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Passive investing and other disruption themes

Hamish Douglass

There is an accelerating trend towards low-cost index or passive investing. The father of low-cost index investing, Jack Bogle, deserves the investment equivalent of a sainthood as he has commoditised buying the market index at a very low cost. Bogle is a hero of mine for the service he has done for society by lowering the cost negligible levels of accessing the market index. I have named the office adjacent to my desk (open plan) the 'Bogle Room' in honour of Jack. It serves to remind me that we are here to serve our clients and, as active managers, we must do something fundamentally different, rather than closely follow the market index.

What's actually in an index?

Investors must understand what they are buying when they invest in an index fund. They are buying all the constituent companies in the index. If, for example, investors buy an S&P500 Index fund, they are gaining an exposure to 500 of the largest US companies, which represent about 80% of the market capitalisation of all companies listed in the US. Over time, the S&P500 Index, on average, will produce a return approximately equal to the underlying earnings growth of all companies in the index, plus the dividends paid by all companies in the index, less the negative return of companies that fail, less the fees charged by the index provider.

To earn reliable absolute returns from tracking a market index, the following factors must hold:

- Over the long term, the long-term price/earnings multiple remains fairly constant for the vast majority of companies in the index, and
- The failure rate of companies in the index remains fairly static.

Historically, these premises have held for the major market indices and investors have achieved satisfactory returns from index investing.

There is a material risk that technological advances and business-model disruptions over the next 10 to 20 years will reduce the value of many companies in the major market indices. This will be driven by lower future earnings and lower price/earnings multiples.

More businesses will fail in future

We believe a meaningful proportion of companies will cease to exist over the next 20 years as the inherent failure rate of businesses increases. The more obvious examples of businesses that face possible extinction

include car manufacturers, automotive suppliers, oil and gas companies, coal miners, many retailers, media and cable companies and shipping companies.

Additionally, a large proportion of businesses could have their business models fundamentally disrupted. Many large consumer brand companies could be vulnerable. I often dwell on the long-term prospects of a consumer stalwart like Procter & Gamble (P&G).

P&G is the world's leading household products company. Its portfolio of consumer brands appears formidable. Its brands include Tide, Fairy, Dawn, Gillette, Pampers, Pantene, Head & Shoulders, Herbal Essences, Tampax, Always, Crest, Oral B, Vicks, Old Spice, Olay, Bounty and Charmin. A fundamental reason for the strength of P&G's economic moat has been the power of the brand-based business model, which combines traditional advertising with conventional retailing.

As the world's largest advertiser, P&G has the largest share of shoppers' minds. Owning the number one or two brands in core categories gives P&G the preeminent shelf space with traditional retailers such as Walmart and Tesco. This business model has resulted in a virtuous circle for brand owners such as P&G.

New advertising and distribution models driven by businesses such as Facebook, Google, YouTube, Amazon and China's Alibaba are slowly breaking apart the business models of some of the dominant consumer brands. Facebook, Google and YouTube are eroding the barriers to entry in advertising, and emerging brands can quickly gain enormous exposure. More importantly, the large consumer platform businesses such as Amazon and Alibaba are likely to seek to disintermediate consumer brands.

For many of P&G brands (like cleaning agents Tide, Fairy, Dawn, and for products like paper towels (Bounty) and toilet paper (Charmin)), it will be relatively easy for consumer platforms to disintermediate these products and replace them with, say, Amazon-branded products. Many of these products are less likely to be purchased in traditional retail outlets but rather be restocked automatically via a platform. These platforms will be integrated with the Internet of Things (connected devices like washing machines) and powered by voice-operated digital assistants such as Amazon's Alexa. We can see a future where regular household items are automatically replenished by services such as the 'Fulfillment by Amazon' programme.

How a digital order might be placed

It is not far-fetched for the following interaction to occur in the near future:

Alexa digital assistant: "Good morning, Hamish. I am going to place the order for the weekly shop today."

Hamish: "Oh, good. What are you ordering?"

Alexa: "I will order regular items that are running low. If you don't mind, I have a few ideas that should save you \$20 this week and hundreds of dollars per year. I notice that you have regularly ordered Tide washing detergent, Fairy dishwashing tablets and Charmin toilet paper. I would like you to try some great Amazon products to replace these brands."

Hamish: "I am not sure I want to do this. I have been using these brands for years."

Alexa: "Look Hamish, I don't want to offend you but you have been overpaying for these products as you have been paying for all the advertising on these brands. I can assure you the Amazon product quality is exceptional. If you are not 100% happy, please return any of these products at any time and I will provide a full refund."

Hamish: "I am a little unsure but will give these products a go."

Alexa: "Good to hear, Hamish. I know you won't look back. You are on your way to saving hundreds of dollars per year with these few changes. I would hate to see a person with such a strong Scottish name not taking advantage of substantial savings. You had better run as you have a meeting at work in 30 minutes."

Hamish: "Oh, I am running late. Please order me an Uber."

Alexa: "Done. Uber will be here in five minutes. Have a great day."

I believe the preceding dialogue will prove realistic enough and shows the power of platforms such as Amazon to disintermediate major consumer brands in the future. Once a product has been switched for an Amazon brand, it is unlikely that you will be shown the branded good again.

Other product categories such as hair, skin care, razors and toothpaste, while harder to displace with an Amazon brand, are likely to become more competitive as the platform companies reduce the barriers to entry for newcomers.

If P&G's brands are disintermediated, their earnings will decline as volumes and margins recede and investors will reassess the long-term price-earnings multiple that they are prepared to pay for P&G. P&G's price-earnings multiple has averaged 20 times over the past 20 years. This multiple could fall materially. We refer to this as the **terminal value risk**.

The investment problem is that it is impossible to know when the market will reassess the long-term prospects of businesses like P&G and the price-earnings multiple that the market will apply in the future. Our caution is that a reassessment could occur rapidly and brutally, and well before P&G's brands are meaningfully disrupted.

June 2017 was an historic turning point

Friday 16 June 2017 is likely to be a historic 'Black Friday' for many retailers and possibly also manufacturers of branded household and food products. This is the day that Amazon announced that it intended to acquire the US fresh foods retailer, Whole Foods, for about US\$14 billion. In our view, this is central to Amazon's strategy to be the fulfilment company for the regular weekly shopping needs for the majority of US households. This role is currently undertaken by the grocery chains, with online retailers having a minimal presence.

