
2	12,000	2,400	2,400	0
3	14,400	2,880	2,880	0
4	17,280	3,456	3,456	0
5	20,736	4,147	4,147	0
6	24,883	4,977	4,977	0
7	29,860	5,972	5,972	0
8	35,832	7,166	7,166	0
9	42,998	8,600	8,600	0
10	51,598	10,320	10,320	0

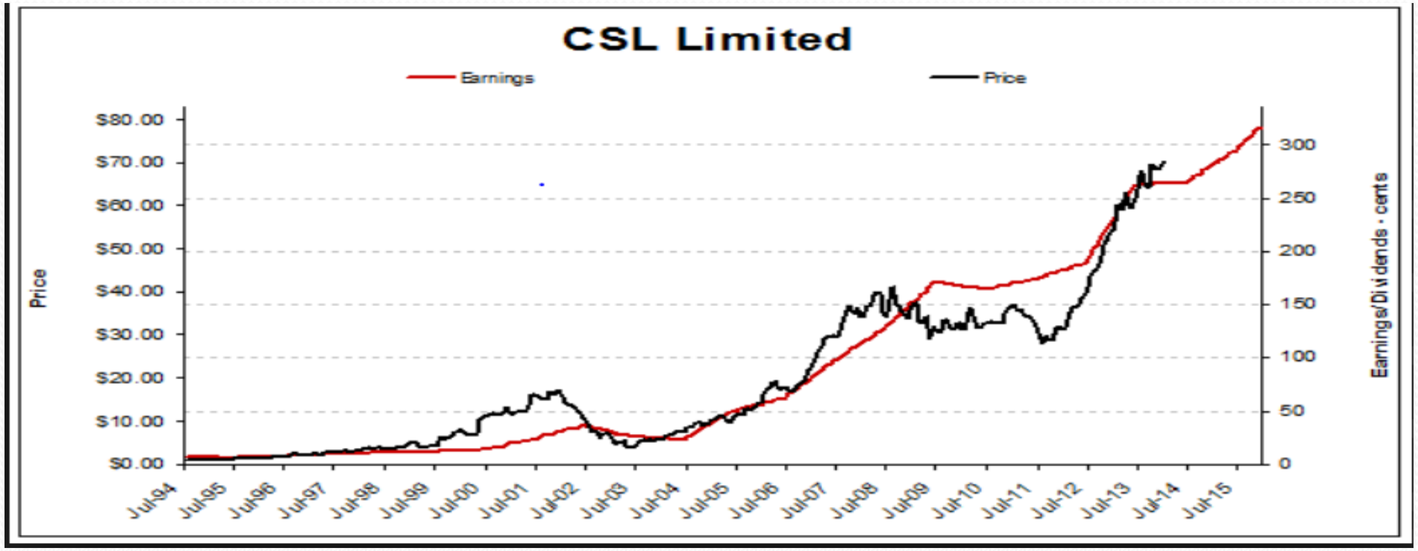
Telstra (TLS)
Flat profits – no growth but high yield



