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UBS Investment Research

China Market Strategy

Where China shares are going? #1--A-shares liquidity

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- **Signs of bubble surfacing**

There are many signs that A-shares are going into a bubble. However, history suggests that A-shares can stay overpriced for a sustainable period of time.

- **Liquidity to the stock market**

We believe looking only at the monetary aggregates is insufficient. The 2005 stock market reform is a significant event. It changed perception on stock investment radically and brought investors' confidence back. We think a better indicator of liquidity going into equity market is the ratio of stock market turnover to money supply.

- **More liquidity into stocks**

We have decomposed the turnover-to-M2 ratio by including market cap and GDP. We then compare this ratio to past bubble peaks in Japan, Korea, Taiwan and HK. We find further upside in China's turnover-to-M2 ratio before hitting a peak.

This report has been prepared by UBS Securities Asia Ltd

The purpose of the three reports in this series is to examine the current rally in A-shares, and its effect on H-shares. In this first report, we argue that a bubble is in the making and that A-shares are heading towards higher levels of overpricing.

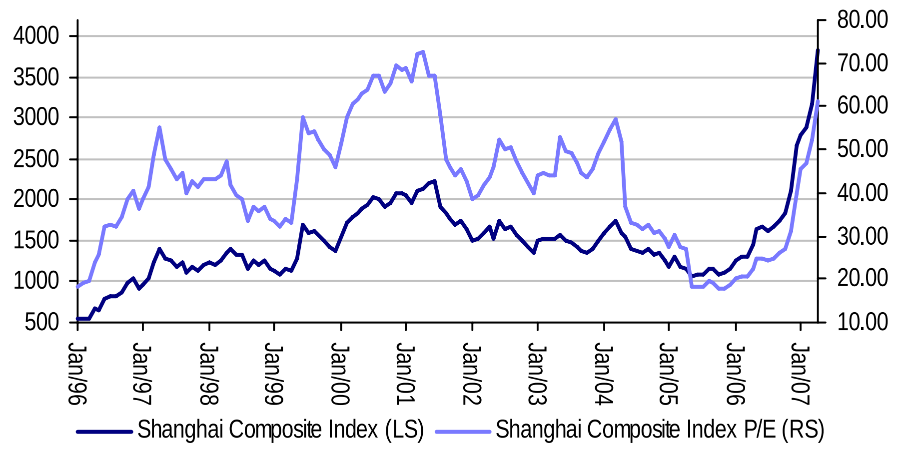
Signs of a bubble

There is no shortage of anecdotes on the A-shares 'stir frying'. Numerous newspaper articles have described interesting sources of retail participation, including money from students' tuition fees, cash under the pillows of retirees, and hard-earned wages from amah's and bar-workers. What about signs from the stock market? On 28 April, the A-shares of CITIC Bank made a debut with a 96% one-day gain over IPO price. In the next trading day, CITIC Bank shares went limit down as interests switched to the debuts of the A-share issues of Weichai Power and CHALCO (their prices went above IPO price by 217% and 180%, respectively). In these examples, **we believe trading is dominated by participants that typically know very little of the fundamental value and earnings outlook of the companies**.

Does reversion-to-mean work?

A look at the past pattern of A-shares shows wild deviation from mean PE, and stocks could stay over- or under- priced for sustainable periods (Chart 1). It also suggests **the major price driver of A-shares is not valuation**, contrary to what fundamental analysts are trained to believe. For example, we regard 2,200-2,900 as a reasonable range for the Shanghai A-Composite Index based on valuation parameters, but it last closed at 3,841 (*Market outlook: all the good news priced in*, Edmond Huang, January 19, 2007).

