

Is Climate Change a Big Deal for the Financial System? *

Bandid Nijathaworn
Bank of Thailand

Thank you Chairman,

First, let me thank Bank Indonesia for the kind invitation. When I was asked whether I could speak on climate change and the financial system, I felt the suggestion was a challenging one, especially at this time when we need to build some momentum on this important issue.

My topic today is “ Is climate change a big deal for the financial system?”. Given the limitations of time, I want to focus my discussion on just two issues. The first, is why climate change is a big deal for the financial system, and the second, is to offer some thoughts on how to engage the financial system going forward on climate change, especially in the context of emerging market economies in Asia. Much of what I will say is still very much a preliminary thought, which is still evolving.

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Is Climate change a big deal for the financial system? The answer is definitely yes, and there are a number of good reasons why this is so. First, although uncertain, the macroeconomic impact of climate change is thought to be large, which is likely to pose risk to the financial sector, as well as to financial stability.

Second, economic transformation in response to climate change, as a result of an adaptation and mitigation process, will also require the financial sector to adapt, by managing risk and by exploring opportunities for business. Third, being a prominent sector in the economy, the financial system can also be an agent of change, supporting the adaptation and mitigation process, through its influence on financial resource allocation, through developing supportive financial services, markets, and products, as well as engaging climate change in its own business agenda.

Let me elaborate in more details on each of these points, starting with the macro impact and implications for the financial system.

Conventional wisdom at this time is that the macroeconomic impact from climate change can be large, but uncertain. For example, estimates from three benchmark studies, as cited by the IMF, point to a

mean GDP loss of about 0-3 percent of global GDP for a 3°C warming. In Asia, South and Southeast Asia are to be amongst the regions most likely to experience the most negative effects.

Such macro-impact is tantamount to a supply shock on the country's long-term productive capacity i.e. capital stock and technology, leading to a decline in long-term output growth, higher production cost and inflation, shift in relative price away from carbon-based energy, and a decline in productivity. Some countries may suffer balance of payments problems if they are financially unable to cope with the impact. On top of this, there is also uncertainty whether a larger impact could materialize because of the potential for catastrophic damages.

Given the performance of the financial sector is closely related to the macroeconomy, implications for the financial system could be significant through increased exposure of the financial system to risk, both its own and through its clients, as well as possible damages to its assets.

The key risk-driver includes market risk linked to large economic disasters, and operational, reputational, political, legal and counterparty risk relating to defaults after a disaster. In addition, there

is also a business risk if it fails to properly incorporate climate change into its portfolio risk management.

As for threat to financial stability, this would depend on whether the impact is slow-moving, which can be offset by risk-management, adaptation, and financial response. Alternatively, the impact could take the form of a series of catastrophic events that impair the operative capacity of financial institutions.

Second, being a global problem, the collective response to climate change can set off an economic transformation, in terms of the changing patterns of demand and production, toward a low carbon economy that will require the financial system to adapt by managing risk and exploring related business opportunities.

Three triggers will be key in driving this transformation: namely, regulations set by the government, response by the private sector through adaptation and mitigation, and increased public awareness of the issue. Such transformation will result in a shift in relative prices (away from carbon-based technology), influence the patterns of consumption and production (towards non-carbon, carbon-efficient, and carbon-capture technology), and redirect the financial resources to support the process.

As I noted earlier, being a service industry, the financial sector will need to adapt by managing risk, developing supportive financial services, and exploring business opportunities. Both the threat and the opportunities that emerge will be a challenge for all segments of the financial system i.e. insurance, banking, and fund management. In this process, awareness, right incentive, and market mechanism will be key in determining the pace of change.

Third, the financial sector can also be an agent of change, because of the three important roles it can play. Firstly, it can directly influence resource allocation by internalizing climate change in its core business decisions i.e. lending, investment, and fund management.

Secondly, it can indirectly influence resource allocation by developing supportive financial services, markets, risk management and investment products that assist the adaptation process, for example, through the development of insurance products, weather derivatives, and “CAT”-bond, and also assist the mitigation process through trading of carbon credits and allowances.

The scope for business opportunities on these two fronts are many, and are open for all segments of the financial system, ranging

from commodities services to corporate finance, to investment banking, and retail banking.

And thirdly, financial institutions can also engage climate change in its business agenda as part of the corporate social responsibility (CSR). Increasingly, we are seeing pressure from stakeholders, pushing banks to become more engaged with the issue. And financial institutions have responded by paying more attention to their own exposure to climate risk, developing communication and business strategy that incorporates climate change, and engaging bank management and employees on the issue as part of the corporate social responsibility.

Up to now, globally, evidence of the financial system's response to climate change is positive, but still very much in an early stage. On lending, for example, fifty-four internationally-based banks have signed the Equator Principles which integrates environmental considerations into project finance. Banks like Citi, Merrill Lynch, Credit Agricole and HSBC have developed specific climate considerations on lending. But for developing and emerging market economies, evidence on environmental lending by domestic banks and by micro-finance institutions is more limited compared to international development banks and subsidiaries of international banks.

On market development, Clean Development Mechanism (CDM) market growth is impressive and this has been the key driver of growth in primary and secondary trading in carbon market.

