Recession: Just How Much Warning is Useful Anyway?

By Dwaine van Vuuren
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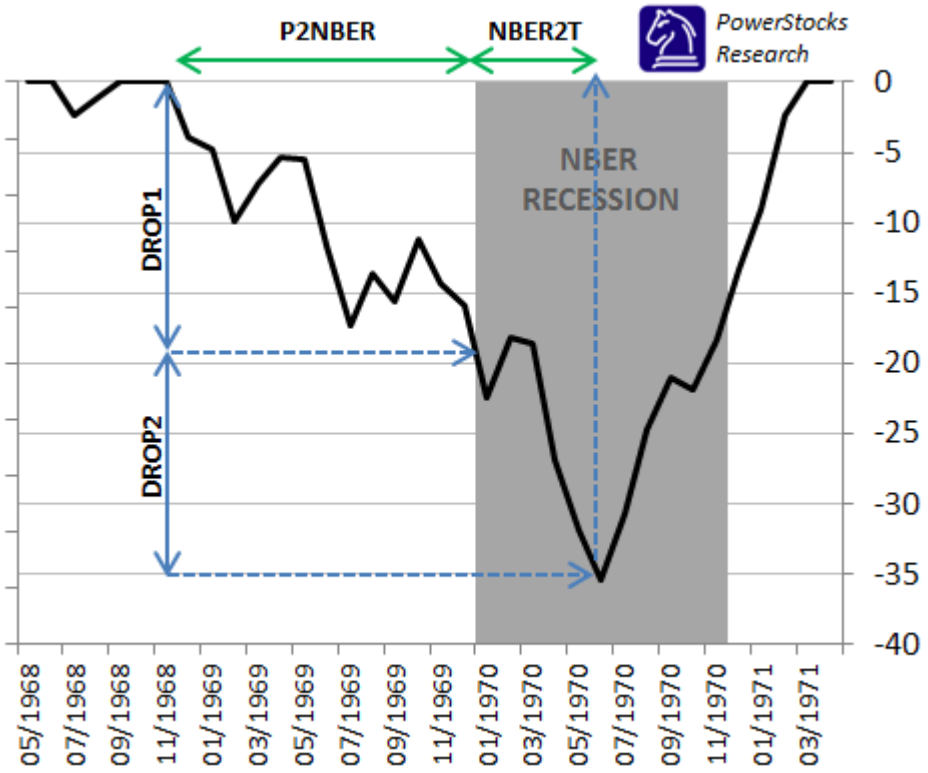
At the end of September 2011, ECRI made a call that left the impression that a recession was imminent. Considering their track record of accuracy, very few challenged their argument. Two days later, the S&P 500 bottomed and rose an incredible 22% (through February 9, 2012) penalizing those who reduced their equity allocations based on ECRI's forecast.

In December 2011, ECRI dialled down the urgency of the timing of their call to "within six months." That raised the question of just how much recession warning is useful when it comes to forecasting equity market performance.

It is understandable that long 9-12 month warnings would be useful for governments and some business leaders, but is this true for stock market participants? How many thousands of investors heeded the recession call and are sitting in disbelief on the sidelines in this rally (or were heavily hedged), wondering when the recession is going to arrive and vindicate their decision?

Many analysts dismiss the usefulness of co-incident indicators in recession dating, with the notion that by the time you realize a recession has begun, the horse has bolted. Therefore, the experts advise using leading indicators – and the longer the lead, the better. This seems intuitive, but is it really true? We can be far more accurate in dating recessions using short-leading and/or co-incident economic indicators, so why isn't that the better approach?

Let us take a look at what history tells us from the seven recessions since 1967 – we'll find some surprising answers. But first let me frame the methodology and analytics I will present. An illustrative example is the below chart, depicting the very first recession under review, which took place in 1970:



For each NBER-dated recession, I will assess percentage decline from the most recent pre-recession high of the NYSE as shown by the black line. NBER-dated recessions are defined as the month following the business-cycle peak through to the trough I will determine four measures, namely P2NBER (how many months elapsed from the NYSE peak to the first month of recession), DROP1 (how much the NYSE declined in the P2NBER months), NBER2T (how many months elapsed from the first month of recession to the NYSE correction trough) and DROP2 (how much the NYSE declined from the first month of the recession to the NYSE trough).