To break into the weekly shopping habits of consumers, it appears that Amazon has concluded it needs a compelling 'fresh' offering and a well-positioned network of stores. It will need to transform Whole Foods from an upmarket and expensive offering into a compelling fresh offering at great prices. Amazon could then use the network of 460 stores to fulfill the fresh needs of Amazon customers in store and leverage the store network as collection points for regular shopping items. It is likely that Amazon could loss-lead on the 'fresh' offering to make it compelling for customers to do their weekly shop with Amazon.

The integration of Amazon's fulfilment centres, Amazon Prime offering, data analytics, technology and now a physical network of stores with a compelling fresh offering potentially puts Amazon at the centre of US shopping habits. The pace and scale of disruption is accelerating.

Looking in the rear vision mirror will tell you little about which businesses will do well in the future. It is more important than ever to look out the windshield and think about how technological changes could alter business models in the future.

Why Uber is unlikely to survive long term

Picking winners from technological disruption may be less obvious than it appears. Take the example of Uber, the world's leading car-hailing app. Uber is one of the most valuable start-up companies, having a private market value above US\$60 billion. Uber has apparently attracted some of the world's most renowned investors to fund its business. I find this perplexing because the Uber business model is risky and has a high probability of failure. Its business reportedly uses a lot of cash, thereby requiring 'cash injections', and the funding model to attract these injections requires an ever-increasing 'valuation' to encourage the next investor to provide cash on the expectation that the value at the next funding round will increase. Without access to more funding, the business may not survive.

Uber's business model is a classic network business that requires a large local pool of owner-drivers and a larger number of users. Uber is spending billions of dollars per year in building its network of owner-drivers. The risk with the Uber business model is the likely emergence of autonomous driving. If autonomous driving becomes a reality, one side of Uber's network will collapse. A network of owner-drivers is a high-cost solution compared with a fleet of autonomous vehicles. Uber's huge number of users could be replicated rapidly by another company that had a vast fleet of autonomous vehicles. To prosper in an autonomous driving world, Uber needs two things: access to exceptionally safe autonomous-driving software, and access to a lot of capital to roll out a vast fleet of autonomous cars. We question whether Uber has either of these.

We assess that there are other companies that have materially stronger competitive advantages in autonomous driving. A critical test for autonomous-driving software is how far an autonomous vehicle can travel before the human 'safety driver' in the vehicle has to take control to avoid an accident, in what is known as a disengagement. Recent data indicates that Waymo (Alphabet's autonomous driving unit) has driven over 600,000 miles in California with an average 'disengagement' rate of slightly over 5,000 miles.

In March 2017, Uber's autonomous vehicles were able to drive just 0.8 miles before a safety driver needed to assume control for any reason. In California, Tesla is averaging around three miles per disengagement, Mercedes-Benz two miles, BMW 638 miles and Ford 196 miles. These results suggest Uber has the least advanced autonomous-driving technology among the major players. Only a few autonomous-driving operating systems will prevail in the longer term and the winners are likely to have the best safety records. Waymo appears to have a commanding lead and Uber appears to be a laggard.

An investment in Uber may be a bet that autonomous vehicles will not be adopted. Given the quantum of investment and advances in autonomous-driving technology, this appears unlikely.

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The energy disruptions with forever consequences

Roger Montgomery

By now, we're all well versed on the subject of Amazon disrupting retail, Aldi disrupting supermarkets and fintechs disrupting banking (admittedly to a significantly lesser extent). However, the most significant disruption is occurring right under our noses without us noticing.

While disruption is just another buzzword for 'change', which has always been with us, there is no escaping the profound impact it has on old technology, incumbent businesses and legacy revenue models. It is important to understand the virtuous cycle that accelerates usage and revenue trends in technology.

When a technology advances, bringing down its price, it opens the technology to new markets. Increasing utilisation reduces the price further, opening up still newer markets, increasing demand, reducing the price further and so on ... until of course another newer technology replaces it.

Keep that cycle in mind as we examine global developments in energy generation and supply. Energy is a commodity and the winner will be whoever can supply energy most cheaply.

Wind power

Irrespective of your politics, it is vital to understand the trend in prices that wind is delivering. An exponential plunge in wholesale wind power prices was caused by generator rotor surfaces increasing, with their height increasing from 15 meters in 1990 to an estimated 150 meters in 2020. This change has resulted in more than 1000% growth since 2002 in global installed energy capacity from just 31 gigawatts (GW) to 487 GW at the end of 2016. In 2016 alone, a record 55.6 GW of wind power was installed. The average price of wind power contracts signed in the US wholesale electricity grid has fallen more than 95% per unit since 1980.

Solar

The tipping point for solar energy may now have been reached after which it becomes and remains the cheapest source of energy, without subsidies, in sunny parts of the world.

Improvements in technology and efficiency, and an increase in supply, has seen the average retail price of solar-generated energy plunge from US\$77 per kWh in 1977 (according to some analysts such as Ramez Naam) to just US36 cents today. That represents a 200-fold fall in price.

To put the current prices in perspective, a new natural gas plant in the US costs about US5-6cents per kWh to build. A coal plant in India costs US4-5 cents. In China's Gobi Desert, an unsubsidised solar array has been built for US5 cents per kWh, while last year, First Solar sold contracts to Berkshire Hathaway at US3.9 cents.

India is an enormous market for many manufacturers, and what happens there will have an impact on global manufacturers elsewhere, including Australia. In India in April 2017, the Rewa Ultramega solar power plant was put out to tender and the low bid came in at US4.5 cents per kWh, including labour, frames, modules, and land. The price represents a three-fold decline in just four years. This marks a tipping point according to many observers, making solar power the cheapest unsubsidised source of new energy.

Clean energy is the cheapest

If clean energy is becoming the cheapest source around the world, partly helped by record low interest rates, the utilisation rate of technology that relies on it will also accelerate. As it does so, the prices decline. As prices decline, new markets open up, penetration increases and prices decline again in a virtuous cycle that usurps and ultimately replaces old businesses models entirely.

