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What matters? A good industry or a good management?

Phil Ruthven

With the 2017 Federal Budget targeting the profits of banks for a special levy, and questions about who's next, let's take a look at business profitability and shatter some myths. There are misunderstandings about excess profits that some well-intentioned but uninformed or envious people suggest are the norm, but aren't.

There are thousands of good and truly impressive performers among our 840,000 employing-businesses in Australia. It's a tiny minority indeed, but a minority we would surely all like to become more mainstream.

The business of business

Businesses are started for all sorts of reasons: to buy a job; to satisfy an entrepreneurial or freedom-seeking passion; or to make more money than in a job, via profits on top of a wage or salary. Most don't achieve any of these. We currently have around 2.1 million businesses in Australia according to the ABS. Some 280,000 start up each year and nearly the same number close each year, mostly within three years of commencement. About 78% of businesses, on average, make a profit each year, 2% break even and 20% run at a loss. It's tough.

The average profit of the businesses other than general government - in terms of the net return after tax on shareholder funds (ROSF) - has averaged just over 5% over the past 30 years, or about the same as the 10-year bond rate over the same period.

Surely it is much better among our big corporations, say the 1,500 biggest, accounting for around 42% of the nation's revenue. Sadly, no. Over the past five years, their average has been just 8.7%, or much the same as the return on commercial property which is a passive asset. Some 20% of these 1,500 giants ran at a loss over the five-year period. Yes, one in five.

The **100 worst loss-making enterprises** ranged from a five-year average ROSF of minus 16% pa to more than ten times that annual loss. The average over the 100 or so corporations was minus 44.7% pa, although slightly-less scary on a weighted average basis at minus 30.0%. These 100 negative earners were evenly split between foreign and local corporations. Almost one in five of the 100 were caught unprepared for the minerals prices collapse over this five-year period.

Of course, a number of them were investing heavily for the very long term and they could not be considered mismanaged.

Our **100 best government businesses,** made up of Government Business Enterprises (GBEs) and general government organisations, fared a lot better, and had an average ROSF of 9.8% over the five years to 2016. Eleven of them achieved world best practice profitability of 20% or more. Around 80% of them bettered the average 10-year bond rate (3.1%) over this period. That's no mean achievement for government enterprises, and half of the best 100 are listed below.

50 Most Profitable Government Enterprises

5 years average Return on Shareholder Funds, after tax (ROSF %), to December 2016

	Enterprise	ROSF (%)	Revenue ($bill)		Enterprise	ROSF (%)	Revenue ($bill)
1.	Queensland Treasury Corp.	148.1%	9.94	26.	CQ University	8.4%	0.36
2.	TCorp	51.0%	4.69	27.	Comcare	8.3%	0.57
3.	QIC	43.6%	0.34	28.	Eastern Health	7.7%	0.93
4.	Motor Accident Commission	39.7%	0.51	29.	Sydney Water	7.3%	2.84
5.	SI Corp	37.4%	2.32	30.	HomeStart Finance	6.9%	0.11
6.	Pilbara Ports Authority	31.8%	0.41	31.	Latrobe Regional Hospital	6.8%	0.23
7.	Reserve Bank Australia	29.9%	4.54	32.	Water Corporation	6.6%	2.72
8.	Australian Hearing	25.3%	0.24	33.	Defence Housing Aust.	6.3%	1.37
9.	Treasury Corporation VIC	25.1%	3.23	34.	Queensland Rail	6.3%	1.93
10.	AEMO	21.6%	0.70	35.	Synergy	6.2%	3.13
11.	WorkCover Qld	21.0%	1.54	36.	Curtin University of Tech.	6.2%	0.91
12.	TASCORP	19.7%	0.23	37.	EFIC	5.9%	0.16
13.	Perth Mint	18.7%	9.02	38.	Ambulance Victoria	5.7%	0.81
14.	Western Power	16.9%	1.84	39.	Deakin University	5.5%	0.95
15.	Fremantle Ports	15.6%	0.22	40.	University of Adelaide	5.5%	0.94
16.	Endeavour Energy	14.9%	1.33	41.	University of SA	5.4%	0.61
17.	SAFA	14.0%	1.28	42.	Uni. of New England	5.4%	0.33
18.	Peter Mac	13.8%	0.39	43.	QLD Urban Utilities	5.4%	1.27
19.	Hobart City Council	13.8%	0.81	44.	Monash University	5.3%	2.03
20.	Horizon Power	13.5%	0.49	45.	City of Wanneroo	5.2%	0.17
21.	Places Victoria	11.7%	0.18	46.	City of Blacktown	5.1%	0.30
22.	Essential Energy	10.0%	1.55	47.	Charles Sturt University	4.9%	0.51
23.	Ausgrid	9.5%	2.68	48.	Power & Water	4.9%	0.72
24.	Insurance Commission WA	8.9%	0.86	49.	James Cook University	4.8%	0.53
25.	USC	8.5%	0.22	50.	City of Casey	4.8%	0.40

100 Best Government Companies - First 50. Source: IBISWorld 10/4/17

Performance of other clusters of companies

The **100 biggest corporations** that account for just under one fifth (19%) of the nation's revenue had an average ROSF of 11.6%, but only 8.4% on a weighted basis – also around the passive return on commercial property. Almost one in seven (18%) ran at a loss over the five-year period.

Cutting company taxes a bit wouldn't improve this awful performance much. Why just get a 7% improvement to the bottom line by cutting the tax rate from 30% to 25%, when knowing how to achieve world's best practice (WBP) profitability could double or even quadruple the bottom line, as well as the top line, profit.