Chart 1: Shanghai A-Composite index : frequent over-pricing

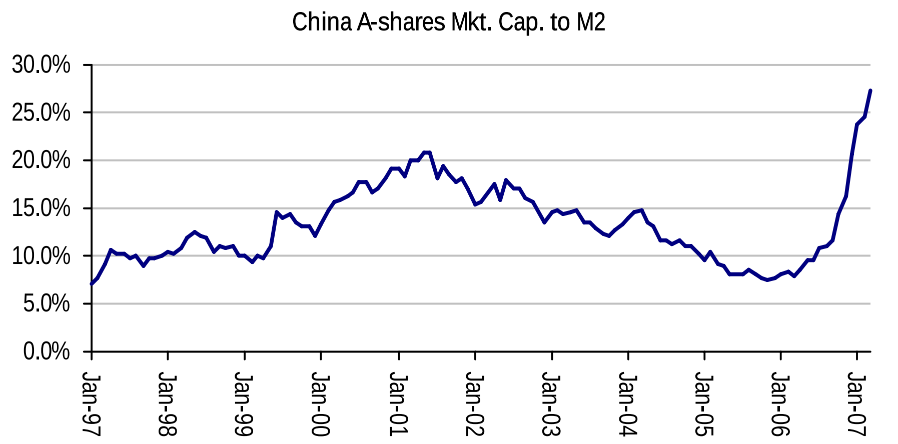


Source: CEIC, UBS

Available and willing?

Is China's often-quoted low market-cap-to-M2 going to drive the market higher? While this ratio for China appears low relative to most Asian markets, it is now at its all-time high (Chart 2). Admittedly in our report analyzing the 2005 share reform, we highlighted this low ratio as a *support* for the then jittery index at 1,000 (*A-shares: more potential upside than downside*, June 7, 2005). However, for prices to go up, we think low money-to-market cap is *a necessary but not sufficient condition*. **A rally requires the inclination to put money into the stock market.** Why didn't the same retiree invest his money under-the-pillow in stocks in 2005? In April 2005, that ratio was much lower but the market kept going down. The relevant question is: what makes this retiree think that shares have suddenly become a place to put money in?

Chart 2: China A-shares market-cap-to-M2 at all-time high



Source: CEIC, UBS

Liquidity specific to stock trading

As we know, China's market is very liquidity-driven. The problem for forecasters is that most liquidity indicators are coincidental. They are useful to tell past trend, but most fail to offer predictive power or the ability to forecast turning points. And stock market liquidity is a loosely defined term. One useful measure is the ratio of money being circulated in stock market and money supply. **The ratio of stock market turnover-to-M2 has been going up incessantly (Chart 3). It implies that people are willing to buy stocks from their money stock.**

Chart 3: China A-shares turnover-to-M2 is rising rapidly

Source: CEIC, UBS

Dissecting liquidity for stock trading

This ratio can be expanded to:

Turnover / M2 = (Turnover / Market cap) X (Market cap / M2)

The two terms on the right-hand side can be interpreted as: (i) how quickly a stock is turned over in the market, and (ii) the size of the stock market relative to the money available. These ratios for China have all been rising sharply since 2006 (Charts 2-4).

Expanding the second term on the right-hand side gives:

Turnover / M2 = (Turnover / Market cap) X (Market cap / GDP) X (GDP / M2)

There are more familiar terms now. Market cap/GDP is a measure of how much of the economy is represented in listed stocks. GDP/M2 is a measure of how far the economy is monetized.

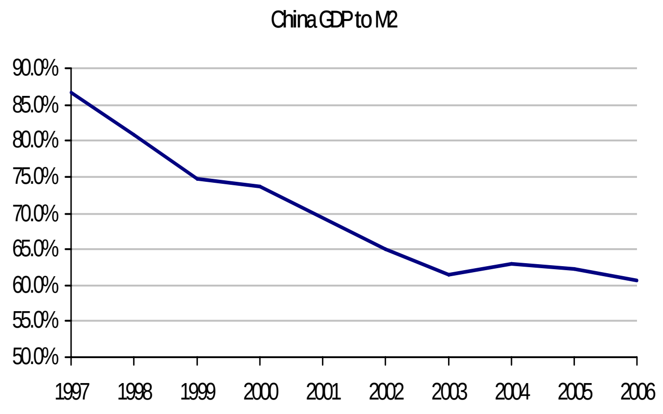
Chart 4: China A-shares – rising turnover to market cap

