Financial Stability Institute
Bank for International Settlements

Joint Programme on
What Banking Supervisors should Know about the Securities Industry and Securities Regulation

"Securities Regulation versus Prudential Regulation[1]"

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Good morning,
Ladies and Gentlemen.

I want to thank Josef Tosovky of the Financial Stability Forum for co-sponsoring this seminar and would like to take the opportunity to welcome all the participants, particularly those from abroad, to Hong Kong.

As usual, I would like to begin by saying that the views presented today are my own and not those of the Securities and Futures Commission (SFC) or the Technical Committee of IOSCO, which I chair. My personal experience is that of a prudential regulator, having spent time being the chief economist of a central bank, then banking and insurance regulator, before becoming a securities and conduct regulator for the last six years.

What I would like to do today is to give you all a general overview of the key issues that arise from the dichotomy between conduct and prudential regulation from both a macro and micro perspective. Mr

[1] I am grateful to my colleagues, Ms Tan Gaik Looi and Stephen Po, for helpful comments on this paper and also to Edmond Lee and Ms Rosetta Chiu for assistance in preparation. All errors and opinions are totally my own.

Gerry Corrigan, former President of the New York Fed, taught me that it is always useful to examine problems first from 30,000 feet up, and then zoom in to examine problems at the ground level. Once the ground level issues are clearer, one should perhaps zoom back to 5,000 feet to ensure that the micro issues fit in with the macro objectives and strategic directions. In other words, the tactical measures must fit in with strategic objectives and directions.

Putting the different approaches in an over-simplified paradigm, prudential regulators usually take a more macro view over regulation of banks, while securities regulators take a more micro or legalistic approach. Let me start with a macro view of the overall objectives of market regulation. What are we trying to achieve as regulators?

Why do we regulate?

Starting from first principles, we can say that a capital market is a system that transfers and protects property rights across demographic cycles. The two key phrases here are "property rights" and "across demographic cycles". First, a capital market is nothing but a system to transfer and exchange property rights, the best example being the stock market. If property rights, such as stocks, are unclear, and trading and settlement of stocks are inefficient and unreliable, prices will become very volatile.

The second relates to the phrase "across demographic cycles". Investors save money in the capital market because they want liquidity, capital or income protection: basically total return on capital. Asia has a young population, which is quite happy with higher risks, but parts of Asia are aging and the retirement community is more concerned with capital and income protection. Central bankers amongst us would understand that if the retirement community's savings were eroded through inflation, the community would be most upset. So, one of the objectives of financial regulation is overall monetary and financial stability.

In thinking through financial markets, one needs to understand that a financial market comprises 5 'P's'. A financial market comprises PEOPLE (buyers, sellers, intermediaries) transacting in PRODUCTS (property rights and derivatives), under a POLICY framework and a PRUDENTIAL regulatory regime (rules of the game), and facilitated by an infrastructure PLATFORM and PROCESSES (such as the trading, clearing, settlement and payments network, which can be paper-based or scripless).

If a financial market does not function well, we simply need to ask whether the people or market participants are misbehaving or involved

in misconduct? Is the policy wrong or inappropriate with changing markets and times? Are the products defective legally or do they carry risks that are not appropriate for the retail market? Does the prudential framework show signs of age and require reform?

Finally, are the platforms and processes efficient and reliable? In most markets, we are witnessing the shift from paper-based settlement systems to electronic systems. The term "Payment on the nail" referred to the old "Delivery Versus Payment" system of the English Corn Exchange. In the old days, a farmer would agree on a price with a trader and would physically exchange a sack of corn by placing it on the "nail" (a large bronze table), and the trader would place the agreed cash on the nail for simultaneous exchange. This totally avoided credit risk. Today, we have sophisticated electronic payment and clearing systems to process the trading, and settlement of transactions at each day end. If the process or system is slow, outdated or obsolete, then it's time to think of an upgrade.

Putting the macro and micro picture of the market together, the IMF has a useful chart of the three pillars of financial system stability (Chart 1). Financial stability comprises good macroeconomic conditions, sound regulatory and supervisory conditions and robust and efficient market infrastructure conditions.

For capital markets to function efficiently and effectively, there must be efficient resource allocation, clear price discovery, sound risk management and good corporate governance.