The conventional wisdom tells us that the stock market leads the business cycle by six to nine months, and therefore DROP1 should be much larger than DROP2 – the earlier your warning the better. The results of this exercise are tabled below:

	P2NBER	DROP1	NBER2T	DROP2	P2T
1970	15	-22.4	6	-16.7	-35.4
1973	12	-19.6	10	-35.4	-48.0
1980	1	-1.0	2	-11.0	-12.1
1981	9	-12.1	12	-13.6	-24.1
1990	3	-10.1	3	-6.1	-15.6
2001	8	-5.9	6	-14.3	-19.4
2008	3	-11.5	14	-49.4	-55.2
AVG	**7.3**	**-11.8**	**7.6**	**-20.9**	**-30.0**
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What jumps out is that the conventional wisdom held until 1973 and then underwent a dramatic change, with the stock market becoming much timelier in signalling recession, which can be seen in the dramatic fall in the number of the months in the P2NBER column.

Perhaps the stock market and recession forecasting/dating techniques and models have become much more sophisticated, and that is what has caused this fall in the lead between when the stock market peaks and onset of recession. If we include the 1970 and 1973 recessions, then the analysis tells us the stock market peaks 7.3 months on average before the onset of recession. But if we exclude these two recessions, the average drops to a mere 4.8 months with a 3 month standard deviation.

Assume an investor is following a business cycle expansion buy-and-hold strategy, where the aim is to remain vested in the stock market for as long as possible before the onset of recession. Any defensive action longer than 4.8 months on average before a recession is going to be counterproductive for him or her. Think about this – in the 4.5 months since ECRI's recession call the stock market has rallied more than 22%. Is that counterproductive enough for you?

Now for the big surprise: DROP2 is much bigger than DROP1 – almost double! That hits most seasoned investors and clients we have showed this to right between the eyes. If you use any number of well-crafted models that are based on coincident indicators (and there are brilliant ones, including some we have built), you are still likely to avoid two-thirds or more of any recession-related correction. (This assumes, of course, that you time your re-entry to stock market trough perfectly – but we have to assume the two methods will re-enter at the same time when evaluating optimal times to exit.) This stylized fact is not isolated – in five of the seven recessions, this was true, and for the two it was not, DROP2 was not that far from DROP1. Timing exits with co-incident indicators is hardly a worthless approach.

Obviously, it is ideal to exit 4.8 months before recession (on average). *But it is not crucial* and arguably, unless your leading indicator is dead accurate – which cannot be guaranteed – it is *possibly not ideal*, unless it has a short lead.

Given the far better dating accuracy one can achieve with statistical models deploying short-leading and/or co-incident indicators, you ignore them at your peril. I say this as many respected leading economic indicators (the ECRI WLI being one) have been whipsawed with false positives of late. One ought to hesitate in basing high-stakes decisions – which is what acting on recession calls are – solely on leading indicators.

Co-incident indicators reflect the *real* economic reality, whereas leading indicators *predict*. Co-incident is always going to emerge the winner in the "measure the real economy" contest. That is why statistical models for dating recessions using co-incident indicators are generally more accurate in pinpointing exact start and end dates of recession. Even the NBER itself officially uses a set of co-incident indicators to proclaim recession, not leading ones, although admittedly it does so 8 to 12 months after the fact.

Of course, by their nature co-incident indicators will never offer advance warning, as leading indicators do. But that is not such a huge shortcoming, since their improved accuracy and relatively small one-third loss of efficiency in a high-stakes game still makes them a player in any self-respecting recession model or approach.

By all means use leading indicators, but be aware that risking an entire exit or hedging strategy on leading indicators alone, especially long-leading ones, may not offer the best risk-adjusted approach.

Heading for the hills more than five months before recession is more likely to be counterproductive than not, assuming you are following a business cycle expansion buy-and-hold strategy. Do not isolate your decision points to LEIs only, since they can be subject to false positives and they only give you an extra 33% edge. Coupling or staging your actions with recession models that use more accurate short-leading and coincident economic indicators will allow you to still capture up to two-thirds of the benefit of timing market exits, while greatly enhancing reliability.

Dwaine van Vuuren is CEO of PowerStocks Investment Research, a South African-based provider of investment research. If you would like to receive the next 4 weeks SuperIndex Recession Reports for free, just email us at research@powerstocks.co.za with FREE SUPERINDEX AP2 in the subject line.