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**RECONCEPTUALIZING THE REGULATION
OF GLOBAL FINANCE**

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Reconceptualizing the Regulation of Global Finance

Ross P Buckley*

Abstract—The post-crisis reforms to the global financial system may serve us well if the next crisis is 2008 revisited. But it will not be. So instead of preparing to fight the last war, this paper analyses the five major changes in the global financial system in the past 40 years, and explores potential regulatory responses that could make the system more stable and resilient. These changes include (i) the globalisation of the global financial system; (ii) the legalisation of financial gambling; (iii) the rise in algorithmic and high frequency trading and in dark pools; (iv) the fundamental changes in banks and bankers; and (v) the rise in the role and power of ratings agencies. The potential responses to these changes include (i) a sovereign bankruptcy regime; (ii) higher mandated capital levels for banks; (iii) levies on banks; (iv) a financial transactions tax; (v) rigorous regulation of high frequency trading and dark pools; and (vi) removing the conflict in the role of the ratings agencies.

Keywords: global financial regulation, financial gambling, ratings agencies, bank capital, bank levies, transactions tax

1. Introduction

The Global Financial Crisis (GFC) of 2008 should have caused a deep and profound rethinking of how capital markets work and are regulated, and of financial law more generally. The great depression of the early 1930s certainly did so, and resulted in a complete rethinking of banking and financial law in

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the US with the passage of the Securities Act of 1933,¹ and the Securities Exchange Act of 1934² and the separation of commercial and investment banking by the Glass–Steagall Act of 1933.³ The UK has had the Vickers Report⁴ and the Kay Report.⁵ The US has had Dodd–Frank.⁶ Australia’s Financial Systems Inquiry reported in late 2014,⁷ and the EU has had a plethora of regulations.⁸ But none of these reviews, reforms or legislative measures have implemented changes that are truly fundamental, as was done in the 1930s. No jurisdiction has undertaken the sort of fundamental rethinking that the largest crisis since 1929 should have provoked, and that the crisis of 1929 did provoke. The reasons for this are many, but owe much to the political power of the financial sector generally, for the sector’s extraordinary profitability of the past 20 years has brought with it extraordinary influence and power.⁹

The world of banking has changed profoundly in the past 40 years, but because the changes have been incremental, few people appreciate their scope and scale. This paper selects 40 years as the time frame as in 1971 the US went off the gold standard, the system put in place at Bretton Woods to keep finance national began to unravel, and international financial markets began to globalize.

The massive changes in the past 40 years in what banks do and who works within them are two factors that lie at the heart of the GFC. Banking is a different industry than it was. It is necessary to assess how the international financial system has changed fundamentally in the past 40 years, and respond

¹ Pub L No 73–22, 48 Stat 74 (1933), codified at 15 USC § 77a.

² Pub L No 73–291, 48 Stat 881 (1934), codified at 15 USC § 78a.

³ The Glass–Steagall Act comprises ss 16, 20, 21, and 32 of the Banking Act Pub L No 73–66, 48 Stat 162 (1933).

⁴ Independent Commission on Banking (ICB), ‘Final Report Recommendations’ (12 September 2011). This report is often referred to as the ‘Vickers Report’ after Sir John Vickers, chair of the ICB.

⁵ J Kay, ‘The Kay Review of UK Equity Markets and Long-Term Decision Making’ (BIS, July 2012).

⁶ Dodd–Frank Wall Street Reform and Consumer Protection Act, Pub L No 111–203, § 2, 124 Stat 1376 (2010).

⁷ Financial System Inquiry, ‘Final Report’ (December 2014).

⁸ In the past four years, almost 30 legislative measures relating to financial services have been passed by the European Parliament: A Barker and M Arnold, ‘Super Tuesday for EU Bank Regulation’ *Financial Times* (online) (15 April 2014). Examples include Regulation (EC) 1060/2009 of the European Parliament and of the Council of 16 September 2009 on Credit Rating Agencies [2009] OJ L302/1 (EU CRA Regulation); Regulation (EU) 1092/2010 of the European Parliament and of the Council of 24/11/2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board [2010] OJ L331/1 (the ESRB Regulation); Regulation (EU) 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms [2013] OJ L176/1; Committee of European Banking Supervisors, ‘Guidelines on Remuneration Policies and Practices’ (10 December 2010) 60, 65.

⁹ In fourth quarter 1990 US bank profits were \$1.39 billion, in second quarter 2013 they were \$42.2 billion—even allowing for the time value of money that remains a dramatic increase: E Stephenson, ‘US Bank Industry Profits Hit Record \$42.2 Billion in Second Quarter’ *Reuters* (29 August 2013) <www.reuters.com/article/2013/08/29/us-financial-regulation-earnings-idUSBRE97S0O520130829> accessed 16 July 2015. See also L Zingales, ‘How Political Clout Made Banks Too Big to Fail’ *Bloomberg View* (30 May 2012) <www.bloombergvew.com/articles/2012-05-29/how-political-clout-made-banks-too-big-to-fail> accessed 24 July 2015; and S Johnson and J Kwak, *13 Bankers* (Vintage 2011).

to these changes. Therefore, this article starts with an overview of recent internationally mandated reforms. These comprise principally:

- (i) revising capital adequacy rules: Basel III;
- (ii) ending ‘too-big-to-fail’;
- (iii) regulating the shadow banking system;
- (iv) reforming the regulation of over-the-counter (OTC) derivatives;
- (v) strengthening and converging accounting standards;
- (vi) building a common legal entity identifier;
- (vii) reducing reliance on credit ratings and improving oversight of credit rating agencies; and
- (viii) enhancing compensation practices.

These are eight good reforms,¹⁰ however, the issue with the response to the GFC has not been that it is wrong-headed, but simply that it has not gone far enough to respond to the profound changes in banking and capital markets of the past 40 years. The reforms, in the main, respond directly to the causes of the GFC and it is entirely understandable that a political process responds in this way to a crisis, that is, try to identify what caused the crisis and work to prevent it happening again. However, this is precisely what defence planners are derided for: preparing to fight the last war.

There will be another major financial crisis in the next decade or two, as the history of the last 40 years strongly suggests, and it almost certainly will not be like the GFC. Another major crisis will almost certainly occur because the current globalized international financial system operates without a global financial regulator, a global lender of last resort or a global sovereign bankruptcy regime, and to be stable all national systems require a financial regulator, lender of last resort and bankruptcy regime.¹¹ These regulatory lacuna are unsurprising as Keynes and White in 1943 designed the post-war financial architecture to promote international trade but keep finance essentially national. So once we moved to a truly international financial system we needed new regulatory institutions which were missing, and while we have sought to provide such a regulatory superstructure through the Bank for

¹⁰ I have written about and assessed these reforms elsewhere. See RP Buckley, ‘The G20’s Performance in Global Financial Regulation’ (2014) 37 UNSWLJ 63.

¹¹ RP Buckley, ‘How the International Financial System, to Its Detriment, Differs from National Systems, and What We Can We Do About It’ (2004) 34 UHKLJ 321. Many commentators assume the IMF is the international lender of last resort, but the four elements of Bagehot’s classic prescription for a lender of last resort are that it is able to make available large amounts of capital, quickly, at high interest rates and on good security: W Bagehot, *Lombard Street: A Description of the Money Market* (Scribner, Armstrong & Co 1873). However, the IMF lacks the resources to make available sufficiently large volumes of capital to quell market fears, often struggles to act quickly, does not for political reasons charge interest rates high enough to limit moral hazard, and sovereign borrowers typically lack the capacity to give good security over sufficient assets beyond their borders. So while much has changed since Bagehot wrote *Lombard Street*, if the IMF is truly to serve as a lender of last resort, we probably need to put in place some very extensive swap lines between national central banks that can be triggered quickly purely by the IMF, and, even then, we are left with some very difficult to solve moral hazard problems with the IMF as initiator of those credit lines.

International Settlements, Financial Stability Board (FSB) and other such bodies, these are in no way an adequate replacement for the very great powers, formal and informal, of the financial regulator that all national financial systems need to be stable.

So if one is not to fall into the trap of engineering the global financial system to prevent the latest crisis, one needs to stand back, look at how international finance has changed in the past 40 years, and how those changes tend to make the current system more crisis prone, and then work to ameliorate the risks generated by those changes. This is a much more difficult task than merely attempting to respond to the latest crisis, but given that the latest crisis will not be the last, it is also absolutely necessary.

2. *The Profound Changes in Global Finance since 1970*

The full scope of changes in the global financial system since 1970 could fill a multi-volume treatise. This article will focus on five principal ones. These are (i) the legalisation of financial gambling; (ii) the globalisation of the international financial system; (iii) the rise in algorithmic and high frequency trading (HFT) and in dark pools; (iv) the fundamental changes in banks and bankers; and (v) the rise in the role and power of ratings agencies.

A. *The Globalisation of the International Financial System*

In 1970, capital controls blocked most movement of capital between nations, and savings in each country funded investment in that country, supplemented by relatively small inflows of funds from abroad. Progressively over the next two decades, as the fixed exchange rate Bretton Woods system was dismantled so were the capital controls, to the point today that capital moves freely in and out of most countries.

This regulatory liberalisation has been accompanied by the rise of computers and telecommunications so that, today, capital moves by way of keystrokes on a computer keyboard, in response to information that has come in over the same system. These trends have resulted in global financial markets being amongst the most globalized markets we have. Perhaps only the markets for commodities such as oil, soybeans, cotton and the like are as globalized as the markets for money. This is a profound change. Without globalized markets, the US sub-prime crisis would have remained a US crisis—it was globalized markets that allowed pension funds in Norway and local government authorities in Australia¹² to lose hundreds of millions of dollars investing in repackaged US home loans.

¹² See, eg, *Wingecarribee Shire Council v Lehman Brothers Australia Ltd (in liq)* (2012) 301 ALR 1 (FCA); *Bathurst Regional Council v Local Government Financial Services Pty Ltd (No 5)* [2012] FCA 1200.

