This document summarises the discussions held between the EEG and some members and staff of the IASB on 27 July 2011 in Beijing, China.

This document has NOT been approved by the IASB.

Guidelines on the application of the Fair Value Measurement standard in emerging economies

During the summit held in London in April 2009, the G20 urged the IASB to include the emerging economies in the standard-setting process so as to enhance the participation of related interest stakeholders. In response to the initiative of the G20, the IASB decided to set up the Emerging Economies Group (hereinafter referred to as the EEG) to collect recommendations from the emerging economies for the IFRS improvement project. To this end, several meetings were held between Mr Wayne Upton, the IASB Director of International Activities, and the Accounting Regulatory Department of the Chinese Ministry of Finance, to prepare for the establishment of the EEG. 'Fair Value Measurement' has been set as the theme of the first plenary session of the EEG. This report aims to discuss the issues arising from the application of the fair value measurement standard as experienced by the emerging economies and to provide recommendations on the implementation guidelines.[1]

[1] The recommendations are not included in this document pending discussion by the fair value measurement advisory group in the development of the IFRS Foundation's educational material on fair value measurement.

I. Background of the Fair Value Measurement project

The fair value measurement guidance was dispersed across many IFRSs and was not always consistent. Thus these inconsistencies increase the complexity of the accounting treatments. In September 2005, the IASB included the fair value measurement project in its agenda with the aim of creating a single source for the fair value measurement standard that clarifies the definition of fair value and related measurement requirements so as to strengthen the disclosure requirements. The US commenced its research on setting the fair value measurement standard much earlier and the *Statement of Financial Accounting Standards No. 157 - Fair Value Measurement ('FAS 157')* was issued in September 2006 to formulate related requirements on fair value measurement. FAS157 is effective for fiscal years beginning after 15 November, 2007. Another important objective in launching this project is to enhance the convergence between IFRSs and US GAAP. As a starting point of this project, the discussion paper on Fair Value Measurement, with FAS 157 as its blueprint was issued by the IASB in November 2006.

To address the practical problems concerning fair value measurement that had been revealed during the international credit crisis, IASB set up a Fair Value Expert Advisory Panel and published a staff report in October 2008 *Measuring and disclosing the fair value of financial instruments in markets that are no longer active* on the panel's findings. Shortly afterwards, in May 2009, the IASB released the *Fair Value Measurement (Exposure Draft)*, which included guidance from the staff report,. The exposure draft revised the original discussion paper in the areas of reference market selection and consideration of block factors, etc. In June 2010, the Board issued another exposure draft that proposed to require entities to disclose an uncertainty analysis for all fair value measurements categorised within Level 3 of the fair value hierarchy. The operationality of the proposed disclosure requirement was questioned by the constituents and was not included in the final standard, but the Board asked the staff to continue working to find out if there were ways to make such a disclosure more practical.

In August 2010, the IASB posted to its website a staff draft of a forthcoming IFRS on fair value measurement that reflects the tentative decisions made after September 2009 by the IASB and the FASB. On May 12 2011, the Board released the final standard, *IFRS 13 - Fair Value Measurement* (hereinafter referred to as IFRS13). To facilitate better use of the standard among

the stakeholders, the Board decided to continue research on specific practical issues and to publish educational materials to guide practical operation of the standard.

II. Purpose of this paper

The Board tried hard to get comments on the fair value measurement standard from the emerging economies so as to get a better understanding of the implementation issues arising in practice. The Board held round table meetings and published discussion papers seeking comments on the application of the fair value measurement standard from the public. However, feedback received was limited and it is difficult for the Board to identify the related issues unique to the emerging economies and to propose targeted solutions.

The majority of the challenges in determining the fair value applicable to emerging economies may also apply to any other developed economy. However, the lack of expertise and experience in emerging economies may amplify this problem. Hence, additional guidance and education on how to make estimates and judgements as well as on the disclosure of fair value in financial statements are needed.

This paper summarises the market features of emerging economies and the practical implementation issues encountered by the emerging economies, with the aim of providing references for the IASB for the development of educational materials on the fair value measurement standard.