All-electric vehicle cars will dominate India by 2030. China's electric vehicle subsidy scheme may see any vehicle sales growth above the 2016 base line entirely filled by electric and hybrid vehicles. Volvo has said it will only make fully electric or hybrid cars by 2019. Car manufacturer announcements reveal that by 2021, there will be at least 143 electric vehicle models on the road compared with just a handful today. Norway has set a target of only allowing sales of 100% electric or plug-in hybrids by 2025. Some states in Germany are considering a 2030 phase-out of fossil fuel vehicles and France's Macron has announced that France will ban the sale of diesel and petrol cars by 2040. But, if India reaches its target by 2030 and 100% of additional growth is mandated to be electric hybrids, there will be no petrol or diesel cars for France to ban by 2040.

In modeling the take up-rate of electric cars in Australia and what it might mean for Caltex or Santos, keep an eye on what is happening in India and China. It will not be Australians determining which cars are sold here, and trends in Australia will not determine what businesses survive.

A US company owned by Google, Nest, is working with the utility Southern California Edison to convince 50,000 of its customers to agree to install Nest thermostats which automatically reduce the amount of energy used during peak grid times. Nest could make wind and solar work better together, alleviating some of the concerns about base load power for utility companies and other industrial users.

Until recently the problem with energy independence for consumers has been storage. But Tesla recently took US\$1 billion of orders for its battery technology in one week. Although Tesla-branded powerwalls are actually Panasonic batteries, it is the three-fold increase since 1990 in battery energy capacity per gram and the ten-fold drop in prices that has made storage viable. Tesla says batteries represent one-third of the cost of manufacturing an electric vehicle and the cost will fall five times in the next five years.

Impact on incumbents

The impact on incumbent energy companies may be a death spiral. If their customers are obtaining even 50% of their power needs independently, prices will rise, accelerating the emigration from their services. A small house with solar cells and a Tesla powerwall unit can have 70% of its power needs met, and that is a house in Germany with a relatively short summer. In Australia and India, much more of a household's energy needs could be met off grid.

Battery prices are now dropping at a rate faster than wind and solar. Lithium Ion batteries, which deplete after 1,000 charge/discharge cycles, are quickly being followed by new technologies that will not deplete for 10,000 cycles. Demand allows scale, bringing costs down further, opening new markets and accelerating that virtuous cycle. Deployment of the technology will be exponential.

In the US, the four largest coal companies, including Peabody Energy, have fallen into bankruptcy in the last four years. Coal and thermal powerplant utilisation is declining in all major markets including the US, India, China and the EU. If the market for a commodity declines, there's no escaping the outgoing tide for suppliers who are price takers with high fixed costs. Oil is not running out but is being replaced with better technology.

Watch the virtuous cycle of disruption

The speed at which the virtuous cycle of disruption takes hold is vital for legacy companies, and the impact on energy markets transcends business and economic cycles. For example, Australia's stock market will not be dominated by fossil fuel energy and resource companies in future as it is today. Your financial security hinges on how quickly you spot and respond to these changes.

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Why all the fuss about family trusts?

Sam Wylie

Affluent Australians usually hold their investments in some combination of superannuation, family trusts and direct ownership of negatively geared property. Over the last year, changes in superannuation rules and more challenging property market conditions have shifted the relative benefits of these arrangements. Family trusts have become comparatively more attractive. Investors should consider whether their 'structuring' and tax planning is still optimal.

The reduction in the income tax rate for small corporations, from 30% to 25%, will make the accumulation of wealth through family trusts more tax effective compared with super and negative gearing.

In the example below, a couple with children can accumulate wealth in their family trust at an effective tax rate of only 13.5% on their investment income. However, when the income tax on small corporations falls from 30% to 25%, as it is legislated to do, the same family trust's strategy will accumulate wealth at an effective tax rate of only 11.3%.

A family trust with a corporate beneficiary

Mei Li and Jack Houston are a professional couple with high incomes, with three young children aged two, four and six years. They recently sold an apartment that they bought a few years ago, and the couple decides to use the \$200,000 net proceeds from the sale to establish a family trust.

The Houston Family Trust will have two purposes. The first and main purpose is to accumulate family wealth in a low tax environment. The second is asset protection (from law suits, creditors in bankruptcy, and some family situations).

After the Trust is 'settled' (brought into existence) the couple makes a gift of the \$200,000 to the Trust (or they might instead have loaned the money to the Trust). The \$200,000 is then invested in high-income assets, such as high-yielding shares or commercial property. The couple resolves to make further gifts of \$20,000 at the beginning of each successive year from their after-tax income.

Six beneficiaries of the Trust are named in the Trust deed: Mei Li, Jack, each of their three children and a corporation (the corporate beneficiary).

Accumulation phase

Assume the pre-tax return on the Trust assets is 6.5% per year after adjusting for inflation, received entirely as income with no capital gain to simplify the example.

At the end of each year, the annual income from the Trust's assets must be distributed to the beneficiaries of the Trust. It will not be distributed to Mei Li or Jack because they already pay income tax at the highest rate. And, it cannot be distributed to the children (without incurring top rate income tax) until the children turn 18 years. So, in the first 12 years of the Trust's existence (until their eldest child turns 18), all of the income is distributed to the corporate beneficiary (CB).

