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An historical perspective on the current crisis

To assess the severity of the current financial crisis in Australia, we examine stock market index data from five previous crises since 1882. We find that although the current crisis has not yet ended, it is very similar to other previous crises, both in terms of magnitude and high-to-low duration. We also note that index levels alone can be misleading, giving the impression that the current crisis is much worse than it is.

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THE CURRENT FINANCIAL CRISIS, which started in late 2007, had its roots in the credit crisis leading to the bankruptcy and near collapse of several large global financial institutions. While starting out as a crisis in the credit market, the crisis has now spilled over to the real economy, affecting most businesses, and is often described as the worst crisis we have ever seen.

In this article we examine historical financial crises, their severity and their outcomes in Australia. Based on the notion that the past repeats itself, we take a closer look at past crises in an attempt to gain some insights into the current crisis. The research is based on historical stock market index data provided by Global Financial Data (https://www.globalfinancialdata.com).

How severe is the current crisis?

As an initial indication of the severity of the crisis, we consider the index level of a reconstructed ASX All Ordinaries Index going back to 1882. Figure 1 shows the evolution of the index since 1882 to the present time. What we can clearly observe is the exponential growth in the index, most visible from 1960 onwards. The figure also shows that there have been some significant dips in the index, for example, Black Monday in 1987 and the IT bubble that burst in 2001. However, the current crisis has had its most severe impact on the index level of all of the crises during this time period.

At least in absolute terms, this is the largest crisis we have encountered so far. But, we argue that a price plot (like Figure 1) can be misleading as investors should not care about absolute price changes, but relative changes; a drop in the index from 20 to 10 has the same impact as a drop from 20,000 to 10,000. Hence, to make a sound comparison between the historical crises, we need to remove the exponential trend from the index.

In Figure 2 we show a time series plot of the index for the same time period not in absolute terms but in logarithmic terms. Figure 2 clearly shows that once the exponential trend is removed, the impact of several other crises becomes visible, most notably the Great Depression starting in the late 1920s and the oil crisis of 1973. The figure also shows that the current crisis is very similar in magnitude to the earlier crises. More importantly, it indicates that after every crisis, markets rebound and average returns over the long-run are rather stable (i.e. we can draw a straight line starting in 1882 to the present and see that log index levels hardly deviate from this line). Stated differently, while these market crashes may lead to temporary deviations (economic depressions) from the long-run average, markets always make up for it after the crash and bring the price level back to this long-run relationship. So, from a long-run perspective, these crises do not have a permanent impact, which should be reassuring.

