Responses to Follow-up Issues Arising from the Hearing on 17 November 2009 (letter of 18 November 2009 from the Clerk to the Subcommittee)

1. *Please provide the names and responsibilities of individual staff members from manager level and above of HKMA who have been involved in regulatory work relating to the sale of Lehman Brothers-related products by Registered Institutions during the period from April 2003 to September 2008.*

1.1 The response to item 1 will be provided to the Subcommittee later as additional time is required to retrieve and compile the information requested.

2. *In reaching the agreement on the repurchase of Minibonds by 16 distributing banks as announced on 22 July 2009, please confirm whether HKMA had already obtained information or evidence showing that there was systemic failure on the part of the distributing banks in their sale of Minibonds; if yes, please provide the details; if no, please advise whether HKMA had ascertained from SFC whether the latter was in possession of such information or evidence.*

2.1 As the Subcommittee is aware, an application has been lodged with the High Court (case number: HCAL No. 115 of 2009) for leave to apply for judicial review of the decision of the Monetary Authority (MA) and the Securities and Futures Commission (SFC) relating to the agreement concerning the repurchase of Lehman Brothers Minibonds from eligible customers ("Agreement") and the alleged discontinuation of investigation into the complaints of Minibonds holders regarding mis-selling of the bonds. The decision making process including the information that the MA took into account in reaching the Agreement is the subject of the court proceedings. Such information cannot be openly disclosed as the matter is now *sub judice*. For this reason, we are unable to provide the requested information at this stage. We note that paragraph 18 of the Practice and Procedure of the Subcommittee provides that any reference to the matters awaiting adjudication in a court of law should be excluded if there is a risk that such reference might hinder the court in reaching the right conclusion or lead it to reach other than the right conclusion, or might amount to an effective usurpation of the judicial functions of the court.

3. *Regarding those customers who are not eligible for the repurchase scheme as announced on 22 July 2009, please provide the latest breakdown figures of each category of such customers (i.e. professional investors, experienced investors, etc.) and the amount of investment for each category.*

3.1 According to the latest information provided by the 16 Distributing Banks, the breakdown figures of their customers that are neither eligible for the repurchase scheme nor entitled to the voluntary top-up offers provided by the banks concerned are as follows:-

Category	**Number of customers**	**Investment amount (HK$ million)**
Experienced investors	879	609.0
Professional investors	16	31.8
Corporate/non-individual investors	117	310.6
Others (e.g. customers with previous settlement under more favourable terms than the repurchase scheme)	86	51.2
Total	**1,098**	**1,002.6**

3.2 In addition, a question was raised at the hearing on 17 November 2009 concerning the total amount of Minibonds investment made by investors that would be neither eligible for the repurchase scheme nor entitled to the voluntary top-up offer as estimated by the banks concerned before reaching the Agreement. Taking this opportunity, I would like to provide such information to the Subcommittee. Based on the estimated figures provided by the Distributing Banks concerned before reaching the Agreement, the estimated total amount at that time was around HK$1,270 million.

4. *As stated in DCE/HKMA's written response (M33), the HKMA has adopted the practice of holding prudential meetings with the boards of directors of local banks once a year to the extent possible. Please advise:*

(a) *the level of HKMA's staff conducting such prudential meetings; if different levels of staff were deployed, please explain the policy according to which the different levels of staff were so deployed;*

(b) *the number of banks with which HKMA had held such prudential meetings each year from 2003 to 2008 and the average number of meeting held annually with each bank;*

(c) *for each year from 2003 to 2008, the number of banks that HKMA had advised not to over-rely on interest-income during peer group comparison at the prudential meetings;*

(d) *for each year from 2003 to 2008, the number of banks that HKMA had advised to strengthen their internal monitoring and risk management in respect of their sale of structured financial products; and*

(e) *whether HKMA possesses any paper(s) and/or record(s) of the prudential meetings documenting the advice given by HKMA to banks to reduce their revenue concentration risk. If yes, please provide, the relevant paper(s) and/or record(s). If considered necessary, the names of institutions may be covered up.*

4.1 The response to item 4 will be provided to the Subcommittee later as additional time is required to retrieve and compile the information requested.