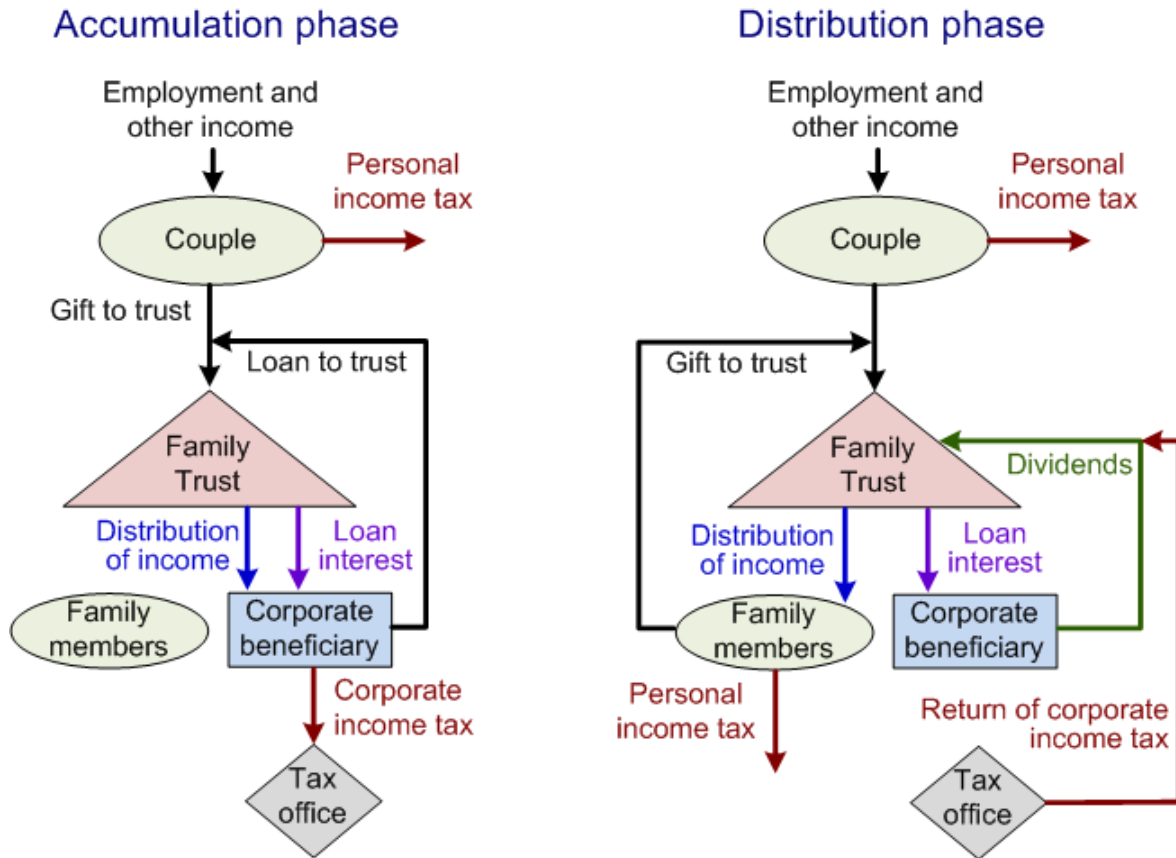
The left-hand side of the diagram below shows the role of the corporate beneficiary in accumulating distributions from the Trust until the children are ready to receive distributions. Each year the CB receives the Trust income and pays corporate tax on that income. The payment of corporate tax creates credits for corporate tax paid (or franking credits).

At the end of the first year, there is $\$200,000 \times 0.065 = \$13,000$ of Trust income, which is distributed to the CB. The CB then pays $\$13,000 \times 0.30 = \$3,900$ of corporate income tax. The remaining $\$9,100$ is loaned to the Trust. The CB then has assets of $\$9,100$ (the loan) and $\$3,900$ of franking credits.

At the end of the second year, the CB will again receive all the income generated by the assets of the Trust, but this time in two parts. First, as interest on the loan, and then the remainder as a simple distribution of income. The CB will again pay corporate income tax at the 30% rate and again loan its after tax income to the Trust.

And so it goes as 12 summers and 12 winters come and go. The children's cartwheels on the backyard lawn turn to car wheels in the driveway, and now the eldest child reaches 18 years, and the Family Trust is now ready to move from accumulation to the distribution phase.

The cash flows in the accumulation and distribution phases



Distribution phase

After 11 years the totals are as follows:

- Gifts to the Trust have amounted to \$420,000
- CB has stored \$185,000 from accumulated income
- Tax paid of about \$80,000.

At the end of the 12th year of the Trust's life, distributions to the CB cease and distributions to the children begin. Each child receives a distribution of \$37,000 at the end of each year for six years after they turn 18. The children's after-tax income is then gifted back to the Trust. The distribution phase goes on for 10 years, with distributions peaking at \$111,000 in the two years that all three children are receiving distributions.

The cash that is distributed to the children has three sources:

1. Annual income from the Trust's assets, which is now distributed to the children instead of the CB.
2. Value accumulated in the CB.
3. Return of the corporate tax paid by the CB.

The diagram above shows on the right-hand side the cash flows in the distribution phase.

During the 10-year distribution phase, all the distributions to the CB that were made during the 12 years of the accumulation phase are returned to the Trust and distributed to the children. The value stored in the CB is paid to the Trust as a series of annual dividends (the Trust owns the shares in the CB). The Trust then passes the dividends, with franking credits attached, to the children who use the franking credits to reclaim the corporate tax that was paid. So, all the money that was ever sent to the CB, including the part that was then sent to the ATO as tax, is returned through the Trust to the children, who then pay personal income tax on that amount.

The Trust's 'effective' tax rate

At the end of the distribution phase the Trust has existed for 22 years. The accumulated value in the Trust is \$1.38 million of which \$620,000 is the gifts from the couple and \$760,000 is the investment returns after tax. The Trust is now reset in the sense that the balance in the CB is zero and the tax credits are zero.

The couple can do whatever they wish with the \$1.38 million, including taking it out of the Trust and paying it into their superannuation (at \$100,000 each per year); gifting it to the children to launch them in the property market; leaving it in the Trust and start accumulating again through the CB; or spending it.

The Family Trust provides some real tax benefits. The \$620,000 of gifts compounded into the final value of \$1.38 million at an annual rate of 5.62%, which is the after-tax return on the assets. The before-tax return is 6.50% and the after-tax return is 5.62%. Therefore, the effective tax rate of this strategy is 13.5%, which is less than the 15% income tax rate in superannuation during the accumulation phase.

The effective tax rate is so low because the income is stored in the CB until it can be retrieved and cycled through the children's income. When the children receive distributions of \$37,000 they only pay \$3,867 in income tax, which is an average tax rate of 10.5%.

But if the children pay all the tax (the CB's tax is all retrieved), then why isn't the effective tax rate of the strategy 10.5% instead of 13.5%? All the taxes paid by the CB are retrieved from the ATO and distributed to the children, but while the ATO has the CB's tax the ATO is effectively receiving a zero-interest loan from the Trust. The ATO does not receive a loan in a legal sense, but that is how we should think of it economically. The taxes go to the ATO but are only returned after a period of time, and that raises the effective tax rate of the strategy.

Effect of corporate tax falling from 30% to 25%

The effect of the tax on small corporations (< \$10 million in income) slowly falling from 30% to 25% will lead to the Trust having \$1.41 million in assets after 22 years and the effective tax rate falls to 11.3%.