Let's look into serious territory where WBP profitability is common rather than scarce.

Our **100 best listed public companies** on the ASX had an average ROSF of 23.3% over the five years to 2016. Some 47 of these had an average over 20%, matching WBP. Among those in the top 10 were: Tamawood (house construction), Platinum (funds management), Blackmores (vitamins), the Dulux Group (paint manufacture), Cochlear (hearing implants) and Telstra (telecommunications). These and a dozen others achieved over 30% in their returns on shareholder funds after tax over the five years to 2016.

The **100 best local private companies'** average ROSF, at 26.4%, was even better, not by a lot, but over half (53) did better than WBP over the five-year period. Names that are familiar to most include: Wotif; Lorna Jane; Penfolds Motors; Carpet Call; the GHD Group and Kennards Hire.

The **100 best foreign companies** averaged a much higher 51.3% ROSF over five years, or double the 100 best public listed corporations and nearly double the 100 best privates. All 100 beat the cut-off for WBP profitability in ROSF terms at over 20%. There are a lot of well-known and household names in this list, including: Bechtel; Hilton International; FedEx; Diageo; Philips; Colgate Palmolive; Nestle and Apple.

The **100 Best Companies** over the five years, regardless of the type of company or ownership, saw the average ROSF jump to a staggering 62.9%. But the best 100 have averaged well over 30% for decades, without suggesting they have always been the same companies. That doesn't happen: companies get taken over; split up or new management breaks the rules of success that got the company there in the first place.

Types of ownership do not matter much

What is particularly interesting about the outstanding performance of these companies is that there is very little difference in profitability between types of ownership, locality of ownership (local or foreign) or industries.

The 100 Best Companies

ROSF after tax (%), 5-Year Average to 2016

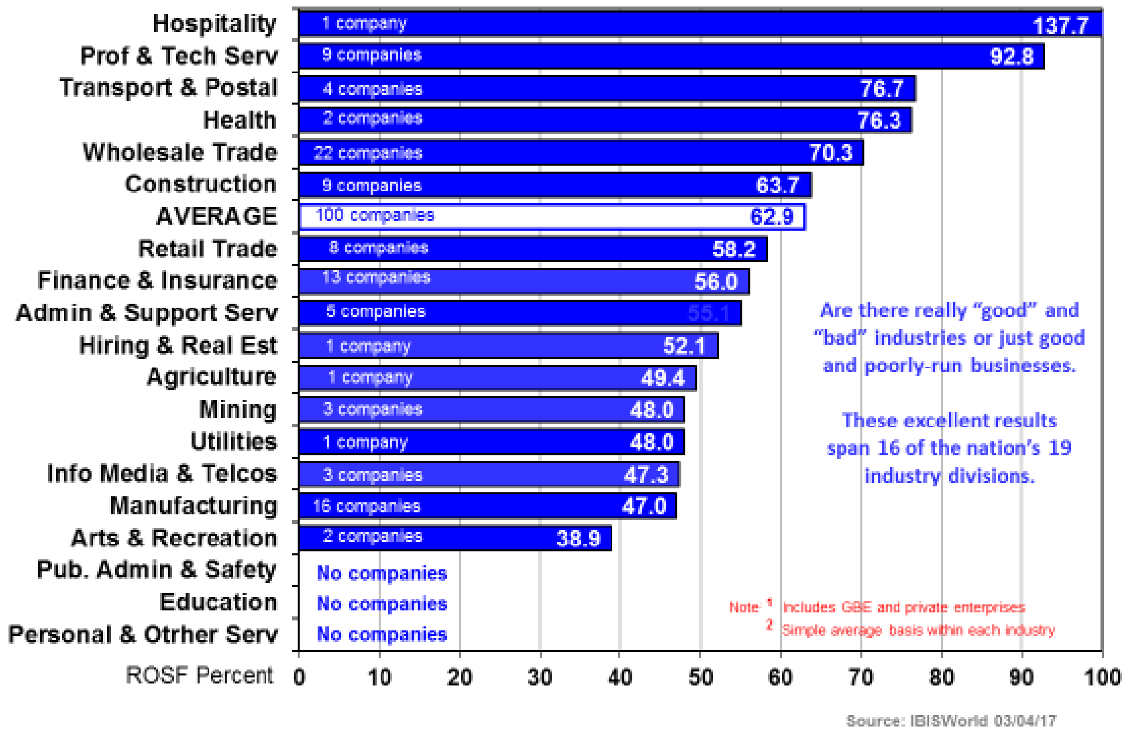
1.9% of Australia's revenue

	Number	ROSF[1]
Focus		
Focused (mainly single industry class)	99	63.0%
Theme Conglomerates[1]	1	45.4%
Classic Conglomerates[2]	0	-
	100	62.9%
Ownership Origin		
Local Owned	42	57.1%
Foreign Owned	58	67.0%
	100	62.9%
Ownership Type		
Public Company	32	55.7%
Proprietary Company	63	66.5%
Government Body	5	63.9%
	100	62.9%
Industry Sector		
Primary (Agriculture, Mining)	4	48.4%
Secondary (Manufacturing, Construction, Utilities)	26	52.8%
Tertiary (Wholesale, Retail, Transport/Storage/Postal)	34	68.2%
Quaternary (Information and/or finance related)	31	65.6%
Quinary (Hospitality, Health, Recreation, Other Services)	5	73.6%
	100	62.9%

Note [1] Same industry division [2] More than one industry division (of 19) Source: IBISWorld 03/04/17

Indeed, when it comes to industries, they imply there is no such thing as a 'bad' industry, only inadequate or inappropriate management. In fact, three of the best 100 were in mining, whereas there were 18 miners in the 100 worst companies during a time when mineral prices plummeted. And there were 16 manufacturers in the best 100 list, an industry considered to be one of the toughest around these days.