The truly globalized capital market of today exposes the inadequacies of the Bretton Woods system of international financial institutions established by Keynes and White in 1945. Keynes and White's system was designed to promote international trade and keep finance national. If they had designed a globalized financial system, they would almost certainly have created a global financial regulator, a global lender of last resort, and a global sovereign bankruptcy scheme, for, as has been discussed, no national financial system is able to operate without these institutions.¹³

The system of financial regulation that has developed ad hoc in recent decades involving the Basel Committee, the Bank for International Settlements, the FSB and many other institutions, is a response to the absence of a global central bank and global financial regulator. The system that has developed is primarily one of 'soft law' as the rules are made at the international level and implemented nationally.¹⁴

B. *The Legalisation of Financial Gambling*

The Gaming Act 1845 in the United Kingdom made gaming houses illegal and gaming or wagering agreements unenforceable. It was enacted on the recommendation of a House of Commons Select Committee Report on Gambling in 1844.¹⁵ Australia followed suit with gaming and wagering legislation in each state and territory.¹⁶ In the US, the General Obligations Law of the State of New York provided under section 5-401 that '[a]ll wagers, bets or stakes, made to depend upon any ... unknown or contingent event whatever shall be unlawful'. Further, section 5-411 provided that '[a]ll contracts for or on account of any money or property, wagered, bet or staked, as provided in Section 5-401, shall be void'.

For over a century, courts in all these countries took the view that derivatives contracts (as they came later to be known) entered into by at least one party for hedging purposes were valid under these enactments, but derivatives entered merely to place a bet on the price of something were invalid and unenforceable.¹⁷ Accordingly, a contract by which a farmer locked in a price for their wheat crop when harvested, or by which an airline guaranteed a future price for jet fuel, were both valid, but a contract by which a speculator bet on future wheat or fuel prices was not.¹⁸

¹³ Buckley, 'How the International Financial System, to its Detriment, Differs' (n 11).

¹⁴ C Brummer, *Soft Law and the Global Financial System: Rule Making in the 21st Century* (CUP 2012).

¹⁵ Select Committees of the House of Commons and the House of Lords on Gambling, *Reports from Select Committees of the House of Commons and the House of Lords on Gambling with Minutes of Evidence, Appendix and Indices, 1844* (HC, HL 1844-45).

¹⁶ For example, the Gaming and Betting Act 1912 (NSW).

¹⁷ *Ellesmere (Earl) v Wallace* [1929] 2 Ch 1 (CA); *Lipkin Gorman v Karpnale Ltd* [1991] 2 AC 584 (HL).

¹⁸ See *See v Cohen* (1923) 33 CLR 174 (HCA) and note the opposite result by the time of *Morgan Grenfell v Welwyn Hatfield DC* [1995] 1 All ER 1 (QBD) 2.

Over time, legislatures began to exempt derivatives contracts from the application of these laws. In the words of Wood,

many states have introduced exceptions to gaming laws in order to facilitate markets ... and to remove the threat of nullity. The rationale is either there is a satisfactory alternative system of protection or the contracts are entered into between sophisticated institutions who do not need the protection of gaming legislation.¹⁹

In the UK, section 63 of the Financial Services Act 1986 (FSA) exempted 'investments', broadly defined, from the application of the Gaming Act 1845, an exemption which was maintained by section 412 of the Financial Services and Markets Act 2000, and section 334 of the Gambling Act 2005. In Australia, New South Wales first enacted a carve-out to facilitate the establishment of the Sydney Futures Exchange in 1979.²⁰ This was followed by a general upholding of the validity of exchange-traded futures contracts by the Commonwealth in 1989.²¹ In 2001, section 1101I of the Corporations Act 2001 excluded all financial products, broadly defined, including derivative products, from gaming and wagering laws.

New York courts carved out a 'commercial purpose' exception to the State gambling laws. But the remaining, and restraining, uncertainty in the US was removed by the Commodity Futures Modernization Act of 2000 (CFMA), which excluded the application of any state or local laws in respect of gaming, with the aim of giving legal certainty to derivatives trading.

The Financial Crisis Inquiry Commission of the US concluded in its Final Report that OTC derivatives contributed significantly to the crisis, and that the enactment of the CFMA legislation in 2000 'to ban the regulation by both the federal and state governments of over-the-counter (OTC) derivatives was a key turning point in the march toward the financial crisis'.²² A wide variety of parties had used derivatives, but 'without any oversight, OTC derivatives rapidly spiraled (sic) out of control and out of sight'.²³ In the words of Stout, the enactment of the CFMA was a 'sudden and wholesale removal of centuries-old restraints on off-exchange derivatives speculation'²⁴ that played a large role in the 2008 crisis.²⁵

Gambling was strictly regulated for centuries because it was perceived to be a social ill. The removal of derivatives from the purview of gaming laws was a

¹⁹ PR Wood, *Set-Off and Netting, Derivatives, Clearing Systems* (2nd edn, Sweet & Maxwell 2007) para 13–009.

²⁰ Futures Markets Act 1979 (NSW) s 7, as repealed by the Futures Industry (Application of Laws) Act 1986 (NSW).

²¹ Corporations Act 1989 (Cth) s 1141.

²² Financial Crisis Inquiry Commission, *The Financial Crisis Inquiry Report* (Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011) xxiv.

²³ *ibid.*

²⁴ LA Stout, 'Derivatives and the Legal Origin of the 2008 Credit Crisis' (2011) 1 HBLR 1, 21.

²⁵ For a full history of the CFMA, its origins and recent attempts to restore regulatory limits on speculative derivatives via Dodd–Frank, see Stout, *ibid.*

major step that went largely unnoticed at the time, but was to contribute to the GFC, and to the reshaping of international financial markets.

C. *The Rise in Algorithmic and High Frequency Trading and in Dark Pools*

Algorithmic,²⁶ or computer-driven trading, drives the HFT so common in markets today. HFT accounts for about 85 per cent of US equity trading and 30–40 per cent of European and Japanese equity trading.²⁷ The rise in algorithmic trading in the US has been described as ‘one of the fastest paradigm shifts we have seen... over the past 30 years’.²⁸

Dark pools are trading pools maintained by the major banks and trading platforms into which they direct most of their clients’ trading, and upon which they typically only report net positions at day’s end.

Algorithmic HFT has been justified on the grounds that it provides liquidity to the market, reduces costs and commissions, provides anonymity and control, allows access to various markets, improves price discovery, and takes out the human factor to allow for faster processing without emotional involvement.²⁹ Recent research suggests that HFT improves liquidity and informational efficiency, but increases volatility, and not the sort of volatility that follows faster price discovery, but rather the sort associated with a decline in market quality.³⁰

Dark pools are justified on the grounds that they provide a way of confidentially purchasing large blocks of equity without causing ‘information leakage’ and without triggering a movement in the price of the equity, and also provide cost savings by avoiding exchange fees, profit opportunities and price improvements.³¹

All this sounds plausible until one thinks back to what underpins the entire scheme of securities regulation. The driving ethos of the US reforms of the 1930s was that ‘sunlight is the best disinfectant’.³² Securities regulation is premised on a belief that transparent markets with effective disclosure provide the most efficient outcomes. So how are dark pools compatible with this

²⁶ Algorithmic trading uses high-speed computer programs to generate, route and execute orders.

²⁷ T Matheson, ‘Taxing Financial Transactions: Issues and Evidence’ (Working Paper No 11/54, IMF, 1 March 2011) 19; R Kissell, ‘Algorithmic Trading’ in Robert Kissell (ed), *The Science of Algorithmic Trading and Portfolio Management* (Elsevier 2013) 12; G Ferrarini and N Moloney, ‘Reshaping Order Execution in the EU and the Role of Interest Groups: From MiFID I to MiFID II’ (2012) 13 EBOR 557, 574; IOSCO, ‘Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency—Consultation Report’ (July 2011) 22. Reliable data puts HFT in Japan at 50 per cent of equity trading in 2013: T Kingsley, K Phadnis and G Stone, ‘HFT: Perspectives From Asia—Part I’ *Bloomberg Tradebook* (11 June 2013).

²⁸ EA Leshik and J Cralle, *An Introduction to Algorithmic Trading: Basic to Advanced Strategies* (2nd edn, Wiley 2011) 3.

²⁹ T Hendershott, CM Jones and AJ Menkveld, ‘Does Algorithmic Trading Improve Liquidity?’ (2011) 66 JFIN 1; Kissell (n 27) 1, 6; Leshik and Cralle (n 28) 3–4.

³⁰ E Boehmer, K Fong and J Wu, ‘International Evidence on Algorithmic Trading’ (San Diego Meetings Paper, 27 March 2014).

³¹ Kissell (n 27) 21; E Banks, *Dark Pools: The Structure and Future of Off-Exchange Trading and Liquidity* (Palgrave Macmillan 2010) 4–5.

³² LD Brandeis, *Other People’s Money and How The Bankers Use It* (Frederick A Stokes 1914) 92.

goal?³³ Taking much of the trading off the exchange into a private pool where it cannot be observed in real time reduces transparency. How do we know the major banks are not front running ahead of their clients' orders in the dark pools? Lewis's recent book, *Flash Boys*, explains how certain key institutions have been profiting enormously from establishing algorithmic trading programs to front run on investors' orders by taking advantage of the milliseconds it takes these trading orders to travel across optical fibre.³⁴ Why, if the major banks are doing this, should we trust them to not be committing even more egregious abuses in their own, opaque dark pools?

By some accounts as many as 90 per cent of the orders generated by HFT programs are subsequently cancelled, often within seconds or milliseconds of being placed. This plethora of orders are designed to deceive, or mislead, other investors; or to identify large blocks of securities in the market, rather than to effect trades.³⁵

This article deals with dark pools along with algorithmic HFT because both work to diminish transparency in the market, not promote it. Each may well promote liquidity, and this is trumpeted as a reason to welcome these initiatives. But liquidity is like red wine. One can most definitely have too much of it. Yet so much of the analysis of current markets simply assumes that ever higher levels of liquidity are a good in and of themselves.³⁶

However, Schulmeister's research has established that the ever faster trading of recent years tends to make exchange rates and stock and commodity prices less accurate, ie, less close to that which would be dictated by economic fundamentals.³⁷ This is because short-term price runs, fuelled by very rapid trading and strengthened by the impact of algorithmic trading programs, accumulate to baseless long-term trends and distortions in prices. The resulting over-shooting of prices favours speculators over longer-term investors and thereby feeds into ever-higher levels of trading.³⁸

The standard industry argument along with higher liquidity is couched in terms of efficiency, and is promoted vigorously by bankers. But efficiency operates at different scales and with different consequences. Capital markets

³³ Dark pools are the least transparent section of the market: T Foucault, M Pagano and A Röell, *Market Liquidity: Theory, Evidence, and Policy* (OUP 2013) 29–30.

³⁴ M Lewis, *Flash Boys: A Wall Street Revolt* (WW Norton 2014).

³⁵ 'Statement of Kevin Cronin, Global Head of Equity Trading, Invesco, Securities and Exchange Commission, Market Structure Roundtable' (2 June 2010) 1 <www.sec.gov/comments/4-602/4602-11.pdf> accessed 16 July 2015; AA Kirilenko and AW Lo, 'Moore's Law Versus Murphy's Law: Algorithmic Trading and its Discontents' (2013) 27(2) *J Econ Persp* 51, 66–67.

