

ASIAN EQUITY MARKETS AND THE NEW ECONOMY

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Introduction

I want to thank the Malaysian Securities Commission for inviting me to reflect on the topical subject of the New Economy and Asian securities markets.

I cannot claim to be an expert on Asian securities markets, but since 1995, I have begun to do some work on the impact of technology on financial markets. As we crossed into the new millennium, the arrival of the Internet and Y2K brought home to us that the New Economy is profoundly changing our lives, the way we do business, and as regulators, the way we regulate financial markets. I will illustrate my talk today with recent experience in the Hong Kong equity markets.

Understanding the New Economy

The New Economy is all about transactions and communicating through electronic media, much more service and knowledge oriented than the physical world of Old Economy manufacturing and production. Technology is cutting through traditional intermediation, threatening old franchises and creating new value. These profound changes have forced many – the investors, intermediaries, exchanges, regulators and businesses - to look at the business of investing with new perspectives. How these changes affect these players in the securities markets, is the topic of my discussion.

On March 15 this year, at the height of the technology bubble, I gave a speech on New Economy - Old Fundamentals. This paper reviews what has happened since then and the preliminary lessons that we can draw. The New Economy has brought so much rapid change, competition, consolidation and confusion that all of us have been struggling to comprehend its meaning and implications. I am neither a philosopher nor social commentator. But my reading of the lessons for the securities markets in the New Economy is two-fold: -

- Firstly, technology has forced us all back to market basics. The recent securities bubble reflects huge global investor interest in equity (or a stake in growth), especially in technology. At the same time, there is an explosion in demand for capital from new growth companies. But access to public capital comes at a price: accountability and fairness to the investor. And that, lest we forget, is the true meaning of equity markets.
- Secondly, markets are all about delivering value to the consumer and the investor. The supply of quality companies will be shaped by the quality of demand by investors. The

more demanding the investor in terms of quality, the higher the quality of our markets. How we manage that knowledge transition in investor and corporate education will help determine the shape and role of the Asian markets.

The Economics of Securities Markets |

SFC User

Comment: Charts 2 to 6

Let me begin by asking a few basic questions on recent interest in securities markets. Why has there been so much interest in securities markets towards the end of the 20th century?

The answer lies in the simple economics of supply and demand. Towards the end of the 21st century, as markets became global, demand for securities came from two fundamental sources: rising incomes and an aging population. With the emergence of the middle class world wide, more and more savings were channeled towards securities markets, which carried higher risks but provided greater returns over the longer term than safer investments such as bank deposits and bonds. On top of this, demand for retirement funds from aging baby boomers has created pension and mutual funds, which are now larger than the banking and insurance industry.

Globally, institutional investors managed over US\$26 trillion in assets in 1996, with roughly US\$13 trillion in the US, US\$7 trillion in Europe and US\$4 trillion in Japan. US institutional investors command three times the assets of the US banking system¹. The top 50 fund managers operating in the US managed US\$11.2 trillion in assets in 1999, of which 23% was invested in non-US assets². The structure of financial markets has changed. Fund managers drive markets, not banks.

In addition, de-regulation and financial innovation has resulted in a wide variety of financial instruments of varying risk profiles for investors to choose from. Competition, deregulation and technology, plus tax reform, has brought transactions costs down sharply. The removal or reduction of capital gains tax, stamp duty and tax deferral for retirement savings has meant that more and more retail investors are able to participate directly in the business of investment at lower cost. The arrival of the Web and discount broking has provided investors with greater choice, greater access to information and the ability to trade 24 hours a day, 7 days a week.

On the supply side, the number of listed companies has not grown significantly relative to demand. Between 1990 and 1999, the total number of listed companies on the New York, Tokyo and London stock exchanges rose by 18.9% to only 7,234 companies, while their total market capitalization grew by 190% to US\$18.7 trillion.

Even more important than the limited supply of listed companies relative to demand is the limited supply of shares. The fact that US companies are major buyers of their own shares, larger than mutual funds since 1997 is not very well known. In 1999, an estimated US\$200 bn was bought back by US companies, compared with mutual fund purchases of US\$125 bn³. Companies buy back their own shares to maintain high prices, mainly because their managers have an interest

¹ Economist Schools Brief, "Moneyed Men in Institutions", November 6, 1999

² Institutional Investor, "America's largest overseas investors", July 2000

³ Robert McCauley, "Re-leveraging corporate America", Financial Times, 2000

on their options. Shares in US companies also disappear partly because of mergers and acquisitions by cash, instead of share swaps. The corresponding effect is growing leverage by US companies.