The ladder below is an interesting one in this regard.



These returns are way above the entry level of WBP profitability of 20% ROSF where the winners are to be found, and should not be seen as the yardstick of success. Too few can ever achieve these best 100 levels, and it is not expected. Achieving 20%, consistently, will do just fine.

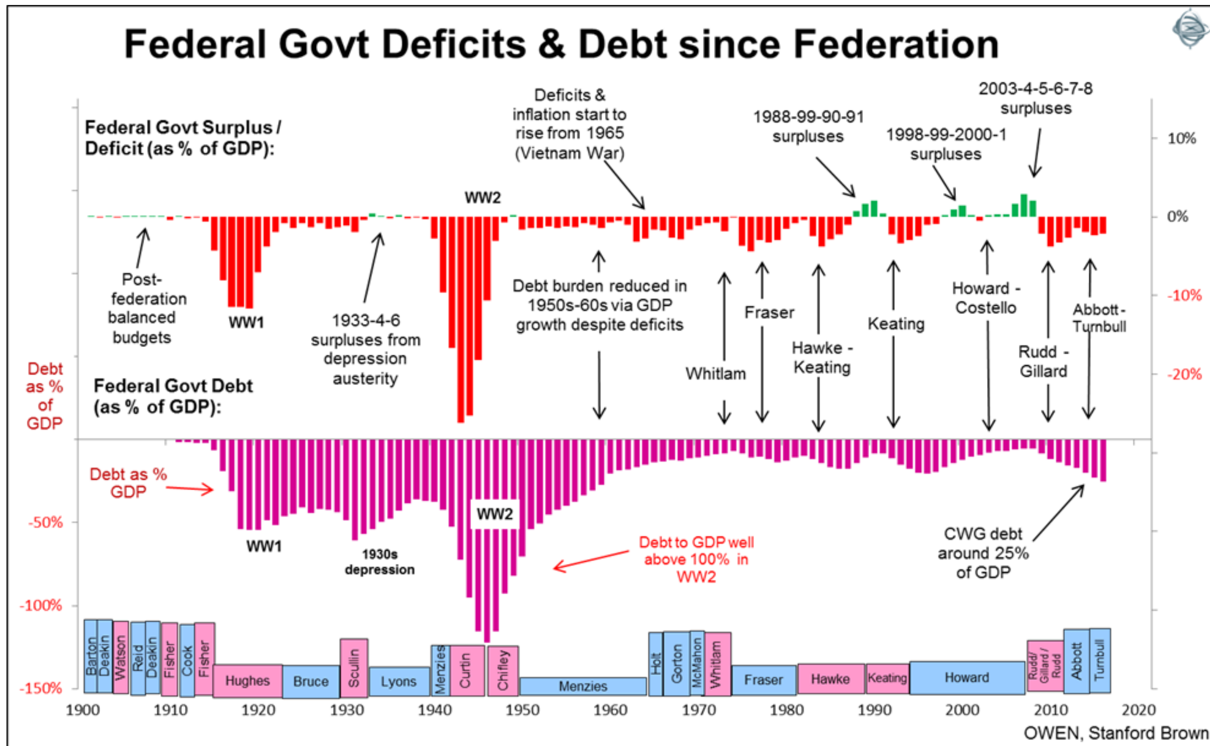
Phil Ruthven is Founder of IBISWorld *and is recognised as one of Australia's foremost business strategists and futurists.*

Federal Government debt – too much or too little?

Ashley Owen

The 2017 Federal Budget has turned attention as usual to the issue of government debt. Commonwealth governments ran a surplus during the mining boom from 2003-2008 but it has run deficits since the GFC to prop up employment and growth. The deficits have been funded by running up $500 billion (and rising) in debt. Is this too high? Can we afford it?

The first chart shows the history of annual Commonwealth government balances since Federation. The bars in the top section shows the annual government balance each year. We can see that surpluses (green bars) have been rare indeed. The pink bars in the lower section show debt as a percentage of national output (GDP) each year. The current level of debt at 25% of national output is higher than it has been since 1959.



The government ran rare surpluses during the mining boom from 2003-2008 thanks to high commodities prices but since the GFC a succession of big-spending governments have run up deficits to prop up employment and growth. Strategically timed spending sprees on 'pink bats' and 'school halls' meant we narrowly avoided an economic recession (arbitrarily defined as two consecutive quarters of negative national output growth), but the cost was a build-up of national debt that will take decades to repay.