To sum up on why we need to regulate financial markets, LSE Professor Charles Goodhart stated, "the goal of financial regulation is to influence the behaviour of intermediaries so that the policy objectives are achieved." The policy objectives are to protect investors given that asymmetric information, unclear rules and misconduct by intermediaries could cause losses to investors. Misconduct by intermediaries creates social loss and lack of confidence in the integrity of our market and once that crucial confidence and trust is lost, investors will leave the market in droves. In addition, risky behaviour by financial intermediaries could cause firms to fail that can lead to systemic risks in the form of contagion or financial crisis. None of these are desirable consequences in any market.

How do we regulate?

Usually regulation takes the form of a 'regulatory cycle', starting with identifying your policy objectives, putting the appropriate processes in motion, monitoring the policy outcomes and reviewing the results post

implementation. There is a clear feedback decision cycle that ensures that regulation meets its objectives. Since market behaviour changes with time and innovation, regulation is still currently more an art than a science, but with new tools, it has definitely become more craft-like.

There are three broad categories of financial regulation. Prudential regulation in the banking sector seeks to ensure that market participants have adequate capital and liquidity and are fit and proper. For example, prudential regulators like to use the CAMELOT rating to assess banks. This runs through Capital Adequacy, Asset Quality, Management Quality, Earnings Quality, Liquidity, Operational Risk and Technology Risk.

Conduct regulation, which is what most securities regulators do, seeks to ensure that market participants behave within ethical and statutory parameters that do not harm the market. In other words, we are here to influence market behaviour that can damage market integrity, such as market manipulation, fraud, mis-selling, insider dealing and the like. For instance, there was a case in Hong Kong recently where a 90-year-old man was sold a financial product with a 5-year lock-in period. Such cases demonstrate why there should be guidelines on ethical and appropriate conduct by intermediaries with respect to suitability.

The above model of two major regulators covering the financial sector is commonly known as the Australian "twin peaks" model, first enunciated by the Wallis[2] Report.

There is of course a third type of financial regulation that cuts across other sectors, which is competition regulation. This covers anti-trust activities and seeks to guard against monopolistic and cartel activities that harm consumer and competition interests. As financial intermediaries become larger and more concentrated, competition regulation becomes more and more relevant, but that is outside the scope of this overview.

Setting regulatory objectives is an important exercise to focus our resources on the most appropriate and pressing issues. Clear objectives also make our work more accountable. The International Organization of Securities Commissions (IOSCO)[3], the global standard-setter on securities regulation has identified the following core principles for all securities regulators: protection of investors and consumers of financial services; ensuring fair, efficient and transparent markets; and reduction of systemic risk.

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[2] Commonwealth of Australia, "Financial System Inquiry: Final Report Overview" – the Wallis Report -, Australian Government Publishing Service, March 1997

[3] "Objectives and Principles of Securities Regulation", International Organization of Securities Commissions, May 2003. This is available at http://www.iosco.org

The Financial Services and Markets Act 2000 spells out the following objectives for the UK Financial Services Authority (FSA): market confidence; public awareness; protection of consumers; and reduction of financial crime. The US Securities and Exchange Commission (SEC) adopted the catchphrase "We are the Investors' Advocate" as their mission statement. Getting the mission statement right is not easy, because it is easy to go overboard by saying that we protect investors, and this may create moral hazard and misunderstanding that the SFC will compensate investors for any losses that they face in the market place. After having thought long and hard about this internally, we finally came up with a mission statement that in our work, we put "Investors first". We do this through our regulation of the market, enforcement of the law and educating investors to look after their own interests.

Before we examine how we do our work, let us examine how prudential and securities regulators typically approach their work. Since prudential regulators cover a relatively mature market of bankers, they tend to take for granted that their regulatees (commercial bankers) are relatively well-behaved, risk-averse gentlemen and prudent in their market conduct. Being mainly former central bankers who are economists or accountants, prudential regulators tend by training to concentrate on broad systemic risks rather than individual conduct.

After all, the central bank mission is all about monetary stability, financial stability and sound payment systems. Prudential regulators have access to lots of quantitative data from their off-site surveillance reporting and engage in regular on-site inspections to determine their risks. The dominant regulatory philosophy adopted by bank regulators is exemplified in the Basle Capital Accord I & II and the use of established regulatory tools. Because of the banking secrecy tradition, prudential regulators tend to be cautious in publicising their work, and sanctions and enforcement action also tend to be institution based rather than individual oriented.