³⁶ P Gomber and others, 'High Frequency Trading' (Policy Platform White Paper, April 2011) 34 <http://safe-frankfurt.de/uploads/media/Gomber_et_al_High_Frequency_Trading.pdf> accessed 16 July 2015.

³⁷ S Schulmeister, 'Boom-Bust Cycles and Trading Practices in Asset Markets, the Real Economy and the Effects of a Financial Transaction Tax' (WIFO Working Paper No 364/2010, Austrian Institute of Economic Research, March 2010) 1.

³⁸ S Schulmeister, 'A General Financial Transactions Tax: Motives, Effects and Implementation' (Summary of Presentation, Brussels Tax Forum, 29 March 2011); S Schulmeister, 'A General Financial Transactions Tax: Motives, Effects and Implementation According to the Proposal of the European Commission' (WIFO Working Paper No 461/2014, Austrian Institute of Economic Research, February 2014).

became arguably ever more efficient from 1990 to 2006; certainly if one was looking at the most common measure of efficiency—transactional efficiency as measured by narrower bid–ask spreads—that was the case.³⁹ Markets became ever more efficient until they spectacularly collapsed in 2007–08. Markets had been becoming ever more efficient at facilitating transactions, and less efficient in the far more important allocative sense—in which markets allocate resources efficiently among competing claims upon them by accurately setting prices.

Regulators worldwide initially took the approach that algorithmic HFT and dark pools were two major developments that could be important innovations in securities markets that regulators should be slow to obstruct principally because they tended to increase liquidity.⁴⁰

This approach was deeply challenged by the Flash Crash of 6 May 2010 when the Dow Jones had its largest one-day decline of 998.5 points, many blue chip stocks traded at utterly unreasonable prices, over 300 stocks lost over one-half of their value, and then, some 20 minutes later, there was a rally of about 600 points.⁴¹ The subsequent investigation pointed to algorithmic HFT as one of the principal causes of the crash.⁴²

D. *The Changes in Banks and Bankers*

If a lawyer from 1970 was brought forward in time and put in a modern day courtroom, most things would be familiar: the solemnity, the architecture of the court room, the mode of dress (at least in the Supreme Court of New South Wales), the procedure, the objections being made by counsel. Since 1970 the manner of lawyers, the way they carry themselves, the way they are trained, the way they think and look backwards to find authority for what they propose doing, has all changed very little. Indeed, a lawyer transported forward in time from 17th century England would likewise see much in a courtroom today that they might recognize.⁴³ Yet if a banker from 1970 was brought forward in time to 2013 and placed in a modern investment bank, or in the investment banking arm of a commercial bank, much would seem profoundly different.

³⁹ J Castura and others, 'Market Efficiency and Microstructure Evolution in U.S. Equity Markets: A High-Frequency Perspective' (Micro Finance Seminars, Wharton University of Pennsylvania 2010) 3–6 <http://finance.wharton.upenn.edu/department/Seminar/micro/Litzenberger_transient_vol5_2010.pdf> accessed 16 July 2015.

⁴⁰ Gomber and others (n 36) 51.

⁴¹ D Easley, M Lopez de Prado and M O'Hara, 'The Microstructure of the "Flash Crash": Flow Toxicity, Liquidity Crashes and the Probability of Informed Trading' (2011) 37(2) *J Port Mgmt*, 118, 118–28; EO Barrales, 'Lessons from the Flash Crash for the Regulation of High-Frequency Traders' (2012) 17 *Fordham J Corp Fin L* 1233.

⁴² US Commodity Futures Trading Commission and Security Exchange Commission, 'Findings Regarding the Market Events of May 6 2010: Report of the Staffs of the CFTC and SEC to the Joint Advisory Committee on Emerging Regulatory Issues' (30 September 2010) 45.

⁴³ TFT Plucknett, *Concise History of the Common Law* (The Lawbook Exchange Ltd 2001) 226.

The first and major difference would be in the people. The manner of bankers, the way they carry themselves, the way they are trained, the way they see the world, all this has changed profoundly. Bankers in 1970 had basic arithmetic. One needed some maths to run a bank, but it was mostly primary school maths, not the calculus and trigonometry of high school. Today most young bankers are highly trained in maths and quantitative skills. Their degrees are in highly quantitative and mathematical finance and economics, or in maths or physics.⁴⁴

Bankers in 1970 were as prudent, cautious and dull as lawyers, perhaps more so. If we consider a sophisticated market like London, the traditional degree to have taken to go into a bank was Classics (the study of Greek and Latin language and history). This remained the case until well into the 1980s. Having studied classics or been an officer in a good regiment were considered the best trainings possible for banking,⁴⁵ for banking was perceived to be about prudence and judgment, and the study of history or military officer training were seen to promote careful deliberation and judgment.

Today an investment bank or the investment-banking arm of a commercial bank is typically filled with ultra-numerate people with little knowledge of history or the humanities. In their worldview markets and corporations exist to produce profits. An earlier view was that corporations existed to provide important products to their customers and provide jobs for their workers; and profits were essential to enable the fulfilment of these more important functions. Most bankers before 1970 had similar views. Today most bankers are focused on profit to the bank. The majority of their remuneration is by way of an annual bonus and they see the world through a quantitative and analytical lens, not a humanities one.⁴⁶

Furthermore, what a bank does has changed profoundly. Banks in 1970 essentially intermediated money. They received deposits and made loans. Banks today, at least the investment banks and investment banking arms of major commercial banks, derive little of their income from financial intermediation and far more from speculating on markets, underwriting stock and bond issuances, giving sophisticated advice on mergers and acquisitions, selling financial products to customers, etc.

A banker travelling forward in time even 40 years would not recognize most of what a bank today does as being banking business. Indeed, as we have seen, much of the business of a contemporary bank would have been illegal in 1973.

⁴⁴ P Wilmott, 'The Use, Misuse and Abuse of Mathematics in Finance' (2000) 358 *Phil Trans R Soc Lond A* 63; J Mather, 'Investment Banks Seek Graduates with a Rich Skill Mix' *Australian Financial Review* (23 July 2012) <www.afr.com/p/national/education/investment_banks_seek_graduates_V7X0sBsXEQHjsj1Q88vbOO> accessed 16 July 2015.

⁴⁵ These insights are not new. See S Strange, *Casino Capitalism* (Cromwell Press 1997) 1–2.

⁴⁶ S Jaffer and others, 'How Changes to the Financial Services Sector Industry Eroded Trust' in N Morris and D Vines (eds), *Capital Failure: Rebuilding Trust in Financial Services* (OUP 2014) 57.

A banker travelling forward in time would look with horror upon speculative financial derivatives contracts as transactions that could bring a bank undone.

E. *The Rise of the Ratings Agencies*

The ratings agencies played a central role in the lead-up to the GFC; perhaps the central role. Collateralized debt obligations (CDOs) were opaque in the extreme and investors *en masse* substituted their rating, and the reputation of the bank selling them, for a true appraisal of the risks they embodied. The complexity and opacity of most CDOs meant that disclosure, as an organising market principle, broke down. Investors did not fully understand the risks they were buying, especially when the products became as sophisticated as CDOs of CDOs.⁴⁷ Ratings ruled, and the ratings were deeply flawed.⁴⁸

Ratings agencies commenced business in the US in 1909.⁴⁹ They rose in prominence along with the US bond market, but as that market matured and became very low risk, the need for them waned. In the words of Sylla, '[b]y the 1960s and early 1970s, [the ratings agencies]... had become small and relatively moribund; the U.S. bond market was too safe for them to matter much, and the rest of the world generated little business'.⁵⁰

Then in the early 1970s a profound change occurred in how ratings agencies earned their money.⁵¹ Their business model had always been to sell their reports to investors, those who were about to base an investment upon them. Under this model, those who were paying for the reports had a strong interest in their accuracy and prudence. In the 1970s the agencies moved to charging the entity being rated or the entity about to issue the debt to be rated.⁵²

With this change, the agencies expanded in size, slowly at first, and then dramatically. As Partnoy wrote in 1999, '[t]he number of credit rating agency employees has multiplied more than ten-fold during the past decade'. On his figures by 1995, 'S&P had... a total staff of 1,200; Moody's... a total staff of 1,700'.⁵³ Today S&P has 6000 employees⁵⁴ and Moody's has 10,000.⁵⁵

Because the agencies needed the repeat business of these companies, the new system of being paid meant the agencies were in a position of conflict—their duties to investors conflicted with their own pecuniary interests. Suddenly the

⁴⁷ VV Acharya and others, *Regulating Wall Street: The Dodd–Frank Act and the New Architecture of Global Finance* (John Wiley & Sons 2010) 73.

⁴⁸ LJ White, 'The Credit Ratings Agencies and the Subprime Debacle' (2009) 21 *Crit Rev* 389.

⁴⁹ The first publicly available bond ratings was published by J Moody in 1909: *ibid* 390.

⁵⁰ R Sylla, 'A Historical Primer on the Business of Credit Ratings' (paper presented at The Role of Credit Reporting Systems in the International Economy Conference, The World Bank, Washington DC, 1–2 March 2001) 23.

⁵¹ VL Papaikonomou, 'Credit Rating Agencies and Global Financial Crisis: Need For a Paradigm Shift in Financial Market Regulation' (2010) 27 *Stud Econ Fin* 161, 169.

⁵² Sylla (n 50) 24.

⁵³ F Partnoy, 'The Siskel and Ebert of Financial Markets? Two Thumbs Down for the Credit Rating Agencies' (1999) 77 *Wash ULQ* 619, 649.

⁵⁴ 'S&P by Numbers' (*Standard & Poor's Ratings Services*) <www.spratings.com> accessed 16 July 2015.

⁵⁵ 'About Us' (*Moody's Corporation*) <www.moody.com> accessed 16 July 2015.

entity paying for the rating had a strong interest in the rating being as favourable as possible, as a higher rating of course meant lower borrowing costs. This conflict was compounded in the lead-up to the GFC with the rapid rise in structured finance products. The architects of these products in the investment banks would typically take a certain financial structure to a ratings agency and ask what rating they would give it, and if the rating was lower than desired, what needed to be done to the product to elevate the rating. Hence the agencies became heavily involved in the design of individual products.⁵⁶ After weeks or months of negotiation, when these products were finally presented for a rating, the agency's hands were largely tied by its earlier advice, and it was not seeing the product with fresh eyes.

The Dodd–Frank Act contains multiple amendments to the law relating to ratings agencies, but none that go to the heart of the matter—none that eradicate this core conflict.⁵⁷ The EU regulations go further than the US ones, but still do not eradicate this core conflict.