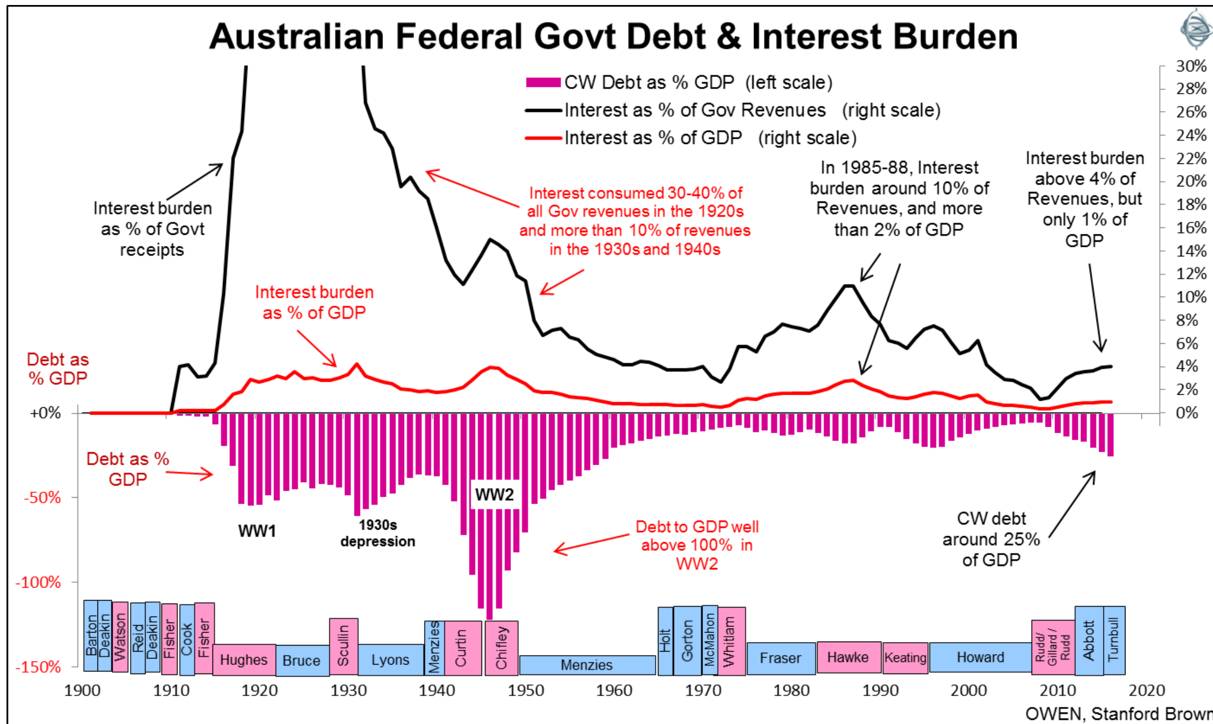
Is the current debt to GDP ratio too high?

The main debt build-ups were due to the massive deficit spending in the two World Wars. The ratio of debt to national output also increased during the 1930s depression but it was not because of big spending and borrowing, it was because of the massive contraction in national output.

In the first half of the 20th century, Australia was seen as a high-risk borrower in global debt markets, suffering a default and full-scale Greece-style debt restructure in 1931. Australia regained respectability as a borrower in global debt markets after the post-war economic boom reduced debt in the 1950s.

The current level of Commonwealth government debt relative to national income is not high in historical terms but it is high in post-war terms. It is lower than almost every other country in the world today - but that doesn't make it right. The current $500 billion pile of federal government debt is costing tax-payers $16 billion per year, or $44 million every day, or $1.70 per person per day. This sounds a lot but there is more to the story.

More important than the *level* of the debt is the *affordability* of the debt. The second chart shows the cost of servicing the debt in the upper section of the chart.



Here we see the cost of interest on this debt as a percentage of national income (GDP) in the red line and also as a percentage of government receipts (mainly tax revenues) in the black line.

The current interest burden is modest and affordable, at 4% of government revenues and just 1% of national income. This is lower than almost any other time since before World War 1, and lower than almost every other country in the world today. Market yields on government bonds have been rising since the middle of 2016 after the Brexit vote but are still at low levels. Rising bond yields don't translate into higher interest payments until each bond matures in the future and is re-financed by another bond at a higher rate, which in some cases is 30 years into the future. Even if bond yields rise rapidly the interest cost will remain low for many years.

Based on affordability, the current debt is manageable

If the Commonwealth government were a company the board would be sacked for having a 'lazy balance sheet' and not borrowing enough to invest in productive assets for future growth.

But here's the problem. Investing for the long-term future requires coherent vision, long term commitment and willingness to make tough decisions. These critical qualities have been sadly lacking in the recent succession of short-term revolving door governments in Canberra.

I don't see this improving any time soon. Voting power continues to drift in favour of the aging population of people who have not saved enough for their retirement, at the expense of the young who will have to pay for the deficits for decades to come. The current addiction to debt and fear of electoral backlashes from painful reforms will probably continue. But why worry? About every 30 years, a mining boom comes along that delivers freakish commodities prices and windfall revenue gains.

The windfall revenue gains from the last mining boom were squandered on middle class welfare that is proving extremely hard to wind back. Let's hope our kids and grand-kids handle the next one better.

Ashley Owen is Chief Investment Officer at privately-owned advisory firm [Stanford Brown] and The Lunar Group. He is also a Director of Third Link Investment Managers, a fund that supports Australian charities. *This article is general information that does not consider the circumstances of any individual.*

The misguided war on interest-only loans

John Ruddick

Industry regulator, ASIC, recently completed the largest data collection project in its history to produce Report 516 - Review of Mortgage Broker Remuneration. A few years ago, ASIC's deep dive into the financial planning industry resulted in the introduction in 2013 of the Future of Financial Advice (FoFA) reforms. With mortgage brokers now dominating the nation's home loan industry, ASIC scrutiny was inevitable.

Encouragingly, ASIC largely gave the mortgage broking industry a clean bill of health. However, it had this to say about the increasing prevalence of interest-only loans:

"Compared to consumers going directly to lenders, we found that consumers going through broker channels obtained significantly more interest-only loans: for all eight lenders reviewed, brokers arranged at least 50% more interest-only loans... All other things being equal, loans with higher amounts, and/or interest-only terms, will cost the consumer more in interest and may take longer to pay down."

