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Editorial

We all look to the leading intellects of investment management for lessons, including the legendary names such as **Warren Buffett, Peter Lynch, Benjamin Graham, Jack Bogle, Terry Smith, Abby Cohen, Joel Greenblatt, Howard Marks** and **Charlie Munger.** While they are consistent in many messages - the merit of investing for the long term and ignoring short-term noise is common - there are also significant differences. Who should we believe?

There is an excellent new interview with Oaktree's Howard Marks which challenges some of his contemporaries. He contradicts the famous Warren Buffett quote of:

> *"It's far better to buy a wonderful company at a fair price than a fair company at a wonderful price."*

Or this:

"All there is to investing is picking good stocks at good times and staying with them as long as they remain good companies."

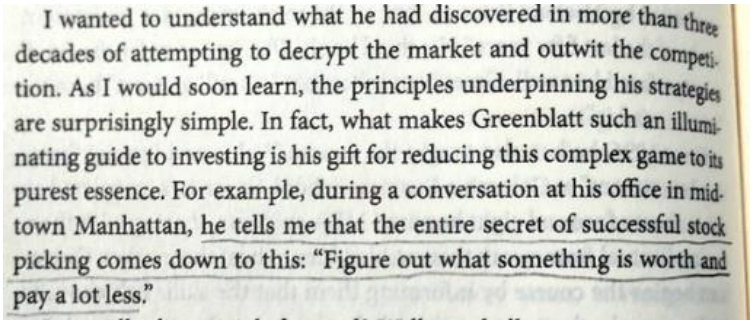
Entire fund manager careers have been built on this simple belief. Just buy great companies. **Terry Smith** is less well known to Australians but he is the founder of **Fundsmith** and manages US$24 billion, and he uses a simple three-step investment strategy:

> *1. Buy good companies, 2. Don't overpay, 3. Do nothing"*

Starting with good companies sounds obvious. Then Marks comes along and says that for a long time, his investing success has not depended on the quality of the company but the price paid for it:

> *"Now I'm investing in the worst public companies in America, and I'm making money steadily and safely. So this was really formative for me. What does it teach you?* ***It's not what you buy, it's what you pay****. That investing success doesn't consist of buying good things but buying things well." (my bolding)*

Marks is not alone. In his 2021 book, *'Richer, Wiser, Happier: How the World's Greatest Investors Win in Markets and Life'*, **William Green** writes about meeting billionaire hedge fund manager, **Joel Greenblatt** (right).



I wanted to understand what he had discovered in more than three decades of attempting to decrypt the market and outwit the competition. As I would soon learn, the principles underpinning his strategies are surprisingly simple. In fact, what makes Greenblatt such an illuminating guide to investing is his gift for reducing this complex game to its purest essence. For example, during a conversation at his office in midtown Manhattan, he tells me that the entire secret of successful stock picking comes down to this: "Figure out what something is worth and pay a lot less."

It's not as explicit as Marks in buying a poor company, but there's nothing there about buying a good one, just a cheap one. It's supposed to be that simple.

However, the problem for most investors taking the Marks and Greenblatt approach is that it is difficult to calculate what a company is worth. While Buffett appreciates the logic of comparing the intrinsic value with its market price, he recognises its limitations:

> *"Anyone calculating intrinsic value necessarily comes up with a highly subjective figure that will change both as estimates of future cash flows are revised and as interest rates move."*

Which is why investing is more art than science despite fund managers spending their lives studying and learning and (mostly unsuccessfully) trying to outperform the market.

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Contrary to popular belief, the stockmarket does not have a loser for every winner. Over the long term, the stockmarket is a positive-sum game. The average annual return on Australian shares in the last 100 years is about 11%. It's not a zero-sum game where all the gains and losses of all participants add to zero because the market increases in value over time as company profits grow.

But not everyone is a long-term investor, and a minority set-and-forget. The average holding of US equities has fallen dramatically, from five years in the 1970s to only about 10 months now (and other **New York Stock Exchange** data suggests it could be as short as six months). Investors buy and sell as they react to headlines, and as Buffett also says:

> *"The stock market is a device for transferring money from the impatient to the patient."*

There are millions of participants every day buying and selling for different reasons, so why does the market rise and fall? One popular explanation is 'more buyers than sellers', such as when the rotation from low-yield bonds to stocks brought new money into equities in 2020 and 2021. But in 2023, flows to fixed interest have been strong, and yet the equity markets, particularly in the US, have risen.

Tobias Levkovitch of **Citibank** recently wrote about "The Invisible Buyers":

> *"The stock market is not a zero-sum game. There's a mistaken tendency to think that a dollar that leaves the equity market translates into a dollar less in the stock market. Equity prices often move on a change in perception typically caused by an upside earnings surprise, a takeover announcement, lowered guidance, etc., such that double digit changes can occur without a single dollar even changing hands at that moment. Hence, while flows matter, they aren't everything one should consider. Other facets can be as crucial to the understanding of likely stock price direction including economic trends, investor sentiment, valuation and the attraction of competing assets."*

Long-term holders do not need to buy and sell continuously to do well. It's better to enjoy the gains of the market rising over time. But the market's trading is not predominantly made up of these long-horizon portfolios such as pension and superannuation funds, plus asset managers and individuals adjusting their portfolios based on calculations of intrinsic values versus market prices.

About 70% of market turnover is estimated to come from high-frequency trading (HFT) and day traders, in and out on the day based on algorithms or trading systems looking for daily wins without leaving exposures overnight. Here, the winners and losers generally cancel each other out.

And when a fad hits the market, such as the current focus on AI, the momentum takes on a life of its own. It is supported by social media and frenzied news stories about the gains in **Nvidia** or **Microsoft** and everybody wants a slice of the action. Even when the market's overall economic fundamentals are poor, such as facing

signs of a recession and higher interest rates, the market can still rise. It has happened before and it will happen again.

This chart from **Goldman Sachs** shows despite the uncertain outlook, most valuation metrics for the S&P500 are currently around the 90th historical percentile, indicating it is expensive and vulnerable to mean reversion.

Exhibit 4: S&P 500 valuations are elevated vs. history
as of June 15, 2023; historical data since 1974 except forward P/E (1976), cash flow yield (1987), FCF yield (1991) and yield gap vs. IG (1998)

	Aggregate index		Median stock	
Valuation metric	Current	Historical %ile	Current	Historical %ile
US market cap / GDP	232 %	97 %	NA	NA %
EV / sales	2.7 x	96	3.1 x	96
Price / book	4.4 x	92	3.3 x	94
EV / EBITDA	13.5 x	92	13.5 x	95
Cash flow yield (CFO)	6.2 %	88	5.6 %	NA
Forward P/E	19.3 x	88	18.0 x	89
Cyclically adjusted P/E (CAPE)	27.7 x	88	NA	NA
Free cash flow yield	3.6 %	61	3.5 %	64
Median absolute metric		90 %		94 %
Yield gap vs. real 10-year UST	368 bp	89	406 bp	80
Yield gap vs. IG	-29 bp	83	9 bp	80
Yield gap vs. 10-year UST	146 bp	74	184 bp	50
Median relative metric		83 %		73 %

Source: Goldman Sachs Global Investment Research

But algorithms don't care. Once an algorithm detects a trend, the computers pile in until the trend shows signs of failing, and it can come down as quickly as the sell orders hit. A few people might calculate a value of an AI winner based on its intrinsic value but for most trades, it's irrelevant.

How does an algorithm work? There are many styles, such as HFTs arbitraging in large volumes for small gains, moving averages, mean reversion models and trend followers. When I worked at **Colonial First State**, I brought **Aspect Capital** to the Australian market, a managed futures fund with highly-sophisticated algorithms detecting trends in any market (stocks, bonds, commodities ... you name it) and following the trend. While long-term results are good, it often wins big but also loses if the trend suddenly reverses. It does not care about macro or company valuation factors, other than minor adjustments in its model.

One advantage of algorithms is the removal of some of the emotion from trading, as the machine consistently applies the investment theory. Nobody needs to follow each stock as the computer automates execution and monitoring. That's the main short-term competition, not a person who calculates an intrinsic value after a month of company research and meetings. It's little wonder the market overreacts on the upside and downside when the reaction is programmed into thousands of computer systems.

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It's tax time, and at time of writing, two days before the end of the financial year. There is still an opportunity (if you're reading this before the end of 30 June) to check for capital losses to offset capital gains. Watch for artificial 'wash sales' as the **Australian Taxation Office** uses excellent monitoring techniques these days. Laws on calculating capital gains are extremely generous in allowing taxpayers to select from a range of cost prices, and it's a loophole which is costing the budget billions a year.

Also, with inflation high and indexing of pension eligibility levels next week, many more people will qualify for at least a part age pension, with assessable assets for a couple nearing $1 million. Even if the pension itself is not significant, the pensioner concession card might be.

