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WHEN OVERSEEING BECOMES OVERLOOKING: THE POST-GFC RECONFIGURATIONS OF INTERNATIONAL FINANCE

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Abstract: *This article draws on empirical evidence suggesting a shift of credit provision from banks to the alternative investment fund sector to argue that current deficiencies in fund regulation have not prevented such a shift, if not actually encouraged it. The evidence is drawn from the new Pan-European Private Placement Market, and first- and second-order analyses are undertaken to show a shift of credit risk (intermediation) into the hands of US funds in particular, and a concentration of risk amongst herds of smaller funds which have the potential to act as one. The data highlight defects in the scope of the macroprudential oversight mechanisms deriving from the Alternative Investment Fund Management Directive (AIFMD). These findings form the basis for proposals to remedy AIFMD as part of the move to a Capital Markets Union.*

Keywords: banking and finance law; regulation; supervision; financial stability; Capital Markets Union; Alternative Investment Funds; Pan-European Private Placements; private equity

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A. INTRODUCTION

In Spring 2014 Blackstone, the US private equity outfit, made a signal US\$1.73bn cash purchase—the entirety of a Las Vegas casino—from Deutsche Bank.¹ Some at the time remarked that the fact that Deutsche held a casino at all was indicative of the excesses that led to the Global Financial Crisis (the ‘GFC’) and that the sale amounted to a shedding of the past. The empowerment of supervisors to pursue a financial stability objective by closely monitoring systemically important financial institutions, and in particular the global banks, had had the desired effect: these banks were divesting themselves of risky assets as part of a general process of strengthening balance sheets against future shocks. Yet is this somewhat to miss the significance of this transaction? Should we not be more concerned with the transferee of the casino rather than the transferor?

What if the significance of this transaction is that it is symptomatic of a general indirect transfer of credit risk from banks and bank SPVs to non-banks, particularly investment funds? Could it be that a combination of supervisory tightening and banks’ own balance sheet retrenchment has left a vacuum that is being filled by funds; funds that are subject to levels of regulation inconsistent in scope and application?

The guiding thread of this article is the consideration of data that suggest potential for a build-up of systemic risk among alternative investment funds engaged in a particular sub-market of fund activity. It therefore proceeds as follows. Sections B.1 and B.2 highlight the lessons of the GFC for non-bank credit providers, particularly funds, and how these lessons did, or did not, feed into the drafting and implementation of the Alternative Investment Fund Management Directive of 2011 (the ‘AIFMD’).² Section B.3 then details the post-AIFMD emergence of the market segment studied in this article by providing an overview of the regulation of both private placements and the non-banks that invest in what are known as Pan-European Private Placement (‘PEPP’) securities. This must be understood in the context of the recent supervisory focus on Systemically Important Financial Institutions (SIFIs, and particularly banks (SIBs)) and related infrastructure such as clearing houses.³ Section C then provides empirical evidence of a build-up of debt outside the core banking system and tests the data against certain early warning risk indicators deployed by central banks. In particular we show that there is a significant concentration of PEPP securities in the hands of non-banks, indeed, in the hands of investment funds. It is argued that this reorientation of the market for debt in this way at least raises concerns about whether these non-banks may contribute to systemic risk by virtue of operating in the penumbra of the current supervisory focus. The empirical data is discussed firstly on a descriptive basis, before more advanced techniques of analysis, trailed in Section B.1, are deployed to the extent possible. This article considers systemic risk in both the holders of PEPP (Section C.4) and in the beneficiaries of, i.e. investors in, those holders (Section C.5). Section D explores the regulatory

¹ Arno Schuetze and Edward Taylor, ‘Deutsche Bank sells casino to Blackstone for \$1.7 billion’ (*Reuters*, 15 May 2014), <http://www.reuters.com/article/2014/05/15/us-deutsche-bank-casino-idUSBREA4E0LF20140515> accessed 17 April 2015.

² Directive 2011/61/EU of the European Parliament and 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 L174/1.

³ Starting in the UK with the ‘Financial Stability Objective’. S.2A(1) Bank of England Act 1998 as amended in particular by s.238 Banking Act 2009 (‘BoEA’) and s.4(1) Financial Services Act 2012. The BoEA now contains various provisions empowering the Bank of England through the Financial Policy Committee not just to monitor systemically important banks and infrastructure, but to recover (through e.g. bail-in) and resolve them to maintain financial stability. See further P. Tucker and others ‘Macroprudential Policy at the Bank of England’ (September 2013) Bank of England Quarterly Bulletin 2013 Q3.

implications of these conclusions. It argues that the current system of supervision is incomplete and in parts incoherent and that the proposed Capital Market Union is a significant opportunity to extend, harmonise and simplify regulatory powers with respect to the growing role of non-bank credit providers. However, the principal aim of this article is to distribute and analyse the data gathered concerning the role of alternative investment funds in a relatively new and specialised sub-market of financial activity. It is this data which is used as the basis for further research into the role of funds as credit intermediators post-GFC and into non-traditional forms of credit provision.

B. AN OVERVIEW OF FINANCIAL STABILITY MEASURES AND THE TREATMENT OF NON-BANK CREDIT PROVIDERS

1. Non-Bank Credit Providers—Lessons from the GFC

In providing other forms of credit intermediation than that offered by banks, alternative investment funds ('AIFs')⁴ of all kinds may indeed increase financial stability and reduce systemic risk, if only because the diversification of risk across a wider range of smaller market participants means that individual insolvencies may be borne by the market as a whole. This must be seen in the context both of rapid growth in the AIF and particularly hedge fund sector from the beginning of the twenty-first century,⁵ and the belief among regulators that risk absorption by AIFs indeed reduced systemic risk during the 2002-2003 downturn.⁶ Thus the conventional wisdom among regulators during the early stages drafting of the AIFMD was that AIFs posed no meaningful risk to financial stability; any problems would be corrected by the market itself.⁷ However, during the GFC it became clear that the transfer of credit risk to AIFs can contribute to financial instability.

The research on AIFs and risk may to some extent be categorised according to the three 'Cs' of financial instability: connectivity, concentration, and contagion. I draw on the methodologies first advanced by King and others⁸ and Hendricks and others,⁹ and adopted by Oet and others,¹⁰ for assessing these structural risks in Section C. Here I will provide a qualitative discussion of the three Cs—connectivity, contagion, and concentration—as a basis for analysis of AIFs and risk during the GFC.

Connectivity refers to the structural conditions necessary for channelling financial contagion.¹¹ Close contractual links between market participants form a key systemic linkage, and as Andersen

⁴ As defined in the AIFMD. AIFs include qualifying hedge funds, private equity funds, listed closed-end funds, real estate funds, infrastructure funds, commodity funds, other non-UCITS retail funds, and any 'feeder funds', marketed in the EU.

⁵ Committee on the Global Financial System, 'Credit risk transfer statistics' (2008) BIS Papers No.35.

⁶ Cf. UK FSA 'Cross-Sector Risk Transfer' (May 2002) FSA Newsletter 11.2002; IMF, 'How effectively is the Market for Credit Risk Transfer Vehicles Functioning?' (March 2002) Global Financial Stability Report 36.

⁷ Cf. Daniel Mugge, 'From Pragmatism to Dogmatism: European Governance, Policy Paradigms and Financial Meltdown' (2011) 16(2) *New Political Economy* 185.

⁸ King and others (2006) 'Are the causes of bank distress changing? Can researchers keep up?' (2006) 88(1) *Federal Reserve Bank of St. Louis Review* 57.

⁹ Hendricks *et al.* (2007) 'Systemic risk and the financial system' 13(2) *Federal Reserve Bank of New York Economic Policy Review* 65.

¹⁰ Mikhail Oet and others. 'Systemic Early Warning System: A Micro-Macro Prudential Synthesis' in Jean-Pierre Fouque and Joseph Langsam (eds) *Handbook on Systemic Risk* (CUP, 2013).

