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Regulating Hedge Funds for Systemic Stability: the EU's Approach

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Abstract

This article offers a critical appraisal of the way in which the EU regulates hedge funds (HFs) in the AIFM Directive, and its proposal to regulate the repo markets from which they obtain much of their leverage. It argues that the EU's scheme is not a radical departure from the pre-crisis market liberalist approach, and that its reliance on discretionary intervention is misplaced because it does not take account of the fundamental uncertainty that characterises financial markets. The article outlines the operations of HFs and explores the extent to which they pose a threat to systemic stability, paying particular attention to the use of leverage by HFs. It explores the background to the AIFM Directive and the post-crisis international consensus on financial regulation, and then evaluates the complex division of responsibility for regulating HFs between the national and supranational authorities. Finally, it discusses how HFs should be regulated. Drawing on the work of Minsky, it argues that a leverage cap would have been more likely to prevent HFs contributing to systemic instability than the scheme adopted. Nor are the proposed rules on mandatory 'haircuts' in repo markets or the AIFM Directive's rules on remuneration likely to prevent HFs contributing to systemic instability.

Regulating Hedge Funds for Systemic Stability: the EU's Approach*

I Introduction

This article explores the way the European Union regulates hedge funds (hereafter HFs). Its main focus is on the Alternative Investment Fund Managers Directive (AIFM Directive),¹ and the recent EU proposal for a Regulation on Reporting and Transparency of Securities Financing Transactions (SFT Regulation).² The AIFM Directive aims to regulate HFs by regulating their managers, whilst the purpose of the SFT Regulation is to create greater transparency in the securities financing (or 'repo') market, which will indirectly regulate hedge funds, because that market is the source of much of the leverage that hedge funds use.

The article's main concern is to determine the extent to which European regulation can fulfil what is allegedly its main purpose, namely, ensuring that HFs are managed so that they do not become sources of instability for the financial system as a whole, i.e. systemic instability. HFs operate on the basis of leverage, that is, their investments are financed not only by the capital contributed by their investors, but also by borrowed money which supplements that capital. Depending on the strategy pursued by individual HF managers, those borrowings can range from one or two times to many multiples of the fund's capital.

The instruments discussed in this article recognise that HFs' use of leverage can result in financial instability. In particular, the AIFM Directive explicitly justifies its regulation of HF managers by reference to 'effective monitoring of systemic risk',³ and states that HFs' use of leverage means that they may, 'under certain conditions... contribute to the build-up of systemic risk or disorderly markets'.⁴ Similarly, the SFT Regulation is intended 'to enhance financial stability' through the imposition of uniform transparency rules on the securities financing transactions which, *inter alia*, provide hedge funds with much of their leverage.⁵ But does this acknowledgment of the risks inherent in the way HFs operate translate into an effective regulatory framework?

Many argue that the two legal instruments considered in this article mark a paradigmatic shift, a bold intervention which limits the economic freedom of hedge funds, and which will reduce the danger that HFs will pose a threat to systemic stability. In particular, it has been claimed that there was 'a genuine willingness on the part of British political and regulatory chiefs to engage in a quite fundamental reappraisal of the State's role', and that the AIFM Directive is the product not only of political compromise, but also of 'a principled, intellectually-grounded move away from formerly orthodox beliefs in the self-correcting effects of markets'.⁶ Other observers are more sceptical of

* I am grateful to Ilka Harju, Trevor Pugh, Jay Cullen, Robert Burrell, the editor of the European Law Journal and the anonymous referees for helpful comments, critique and discussions relating to this article. All the remaining errors are my own.

¹ Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010 (OJ L 174/1, 1.7.2011). Agreement was reached on the Directive on 8th June 2011 and it came into force on 21st July 2011.

² See Proposal for a Regulation of the European Parliament and of the Council on Reporting and Transparency of Securities Financing Transactions (COM(2014) 40 final, 29.1.2014)

³ AIFM Directive, *supra* n2, preamble para 88

⁴ *Ibid*, preamble, Para 49

⁵ SFT Regulation, *supra* n3, 5 and 6

⁶ E. Ferran, 'The Regulation of Hedge Funds and Private Equity: A Case Study in the Development of the EU's Regulatory Response to the Financial Crisis', *University of Cambridge Faculty of Law Working Paper No 10/2011* (February 2011), 17. Fioretos offers a similar appraisal of the regulatory regime drawn up by the G20

whether there has been a real change of heart on the part of the British authorities, and instead claim that the move away from the belief in self-regulating financial markets results from ‘market-shaping’ Member States, such as France and Germany, prevailing over ‘market-making’ Member States, such as the UK. This new balance of regulatory power has ‘partly affected... national regulatory approaches and the prevailing paradigm in the EU’, even though it does not amount to ‘a fully-fledged paradigm shift’.⁷

This article takes a rather different position. It shows that the assumption shared by financial economists and financial regulators before the crisis, namely that financial markets can, for the most part, be left to regulate themselves, still casts a long shadow over the new European regulatory framework.⁸ That core premise has not been abandoned; it has simply been reformulated and presented in a different way. This can be seen clearly from the Turner Review, which has been very influential and is widely regarded as highly critical of the pre-crisis orthodoxy. It accepts that ‘individual rationality does not ensure collective rationality’. Yet it still explains the failures in the build up to the crisis by reference to ‘conditions of imperfect information’ and ‘the paucity of macro-prudential, systemic- and system-wide analysis’.⁹ This is not an outright rejection of reliance on self-regulation; it is a plea for a regulatory scheme which will create the conditions under which markets can come close to self-regulating. The effect is to reduce the spectacular pre-crisis regulatory failure to simple problems of information asymmetry and incomplete regulatory mandates. The AIFM Directive and SFT Regulation were written as this ‘modified’ international consensus was consolidating, and they bear its imprint. Rather than a radical shift in approach, these instruments represent a modest adaptation of the previous understanding of how financial markets, and HFs in particular, operate and the dangers they pose. The AIFM Directive assumes that financial markets are, for the most part, self-equilibrating, with intervention only required in situations where regulators can clearly identify a market failure. It is true that, for the first time, the EU requires Member States to subject HF managers to direct regulation. However, critically, that direct regulation is confined to an incomplete information disclosure regime, coupled with discretionary supervisory oversight of their leverage and liquidity management systems. That information will be more complete if the SFT Regulation becomes law. However, the regulatory scheme remains firmly of a piece with the pre-crisis approach to regulation, albeit with slight modifications to reflect the new consensus about why the regulators failed.

This article also goes beyond earlier contributions to the hedge fund literature by arguing that regulators have been given an impossible task, and that the scheme’s exclusive reliance on discretionary intervention is regrettable. Given the massive efforts at reconfiguring financial regulation, this may seem a rather odd point to make. The institutional structures of financial regulation have been radically improved. Regulators are now provided with better resources, and the competence to regulate has been reallocated in some states. The AIFM Directive and SFT Regulation will provide a great deal of information to regulators about the operation and financing

in 2009, which, will be shown below, strongly influenced the AIFM Directive, claiming it ‘represents an important shift in how the world’s large economies regulate the prudential risks associated with hedge funds.’ See O. Fioretos, ‘Capitalist Diversity and the International Regulation of Hedge Funds’ (2010) 17 *Review of International Political Economy* 696, 700.

⁷ L. Quaglia, ‘The “Old” and “New” Political Economy of Hedge Fund Regulation in the European Union’ (2011) 34(4) *West European Politics* 665, 678

⁸ See FSA, *The Turner Review: A regulatory response to the global banking crisis* (March 2009), 40 and 87. Lord Turner, who took over as Chairman of the UK’s Financial Services Authority (FSA) in September 2008, notes this tendency in financial markets theory, and admits that the FSA adopted a ‘sometimes implicit but at times quite overt philosophy’ that markets ‘are in general self correcting, with market discipline a more effective tool than regulation or supervisory oversight through which to ensure that firms’ strategies are sound and risks contained’.

⁹ *Ibid*, 40-1 and 87.

of HFs and the operation of the repo market. Moreover, the 'macro' dimension of regulation has been rediscovered. Regulators have been instructed to focus on macro-prudential matters (essentially systemic stability) as well as the microprudential matters (essentially the stability of individual financial institutions), which were their principal focus before the crisis. The EU has established the European Systemic Risk Board with explicit responsibilities for monitoring systemic risk.¹⁰ There is more international cooperation under the aegis of the G20.

All these are welcome changes. Still, it remains the case that no regulator identified that the build-up of leverage before the crisis posed a threat to the stability of the financial system. Would regulators have done better if the new norms had been in force in, say, 2005? Only if their catastrophic failure was caused by the lack of appropriate information and the lack of a mandate to take care of macro-prudential stability. But were these the real causes of the regulatory failure?

Drawing on the work of Minsky, the article claims that the future evolution of the financial system, in which positions in assets are financed using leverage, is *fundamentally uncertain*. The implication of this is that the AIFM Directive gives regulators powers that they are unlikely to be able (and willing) to exercise. Even if they can overcome political pressures and lobbying, regulators will have no objective basis on which to justify interventions in HFs' affairs in the name of systemic stability. Instead, it would have been preferable, as the first draft of the AIFM Directive proposed, to opt for a different regulatory model, which would have represented a clear break with the underlying understanding of how financial markets, and specifically hedge funds, operate. It would have imposed a clear cap on the leverage of HFs, with discretionary regulation playing a complementary (and thus secondary) role. However, this proposal was unacceptable to the HF industry and the UK government and never became law.

The article is structured as follows. The next section briefly outlines the activities of hedge funds and the operation of the repo market, from which HFs obtain much of their leverage. The third section then explores the heated debate about whether hedge funds pose a threat to systemic stability, which formed a backdrop to the negotiation of the AIFM Directive. The fourth section explores the legislative background to the AIFM Directive, and explores the division of regulatory competence between the EU and the Member States, paying particular attention to the regulation of leverage. The fifth section explores the normative question of how HFs should be regulated, and evaluates the likely efficacy of the EU's instruments in preventing HFs contributing to financial instability in the future. A brief conclusion follows.

II A Brief Outline of Hedge Funds and the Repo Market

It is difficult to make generalisations about HFs because there is 'no universally accepted definition', although the term generally refers to 'any pooled investment vehicle that is privately organized, administered by professional managers, and not widely available to the public'.¹¹ HFs have very broad freedom to choose their investments, and they can invest in 'equity, debt with equity like characteristics, debt, structured products and derivatives'.¹² By purchasing derivatives, HFs can profit from both rises (through long positions) and falls (through short positions) in the prices of stocks, corporate and sovereign debt, currencies and other assets.

¹⁰ Regulation 1092/2010 of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board, Art 3(1).

¹¹ Financial Stability Forum, 'Reporting of the Working Group on Highly Leveraged Institutions' (April 2000), 8, citing the US President's 'Working Group on Financial Markets' (1999).

¹² FSA, 'Private Equity: A Discussion of Risk and Regulatory Engagement', *Financial Services Authority Discussion Paper 06/06* (November 2006), 3.64.

It is commonly argued that HFs perform socially valuable activities. They create positive externalities for the financial system by contributing to 'more efficient and liquid markets', by assisting price discovery through their arbitrage activities and even by purchasing assets in a crisis when other funds are having to liquidate in order to comply with their mandate.¹³ HFs which take an activist role in corporate governance create pressure on managers to maximise shareholder value and have the potential to close the gap between 'ownership' and control.¹⁴

HFs are normally domiciled in offshore locations,¹⁵ but their managers are established onshore, most commonly, amongst EU Member States, in the United Kingdom. This is why the AIFM Directive regulates the managers of HFs (AIFMs) rather than the funds themselves. Under their fee structure, the AIFM is typically paid an annual management fee of 1-2% of capital committed, and as general partner in the fund receives 'carried interest' of around 20% of the capital gains made by the fund, normally once a given 'hurdle' rate of return has been passed. However, these 'hurdles' are not uniformly imposed. HFs do not have a fixed life span, and investments are liquid, with investors normally able to give notice to withdraw their investment (although notice periods are getting longer and capital structures are becoming more varied). Traditionally, therefore, HFs matched their liabilities by taking shorter term positions in more liquid assets, although funds which lock their investors in for longer periods now also invest in less liquid assets.