5. ***The fifth paragraph of the press release issued by SFC and HKMA dated 22 July 2009 on the repurchase scheme on Minibonds by 16 distributing banks (S48) set out a number of considerations underlying the agreement reached by SFC, HKMA and the 16 banks. Please advise whether HKMA had any other underlying considerations; and if yes, please provide the details.***

5.1 As the Subcommittee is aware, an application has been lodged with the High Court (case number: HCAL No. 115 of 2009) for leave to apply for judicial review of the decision of the MA and the SFC relating to the Agreement and the alleged discontinuation of investigation into the complaints of Minibonds holders regarding mis-selling of the bonds. The decision making process including the underlying considerations taken into account by the MA in reaching the Agreement is the subject of the court proceedings. Such information cannot be openly disclosed as the matter is now *sub judice*. For this reason, we are unable to provide the requested information at this stage. We note that paragraph 18 of the Practice and Procedure of the Subcommittee provides that any reference to the matters awaiting adjudication in a court of law should be excluded if there is a risk that such reference might hinder the court in reaching the right conclusion or lead it to reach other than the right conclusion, or might amount to an effective usurpation of the judicial functions of the court.

6. ***Please confirm whether HKMA had detected any mis-selling of Lehman Brothers-related ELNs when conducting on-site examinations of banks before the collapse of Lehman Brothers; and if yes, please provide the details.***

6.1 Between 1 April 2003 and 14 September 2008, as a result of on-site examinations, the Hong Kong Monetary Authority (HKMA) identified possible mis-selling cases involving the sale of equity-linked notes (ELNs) to 20 customers and these cases were referred to the securities enforcement team for appropriate action. None of these cases involved Lehman Brothers-related ELNs.

6.2 In addition, as a result of the thematic examinations on investment advisory and dealing activities in credit-linked investment products in 2008, the HKMA identified possible mis-selling cases involving 52 customers, among which the cases involving 3 customers were related to the sale of Minibonds while the other cases did not involve Lehman Brothers-related investment products. These cases were referred to the securities enforcement team for appropriate action.

7. ***Prior to the collapse of Lehman Brothers, please advise whether HKMA had detected any cases of mis-selling of Lehman Brothers-related investment products by Relevant Individuals and whether any disciplinary action had been taken. If yes, please provide details of such cases and the disciplinary action taken.***

7.1 As a result of the thematic examinations on investment advisory and dealing activities in credit-linked investment products in 2008, the HKMA identified possible mis-selling cases involving 52 customers, among which the cases involving 3 customers were related to the sale of Minibonds while the other cases did not involve Lehman Brothers-related investment products. The HKMA has referred the 3 customers' Minibonds-related cases to the SFC for its further action. These cases are no longer pursued as a result of the SFC's exercise of settlement power under section 201 of the Securities and Futures Ordinance (SFO) in reaching the Agreement as announced on 22 July 2009.

8. ***Please provide the articles, if any, written by DCE/HKMA and/or Mr Joseph YAM, former Monetary Authority, on the nature and risks of structured financial products including CDO, CDS and ELN etc.***

8.1 Prior to the collapse of Lehman Brothers in September 2008, the former Monetary Authority, Mr Joseph Yam, wrote several Viewpoint articles on financial innovation and securitisation, in which there were discussions on the nature and risk of the structured financial products (such as CDO, CLO, CDS etc)[1].

8.2 The titles and dates of issuance of these Viewpoint articles are listed in Table 1 below and the hardcopies of these articles are enclosed as Annex.

Table 1 : Viewpoint Articles Involving Discussions on the Nature and Risks of Structured Financial Products

Title of the Viewpoint Article	**Date of Issuance**
How innovative financial products affect financial stability	16 August 2007
Securitisation and its impact on financial stability	4 October 2007
Financial innovation and the risks it brings	28 February 2008
Transfer of credit risks	6 March 2008
Investor due diligence	27 March 2008
Alphabet soup	17 July 2008

[1] CDO – Collateralised Debt Obligation; CLO – Collateralised Loan Obligation; CDS – Credit Default Swap.

9. *Please advise whether there has been any discussion since September 2006 among HKMA, SFC and the Administration to take forward the Proposal 5 as set out in the Consultation Conclusions on the Consultation Paper on Possible Reforms to the Prospectus Regime in the Companies Ordinance issued by SFC in September 2006 (S17), i.e. amending the definition of "debenture" in the CO prospectus regime and SFO investment advertisement regime to the effect that all "structured products" will fall outside the definition of a "debenture". If no, please explain the reasons. If yes, please advise whether there is a timetable for such legislative amendment.*

9.1 With respect to the proposed amendments to the Companies Ordinance (CO) and the SFO, the responsible regulator is the SFC. The SFC has recently released a Consultation Paper on Possible Reforms to the Prospectus Regime in the Companies Ordinance and the Offers of Investments Regime in the Securities and Futures Ordinance on 30 October 2009, which contains the proposed amendments to the CO and the SFO to take forward Proposal 5 as set out in the Consultation Conclusions on the Consultation Paper on Possible Reforms to the Prospectus Regime in the Companies Ordinance issued by the SFC in September 2006. Before the SFC released this consultation paper, there have been discussions among the HKMA, the SFC and the Administration on the progress of implementation of the SFC's proposal of transferring the regulation of public offers of structured products in the form of debentures from the CO prospectus regime to the investment offers regime under the SFO. The HKMA is in support of the proposal.