Coffee suggests that any reforms relating to credit rating agencies need to acknowledge three simple truths: (i) the 'issuer pays' business model invites the sacrifice of reputational capital in return for high current revenues; (ii) ratings competition is good, except when it is bad; and (iii) in a buoyant, rapidly rising market, no one, including investors, may have a strong interest in learning the truth. He concludes that only a strong and highly motivated watchdog can offset this process of repression and self-delusion.⁵⁸ Coffee argues that reform that fails to address the 'issuer pays' business model 'amounts to re-arranging the deck chairs on the Titanic, while ignoring the gaping hole created by the iceberg'.⁵⁹ He emphasizes the importance of getting the regulation right and suggests it is necessary to encourage a 'subscriber pays' model⁶⁰ to compete with the 'issuer pays' model.

This article supports Coffee's argument wholeheartedly. It is a peculiarly American idea that one can regulate away problems caused by major conflicts of interest: that sufficient regulation can force listed public companies, such as the ratings agencies, to put reputational issues and duties to third parties above immediate financial gain.

⁵⁶ N Ellis, L Fairchild and F D'Souza, 'Conflicts of Interest in the Credit Rating Industry after Dodd–Frank: Continued Business as Usual?' (2012) 7 *Virg L Bus R* 1, 3.

⁵⁷ For a summary of the reforms relating to ratings agencies, see G North and RP Buckley, 'The Dodd–Frank Wall Street Reform and Consumer Protection Act: Unresolved Issues of Regulatory Culture and Mindset' (2012) 35 *MULR* 479.

⁵⁸ JC Coffee, 'Ratings Reform: The Good, The Bad, and The Ugly' (Columbia Law and Economics Working Paper No 359, European Corporate Governance Institute Law Working Paper No 145/2010, September 2010) 28.

⁵⁹ *ibid* 58.

⁶⁰ Coffee defines the 'subscriber pays' model as one that requires institutional investors to obtain their own ratings from a ratings agency not retained by the issuer or underwriter before they purchase the debt securities: *ibid* 33.

The ratings agencies' historical business model was the right one. Being paid by the entity being rated gives rise to the enormous temptation to issue higher ratings to win repeat business. The best reform in this area would be to wind back the clock 45 years.

3. *The Perils of Thinking Small, the Need to Think Big*

Lawyers generally think small. It is a lawyer's job to attend to details. Legal training teaches lawyers to look backwards to find authority for propositions. In what other professional field do professionals look back to what might have been said a century ago to discern the answer to a contemporary issue? To do so in engineering or science, psychology or education, accounting or economics, would be to attract quizzical glances from colleagues if not their outright derision. Lawyers do it all the time.

So doubtless part of the responsibility for the small thinking in response to the GFC must be laid at lawyers' feet. Involve lawyers in reforms and one is likely to get moderate, incremental reforms. Lawyers stand for the status quo in many ways. Legal training reinforces this tendency, and lawyers' contributions to maintaining the rule of law and a vibrant economic system are considerable as a result.

The principal reforms being pursued in most markets are worthwhile, but insufficiently fundamental. We are attempting to respond in careful, measured, incremental ways to fundamental changes. This is unlikely to work.

The globalisation of a system that was expressly designed to be national is a seismic shift. The fact it started in the 1970s, a long time ago now, makes it no less seismic. The legalisation of financial gambling is another major, fundamental shift, as are the rise in algorithmic and HFT, the advent of dark pools, and the fundamentally different types of people going into banking today. These are fundamental changes that require a rethinking of the entire system.

Such thinking must address questions such as how large and profitable we wish financial sectors to be. Is it in the UK's interests to have so much of the economy dominated by the finance industry and its ancillary industries (law and accounting, etc)? There are some potential responses to such issues, however, and they do not tend to be a reworking of technical rules aimed at enhancing disclosure. Such responses include (i) a sovereign bankruptcy regime to respond to the globalisation of the international financial system; (ii) higher mandated capital levels for banks; (iii) levies on banks; (iv) a tax on financial transactions to reduce the size of the financial system and make it more risk-averse; (v) regulating strongly HFT and dark pools; and (iv) removing the conflict in the role of the ratings agencies.

A. *A System to Deal with Sovereign Bankruptcy*

Smith identified the clear need for a sovereign bankruptcy regime over 200 years ago, in these terms:

When it becomes necessary for a state to declare itself bankrupt, in the same manner as when it becomes necessary for an individual to do so, a fair, open, and avowed bankruptcy is always the measure which is both least dishonourable to the debtor, and least hurtful to the creditor.⁶¹

Horst Kohler, when Managing Director of the International Monetary Fund (IMF) in 2002, spoke to the same need when he said, ‘the present arrangements for resolving sovereign debt crises are not sufficiently transparent or predictable, and . . . they impose unnecessary costs on debtors, creditors, and the system as a whole’.⁶²

Faced with a nation in crisis, the IMF simply has too few policy options at its disposal. The IMF can continue lending or stop lending to the debtor. If the nation’s problems include an unsustainable debt burden, more debt will only make matters worse. Yet if the IMF stops lending, the debtor will usually be forced to default, and lose access to capital, and capital markets more generally may be destabilized.⁶³ Traditionally these crises were the preserve of developing countries, but of late, of course, we have seen Iceland, Ireland, Greece and Cyprus suffer similar crises. Yet today there are still no machinery or rules in place to facilitate or regulate sovereign bankruptcy. The IMF proposed a Sovereign Debt Restructuring Mechanism in 2002. This idea did not win widespread support at the time, but in December 2014 the UN General Assembly passed a resolution which established an *ad hoc* committee on sovereign debt restructuring processes.⁶⁴

In writing about sovereign bankruptcy, Smith meant something quite different from corporate or personal bankruptcy. A sovereign nation cannot go out of business, and its assets cannot be liquidated and distributed among creditors. Sovereign bankruptcy would involve a stay of execution by creditors while the procedure was in process, and would result in the determination of an amount of debt relief that would, after it had been effected, leave the debtor able to continue to service its remaining debts and afford to its people their basic human rights.

⁶¹ A Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (Edwin Cannan ed, University of Chicago Press 1976) book V, ch III, 468.

⁶² H Köhler, ‘Reform of the International Financial Architecture: A Work in Progress’ (speech delivered at the Central Bank Governors’ Symposium, Washington DC, 5 July 2002).

⁶³ See RP Buckley, ‘The Bankruptcy of Nations: An Idea Whose Time Has Come’ (2009) 43 *The Intl Lawyer* 1189.

⁶⁴ IMF, ‘IMF Executive Board Discusses Sovereign Debt Restructuring—Recent Developments and Implications for the Fund’s Legal and Policy Framework’ (Public Information Notice No 13/61, 23 May 2013); O Fitzgerald, ‘The Pursuit of Global Rule of Law for Sovereign Debt Restructuring’ (2015) CIGI (10 March 2015) <www.cigionline.org/publications/pursuit-of-global-rule-of-law-sovereign-debt-restructuring> accessed 24 July 2015.

The term sovereign bankruptcy is therefore used, in the literature, as a shorthand for a formal procedure conducted according to rules that would result in a degree of mandated debt relief. Sovereign bankruptcy would thus lead to much the same type of result as the long, protracted rescheduling negotiations which are currently the norm, *viz* the debt would be cancelled in part and the balance rescheduled. The differences are that the level of cancellation might be higher, as the debtors have little power in the current negotiations, and the outcome would be determined by an independent forum, not by the parties, and according to prescribed rules. In short the process should be fairer, swifter and more certain than that which prevails today.

The principal purposes of a personal bankruptcy system are generally seen to be to divide the assets of an insolvent debtor fairly and rateably between its creditors and allow an insolvent debtor the opportunity to make a fresh start free. The four objectives of *corporate* insolvency law are generally seen as restoring the company to profitable trading if possible, maximising returns to creditors, providing a fair and equitable system for the ranking of claims, and identifying the causes of company failures and imposing sanctions for culpable management.⁶⁵

What is missing from the general insolvency literature is the notion that an effective insolvency regime will improve dramatically the allocation of credit within an economy, and thus make the economy more stable. This effect can be termed the ‘systemic’ aspect of a bankruptcy regime—for without a bankruptcy regime, any economy will, as a system, be unstable.⁶⁶

The fairness aspects of bankruptcy are important. Internationally their absence has cost millions of lives in developing countries. However the systemic advantages of a bankruptcy system are arguably more important at the international level. This is because the more immediate risk of loss for creditors with a sovereign bankruptcy regime in place would tend to moderate capital flows to developing countries. The real prospect of massive loan losses always sharpens bankers’ minds. These systemic advantages would help ensure that the capital flows are more appropriate to the needs and capacities to repay of debtors. Financial crises would thus be less frequent and less severe because crises are so often the result of excessive inflows in preceding years.⁶⁷ Furthermore, in the event of a crisis, the workout would proceed more rapidly and efficiently and thus the workout costs to creditors and debtors would be reduced.

This systemic effect of bankruptcy is taken for granted in domestic systems. If a bank makes a poor credit decision domestically and lends to a borrower

⁶⁵ R Goode, *Principles of Corporate Insolvency Law* (4th edn, Sweet & Maxwell 2011) 58.

⁶⁶ RP Buckley, ‘The Systemic Benefit of Insolvency Law: A Lacuna in the Australian Literature’ (2003) 11 *ILJ* 38.

⁶⁷ Excessive capital inflows played a major role in the debt crisis of 1982, the Mexican crisis of 1995, the East Asian crisis of 1997 and Russia’s meltdown in 1998: see RP Buckley, ‘A Tale of Two Crises: The Search for the Enduring Reforms of the International Financial System’ (2001) 6 *UCLA J Int L For Aff* 1.

who subsequently becomes insolvent, absent security, most of the money will be lost. Without the prospect of sovereign bankruptcy, lenders have not borne the full implication of poor lending decisions internationally and thus excessive extensions of credit have been the result. As default is so destabilising, nations tend to service their debts through higher taxes and lower social services that translate into malnutrition, inadequate housing and health care, etc.⁶⁸ The debts of effectively bankrupt nations are repaid at the expense of the most basic human rights of their own citizens. Latin American nations still service debt incurred in the 1970s. That debt has been restructured, reduced, and transformed into Brady bonds, which are still some 15 years away from being fully repaid.⁶⁹ Debt is a lifetime sentence for poor countries. There is still something very like debtors' prisons for highly indebted nations, as Greece and Spain are now beginning to learn.

