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Avinash Persaud's Reinvention of Financial Regulation

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The work on financial regulation of governments and intergovernmental organisation rolls on with final outcomes promised but seemingly always just over the horizon. Overviews are few owing no doubt both to the complexity of the agenda's components and to the difficulty of analysing a target still subject to continuous revision. So the new book of Avinash Persaud (Persaud, 2015), which attempts such an overview, is a particularly welcome event, though his assessment is inevitably provisional.

Persaud's career has spanned executive positions at a number of major banks, teaching and managerial positions in academe, and analysis and proposals concerning the financial system for both official and non-governmental bodies. Since the Global Financial Crisis (GFC) he has been one of the highest-profile commentators on the global regulatory agenda.

His book pays special attention to the mitigation of systemic risk but also takes up other regulatory issues with only indirect implications to systemic financial stability. His proposals span the range from what some may consider excessive indulgence towards the financial sector to the more radical, including some likely to appeal to those who consider that financial regulation in emerging market and other developing countries has received insufficient attention in post-GFC work by global regulators. The open-mindedness of the book includes commentary on issues concerning which the positions mostly taken by Advanced Economies (AEs) have not achieved global consensus. These include the benefits of cross-border banking and capital flows as well as the conditions which countries impose on the legal form of the former when according market access. Nonetheless, like the global agenda of financial reform itself, the book's commentary is shaped primarily by issues posed by the experience of AEs during the GFC.

The standards enunciated by the two bodies, the Financial Stability Board (FSB), which has been entrusted by the G20 with overall coordination of the implementation of the reform agenda, and by the Basel Committee on Banking Supervision (BCBS), which has principal responsibility for reforms of rules for bank regulation, are still emerging from a drawn out drafting process. Persaud's critique of the standards for the reform of bank regulation starts from foundational assumptions of the BCBS concerning the treatment of credit risk, similar flaws in the treatment of market risk, the respective roles of capital and liquidity in bank regulation, and the appropriate distribution of financial risks between institutions with different capacities for risk absorption. He also addresses issues under the heading of banks' capital and risk management which have figured prominently in discussions of the reform agenda beyond the standards enunciated by the BCBS but nonetheless within the purview of the FSB. These issues include banks' size and complexity, the structural simplification of banks through measures such as the ring fencing of retail operations, bankers' remuneration, bankers' ethics, taxes on financial transactions, controls over the introduction of new financial products, the institutional set-up of financial regulation, and the appropriate tasks of cross-border regulatory cooperation.

Credit, market and liquidity risk in the Basel capital framework

Basel II (published in 2004), like its predecessor Basel I, consisted largely of rules for the capital requirements, risk management, and transparency of individual banks. Effective microprudential regulation of this kind, which applies primarily to individual financial institutions, can also be expected to strengthen the banking system as a whole. But in Basel I and Basel II the size of the institutions and the extent of interrelations between them were the subjects of only limited attention. The extensions and revisions of Basel I in Basel II were to provide an inadequate defence against the stresses and systemic risks faced during the

GFC. Basel III has built on Basel II with revisions designed to respond to weaknesses exposed by the GFC, including some of a systemic nature requiring macroprudential responses. Basel III has already been incorporated in the financial regulation of some countries. However, the BCBS continues to work on further revisions of Basel III in response to the results of studies of, and industry representations concerning, the current draft's likely effects.

In Persaud's view, although the revision of the rules of Basel II in Basel III is designed to be a response to the GFC, the existing approach to reform of banking regulation continues to suffer from the flaw of being based on too static a conceptual foundation. The approach takes insufficient account of the way in which the character of banking risk changes in response to potentially dangerous situations and to crises. At such times exposures originally classified as safe become unsafe; correlations between risks and between institutions change; convergence among banks of the techniques of risk management, encouraged by regulators, can result in the herding which is a major feature of systemic risk in practice; and threats to banks' solvency manifest themselves initially more often in liquidity problems rather than in insufficient capital. The resulting flaws in the regulation of banks have been reinforced by an ill designed matching of risks and the capacity for absorbing them of the different institutions of the financial sector (including non-bank financial institutions).

The rules for credit risk of Basel III (like those of Basel II) provide for capital requirements against exposures which are classified either in the text of the framework itself by major categories of counterparty or according to banks' own estimates from internal modelling of major determinants of credit risk. In these rules, in Persaud's view, Basel III underestimates the importance to risk management of banks' natural tendency to avoid risky exposures and to deploy techniques of risk mitigation such as collateral and hedging. Moreover the classification of credit-risk sensitivity in Basel III is based on previous experience. This is a major source of the danger already mentioned that exposures originally considered safe prove to be much more risky in more difficult conditions to the point of frequently becoming themselves potential sources of systemic risk. Likewise a backward-looking approach based on recent experience also compromises the effectiveness of the framework's rules concerning capital allocation and management for market risk –the risk due to exposures in a bank's trading book, i.e. its positions in financial instruments held with the intention of resale to profit from changes in prices and interest rates or for hedging purposes.

