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From little things Acorns become Raized

Graham Hand

When a fintech lists on a stock exchange early in its life, it's the first public look under the bonnet. Many fintechs stay in private hands for years until the investment case is compelling, but others list early to generate capital for expansion or deliver rewards to founders and a market for their shares.

Early-stage business owners face a timing dilemma. If they list early, they can cash in on their efforts, selling shares or raising their salaries for working in a listed company. But they forsake the potential for greater gains if the business is more successful at a later listing.

For example, the wealth platform provider, netwealth (ASX:NWL), was a recent highly-successful listing, but it was founded in 1999, spending nearly two decades developing and investing in its technology. In selling only 30% of its shares, prior owners retain upside which the market has already delivered. Another success story is Canva, still privately owned despite a recent off-market capital raising giving it a value over \$1 billion. The owners have not yet been tempted by the big payday.

Let's examine the former Acorns Australia, rebadged as Raiz Invest, that listed on the ASX (under the code RZI) on 21 June 2018 after adopting the US idea and technology for Acorns from the US as recently as 2015. The listing price was \$1.80 and at time of writing, the share price was \$1.00 on low volume despite the initial offer being oversubscribed. It shows that valuing these businesses at startup phase is little more than a coin toss.

This review looks at Raiz in two ways: an investment platform and a company to invest in.

What does Raiz do?

Raiz calls itself a 'micro investing platform' rather than a 'roboadvisor'. The original Acorns had the clever idea of encouraging people to "Invest spare change automatically from everyday purchases into a diversified portfolio." It targeted younger people with a smart app, allowing rounding-up of small purchases such as putting 50 cents into the account each time a \$3.50 coffee is purchased. The small transactions grow into an investment portfolio over time based on dollar cost averaging.

These amounts are called 'Round-Ups' but it also offers 'Recurring' (a regular savings or investment plan) and 'Lump Sum' options. The money is invested into one of six diversified portfolios of Exchange Traded Funds (ETFs) selected by the customer.

Raiz is not a fund manager, as it focusses more on the utility of its app. Its costs are more driven by the five or six direct debits a month on average for each customer with full financial reporting rather than payments to fund managers. This automation of savings in the 'background of life' is its claim to fame.

What is the cost of investing with Raiz?

There are many online investing platforms, but unlike in the US market where fees are as low as 0.15% (plus cheap ETFs), Australian offers generally compete on marketing and convenience features rather than cost. The leading funds from institutional competitors are often cheaper.

Our [study of Spaceship](#) compared it with the HostPlus Balanced Indexed Fund, with the large institution significantly cheaper despite the popular disruption image of fintechs.

How does Raiz stack up on cost?

Type of fee	Cost
Maintenance Fee on less than \$5,000	\$15 a year
Account Fee on \$5,000 or more	0.275%
Underlying Issuer Fee (for ETFs)	0.265% (on Moderately Aggressive Portfolio). Range of 0.224% to 0.423%
Underlying Issuer and Transaction Costs	Estimated at 0.04%*
Additional Costs (Service fees, bank charges, incidentals, etc may be deducted)	May be charged but currently zero

Source: Raiz Product Disclosure Statement, updated 10 April 2018. *Raiz has the right to charge higher transaction costs. Fees are per annum. Raiz applies a buy/sell spread "equal to or less than the smaller of the market bid/offer spread or 0.5%".

The cost of investing with Raiz depends on the client balance and fund selected, and Raiz provided these estimates in its Prospectus (including the cost of the underlying ETFs):

- On \$1,000, in Aggressive Portfolio, **1.827% p.a.**
- On \$50,000 or more, in Aggressive Portfolio, (0.275%+0.287%+0.04%), **0.602% p.a.**

On low balances, the \$1.25 a month fee (\$15 a year) is obviously a large percentage, making up 1.5% on \$1,000. With a minimum investment of only \$5, Raiz is allowing entry at all levels, but no platform is worth using for tiny amounts.

In its Prospectus, Raiz advised that it earns 9% of its revenue from charging the buy/sell spread when there is no need to trade on netted transactions. However, all competitors have varying bid/offer spreads so a fair comparison should exclude these costs.

Comparison with alternatives

1. Online digital investment platforms. There are many roboadvice offers now in Australia, although the 'advice' part is little more than a few questions about age, risk appetite and financial resources. Portfolios are selected based on the responses, but it barely qualifies as financial advice. For example, many younger investors should be paying off credit card debt. It is better described as 'digital investing'.

The cost of roboadvice from Stockspot, Clover, Six Park and Quiet Growth varies depending on balances and portfolio. Spaceship recently launched a cheaper non-super option. Taking a comparison point of \$50,000, and including 0.25% for the cost of ETFs for the four others, the cost would be:

- Raiz Invest (as above): 0.602% pa
- Six Park: 0.75% pa
- Quiet Growth: 0.75% pa + GST
- Stockspot: 0.91% pa
- Clover: 0.85% pa + GST

	Six Park	Quiet Growth	Stockspot	Clover
Minimum Investment	\$10,000	\$2,000	\$2,000	\$2,500
Fees	\$10,000-\$199,999: 0.5% pa	Under \$10,000: Free	\$10,000 or less: First 6 months free, then \$5.50/month	\$2,500-\$10,000: \$5/month
	\$200,000-\$499,999: 0.4% pa	\$10,001-\$30,000: 0.6% pa	\$10,001-\$499,999: 0.66% pa	\$10,001-\$49,999: 0.65% pa
	\$500,000+: 0.3% pa	\$30,001-\$200,000: 0.5% pa	\$500,000-\$2,499,999: 0.528%pa	\$50,000-\$99,999: 0.60% pa
		\$200,001+: 0.4% pa	\$2,500,000+: 0.396% pa	\$100,000-\$499,999: 0.55% pa
				\$500,000+: 0.45% pa

Notes: Fees exclude the cost of the ETFs, usually around 0.25%. Brokerage on ETFs is usually covered by fees but bid/offer spreads are charged. The Clover and Quiet Growth fees exclude GST.

2. Industry funds (only relevant to superannuation). The cheapest with a management fee of **0.02%** pa is the HostPlus Balanced Index Fund, but there are fixed fees of \$78 a year. Many other industry funds have balanced options with active management and full functionality including call centres and general advice for around **0.6%** pa. The additional weekly administration fee of around \$1.50 or annual cost of \$78 is material for small balances.

3. Retail managed funds and platforms. Again, there are significant variations depending on fund and balance, but a favourable factor is the lack of fixed fees. For example, the non-super FirstChoice Wholesale platform from Colonial First State offers balanced funds for as low as **0.65%** pa with no additional administration fee and a minimum investment of \$1,500.