And farewell to **Nobel Laureate Harry Markowitz**, who died last week at the age of 95. I interviewed Harry a few times in California in 2013 and 2014 at the **Research Affiliates Advisory Panel Conference.** We have a special tribute from **Rob Arnott**, Chairman of Research Affiliates and long-term friend and colleague of Harry. My favourite moment with Harry came during a lively confrontation with fellow Nobel winner, **Vernon Smith**. Harry listened patiently while Smith explained an economic theory, until Harry could not take it any longer:

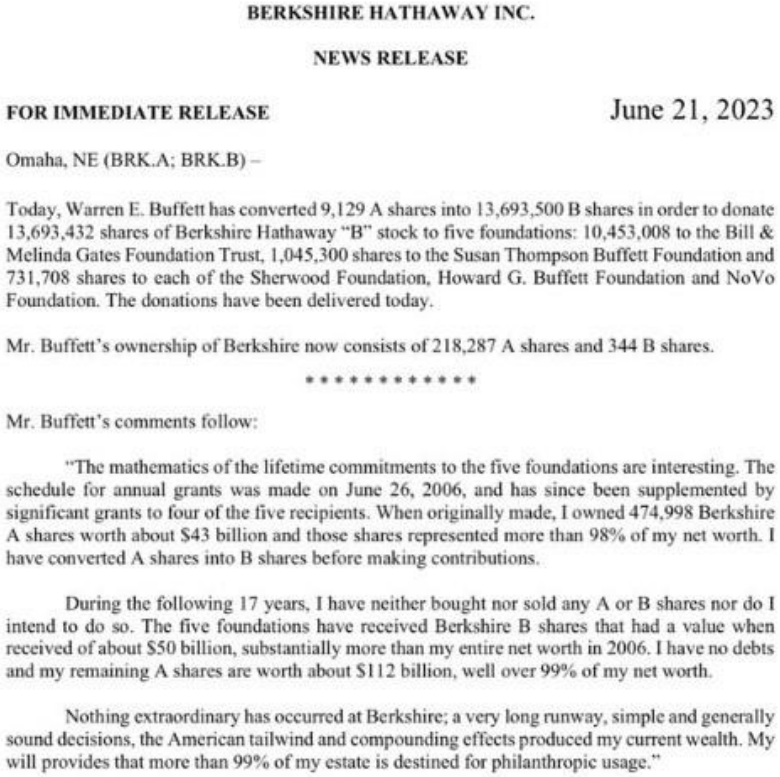
> *"Now we know why you won your Nobel Prize. Let me show you why I won mine."*

And then he regaled us with numbers and proofs and theories, none of which I understood, but then I was the only person in the room without a PhD.

There is still time to generate a tax deduction by using Private and Public Ancillary Funds. As we have written previously, it is not necessary to select a charity immediately to obtain a tax deduction in FY 2023.

On another scale, check the latest step in Warren Buffett giving away nearly all his wealth. The value of Buffett's **Berkshire** shares in 2006 was US$43 billion or 98% of his net worth. Over the following 17 years, he has donated shares worth US$50 billion when received by charities, and yet his current Berkshire holding is worth US$112 billion and over 99% of his net worth. And his wife still gives him a few dollars to go to **McDonalds** on his way to work each day.

Graham Hand



BERKSHIRE HATHAWAY INC.

NEWS RELEASE

FOR IMMEDIATE RELEASE June 21, 2023

Omaha, NE (BRK.A; BRK.B) –

Today, Warren E. Buffett has converted 9,129 A shares into 13,693,500 B shares in order to donate 13,693,432 shares of Berkshire Hathaway "B" stock to five foundations: 10,453,008 to the Bill & Melinda Gates Foundation Trust, 1,045,300 shares to the Susan Thompson Buffett Foundation and 731,708 shares to each of the Sherwood Foundation, Howard G. Buffett Foundation and NoVo Foundation. The donations have been delivered today.

Mr. Buffett's ownership of Berkshire now consists of 218,287 A shares and 344 B shares.

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Mr. Buffett's comments follow:

"The mathematics of the lifetime commitments to the five foundations are interesting. The schedule for annual grants was made on June 26, 2006, and has since been supplemented by significant grants to four of the five recipients. When originally made, I owned 474,998 Berkshire A shares worth about $43 billion and those shares represented more than 98% of my net worth. I have converted A shares into B shares before making contributions.

During the following 17 years, I have neither bought nor sold any A or B shares nor do I intend to do so. The five foundations have received Berkshire B shares that had a value when received of about $50 billion, substantially more than my entire net worth in 2006. I have no debts and my remaining A shares are worth about $112 billion, well over 99% of my net worth.

Nothing extraordinary has occurred at Berkshire; a very long runway, simple and generally sound decisions, the American tailwind and compounding effects produced my current wealth. My will provides that more than 99% of my estate is destined for philanthropic usage."

Also in this week's edition ...

Ausbil's Paul Xiradis has managed an active Australian large-cap investment strategy for over 25 years and here he offers tips on how to find the best of the ASX's larger companies. He also details how his large cap portfolios are positioned now.

Although Australia does not have a death or inheritance tax as such, there is a de facto version when a superannuation death benefit is paid to the independent adult children of a member. **Michael Hallinan** of **SUPERcentral** explains when a 'death bed withdrawal' might be effective.

The 60/40 portfolio has come in for plenty of criticism given its poor performance last year. As we near the half way point of 2023, **GSFM's Stephen Miller** gives an update on the merits and weaknesses of the portfolio. He says it can still serve international investors well, though Australian investors would be better advised to tweak the strategy.

Many investors are excited by companies with direct exposure to popular themes such as AI and data. But what about the companies that are using these things to take their businesses to the next level? **Francyne Mu** of **Franklin Templeton** analyses three companies that are leveraging AI and data to become global powerhouses.

Our ***Wealth of Experience* podcast** is back, this time with special guest, **Morningstar Global CIO Dan Kemp**. He tells us the key pillars for investors to build resilient portfolios, including having the right asset mix, good advice, and staying the course. From our regulars, Graham discusses capital gains tax and the major implications of the Reserve Bank Review, while Peter offers four of his favourite market themes.

Curated by James Gruber and Leisa Bell

Cherry-picking cost base after share sale is a tax rip-off

Graham Hand

It's as if a working group at the Australian Taxation Office (ATO) set out to *minimise* the amount of capital gains tax an investor pays on the sale of shares or units in a fund. Instead of mandating the treatment of the cost base, the ATO allows investors to cherry-pick the cost from several alternatives, reducing tax payable with the ATO's blessing. It's akin to allowing a taxpayer to select their own marginal tax bracket.

To be clear, this is not a tax rort or scam or a fraud. It is tax policy which anyone is welcome to adopt. There are plenty of contentious tax policies in Australia, especially as governments put popularity among voters and corporate supporters ahead of fixing burgeoning budget deficits (Federal debt is now about $900 billion). The lack of government action on spending and revenue will burden future generations with massive interest bills and less ability to provide essential services such as health, education and welfare.

But there is an easy revenue win which could generate billions of dollars of extra tax a year, with a clear line of logic, and most voters would not even notice this tweak.

How are capital gains on sale of shares or fund units calculated?

The ATO provides a guideline on how to identify which shares or units in a fund have been sold. The ATO states:

> ***"Identifying shares or units sold***
>
> *Sometimes taxpayers own shares or units that they may have acquired at different times. This can happen as people decide to increase their investment in a particular company or unit trust. A common question people ask when they dispose of only part of their investment is how to identify the particular shares or units they have disposed of.*
>
> *This can be very important because shares or units bought at different times may have different amounts included in their cost base. In calculating the capital gain or capital loss when disposing of only part of an investment, you need to be able to identify which shares or units you have disposed of. Also, when you dispose of any shares or units you acquired before 20 September 1985, any capital gain or capital loss you make is generally disregarded.*
>
> ***If you have the relevant records (for example, share certificates), you may be able to identify which particular shares or units you have disposed of. In other cases, the Commissioner will accept your selection of the identity of shares disposed of.***
>
> *Alternatively, you may wish to use a 'first in, first out' basis where you treat the first shares or units you bought as being the first you disposed of. In limited circumstances, we will also accept an average cost method to determine the cost of the shares disposed of." (my bolding)*

Sanctioned by the ATO, a person or fund can "*identify which particular shares or units you have disposed of".* Of course, the most expensive is selected to minimise the tax, but the concept of identifying which shares were sold is ridiculous. There is only one class of shares, they are all the same. It should be first in, first out. It's a simple logic. The shares that were first bought are the first sold.

An exercise in minimising tax

Let's say a fund manager likes Macquarie Bank (ASX:MQG) and in 1999, buys 100,000 shares at $16, costing $1.6 million (ignoring brokerage). Most funds – superannuation funds, managed funds, Listed Investment Companies or Exchange Traded Funds – grow over time, adding and trimming positions as the market moves. For simplicity, assume this fund manager adds another 100,000 shares in Macquarie in 2022 at $200, costing $20 million (ignoring brokerage).

Here is a Morningstar chart of Macquarie Bank prices since 1999, showing the many different cost bases that could be recorded. Some Australian funds have a 100-year history and instances of buying and selling long-term holdings are common.