Like some other commentators, Persaud believes that the initial emphasis of the Basel capital accords on capital as the key vehicle for banks' protection against risk led to underemphasis of liquidity risks, i.e. those due to a bank's inability to obtain needed funds at an affordable price within a reasonable period to meet obligations as they become due. Liquidity risks are typically the starting-point for threats to the solvency of individual banks through their impact on the value of assets on their balance sheets, eventually becoming a source of systemic risk if the threats to several institutions cluster. The management and regulation of liquidity risk requires primary attention to mismatches between a bank's assets and liabilities.

This criticism requires qualification in the light of ongoing revisions. Basel I and Basel II did indeed pay excessive attention to capital at the expense of liquidity in their treatment of risk management. However, in Basel III this imbalance has been significantly rectified. The rules now contain a Liquid Coverage Ratio and a Net Stable Funding Ratio. Under the first highquality liquid assets convertible to cash at little or no loss to the bank must exceed net cash outflows anticipated during the next 30 days. Under the second exposures over a one-year time horizon must be funded with a minimum amount of stable liabilities, i.e. equity and other financing expected to be reliable sources of funds over a one-year time horizon under conditions of extended stress. The Net Stable Funding Ratio is the ratio of available to required stable funding and must exceed one. On liquidity risk Persaud has had to fine-tune his text in response to the changes already made by the BCBS in Basel III. He acknowledges that through its new rules on liquidity management Basel III has now covered an important gap in the Basel framework, while noting ruefully that the Net Stable Funding Ratio is vehemently opposed by the banking lobby.

But he would still go further than the BCBS. Protection against financial risks, including those of liquidity, should involve not only rules for a bank's risk management but also a redistribution of risks amongst institutions to enable the risks to be assumed by those best equipped to bear them. Here he would like to see placement of a larger share of long-term exposures on the balance sheets of institutions with correspondingly long-term liabilities such as insurance companies and pension funds – institutions which he views as having a greater capacity for absorbing such risks than most banks.

Persaud's approach is intended to cover both short-term and long-term exposures, amongst the latter exposures to equities, bonds and longer-term loans. For the exposures still uncovered after implementation of this approach he proposes appropriately designed diversification and hedging as well as risk-absorbing capital. Such an overall approach seems close to longstanding, pre-Basel-framework best practices for banks' financial management (Stigum and Branch, 1983: chapters 7 and 8.

The rationale of Persaud's alternative scheme of regulation and risk management is set out at the level of principle. Capital, as just noted, would still be allocated for residual exposures to credit risk after the deployment of his preferred alternatives. However, the discussion could have been usefully supplemented with more on the scheme's practical side. For example, how would such allocation of capital work?

A similar comment applies to his proposal – perhaps the most novel of the book– that different financial risks should be redistributed as far as possible amongst institutions according to their risk-absorptive capacity. As explained below, Persaud does describe the way in which existing approaches to regulation impede such allocation in the case of insurance companies and pension funds. Moreover, in favour of the single regulatory agency which he would like to see given responsibility for systemic risk not only of banks but also of other financial institution he notes that it would be better suited than typical present arrangements for carrying out the transfers necessary for such allocation. But the diversification of the activities of some of today's financial conglomerates, which include both insurance and banking, can blur distinctions between different categories of financial institution. Thus Persaud's proposal might require mandatory separation of certain activities of banks and insurance institutions.

Moreover the discussion in his book would have benefitted from more detail concerning the methods of sale and transfer used to achieve the institutional redistribution of risks which he proposes. Since the publication of his book Persaud has in fact elaborated the way in which this redistribution might be carried out (Persaud, 2016: 6-7). This is more easily explained as part of the treatment of the regulation of insurance companies and pension funds.

The regulation and risk-absorption capacity of insurance companies

Persaud devotes most of a chapter to the regulation of life insurance and pension funds. This is clearly connected to his views as to the appropriate distribution of different risks amongst institutions according to their intrinsic capacity for absorbing them. From the perspective of systemic risk he sees the stability of banks and of insurance companies as "simply different sides of the same coin" and believes that "to view them as separate endeavours is a grave mistake". In other words, the specialised skills of the two categories of institution in the management of risks are different but complementary.