4. Direct investing. The cheapest equity ETF in Australia is the BetaShares Australia 200 ETF with a management cost of **0.07%** pa. For a comparison with diversified portfolios such the Raiz range, Vanguard has a range of ETFs from Conservative to High Growth allocations for **0.27%** pa. As these ETFs are listed on the ASX, investment also requires the payment of brokerage and the bid/offer spread.

The underlying ETFs used by Raiz are listed on the ASX and weighting depends on the type of portfolio. The ASX codes for the ETFs are STW, IAA, IEU, IVV, RARI, ETHI, IAF, RCB and AAA. For example, the Target Asset Allocation for the Aggressive Portfolio is:

ASSET CLASS	ETF	TARGET ASSET ALLOCATION
Australian large cap stocks	SPDR S&P/ASX 200 ETF (STW.AU)	54.00%
Asian large cap stocks	ISHARES ASIA 50 ETF (IAA.AU)	23.50%
European large cap stocks	ISHARES EUROPE ETF (IEU.AU)	7.10%
US large cap stocks	ISHARES CORE S&P 500 ETF (IVV.AU)	5.40%
Australian government bonds	ISHARES CORE COMPOSITE BOND ETF (IAF.AU)	3.00%
Australian corporate bonds	RUSSELL AUSTRALIAN SELECT CORPORATE BOND ETF (RCB.AU)	4.00%
Australian money market	BETASHARES AUSTRALIAN HIGH INTEREST CASH ETF (AAA.AU)	3.00%

Some notable features include having over half the portfolio invested in Australian large caps, in index dominated by banks, BHP, Rio, Telstra and the two big grocers. Surprisingly given the strength of the US market and home domicile of the major tech companies, the US large cap weighting is only 5.4% while Asia is 23.5% and Europe 7.1%, with total offshore allocation of 36%.

In the Conservative Portfolio, 30% goes into Australian government bonds, 23% corporate bonds and 24.5% cash. That's 77.5% into low-yielding fixed interest, which might not be an appropriate portfolio for the young investors targeted by the marketing.

What about Raiz as a business?

Let's switch from Raiz as a 'spare change' investment platform to the Raiz business itself.

Nearly every startup business like Raiz has a common characteristic. It's not possible to value them using a normal discounted cash flow model, because there's no profit. The first requirement is simply to buy into the dream. These businesses invariably lose money in their early stages (or for many years as in the case of Amazon, Tesla and Uber). It's anyone's educated guess how much the business is worth depending on assessment of potential.

Here is some background on the business side:

1. Raiz listed on the ASX on 21 June 2018 based on a Prospectus lodged with ASIC on 9 May 2018. It raised \$15.1 million valuing the company at \$119 million at a listing price of \$1.80. It issued a business update on listing which showed 160,000 active accounts with funds under management of \$200 million. For a young mobile micro investing platform launched in 2016, this is a strong result, the best market penetration in Australia for this segment. There are 66.2 million shares on issue (and 6.4 million share options, mainly held by management), and at the latest price of \$1, the market value is down to 44% since listing.
2. The average customer balance is only \$1,234, a level where the fixed fees translate into high percentage costs (as shown above, 1.827% on \$1,000). In fact, although \$1.25 a month does not sound like much, Raiz makes most of this revenue from this Maintenance Fee.
3. 70% of customers are aged 18-35, the millennial segment, 87% are 18-44 and 63% are male.
4. In FY2017, the Company had 'Receipts from customers' of \$990,000 and 'Payments to suppliers and employees' of over \$3 million. The net loss was \$2.4 million and it expects to make a net loss of about \$2 million in FY2018.
5. The Chief Executive Officer and Managing Director is George Lucas. At the completion of the float, he owned 9.89% of the company or 6.5 million shares valued at \$11.7 million (locked up for two years from listing). He received a one-off cash bonus from the float proceeds of \$1 million (and a further \$1

million was paid to other key employees). Mr Lucas's base salary will be \$500,000 plus 9.5% superannuation with bonus potential up to 100% of base salary. He also holds 1 million options exercisable at \$1.80.

In my opinion, this is not overly excessive for the achievements to date in the wealth management industry. It's not easy to establish a business and burn through millions of dollars a year before leading a float. Many will feel \$1 million plus \$11.7 million of shares is rich for three years of work, but the value of the shares is already down by a paper \$5 million and the share price could be much less (or much more) in two years.

6. The other uses of the \$15 million float proceeds besides the \$2 million for staff were:

- \$4 million for 'regulatory requirements'
- \$5 million for international expansion
- \$2 million for advertising and rebranding (from Acorns)
- \$2 million for working capital and offer costs of \$1.45 million.

Where does revenue come from?

There were four main areas of revenue at the time of the Prospectus:

71% of revenue: the \$1.25 Maintenance Fee, which is highly dependent on number of small, active accounts.

8% of revenue: the 0.275% Account Fee, expected to become first as balances rise.

9% of revenue: netting revenue from the buy/sell spread on ETFs. The spread is collected even when no brokerage is paid because transactions are netted.

12% of revenue: targeted advertising and 'Raiz Rewards' through smartphones or emails.

The advertising revenue and the Raiz Rewards scheme is a major difference to roboadvice offers, as anyone who has registered with Raiz will know. They plan to "leverage our data to improve personalisation and relevance of the adverts or new products". This feature might appeal to the younger audience but many less tolerant baby boomers will want to switch off the product promotions arriving regularly into the inbox.

Robustness and technology

An often-unstated aspect of saving with a startup is that if the venture is not successful, it may be closed with the money returned to clients. While the savings may not be lost (assets are usually held by a custodian), it may trigger a 'tax event' such as a capital gains tax liability at an unwanted time. Two roboadvice businesses which have closed in the last year include OwnersAdvisory and BigFuture, and more will follow.

Raiz has generated sufficient funds and users to give confidence of its sustainability, and without going into detail on the robustness and security of its technology, here is where it is sourced:

"Raiz Invest Australia now holds an exclusive, perpetual and irrevocable right and licence (granted by Acorns US) to use and further develop the Raiz technology platform originally provided by Acorns US. The original software includes the whole software stack from the front end applications that run on smartphones and web browsers to the backend software that runs the registry, administration, operations and funds management features." (from the Raiz Prospectus).

Conclusions on investing in the company and saving on the platform

As an investment valued and underwritten by market experts (the Lead Manager and Underwriter was Bell Potter) only a few weeks ago at \$1.80, it's now 44% cheaper at \$1. It was oversubscribed (a friend asked for \$50,000 and was allocated \$8,000) suggesting the support was more a stag than genuine long-term investing. CEO George Lucas has bought 90,000 shares at prices between \$1.25 and \$1.39 since the listing.

The business has an impressive 160,000 active users and 470,000 signups, and a high profile in the market. It is expanding into superannuation and Asia.