III. Characteristics of emerging economies' markets

The concept of emerging economies was first introduced by the World Bank economist Antoine van Agtmael in his famous book the *Emerging Securities Market,* published in the 1980s. If a country's Gross National Income ('GNI') per capita did not meet the World Bank's threshold for a high income country, then the country was classified as 'emerging' in the book. No consensus has been reached since then on defining emerging economies. However, different scholars and institutions have their own different classification criteria:

The first criterion for classification is based on the economic growth rate. Jain proposed that 'emerging economies' refers to 'economies are in the stage with…fast-growing commercial or social activities (or rapid industrialization).' The second classification criterion is based on economic growth and economic system adjustment. According to Arnold & Quelch, 'emerging economies' can be defined by two criteria: rapid economic growth, and government policies in favour of a free economy and the establishment of a market-driven system. According to Hoskisson *et al*., 'emerging economies are low-income countries who have achieved rapid growth mainly through economic liberalization.' Third, emerging economies can be classified on the basis of the export growth rate during a specified period. According to CEPII, an 'emerging economy' should refer to a country whose GDP per capita during the specified period is lower than half of that industrialised countries' average and whose export growth rate over the same period is at least 10 per cent higher than that of the industrialised countries' average. The fourth classification criterion can be based on the extent of financial market development and its openness. IMF defined the 'emerging markets' in its *Global Financial Stability Report 2004* as those countries whose extent of financial market development is less than that of the developed countries but that still offers a favourable environment for foreign investors to have scalable investments there.

By reference to the development of emerging economies, the following are the main characteristics of the emerging economies:

(1) Relatively strict market controls

Because the market operations of emerging economies are still developing, there are often many regulatory restrictions in the areas of market access, operation and exit mechanisms eg controls over capital inflows and outflows and, in particular, more restrictive controls over interest rates and exchange rates.

1. A cautious approach towards access to the market is adopted, which limits entry into the market by imposing a threshold and strict qualification requirement for market participants. Many emerging economies set out multiple administrative controls and complicated approval procedures for the issue of shares, accompanied by stringent requirements over the size and performance of listing applicants as well over as the size and timing of listings. The role of intermediaries and professional institutional investors in the IPO pricing process is not given full

play. The developments of small to medium enterprises boards and of growth enterprise market boards are still at an early stage. The structure of the stock market fails to fully reflect the development characteristics and growth trends of the national economy.

2. Given the uneven levels of market openness, some emerging economies have not yet allowed, or are only now getting ready to allow, domestic listing of foreign companies. Some emerging markets either forbid or restrict foreign investors to invest in their capital markets.

3. Compared to advanced or developed economies, interest rates, currency exchange rates and prices in emerging economies are often subject to a certain level of controls because they have not yet developed into an economy that is fully driven by market forces. Some emerging economies impose strict controls over capital flows because their currencies are not yet fully convertible. In these countries, deposit and loan interest rates (at commercial banks) are not entirely determined by market supply and demand, but fluctuate within limits prescribed by the central bank. Interest rates that are not determined by market forces lead to a market failure in reaching a consensus on the time value of money. Different market participants tend to choose different discount rates when calculating the present value of future cash flows. This is the same for the exchange rate, which is determined within limits prescribed by the central bank. In order to curb excessive speculation, restrictions are sometimes imposed on the range of changes in market prices. For instance, the stock market follows a price fluctuation limit system.

4. Corporate restructuring, mergers and acquisitions, secondary offerings and other transactions are usually subject to very strict examination and to a lengthy approval process conducted by the regulators. For example, for some emerging economies, transfers of state-owned shares over a certain share ratio or involving the transfer of control rights are subject to examination and approval by the authority responsible for the supervision and administration of state-owned assets. When a company or its holding/controlling company has undergone material asset restructuring, ie a substantial acquisitions or disposal of assets, approval is required from not only the company's internal Board of Directors and its shareholders in a formal shareholder meeting, but also from the securities regulators. These procedures require at least six-month suspension of the concerned listed companies' stock trading.

5. It may be difficult to determine the principal or most advantageous market because of regulatory or political circumstances. For example, a commodity market may have been cornered

by a few selected players, and though, in legal terms, all market participants can trade in the market, in actual terms, it may be restrictive. A question that arises in this scenario is whether such a market should be considered in determining the fair value, if the market participant is not entirely clear whether it will be allowed entry and to trade without any restriction. Such questions would be more common in emerging economies.

6. Many transactions include non-market terms, especially where there are implicit guarantees by the state that are not included in the contract. Consider the following example. A bank issues a non-recourse and unsecured loan to a newly founded state-owned enterprise, which does not have much operating history, but that is in a strategic industry (eg, oil and gas). When deciding to issue the bank loan, the bank considers the state's implicit guarantee to the new state-owned enterprise, given its strategic importance and the history of the state's support in the form of special grants to cover interest and principal. Such an implicit guarantee is not stated in the loan contract and the state does not confirm the arrangement in writing. The bank would not have lent to the state-owned enterprise in the first place, or at a more favourable rate than is commercially available, without such an implicit guarantee. In an emerging economy, there is little history on which to evaluate how the state's actions affect the inputs into determining fair value.