As well as using the capital provided by their investors, HFs also use leverage (that is, borrowed money) to increase their exposure to their positions. HF leverage takes two main forms: financial and synthetic leverage.

Financial leverage appears on balance sheets, and most HFs make only limited use of it, being much less highly levered than banks.¹⁶ Hedge funds obtain financial leverage through secured and unsecured lending, from prime brokers and from repo markets. Prime brokers are the largest investment banks, and, in addition to finance, they also provide HFs with 'risk management services, execution, custody, daily account statements, and short sale inventory for stock borrowing.'¹⁷ Repo markets allow financial institutions such as HFs to obtain short term credit against collateral such as bonds and stocks, and allow risk averse financial institutions to make short-term secured loans.¹⁸ A repo is a 'repurchase agreement', that is, the sale of an asset, say a bond, with an agreement that the seller will repurchase after a specified time period for a specified price. The seller (here, a hedge fund) wants to borrow, whilst the buyer (such as a money market mutual fund, insurance company, corporation, central bank or commercial bank) has surplus money which they want to lend out. The sale price will be at a discount (known as a 'haircut') to the market price to protect the buyer against market fluctuations, while the repurchase price will be higher to include interest (at a rate known as the 'repo rate') for the duration of the repo. The most common repo lasts one day, although it can normally be rolled over, so a one-day repo may last for several months. In form a repo is a sale, but in substance it is secured lending, and it enables risk averse institutions to lend out their money safely. For accounting purposes, the asset which is used as collateral remains on the balance sheet of the borrower (the seller of the asset), although the repo shows up as leverage on the balance sheet (with the money borrowed showing up as an asset balanced by a liability to repay). Hedge funds use short-term repos to fund longer-term positions in financial assets, and so engage in maturity

¹³ J. Daniélsson, A. Taylor and J-P. Zigrand, 'Highwaymen or heroes: Should hedge funds be regulated? A survey' (2005) 1 *Journal of Financial Stability* 522, 523.

¹⁴ W. Bratton, 'Hedge Funds and Governance Targets' (2007) 95 *Georgetown Law Journal* 1375, 1380-1381.

¹⁵ The Financial Conduct Authority reported that 67% of HFs that responded to its March 2014 survey were domiciled in the Cayman Islands.

¹⁶ Daniélsson, Taylor and Zigrand, op cit 529 supra n13.

¹⁷ A Ang, S Gorovyy and G van Inwegen, 'Hedge Fund Leverage' (2011) *NBER Working Paper 16081*, 5 fn 5.

¹⁸ They are also one of the essential mechanisms by which central banks carry out monetary policy, injecting reserves or bonds into the markets in order to ensure their target interest rate is met.

transformation in a similar way to banks. Counterparties to repo transactions, including banks, frequently 'rehypothecate' the collateral, that is, they repo it for cash.¹⁹ Hence the same asset can collateralise a chain of loans, vastly increasing liquidity, but also allowing a 'build-up of hidden leverage and interconnectedness in the system'.²⁰ A HF's access to repo leverage is limited only by the 'haircut' imposed by the buyer (the lender) on the asset sold by the HF (the borrower). Haircuts are the difference between the market price of the asset at the time of the transaction and the amount the lender is willing to lend against the asset, and have to be funded out of the borrower's equity capital.²¹ Breuer notes that, since 'haircuts on repos are typically between 1 and 2 percent, leverage using multiple repos can potentially be huge'.²² The Financial Stability Board (FSB)²³ recently published a framework of minimum haircuts for repo transactions, but this excludes government bonds and repos to which neither party is a bank. This is discussed below.

Synthetic leverage is embedded in a derivative contract, and so is taken on at the level of a financial instrument rather than by an investor.²⁴ As such, it does not appear on the HF's balance sheet.²⁵ It implies that the investor may make gains or losses which considerably exceed their initial investment in the derivative. Before the introduction of the AIFM Directive, HFs did not, for the most part, report on this type of leverage.²⁶

HF leverage is highly problematic from a regulatory perspective. Being based in low tax, low regulation jurisdictions, HFs do not publicly disclose their balance sheets, making it impossible for regulators to obtain a clear picture of the extent of a HF's financial leverage. At present, no formal measures of the size of the repo market are maintained, but the daily amount outstanding on the US repo markets was estimated at between US\$3 and 10 trn in 2012,²⁷ while the Euro repo market was estimated at €7 trn in 2010.²⁸ It is unclear how much repo borrowing is attributable to HFs. The Financial Times reported in 2014 that HFs are taking up a larger share of the market, but that the market has been shrinking since 2008 as a result of changes to banking regulation and a shortage of

¹⁹ Rehypothecation refers to the practice whereby a lender under a repo transaction enters into another repo transaction as a borrower, using the asset they received in the first repo transaction as the security for their borrowing in the second transaction.

²⁰ See COM(2014) 40 final at 3.

²¹ See M Brunnermeier and others, 'The Fundamental Principles of Financial Regulation' (2009) *Geneva Reports on the World Economy* 11, 14.

²² P. Breuer, 'Measuring Off-Balance-Sheet Leverage', *IMF Working Paper WP/00/202*, at 18. Similarly, the OECD notes that 'Depending on the size of the haircut, traders could easily establish a \$1 billion position in a given security with only \$10 million in capital.' See OECD, 'Hedge Funds, Highly Leveraged Investment Strategies and Financial Markets' (1999) 73 *Financial Market Trends* 27, 42.

²³ The Financial Stability Board (formerly the Financial Stability Forum) is an international body which monitors and makes recommendations about the global financial system. Its members are national central banks, treasuries and financial market regulators.

²⁴ 'Embedded leverage refers to holding a position that is itself leveraged. A simple example is a minority investment held by a bank in an equity fund that is itself funded by loans. While critical for the stability of the financial institutions and of the financial system, embedded leverage is extremely difficult to measure.' See The World Bank Group Financial Sector & Financial Sector Development Vice-Presidency, 'The Leverage Ratio: A New Binding Limit on Banks' (2009), Note 11 available at <http://www.worldbank.org/financialcrisis/pdf/leverage-ratio-web.pdf>

²⁵ See eg D Stowell, *Investment Banks, Hedge Funds, and Private Equity* (2nd edn Elsevier, 2012) at 287.

²⁶ Reserve Bank of Australia, *The Impact of Hedge Funds on Financial Markets*, June 1999 at 5. An important exception, discussed below, was the FCA's annual – but voluntary – Hedge Fund Survey.

²⁷ See A. Copeland et al, 'Mapping and Sizing the U.S. Repo Market', Liberty Street Economics Blog (<http://libertystreeteconomics.newyorkfed.org/2012/06/mapping-and-sizing-the-us-repo-market.html>)

²⁸ Reuters, 'European repo market grows to record 7 trln euros', 15 September 2010 (<http://www.reuters.com/article/2010/09/15/markets-money-repo-idUSLDE68E0PI20100915>)

collateral.²⁹ Synthetic leverage is even harder to estimate because of ‘the absence of methodological consistency in terms of how leverage is measured and reported.’³⁰ The implication of this is that, once synthetic leverage (which does not appear on balance sheets) is taken into account, hedge funds have ‘much higher leverage than the commonly quoted figures’.³¹

The best publicly available evidence about the sources and extent of HF leverage comes from the UK’s Financial Conduct Authority (FCA), which, like its predecessor, the FSA, carries out an annual survey of HFs. HFs which choose to participate disclose the extent and sources of their leverage. In its March 2014 Hedge Fund Survey, the FCA reported that only 2% of hedge funds’ leverage came from financial leverage, while 98% came from synthetic leverage.³² The enormous synthetic leverage figure (US\$ 22,296 billion) can be, at least in large part, explained by the fact that this is gross rather than net notional exposure, and is concentrated in a handful of hedge funds.³³ These astonishing synthetic leverage figures should not obscure the fact that repo is a very important source of HF leverage: the 2% contribution of financial leverage still amounted to some US\$791 billion. In 2012, the FSA reported that around 20% of HF leverage came from prime broker borrowing and 47% of HF leverage came from repo. That figure was down from 57% in September 2011, but has been consistently above 40% since 2009.³⁴ Nor should it obscure the concentration of repo borrowings in a relatively small group of HFs. The FCA’s data on ‘financial leverage’ suggests that, in 2014, the ‘top ten funds (in borrowing amounts) made up 79% of the total financial borrowings reported’. With mean collateralized borrowing through repo by hedge funds estimated by the FCA to be around US\$2.75bn, this suggests that the most financially leveraged funds have leverage of many multiples of this amount.³⁵ These patterns were largely replicated in the June 2015 Hedge Fund Survey, with the FCA reporting that 43.9% of HFs used repo, whilst 69.7% obtained leverage from their prime broker, but noting that ‘single outlier funds make heavy use of repos and reverse repos.’³⁶ Each year the FCA reports that ‘the majority of hedge funds tend to use relatively low levels of leverage.’³⁷

The pattern which emerges from this inevitably incomplete data is one of considerable concentration of leverage and risk, with relatively few HFs responsible for the vast bulk of the leverage. The disclosure required under the AIFM Directive will give regulators a far better idea of the leverage taken on by individual HFs, and if the proposed SFT Regulation becomes law, regulators will be able to gain a much better idea of the size and concentration of the repo market. However, as this article argues, providing regulators with fuller information about the extent and concentration

²⁹ ‘Big investors replace banks in \$4.2tn repo market’, *Financial Times*, 29th May 2014.

³⁰ D. Awrey, ‘The Limits of EU Hedge Fund Regulation’ (2011) 5 *Law and Financial Markets Review* 119, 125 fn 11.

³¹ Reserve Bank of Australia, op cit 6 supra n26. The Financial Stability Forum noted in 2000 that assessing leverage purely on an on-balance sheet basis ‘may understate risk because it does not take into account off-balance-sheet positions which may amplify the fund’s market risk exposure.’ See FSF, *Report of the Working Group on Highly Leveraged Institutions* (April 2000), Annex D, 86.

³² FCA, *Hedge Fund Survey*, March 2014, 18

³³ Ibid, 22. As the Survey reports, ‘Most of the synthetic exposure is generated by a few funds’, with 10 HFs accounting for 87% of the gross notional exposure. The hedge funds using high gross synthetic leverage are pursuing ‘relative value’ and macro strategies. As the FCA notes in its 2015 Survey at 19, HFs ‘use risk management techniques to net out directional exposures’ but this ‘does not reduce the overall gross size of the positions they are taking in the markets, which constitutes their market footprint.’

³⁴ See FSA, *Assessing the possible sources of systemic risk from hedge funds: A report on the findings of the FSA’s Hedge Fund Survey and Hedge Fund as Counterparty Survey*, August 2012, 12. Synthetic leverage, presumably measured on a net basis, accounted for the balance.

³⁵ FCA, *Hedge Fund Survey*, March 2014, 26.

³⁶ FCA, *Hedge Fund Survey*, June 2015, 21. A similar pattern emerges in relation to synthetic leverage, with the top 10 funds accounting for 64% of gross leverage.

³⁷ See FSA *Assessing the possible sources of systemic risk*, op cit supra n34, and FCA *Hedge Fund Surveys* 2014 and 2015.

of leverage is not the same as equipping them to know when to intervene to prevent systemic instability.

