

Leithner Letter No. 245-248

26 March-26 June 2020

[The U.S.,] and with it most of the Western world, is presently going through a period of inflation and credit expansion. As the quantity of money in circulation and deposits subject to check increases, there prevails a general tendency for the prices of [assets] to rise. Business is booming. Yet such a boom, artificially engineered by monetary and credit expansion, cannot last forever. It must come to an end sooner or later. For paper money and bank deposits are not a proper substitute for non-existent capital goods. Economic theory has demonstrated in an irrefutable way that a prosperity created by an expansionist monetary and credit policy is illusory and must end in a slump, an economic crisis. It has happened again and again in the past, and it will happen in the future, too.

If one wants to avoid the recurrence of periods of economic depression, one must start by preventing the emergence of artificial booms. One must prevent the governments from embarking upon a policy of cheap interest rates [and] deficit spending ... is, of course, a very difficult task. Governments are in this regard very obstinate. They long for the popularity that booming business conditions seldom fail to win for the party in power. The unavoidable crash, they think, will [either never eventuate or] appear only later; then the other party will be in power and will have to account to the voters for the evils which their predecessors have sown.

Thus there is no doubt that we shall one day have to face again an economic recession, although it is impossible to determine the date of its outbreak and the degree of its severity. It will be bad indeed. But worse than the crisis itself could prove the psychological and ideological consequences of an erroneous interpretation of its causes.

Ludwig von Mises

New York World Telegram & Sun (28 August 1951)

(Reprinted in [Economic Freedom and Interventionism](#), 1990)

A Tale of Three Years – 2018, 2019 and 2020

The All Ordinaries Index (AOI), the Australian market's benchmark, opened the first trading day of 2018 at 6,230. During the year it fell as low as 5,478 and closed its last day at 5,625. That's a decline of 9.7%. Similarly, in 2018 the Dow Jones Industrial Average, Standard & Poor's 500 and National Association of Securities Dealers Automated Quotations (usually known as NASDAQ) indexes – the American yardsticks that influence the AOI – decreased more than 9%; in December of that year they fell more than any December since 1931; and their plunges on 24 December produced the market's worst-ever Christmas Eve. These reverses chastened the crowd; as a result, speculators (who mostly but mistakenly regard themselves as investors) became anxious. "Wall Street Slump Paints Scary Picture," proclaimed *The Australian* on 21 December 2018 (see also "ASX Ends Worst Year Since 2011 with Worst post-GFC December Quarter," *The Australian Financial Review*, 31 December 2018).

What a difference a year makes! The AOI opened 2019 at 5,625. It reached its nadir (5,563) on 24 January, its apex (an all-time high of 6,996) on 29 November and finished 2019 at 6,802. That's its highest end-of-year close since 2007. From 2 January to 31 December, it rose almost 21%; intra-year, trough to peak, it zoomed almost 26%; and including dividends, its return for the year approached 24%. That's its best result since 2009 and the third-best since 1999; indeed, given the common definition – that is, a rise during a given period of 20% or more – during 2019 the AOI experienced a bull market. So too the DJIA (up 22% during the year), S&P 500 (29%) and NASDAQ (more than 35%): 2019 was their best year since 2012 and they repeatedly scaled record highs.

Rising markets lift speculators' spirits. As a result, at the end of 2019 "experts" were mostly cheerful – and urged that the crowd become or remain upbeat.¹ "This will be the best year [on the ASX] since the Global Financial Crisis, and ... there is optimism looking into 2020," reported *The Australian* ("Standout Year for Global Markets," 30 December). [After a Bumper Year on the Stock Market, Where to for 2020?](#) asked *The Sydney Morning Herald* (27 December). Its answer left little room for doubt:

... Experts are tipping another good year in 2020. An improvement in the domestic economy, global easing of monetary policy, with interest rates be-

¹ Australians as a whole, on the other hand, were feeling very glum. "The bushfires raging through huge tracts of NSW and Victoria have smashed Australians' confidence in the economy," reported *The Australian* on 8 January. "Current conditions are at their lowest level since the GFC, while sentiment toward the future is at its lowest level since 1994."

ing cut by central banks around the world, and reduced risks from a U.S.-China trade war ... are all positive signs for a solid year ... [One “expert”] says compared to record-low [overnight cash] rates of 0.75% – with at least one additional cut forecast in 2020 – and the returns available for cash, a fully franked ASX dividend yield of 4% makes equities “a hard asset class to ignore.” “I believe the Australian equity market not only remains good absolute value but great relative [to term deposits] value. Earnings quality is better than average, corporate balance sheets are strong and, with record-low interest rates, today’s [PE ratios] are more than justified” (see also [Australian Share Market to Surge in 2020, Boosted by Flood of Cheap Money](#), ABC News, 3 January 2020).

In December of last year, Livewire Markets invited its readers to submit their predictions about this year. On 13 January it reported: “with nearly 7,000 replies (making it the largest survey of its type in Australia), the responses offer some fascinating insights into the thinking of the average Australian investor.” Among other things,² [Livewire asked](#): “what is your view on the outlook for Australian equities in 2020?” 6,944 people answered; 4,722 (68%) were “bullish” (optimistic) and 2,222 (32%) were “bearish” (pessimistic). Elsewhere, one of the country’s largest super fund’s Chief Investment Officer averred that he saw “no economic or financial headwinds” in equity markets; he therefore urged that Australian businesses “take advantage of low [interest] rates and borrow to invest [aggressively]” (see “Borrow and Invest with Your Ears Pinned Back,” *The Australian*, 13 January).

Some Context, Please

The returns of the AOI and All Ordinaries Accumulation Index (AOAI) since October 2007 – the month they reached their pre-Global Financial Crisis (GFC) maximums – put this ebullience into a more restrained context. Unlike the AOI, which takes no account of dividends and distributions, the AOAI incorporates them – that is, assumes that they’ve been reinvested. Figure 1 reminds us that the GFC has cast a very long shadow. During the Crisis, both indexes plunged 50%. Virtually all speculators (and many investors) lost heavily and semi-permanently in 2007-2009; specifically, one who in 2007 assembled a portfolio which mirrored the AOI and spent rather than reinvested his dividends needed 12 years to recoup his losses. An investor whose portfolio perfectly mimicked the AOI on the eve of the GFC and who reinvested dividends waited half as long – six years – to do so. (Leithner & Co.’s shareholders waited just two years.)

² Livewire also asked: “will Donald Trump be re-elected?” 78% answered “yes.”

Figure 1:
The AOI and AOAI, October 2007-December 2019 (October 2007=100)



These contrasting results reinforce two key points which we've long emphasised. First, *capital gains – which presuppose rising share prices – don't underpin decent long-term returns: the reinvestment of dividends do.* The AOI's return (capital gains only) over the 12 years from October 2007 to December 2019 – that is, including the stellar result during calendar 2019 – was less than 2%; that's a compound rate of growth of less than 0.2% per year! In contrast, the AOAI's total (capital gains plus dividends) return over that interval was ca. 60%; that's a compound rate of growth of 4.1% per year. The second point: from a long-term point of view, sharp short-term rises of market indexes aren't unambiguously good news; a string of unusually high returns before the Crisis, for example (the AOI rose 23% in 2004, 18% in 2005, 19% in 2006 and 12% in 2007), set the stage for huge losses during the GFC and meagre long-term returns thereafter. Does 2019's stellar result portend mediocre ones – or worse – during the next several years?