Payout ratio > 95%

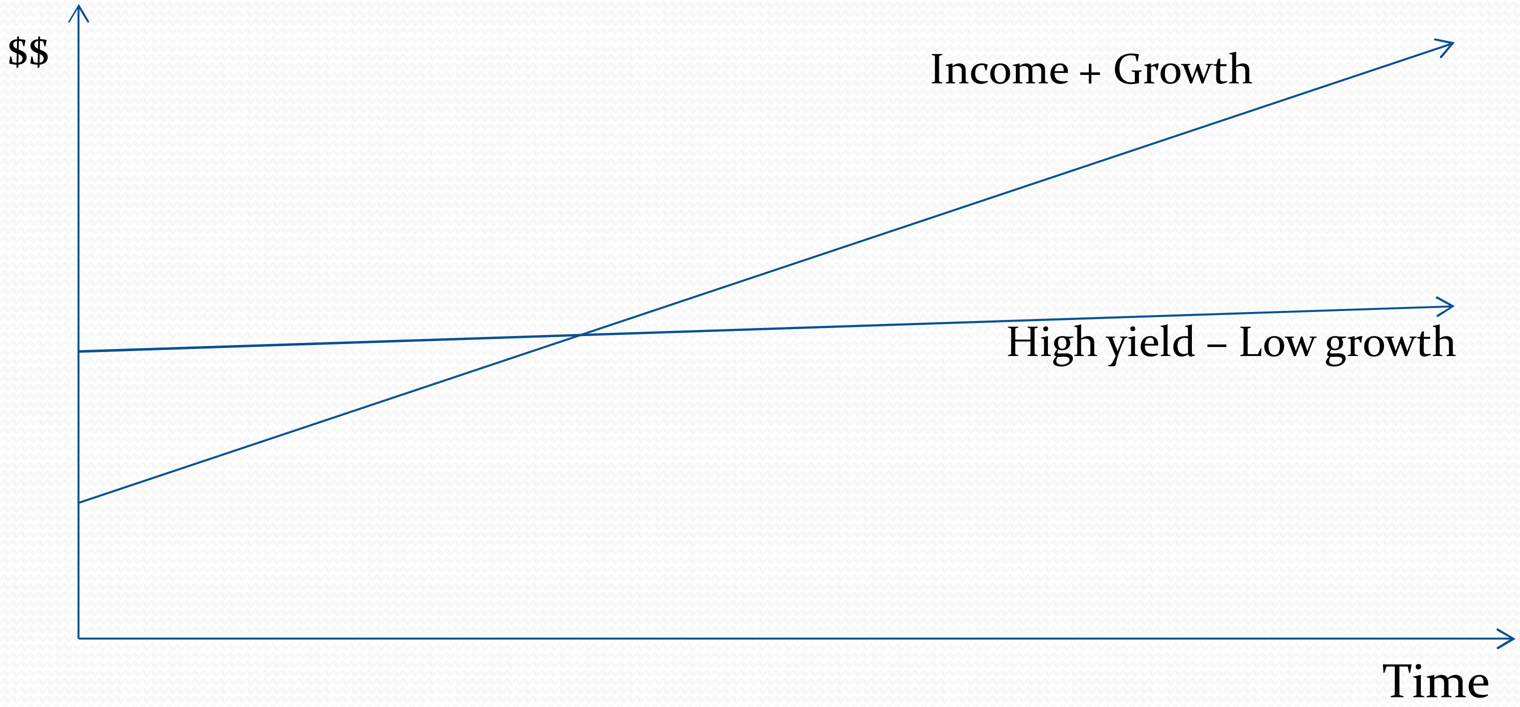
Low yield stocks: A pay rise every year





Which shares?

Income or Growth? Income now or later?