III Hedge Funds and Systemic Stability

Whether HFs contributed to the financial crisis, and whether their operations can pose a threat to the stability of the financial system, are highly contested questions. Romano argues ‘there is an absence of evidence pointing to hedge funds as a contributing factor in the recent financial panic.’³⁸ Stromqvist claims that ‘the crisis has affected them more than they have affected the crisis’³⁹ and that ‘the strongest argument for the claim that hedge funds have not driven the current financial crisis is that they have been negatively affected on a broad front’.⁴⁰ In contrast, the De Larosière Report noted that herding among HFs and margin calls ‘intensified liquidity problems’.⁴¹ However, beyond this ‘transmission function’, it considered that ‘they did not play a major role in the emergence of the crisis.’⁴² Similarly, the Turner Review concluded that simultaneous deleveraging by many HFs ‘may well have played an important role over the last six months in depressing securities prices in a self-fulfilling cycle.’⁴³ In summary, Ferran says that the ‘received wisdom’ is that they amplified the consequences of the financial crisis.⁴⁴

On the broader question of the systemic stability implications of HFs, Stromqvist argues that HFs pose no greater threat in terms of herding than other institutional investors.⁴⁵ Certainly, the threat posed by asset managers more generally to systemic stability is currently receiving greater regulatory scrutiny.⁴⁶ Similarly, the European Economic and Social Committee concluded in its own initiative report that the alleged ‘leverage/system risks’ threat posed by HFs was ‘not proven’.⁴⁷ However, the G20 Working Group recognised that ‘Private pools of capital, including hedge funds, can be a source of risk owing to their combined size in the market, their use of leverage and maturity mismatches, and their connectedness with other parts of the financial system.’⁴⁸ Likewise, the De Larosière Report noted that ‘hedge funds can add to the leverage of the system and, given the scale

³⁸ R. Romano, ‘Against Financial Regulation Harmonization: A Comment’ (2010) *Yale Law & Economics Research Paper* No. 414 at 3 (Available at SSRN: <http://ssrn.com/abstract=1697348>).

³⁹ M. Stromqvist, ‘Hedge Funds and Financial Crises’, (2009) *Economic Review of the Sveriges Riksbank* 87, 97.

⁴⁰ *Ibid*, 104.

⁴¹ *Report of the High Level Group on Financial Supervision in the EU*, Chaired by Jacques de Larosière, 25 February 2009, Brussels, 12.

⁴² *Ibid*, 24.

⁴³ Turner Review, *op cit* 72 *supra* n9.

⁴⁴ Ferran, ‘Regulation of Hedge Funds’, *op cit* 9-10 *supra* n6.

⁴⁵ Stromqvist, ‘Hedge Funds’, *op cit* 103 *supra* n39.

⁴⁶ The financial stability implications of so called ‘plain vanilla’, non-leveraged asset managers have also come under scrutiny recently. Whilst these funds frequently have a regulatory cap on their leverage (including embedded leverage), and so present a low solvency risk, policy-makers have flagged their potential to become global systemically important financial institutions (G-SIFIs) because of misaligned incentives, which can contribute to herding behaviour, and their structure, which often gives first mover advantages to those exit at the first sign of trouble. As such, they may also come under macroprudential oversight in the future: see IMF, *Global Financial Stability Report*, April 2015, Chapter 3 at 96-7 and 119 (‘The Asset Management Industry and Financial Stability’).

⁴⁷ ‘The impact of private equity, hedge and sovereign funds on industrial change in Europe’, Opinion of the European Economic and Social Committee (own-initiative opinion) (2010/C 128/10) OJ C128/56, 18.5.2010 at 62. That report, relying heavily on Stromqvist’s analysis (*op cit supra* n39), concluded that it is ‘likely that they played a role in the development of the crisis, along with all of the other institutional investors.’

⁴⁸ G20 Working Group, *Enhancing Sound Regulation and Strengthening Transparency*, Final Report, March 25, 2009, Recommendation 10.

at which they can operate, should a problem arise, the concentrated unwinding of their positions could cause major dislocation.⁴⁹

A more detailed account of the ways in which HFs potentially threaten the stability of the financial system can be found in the European Commission's Impact Assessment of the AIFM Directive,⁵⁰ the 2010 Report of the Joint Forum,⁵¹ and a 2012 report by the UK's FSA.⁵² Those reports draw a useful distinction between two channels through which hedge funds might contribute to systemic instability: the 'market channel' and the 'credit channel'.⁵³

HFs can affect systemic stability through the 'market channel' because they borrow money to fund positions in assets, causing asset prices to rise, encouraging others to borrow money and enter the market, which drives further price rises and further leverage and so on. Once this process goes into reverse, hedge funds have to sell assets to pay down debt, and asset prices can fall dramatically. In this account, leveraged funds have a procyclical effect, bidding up asset prices during credit expansions, and driving them down through 'fire sale' liquidations during credit contractions.⁵⁴ The FSB identified credit hedge funds 'that leverage themselves with short-term funding from banks or securities lending and repos' among the entities that 'create the potential for "runs" by their investors, creditors and/or counterparties', generating 'contagion risk', 'heighten[ing] procyclicality' and amplifying 'systemic risk'.⁵⁵ Although repos are normally rolled over, their short-term nature makes the market vulnerable to shifts in sentiment. Sudden dislocations in financial markets may result in repos not being rolled over as expected, forcing liquidations and causing lenders to raise the haircut on repo'd assets, which may force other hedge funds to liquidate their positions, triggering a vicious cycle of haircuts and liquidations. As the repo machinery goes into reverse and asset prices fall, HFs can be exposed to failure because the collateral for each loan comes up short, leading to losses on every repo transaction, progressively eroding the fund's equity capital.⁵⁶ The 'market channel' becomes a public policy concern not because of the failure of the hedge fund, which is a matter for its investors, but because of its impact on asset prices (and from there to the solvency of other market participants and financial institutions).

HFs might also create systemic instability through the 'credit channel' if they fail and default on their obligations to counterparties which 'systemically important' in the sense that their failure would destabilise the entire financial system. A small number of banks act as prime brokers to HFs, which,

⁴⁹ De Larosière Report, op cit para 87 supra n41. The Turner Review flags up the possibility 'that hedge funds could evolve in future years, in their scale, their leverage, and their customer promises, in a way which made them more bank-like and more systemically important.' Turner Review, op cit 72 supra n8.

⁵⁰ See SEC(2009) 576, Brussels, 30th April 2009, Annex VI, 64 .

⁵¹ Joint Forum, *Review of the Differentiated Nature and Scope of Financial Regulation - Key Issues and Recommendations*, January 2010, 56. The Joint Forum consists of representatives of the Basel Committee, IOSCO and the International Association of Insurance Supervisors. Its task was to analyse 'regulatory gaps in order to help to ensure that the scope and nature of financial regulation are appropriate'. See G20, *Progress Report on the Actions of the London and Washington G20 Summits*, 5th September 2009, para 58.

⁵² FSA, *Assessing the possible sources of systemic risk*, op cit supra n34.

⁵³ SEC(2009) 576, op cit 64-68 supra n50.

⁵⁴ See for example Reserve Bank of Australia, *Hedge Funds*, op cit 3 supra n26, arguing that hedge funds should be considered systemically important because 'their activities can result in damaging fire-sales of financial assets', an analogous problem to fire sales of bank loans which necessitate central bank lender of last resort operations.

⁵⁵ FSB, *Strengthening Oversight and Regulation of Shadow Banking*, 18th November 2012, ii, 3 and 6.

⁵⁶ At this point the market channel intersects with the credit channel because forced sales also reduce the market value of the collateral against which highly leveraged, systemically important banks lend: see R. Bookstaber, *A Demon of Our Own Design* (Wiley, Hoboken, NJ 2007), 108.

among other things, includes providing finance to them.⁵⁷ These banks are ‘too-big-to-fail’, and so their liabilities are ultimately given an open-ended guarantee by states and taxpayers.

This analysis clearly informed the AIFM Directive, which recognises that HFs might pose a threat to systemic stability. The Commission’s first proposal recognised that hedge funds are ‘vulnerable to a wide range of risks’ which ‘are of direct concern to the investors in those funds, but also present a threat to creditors, trading counterparties and to the stability and integrity of European financial markets’.⁵⁸ As regards the credit channel, the Impact Assessment, which accompanied the first proposal, rejected the UK Government’s and the HF industry’s preferred argument that HFs are already indirectly regulated by prudential regulation of the prime brokers who provide much of their leverage. It stated that ‘risk management failures are possible, particularly if a fund borrows from multiple prime brokers and hence individual lenders may not have a global picture of a fund’s leverage.’⁵⁹ As regards the ‘market channel’, the Impact Assessment recognised that ‘hedge funds... have been an important contributor to asset prices dynamics in a number of financial (and possibly even non-financial) asset markets.’⁶⁰

The enacted AIFM Directive clearly states that the use of leverage by HFs may ‘contribute to the build up of systemic risk or disorderly markets’.⁶¹ It also recognises that, when aggregated, even the activities of smaller HFs may give rise to systemic risks.⁶² Given the degree of integration of European capital markets but the concentration of AIFMs in the UK, this raised the question of whether HFs should be regulated at national or supranational level in order to ensure systemic stability.

IV Who Should Regulate HFs: the Member States or the EU?

A The Background of the AIFM Directive

Within the EU, AIFMs are overwhelmingly concentrated in the UK.⁶³ However, any systemic effects arising from their borrowing will be felt throughout the EU, setting up significant regulatory tension between the UK and the EU.

Before the financial crisis, there was little regulation of hedge fund managers, and none which aimed to ensure that their activities (and specifically, their use of leverage) did not contribute to financial instability. Indeed, before the crisis, there was little direct macroprudential regulation of any kind because regulators were not required to, and did not, directly address the question of systemic stability.⁶⁴ For example, the Basel Accords, which establish a microprudential regulatory schema for

⁵⁷ In the UK, in 2012, the FSA reported that ‘credit counterparty exposures of surveyed hedge funds remain fairly concentrated, with just five banks accounting for approximately 65% of aggregate hedge funds’ net credit counterparty exposures’. See FSA, *Assessing the possible sources of systemic risk*, op cit 18 supra n34.

⁵⁸ Proposal for a Directive of the European Parliament and of the Council on Alternative Investment Fund Managers and amending Directives 2004/39/EC and 2009/.../EC (COM(2009) 207 final, 30.4.2009), 2

⁵⁹ Impact Assessment, Commission Staff Working Document Accompanying the Proposal for a Directive of the European Parliament and of the Council on Alternative Investment Fund Managers and Amending Directives 2004/39/EC and 2009/.../EC (Brussels, 30.4.2009 SEC(2009) 576), Annex VI at 64.

⁶⁰ Ibid at 68

⁶¹ AIFM Directive, op cit preamble, para 49 supra n1.

⁶² Ibid, preamble, para 14.

⁶³ House of Commons Library, *Reforming Financial Markets I: Hedge Funds*, 21 January 2015 (SN/BT/5588) notes at 2.1 that ‘since 80% of the industry affected is based in London, the proposals would affect the City more extensively than the rest of the EU...’.