Yet he fears that insurance regulation as embodied in the European Union's rules for the solvency of insurance companies (Solvency II), heavily influenced by the Basel capital framework for banks, is moving in the wrong direction. A major focus of this regulation is setting capital levels to offset the market risk due to short-term fluctuations in value of the insurance companies' assets. Less liquid and long-term assets are mostly subject to higher capital requirements.

This approach, Persaud argues, is misguided. The largest proportion of assets held by insurers are those of life insurance companies, whose liabilities are mostly long-term. For such institutions attribution of central importance to short-term asset values –the price of the insurer's assets tomorrow or at the end of the year –is misguided. Their key risk is that of a shortfall of returns to their assets when they are needed, mostly several years hence, as liabilities to policy holders fall due. Thus the appropriate focus of insurers' risk management is not short-term market and liquidity risk but what Persaud calls "shortfall risk". This reflects the statistical likelihood that the value of an institution's assets falls short of the liabilities they are set against when these liabilities fall due, and would serve as the basis for insurers' capital requirements. Such a procedure, where regulatory capital would depend on the mismatch of the maturities of an institution's assets and liabilities rather than official sectoral classification, would deal with the worry that an insurance company is being regulated as an insurer, while much of its operations are in fact those of an investment bank.

Persaud acknowledges that the best time is past for regulatory change in the direction he would like to see. European insurance companies are already embarked on the process of adapting their balance sheets to Solvency II. Nonetheless, he still believes that over time his proposal could encourage transfers of assets between banks and insurance companies that would improve the financial sector's resilience and provide insurance companies with better investment opportunities.

Large and complex banks

Persaud's comments on the size and complexity of banks are ambivalent and questionable. On the one hand small and medium-sized banks he views as having played a large role in triggering the GFC not only in the United States but also in Germany, Spain and United Kingdom. Large banks by contrast he considers well suited to the management and financing of not only of credit risks but also of market and liquidity risk in the diversified portfolios which their size makes possible. Thus actions to increase the number of banks through size caps might actually increase financial instability by spreading more widely the use of standardised metrics in risk management and thus increasing the danger of herding, which has frequently been an important source of systemic risk.

As part of his argument he points to large, complex banks like Deutsche Bank, HSBC, and J.P.Morgan which seemed to weather the GFC relatively successfully. He acknowledges that some large banks were engulfed by the crisis. But he ignores that some large banks and others not perhaps qualifying as large but nonetheless as complex faced serious problems in the GFC, sometimes requiring various forms of state support.

In particular he ignores here Citibank, the precariousness of which led to its being one of the largest recipients of government aid during the crisis. Even before the crisis Citibank was the subject of adverse comment on the problems which its scale posed for its internal controls. In a book drawing upon his first-hand experience after the merger with Travellers a manager of trading at Citibank commented on consequences of the inadequacy of available accounting data for large banks' management decision making as well as for investors as follows: "With large [financial] organisations, it can become difficult to determine who is making the decisions, and momentum can take hold and move the process with a life of its own" (Bookstaber, 2007: 134). This remark rings true also for revelations since the outbreak of the GFC concerning flaws in the risk management of large banks other than Citibank –

flaws which raise serious questions about the possibility of satisfactory internal control and effective supervision for such institutions.

Given his acceptance of the arguments concerning the benefits of size and diversification, Persaud is unsurprisingly sceptical as to the benefits of simplifying banks' structure through the ring fencing of their retail operations. Under the heading of ring fencing he focuses only on that which would allow banks to do both retail and investment banking but only in legally separate entities. Presumably because recourse to banks whose assets would be restricted to holding only a narrow range of safe liquid instruments against their deposits is not a politically realistic prospect, there is no discussion of the pros and cons of narrow banks subject to such restrictions, proposals for which have been around since the 1930s (of which a celebrated example is to be found in Simons, 1948, chapter X).

Persaud acknowledges potential benefits to tax payers from ring fencing owing to their reduced exposure to bank bail-outs which would no longer be available for activities outside the ring fence However, he sees the likely consequences as including a diversion of attention from other more effective means of risk mitigation such as his especially favoured proposal for a shift of some of banks' risks to institutions elsewhere in the financial system with a better risk-absorption capacity.

Bankers' pay

There is widespread agreement amongst commentators on the GFC that the link of bankers' pay packages to their institution's stock price (for example, in the form of payment with stock options) led to risk taking which contributed to and amplified the GFC. As Persaud puts it, "Astronomical pay has produced astronomical risks rather than astronomical results with massive subterfuge to hide the fact". Nonetheless he argues that there is no alternative to incentivising pay in banking. This should take the form of a structure which would complement other measures designed to propagate a sense of achievement and to check a culture of "get rich quick"- a culture associated with frequent moves of bankers between institutions. For this purpose he proposes high salaries with only a small proportion in the form of discretionary bonuses.