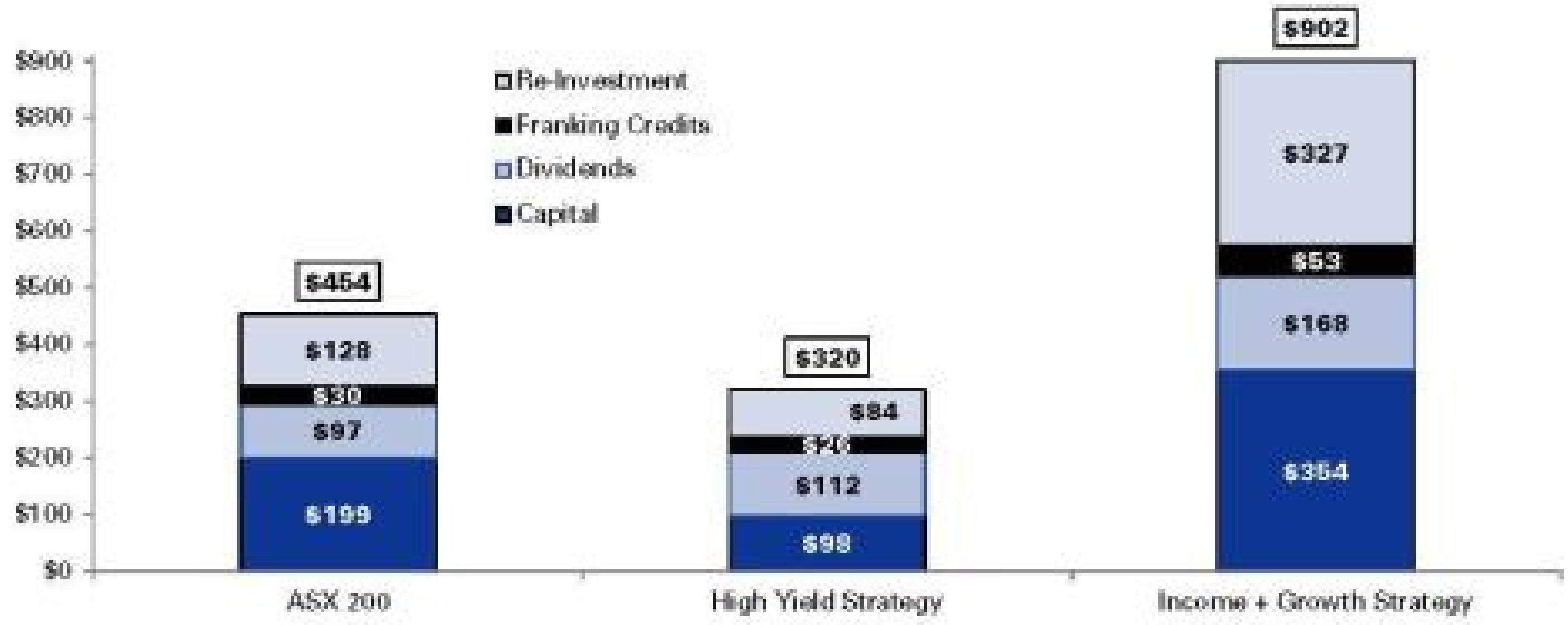


Don't be misled by high yield

Need to look beyond yield

A combination of 'Income + Growth' has outperformed a pure 'High Yield' strategy in terms of both income generation and capital growth.

Decomposition of strategy returns from Jan-2000 to Jun-14 on a $100 initial investment.



Source: FactSet, I/B/E/S, Goldman Sachs Global Investment Research

Australian shares in a SMSF pension fund – generous income

Low Costs - No Tax - Ignore Inflation

Low Costs

- Low transaction costs - no management fees - no repairs - no insurance

Tax - What tax?

1. The FUND
   - income and capital gains - tax exempt
   - refund of imputation credits ????
2. MEMBERS
   - Under age 60 – income with tax concessions
   - Over age 60 - tax-exempt income – not reported as income
   - Over 65 - there may also be a part Centrelink age-pension