7. In certain emerging economies, the state administers or regulates the prices of certain assets. For agricultural products, the state pays minimum support prices to farmers. In certain cases, customers may also pay an additional amount. There is sometimes asymmetry in the market on prices negotiated between parties. For some products, the state fixes maximum prices. There are certain commodities for which there are two types of markets: (a) open market, and (b) state distribution system. The state does not have any control over prices in the open market; however, it may use its distribution system to affect prices in the open market. When the only markets to which an entity has access (because of transportation costs) are markets that are regulated via one of these mechanisms, it is unclear how to evaluate how the state's actions affect the inputs into determining fair value.

(2) Developing markets with underdeveloped market infrastructures and limited trading varieties

Compared with developed markets, emerging economies are generally in the process of ongoing development and improvement. Their multi-level capital markets are still at the infant stage, with many different types of markets yet to be established. Their capital markets as a whole are far too small, with incomplete trading varieties, which leads to the failure of the price discovery function. This is likely to result in more assets and liabilities being valued at level 2 or 3 valuations than in developed countries. This has a cost implication, and also results in financial statements from emerging economies being regarded as having less certainty as to whether they faithfully represent the results of operations and financial position of entities.

1. With the OTC market developing, most of the fundamental financial instruments such as equity instruments are not traded in an open market. There is a lack of the necessary means for the transfer and circulation of non-listed equity instruments and accordingly quoted prices are not available.

2. For financial derivatives, emerging economies do not allow the trading of many futures contracts on foreign exchange, interest rates and the stock index, or only allow the trading of selected varieties as a trial. These future contracts are actively traded in the major financial derivatives markets around the world. For instance, over 200 derivatives are listed for trading on the Chicago Mercantile Exchange (CME) alone. On the other hand, only warrant products (put/call warrants) and detachable convertible bonds are traded in the capital market of certain emerging economies. Some emerging markets have not yet, or have only just, established the stock options market. Because short selling transactions of credit trading, stock index futures and debt securities are subject to stringent requirements, the market coverage is limited. Accordingly, an active market cannot be achieved, which results in an increase in the accumulation of market risks and level of illiquidity.

3. Because the population of listed commodity futures is small and the trading of commodity index futures has not been launched or is at its infant stage, it is difficult to give full play to the market’s role of price discovery. There are more than 100 varieties of future commodities listed for trading in the global commodity futures market. On the other hand, there are only twenty-something future products listed in certain emerging economies, which indicates that there is plenty of room for developing a bigger population of commodities for listing.

4. In some emerging economies, the legal system can be weak and thus it can be difficult to ascertain whether courts would uphold agreements, whether they would issue unbiased verdicts, how long it could take to hear cases or whether verdicts can be enforced. Accordingly, it can be difficult to determine whether terms agreed upon are regarded by the parties as being binding on both parties and thus constituting a valid agreement.

(3) Existence of some inactive markets

Even though there are a large number of products available in the capital trading markets of emerging economies, the depth of their markets is still insufficient and liquidity is relatively weak.

1. In the inter-bank bond market, placings by the [lead manager/sponsor] of financial institutions are mainly through the primary market for the purpose of holding. Secondary market trading is not active. Because the amount of a single transaction is generally large, the transaction mode is mainly through principal-to-principal OTC trading. Such a feature is easily subject to market price manipulation by the trading counterparties of the transaction.

2. The liquidity of the treasury bond market is inadequate and the yield curves are incomplete. The lack of necessary interest rate benchmarks for issue and trading in the bond market reduces the effectiveness of market-driven pricing function.

3. Many of the government bond markets may be very illiquid. Quotes from different brokers often differ significantly. In addition, it is difficult to know whether the brokers are acting as principals or agents and whether the broker will fulfil the deal at the committed price. Valuing them in the absence of a market may yield different results, because risk premiums for local governments may not be available and would certainly not be the same as that of the central government (eg borrowings by state-owned enterprises guaranteed by local governments, which may not have the same creditworthiness as the central government).

4. Many emerging economies do not have a deep and active market for long-term maturities, and in the case of corporate bonds, there may not be an active market at all. The valuation of such bonds would be difficult, because there would be no market to mark, and estimating the discount rate for longer-term maturities could be challenging. A country may have only one risk

premium that covers all maturities, but that is not broken up for specific durations or industry sectors—this can compound the problem.

5. In the case of foreign exchange forward contracts, there may not be an active market beyond one year. Significant differences have been observed in the quotes from various banks on long-term forward contracts and banks do not generally disclose the method used to calculate quote value.

6. In the credit derivatives market, credit default swaps (CDS) transactions are limited and thus effective credit risk variables are unable to be derived from CDS. The market cannot come to consensus on the credit risk of a company to develop the company's default intensity curve for fair value measurement application.

