

New Financial Products and their Impacts on the Asian Financial Markets

Executive Summary

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A multitude of new products have been introduced into the financial markets in recent years. Such innovation has been driven by deregulation, new information and technologies, and the evolution of investor preferences. New financial products have been designed to assume three roles. First, they may enable us to capitalize on arbitrage opportunities, making the market more competitive and efficient. Second, they can be used as a risk management tool. Investors seek out the products that best fit their risk profiles and satisfy their needs. Finally, they may fuel speculative transactions. This role may work to accelerate financial market growth, or even destabilize the entire financial system, depending on how they are used. Although markets for such products are not well-developed in many Asian countries, their impact will grow as global players become increasingly involved in these emerging markets. In addition, the impacts of the current sub-prime turmoil necessitate close scrutiny of their merits and potential drawbacks in order to mitigate potential losses while maximizing the positive contributions of introducing these products to the Asian financial markets.

Introduction of New Financial Products: the Korean Experience

The 'Capital Markets Consolidation Act' went into effect in February 2009. The Act has four main features. First, it adopts a negative system for defining financial products. Products are divided into securities and derivatives depending on the possibility of losses exceeding principal with the obligation for additional payment. The second feature of the Act is a functional regulatory approach, meaning that the same regulations are applied if the financial function is of the same nature, regardless of the form and institution. Third, the Act expands the scope of financial investment services. It allows financial investment companies to do concurrent business encompassing six financial investment services, provided that a Chinese wall is well established to prevent conflicts of interest. Finally, the Act upgrades investor protection by strengthening the duty of product guidance, and by adopting the know-your-customer rule and the suitability principle. The Act is expected to enhance the efficiency of the capital market's financial intermediary role. Financial investment companies are now able to design structured securities and engage in principal investment. Individual investors can incorporate these new financial investment products into their portfolios. In addition, upgraded investor protection will boost confidence in the capital market.

Cash management accounts were introduced in Korea in 2004. They have grown significantly just recently, as the Capital Markets Consolidation Act adds the payment and settlement capabilities to make it feasible. Since they pay higher interest rates than bank deposits, there have been large shifts of money from banks to securities companies. This heightened banks' funding costs as they were impelled to raise funds through higher cost certificates of deposit and bank debentures. Securities companies were criticized for not providing customers with proper information, so regulators drew up guidelines on CMA services best practices and urged securities companies to adopt self-regulatory systems to adhere to these guidelines.

The Korean government introduced the primary collateralized bond obligation (P-CBO) program in order to ease liquidity constraints and to support SMEs. P-CBOs boost access to funds for SMEs with low credit ratings. In fact, the distinguishing feature of the P-CBO program is in facilitating the issuance of corporate bonds by SMEs. By pooling bonds of different levels of risk, overall risk of default decreases. Strict surveillance by credit rating agencies renders them a relatively safe and fairly attractive investment. Furthermore, P-CBOs can offer higher yields than general corporate bonds to mezzanine tranche investors. In short, P-CBOs can be a useful instrument for resolving the credit mismatch problem that exists between investors and SMEs, thus filling the financing gap for SMEs.

The strong Korean won from 2006 to 2007 made the Korean government worry that exports would suffer. The government exempted foreign equity investment funds from the 15.4% capital gains tax, hoping that this would increase demand for foreign currencies and induce a weaker won. Fund managers, however, hedged their positions against exchange rate risk, and the policy did not work out as planned. To make things worse, a flight to quality due to unstable financial markets and a current account deficit led the won/dollar exchange rate to skyrocket in 2008. Since most of foreign equity investment funds had hedged against the exchange rate by selling FX forwards or futures, investors could not gain from the soaring won/dollar rate. This example shows how difficult it is to design a policy to achieve its goal. When a government designs a policy, it should consider unpredictable market movement and market participants' reaction.