The comprehensive approach would be to establish a standing sovereign bankruptcy court by treaty. A more achievable approach, in the near term, would be to establish an *ad hoc* tribunal for each case. In either case, the body would need to apply an agreed set of rules and procedure. An *ad hoc* arbitral tribunal could be established quickly if implemented by agreement between the creditors and a nation in difficulty.⁷⁰

The two principal models generally considered as the basis for any sovereign bankruptcy regime are Chapters 9 and 11 of the US Bankruptcy Code.⁷¹ Chapter 11 is better known than Chapter 9 and, perhaps for this reason, commentators often consider Chapter 11 when looking for a precedent for a sovereign bankruptcy regime. However, the issues that arise in the bankruptcy of a nation are closer to those of a local government than a corporation. For these reasons, Chapter 9 is the best place to start, as it governs the bankruptcy of local government and municipal authorities. While Chapter 9 is not well known, there have been about 654 proceedings brought under Chapter 9 in its history,⁷² and studies have suggested the proceedings have worked very well.⁷³

On 9 September 2014 the UN General Assembly passed an historic resolution to commence negotiations for a treaty for a bankruptcy process for

⁶⁸ *ibid* 101–2.

⁶⁹ A Porzecanski, 'When Bad Things happen to Good Sovereign Debt Contracts: The Case of Ecuador' (2010) 73 *L Contemp Prob* 251, 254; H Scott, 'A Bankruptcy Procedure for Sovereign Debtors' (2003) 37(1) *Intl L* 103, 106.

⁷⁰ K Raffer, 'Solving Sovereign Debt Overhang by Internationalising Chapter 9 Procedures' (2002) 36 *Studien von Zeitfragen* <www.jahrbuch2002.studien-von-zeitfragen.net/Weltfinanz> accessed 16 July 2015.

⁷¹ United States Bankruptcy Code 11 USC §§ 101–1532 (2013).

⁷² There were approximately 600 municipal bankruptcy filings from 1937 to 2011: M De Angelis and X Tian, 'Chapter 9 Municipal Bankruptcy—Utilization, Avoidance, and Impact' in O Canuto, L Lu and KW Brown (eds), *Until Debt Do Us Part: Subnational Debt, Insolvency, and Markets* (World Bank 2013) 321, and since then there were 20 in 2012, 9 in 2013, and 12 in 2014 and 1 in the first quarter of 2015 (at the time of writing) United States Courts, Table F-2 Bankruptcy Filings (March 31, 2015).

⁷³ R Jeweler, 'Municipal Reorganization: Chapter 9 of the U.S. Bankruptcy Code' (Report for Congress, Congressional Research Service, 8 March 2007) CRS-1 <http://assets.opencrs.com/rpts/RL33924_20070308.pdf> accessed 16 July 2015; G Wozniacka, 'Stockton is Largest US City to Seek Bankruptcy' *Associated Press* (28 June 2012) <<http://bigstory.ap.org/article/stockton-largest-us-city-seek-bankruptcy>> accessed 16 July 2015.

sovereign nations.⁷⁴ The vote was 124 in favour, 11 against, and 41 abstentions. All developing countries present voted in favour. Most EU nations abstained. Among the 11 countries to vote against were the US, UK, Japan, Germany, Canada and Australia.

Civil society groups worldwide are hailing this vote as the first step to rein in vulture funds. Vulture funds buy the sovereign debt of poorer nations at deep discounts and sue to recover the debt's full face value. In the recent US case of *Republic of Argentina v NML Capital*,⁷⁵ NML bought Argentine debt for 20 to 25 cents on the dollar and has spent years suing to recover one hundred cents on the dollar. Yet Argentina is only back on its feet today because a decade ago the world's leading commercial banks recognized it was then bankrupt and agreed to take a massive haircut of over 66 per cent on their loans to the nation.⁷⁶

Vulture funds are well named as their behavior is amoral. The lenders with the strongest claim to repayment are those that lent the full amount to Argentina in the first place not those that bought it later for a small fraction of its face value. The US court decisions siding with the vulture fund imperil all future sovereign debt restructuring. Why would any creditor now agree to a substantial haircut on their debts when, if they simply hold out, they may eventually recover the full face value?

The informal procedures that govern the restructuring of sovereign indebtedness have been largely settled for over 30 years. US courts upholding the rights of vulture funds throws this settled procedure into disarray and provides the impetus for a formal bankruptcy regime under which a tribunal would decide the amount of debt that needs to be written off and the amount that can be serviced. The US courts got this wrong because the sovereign context is utterly different from that of loans within the US. When banks lend to developing country sovereigns they do so knowing the sovereign typically has no foreign assets over which execution can be levied; that the loan is completely unsecured; and that history suggests it may well at some point need to be written down in value. Knowing all this, banks still do the business because it is profitable. Such loans are governed by New York or English law because there is no other law available. However, these domestic debt recovery laws assume the existence of a bankruptcy process, and assume the ability to levy execution over the assets of such a debtor—two factors notably absent in the sovereign context.

While the US vulture fund litigation precipitated the General Assembly vote, as explored above, limiting the activities of vulture funds is not the main reason

⁷⁴ Towards the Establishment of a Multilateral Legal Framework for Sovereign Debt Restructuring Processes, UNGA Res 68/304, UN GAOR, 68th sess, 107th plen mtg, Agenda Item 14, UN Doc RES/68/304 (9 September 2014).

⁷⁵ 695 F3d 201 (2014).

⁷⁶ RP Buckley, 'Why Are Developing Nations So Slow to Play the Default Card in Renegotiating Their Sovereign Indebtedness?' (2005) Chicago J Int L 347, 362.

the world needs a sovereign insolvency regime. The principal reason why such a regime is needed is that no financial system works well without one. Every domestic financial system in the world has a bankruptcy regime to allocate losses between debtors and creditors upon debtor insolvency. Such regimes sharpen the mind of creditors and work against over-lending and over-borrowing. Their absence, on the international scene, is a principal reason commercial banks consistently over-lend to poor countries—they know poor countries will service the debt by raising taxes and decreasing social services, usually to the point of infringing the fundamental human rights of the poorest of their own people.

The reason for the absence of a sovereign bankruptcy regime is that there was never supposed to be a global financial system. When the US and the UK designed the post-war international financial system in 1944, the intention was to promote global trade but keep finance national.⁷⁷ If the architects of the system had intended a global financial system, they would have established a global financial regulator and a global insolvency regime because no domestic financial system works effectively without these two institutions. The system they established worked well from after WWII to the early 1970s when the US went off the gold standard, the fixed exchange rate regime fell apart, and a global financial system began to emerge.⁷⁸ Ever since, we have had a global financial system missing a critical piece of institutional infrastructure.

There is still a long way to go on this journey. A vote to begin negotiations for a treaty is a long way short of agreeing to the terms of a sovereign bankruptcy process and having the treaty implemented by a sufficient number of countries. But the vote is nonetheless a vitally important first step in remedying a major piece that has been missing from the international financial system for the past 40 years. Details such as the rules of any such bankruptcy regime all remain to be worked out.⁷⁹ But Chapter 9 would be a good place to start. A modified form of what works for municipal governments in the US should work far better than our current arrangements for the poorer nations of the world. In current sovereign debt renegotiations, the IMF tends to severely limit the budgetary expenditures of debtor nations,⁸⁰ despite considerable evidence that overly restrictive fiscal settings are not conducive to economic growth in developing countries.⁸¹ It should not be surprising that adjudication under a predetermined set of rules by an independent forum should produce a

⁷⁷ D Rodrik, 'Feasible Globalizations' (National Bureau Economic Research Working Paper No 9129, September 2002).

⁷⁸ RP Buckley and D Arner, *From Crisis to Crisis: The Global Financial System and Regulatory Failure* (The Hague, Kluwer Law International 2011) 13.

⁷⁹ See Eurodad, 'A Fair and Transparent Debt Work-Out Procedure: 10 Core Civil Society Principles' (Report, European Network on Debt and Development (Eurodad), December 2009).

⁸⁰ CM Reinhart and KS Rogoff, 'Financial and Sovereign Debt Crises: Some Lessons Learned and Those Forgotten' (Working Paper No 13/266, IMF, December 2013).

⁸¹ D Goldsborough, 'Does the IMF Constrain Health Spending in Poor Countries? Evidence and an Agenda for Action' (Report, Center for Global Development, June 2007).

fairer and more certain and predictable outcome than the unregulated negotiations that resolve these issues today. Developed and developing nations, and the international financial system, would all be best served by a carefully crafted set of bankruptcy rules, modelled on Chapter 9 of the US Bankruptcy Law, and applied and enforced pursuant to a treaty.

B. Higher Mandated Capital Levels for Banks

Banks with higher levels of capital are safer. Given the burden that bail-outs of banks imposed on government balance sheets in 2009 one might expect governments to now require banks to hold substantially more capital, to mitigate the risk of further bail-outs being necessary, and because some European nations lack the fiscal capacity to repeat the performance. Basel III does require slightly, but not dramatically, higher capital levels. Banks have resisted the calls for them to hold much more capital by arguing that capital is expensive.⁸²

This is a quaint argument and one that has been rejected by the Swiss government and comprehensively refuted in the important new book, *The Bankers' New Clothes: What's Wrong with Banking and What to Do about It*, by Admati and Hellwig.⁸³ The authors highlight how it is only the banking sector that views capital as expensive, and that the sector currently runs on the lowest level of capital of any corporate sector. Bankers a century ago would never have dreamt of attempting to run a bank on the wafer thin capitalisations of modern banks.⁸⁴

This very thin capitalisation of financial institutions is one of the main reasons why widespread insolvency became a very real possibility after the collapse of Lehman Brothers, as financial institutions were simply too leveraged to absorb their losses, and deep systemic interconnections meant that problems at one financial institution invariably and almost immediately became a problem for other financial institutions. In contrast, Apple, one of the largest US companies by market capitalisation, has virtually no debt and operates

⁸² See for example Institute of International Finance, 'The Cumulative Impact on the Global Economy of Changes in the Financial Regulatory Framework' (Report, September 2011); M Hellwig, 'Capital Regulation After the Crisis: Business as Usual?' (Preprints of the Max Planck Institute for Research on Collective Goods, No 31, 2010) 12; AR Admati and others, 'Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is not Expensive' (MPI Collective Goods Preprint 2010/42, 2011).

⁸³ A Admati and M Hellwig, *The Bankers' New Clothes: What's Wrong with Banking and What to Do about It* (Princeton University Press 2013).