9.2 The public consultation on the proposed legislative amendments will last until 31 December 2009. As mentioned in this consultation paper, revisions reflecting comments taken on board will be incorporated into the legislative proposals to be tabled before the Legislative Council. While the HKMA is in support of the SFC's proposal, it would be more

appropriate for the SFC to comment on the implementation timetable in consultation with the Administration.

10. Please provide the number of Relevant Individuals involved in Lehman Brothers-related complaint cases investigated by HKMA who are now no longer under the employment of the respective banks.

10.1 The response to item 10 will be provided to the Subcommittee later as additional time is required to retrieve and compile the information requested.

11. The attached written questions raised by Mr LEUNG Kwok-hung at the hearing on 17 November 2009.

梁國雄議員提問
(Nov 17, 2009)

關於招股章程

1. *按你在 SC(1)-M36 中對我的問題的回覆，你是否表示《公司條例》附表三是適合規管結構性產品，如星展的Constellation 及渣打等銀行所售賣的招股書？*

2. *你在M36 第5.2 段的回答是：*

   "The consultation Paper (from SFC) does not mention that the Third Schedule to the Companies Ordinance (CO) is not suitable for regulating debt capital raising by companies operating a derivative business."

   你實在對這個重要的問題很無知，我現在讀給下列一段 SFC 對該 Consultation Paper 於2006 年公報的原文讀給你聽：

   "The SFC acknowledges that a derivative issuer could not reasonably be expected to give the same level of information on the underlying asset as the issuer of the underlying asset itself when it engages in fund-raising. In recognition of this inherent difference, the Commission proposes that the legal and regulatory treatment of financial products with similar risk and reward exposure (irrespective of their legal form) be harmonised without seeking to merge the CO prospectus regime and the SFO investment advisement regime."

   這個重要事實你也說不存在，是否想誤導本小組？

3. *若 CO Schedule 3 無法使結構性產品發行人披露足夠資料讓投資者作informed decision，那「披露爲本」的政策是否已失效？*

4. *你不通知銀行去告知客戶上述事實，客戶是否有權追究 HKMA 及 SFC?*

5. *你說CO Schedule 3 可足夠作規管結構性產品的披露，請給星展及所有其他結構性產品按 Schedule 3 填交的表格，讓本小組查核是否足夠，因爲我覺得大部分發行人回答是 Not Appropriate，即沒有資料提交及披露。*

<u>General information</u>

11.1 As set out in my response to question 9 above, with respect to the proposed amendments to the CO and the SFO, the responsible regulator is the SFC. It would therefore be more appropriate for the SFC to provide clarifications on the related proposals and consultation documents. Nevertheless, I would provide response to the Subcommittee's questions based on the HKMA's understanding.

<u>Items 1, 2 and 3</u>

11.2 In my response dated 13 November 2009 to item 1 of question 5 of the Subcommittee's information requests regarding follow-up to the hearing on 10 November 2009 (SC Ref. No. M36), I was not expressing any opinion on whether the Third Schedule to the CO is or is not suitable for regulating debt capital raising by companies operating a derivatives business. I merely stated the fact that the Consultation Paper on Possible Reforms to the Prospectus Regime in the Companies Ordinance issued by the SFC in August 2005 ("Consultation Paper") does not mention that the Third Schedule to the CO is not suitable for regulating debt capital raising by companies operating a derivatives business. The

SFC's proposal to (i) amend the definition of "debenture" where it appears in the CO prospectus regime and the SFO investment advertisement regime to the effect that all "structured products" will fall outside the definition of a "debenture" and (ii) to subject public offers of structured products to regulation under the SFO investment advertisement regime is to harmonise the regulatory regimes for investment arrangements with similar characteristics.

11.3 As a matter of fact, the Consultation Conclusions on the Consultation Paper on Possible Reforms to the Prospectus Regime in the Companies Ordinance ("the Consultation Conclusions") issued by the SFC in September 2006 do not mention that the Third Schedule to the CO is not suitable for regulating debt capital raising by companies operating a derivatives business. With regard to the following statements in the Consultation Conclusions ("relevant statements"):

> *"The SFC acknowledges that a derivative issuer could not reasonably be expected to give the same level of information on the underlying asset as the issuer of the underlying asset itself when it engages in fund-raising. In recognition of this inherent difference, the Commission proposes that the legal and regulatory treatment of financial products with similar risk and reward exposure (irrespective of their legal form) be harmonised without seeking to merge the CO prospectus regime and the SFO investment advisement regime."*

they are part of item (a) under paragraph 5, Part A (executive summary) of the Consultation Conclusions ("item (a)"), and should be read and interpreted in the context of item (a). According to item (a), the SFC's original proposal was to merge the CO prospectus regime into the SFO investment advertisement regime and create a unified offering regime. However, the SFC received a dissenting view that questioned the

appropriateness of unification given the different nature of direct investments in equity and debt as opposed to derivative products. The relevant statements set out the rationale for not merging the CO prospectus regime and the SFO investment advertisement regime as originally proposed by the SFC, taking into account the dissenting view.