This is broadly in line with the response of the FSB, the EU and national governments which have focussed on the use of bonuses in relation to the fixed component of remuneration and on delays in the receipt of bonuses with provisions for clawback – reductions after the initial award or vesting - in the light of subsequent performance.

There is another possibility which might have merited a mention. This would be a return to greater use of unlimited liability for certain banking activities such as trading. Partnerships with unlimited liability, which were still a fairly common institutional form for investment banking until recently, would ensure that incentivisation at upper levels took the form of individual responsibility for losses as well as profits. However, unlimited liability has not figured prominently in recent discussion of the reform agenda. There are probably various reasons for this. The reintroduction of unlimited liability would be a more radical departure from current practices than those which have figured prominently in the reform agenda. Moreover such a step would require changes in the legal structure and corporate governance of banks going beyond the current tinkering with the fixed and variable proportions of bankers' pay as well as prescribing more stringent rules for the latter.

Checking speculation through a Tobin tax

Financial crashes with their associated systemic risks follow eventually unsustainable financial booms. Such booms, especially in their later phases in AEs, are to a significant extent propelled by a preponderance of short-term speculative traders in markets for financial assets –characterised as "noise" as opposed to the "fundamental" traders in a

seminal article by DeLong and colleagues on the relative importance of these two groups in the forces driving such booms (DeLong et al., 1990).

For Persaud a financial transaction or Tobin tax could serve as a prophylactic since even at very low proportions of the value of transactions for both buyers and sellers such a tax is capable of absorbing most or all of the profits of short-term trading. In an admirably concise but wide-ranging review he not only explains the tax's rationale but also demonstrates its feasibility - in the process disposing of most of the arguments commonly raised against it such as the location of financial transactions in jurisdictions where the tax is not applicable. Feasible though a Tobin tax may be, there is a long history of fierce and so far mostly successful opposition by banking and industry lobbies.

Accounting rules and financial cycles

It has long been recognised that accounting rules are capable of exacerbating financial cycles. The focus of attention here concerns the effects on decision taking of fair valuation of assets and liabilities (fair value being defined by the International Accounting Standards Board as "the amount for which an assets could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction"). In a 2009 report on procyclicality in the financial system the Financial Stability Forum (FSF, the predecessor body of the FSB) drew attention to the way in which fair-value accounting "encouraged market practices that contributed to excessive risk-taking or risk-shedding activity in response to observed changes in asset prices" (FSF, 2009:26).

Persaud has his own slant on the procyclicality of accounting rules. This covers not only the effects of fluctuations in accounting valuation on decision taking but also the contribution of the uniformity of accounting rules to herd behaviour. Uniform valuation resulting from accounting rules which ignore differences among disparate market participants in balance sheets and business models increase the - in his view - inappropriate homogeneity of behaviour on the part of financial institutions during periods of market stress. Imbalances between the numbers of buyers and sellers are the likely result of homogeneity at such times with the former outnumbering the latter in booms and the latter outnumbering the former in busts.

His proposal for dealing with this problem posed by accounting practice entails a marked departure from the reliance of existing accounting rules on the three basic alternatives, historic cost, marking the values of assets and liabilities to their market price, and estimates of the discounted cash flows which an item is expected to generate. He would substitute for these alternatives "mark-to-funding". Groups of assets funded with liabilities of up to 6 months and, according to the choice of the institution, groups funded with liabilities of between 6 and 36 months would be subject to mark-to-market valuation. Other assets – those which the institution does not expect to sell in the immediate term - would be valued on the basis of their future discounted cash flows. Such "mark-to-funding" he expects to have the beneficial effect of restraining asset sales and of incentivising purchases of cheapened assets by long-term savers during crises. Moreover there would be fewer transactions based on artificial rules-based homogenisation of market behaviour, Persaud's bugbear owing to its potential for increasing herding and thus systemic risk.

Interestingly this proposal seems to parallel – but with greater detail–a change in accounting rules suggested by the BCBS in 2009 which would link bank accounting to the bank's business model, to its risk management-strategy and practices, and to the economic substance of its transaction (BCBS, 2009). Such a shift would be compatible with, though it would not assure, less homogeneity in market behaviour.