7. Transactions of loan assets are infrequent, with no public trading platforms, and the related transaction prices are not available in the public domain.

8. Development of the real estate market has only commenced recently. Given that the market is less developed and inactive, properties traded through the real estate market account for only a small percentage and transaction information is not transparent. Accordingly, market price is difficult to obtain in the public domain.

(4) Relatively less sophisticated market participants

Compared with developed markets, market participants in emerging economies are less mature and the hierarchy of the market is inappropriate, with a lot of irrational factors impacting upon the market prices. The valuation capability of market participants needs to be improved.

1. Market participants rely heavily on the government and its policy. Sometimes they do not have a reasonable level of knowledge and price setting is, in general, arbitrary, resulting in pricing anomalies. For example, the price of the put option embedded in convertible bonds is often determined through a very subjective bargaining process. There is a big difference in the price between that from the bargain process and that calculated using the generally accepted valuation model. Because of differences in the knowledge of the product, the prices of bonds with embedded options are sometimes lower than those of the ordinary bonds with the same tenure.

2. The make-up of market participants is imbalanced, with a high proportion of individual investors, in particular small and medium individual investors. Legal restrictions on the investment scope of institutional investors are still in place. There is a small number of institutional participants with a relatively small asset size, because many institutional investors are still in their own development process of step-by-step expansion. The disproportion between individual and institutional investors can easily lead to irrational investment behaviours and accentuate market price fluctuations.

3. Investors in the stock market hold shares for short terms and related trading is more frequent. The average holding period is in general shorter for both individual and institutional investors. Most investments are short-term, with holding period no longer than 3 months. There are few true long-term investors. Compared with mature markets, with their average turnover higher among market investors, the average turnover among individual investors is generally higher (even in multiple times) than that among institutional investors. When there are drastic fluctuations in the stock price or the trading volume, individual investors, without a philosophy of long-term and value-based investment, trade more frequently than institutional investors. At the same time, various types of institutional investors with a homogeneous investment philosophy and target do not cultivate a sound growth of the market in the long run.

4. Emerging economies usually have a relatively small number of professional valuers. Even the valuation teams of many large financial institutions are composed of only a few individuals. In addition, many market participants do not set up their own system to capture a fair values data base for fair value measurement. In a market that is not fully opened up, financial institutions have only had limited international financial market experience and hence their valuation capability is limited. Very often, valuation of financial products relies heavily on that provided by dealers, brokers and valuation service providers. For example, foreign currency-structured financial derivatives of many companies are handled by commercial banks through back-to-back transactions with overseas banks. Because neither the companies nor the banks have the required valuation capabilities, the former relies on the latter for valuation, while the latter relies on the quotation from overseas banks as the fair value.

Compared with developed markets, the capabilities of valuers in the emerging economies are varied, which results in big differences in the valuation results. For instance, because of

incompetent valuation capabilities and limited resources, the tolerance level for valuation errors on certain complex products is much higher than the threshold in developed markets.

The costs involved in determining fair values and preparing financial statements could be more than that in developed countries, particularly if countries do not have many qualified personnel to carry out the required valuations. For example, the population of Africa is about 10 times that of the United Kingdom, but it has fewer accountants.

IV. Specific issues encountered by emerging economies on the application of the fair value measurement standard

Issue No. 1: Identifying transactions that are not orderly

Background: Paragraph B43 of IFRS13 discusses how to identify transactions that are not orderly. Circumstances that may indicate that a transaction is not orderly include the following:

(a) There was not adequate exposure to the market for a period before the measurement date to allow for marketing activities that are usual and customary for transactions involving such assets or liabilities under current market conditions.

(b) There was a usual and customary marketing period, but the seller marketed the asset or liability only to a single market participant.

(c) The seller is in or near bankruptcy or receivership (ie the seller is distressed).

(d) The seller was required to sell to meet regulatory or legal requirements (ie the seller was forced).

(e) The transaction price is an outlier when compared with other recent transactions for the same or a similar asset or liability.

An entity shall evaluate the circumstances to determine whether, on the weight of the evidence available, the transaction is orderly.

Question: various market mechanisms of emerging economies are still improving. There are more disorderly transactions in their market compared to developed markets as a result of relatively immature market participants, weak market regulation, delayed or ineffective supervision of insider trading, market manipulation and other violations.