I make no attempt to value a company like this. A move into profit depends on higher balances and fees from investors, and rollout of the advertising model. I am not in the target market and have no interest in investing 50 cents each time I buy a coffee, nor do I want my bank account filled with tiny debits to engage me better. But that's irrelevant for this company. At this stage, it's worth what anyone will pay for it based on an assessment of the potential to increase its four sources of revenue.

What about the platform?

Raiz is a good way to introduce novice investors to regular savings, compounding, market fluctuations and education on investing. It has a user-friendly app with features that show how balances may change based on different market exposures and savings. It's not suitable for a person who starts with \$100 and does not top up, as the \$15 annual fee will erode the balance. It allows smaller balances than most roboadvisors and the \$15 is reasonable provided the full functionality is used. It's a competitive product for someone with say \$5,000 to \$10,000 using the 'round up' feature to build a small portfolio at a cost around 0.6%.

While the asset allocation will not matter much for small portfolios, investors with large balances should be satisfied with the ETFs chosen for equity and bond exposures. The Aggressive Portfolio is heavily weighted to large Australian companies and non-US global, and the Conservative Portfolio will deliver a low yield. The portfolios are not offering an asset allocation I would choose but every investor is different.

The market positioning is as a micro investing platform rather than a place where substantial amounts are invested, although it has launched a superannuation version. Investors can replicate a portfolio for the cost of the ETFs (as low as 0.07% for Australian large-cap equities), with suitable allowance for the brokerage cost. Buying ETFs direct would not be cost efficient for small amounts (minimum market brokerage of \$10 is 1% on \$1,000) but worth considering for trades of say \$10,000 or more. It's likely that many of Raiz's customers are not comfortable transacting with a broker and may not even know what an ETF is. For significantly larger balances, a direct holding of ETFs would be cheaper. However, Raiz is a platform with features like tax reporting which a simple broking account might not provide.

Looking longer term, two thoughts dominate. On the plus side, the innovative idea appeals to a large audience (although not a wealthy one) at a competitive customer cost. While the barriers to entry are low, it is not easy to create the market profile that Acorns and now Raiz has achieved. On the negative side, there are many competitive threats, such as ETF providers starting brokerage-free platforms as they have in the US, making direct access to ETFs a compelling alternative.

Graham Hand is Managing Editor of Cuffelinks and has no business relationship with Raiz and holds no shares in RZI. This article is based on information believed to be accurate but no warranty is provided, and it does not consider the circumstances of any person. If any of my calculations or facts are incorrect, please advise me (grahamhand@cuffelinks.com.au) and I will update the article.

Retail FX: the last bastion of no competition?

Matthew Hayja

With the July school holidays now upon us, many Australians will pack their bags and head overseas to chase the European summer. With this will come the inevitable rush to exchange currency. Unfortunately, Australian consumers often have limited options when it comes to competitive ways to exchange currency. According to Capital Economics, Australians spent over \$1 billion in fees and poor exchange rates on their currency exchanges in 2016.

This is a problem that is only set to increase. Australians travel frequently for leisure and business, with Australians travelling internationally on the increase over the last 10 years. About 10 million Australian residents travel overseas each year, for a holiday (59.3%), to visit friends and relatives (23.8%) or for business (8.6%). Furthermore, Australia ranks 10th highest in the world for transferring money overseas, with over US\$15 billion (A\$17 billion) transferred in 2012.

This problem is magnified for high net worth (HNW) Australians, as this demographic both travels more often and exchanges currencies more frequently. According to data from RFI Research, the majority of HNWs travel overseas at least once a year, with younger HNWs more likely to travel at least once every six months. The biggest pain point identified for moving funds internationally are the high fees.

Convenience allows for high costs

The reason we pay so much in fees is multifaceted. Australians exchange currency at the airport for convenience with some of the worst rates available, or via domestic banks, which choice also unfortunately comes with a range of hidden foreign exchange charges.

Analysis from News Corp and The Currency Shop shows that on \$2,000 travellers can lose as much as \$350 by exchanging cash at the airport. Consumers are being charged more for the convenience of selecting from a large range of currencies at the last minute.

Customer confusion is another leading cause of the fee sting. The 'No Commission' signs at exchange booths attract customers under the guise of competitive costs. Customers should check the wider buy and sell FX rates that usually cancel out any commission fee.

Another common trap is when travelling customers are asked whether they want to pay their bill in their own currency or the currency of the country they are in. Paying in your own currency is known as 'Dynamic Currency Conversion' and is generally not favourable to the client. If you accept this offer, the merchant or the ATM operator will perform the FX transaction at a foreign exchange rate that they determine.

The buy/sell spread on money transfers offered by most domestic banks ranges from 3-5%, which means that customers would typically be charged between \$150 to \$250 on a \$5,000 foreign exchange transaction. These charges have not seen a significant change in the last decade.

Prepaid travel cards are one way to avoid future exchange rate uncertainty. However, they often come with a range of fees, whether that's for loading the card, using it at an ATM, re-loading or closing the account, or being hit with exchange rate conversion fees when you use the card.

Using credit cards may also come with unexpected costs, with the industry average being a 2.5-3% fee on transactions and a \$2.50-\$5.00 ATM withdrawal fee.

The more efficient providers

The disruptors in the industry are the fintech players like Transferwise, Currency Fair and Worldremit. These providers are shaking up the FX money transfer industry by specialising in small payments for individual customers. Their online business models provide low overheads and that benefit is passed on to customers in the form of more competitive exchange rates.

Specialists like OFX and XE can be more competitive with their spreads. Our research found that on a \$5,000 transfer, OFX could save a customer \$182 compared to the most costly of the big four banks, while using XE could save over \$200.

However, many customers prefer the security of a large bank. So, what is the industry doing about it?

Demand will drive product innovation

Locally, the big four banks are looking at adopting [SWIFT global payments innovation](#) (SWIFT gpi), a service which could allow real-time cross-border payments between institutions in Asia Pacific to ensure international transfers could occur in real time, as opposed to days. However, this remains in an exploratory phase.

At Citi, being an international bank, we have a globally mobile client base that travels more frequently than the average customer. Our clients expected us to innovate, and our contribution to industry disruption has been the launch of the Global Currency Account. It allows account holders consolidate their foreign currency holdings in one place, with individual accounts in up to 10 currencies. Citi's FX spreads are lower than the domestic big four banks and are competitive with fintechs. The currencies are linked directly to a debit card, meaning users can

switch between currencies instantly via their mobile app and pay with their card when travelling, with zero ATM fees charged when using local currency.

As our world becomes more global, domestic banks will also increasingly feel the pressure from customers to become more competitive with their foreign exchange options.

Technology is integral to product innovation, and there is an opportunity for fintechs to mould this space and drive bigger players to deliver on competitive rates, transparency and real time instant cross border payments. Multi-currency bank accounts are likely to become the expected way global citizens interact with their money and manage a life without borders.