⁶⁴ See for example Regulation 1092/2010 op cit preamble, para 11, supra n10.

banks, assumed that if all banks are adequately regulated at the micro-level, this would ensure the stability of individual banks and the system as a whole.⁶⁵ The financial crisis showed that this was a fallacy of composition because it failed to anticipate the ways in which banks might move liabilities off their balance sheets, as well as interdependencies between financial institutions.⁶⁶

AIFMs were left largely unregulated because of a belief in the UK and US, where most of them are located, that financial markets are self-correcting⁶⁷; that the collective self-interest of the sector would result in the emergence of self-regulation⁶⁸; and that their activities were regulated indirectly through the microprudential regulation of the prime broker banks which provide them with much of their leverage. These beliefs were driven by competitive pressures, ideology and the influence of industry groups.⁶⁹ It is true that the UK required hedge fund managers to obtain authorisation under the Financial Services and Markets Act 2000, but this was aimed primarily at ensuring that they had adequate internal controls, and they were not subject to any microprudential oversight. Similarly, in 2003, some US-based hedge fund managers (described there as 'advisers') were already registering voluntarily with the SEC in order to meet investor preferences.⁷⁰ In 2005, the SEC attempted to require registration on the basis of 'looking through' hedge funds to their investors, bypassing a legislative exemption and catching hedge fund advisers under the Advisers Act 1940, but this was ruled unlawful in 2006. In the event, the 2010 Dodd Frank Act deleted the exemption on which hedge fund managers relied, effectively requiring them all to register, and subjecting them to compliance and certain information disclosure obligations.⁷¹ In both the UK and the US, then, at least before 2010, registration was primarily aimed at protecting investors.

The question of EU-level regulation of HFs first came onto the Commission's agenda well before the crisis. A 2005 Green Paper proposed giving HFs and private equity (treated together as Alternative Investment Funds) a passport allowing them to offer their products throughout the EU.⁷² The private equity and hedge fund industries were unsurprisingly enthusiastic about this proposal.⁷³ The decision to deal with HFs and private equity in a single instrument is sensible from an investor

⁶⁵ See for example Para 4 of Basel Committee on Banking Supervision, *International Convergence of Capital Measurement and Capital Standards: A Revised Framework (Comprehensive Version)*, June 2006, which justifies microprudential regulation of banks in order to 'further strengthen the soundness and stability of the international banking system'.

⁶⁶ See International Monetary Fund, *Macprudential Policy: An Organizing Framework*, March 2011, 9, noting the failure of traditional prudential policy because 'actions that are appropriate for individual firms may collectively lead to, or exacerbate, system-wide problems.'

⁶⁷ D. Mugge, 'From Pragmatism to Dogmatism: European Union Governance, Policy Paradigms and Financial Meltdown' (2011) 16(2) *New Political Economy* 185

⁶⁸ This despite the fact that in the UK, less than 10% of hedge fund managers signed up to standards drafted by the Hedge Fund Working Group: see S. Pagliari, 'Who Governs Finance? The Shifting Public-Private Debate in the Regulation of Derivatives, Rating Agencies and Hedge Funds' (2011) 18(1) *European Law Journal* 44 at 58.

⁶⁹ See Eric Helleiner and Stefano Pagliari, 'The End of Self-Regulation? Hedge Funds and Derivatives in Global Financial Governance' in E Helleiner, S Pagliari and H Zimmermann (eds) *Global Finance in Crisis: The Politics of International Regulatory Change* (Routledge, 2010)

⁷⁰ See William H. Donaldson, Chairman, U.S. Securities and Exchange Commission, *Testimony Concerning Investor Protection Implications of Hedge Funds* available online at: <http://www.sec.gov/news/testimony/041003tswhd.htm>

⁷¹ See W.K. Sjostrom, 'A Brief History of Hedge Fund Adviser Registration and its Consequences for Private Equity and Venture Capital Advisers' (2011) 1 *Harvard Business Law Review Online* 39.

⁷² *Green Paper on the Enhancement of the EU Framework for Investment Funds* (COM(2005) 0314 final, 12.7.2005)

⁷³ Buckley and Howarth note that the proposed Directive gave HFs the opportunity to market their products to 'the "conservative" pension funds in Member States such as Germany and France': see J. Buckley and D. Howarth, 'Internal Market: Gesture Politics? Explaining the EU's Response to the Financial Crisis' (2010) 48 *Journal of Common Market Studies* 119, 131.

protection perspective since they both offer alternative investments. However, from a regulatory perspective, it would have been preferable to deal with them separately since they give rise to very different concerns. The Commission then established an expert group, 'with members... representing the interests of all or part of the EU investment fund industry', which was given the goal of improving 'the efficiency of the EU market for investment funds, while maintaining a high level of investor protection' and considering 'impacts on other stakeholders'.⁷⁴ With no 'other stakeholders' represented, the expert group reports emphasised the social benefits of these funds' activities and demanded the removal of 'unproductive, inefficient and unjustified legal or regulatory impediments' to investors accessing their products, but omitted any reference to stakeholder impacts. The hedge fund subgroup claimed that these funds posed no threat to financial stability because their main counterparty, the banks, are heavily regulated.⁷⁵ It also emphasised that hedge funds are 'the modern proponents of the shareholder-based model of corporate governance', and that other entities use leverage to fund their investments.⁷⁶ It failed to discuss the risks associated with leverage at all.

The output of this captured consultation process was counterbalanced by a highly critical report produced in March 2007 by the Party of European Socialists (PES).⁷⁷ It set out the risks posed by HFs at length and dismissed as a 'fallacy' the notion of indirect regulation, and called for a far-reaching disclosure regime to enable regulators better to 'assess the consequences to the financial market' of HF transactions.⁷⁸ The PES Report was followed by a resolution, passed by an overwhelming majority in the European Parliament, calling on the Commission to regulate hedge funds and private equity.⁷⁹

Whilst the Commission was considering how to move forward with the AIFM Directive, the financial crisis intervened, bringing the question of systemic stability to the top of the policy agenda. As part of its response to the crisis, the G20 decided to address regulation of HFs, effectively pre-empting the Commission. Fioretos notes that the UK government sought to use the G20 negotiations to preserve its indirect model of regulation, which targets prime brokers rather than HFs.⁸⁰ In the event, the G20 agreed that HFs should be regulated in the interests of systemic stability,⁸¹ through a registration requirement for 'hedge funds or their managers', combined with an obligation 'to disclose appropriate information on an ongoing basis to supervisors or regulators, including on their leverage, necessary for assessment of the systemic risks that they pose individually or collectively.'⁸² The G20 agreement accommodated both direct regulation (preferred by France and Germany) and

⁷⁴ Commission Decision of 5 December 2005 setting up a group of experts to report on ways to improve the efficiency of the EU investment fund market (C(2005) 4653, 5.12.2005); *Expert Working Group on Investment Fund Market Efficiency: Terms of Reference*, 31.1.2006, available online at http://ec.europa.eu/internal_market/investment/docs/other_docs/reports/efficiency-tor_en.pdf

⁷⁵ See *Managing, Servicing and Marketing Hedge Funds in Europe*, Report of the Alternative Investment Expert Group, July 2006, European Commission Internal Market and Services DG, 12.

⁷⁶ *Ibid*, 12 and 18.

⁷⁷ PES, *Hedge Funds and Private Equity: A Critical Analysis* (April 2007)

⁷⁸ *Ibid*, 163.

⁷⁹ See Report with Recommendations to the Commission on Hedge Funds and Private Equity (2007/2238(INI), Committee on Economic and Monetary Affairs (A6-0338/2008, 11.9.2008) <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A6-2008-0338+0+DOC+PDF+V0//EN>.

⁸⁰ Fioretos, 'Capitalist Diversity', op cit 715 supra n6.

⁸¹ G20, *Global Plan for Recovery and Reform*, 2nd April 2009, para 15.

⁸² See G20, *Global Plan Annex: Declaration on Strengthening the Financial System - Statement Issued by the G20 Leaders*, London 2nd April 2009.

indirect regulation (preferred by the UK and the US).⁸³ This allowed the UK to argue that ‘a separate European regime would be redundant.’⁸⁴

Nevertheless, the Commission’s first proposal, which was issued later the same month, went considerably further than the G20 agreement. It embraced direct regulation of HFs, and that regulation consisted of clear rules in addition to discretionary regulation. Perhaps most notably, in order to ‘ensure the stability and integrity of the financial system’, the Commission gave itself the task of ‘setting limits to the level of leverage [hedge fund managers] can employ’.⁸⁵ It also proposed strict rules relating to the disclosure of leverage, requiring HFs that employ ‘high levels of leverage on a systematic basis’, defined as leverage exceeding equity capital in two of the previous four quarters, to make disclosure to investors and competent authorities.⁸⁶ It then allowed national competent authorities, ‘in exceptional circumstances’ and ‘in order to ensure the stability and integrity of the financial system’ to ‘impose additional limits to the level of leverage that AIFM can employ’.⁸⁷

Following publication of this proposal, the UK Government joined with HF industry lobby groups to launch an intensive – and successful – lobbying campaign.⁸⁸ The proposed cap on leverage was particularly unacceptable to them.⁸⁹ In June 2009, the International Organization of Securities Commissions (IOSCO) published ‘a set of high-level principles for hedge fund regulation, including mandatory registration, regulation and provision of information for systemic risk assessment purposes.’⁹⁰ The aim of national regulation was to ‘allow the regulator at the level of the funds themselves to get an overall picture of the risks posed by the hedge funds’,⁹¹ with disclosure intended to ‘help regulators to identify current or potential sources of systemic risk that hedge funds may pose, either individually or collectively’.⁹² Unlike the Commission’s proposal, the IOSCO principles noted, and accommodated, the divergent national regulatory approaches.⁹³

B The AIFM Directive’s Division of Regulatory Authority over Leverage

⁸³ G20, *Enhancing Sound Regulation and Strengthening Transparency*, Final Report, March 25, 2009 notes that ‘After identifying financial institutions, markets or instruments presenting risks that regulators wish to address, this could then be achieved over time as appropriate, whether by direct or indirect regulation, depending on the nature of the risk and/or the intensity of oversight that is desired.’ For discussion of this in terms of accommodating both approaches to regulation, and therefore both ‘liberal and organized market economies’, whilst providing for greater international cooperation, see Fioretos, ‘Capitalist Diversity’ op cit 717-8 supra n6.

⁸⁴ Fioretos, ‘Capitalist Diversity’, op cit 717 supra n6.

⁸⁵ Commission Proposal, op cit Art 25(3) supra n58.

⁸⁶ *Ibid*, Arts 22-24.

⁸⁷ *Ibid*, Art 25(4).

⁸⁸ House of Commons Library, *Reforming Financial Markets I: Hedge Funds*, 21 January 2015 (SN/BT/5588) notes at 2.1 that the first draft directive was ‘subject to intense scrutiny and lobbying particularly by the industry with the support of the both the previous and current UK governments. Some of the debate has had nationalistic tones... Following the lobbying campaign, supported by the UK government, substantial changes were made to the directive.’

⁸⁹ The Joint Forum noted that in the negotiations surrounding the AIFM Directive, ‘the Commission’s first proposal (imposing leverage limits by the Commission) is one of the most controversial whereas the second (emergency powers on national regulators) seems more accepted.’ Joint Forum, op cit 62, supra n51.

⁹⁰ G20, *Progress Report*, op cit para 66 supra n51.

⁹¹ *Ibid*, para 28

⁹² *Ibid*, para 48

⁹³ IOSCO, *Hedge Funds Oversight*, Final Report, June 2009, para 21.

The tension between the EU and the UK is nowhere clearer than in the controversy over how leverage should be regulated. Following the UK's successful lobbying campaign,⁹⁴ the enacted Directive abandoned the notion of EU-wide limits on leverage in favour of a more complex scheme.

