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## ADAPTING FINTECH AND BLOCKCHAIN FINANCIAL POLICIES IN EMERGING ASIA

**Dr Eugin Prakash Pathrose**

Associate Professor, Skyline University College

**Dr.Priyanka**

Lecturer, College of Business, University of Fujairah

### **Abstract**

Fintech offers opportunities to foster financial stability, along with a deepening of financial markets and a broadening of their inclusiveness. However, new risks may also arise. For instance, Fintech may lead to riskier behaviour by banks. In turn, this could lead to more volatility, due to effects of this behaviour on their reputations. Regulators in Emerging Asia should consider policies to include Fintech firms in the regulatory perimeter where gaps exist. Finally, to avoid risks associated with the cross- border nature of Fintech's financial activities, regulators should increase co-operation, either through regulatory convergence or via reciprocity arrangements. TheOECD Development Centre is committed to working alongsidethegovernments of developing and emerging economies and regional actors to identify key areas of intervention in order to address challengesin strengthening macroprudential policies and other policy areas.

### **Introduction**

Monetary authorities in Emerging Asia enacted various prudential measures to ensure the stability of the financial system in theaftermathoftwo major financial crises that battered the region in the last decades. More recently, several countries transposed the Basel III reform packageinto their national legislationand overhauled their macroprudential institutional setup. Various types of macroprudential measures are in place across the region, the most widely used being capital requirements and measures targeted at bank borrowers. Measures targeting the leverage and liquidity of banks are also common toolsaimed at ensuring theresilienceof the financial system. Thereport identifies several main challenges to the effective conduct of macroprudential policy. These challenges are interrelated and their magnitude varies across countries. First, measuring the macroprudential stance poses various challenges and calls for the development of a well-defined and stable framework. Second, macroprudential and monetary policy are interrelated, which makes the assessment of the

former's effectiveness complex. Third, macroprudential policy frameworks must be further strengthened to better account for increased interconnections between bank and non-bank intermediaries. Fourth, macroprudential policy makers must give due consideration to the cross-border effects of domestic macroprudential policy and envisage greater co-operation to limit these spillovers. Fifth, macroprudential policy must be optimally targeted to avoid the moral hazard issue. Finally, the conduct of macroprudential policy must give due consideration to the legacy of the COVID-19 crisis.

### **Fintech and Blockchain adaptation**

The transition to a low-carbon economy requires a major investment effort. The squeezing fiscal headroom in Emerging Asian countries due to the COVID-19 crisis, occurring in a context of already rising levels of government debt, makes it even more urgent to mobilise private capital for the transition to a low-carbon economy. However, the private sector alone may not have the capacity to contribute to this goal without support from policy makers. Furthermore, it has been argued that some of the macroprudential policies implemented in the aftermath of the global financial crisis, for instance, the liquidity and leverage requirements from the Basel III package, tend to promote short-term brown projects, to the detriment of longer-term, climate-friendly investments. These conflicts need to be identified and reviewed in order to ensure macroprudential policy does not hinder green goals. The existing macroprudential requirements could be amended to support the transition to a low-carbon economy. An important avenue is the integration of climate-related risks, both physical and transition risks, into macroprudential stress tests. Additionally, when considering how to use existing macroprudential policy instruments to address the risks of climate change, the most relevant instruments could be those that target credit growth directly, or indeed those that target the sectoral allocation of credit. Examples of the former include capital buffers for risk-weighted assets. Examples of the latter include large exposure rules that apply to potentially encumbered assets. Moreover, the Basel III countercyclical capital buffer could be particularly useful for promoting financial stability, while transitioning from a high-carbon to a low-carbon economy. Instruments targeting specific categories of loans, such as loan-to-value and debt service-to-income caps, could also be considered to reduce the amount of lending associated with brown assets and activities. In the same vein, specific requirements targeting leverage ratios could be envisaged as a macroprudential policy response to limit bank leverage with respect to brown assets and activities.