This growing concentration of market capitalization in big companies is accompanied by another phenomenon. Never in history have capital markets been so friendly to new ventures and start-ups. In the US, venture capital funding rose from \$17 bn in 1998 to \$48 bn last year, compared to \$26.2 bn raised for the 21 years between 1975-1997⁴. On the supply side, the number of IPOs has burgeoned over the past few years, with the U.S. showing an increase in IPOs of 243 in 1999 and 237 in the first half of 2000⁵.

Technology and the need to compete have inspired many traditional exchanges to establish second boards to cater for new and smaller businesses to access public capital. These include the German Neuer Markt, UK Techmart, Japanese MOTHERS, Taiwan ROSE, the Kuala Lumpur Second Board and MESDAQ and Hong Kong GEM. But the number of new listings remain miniscule relative to the number of small and medium sized businesses around the world.

There are several reasons for this: -

- First, many businesses prefer to remain in private ownership. Their owners prefer to retain the flexibility of private control, without the need to comply with what they may consider to be onerous public disclosure and accountability requirements;
- Second, for a number of reasons, many companies may not be particularly attractive to public investors;
- Third, even for those companies that are attractive, the costs of pushing through an IPO, particularly for smaller companies, can be prohibitive when compared with the cost of arranging bank funding. There will be accounting, legal and preparatory , which do not vary substantially with the amount of funds raised. When compared with the amount of funds to be raised, these costs could be quite substantial – particularly for small flotations. The biggest variable is often the commission rate charged by investment banks for marketing and selling the shares, which can be as high as 7% in the US market. So the total cost of an IPO can easily amount to 10% or more of the total funds raised. This limits the supply of high quality companies seeking IPO funding.

To this potent mixture of constrained supply, plus high structural demand from retirement funds and rising incomes is added high global liquidity in the second half of the 1990s. Monetary policies in Europe and Japan were relatively loose as governments sought to reflate their economies to reduce unemployment. With lower inflation, and revival in corporate profits due to rising technology and improved productivity, the stage was set for a sharp rise in global equity prices. Price-earnings ratios rose above historical levels.

Technology has added a new perspective to the valuation of securities markets. From a telecommunications infrastructure perspective, financial markets are essentially networks. These

⁴ quoted by David Hale, Global Economic Observer, July 26, 2000

⁵ Source: ipo.com

networks link users together through electronic or paper-based processes, which enable users to trade information and property rights. Local financial markets are local area networks (LANs) and global financial markets are a patchwork of LANs linked through hubs and payment and clearinghouses. In New Economy terms, the value of any network may be summed up by Metcalfe's Law⁶, which states: *"The value of a network goes up as the square of the number of users"*. In other words, the bigger and wider the network, the greater its value.

Metcalfe's law explains the globalization of markets, as each market seeks to widen its network of users. The drive to merge exchanges, such as those in Europe, has economic logic. Liquidity begets liquidity. It also explains why Internet companies seek to expand their user base and "hit-rates" to grab market share, so that the value of their networks rises exponentially.

Getting ready for Online Trading

There is widespread anticipation that eCommerce will transform the world. But the reality is that web commerce is still heavily loss making for most new ventures, which have to make heavy investments to capture web customers. However, it is a fact that three types of business make money already on the Web: pornography, gambling and online trading. The first two are outside my scope of business, but the reality of e-commerce is that consumers will seriously begin to use the Web not just out of curiosity or for information access, but if it yields real and tangible benefits. The experience of day-trading in the United States and Korea indicates that once online trading catches on, growth becomes exponential, the demand for broadband increases and ancillary e-commerce demand for information and other services follow.

By the end of this year, online trading will be a reality in Hong Kong. Hong Kong's Internet penetration is amongst the highest in Asia, with 29.1% of its population on the Internet. Over one third of households in Hong Kong have personal computers, with web services provided by 135 Internet Service Providers, the highest concentration in Asia. Between October 1999 to July 2000, the number of Internet brokers in Hong Kong accelerated from 8 to 32. In the next 12 months, another 238 brokers are expected to provide online trading facilities. In less than a year, online trading value and the number of users jumped roughly three-fold, although currently it still accounts for less than 2% of total trading volume. Once HKEx's third generation trading platform AMS/3 switches on by the end of the year, mobile phone, WAP and WebTV access to online trading is likely to take off.