The premise is that an interest-only loan is not in the borrower's interest. This is not correct, as interest-only may be the best option and often substantially so. This is an example of one arm of government (ASIC) not talking to another (ATO) for consistent policy. Another regulator, APRA, is on the same page as ASIC when it recently introduced a requirement that interest-only loans comprise no more than 30% of new loans.

Broker-loans more sophisticated

The reason more broker-originated loans end up as interest-only loans is simple — brokers are doing a good job. The fact that bank branch-originated loans have fewer interest-only loans shows a lack of sophistication of some bank branch staff who sell mortgages.

In addition to minor and probably positive tweaking of brokers' remuneration structure, the report stated in its executive summary that:

"Brokers play a very important role in the home loan market. They are responsible for arranging around half of all home loans in Australia. Consumers are increasingly turning to brokers to get help in obtaining a home loan — in 2012 brokers arranged 47.7% of home loans for the lenders in our review. In 2015, this increased to 54.3%."

"From a competition perspective, brokers have the potential to: (a) play a valuable role in providing a distribution channel for lenders — especially smaller lenders — without their own distribution network (e.g. branches); (b) exert downward pressure on home loan pricing, by forcing lenders to compete more strongly with each other for business."

That's all good, but ASIC is wrong about interest-only loans. Australian taxation rules mean that for many owner-occupied borrowers the smartest structure is an interest-only loan. This appears counter-intuitive but it is a key point that needs spelling out. Here's how it works.

Open the option for first home to become an investment

Imagine Jack and Jill want to buy their first property, which will be owner-occupied. If they go to the local bank they will probably walk out with a principal and interest loan. A good broker, on the other hand, will make a careful assessment. If Jack and Jill have a poor record in managing their money (that is, high credit card balances, car loans, unimpressive savings) then, of course, a good broker will also suggest principal and interest repayments so they are at least chipping away at their debt.

If, however, the broker can see Jack and Jill have no personal debt and solid savings plus a promising employment future, they will ask, "Do you think this first home may one day become an investment property?" Good borrowers will often respond, "Yes, it is our hope we will buy a bigger home in the future and retain our first property as a long-term investment."

So, the good broker will spell out how an **offset account** works and explain that rather than officially reducing the principal on their first home they are significantly better off paying interest-only repayments. They are effectively paying off the debt by accumulating cash in the offset account.

They will achieve two positives. In addition to reducing debt, they are accumulating a larger cash deposit for their future home in their offset account, and will, therefore, have a lower non-deductible debt. They will accrue

greater tax benefits from their first property when it becomes an investment property with a deductible debt because the principal has not been eroded. They will only consider reducing the principal on their first property's debt when their long-term home is debt-free. All debt is bad, but home-loan debt is worse than investment debt due to the latter's tax deductibility.

Unnecessary frustration

I have met countless good borrowers who were approved for their first property loan via a bank branch and, thinking they were doing the right thing, paid down their principal significantly. It was only when they bought their long-term home that their accountant correctly advised that their first purchase is now not a good investment property. The borrower will protest, "No, it's a great property" but the accountant will explain, "It has too much equity and you have too little cash so your new non-deductible home loan is too high."

These borrowers are then forced to sell their first home and incur selling costs as well experiencing frustration that no-one explained the long-term implications of principal and interest repayments. This bad loan structure costs good borrowers much time and tears and needlessly diminishes their wealth.

If the government wants to reduce the number of interest-only loans, then fine, that's their call. But they need first to restructure the tax system and not punish smart mortgage brokers helping quality borrowers. Alternatively, they could just leave things as they are. ASIC and APRA - meet the ATO. You should talk.

John Ruddick is CEO of Stanford Brown Home Loans, a mortgage broking firm. This article does not consider the circumstances of any individual borrower.

The growth sector most property investors overlook

Stephen Hayes

"I think there is a world market for about five computers."
Thomas Watson Senior, IBM Chairman, 1943

With direct property valuations peaking, investors are searching for new ways to invest for growth. The continued adoption of the internet has been strong globally, with a current estimated 3.4 billion internet users and over 2 billion smart phone accounts.

1. Cloud computing is an established trend powered by data centres

Where does your data really reside? The growth of cloud computing has created a huge opportunity for data centre landlords. Cloud computing simply means storing and accessing data and programmes over the internet instead of a local server or a computer hard drive.

The practical uses of cloud computing are driving large efficiencies for businesses and their customers, from Software-as-a-Service (SaaS), such as Salesforce.com, to in-house developed web based applications known as Platform-as-a-Service (PaaS), to Infrastructure-as-a-Service (IaaS) where the networking and data storage can be rented out.

The large players in IaaS are Amazon Web Services, Microsoft Azure, Google Cloud Platform and Oracle Cloud. Corporates directly linked to these ecosystems can also create direct interconnections (cross connects) to clients, customers, business partners and other industry participants through private and hybrid clouds forming unique ecosystems. An example would be a healthcare vertical made up of hospitals, government agencies, pharmaceuticals and medical device technology companies. They could directly interconnect, creating efficiencies through access to patient health care records, health care professionals' remote interaction, digital imaging, streamlining direct and government subsidised payment systems, compliance and regulatory monitoring, ordering and management of inventories.