In Emerging Asian countries, Fintech credit extension increased in the 2010s, although large disparities in usage of Fintech credit can be observed. On one hand, Fintech offers several opportunities to reduce systemic risk within the financial sector, namely through increased decentralisation and diversification, and enhanced efficiency. On the other hand, there are also macro-financial risks associated with the rise of Fintech. Fintech intermediation could lead to changes in market structures, potentially leading to changes in the behaviour of traditional financial institutions, as well as to decentralisation and disintermediation. In addition, the rise of Fintech firms may lead to excessive risk-taking, owing to regulatory environments and consumers' increased access to complex financial products. Macroprudential policy frameworks should be enhanced to address the systemic risks emanating from Fintech activities. As peer-to-peer lending platforms often fall outside of the regulatory perimeter, it is of utmost importance either to expand the regulatory coverage to these

platforms or to develop new rules designed to limit financial risk arising from these platforms. Emerging Asian policy makers should further consider enhancing co-ordination among themselves but also with international partners to avoid creating room for regulatory arbitrage.

Assessing the effectiveness of macroprudential policy is relatively complex because of this interrelation. In addition, monetary policy and macroprudential policy can be seen as strategic complements. In addressing risks stemming from financial imbalances, an active macroprudential policy has the potential to reinforce monetary policy as it seeks to lean against the wind of financial imbalances. It can also support it in pursuing a mandate of price stability. Macroprudential policy must account better for increasing interconnections between banks and non-bank financial intermediaries. Macroprudential policy aims to monitor system-wide risks. Financial institutions are connected through multiple types of contracts, such as bilateral loans, overlapping asset portfolios, and derivative contracts. In normal times, these interconnections facilitate risk-sharing among financial institutions. During periods of stress, however, shocks propagate more easily because of these links. This can result in a domino effect, a kind of chain reaction of defaults among financial institutions. Shocks may also spread due to a shortage of inter-bank refinancing, or as asset portfolios are liquidated at fire sale prices. In order to mitigate risks arising from interconnections within the financial system, macroprudential regulators must properly identify the institutions with a systemic footprint. For this purpose, access to timely data is essential, including data on financial institutions' cross-border activities. The cross-border spillover effects of macroprudential policy. Owing to the international dimension of the financial sector in Emerging Asia and beyond, macroprudential policies implemented domestically may have material cross-border spillover effects. These have the potential to be both positive and negative. Therefore, policy makers need to give due consideration to the cross-border effects of macroprudential policies that are implemented domestically, in order to ensure their effectiveness. When implementing new macroprudential policies, they should also take account of the macroprudential policies in other countries.

The special risks posed by systemically important financial institutions have prompted, at the national and international level, a wide range of proposals on how to tackle these risks best. There are two apparent objectives in this sense. First, macroprudential regulation should aim simultaneously to increase their loss absorption capacity, and to diminish their contribution to systemic risk. Second, it is key for macroprudential regulation to address the moral hazard problem inherent in government bailout guarantees, with a clear focus on reducing the burden on taxpayers. The frontier between these two objectives is nevertheless blurred. Macroprudential policy serves key functions during large external shocks such as the COVID-19 pandemic. Notwithstanding the important role that macroprudential policy has played in enhancing financial stability, it may be desirable and feasible, once a credible macroprudential policy framework is in place and functioning properly, to loosen macroprudential requirements in times of economic turmoil, such as the COVID-19 pandemic. Indeed, buffers that have been accumulated during upturns could be released in order to mitigate the adverse mechanisms that come into play during a downturn.

Even though climate risk intersects with the different categories of risk to which banks are exposed, such as credit, market, operational, and sovereign risks, current models fail to capture climate risk in its entirety. For instance, climate-related risk can lead to credit risk as they can cause

deteriorations in both borrowers' ability to repay their debt, and in banks' recovery rates. There is also a prospect of market risk, in that a sharp correction in the valuations of assets such as equities and commodities may occur if the transition to a low-carbon economy is abrupt. Capturing physical risk in banking risk models is a methodological challenge. A natural disaster can cause a borrower to fail. However, credit risk models are ill-equipped to anticipate such strongly correlated events. In the event of a localised natural disaster, such as a flood or an earthquake, the correlation between default events is primarily a geographical one. The correlation is more difficult to capture in the case of a non-localised natural disaster, or a localised disaster with broad effects, such as a pandemic or heat wave. For a comprehensive approach, one would need to identify the idiosyncratic vulnerabilities of each counterpart to climate risk. However, the effects of physical risk are complex to anticipate, since each type of event gives rise to a specific scenario. Some current macroprudential requirements may discourage investment in low-carbon instruments.