Before addressing this question, it's important to reaffirm a couple of additional significant points. In our analysis of LCO's results since 1999 (*Leithner Letter No. 241-244*, 26 November 2019-26 February 2020, pp. 7-8) I wrote:

... Consider as an example a two-year investment. Let's say that it gains 20% in its first year and then loses 20% in the second. What's its two-year rate of return? Many people would say 0%. The [arithmetic] mean of these two percentages, after all, is $(20\% - 20\%) \div 2 = 0\%$. If you invest \$1, then during the first year your investment increases by 20%, such that at the end of the year you have \$1.20. During the second year, however, you lose 20% such that you have $\$1.20 \cdot (1 - 0.20) = \0.96 . In other words, you're not back to square

one: you've lost an amount (\$0.04) equivalent to 4% of your initial investment. The average return is zero, but the compound return is negative. Further, note that in order to recoup a loss, one requires a greater gain than the negative return that generated the loss. A loss of 20%, for example, requires an offsetting gain of 25%, i.e., $\$0.80 \times (1.25) = \1.00 .

Recall that in calendar year 2018 the AOI fell 7.4% and in CY19 it rose 20.3%. If you invested \$1 at the beginning of 2018, then by year's end your investment's market value was $\$1 \times (1 - 0.074) = \0.926 . At the end of 2019 it was $\$0.926 \times (1 + 0.203) = \1.11 . That's an average rate of return of $11\% \div 2 = 5.5\%$ per year, and a compound rate of return of 5.4% per year. Clearly, that's much less exciting than the 20.3% leap in 2019! *The problem is that, goaded by "experts" and the mass media, most people obsess about short-term results: they cheer when the market soars and fret when it sinks. Few, it seems, are able to set emotions aside and put short-term results into longer-term context.*

Over the past two calendar years, the arithmetic mean of the AOI's return (5.5% per annum) has exceeded its geometric mean (5.4%). More generally, the more variable are year-to-year results the lower will be the latter relative to the former. Unlike the arithmetic mean, the geometric mean takes into consideration the compounding that occurs from one period to the next. It's particularly appropriate for series – such as investment portfolios' returns – that exhibit negative serial correlation. In plain English, Icarus fell from the skies and Phoenix rose from the ashes; abnormally high returns today beget lower ones tomorrow, and abysmal results at one point tend to generate better ones subsequently. Hence the geometric mean measures long-term returns more accurately than its arithmetic counterpart.

Managed and superannuation funds rarely present their long-term results sensibly. Seldom, in other words, do they take as a starting point an investment of (say) \$1,000, assume that dividends are reinvested, costs, fees and taxes, etc., deducted and compare this starting amount to the amounts that accrue over various periods of time. *They ignore what really matters – namely the long-term geometric mean (compound rate of return); instead, they typically parade a short-term arithmetic mean (average rate of return).* Even when they haven't cherry-picked good years that flatter their results, a short-term average percentage rate of return isn't wholly accurate. Quite the contrary: as was the case in 2019 vis-à-vis the two-year (and longer-term) rates of return, it can mislead.

Investors Must Always Think Sceptically and Often Act Contrarily

A second set of reasons underpinned my caution at the start of this year. "As world share markets end one of their best years of the past decade," *The Wall Street Journal* re-

ported on 1 January, “few see the rally ending anytime soon.” That’s the problem. *It’s human nature to conform; yet investors worthy of the name MUST regularly be contrarians.* The stampeding herd isn’t merely oft-mistaken: occasionally – and usually at critical junctures such as the eve of the GFC – it’s diametrically wrong. Accordingly, blindly following the crowd eventually produces big losses and rationally defying it can pay handsome rewards. The means of investment are simple: buy low, collect dividends and, if the opportunity arises, sell high. So too are its ends: consistent profit and steady growth of capital. Bear markets – and the disquiet and sometimes panic that accompany them – provide opportunities to buy quality securities cheaply. Consequently, it’s non-sensical to fear them. A corollary is that investors must ignore bull markets’ hoopla. At these times they usually don’t buy stocks. Quite the contrary: they tend to sell them.

Three principles underpin this stance:

1. Economies are immensely complex; their future course is therefore all but unpredictable. As Warren Buffett sagely noted, “forecasts may tell you a great deal about the forecaster; they tell you nothing about the future.”
2. The linkage between economic conditions and investment returns is anything but straightforward. Clearly, however, economies and markets don’t move in lock-step; that is, a bear market doesn’t necessarily presage a recession, an economic upswing needn’t foreshadow a bull market, etc.
3. Assuming they’ve been purchased at sensible prices, stocks’ long-term returns usually exceed those of bonds, cash, etc. But in order to reap such returns, the investor must sow during bear markets, corrections and downdraughts – and reap during bull markets, recoveries and upswings.

Most participants in financial markets are often level-headed, more or less, but sometimes they become unduly confident (or even irrationally exuberant) and at other times they sink to unreasonable despondency. In sharp contrast, we strive to maintain our composure at all times – particularly when others have lost theirs – and thereby to profit from swings of the crowd’s emotions. Intervals when it’s overly pessimistic are usually advantageous times to buy; and instances when it’s unduly high-spirited are often opportune times to sell. At both extremes, Buffett wrote in his [2017 letter to Berkshire Hathaway’s shareholders](#),

seizing the opportunities then offered does not require great intelligence, a degree in economics or a familiarity with Wall Street jargon ... What investors need instead is an ability to both disregard mob fears or enthusiasms and to focus on a few simple fundamentals. A willingness to look unimaginative for a sustained period – or even to look foolish – is also essential.

Investors Analyse the Past in Order to Prepare for the Future

Since its formation 20 years ago, Leithner & Co. has emulated Buffett: we've regarded the stock market's slumps as occasions to buy the securities of sound enterprises at excellent (low) prices. We've also treated its upswings as times to sell at appealing (high) prices. Hitherto, and as [our long-term results](#) testify, this practice has borne fruit. What, then, might we expect during the remainder of 2020 and over the next couple of years?