On the other hand, securities regulators are, by and large, conduct regulators and assume that their regulatees (brokers, investment bankers, fund managers etc.) are high-risk takers. Indeed, securities market intermediaries revel in taking risks because they profit from information arbitrage, tax arbitrage and regulatory arbitrage, including volatility arbitrage. Unfortunately, bad or excessive conduct by one intermediary can have a knock-on effect through leverage and contagion by damaging the integrity of the market.

Perhaps as chartered accountants and former central bankers, SEC Thailand Secretary-General Thirachai and I are the exceptions to the rule, but my observation is that most securities regulators are lawyers

and tend to look at issues more legalistically, using a rules-based approach. The drawback in doing things this way is that sometimes the bigger picture and macro implications can take a back seat. When I first joined the Commission in 1998, an experienced colleague told me that my approach is too high level and macro-based to work well in securities regulation as securities regulation is all about a case-by-case approach to considering the facts of the case and enforcing the rules. Whilst I agreed that enforcement is a key tool in changing intermediary behaviour, I also believed that always putting individual behaviour within a wider context would allow the securities regulator a better perspective of how to deal with emerging issues in the industry as a whole.

While a rules-based approach for regulating the securities industry is important, some would say inevitable, it is just as important to look at the wider picture and identify the most pressing issues and trends and deal with them before the problems become too large. A preventive approach is just as important as post-hoc corrective enforcement action. This calls for a blend of prudential and conduct regulatory approaches.

The dominant philosophy for all securities regulators are those enshrined in the IOSCO Principles: Transparency, which states that if in doubt, disclose; Know Your Customer, which is the foundation to any lasting and mutually beneficial client/intermediary relationship; and Enforcement which focuses on management responsibility and litigation.

At the fundamental level, the underlying requirement for any regulatory structure to work is to have a sound property rights infrastructure. Property rights are defined by law or by courts when they apply property or liability rules in cases where property rights have been infringed. A sound property rights infrastructure is characterised by having:

- free flow of information and good media coverage
- efficient regulatory bodies including the police and anti-corruption agencies
- an independent and efficient judiciary to adjudicate property disputes
- property registries: e.g. stock register, land registry that are transparent to market participants
- a solid community of professionals in the legal, accounting and commercial services who provide competent advice and services to market participants
- good investor/consumer education.

All these elements are essential for the governance of financial markets and fundamental to a strong capital market.

Approaches to regulation

Coming back to the differences between prudential and conduct regulation, I find that bank regulators use the useful acronym to list what they concentrate on. This is the CAMELOT rating which I mentioned earlier.

In the SFC, we have recently adopted another acronym that summarizes for our colleagues the areas they will look for when they rate a securities intermediary. Internally, we have a 51-attribute system, but broadly, we use APRICOT, which looks at Asset Quality, Prudential Review, Risk Management capacity, Conduct Regulation, Operational Risks and Technology Risks. The major difference with CAMELOT is that we focus more on conduct and risk management issues, but there are similarities.

Professor Malcolm Sparrow is one of the leading authorities on regulatory thinking and when he addressed the Sydney IOSCO Annual Meeting in 2000, I was struck by his message, which he expands on in his book 'The Regulatory Craft'[4]. I commend this book to all of you, because it is the first systematic approach to regulation that is based on a risk-focused, results-oriented mindset. Basically his message can be distilled into a single cogent sentence:

> "Pick important problems, fix them and then tell everybody".

Professor Sparrow also goes on to say, "The essence of the [regulatory] craft lies in picking the right tools for the job, knowing when to use them in combination, and having a system for recognizing when the tools are inadequate so that new ones can be invented."

These are very important lessons that apply equally to both prudential and conduct regulation. From the lessons learnt by super regulatory agencies such as the FSA and the MAS, a common philosophy has recently evolved from the approach propagated by Professor Sparrow. This is the need to develop a risk-based regulatory approach. Why?

All regulators have limited resources. Hence, "Picking Important Problems" really means prioritising our work through risk analysis and risk focus, subject to our limited resource constraint. "Fixing Important

[4] Malcolm Sparrow, The Regulatory Craft: controlling risks, solving problems, and managing compliance, US: The Brookings Institution Press 2000

Problems" is all about process and accountability. It is not about getting quantitative numbers of "parking tickets", but dealing with the material damage to the market that the public cares about. In other words, we should deal with the important rather than the urgent but often trivial issues.