To take inter-bank bond market trading in emerging economies as an example, one-to-one OTC trading is the normal method of trading for a single transaction in a large sum of money, and price manipulation may be the prime motive of the respective trading counterparties in the transaction. For instance, the central bank issued a bond in March 20X7 with a face value of CU100[2] for tenure of 3 years at a coupon rate of 3.24 per cent. There were CU65 billion in issue. For this bond, the number of settlements, the average amount of each delivery, the number of settlement days, the turnover and other indicators showed that it was an actively traded bond. However, out of all the transactions that occurred during the period from January to March 20X8, 67 per cent belonged to abnormal transactions. The weighted average price based on quoted price was CU98.61, which was CU0.70 higher than the adjusted weighted average price after excluding those disorderly transactions (about 37.5bp).

Among the 10 transactions that took place on March 31 (end of the first quarter) and April 1 (beginning of the second quarter) in 20X8, the aggregate transaction amount was only CU7.06 billion, but all were transactions that were not orderly:

(1) Four transactions were subject to sell/buy transactions that took place on the same day, between the same counterparties, with the same bonds of the same face value, at the same transaction price. The trading counterparties aimed to manipulate the market price, and at the same time to increase the trading volume, through such transactions.

(2) Two transactions were subject to implicit outright repo with the same counterparty, clearing denomination and the bonds used, but with different settlement prices and clearing points of time. Such transactions were actually outright repos, with the main purpose of the bond seller being to obtain financing. The transaction price, which was not directly linked to the market prices, was agreed in advance by both parties.

(3) Four transactions were aimed at hiding losses or profits, ie the related bonds were sold to the counterparty for temporary holding and were repurchased in the next accounting period to conceal the profits or losses. Such transactions usually occur at the end of the accounting period, such as the end of a month or quarter. If measured at the current market yield of 4.364 per cent, the market price of the bond is only CU97.82 which was lower than its face value of CU100. In

[2] In this paper, monetary amounts are denominated in 'currency units (CU)'.

order to conceal the losses, traders frequently settled below the market clearing yield levels around 70bp, resulting in over-measurement of the bond value.

Market reference prices of the emerging economies include many transactions that are not orderly. At the same time, when measuring the fair value with reference to these market reference prices, the capabilities of the market participants to identify which transactions are not orderly are limited. How should they apply the principles set out in B43 of the standard to identify transactions that are not orderly?

Issue No. 2: Investment property measured at fair value

Background: Under *IAS40 - Investment Property*, an investment property can be measured using the fair value model or the cost model.

Question: Development of the real estate market has only commenced lately. Given that the market is less developed and inactive, properties traded through the real estate market account for only a small percentage and transaction information is not transparent. Accordingly, market prices are difficult to obtain in the public domain, which makes the valuation of properties more difficult. Limited information about actual transactions, and information on offer prices adjusted for various factors, are normally used. There are high expectations on the part of the sellers, and a very wide range of offer prices for comparable properties (inconsistent behaviour of the market participants). It is difficult to estimate the reasonable adjustment to the offer price. How should the fair values of properties be measured?

Other problems to be considered under the income approach are as follows:

Uncertainties implied in valuation of Investment property (IP) and Investment property under development (IPUD) using the income approach: when the income approach and forecast for development of IPUD should be applied—at what stage (intention/draft plan/detailed plan/all legal permissions/ etc)?

Difficulties in revaluation of costs incurred and allocation between land and cost components, if needed. Allocation between land and cost components is not required by the standards. However, some companies voluntarily perform allocation for presentation purposes in notes in the financial statements, particularly for IPUD. Another case is when companies need to allocate

total FV between land and cost components when the properties are treated under IAS 40 *Investment Property*/IAS 16 *Property Plant and Equipment* on different levels of consolidation (e.g. IAS 40 for the parent company, IAS 16 for the group on a consolidated level).

Period of forecast if IP has a limited useful life with change in use after a specified period (eg property will be transferred later to WIP for development of residential properties). Should perpetuity or only the specified period of use as IP be used? Eg, the company acquires a land plot with old low class office premises to be leased out for some period of time. The main intention of the purchase is future development and sale of residential properties on the land plot (which will be treated as 'WIP development' under IAS 2 *Inventories*). Total consideration paid needs to be allocated between the investment property and 'development right'. Should the investment properties be valued using cash flows for perpetuity or for the period before dismantling only?

Issue No. 3: Bearer biological assets

Background: Under *IAS41 – Agriculture*, a biological asset shall be measured on initial recognition and at the end of each reporting period at its fair value less costs to sell, except for the case where the fair value cannot be measured reliably.

Question: For bearer biological assets in the cropping sector, although there are trading markets for products made from bearer biological assets, there is no market for bearer biological assets themselves (eg the prices of palm oil, rubber and other products are available in the market, but assets such as palm trees and rubber trees are not available for trading in the market). In the absence of a market, the determination of the fair value of these assets requires a lot of subjective judgements to determine the related market prices.