Under Basel III, banks are subject to a short-term liquidity ratio, which requires banks to hold a certain level of short-term assets. They are likewise subject to a long-term structural liquidity ratio, which requires that long-term assets be financed by instruments with a maturity above one year. As has already been discussed with regard to capital requirements, liquidity requirements as they currently stand could hamper the financing of green activities, by making long-term financing more expensive. Regulators could consider differentiating these liquidity requirements to account for climate change, in order to give preferential treatment to green assets over brown assets. Exposure limits and credit ceilings constitute the last group of tools that could help to promote and manage the transition to greater sustainability. Rules on large exposures typically set limits, usually a certain percentage of capital, which individual loans cannot exceed. Concentration limits, meanwhile, usually set a given percentage of capital that the total amount of large loans cannot exceed. The aim of such limits is to force banks to diversify their loan portfolios in order to withstand the bankruptcy of a large individual company, or a group of large companies better. Concentration limits could be applied to overall levels of investment in carbon-intensive assets, which would be highly sensitive to a sharp transition to a low-carbon economy. As regards credit ceilings, limiting the expansion of bank lending to certain industries, and investments in certain specific asset classes, could also reduce financial flows to sectors or companies that exceed a given target for carbon emissions. The development of a green taxonomy is a prerequisite for effective green macroprudential policy. Implementing green macroprudential regulation implies being able to distinguish with certainty among green, brown and climate-neutral projects. The development of a stable, clear and standardised taxonomy in as many countries as possible is, therefore, of critical importance. Such a taxonomy will make it possible to apply common transparency rules on all financial products, resulting in an obligation for all companies to report the proportion of green activities that make up their financial portfolios. In addition, a common taxonomy at the regional level in Emerging Asia could facilitate the monitoring of cross-border operations.

As the pandemic evolves, macroprudential authorities will need to take into account the heterogeneity of banks, as well as country-specific factors, in order to manage risks to financial stability effectively. Overall, the amendments to national macroprudential policies in the next phases of the pandemic could have various spillover effects. The likely direction of these effects will depend on the type of macroprudential instrument used, the characteristics of the banking sector in the respective

country, as well as the impact of the policy instrument on banks' lending capacity. More precisely, developments on the macroprudential policy front may influence bank lending activity and its international spillover effects. Such effects could jeopardise the effectiveness of national measures when, for example, credit inflows increase as authorities attempt to curb already rapid credit growth at the national level.

### **Conclusion**

In concluding this paper it can be assessed that during the COVID-19 crisis, banks in Emerging Asian countries were encouraged to lend, and to tap into their capital buffers if necessary. Guarantee schemes have been deployed on a large scale to support the real economy, deferring or mitigating loan losses on bank balance sheets. Throughout the recovery phase, policy makers will need to decide when, and to what extent, these capital buffers need to be re-established. In the event of substantial credit losses, banks could prioritise rebuilding their own funds and cleaning up their balance sheets, at the risk of temporarily weakening the capacity of domestic banks to support growth and economic recovery. International capital inflows from foreign banks may partly offset the lower capacity of domestic banks to support the recovery. This could take the form of bilateral loans granted either directly to domestic borrowers, or through internal financing mechanisms to subsidiaries that carry out a lending activity.

Future decisions must take into account disparities among banking sectors, the severity of the recession, and the nature of policy support programmes implemented via the banking sector. Macroprudential policy decisions will be even more complex in economies where the recovery is slower. Fiscal support may be needed for longer in such cases, banks' loss-absorption capacity runs the risk of diminishing, and the macroprudential policy options to support the economic recovery may prove to be limited. Regional or international co-ordination of macroprudential policy may be necessary given the cross-border spillover effects of domestic macroprudential measures, which are potentially amplified by frictions in the banking sector. It is necessary, therefore, to assess whether cross-border bank flows and global shocks may have externalities, either positive or negative. Positive externalities may arise when national macroprudential policy supports financial stability and lending in other countries. Likewise, negative externalities arise when the tightening of the domestic regulatory stance leads to a reduction in the supply of credit to foreign countries that rely on this funding source. When negative externalities prevail, national policies alone may be insufficient, and international co-ordination may be required (Vinals and Nier, 2014). In addition, decisions must be made regarding the co-ordination and reciprocity of measures at the bilateral, regional or multilateral level.

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