Ethics and consumer protection

Major cases of unethical behaviour in financial sectors in recent years, publicised particularly in the United Kingdom and the United States, have involved failures – sometimes egregious –to comply with principles of consumer protection. Persaud's suggested reforms focus principally on consumer protection in the form of rules concerning the investments of those on moderate incomes. Here he is avowedly paternalist and would like to see restrictions on the shares of investments in financial instruments graded by levels of risk in which investors with different levels of wealth can place their money.

Ethics in the financial sector more generally Persaud considers a problem best treated under the heading of incentives. That, instances of criminal behaviour on the part of individuals have been exposed in the aftermath of crises he acknowledges. But he views them as minor contributors to the crisis in comparison with the pervasive response by a large number of people to ill designed incentives and regulatory lapses.

Persaud's comparatively indulgent attitude towards ethical lapses and serious violations of fiduciary standards as well as arguably criminal conduct in banks may be understandable in the light of his overriding concern with systemic risk rather than with the general functioning and reputation of the banking sector. Distinctions between fiduciary lapses and more serious criminal conduct are often difficult to draw in practice, and greater post-GFC recourse to prosecution of bankers in the United States and certain West European countries would no doubt have posed complex legal problems. Nonetheless Persaud's position is at odds with the views of many concerned with regulation and the conduct of bankers. For example, the United States Financial Crisis Inquiry report attributed a significant role to mortgage fraud in the United States housing bubble, and the bubble in turn is viewed as triggering the chain of events which led to the country's financial crisis (National Commission on the Causes of the Financial and Economic Crisis in the United States, 2011: 187 and 230).

In the longer run ethical standards in the financial sector seem difficult to abstract from its smooth functioning and its transaction costs. Moreover continuing use by banks of their formidable lobbying power to avoid the imposition of greater accountability regarding standards of conduct seems potentially inimical to the public's respect for the political process in countries with overweening banking sectors. The design of remuneration packages may well contribute to inducing more ethical behaviour. But on its own this does not seem sufficient. Other observers have emphasised, for example, the potential role of codes of conduct. Ethics will also be affected directly and indirectly by many of the other subjects covered by a reform agenda such as the size and complexity of banks and rules concerning corporate governance, accounting and transparency.

Controls over derivatives and financial innovation

Persaud is skeptical as to the usefulness of controls at the product level as part of the reform agenda. Under the same broad heading his skepticism is also directed to the benefits of the bias in new regulatory rules in favour of simple as opposed to complex instruments and contracts, the wholesale transfer of OTC contracts on to exchanges, and controls over the introduction of new financial products – derivatives being a common target of advocates of such controls. He acknowledges the abuses driving the arguments in favour of such initiatives but believes that they are overdone.

Regarding the complexity of instruments and contracts, as in his proposal for the transfer of risks to the institutions with the best capacity for absorbing them, Persaud appears to prioritise regulation which matches the complexity and other terms of assets and of liabilities rather than legislating and regulating in favour of simplicity. As he puts it, "If existing liabilities are complex and changing, forcing the purchase of simple assets will result

in unmatched risks". To the extent that complex instruments and contracts among banks' liabilities unduly complicate risk management and the resolution of banks in crisis situations, Persaud would have recourse to higher capital requirements for such contracts and to financial transactions taxes.

But on its own this approach seems to pose its own difficulties. Setting capital requirements and taxes in response to the complexity of derivatives could prove problematic, especially for contracts and instruments designed - as derivatives can be -to mitigate or evade the measures in question. As Persaud acknowledges, complex derivative instruments are generally constructed as combinations of simpler ones. But this means that the objectives of hedging with complex instruments can also be achieved through positions in the simpler instruments taken singly. In the light of the inadequate risk management and supervision of complex instruments during the GFC an alternative which avoids dependence on the need for complex rules seems advantageous.

Persaud's arguments querying the superiority of exchange trading of derivatives have a certain force. Commodity futures exchanges are the outcome of long historical experience and of trial and error as to trading methods. However, ever since the official recognition of the rice futures market in Osaka in the eighteenth century, exchange trading has not met consistently the objectives ideally attributed to it of transparency, price discovery and institutional arrangements for restraining extreme instability.

Moreover derivatives exchanges, now available for financial instruments as well as for commodities, have become mainly profit-maximising institutions continuously jockeying for position. Massive derivatives transactions, if carried out on exchanges, owing to limited liquidity, can move prices to the disadvantage of the originating party. Contrary to Persaud it can nonetheless be argued that exchange trading still has advantages in terms of transparency even once universal ex post facto reporting of private, over-the counter (OTC) transactions becomes mandatory. Moreover, as the sheer scale of derivatives trading increases and with it the associated systemic risk, centralised trading on an exchange should be easier to regulate than a heterogeneous mass of customised derivatives.