⁸⁴ *ibid* 311. See also M Bordo and B Eichengreen, 'Is Our Current International Economic Environment Unusually Crisis-Prone?' (Paper presented at the Reserve Bank of Australia Conference on Private Capital Flows, Sydney, 9–10 August 1999); DK Tarullo, 'Banking on Basel: The Future of International Financial Regulation' (Peter G Peterson Institute for International Economics 2008) 29–31; AK Kashyap, JC Stein and S Hanson, 'An Analysis of the Impact of "Substantially Heightened" Capital Requirements on Large Financial Institutions' (Research paper, Clearing House Association, May 2010) 18; 'Strength in Numbers: How Much Capital did Banks Opt to Hold When They had the Choice?' *The Economist* (10 November 2012) <www.economist.com/news/finance-and-economics/21565937-how-much-capital-did-banks-opt-hold-when-they-had-choice-strength> accessed 16 July 2015; F Capie and G Wood, 'Do We Need Regulation of Bank Capital? Some Evidence from the UK' (2013) 40 *IEA Curr Controv* 1, 6.

purely on its own capital.⁸⁵ Most industrial companies have debt levels that are, by banking standards, incredibly low. Higher levels of capital would therefore make a bank's debt and equity safer, with the result that the cost to the bank of both its debt and equity will be lower as both lenders to and investors in the bank will accept lower returns in exchange for this lower risk. In Murphy's words:

Basel III and related initiatives such as the G-SIFI charges have dramatically increased the quality and quantity of capital that banks—especially large banks—are required to hold. Clearly a bank with more common equity tier 1 capital can absorb more losses before becoming insolvent, and hence these changes can be seen as enhancing financial stability.⁸⁶

Bank capital may therefore not be as expensive to banks as has been claimed, and it certainly reduces the costs to society of financial instability.

For these and many other reasons, Admati and Hellwig establish that banks could have much higher capital levels without it denting their profitability significantly or requiring the passing on of substantially higher costs to customers. The reliance on high debt levels, and conversely, low capital levels, by banks is in the quest to maximize profits in an environment in which the losses can be socialized. Once the social and economic costs of financial crisis are factored in the 'cost of capital' argument diminishes. This is the approach that has been taken in Switzerland. A quantitative study of the costs of the higher capital requirements to the Swiss economy and banking sector found that:

the long-run social benefits of substantially higher capital requirements are large and are far greater than the social costs. The increase of capital levels as foreseen by Basel III and the Swiss Too Big to Fail (TBTF) regulations will accordingly reduce the probability of systemic crisis by 3.6% and yield an expected permanent annual GDP benefit of 0.64%. Thus, social benefits exceed social costs by a factor of nearly 11. Even if we take into account that the cost-benefit calculations are subject to estimation errors, the sheer difference between social costs and benefits is huge and should be recognized in the debate about the costs and benefits of the new regulations in Switzerland.⁸⁷

The authors list studies in other countries that have produced similar results.⁸⁸ Banks are currently run on such high amounts of leverage and low amounts of capital because it enables them to maximize short-term profits without having to ensure that they have adequate provisioning to cover losses during an

⁸⁵ P Lattman and P Eavis, 'To Satisfy its Investors, Cash-Rich Apple Borrows Money' *New York Times* (30 April 2013) < <http://dealbook.nytimes.com/2013/04/30/apple-raises-17-billion-in-record-debt-sale/> > accessed 24 July 2015.

⁸⁶ D Murphy, 'Maintaining Confidence' (Special Paper 216, LSE Financial Markets Group Paper Series, December 2012) 11–12. Murphy goes on to propose how in a perverse sense more capital may not make banks any safer, a proposition with which I disagree, but which is at least reasoned.

⁸⁷ G Junge and P Kugler, 'Quantifying the Impact of Higher Capital Requirements on the Swiss Economy' (WWZ Discussion Paper 2012–13 University of Basel, August 2012) 5.

⁸⁸ *ibid* 5–6.

economic downturn or market crisis. They know that should they fail, the taxpayers will bail them out—a moral hazard problem which has been made substantially worse by the crisis. Our present capital structures for contemporary banks are a shining example of moral hazard in action.

To mitigate this moral hazard, Switzerland applies a ‘Swiss finish’ to its SIFIs that requires that they hold up to 21.5 per cent of risk-weighted assets (RWA) in boom times. This has been seen as enhancing their international competitiveness by underpinning their stability and reducing risk to the Swiss economy. Switzerland is not the only country to go beyond the capital levels set out in Basel III. Austria has set a supplementary capital requirement of 3 per cent, Singapore 2 per cent, and Sweden 5 per cent for institutions deemed domestically significant.⁸⁹ In fact there has been a marked lack of international consistency in the implementation of Basel III, with various countries choosing to adjust the rules and require higher standards of their banks in various areas. Switzerland’s lead on these matters is one that many countries would do well to follow.⁹⁰

C. *Bank Levies*

The IMF has recommended that governments impose a levy on the assets of their financial institutions. In its words, ‘[e]xpecting taxpayers to support the [financial] sector during bad times while allowing owners, managers, and/or creditors of financial institutions to enjoy the gains of good times misallocates resources and undermines long-term growth’.⁹¹

France, Germany and the UK imposed levies in early 2011 for four reasons: (i) to recoup some of the costs of bailing out their financial sectors in the wake of the GFC; (ii) to accumulate funds so that future bailouts are funded by banks rather than taxpayers; (iii) to shrink the size of financial sectors that have grown too large in part due to being under-taxed; and (iv) to discourage risky behaviour in banks.⁹²

There is a strong argument that financial sectors in some countries are too large and profitable and consume a disproportionate amount of the financial and human capital in those countries. Stiglitz believes ‘in many countries, the financial system had grown too large; it had ceased to be a means to an end and had become an end in itself’.⁹³ Turner said ‘the whole financial system has

⁸⁹ IMF, ‘Australia: Addressing Systemic Risk Through Higher Loss Absorbency—Technical Note’ (Country Report No 12/311, IMF, November 2012) 16 (Technical Note) 10, table 4. The CRD IV package of the European Union is also important for member states.

⁹⁰ RP Buckley, RH Weber and M Dowell-Jones, ‘A Swiss Finish for Australia? Approaches to Enhancing the Resilience of Systemically Important Banks’ (2015) 10 *Capital Markets LJ* 41.

⁹¹ IMF, ‘A Fair and Substantial Contribution by the Financial Sector’ (Final Report for the G20, IMF, June 2010) 9, 15.

⁹² G Gottlieb, G Impavido and A Ivanova, ‘Taxing Finance’ (2012) 49 (3) *Fin and Dev* 44.

⁹³ J Stiglitz, *The Stiglitz Report: Reforming the International Monetary and Financial Systems in the Wake of the Global Crisis* (New Press 2010) 52.

grown bigger than is socially optimal ... [f]rom the point of view of Britain as a whole we have over-relied on the City and we need other dynamic sectors'.⁹⁴ Krugman believes that 'an oversized financial industry is hurting the broader economy',⁹⁵ and even 30 years ago, Nobel Laureate James Tobin wrote that 'we are throwing more and more of our resources, including the cream of our youth, into financial activities remote from the production of goods and services, into activities that generate high private rewards disproportionate to their social productivity'.⁹⁶ Bank levies are an attempt to redress these issues. A financial transactions tax is another means of achieving the same end.

D. *Financial Transaction Tax*

A Financial Transaction Tax (FTT) is a tiny impost of perhaps between 0.01–0.1 per cent on all wholesale capital market secondary transactions. It was first proposed by Keynes,⁹⁷ and resurrected in the context of foreign currency transactions by Tobin.⁹⁸ Their thinking is that the essential function of capital markets is to intermediate capital effectively. In their view, an FTT would dissuade purely speculative, short-term transactions while doing little to nothing to dissuade longer-term investments. Markets would thus be encouraged to trade more on economic fundamentals and less on what speculators believe the price for an asset will be in the next few minutes or hours. On this reasoning, an FTT is needed today more than ever, given that some 85 per cent of trading on US financial markets is algorithmically driven and the assets acquired are typically held for very short periods of time, often measurable in seconds.

In 2011 the European Commission voted to implement an FTT in the EU by early 2018.⁹⁹ In January 2013, the EU voted to allow 11 countries to implement an FTT much sooner. These countries are Austria, Belgium, Estonia, France, Germany, Greece, Italy, Portugal, Slovakia, Slovenia and Spain.¹⁰⁰ This tax in Europe will apply to shares and bonds, and derivatives on shares and bonds. The proposed rates are 0.1 per cent on shares and bonds, and 0.01 per cent on the derivatives of shares and bonds.¹⁰¹ The tax base applying to derivatives is the nominal value of the underlying assets.¹⁰² The

⁹⁴ A Turner, 'How to Tame Global Finance' *Prospect* (27 August 2009) <www.prospectmagazine.co.uk/magazine/how-to-tame-global-finance> accessed 16 July 2015.

⁹⁵ Paul Krugman, 'Don't Cry for Wall Street' *New York Times* (23 April 2010) A27.

⁹⁶ J Tobin, 'On the Efficiency of the Financial System' (1984) 153 *Lloyds Bank Rev* 1, 14. Tobin won his Nobel Prize for other work.

⁹⁷ JM Keynes, *The General Theory of Employment, Interest and Money* (Macmillan 1936) 156.

⁹⁸ J Tobin, 'A Proposal for International Monetary Reform' (1978) 4 *Eastern Econ J* 153.

⁹⁹ European Commission, Proposal for a Council Decision on the System of Own Resources of the European Union 2011/0183 (29 June 2011) art 4.

¹⁰⁰ P Inman, 'EU Approves Financial Transaction Tax for 11 Eurozone Countries' *The Guardian* (23 January 2013) <www.guardian.co.uk/business/2013/jan/22/eu-approves-financial-transaction-tax-eurozone?> accessed 16 July 2015.

¹⁰¹ European Commission, Proposal for a Council Directive on a Common System of Financial Transaction Tax and Amending Directive 2008/7/EC (28 September 2011) art 8(2).

¹⁰² *ibid* art 6.

proposed tax will be levied according to the fiscal residence of the seller of an asset.¹⁰³

An FTT today is eminently feasible. When Tobin suggested his tax on foreign currency transactions 40 years ago, its implementation was highly problematic because most trading was conducted on proprietary systems. However, in the interim, trading has migrated to centralized exchanges and clearing houses that undertake the function exceptionally efficiently. Moving trades away from these exchanges and clearing houses would cost far more than the amount of the tax, so today the collection of the tax would be relatively simple. Indeed, when the IMF considered the administrative feasibility of levying an FTT in 2011 it concluded it ‘is no more difficult and, in some respects easier, to administer than other taxes’.¹⁰⁴

An FTT would also encourage simpler transactions and thereby enhance the effectiveness of securities regulations. The complexity of many CDOs in the lead-up to the GFC defeated disclosure as an organising market principle. The cascading effect of an FTT—applying to multiple transfers which together comprise one transaction—offends some economists’ sense of propriety, but has the benefit of incentivising simplicity in transactional design which should in turn increase the efficacy of securities regulation.