Finally, regulators must also appreciate that either they can be taken for granted, or worse, the tough enforcement action leads to a roll-back of enforcement powers, as the market complains of over-regulation, high compliance costs and/or indiscriminate or unfair toughness. Regulators therefore need to win public support for our enforcement work, especially when tough regulatory action is called for – hence the need for public education and information ["tell everybody"]. To obtain public support, regulators must get out of their "black boxes" and explain why their work is important to society and therefore should be properly supported and funded.

The social value of regulation

Financial regulation can also be viewed as the insurance premium that society must pay in order to prevent the high costs of financial crises or serious market damage that arise from excessive greed or misconduct. Viewed in this perspective, society would be willing to pay as much annual premium at the margin that over the years is less than the "event loss" arising from financial crisis (such as bank or broker failure) or cumulative costs of damage to society arising from market misconduct. By regulation, I would include the costs of other enforcement agencies, such as criminal enforcement agencies.

Because society views regulation as a necessary evil, the best possible outcome for regulators is when "nothing happens". In other words, there are neither financial crises nor headline cases of financial fraud or misconduct. We all know that there is no such thing as zero failure over the long term, particularly over different business or economic cycles. Whenever there is a crisis or headline case, the first question is "where were the regulators?" Since financial crises or headline fraud cases have complex origins, it is important that regulators not only be vigilant, but also properly supported and resourced when times are good.

This is of course not that easy, because most of our work is usually done behind the scenes and the public does not pay too much attention to what regulators do on a day-to-day basis. On the other hand, those who are sanctioned do care a lot and will shout quite loudly that there is over or excessive regulation or that regulators are too powerful for their own good. Given this thankless task, we must therefore continually

inform the public and our stakeholders of what we do and why we are taking such action in order to gain their understanding and most importantly, their support for our work.

There is one area of regulatory reform or approach that is getting more attention over time. Because we are gatekeepers in our licensing and daily regulatory work, we do not necessarily see this important sea change in approach. This is what I call the difference between pre-vetting versus back-end enforcement.

The traditional way of regulation is pre-vetting, or the basic philosophy that the regulator should approve all documents or products before issue or license. Part of this relates to an approach that is common in many jurisdictions: nothing is allowed except what is expressly approved. The other, more liberal, philosophy is that everything is allowed except what is expressly prohibited. Hong Kong broadly follows the second concept in law, but in practice, we still vet or approve IPO prospectuses, listed company disclosure, fund offering documents and marketing materials. Pre-vetting empowers regulators but could create moral hazard and reduce efficiency.

Where regulators undertake a quality check at the pre-vetting stage, there is a downside; that because the regulator authorises the product, the public might hold the regulator responsible for any faults or problems that may arise from the sale of the product. Hence this fear drives the regulator to be even more cautious and prudent in approval, often delaying the launch of new products. At the same time, the intermediaries will relax their vigilance and due care, feeling that since the product or document is approved, they have done nothing wrong as they have complied with the necessary regulatory requirements to secure the regulator's approval. In playing the role of gatekeeper by pre-vetting, the regulator has to contend with moral hazard risks. This trait is common to all listing gatekeepers.

Contrast this with a back-end enforcement approach. Here the regulator sets the rules but places the onus back on the market participants to maintain market quality and service. There must be clear guidelines for the market participants to observe, against which they could be sanctioned if they breach these guidelines. Within the ballpark, the market participants have greater freedom of action, but also the greater need for self-restraint and compliance discipline. If the market participant breaks the rules, the regulator follows up with strict enforcement and disciplinary action.

Back-end enforcement is what we are in the process of moving towards in Hong Kong. We set out clear parameters for the industry but with much greater flexibility within these parameters. Market participants

are free to develop their business in any way they see fit but if they cross the lines that damage the public interest, then they must face the statutory consequences.

Of course, rules are only as good as the enforcement of those rules. Regulators should try to have rules that are tailored to the risk profile of the regulated. Some regulatees would be better off with prescriptive rules; others would find differentiated rules more appropriate. The process begins at the gate-keeping level whereby the regulator assesses whether the licence applicant is fit and proper, has complied with the necessary licensing and prudential conditions including capital and liquidity requirements. Post-license work requires the regulator to monitor the licensed market participant's conduct through surveillance, monitoring and inspections. If the licensed market participant is involved in misconduct, then the regulator has to be firm in taking prompt disciplinary action, or in the case of a firm collapsing or exiting the industry, making sure that the exit is smooth through failure management, investor compensation schemes and insolvency procedures.