Compared to the valuation of financial instruments, the process of valuing biological assets is more complicated. Because the valuation of biological assets requires a lot of other referenced data in addition to the market prices, such as estimated output (ie yield), which is dependent on numerous factors such as the cost of production as well as on factors beyond management control such as weather conditions. Thus it makes the valuation process rely on more subjective

judgements. In fact, none of the referenced data used are contractually binding and hence the selection of parameters used to determine the range of possible fair values could be very wide.

The valuation process will be further complicated for long life bearer biological assets such as perennial tropical tree crops (eg palm oil and rubber, whose estimated economic useful lives are about 25 and 30–33 years respectively), because of the pro-cyclicality of prices and uncertainty in the future. Hence, the range of valuation error will keep increasing.

How are entities to determine the fair value of bearer biological assets?

Issue No. 4: Equity instruments in non-public markets (such as private equity fund-invested projects)

Background:

It is common in an emerging economy that an entity is required to estimate the fair value of unquoted equity instruments. In many cases, the detailed cash flow forecasts, management budgets, or robust multiples are not available for fair value estimation. An entity may own an insignificant equity share, say 5 per cent or 10 per cent of another entity, and, therefore, may not be legally entitled to obtain that information from the investee.

The market approach and the income approach are more commonly used for the valuation of equity instruments in inactive markets.

Market approaches mainly include the comparable corporate approach and the comparable transaction approach, the key of which lies in the selection of comparable companies and comparable indicators respectively. However, emerging economies normally have a small number of listed companies with limited industrial coverage and types. In addition, the SME board or Growth Enterprise Market Board has just been set up. It is difficult to find comparable listed companies as a benchmark. On the other hand, benchmark companies in developed markets may not be comparable at all. The comparable transaction approach relies on the number and comparability of historical transactions and the supply and demand of a certain asset at each trading point of time. In addition, the market cycle also has an impact on the valuation result. Because public information in the emerging markets is limited, it is hard to find similar equity transactions there.

It is difficult and costly to use the income approach to estimate the future cash flows. The specific problems include the following: the exercise of professional judgements is required throughout the process of calculating the present value, for example in predicting the long-term operation of an enterprise, relying on the work of other experts (such as conducting due diligence), estimation of the timing and amount of future cash flows, the time value of money and other hidden factors (such as the degree of difficulty in realising the assets and government-regulated activities such as industrial policy changes, tax reform and others). Given incomplete information on the target company (such as the lack of reliable historical financial data), it is difficult to apply the cash flow model for the valuation of non-listed equity instruments.

Question: How to valuate equity instruments in inactive markets?

Issue No. 5: Fair value based on bid and ask prices

Background: according to Paragraph 70 of IFRS13, if an asset or a liability measured at fair value has a bid price and an ask price (eg an input from a dealer market), the price within the bid-ask spread that is most representative of fair value in the circumstances shall be used to measure fair value, regardless of where the input is categorised within the fair value hierarchy.

Question: The market maker systems of emerging economies are at their infant stage. Certain financial institutions may have a very low incentive to provide the lowest committed price as the quotation price when they are acting as securities market makers, because they are subject to only very few legally binding obligations for this type of transaction. Although some market makers provide nominal quotations, the related transactions were not actually traded under the quoted prices. The purpose of providing these quotations is not only to facilitate the completion of transactions but also for speculation. In addition, there are only very few companies rendering the quotation services. These factors have led to a big difference between the quoted bid-ask prices and the actual transacted bought and sold prices. As a result, the market makers fail to fulfil their role to their fullest extent in value discovery, market liquidity enhancement and stabilisation.

For example, a commercial bank in an emerging economy issued a bond with reference no. 00001. Continual quotations with an average spread of 51.16 bp are made almost every working day by the same agency. However, the actual trading volume is minimal, which indicates that the market for the bond is very inactive. Because the bid-ask spread is too large, the difference between the calculated fair values of each bond unit using the bid and ask prices may reach one dollar in extreme cases.

How are entities to find the price within the bid-ask spread that is most representative of fair value, especially in cases where the spread between the bid and ask prices is significant?

Issue No. 6: Fair value of equity instruments with restrictions on the sale

As indicated in IFRS 13 paragraph 11(b), when measuring fair value an entity shall take into account the characteristics of the asset or liability including the restrictions on the sale or use of the asset. Paragraph IE28 of *IFRS 13 Fair Value Measurement Illustrative Examples* issued by the IASB prescribes that an entity holds an equity instrument (a financial asset) for which sale is legally or contractually restricted for a specified period. The restriction is a characteristic of the instrument and, therefore, would be transferred to market participants. In such a case, the fair value of the instrument would be measured on the basis of the quoted price for an otherwise identical unrestricted equity instrument of the same issuer that trades in a public market, adjusted to reflect the effect of the restriction. The adjustment would reflect the amount that market participants would demand because of the risk relating to the inability to access a public market for the instrument for the specified period.