First, in order to obtain authorisation, AIFMs are obliged to set a maximum level of leverage that the hedge funds they manage will employ,⁹⁵ and to demonstrate to the national competent authority that those limits are reasonable and that they comply with them at all times.⁹⁶ They are also required to set limits to rehypothecation of collateral, for each fund they manage,⁹⁷ and to make regular reports to the national competent authority, covering the assets in which the funds they manage have invested, risk profiles and risk management, liquidity arrangements and so on.⁹⁸

Second, AIFMs which employ leverage, whether financial or synthetic, 'on a substantial basis' are required to make a number of disclosures about their leverage to national competent authorities.⁹⁹ In place of the clear definition in the first draft, the Commission was given the task of adopting delegated acts defining 'substantial'. When it made this definition, the Commission rejected the European Securities and Markets Authority's (ESMA) astonishing market liberalist advice that this key definition should be left to AIFMs themselves.¹⁰⁰ Ultimately, use of leverage will be considered 'substantial' where 'the exposure of [a hedge fund] as calculated according to the commitment method... exceeds three times its net asset value'.¹⁰¹ The commitment method examines the net exposure of the HF, so it includes repo exposure,¹⁰² but it also takes account of the hedging and netting techniques used by the manager, which is particularly relevant to assessing synthetic leverage.¹⁰³ AIFMs which fall into this category are required to make certain disclosures, including 'the identity of the five largest sources of borrowed cash or securities for each of the [HFs]... and the

⁹⁴ See British Venture Capital Association, 'A Report on Lessons Learnt From the Negotiation of the Alternative Investment Fund Managers' Directive' (Autumn 2014). For a detailed account of the lobbying strategies and political coalitions that led to the AIFM Directive, see C. Woll, 'Lobbying under Pressure: The Effect of Salience on European Union Hedge Fund Regulation' (2013) 51(3) *Journal of Common Market Studies* 555.

⁹⁵ AIFM Directive op cit Art 15(4) supra n2.

⁹⁶ Ibid, Art 25(3).

⁹⁷ Ibid, Art 15(4).

⁹⁸ Ibid, Art 24.

⁹⁹ Ibid, Art 24(6)(a)

¹⁰⁰ The Commission requested advice from the Committee of European Securities Regulators (CESR) in December 2010 on the criteria to be used to determine when use of leverage is substantial: see 'Provisional Request To CESR For Technical Advice On Possible Level 2 Measures Concerning The Future Directive On Alternative Investment Fund Managers', issue 22. By the time it responded, CESR had been renamed ESMA. ESMA rejected the notion of a quantitative threshold and proposed that this should be left to AIFMs themselves, who should make an assessment and then inform their competent authority of their conclusions, providing a copy of the assessment if requested. See 'ESMA's technical advice to the European Commission on possible implementing measures of the Alternative Investment Fund', Final Report of November 2011 (ESMA/2011/379), 239. Box 111 of that report sets out 'non-exhaustive considerations' for AIFMs to determine whether they employ leverage on a substantial basis, including whether the leverage might pose an 'important source of risk' to a 'systemically relevant institution'; whether it might 'contribute to' a 'downward spiral in the prices of financial instruments'; and whether it could 'contribute to the build-up of systemic risk in the financial system or risk of disorderly markets'.

¹⁰¹ Commission Delegated Regulation (EU) No 231/2013 of 19 December 2012 supplementing Directive 2011/61/EU of the European Parliament and of the Council with regard to exemptions, general operating conditions, depositaries, leverage, transparency and supervision (OJ L 83/1, 22.3.2013), Art 111.

¹⁰² Ibid, Art 7(e) and Art 8(2)(d).

¹⁰³ Ibid, preamble para 12 and Art 8. The decision to use the commitment method is significant because it assumes that AIFMs are able accurately to assess and offset the risks in particular positions, controlling the overall exposure of the HF.

amounts of leverage received from each of those sources for each of those [HFs].¹⁰⁴ Since the number of prime brokers is limited, the clear assumption is that disclosure of the five most important sources of leverage will give national regulators a fairly clear picture of the extent of leverage of hedge funds.¹⁰⁵

National competent authorities are then to use this information to identify ‘the extent to which the use of leverage contributes to the build-up of systemic risk in the financial system, risks of disorderly markets or risks to the long-term growth of the economy.’¹⁰⁶ Where they consider it ‘necessary to ensure the stability and integrity of the financial system’, they should ‘impose limits to the level of leverage that [a hedge fund manager is] entitled to employ or other restrictions on the management of the [hedge fund]’.¹⁰⁷ This provision was preserved from the first draft directive; however, in the absence of absolute limits set at EU level on the amount of leverage HFs are entitled to deploy, this provision becomes central to preventing HFs contributing to systemic instability. The next section argues that this provision of the Directive gives regulators an impossible task. This section confines its analysis to the decision to confer responsibility on national regulators for assessing the risks arising from observed patterns of leverage.

Romano claims that the absence of regulatory diversity was a key cause of the financial crisis, and argues that ‘Regulatory harmonization can itself generate systemic risk to the financial system’. In support of this claim, she refers to the Basel Accords, which encouraged most banks to adopt similar strategies and risk models.¹⁰⁸ Accordingly, she calls for regulatory schemes which rely on a multiplicity of regulators, because this will allow for regulatory arbitrage as AIFMs move to the jurisdiction whose regulation best suits their needs.

There are two main objections to adopting this approach in the EU context. First, the concentration of AIFMs in the UK means that the UK already has a dominant position in the ‘market for AIFM regulation’. The UK has a very explicit focus on the competitiveness of its regulatory environment,¹⁰⁹ making it unlikely that the FCA will adopt a strict line on the reasonableness of hedge fund leverage.¹¹⁰ If other Member States want to attract AIFMs and take regulatory market share from the UK, they can only do so by offering even more ‘competitive’ regulation. This creates a likelihood of convergence on the UK’s model, and perhaps a race to the bottom, rather than diversity of regulation. Second, and more importantly, if a permissive regime allows an AIFM to take on excessive leverage, and that fund subsequently becomes insolvent, the losses will spread around financial institutions in various Member States. Rather than being concentrated in the Member State charged with regulating the AIFM in question, this potentially impacts on taxpayers in other Member States if they are required to bail out a systemically important financial institution in their

¹⁰⁴ Ibid, Art 24(4), para 2.

¹⁰⁵ However, HFs have established ‘offshore investment vehicles’ which enable them to obtain ‘enhanced leverage’, and prime brokers have established ‘facilities overseas in less restrictive jurisdictions’ to supply that leverage. See Ang et al, ‘Hedge Fund Leverage’ op cit 5 supra n17. If these structures are sufficiently complex, then it is possible that this leverage will not show up in full.

¹⁰⁶ AIFM Directive op cit Art 25(1) supra n1.

¹⁰⁷ Ibid, Art 25(3)

¹⁰⁸ Romano, ‘Against Financial Regulation Harmonization’, op cit 16 supra n38.

¹⁰⁹ See for example <https://www.gov.uk/government/publications/asset-fund-management-in-the-uk/fund-management-in-the-uk>: ‘The UK government is committed to strengthening the UK’s position as an investment destination of choice for investment managers, and we are committed to making the UK one of the most competitive places in the world for the investment management sector...’

¹¹⁰ The FCA is charged with ‘protecting and enhancing the integrity of the UK financial system’, including ‘its soundness, stability and resilience’, but is instructed to ensure that the burdens of any restrictions they impose are ‘proportionate’ to the benefits obtained. See Financial Services and Markets Act 2000 (as amended), sections 1D and 3B(1)(b).

jurisdiction. Similarly, disruptions through the market channel will occur in the Member State where the manager determined the fund should make leveraged investments, and not necessarily in the Member State where the manager is based. Unlike the United States, where, in any competition to attract AIFMs, the states would be competing to attract AIFMs against the backdrop of an implicit federal guarantee of the banking system, the EU Member States each offer an implicit guarantee of their national banking systems. As such, there is a real danger that an EU-wide 'market for AIFM regulation' will create significant externalities, with lax national regulation benefitting the regulating Member State in terms of attracting AIFMs, but imposing costs on other Member States.

Accordingly, regulatory authority over AIFMs cannot be left in the hands of the Member States alone, and the AIFM Directive embeds national regulators in a supranational governance process. In addition to 'a facilitation and coordination role' in relation to leverage limits,¹¹¹ ESMA is given the power to ask national authorities to intervene in relation to specific AIFMs. ESMA can, on the basis of the information disclosed to it by national authorities and of the advice of the ESRB, 'determine that the leverage employed by an AIFM, or by a group of AIFMs, poses a substantial risk to the stability and integrity of the financial system'. Where ESMA reaches this conclusion, it can issue advice to competent authorities specifying the remedial measures to be taken, including imposing leverage limits on specific hedge fund managers.¹¹² This power has its origins in a European Parliament report on the first draft, but was weakened in the final directive.¹¹³ National authorities are not bound by ESMA's advice, but must give reasons for non-compliance. ESMA can then publish details of this non-compliance and may also publish the reasons given. This 'name and shame' process may create political pressure for national regulators to comply with ESMA's advice, and therefore result in a degree of coordination of national policies on leverage limits. It also potentially creates scope for a process of dialogue and learning between national regulators and ESMA where they take divergent approaches. However, with the vast majority of AIFMs based in the UK, it remains to be seen whether ESMA adopts an interventionist approach. ESMA's recommendation, discussed above,¹¹⁴ that the Commission leave AIFMs to define whether they deploy 'substantial' leverage, suggests that ESMA operates within a market liberalist paradigm and that interventions will be rare.

These provisions of the AIFM Directive illustrate the tension between the competing interests in national and supranational regulation of HFs. The Directive attempts to resolve this tension by correcting for the flawed incentives for national regulators, whilst still leaving the UK scope to maintain its 'comparative advantage' in attracting AIFMs. However, in its complexity, it contrasts sharply with the absolute cap on leverage contained in the original proposal. The success of the Directive will therefore hinge on national and supranational regulators identifying situations in which leverage poses a threat to systemic stability. The next section will argue that this is an impossible task for regulators.

V How Should Hedge Funds Be Regulated?

¹¹¹ AIFM Directive op cit Art 25(5) supra n1.

¹¹² Ibid, Art 25(7).

¹¹³ Under the proposed amendment from the Parliament, which first proposed giving ESMA this role, ESMA could specify measures, including leverage limits, which particular AIFMs would be obliged to follow: see Report on the proposal for a directive of the European Parliament and of the Council on Alternative Investment Fund Managers (A7-0171/2010), Art 25(2b).

¹¹⁴ See supra n100.

A Leverage

We saw above that the first draft AIFM Directive included a controversial proposal for a cap on HF leverage, but that it was sidelined as a result of intensive lobbying by the UK government and HFs. This occurred against the backdrop of an emerging international consensus among regulators that a combination of information disclosure and discretionary regulation will suffice to prevent HF leverage contributing to systemic instability. The De Larosiere Report¹¹⁵ called for ‘appropriate regulation’ of ‘all firms or entities conducting financial activities which may have a systemic impact’. This would entail ‘greater transparency’, both to assist the banks which lend to them, and because ‘supervisors need to know which hedge funds are of systemic importance.’ A month later, the FSA’s Turner Review recommended that macroprudential regulators ‘gather much more extensive information on hedge fund activities’, and that they be given ‘the power to apply appropriate prudential regulation (e.g. capital and liquidity rules) to hedge funds...if at any time they judge that the activities have become bank-like in nature or systemic in importance.’¹¹⁶ These recommendations were echoed by IOSCO¹¹⁷ and the FSB.¹¹⁸ The AIFM Directive adopted in June 2011 reflects this consensus among regulators. Far from representing a paradigm shift, the Directive extends certain aspects of the pre-crisis approach to banking supervision to HFs, with the macroprudential gloss that regulators should also consider systemic stability in deciding whether to intervene.