Then 10 months after the second purchase, in 2023, the fund disposes of 100,000 Macquarie bank shares at $170, worth $17 million (ignoring brokerage).

Which shares were sold and how much tax is paid?

In the fund's back office, the fund accountants are charged with maximising returns for investors. The ATO kindly allows one of four criteria for selecting the cost of the shares for capital gains tax purposes:

1. First In First Out (FIFO)
2. Last in First Out (LIFO)
3. Average cost
4. Discretionary selection (any of the above)

The accounting systems in the superannuation and funds industry are designed to minimise tax. Such a process is probably a fiduciary responsibility of fund trustees and nobody wants to pay more tax than they are legally required to. Individuals who may be in a 47% marginal tax bracket (with Medicare) are more motivated than anyone to minimise taxable income.

Assuming only these two Macquarie Bank purchases, the difference in tax paid depends on the tax entity, but in every case, the investor will choose the $200 tranche as the cost to generate a loss. What is the comparison with the $16 tranche, FIFO?

1. FIFO

Capital gains: $17,000,000-$1,600,000=$15,400,000

Discount capital gains for super fund = 10%, tax paid = $1,540,000

Discount capital gains for non-super fund (or personal investor) with 50% discount, taxable income = $7,700,000, taxed according to marginal tax rates of investors. At the top rate of 47%, tax is about $3,600,000.

2. Discretionary selection, choose LIFO

Capital gains (loss): $17,000,000-$20,000,000=-$3,000,000 (loss) to claim against capital gains and reduce tax.

In a super fund, eliminating a $3,000,000 capital gains will save tax of $300,000.

In a non-super fund or personal investment, eliminating a $3,000,000 capital gain (after discount) will reduce tax depending on marginal tax rates. At 47%, it is a $1,400,000 tax saving.

The difference in tax is $5 million (tax paid of $3.6 million versus tax saved of $1.4 million). Imagine the tax lost in share and unit trust sales each year as investors cherry-pick.

Watch the wash

A wash sale is a quick sale and repurchase of securities to minimise tax, sometimes called tax-loss harvesting and often at the end of the tax year. The ATO watches these transactions for evidence that the transaction is designed to generate a tax benefit, and penalties are up to 50% of the tax avoided.

There is no legal definition of the time limit to repurchase shares to avoid the wash sale impact, as it depends on the ATO's interpretation of the dominant purpose of the transaction. Tax advice should be taken but it's unwise to sell on 30 June, cherry-pick the capital loss treatment, then repurchase the same shares on 1 July.

It is ironic that the laws and the ATO clamp down on this, while allowing taxpayers to select their cost base.

What is a better tax treatment?

If the share price of a company rises, the taxpayer will select the latest (highest) prices paid when calculating the tax liability.

If the share price of a company falls, the taxpayer will select the earliest (highest) prices paid.

Why allow the discretion? Over time, company share prices and markets rise, and the method that will raise the most revenue is FIFO. Tax laws should mandate it. If a person or entity sells a share or unit in a fund, the first purchase should be the cost base.

How much will this tax policy change raise for the budget? The Australian Bureau of Statistics reports that managed funds (including super funds) in Australia hold $4.5 trillion in assets. The market cap of the Australian

Securities Exchange (ASX) is about $2.4 trillion and it turns over about $5 billion a day. That's a lot of capital gains (and losses).

According to someone (who asked to remain anonymous for obvious reasons) with familiarity with tax treatment inside both super and non-super, the harvesting of the highest cost price to calculate capital gains is not only endemic, but also standard practice.

And in the final week of the financial year, investors, financial planners and accountants scour share records, and to avoid paying tax on capital gains, they select the best way to generate offsetting losses, with the ATO's blessing.

The tax lost by not adopting FIFO is billions of dollars a year.

Graham Hand is Editor-At-Large for Firstlinks. This article is general information based on an understanding of tax law, but investors should make their own tax enquiries.

Are death bed benefit super withdrawals effective?

Michael Hallinan

Death bed benefit withdrawals is a poignant description of when a member of a superannuation fund makes a request to withdraw their superannuation benefit as a lump sum before they die. Typically, this is done as the member has no dependants who could receive the benefit tax free. If a superannuation death benefit is paid to the independent adult children of the member, the benefit will generally be taxed at 17% (including 2% Medicare).

Consider Augustus, a widower, who has adult children, Tarquin and Flavia. His benefit in his SMSF is $900,000 which consists of a $50,000 tax-free component and a $850,000 taxable component. As Augustus is now aged 85, he could withdraw his entire superannuation benefit of $900,000 tax free.

However, if Augustus dies before withdrawing his entire superannuation balance, the benefit if paid to Tarquin and Flavia (in equal proportions) will attract a tax bill of $144,500 (17% of $850,000, there is no tax on the $50,000 tax-free component). Augustus, by acting quickly, could 'save' or more correctly, preclude his children from incurring this $144,500 tax.

This different treatment of the superannuation benefit arises merely because, on one hand, the benefit is paid to Augustus and on the other hand, the benefit is paid to his children (or his estate).

The natural desire of any parent to assist their children by not incurring unnecessary tax on their superannuation benefit is the reason for the timely withdrawal of superannuation benefits otherwise known as 'death bed benefit withdrawals'.

Are they effective, even after death of the member?

If a member has a right to request payment of their superannuation benefit say, because they have an attained age of 65 or more or are retired for superannuation purposes, and the trustee of the superannuation fund authorises payment of the benefit, then the death bed benefit withdrawal should be treated for taxation purposes as a superannuation member benefit and is tax free. Alternatively, a superannuation death benefit may be subject to a 17% tax on the taxable component of the death benefit.

The critical issues are whether:

1. the member has a right to immediate benefit payment
2. that right has been exercised, and
3. the trustee has authorised payment of the benefit request.

If all these issues are satisfied, then the mere fact that the payment is made after the death of the member would not, by itself, cause the payment to be treated as a superannuation death benefit.

Let's consider each of the three conditions.

1. A member will have a right to immediate benefit payment if the trust deed (or governing rules) of the superannuation fund provide that the benefit can be paid to the member. Payment to the member should not be inconsistent with the benefit payment standards applying to regulated superannuation funds.

2. A member will have exercised their right to immediate benefit payment if they have completed the relevant benefit payment request (signed, dated, bank account details provided for the payment and any other requirements).

3. The trustee will have authorised payment of the benefit if the completed benefit payment request form has been provided to the trustee and the trustee has resolved to authorise payment of the benefit and to authorise the taking of any administrative steps necessary to effect payment.

Benefit relationships change

Once the trustee authorisation has occurred, the relationship between the member and the trustee changes from a beneficiary/trustee relationship to a creditor/debtor relationship. The payment of the benefit will then discharge the debt owed by the trustee to the member.

If the member has died after trustee authorisation has occurred but before payment has been made, the payment will be a superannuation member benefit and will form part of the estate of the member.

If the member had died before trustee authorisation and the death of the member is not known to the trustee (this would typically be the case in respect of APRA regulated superannuation funds such as industry funds or retail funds) then the authorisation post-death by the trustee the subsequent payment pursuant to that authorisation would not cause the payment to be a superannuation death benefit.

However, if the member died before trustee authorisation of the request has occurred and the death of the member is either known to the trustee or the death of the member precludes the trustee from acting (because the member was a trustee or a director of the corporate trustee), it is likely that any subsequent payment of the benefit would be a superannuation death benefit.

What about the ATO?

The Australian Taxation Office (ATO) raised concerns earlier this year about undated but signed benefit withdrawal forms being used to argue that a benefit payment made after the death of the member should be treated as a member benefit rather than a death benefit.

The view of the ATO is that the signed but undated requests are not, of themselves, sufficient to make any subsequent benefit payments tax-free member benefits. This is because the signed and undated benefit withdrawal request has not been authorised by the member before their death.

If the member has authorised the benefit withdrawal before their death (by both signing and dating the request) and trustee authorisation has been obtained, then the subsequent payment of the benefit after the death of the member but pursuant to that trustee authorisation should not cause the benefit payment to be treated as a taxable death benefit.

In conclusion

All roads lead to Augustus, but not if Augustus has completed the benefit withdrawal request and the benefit withdrawal request is approved by the trustee. Merely paying the benefit after the death of Augustus will not cause the benefit payment to be taxed as a death benefit. The benefit payment will be tax-free but form part of Augustus' estate.

Michael Hallinan is Executive Consultant – Self Managed Superannuation, for SUPERCentral, an independent online platform provider of SMSFs, advice, legal documentation and wealth management services to accounting and financial planning firms throughout Australia.

NOTE: This article was prepared as at June 2023. The article has not been updated in light of subsequent developments.

How to find the best Aussie large-cap stocks

Paul Xiradis

Having managed an active large-cap investment strategy for over a quarter of a century, you could say I have become quite familiar with their idiosyncratic nature, what is good in large caps - and what does not work in large caps.