¹¹ Cf. Basel Committee for Banking Stability, 'Basel III: A global regulatory framework for more resilient banks and banking systems' (June 2010), 1.

writes,¹² connectivity can be particularly problematic where the connections are formed beyond the gaze of regulators, for example where originators and creditors of credit deals form a close economic relationship even though they do not contract with each other (rather severally with the debtor and at different stages of origination). When looking at AIFs during the GFC, we can see multiple sites of connectivity. For example, AIFs take credit risk transfers from traditional creditors such as banks. AIFs which offtake credit risk originated by SIBs may pose a problem if (i) the taking of the risk is incomplete, e.g. the SIB or an insurer continues to guarantee the risk; (ii) SIBs rely on AIFs as a channel for taking risk originated by SIBs; or (iii) AIFs provide credit support for deal structures or other AIFs involved in them. I call this a direct risk transfer. However, it seems appropriate also to hypothesise indirect risk transfers. Indirect risk transfers occur when SIBs' credit supply contracts while demand from debtors remains constant. In equilibrium this demand is met by non-SIBs seeking yield, especially in today's loose monetary conditions. Funds, and particularly private equity funds, being already in the business of providing capital as equity or debt need not move too far to expand the range of their credit providing activities to meet this demand. We shall see when applying specific connectivity measures that even this indirect form of credit risk transfer presents connectivity risks to stability. This is due now not to the 'vertical' direct connection of individual funds to SIBs, but the horizontal herd-like movement of funds to take on new credit risk.

If connectivity measures the direct and indirect interrelatedness of market participants, *contagion* measures the ability of participants to withstand shocks emanating from those connected parties. One variable indicating contagion risk is liquidity in that we may assess the ability of FI₂ to absorb losses of FI₁ rather than suffer a shock such that FI₃ suffers loss. Oet *et al.* describe contagion as a measure of 'financial immunity'.¹³ It may also be considered qualitative connectedness, perhaps best exemplified by maturity mismatches between short-term borrowings by AIFs, from both SIBs but also investors, to fund long-term investments of capital.¹⁴

In the context of AIFs, Johnston has noted¹⁵ the commonality of position between the EU Commission, the then FSA, and the Joint Forum (of BCBS, IOSCO, and IAIS), on the contagion risks inherent in AIFs' funding.¹⁶ 'Market channel' funding occurs when AIFs seek leverage to fund positions. In a rising market more leverage is required as asset prices are bid up, with risk assessments becoming looser and appetite for risk growing, simply because the last round of funding was repaid without trouble given rising asset prices. Additionally cost of funds may fall on the same basis of risk appetite growth. This generates the potential for a feedback loop as described by Brunnermeier and others¹⁷ of ever increasing leverage bidding up assets until a moment of crisis occurs and AIFs seek to

¹² Jens Andersen, 'Risk transfer mechanisms: converging insurance, credit and capital markets' (2002) 2 OECD: Financial Market Trends 151 at 171.

¹³ Oet and others (n 10) 831.

¹⁴ Cf. Hubertus Ennis and Todd Keister, 'Bank runs and institutions: the perils of invention' (2009) 99 Am. Econ. Rev. 1588, 1590.

¹⁵ Andrew Johnston, 'Regulating Hedge Funds for Systemic Stability: The EU's Approach' (2015) 21(6) European Law Journal 758, 766.

¹⁶ Cf. in particular Annex VI, 64 of the 'Impact Assessment, Commission Staff Working Document Accompanying the Proposal for an AIFMD' Brussels, 30/4/2009, SEC (2009) 576 http://ec.europa.eu/internal_market/investment/docs/alternative_investments/ accessed 1/11/16, referenced in Johnston (n 15) above.

¹⁷ Markus Brunnermeier and others, 'The fundamental principles of financial regulation: Geneva Reports on the World Economy' (Centre for Economic Policy Research 2009) 11-22.

reduce their positions and to deleverage.¹⁸ At this moment a fire-sale can occur as AIFs seek liquidity to (a) repay margin from banks and brokers, and these latter begin to write off the unpaid debts; and (b) repay fund investors, who, seeing fund asset prices fall, withdraw their capital. A run may occur on the AIF, also spreading to margin providers, feeder funds, funds of funds, and institutional and retail investors. Thus existing connectivity provides the means of transmission of financial contagion.

Concentration in this market is more debatable, founded as it is on a qualitative judgement of market boundary and participant individuation. It seems self-evident that concentration in the sense of oligopoly is inappropriate given the hundreds of AIFs participating. But I claim we may also speak of weak concentration or sectoral concentration. Weak concentration occurs where a class of market participants defined for example by a regulatory boundary (in Goodhart's sense)¹⁹ may be said to behave in some respects as if they were one participant. This need not be behaviour initiated by the participants; in fact one is more likely to see the class being treated as one by counterparties. By way of example, Bengtssen²⁰ provides evidence of a scenario where though only a subset of AIFs were actually exposed to constant net asset value instruments, due to lack of clarity about the assets under management investors had no way of distinguishing which funds were so exposed and so exited all money market funds indiscriminately. These movements, Bengtssen argues,²¹ were likely reinforced by first mover incentives as documented by McCabe in his examination²² of money market funds. Thus we can understand why the AIFMD explicitly recognises that aggregate behaviour of funds, however small, may induce systemic risk:

*Although the activities of the AIFMs concerned are unlikely to have individually significant consequences for financial stability, it is possible that aggregation causes their activities to give rise to systemic risks.*²³

A common theme runs through the qualitative application of these stability indicators to AIFs: the manner in which AIFs became integrated in wider risky behaviour in a systemically significant manner. In particular, by means of credit transfers AIFs could take, and do take up risks that had been borne by SIFIs and so in a sense replaced SIFIs in an at once diversified (many small AIFs) but 'sectorally' concentrated (just AIFs) manner. Following the GFC the European Commission sought to reorient the AIFMD's draft text to reflect these clear macroprudential issues.

2. Regulation of Alternative Investment Funds Considered

Although a move more closely to regulate AIFs was already under consideration in the run-up to the GFC, the crisis gave added impetus to reform and pushed the macroprudential perspective to the fore. The resulting AIFMD is characterised by its focus on capital adequacy in the wider sense adopted post-GFC i.e. both balance sheet *and* liquidity adequacy. However, we shall see that it is highly questionable whether the substance of these provisions pays more than lip service to the key axiom of the macroprudential perspective: the union of individual rationality does not entail collective rationality.

¹⁸ Such behaviour was already identified by Hyman P. Minsky in his gloss on Keynes: *John Maynard Keynes* (McGraw Hill 2008), ch.6.

¹⁹ 'The boundary problem in financial regulation' (October 2008) 206 *National Institute Economic Review* 48.

²⁰ Elias Bengtssen 'Shadow Banking and Financial Stability: European Money Market Funds in the Global Financial Crisis' (2013) *J. of International Money and Finance* 579, 584.

²¹ *Ibid.*

²² Patrick McCabe 'The Cross-section of Money Market Fund Risks and Financial Crises' (2009) *Finance and Economics Discussion Series 2010-51*, Board of Governors of the Federal Reserve System.

²³ AIFMD, recital (17).

As to balance sheet adequacy there are basic requirements for initial capital²⁴ that may be enhanced depending on the size of the funds managed²⁵ and how (internally²⁶ or externally²⁷) whether the AIF is a fund of funds,²⁸ and the organisational risks²⁹ of the AIF in question. Liquidity adequacy is dealt with by Art.16 AIFMD but as Andenas and Chiu state,³⁰ the requirements are notable for their open-ended nature in comparison to requirements for banks and indeed the provisions of the original draft AIFMD put forward by the European Commission. Art.16 leaves it largely to individual AIFMs to determine their liquidity strategies. As Johnston has shown³¹ in great detail, this concession was granted to AIFs following heavy lobbying from the UK and hedge funds, who argued quite plausibly that AIFs were too diverse a class for legislators even to begin to second guess their investment strategies. Indeed, hedge funds may be said to *specialise* in non-standard approaches to investment. Yet in yielding to this individualist perspective the AIFMD appears markedly to undercut its macroprudential aims.³² The EU legislature, Zetsche states,³³ ended up producing ‘high-level guidance’, and delegated legislation in some instances was produced by the European Commission while deliberately ignoring the detailed input of ESMA. The result is the worst of both worlds, a Procrustean solution for almost all EU funds combined with what Ferran decries³⁴ as heavy-handed meddling in a confusing set of rules exacting significant costs—‘making a mockery of the very notion of subsidiarity’.

Principles-based regulation in which managers determine regulatory meaning merely replicates the limitations of individual rationality. As Allen and Carletti write³⁵ in the context of SIBs, aggressive liquidity management in times of stress is individually rational, but as this is likely to be in the form of hoarding cash and cash equivalents such activity reduces liquidity for connected parties. The collective result is contagion of illiquidity and hence the need for a macroprudential regulator to monitor and act upon these collective effects. The AIFMD provides for information disclosure to and sharing between regulators, but without what Johnston, following Minsky, calls³⁶ a ‘bright line’ liquidity requirement the AIFMD seems to expect regulators to unpick individual strategies. This might be deemed inefficient regulation.