This pattern of growth is similar to the Korean experience, where trading value increased 3-fold between January 1998 to March 2000, in magnitudes comparable with US experience. Today, 50% of all Korean securities transactions are conducted online, driven mostly by retail interest.

Meeting the online challenge

As a regulator, the SFC has been constantly asking itself how it can help the Hong Kong securities and futures industry meet this online challenge and what its appropriate role in regulation should be.

⁶ Carl Shapiro and Hal Varian, "Information Rules", Harvard Business School Press, 1999, pg. 184

Our approach is very simple. Regulations should not impede innovation, but we must ensure that investors are adequately protected through disclosure and a level playing field. At the same time, intermediaries offering online trading facilities must be properly equipped and prepared to cope with the risks and fast growth in volume associated with electronic trading.

From the supply side of equity markets, the Commission has worked very closely with the Stock Exchange of Hong Kong (SEHK) to set the regulatory framework for the second board or Growth Enterprises Market (GEM). The public consultation on proposals for certain changes to the GEM Listing Rules has now been completed and the responses are currently being reviewed. An independent committee has been established to review listing rules and practices for successful second boards around the world, and examine how access to capital is balanced with the need for investor protection and how such lessons can be drawn for Hong Kong. It will report by the end of the year.

On the demand side, the Commission has established a Working Party on Online Trading, chaired by Mark Dickens, Executive Director of Supervision of Markets Division. Its report will be published next month. The Commission has worked actively and hand in hand with the securities and futures industry to achieve the following: -

- The successful launch in June this year of the Futures Exchange's fully automated trading system, HKATS;
- The imminent launch of the SEHK's third generation Web-friendly trading platform AMS/3, which is scheduled to go live by the end of this year;
- The successful launch of the secure, robust and scalable SDNet for the securities and futures industry, with electronic submission of regulatory information (eFRRR) as the first step towards full Straight Through Processing (STP);
- The surveying and inspection of Hong Kong intermediaries' readiness for online trading;
- The publication of a number of guidelines, codes and consultation papers on internet trading⁷ issues;
- The successful launch of the Commission's investor education website, the Electronic Investor Resources Centre ([http: www.HKeIRC.org](http://www.HKeIRC.org)), which contains over 400

⁷ These include:-

- (i) Guidance Notes on Internet Regulation, issued in June 1999;
- (ii) Circular on Licensing Requirements for the provision of financial information on the Internet, issued in June 2000;
- (iii) Circular to All Registered and Licensed Firms on Internet Trading and Advising, issued in July 2000;
- (iv) Guidelines on eIPO, issued in July 2000; and
- (v) Guidance Note on the Application of the Electronic Transactions Ordinance on Contract Notes, issued in August, 2000.

hyperlinks to key investor information websites around the world with useful educational information, reports and advice for the investor.

Lessons from the Technology Bubble

Let me now try to draw some preliminary lessons from the recent technology bubble around the world. I use the word "bubble" to describe the extraordinary phenomenon of the months to March 2000, when interest in New Economy stocks, primarily technology, media and telecommunications (TMT), rose to levels that were unprecedented in terms of traditional valuation. Many technology stocks, especially Internet start-ups, rose despite huge losses or low revenue. Between the end of 1998 and the end of June 2000, the market capitalisation of the top 10 TMT stocks as a percentage of total market capitalisation increased significantly in all major financial centres. In Japan and the US, this rose to nearly 20%, 40% in the case of Taiwan and Korea and nearly 50% in Hong Kong. The corresponding Price/Earnings ratio of technology stocks at as end June 2000 was 71 and 280 respectively in the US and Japan, compared with 29 and 189 respectively for their main markets as a whole.

After the market peaked in March, the global technology bubble has deflated somewhat. From March to June, the market capitalization of the 10 TMT stocks in US and Japan lost US\$602 bn and US\$496 bn respectively. Kosdaq and GEM indices dropped by more than 50% respectively.

