Dangerous momentum

All too often, we extrapolate tomorrow based on the momentum of today's trends. But we would do well to adopt our primitive fear of physical momentum when assessing the prospects for financial markets, argues ***David Rowe***

Momentum in physics is mass times velocity. Intuitively, it is the 'power' in a moving object and is proportional to the energy needed to stop its motion. An implication of this is that the greater the momentum of an object, the greater are the destructive consequences of a collision. At an instinctive level, most people realise this while driving and adjust their speed accordingly. (It is also the reason motorcycles can decelerate faster than cars since smaller mass implies less momentum at any given speed.)

As with other scientific ideas, we have applied the concept of momentum to financial markets. Unfortunately, we don't always carry across our instinctive fear of physical momentum into the market context. Blinded by greed and wishful thinking, we often seem to believe that huge and growing market momentum is a strong signal that a pattern will continue. In fact, such momentum often creates the very conditions that produce a painful correction – so-called self-referential risk. The growth and eventual unravelling of the subprime mortgage market is just the latest example.

Subprime mortgages have existed since at least the mid-1990s, but the volume of such originations didn't really take off until 2004. By 2005/06, originations were running at three times the rate of 2002. This produced a boom in housing construction but also a significant spike in home prices as growth in demand outstripped the physical resource constraints on new building.

The implication was a squeeze on affordability as home prices rose. For the last two decades of the twentieth century, median home prices fluctuated around three times median income. By 2004, this ratio was up to 4.0 and reached 4.6 in 2006. This weakened the desire, and often the ability, of first-time home buyers to enter the market, thereby eroding an important source of support for the boom.

In addition, most subprime mortgages had initial teaser rates with a dramatic step-up in payments, typically after the first two years. Since many buyers were in no position to meet these inevitable increases, the market could only be sustained if the value of the underlying homes continued to rise. This would allow the mortgage to be retired, either through sale of the underlying property or use of it as collateral for a replacement mortgage. In essence, the system was a massive exercise in lending with only one means of repayment – namely, appreciation of the underlying collateral. As such, it was critically dependent on continued increases in home prices.

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Despite all these structural vulnerabilities, many of which were widely recognised in advance, markets exhibited an almost mystical faith in continuation of the momentum. The primitive fear so commonly inspired by an experience of physical momentum failed to materialise until it was too late for many institutions. Typical was the widely quoted remark by Chuck Prince, former chief executive of Citigroup, who said that "as long as the music is playing, we've got to get up and dance".

In fairness, it is not easy to draw back while a boom is in progress and competitors are registering significant profits. Fear of looking foolish by exiting too early is one factor. Another derives from a second concept borrowed from physics – namely, organisational inertia. Responding to growing perceived vulnerabilities, however, does not necessarily mean suddenly shutting down a business. It may mean just cutting back on growth targets and surrendering top spot in the league tables to a competitor. It also may entail accepting the cost of hedging (or at least truncating the tail of) potential losses from the unavoidable gross exposures that accompany business origination.

Judging when to ease up on the accelerator requires two things. The first is to formulate a clear institutional position on where structural vulnerabilities lie. The second is to track key data you believe will offer an early warning when those vulnerabilities are about to go critical. In the case of subprime mortgages, the obvious early warning indicator was a broad index of US housing prices. Interestingly enough, the monthly growth rate in the Case-Shiller 10-City Composite Home Price Index declined fairly steadily from a compound annual rate above 17% in July 2005 to virtually no change in June 2006. Furthermore, the index experienced actual declines starting in July 2006 and continuing into 2007.[1] This was a clear early warning signal that, if heeded, would have permitted ample opportunity to place hedges and even adjust business strategy.

If financial institutions cannot do better than just going with the flow and dancing whenever the music is playing, they will never avoid the consequences of inevitable future crises. ■

[1] *The 20-City Composite Index followed a roughly similar pattern*