There remain other significant deficiencies in the regulation of AIFs. Even if we assume regulators can monitor the leverage of all AIFs on the basis of information disclosed, the AIFMD disclosure requirements seem geared towards investor protection—the sort of market-led regulatory

²⁴ AIFMD Art.9.

²⁵ An additional 0.02% (but not greater than €10m) of the amount in excess of €250m managed: Art.9(3) AIFMD.

²⁶ €125k, Art.9(2) AIFMD.

²⁷ €300k Art.9(1) AIFMD.

²⁸ Art.9(4) AIFMD.

²⁹ Art.9(7) AIFMD covers professional negligence risks.

³⁰ Mads Andenas & Iris Chiu, *The Foundations and Future of Financial Regulation: Governance for Responsibility*, (Routledge 2013).

³¹ Johnston (n 15) 768-771.

³² AIFMD Recital (49).

³³ Dirk Zetsche, ‘Introduction: Overview, Regulatory History and Technique, Transition’ in Dirk Zetsche (ed) *The Alternative Investment Fund Managers Directive: European Regulation of Alternative Investment Funds* (Wolters Kluwer 2012) 8.

³⁴ Eilis Ferran, ‘After the crisis: the regulation of hedge funds and private equity in the EU’ (2011) 12(3) *European Business Organisation Law Review* 379, 398.

³⁵ Franklin Allen and Elena Carletti, ‘The role of liquidity in financial crises’ in *Maintaining Stability in a Changing Financial System* (Jackson Hole Conference Proceedings: Federal Reserve Bank of Kansas City 2008).

³⁶ Johnston (n 15) 777.

theory which characterised pre-GFC thinking. Swapping the aggregate opinions of one class of market participants (AIFMs) for another (investors) merely replicates macroprudential blindness.

Finally, while specific EU-based AIFs and AIFMs may benefit from passporting across EU states by virtue of the AIFMD, non-EU funds—particularly from the US—must comply with each national regime.³⁷ The AIF sector has thus reported³⁸ to ESMA that this leads to confusion, inconsistencies and conflict for US AIFMs, and we can also assume comparison problems for regulators. This issue is not obscure—it creates a regulatory boundary which may cause a flow of credit provision business out of the sphere of AIFMD-covered entities to those from outside the EU which will not be subject to what general oversight may be said to be applicable to qualifying AIFs.

If we may characterise the issues bedevilling the AIFMD, they are the diversity of regulatory ‘special cases’ and so the in-built lack of transparency for macroprudential regulators. Collective stability has, ironically, been sacrificed to individual interests. As we shall now see, this is particularly the case when we consider the instruments which are the objects of study of this article: PEPP securities.

3. AIFMD and Pan-European Private Placement

PEPP is an exemplary case of how the existing oversight regime ends up overlooking macroprudential risks due to the structural problems of the AIFMD itself and indeed the incoherence of this directive with other regulatory measures such as MiFID. But what is PEPP? In short, Pan-European Private Placement is best understood as a standardisation of corporate debt financing through private placement. Private placement has traditionally stood for the issue of (equity or) debt securities to a limited number of connected/knowledgeable investors, such as private equity houses, who are best able to assess and undertake risk in immature businesses. Private placements have a back-history in the United States Securities Act of 1933 and SEC Rule 4(a)(2) Private Placement market (and to a lesser degree in the German *Schuldschein* market)³⁹ and in these earlier guises private placement meant what it meant for share issues, namely a relatively small transaction in which a closed set of purchasers had been lined up off-market to acquire the notes. As we shall see, however, this closed set has disappeared to a degree and ‘private’ now more properly refers to the fact that the notes are not listed on any regulated investment exchange (participations are not listed in any event) and so no prospectus is required.

By way of further detail, up to 2008 the principal sources of non-trade-related debt finance for a midcap corporate—public companies having a market capitalisation⁴⁰ of between GBP500m and GBP4bn—would seem to be (i) bond issuance, which was corporate-led (with investment bank advice and underwriting), and (ii) contracting for a syndicated credit facility agreement or ‘CFA’ (which was very much bank led).⁴¹ Focusing on the classic syndicated CFA, the structure was generally this: one

³⁷ ESMA, ‘ESMA’s technical advice to the European Commission on the information that competent authorities should provide to ESMA pursuant to Article 67(3) of the AIFMD’ 26 March 2014, ESMA/2014/312 http://www.esma.europa.eu/system/files/2014-esma-312_-_12_advice_to_com_article_675_aifmd.pdf accessed 13 March 2015.

³⁸ Letter of the Managed Funds Association to ESMA dated 8 January 2015 <https://www.managedfunds.org/wp-content/uploads/2015/01/MFA-Letter-on-ESMA-AIFMD-private-placement-and-passport.pdf> accessed 13 March 2015.

³⁹ *Schuldscheinen* are private debt securities issued by German *Mittelstand* corporations to a traditional set of state banks and insurers. The market is historically specific to German corporate financing.

⁴⁰ Market capitalisation is the aggregate sterling value of all a company’s then publicly traded shares.

⁴¹ Cf. Yener Altunbaş, Alper Kara and David Marqués-Ibáñez, ‘Large debt financing: syndicated loans versus corporate bonds’ (2009) European Central Bank Working Paper Series No 1028, 6-8.

or two arranger banks would negotiate a CFA with the corporate. Critically the CFA contained debt obligations amounting to commitments of banks to fund and liabilities of borrower corporates to repay. These debt obligations were valuable and could be bought by incoming banks. Accordingly the arrangers would market the debt obligations under the CFA to a wider set of banks, perhaps reserving some participation to themselves. The result would be perhaps a CFA between a borrower corporate (and its group) and a syndicate of banks. The whole arrangement would be mediated by a facility agent (usually an arranger) and if the liabilities were secured, by a security trustee or agent located in a creditor-friendly jurisdiction.⁴² The key point to understand here was that it was relatively clear who was providing credit to whom, who originated the structure, and on whose regulated balance sheets the risk of borrower default was sited. Then existing regulation, notably that based on the Basel II capital adequacy rules, at least permitted supervisors to observe the build-up of types of risk-weighted assets on a prudentially supervised bank's balance sheet (provided, as I say, that this syndicated finance structure was used).

Now enter the post-GFC private placement model. As with a bond issue the issuer *unilaterally* declares indebtedness represented in certain notes worth an aggregate sum, and then issues these to willing noteholders who form a disparate class and are certainly not (at least at present) as identifiable as the members of a bond syndicate. By way of example, A plc constitutes by deed poll 1,000 £100 fixed rate 2020 notes. A plc then exchanges these notes for cash (not necessarily £100) provided by a number of investors. A plc pays a certain sum of interest (coupon) each year and must repay the principal in 2020. However, a private placement does not necessarily have to amount to a placement of notes, for the corporate might alternatively issue participations i.e. instruments indicating that the corporate stands in a more traditional *bilateral* loan relationship to the participant holder. In other words, the investor agrees to lend a certain sum to A plc, and so participates with other investors in the overall loan to A plc governed by the private placement documentation, a standard form of which is provided by the Loan Market Association.⁴³ Given that both notes and participations are forms of debt finance, this distinction might seem somewhat Scholastic and is indeed subtle. Essentially the CFA in a private placement provides for a minimum term loan with bullet repayment plus a fixed or floating interest rate, with a possibility to vary interest periods, and as with other CFAs quite stringent representations and covenants in favour of lenders. The choice of structure is then driven by the appetite of fund creditors i.e. whether they invest in fixed income as a rule or in syndicated debt. The private placement subscription agreement for notes is quite similar to the CFA but is constructed in terms of a single note issuance with no minimum, the notes bearing a fixed or floating coupon and to be repaid on a single date. The most significant difference beyond technical structure is that the representations and covenants are much lighter than the CFA, mirroring general market practice for bonds. The advantage then for the issuer corporate is that it has greater flexibility in arranging its business affairs, but in terms of less specific contractual restrictions on its behaviour (for example no restrictions on incurring financial indebtedness) and less of a burden in terms of disclosure requirements (for example no quarterly representations as to compliance with detailed financial covenants).

It will be quite justly interjected that the issues of risky leverage identified in section B.2 are less applicable to the PEPP model of SME funding. The intervener will highlight that the main objects of the AIFMD were hedge and money market funds who use short term leverage to engage in spot (less than three day) trades; a frequency which in practice seems to attract spirals of indebtedness as asset prices rise. PEPP on the other hand relates to private equity-style financing involving placement of identified fund capital that is then locked-in for the long term. This could give rise to maturity mismatches where beneficiaries attempt to withdraw funds before the corresponding securities reach

⁴² Cf. Philip Wood, *Comparative Law of Security Interests and Title Finance* (Sweet & Maxwell 2007) especially the outline at 9-15.