In 2016, cloud computing revenues grew 25% year on year (yoy) to US$148 billion, outstripping all previous growth estimates. Cloud computing will grow strongly due to the many efficiencies it creates and its cost competitiveness compared to leasing or payment for physical facilities. Some forecasters expect on-site data storage for corporates will become a thing of the past.

2. Reliable data centres are expensive to build

The largest data centres use 100 megawatts of power which is equivalent to the amount of power used by 100,000 households. Data centres are very expensive to build due to the cost of the highly-specified plant and equipment required. A turn-key data centre in the US can cost as much as US$1,000 per square foot to build. This is approximately double the cost of building an office skyscraper. Data centres contain state of the art floor vented cooling systems. These are built with redundant cooling towers and in some cases permanently chilled water storage.

A data centre is typically cooled to 22 degrees Celsius (74 degrees Fahrenheit). A failure in the cooling system will see the interior of the building heat up approximately 1 degree per minute. At 50 degrees Celsius, data integrity is comprised, highlighting the importance of having system redundancy. In the event of a power system failure, a battery storage system and/or a fly wheel system that rotates a cylindrical mass in a vacuum at very high speeds storing kinetic energy will be used during the time it takes for the backup generators to start up. Usually data centres will store 100,000 litres of diesel fuel on site which can run backup generators for up to 48 hours. Data centres come in a range of specifications or ratings. The highest rating guarantees 'five nines', that is, 99.999% reliability. That is no more than five minutes of total downtime in a year.

3. Data centres have a wide range of business models and customers

Customers vary from governments to telecommunication companies to large corporates who may also develop and own data centres for their private use. Wholesale data centres are typically leased to large corporates on long triple net leases of 15 years or more. While leasing can be calculated on a per square foot basis, it is typically determined by the contracted power usage purchased.

The large, publicly-traded data centre landlords are focusing on the 'carrier neutral data centre' concept. This involves having multiple telecommunication companies and internet providers in the one facility, which are then combined with the major cloud service providers. This combination creates very valuable 'ecosystems' for corporates as it enables them to link directly to the cloud service providers over a single physical port. The end result is a series of network-dense data centres that can be linked to other network-dense data centres, perhaps in other parts of the world. This infrastructure setup means corporates' data need not sit in one location but instead, can sit in the most efficient location, closer to their sales force or their customers. Duplicating and splitting data across multiple locations also greatly reduces the risk of loss of data or server downtime.

Some ways to invest in data centres

From a real estate perspective, the development of wholesale data centres can be lucrative, but long-term ownership of an asset is less appealing. This is because a long-term triple net lease to a single tenant, with the expertise and capital to build their own data centres, such as Google or Facebook, gives the tenant the pricing power at the end of the lease. Co-location data centres which are made up of multiple tenants are somewhat more attractive for long-term ownership. However, barriers to entry are lower now than they were a decade ago due to the availability of bank financing and improved modular design building techniques. A Dallas-based data centre landlord recently developed a 30MW (22.5MW leasable to 99.999% reliability standard) data centre in Northern Virginia for US$145 million. This equates to a low cost of $6.4 million per leasable MW, with the bolt-on design of power rooms and off-site component prefabrication and testing.

Network-dense data centres are valuable assets ideal for long-term ownership. They are difficult to replicate, creating high barriers to entry. The direct linking of a portfolio of network-dense data centres becomes a compelling investment proposition. Network-dense data centres appeal to telecommunication companies, cloud service providers, and corporates, thus greatly increasing the asset's rental appeal. Also, on top of simply charging for tenant-contracted power usage, network-dense data centres can also generate revenues from other services such as interconnections.

With the industry thematic of a high rate of adoption of the internet globally and the large growth in cloud computing, network-dense data centres are well placed to generate high long-term cash flow returns. A great way for investors to access this growth segment is through listed property.

Stephen Hayes oversees the [Colonial First State] *Wholesale Global Property Securities Fund, which holds an exposure to data centres in the US, London, Paris, Amsterdam and Frankfurt. The strategy's focus is on urban real estate located in the world's most economically-vibrant cities. They invest in listed assets that trade at a discount to direct property valuations.*

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How corporate activity helps build a small cap portfolio

Robert Miller

A common theme of investing in small cap stocks is limited liquidity, or in other words, difficulty acquiring or selling stock. This can naturally present a challenge for those on the outside looking in (and even those on the inside looking out). Investors can be left scratching their heads as to how an equity fund manager has built a significant stake in a particular stock given its limited trading volume.

This article outlines the corporate opportunities presented to fund managers and some key points for retail investors to position their portfolios towards higher quality small-cap stocks and management teams.

Rights issues

Rights issues allow companies to raise funds without penalising existing shareholders. Raisings are typically done at a decent discount where existing shareholders are invited to purchase additional shares in the company. For small caps, rights issues are usually non-renounceable, that is not tradeable, which means liquidity might not improve as the rights are tied only to existing shareholders. However, any underwriting of a rights issue shortfall provides a way for new shareholders to access shares which is effectively a placement of rights which are not taken up by existing shareholders.

Key point: watch for management and substantial shareholder involvement. If they are not prepared to take up their rights in full, then consider, why should you? Is the offer accelerated or not? If not it can have a drag on the share price.

Placements

Placements are the bread and butter of growth capital in small caps, often providing the most effective entry point for a fund manager to gain meaningful positions. Placements may be done in conjunction with a share purchase plan (SPP) which provides all existing shareholders the ability to subscribe for up to $15,000 worth of stock under the same terms as those participating in the placement. We like it when companies offer an SPP as it shows they are treating all shareholders equally.