Inflation – more than covered by the growth in dividends

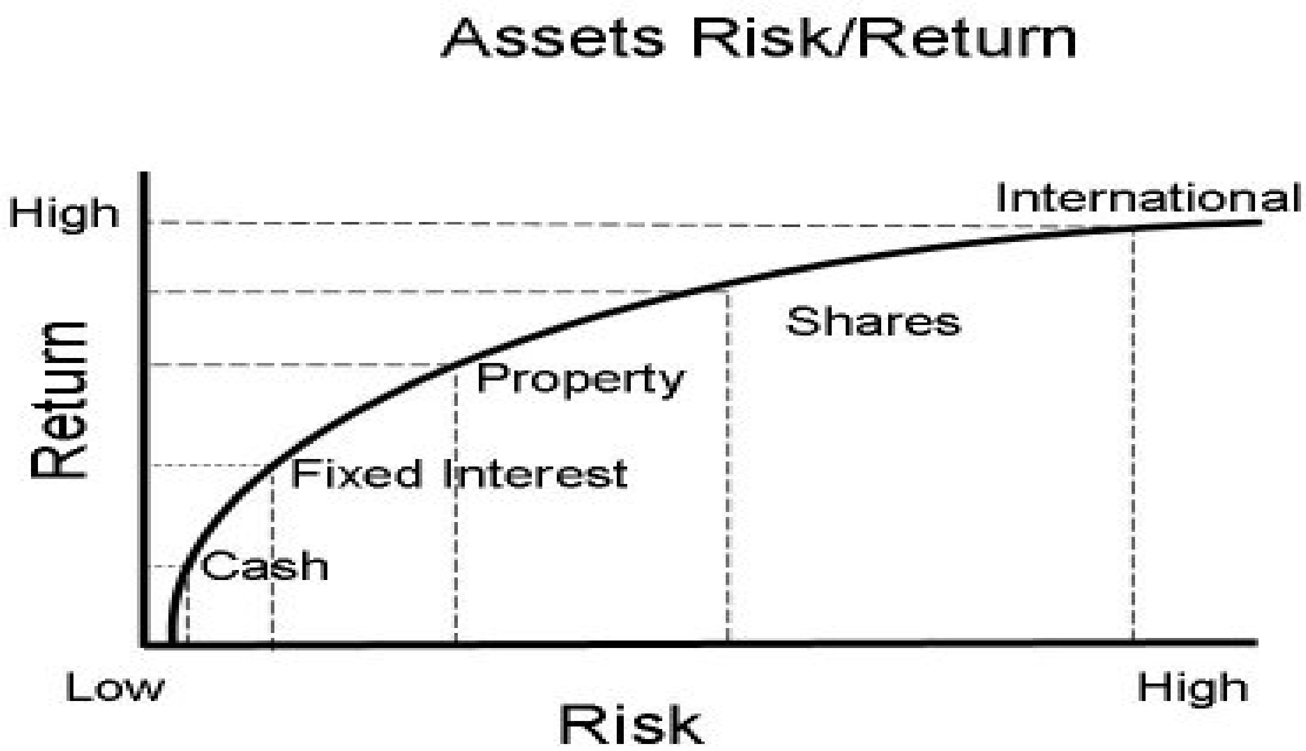
The value of dividends


"yes....BUT!"

Everyone tells you shares are risky!

	Income	Income Growth	Capital Growth	Stability / Volatility	Liquidity
Cash	✓	X	X	✓	✓
Bonds	✓	X	X	✓	✓
Property	✓	✓	✓	?	X
Shares	✓	✓	✓	X	✓

Risk / Return Trade-off



Risk of what?

We hear a lot about prices
Prices are reported daily

SHOPPERS can expect to pay top dollar for ***bananas*** *until late July at the earliest, with prices skyrocketing to $15/kg two months after Cyclone Yasi destroyed much of the nation's crop.* **The Australian 4 April 2011**

Fruit and vegies **prices** reflect supply and demand - not quality

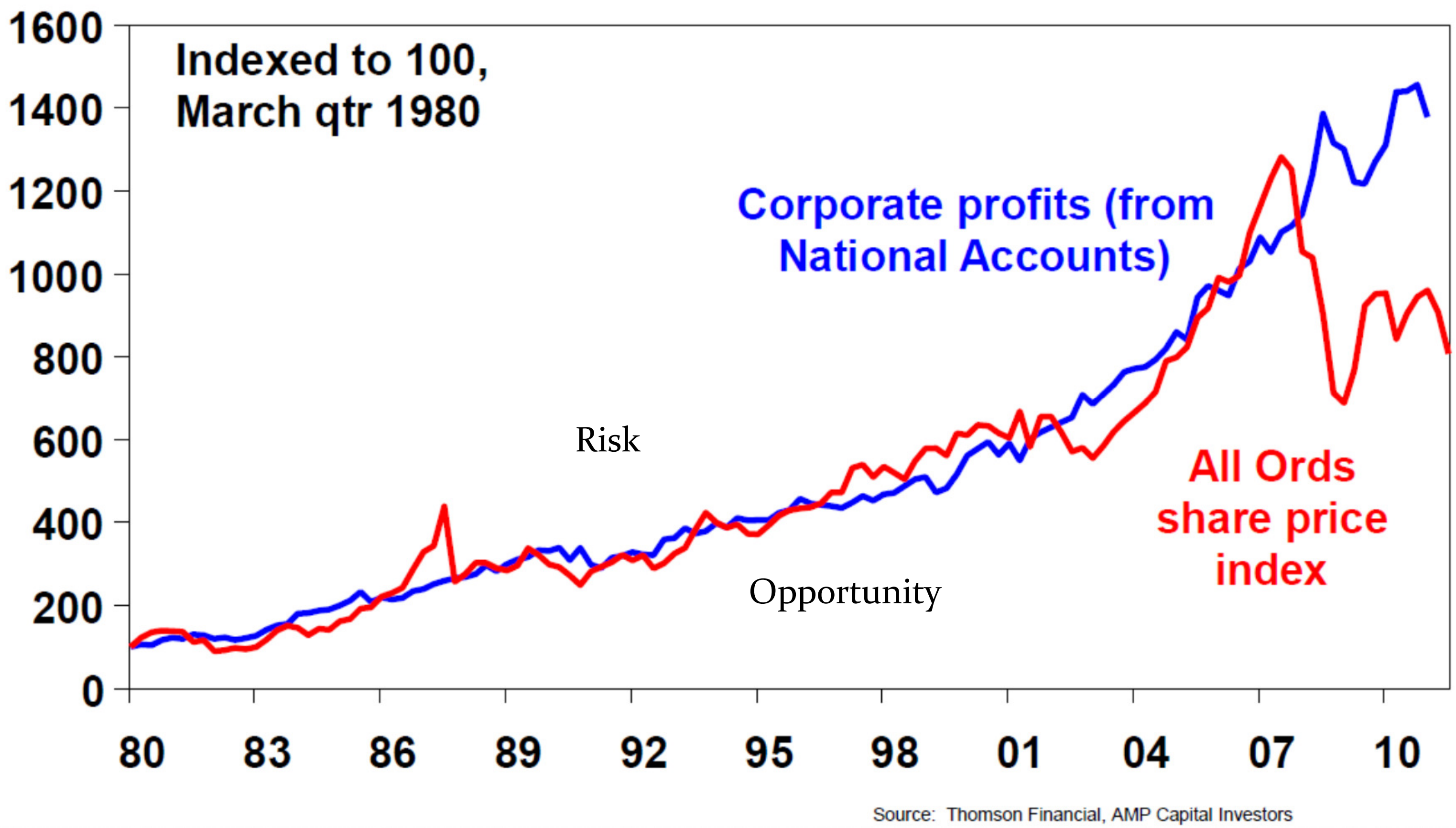
- **The same is true in the sharemarket**