Over the years I have observed many elements of a successful large cap. The first is a strong business model that can generate earnings growth year-on-year, and also has the potential to invest cashflows into capital expansion and business development at returns that are more attractive than the alternative, capital management and dividend payouts. This sounds simple, but so many businesses just cannot achieve these two things, let alone compete with peers in a global and competitive marketplace.

Beyond the quality of the core business model, in very simple terms, a good large company should have a strong balance sheet, manageable levels of debt, a supportive and stable ownership structure, strong corporate governance, strong and improving ESG credentials, and a strong and experienced management team. A good large company should have a healthy brand, a strong reputation that is guarded, a unique position or proposition that demarcates it from competitors, and potentially an element of protection or barriers to entry that inhibit competitors and enhances the value of its business.

Large caps have always been of interest to me perhaps given the complexity they show, and the potential to find gems in this complexity if you take the time to analyse and know a company. Owning a share of Australia's largest and most successful companies is an exciting prospect for investors, and with a careful active approach, it can also be rewarding.

Of course, you do not invest in large companies just because they are large. There can be both good and bad reasons behind a company that has become a large cap. It is not always apparent, but understanding the reasons can help focus on what matters when finding large-cap stocks.

Typical characteristic comparison for large-cap stock v small-cap

Characteristics	Typical large-cap equities	Typical small-cap equities
Revenues	More diversified	More concentrated
Earnings	More diversified, less volatile	Less diversified, more volatile
Earnings growth	Potential for high growth, but typically more mature mid-range growth levels	Potential for high growth, but with higher volatility in earnings
Dividends	Significant free cash flow supports dividends	Often pre-dividend and little free cash flow
Liquidity	High liquidity, tight bid-offer spreads	Sometimes low to negligible liquidity, wider bid-offer spreads
Volatility	Should tend towards lower volatility	Higher volatility comes with less mature companies
Compounding	Good companies have significant cash and capital compounding potential	Most small-cap compounding comes from growth rather than dividends which makes them riskier than large caps

Source: Ausbil.

The relativity between size and earnings is what really matters for the allocation of risk capital. Investors who are serious about generating compound returns on equity look at the interrelationship between earnings and earnings growth, and what it means for value so that assets are acquired for a return on capital that offers the potential for outperformance.

To illustrate this with a contrasting example, in market-cap weighted ETFs (exchange traded funds), the larger the market cap of a company, the more investment capital it attracts, regardless of its earnings profile, growth

outlook or whether the business is growing or shrinking. Hence, sentiment-pumped market caps are rewarded for being big, rather than being profitable or having a future earnings growth profile.

Risks

There are a number of risks that come with larger companies. Firstly, there is the challenge of complexity. We have a team of equity analysts and portfolio managers who study the same companies every day, 365 days a year, watching every notice, every change and revaluing these companies on an ongoing basis. They are still complicated. However, we believe this complication also offers significant opportunities for outperformance.

Who owns the company and how management are incentivised makes a big difference to how they make decisions. Large caps where management and staff are aligned not just to the interests of customers but also the interest of equity holders can make a huge difference to how a large cap performs. The flipside to this is that poor alignment and bad management can destroy a large cap.

Other risks, of which we avoid through our research and knowledge of companies, can include transparency problems, specific ESG issues or exposures (including negative momentum sustainability scores), and any other element of a company or the market in which it operates that screens as a risk to earnings. We are vigilant on anything that is a risk to our view on earnings growth, and our process is clinical in allocating away from anything we think is adverse to a company growing its earnings and dividends.

Favoured thematics

We remain focused on the key thematics that are driving long-term earnings growth, particularly where imbalances see demand exceeding supply on a fundamental basis for some time.

We like critical metals and commodities for the long rotation from fossil fuels to renewables in the great decarbonisation, and the electrification-of-things, with the steady switch from combustion and fossil fuel power to renewable electricity generation. Service companies associated with the cap-ex investment needed for this energy transition are also attractive. With China re-emerging from its intense COVID issues, we see upside in commodity prices as demand returns across calendar 2023.

The beneficiaries of elevated inflation are expected to perform in 2023, but the emphasis on those that perform well in a rising rate environment is starting to shift towards those that will benefit with stabilisation and peaking rates. Quality REITs, some quality leaders in technology, and some exposures in building products are helping to bridge the shift from the inflation beneficiaries that outperformed in 2022.

Earnings

One of the benefits of investing in businesses with high cash-backed earnings that produce a steady EPS growth profile is the potential that comes not from a few years of high returns, but from steady outperformance over time. Such stocks can produce a compounding effect in the returns generated from these balance sheets over time. The beauty of the mathematics behind compounding is that a small, repeatable outperformance advantage, replicated over time, can create a very large advantage.

For investors, the Australian market offers alpha generating opportunities over the long term, and across the cycle.

We believe earnings growth will be hard to come by in 2023, however Ausbil expects key sectors to offer strong EPS growth opportunities above consensus, and some quality leaders across the market to demonstrate earnings growth with resilient demand across the economic cycle, and the capacity to pass on higher costs to end- consumers.

With this in mind, we see ongoing support for earnings growth in resources, diversified financials, general insurers and in energy given the shock we have experienced from the invasion of Ukraine. In resources, we are invested extensively across the decarbonisation thematic, in copper, nickel, lithium and rare earths. We are avoiding sectors that are cyclical, over-exposed to slowing economic growth, and whose earnings are adversely impacted by inflationary pressures. This includes construction, retailing and consumer discretionary.

Longer term outlook

Longer term, Australia is positioned as an economy to offer major investment and growth potential for listed companies.

Firstly, given the drive to net zero by 2050, the underlying push to decarbonise the world will require a lot of natural resources, particularly base metals, battery materials, bulk materials, and energy. Australia is one of the best positioned economies globally to benefit from this fundamental change.

Secondly, Australia's trade relationship with Asia, and China in particular, has greatly benefitted the country and will continue to drive demand for our exports in the coming decades.

Thirdly, Australia is a young country that is set to grow steadily with migration and in size. There will be a compound growth benefit in how we develop our own export markets in knowledge, services, technology, commodities, agriculture, tourism and expertise, and how this manifest in investment back into local construction, real estate, infrastructure, services and consumer markets. These key themes, we believe, position Australia with significant advantage over our peers from an economic growth perspective. In our view, it makes a lot of sense to invest in Australia's future.

We believe Australia is positioned for a long tailwind of economic growth, and while crises like the pandemic, wars and the recent energy crisis may hinder the economy in the short term, in the long run this tailwind of growth can drive compound returns for patient investors.

A critical aspect to this tailwind of growth will be Australia's position as a key natural resources' economy, though it will also manifest in Australia's education and health care exports, and in the internal growth of our economy.

Australian large-cap stocks offer an ideal vehicle in which to invest in the compounding benefits generated by key thematics, and by the ongoing compounding growth in Australia's population and economy. An active approach with a track record of long-term outperformance can only accelerate the benefits of such an approach.

Paul Xiradis is Co-Founder, Executive Chairman, Chief Investment Officer, and Portfolio Manager at Ausbil Investment Management. This article contains factual, general information only and does not constitute financial product advice. It does not take account of your individual objectives, financial situation or needs.

Is more trouble coming for the 60/40 portfolio?

Stephen Miller

The traditional 60/40 equity/bond portfolio has performed poorly during the recent period of high and persistent inflation. With some indication that peak inflation has passed, now seems a good time to do a stock-take on the year so far and what it might imply for portfolios going forward.

It seems to me that the easiest way to parse where markets sit is by way of analogies to three famous children's stories: *The Boy Who Cried Wolf*, *Goldilocks*, and *The Pied Piper of Hamelin*.

The 'Goldilocks' tale's application to financial markets is well-known; laboured even. The others, however, are less well-known but now perhaps highly apposite.

Despite a stubborn failure for the data to conform, the bond markets have had a tendency since the commencement of the Federal Reserve (Fed) tightening cycle to 'cry wolf' regarding recession. The flipside has been a tendency to over-estimate the rapidity with which inflation might decline and the extent of Fed tightening.

That reflected the ongoing effects from what was (with the benefit of hindsight) an excessive fiscal and monetary response during the pandemic and its aftermath. It also may reflect a lack of appreciation that the current monetary policy tightening cycle was from a base of a historically high level of global monetary accommodation. It was also borne of a complacency about the type of inflation inertia that level of monetary accommodation wrought, along with supply shocks encouraged by the pandemic and war and exacerbated by deglobalisation and reregulation.

However, it pays to remember that the famous parable of *The Boy Who Cried Wolf* concludes with the wolf finally showing up, but only after the townsfolk have been lulled by fatigue into a complacency borne of the unnecessary panic induced after the boy's false alarms.

Are financial markets too complacent?

Is there a parallel with the market's current circumstance? Financial markets, perhaps fatigued by unfulfilled prognostications of recession, have grown a little complacent?

If so, the portfolio implications (at least tactically) are clear: a focus on defensive portfolio attributes are primary.

Does that include traditional nominal government bonds as a core component of the '40' in 60/40?

