arbitrage opportunities exist for ever-briefer periods. In newer markets traders can use simpler algorithms for higher yields.

Expansion is also cheap. Herbie Skeete of Mondo Visione, an exchanges consultancy, points out that most HFT firms have already incurred the fixed costs of developing their proprietary-trading platforms. Adapting these systems for other markets is not very expensive. Even if the size of transactions is lower than on American markets, the high turnover can generate healthy profits.

Exchanges are also keen to court HFT firms. Long used to operating as monopolies, bourses in Asia and Latin America now face competition from alternative trading platforms. Chew Sutat of Singapore Exchange says that HFT increases trading volumes, improves market liquidity and lowers trading costs. That leads to a more efficient price-discovery process and attracts more investors.

There are hurdles to the spread of HFT, however. Emerging-market governments are wary of encouraging short-term foreign investors. HFT firms which seek to exploit currency movements or arbitrage price differences between local-currency and foreign-currency bonds want to move funds in and out of a country with minimal friction. The presence of capital controls makes this hard. Brazil's 2% tax on foreign equity and debt investments in 2009 did not deter existing HFT firms but did discourage new ones.

Exchanges in Asia and Latin America are also keen not to alienate retail and institutional investors. Some investors fret that co-location creates a two-tiered system by favouring firms with machines closer to an exchange's data hub. Others worry that HFT increases volatility and systemic risk. To keep these customers satisfied, speed may not be of the essence. ■

Buttonwood | A special case

The demand for financial assets is not like the demand for iPods

MARKETS work. A government would never have made a success of an iPod, iPhone or iPad whereas Steve Jobs at Apple was able to anticipate demand for such hand-held devices. Other companies quickly noted Apple's success and produced rival devices, thereby driving down prices and widening their appeal to consumers.

Friedrich Hayek argued that markets were the most efficient mechanism for allocating resources because they represented the individual decisions of millions of consumers and thousands of producers—the wisdom of crowds, if you like. Bureaucrats and politicians would never have enough information to allocate resources as efficiently.

This newspaper believes passionately in the principle of free markets. But in recent years it has also argued that central banks should do more to counteract bubbles, even though asset prices are also set through the market mechanism.

This apparent contradiction can be resolved. Financial markets do not operate in the same way as those for other goods and services. When the price of a television set or software package goes up, demand for it generally falls. When the price of a financial asset rises, demand generally increases.

Why the difference? The reason is surely that goods and services are bought with a specific use in mind. Our desire for them may be driven by fashion or a desire to enhance our status. But those potential qualities are inherent in the goods themselves—the sports car, the designer sunglasses, the fitted kitchen. Such goods may be means to an end but the nature of the means is still important.

Financial assets appeal for one reason only: their ability to enhance, or conserve, the buyer's wealth. There is nothing that so induces a change in attitude as seeing a friend get rich. People learn through anecdote and example—the friend who sold his house for a million, the colleague who made a fortune buying dotcom stocks.

When goods prices are rising, manufacturers make more of them. The same is true of financial assets and it does not take long or cost much to create new shares. But if the underlying value of the businesses has not changed, then the creation of new shares simply dilutes the wealth of existing investors. The dotcom boom transferred the wealth of pension funds to 20-somethings in Silicon Valley.

If rising prices create euphoria, falling prices induce paralysis. Trading volume in the market tends to dry up as investors wish neither to realise losses nor to hunt for bargains. In other words the attitude of investors towards the stockmarket is the complete opposite of their attitude towards a department store. They will not rush to take advantage of a sale.

Surely there are rational investors who can profit from market booms and panics? There are some but not enough. Such rational beings are simply overwhelmed by the force of the herd. It does not help that many countries impose restrictions on short-selling (the ability to bet on falling prices). There is also, as Paul Woolley of the London School of Economics has pointed out, an "agency" problem. Many investors have their money managed by professionals, whom they select on the basis of past returns. Given that managers usually have a bias toward a particular style of investing, this causes even more money to flow to the most popular stocks.

After so many financial crises in the past 40 years most reasonable people would now accept that bubbles in asset markets can exist. The feedback mechanism described by Hyman Minsky, an American economist, seems pretty clear. A period of rising markets and steady economic growth creates the incentive for investors to speculate with borrowed money. This speculation drives prices even higher, until some shock (or the desire to take profits) causes the boom to implode.

Why not just let the markets rip? Some would say that bubbles tend to coincide with periods of great economic change, such as the development of the railways or the internet. Individual speculators may lose from the resulting busts but society gains from their overoptimistic investments. However, this argument is harder to sustain after the recent bubble in which society "gained" some empty condos in Miami and holiday homes in Spain.

The evidence is clear that the clean-up costs after debt-financed bubbles are too high. Central banks and governments do have to intervene when credit growth and asset prices (particularly in property) start dancing their toxic two-step. Asset markets do not work as well as those for consumer goods.

Economist.com/blogs/buttonwood