Comment

Asset prices overvalued? Two views and a conclusion

- *Shiller's 'Excess cyclically adjusted price/earnings ratio' suggests little overvaluation.*
- *But a Minsky typology suggests that prices are 5-6 steps out of 9 along the road to crisis.*
- *We see no definitive overvaluation yet: but it is Minsky that we shall be monitoring.*

The question

A key question that all investors are currently confronting is whether asset markets are frothy and, if so, how great is the risk of collapse? So much depends on the answer: yet, as so often with questions that really matter, approaches to answering it differ, and conclusions are sharply divided.

The quantitative approach

One approach is to see where valuations lie in relation to confidence intervals of an equation that 'explains', in a statistical sense, past movements in terms of their main drivers. In practice, however, reaching a statistically-significant conclusion often proves to be too demanding a test.

A somewhat less demanding quantitative approach is to compare valuations with historical norms – for example by looking at Robert Shiller's 'Excess cyclically adjusted price/earnings ratio' – the inverted, cyclically-adjusted, Price/Earnings Ratio (CAPE) minus the real return on bonds. For the S&P 500 this currently stands at 3.7%, which is close to its average from its 1960 (arbitrarily chosen) value of 3.5%.[1] This would suggest that the S&P 500 at least is not particularly overvalued.

The behavioural approach

A fundamentally different approach involves monitoring the behaviour of market participants. One way into this is through the work of Hyman Minsky, an under-recognised economist whose full contribution came to be illuminated by MIT economic historian Professor Charles Kindleberger.[2] The B*ox* on page 2 presents a 10-stage typology that we have condensed from Kindleberger's rendition of Minsky. Even though Minsky died in 1996, to read through that typology today is to watch the 2008 crisis play out before one's eyes with uncanny accuracy.

On the basis of this Minsky typology, today's stock markets, along with various other 'real' assets,[3] would seem to be at or around stage 5 or 6 of the full 9-stage path to crisis. Note that Stage 5 is reached when "*A larger and larger group of people seeks to become rich without a real understanding of the processes involved*."[4] Stage 6 is reached when 'overtrading' spreads from one country to another;[5] and Stage 7 when *"… new recruits to speculation are balanced by insiders who withdraw."*

This does not mean that the progress of events is headed inexorably to the final three stages – 8 (Financial distress); 9 (Crisis); and 10 (the panic feeding on itself.) But, by depicting the process to overvaluation as stepwise, it points to two possibilities: continuation, especially if excessive leverage becomes exposed in the system, or reversal – whether through growth or policy action.

So what to expect

While GDP is reasonably buoyant in China, elsewhere it may be many quarters at least before the vaccines have restored a 'new normality'.[6] In this environment the aggregate price level may spike near-term, but aggregate capacity seems unlikely to be strained and, with labour markets for the most part atomistic, such shocks as may occur are unlikely to turn into a price/wage spiral[7] and provoke increases in official interest rates. Moreover, some central banks, including the Fed and the Bank of England, seem to have shifted their policy weighting somewhat away from inflation and towards maintaining activity and employment.

But what if central banks did feel obliged to raise official interest rates? That would likely provoke a rotation out of growth stocks into value stocks; but probably would become truly troubling for aggregate valuations only were bond yields to rise significantly – always a possibility through a rise in the inflation risk premium should investors start to fear a prospective loss of inflation control.

Watch for[8]

We reckon, without great conviction, that equities stand to edge higher;[9] but become increasingly vulnerable to bad news. As to what to monitor, however, we are clear: we will attach more weight to the progression according to the Minsky typology more than to quantitative estimates.■