As for a mandatory approval process for new financial products (opposed by Persaud) supporters have cited the analogy of the testing of new drugs by the United States Food and Drug Administration before they can be prescribed by doctors. In fact regulatory approval for new financial contracts and products has a long history. Moreover, for exchange-traded contracts, recourse to the analogy of drug testing seems unnecessary in the light of historical precedents for mandatory approval from the trading world itself. Under 1974 amendment of the Commodity Exchange Act (enacted after a lengthy debate in the United States Congress) United States exchanges were to include guidelines as to the public-interest requirements (understood to include a test of economic purpose) which should be met by new contracts (Johnson and Hazen, 1997: 2-17 to 2-19). However, since the deregulation of derivatives markets at the beginning of the new millennium the reference to public-interest has been watered down to a simpler requirement for contracts of contributing to price discovery. Thus a mandatory approval process for new financial products would be not so a radical departure from tried regulatory practice, as some proponents of this idea seem to think. Tightening the requirements which should be met by new financial products in fact seems a useful weapon in the regulatory armoury.

The institutional framework of regulation

Persaud's views as to the appropriate institutional set-up for national regulation are closely connected to his proposals on the substance of regulation. Thus the principle headings of bank regulation, systemic risk, consumer protection and financial crime (a subject which does not figure prominently in the book's discussion) would each have its own regulator. The different tasks of regulation would be distributed between the three entities.

A separate authority either as a stand-alone agency or as a part of the central bank would have responsibility for systemic risk. Its institutional remit would cover not only banks but also other financial institutions capable of being a source of such risk. Moreover it would be the logical place for subjects of prudential regulation such as incentives and transparency with a significant but only an indirect connection to systemic risk. Different skill sets – legal and forensic –are required for consumer protection and financial crime. Under the last heading Persaud emphasises the importance of avoiding the danger that the extremely complex requirements of successful control of money laundering and terrorist financing clog the other tasks of financial regulation through inclusion in regulatory authorities with mandates in other areas.

Persaud is wary of the current direction being taken by cross-border regulatory cooperation, driven as it is by major developed countries' belief in global homogenisation of many regulatory rules. He welcomes the expansion of the membership of the old G7 to the G20 and the establishment of the FSB. He views as beneficial the resulting shift of influence to a group of countries "that share little other than economic power and have diverse experiences, challenges, cultural perspectives and starting points". He is also open to what he regards as the inevitable increase in emphasis in the aftermath of GFC on local regulation and - in the case of cross-border banks – enhanced powers for host as opposed to home regulators (i.e. regulators of the parent institutions of cross-border banks). Home-country regulation –often poorly designed and inadequately enforced – he considers as having actually facilitated financial contagion during the early stages of the GFC.

Persaud would like the FSB to shift its focus from the enunciation of global – and to a great extent uniform – regulatory rules to four different subjects: monitoring internationally systemic developments and serving as an information hub for national regulators; policing financial protectionism to ensure that national regulation does not discriminate against financial institutions on the basis of their nationality as opposed to their activities; regulating market infrastructure such as those for commodities, derivatives and foreign exchange when this has an important cross-border dimension; and promoting convergence of rules and consolidation of financial instruments where this is necessary to avoid "a closed jungle" of national regulations which do not correspond to genuine differences in levels of development and financial culture.

Such a shift would mean that the FSB would no longer be the vehicle for enunciation of global norms ("the level playing field") which international banks view as an essential prerequisite for continued extension of their cross-border operations. Interestingly, but logically, Persaud's reservations as to standardised cross-border norms extend to the initiatives in the EU "to create a single financial space with a single regulator". A common resolution policy and common funds for this purpose are to be essential elements of this system. The "quid pro quo of sharing the banking crisis costs is greater centralization and standardization of banking regulation". But this is unlikely to make it easier to quell the national credit booms that eventually produce crises. As he comments, "Bigger credit booms with attendant bigger crashes, however evenly costs are shared, are amore existential threat to the euro area than the odd sovereign default".

Cross-border finance

The skeptical tone of Persaud's attitude towards many of the results of ongoing multilateral cross-border regulatory initiatives reflects broader skepticism about greater liberalisation of cross-border financial transactions and banking operations, and a generally favourable view of movement towards greater national – and therefore host-country – control over banking regulation, regardless of any consequent drag on international capital flows. As he puts it, "The benefits of openness in financial markets are conditional, complex, and in places suspect and should therefore not be the altar upon which we sacrifice host country regulation of finance".