⁴³ Available to paid-up members of the LMA.

term, our critic will argue, but a leveraging risk is not obvious. Unfortunately (over-)leveraging of PEPP funds is not impossible, and it does occur. Two specific scenarios have come to light.

The first relates to the use of leverage to boost returns and so retain or attract investors. Some private equity-specialised funds have put in place credit facilities representing a sizeable proportion of the Assets Under Management to prop up returns in the context of falling yields. Thus the European Investment Fund report that:

Carlyle GMS Finance, a closed-end fund of USD 1bn structured as a business development company in the US, and providing senior loans to middle-market companies, has a revolving credit facility of up to EUR 500m with various lenders. Usually, leverage of loan funds is between 0 % and 35 % of their assets.⁴⁴

The second (also noted by the EIF) relates to the desire to attract fund investors. To prevent maturity mismatches AIFMs may impose ‘gates’ on withdrawals from the AIF, a lock-in which is adverse to investors seeking liquidity. There is thus a market for funds that do not gate withdrawals, but which can ‘cover’ the maturity mismatch in some other way. Unsurprisingly this other way is leverage. Here AIFMs arrange for a cash buffer or credit similar to swingline facilities for securitization to smooth other the cracks created by unrestricted withdrawals. Again credit risks ceasing to be an insurance and becoming a necessity without which the AIF would be unable to pay its debts to withdrawing as investors as they fall due irrespective of the value of the illiquid Assets Under Management.

This then is PEPP, but how are PEPP and the AIFs that invest through it treated under existing regulation? We must consider these transactions from two perspectives: (a) the regulation of PEPP issuance itself; and (b) the regulation of AIFMs that invest in PEPP.

(a) Regulation of PEPP issuance

If we examine at high level a typical PEPP structure originating in London the issuer, a corporate, will not be regulated in its issuance of bonds to experienced investors. In particular, due to the private nature of PEPP debt and the sophistication of creditors, the following key regulations do not apply to PEPP:

- (i) the Prospectus Directive,⁴⁵ as now implemented in the UK by Part VI FSMA2000 and the FCA Prospectus Rules (‘PR’)—which for example does not apply because of s.86(1) FSMA2000 and PR1.2.1 exemptions for qualifying investors;⁴⁶ and
- (ii) s.21 FSMA2000 and the Financial Promotions Order 2005⁴⁷ (the ‘FPO’), which likewise does not apply by virtue of the reg.50-51 FPO safe harbours for sophisticated investors.

⁴⁴ Helmut Kraemer-Eis, ‘Institutional non-bank lending and the role of Debt Funds’ (2014) European Investment Fund working Paper 2014/25 http://www.eif.org/news_centre/publications/eif_wp_25.pdf accessed 27 April 2016.

⁴⁵ Directive 2003/71/EC of the European Parliament and of the Council of 4 November 2003 on the prospectus to be published when securities are offered to the public or admitted to trading and amending Directive 2001/34/EC, OJ L345, 31/12/2003, as amended by Directive 2008/11/EC of the European Parliament and of the Council of 11 March 2008 amending Directive 2003/71/EC on the prospectus to be published when securities are offered to the public or admitted to trading, as regards the implementing powers conferred on the Commission, OJ L76, 19/3/2008.

⁴⁶ As defined in s.86(7) with reference *inter alia* to an entity falling within Article 2.1(e)(i), (ii) or (iii) of the Prospectus Directive.

⁴⁷ The Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, SI 2005/1529. Cf. also the FCA’s Perimeter Guidance Manual PERG 8.11 ‘Types of exemption under the Financial Promotion Order’.

With only primary rules remaining (e.g. torts of negligent misstatement⁴⁸) Beat Speck and Joseph Tenaga,⁴⁹ commenting comparatively on UK *equity* private placement regulation are drawn to conclude that:

In order to avoid (most of) the existing rules and regulations governing the public offer of securities to the public in the United Kingdom, an unlisted issue may be structured as a private placement by ensuring that no offering to the public is made according to the European Prospectus Directive.⁵⁰

This applies *a fortiori* to private placement of debt and is part of a wider issue within the regulation of finance law: that non-capital markets debt is generally tradable on an effectively unregulated basis under the assumption that it is traded between sophisticated investors—an assumption of individual responsibility and skill which cannot be considered a sufficient bar to macroeconomic, that is systemic, crisis.

(b) Outline of regulation of AIFM decisions to invest in PEPP

Firstly, while PEPP is subject to light regulation, AIFMs must fund their acquisition of PEPP by seeking capital from fund investors. The means by which AIFs fund their acquisition of PEPP securities is through issuance of ‘financial instruments’ to investors within the meaning of MiFID.⁵¹ AIFMs engaging in relevant activities for AIFs (e.g. raising the capital to be invested, market making, or marketing) will be caught by the AIFMD. This leads to a mediate, semi-regulated status in which (i) retail investors would not be able directly to buy PEPP securities for want of sophistication, but can do so indirectly through funds; and (ii) regulatory oversight only directly targets the AIF-investor connection.

Secondly, for funds caught by the AIFMD, the defining regulatory *cost* advantage of PEPP—that it is private and so less regulated than publicly issued bonds—is negated by parallel regulatory requirements under AIFMD.

Thirdly, many alternative investment funds are not qualifying AIFs for the purposes of AIFMD, particularly: (i) non-EU funds managed by outside of the EU;⁵² and (ii) AIFs falling below the *de minimis* thresholds for AIFMD.⁵³ For example, research by the EVCA⁵⁴ shows that total EU private

⁴⁸ For further detail, see Charles Hewetson and Nicholas Elliot, *Banking Litigation* (Sweet & Maxwell 2011), ch.5 for the application of such principles to the sale of syndicated debt.

⁴⁹ ‘Private Equity Placements: Comparing the Laws in Switzerland, the European Union, the United Kingdom and the United States: Part II’ [2008] JIBLR 252.

⁵⁰ *Ibid* 256.

⁵¹ Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments amending Council Directives 85/611/EEC and 93/6/EEC and Directive 2000/12/EC of the European Parliament and of the Council and repealing Council Directive 93/22/EEC, OJ L145, 30/04/2004 P.0001-0044, Art.1(17) and Annex I(C).

⁵² AIFMD Art.2(1).

⁵³ AIFMD Art.3(2)(b).

⁵⁴ EVCA, ‘Response to the European Green paper on Building a Capital Markets Union’ COM/2015/063 final <http://www.investeurope.eu/media/388552/EVCA-PAE-Response-to-Capital-Markets-Union-Green-Paper.pdf> accessed 19 February 2016, 11.

equity fundraising in 2014 drew 45.3% of its value from without the EU. Furthermore, 78% of institutional investors claimed they selected more than half of fund managers from outside Europe.⁵⁵

Fourthly AIFMs with Assets under Management of less than €500m are exempt from AIFMD but *may* be subject to the Venture Capital Funds Regulation ('VCFR').⁵⁶ This would be highly relevant for those funds specialising in long-term private equity-style investments, yet while AIFMD and VCFR dovetail neatly in application, reality does not. Funds subject to VCFR must also be 'unleveraged'⁵⁷ and lock in capital by barring redemptions for at least five years from initial investment.⁵⁸ Furthermore, the fund must be a 'qualifying venture capital fund' such that *inter alia* it invests in 'qualifying investments'. The problem is that while 'qualifying investments' covers a number of equity instruments, it only covers a small subset of debt instruments granted to undertakings *in which the fund has already invested* and even then this debt must only constitute up to 30% of the invested capital.⁵⁹ This clearly mirrors long-term private equity investment strategies in start-ups; it does not catch the more mature, arm's-length rounds of investment in which PEPP plays a part.

These deficiencies do not exclude specific microprudential and conduct of business regulation of actors in the PEPP market, nor indeed the post-GFC macroprudential oversight powers. In the UK the Financial Policy Committee of the Bank of England pursues the newly affirmed 'Financial Stability Objective'⁶⁰ which is sufficiently widely drawn as to encircle any financial matter which might generate systemic risk. Moving out one circle the European System of Financial Supervisors is led by the European Systemic Risk Board (ESRB), which coordinates with the European Central Bank and national central banks the specific supervisory remits of the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA), and the European Securities Markets Authority (ESMA). The ESRB has its own macro-prudential oversight objective, set out in Art.3 of its establishing Regulation.⁶¹ The nature of these general objectives is somewhat absolute, however, and all absolute power is essentially empty—content must be provided for the power to act in a regulated manner. Hence the specific agency powers contained in the AIFMD that ought to regulate the field in question: funds. What we find, however, is that there is an ill-fitting patchwork of applicable regulation with loopholes and conflicts. There is no PEPP-focused regulation unless we include the self-regulatory effects of the Loan Market Association's and International Capital Market Association's standard setting through contract standardisation and guidance respectively.