Source: CEIC, UBS

Decomposing liquidity

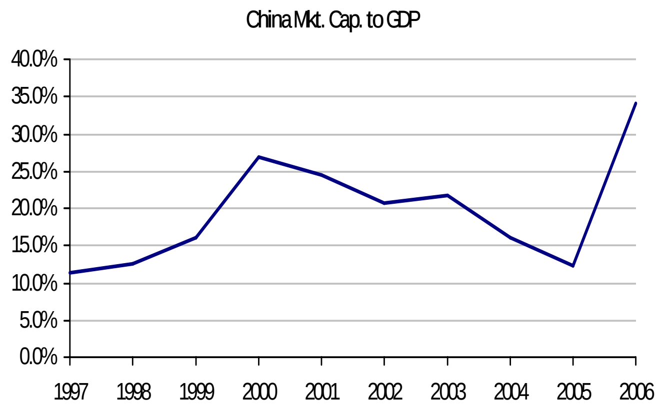
(i) **We think GDP/M2 is becoming a stable ratio**. The central bank is on full force dealing with the Rmb-induced inflows and excess liquidity (Chart 5). (ii) **It is safe to assume market cap/GDP is rising, due to the upcoming stream of IPO and asset injections** (Chart 6). Would more listing lead to falling valuation, keeping overall market cap flat or even falling? This was the fear over state share divestment pre-2005 share reform, as the pool of money available for stocks was assumed stagnant. Potential new supply would therefore depress prices. The actual outcome is: the success of the 2005 reform brought more money into stocks, more than enough to absorb new supply. The perceived better goal congruence between majority/minority shareholders and managers (see our 2005 A-share full listing series) has returned confidence to stock investing (Chart 7). (iii) **With the product of Turnover/Market cap and Market cap/GDP rising while GDP/M2 stays stable, volume-to-M2 ratio is likely to keep going up**.

Chart 5: China GDP to M2 – stabilizing



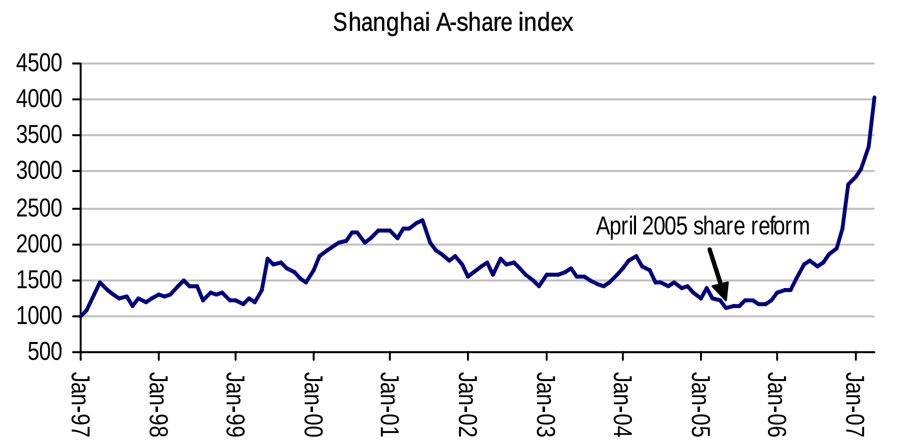
Source: CEIC, UBS

Chart 6: China mkt. cap. to GDP - keep rising



Source: CEIC, UBS

Chart 7: 2005 share reform – brought back investors' confidence

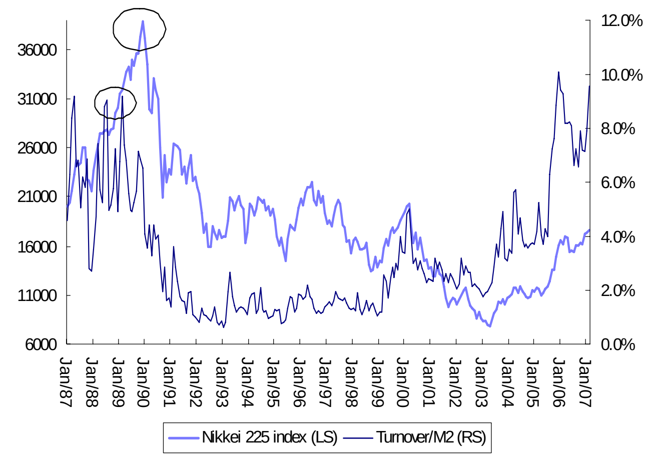


Source: CEIC, UBS

What happens in a bubble?