The effective Trust tax rate is lower when the corporate tax rate falls, even though all corporate tax is returned because the corporate tax rate determines the size of the zero-interest loan to the ATO. If the corporate tax rate is 30% then the ATO has collected about \$79,000 of corporate tax during the accumulation phase (the size of the zero-interest loan). If the tax rate is only 25% then the accumulated tax is \$67,000.

If there were no delay in the return of tax paid, through franking credits, then it would not matter to the couple whether the corporate tax rate was 30% or 25%. But once there is a delay in return then the tax becomes a zero-interest loan to the ATO, until it is returned. If that loan goes on forever, then the effective tax rate equals the corporate tax rate of 30%.

A CB meets the ATO's requirement that a corporation is carrying on a business to qualify for the lower tax rate on small businesses, as according to ATO's website: Even if the company's activities are relatively passive, and its activities consist of receiving rents or returns on its investments and distributing them to shareholders.

Dr. Sam Wylie is a Principal Fellow of the Melbourne Business School and a Director of [Windlestone Education](#). Sam consults and teaches finance programmes for corporate and government clients. Please seek professional advice on structuring and tax planning from a qualified accountant or financial planner. This article helps you have that conversation at a higher level.

How 'ridiculous' are hybrids for retail investors?

Justin McCarthy

For many years, much has been written about the apparent complexity of hybrids and how they should not be sold to retail investors. The outgoing ASIC chairman, Greg Medcraft, last week went as far as saying they were a 'ridiculous' product for retail investors.

However, in the last five years or so of hybrid bashing, I have never seen anyone suggest that retail investors should be banned from investing in equities issued by the same companies. By definition, equities are more complex with many more moving parts for the average punter to comprehend. Compared with hybrids, equities are significantly more volatile and are far more likely to experience a rapid fall in value, dilutionary equity raisings, reductions or complete cuts of income (i.e. dividends) and even a complete loss of value. While the downside of equities can be significant, the trade-off is there is no limit to the upside.

As an analyst, I work in probabilities and facts. Yes, the hybrid (and equity) prospectuses can be complex to read, however, when it is boiled down there are five simple questions that cover the majority of scenarios.

Five questions to ask

1. Is the hybrid issued by a regulated bank or insurance company?

Banks and insurers are preferable issuers as there is the added protection of a regulator monitoring the company and a defined set of rules, which govern the disaster scenarios.

Moreover, banks and insurance companies have reputations to uphold and as regular issuers of debt, they do not want to let investors down as it will cost them in higher margins next time. Further, they are typically rated by one or more agencies. With corporate hybrids, on the other hand, I always assume the company will do what is best for the company, not the investor.

2. Will I get paid my quarterly distribution?

There is approximately a 99% chance of payment. The main concern is how hybrid distributions can be cut if 'this, that or the other' happens. However, to my knowledge, no Australian major or regional bank or insurance company has missed or even deferred a coupon on any hybrid in the past 20-odd years. For highly-rated banks and insurance companies, I assign a probability of a missed coupon at less than 1% on a five-year horizon.

Another way to assess the risk of income loss is to ask, "do I think the company will cut their share dividends to zero at any point in the next five years?" Practically all hybrids have a 'dividend stopper' which says if the company misses paying a hybrid coupon then they are not permitted to pay a dividend to shareholders. For large banks, insurers and corporates, the prospect of not paying a dividend would be a last resort and a significant deterrent. If a company is paying dividend, it must pay all hybrid distributions – a very simple test.

3. When will I get my money back and how much will I get back?

There is around a 95% probability of full capital return at first call date and 98-99% probability of full capital return by mandatory conversion date.

Once again, much has been written about call risk and the prospect of being converted into equity, potentially at a loss of capital. Talking facts and probabilities, to my knowledge all Australian major and regional banks and insurance companies have called/redeemed when *expected* for at least the past 10 years. In almost all cases, this is the first possible call date.

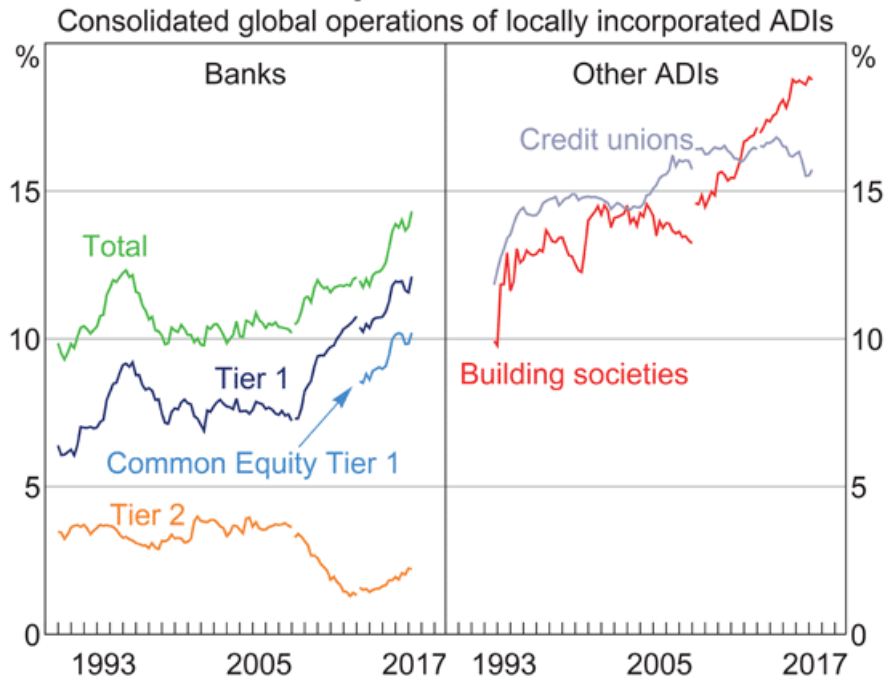
Further, no Australian bank or insurer has been forced or chosen to convert hybrids to equity under the new Basel III regime. Regulations and capital buffer requirements are far more stringent since the GFC, a crucial fact that is often missed in the discussion about the risk of hybrids.