If the G20 really wants to address the move in our financial markets towards ever-higher frequencies of trading, and wants to encourage accuracy in pricing, and thus promote the most important form of market efficiency, allocative efficiency, an FTT may be the way to go, and it will be fascinating to see if the 11 EU nations that have said they will implement a FTT actually do so in 2015.

E. A Stronger Response to High Frequency Trading and Dark Pools

The approaches of regulators to HFT and dark pools have varied quite widely. The approaches of four jurisdictions are considered next. The UK is not considered as it had not, at the time of writing, responded substantively to these developments.

(i) The EU

The EU reshaped the competitive landscape of its financial markets with the Markets in Financial Instruments Directive of 2004 (MiFID) that entered into force in November 2007. An important goal of this new regime was to increase competition by promoting alternative trading venues. To this end, the so-called ‘concentration rule’ of Member States, requiring equity orders to be placed on national stock exchanges, was abolished.¹⁰⁵ These efforts created the

¹⁰³ *ibid* art 3.3.1. See also ‘Financial Transaction Tax Tabled by European Commission’ *BBC News* (14 February 2013) <www.bbc.co.uk/news/business-21457562> accessed 16 July 2015.

¹⁰⁴ JD Brondolo, ‘Taxing Financial Transactions: An Assessment of Administrative Feasibility’ (Working Paper 11/185, IMF, August 2011) 5.

¹⁰⁵ Ferrarini and Moloney (n 27) 559 and Foucault, Pagano and Röell (n 33) 271.

environment in which dark pools could grow.¹⁰⁶ The literature suggests brokers failed to connect to new competitive venues and instead directed funds to their internal liquidity pools,¹⁰⁷ waivers of pre-trade transparency requirements gave rise to dark pools within traditional exchanges and other multilateral venues,¹⁰⁸ and regulatory efforts to increase transparency forced some trading into more opaque pools.¹⁰⁹

A change in the MiFID regime is currently pending, with the European Parliament passing the Commission's proposal for a new directive and a new regulation, known together as MiFID II, due for implementation in January 2017.¹¹⁰ The text awaits approval by the Council at the time of writing. If passed, the new regime will take a more cautious regulatory stance towards dark pools. Although dark pools will still be legal, they will be subject to stricter regulation.¹¹¹

Investment firms running an internal matching system that operates on a multilateral basis will have to be authorized as a 'Multilateral Trading Facility'.¹¹² To avoid a negative impact on the price formation process, trading in a financial instrument that benefits from reference price waivers or negotiated price waivers will be subject to a volume cap on that trading venue of 4 per cent of the total volume of trading in that financial instrument on all trading venues across the Union over the previous 12 months. In addition, a maximum of 8 per cent of the total volume of trading on all trading venues in the past 12 months across the Union can take place under such waivers.¹¹³ The use of a reference price waiver also comes with a price improvement mechanism that requires orders to be matched at the midpoint within the current bid and offer prices of the trading venue or, when the midpoint is not available, at the opening or closing prices of the relevant trading session.¹¹⁴ However, dark pools will still not have to report pre-trade pricing information in relation to large orders that have the ability to move the market.¹¹⁵

¹⁰⁶ Ferrarini and Moloney (n 27) 575–81.

¹⁰⁷ M Price, 'MiFID Slips into the Dark' *The Banker* (4 August 2008) <www.thebanker.com/Tech-Trading/Trading/MiFID-slips-into-the-dark?> accessed 16 July 2015.

¹⁰⁸ *ibid.*

¹⁰⁹ Foucault, Pagano and Röell (n 33) 299.

¹¹⁰ European Commission, Press Release Database, Daily News—12.06.2014 <<http://europa.eu/rapid/midday-express-12-06-2014.htm>> accessed 24 July 2015.

¹¹¹ Ferrarini and Moloney (n 27) 588.

¹¹² European Commission, 'Statement—More Transparent and Safer Financial Markets: European Commission Welcomes European Parliament Vote on Updated Rules for Markets in Financial Instruments (MiFID II)' (Press Release, STATEMENT/14/129, 15 April 2014).

¹¹³ European Parliament, Position of the European Parliament adopted at first reading on 15 April 2014 with a view to the adoption of Regulation (EU) No. .../2014 of the European Parliament and of the Council on markets in financial instruments and amending Regulation (EU) No 648/2012, P7_TC1-COD(2011)0296 (15 April 2014).

¹¹⁴ *ibid* para 17, art 4(2); European Commission, 'Markets in Financial Instruments Directive (MiFID II): Frequently Asked Questions' (Press Release MEMO/14/305, 15 April 2014) <http://europa.eu/rapid/press-release_MEMO-14-305_en.htm> accessed 24 July 2015.

¹¹⁵ European Parliament, Position of the European Parliament (n 113) para 17, art 4(1)(c) (d); and European Commission, 'MiFID II' (n 114) 2.

In addition to requirements for venues and volume caps on certain pre-trade transparency waivers MiFID II will introduce new controls for algorithmic trading.¹¹⁶ All algorithmic traders will need to be properly regulated and, if pursuing a market-making strategy, will need to provide liquidity. In addition, investment firms that provide direct electronic access to a trading venue will need to put in place systems and risk controls, such as circuit breakers when there is unexpected price volatility, so as to avoid trading that contributes to a disorderly market or involves market abuse.¹¹⁷ Traders who apply HFT techniques are also expressly included in the directive, with no possibility of exemption.¹¹⁸ The European Parliament, however, had to give up its demand of a minimum resting period of 500 milliseconds, which would have severely impacted HFT.¹¹⁹ As part of the regulation of HFT, the proposed directive also provides that trading venues will have to provide access to co-location services on a non-discriminatory, fair and transparent basis,¹²⁰ and all orders generated by algorithmic trading will need to be flagged to the competent authorities.¹²¹

(ii) *United States*

In February 2014, the House Committee on Financial Services held a hearing into dark pools and the use of HFT in dark pools.¹²² Unsurprisingly, industry experts were in general favourably disposed towards dark pools, even mentioning them as a way for long-term investors to protect themselves against high-frequency traders by reducing the visibility of large scale trades¹²³—which is another way of saying, ‘let’s have even less transparency as a response to the side-effects of less transparency’. Nonetheless, a new rule issued by FINRA, which was implemented from 12 May, 2014, increases

¹¹⁶ European Parliament, European Parliament legislative resolution of 15 April 2014 on the proposal for a directive of the European Parliament and of the Council on markets in financial instruments repealing Directive 2004/39/EC of the European Parliament and of the Council (recast) (COM(2011)0656—C7-0382/2011—2011/0298(COD)) (15 April 2014) art 17.

¹¹⁷ European Commission ‘MiFID II’ (n 114) 3; European Parliament, European Parliament legislative resolution, *ibid* para 64.

¹¹⁸ European Parliament, European Parliament legislative resolution, (n 116) para 23, art 2(1)(d)(iii), 2(1)(e), 2(1)(j).

¹¹⁹ H Jones, ‘EU Agrees Preliminary Deal to Rein in Speed Traders’ *Reuters* (22 October 2013) <www.reuters.com/article/2013/10/22/europe-speedtrading-idUSL5N0IC1NH20131022> accessed 16 July 2015.

¹²⁰ European Parliament, European Parliament legislative resolution (n 116) para 62.

¹²¹ *ibid* para 67, art 48(10).

¹²² S Patterson, ‘Lawmakers Debate Dark Pools at Hearing’ *The Wall Street Journal Moneybeat Blog* (28 February 2014) <<http://blogs.wsj.com/moneybeat/2014/02/28/lawmakers-debate-dark-pools-at-hearing/>> accessed 16 July 2015.

¹²³ RC Campos, Testimony Concerning Equity Market Structure: A Review of SEC Regulation NMS, Before the House Subcommittee on Capital Markets and Government Sponsored Enterprises (28 February 2014) 3–4 <<http://financialservices.house.gov/uploadedfiles/hhrg-113-ba16-wstate-rcampos-20140228.pdf>> accessed 16 July 2015; S Lofchie, Written Testimony—House of Representatives Committee on Financial Services—Subcommittee on Capital Markets and Government Sponsored Enterprises, Hearing on “Equity Market Structure: A Review of SEC Regulation NMS” (28 February 2014) The Committee on Financial Services, 5 <<http://financialservices.house.gov/uploadedfiles/hhrg-113-ba16-wstate-slofchie-20140228.pdf>> accessed 16 July 2015.

reporting requirements executed on Alternative Trading Systems, which include dark pools.¹²⁴

At the time of writing, the SEC had completed a literature review,¹²⁵ but had not yet taken any regulatory steps to restrict HFT;¹²⁶ and HFT in derivatives was being examined by the CFTC.¹²⁷ HFT traders were also the subject of insider trading investigations by the FBI and by New York's Attorney General.¹²⁸

(iii) *Australia*

In recent years, the Australian Securities and Investments Commission (ASIC) has taken a stronger stance on dark liquidity, automated trading and HFT. New rules require markets to pause trading when automated trading causes extreme price movements, require brokers to have a 'kill switch' in place, and subject dark trading to a price improvement rule compared to lit venues and to block trading thresholds for pre-trade transparency.

In March 2013, the ASIC released a report and a consultation paper on dark liquidity and HFT,¹²⁹ which was followed by the release of new rules in August 2013.¹³⁰ The new rules target mainly dark pool liquidity rather than HFT. This was to be expected as the report on dark liquidity and HFT found HFT to have no impact on price formation, liquidity and execution costs in Australia.¹³¹ To the extent that new rules are put in place to deal with HFT, it is to avoid manipulative practices.¹³² As in the EU, a 500 milliseconds resting time for orders (only of \$500 or less) had been proposed to reduce excessive noise, but was not implemented following consultation as the costs of systems development to make this happen would have allegedly exceeded the benefit from doing it.¹³³

¹²⁴ FINRA, Rule 4552—Alternative Trading Systems—Trading Information for Securities Executed Within the Alternative Trading System.

¹²⁵ SEC, 'Equity Market Structure Literature Review—Part II: High Frequency Trading' (18 March 2014).

¹²⁶ SN Lynch, 'UPDATE 2—U.S. SEC Chair to Congress: "The Markets are not Rigged"' *Reuters* (30 April 2014) <www.reuters.com/article/2014/04/29/sec-highspeed-trading-idUSL2N0NLOZA20140429> accessed 16 July 2015.