As most analysts would have observed, the behaviour of TMT stocks in Asia tracks fairly closely the behaviour of the NASDAQ index. Inevitably, investors in Asia try to seek leads from the behaviour of the largest market in the world, the NYSE and NASDAQ markets, which together account for 50% of global market capitalization. For example, the cooling of the number of IPOs proposed for listing on GEM has mirrored that in the US. Between March-April, 2000, about 30 IPOs were postponed in the US, while the number of actual IPOs that has actually been filed has dropped from 140 down to about 60⁸.

We have compared GEM's performance relative to NASDAQ and other technology boards, and have found that IPO price behaviour has been broadly similar across markets: -

- In many "hot" markets, first day trading prices were above the IPO prices, depending on the over-subscription rate. Thereafter, a significant proportion began to show negative returns.
- As the market has "cooled", 60% of stocks on NASDAQ IPOs traded below their issue price, compared with 67% of GEM IPOs and 75% of Mothers IPOs⁹.
- Over the long-term, stocks that do spectacularly well at IPO due to oversubscription on average tend to underperform benchmark stocks.¹⁰

⁸ Source: ipo.com

⁹ Source: Morgan Stanley Dean Witter, "New IPOs performance - similar to GEM", 2000.

¹⁰ Source : Morgan Stanley Dean Witter

- Growth market stocks tend to demonstrate much **greater volatility** compared with main board stocks, noticeably where retail participants tend to dominate, such as KOSDAQ and the Taiwan ROSE markets¹¹, which have retail participation of 93% and 86% respectively. GEM has a similar high level of retail participation.

If price behaviour on GEM follows broadly those abroad, then a measure of its success must be according to whether it has been successful in attracting quality companies. By most standards, the record achieved by GEM has been quite impressive. The GEM market has been able to attract 43 IPOs since its creation in November last year, raising US\$1,965 million and having another 20 or so applications in the queue¹². Its market capitalization as at end July 2000 was US\$11,226 million, the third largest second board in Asia after KOSDAQ and ROSE.

Equity in equity markets

The history of equity bubbles demonstrates that there is a good reason why equity markets need regulation - most bubbles end up in grief. Throughout history, whenever new frontiers of new opportunities and new gains arise, investors have rushed to buy equity stakes in untried ventures. This was true of the South Sea bubble, railroad shares in the mid-19th century, airlines and radio shares in the 1920s boom and gold and other mining booms in the 1960s and 1970s.

The word "equity" has two sides. The investor has equity (a stakes) in a company, and the company must be equitable to the investor. At first sight, the rush of retail investors into high tech stocks appeared to be irrational. But when an analyst friend of mine asked his retired aunt, who did not know the difference between a Web and WAP, why she invested in high technology stocks - her answer was very simple. "I don't know what it's all about, but I want a stake in it". This made me realize that the enthusiastic investor response to the New Economy was not illogical. The real issue was whether there was a level playing field between the issuer and the investor - in other words, equity in the equity markets.

In equity markets, like all markets, prices rise and fall due to supply and demand and the availability of relevant information whereby investors can judge their investment. Efficient and fair markets depend on accurate and timely release of material information to all. This is precisely why selective disclosure is disallowed and one of the watchwords of any securities regulator is the "level playing field".

Similarly, the information released must be complete and accurate, the good with the bad. The line between fact and falsehood through partial disclosure, hype or sheer fabrication is a thin one. Dot.coms make this regulatory judgement much more difficult because the prospect of future profits depends on judgements about future outcomes that cannot be easily verified. This is the reason why securities regulators clamp down hard on insider dealing and the spreading of unverified information, which may have the effect of creating a false market.

¹¹ Source: Goldman Sachs. Even NASDAQ retail participation has risen from 37% to 60% between 1991 to 2000

¹² source: HKEx

A common reason why IPOs prices do well in the early stages of trading is the limited amount of float - i.e. shares available to trade freely in public hands. By limiting the size of the public float through private placements to employees or key investors, shares can easily be driven to frenzied heights. For example, the recent decision to change the basis of weighting share indices was because index fund managers complained that sharp rises in shares with a low public float would give unrealistically high market capitalization. The inclusion of such shares in market indices forced the funds to buy these shares irrespective of their underlying valuation, thus driving the price up further.