The Joint Forum’s report articulated a thorough case against the imposition of a leverage cap on all HFs,¹¹⁹ which merits more detailed consideration. It noted that ‘Supervisors do not constrain the use of leverage by funds’,¹²⁰ but emphasised that ‘setting leverage caps could be extremely difficult and complex.’¹²¹ It also doubted the wisdom of a single cap, ‘given the different strategies and activities of hedge funds and because the true extent of leverage cannot be easily figured out without analysing the embedded leverage in each underlying investment.’ In response to this, it is worth pointing out that a cap would only affect those HFs which use the highest levels of leverage; the FCA’s annual Hedge Fund Surveys have repeatedly indicated that most of the financial leverage is concentrated in a handful of HFs. The Joint Forum then raised the important point that ‘setting an arbitrary cap could cause market distortion’. It might, for example, cause HFs which run up against the cap to take on additional leverage in its synthetic, embedded – and harder to detect – form, and so actually result in a more unstable financial system. However, under the enacted Directive, the difficulties associated with setting a leverage cap do not disappear entirely; as we saw above, it is simply delegated to national regulators on a conditional basis under a complex supranational scheme. Rather than abandon the cap and rely on prudential supervisors to ‘cap leverage for a fund identified as posing systemic risk’, it would be more prudent for a cap to be imposed and then be supplemented with a discretionary regulatory regime. The first draft directive did this by allowing national supervisors to impose restrictions on leverage additional to the cap where they considered individual HFs to pose a threat to systemic stability. That scheme would have ruled out the most extreme uses of leverage, guarding against the worst instances of regulatory failure, but then allowed regulators to impose further restrictions in the interests of systemic stability.

¹¹⁵ De Larosière Report, op cit paras 85-8 supra n41.

¹¹⁶ See Turner Review, op cit 73 supra n8.

¹¹⁷ See IOSCO, *Hedge Fund Oversight: Final Report*, June 2009, 3.

¹¹⁸ FSB, *Improving Financial Regulation: Report of the Financial Stability Board to G20 Leaders*, September 2009, 9; FSB, *Overview of Progress in the Implementation of the G20 Recommendations for Strengthening Financial Stability*, June 2010.

¹¹⁹ Joint Forum, ‘Review’, op cit 62 supra n51.

¹²⁰ Ibid, 9 and 54

¹²¹ Ibid, 62

In relying so heavily on information disclosure, the Directive reduces the threat posed by HFs to systemic stability to one of information asymmetry – if the regulators knew what risks and what positions HFs were taking, then they would be able to intervene where necessary to ensure the stability of the financial system. This approach has now been extended to the broader question of how the shadow banking system should be regulated,¹²² as can be seen from the Commission’s proposal for an SFT Regulation.¹²³ The SFT Regulation’s origins can be traced to FSB Reports of 2011¹²⁴ and 2013,¹²⁵ which advocated collection of data about ‘repo exposures amongst large international financial institutions’ because this has ‘the potential to provide useful information to authorities to help to detect and monitor risks as they unfold’.¹²⁶ The Commission’s 2013 Communication on Shadow Banking¹²⁷ emphasised the need for Member States to identify and monitor the risks arising from the repo market. In January 2014, the Commission proposed the SFT Regulation to address the FSB’s transparency recommendations and as a means of imposing limited regulation on rehypothecation.¹²⁸ The SFT Regulation requires financial institutions, including HFs¹²⁹ to disclose their involvement in SFTs to a registered trade repository or to ESMA,¹³⁰ which should then be aggregated and published, as well as passed on to the European Banking Authority.¹³¹ If adopted, the SFT Regulation will supplement the information provided to regulators under the AIFM Directive with the detailed information about the size and concentration of the repo market that they currently lack. On the basis of this more detailed information, it is open to them to decide to exercise their powers, discussed above, to impose limitations on the use of leverage by particular HFs because of concerns about systemic stability.

Both the AIFM Directive and the proposed SFT Regulation share an assumption that, given enough information, regulators will be able to determine when leverage poses a threat to the stability of the financial system. Regulators must identify when the use and distribution of leverage in the financial system is such that its unwinding will either threaten the solvency of a systemically important bank, or will destabilise financial markets. Hence, the success of these instruments in preventing systemic instability will depend on the willingness of national regulators to intervene. Even leaving aside the ‘politics of booms’, which make it difficult for regulators to exercise their powers in a pre-emptive

¹²² In 2013, the FSB concluded ‘gaps and lags in the information available to authorities impeded their ability to identify the build-up of vulnerabilities’: see FSB, *Strengthening Oversight and Regulation of Shadow Banking: Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos*, 29th August 2013, 6.

¹²³ Commission Proposed SFT Regulation, op cit supra n2.

¹²⁴ FSB, *Shadow Banking: Strengthening Oversight and Regulation: Recommendations of the Financial Stability Board* (27 October 2011) proposing at 7 that authorities should scan and map the shadow banking system, and then identify those aspects which pose systemic risk and regulatory arbitrage concerns.

¹²⁵ FSB, *Strengthening Oversight*, op cit 6-9 supra n122, noting that repo markets can create ‘not necessarily readily apparent system-wide leverage’, which creates risk through the market and credit channels.

¹²⁶ *Ibid*, Recommendation 1 and at 7

¹²⁷ See European Commission, ‘Shadow Banking – Addressing New Sources of Risk in the Financial Sector’ (COM(2013) 614 final, 4.9.2013).

¹²⁸ Art 15 of the proposed SFT Regulation follows the FSB’s August 2013 recommendations, and sets out conditions that must be satisfied before a financial instrument may be rehypothecated, namely that the providing counterparty has granted consent in a written agreement, and has been informed of the risks of granting consent by the receiving counterparty. These requirements will be easily fulfilled through standard form contracts. Their aim, in line with FSB recommendations, is to ensure that counterparties are fully aware of their potential exposure. The FCA’s *Hedge Fund Survey* of June 2015 reports at 27 that 69% of HFs allow for rehypothecation of the collateral they post with their counterparties; as many as 22% of HFs do not know how much has actually been rehypothecated by their counterparties; and 54% have rehypothecated collateral they have received.

¹²⁹ Commission Proposed SFT Regulation, op cit Art 2(1)(c) supra n2.

¹³⁰ *Ibid*, Art 4(1)

¹³¹ *Ibid*, Arts 12(1) and (2)

manner,¹³² the inherent uncertainty of financial markets arguably makes it impossible for regulators to know when a single HF has borrowed so much, or the securities financing market has expanded so far, that a reversal of the leveraging process will result in financial instability. These complex and unpredictable dynamics are the territory explored in the work of Hyman Minsky, which highlights the impossibility of the task confronting regulators.

Minsky's starting point is that uncertainty is a 'determinant of system behavior'.¹³³ In modern capitalist economies (as opposed to the neoclassical theoretical economy), financial actors always use external funds (that is, leverage) to finance positions in assets, and this 'partitions and distributes uncertainty'. This is uncertainty in the radical, Knightian sense that no probabilities can be assigned to alternative possibilities.¹³⁴ In Minsky's approach, uncertainty characterises financial investment because financial actors 'are not only unsure about the validity of the model that guides their actions, they impute such uncertainty to the other actors in the economy.'¹³⁵ This pervasive uncertainty means that markets are characterised by mood swings. Minsky argued that 'euphoria is a necessary prelude to a financial crisis and... is almost an inevitable result of the successful functioning of an enterprise economy.'¹³⁶ As euphoria takes hold, and a boom gets underway, financial actors begin to factor continued expansion and rises in asset prices into their expectations with increasing confidence. As optimism grows and uncertainty apparently decreases, asset prices rise further, which in turn allows more collateralised borrowing to occur.¹³⁷ Hence the boom sows the seeds of future financial instability as financial institutions agree to finance positions in assets that they would not have considered unacceptable before the boom. Positions which would previously have been considered as speculative or Ponzi finance come to be viewed by lenders as acceptably safe hedge financing.¹³⁸ As demand for credit rises, the interest rates demanded by banks and money market funds will eventually rise, and once this occurs, the rate of increase in asset prices will slow and then go into reverse, making the future look uncertain once again. The problem which is most relevant to the discussion here is that positions in assets which were financed during 'the burst of euphoria' no longer look viable, and financial actors do not know whether these 'now less-desirable financial positions will be unwound without generating financial shocks'.¹³⁹ The application of Minsky's theory to the discussion above of the risks to systemic stability is absolutely clear. Once leveraged financial actors seek to unwind the positions they took during the period of optimism, this compounds the price falls, triggering further sales, and, depending on the scale of the unwinding, potentially resulting in systemic instability through both the credit and the market channels.

¹³² Brunnermeier et al, 'Fundamental Principles', op cit xvi supra n21

¹³³ H. Minsky, 'Financial Instability Revisited: The Economics of Disaster' in *Can 'It' Happen Again? Essays on Instability and Finance* (M.E. Sharpe inc, Armonk, NY, 1982), 118

¹³⁴ F. Knight, *Risk, Uncertainty, and Profit* (New York, Cosimo, 2006, originally published 1921), 225.

¹³⁵ H. Minsky, 'Uncertainty and the Institutional Structure of Capitalist Economies' (1996) 30 *Journal of Economic Issues* 357, 360.

¹³⁶ Minsky, 'Financial Instability Revisited', op cit 145 supra n133.

¹³⁷ *Ibid*, 121.

¹³⁸ Minsky's well-known theoretical framework divides transactions financing positions in assets into three categories: hedge finance, speculative finance and Ponzi finance. Hedge finance exists where the borrower expects to be able to service their debt obligations out of the income generated by the asset; speculative finance exists when expected income from the asset falls short of repayment obligations, and are speculative because they assume that refinance will be available; Ponzi finance exists when the expected income will not allow the borrower to service their interest payment obligations, and so borrowers rely on the availability of refinance to service their obligations. See H. Minsky, *Stabilizing an Unstable Economy* (McGraw-Hill Professional, 2008), 230-8.

¹³⁹ Minsky, 'Financial Instability Revisited', op cit 124 supra n133.

Taking Minsky's approach to uncertainty seriously implies that regulators are unable to identify when the leverage that has built up within the financial system has funded a set of positions in assets which pose a threat to the stability of the financial system. What looked like a safe system of financing under one set of assumptions about the future is suddenly revealed to be extremely risky as soon as those assumptions change. Central bankers recognise this uncertainty, regularly stating that they are not able to identify asset price bubbles in advance, and that they cannot reliably intervene on the basis that asset prices have departed from fair value.¹⁴⁰ Instead, they focus on dealing with the aftermath of the asset price collapse. Central banks were able to stave off a deep depression following the financial crisis by providing enormous quantities of liquidity to the financial sector, reducing short-term interest rates to near (and in some cases, below) zero, and driving down long-term interest rates through extraordinary monetary policies, such as quantitative easing. This is the central bank using its 'ultimate weapon for validating a debt structure',¹⁴¹ making positions taken out during the boom appear viable, and so protecting the solvency of systemically important financial institutions. However, use of this 'ultimate weapon' is not costless. It creates moral hazard, reassuring financial actors that they will be saved, and by reducing the cost of finance and even normalising zero interest rates, it sows the seeds of the next boom and subsequent bust in asset prices, as can be seen in market reactions to any threat to end the current monetary accommodation.

The AIFM Directive and the SFT Regulation are arguably incapable of preventing HFs contributing to financial instability because they rely on regulators being able to identify *in advance* when the use of leverage poses a threat to the system. Minsky's approach suggests that there is no basis on which they can possibly do this, because leverage and asset prices drive each other reflexively, upwards and downwards. A quantitative risk analysis cannot be used to regulate a financial system characterised by Knightian uncertainty. Yet without such an analysis, regulators have no objective basis on which to justify a discretionary decision to intervene.