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Contributing super for your spouse

Graeme Colley and Emma Partenza

Have you considered contributing for a spouse to even up your superannuation balances? There may be benefits for you to even them up to maximise super without running into the \$1.6 million super cap trap introduced on 1 July 2017. Getting even can pay dividends for your super!

An illustration

Consider Sam, 66, who reduced his account-based pension balance to \$1,600,000 on 1 July 2017 and transferred \$450,000 into accumulation phase. His wife Isabella, 62, has \$420,000 in super, which is a lot less than Sam's balance due to her family responsibilities creating interrupted work patterns.

Sam is unable to make non-concessional contributions (NCCs) to super as he exceeds the \$1.6 million total superannuation balance. Besides, the income earned on the amount he transferred to accumulation phase is taxed at 15%, so it may be better for Isabella to top up her super balance to even it up with Sam. There are a number of strategies that could be used.

Sam could make a spouse contribution for Isabella to increase her superannuation balance. If Isabella earned less than \$37,000 (adjusted income), any NCCs made by Sam on her behalf would qualify for a low-income-spouse tax offset of up to \$540 for the first \$3,000 of the NCCs he makes for her.

Eligibility for spouse super contributions

To be eligible to make spouse contributions for Isabella:

- Sam and Isabella must be Australian residents at the time the NCCs are made for the spouse
- The spouse contributions must not be made as part of a family law obligation to split contributions with Isabella
- The contributions must be made to a complying superannuation fund on behalf of Isabella
- Sam and Isabella must not be living separately or apart on a permanent basis when the NCCs are made
- Isabella must be under age 65 (or if she was between age 65 and 69, then she must have met the work test of at least 40 hours in 30 consecutive days)
- Sam should not have claimed a tax deduction for the contributions made for Isabella
- Isabella's income must be less than \$37,000 for Sam to be eligible for the tax offset. The maximum tax offset of \$540 decreases if Isabella's adjusted income is above \$37,000 and phases out to \$0 once her adjusted income reaches \$40,000

- Isabella's total superannuation balance must be below \$1.6 million on 30 June in the year prior to the spouse contribution being made, and
- Isabella must not have not exceeded her NCC cap for the financial year.

Tax offsets

Let's assume Sam and Isabella meet all eligibility requirements to be eligible for the low-income-spouse tax offset and Isabella's adjusted income is \$20,500 for the current financial year. Sam decides to make a \$5,000 contribution on behalf of Isabella in June 2018. He would be entitled to the full tax offset of \$540 in his 2018 income tax return. This is calculated as 18% of the first \$3,000 of the NCC he made for Isabella, as her adjusted income is below the \$37,000 threshold and she meets all the other requirements for Sam to be eligible for the tax offset.

The spouse contribution forms part of Isabella's NCCs and the maximum that Sam could contribute is up to Isabella's NCC cap. As Isabella is under age 65 and has a total super balance of less than \$1.6 million, her NCC cap is \$300,000 under the bring forward provisions. Sam could potentially contribute up to this amount for Isabella, however, would only be entitled to a maximum tax offset of \$540 in doing so.

Benefits of even super balances for a couple

There are many ways someone under age 65 can contribute to superannuation, either directly or indirectly. Isabella's superannuation benefits could be boosted by her making NCCs which could qualify for the co-contribution of up to \$500, Sam could split his concessional contributions with Isabella and she may wish to make concessional contributions in the right conditions.

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Understanding disability insurance in super

Julie Steed

The 2018 Federal Budget announcements regarding default insurance in superannuation have turned many heads in the direction of insurance. Understanding the different types of disability insurance and how they can be held inside and outside of super can assist in managing the cost of insurances and taking advantage of tax concessions.

Definitions of disability in superannuation

Since 1 July 2014, superannuation law requires that insurance issued by a super fund must have disability definitions that are consistent with the superannuation conditions of release. This is to ensure that in the event of a successful claim, the insurance payout can be accessed immediately. Prior to the change, it was possible for the trustee of a fund to receive the insurance proceeds from a successful claim, but not be able to make a payment to the member as they had not met a superannuation condition of release.

Super conditions of release include death, terminal medical conditions, permanent incapacity, and temporary incapacity. Members who were insured under inconsistent definitions before 1 July 2014 are able to retain their policies under grandfathering arrangements.

The most significant impact of the change meant that super funds cannot insure new members for own occupation permanent incapacity or for trauma insurance.

Two different insurance definitions

There are two different insurance definitions for 'any occupation' and 'own occupation':

1. Any occupation

The superannuation condition of release for permanent incapacity definition is important. It requires that the trustee of the fund is reasonably satisfied that the member's ill health makes it unlikely that the member will engage in gainful employment for which the member is reasonably qualified by education, training, or experience. This is commonly referred to as the 'any occupation' definition.

2. Own occupation

The commonly used 'own occupation' insurance definition requires that the member's ill health makes it unlikely that the member will engage in gainful employment in their usual occupation.

The own occupation insurance cover is more likely to result in a successful claim and many individuals will be keen to ensure that they are covered by the more flexible definition. However, the insurance will need to be held outside of super.

Policy linking in and out of super

Many super funds and insurers offer 'policy linking' whereby the any occupation insurance is held inside of super where the insurance premiums may be paid from the super balance and are tax deductible to the fund. The own occupation insurance is held outside of super where the premiums are not tax deductible.

Any claim is firstly assessed using the any occupation definition. If the any occupation definition is met, the permanent incapacity benefit is paid to the super fund and can then be released to the member. If the any occupation definition is not met, the claim will be assessed against the own occupation definition and if successful the insurance held outside of super will be paid to the individual.

The policy linking can avoid a duplication of insurance and generally offers a cheaper premium than would be available by holding only an own occupation insurance outside of super.

Taxation of permanent disability benefits

Tax concessions may apply where a super fund member meets the definition of a disability superannuation benefit and the benefit is paid as a lump sum or rolled over.

An additional tax-free amount is payable if the benefit is paid to a member due to their ill-health (whether physical or mental). Two legally-qualified medical practitioners must certify that because of ill health, it is unlikely that the member can be gainfully employed in a capacity for which they are reasonably qualified by education, training or experience.

Although this is similar to the condition of release definition, it has the requirement of the certification, without which the benefit may be paid from the fund but not with the tax concession.

Where a permanent disability benefit includes life insurance proceeds, the insurance proceeds will form part of the taxable component.