Last week APRA released their 'Unquestionably Strong' capital requirements for Aussie banks. Once fully implemented in 2020, some local banks will have almost double the capital buffer compared to pre-GFC levels (and many of the world's leading banks have close to three times the capital from pre-GFC levels). This is capital that ranks below the hybrid level and is used to absorb losses before impacting hybrid investors.

The risk of default by all hybrid securities has been massively reduced, due to the enormous build up in common equity capital buffers, and the huge importance placed on this capital. Monitoring of early warning signs by the regulators such as APRA (arguably the world's best regulator) also lower the risk of default. Bank and insurance boards' desires to have an adequate buffer over the minimum requirements have reduced the risk of default for all hybrid securities.

Capital ratios for Australian banks

Capital Ratios*



* Per cent of risk-weighted assets; break in March 2008 due to the introduction of Basel II for most ADIs; break in March 2013 due to the introduction of Basel III for all ADIs

Source: APRA

For the new-style/Basel III compliant mandatory converting hybrids issued by the major banks these days, I assign the following approximate probabilities:

- 95% chance of call at first opportunity.
- 3-4% chance of conversion into equity two years after first call.
- 1-2% chance of an unexpected outcome such as continuation or conversion to equity later than the scheduled conversion date, conversion into equity at a loss or default.

Would an equity investor refrain from buying a particular share if there was a 1-2% chance of a delay or risk in receiving back the initial investment amount?

Like most debt securities, hybrids issue at \$100 and redeem at \$100, and the value can vary in-between (in the vast majority of cases no higher than \$110 and no lower than \$90). Ideally, we look to buy hybrids at a discount when the opportunity arises to counteract the 'no upside like equity' argument.

Granted there are a few apparent exceptions that have gone past their call dates such as NABHA, MBLHB and SBKHB. However, these were not sold with the expectation they would be called at the first opportunity. They were different due to a unique set of regulatory and tax rules that existed for a short period in the late 1990s when they were issued. It is these 'legacy' issues (which in my estimation account for just ~1% of all hybrid issues in the past 20 years) where investors may need some help from industry experts. The ANZPCs could also be considered an exception. While we expect them to be called in September 2017, they fall into the 3-4% that may go to the conversion date.

It is the 1% of 'different' hybrids that tar the other 99% with the 'complex' brush. However, it is the misunderstood securities that present the best opportunities if time is taken to understand them.

4. Can I live with potential volatility?

The main risk of hybrids is they can be volatile in times of stress. In the GFC, some major bank hybrids fell circa 30%. However, bank share prices fell double that. I expect the fear of conversion into equity under Basel III from a predominately retail investor base would likely see some material price falls in times of extreme stress, but therein lies a potential opportunity.

As a rule of thumb, I assume that in a stressed environment such as the GFC, hybrids will fall around half of the decline of the underlying equity. Unfortunately, the Australian dollar hybrid market is now almost exclusively floating rate notes, which do not benefit from falling yields in a crisis scenario.

For investors who cannot afford to hold until expected maturity or call date or until the price recovers, this may be an issue. Further, if the volatility of hybrids is unacceptable, then the volatility (and significantly higher risk to income) of equities should also be unacceptable.

5. Am I being paid for the risk?

Typically, a hybrid pays two to three times a term deposit return for arguably a minor increase in default or missed income risk (in probability terms).

The main risk is volatility in times of stress, not credit risk. Hybrids provide better risk-adjusted returns versus sub-investment grade or unrated corporate bonds with similar yields/margins.

All investment decisions come down to 'am I being paid enough for the risk I am taking?'. Comparing hybrids to term deposits needs to recognise the extra return for the risk.

Assessing the risks

The key to assessing the risk is to consider:

- Probability of default, and
- Loss if a default occurs

The massive increase in capital buffers and regulatory oversight in the past decade has de-risked bank and insurance hybrids. Yes, there are provisions to cancel coupons, defer expected maturity/call dates and convert into equity (potentially at a loss) but these risks are minimal, especially for best of breed, highly rated APRA regulated banks and insurance companies.

The much-feared 'conversion into equity or point of non-viability (PONV)' clause in the new style hybrids is unlikely to be triggered. I would argue that whether under the old regime that existed at the time of the GFC or the new Basel III PONV rules, if a bank has capital so low that the regulator has to step in, the value of the hybrid Tier 1 capital (and the Tier 2 subordinated debt capital) at that time would be less than 10% and most likely close to zero.

For major banks, I assume less than 1% chance of default and a zero recovery in that unlikely event.

Compare that to sub-investment grade or unrated bond issues from small companies. For example, a single-B senior unsecured bond has a historical probability of default over a five-year period of around 18.5%. Loss given default is dependent on the facts but would typically be 80% to 100% loss for anything with a material amount of senior ranking bank debt, especially for a 'cashflow lend' to a company with few hard assets.

Investors need to be aware of what *could* happen, but the investment decision should be based on what is *expected* to happen i.e. probabilities.

Not a good time to buy hybrids

While we are comfortable with the risk/reward dynamics of the new-style bank and insurance hybrids, the current returns from bank and insurance hybrids on an outright basis are on the expensive side. The yield to expected maturity/first call of around 6-7% or trading margins in the mid-300 basis points (3%). Our general rule of thumb is that five-year hybrids are good value when trading margins are closer to +500 basis points (5%) and fair value at around +400 basis points.

Corporate hybrids and hybrids from non-Australian banks and insurers are more complex and do require additional analysis to understand the market and regulatory drivers.

Justin McCarthy is Head of Research at [Mint Partners Australia](#). The views expressed herein are the personal views of the author and in no way reflect the views of the BGC Group. Individuals should make investment decisions based on a comprehensive understanding of their own financial position and in consultation with their own financial advisors, and no responsibility is accepted for the opinions in this article.

The rise of socially responsible investing

Rosemary Steinfort

Ethical or socially responsible investing (SRI), which focuses on environmental, social and governance (ESG) criteria, has been around for a while. More recently, other names have emerged such as sustainable or green investing.

SRI has been gaining traction recently with investments into 'core' responsible investment up 26% (according to Responsible Investment Association Australasia (RIAA)) to \$64.9 billion or 4.5% of Australia's total assets under management. 'Core' responsible investment approaches mean that at least one of the primary strategies applies, including: negative, positive or norms-based screening (adherence to global norms on environmental protection, human rights, labour standards, and anti-corruption); sustainability themed investing; impact investing, community finance; or corporate engagement.