Here he is at odds with the overall thrust of the current agenda not only for issues traditionally covered by regulation but also for subjects such as "international trade" in financial services as they figure in the WTO's General Agreement on Trade in Services (GATS) and trade and investment agreements. According to the GATS, for example, limitations on legal form (such as according market access only to banking subsidiaries and not to cross-border branches, a policy which Persaud would be likely to favour) must be specified for activities included in a country's schedule of commitments. Such limitations have been targeted by advanced economies for elimination from the schedules of emerging-market and other developing countries. The negotiating pressure on this front reflects a perspective according to which further cross-border financial liberalisation – with some mainly temporary exceptions – is a rarely questioned desideratum.

How widely applicable are Persaud's proposals?

Inevitably there are questions concerning the applicability of Persaud's proposals at a global level, which includes the many - principally developing - countries not represented in the bodies with primary responsibility for the design of the reform agenda.

In the background of revisions of Basel II and of the official agenda for financial reform since the GFC there have been flaws in financial regulation identified principally in Advanced Economies (AEs). The same set of flaws has also shaped much of the thinking in Persaud's blueprint. Various chronic problems affecting bank regulation in many Emerging Market and Other Developing Economies (EMEs) are not addressed by either. These include, for example, the shortage of trained supervisors, a shortage accentuated by the ability of the private sector to offer higher salaries to those with the relevant training, and the challenges to meaningful regulatory cooperation when banks, as in many EMEs, are much smaller than their counterparts in AEs and their regulators consequently carry less weight.

Nevertheless, as should by now be evident, Persaud's argumentation does not always start from the same premises as the official agenda. He also points to novel approaches to reform not in accord with dominant thinking in AEs. Thus his blueprint is worth looking at from a perspective which incorporates conditions and concerns in EMEs. But the remarks which follow, it should be emphasised, are illustrative and make no pretension of comprehensiveness.

Key subjects in Persaud's treatment of banking regulation discussed above are risk correlations, mismatches between the maturities of assets and liabilities, the appropriate distribution of risks between institutions according to their capacity for absorbing them, banks' own risk management and hedging, and revisions of accounting rules for the purpose of measuring regulatory exposures.

The emphasis on the importance to risk management of variations in correlations between different banks' exposures and between banks' exposures to different financial instruments is pertinent for banks in EMEs as well as in AEs. This subject is important for all approaches to risk measurement based on historical experience but especially for banks whose estimation of exposures for the purpose of setting their capital requirements explicitly incorporates risk correlations through the use of internal models. As already mentioned, variations in correlations during crises can be a major reason for the transformation of loans originally classified as safe into risky. Persaud's solution for this problem is not what he would probably consider to be a futile attempt by regulators to adjust correlations with a lag in line with changes in risks, but rather greater reliance on liquidity management and on structural measures of risk such as the leverage ratio. These, he would argue, are less risk-sensitive and less likely to have unfavourable pro-cyclical effects.

The appropriateness and practicality of such proposed alternatives will vary amongst countries according to the level of sophistication of their financial sectors. This is true more

generally of his suggested substitutes for reliance on capital requirements determined by measures of credit risk, namely improved regulation of liquidity risk, better hedging of banks' portfolios, and institutional redistribution of exposures according to risk-absorptive capacity.

Evidence is lacking concerning the potential for fuller liquidity regulation and improved diversification and hedging by banks in EMEs in comparison with those in AEs. As already mentioned, Basel III contains stronger standards than Basel II for liquidity regulation. But successful implementation of even these standards depends on effective supervisory controls over the liquidity of banks' assets and liabilities – controls which may prove more difficult to apply than the definitions may seem to imply at first sight. Hedging possibilities are constrained by the availability of appropriate collateral and appropriate financial instruments for the purpose. It seems plausible that both will tend to be less available in EMEs than in AEs. Moreover vetting of banks' hedging and portfolio diversification by supervisors can be complicated by related and connected lending which is often commoner in EMEs than in AEs but more difficult to identify owing to the confusing nomenclature of borrowers and to concealed business connections amongst them.

Thus constraints on the applicability of Persaud's alternatives may make it difficult in many EMEs to avoid continuing reliance on estimates of credit risk for setting capital requirements to the same extent as in Basel III. Not that the problems causing these constraints will be definitively solved through reliance on capital requirements for credit risk since in making estimates for this purpose supervisors will be handicapped by much the same weaknesses in data availability and banks' internal controls as they would be for Persaud's alternatives.