Lump sum tax-free uplift

Permanent disability benefits are eligible for an additional tax-free amount. The tax-free component is the sum of:

1. the ordinary tax-free component
2. the tax-free uplift amount calculated as:

Benefit amount X days to retirement / (service days + days to retirement)

Where the:

- benefit amount is the total amount of benefit to be paid
- days to retirement is the number of days from the day the member stopped being capable of being gainfully employed to their normal retirement date (generally age 65)
- service days is the number of days in the benefit service period (usually from date joined fund to date of benefit payment)

The lump sum tax treatment is shown in the table below:

Component	Age	Tax rate
Tax-free	All ages	Nil
Taxable component	Under preservation age	22%
	Preservation age to age 59	First \$205,000* - Nil, balance – 17%
	Age 60 and over	Nil

* As at 1 July 2018 and indexed annually

Case study

Jake ceased work on his 50th birthday as a result of permanent incapacity. His accumulated super balance was \$200,000 (all taxable component) and he received \$500,000 of insurance. He joined his fund on his 30th birthday.

If Jake withdraws all of his benefit, he receives a tax-free uplift of \$300,000 ($\$700,000 \times 15 \text{ years} / (20 \text{ years} + 15 \text{ years}) = \$300,000$).

Pension payments

A disability pension paid from super does not receive an additional tax-free amount. The tax-free and taxable percentages of a pension are determined at commencement and are based on the proportion of the tax-free and taxable components of the accumulation benefit used to commence the pension. Any insurance proceeds forms part of the taxable component.

For members under age 60 the taxable component of the pension payment received is included in their assessable income and taxed at marginal tax rates. However, a 15% tax offset applies to the taxable component of each pension payment. For members age 60 and over the pension payments are tax-free.

Julie Steed is Senior Technical Services Manager at [Australian Executor Trustees](#). This article is in the nature of general information and does not consider the circumstances of any individual.

Balancing longevity and sequencing risk

Adam Curtis

For many Australians, the primary goal of investing is to accumulate sufficient assets to fund a comfortable retirement. Whether it's joining the grey nomads travelling the Australian countryside, seeing more of the world

or spending quality time with the grandkids, everyone has plans for their retirement. The investment focus and risk appetite changes the closer the investor is to retirement.

For the early accumulators in the early stages of the superannuation savings journey, maximising returns should be the focus. Their savings pool is relatively small and the investor usually has time to ride out market volatility.

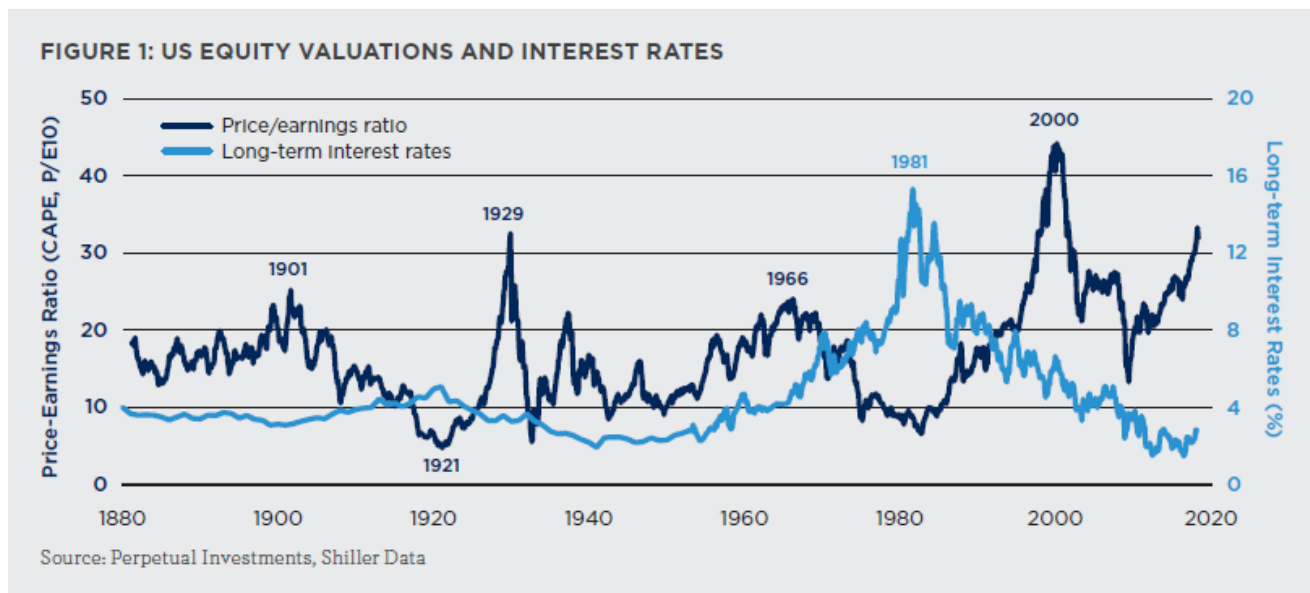
For investors either approaching or already in retirement, the focus generally shifts from maximising returns to minimising risk. However, the actions taken at this time are critically important with investors faced with significant longevity risk and sequencing risk.

What is longevity risk?

As life expectancy increases, the savings required to fund the average retirement likewise increases. Longevity risk broadly refers to the risk of an investor outliving their retirement savings. Retirees may be at risk of outliving their savings if they invest too conservatively, while on the other hand, a sharp downturn in markets could have a significant negative impact on their capital.

Figure 1 below highlights both long-term bond yields and equity valuations. Investors face difficult asset allocation decisions when balancing the need to minimise risk while ensuring their capital will last their lifetime.

Despite an uncertain investment outlook, retirees should maintain some exposure to growth assets to ensure their capital will last the distance. The temptation may be to flock to the relative 'safety' of cash. According to APRA, Australian investors have \$89 billion in cash deposits, despite historically low interest rates. By the time the return is adjusted for inflation, a cash investment is unlikely to protect retirees against longevity risk.