If I focus on share prices I really need to understand the forces of supply and demand
Emotion - Greed, Fear
Sentiment/Mood - optimism, pessimism - Behavioural Finance
Moods make markets and markets make moods
Predicting prices - means predicting how other people will react   Best of luck!

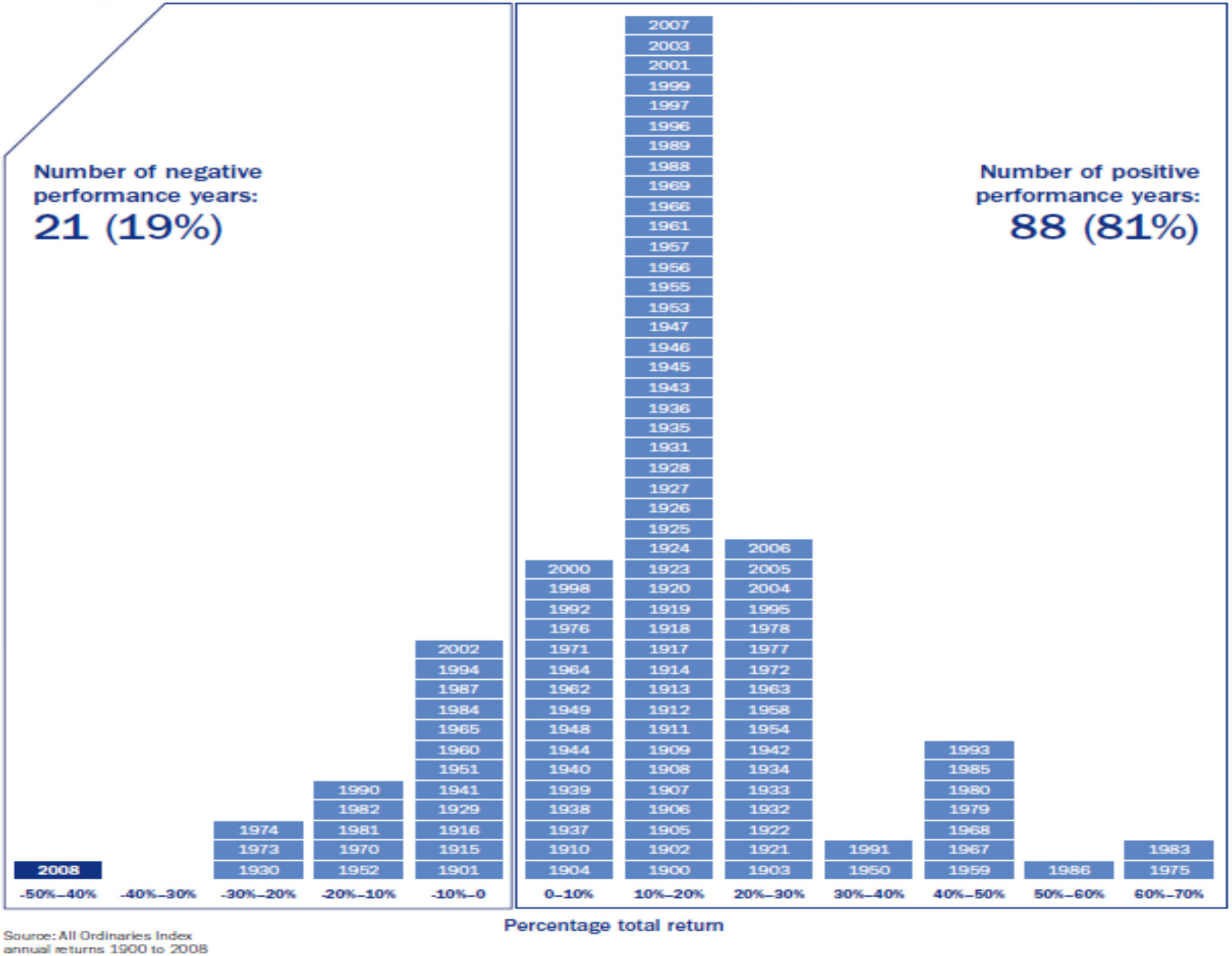
Ne confondez pas le prix avec la valeur de la chose.
Don't confuse the price with the value of a thing