Box: *Anatomy of a crisis: The Minsky/Kindleberger typology*

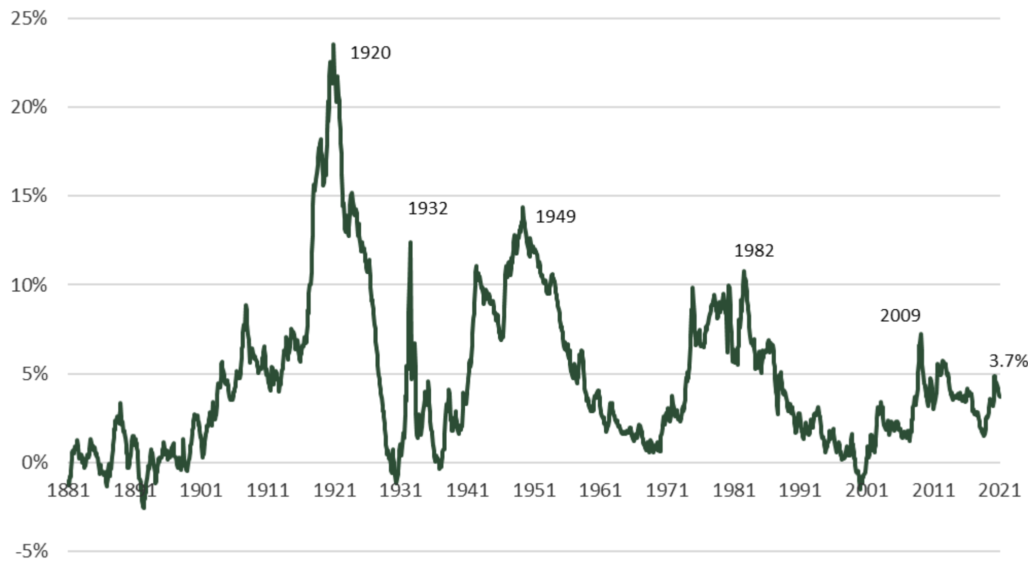
1. **Events start with a 'displacement'** – some exogenous shock outside the macroeconomic system e.g. a war, a bumper crop or failure, the widespread adoption of a new invention with pervasive effects, some political event or surprising success, or a precipitous lowering of interest rates.
2. **Expansion of bank credit** enlarges the total money supply and feeds the boom. This may involve the formation of new banks, the development of new credit instruments, and the expansion of personal credit outside of banks.
3. **Demand pressure and prices increase**, giving rise to new profit opportunities and attracting still further firms and investors. Positive feedback develops, as new investment leads to increases in income that stimulate further investment and further income increases.
4. **'Euphoria' sets in**: Speculation for price increases is added to investment for production and sale, often resulting in "overtrading" (pure speculation for a price rise); an overestimate of prospective returns; or excessive gearing.
5. **Bubbles or manias develop.** The number of firms and households engaging in these practices grows large, bringing in segments of the population that are normally aloof from such ventures. The object of speculation may involve primary products, particularly imported; domestic and foreign securities of various kinds; contracts to buy or sell securities of various kinds; land; houses; office buildings; shopping centres; condominiums; foreign exchange. A larger and larger group of people seeks to become rich without a real understanding of the processes involved.
6. **Overtrading spreads from one country to another**, whether through arbitrage for internationally traded commodities and assets; capital flows; money follows; foreign exchange; or purely psychological transmission effects.
7. **Interest rates, velocity of circulation, and prices all continue to mount**. A few insiders take their profits and sell out. At the top of the market there is hesitation, as new recruits to speculation are balanced by insiders who withdraw. Prices begin to level off.
8. **Financial distress**. Awareness starts to grow in a considerable part of the spending community that a rush for liquidity – to get out of assets and into money – may develop, leading some speculative borrowers unable to pay off their loans. As distress persists, speculators come to realise that the market cannot grow higher. It is time to withdraw, the race out of real or long-term financial assets and into money turns into a stampede.
9. **Crisis**. The trigger may be the failure of a bank or firm stretched too tight, the revelation of a swindle or defalcation, or a fall in the price of the primary object of speculation. Prices decline. Bankruptcies increase. Liquidation is sometimes orderly, but may degenerate into panic. Banks cease lending on the collateral assets whose prices are falling.
10. **The panic feeds on itself until one of three things happens:**
    a. Prices fall so low that people are tempted back into less liquid assets.
    b. Trade is cut off by setting limits on declines. Shutting down exchanges, or otherwise closing trading.
    c. A lender of last resort succeeds in convincing the market that money will be made available in sufficient.

Condensed from Kindleberger, C. P., *Manias, Panics, and Crashes*, 4th edition, pp. 13-18 (2000, John Wiley & Sons)

Early thoughts for this Comment were discussed with a range of people, and particularly useful comments were offered by Stephen Cutts, Martin Donnelly, Saul Eslake, Jonathan Fried, Gerald Holtham, Han de Jong, Russell Jones, David Munves, John Nugée, Philip Turner, and Dimitri Zenghelis. However, none has responsibility for this final version: that is the responsibility solely of the authors.

[1] See Shiller's website *Online Data*. Available at Online Data – Robert Shiller (yale.edu) [Accessed 28 January 2021]

Figure 1: Excess CAPE yield (ECY) and subsequent 10-yYear Annualised excess returns