Another reason offered as to why many NASDAQ IPO shares collapsed around March 2000, other than the threat of higher interest rates, was the flood of supply - from shares released from ~~the~~ initial IPO lock-up periods which started some 6 to 24 months earlier¹³. These were shares locked up by key shareholders or options held by employee incentive schemes. It was estimated that a supply of 2.4 billion shares representing 220% of the existing float on NASDAQ was available for release within a period of 2 months, adding pressure to prices.

Finally, some analysts argue that high tech share prices were subject to selling pressure because of the overhang of options that are given to employees or key shareholders, which have the effect of diluting future revenue attributable to other investors. Whilst options to employees are excellent incentives to deliver future revenues, there is a point of diminishing returns where increasing such options erode value for other shareholders¹⁴. This is an accounting and disclosure issue that is not yet fully understood.

The Valuation of New Economy stocks

Having a better appreciation of the economics of supply and demand for hi- tech stocks makes the apparent irrational exuberance much more rational than we all thought earlier. For example, the fact that many Hong Kong investors queued to subscribe to those IPOs that they considered "hot" was totally rational. Past experience showed that the greater the subscription rate (demand) relative to shares available, the higher the chances of a high price on the first day of trading. Retail investors therefore engaged in what professional investors call "momentum trading". The only factor that must be understood is that those investors who successful subscribed to an IPO must know when to take profits, since past trends indicate that there was a high probability of these shares falling back to a longer term trend price mean reversion. Those who held on in the expectation of higher prices could suffer losses. Consequently, no amount of regulation or investor advice could protect an investor from his or her own greed.

Since the early stages of the hi-tech fever, there has been considerable concern that traditional financial analysis tools using discounted cash flow (DCF) and price/earnings ratio methods have been inadequate to accurately assess the valuation of emerging technologies. DCF

¹³ Steve Galbraith, "Jailbreak: The coming flood of IPO lock-ups", Bernstein Research Call, 14 March, 2000

¹⁴ For example, Credit Lyonnaise Asia estimated that the present value of total stock options granted to the management of a sample of banks was equivalent to 78% of the banks' loan book in 1998, compared with only 8% in 1995 (quoted by Hale, *op cit.*)

calculations were useful in Old Economy capital intensive projects, where risks are manageable and predictable and there is some idea of revenue flows.

Emerging technology companies frequently have "all or nothing" characteristics, with no historical guide on whether they are able to achieve profits. They must seek economies of scale in taking market share from Old Economy companies, and they must gamble that their technology and business methods are so revolutionary and market-usable that there is profit potential. But it may be a mistake to assume that New Economy companies can take market share without retaliation from Old Economy market leaders, who are beginning to adopt new technologies and business methods to compete. So the risks facing New Economy ventures are far from trivial.

There is now a new financial engineering way of valuing such ventures, using Real Options Theory¹⁵. The conventional wisdom of venture capitalists suggests that "6 out of 10 venture capital investments will break even, and 3 will be failures. But 1 investment in 10 will more than pay for the other 9 combined"¹⁶. Thus, an investor who wants to buy hi-tech stocks does not and cannot know which one of the 10 could be the winner. But if he treated investment in each like a call option on the assets of the company, he hopes that the return on one winner out of 10 options would more than pay for his possible losses on the other 9.

Bob Nottle, former Chairman of the SFC and currently Deputy Chairman of ASX, who likened Dot.coms with Australian mining exploration companies, brought the wisdom of this approach home to me. Investors buy such speculative shares, hoping that the companies will find gold or some other valuable mineral. The issuers disclose all known facts about their mining lease and their exploration approach. With the capital raised, the managers must carry out exploration by a target date. Thus, a share in a mining exploration company is like the premium paid on an option with a time to expiration, when the option is either zero (no find) or high return (gold found). The rate at which the company spends on exploration and draws down the initial capital is equivalent to the "burn rate" expenditure of Dot.coms.

So the phenomenon of uninformed investors rushing into taking options on high-risk ventures may not necessarily be down to irrational exuberance. However, the investor would feel most cheated, if the venture turned out to be a scam, caused by false information to induce investment. He would also feel cheated if the return-risk payoff was diluted by excessive key shareholder options or other means. In other words, the issuer has to be fair to the investor.