The Braithwaite regulatory pyramid[5] (Chart 2) shows that in every jurisdiction there are three behavioural segments. There will always be a bad, but thankfully small, segment of players that engage in fraud, mis-selling or inappropriate behaviour. On the other hand, there are the good citizens who prefer to comply with rules, provided they are not too onerous. But the largest segment consists of market participants who are rational but will do what they can get away with. This is similar to the behaviour of most car drivers who do not hesitate to exceed speed limits provided they think the police will not catch them. Given limited resources, the regulators must focus their pressure on containing the bad and constantly patrolling the periphery to ensure that the bulk of the population stay within the law.

Let me therefore try to explain what we are trying to achieve in economic theoretical terms. In Venn diagram terms, for every policy target or problem area, there is a regulatory process (Chart 3). Where the process captures or overlaps the target area, this is the "outcome". However, where the regulatory process fails to capture the problem area, we have a gap or "loophole". We either have to re-design the process to plug the gap, or we have to decide that the loophole is too small to be concerned about. At the same time, where the process captures areas that are outside the regulatory target, we have "unintended consequences". Hence, in practice, for every regulatory

[5] Source: adapted from the work of Professor J. Braithwaite. See *Responsive Regulation and Developing Economies by* Braithwaite; and Ayres, Ian and John Braithwaite 1992 *Responsive Regulation: Transcending the Deregulation Debate.* New York:Oxford University Press

target and process, we have either loopholes or unintended costs (such as unintended retardation of innovation.)
Regulatory policies and process must therefore always be constantly reviewed, because Goodhart's Law applies also to financial regulation.[6] For every regulatory target, the market will evolve to avoid that regulatory target through regulatory arbitrage or changes in behaviour, so that old policies and process become obsolete or ineffective over time. In other words, new loopholes and/or other problems emerge so that we would need constant review and feedback.

Chicago Nobel Laureate Economist Gary Becker's approach[7] to crime and punishment focuses on the expected costs to a potential criminal as a deterrent. The expected costs of crime confronting a potential criminal can be expressed as equal to Pa x Pc x Cp, where Pa is the probability of apprehension; Pc is the probability of conviction (if apprehended); and Cp is the cost of punishment, as seen by the potential criminal.

Using Becker's approach, it can be stated that the social cost of regulation should, at the margin, be less than the cost of the crime or damage to the public. [Expected costs of crime at margin = Marginal cost of regulation = Pa x Pc x Cp]. This means that if the cost of regulation exceeds the cost of crime or damage to the public, we should not regulate or take action.

Financial crime and bad intermediary conduct flourish when the gains from crime are high relative to the perceived low probability that they will be caught. So it is vital that regulators have regulatory credibility, which depends on having effective surveillance, speedy investigations, well-prepared prosecutions and appropriate sanctions. Justice must not only be done, but also seen to be done. By this I mean that there must be clear and transparent due process in investigation and disciplinary procedures. In this way, strong enforcement is key to instilling regulatory discipline.

To sum up, regulation is a trade off between social gains versus risks or costs. When trying to calculate the cost of regulation, regulators should factor in the direct resources spent to implement the policy/initiative, the cost burden imposed on firms plus the indirect externalities or law of unintended consequences that I mentioned earlier. The FSA and the

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[6] The earliest form of Goodhart's Law on monetary policy was "Any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes." (Goodhart, 1984). See also Andrew Sheng and G L Tan, "Is there a Goodhart's Law in financial regulation?" in Paul Mizen (Ed) Monetary History, Exchange Rates and Financial Markets, Edward Elgar, 2003.
[7] Gary S. Becker. "Crime and Punishment: An Economic Approach." Journal of Political Economy, 76 (March/April 1968): 169-217

SEC have now adopted explicit methodology to measure the gains of regulation versus their costs through their risk-based approaches.

There is more and more data publicly available to make this regulatory calculation. In the area of compliance costs, for example, US firms have reported that, on average, the Sarbanes-Oxley requirements cost them roughly US$5-8 million annually to comply. This cost/risks should be balanced against the benefits of regulation, which include reducing market failure and external shocks and preventing bad behaviour. Professor Luis Zingales states that it is "necessary to do an overall calculation of the overall benefits of regulation versus its overall costs"[8].