As a preface to – and philosophical basis of – my response to this question, it's vital to reiterate what Leithner & Co. has disclaimed many times: *nobody can reliably predict the financial future.*³ Investors can't foresee; yet they must plan. How to proceed? The future is maddeningly opaque but the past is comparatively clear. The question thus becomes: what can the AOI's past tell us about its prospects? *I assume that it's NOT different this time: specifically, key probabilities established over the last 145 years will continue, more or less, to apply during the next few years.* This assumption has two initial consequences. First, in any given 12-month period – such as calendar 2020 – there's a ca. two-in-three chance that the AOI will rise more than 2%, an approximately one-in-four probability that it'll fall more than 2% and a roughly one-in-ten likelihood that it'll fluctuate less than $\pm 2.0\%$. During all 12-month periods since January 1874 (January-December 1874, February 1874-January 1875, ... January-December 2019), it's risen 1,145 times, fallen on 458 occasions and remained essentially unchanged 137 times. Second, and assuming nothing else, my estimate – the arithmetic mean of these 12-month periods – is that in calendar 2020 it'll rise 6.4% (the geometric mean, in contrast, is 5.2%).

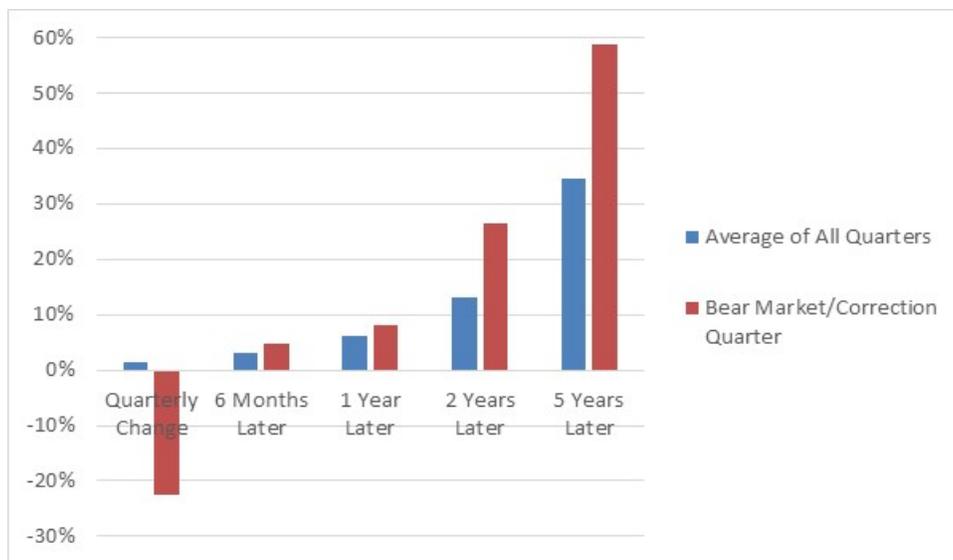
Corrections and Bear Markets Typically Reward Investors

We can reasonably assume more than the two preceding paragraphs allow. As I've also detailed repeatedly over the years, *the AOI's returns over short-term intervals tend to regress towards their long-term mean.* In plain English, 12-month increases of considerably

³ Peter Lynch, who was one of the most prominent – and successful – investment managers of the 1980s and 1990s, famously wrote (*One Up On Wall Street*, Simon & Schuster, 1st ed., 2000, p. 85) that alleged experts “can't predict the markets with any useful consistency, any more than the gizzard squeezers could tell the Roman emperors when the Huns would attack.” In “A Year to Remember,” *The Wall Street Journal* (31 December 2019) commented: “No one knows how stocks will perform in any given year because so much can change. In 2019 the Fed quickly corrected its December 2018 mistake [sic] of raising interest rates. Inflation stayed under control [sic] ... If you predicted all this, raise your hand. We didn't think so ... Some poor folks probably even heeded the infamous Oct. 21, 2016 article in *Politico* that began: “Wall Street is set up for a major crash if Donald Trump shocks the world on Election Day and wins the White House.” The S&P 500 was then trading at about 2,200. It closed Monday at 3,221.”

more than 6.4% tend to beget subsequent moderations and even falls; conversely, rebounds always follow sharp drops. 2018 was unusual: the AOI didn't merely sag; it experienced a bear market in its October-December quarter. In this context it's useful to revisit an analysis I conducted a year ago. Monthly observations of the AOI from January 1874 to December 2018 provided 1,728 three-month intervals (January-March 1874, February-April 1874 ... and October-December 2018). As in October-December 2018, so too during 25 other quarters (ca. 1.5% of the total): the AOI decreased 15% or more. Figure 2 compares this small sub-set to other key intervals.

Figure 2:
Results of Corrections/Bear Markets, All Ordinaries Index, 1874-2018



As I wrote a year ago,

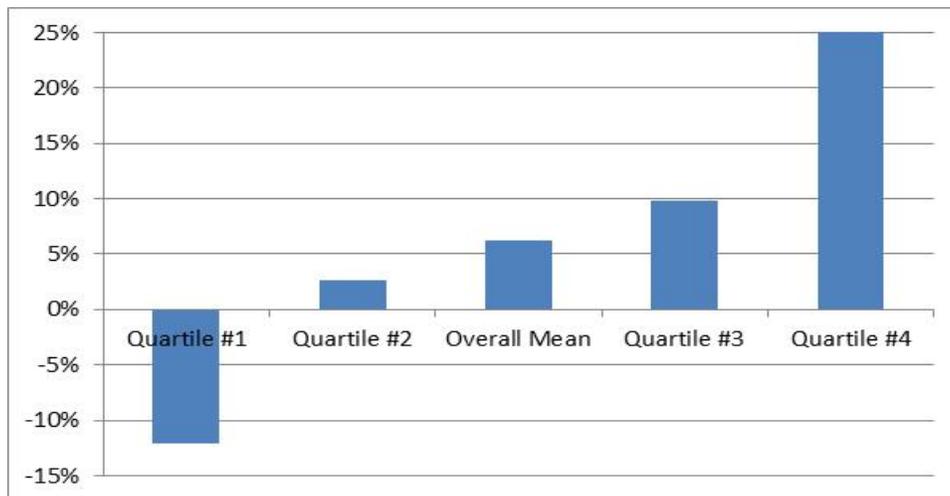
During the average three-month interval since 1874, the Index increased 1.6%. During the 25 “bear market/correction” quarters, in contrast, it fell an average of almost 23%. Three months after the typical quarter, the Index increases an average of 3.0%; three months after a bear market quarter, it lifts an average of 4.7%. *The pattern is clear: as time passes, this “outperformance” becomes more marked.* Five years after an average quarter, the Index rises a total of 35%; but after a “bear market” quarter it zooms an average of 59% ... *Hence Buffett’s – and our – practice of holding large cash reserves: they “underperform” during the bull; they also provide the means to buy during the bear. These investments’ subsequent outperformance, in turn, underpins superior long-term returns [italics in the original].*

If 2018 was an unusual year (in the sense that the AOI fell), so – in two senses – was 2019. First, it increased much more (22%) than the long-term arithmetic mean (6.4%); second, it rose much more strongly than during the typical (ca. 8%) year after a bear market quarter. *Does too fast mean too far? If actual returns in 2019 greatly exceeded historical norms, will they fall well short in 2020?*