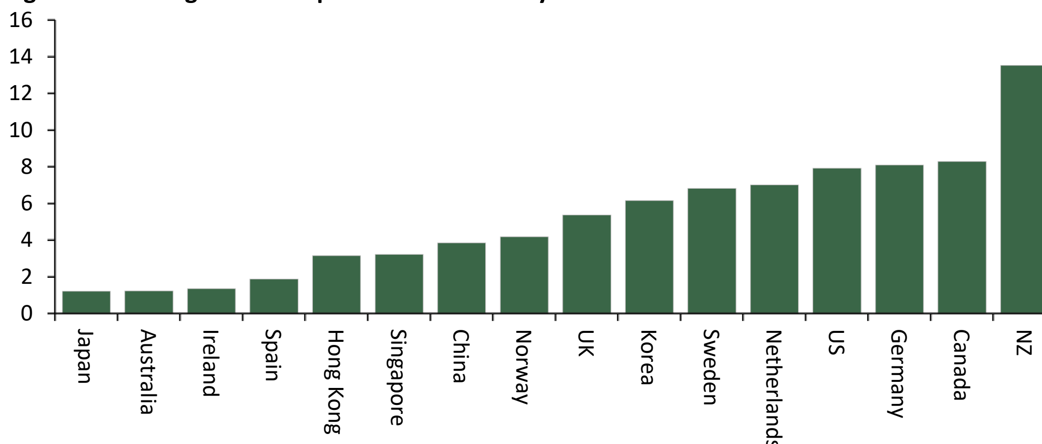


Source: http://www.econ.yale.edu/~shiller/data.htm

[2] Minsky's work came into further prominence, including in the financial community, following the 2008 Global Financial Crisis. His 'investment theory of the cycle and financial theory of investment' rejected the notion that economies are intrinsically self-regulating, considered instead that they are inherently prone to swings of excess followed more or less inevitably by crisis. For a full presentation of Minsky's thinking, see Kindleberger, C. P., Date *Manias, Panics, and Crashes*, 4th edition, pp. 13-18 (2000), John Wiley & Sons. For a discussion of Minsky's analytic contribution in the most recent context, see for example Wray, R., 2011. *Minsky crisis.* The New Palgrave Dictionary of Economics, Palgrave Macmillan. Available at https://ideas.repec.org/h/pal/dofeco/v5year2011doi3852.html [Accessed 3 February 20212]

[3] House prices too are rising, and impressively quickly, in some countries, given the depressed state of economies in general:

Figure 2: % change in house prices since February 2020



Sources: national statistical agencies and real estate institutes; CoreLogic; Teranet-National Bank; Halifax; Europace; Fotocasa; Kookmin Bank; Centalink; Refinitiv Datastream.

[4] Our experience before the 2008 crash was that a wide spectrum of people – not professional investors, traders and the like, but so-called 'ordinary' people, in the US, the UK, France, and elsewhere, were seemingly unable to avoid mentioning at dinner parties and other social occasions how much their houses had increased in value. This proved to be at least as good an indication of a pending crash as the econometric approach. (This is a version of the old story, quite likely apocryphal, of J. F. Kennedy Sr. being so struck by his "*shoeshine boy*" offering him unsolicited, supposedly hot, stock tips that he promptly went back to his office, started unloading his stock portfolio, and then actively shorted the market, thereby in due course making a fortune.) I note also that my gym trainer has now actively started trading cryptocurrencies.

[5] It is striking how recent surges in specific equity prices have been driven by amateurs, their actions being fuelled by conversations in the social media, such as Reddit. But that is a different phenomenon from that observed by Minsky which brings in "*segments of the population that are normally aloof from such ventures*" but whom are motivated by a supposed prospect of quick easy gains.

[6] Near-term growth rates can, and likely will, be impressive. But not too much weight should be placed on them: these rebounds may prove to be partial, followed by recoveries that are slow, protracted and uneven – much as after the global financial crisis, and possibly slower. Historically, post-recession growth is slower than its prior trend: re-attaining even the pre-recession GDP level takes a number of years.

[7] There is a widespread view, most notably in the financial community, that present high levels of debt and of money supply growth presage an outbreak of inflation. We doubt this. While rapid growth of the money supply is a necessary concomitant of any rapid inflation, it does not necessarily follow that every period of rapid growth in the money supply *causes* an increase in inflation.

At present, much of the increase in money supply is the result of recent extraordinary fiscal outlays to support incomes. This is likely to prove only temporary, and start slowing once economies recover. More importantly, a number of the key determinants in earlier high inflation epochs, most notably in the 1970s, are not present today. Union membership is much diminished; indexation of wages to inflation is no longer common, and, as the services sector becomes progressively more and more important proportionately, labour markets become increasingly atomistic.

[8] It should be incumbent on any analyst or forecaster to indicate what circumstances, were they to eventuate, would call into question the forecast or expectation, or, more fundamentally, the understanding on which these were made. Moreover, in deciding which data should be asked to bear the greatest weight, it is important to minimise the risk of Kahneman 'confirmation bias' – selecting the data that best support the case being made. In our 'Watch Fors' we make clear what data, were they to eventuate, would in our judgement invalidate our forecast or expectation.

[9] A further factor that bears upwards on equity valuations, as our colleague Philip Turner emphasises, is that there has been a huge (and deflationary) rise in US corporate saving as defined in the national accounts (that is, not counting financial acquisitions as investment). Investors buy companies to get their hands on this cash, and then leverage profits by loading up on debt.

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