11.4 The inherent difference between the nature of direct investments (in equity and debt) and derivatives products does not undermine the disclosure requirements in respect of derivatives products. In fact, paragraph 3 of the Third Schedule to the CO requires that a CO prospectus shall contain:

> "*Sufficient particulars and information to enable a reasonable person to form as a result thereof a valid and justifiable opinion of the shares or debentures and the financial condition and profitability of the company at the time of the issue of the prospectus, taking into account the nature of the shares or debentures being offered and the nature of the company, and the nature of the persons likely to consider acquiring them.*" (emphasis added)

11.5 As prescribed in the above provision, the Third Schedule to the CO imposes an overall statutory disclosure standard on issuers so that they must provide all relevant information in the prospectus to facilitate investors in making informed investment decisions in respect of the shares or debentures being offered. This overall statutory disclosure standard applies in respect of shares and debentures, including structured products that take the legal form of debentures.

11.6 Regardless of the different regulatory reform proposals contained in the SFC's Consultation Paper in 2005, the SFC's Consultation Conclusions in 2006 and the latest proposals in the SFC's consultation paper released in October 2009, it is important to note that all these regulatory reforms

are based on the disclosure-cum-conduct based regulatory regime, which both the SFC and the HKMA have recommended for its retention in their review reports submitted to the Financial Secretary in December 2008.

Item 4

11.7 As set out in my response dated 13 November 2009 to item 2 of question 5 of the Subcommittee's information requests regarding follow-up to the hearing on 10 November 2009 (SC Ref. No. M36), both the Consultation Paper and the Consultation Conclusions were made known to investors through press releases issued by the SFC. As indicated in the Consultation Conclusions, the overall consultation process has not been completed[2].

Item 5

11.8 The HKMA does not have the requested documents. As the power for authorizing prospectuses under the CO is vested with the SFC and not with the HKMA, the requested documents were not submitted to the HKMA.

[2] In addition, a Consultation Paper on Possible Reforms to the Prospectus Regime in the Companies Ordinance and the Offers of Investment Regime in the Securities and Futures Ordinance was recently issued (October 2009) for public consultation.

How innovative financial products affect financial stability

Financial innovation can make it harder to identify and manage risk.

No matter whether we are fund raisers, investors, financial intermediaries or financial authorities, I think we all agree that financial stability is in the public interest, although occasionally we hear the contrary, and probably minority, view that, at least for traders in financial markets, stability and prosperity do not go well together. In any case, financial market volatility is not necessarily synonymous with financial instability.

But financial stability is a rather vague concept that is not easy to define, even by those responsible for achieving or maintaining it. This is not a comfortable position to be in, because it may lead to the use of ad hoc approaches to maintaining financial stability, where political considerations could play a greater-than-desirable role in the decision-making process, undermining the long-term credibility of the financial authorities. It is therefore important to be as clear as possible about what financial stability means and the specific roles of the financial authorities in achieving it, something that has presented many jurisdictions with considerable difficulty.

One reason for the difficulty is the continuing changes in the financial system. In the old days when the financial system consisted only of banks intermediating funds between borrowers and depositors, financial stability could be taken as the continuing ability of the banking system to carry on doing so through thick and thin, enabling those with good credit to ride out economic cycles and taking the occasional hit from credit defaults without disrupting depositors' confidence. Banks needed to be supervised to prevent them from taking on excessive credit risks that might undermine their viability and depositors' confidence when there was an economic downturn. Prudential supervision of banks was often supplemented by depositor-protection schemes

through insurance or other means.

As we all know, the financial system is now much more than just the banks taking deposits and making loans, and earning a spread to cover the costs and the risks that occasionally materialise. Thanks to the development of the capital markets, the financial system also plays a very important role in matching the risk profiles of fund raisers and the risk appetite of investors, with the latter directly and increasingly assuming the risks of the former, rather than leaving it to the banks, insulating them from the credit risks of the borrowers. This has raised the efficiency of the financial system in intermediating funds considerably, to the benefit of the economy as a whole, by making financial resources more easily available, lowering the costs of raising funds, improving investors' rates of return, and bringing a lot more business and a lot less risk to the financial intermediaries. In these new circumstances financial stability can still be defined as a continuation of this desirable state of financial affairs through economic cycles, with the financial authorities focusing on the maintenance of market integrity through different forms of market regulation.