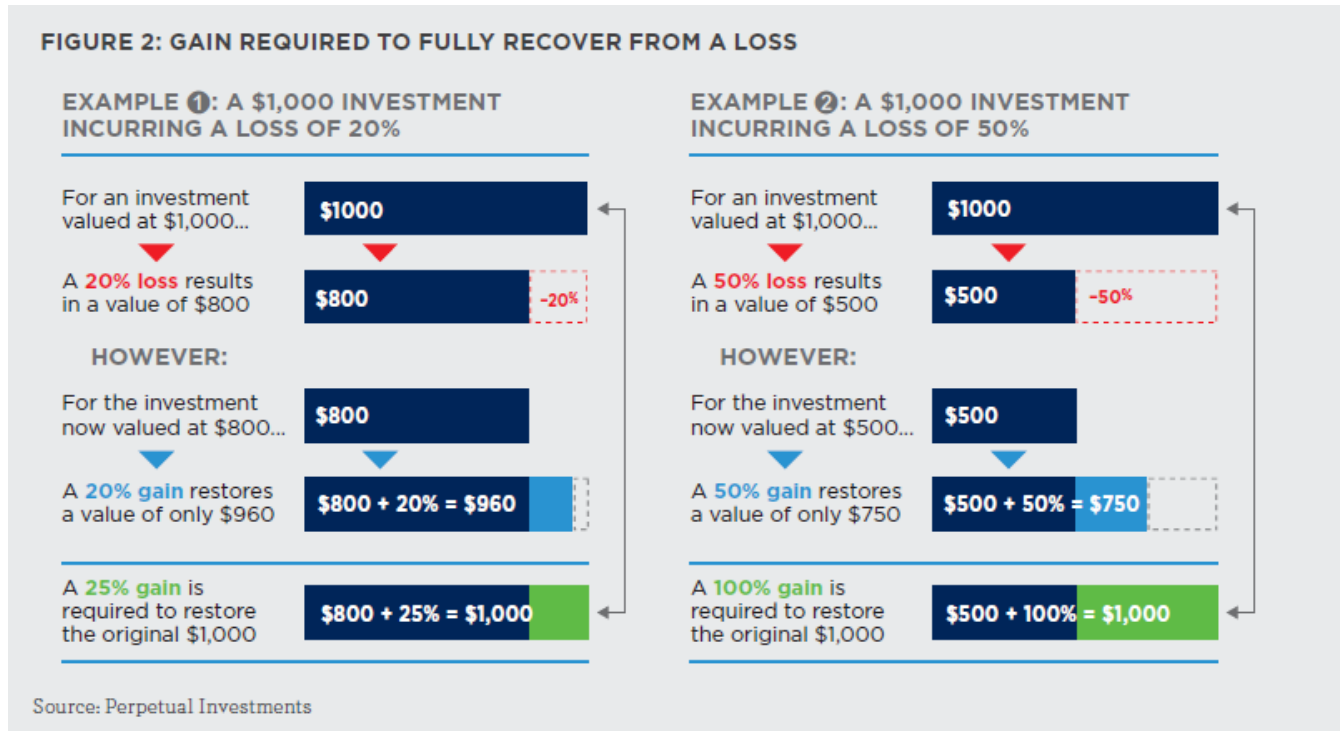
What is sequencing risk?

Towards the end of the accumulation phase and in early retirement, an investor's savings pool is generally at its largest, and is more exposed to market movements given the volume of capital at risk. Sequencing risk is the risk that the order and timing of investments and returns is unfavourable.

Sequencing risk is most significant during the last 10 years of an investor's accumulation phase and the first 10 years in retirement. The sequence of returns during this period has a significant impact on the sustainability of the retirement income. A fall in market value of investments would leave the investor much less time for capital valuations to recover and increase the probability of a shortfall of funds in the late stage of retirement.

Figure 2 below shows that the larger the potential loss suffered, the more significant the gain required to recover the capital. A valuation fall of 20%, for example, requires a 25% return to get even, and a fall of 50%

necessitates a 100% appreciation. A retiree drawing down on a diminishing capital base will only exacerbate the issue.



It can be incredibly disheartening when poor investment performance occurs close to retirement, or soon after, just when the investor's nest egg is at its largest. It might force the investor to make some less-than-ideal decisions.

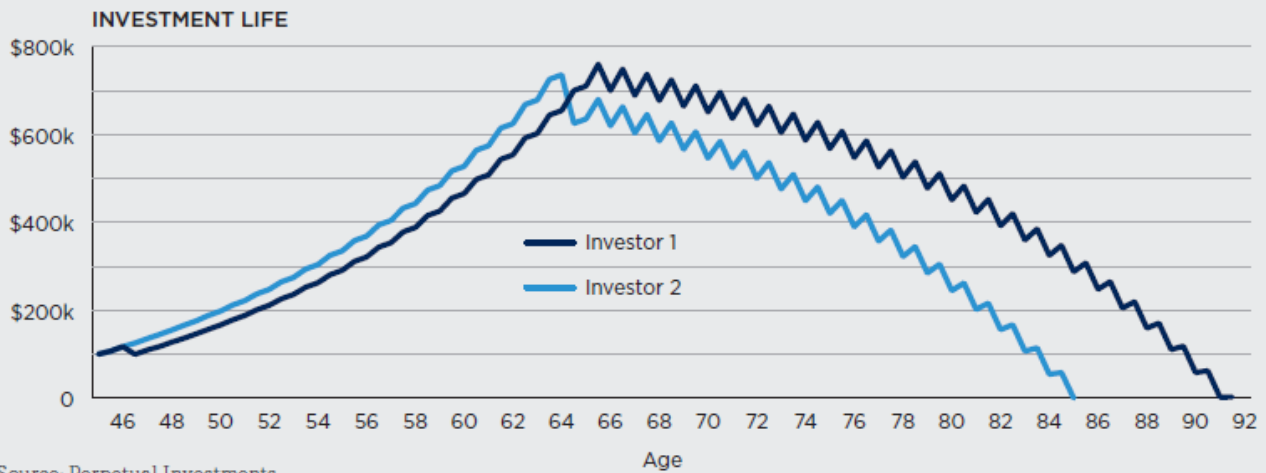
They may have to postpone retirement and work longer than anticipated, or re-join the workforce. Alternatively, the investor may have to reduce expenditure and make different lifestyle choices, forgoing travel or other post-retirement plans. In an attempt to rebuild the retirement nest egg, the investor may increase exposure to growth assets and potentially increase the investment risk of their remaining savings in an attempt to recoup losses.

An example of sequencing risk

A simplified example of sequencing risk is illustrated by two investors in Figure 3 below, which charts the following scenarios which are similar in most respects:

- Each investor started with \$100,000 savings at age 45 and then contributed an additional \$10,000 per year.
- The average return for both investors is 7% per annum.
- Investor 1 incurs a loss of 15% at the age of 46.
- Investor 2 incurs a loss of 15% at the age of 64.
- Both retire at age 65 and draw a pension of \$60,000 per annum.

FIGURE 3: THE PERFORMANCE SCENARIOS OF INVESTOR 1 VERSUS INVESTOR 2



Investor 2 exhausts their retirement savings six years earlier than Investor 1 due to the impact of sequencing risk when a negative return is experienced closer to retirement when the savings balance is high. The impact of a negative return experienced close to the commencement of the accumulation phase, when the amount of investment savings is lower, is much less profound.

Traditionally, as investors move towards retirement, exposure to defensive assets increases to reduce exposure to market risk and therefore sequencing risk. However, with low cash rates and bond yields, a lack of investment risk in portfolios introduces the certainty of low returns, which are likely to be insufficient to meet the needs of an ageing, longer-living population. In other words, lowering investment risk contributes to longevity risk.