Upswings and Bull Markets Eventually Disappoint Speculators

What might we expect during the remainder of 2020 and over the next couple of years? The second part of my response emphasises the fact that an increase of the AOI of 20% or more during a 12-month period is unusual. Specifically, such a thing has occurred only ca. 14% of the time since 1874. *If the past is prologue, then the probability of a repetition in the year to December 2020 – that is, for a return of 20% or more a second year in succession – is $0.14 \times 0.14 = 2.0\%$.*⁴

**Figure 3:
Average Twelve-Month Percentage Changes,
All Ordinaries Index, by Quartile, 1874-2019**



These, it's hardly necessary to mention, are long odds! *Indeed, it's more than ten times more likely (26%) that over the next year the AOI will fall.* Figure 3 summarises its percentage changes during all 12-month intervals from January 1874 to December 2019. We've already noted that during the average interval it's increased 6.4%. *That puts the return for*

⁴ If we rank-order all 12-month periods and exclude all except those during which the AOI rose by at least 20% during the previous year, we find that it rises much less – an average of 6.8% – during the next 12 months.

calendar 2019 into startling context: it's equivalent to ca. four years' worth of average returns. If we rank-order these 12-month periods and divide them into four groups containing equal (net of rounding) numbers of observations – in other words, quartiles – in the lowest quartile the AOI falls by an average of 12%; indeed, it collapsed by 46% in the year to December 2008. In the third quartile it rises by an average of 3% (that is, a maximum of 6.3% and a minimum of -2.0%). In the second it increases, on average, 10% – and in the top quartile it rises by at least 13%, an average of 25% and by as much as 82% (in September 1987, a month before the Crash).

A Seasonal Detour

Importantly, my analysis includes *all* 12-month periods (January-December, February-January, ..., and December-November); it doesn't restrict itself to calendar years (January-December). This inclusive analysis produces more conservative results (see footnote 4) than Livewire Markets. On 13 January 2020, it stated:

After such a strong return in 2019, momentum is clearly on the side of Australian equities in 2020. Despite warnings from several fund managers that "last year's returns can't be repeated again," the data suggests [sic] otherwise. In 2019, the S&P/ASX 300 Accumulation Index returned 23.8%. There have been 18 occasions since 1900 that the Aussie market has returned 20-30%. The following year the market produced positive returns on 17 of those occasions, meaning there were positive returns in 94% of these years. On average since 1900, 81% of years are positive. Additionally, the returns following a 20-30% year are higher than average at 18.5%, compared to an overall average since 1900 of 13.1%. As always, past returns are not a reliable indicator of future returns, but based on this data point, it could be another good year for stocks in 2020.

Table 1 reproduces the data that accompanied this quote (I have added the AOI's corresponding results). Because it includes the reinvestment of dividends, the S&P/ASX 300 Accumulation Index's results – both for individual years and their mean as a whole – always exceed the AOI's. Further, both indexes' results regress towards their arithmetic means; the "following year" returns, in other words, are usually lower than the return of the current year. According to Livewire, the S&P/ASX 300 Accumulation index's mean for all calendar years from 1900 to 2019 is 13.1%.

At first glance, Livewire's conclusion seems to follow from its results. Yet its restriction of its analysis to calendar years rather than all 12-month periods clearly inflates its estimates of short-term returns. *This is because the ASX's 12-month results, like those in the*

U.S. and many other markets, exhibit marked seasonality. Specifically, and [according to Investopedia.com](http://investopedia.com),

**Table 1:
Index Returns, Years since 1900 when the S&P/ASX 300 Accumulation Index
Has Risen More than 20%**

Year	Index Return (%)		Following Year's Return (%)	
	S&P/ASX 300 Accumulation	All Ordinaries	S&P/ASX 300 Accumulation	All Ordinaries
1903	23.9	16.0	9.4	2.2
1921	22.4	12.6	23.6	14.8
1922	23.6	14.8	18.3	10.3
1932	26.5	19.9	27.1	21.1
1933	27.1	21.1	24.6	19.1
1934	24.6	19.1	11.4	6.2
1942	20.4	12.4	10.5	4.5
1954	20.6	13.1	12.1	4.7
1958	22.8	12.9	47.1	38.1
1963	28.6	21.6	6.6	0.5
1972	26.4	31.8	-23.3	-28.8
1977	20.2	6.6	22.2	17.6
1978	22.2	17.6	46.3	32.0
1995	20.2	16.5	14.0	7.2
2004	27.6	22.9	21.1	15.7
2005	21.1	15.7	25.0	19.8
2006	25.0	19.8	18.0	17.6
2019	23.8	20.0	TBA	TBA
ARITHMETIC MEAN	23.7	17.5	18.5	11.9

“Sell in May and go away” is a well-known financial-world adage, based on the historical underperformance of some stocks in the “summery” six-month period commencing in May and ending in October, compared to the “wintery” six-month period from November to April. If a trader or investor follows the sell-in-May-and-go-away strategy, [she] would divest [her] equity holdings in May (or at least, the late spring) and invest again in November (or the mid-autumn). Some investors find this strategy more rewarding than staying in the equity markets throughout the year. They subscribe to the belief that, as warm weather sets in, low volumes and the lack of market par-

ticipants (presumably on vacations) can make for a somewhat riskier, or at a minimum lacklustre, market period.⁵

Perhaps because they respond to cues from counterparts in Britain and the U.S., the ASX's returns exhibit significant seasonality. To see this, (1) compute all possible 12-month returns; (2) set all returns for January-December into one pile ("December"); do the same for December-November ("November") and so on; and (3) compute the deviation of each pile's mean return from the overall (January 1874-December 2019) 12-month average return.

Figure 4:
Seasonality of AOI's 12-Month Returns
(Deviation from Overall Mean), Three Periods since 1875

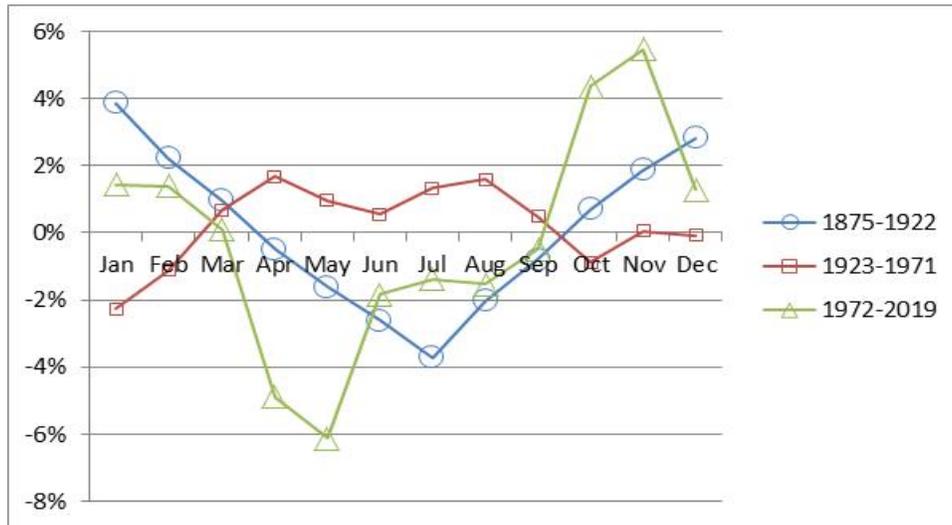


Figure 4 plots the results. The lesser is the seasonality, the lower will be the deviation (that is, the closer to 0%) of each pile's mean from the overall mean. Regardless of the interval, 12-month results are worst in May-April and June-May, and best in November-October and December-November. Since 1972, for example, results for June-May