Beating mainstream funds over the long term

The SRI industry makes a strong case that returns are not forfeited by this investing approach. A report launched recently by the [RIAA](#) showed "core' responsibly invested Australian share funds and balanced multi-sector funds have outperformed their equivalent mainstream funds over three, five and 10-year horizons" to 31 December 2016 (the benchmark being S&P/ASX 300 accumulation index). One major player, Australian Ethical Investment Ltd (ASX:AEX) was established in 1986 and now has over \$1.5 billion under management, returning 10% p.a. to its investors over the last 20 years.

SRI covers a broad subjective range of industries and practices. What is unethical to one person may not be to another, which leads to many different types of SRI, and difficulties pinpointing one strategy for all. RIAA says that nearly half of Australian funds (44%) are using some form of responsible investing strategies that include one or more of the following: negative screening, impact investing, sustainability themed funds and the integration of ESG considerations.

To see a positive outcome and return on SRI, a long-term approach must be taken. Factors such as changing working conditions, educating workers, restoring the environment or turning a building green take time and money. Long-term returns depend on the sustainability of the companies' initiatives to remain ethical.

Benchmark concerns

One of the issues with SRI is the lack of a performance benchmark. An index such as S&P/ASX200 may not be an accurate comparison. The Materials sector is 16% of the S&P/ASX200 index and BHP Billiton is nearly 5% of the index. Excluding BHP (plus other miners that do not meet ESG standards) means a significant underweight to a major sector and stock. Miners are more likely to be excluded from SRI funds because of environmental impact or fossil fuel mining and coal seam gas. The absence of mining stocks, in particular BHP and Rio Tinto, in ethical funds would have benefitted performance of the funds during the downturn in the mining cycle, especially since 2010

Banks may be screened out because of their lending to coal mining companies. Australian Ethical Investments only holds Westpac (6.3% of the index) and does not hold the other three major banks, although there are holdings in other financial service companies and smaller banks. Excluding the major banks (24% of the index) would be a big dent in a SRI fund's exposure to the index S&P/ASX200.

In global portfolios, companies that avoid paying tax in Australia or promote unhealthy lifestyles may not get the tick. Apple, for example, makes most of its money in Ireland due to the Irish government granting the company special tax status. Apple Australia's net profit for its financial year to September 2016, fell 97% on the back of a tax 'adjustment' for previous years. The 'Google Tax' applying from 1 July 2017 may lead to changes in the multinationals' tax affairs.

Passive ETFs and ethical companies

The increasing popularity of passive exchange traded funds (ETFs) in Australia also raises the question of how these funds can meet ESG requirements. It is impossible for a broad-based index ETF to be considered ethical as they are currently structured, as they simply track the broad benchmark with no ethical screening.

For example, around 69% of Vanguard's funds are broad-based and passive, according to Barrons, which limits its ethical stance. However, on Vanguard's website is the statement "as one of the world's largest investment

managers, we recognize that our voice carries considerable weight. Because the funds' holdings tend to be long term in nature (in the case of index funds, we're essentially permanent shareholders), it's crucial that we demand the highest standards of governance from the companies in which our funds invest". Recently Vanguard has stepped up its corporate governance by requiring Exxon to report on its impact on climate change, alongside some other big fund managers including BlackRock and State Street Global Advisors.

BlackRock, one of Vanguard's major competitors, has been more proactive around corporate governance but also would find it difficult to incorporate into its passive ETFs.

Ethical ETFs listed in Australia

However, several ETF issuers have introduced 'ethical' ETFs to Australia to meet the growing investor demand and attention on the SRI issue, as listed below:

Ticker	Name	Management fee	Market cap
UBA	UBS IQ MSCI Australia Ethical ETF	0.17% pa	\$160.5m
UBE	UBS IQ MSCI Europe Ethical ETF	0.40% pa	\$7.5m
UBJ	UBS IQ MSCI Japan Ethical ETF	0.40% pa	\$3.1m
UBP	UBS IQ MSCI Asia APREX 50 Ethical ETF	0.45% pa	\$0.9m
UBU	UBS IQ MSCI USA Ethical ETF	0.20% pa	\$4m
UBW	UBS IQ MSCI World Ex Australia ETF	0.35% pa	\$19.2m
RARI	Russell Australian Responsible Investment ETF	0.45% pa	\$64.8m
ETHI	Betashares Global Sustainability Leaders ETF	0.49% pa	\$59.6m

Source: *ETF Watch* as at 27 July 2017

BetaShares launched the Global Sustainability Leaders ETF (ASX:ETHI) with its objective being to "provide exposure to 100 large global stocks (excluding Australia) which are climate change leaders and which are not materially engaged in activities deemed inconsistent with responsible investment considerations". The benchmark is Nasdaq Future Global Sustainability Leaders Index which is provided by Nasdaq.

The Russell Investments Australian Responsible Investment ETF (ASX:RARI) "provides investors with a simple, cost-effective and transparent means of accessing an environmental, social, and governance (ESG) enhanced portfolio of Australian shares", by tracking a "custom-built, smart-beta index", Russell Australia ESG High Dividend Index. A custom-built index is one way around the problem of creating a passive ETF that meets ESG criteria. It is worth noting that all four big banks are held (total weight of 32% as at 27 July 2017) in the underlying basket of stocks, so in their view banks are not failing to be socially responsible. BHP and Rio are not part of the basket.

UBS manages six ETFs using MSCI benchmarks but only exclude tobacco companies and dangerous weapon manufacturers. MSCI Australia would not be overly exposed to these two industries so investing in the broader indexes is just as effective for a lower fee.

In other developments, a new roboadvisor called Balance Impact will launch soon, using SRI screens to actively select stocks and ETFs for other parts of its asset allocation process.

Demand will continue to grow

SRI will be a growing part of the managed fund and ETF industry driven by consumer demand due to the increasing focus on social change and global warming. Millennials, a larger cohort than baby boomers, is particularly pushing the demand alongside other generations. According to the [2015 Nielsen Global Corporate Sustainability Report](#), "66% of global consumers say they're willing to pay more for sustainable brands – up 55% from 2014." Furthermore, 73% of global millennials are happy to pay extra for sustainable products, which is up from 50% in 2014.

