

Turnover of the Stock Market – A Macro-Economic Perspective

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Summary

- It has been shown in a previous research paper that the shrinkage in market turnover is largely a global phenomenon, resulting from price effect and a drop in the trading of non-HSI stocks by retail investors. The turnover of HSI stocks in volume terms remains relatively stable.
- From a macro-economic perspective, the loss of wealth in the stock and the property markets may be one of the factors accounting for a lower market turnover.
- The flow of capital may be another factor. Externally, capital flow to the local stock market from abroad declined, while capital flow to overseas markets increased. Domestically, capital flow to the stock market was not particularly significant in recent years, but capital might have flowed to alternate investment channels.
- Deposits are huge. Liquidity at banks is abundant, showing that there is potential for turnover to rebound.

Introduction

- The research paper entitled *Turnover Behaviour of the Hong Kong Stock Market*² shows that :
 - the shrinkage in market turnover is to a large extent a global phenomenon;
 - much of the drop came from price effect;
 - the fall in turnover was mainly attributable to non-HSI stocks (by stock type) and to retail investors (by investor type); and
 - turnover of HSI stocks at constant prices has been relatively stable.

Purpose

- The purpose of this paper is to examine the shrinkage in turnover from a macro-economic perspective. In particular, the impact of the wealth effect and the flow of funds on the turnover of the stock market will be discussed.

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² The research paper is downloadable from the website of the SFC, Research Papers and Statistics, <http://www.hksfc.org.hk/eng/statistics/html/index/index0.html>. In another research paper entitled *Arbitrage between HSI stocks and HSI-related Derivatives Products*, it is shown that one of the engines that supports the turnover of HSI stocks is the arbitrage and hedging activities between HSI stocks and derivatives products with HSI stocks as underlyings. This paper is also downloadable from the same link.

Wealth Effect

Loss of Wealth in the Stock Market

- The shrinkage in market turnover is to a certain extent attributable to a loss of wealth in the stock market.
- The HSI has dropped for three years in a row, with a cumulative loss of 45% since the end of 1999. The total loss of market cap since then amounted to HK\$1,168 bn.

Loss of Wealth in the Property Market

- Property prices have fallen since the outbreak of the Asian Financial Crisis in mid 1997. Residential property prices have dropped by about 60% since 1997. According to the estimates of a bank, the loss of wealth in the residential property market was in excess of HK\$2,000 bn.
 - Latest survey conducted by the HKMA shows that the total number of residential mortgage loans in negative equity was estimated to be 77,935 at the end of 2002 with a total outstanding value of these loans amounting to HK\$129 bn.
- The loss of wealth in property market has dampened investor confidence, which may have contributed to a lower market turnover.

Deflation

- The drop in property prices accounted for about half of the fall in consumer prices. As of the end of Jan 2003, the Composite Consumer Price Index (CCPI) receded 14% from the peak in May 1998. The housing component of the CCPI, with a weight of 30% in the index, dropped 23% over the same period (Chart 1).
- Excluding the housing component, the drop in the CCPI (and therefore the deflation problem) would be milder.

Chart 1a – Inflation Rate (%)

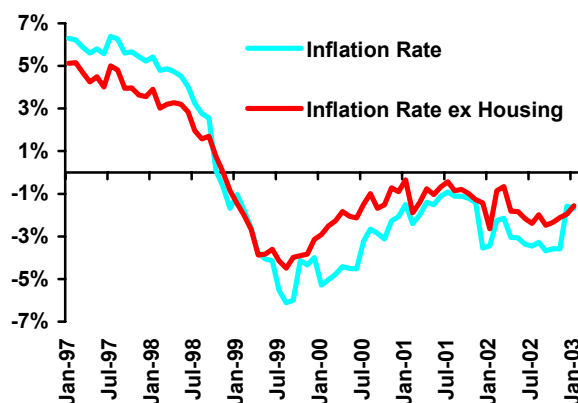
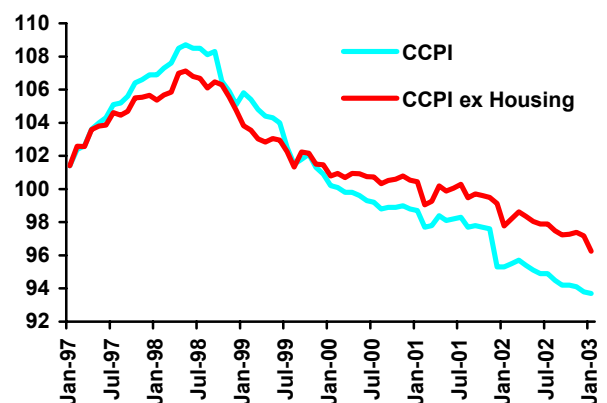