Share prices track company earnings - long-term

But sentiment creates volatility – short term



Prices pre-empt earnings changes



One year in five can be expected to have negative price growth

Professional Investors – Capture price growth

Fund Managers (and their sales people)

Professional investors totally focused on Total Shareholder Return

- **Growth** plus dividends - Huge turnover of assets – short term holding
- Get paid for performance / skill (growth) – waiting for dividends requires no skill!
- Need to manage Market Risk – Price Volatility

Volatility (annualised standard deviation of <u>prices</u> over 24 mths)

- ***Volatility linked to liquidity***

Manage Price Volatility (Market Risk) :

- <u>Diversification</u> - uncorrelated assets
- The aim - maximize growth and minimize risk (volatility)

Asset allocation is critical - determines risk and long term return

- Portfolio of mainly shares (aggressive) – high return – high risk
- Portfolio of mainly cash / bonds (conservative) – low return – low risk
- Balanced fund – some growth / acceptable risk
- My risk profile – as much growth / volatility as I can stomach
- Maximizing growth makes sense in accumulation – bigger nest egg.

The bills do not stop in retirement

Retirees want regular income

Fund managers of pension funds still trading – still focused on price growth

- Managers investment style - maximizing growth - unchanged and unchallenged
- Sell assets for income – at the mercy of market prices – sequencing risk
- <u>If I am at the mercy of market prices – large allocation to shares comes with high risk</u>

Most fund managers are traders – but their clients wear the volatility risk

- Trading shares - volatility is a huge problem – market risk
- "Stop gambling" - "My bills can't wait for the market to recover" - "Buy an annuity"

Manage Volatility Risk

- Diversification – become more conservative/defensive
- Life cycle investing - proportion of defensive assets increases with age - stable capital base

Defensive assets certainly lower volatility - limit the downside BUT also limits upside

- More defensive assets (lower volatility) = lower return = higher longevity risk
- Conservative portfolio = *I am protected against volatility but I may run out of money!*

I am not trying to get rich
I am trying to avoid dying poor!

Risk of Ruin - Longevity Risk - outliving my money

- The only way to avoid running out of money in retirement is to have an investment asset mix that generates **strong and steady cash flows**

Real security in retirement - Income security

- Income security is important to everyone – advisers also need a regular income!
- Businesses / farms worry about the income they generate - not the market price of the business

I am living on investment income - not trading

- Price volatility is a risk of trading
- With income security I am not exposed to market prices
- *Price volatility is not a risk!*