The New Economy and the Asian Securities Market

I have so far discussed the New Economy in the context of the securities market in general and what Hong Kong has done in particular to meet the needs of the securities industry in the near

¹⁵ Kathleen Dahlberg and Benjamin Porter, "Get Real!", Outlook 2000, Number 2, Andersen Consulting

¹⁶ Dahlberg & Porter. Using the options analogy, the investment or premium paid for the option is the cost of research and development. The asset is the emerging technology. The initial investment gives the holder of the option the right, but not the obligation, to exercise the option at an exercise price. The exercise of the option is the commitment to commercialise the technology. The exercise price is the commercialisation cost. Like an option, the greater the potential payoff, the higher the value of the option.

future. I would like to turn for a moment to review the possible impact of the New Economy on the Asian economies.

These are some observations in relation to the New Economy and its possible impact globally and on Asia:

- (i) **Asia has been a major beneficiary of the New Economy**, with electronic exports rising by 16% in 2000, compared with 6.5% for exports as a whole. Whilst Taiwan, Korea, China and Malaysia have been major beneficiaries in terms of OEM or hardware exports, Philippines and India are emerging powerhouses in software exports. But being a beneficiary does not mean that Asian economies are well prepared for the New Economy.
- (ii) **Recent studies suggest that so far the US has been the main beneficiary of the New Economy**, followed by the UK in terms of productivity growth¹⁷. Japan and Continental Europe have not however significantly benefited from the New Economy thus far. The Goldman Sachs predicts however that even though labour productivity is likely to be boosted in all the major economies because of New Economy factors, such as B2B, taking Estimated slowdown in labour force growth in the US and Japan, the net effect is predicted to be an OECD growth rate of around 3%.
- (iii) **The New Economy is driving major structural changes in financial markets in mature markets**. These include the growing concentration of exchanges (such as the emerging EU securities markets), concentration of financial conglomerates (banks/insurance/fund management holding companies), rise of new markets (ECNs) and even super-regulators. In Asia, such trends are not apparent. There are no clear moves towards mergers and alliances of Asia/Pacific exchanges. Domestic banking systems are still under stress and restructuring in many economies. Equity and banking markets are still fragmented and protected. Consequently, Asian financial conglomerates are not well equipped to compete in terms of critical mass, capital and technology with their European and American counter-parts.
- (iv) **The New Economy has clear winner and losers. First movers win and last movers lose**. Globalization and technology allows first movers to penetrate domestic markets, reducing the ability of governments to protect through tax or other barriers. Attempts to close up markets would only result in consumption or production moving offshore. Thus, whether we win or lose in the New Economy depends on the policy framework (the mindset at the government and corporate level) to the New Economy.
- (v) **Asian economies will need to compete in a different environment from the past**. There is a commonly expressed feeling that the V-shaped economic recovery is giving rise to complacency in pushing through much needed structural reforms in Asia. I would argue that the dangers of the Old Economy mindset are paralysis and paranoia. The past success of Asian manufacturing exports is no guarantee of future success when it is dragged down by inefficient service sectors, especially highly inefficient banking and

¹⁷ Goldman Sachs, "Technology, Internet and Global Growth", June 2000

commercial sectors. B2B will cut out much of old intermediation franchises, reducing the need for white-collar services, which could result in large labour redundancies.

- (vi) **New Economy markets have no loyalty except to the lowest price, highest quality and fastest delivery times.** Contracts and jobs can be outsourced or shifted rapidly across borders rapidly, which means that through B2B, traditional buyers can be lost quickly to new suppliers. This calls for major strategy focus, process re-engineering and labour re-tooling at all levels – the consumer/investor, corporate sector, the regulators and the policy makers. The New Economy is open to all mobile factors of production, especially skills and knowledge. For example, India is finding that its best and brightest IT skills are moving to Silicon Valley, unless domestic wages and incentive schemes change. Production facilities can be switched from Asia to Latin America or East Europe overnight, depending on exchange rates, quality control and delivery times. Since Asia is by definition not a first mover in the New Economy, the challenge is to find ways to adapt Asian institutions and practices to keep market share and in the long term build a leading position in the knowledge economy. There will also be increasing pressures on governments to allow more deregulation and liberalization, to invest more in education and re-training and infrastructure in order for their countries to benefit fully from technological advances and processes.
- (vii) **Time is of the essence. The New Economy is transforming the financial services industry through huge consolidation, de-regulation and new competitive forces.** It would be true to say that the combined technology investments of all Asian banks probably do not match that of a single leading US or European financial conglomerate, which would not hesitate to spend US\$1 bn annually on IT alone.