But the modern financial system is even more complicated than this, making it even harder for the financial authorities to comprehend. Financial innovation has enabled the credit risks of the fund raisers to be spread to outside the financial system and assumed by investors instead, through the use of tradable (at least under normal market conditions) financial products. The financial system is so efficient at this that it has become rather difficult to identify what risks are involved, where they lie, and whether those assuming them are aware of them, let alone whether they are in a position to manage the risks in the first place. Take the sub-prime mortgage market as an example. The parties involved include the originators of the sub-prime mortgage loans, the investment bankers packaging the loans into mortgage-backed securities, the investment managers buying the securities as part of the investment portfolios

supporting the creation of collateralised debt obligations (CDO), the rating agencies assigning ratings to the CDOs, the hedge-fund managers buying the CDOs and the investors investing money in hedge funds. Many of the participants in this chain have an incentive to create and off-load derivative securities, earning handsome fees. There is a danger that prudent standards are being compromised in the process. Chances are that there is considerable leverage at different points in the chain, with funding provided by banks. And when there is a shock in the property market, the general economy, or arising from stress in the financial system itself, leading to default by the mortgagors, it is not clear who in the end will suffer and whether any, and if so which, part of the financial system may cease to function effectively. There is a need for a lot of vigilance by everyone involved in the financial system.

Joseph Yam
16 August 2007

Securitisation and its impact on financial stability

The Asian economies are not necessarily immune to the current turbulence in the US and European money markets.

Banks need capital to do business, and banking supervisors have laid down capital adequacy ratios (CAR) and other supervisory measures to ensure that the banks have enough capital to support the risks they take using depositors' money. These measures constrain the ability of the banks, particularly those with CAR near the regulatory minimum, to expand their business. It is therefore natural for the banks to try to do more business with less capital in an effort to make more profits for their shareholders.

One popular way of doing so is to securitise assets that would normally be booked on the balance sheets of the banks, through the creation of asset-backed securities (ABS) or, in the case of mortgages, mortgage-backed securities (MBS). This can be done by the banks themselves, or by so-called conduits or special investment vehicles (SIV) buying the assets from the banks, packaging and slicing them to suit the risk appetite of investors. The banks are then able to use the capital released to do other business, while at the same time earning fee income from continuing to service the securitised assets or underwriting the securities, and trading income from making a market in the securities. The securities issued by the conduits and SIVs to fund the purchase of assets from the banks may take different forms, such as the asset-backed commercial paper (ABCP). These are of short-term maturity and therefore not a stable source of funding, and so the banks provide, for a fee, the SIVs with back-up credit lines (these do not need to be supported by capital under Basel I) and credit enhancement support to help attain a high, possibly AAA, rating for the ABCP from the rating agencies.

Like a factory, the financial system of the developed market originates assets (such as mortgages); warehouses them; packages them, with or without slicing,

creates ABS of all sorts, possibly mixing them with other financial assets and turning them into other forms such as collateralised debt obligations (CDO); and distributes them to investors including banks, pension funds and hedge funds all over the world. The financial system is so efficient at doing this that quite a lot of people take things for granted and few questions are asked. Why worry about the quality of these assets if they will be off-loaded to somebody else anyway? Let us get those conveyer belts moving more quickly, do more business, charge more fees for those back-up credit lines and credit enhancement support that require little or no capital, earn more income from trading the paper, and make more profits. Sub-prime mortgages? No problem. They will be off the balance sheet quickly. In any case, they are good assets, given ever-increasing property prices. If we do not do this, others will. The rating agencies are happy with the asset quality, aren't they? If not, they can be packaged with better assets and lumped into that big pool of diversified assets backing the issue of the next CDO. On and on it goes.

Until, as we saw earlier in the year, weakness in the housing market in the US led to a jump in the delinquency rate of sub-prime mortgages, leading to the following sequence of events:

- Downgrades of ratings of sub-prime-mortgage-backed securities
- Growing concern among investors about potential risk exposures
- Sharp widening of spreads in many structured products (MBS, ABS, CDO, ABCP)
- Disorderly re-pricing of risks
- Loss of confidence in the rating system of structured products
- Difficulty in pricing the structured products and depleted liquidity
- Conduits not able to roll over the ABCP and needing to draw on back-up credit lines from banks
- Assets underlying the structured products returning onto the balance sheets of banks – a process known as re-intermediation

- A marked rise in perceived risks faced by banks and loss of confidence in the interbank market
- Tightness remaining even when central banks provided liquidity support.