Key point: for a retail shareholder when deciding whether to participate in an SPP, consider these two red flags; firstly, is the placement only for working capital purposes? Secondly, is the placement occurring at a price lower than a previous placement?

Private placements

A private placement is when a company conducts a share transfer to one particular shareholder. Typically, this will occur either to a strategic investor or to a fund manager who is unable to buy the desired share parcel on the market. Private placements are encouraging for investors and they shows that someone is willing to be the only party providing growth capital and are therefore likely to be a long-term investor.

Key point: is the placement a transfer of existing shares from a large shareholder or new equity raised? We prefer seeing new equity private placements as it shows key shareholders are not cashing out and it provides the company with growth capital.

Sell-downs

As a rule of thumb, if directors or management are selling, external investors should not want to buy. There are however exceptions where it can prove to be a highly effective way of improving liquidity, attracting institutional investors and improving the business profile within the market.

A sell-down should be judged on a case by case basis, and questions to ask include:

- Who is selling down, why and how much?
- What is the cash balance of the company?
- Is this the best way to improve liquidity?
- Are they likely to require a capital raising short term?

We like to see a strong management track record or share price returns and organic growth before we consider participating in a sell down.

Key point: be sceptical where you see a manager sell-down to exit their full position, as skin in the game is paramount for quality small caps.

IPOs

Investors can be right to ignore a small cap IPO, as the business can be 'dressed up' for sale and a prospectus can only tell you so much. You are unlikely to get a good read on how successful management has been on actuals vs forecasts in the past, and this can create a high level of downside risk.

Unlike a private placement or sell-down, IPOs tend to be more widely spread to participating investors. This means fewer 'long-term hands' and more 'short-term hands' will receive stock. Furthermore, a lot of the time you are either paying down debt or funding an individual cashing out. In any good quality small cap, you don't particularly want to be funding either of those.

Key point: take a long-term view. Would you be happy to own shares in this business for three years or are you just banking on a short-term trade? If the latter then you're probably not the only one and the optimism might not translate to reality.

Advice for retail investors

You can learn a lot from the actions of a company's board, management, and key shareholders. How they conduct their corporate activity can give you confidence or otherwise in their long-term thinking. A healthy amount of scepticism can prove a valuable commodity when picking stocks.

Robert Miller is a Portfolio Manager at [NAOS Asset Management](). *This article is general information, it is not intended as financial advice and does not consider the circumstances or investment needs of any individual.*

When a problem for Facebook became a great opportunity

Jason Sedawie

Facebook shares recently hit $150. The milestone reminded me of [Barron's cover article]() in late 2012 predicting a share price of $15. We all make mistakes (I've made plenty), but the article provides a great lesson on investing.

Share price on NASDAQ (in US dollars) of Facebook

Source: Yahoo Finance, 12 May 2017.

One of the best ways to identify mispriced stocks is to go through negative stories to see if they make sense. At the time, Facebook's story was negative with concerns that users' shifting to mobile was bad for their advertising business. The irony is that mobile phones have become the number one reason for Facebook's success.

The good news about negative stories is that a story only needs to become slightly more positive to create an opportunity. It's a bit like investing in an underdog: nobody expects them to win, but if they do win it provides an outsized payoff.

Mobile a plot twist, with a payoff

The story surrounding Facebook was negative on the legitimate concern that small mobile screens would mean less advertising. The story focused on the risks of mobile, but contained no consideration for the potential to increase customer login frequency. Facebook is a major reason why people pick up their mobiles. People check Facebook on the bus or while waiting for coffee. And there's the payoff: the more you use the app the more Facebook knows about you and the more relevant ads it can serve.

At the time, Facebook was the number one downloaded app on Google Play and number six on Apple iOS, a hint that maybe the shift to mobile could be positive. In fairness to *Barron's*, it quotes Mark Zuckerberg*: "it's easy to underestimate how fundamentally good mobile is for us. Literally six months ago we didn't run a single ad on mobile",* but his reasons and what potential advertisers thought about their ads weren't commented on.

Earning results about six months later proved the negative mobile story wrong as daily active users on mobile surpassed desktop and mobile revenue grew to 41% of ad revenue, up from 30% three months earlier. The magazine also reported that ads were shown in 1 in every 20 stories on Facebook and saw no drop in usage. *Barron's* did redeem itself, predicting Facebook could rise 20% to $123 August last year.

Fake news?

The Facebook story was an extreme example of a story that was supposed to be a negative but instead became a positive as Facebook became the way to reach people on mobile phones.

It should remind us to dig deeper the next time we see a headline. Are the assumptions behind it true? Is it balanced or is it merely an opinion? What are the facts and what views are left out? In this case, it would have been interesting to get a view from major advertisers.

It's not easy, but there are usually two sides to every story. Some former news reporters have made good fund managers because of this ability to dig deeper and find out what is really going on. Good investing includes seeing a trend like that and jumping aboard before everyone else.

Jason Sedawie is Executive Director of Decisive Asset Management*. Decisive is a holder of Facebook. The material in this article is for information purposes only and does not consider any person's investment objectives or circumstances.*

How I lost my files to ransomware

Graham Hand

[This article from 2015 is republished as background to the largest global ransomware attack ever, which happened in the last week. Circumstances are different and there is no attempt to explain the latest attack, but many of the issues around backing up data are the same].

This is a cautionary tale, at the risk of embarrassing myself. I did not even know what 'ransomware' was until it infected my computer. This article is not a definitive piece on how to protect yourself from a virus. The main message is **don't do as I did.**

Ransomware is a type of malware that prevents access to computer files until the victim pays a ransom to regain access or retrieve the data.