I do not wish to sound negative. As an optimist by nature, with great faith in Asian creativity, hard work and resilience, I believe that Asian economies will address all the concerns that I have highlighted above. We do not have to be the first mover, as long as we are not the last mover. From the regulator's point of view, because e-commerce offers such opportunities to quickly widen access to and improve financial services, and because global competition has become increasingly intense, regulators have to prioritise. These priorities include improving the framework for financial and other information, modernising and strengthening their legal systems, as well as encouraging the improvement of technology-related infrastructure. Protection is not a solution – it only delays the inevitable and weakens the ability of domestic institutions to compete.

I come to the conclusion that if the New Economy is all about knowledge, then we have to begin investing in knowledge as fast as possible in order to compete. Technology brings huge opportunities and huge risks. This implies that we will have to live with a highly volatile investment environment for quite a while. Experience tells us that we cannot forever protect the investor from his or her own greed or mistakes. Thus, one of the first priorities of financial market regulator is to intensify efforts to improve the knowledge base of the investor in the New Economy, namely investor education.

Changing the Regulatory Framework for the New Economy

We are now back full circle. Ventures in the New Economy carry high risks, and high returns. A high degree of knowledge, integrity and conduct, and good management skills are required from those who run these ventures. In order to attract capital. On the other side of the coin, investors need to be sufficiently educated and alert so that they can fully comprehend their own risk against potential returns. This means that the regulatory framework for the New Economy must also change. As UK Financial Services Authority Chairman Howard Davies correctly pointed out: "we have to find a way of adapting our regulatory environment to new technology, not adapting the new technology to old regulatory rules."

The Hong Kong Securities and Futures Commission is totally committed to ensuring that our regulatory framework for our equity markets is up-to-speed and able to cope with the demands of the New Economy. In developing the regulatory framework for the New Economy, we have kept in mind the Regulatory Principles of the International Organisation of Securities Commissions (IOSCO). These key principles include:-

- **Adequate information disclosure**; to allow investors to be able to make informed investment decisions. This includes disclosure of a sufficient track record and matters such as key shareholder options, interests and lock-up periods which are necessary to enable them to judge the value of their "options" and pay-offs. Disclosure of other material information, such as independently verifiable "website hit-rates" and "burn-rates", would be helpful.
- Investors must be treated **equally and fairly**. Fairness would include the existence of sufficient public float size so that prices are allowed to develop, and trades ~~are~~ can be conducted, in an orderly fashion.
- The adoption of **international accounting and auditing standards**; and
- High **corporate governance standards** and high standards of listing preparation by sponsors.

Investor education

Ultimately, however, no amount of regulation can protect investors from their own mistakes or follies. And it is a fact of life that we learn most from our own mistakes. I return to the theme that I began with: an efficient market begins with a smart and informed investor.

I note that the Malaysian SC shares the same view as the SFC and that you have recently published a booklet on Personal Investment Planning for the Malaysian Investor on your website.

Conclusion

To sum up, the New Economy has brought huge opportunities as well as risks for all concerned.

- i. Issuers need to understand that tapping into public capital brings with it public obligations. Given these obligations and the potentially high risks for investors, companies wanting to raise capital through IPOs will also increasingly need to assure the investors of their ethics and that their stocks are worthwhile investments in the long term.
- ii. Service providers, such as HKEx and intermediaries must understand the need to get the software, hardware and delivery channels right. Trading outages or delays, or the failure of systems, will bring about reputational risks, so it is crucial to ensure that these issues are properly addressed. Online brokers must also understand that, even with online trading, they must continue to address internal issues affecting their operations, such as security, capacity and contingency, as well as investor protection issues relating to margins, privacy of information, risk disclosures, and best execution rules.
- iii. Regulators, including the exchanges, must get the regulatory framework right, provide guidance to ~~the~~ market practitioners, and ensure adequate and suitable investor education. We are continually working on this.
- iv. Finally, investors themselves need to understand the rules of the game and the value of informed decisions. If the investor is unsure, information has never been more accessible. In Hong Kong, the SFC has set up the Electronic Investor Resources Centre Website at <http://www.HKeIRC.org>, which you might like to have a look at. We hope you find it fun and rewarding.

Thank you for your attention.

Securities & Futures Commission,
Hong Kong
28 August, 2000