A KIKO forward is a structured product consisting of long put and short call positions. It allows the holder to sell dollars at a preset exchange rate (option exercise price) when the exchange rate moves within predetermined lower and upper barriers. Companies can customize the structure by choosing the barriers, the strike price, the nominal amounts of the put and call options and the expiration date. The bearish movements of the won against the U.S. dollar since March 2008 have been taking a heavy toll on local exporters which had used the product for speculation to the extent that their positions that surpassed their export volumes. Financial institutions did not have to report the volume of KIKO

transactions because they broke up the product into call and put options and only the separate positions are reported to the Financial Supervisory Service. Hence, the supervisory authority was not aware of the potential risks involved in KIKO forwards until big losses were realized by SMEs. Recently, the Korean government has tried to construct a new information gathering system related to new financial products. Financial institutions are now supposed to report when they sell these new financial products.

Global and Asian Derivatives Markets

At the global level, the BIS reports that over the past 10 years typical derivative instruments based on interest rates and foreign exchange rates have been growing rapidly. This is due to the expansion of trade and capital flows. The size of the global derivatives market has been getting much bigger since the Asian financial crisis. It is noticeable that the volume of credit default swaps (CDS) has also mounted progressively to USD 50 trillion from 2005 onward. Another fast growing financial product is the collateralized debt obligation (CDO). The IMF reports that the CDO situation reached its peak of around USD 3 trillion in 2006, half of which amount were mortgages. Comparing balance-sheet and arbitrage CDOs at its apex, more than 85 percent of CDO issuances are the latter. With a lack of legislative restrictions, the numbers of CDO and CDS issuances multiplied during the period of 2005-2007.

The CDO volume largely dropped in mid-2007, starting from the collapse of the housing market and following the sub-prime crisis in the U.S. This implies an increase in the credit default rate that led to the current global financial turmoil. The crisis directly hit the U.S. financial markets thoroughly with the severe credit crunch and liquidity crunch, and inevitably expanded to the real sector. The domino effect then spread to the other developed countries as well. European banks and individual investors who invested heavily in the U.S. capital market have in turn come to be affected from the crisis. The European real sectors are concurrently affected since banks and industries in Europe are closely linked.

Derivatives markets in ASEAN+3 countries are mostly still in the very early stages of development. The status of the infrastructure for derivatives markets varies among Asian countries with Singapore and Korea at the advanced stage and Thailand, China, and the Philippines at a lesser extent of development. There are 5 main derivatives products traded in East Asian markets: foreign exchange products, interest rate derivatives, equity derivatives, commodity derivatives, and credit derivatives. Foreign exchange products account for 15 per cent of worldwide trading, while interest rate derivatives are about 2 per cent of worldwide trading of both over-the-counter market and exchange-traded derivatives market. Equity derivatives, traded mostly in Korea, amount for 3.7 per cent of global trade. Commodity derivatives are mostly traded in Chinese and Japanese specialist commodity exchanges, but they account

for only less than 10 per cent of the turnover of the exchanges. Deals of CDOs in Asia were relatively small and focus more on synthetic arbitrage CDOs and more recently turning to single-tranche CDOs. By the end of 2005, CDS volume was about USD 1.4 billion, 7.6 per cent of global CDSs. There were only 921 CDS names trading in Asia in early January 2008. Although data on volume traded of CDSs are not available because CDSs are trade over-the-counter, we expect the number is not so large.

Concerning the location of trade, we find that the availability of derivatives products in the region depends mainly on the status of the markets and financial sector openness. Consistent with the relevant study, the advancement of derivatives markets can be divided into 3 groups of countries. The two financial hubs, Singapore and Hong Kong, have 9 and 6 derivatives products, respectively. The second group is defined as emerging financial hubs, which includes Korea with 9 derivatives products, and Malaysia with 6 products. Other countries are not active to allow for derivatives trading. Thus, to some extent derivatives markets have already become important in the region, although still limited to a few countries.

The Impact of CDOs and CDSs on the Economies in the Region

The impacts of current financial crisis on the ASEAN+3 financial system come from both the CDOs and CDSs created inside and outside the region. Thanks to the relatively small amount of CDOs and CDSs created inside the region, their effects are almost negligible. However, the problem of CDOs and CDSs created outside the region are leading to severe consequences. Firstly, it leads to massive recapitalizations of financial institutions. There is a capital flight from the capital markets—the index in the region decreased by around 40 per cent. Secondly, there is a credit crunch due to a shortage of USD liquidity.