My own view is that it should, at least in the US. Inflation in the US has meaningfully turned: the 3-month annualised core consumer price index (CPI) was 5.0% in May, down from a peak of 7.1% in June 2022, while 3-month annualised Cleveland Fed trimmed-mean measure fell to 3.2% in May, down from a peak of 7.8% in July 2022, and the lowest level since March 2021.

However, inflation does look 'sticky' and might remain so.

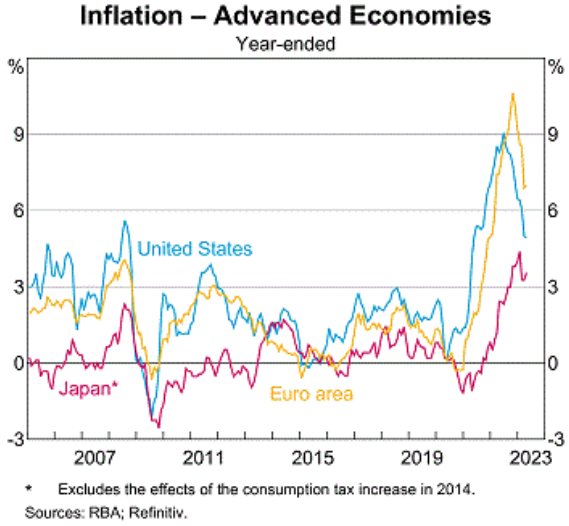
There are also global structural currents that make elevated developed-country inflation rates more 'sticky'. The globalisation of labour supply (after the fall of the Berlin Wall and the 'export' of labour from large emerging market economies such as China and India) is abating; globalisation of goods markets is in retreat as governments everywhere introduce protectionist measures under the guise of 'industrial policy' and 'national champions'; domestic regulation of markets is increasing in scope (leading to upward price pressures); and baby boomer workforce participation is declining (limiting labour supply and lifting wages).

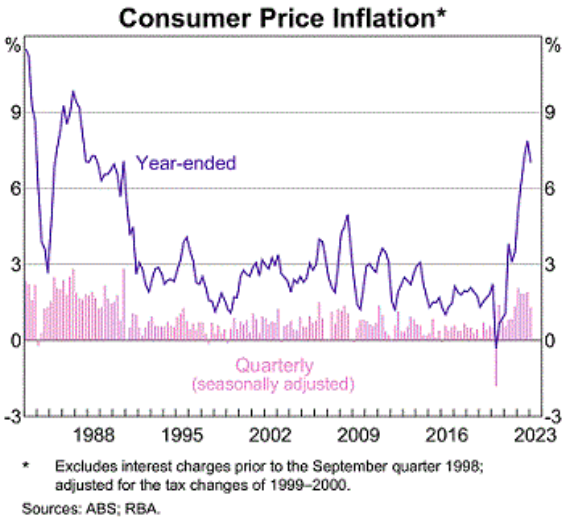
While US 10-year and 2-year bonds at yields around 3.80% and 4.70% respectively imply that nominal bonds can regain some of their defensive characteristics, other defensive instruments such as inflation-linked bonds, low risk market-neutral (or 'unconstrained' / 'absolute return') bond funds or even gold and other commodities (as an inflation hedge) or defensive equity portfolios are useful ways to enhance the defensive characteristics of a portfolio.

For domestic investors there is a further rider. Inflation appears to have passed a meaningful turning point in the US. However, locally, questions remain.

The recent decision by the Fair Work Commission (FWC) will increase price pressures and increase pressure on the Reserve Bank of Australia (RBA) for further policy rate increases. Such wage increases are digestible in times of reasonable productivity growth, but the recent national accounts showed productivity growth at an abject -4.5% over the past year, and unit labour cost growth (the most relevant labour cost gauge for inflation) is at a whopping 7.9% – and this was before the FWC decision.

So, while inflation in the US may have passed a meaningful turning point, Australia faces a more serious challenge, and the RBA may have a fair bit more 'wood to chop' and local bond yields some upside. Locally, on a 'duration neutral' basis, defensive portfolios are best skewed toward inflation-linked bonds and other defensive assets rather than nominal bonds.





Arguably a combination of an RBA that was late out of the gates on inflation and who then prevaricated on its commitment to inflation containment, combined with wage-setting arrangements inimical to inflation containment, has increased the chances of a deeper dislocation in employment and activity in Australia than elsewhere as the RBA struggles to get ahead of the inflation curve.

In this sense Australia has yet to pay the (inflation) piper.

Where does this leave portfolios?

In the US, the traditional 60/40 equity/bond portfolio might make something of a comeback, although with the inclusion of return sources uncorrelated with equities or bonds. Perhaps something like a 50/30/20 portfolio with the '20' being assets uncorrelated with equity or bond returns (e.g., long/short or 'market neutral' bond and equity portfolios or macro hedge funds) offers better diversification. And even with nominal bonds as the core defensive asset, other defensive assets such as inflation-linked bonds might appeal.

In this way, should the recession wolf show up, villagers (investors) can protect the livestock (portfolios) with nominal bonds and other defensive (mostly inflation-hedge) assets.

For Australian investors, given the tasks facing the RBA and the potentially 'stickier' inflation outlook, the calculus is not so clear. The appropriate portfolio mix might look more like 45/25/30, with the '30' being assets uncorrelated with equity or bond returns. Moreover, given the idiosyncratic (upside) inflation risks in Australia, it may pay to have a reasonable proportion of the '45/25' component in foreign (mostly US) equity and bonds.

Of course, this survey would not be complete without a contemplation of the 'Goldilocks' narrative. Can the Fed successfully engineer a relatively benign disinflation (so-called 'immaculate disinflation') without an excessive dislocation in activity and employment (it looks less likely for the RBA)?

That rarely happens, but…

Stephen Miller is an Investment Strategist with GSFM, a sponsor of Firstlinks. He has previously worked in The Treasury and in the office of the then Treasurer, Paul Keating, from 1983-88. The views expressed are his own and do not consider the circumstances of any investor.

For more papers and articles from GSFM and partners, click here.

Three companies using technology to become global powerhouses

Francyne Mu

The history of societal progress is often told as the history of technological change and at a large enough scale, this is true. For example, the invention of the steam engine and the computer have allowed people to do things in ways that are unquestionably more efficient. But a narrow focus on these technological leaps often overlooks the more subtle but important progress of organisational, industrial design, and the move towards automation.

Our experience has shown us that these seemingly small tweaks can be game changers. For instance, when Henry Ford modified the assembly line in car manufacturing, this increased productivity and reduced costs, making the Model T accessible to every household and launching the age of the automobile.

As managers of an investment strategy with a mandate to purchase companies driven by secular growth trends, we believe it's worth reflecting on how these more subtle changes can act as a driving force at both the industry and company level to create new sustainable competitive advantages and profit pools. In this article, we'll explore some of the companies that are innovating to enable better ways of doing business. But first, let's look at one of the pioneers of process improvement and how his insights transformed one of our oldest trades.

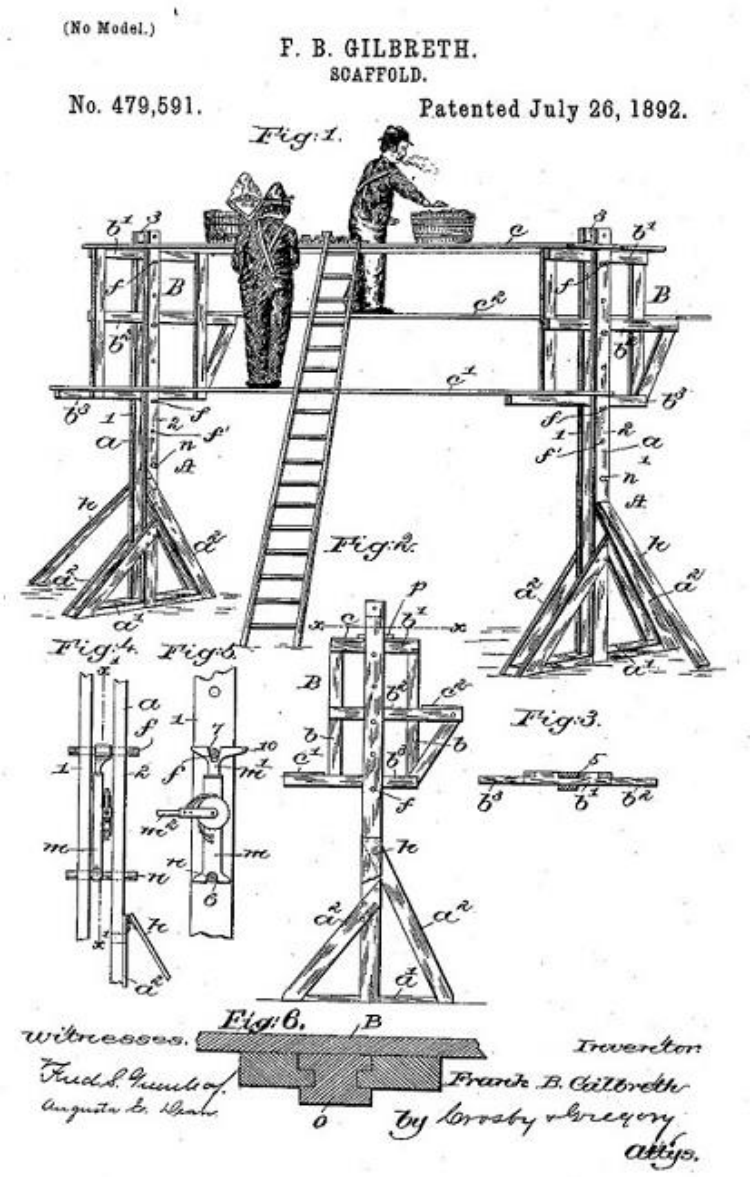
Redefining efficiency: Frank Gilbreth's bricklaying innovation

The achievements of one of industrial designs pioneers Frank Gilbreth illustrates the gains that can be made by this subtle mode of progress. Gilbreth started his career as a bricklayer's assistant at the age of 17. Possessing a natural curiosity, he soon became determined to find out what the "one best way" might be for executing any given task on the jobsite.