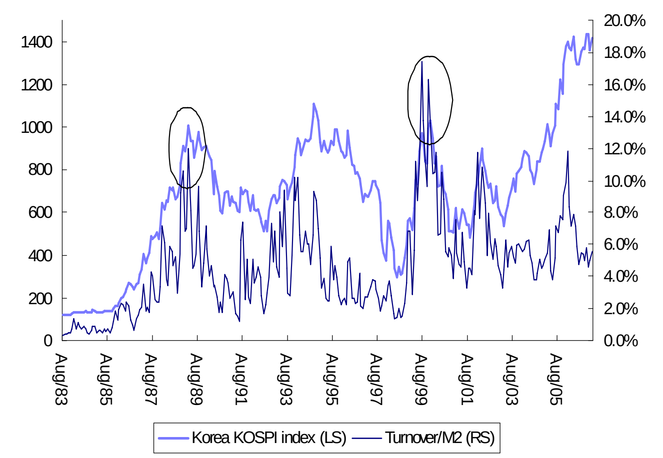
Let us draw from the experience during the following bubbles: Japan in 1989, Korea in 1989, Taiwan in 1990 and HK in 1997. Their turnover-to-M2 gives two key observations: (1) Three out of the four bubbles, turnover-to-M2 ratios peaked before the market index. Only in the 1997 HK bubble, this ratio peaked shortly after the index. (2) **The turnover-to-M2 ratio peaked at different levels: 9% for Japan, 60% for Taiwan, 12% for Korea, and 22% for HK. (3) The latest reading for China is just below 6%** and the trend is rising. Note that Korea (12%) and Taiwan (60%), in those years, have more similarity with China today. The reasons are the closeness of their capital markets and the high retail participation. It suggests 6% for China is not high (Charts 8-11).

Chart 8: Japan—turnover/M2 and index trend



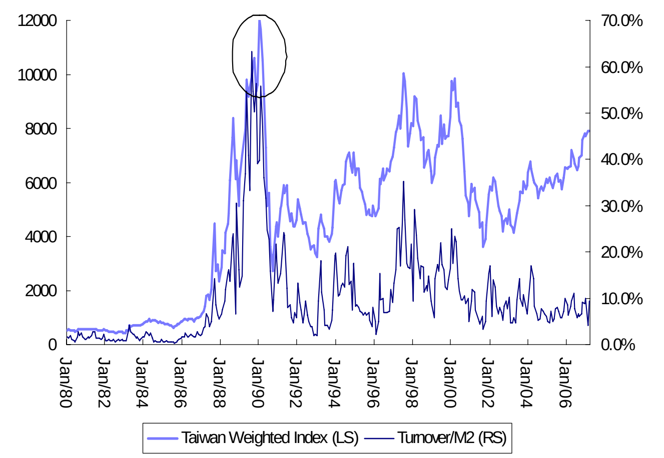
Source: CEIC, Datastream, UBS

Chart 9: Korea—turnover/M2 and index trend



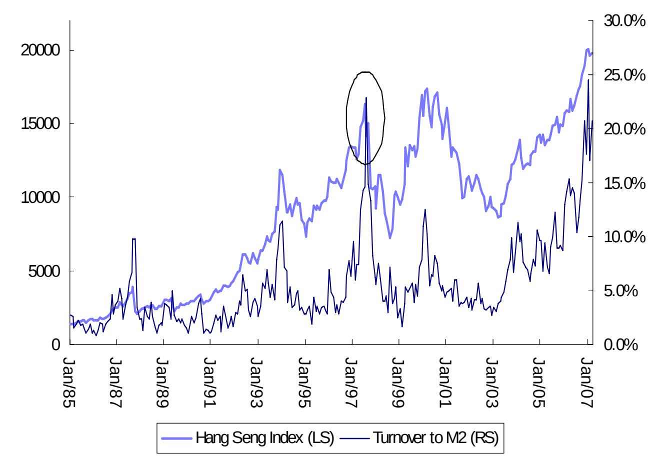
Source: CEIC, Datastream, UBS

Chart 10: Taiwan—turnover/M2 and index trend



Source: CEIC, Datastream, UBS

Chart 11: HK—turnover/M2 and index trend



Source: CEIC, Datastream, UBS

Too many new stock accounts?