How was I tricked?

Let's start at the beginning to at least give me some excuses. I had been exchanging emails and phone calls with Telstra, as part of a significant upgrade to faster broadband speed, higher data allowance and upgraded mobile phone plan. In my defence, my head was in a 'Telstra numbers' mode, full of megabytes and download speeds.

Then a few days after my upgrade, I received an email, supposedly from Telstra Customer Care, telling me I was over 50% of my monthly data allocation, with a link to my usage level. How could that be? I had only just changed to the new package. Immediately preparing myself to call Telstra and tell them to get their act together, that they had me on the wrong plan, I clicked on the link to check the numbers. Bad mistake, a strike at my soft underbelly.

The email was not from Telstra. This message jumped up on my screen.

It was a ransomware virus called CryptoLocker. Google it if you want to know more. It works by encrypting all the files on your computer, and to unlock or decrypt them, you pay a 'ransom' to receive a decryption key. I immediately removed the virus but it was too late. All my files – Word, Excel, PowerPoint presentations, photographs, videos – were encrypted and could not be opened. The ransom requested was GBP700, payable in Bitcoins. They said if I tried to remove the virus, it would not decrypt the files and the cost of the key would increase to GBP1,400.

Searching online for a solution, some people suggested there is a publicly available key to decrypt the files, but this is a public key used by other malware scams. My understanding is CryptoLocker uses two keys: one to encrypt and another to decrypt the data. The decryption key is a private key, which is not available other than by paying the ransom.

What about my backup?

I immediately contacted my technical support, who said this was a particularly nasty virus, and industry advice is not to pay the ransom as most people do not receive the decryption code after payment. An online search confirmed this, while others said they did not want to encourage criminals by paying the ransom. It was better to rebuild from backups.

Where were my backups? This is the embarrassing bit.

First, we tried 'System Restore', which if enabled on the computer, should hold shadow copies of files. But when we clicked on 'Previous Versions', nothing was there.

Second, what about back-ups to external hard drives? I had been told some months earlier that there are only two types of external hard drives: those that have stopped working, and those that are about to stop working. A company called Backblaze, which runs 25,000 external hard drives continuously in its backup business, reports a 5% fail in the first 18 months, and 22% in four years. No doubt this is unfair, but I used it as an excuse not to back up to external hard drives more regularly.

Third, my computer had been set up to copy files regularly to Dropbox. When I went into my Dropbox account, the files there were also encrypted. So I wrote to Dropbox asking if they had saved previous versions. There ensued an exchange of emails with Dropbox, such as:

"I'd be happy to help you roll back your entire account to a certain point in time. Could you go to https://www.dropbox.com/events *and send me the link indicating the first event you would like to undo? Your account will be reverted to before this event took place."*

But over many exchanges of email, we could not open my old files. I don't blame Dropbox for this, we just ran out of time and patience.

So where did I eventually find some of the lost files? I had older files on an external hard drive from my last (too long ago) back up. Otherwise, I retrieved wanted files that had been attached to emails: photographs, documents, spreadsheets. I recovered a decent amount stored by Google on gmail (and it would be the same with any reputable email service) and all Cuffelinks files are 'in the cloud'.

But I did lose a lot of personal material. I had copied photographs to my computer from my iphone to free space on the phone. Other personal records, documents and spreadsheets, were lost.

What are the lessons?

All it takes is one email from a trusted friend or a familiar company, complete with logo and well-designed customer letter, plus a moment's lack of the usual caution and this could happen to you. The lessons are:

1. Always pause before opening a link, regardless of who it is from, and make sure it is legitimate. Hackers have ways of accessing your contacts and companies you deal with.
2. Back up to an external hard drive regularly, but make frequent checks and hardware upgrades.
3. Store additional copies in the 'cloud'.
4. Activate the programme which stores shadow copies.
5. Email important documents to yourself. From my experience, this is a robust solution, and if anyone thinks it is not, let me know.

Repeating, I am not a technical expert on this subject, and I welcome comments from people who know a lot more than I do. Including the best ways to back up (no product flogs, please).

Comment by Tony Cuffe who works in technical support

This type of invasive software is, unfortunately, becoming more and more common. It opens up a lot of discussion as to how to avoid it in the future. Backing up properly is a form of risk management.

For Mac users, I suggest that an Apple Time Machine is installed as well as using a programme such as Carbon Copy to do remote backups of valuable files such as photos and documents on a regular basis to remote drives. These can be setup to run automatically in the background.

For Windows users, this is not so simple. There are a range of different solutions from different suppliers. One that seems pretty good is from Acronis. They do both automatic updates to local remote drives and also the cloud.

Speaking of cloud, we are now primarily using Google Drive along with the full suite of Google apps for work applications. This means that all files are being kept in the cloud and are not touchable with programmes like CryptoLocker. We are currently retiring our laptops and replacing with them with Chromebooks. The only thing needed is an internet connection via wi-fi and you have everything available.

Finally, as for email, using a hosted cloud service such as Apple iCloud or Google Gmail is the only way to go as you can easily re-download your email to any device whether it be Windows, Apple or Linux. I use both for different email addresses but my first choice is now Gmail and particularly Gmail for business so you can set up your own domain name for your email address.

Graham Hand is Managing Editor of Cuffelinks. This article is a general warning and does not consider the personal circumstances of any readers, nor is it intended as a definitive solution to protecting data and files. It is not specifically related to the global ransomware attach of May 2017 but the issues are similar.

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