Through keen observation and measurement, Gilbreth determined that bricklaying could be made vastly more efficient simply by keeping the bricks both within a short reach of the workers and at waist height. To this end, he developed and patented a 'Vertical Scaffold' apparatus which was estimated to at least double the productivity of each bricklayer. It almost goes without saying that this innovation provided Gilbreth and his construction firm a powerful competitive advantage.

That one of history's oldest crafts could achieve a two-to-three-fold improvement in efficiency without the invention of any substantially new technology speaks to the power that intelligent organisational efficiency can have on society.

With this in mind, let's look at a few companies held by the Franklin Global Growth Fund that are continuing Gilbreth's innovations by harnessing the power of both technology and systems engineering to create value for both themselves and their partners.



Source: USPTO, Frank Gilbreth Patent Application, Technical Drawing

Rockwell Automation – Mining for efficiency

At their heart, Gilbreth's innovations in the field of bricklaying were a function of keen observation and an ability to measure what mattered. Today, technology like the internet of things (IoT) and machine vision is empowering companies to digitise their workflow process and enable similar levels of productivity insights. Rockwell Automation is at the leading edge of building such IoT systems, one of which is their FactoryTalk InnovationSuite (FactoryTalk).

FactoryTalk is a software platform that combines advanced analytics, machine learning, and industrial IoT (IIoT) capabilities to improve organisational design in manufacturing settings. By integrating data from various sources within the factory, this platform provides real-time insights and predictive analytics that enable better decision-making, improved efficiency, and reduced downtime.

One example of how this technology is driving organisational efficiency is its deployment with Helsinki-based Metso, a leader in sustainable minerals processing technologies. Metso offers its customers an IIoT-driven solution called Metso Metrics for Mining, which leverages Rockwell Automation's FactoryTalk platform for predictive maintenance and asset optimisation, aiming to enhance productivity and prevent equipment failure and downtime.

Source: Rockwell Automation, A worker uses a programmable logic controller (PLC) interface

FactoryTalk is deployed to connect to IIoT devices on essential equipment, collecting sensor data and securely transferring it to the cloud. Once the data is in the cloud, advanced AI algorithms within FactoryTalk analyse the information to detect failure patterns and alert managers of potential issues. At an Australian iron ore mine site,

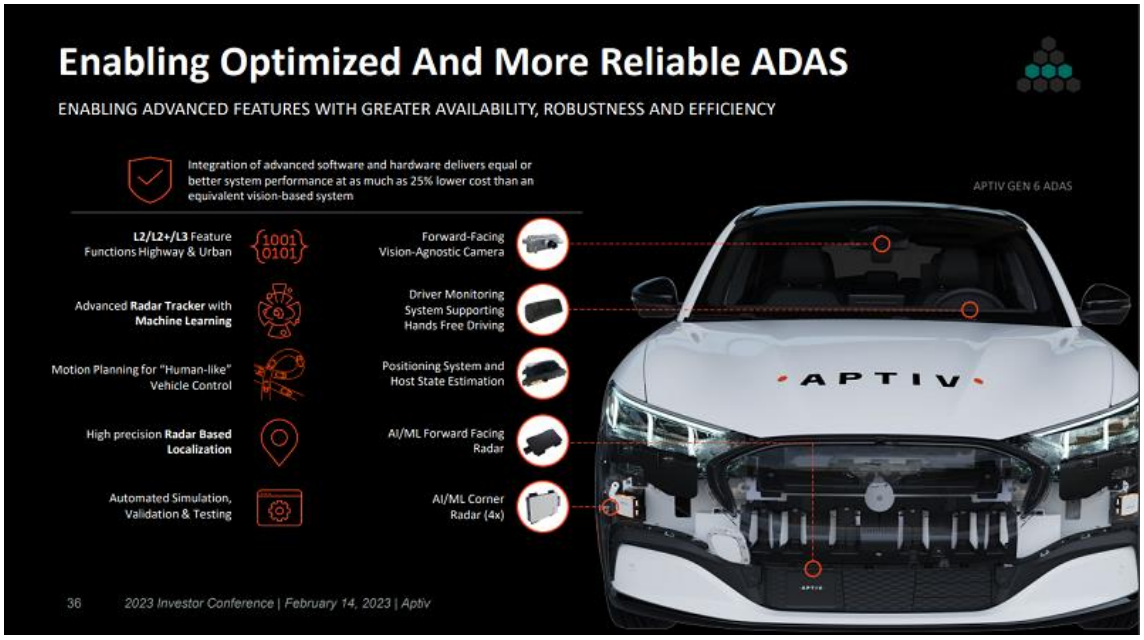
FactoryTalk, as a part of Metso Metrics, monitored the crushers' data for known failure patterns and anomalies, enabling predictive maintenance and downtime avoidance. According to Rockwell Automation, this system detected a potential catastrophic event that could have cost the Miner more than A$1 million if it had not been addressed in time.

By constantly pushing the boundaries of what is possible and embracing new technologies, Rockwell Automation is well-positioned to shape the future of industrial automation and bring about positive change for businesses and society alike.

Aptiv PLC - Driving innovation

Aptiv PLC, a global technology company specialising in automotive solutions. Aptiv's business started by focusing on integrating components for vehicle safety and has since evolved to develop integrated systems for autonomous driving and fleet management.

Aptiv is transforming the automotive industry with its advanced technologies and systems. The company's expertise in areas such as vehicle connectivity, electrification, and advanced driver-assistance systems (ADAS) is enabling the development of more intelligent and connected vehicles. These advancements not only improve the driving experience but also pave the way for a more efficient and environmentally friendly transportation ecosystem.



Source: Aptiv, Investor Conference Presentation, February 2023

As Aptiv moves towards the integration of autonomous driving and fleet management solutions, the company is poised to help bring about significant benefits for its customers and society. Just as Gilbreth's innovations improved worker efficiency, Aptiv's focus on autonomous vehicles has the potential to reduce traffic accidents, alleviate congestion, and lower carbon emissions.

Furthermore, we see Aptiv's integration of technological capital as having the potential to create a sustainable business advantage by offering propriety systems that deliver a critical service. In essence, we believe these proprietary systems will allow Aptiv to capture more of the automobile market value chain and place the company in a position to deliver attractive returns to shareholders.

In summary, Aptiv's journey from component integration to the development of advanced automotive systems and autonomous driving technologies reflects the innovative spirit of pioneers like Frank Gilbreth. By continually pushing the boundaries of what is possible and embracing new technologies, Aptiv is well-positioned to shape the future of transportation and bring about positive change for society.