Item 1: Stock suspension

According to the suspension of stock trading system for most of the emerging economies, trading of stock is required to be suspended when major events occur, including announcements on periodic reports, issuing ad hoc notices, passed resolutions of general shareholders' meetings, asset restructuring and transfer of shares. Because of strict regulations and time-consuming inspection processes in emerging markets, the number and frequency of listed companies that are

subject to stock trading are high and suspension periods are long. Sometimes, the suspension period can last for one to two years.

***Example I*:** Investment Fund X Co. owns over 200 funds in 20X8. Among the stocks held, there are 1.7 billion shares of stocks with a market value of CU50.8 billion suspended. The suspension lasts from several days to over two years. Because the investment fund needs to disclose its daily net value, determining the fair value of stocks in suspension on a daily basis poses great practical difficulties for the investment fund company.

***Example II*:** Listed company, P Co., proposed to acquire S Ltd. On 16 October 20X6, P Co. announced the related Board's proposed major restructuring plan. On 28 December 20X6, the Board approved the acquisition proposal. On 30 December 20X6, P Co. announced the Board's decision. On 23 January 20X7, the acquisition proposal was approved in a special shareholders' meeting. On 7 June 20X7, the proposal was approved by the regulatory body. The stock price on the last transaction date before 16 October 20X6 was CU5.8. After three suspensions, which lasted from 3 to 60 days in the next 9 months, there were 21 instances of exceeding the price increase limits, which led to the suspension of the stocks. (The maximum fluctuation of stock price is limited to 10 per cent.) The closing price of P Co. was CU52 on 15 June 20X7, with an accumulated increase of 796 per cent.

Example III: Product safety scandal at Food Processor Co. A was uncovered by the media and trading of Co. A's shares was ordered to be suspended by the regulatory authority. Given that there are a number of trust funds that have investments in shares of Co. A, daily valuation of its shares is required. There was a big variance in the results of valuations performed by various fund companies and their expected decrease in the stock price varied from 10 per cent to 20 per cent. Variances found in the fair value measurement of Co. A 's shares have a significant impact on the net asset values of various funds.

How is one to measure the fair values of suspended stocks with no active markets in the following situations:

a short suspension period with no significant changes in fundamentals, such as a one-day suspension for a Board notice on the change of a non-executive Board member;

a long suspension period with no significant changes in fundamentals, such as a three-month suspension for significant fluctuation in share prices because of an information leak about a future equity private placement; or

a long suspension period or a short suspension period with significant changes in fundamentals, such as a one-month suspension ordered by the regulatory authority for major food safety issues that have been identified.

Item 2: Sale—Restricted Equity Instrument in Equity Division Reform

When the China securities markets were established in 1990, the trading mechanism of state-owned marketable securities had been withheld and in practice resulted in a situation of equity division. Equity division is an equity ownership mechanism under special circumstances for state-owned public companies that are listed on the mainland and Hong Kong stock markets. As required, less than one-third of the total issued shares of these companies are allowed to be traded in the markets and the rest (mostly state-owned shares) are restricted from trading in the market.

In April 2005, the China Securities Regulatory Commission (CSRC) launched a reform of equity division with the aim of lifting the restriction on trading of the non-marketable securities. Such a permit to trade will be granted only after a specified period. The basic mechanism of this reform is to have the stakeholders of non-marketable securities offer consideration to stockholders of marketable securities for granting the trading permit for the non-marketable securities after a certain period. The relevant stakeholders will determine the amount of consideration by reference to the market consideration.

For example, the number of issued shares of an energy corporation B Co. was 86.7 billion, of which 76.7 per cent were owned by the state, 0.7 per cent were owned by state-owned institutions, 3.2 per cent were owned as RMB common stock, and 19.4 per cent were owned as foreign currency common stock before the equity division reform. Overall, 77.4 per cent of the shares were non-marketable and only 22.6 per cent was tradable in the markets. In 2006, the equity division reform was launched. Stockholders of marketable securities would receive 2.8 shares for each ten shares held from the holders of non-marketable securities and the latter would

comply with the agreed time limit on trading —7.4 per cent of originally non-marketable shares would be allowed to be traded in one year while 6.5 per cent could be traded in two years and 86.1 per cent could be traded in three years.

Given the circumstances, how is one to measure the fair value of securities with sale restriction for a certain period under the equity division reform?