Recent corporate failures like Enron, WorldCom, Parmalat etc. have common themes at their core such as weak corporate governance, misleading and false disclosure, fraud where either the management steals from the shareholders or the banks facilitated market misconduct by mis-selling and/or financing rogue traders/borrowers. For instance, in the China Aviation Oil case, a lot of the company's problems was hidden in OTC (over-the-counter) derivative trading which the regulator had no access to any information.

The above survey of regulatory approaches does not mean that the complete burden of regulation should fall on the statutory regulatory agencies. Indeed, the real balance to regulation is to allow market forces to work as much as possible. In other words, we should allow all three key disciplines to work: self-discipline, regulatory discipline and market discipline.

The use of Self Discipline means persuading the market participants to adopt as much self-regulation as possible, using and adhering to appropriate internal standards and codes. Corporate governance codes, for example, help companies maintain self-discipline in areas that are clearly in their own best interest to do so. I personally see no reason why statutory powers are necessary to define whether a listed company should have two or three or four independent non-executive directors. This is a management decision, and in this area a "comply or explain" approach is much more efficient than heavy-handed statutory fines.

In areas where there is clear damage to society, such as false and misleading disclosure, we can impose Regulatory Discipline using statutory powers that come with civil or criminal sanctions.

There is also Market Discipline, which comes in the form of high disclosure standards, contractual discipline that can be enforced by the

[8] Luis Zingales, "The Costs and Benefits of Financial Market Regulation", European Corporate Governance Institute, April 2004.

courts, fair market competition and clear exit mechanisms. All three disciplines are necessary in order to achieve good corporate governance and efficient markets.
Finally, I want to round off this survey of regulatory approaches with three trends in regulatory reforms, particularly in the corporate governance area. The first trend concerns increasing shareholder protection through empowering the investors. This includes effective exercise of share ownership, class or derivative action, and improving market transparency, so that investors can exercise more informed judgement when making investment decisions.

The second trend is about improving the quality and performance of the board of directors of companies. Regulators are beginning to take measures to ensure that the board is accountable for the running and conduct of the company. The recent willingness to bar bad management from holding directorships is one such enforcement action.

The third trend is to encourage or pressure the intermediaries, such as auditors, analysts and sponsors, to undertake higher quality work through due diligence and dealing with the conflicts of interest issues that have distorted their professional judgement.

All three trends are common to both prudential and conduct regulation. As markets converge globally and the boundaries of financial products blur to the extent that we can no longer define clear lines of demarcation between banking, insurance, fund management and securities markets, functional regulators will find that their work must also converge. This cross-fertilization of approaches and ideas can only be healthy, and I commend the Financial Stability Institute in organizing such a Seminar to enable us to learn from each other.

Thank you.