Given the incoherence of the AIFMD and the limited regulation of PEPP itself, the potential for regulatory arbitrage in the PEPP market is thus apparent: non-EU sited and managed funds capable of raising capital outside of the EU may engage in PEPP transactions into the EU without worrying about AIFMD, and so may have a regulatory cost advantage over EU-based or marketed funds (unless home

⁵⁵ Ibid.

⁵⁶ Regulation (EU) No 345/2013 of the European Parliament and of the Council of 17 April 2013 on European venture capital funds, OJ L115/1, Art.1(a).

⁵⁷ Undefined, but leveraged is widely defined as 'any method by which the AIFM increases the exposure of an AIF it manages whether through borrowing of cash or securities, or leverage embedded in derivative positions or by any other means'. The advice to the AIFM, as in so many areas of the AIFMD, must be to assume the worst: that the fund is within scope.

⁵⁸ Art.3(2)(b) AIFMD.

⁵⁹ VCFR Art.3, particularly (b) and (e).

⁶⁰ S.2A(1) Bank of England Act 1998 as amended in particular by s.238 Banking Act 2009 and s.4(1) Financial Services Act 2012.

⁶¹ Regulation (EU) No.1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board, OJ L331/1.

regulation is more stringent). And so the empirical questions of this article are fully posed: can we find evidence of a shift to funding by PEPP, indicated by relatively bigger growth in this market, and who indeed are the providers of PEPP funding? If it be shown that there is growth and that a significant proportion of funds operate from without the EU, benefitting from arbitrage of the current inconsistent EU-regulatory regime, then we will be in a position to argue that any future Capital Markets Union ('CMU') ought strongly to consider rendering the AIF regulatory regime coherent and clear to enable effective macroprudential oversight of PEPP at the very least.

C. A CASE STUDY OF CREDIT GROWTH BEYOND GLOBAL-SYSTEMICALLY IMPORTANT BANKS

The purpose of this paper is not so much to question the *a priori* sufficiency of the AIFMD, though these questions are raised, but to examine whether *a posteriori* the existing regulatory framework has worked to prevent a repeat of the conditions of instability identified in Section B—the (in)direct transfer of credit risk from traditional credit providers to AIFs. In other words, has there been a flow of credit supply business into the AIF sector and should we be worried about this? It is not possible to establish a causal link between increased restraints on SIBs such that we might say AIFs are filling the role of SIBs as credit providers, but I submit that it is in itself of interest whether AIFs are increasing their role as credit providers. This is especially the case if this credit growth exhibits the three Cs of systemic risk. The question Section C will seek to answer then is whether it is possible to adduce evidence for such AIF-centred credit growth.

1. Evidence for credit growth in PEPP

(a) *Systemic risk typology*

As stated above, this article relies on the typology of systemic risk advanced by Mikhail Oet and others,⁶² which itself combines several precedents in financial stability modelling. Oet's team draw together a number of intuitive instability variables to model systemic risk,⁶³ in which each variable contributes to or mitigates local stresses within a given system. Oet's team notes, however, that were these factors quantitatively determinative then the market would already know where risk is building up, something about which markets are inherently uncertain in the Keynesian sense of this term. Yet it remains possible for observers⁶⁴ to make qualitative judgements based on quantitative indicators, and this is what is proposed in this article: to highlight areas of indirect credit transfer, qualitatively assess systemic risks, and query the limits of existing regulatory oversight.

(b) *Methodology*

The data concerning PEPP was collated in two stages on 10 March 2015 (the first reference date or '1RD') and 28 January 2016 (the second reference date or '2RD') and all data stated to be my own are drawn from this one dataset, crosschecking with available data from *Private Placement Monitor*. The data were sourced from a standard Bloomberg terminal and are *not* compared with data sourced from Bloomberg's chief competitor ThomsonReuters Datastream. The principal reason for this is that Datastream does not provide the granularity required to isolate PEPP issuance amongst fixed income,

⁶² Oet (n 10).

⁶³ *Ibid* 794.

⁶⁴ See for example Robert J. Shiller, 'How a bubble stayed under the radar' *New York Times* (New York, 2 March 2008).

and furthermore only seems to cover rather arbitrary forms of private placement.⁶⁵ As to Bloomberg, within a fixed income⁶⁶ search I filtered for Western European⁶⁷ incorporated entities and for own currency⁶⁸ private placement issuance to date, resulting in data for private placement issuance worth €185.9bn from 1 January 1991 to 31 December 2015. This sample is not further reduced by the exclusion of outliers. The data are thus focused on the discrete variation of issuance by value (EUR) over the time period studied, and provide neither individual business-level information nor account for multiple issuance by individual corporates. The data gathered on 2RD were significantly enhanced by Bloomberg’s introduction of a ‘Private Placement’ filter for Market Type that extended results beyond those obtained on 1RD following a manual search for self-identifying PEPP to all debt issues meeting the Transaction Criteria. These micro-data were then filtered separately by (i) country of incorporation; (ii) currency; (iii) holder; and (iv) issuer, and ranked by value or date as required.

(c) *The evidence*

If we look at Figure 1, over the quarters from Q1 2009 we see a definite trend of growth in the market. It should be noted, though it is not shown in Figure 1 for clarity, that in the quarters between 1991 and 2009 private placement issuance grew from <€1m per annum, slowly at first then from 2004 rapidly to a peak of €100m in 2006 before dropping to a local minimum of €38m at the start of the GFC in 2008. We provide this longer term data in Table 1 below:

Table 1: PEPP 1991 to 2008 Inclusive, EURm Issued

1991-1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
2	6	16	8	9	23	17	14	27	16	64	100	78	38

Figure 1: PEPP 2009 to date by quarter⁶⁹

⁶⁵ As at May 2016, Datastream provided external links to private placement data in the US and Australia, and data from its own sources almost entirely from South Korean private placement market. Consequently there simply are no comparable data from this source.

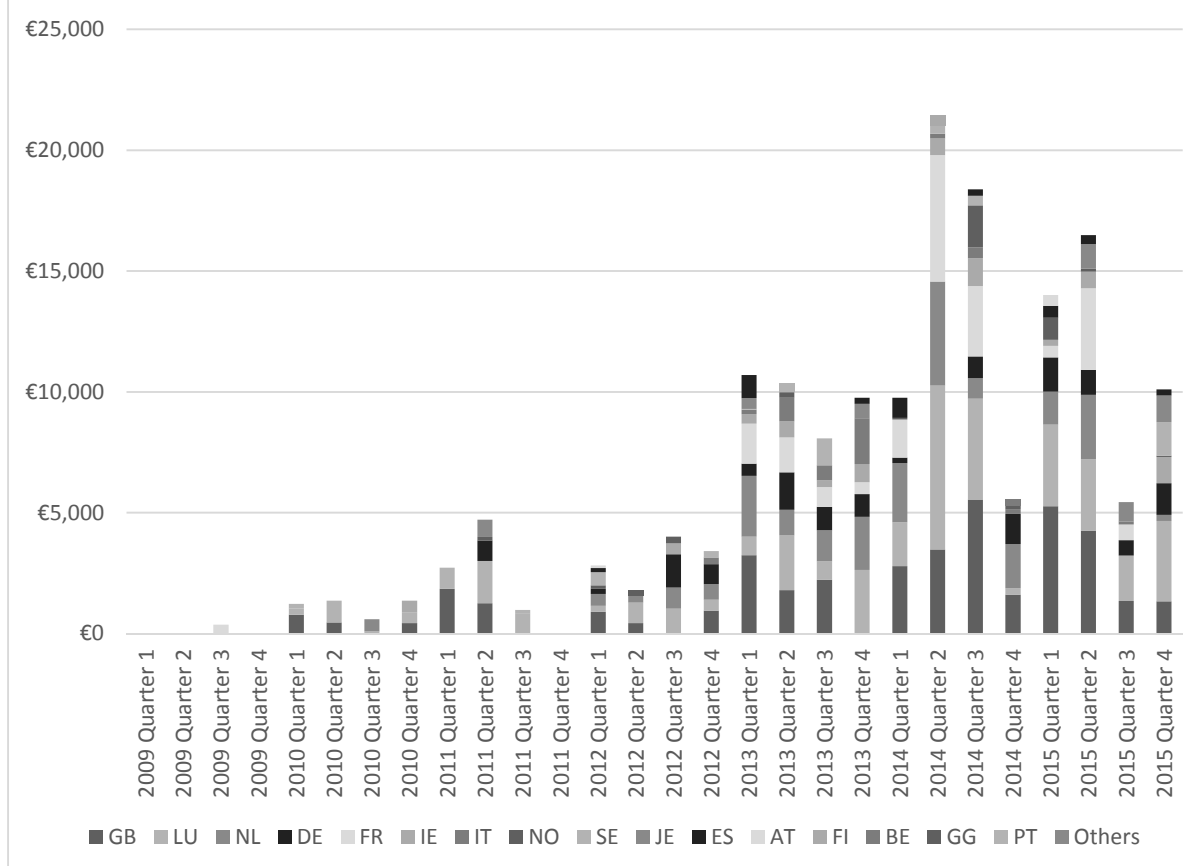
⁶⁶ A standard synonym for ‘bonds’ and similar debt capital.