The implosion of the Long-Term Capital Management (LTCM) hedge fund in 1998, which gave rise to a systemic event and required an enormous bailout by a consortium of private financial institutions,¹⁴² demonstrates the impossibility of making *ex ante* assessments of the risks posed by HF leverage. LTCM 'reportedly had over 60,000 trades on its books',¹⁴³ including extremely complex positions in derivatives. It funded its positions in assets through repo transactions on government bonds with seventy five different counterparties.¹⁴⁴ When LTCM hit financial difficulties, its extensive use of repos forced it into repeated rounds of asset liquidation.¹⁴⁵ Its 'exceptional' use of leverage was made possible because its lenders, which included systemically important banks, suffered from

¹⁴⁰ For example, whilst President of the ECB, Jean-Claude Trichet stated that 'bubbles do exist, but that it is very hard to identify them with certainty and almost impossible to reach a consensus about whether a particular asset price boom period should be considered a bubble or not.' See J-C Trichet, 'Asset price bubbles and monetary policy', Mas Lecture, Singapore, 8 June 2005. See also B. Bernanke, 'Asset-Price "Bubbles" and Monetary Policy' Remarks Before the New York Chapter of the National Association for Business Economics, New York, October 15, 2002; and F. Mishkin, 'How Should We Respond to Asset Price Bubbles?', Wharton Financial Institutions Center and Oliver Wyman Institute's Annual Financial Risk Roundtable, Philadelphia, Pennsylvania, May 15, 2008.

¹⁴¹ Minsky, *Stabilizing an Unstable Economy*, op cit 62 supra n138.

¹⁴² See Report of the President's Working Group on Financial Markets, *Hedge Funds, Leverage and the Lessons of Long-Term Capital Management* at 30-2. Despite the failure of market controls, that group – which included Alan Greenspan – was resistant to the imposition of more direct regulation, and recommended more frequent and meaningful information disclosure and that regulators pay greater attention the risk management weaknesses identified.

¹⁴³ *Ibid* at 11

¹⁴⁴ *Ibid* at 11 and 18

¹⁴⁵ Bookstaber, op cit 101-8 supra n56.

'risk management' failures.¹⁴⁶ Its founders, who had an extraordinary depth of experience and expertise,¹⁴⁷ and had full access to the fund's balance sheet, failed to identify the risks confronting the fund in advance. It seems implausible to argue that a regulator, even one in full possession of LTCM's balance sheet, would have been able to predict this systemic event.

As required by the AIFM Directive,¹⁴⁸ the Commission has now produced a delegated regulation setting out principles that specify when Member States should impose limits on leverage.¹⁴⁹ That regulation requires national regulators to take account of various considerations, including whether 'exposures... could constitute an important source of market, liquidity or counterparty risk to a financial institution', and whether the use of leverage 'could contribute to a downward spiral in the prices of financial instruments or other assets in a manner that threatens the viability of such financial instruments or other assets'.¹⁵⁰ These principles do not provide useful guidance to regulators as to when to intervene; they simply restate the problem. Minsky's approach shows that leverage always potentially creates systemic risks through the credit and market channels, but that there is no clear advance indicator of when this has actually occurred. Regulators face the same uncertainty as financial actors when trying to gauge the future evolution of the financial system. Yet regulators operating under this scheme are supposed to base decisions to intervene on a quantitative analysis of risk. For example, in its regulatory handbook, the UK's FCA, which authorises UK-based AIFMs and receives disclosures from AIFMs about the maximum levels of leverage their funds employ,¹⁵¹ simply refers AIFMs to the relevant section of the Commission's delegated act.¹⁵² However, its website states that the FCA assesses risk by calculating the impact of the problem if it occurs but discounting that impact by the probability, and then deciding whether to allocate resources to it.¹⁵³ In other words, the FCA's approach proceeds on the basis that the 'costs' of excessive lending, in terms of their implications for systemic stability, can be calculated by reference to the probability of a systemic event occurring. This is the antithesis of Minsky's approach.

This analysis suggests that the regulatory scheme gives regulators an impossible task because they have no meaningful guide to when intervention is required. Any probability used by the regulator will be based on past performance of the financial system, and therefore is almost certain to be wrong. For this reason, Minsky's preference was for bright-line rules. For example, he suggested that the central bank 'should be authorized to set an asset-equity ratio for all banks' in order 'to contain the destabilizing effect of banking'.¹⁵⁴ Although Minsky was writing before HFs, this regulatory technique also appears appropriate for HFs, which, like banks, often use short-term debt to finance long(er)-term positions in assets. We saw above that an approach along these lines was taken in the first proposal for a Directive,¹⁵⁵ but was abandoned in the face of lobbying and an international

¹⁴⁶ President's Working Group, op cit Annex D, 20 supra n142

¹⁴⁷ Its founders included a number of very experienced traders, a former Vice-Chairman of the Federal Reserve and two economists who were awarded the 'Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel'.

¹⁴⁸ Art 25(9).

¹⁴⁹ Commission Delegated Regulation (EU) No 231/2013 of 19 December 2012 supplementing Directive 2011/61/EU of the European Parliament and of the Council with regard to exemptions, general operating conditions, depositaries, leverage, transparency and supervision, OJ L 83/1, 22.3.2013.

¹⁵⁰ Ibid, Art 112.

¹⁵¹ See FCA Handbook, FUND 3.7.7R

¹⁵² Ibid, FUND 3.7.8R

¹⁵³ <http://www.fca.org.uk/about/what/regulating/how-we-supervise-firms/risk-management>

¹⁵⁴ Minsky, *Stabilizing an Unstable Economy* op cit 356 supra n138.

¹⁵⁵ This approach would also have been more in line with ordoliberalism, which inspired much of the European economic constitution. It rejects discretionary government intervention in the economy in favour of clear rules that will avert moral hazard and inspire confidence in the market: see for example M. Siems and G. Schnyder,

regulatory consensus in favour of less prescriptive rules. A leverage cap would be more likely to prevent a systemic crisis because it sets absolute limits to the expansion of individual HFs' leverage, and does not rely on discretionary regulation in the face of uncertainty as the primary defence against financial instability.

The problem of uncertainty has not gone unrecognised in academic commentary on HF regulation. Romano recognises that there is 'considerable uncertainty regarding how best to measure institutions' and instruments' risk and contribution to systemic risk',¹⁵⁶ and that this 'exacerbates the risk that regulators will get things badly wrong'. However, Romano calls for a market solution to these difficulties. She argues for greater regulatory diversity, both because it allows for increased regulatory arbitrage and therefore more financial innovation, and because regulatory diversity hedges against the danger of a single regulator getting it wrong. In contrast, Minsky's approach suggests that clear, bright-line rules imposing limits on leverage will always be more effective than discretionary regulation in dealing with the complexity and uncertainty of the financial system.¹⁵⁷

B Regulation of Repo Haircuts

Following the Joint Forum's suggestion,¹⁵⁸ the FSB has recently set out a framework for minimum haircuts in repo markets.¹⁵⁹ In light of the reservations about the regulatory scheme expressed above, these bright-line rules will be essential to ensuring that HF leverage does not contribute to systemic instability.

The framework prescribes numerical floors for haircuts based on the type of security, and in the case of debt securities, their maturity.¹⁶⁰ It applies to 'non-centrally cleared securities financing transactions in which financing against collateral other than government securities is provided to entities other than banks and broker-dealers.'¹⁶¹ This excludes a number of repo transactions from the scope of the framework. It only applies to the provision of repo finance by banks to non-banks, such as HFs. Banks which obtain finance through repo are excluded on the basis that they are already subject to leverage and liquidity regulation,¹⁶² whilst repo transactions carried out by central

'Ordoliberal Lessons for Economic Stability: Different Kinds of Regulation, Not More Regulation' (2014) 27 *Governance* 377, 386-9.

¹⁵⁶ Romano, 'Against Financial Regulation Harmonization', op cit 18 supra n38.

¹⁵⁷ This approach also gains indirect support in an important paper from Andrew Haldane of the Bank of England, who concludes that since 'complexity generates uncertainty, not risk, it requires a regulatory response grounded in simplicity, not complexity.' In the context of banking regulation, Haldane observes that a leverage ratio is a better predictor of failure than more complex risk-weighted models, and supports its introduction in Basel III. He suggests it would be preferable for the ratio to play a frontstop, rather than backstop, role. The Commission's proposal in its first draft of the Directive, in which a leverage cap would have automatically ruled out certain HF strategies, is in line with this thinking. See A. Haldane and V. Madouros, 'The dog and the frisbee', Bank of England paper delivered at Federal Reserve Bank of Kansas City's 36th economic policy symposium, 31st August 2012 (available online at <http://www.bankofengland.co.uk/publications/Documents/speeches/2012/speech596.pdf>)

¹⁵⁸ Joint Forum, *Report*, op cit 62 supra n51.

¹⁵⁹ FSB, *Regulatory framework for haircuts on non-centrally cleared securities financing transactions*, 14 October 2014.

¹⁶⁰ *Ibid*, 8. Corporate equities listed on a main index must have a minimum haircut of 6%, whilst corporate-issued debt securities range from 0.5% for those with a maturity of less than one year to 4% for securities with a maturity above 10 years. Securitised assets have higher haircuts, ranging from 1% for maturities below one year to 7% for maturities over ten years. Other assets which fall within the framework must have a haircut of at least 10%.

¹⁶¹ *Ibid*, 2.

¹⁶² *Ibid*, 4.

banks (which are a key tool of monetary policy) are also excluded. Similarly, haircuts for repo finance provided by non-banks to non-banks are also excluded, although the FSB has consulted on this issue. The scope of this framework therefore means that it primarily addresses the risks to systemic stability through the credit channel, that is, the risk that failure of, for example, a HF borrower, calls into question the solvency of a bank. The future treatment of non-bank to non-bank repo haircuts will be very important in terms of preventing instability through the market channel.

Equally importantly, the framework also excludes repos collateralised by government securities because 'price movements in these securities generally tend not to be procyclical' and 'haircuts on these transactions have been comparatively stable over time at zero or low levels'.¹⁶³ Hence, there are no minimum haircuts required on national government bonds, or on bonds issued by the ECB, EU, BIS or IMF. Haircuts on government securities are to be determined entirely by the parties to the transaction, although the FSB has laid down qualitative standards for assessing haircuts which will apply to these securities.¹⁶⁴ These qualitative standards should also be used to determine haircuts in those repo transactions which are subject to numerical haircut floors, and the FSB's intention is that the floors should not become 'de facto market standards'.¹⁶⁵

The framework will certainly impose some limitations on the leverage available to HFs, at least where they use non-government securities as collateral for their borrowing. However, HFs still have a great deal of room for manoeuvre. With a haircut of 1.5% on a debt security with between one and five years to maturity, it is still technically possible to obtain leverage of more than 66 times equity. More significantly, the exclusion of government securities dramatically reduces the impact of the framework on HFs: among the HFs that responded to the FCA's latest survey, G10 bonds are the asset most widely held by HFs, closely followed by listed equities.¹⁶⁶ Finally, the exclusion of non-bank lending means that a whole swathe of the repo market is not affected by this framework. As a result, this framework will primarily contribute to ensuring the stability of large banks; any regulatory effects on the extent of HF leverage will be indirect. Therefore, the framework is not a substitute for a direct cap on leverage, and intervention by national regulators on the basis of the information disclosed under the instruments discussed in this article will remain critical to ensuring systemic stability.