It is not clear when this turmoil in the money markets in the US and Europe will subside or whether monetary policy shifts may help. Interestingly, so far the contagious effects on emerging markets have been muted, presumably because financial innovation through securitisation has not taken hold as much as in the developed markets, given that the capital cushions of domestic banks in emerging markets in Asia, in excess of the regulatory requirements, are large. However, there is a risk that prolonged credit tightness may have adverse implications for the economy and asset prices in the developed markets, ultimately affecting the global economy.

Joseph Yam
4 October 2007

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Financial innovation and the risks it brings

Regulators must manage the risks of financial innovation while harnessing its potential.

I mentioned in last week's article that a general issue underlying the current financial turmoil is financial innovation and that I would revisit the subject.

Financial innovation improves the efficiency of financial intermediation, enabling some investors to achieve a higher, risk-adjusted rate of return and some borrowers to enjoy greater availability of funds at lower cost. It also allows financial intermediaries to do more business, earn more profit, employ more people, and pay higher salaries and bonuses.

So financial innovation can benefit investors, borrowers and financial intermediaries.

But there is an implicit assumption that must be fulfilled for the benefits of financial innovation to be realised. This is that the starting position is a financial system that is less than efficient in performing the financial intermediation that is essential to economic wellbeing. Interestingly, this assumption is generally true. It is quite common to notice mismatches between the risk profiles of financial instruments available in the financial system and the risk appetites of investors, or a lack of diversity of financial instruments and therefore a lack of choice for investors, or a captive market with financial intermediaries earning what seems to be an abnormal rate of profit.

One reason for this may be the regulatory and supervisory restrictions necessary for the maintenance of financial stability and for the provision of a measure of protection to investors and depositors. Financial innovation may

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involve some form of regulatory arbitrage or operations beyond regulatory reach, possibly spurred on by a strong desire to economise on the use of the limited capital available to financial intermediaries, and therefore a tendency to devote less attention to information disclosure and risk management.

Also relevant is the indisputable truth that, at the systemic level, there is a conflict between the private interests of financial intermediaries in profit maximisation and making financial intermediation more efficient, which might reduce the net margin between investor return and the cost of funds for borrowers. Because of this, when financial intermediaries get involved in financial innovation, they may, in the longer term, become victims of their own success, although they may not realise it. Yet they are still keen to do so, at the level of individual firms, understandably attracted by short-term profits. But this may lead them, in their enthusiasm, to misunderstand or overlook the risks associated with their innovative initiatives, not to mention the risks to the stability of the financial system as a whole.

Therefore, as well as bringing benefits to investors, borrowers and financial intermediaries, financial innovation creates complex risks that may be beyond the capacity of market participants and the regulatory authorities to understand, let alone manage. Ironically, this could lead to significant disadvantages for the investors, borrowers and financial intermediaries who benefited from the innovation in the first place. Investors could find themselves holding assets whose risk-return profile turns out to be different from what they believed. Borrowers, having been encouraged to take on higher leverage to conduct their business, could face a sudden fall in the availability of credit and a sharp rise in the cost of funding as the market for the new financial products dries up in the face of investors' reassessment of the corresponding risks. The financial intermediaries could find themselves facing losses arising from risks they had taken unknowingly, for example having to re-assume risks that they thought they had transferred through innovative credit-risk transfer

arrangements.

One important task of those responsible for the wellbeing of the global and national financial systems continues to be to harness the potential of financial innovation. The identification and management of risks associated with financial innovation, particularly those of a systemic nature, are crucial to financial stability and therefore the sustainability of economic expansion, on both the national and global levels. I am sure this will occupy much of the time of those involved in the months to come, although currently a lot of effort is still being spent in fire fighting. As a member of the Financial Stability Forum formed to address international issues like this after the Asian financial crisis, I look forward to continuing involvement in this important task.

Joseph Yam
28 February 2008

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Transfer of credit risks

Credit-risk transfer can be very complex and investors must make sure they understand what they are buying.

The financial innovation that has taken place and to which the current financial turmoil in the developed markets can, to some extent, be attributed is highly complex. At the risk of over generalising, an appropriate and convenient term to describe it may be "credit-risk transfer". For a variety of reasons (including capital constraint, liquidity considerations and regulatory arbitrage), those who originate risky assets, for example banks making mortgage loans, have an incentive to transfer the risks, in this case the possibility that the borrowers may not be able to service the mortgages, to others who are more willing or able to assume them and earn the return associated with doing so.

Credit-risk transfer is generally facilitated by securitisation. Risky and illiquid assets are turned into tradable securities and are sold by the transferor (the banks) to the transferees (the investors). There may be a need for some kind of credit-risk transformation to match the risk profiles of the underlying assets with the risk appetites of investors. One way of doing this is to group together different "tranches" of relatively homogeneous securities with different credit ratings and rates of return, rather than create just one pool of securities backed by heterogeneous underlying assets. Credit-risk transfer and credit-risk transformation can also be organised through credit enhancement or credit-guarantee arrangements.