Zebra Technologies – Mastering motion

Gilbreth's vertical scaffold transformed the bricklaying process by rethinking the way materials were handled and organised. Zebra Technologies (Zebra) is continuing down a similar path by helping companies reimagine their workflows through data capture, automation, and connectivity. By providing businesses with tools such as

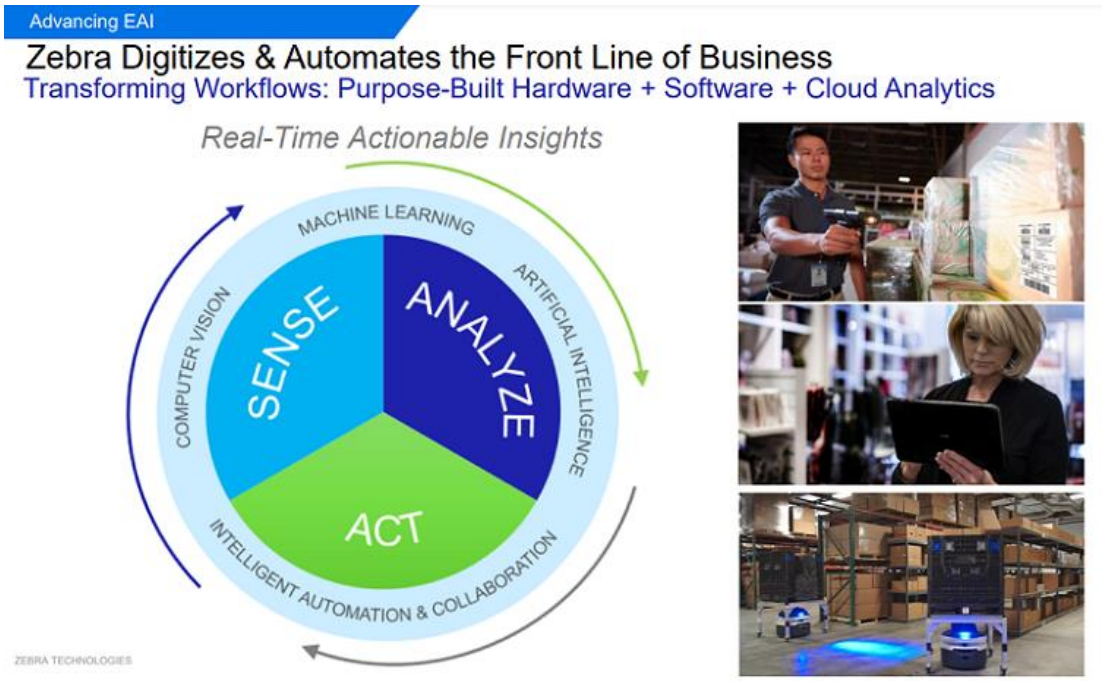
barcode scanners, RFID systems, and mobile computers, Zebra enables organisations to collect and analyse real-time data, leading to more informed decision-making and optimised processes.

MotionWorks, an asset tracking and management solution, is one implementation technology suite that Zebra uses to enhance the efficiency of manufacturing and logistics operations. By employing RFID tags, barcode labels, and real-time location systems, MotionWorks allows companies to monitor the movement of assets and inventory throughout their facilities, oversee equipment usage, and streamline workflow processes. This heightened visibility empowers businesses to make data-driven decisions, reduce operational expenses, and elevate overall productivity.

Whirlpool Corporation, the world's leading global manufacturer of home appliances, implemented Zebra's MotionWorks to optimise mobile device management across its distribution centres. They faced challenges such as misplaced devices, limited battery life, difficulties in updating devices systematically, and a lack of data metrics concerning device performance.

Whirlpool partnered with Industrial Service Technology (IST), which provided them with Zebra hardware and software solutions for warehouse management, RF, and RFID systems. Whirlpool implemented Zebra XT15 mobile computers, VH10 vehicle-mounted computers, and Zebra's Operational Visibility Service (OVS). This combination allowed Whirlpool and IST to sense potential problems, analyse the issues, and act on a solution in real-time.

With Zebra's solutions Whirlpool saw quick results, including an 18-site remote rollout of 635 Zebra devices across 20 U.S. facilities in just over two months, achieved a 63% return on investment (ROI) on the deployment over the course of November and January. Whirlpool's partnership with Zebra and IST has allowed the company to leverage technology to improve logistics, control costs, and enhance performance across its distribution centres.



Source: Zebra Technologies, Investor Presentation, 2023

Moreover, just as Gilbreth's approach to industrial design emphasised the importance of ergonomics and the well-being of workers, Zebra Technologies continues this legacy by designing user-friendly devices that simplify tasks, minimise errors, and reduce strain on employees. Their solutions not only contribute to greater efficiency but also prioritise the health and safety of the workforce.

Zebra Technologies continues to empower its customers to achieve new levels of efficiency, productivity, and growth, much like Gilbreth's pioneering efforts did in his time.

Organisation design – The backbone of proprietary systems and processes

Organisational design, much like other more celebrated technological breakthroughs, plays a pivotal role in shaping the modern business landscape. While its significance might be overlooked, savvy investors recognise

the opportunities it presents. By leveraging data and technology, companies like Rockwell Automation, Zebra and Aptiv are developing proprietary solutions to enhance their customers business and in the process creating a strong foundation for their own sustainable competitive advantages.

In a fast-evolving world, we believe the power of organisational design will serve as a key driver for growth, fostering innovation and efficiency, and ultimately positioning businesses at the forefront of their respective industries.

Francyne Mu is a Portfolio Manager for the Franklin Global Growth Fund (ASRN 132 597 972). Learn more about the Fund and how it seeks to invest in global growth opportunities here. Franklin Templeton is a sponsor of Firstlinks. This article is for information purposes only and does not constitute investment or financial product advice. It does not consider the individual circumstances, objectives, financial situation, or needs of any individual. The information provided should not be considered a recommendation to purchase or sell any particular security. It should not be assumed that any of the security transactions discussed here were, or will prove to be, profitable.

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Podcast: How to build a resilient investment portfolio

Firstlinks, Morningstar

Our *Wealth of Experience* podcast welcomes a special guest this week - Morningstar Global CIO Dan Kemp. It also features Graham on the capital gains tax, the impact of the Reserve Bank Review and whether the Governor will keep his job, as well as Peter outlining four of his favourite long-term market themes.

On a visit to Australia from his home base of London, Kemp says many investors remain pessimistic about market prospects despite indices having sharply recovered from 2022's fall. And that it's a dangerous time for these investors because if markets drop again, they may not be prepared for it and may sell their investments at the wrong time.

Kemp believes that investors need to be prepared for whatever direction the market takes. To do that, he advocates three things:

- The right portfolio
- Good advice
- Staying the course

Some notable quotes from the interview include:

1. On true diversification in a portfolio:

"Sometimes, you'll find that there are fault lines that run through the portfolio. You might have lots of different managers, but if they're all focused on the same theme … then there's probably what we call a lot of correlation there – they act very similarly to each other. So, you don't have genuine diversification."

2. On why trying to forecast the future isn't worth the effort:

"As human beings we see this thread of history behind us, and history looks like it proceeds in logical steps. The danger is that when we look at the future, we assume that there's a thread of history in front of us which if we dig enough, if we do enough analysis, do enough thinking, that we can uncover this single thread of history in front of us. That the future is as deterministic as the past."

3. On the importance of paying the right price for an asset:

"Let's say, economists are forecasting a recession, but if the impact of that recession is already priced into assets, then if you actually have a recession, then you may not get the return from those recession focused assets that you're expecting, because it's already priced in."

The podcast is also available via our dedicated website page, Google Podcasts, Apple Podcasts, Spotify, and BuzzSprout.

Please share with friends and colleagues, and a favourable rating would help spread the word. We welcome questions and suggestions at firstlinks@morningstar.com.

Grab a cuppa and settle in for our chat.

James Gruber
Editorial, Firstlinks and Morningstar

Tribute to Nobel winner Markowitz: When Harry met Graham

Graham Hand

Harry Markowitz, the 1990 Nobel Laureate for Economic Sciences and Pensions & Investments Magazine's 'Man of the Century', died last week at the age of 95. His 1952 seminal paper *Portfolio Selection* pioneered our understanding of risk, return and correlation in investment portfolios. His Efficient Frontier and Modern Portfolio Theory ideas are still taught in universities and business schools.

I met Harry a few times in California at the Research Affiliates Advisory Conference. Long-time friend and colleague of Harry, the Chairman of Research Affiliates, Rob Arnott, provided this obituary exclusively to Firstlinks:

> *"In his last decade, Harry and I talked a couple of times about the inevitability of death. Harry did not fear death; he loved life. Accordingly, Harry would not want grief at his passing, but celebration of his living.*
>
> *As will many who met him or worked with him, I will remember him as an intellectual giant. But, he was also a mensch, a mentor, a caring friend, and a truly happy man, showing joy and passion for all that life has to offer. Like most polymaths, he was impatient with mediocrity, especially in academe, where he expected intellectual curiosity and rarely found it. He liked to dive into the data, looking at the outliers, to see what could be learned from them, disdainful of the quant community addiction to data mining, using backtests to improve the backtests.*
>
> *Among friends, he was quick with a joke, with a special fondness for Jewish jokes and bemused quips. At an outdoor restaurant during the early scary days of Covid, where the hostess insisted he mask up for the 10-foot walk to the table, he dryly remarked, "Thank you, I feel so much safer now." This was a 92-year-old bemusedly challenging a 26-year-old to let him take responsibility for his own well-being.*
>
> *I was fortunate to count Harry as a friend and a colleague. Farewell, Harry! We will miss you!"*

A 2010 video interview between Rob and Harry where Modern Portfolio Theory is explained, is linked here.

***

In my interviews in 2013 and 2014, he explains his views on risks and returns and how he arrived at his Modern Portfolio Theory and Efficient Frontier. It's a fascinating insight in to classic 'aha' moment. I edited three previous articles into one piece on asset allocation and portfolio selection and republish it as a tribute to a legend of our industry.

Harry Markowitz was born on 24 August 1927 in Chicago. He studied economics at the University of Chicago under important economists, including Milton Friedman. While still a student, he was invited to become a member of the prestigious Cowles Commission for Research in Economics, leading to his 1952 breakthrough work.