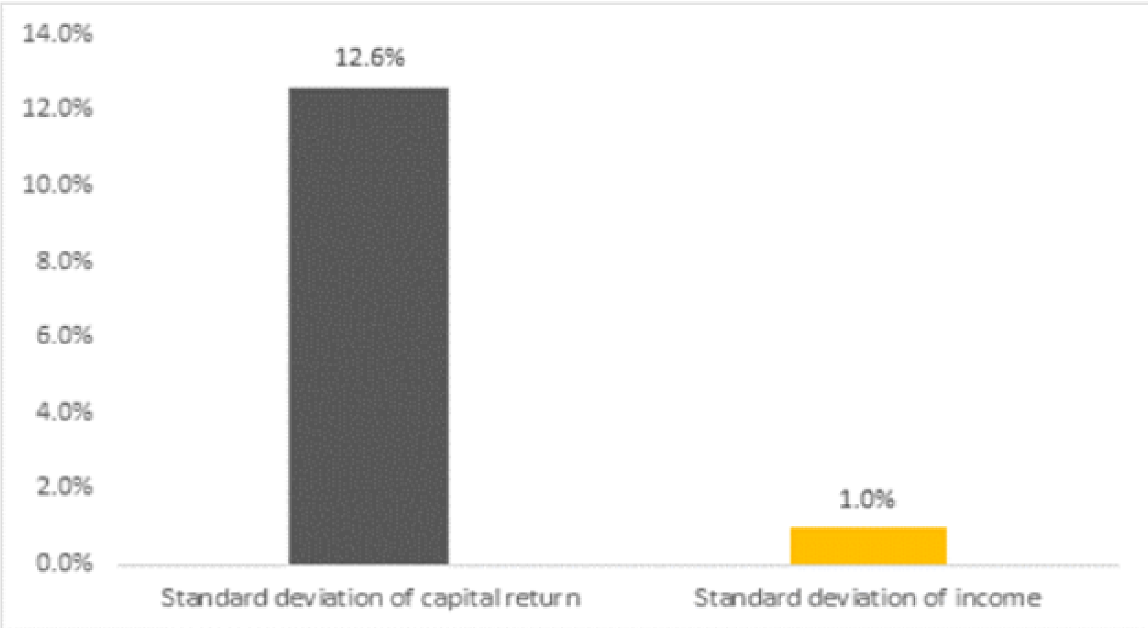
If price volatility is NOT a risk - fundamental questions:

- What is my risk profile? How conservative do I need to be?
- How important is diversification? What should my asset allocation be?

How important is capital stability if I run out of money?

Let's talk about volatility

Chart 1: volatility of returns of capital and income of the ASX 300 over 20 years.



Source: IML, S&P ASX300 31/03/1998 – 31/03/2018

An actuarial view of risk in retirement

Match cash flows to liabilities

David Kerr ACTUARY AUSTRALIA

<u>Strong and steady income</u>

- To minimise risk in retirement we need to maximise the potential level of income by investing in assets that will:
  - have a future income stream denominated in Australian dollars
  - generate an income stream increasing with GDP or CPI
  - have an extremely long term

<u>Understand risk</u>

- If retirement income is based on investment income, rather than asset sales, the level of income volatility is relevant, price volatility is not.
  - Volatility of capital is not a significant risk
  - In income terms, cash is a high-risk asset
  - Equities are a more conservative asset class than fixed interest

- Diversifying assets to reduce volatility (a non-risk element) at the expense of long-term return (a risk element) actually increases risk

- ***Any super trustee that does not provide a low-risk <u>(100%)</u> share investment option is exposing their members to unacceptable risk.***

Our SMSF - Asset Allocation – Risk / Return

We are concerned about income security and longevity risk

Our SMSF holds only shares for income …

- Generous income – harvested (and replenished) every year
- Not selling assets for income - Price volatility is not a risk
- Large allocation to shares – set by size of investment pool - not risk profile
- Capital growth is a bonus – but we don't depend on it

… and a cash reserve for Risk Management

Our risk: income security

- Many months of forward pension payments in a cash reserve
  - Must avoid selling quality assets at low prices
  - Set by income needs – not a percentage of portfolio
- Our risk management strategy was stress-tested in the GFC – it works!

This strategy only works if:

- There is sufficient capital to live off the income
  - So that quality assets do not need to be sold at volatile prices – otherwise too risky
- Stability of income is more important than the stability of market valuations
  - So that constant media focus on price movements can be ignored
- Focus on shares as a source of regular income rather than a bet on prices

We our call our SMSF the orchard

We harvest a growing income

We are growing money trees. Cash-flow is the fruit

- All income is paid into SMSF bank account
  - Dividends paid twice per year
  - Imputation credits refunded annually by ATO
  - (Shares retained to produce more dividends)

- Monthly pensions drawn from SMSF bank account

- Income above the minimum pension is discretionary
  - Extra pension payment, or increase cash buffer, or reinvest

- It does not matter how long we live
  - If we are not eating the capital – who inherits the farm?

NOTE:

- It does not mean I never sell a share.
  - It means I only sell a share at a time of my choosing