C Regulation of Remuneration

While the Commission's first proposal for an AIFM Directive did not address remuneration in HFs, the enacted Directive does. The Directive regulates remuneration in order 'to address the potentially detrimental effect of poorly designed remuneration structures on the sound management of risk and control of risk-taking by individuals'.¹⁶⁷ Hedge fund managers' remuneration policies must be 'consistent with and promote sound and effective risk management', and accord with Annex II to the Directive.¹⁶⁸ The approach is 'consistent with and complements' the Commission's 2009 Recommendation on Remuneration Policies in the Financial Sector,¹⁶⁹ and substantially replicates

¹⁶³ Ibid, 8

¹⁶⁴ This requires haircuts to be based on 'the market risks of the assets used as collateral and be calibrated at a high confidence level, using a long historical time period that includes at least one stress period, in order to cover potential declines in collateral values during liquidation.' Haircuts should also consider other types of risk where relevant.' Ibid, 4.

¹⁶⁵ Ibid, 7.

¹⁶⁶ FCA, Hedge Fund Survey, June 2015.

¹⁶⁷ AIFM Directive op cit preamble, paragraph 24, supra n1.

¹⁶⁸ Ibid, Art 13(1).

¹⁶⁹ Ibid, preamble, para 26 referring to Recommendation 2009/384/EC of 30 April 2009.

Annex I of Capital Requirements Directive III, which was the EU's first attempt at regulating remuneration in banks.¹⁷⁰

The key question for this article is whether the Directive's rules on remuneration contribute to its aim of 'effective monitoring of systemic risk'.¹⁷¹ The Directive is not explicit as to whether the rules on remuneration are merely intended to protect investors in hedge funds against risk-taking which exceeds their tolerance and expectations, or whether they are also intended to prevent remuneration policies incentivising practices, including particularly the use of leverage, which create systemic risk. Certainly, ex ante requirements as to payment in units or shares of the hedge fund concerned¹⁷² and deferral of variable remuneration¹⁷³ will align the interests of AIFMs with investors in HFs, as will the use of ex post 'malus or clawback arrangements' in the event of 'subdued or negative financial performance'.¹⁷⁴

Beyond protecting investors, these rules have a clear micro- rather than macro-prudential focus. Annex II seeks to ensure that remuneration does 'not encourage risk-taking which is inconsistent with the risk profiles, rules or instruments of incorporation of the AIFs'.¹⁷⁵ The only provision which potentially extends beyond the micro-prudential is the requirement of a comprehensive ex ante adjustment mechanism to cover 'all relevant types of current and future risks'.¹⁷⁶ However, in order for ex ante adjustments to offer protection against systemic instability, national regulators would have to determine whether particular HF pay practices incentivise excessive risk-taking, a second order calculation even more difficult than the task they are given in relation to leverage. Coupled with an ideologically-driven operating presumption against regulatory interference with 'market outcomes' such as incentive pay, it seems inconceivable that regulators will intervene in HF pay arrangements on the basis that they pose a threat to systemic stability.

This part of the Directive contrasts sharply with the bright-line, quantitative cap on variable remuneration contained in Capital Requirements Directive IV.¹⁷⁷ That cap can be justified in terms of preventing systemic risk whilst still incentivising some of the risk-taking that is necessary in the banking sector.¹⁷⁸ The imposition of a similar cap on the variable remuneration of risk-takers in HFs could certainly have been justified on the basis of the credit channel, given their close links, through prime brokerage and repo markets, with systemically important financial institutions. An argument might also be made in relation to preventing systemic risk arising through the market channel. However, in the case of HFs, a leverage cap coupled with regulatory oversight would appear to be a proportionate response to credit channel concerns, given that, in contrast to banks, only certain types of hedge fund use very high levels of leverage.

¹⁷⁰ See Directive 2010/76/EU amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies (OJ L 329/3, 14.12.2010).

¹⁷¹ AIFM Directive, op cit preamble, para 88, supra n1

¹⁷² Ibid, Annex II, Para 1(m)

¹⁷³ Ibid, Annex II, Para 1(n)

¹⁷⁴ Ibid, Annex II, Para 1(o). The availability of these mechanisms will depend on contract, and is likely to be confined to situations in which there has been some kind of accounting impropriety. This means that deferral is the key mechanism in protecting pension funds and other institutional investors that invest in hedge funds.

¹⁷⁵ Ibid, Annex II, Para 1(a)

¹⁷⁶ Ibid, Annex II, Para 1(l)

¹⁷⁷ Directive 2013/36/EU of 26 June 2013 on access to activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (OJ L 176/338, 27.6.2013), Art 94(1).

¹⁷⁸ See A. Johnston, 'Preventing the Next Financial Crisis? Regulating Bankers' Pay in Europe' (2014) 41 *Journal of Law and Society* 6.

Andenas and Chiu explain the limited scope of these remuneration provisions on the basis that ‘remuneration policies in [AIFMs] may be less of a systemic issue than in universal banks and other financial institutions, as [AIFM] remuneration may be subject to some investor oversight’. Since investors in HFs are professionals, we might expect intervention in the event that those investors perceive that remuneration policies ‘affect investment returns on the relevant [hedge funds] managed.’¹⁷⁹ Likewise, the Joint Forum report suggested that HFs’ ‘desire to attract and retain investors’ would solve the ‘traditional principal-agent problem’ of excessive risk-taking.¹⁸⁰ However, whilst investors in hedge funds might take a more active approach on remuneration matters than dispersed bank shareholders (particularly in light of the recent decline in returns on their investments), serious questions remain over whether investors in HFs are able to get a clear picture of the impact of remuneration on actual patterns of risk-taking, and whether the preferences of individual investors for risk-taking aggregate in a manner which will further systemic stability. The more plausible explanation for the limited scope of this provision is that the AIFM Directive became law at a time when a cap was simply not on the political agenda. AIFM remuneration is regulated almost exactly how policy-makers intended to regulate remuneration in banks before the European Parliament intervened in CRD IV. Any proposal for more prescriptive regulation of AIFM remuneration would have had to confront the pre-crisis industry and academic orthodoxy that hedge funds provide a public good by using leverage to arbitrage and so drive prices to their ‘correct’ levels,¹⁸¹ and then to make a case that that public good is outweighed by the systemic risks they pose. The narrow limits of the remuneration rules, then, means that discretionary regulatory oversight of leverage is the key mechanism protecting the stability of the financial system against threats from excessive leverage.

VI Conclusion

This article has examined who should regulate HFs and how they should be regulated to ensure that they do not create instability in the financial system. It has shown that the EU began the process of HF regulation as part of its plans for an integrated capital market. When the financial crisis intervened, the EU began to take more seriously the threat posed by HFs’ use of leverage, and rejected the notion that HF regulation could be left entirely to the individual Member States. As enacted, the AIFM Directive sought to strike a balance between, on the one hand, the UK’s interest in preserving its dominant position as home to the majority of EU-based AIFMs, and on the other, the supranational interest in preventing national regulation creating costs for other Member States and undermining the stability of EU financial markets. Beyond the EU, it seems likely that most jurisdictions will put in place their own systems of HF regulation. However, it should also be emphasised that, outside the EU, HF managers are overwhelmingly concentrated in the United States, with only limited numbers elsewhere, in jurisdictions such as Switzerland, Singapore and Hong Kong. Hence the EU and the US will remain the most important jurisdictions regulating HFs. Although it seems very unlikely that a global scheme regulating HF managers will be put in place, there is likely to be considerable de facto convergence of regulation. Most importantly, non-EU jurisdictions are, like the EU, likely to follow the G20 recommendations. In addition, the AIFM Directive may itself create a degree of pressure for convergence, because a non-EU AIFM can only

¹⁷⁹ M. Andenas and I. Chiu, *The Foundations and Future of Financial Regulation* (Routledge, Abingdon 2014), 185.

¹⁸⁰ Joint Forum, *Report*, op cit 56 supra n51.

¹⁸¹ See for example Alternative Investment Fund Managers Association Newsletter, ‘The Global Hedge Fund Industry : Delivering Social and Economic Benefits around the World’, arguing a ‘strong financial stability case for the industry’; X.Liu and A. Mello, ‘The Fragile Capital Structure of Hedge Funds and the Limits to Arbitrage’ Centre for Hedge Fund Research, Risk Management Laboratory, Imperial College Business School Working Paper 06/2009 at 2.

obtain an EU-wide passport where 'ESMA considers that there are no significant obstacles regarding investor protection, market disruption, competition and the monitoring of systemic risk'.¹⁸² Until ESMA is satisfied with the non-EU regulatory regime, non-EU AIFMs will have to incur the costs of seeking seek authorisation in individual Member States.

In terms of how HFs should be regulated, the article has shown that the AIFM Directive will give regulators a much clearer view of the leverage used by HFs, and that, if adopted, the SFT Regulation will give regulators a much better idea of the size and concentration of the repo markets. Both of these instruments are therefore to be welcomed. However, it has been argued that the threat posed to systemic stability by HFs' use of leverage cannot be reduced to an information asymmetry between regulators and AIFMs. The fundamental uncertainty about the future evolution of the financial system means that, in relying on discretionary intervention, the AIFM Directive gives regulators the impossible task of identifying when the use and concentration of leverage threatens systemic stability through the credit and market channels. A set of financing arrangements which looked safe under one set of assumptions about the future can suddenly look very risky as soon as those assumptions change. It has shown that, regrettably, the Commission's first proposal for a cap on leverage was defeated by a combination of lobbying and an emergent international consensus that the financial crisis did not require a radical change in approach to the regulation of financial markets. In relying in information disclosure and discretionary regulation, rather than bright-line rules, the instruments considered here do not represent a paradigm shift in regulatory strategy. The operating assumption is still that financial markets are self-correcting, with regulatory intervention only justifiable where regulators can point to a clear market failure. The Minskyan perspective adopted in this article suggests that the evolution of financial markets is fundamentally uncertain, which is important because it makes it impossible for regulators to provide any objective evidence of market failure. Given the powerful political pressures at play, interventions will be, at most, extremely rare, and so there is no reason to be confident that the EU's scheme will prevent HFs contributing to systemic instability in the future.¹⁸³

In concluding, it is suggested that the fundamental uncertainty of financial markets should be taken more seriously in designing regulation. Minsky's perspectives are valid and relevant far beyond the narrow field of hedge fund regulation. They can potentially also offer insights on other topical issues in financial regulation for systemic stability, such as bank capital requirements, limits on mortgage lending and the possible regulation of other institutional investors.

¹⁸² AIFM Directive, op cit Art 67(4), supra n1. ESMA issued advice on the application of the AIFM Directive passport to non-EU AIFMs in July 2015, recommending that a decision on whether to offer a passport to US-based AIFMs should be delayed because of concerns about competition and possible regulatory differences. Similarly decisions in relation to Hong Kong and Singapore should also be deferred. In contrast, it recommended that AIFMs based in Switzerland, Guernsey and Jersey should have access to the AIFM passport. See ESMA, 'ESMA's advice to the European Parliament, the Council and the Commission on the application of the AIFMD passport to non-EU AIFMs and AIFs', ESMA/2015/1236, 30 July 2015. It remains to be seen how the politically sensitive issue of US-based AIFMs' access to the passport will be resolved: see "'Fortress Europe" freezes Cayman Island hedge funds out', *Financial Times*, 2nd August 2015.

¹⁸³ The regulation of HFs will continue to evolve. A recent consultation by the FSB and IOSCO proposed that large HFs with net assets under management of USD 100bn as well as those with gross notional exposure to derivatives of USD 400bn should be considered Global Systemically Important Financial Institutions (G-SIFIs). See FSB/OICV-IOSCO, *Consultative Document (2nd) Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions – Proposed High-Level Framework and Specific Methodologies*, 4th March 2015, 35-6. Whilst this consultation does not propose any policy measures which will apply to G-SIFIs, the post-crisis international consensus mapped out in this article suggests that any macroprudential oversight is likely to take the form of discretionary regulation.