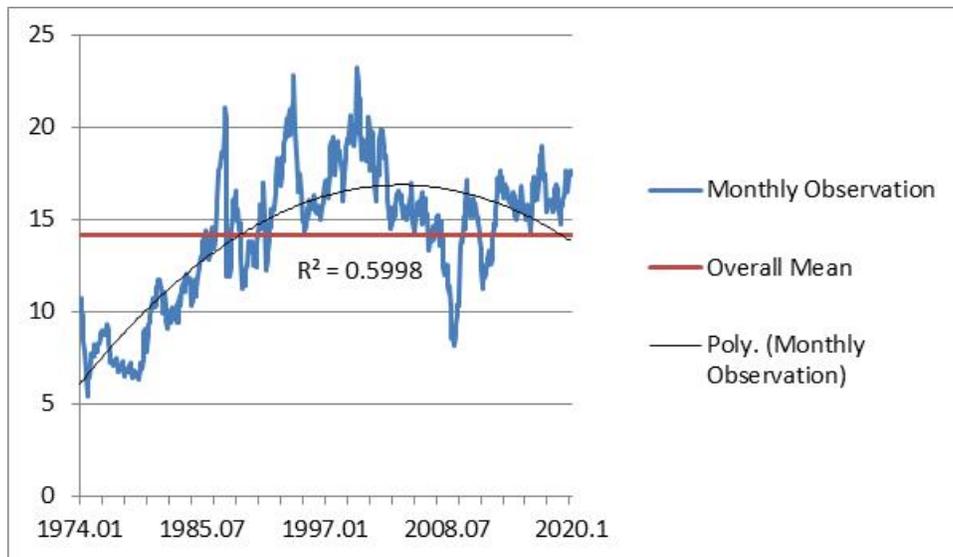
⁵ Investopedia.com elaborates: "The phrase 'sell in May and go away' is thought to originate from an old English saying, 'Sell in May and go away, and come on back on St. Leger's Day.' This phrase refers to a custom of aristocrats, merchants and bankers who would leave the City of London and escape to the country during the hot summer months. St. Leger's Day refers to the St. Leger's Stakes, a thoroughbred horse race held in mid-September and the last leg of the British Triple Crown. American traders and investors who are likely to spend more time on vacation between Memorial Day and Labor Day mimic this trend and have adopted the phrase as an investing adage. And indeed, ... stock market patterns have supported the theory behind the strategy."

have on average been 6.0 percentage points lower than the overall mean, i.e., $6.4\% - 6.0\% = 0.4\%$. Results for December-November, on the other hand, have on average been 5.3 percentage points above the overall mean, i.e., $6.4\% + 5.3\% = 11.7\%$. More generally, computing 12-month results on a December-November, January-December or February-January basis adds 1-5 percentage points to one's results.

Today's High Valuation Presages Tomorrow's Poor Return

What might we expect during the rest of 2020 and beyond? The third – and key – part of my response is that *current higher valuations beget subsequent lower returns*. The valuation of today's market is elevated; therefore we shouldn't be surprised if tomorrow's returns are modest (compared to 2019). A company's price to earnings ("PE") ratio compares its shares' current price to its earnings per share (in other words, market price per share ÷ EPS). Similarly, a market's PE ratio divides a market index such as the AOI by the earnings of the entities that comprise it. The higher is the ratio, the greater is the amount that a buyer is willing to pay for \$1 of current earnings. The lower (higher) is its PE ratio, as a rough rule, the cheaper (dearer) is the company or market.

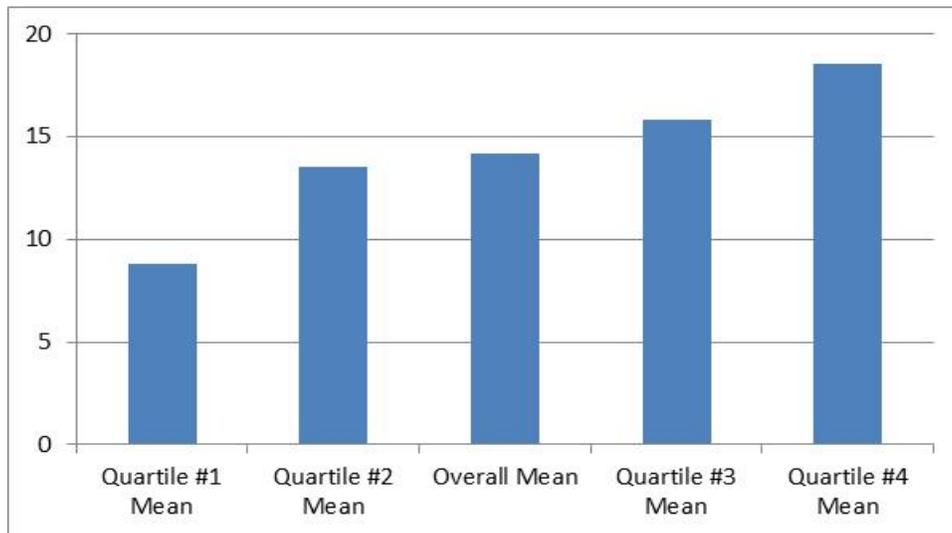
Figure 5:
Price-to-Earnings ("PE") Ratio, AOI, Monthly Observations, Jan 1974-Dec 2019



Valid and reliable estimates of the AOI's earnings – and hence its PE ratio – have been available since January 1974 (Figure 5). The ratio has averaged 14.1; from the mid-1970s until 2000 its trendline rose; and since then it's fallen. *By historical standards, today's market is – and for much of the time since the mid-1980s has been – relatively dear*. Currently it's not nearly as expensive as it was before the Crash of 1987 and bursting of the Dot

Com bubble; still, market participants are now paying ca. 25% more (that is, \$17.70 versus \$14.10) per \$1 of earnings than they have, on average, since 1974. Indeed, they're paying almost three times what they did (ca. \$6.00) during the mid-1970s. In December 2019, the trendline and overall mean co-incided – thereby implying that the ratio's current value (ca. 17.7 in January 2020) will subsequently decrease.