⁶⁷ As defined by Bloomberg’s ‘Countries & Regions’ tool.

⁶⁸ This condition excluded Western European incorporated entities issuing dollar denominated notes and so excluded the US market. It did however also exclude issuances by, say, a French corporation in sterling. There was no time-efficient way to refine this condition for all results.

⁶⁹ Source: Bloomberg and own calculations. Figures compiled 1RD and 2RD.

Western European Private Placement issuance by jurisdiction and quarter (EURm)



All the major jurisdictions see expansion, with notable growth in Great Britain, the Netherlands and perhaps unsurprisingly Luxembourg, which is known for its beneficial tax regime for capital raising holding companies (SOPARFIs⁷⁰). More specifically, for the five year period from the depths of the GFC to the year ending 2014, we see a striking 171.5% year-on-year growth rate in PEPP securities issuance by amount.⁷¹ The same fixed income search was conducted, this time widening the data to capture all corporate bond issues for Western European issuers and currency in the period. The same growth calculation indicated that year-on-year growth for all bond issuance (PEPP inclusive) over the period was 33%.⁷² Even taking into account the drop in issuance in 2015, at 2RD the effective growth rate is still 123%.⁷³

⁷⁰ Sociétés de participations financières.

⁷¹ Using the standard discrete growth rate formula as follows: letting f be the value at the end of the period, s be the value at the end of the first year of the period, and y be the number of years -1 (i.e. ignoring the first year as we start at its end). Then: $P = \left[\left(\frac{f}{s} \right)^{1/y} \right] - 1 = \left[\left(\frac{55,140m}{374m} \right)^{1/5} \right] - 1 \approx 1.715$.

⁷² Thus: $P = \left[\left(\frac{f}{s} \right)^{1/y} \right] - 1 = \left[\left(\frac{1,478,139m}{355,159m} \right)^{1/5} \right] - 1 \approx 0.33$ (based on own calculations and data discussed in more detail in section C.2.).

⁷³ Setting $f = 46,053m$; $y = 6$.

This indicates a marked difference in performance of PEPP over all bond issuance by value. The data concerning ‘traditional’ bond issues should however be caveated with consideration of whether the new issues are balancing redemptions of existing bonds, something which only begins to affect PEPP as this market matures. It turns out that while all bond issues have seen growth, this growth has not matched the growth in redemptions as corporates have sought to deleverage. European Central Bank data for the same period for gross public (i.e. listed) non-share securities issuance for the Eurozone indicates an average year-on-year decline in issuance of c.5.6% as a function of nominal value.⁷⁴ The ECB data does show quite dramatic swings in issuance during this period, but the general trend is lower. This dataset however does not distinguish between financial institution and corporate issuance. The nearest comparable Bank of England data only begins in Q1 2013 but does distinguish non-financial institutions.⁷⁵ For the last two years of our reference period to 1RD (2013-2014 inclusive) we also see a year-on-year decline in UK resident non-financial institution bond issuance of approximately 28%. I think we may only take the coarsest conclusions from all this—that PEPP growth, at 123% year-on-year, is qualitatively marked.

The question naturally arises: taking a snapshot at 1RD, PEPP constitutes what proportion of total fixed income issuance?⁷⁶ The straightforward calculation informs us that at 1RD PEPP constituted 3.73% of total Western European fixed income issuance. This is a not insignificant proportion compared to other specialist forms of debt security known to have played a role in the GFC. For example, take the infamous Collateralised Debt Obligation (‘CDO’).⁷⁷ The Securities Industry and Financial Markets Association has calculated that all asset backed securities (of which CDOs form an unspecified subset) constituted just 4.4 % of all ‘bonds’ issued in 2006 in the US i.e. during the peak prior to the GFC.⁷⁸

2. Comparison with wider movements in fixed income markets

I now compare the PEPP issuance to fixed income securities issuance over time for Western Europe. This research was initiated in late 2013 in light of information that PEPP was growing considerably, and the 1RD dataset represents the fruits of that research. The 2RD dataset collected for the purposes of updating this article for publication indicate a falling back in PEPP issuance growth in the last 12 months. This data is displayed in Figure 2 below; the right hand axis indicates the PEPP amounts issued.

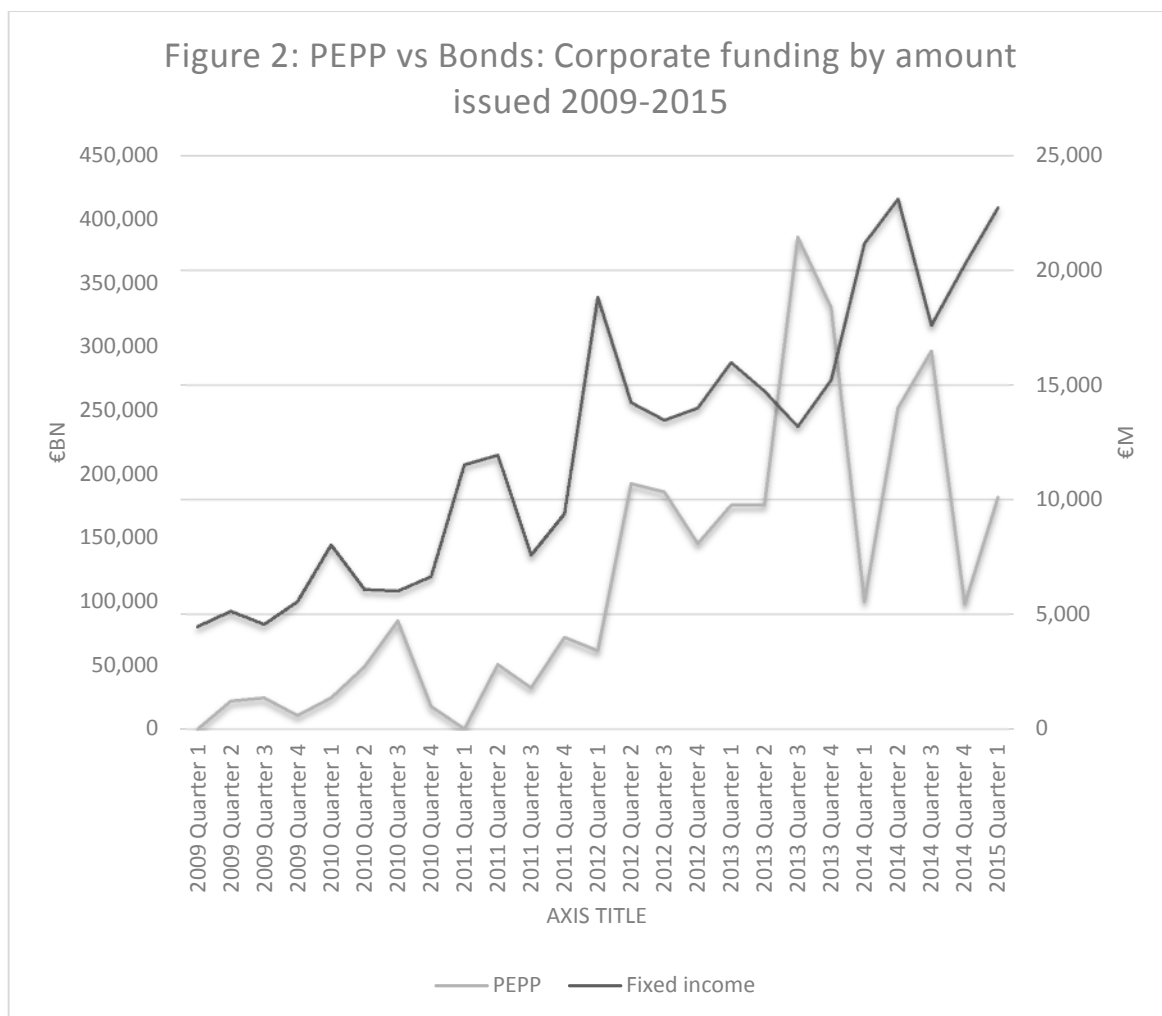
⁷⁴ European Central Bank, ‘Securities Issues Statistics: net issues calculated as the difference between gross issues and redemptions. (debt securities, only)’ <http://www.ecb.int/stats/money/securities/html/index.en.html> accessed 10 June 2015.