Item 3: Equity instrument with sale restriction during IPO

In emerging economies, the actual controller and strategic investors of an IPO company would be subject to a longer sale-restricted period (usually three years), whereas the restricted period is only one year in mature capital markets. The longer period brings more uncertainty. Under such circumstance, how is one to value the sale-restricted stock in an IPO?

Issue No. 7: Application of the quoted prices provided by third parties

Background: paragraph B45-47 of IFRS13 does not preclude the use of quoted prices provided by third parties, such as pricing services or brokers, if an entity has determined that the quoted prices provided by those parties are developed in accordance with this IFRS.

Question: enterprises in emerging economies may use the results quoted by the third parties, because of the low level of market activities and their limited valuation abilities and expertise. To prevent the possibility of enterprises performing the valuations arbitrarily, of which the valuation results may be against the interests of other stakeholders, the regulator also imposes mandatory requirements on the enterprises to use the results of certain qualified parties for fair value measurement. For example, in some emerging economies, the securities regulator require that all inter-bank bonds held by securities funds must be evaluated in a uniform manner based on the quoted price provided by a qualified third party. Again, in some emerging economies, the banking supervisory authority requires each bank to compare the valuation results of its tradable bonds with the price quoted by a qualified third party. If the difference exceeds a certain

percentage (eg 1 per cent), the bank is required to provide an explanation to the regulator. As a consequence, leading banks tend to use the quotation from the third party as the basis of fair value measurement.

Compared with developed markets, enterprises in emerging economies need to use the price quoted by a third-party more often. In that case, how are they to determine that the prices quoted by third parties are developed in accordance with IFRS13?

Issue No. 8: Non-Performing Assets held by an assets management company

Background: there is no active market for Non-Performing Assets (NPA) especially Non-Performing Loans (NPL) in most emerging economies. Asset management companies purchase a portfolio of NPAs from banks or financial institutions for reselling. Those assets should be classified as financial assets and recorded at fair value, with any changes in fair value going through profit or loss or available-for-sale financial assets under the current IFRS. Fair value measurement is required for initial and subsequent measurement. However, NPAs are not traded frequently in an active open market. It is difficult to find the active trading information for similar or comparable NAPs or financial products for the fair value measurement of these NPAs.

Question: How is one to measure fair value of NPAs for the initial and subsequent measurement?

Issue No. 9: Credit risk adjustments for financial instruments

Background: because credit risk may have an impact on the value of the financial instruments, their fair values are usually adjusted for the credit risk-adjusted parameters. For instance, the value of a credit bond should be adjusted in terms of the credit spread based on the value of a risk-free bond.

Question: credit risk adjustments usually involve the use of CDS spreads. Because some emerging markets do not have a CDS market, or have only very few CDS transactions, or the CDS market is more liquid for selling baskets of CDS, not on an individual company basis, it is difficult to ascertain the effective credit risk variables through CDS. Some rating agencies may use the financial ratios to quantify the credit risk adjustment factors by reference to the related ratings published by certain rating agencies, which relied heavily on a large number of estimates

and subjective judgements. In making credit risk adjustments, how should the amount of credit risk adjustments be determined?

Issue No. 10: Bonds with embedded options

Background: bonds with embedded options can be divided in two categories: callable bonds with embedded call options and puttable bonds with embedded put options. According to the accounting standards for financial instruments, when an entity issues a non-derivative financial instrument with embedded liability and equity components, such components should be accounted for separately on initial recognition.

Question: currently, there is a variety of valuation methods for bonds with embedded options in the market, when the quoted price is not available. There are two methods commonly used: one is the BDT model that values the options that are covered; the other is the forward interest rate method for the overall valuation.

The forward interest rate approach does not require any estimate of the parameters of the interest rate volatility. Instead, a direct estimate of the forward interest rate is made on the future date of exercising the rights. This serves as a basis to determine whether the rights will be exercised upon that date.

For bonds with embedded call options, if the estimated forward interest rate is lower than the coupon rate of the bond after the rights have been exercised, it would be more beneficial for the issuer to redeem the bonds and issue new bonds. Hence, it is a reasonable expectation that the issuer will exercise the rights.

For bonds with embedded put options, if the estimated forward interest rate is lower than the coupon rate of the bond after the rights have been exercised, it would be more beneficial for investors to repurchase the bonds and buy newly issued bonds. It is a reasonable expectation that investors will exercise the rights.

If judgements made that the rights will be exercised, then the remaining life and cash flow of the bond should be re-estimated and adjusted to constitute the basis for the yield discount against the yield curve of a bond at the same credit rating level to produce the estimated fair value.

How is one to value bonds with embedded options when the quoted price is not available in emerging economies?