¹²⁷ D Miedema, 'U.S. Futures Regulator CFTC Probing Speed Traders' *Reuters* (3 April 2014) <www.reuters.com/article/2014/04/03/us-hedgefunds-speed-trading-cftc-idUSBREA321QU20140403> accessed 16 July 2015.

¹²⁸ D Michaels, M Philips and S Brush, 'Slow Cop, Fast Beat: SEC Takes Its Time on High-Frequency Trading Rules' *BloombergBusiness* (10 April 2014) <www.bloomberg.com/bw/articles/2014-04-10/sec-takes-its-time-on-high-frequency-trading-rules> accessed 16 July 2015; K Scannell and A Massoudi, 'NY Attorney-General Subpoenas High-Frequency Traders' *Financial Times* (online) (16 April 2014).

¹²⁹ ASIC, 'Report 331—Dark Liquidity and High-Frequency Trading' (March 2013); ASIC, 'Consultation Paper 202—Dark Liquidity and High-Frequency Trading: Proposals' (March 2013); and ASIC, 'Report 364—Response to Submissions on CP 202 Dark Liquidity and High-Frequency Trading: Proposals' (August 2013); and ASIC, 'Regulation Impact Statement: Australian Market Astructure: Further Proposals' (August 2013).

¹³⁰ ASIC, '13-213MR ASIC Makes Rules on Dark Liquidity' (12 August 2013); ASIC, 'ASIC Market Integrity Rules (Competition in Exchange Markets) Amendment 2013 (No 2)'; ASIC, 'ASIC Market Integrity Rules (ASX 24 Market) Amendment 2013 (No 2)'; ASIC, 'ASIC Market Integrity Rules (ASX Market) Amendment 2013 (No 2)'; ASIC, 'ASIC Market Integrity Rules (Chi-X Australia Market) Amendment 2013 (No 1)'.

¹³¹ ASIC, 'Report 331' (n 129) 9.

¹³² *ibid.*

¹³³ ASIC, 'Report 364' (n 129) 23–24.

The new rules on dark pools provide for enhanced crossing system transparency and disclosure, fair treatment, monitoring and system controls. Conflict of interest obligations will also be enhanced, and order flow incentives will be put in place.¹³⁴

Also worth noting in the Australian context is the ASIC regulatory guide on electronic trading that provides guidance for market participants' obligations for the use of automated order processing that includes situations where orders are directed to crossing systems.¹³⁵

(iv) Canada

In April 2012, Canadian regulatory authorities, CSA and IIROC, introduced new rules on dark pools that entered into force in October that year.¹³⁶ These rules require that 'an order entered on a marketplace must trade with visible orders on that marketplace at the same price before trading with dark orders at the same price on that marketplace'.¹³⁷ Visible orders thus receive priority over dark orders.¹³⁸ Moreover, smaller orders that trade with dark orders must receive a better price, which is defined in the regulation as one trading increment or half an increment if the spread between bid and ask is only one increment.¹³⁹ As a result of these rules, trading in dark pools on Canadian markets has reportedly fallen to a third of the level before the introduction of the regulation.¹⁴⁰ The IIROC has also issued a guidance note that helps explain when AT or HFT amounts to manipulative or deceptive trading.¹⁴¹

These Canadian rules, that prefer lit over dark markets, and focus on price, have had the greatest impact of any adopted to date to deal with dark pools. The key issue with respect to HFT and dark pools is the frame in which one views them. If the good being pursued is liquidity, then both should be welcomed, as they initially were. If the good is transparency, each is deeply problematic as each development works directly to substantially lessen transparency in the market.

There has developed something of a reverence for capital markets innovations, and to read the many defences of algorithmic HFT one would begin to think that markets didn't function at all acceptably before its institution in the mid-to-late 1980s. But of course that is not the case. Part of this reverence arises from the misplaced belief that more liquidity is always

¹³⁴ ASIC, '13-213MR' (n 130).

¹³⁵ ASIC, 'Regulatory Guide 241—Electronic Trading' (August 2013).

¹³⁶ IIROC, 'Provisions Respecting Dark Liquidity' (Rules Notice, Notice of Approval 12-0130, 13 April 2012).

¹³⁷ *ibid.*

¹³⁸ B Shecter, 'Dark Pool Rules Arrive in Canada' *Financial Post* (13 April 2012) <<http://business.financialpost.com/news/fp-street/dark-pool-rules-arrive-in-canada>> accessed 16 July 2015.

¹³⁹ *ibid.*

¹⁴⁰ N Popper, 'As Market Heats Up, Trading Slips Into Shadows' *New York Times* (31 March 2013) <www.nytimes.com/2013/04/01/business/as-market-heats-up-trading-slips-into-shadows.html> accessed 16 July 2015.

¹⁴¹ IIROC, 'Guidance Note—UMIR—Guidance on Certain Manipulative and Deceptive Trading Practices' (Rules Notice 13-0053, 14 February 2013) 2.2-14, 2.2-15.

good. It is a belief consistent with much thinking today—if something is good, more of it must be better. When it comes to liquidity in markets this is simply not always true. Yet in any discussion with industry participants or regulators the proposal of any measure that would reduce liquidity is treated like a social gaffe. It stops the discussion. Yet there is much woolly thinking around liquidity, and efficiency, for that matter.

In Kay's words, '[w]hen I reviewed UK equity markets for the government last year, most participants told me liquidity was best judged by the spread—the difference between what it would cost to buy and sell the same share simultaneously'.¹⁴² Yet small spreads don't guarantee supply of the stock or bond in a crisis and when participants praise a deep and liquid market they are not praising the narrowness of spreads, but the certainty of supply. As Kay says, '[l]iquidity is supply security not trading volume'.¹⁴³ It is as if people have confused the shorthand indicator of an underlying phenomenon with the phenomenon itself. The indicator of a deep and liquid market can be a narrow bid-ask spread, and wide spreads certainly tend to indicate illiquid markets. But the good being sought is a deep and liquid market, not narrow spreads in themselves. HFT and dark pools can each contribute to narrow spreads, but neither necessarily contributes to the underlying good—true liquidity in the sense of security of supply. Certainly algorithmic HFT contributes little, if any, real security of supply in a market.

So regulatory measures that bear harshly upon HFT or dark pools are not threatening something central to the functioning of a good market—genuine liquidity—and such measures are warranted, for HFT and dark pools both directly threaten something critical to the functioning of a good market—genuine transparency.

F. *Deconflicting the Ratings Agencies*

There are three possible solutions to the rating agency problem. The best is to move back to the old model in which the user of the rating pays for it, not the entity being rated. This would be a sea-change, and a good one, but its implementation would require considerable political courage. An alternative is to remove the ratings agencies as far as possible from the formal financial regulatory process. At the moment the adoption of ratings in the very fabric of the Basel capital accords gives them a central role which needs to change.

The third and final approach is that taken in the so-called Franken Amendment, named after Al Franken, one of the two Senators promoting it. Under this amendment, the US Securities and Exchange Commission (SEC) would establish an independent panel that would assign the ratings of

¹⁴² J Kay, 'A Fixation on Liquidity is not Healthy for Financial Markets' *Financial Times* (online) (17 September 2013).

¹⁴³ *ibid.*

structured products (not of companies or sovereigns) to the rating agency that the panel believed was best equipped to provide the rating. The incentive to provide a favourable rating to continue to get this issuer's business, at least for structured products, would thereby be removed, and there would seem no good reason for the amendment to not be extended to bonds and companies themselves. At the time of writing, the SEC is undertaking a further study into how conflicts of interest can be avoided, short of instituting the Franken Amendment.¹⁴⁴

This approach is attractive in part because Al Franken spent 15 years of his career as one of the founding writers for the US television show 'Saturday Night Live', and has also written a script for a comedy movie. In medieval times part of the role of the court jester was to tell the truth to the King: telling the truth to power was too dangerous an occupation in those times unless the truth was wrapped in humour.¹⁴⁵ Franken is perhaps a modern day jester who is again telling the truth to power.

4. Conclusion

In the immediate aftermath of the GFC, the UN asked Stiglitz to head a Commission into the international financial system.¹⁴⁶ Its report was informed by a 'new' type of thinking. The first of Stiglitz's 'Principles for a New Financial Architecture' is:

Financial markets are not an end in themselves, but a means: they are supposed to perform certain vital functions which enable the *real economy* to be more productive:

- (a) Mobilizing savings,
- (b) Allocating capital;
- (c) Managing Risk, transferring it from those less able to bear it to those more able.

It is hard to have a well-performing modern economy without a good financial system.¹⁴⁷

The GFC was a direct result of treating the creation of financial products as an end in itself—as a valuable driver of economic growth independent of the

¹⁴⁴ SN Lynch, 'Bipartisan Senators Ask SEC for Action on Credit Rating Agency Pay' *Insurance Journal Online* (14 May 2013) <www.insurancejournal.com/news/national/2013/05/14/291912.htm> accessed 16 July 2015. Senator Franken and others urged the SEC to move forward with reform in a letter issued in January 2014, but at the time of writing there have been no further developments: 'Sen. Franken Continued Bipartisan Push To Finally Reform Credit Rating Agencies' (Press Release, 8 January 2014) <www.franken.senate.gov/?p=press_release&id=2656> accessed 16 July 2015.

¹⁴⁵ MFR Kets de Vries, *Reflections on Character and Leadership* (Jossey-Bass Publishers 2009) 143.

¹⁴⁶ Commission of Experts of the President of the United Nations General Assembly, *Report of the Commission of Experts of the President of the United Nations General Assembly on Reforms of the International Monetary and Financial System* (21 September 2009).

¹⁴⁷ JE Stiglitz, 'Principles for a New Financial Architecture' (Paper presented at the Commission of Experts of the President of the UN General Assembly on Reforms of the International Monetary and Financial System, 24–26 June 2009) 1.

products' effects. The reforms initiated by most major nations at the behest of the G20 to date have been worthwhile, necessary and helpful; but they have been insufficiently fundamental to address the major systemic changes of the past 40 years. None of the reforms initiated by the G20 have challenged the way of thinking that sees financial markets as an end in themselves and not merely a means to support the real economy.

In this sense, the reforms are unlikely to be sufficient to avert another global financial crisis. Higher mandatory capital levels, levies on banks, the removal of the conflict of interest that compromises all credit ratings today, a financial transactions tax, and a far tougher approach to HFT and dark pools, taken together, would do far more than all the G20's reforms, proposed and mooted, to avert another crisis. Taken together these reforms would see banking as less profitable, less crisis-prone and far more stable than it is today, and the incentives of banks, and the individual incentives of bankers, far better aligned to those of the real economies in which the banks operate.