Securitisation is, in essence, a simple concept of making illiquid assets liquid, and therefore transferable, by creating a market for the asset-backed securities (ABS). After securitisation, the originators of the underlying assets often continue to provide administrative support for maintaining them, for example, collecting mortgage payments from mortgagors, for a fee. And there are other fees that financial institutions engaged in securitisation receive, such as the fees

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for structuring the transaction, distributing the securities, making a market for the securities, and fees for the credit rating agencies (CRA) to provide credit ratings for the securities. These fees and the income from trading in the securities provide an additional and significant incentive for securitisation.

But this conceptually simple process of securitisation has many variations and has in recent years become much more complex. Securities can be created from a wide spectrum of financial assets, and different slices or tranches of securities can also be created and backed by a homogeneous category or a mixture of assets, and there are many variations in between. For example, a popular form of securitisation involves the issue of different tranches of securities to raise money for acquiring a portfolio of other securities such as ABS and loans. These are called collateralised debt obligations (CDO) or collateralised loan obligations (CLO), and the different tranches are ranked by "seniority" – the super senior tranche, the senior tranche, the mezzanine tranche and the equity tranche. They are in increasing order of risk, in that losses arising from defaults in the underlying assets of the CDO or CLO will be absorbed first by the equity tranche and then the mezzanine tranche and so on. The credit-risk profile of the securitised underlying assets is therefore transformed into a different credit-risk profile that presumably provides a better match with investor appetites. The different tranches are given different ratings by the CRAs to facilitate marketing of the securities and decision-making by investors, and they obviously offer different rates of return.

Another popular form of securitisation involves the setting up and the sponsoring of conduits or structured investments vehicles (SIVs) to buy longer-term and lower-quality assets off the books of banks or from the market (such as mortgages, corporate bonds and CDOs). The conduits and SIVs fund these purchases by issuing short-term commercial paper or asset-backed commercial paper, and in the case of SIVs they also issue income notes, which are in effect the equity tranche - again the first candidate to absorb potential

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losses.

Credit risks can also be transferred through buying insurance against the default risks inherent in financial assets, such as a corporate bond or loan. The insurance takes the form of yet another popular, tradable financial instrument - credit default swaps. The buyer of the protection pays a premium (a percentage of the amount of protection – in basis points per year) to the seller, who pays the protected amount in the event of default. Obviously the seller has to be in a position to honour the commitment, in effect taking over the credit risk, for this form of credit-risk transfer or credit-risk transformation to be meaningful.

While the different types of risk transfer I have described may make the distribution of risk among investors more efficient, they can be very complex and investors must make sure they understand what they are buying. Financial innovation can also affect the stability of the financial system in various ways, a topic I will find a time to write more about in future.

Joseph Yam
6 March 2008

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Investor due diligence

Investors who don't do their homework have only themselves to blame if things go wrong.

I have been writing in recent articles about specific weaknesses that have contributed to the current financial crisis in the developed markets. Apart from the unsatisfactory underwriting standards of the sub-prime mortgage sector and the shortcomings in risk management by financial institutions I wrote about in the last two articles, the third weakness is the lack of due diligence by investors. Here we are talking about not just individuals investing directly in complex financial instruments with risks beyond their ability to understand, let alone manage, but also the institutional investors, including the hedge funds, who really should have been able to exercise proper due diligence before getting involved.

Regrettably, inadequate investor due diligence is a common phenomenon that grows along with the intensification of euphoria in the financial markets, when many market participants, whether on the buy or sell side or as intermediaries, get carried away. Also regrettable is that advice given by the authorities to cool the market is often ignored or even condemned for spoiling the party. And when fear inevitably overtakes greed and a crisis develops, the authorities are often blamed for not taking timely action.

To be fair to all those involved in this current crisis, both the structures of the financial instruments and the dynamics of the markets concerned are highly complex. The alphabet soup (CDO, CLO, ABCP, SIV, VIE, ARS, CDS*) is not exactly consommé. But complexity is not an excuse for not exercising due diligence. The volume of information about an investment instrument is not an excuse for not studying it. If complexity is to be used as an excuse, it should be as an excuse for not getting involved at all.

An alternative is to seek advice from experts, but investor due diligence should also involve being alert to whether the experts providing the advice are interested parties to the investment arrangement. As a rule of thumb, one should always take the advice from the counterparty, such as the institution selling a financial product, with a pinch of salt. Unfortunately many only learn this simple rule from bitter and expensive experience.