⁷⁵ Bank of England, ‘E3.1 Capital issuance by UK residents’ (*Bankstats: Monetary & Financial Statistics*, December 2014) <http://www.bankofengland.co.uk/statistics/Pages/bankstats/2014/dec.aspx> accessed 10 July 2015.

⁷⁶ We cannot compare redemptions at this stage for the reasons discussed above.

⁷⁷ For reportage on the CDO’s role in the GFC see John Bellamy and Fred Magdoff, *The Great Financial Crisis—causes and consequences*, (Monthly Review Press 2009), especially 94-95, 97.

⁷⁸ SIFMA, ‘US Bond Market Issuance and Outstanding - annual, quarterly, or monthly issuance to January 2016 (issuance) and from 1980 to 2015 Q3 (outstanding), Updated 02/03/16’, <http://www.sifma.org/research/statistics.aspx/> accessed 22 February 2016.



As can be seen from Figure 2, PEPP has grown from minimal issuance in three broad stages. From 2009 to Q2 2013 PEPP growth mirrored the general fixed income trend quite closely, then between Q3 and Q4 2013 PEPP issuance rocketed—the growth that initiated this research. Since Q1 2014 however PEPP issuance has fluctuated widely. Rather than mirroring fixed income, PEPP now moves almost inversely to fixed income issuance, suggesting perhaps that other things being equal PEPP and other fixed income instruments have become substitutes for each other.⁷⁹ The reasons for fluctuations are not apparent but on a benign interpretation may result from: (i) bigger single issuances as the market has matured, that dominate the market; and (ii) issuers actively timing issuance so as not to compete for capital during times when classic corporate bonds are issued. A less benign interpretation will be considered in Section D.

3. The holders of PEPP—drawing broader conclusions from the data

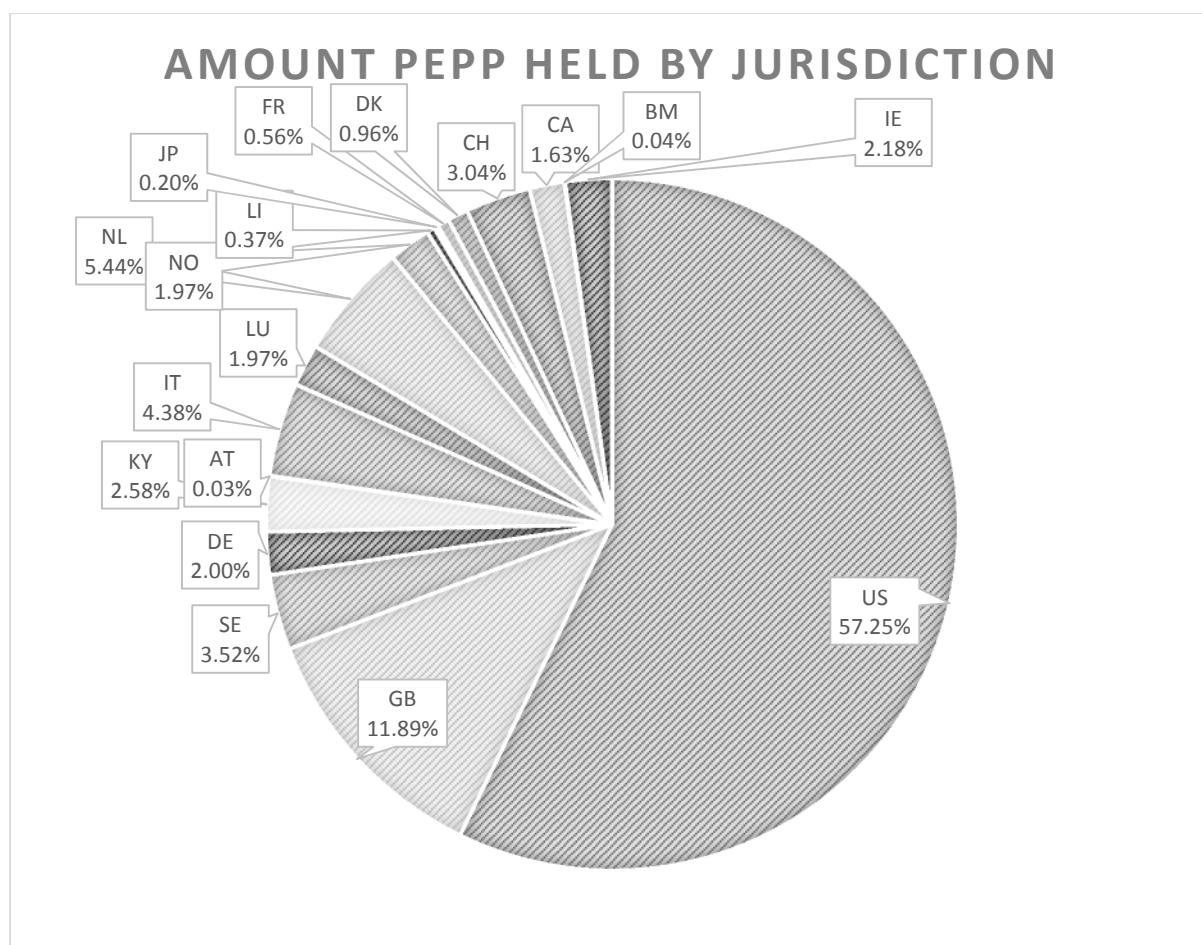
Although the focus of the data has been credit growth in private placement issuance, we can use the same data to shift that focus to a wider problematic, namely the identity of those involved in non-traditional forms of credit such as private placement. Accordingly, we now consider not the instrument

⁷⁹ I would like to thank the anonymous reviewer who suggested this insight.

(PEPP) as systemically risky *per se*, but link it to a build-up of that instrument within a non-traditional sector of credit provision.

Taking once again the PEPP data we now analyse both the ‘holders’ and ‘beneficiaries’ of these instruments. A ‘holder’ is defined as the person (i) with legal title to the PEPP securities issued; and (ii) with responsibility for management of the securities. A ‘beneficiary’ may either share legal ownership with the holder, or be a beneficiary in the true sense—of a trust on which the securities are held by the holder as trustee. For example, the classic venture capital fund will be structured as a limited partnership with the ‘holder’ as general partner and the ‘beneficiaries’ as limited partners. The terminology is confusing from the legal perspective but generality is required and it accords with the financial categories adopted in the market and by which the data are organised by the sources.

Figure 3: Amount of PEPP held by fund jurisdiction.