Regarding the real sector, we estimate the problem of CDOs and CDSs to turn out to be an economic crisis as well. By taking the recapitalization to USD 2 Trillion into account, we calculate the impact to exports and imports based on the FPRI global economic model. The result indicates that most of Asian nations' GDP growth will turn negative in 2009, with the assumption of no stimulus package. Also, we find that there will be a big correction in the current account. That is the current account deficit of the US will reduce rapidly from USD -181 Billion per quarter to USD -11 Billion per quarter. Japan instead will run a negative current account, while only those of China and other East Asian countries will still remain in the positive zone.

Financial globalization has gained economic and financial efficiency. The other side of the coin is its costs and risks, in particular to financial stability. Therefore, the main issues for dealing with

introducing of new financial products which have developed in recent decades are: the implementation of relevant international standards; the trade-off between financial market development and financial stability; trade-off between financial market development and investor protection and needed reforms prior introduction of new financial products.

Policy Recommendations

New financial products can provide investors with various access channels to the capital market. Yet they can also trigger systemic risk by transferring risk to investors, who may be incapable of deal with it. The rising complication of the products makes them more difficult to understand by most market participants including credit rating agencies and even regulators. This leads to asymmetric information, makes them difficult to regulate.

If financial markets are transparent and efficient, risk will be distributed to fully aware and willing investors. This is possible when information asymmetry is minimized. The sometimes exotic and illiquid complex derivative instruments are, however, not easy to value and price. There is little information and disclosure on such instruments, especially when traded over-the-counter. When investors cannot price the products, cannot measure the total losses by financial institutions, and don't know who holds those products, uncertainty in the market increases. This, in turn, increases risk aversion and erodes confidence, triggering systemic risk. Hence, reporting and disclosure to market participants as well as regulators are critical to enhancing market transparency. Supervisors should have appropriate information gathering and analyzing capabilities.

Credit rating agencies are supposed to ease information asymmetry. Yet with a large share of their revenues and profits coming from the rating of complex structured finance products and from consulting and modeling services to the issuers of those products, conflicts of interest have grown. Regulation is needed to prevent agencies from mis-rating new and exotic financial instruments.

Over-reliance on market discipline may result in a situation where agency problems lead to poor monitoring and where credit risk is transferred to those least able to understand and manage it. Even though reliance on market discipline is useful to deal with financial innovation and regulatory arbitrage, we need to set up clear rules and regulations that are consistent with principle-based regulation and supervision.

New complex financial instruments are more liquid and easier to price when such instruments are more standardized and traded in clearing house-based exchange rather than over-the-counter. Clearing

house-based exchanges lower counterparty risk because financial instruments are subject to appropriate margin requirements and are appropriately marked-to-market on a daily basis. Standardization should also reduce operational risk.

Government should give particular care to protecting general investors by mitigating information asymmetry. Sophisticated investors are usually more aware of potential risks from new financial products. When financial institutions sell new financial products to general investors, potential risks implicit in the products should be made known to them. Failure to do so may result in costly legal disputes if losses are realized.

Strengthening macro-prudential supervision, which concentrates on the systemic components of financial markets, is now being stressed in many countries. Without a comprehensive perspective, the contagious nature of a crisis can be underestimated even in countries where financial institutions are thought to be sound. New financial products have made it much easier to transfer risk across the financial system, and thus can intensify the contagion effect in a crisis period. Hence, the development of early warning systems about the emergence of risk and vulnerabilities in the financial system, the conducting of macro-stress testing to verify the degree of resilience of the financial sector to shocks and propagation mechanisms with cross-border and cross-sector dimensions, and other macro-prudential regulations regarding leverage, risk concentration and maturity mismatches are necessary. Macro-prudential supervisory authorities should work closely with micro-prudential supervisory authorities, the latter of which put more emphasis on losses incurred by individual financial institutions. For this purpose, information exchange is important: macro-prudential supervisory authorities must have access to micro-prudential information, and vice versa.

Policy recommendations for dealing with new financial products in the region focus on prudential regulations, transparency, good governance, and solving problem of information asymmetry. The recommendation can be disentangled in 3 aspects: (1) international and regional levels, (2) for public sector at national level and (3) for private sector at national level. Each of these policy recommendations has its merits but also its limits. Their contribution to preserve both regional and national financial development and stability may be only partial in reality. Therefore, implementation, effectiveness of policies, and the search for further solutions are inevitably required.