Figure 6:
Price-to-Earnings (“PE”) Ratio, All Ordinaries Index,
Monthly Observations Ranked by Quartile, January 1974-December 2019

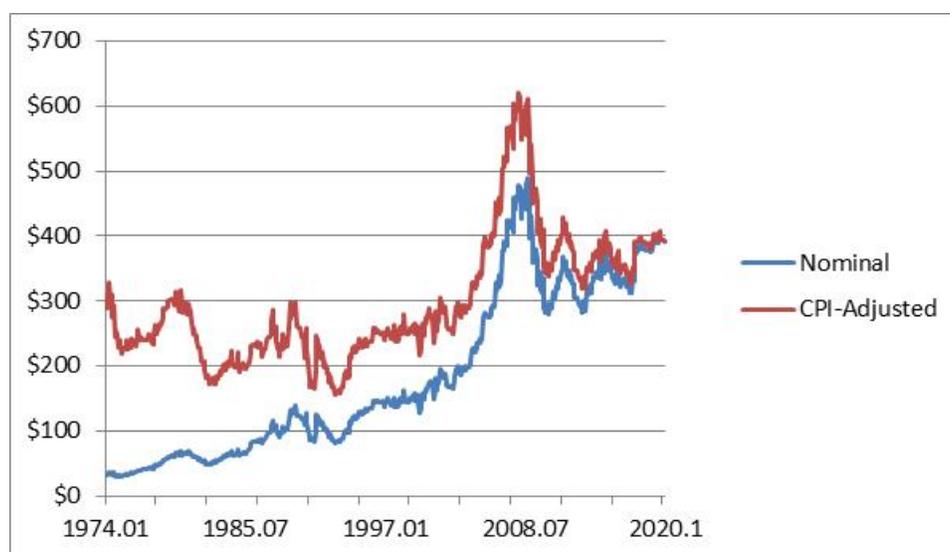


I ranked-ordered these observations and grouped them into quartiles (Figure 6). In December 2019, the AOI's PE ranked in the top quartile. *Like the 22% rise of the AOI during the year, so too its PE in its final month: such a thing occurs infrequently, i.e., only ca. one-quarter of the time. Hence it's more likely than not that the AOI's PE ratio will subsequently fall.* Perhaps its earnings (EPS) will rise sharply during 2020, but I doubt it; instead, it's more likely that its level will fall relative to its earnings – that is, its PE will decrease. In December 2019, for example, the AOI closed at 6,855 and its EPS was \$393.30; hence its ratio of price to earnings was $6,855 \div 393.3 = 17.7$. Assume that during 2020 the AOI's PE regresses towards its historical mean – that is, by the end of the year it falls to 16. Assume as well that EPS rises 2% to \$401.20. If so, and if $x =$ the AOI's level, then $x \div 401.2 = 16$; hence AOI = 6,419 – a decrease of 7.3%.

In this context it's vital to bear in mind a key point which virtually all “analysts,” “strategists” and the like ignore or deny: *the AOI's earnings are much lower today than they were just before the GFC* (Figure 7). In nominal terms, they were 18% lower in December 2019 than the crest (\$479) they reached in January 2008. Adjusted for the Consumer

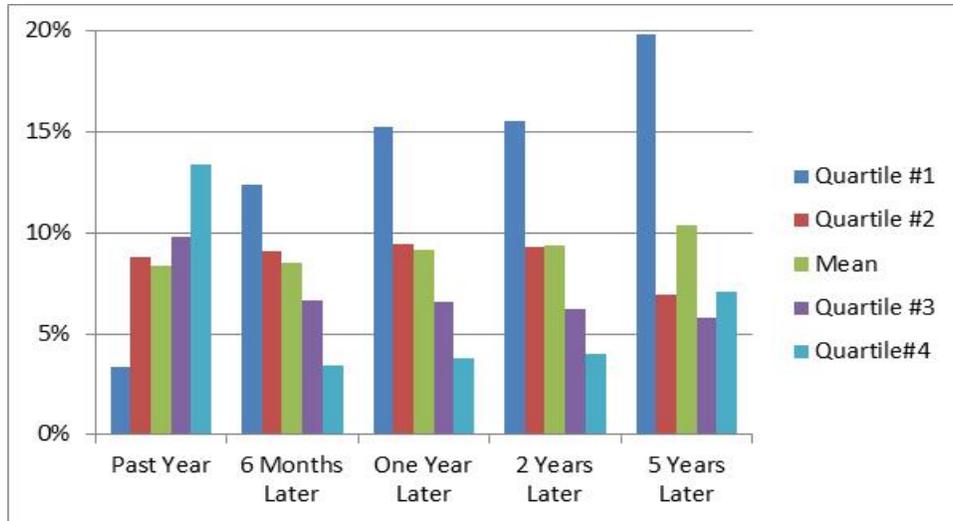
Price Index, over the past decade earnings have plummeted almost 37%. Yet during 2019 the AOI rose 22%; moreover, for first time in more than a decade it scaled an all-time high. This occurred not because its earnings zoomed – they rose a mere 1.6%, from \$387 in January to \$393 in December – but because its PE zoomed 20% (from 14.8 at the beginning of the year to 17.7 at the end). More generally, *the AOI has “recovered” from the GFC despite the fact that its earnings have deteriorated*: its PE has doubled from well below the historical average (8.7 in February 2009) to above it (14.4) since 2010.

Figure 7:
**All Ordinaries Index’s Earnings, Monthly Observations,
Nominal and CPI-Adjusted, January 1974-December 2019**



The greater is the AOI’s percentage return at the end of a 12-month period, the higher its PE ratio tended to be at its start. On a “retrospective” basis, in other words, the relationship between ratio and return is positive (see the “Past Year” in Figure 8). PEs in the bottom (#1) quartile generate the lowest (3.4%) returns; those in the top (#4) produce the highest (13.4%) returns. *On a “prospective” basis, however, the relationship is negative: low valuations (PE ratios) today tend to produce higher returns tomorrow, and high PEs today tend to generate low returns tomorrow.* PEs in the bottom quartile spawn the highest (12.4% annualised) returns six months hence; those in the top one produce the lowest (3.5%). Further, returns from the bottom quartile improve as time passes: specifically, PEs in this quartile generate returns of 16% in a year’s time, 17% per year after two years and 20% per annum after five years. In sharp contrast, high PEs (top quartile) today subsequently generate stagnant returns: 3.4% (annualised) after six months, 3.8% after one year, 4.0% per year after two years and 7.1% per year for five years.

Figure 8:
Annualised Returns, All Ordinaries Index,
Ranked by Past Year's PE Ratio, 1974-2019



Do Low Rates of Interest REALLY Justify Higher Valuations?

At this point bulls typically – and often vociferously – interject: “today’s miniscule rates of interest amply justify these high PE ratios!” (see, for example, [ASX Prices Keep Rising, Thanks to the RBA](#), *The Age*, 5 February 2020). Theoretically, and all other things being equal, a stock’s value equals the present value of its future cash flows. Hence lower discount rates – which long-term rates of interest proxy – beget higher valuations. [Investopedia provides another reason](#):

... Interest rates also affect consumer and business psychology. When interest rates are rising, both businesses and consumers will cut back on spending. This will cause earnings to fall and stock prices to drop. On the other hand, when interest rates have fallen significantly, consumers and businesses will increase spending, causing [profits and thus] stock prices to rise.