Andrew Sheng
6 May 2005

Chart 1

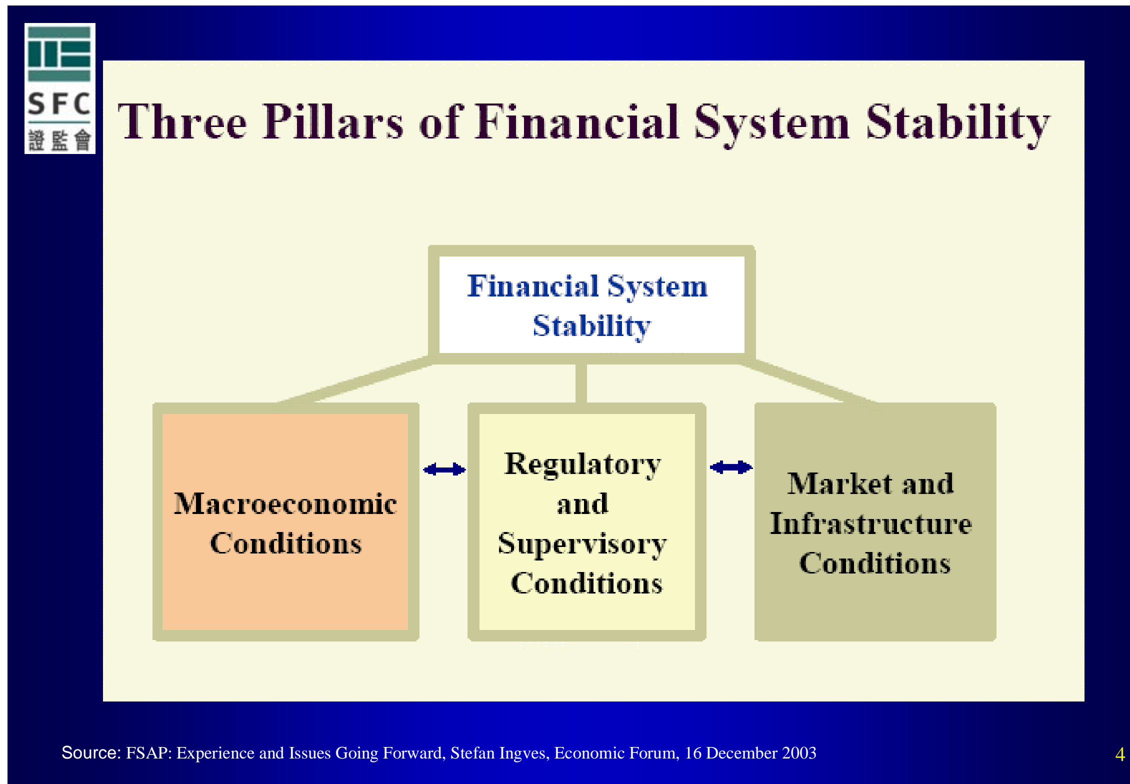

Chart 2

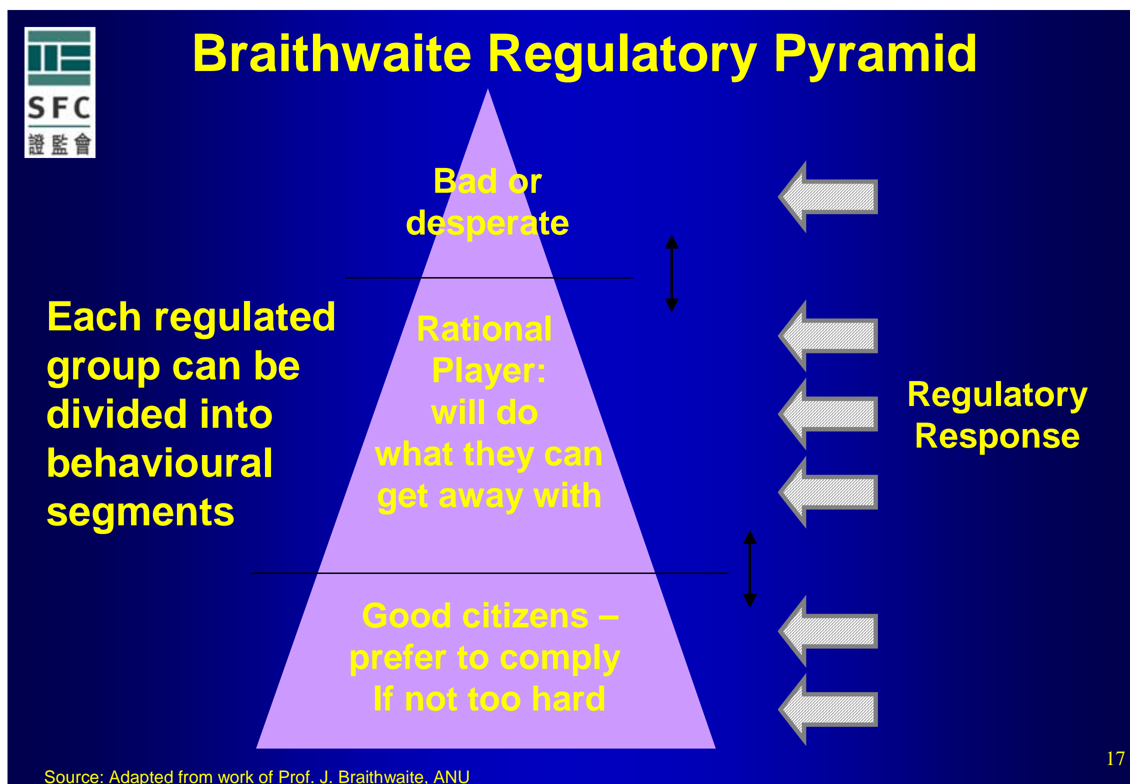

Chart 3