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Watch the low returns on 'high yield' debt

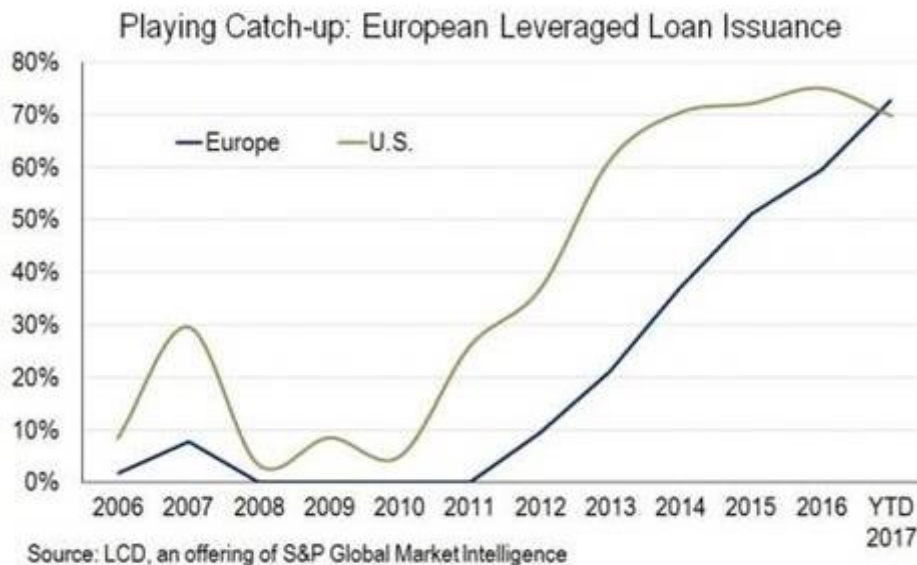
Jonathan Rochford

It is boom time once again for global 'high yield' debt. It's great for borrowers wanting cheap debt with few conditions but bad for long-term investors. Both investment grade and high yield debt carry more leverage than 10 years ago but interest servicing costs are lower. In effect, lower interest rates have allowed corporates to borrow more without having to pay more in interest.

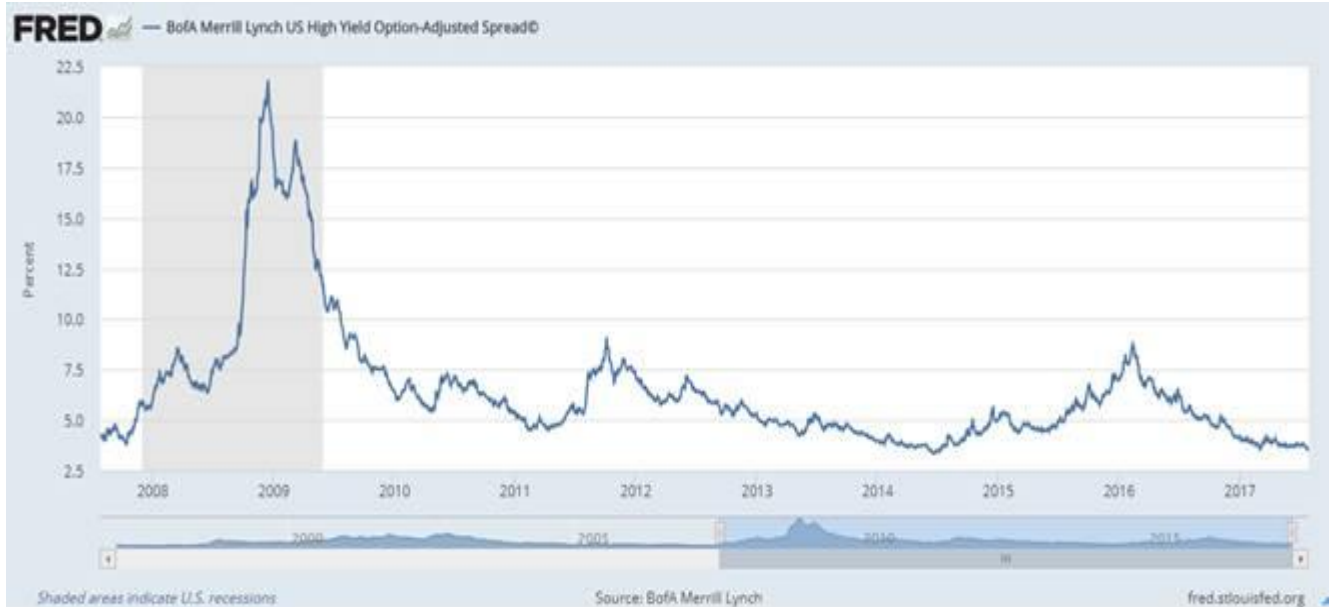
The first graph [from Bloomberg on US high yield](#) shows the breakdown of US high yield bonds into rating categories. Compared to a decade ago, the higher quality BB's make up a greater portion of the index, with B's much less than 20 years ago, and CCC's shrinking since the days of the GFC. That's a good thing, though it needs to be considered alongside two other factors that aren't so positive.



The bad news for high yield investors is that covenant quality is worse than it has ever been. The graph below tracks the proportion of US and European sub-investment grade loans that have minimal or no covenant protection. Asia isn't faring any better, covenant-light bonds are at [61% of issuance in Singapore and 72% in Hong Kong](#). Fewer covenants mean that sick companies are allowed to operate unchecked for longer. A lack of covenants increases the proportion of debt that suffers monetary defaults and reduces the recovery rate.



The last key characteristic to note is that spreads over base rates are near the lowest in the last 10 years. US High Yield bond spreads are shown below, but the story for European debt and leveraged loans is the same. There's been a [wave of loans being repriced in the US and Europe this year](#); situations where borrowers reduce the spread they pay, usually without providing any offsetting risk reduction. Borrowers clearly have the whip hand over lenders.



Spreads are now at the level where the B and CCC rated segments are barely positive if historical average losses are subtracted. Not surprisingly, many are saying that now is the time to be a contrarian and sell high yield. Edward Altman sees [high yield conditions as bad as 2007](#) and [Howard Marks similarly warned about conditions](#) in his latest memo. The initial yields on offer may look comparatively high, but that's no guarantee of high returns in coming years.

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