The role of real return funds

Minimising exposure to volatility is the key to mitigating the effects of sequencing risk, as the magnitude of negative returns will be reduced, although it is not possible to completely avoid adverse market environments.

As an alternative to the traditional move to defensive assets, objective-based or ‘real return’ investing seeks to balance strong investment returns with an element of capital preservation.

Real return funds apply protection strategies and sources of portfolio diversification designed to provide investors with a higher certainty of achieving a particular return objective with a lower level of risk. Portfolios can be built to meet an investor’s risk profile, desired return and investment horizon. Through specialised asset management, dynamic asset allocation or by investing in a broader investment universe, real return funds often have greater flexibility to adjust the portfolio’s asset allocation in response to market conditions.

Investors should be able to choose the timing and style of their retirement. Rather than putting their assets and retirement at risk, real return funds should be considered by investors seeking a comfortable retirement, irrespective of their longevity.

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Why we will live for at least 1,000 years

Ori Eyal

My thesis is that medical technology will not just cure the various illnesses of aging, but it will stop and then reverse aging itself. While our technological progress will be punctuated and irregular, each advance will incrementally extend our human lifespan. For most of us, these advances should be sufficient, each time, to increase lifespan long enough to allow time for the next advance, such that our healthy lifespan should be, effectively, infinite (but let's call it 1,000 years).

While this may be a startling claim, I hope to show that it is not at all unreasonable and ultimately inevitable.

We start with the claim that the human body is just a machine. Indeed, an extraordinarily complex one, but at the end of the day, a machine that is subject to the same universal laws of physics, mechanics, chemistry and biochemistry. In other words, there is nothing mystical or magical about how the human body works.

Given sufficient technology, knowledge, time and resources, there is nothing, in principle, that will prevent us from maintaining the human body in the same way that we can maintain other machines. And in the same way that any other machine, given the right care and replacement parts, can be maintained forever, so can our human bodies.

When viewed in this way, we can understand medicine as simply a form of highly complex engineering applied to the human body. Once we have mastered the relevant technologies and techniques, the challenges will not be insurmountable.

Indeed, medicine is rapidly transforming into information science. This is a process which started with gene sequencing and has moved on to new technologies like iPS cells and CRISPR – where we are increasingly mastering our ability to synthesize the tools and materials we need. Moreover, as more and more of medicine becomes information science, it will benefit from exponential, rather than linear, progress.

Understanding aging

The best way to understand aging is to consider it a gradual accumulation of different types of damage in the body.

In order to understand the concept of accumulated damage, let us use the analogy of a laptop computer. When it is new, the hard drive is mostly empty, it has few programs installed and runs rapidly and faultlessly. But over time, the hard drive gets filled up and fragmented, more and more software gets activated on startup, malware and spyware creep in, the registry gets cluttered, etc. Moreover, dust enters the casing, the cooling fan slows down and the springs in the keyboard get worn out.

These are all forms of 'accumulated damage' which result in the laptop becoming slow and faulty. After accumulating all this damage, we can say that the laptop has 'aged'. Many aspects of the laptops functionality degrade until it succumbs to old age (too much accumulated damage) and dies.

When it comes to a laptop, we understand how to rejuvenate it: we can de-fragment, or reformat the hard-drive, or even replace it. We can add and replace memory and faulty keys – or even the whole keyboard. We can reinstall the operating system from scratch and remove unneeded software. We can use an anti-virus program to remove malware. And we can even replace and upgrade the CPU and/or the motherboard. In doing so, we can stop and even reverse the aging of the laptop, and can, in principle, keep it running forever.

Similarly, the illnesses of aging are either caused by, or are a direct manifestation of damage accumulated in the human body. For example: Heart disease is mostly caused by the accumulation of plaque in the arteries. If we were able to remove that plaque, we would largely remove heart disease. Similarly, Alzheimers is believed to be mostly the result of accumulated junk in and between brain cells as well as the loss of neurons. All of these forms of accumulated damage are, in principle, reversible.

Aubrey de Grey and others have already identified the seven types of accumulated damage in the human body that we call 'aging'. He has also identified plausible methods by which medical science, or medical engineering

will be able to stop and reverse all of these seven types of accumulated damage. Researchers are already working on methods and cures to stop and reverse all these.

Strategies to combat aging

Once we understand that aging is essentially the accumulation of damage at the organ, cellular and molecular level within our bodies, four interconnected strategies become apparent to combat aging:

1. Slowing down the accumulation of damage in the body
2. Reducing, delaying or bypassing the effects of accumulated damage in the body
3. Repairing the accumulated damage in the body
4. Replacing body parts that have accumulated too much damage

All four strategies are already being pursued in parallel. Because they are interconnected, it is likely that success and progress on any of the four strategies will help inform and promote progress on the other three strategies. From my reading and analysis, I believe that only strategy 3 will lead to an indefinitely long healthy lifespan.

Objections to this thesis

1. New medical developments will be available only for the super-rich.

Like all new technologies, new medical solutions will rapidly filter down from the rich to the middle class to the poor as economies of scale reduce costs.

2. Progress may take much longer than we expect.

Initially, progress may well be slower than we expect and our lives might end before sufficient progress is achieved, but the predictions above have significant margin of safety.

- Medicine is becoming an information/engineering science subject to exponential progress.
- We are making progress on other technologies which will also help, including nanotechnology, artificial intelligence, artificial organs and others.
- Incremental progress will increase lifespan, buying more time for more progress.

3. Extending life span beyond 120 and reversing aging may be an 'all or nothing' endeavour.

Making partial progress may be of limited value since it just means something else will kill us soon after. For example, it has been argued that curing cancer would only add about three years to the average human lifespan as those that would have died from cancer end up dying from some other age related illness soon after.

- We are already working on methods to stop and reverse all seven types of accumulated damage and curing all age-related diseases.
- At age 120, most humans would suffer from terminal cancer, terminal Alzheimer's, terminal diabetes, terminal heart disease, etc. all at the same time. Therefore, breaking beyond the 120 age limit may indeed be all-or-nothing. However, extending healthy lifespan up to 120 is probably not all-or-nothing with partial progress having meaningful life extending impact.
- Age 120 is still a long time away, thus there should be sufficient time to make progress on all Partial and even limited progress on all fronts will buy us more time to make further progress.

4. Radically extending lifespan will cause severe problems.

Such problems may include overpopulation, social unrest, mass unemployment, pollution and water shortage.

- As life expectancy increases, birth rates will rapidly decline.
- We are well on the way to solving energy, water, pollution, food and other problems via advanced technology. Once these issues are solved, overpopulation will no longer be a problem.

Conclusion

Over the next few decades, medical science (increasingly called medical engineering) will provide ways to both stop and reverse the accumulation of damage in the human body that we call aging. As a result, life expectancies will increase rapidly until reaching the tipping point where life expectancy increases by more than one year every year at which point death due to aging becomes improbable.