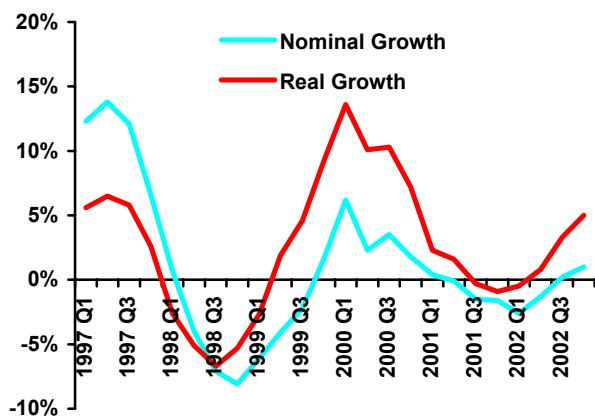
Chart 1b – CCPI



Remark: CCPI ex housing is re-based to take the same value as CCPI in Jan 1997, for sake of comparison.

Sources: C&SD (and SFC Research estimates – for series excluding the housing component)

Chart 2 – GDP Growth Rate (%)



Source: C&SD

- Deflation has dampened the willingness of consumers to spend and entrepreneurs to invest. This may drag down the economy (or delay an economic recovery) and weaken investors' interest intrading in the stock market.
- In particular, although the real economic growth rate rebounded during 2002, the nominal growth rate remained stagnant (Chart 2). In other words, growth in individual income is limited.

- Nevertheless, it is a worldwide phenomenon that prices are softening. Besides, falling prices help maintain competitiveness of Hong Kong.

Summing Up

- The shrinkage in market turnover is to a certain extent attributable to a loss of wealth in the stock and property markets.
- The plunge in property prices has also contributed in part to deflation, which may slow down an economic recovery and reduce the incentive to trade in the stock market.

Flow of Capital

- The flow of capital is sensitive to market sentiment. Given the poor performance of the local market in recent years³, it is not surprising that capital might have flowed to other markets and/or other investment channels.
- Externally, capital inflow declined in recent years. In contrast, capital outflow increased.
- Domestically, capital flow to the stock market was not particularly significant, but capital might have flowed to alternate investment channels.
- These might also have contributed to a drop in market turnover.

³ The performance of major markets in local currencies and in USD since Jun 1997 is given in Appendix 1.

Capital Flow to Local Equity Market from Non-Hong Kong Residents

- In the balance of payments account compiled by the Census and Statistics Department, it shows in the portfolio investment item that the amount of capital flow to local equity market from non-Hong Kong residents was HK\$366.1 bn in 2000 (Chart 3). However, there was a withdrawal of HK\$6.7 bn from the equity market by non-Hong Kong residents in 2001. In the first 3 quarters of 2002, capital flow to the equity market was HK\$12.0 bn.
- The slow down in capital flow to (or even a withdrawal from) the local equity market from non-Hong Kong residents might have been one of the factors contributing to the shrinkage in market turnover.

Capital Flow to Overseas Equity Markets from Hong Kong Residents⁴

- In the opposite direction, the amount of capital flow to overseas equity markets from Hong Kong residents was HK\$137.2 bn in 2000, HK\$176.9 bn in 2001 and HK\$106.8 bn in the first 3 quarters of 2002.
- Whilst the continuous flow of capital to overseas equity markets may come from various sources, the possibility of capital flow from the stock market is not totally excluded. As such, this might have led to a lower level of market turnover.