Interestingly, many commentators quote the sharp rise in new stock trading accounts as sign of a peak. China is growing in all areas, and a single series is hard to interpret. Let us make a comparison between the number of mobile subscribers and the number of stock accounts at brokers. In China today, there are 480 million mobile phone subscribers, while there are 82 million individual A-share stock trading accounts. This can be looked at as a kind of ‘stock affordability’, and the number means there is one stock trading account for every six mobile phone subscribers. Back in the 2001 peak, this ratio stayed around 0.6-2.2, and hit 0.6 at its low, suggesting more stock accounts to come. Without getting bogged down into justifying their comparison, this exercise suggests we should not take popular arguments at face value.

Conclusion: further liquidity shift in a bubble

We believe looking at money aggregates alone misses the true picture of the liquidity flowing to China stocks. **While it is true that the start of Rmb appreciation in July 2005 provided the fuel, the fire in stocks was ignited in early 2006 by the shift from money on deposits to stocks**. This is because confidence on stock investing returned after the success of the non-tradable share reform. Our analysis suggests there could be more shift in the direction of stocks based on our decomposition of market turnover-to-M2. Once a change in human belief is formed, it takes a lot of persuasion to reverse it. **Experience from other Asian markets suggests China could see more liquidity shift to stocks before A-shares hit the extremes we saw in past peaks in Korea and Taiwan**.

What can go wrong?

(1) A higher-than-expected interest rate rise in China of over 100 basis points over the next six months; (2) A warning statement by a public opinion leader and a set of coordinated market cooling measures; (3) A contraction in global liquidity for equities, or hike in perceived risk; (4) A sudden significant price fall in A-shares, in the magnitude of over 15% in a week.

■ Statement of Risk

In our view, risks include a hard landing, a sharp rise in the US dollar, weak corporate governance amidst a tightening scenario, worse-than-expected global growth, cross-straits tension, a property market correction, and a fragile domestic broking industry.

■ Analyst Certification

Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers; and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

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UBS rating	Definition	UBS rating	Definition	Rating category	Coverage[1]	IB services[2]
Buy 1	FSR is > 6% above the MRA, higher degree of predictability	**Buy 2**	FSR is > 6% above the MRA, lower degree of predictability	**Buy**	47%	37%
Neutral 1	FSR is between -6% and 6% of the MRA, higher degree of predictability	**Neutral 2**	FSR is between -6% and 6% of the MRA, lower degree of predictability	**Hold/Neutral**	42%	36%
Reduce 1	FSR is > 6% below the MRA, higher degree of predictability	**Reduce 2**	FSR is > 6% below the MRA, lower degree of predictability	**Sell**	12%	28%

1: Percentage of companies under coverage globally within this rating category.

2: Percentage of companies within this rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS. Ratings allocations are as of 31 March 2007.

KEY DEFINITIONS

Forecast Stock Return (FSR) is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months.
Market Return Assumption (MRA) is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium).
Predictability Level The predictability level indicates an analyst's conviction in the FSR. A predictability level of '1' means that the analyst's estimate of FSR is in the middle of a narrower, or smaller, range of possibilities. A predictability level of '2' means that the analyst's estimate of FSR is in the middle of a broader, or larger, range of possibilities.
Under Review (UR) Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation.

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US Closed-End Fund ratings and definitions are: Buy: Higher stability of principal and higher stability of dividends; Neutral: Potential loss of principal, stability of dividend; Reduce: High potential for loss of principal and dividend risk.
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Core Banding Exceptions (CBE): Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Companies Mentioned or Company Disclosure table in the relevant research piece.

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report.

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