On the issue of CSR, banks have done relatively less to elevate climate change as a governance priority. For example, only twelve out of forty of the world largest banks have board-level involvement in climate change initiatives. But in terms of banking operation, a growing number of banks are calculating carbon risk in their loan portfolios, with twenty-four banks having set greenhouse gas reduction targets for their internal operations. Also, an increasing number of banks are recognizing climate change risk in response to investor and other stakeholder initiatives.

Judging from this evidence, while the response of financial institutions is positive, it is still very much in an early stage. And in the case of Asia, the progress is even more limited. The main supplier of carbon credits in CDM is China, while the rest of Asia lags behind. In Asia, the engagement of financial institutions on climate change is scattered and not yet a momentum. The progress is hampered partly by inadequate supporting framework that includes lack of clear policy and incentive as well as information.

Let me now discuss some of the current problems in Asia and the prospects for the financial system in emerging markets, especially in Asia, to become more engaged with the issue.

Given limited progress so far, the challenge is how to engage the financial system in emerging markets more extensively on climate change. In moving this issue forward, a critical role has to be played by policy, especially on the role of incentive and the development of tools that can facilitate the response to climate change.

On incentive, a good starting point is to discuss the principles that would be important in guiding the design of policy, which in my view, four key principles stand out.

First, the role of the states and policy are critical to ensure that the global rule of the market is clear and continuous beyond 2012. This is because any uncertainty about the global rule will only discourage future efforts and derail the momentum of the current efforts.

Second, policy at the country level should focus on providing market infrastructure that assists adaptation and mitigation i.e. legal,

tax, regulatory framework, accounting, and information. But more importantly, correct incentive structure has to be put in place to internalize benefits from clean technology.

Third, under the incentive structure provided, given many uncertainties surrounding climate change, it is important that the strategy to promote increased engagement relies on market mechanism to build growth and innovation. This is because the market would be in a better position to assess and price risk-return tradeoffs more efficiently.

And fourth, financial regulation should be neutral on the issue, focusing instead on risk management capability of financial institutions, especially the ability to handle new risk and new innovation, with a view of maintaining soundness and stability of the overall financial system.

Under these key principles, the actual design of incentive for specific economy would vary, taking account of country's specific circumstances such as the state of economic development, the level of financial deepening, and the strength of its policy institution.

Turning now to the development of tools for internalizing climate change in emerging markets.

At this time, the main tools for internalizing climate change are provided in the global financial market, but access of emerging markets to this market are limited by its own capacity, as well as by the market nascent development. Under the current conditions, the key tools for emerging markets for adaptation and mitigation are likely to be:

First, is CDM, which presently offers clarity up to 2012. CDM provides core demand for carbon credit that forms the core primary market and allows secondary and derivatives market to grow.

Second, is the insurance market that offers products for risk mitigation. Third, is the investment fund market that bridges carbon credit buyers (which is CDM driven) and sellers in emerging markets. Many countries have set up such funds, but less so in the context of emerging markets' own funds. And fourth, is the direct lending by financial institutions in emerging markets to promote energy-efficient projects and companies.

Response to climate change in emerging markets, therefore, can be judged in the deployment of these four tools. Currently, the efforts remain scattered. Promoting the use of these instruments will be key for building momentum in adaptation and mitigation. At this time, however, there are many problems in emerging markets that remain to be tackled.

For example, in the case of CDM, existing practical problems include the absence of key global infrastructure beyond 2012, lack of legal recognition of carbon credits as tradable securities or assets, lack of knowledge and awareness including the high search cost for identifying sellers and matching trades, and the need to set up a supportive “Guarantee Fund” to help banks share risk on lending to CDM-projects.

In the case of bank lending and pricing, uncertainty in cash flows from the projected carbon credit, and the slow process of local approval, is seen as a major risk to banks. Lack of understanding of CDM and carbon trading market by financial institutions is also a factor weighing on its progress.

In the case of investment fund, this is an area that has the strongest potential for private investors’ participation in supporting

clean technology and energy-efficient companies. Again, clarity beyond 2012 is needed for evaluating the longer-term economic payoffs, and whether carbon credit is considered securities legally is an issue in some countries.

What I have mentioned are some of the practical issues that have emerged in emerging markets, and need to be addressed in order to be able to speed up the process.

To conclude, climate change is a big deal for the financial system for a number of reasons that I have mentioned. As for the response, the overall direction of the financial sector's response to climate change so far is positive, but still very much in an early stage. The progress, however, is more limited in Asia.

To promote greater engagement of the financial system, the issues of incentive and availability of tools are important. On the former, key principles guiding the policy approach should include clear global rule beyond 2012, the need for clear incentive structure by the government at the country level, reliance on market mechanism to innovate and grow the response, and financial regulation that is neutral on the issue. Under such policy setting, there will be ample

opportunities for the financial system, especially in supporting green technology and carbon trading market.

Lastly, for emerging markets that are starting up on the issue, five actions along the following lines could be useful. They are (1) establish the country's overall strategy on carbon trading; (2) reduce search cost in matching buyers and sellers through a centralized system; (3) create awareness and educate all market players; (4) provide the needed tax incentive to build up the market, and (5) provide a clear legal framework. Actions in these five areas will go a long way in avoiding many of the problems that some countries are now encountering.

Thank you.