Chart 3 – Capital Flowing to Local Equity Market from Non-Hong Kong Residents and Capital Flowing to Overseas Equity Markets from Hong Kong Residents (HK\$ bn)

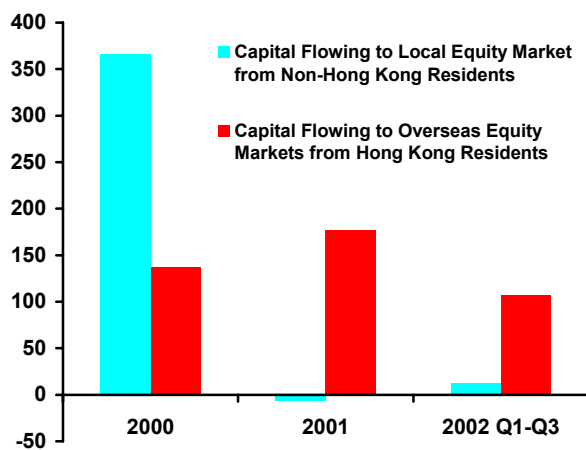
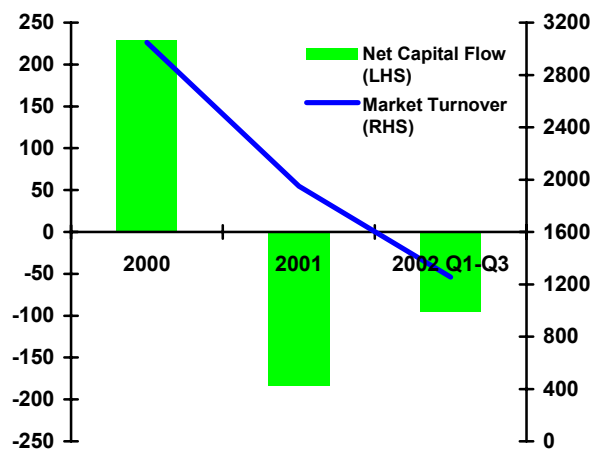


Chart 4 – Net Capital Flow and Market Turnover (HK\$ bn)



Remark: See footnotes 4 and 5.
Sources: C&SD and HKEx

⁴ Capital flowing to overseas equity markets from Hong Kong residents may come from various sources, including that from the MPF schemes. There may be double-reporting and/or double-counting of figures.

Net Capital Flow

- Putting capital inflow and capital outflow together, we arrive at the net amount of capital flow to the local equity market.⁵ This was HK\$228.9 bn in 2000. In 2001, there was a net outflow of HK\$183.6 bn. The net outflow was HK\$94.8 bn in the first 3 quarters of 2002.⁶
- Market turnover reached the recent peak of around HK\$3,047.5 bn (average daily turnover of HK\$12.3 bn) in 2000. It retreated to HK\$1,950.1 bn in 2001 (average daily turnover of HK\$8.0 bn), and further to HK\$1,254.9 bn in the first 3 quarters of 2002 (average daily turnover of HK\$6.8 bn). The shrinkage might have been attributable to the net capital outflow over the period (Chart 4).

Flow of Capital from Mandatory Provident Fund (MPF) Schemes

- Reported figures of the MPFA show that the aggregate net asset value (NAV) of MPF schemes amounted to HK\$55.1 bn as of the end of 2002, with 13% of this amount investing in equity funds (Table 1). Of the equity funds, 70% was in Hong Kong. These translated into an estimated amount of about HK\$5.0 bn⁷.

Table 1 – Estimated Amount of Assets from MPF to the stock market of Hong Kong (HK\$ bn)

	NAV of MPF Schemes	% in Equity Funds	% in HK	Estimated Amount of Assets from MPF to the stock market of HK
Mar 2001	11.6	15%	58%	1.0
Jun 2001	22.4	17%	60%	2.3
Sep 2001	27.7	16%	58%	2.6
Dec 2001	33.5	17%	59%	3.4
Mar 2002	42.1	17%	57%	4.1
Jun 2002	47.0	15%	65%	4.6
Sep 2002	48.6	12%	70%	4.1
Dec 2002	55.1	13%	70%*	5.0

Remark: See footnote 7; * Sep 2002 figure

Source: MPFA

- The estimated amount of HK\$5.0 bn into the local stock market was less than 80% of the average daily turnover in 2002. Therefore, relative to the size of the stock market, the flow of capital from the MPF schemes into the stock market was not particularly significant.
- One phenomenon deserves mentioning. The proportion of assets invested in equity funds was 13% as of the end of Dec 2002, declining from 17% a year earlier. In addition, this proportion is lower than the proportion invested in other funds such as the guaranteed funds which has been 20%-22% over the same period.