If we exclude horrific dystopian futures such as a global nuclear war, or similar overwhelming disasters, I see no credible future scenario where an essentially infinite healthy lifespan for humans does not happen. The only significant uncertainty from my perspective is timing.

Ori Eyal is the Founder and Managing Partner of [Emerging Value Capital Management](#). Given the nature of these conclusions, Ori has provided a full reference list for further discovery on our website.

How property spruikers target SMSFs

Graham Hand

Most of this article was originally published in 2013, but it is reprised here due to ASIC's [Media Release of 28 June 2018](#) advising of the inadequacy of much SMSF advice. ASIC targeted using SMSFs for property investing, after its staff had gone 'underground' at seminars. This article focusses on the experience at such a spruiking session. ASIC said in its release:

"ASIC also found some people had moved to SMSFs as a way to get into the property market, and were using it solely for this purpose without a wider investment strategy.

The interviews also identified a growing use of 'one-stop-shops' where the adviser has a relationship with a developer or a real estate agent whose products the person is encouraged to invest in. This put people at increased risk of getting poor advice that did not take account of their personal circumstances or is not given in their best interests."

Attending an SMSF property seminar

There are many property companies and real estate agents running seminars targeting SMSFs. The property agents issue emails to people who have visited one of their displays or responded to an advertisement. To quote from an email from one of the largest real estate companies in Australia:

"Worried you won't have enough when you retire? Find out how you can utilise your existing superannuation to buy your next investment property. The presentation will provide insight into SMSFs and how they can help you create a brighter future for you and your family. According to the ATO's most recent SMSF bulletin, 3,000 SMSFs are being established every month, that's 100 daily and around 4 every hour!"

The seminar is held in the offices of the real estate company, and each session is packed. On the night I attend, extra lounge chairs are brought into the room, and it is standing room only at the back (near the bar). The clients are of all ages, including some surprisingly young couples. The real estate agent welcomes the crowd, says he will talk about some specific properties later, and then introduces the main speaker. We are told it's an amazing presentation that will blow us all away.

The main speaker is from an SMSF administrator. He's got quite a patter. First he tells us, "Those in the front row may need an umbrella. I tend to spit a lot". I look at the real estate man to see if he is cringing in embarrassment, but he thinks it's very funny. Then we're told some surprising statistics. We don't need much super to buy a \$1 million property. 72% of SMSFs plan to buy property at some stage, and 92% of them plan to borrow. 86% of people prefer property to equities. In the near future, \$500 billion will move into property from SMSFs, and one-third of all property will be bought by an SMSF. He tells us he has a telescope that can see into 2020, when we will be printing human organs to put into the body. And this telescope tells him there

will be \$3 trillion in super and the market capitalisation of the ASX will be only \$2 trillion. The balance must find a home. In fact, the government introduced borrowing in super to encourage purchases of property. So this is going to be an LRBA night. That's Limited Resource Borrowing Arrangement, because that's how SMSFs buy property.

We are told there is a financial planner at the back of the room who any of us can talk to later.

The presentation makes the following points:

1. Using property, you can take control, diversify and stop managed funds and market fluctuations affecting your families (sic) financial future.

In fact, it couldn't be less diversified. Residential property is one single, illiquid investment. How is it diversified? Because the rent covers the interest expense on the loan, leaving money for other assets. Oh, that's fine then.

2. There's an ability to use leverage in super that cannot be accessed through 'normal' superannuation.

What is this, 'abnormal superannuation'? It is possible to leverage into other assets in super, although maybe not to the extent possible in property.

3. Use your limited super as a deposit.

The transaction example uses \$140,000 of superannuation ("maybe take it out of an industry fund") to buy a property for \$500,000. Then when you sell it for \$1 million ten years later when you are 'only' 55, you will be in pension phase where there is no capital gains tax. No mention that it might not suit you to enter a 'transition to retirement' pension for other reasons, or that for many in the room, the pension age is 60 and not 55.

It gets even better. If you don't have enough money in super but you have equity in your house, you can borrow against your house and lend the money to your SMSF under an LRBA.

4. You can reduce the purchase price of the investment property by 40% using concessional tax superannuation compared to after-tax salary for loan repayment.

The 'reduced purchase price' comes from the tax-effectiveness of superannuation, not property. Every investment is 40% lower on this basis, plus the fact that there is a \$25,000 a year limit on concession contributions. That's not much for a property deposit.

5. If you don't have enough money for a deposit, four people can pool their money to fast track to wealth, allowing increased exposure to property assets.

So now someone with a really small amount in super, plus three of their friends, can leverage into property.

And on it goes. The numbers are wonderful. The money that buys the property does not incur any income tax, and there's no capital gain on sale. Only an SMSF allows you to avoid tax like this, it is 'below the tax line'. You would be ridiculous to buy property outside an SMSF, because for your \$140,000 deposit, you need to earn \$261,682. It's so much cheaper in the SMSF. You save \$514,429 over the life of the property investment.

The structure can be put together for a fee of \$7,995 for the complete package of legal work setting up the SMSF, establishing the trust deed plus independent legal financial (sic) advice. When you check their website, where they promote their services to real estate agents, you see the 'wholesale price' is \$5,000. The rest is the agent's commission. In fact, allowing for referral fees and insurance premiums, an agent can earn \$5,700 on an average SMSF package attached to a property.

It's been quite a spiel, and the property agent is welcomed back to the microphone to offer a "grab bag of gold nuggets". These are various property developments around Sydney. And at the end, the financial adviser offers his services to anyone who wants to talk about SMSF strategies.

What does the licencing process seek to achieve?

Is that what the licencing process intends, that as long as there is a licenced adviser in the room, everything is fine? To quote again from Peter Kell: "*a person requires an AFS licence if they recommend that an existing or proposed member of an SMSF purchase a property through their SMSF.*" At what stage is the licence required and when does the financial advice begin?

It's an irresistible combination for a marketing person based on four massive numbers: \$4 trillion in residential housing, \$1.5 trillion in superannuation, \$500 billion in SMSFs and one million trustees, many of whom are far more comfortable with bricks and mortar than they are with shares and bonds. Throw in an ability to borrow in the SMSF and an industry that has never taken a backward step in seizing an opportunity, and residential property in self-managed super has become part of every real estate agent's kit bag.

When borrowing was allowed by SMSFs in 2007, did the regulators expect an industry to develop that encouraged leverage of four times the value of a superannuation balance? Superannuation has tax advantages to encourage people to save for the years when they cannot earn an income. Let's hope Australia does not have a property price fall anywhere near the size of countries like the United States and Ireland, or a lot of retail superannuation money will be lost.

At least most SMSF trust deeds have provisions to cover member insanity.

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