These conjectures hail from academia. In the real world, do rates influence valuations? [Data compiled by Robert Shiller](#) demonstrate that since 1881 other things haven’t been equal; *the relationship is so weak that it’s barely discernible*. Figure 9 plots the S&P 500’s [Cyclically-Adjusted PE Ratio](#) (CAPE) and the 10-year Treasury’s yield (both as percentage deviations from their means for the period). During two intervals (early-1920s and early-1930s to mid-1960s) rates and valuations were low; and in another (1995-2003), both were elevated. It’s telling that the years since the GFC provide the only instance during which very low rates and sky-high valuations have occurred simultaneously.

Figure 9:
CAPE and Long-Term Rates of Interest (Deviations from Means), U.S., 1881-2019

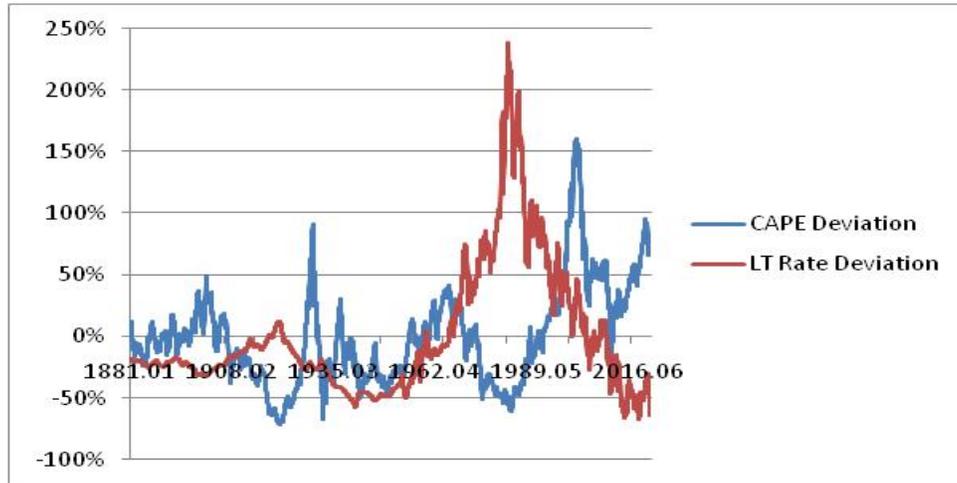
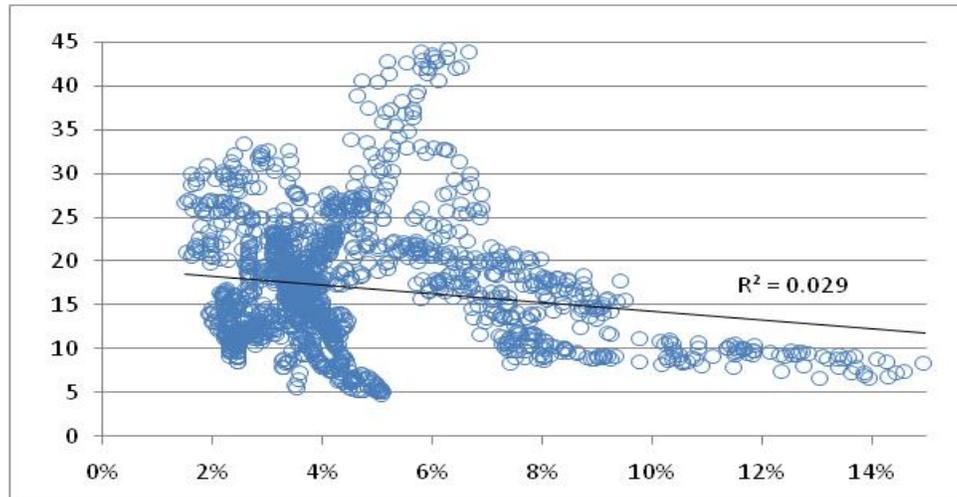


Figure 10:
Shiller's CAPE (Vertical Axis) and Long-Term Rates of Interest (Horizontal Axis), U.S., 1881-2019



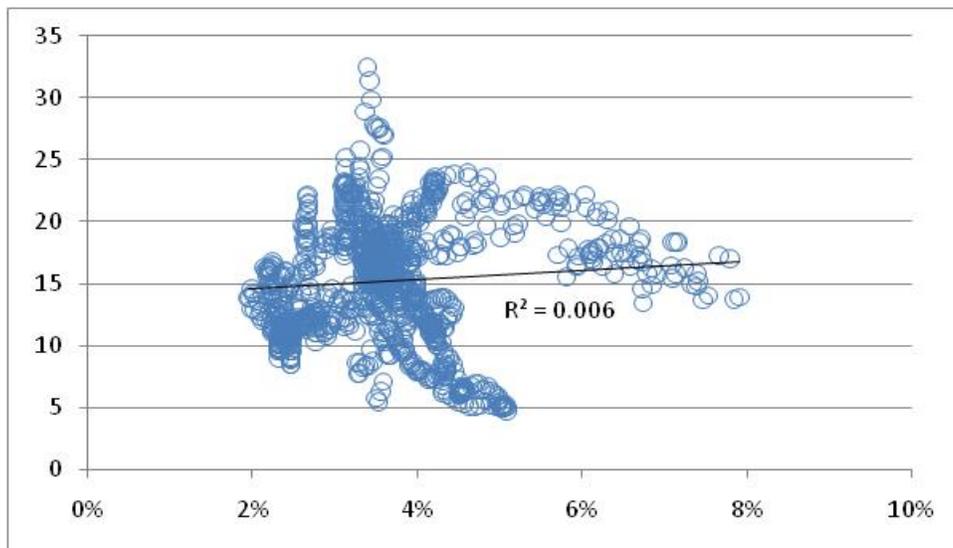
What might explain the absence of any significant relationship between rates and valuations in the U.S. since the 1880s? The short answer, as James Grant has described in great detail,⁶ is fear and long memories. The Depression of 1920-1921 was among the century's worst – and the Great Depression of the 1930s was as bad and lasted much

⁶ See *The Trouble with Prosperity: A Contrarian's Tale of Boom, Bust, and Speculation*, Times Books, 1st ed., 1996; *The Forgotten Depression of 1921: The Crash That Cured Itself*, Simon & Schuster, 2015; and [The Forgotten Depression](#), *The New York Times*, 23 January 2015.

longer. At the end of the Second World War, investors remembered what had occurred in the immediate wake of the Great War – and dreaded a repetition. Fearing another collapse of stocks, they shunned them (compressing their PEs), embraced bonds (depressing their yields) and remained fearful for the next two decades.

A scatterplot (Figure 10) confirms that these variables are inversely related (i.e., their trend-line slopes downward). Yet rates don't predict valuations: $R^2 = 0.029$. *In plain English, the Treasury's yield accounts for only 2.9% of CAPE's variation.* Notice as well that the highest valuations occur not when rates are lowest (i.e., ca. 2%) but when they're moderate (4.5-6.5%). Similarly, the lowest CAPEs occur both when rates are moderate (5%) and elevated (10% and above).