The proposal for redistributing exposures amongst financial institutions according to their risk-absorptive capacity clearly assumes a substantial presence of institutions such as life insurance companies with appropriate balance sheets. This proposal may be more difficult to apply to EMEs than to AEs owing to the smaller size of their insurance sectors. To some extent alternatives such as development banks may be capable of serving as replacements for insurance companies, long-term investments on the asset side of their balance sheets being the counterpart of liabilities with similar average maturities. Reliance on such alternatives would mean that the institutional risk redistribution proposed by Persaud would be less novel and closer to pre-existing ideas and practice regarding development finance. Nonetheless the attention he draws to the potential of such institutional redistribution to improve financial risk management provides a useful perspective on the way in which long-term development finance and improved regulation can be mutually reinforcing.

Initiatives to draft international accounting standards have long generated debate over the degree to which convergence to uniform rules should be the preferred target. Critics have raised the question whether uniformity would have the effect of stifling useful experimentation and the development of valid alternative models (Scott and Gelpern, 2012: 231-232). Persaud's skepticism concerning convergence, which he views as a source of behavioural homogenisation likely to accentuate procyclcality in financial markets, and his suggested valuation based on "mark to funding" are thus compatible with significant currents of thinking concerning accounting standards. "Mark to funding" would indeed represent a break with existing methods of valuing financial instruments under International Financial Reporting Standards which are now required in 105 jurisdictions according to a recent survey of the IFRS Foundation (IFRS, 2014). However, valuation for regulatory purposes has not always slavishly followed international accounting standards so that the shift proposed by Persaud would not be unprecedented.

Systemic environmental risks

Persaud does not address the challenges posed by environmental problems for the future design of financial regulation. These problems have begun to attract substantial

intergovernmental attention. They entail important sources of systemic financial risk. Despite the absence of environmental issues from Persaud's scheme some of his ideas, appropriately adjusted to the different context, point in potentially fruitful directions for the design of regulation.

Many experts have argued that systemic environmental risks are amongst the biggest risks currently faced by humanity. Various recent and more distant historical events exemplify their potential scale: damages of at least USD 200 billion due to Hurricane Katrina in the Southern region of the United States in 2005 leading amongst banks to widespread loan losses and additional provisioning - distress for the financial sector which matched that occasioned by dust bowls in farm-belt states due to unsustainable farming methods in the 1880s, 1890s and 1930s - and the devastating effects of earthquakes, hurricanes and volcanic eruptions elsewhere in the world. Projections of unsustainable economic activities suggest that costs could arise to USD 28.6 trillion by 2050, with substantial implications for the financial sector. Yet in a recent report of the University of Cambridge Institute for Sustainability Leadership for the UNEP Finance Initiative, the view is expressed that "with some notable exceptions, systemic environmental risks appear to be in the collective blind spot of bank supervisors" (University of Cambridge Institute for Sustainability Leadership, 2014: 7-11). Since these words were written, there have been signs of increased concern amongst regulators. At the beginning of 2016 - the first meeting of the newly established G20 Green Finance Study Group (GFSG) took place in Beijing and the FSB announced the membership of a Task Force on Climate-related Financial Disclosures.

Several countries, of which the Cambridge/UNEP study singles out China, Brazil and Peru, have incorporated sustainability goals in their bank regulation (University of Cambridge Institute for Sustainability Leadership, 2014: 17-18 and Appendix B). However, the scope of such incorporation varies in its coverage, often not going beyond general guidelines on environmental management and reporting requirements. Explicit coverage of environmental risk in Basel III is scanty: the reference in paragraph 510 to the need to monitor the risk of environmental liability in respect of collateral is often cited in this context. It could of course be argued that environmental risk is also implicitly covered by references to risk management elsewhere in the capital framework, and that variants of such risk can be included in the scenarios of banks' stress testing. While it would not be accurate to characterise the coverage of environmental risk in Basel III as consisting of nothing more than obiter dicta, eventually such risk seems likely to figure more prominently in further revisions of the capital framework.

How can Persaud's scheme contribute to regulatory rules on this subject? His emphasis on the need for wariness concerning variations in correlation risk is obviously highly pertinent since increased correlation and the resulting contagion within the financial sector have been major features of systemic environmental risk in the past. More generally his criticisms of the overly static view of banking risks in current regulatory guidelines should continuously be borne in mind. But perhaps most important is his suggestion that regulation should as far as possible allocate categories risk among financial institutions according to their absorptive capacity. In this way it can be argued - and would no doubt be argued by Persaud -the assets and liabilities of financial institutions' balance sheets can be matched with the sort of risks – often large and difficult to predict – that are classified as environmental. This would more be difficult for banks that must operate with liabilities much of which are unavoidably short-term and more volatile and are thus not the institutions best suited for meeting exposures to environmental risks.

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