In the current crisis, even the expert advice of established institutions specialising in this area - the rating agencies - proved inadequate. Some point to the fact that the rating agencies are remunerated for providing ratings to the structured products and are therefore interested parties. I do not believe that this is a significant factor, for I am sure the rating agencies are acutely aware of the reputation risk associated with their rating standards being seen to have been eroded by business interests, which would put their long-term viability at stake. The possibility that the innovative products and the dynamics of the markets for them were too complex even for the rating agencies is a more likely reason. Investors should therefore take the advice of the rating agencies with caution rather than relying on them mechanically, as was the case in the period leading to the current crisis. Another possible reason for the apparent failure of the rating agencies is that their ratings for structured finance products were misunderstood by investors, who may have mistakenly interpreted them as having adequately taken into account liquidity risk and the behaviour of financial markets under stress.

I am sure important lessons are being learnt and remedies will be applied to clarify the role of the rating agencies, making the ratings they give more meaningful and useful. But investors should be aware that ratings are there only to help them to make independent judgements about the risks and not to replace investor due diligence.

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Joseph Yam

27 March 2008

* CDO = Collateralised Debt Obligation; CLO = Collateralised Loan Obligation; ABCP = Asset Backed Commercial Paper; SIV = Structured Investment Vehicle; VIE = Variable Interest Entity; ARS = Auction-Rate Securities; CDS = Credit Default Swap.

Alphabet Soup

Financial innovation is a good thing, but it requires the financial authorities to remain alert.

Readers may recall that I used the term "Alphabet Soup" in an earlier Viewpoint article to describe the many abbreviations of financial products—CDO, CLO, SIV, ABCP, CDS[1], and so on—that have been plaguing the financial systems of the developed markets since the summer of last year. I wonder whether readers have tried Alphabet Soup. If not, it is definitely worth doing so, if only to achieve a better understanding of the continuing financial stress in the United States and Europe, and learn a few lessons from it.

Alphabet Soup is quite thick and creamy, and you cannot see through it, no matter how hard you try. And when you do get to the bottom of it, you probably find you have already had too much. When I was a child, I found Alphabet Soup quite tasty and good value for money, to the extent of wanting more of it and stocking up, quite like an investor seeing a highly rated financial instrument earning an attractive rate of return. But now that I am older, I prefer greater transparency and so I normally go for a consommé, but I still like to try Alphabet Soup now and then to try and find my favourite combinations of letters.

The Alphabet Soup description of exotic structured products can in fact be generalised to refer to financial innovation, which of course is a good thing, as I have often mentioned, if it is properly harnessed, with prudent risk management, to make financial intermediation more efficient and not, as it often turns out, for the purpose of pursuing the private interests of the financial intermediaries. The question, of course, is how best to harness it, having regard to the many lessons that have been learnt in the past year of financial

[1] CDO = Collateralised Debt Obligation; CLO = Collateralised Loan Obligation; SIV = Structured Investment Vehicle; ABCP = Asset Backed Commercial Paper; CDS = Credit Default Swap.

turmoil in the developed markets. Discussions on this are still going on, in many international forums, involving national authorities and international standard-setting bodies.

I see three dimensions in which improvements can be made. First, increase the transparency of the Alphabet Soup. Although this may not be to the liking of many concerned, particularly those bringing the Alphabet Soup to the market (indeed, I also have doubts as to whether a clear Alphabet Soup would sell as well), it is in the long-term interest of us all, in terms of maintaining financial stability. And transparency is not all. To many investors, even the clearest description of the wide range of underlying assets making up an exotic structured product may not mean much. This is particularly so when the product has been sliced into different tranches of different seniority, once or even several times. Second, therefore, like cigarettes, the Alphabet Soup may require appropriate and reliable health warnings from those who are in a position to issue them. Here the rating agencies will just have to do a better job to regain the confidence of investors, removing the perceived and actual conflicts of interest they have been involved in. Third, the scrutiny applied to the ingredients making up the Alphabet Soup should be tightened. This is to ensure that the quality of the underlying assets going into the production line of financial innovation is up to objective, minimum standards. This can be achieved through appropriate supervisory requirements, for example, maximum loan-to-value and loan-to-income ratios for mortgages. If the consequence of so doing is that less soup, or less-tasty soup, is brought to the market, so be it: the long-term health of the financial system and the economy must come first.

I am hopeful that specific proposals for improvement in all three areas will be forthcoming, although very much still in the context of the recent wave of financial innovation, which took the form of (sometimes incomplete) credit-risk transfer through the "originate-and-distribute" model of securitisation. But there is always the possibility of another wave of financial

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innovation, with totally different characteristics, springing up and getting around whatever improved framework is established for ensuring financial stability. Financial authorities will need to be always on the alert.

Joseph Yam
17 July 2008

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