Figure 11:
Shiller's CAPE (Vertical Axis) and
Long-Term Rates of Interest (Horizontal Axis), U.S., 1881-1973



The influence of long-term rates upon current valuations should exist irrespective of time. Yet we observe otherwise: between 1881 and 1973, no relationship existed (Figure 11); and since 1974, a reasonably strong one has prevailed (Figure 12). Notice that in 1881-1973 rates were moderate and varied little, i.e., rarely did they sink below 2% or rise above 5%. In sharp contrast, since the 1970s they've varied greatly: not only did they exceed 14%; they've also fallen below 2%. It's ironic: before the 1970s, when central banks intervened relatively little, long-term rates were relatively stable. Since then, however, they've intervened constantly, extensively and cumulatively massively. Consequently, rates have fallen more continuously – and cumulatively massively – than at any other time in American financial history.

Figure 12:
Shiller's CAPE (Vertical Axis) and
Long-Term Rates of Interest (Horizontal Axis), U.S., 1974-2019

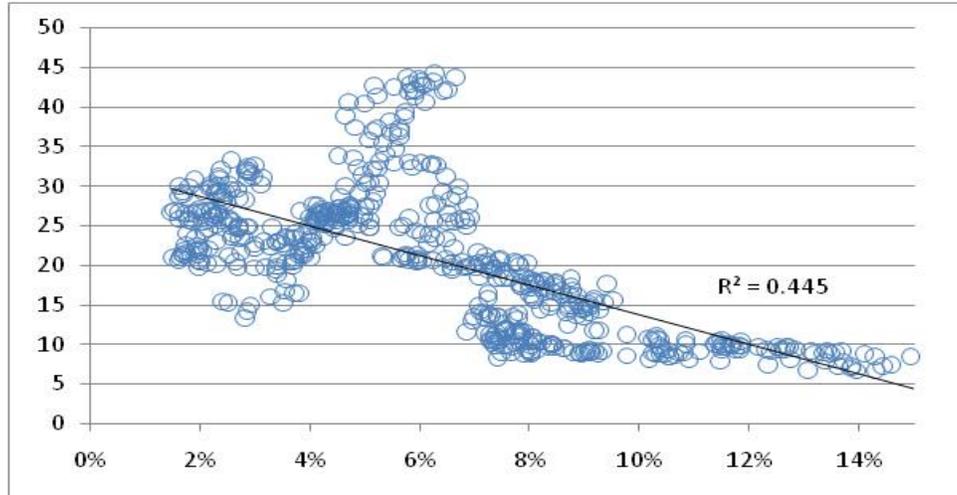
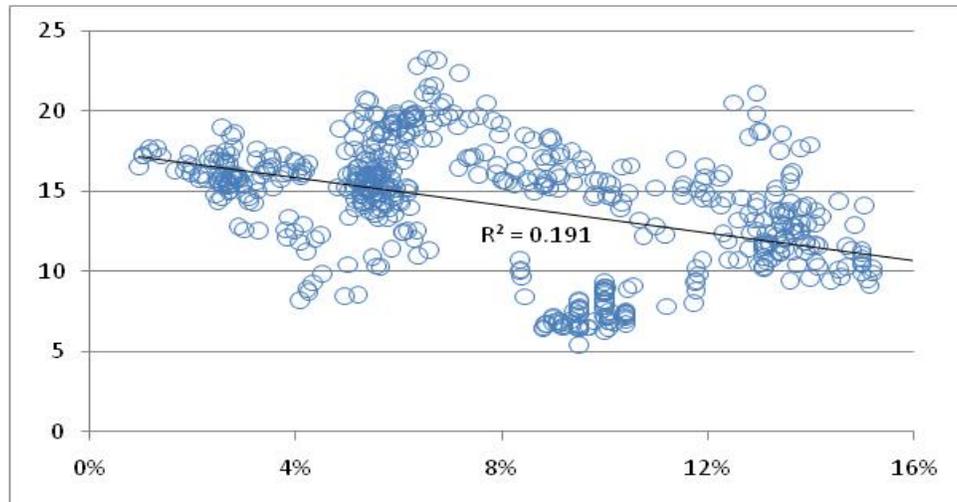


Figure 13:
Shiller's CAPE (Vertical Axis) and
Long-Term Rates of Interest (Horizontal Axis), Australia, 1974-2019



In this country, as mentioned previously, valid and reliable earnings data have existed only since 1974. Broadly speaking, the relationship (Figure 13) corroborates the bulls' contention: the higher is the rate, the lower tends the valuation. On the other hand, the relationship isn't particularly strong. Indeed, at virtually any rate above 4%, PEs have at one point or another been both low (10 or below) and high (above 15). As a result, factors other than long-term rates explain four-fifths of CAPE's variation.

Why are today's rates so low and valuations so high? If fear and long memories prevailed until the mid-1960s, then complacency, historical myopia, unwarranted faith in central banks' "emergency" monetary experiments (which have seemingly become permanent) and governments' ever more extreme fiscal "stimulus" have ruled since the 1990s. James Grant ("Monetary Activism Is a Virus That Infects Politics and Destroys Wealth," *The Financial Times*, 6 January 2015) aptly summarised their culmination:

The virus of radical monetary intervention has entered the world's political bloodstream [and effectively] zero per cent interest rates now pass for mainstream central banking doctrine ... The heirs of today's bondholders will read with amazement the history of post-2008 monetary policy. They will marvel at the faith of a non-churchgoing people in the mystical powers of central bankers. They will mourn the destruction of the wealth their forefathers entrusted to feckless governments at barely positive rates of interest ...

A Calm Conclusion

If the past remains prelude, and given what's typically occurred under conditions comparable to those prevailing at the beginning of this year – that is, following the AOI's sharp rise to a high PE ratio – *during the next several years it's unreasonable to expect that returns from Australian stocks will exceed ca. 5-7% per year.* Worldwide, and more than a decade after the GFC, hard lessons remain unlearned and corporate, household and sovereign debt have skyrocketed; hence anyone who denies the chance of a repetition is mistaken. This doesn't mean that another crisis is imminent or even inevitable, or that returns during each of the next several years will by historical standards be low; rather, it implies that the entire period's return will – compared to 2019's – be modest.

We can't reliably predict, so we must thoroughly prepare. The future is opaque; what's clear is that we'll continue to do what we've done since 1999: ignore "experts" and the crowd, conduct our own analyses and implement our own plans. The herd craves bull markets because they lift all boats – speculators' as well as investors' – and it fears bear markets because they decimate conventional portfolios. As investors we neither yearn nor dread; yet as contrarians we welcome downdraughts: they provide the opportunity – and our cash reserves give us the wherewithal – to purchase the securities of sound firms at attractive prices. *My conclusion is thus three-fold: we cannot know what the AOI will bring during rest of 2020 and over the next couple of years; regardless of what happens, Leithner & Co. is well-prepared; hence its shareholders can regard the future with equanimity.*

Chris Leithner