FIGURE 1. **Level of the ASX All Ordinaries Index**

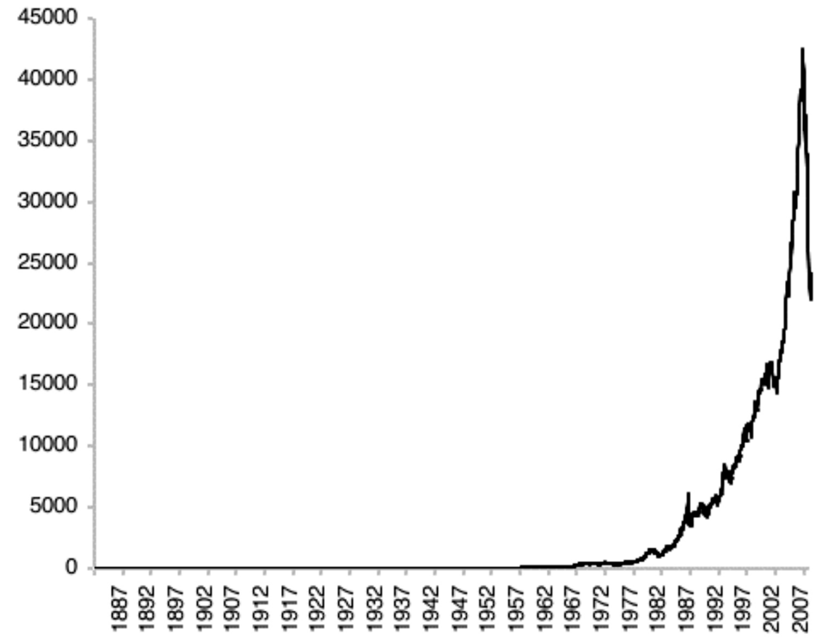

FIGURE 2. **Log of the ASX All Ordinaries Index**

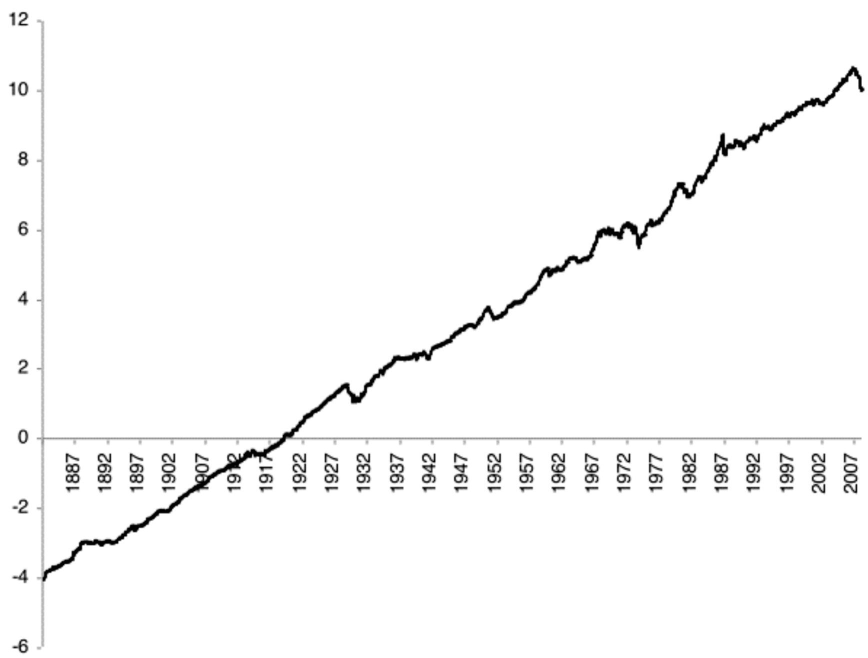

TABLE 1. **Characteristics of the five major financial crises since 1882**

	Maximum Loss	High–Recovery	High–Low	Below Average
Great Depression (1930s)	-47%	38	13	37
Oil Crisis (1973)	-73.27%	31	14	80
Black Monday (1987)	-57.14%	66	5	0
IT Bubble (2001)	-11.97%	7	3	0
Current Crisis (2007)	-55.88%	17+	16*	6

* up to March 2009.

But how long is the long-run?

To answer this question, we investigate several characteristics of the five major crises of the past century: the Great Depression (1930s); the Oil Crisis (1973); Black Monday (1987); the IT Bubble (2001); and the recent crisis (2007) as reported in Table 1. In the first column of Table 1 we report the maximum percentage losses suffered during these crises.

Except for the IT Bubble, which had a limited effect on the ASX All Ordinaries Index, the other four crises are more or less of similar magnitude with the Oil Crisis leading to the largest drop in the index. As discussed earlier, there was a recovery after each crisis and, in the next three columns of Table 1, we report some statistics on this recovery. The first of these columns shows how many months it took for the price to recover to the highest point before the crisis. In the case of current crisis, which is still evolving, it has up to now been around 18 months since the peak of the market. For the other crises, we find they were 38 and 31 months for the Great Depression and the Oil Crisis, respectively, while for Black Monday there was a very long recovery period of five and a half years. The latter recovery is not due to the large losses suffered (the Oil Crisis was worse), but is mainly due to the poor stock market performance after the crisis. The IT Bubble had much less impact and markets recovered within a year.

However, due to speculative trading and overreaction by investors, which are not representative of normal market circumstances, the time it takes to reach the peak before the crisis may not be the best indicator of how long it takes to recover from a crisis. As an alternative measure, we consider the number of months it takes from peak to trough in the market as reported in the third column in Table 1. By looking at this measure, we can observe that the current crisis is the worst so far (at the time of writing, the market has been going down for around 17 months). Similar to the current crisis were the Great Depression and the Oil Crisis. Black Monday in 1978 saw a much more sudden fall in the stock market. However, a sustained decrease in stock prices does not necessarily imply a similarly long time to recovery as was observed in the second column, where Black Monday took the longest period to recover.

We find that during the 1987 and 2001 crises the ASX All Ordinaries did not drop below its average historical growth rate, implying that these two crashes could simply be interpreted as market corrections. The Oil Crisis, however, was the most severe crisis, with the index remaining below its average growth rate for more than six and a half years. The current crisis has caused the index to drop below its average growth rate only in the past six months.

In the last column of Table 1 we report how long stock returns were below the average growth rate of the past 125 years, i.e. the average growth rate estimated as the straight line running through Figure 2. We observe some interesting findings. Firstly, we find that during the 1987 and 2001 crises the ASX All Ordinaries did not drop below its average historical growth rate, implying that these two crashes could simply be interpreted as market corrections. The Oil Crisis, however, was the most severe crisis, with the index remaining below its average growth rate for more than six and a half years. The current crisis has caused the index to drop below its average growth rate only in the past six months.

Conclusion

After considering all of this information, we could conclude that the current market crisis seems to have many features of the previous five crises. Although the current crisis has not yet come to an end, it is very similar to other crises, both in terms of magnitude and high-to-low duration. We also note that looking at index levels as shown in Figure 1 could be misleading, giving the impression that the crisis is much worse than it is.