⁵ Net capital flow is arrived at by adding capital flowing to local equity market from non-Hong Kong residents and capital flowing to overseas equity markets from Hong Kong residents together. This only serves as an indication of the net amount of capital flowing to the local equity market, as capital flowing to overseas equity markets may come from various sources.

⁶ The net outflow refers only to portfolio investment in equity securities, and is quite common to economies where there are surpluses in the current account.

⁷ This estimation is crude, as some regional funds may also invest in the equity market of Hong Kong and some other funds such as the guaranteed funds also invest in equity markets. As such, the estimation only gives an indication of the amount of capital flowing from MPF schemes to the stock market.

Flow of Capital to Investment Funds

- Statistics from the Hong Kong Investment Funds Association (HKIFA) show that the net fund sales increased from HK\$10.9 bn in 2000 to HK\$32.3 bn in 2001. In 2002, the net sales rose further to HK\$35.9 bn.
- The growth was underpinned by the surge in the net sales of guaranteed funds, which grew from HK\$320 mn in 2000 to HK\$29.3 bn in 2001. In 2002, net sales of guaranteed funds receded to HK\$21.2 bn, but it still accounted for almost 60% of the total net fund sales.
- While the flow of capital to alternate investment channels may come from various sources such as the MPF schemes, the possibility of capital flow from the stock market is not totally excluded. To that extent, stock market turnover might have been affected.

Summing Up

- The flow of capital, which is sensitive to market sentiment, might have affected market turnover. Externally, capital flow to the local stock market from abroad declined, while capital flow to overseas markets increased. Domestically, capital flow to the stock market has not been particularly significant in recent years, but capital might have flowed from the stock market to alternate investment channels.

Potential for Market Turnover to Rebound

- HKD deposits have been huge. As of the end of 2002, HKD deposits amounted to HK\$1,824.9 bn (Table 2). This was 1.1 times the total market turnover for the whole year of 2002.
- Besides, the HKD loan-to-deposit ratio has been declining. Together with rising money supply-to-GDP ratio, these point to the abundance of liquidity. There remains potential for turnover to rebound.

Table 2 – HKD Deposits, HKD Loan-to Deposit and HK\$M3-to-GDP

	HKD Deposits (HK\$ bn)	HKD Loan-to-Deposit ratio (%)	HKDM3-to-GDP (%)
1997	1,551.6	112.3%	125.3%
1998	1,699.7	99.7%	143.8%
1999	1,773.2	90.6%	155.3%
2000	1,851.2	89.3%	155.4%
2001	1,854.7	88.8%	157.7%
2002	1,824.9	88.5%	157.7%

Source: HKMA and C&SD

Appendix 1

Performance of Major Markets in Local Currency and in USD

	Stock Market Indices		% change	
	<u>end Jun 97</u>	<u>end Mar 03</u>	<u>in local currency</u>	<u>in USD</u>
Australia	2,693	2,849	5.8	-15.2
Hong Kong	15,197	8,634	-43.2	-43.6
India	1,192	978	-18.0	-38.1
Indonesia	725	398	-45.1	-85.0
Japan	20,605	7,973	-61.3	-62.5
Korea	745	536	-28.1	-49.3
Malaysia	1,077	636	-41.0	-60.8
Philippines	2,809	1,040	-63.0	-81.8
Shanghai A	1,307	1,580	20.9	21.1
Shenzhen A	449	447	-0.5	-0.4
Singapore	1,921	1,268	-34.0	-46.5
Taiwan	9,030	4,321	-52.1	-61.7
Thailand	527	365	-30.9	-60.1
Germany	3,786	2,424	-36.0	-34.2
UK	4,605	3,613	-21.5	-25.4
US (Dow Jones)	7,673	7,992	4.2	4.2
(Nasdaq)	1,442	1,341	-7.0	-7.0

Source: Bloomberg