Harry Markowitz on investing until 100

This discussion with Harry Markowitz took place at the Research Affiliates Advisory Panel Conference, Laguna Beach, California, 30 May 2014.

Markowitz identifies the development of databases and ability to model expected outcomes as the major recent improvements in his portfolio construction work. Given a set of investments with forward-looking returns and defined risks, portfolio theory will show an efficient frontier for the investor. This principle has guided asset allocation and diversification for the 64 years since his original ideas. Says Markowitz, "I lit a small match to the kindling, then came the forest fire."

Long-term asset allocation

Markowitz tells me he has a wall in his office dominated by a cork board, and on it, a large graph shows returns over time from various asset classes. It shows $1 placed in small cap stocks in 1900 growing to $12,000, while the bond line has reached $150. I asked whether this shows that for anyone with a long-term investment horizon, their portfolio should be heavily dominated by equities, maybe even 100%.

He said he is asked this asset allocation question all the time. His advice is different to a waitress in a coffee shop versus a well-informed investor with good professional advice. He tells the waitress to go 50/50, a mix of growth from a broad stock fund and security from bank deposits, because she cannot tolerate the volatility of a 100% equity portfolio. But an educated investor with good advice should take their current portfolio mix, find the most efficient frontier, then simulate possible future outcomes focusing on income expectations. The investor can then better judge whether the portfolio is the right mix to achieve the end goals.

Markowitz believes active stock selection is for a few highly skilled people who usually find returns not from stock-picking on the market, but by participation in private placements. He cites Warren Buffett and David Swensen (of Yale University) as consistently delivering excess returns but mainly because of the private deals they are offered and their ability to value them. Otherwise, outperformance is not worth chasing.

His own portfolio is currently equally weighted municipal bonds and equities, the latter with an emphasis on small caps and emerging markets, but with a stable core of blue chips. This is because he feels so many stocks are overvalued at the moment, and his portfolio is also influenced by his age. "I want enough bonds that if I die, and the equity market goes to zero, my wife will have enough capital and income to live well." His current objective is to reach 100 without appearing on the right-hand column of *The Wall Street Journal*, with the heading "Harry Markowitz f*cked up".

He is a great believer in rebalancing, and this is one reason why a cash reserve is always required. As equity markets rise, shares should be sold to retain the same proportional asset allocation mix. This provides a natural protection from overvalued stocks. He recalled working with a major Fortune 500 client in November 2008, after the rapid stock market fall, allocating more to equities in a rebalancing exercise. This has subsequently paid off handsomely. But it was scary at the time, and as the market continued to fall, he thought if he keeps allocating more to equities at this rate, the whole place will be owned by him and Buffett. He likes the expression 'volatility capture' for this process, which is why there is a role for bonds as part of the reallocation mix.

I was still curious why a person with good savings at age of say 40, and strong income flows, would not invest 100% in equities, given their long-term outperformance versus cash or banks. He said,

> *"They may think their income is assured, but then may hit a rough patch and need to sell equities at the worst moment."*

He highlighted that many people have jobs which are also heavily exposed to the strength of the economy, and that they should also "diversify their own job and other income sources". He suggests investors should not become too smart, using leverage and unusual investments, and not try to become rich overnight.

He is also keen on using simulation to determine possible future outcomes. In his financial advice business, GuidedChoice, and especially in their new work on GuidedSpending, they ask clients to define an upper band of future income requirements, which might be say $50,000. Clients then define a 'scrape through' amount, such as $30,000. Simulations are done based on variables such as living longer and market returns "to capture the essence of the spending problem". Clients can vary scenarios to see the outcomes. The most common consequence of the process is that people save more, often dramatically and commonly 50% or more.

What else would he do all day?

While the technology behind the scenes is complex in this modelling, it is presented in ways the client can easily understand. But he dislikes mechanical rules such as taking 4% from the portfolio each year. "Why should someone who is 90 only take 4% if they want to spend more?" he says.

I ask him how a fund with investors aged from 16 to 90 should allocate its assets. "It's like a family," he responds. "There is a trade off in a family structure between paying for the education of the children, versus the future retirement of the parents. All families make these 'social choices', and so must the fund. Their decisions may not be ideal for the 16 year old or the 90 year old but everyone makes these choices in life".

And one of Markowitz's choices is to keep working as hard as ever. "*I enjoy this, and what else would I do all day?*" He now dedicates every Friday to writing to ensure he meets his deadlines, spends every Thursday afternoon at GuidedChoice where he consults to their institutional clients, and he maintains a heavy teaching and advising schedule. If his health allows it, he'll still be doing it when he's 100, and that right hand column of *The Wall Street Journal* will be singing his praises.

Harry Markowitz on portfolio selection

I interviewed Harry at the 2013 Research Affiliates Advisory Panel meeting in San Diego.

GH: I'd like to start by going back to 1952 and your seminal paper, *Portfolio Selection*. Did the idea of mean variance and efficient frontier and risk reward come to you while you were having a shower, or was it more systematic that that?

HM: There was a moment of truth, a 'ah ha' moment. Let me give you some background. I was a PhD candidate at the University of Chicago and the reading list included Graham and Dodd, Weisenberg and John Burr Williams, *The Theory of Investment Value,* from 1939.

So I'm in the Business School Library, and Williams says the value of a stock should be the present value of its future dividends. I thought to myself, dividends are uncertain, so he must mean the expected value. So I thought if we're only interested in the expected value of a stock, we must be only interested in the expected value of a portfolio, but to maximise the expected value of the portfolio, you must put all your money into the one stock with the highest expected return.

But that can't be right, everyone knows you should not put all your eggs in one basket, Weisenberg had shown people are willing to pay for diversification. So people diversify to reduce risk and volatility, and standard deviation is a measure of risk.

GH: So you knew statistical theory, you had that background?

HM: Yes, I had the usual courses you'd expect from an economics major in the leading econometrics school. So I visualised the returns on the securities as random variables, so that means the return on the portfolio is the weighted sum of the returns on those random variables. I know what the expected value of a weighted sum is, but I don't know off hand what the variance of a weighted sum is. So I get a book off the library shelf, *Introduction to Mathematical Probability*. I look up the formula for the variance of a weighted sum and there it is, covariance. Not only does the volatility of the portfolio depend on volatility of the individual securities, but the extent to which they go up and down together.

GH: That was the magic moment.

HM: That was the moment. So now I have two quantities, risk and return, and I know economics so I draw a trade-off curve. I'd heard of efficient and inefficient allocation of resources, Pareto optimums and so on. So I now had efficient and inefficient portfolios. In that flash, in that moment, much of Markowitz 1952 came together.

GH. So although there was this moment, there was a massive body of knowledge already built up.

HM. Sir Isaac Newton said, "I saw so far because I stood on the shoulders of giants."

GH: Also in your career, you are credited with running one of the first hedge funds, doing arbitrage.

HM. No, a long way from the first. A bit of history. My first job out of college was with the Rand Corporation, where I developed a programming language called SIMSCRIPT, for simulation. The guy who wrote the manual was an entrepreneurial-type, he said, "Harry, let's form a company." We founded CACI in 1962, it still exists, it's a big company now. Then UCLA invited me to be a full professor, full tenure, and another entrepreneur decided to form a hedge fund called Arbitrage Management, based on Thorp and Kassouf's book, *Beat the Market*, doing all sorts of arbitrages. I was a consultant, then the portfolio manager. We made a decent return for clients but not really for us, we were generating a lot of brokerage, so we became a wholly owned subsidiary of a brokerage house before I left.

GH: Given it's now 60 years since *Portfolio Selection was published, d*o you feel any sense of disappointment about our profession, we haven't really had any major breakthrough theory of investing since the 1950's.

HM: A lot has happened. We have a lot of data now. In 1952, we hired a student to collect data on securities. But between the top down view, knowledge of data, and our experience, we are better now. When I was at

Rand in 1950, I just did 50/50. That's all I knew then, it's not what I would do now and it's not what I would recommend to a 25-year-old. My profession and I have learned a lot.

GH: I don't like how so many investment discussions end up talking in generalisations.

HM: It's a good point. There's a big difference between my article of 1952 and book of 1959. In chapter 13, I talk about the division of labour between the computational part and the intuitive part. Computational part can show probability distributions of returns you can have at your disposal, we can tilt them so they're correlated with inflation or whatever. But which particular probability distribution you want to have at this time of your life, for this year – you know, your kids go to college, you're not feeling well, people might be dying in your family, etc - is beyond any model. We don't understand all that goes on. If we could understand it, we couldn't model it. If we could model it, we couldn't estimate it. This year is different from next year.

On the following link, I also interviewed Harry Markowitz on financial advice, as he was heavily involved in a new business called GuidedChoice. His comments remain relevant to Australia's advice landscape today.

Graham Hand is Editor-At-Large for Firstlinks. This article is general information and does not consider the circumstances of any investor.