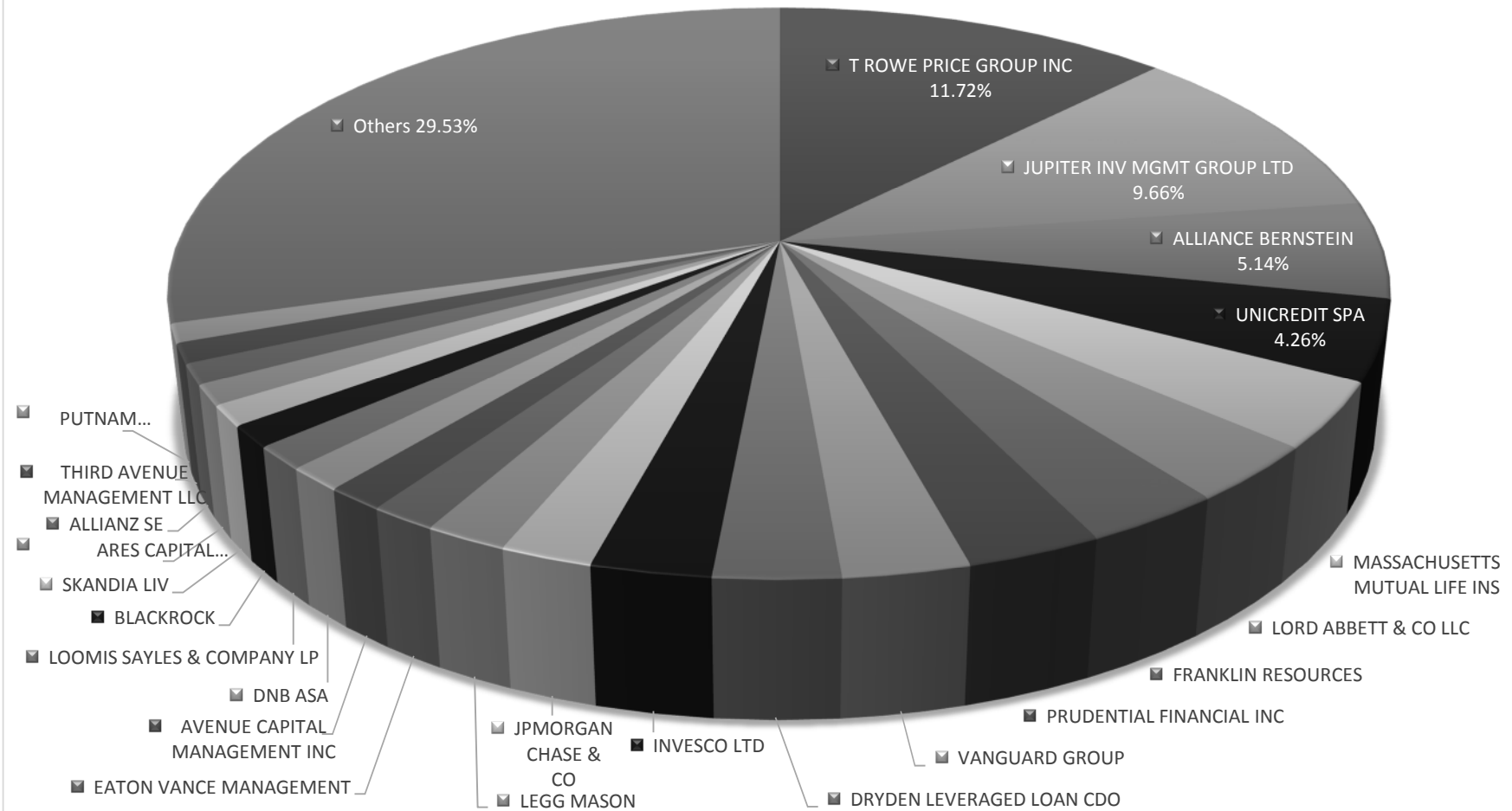


The data are first illustrated by jurisdiction in Figure 3. Figure 4 shows the principal holders of PEPP i.e. holders of $\geq 1\%$ of the total PEPP issued and outstanding at 2RD. On examination we can see a significant presence of US-based funds, especially of the private equity type. The general preponderance of US private equity should not surprise given the maturity of the US market, but the appearance of such concentrated holdings in non-SIB EU financial houses was not expected. Overall, as at 2RD, the US accounts for 57.25% of all holdings, the UK for 11.89%, the Netherlands for 5.44%, Italy for 4.38% and Sweden for 3.52%, the remainder being spread across the major financial jurisdictions of Western Europe. The Cayman Islands (‘KY’) participate in just over 2.58% of PEPP. Overall, we see that some 66.44% of PEPP by value is held outside of the EU, though we cannot determine whether nevertheless the holder and/or manager fall within the scope of the AIFMD.

As the headline holdings indicate, the biggest presence among holders is from non-banks (see Figure 4). Indeed of the holders of $>1\%$ of all PEPP, being 25 financial institutions, only two are banks: Unicredit (4.26%) and JP Morgan (1.96%). There are three insurers holding together 8.51% of

PEPP. The remaining 20 institutions are funds, holding 55.73 % of all PEPP, being €2.67bn worth of PEPP securities. It has not been possible to establish whether non-EU based funds qualify as AIFs by virtue of either being marketed into the EU or being managed by EU-based AIFMs.

**Figure 4 Holders of >1% PEPP issued to 2RD
being approx. €3.2bn of total €4.55bn**



4. Analysis of regulatory concentration and connectivity risk—holders of PEPP

It is further possible to submit our data on holders and beneficiaries to existing financial instability indicator methodologies, specifically the methodologies for assessing connectivity, concentration, and contagion trailed in Section B. Firstly, I focus on concentration, which is perhaps the most traditional risk factor in terms of individual FI exposure to a specific market, and which may be determined by a simple market share measurement. As Oet and others note:

An institution's concentration in a particular market, expressed through the corresponding market share, is a useful explanatory indicator of structural fragility, since it measures the relative position of significant institutions in the financial system. ... The rationale for including concentration as an indicator of structural fragility is that, other things being equal, higher levels of market concentration are increasingly less efficient in absorbing and diversifying the impact of small shocks on expectations. Thus a higher concentration indicates increased susceptibility to stress as the result of expectation shocks.⁸⁰

Some authors apply a version of the Herfindahl-Hirschmann Index which measures aggregate exposures and so amounts to a concentration risk index for the entire system.⁸¹ However, HHI relies on a troublingly subjective judgement of the relevant market and so is not used here. The simpler market share analysis is clear 'on the face' of the statistical data. Of the 552 securities issued to 2RD, we find the biggest holders to be US outfit T. Rowe Price Group, Inc. (11.52 % of total, being €565.7m) and British company Jupiter Investment Group Management Ltd. ('Jupiter': 9.66% of total, being €466.3m). The 'Others' accounting for 29.53% of the PEPP holders are 135 FIs holding each no more than 0.92% of the total PEPP. To emphasise these findings:

- (i) Approximately 20% of the value of PEPP is concentrated in the hands of just two AIFS
- (ii) Approximately 70% of the value of PEPP is concentrated in the hands of just 23 financial institutions, being:
 - a. 18 AIFs;
 - b. three insurers; and
 - c. two banks.
- (ii) The market share of the two leading PEPP AIFs as a proportion of the 23 biggest PEPP holders is approximately 30%.

By way of analogy, in their analysis of the asset management industry and financial stability, the United States Treasury's Office for Financial Research expressed concern that:

The top 25 mutual fund complexes managed 74 percent (\$9.9 trillion) of U.S. mutual fund assets, including 74 percent (\$4.3 trillion) of equity funds and 75 percent (\$2.5 trillion) of fixed-income funds. Ten firms each have more than \$1 trillion in global assets under management (AUM), including nine U.S.-based managers, as concentration in the sector has increased.... Higher concentrations could increase the market impact of firm-level risks, such as operational risk and investment risk, or increase the risk of fire sales.⁸²

⁸⁰ Oet (n 10) 837.

⁸¹ HHI is used by Oet (n 10), but is already deployed as one indicator of concentration-related financial instability by the New York Federal Reserve (Cetorelli and others, 'Trends in Financial Market Concentration and Their Implications for Market Stability' (March 2007) FRBNY Economic Policy Review 33).

⁸² Office for Financial Research, 'Asset Management and Financial Stability' (Office for Financial Research, US Dept. of the Treasury 2013) 3.

Using the *Office for Financial Research's* data,⁸³ it is straightforward to determine that the leading three asset managers (Worldwide Assets Under Management > USD2,000bn) have a market share of 31.75% of the assets managed by the top 20 asset managers. This amounts to 23.5% of all such managed assets. If such concentrations suggest significant risks in the asset management industry in general, I claim that the figures for PEPP given above suggest a significant concentration risk in the market for PEPP securities and that this risk is concentrated in the hands of AIFs.

Following several financial instability models, concentration is considered in tandem with connectivity. One measure of connectivity—*CoVaR* ('Conditional Value at Risk')—proceeds by generalising the quantile losses FI *i* would make in, say, the 5% tail or extreme cases of such losses (the *Value at Risk*, or *VaR*). *VaR* for a representative set of FI's is established and regressed to produce the system *S*'s *VaR*. We then calculate the contribution to *S*'s *VaR* from each *i, j, ...* in *S*. This is the *CoVaR*, being simply the difference between the *VaR* of *S* when (a) *j* is itself in distress (returns in the 5 % extremum) and (b) *j*'s returns are median. Critically, this loss estimation covers both direct loss (e.g. where a given *i* invests in or through *j*) and indirect loss (e.g. where *j*'s loss leads to a movement in the value of PEPP securities affecting *i*'s balance sheet).

The problem in applying *CoVaR* to our data is that to make plausible predictions it relies on historical market data. The PEPP market, which is quantitatively and qualitatively 'new', lacks representative data of loss and thus such an analysis may be less than plausible.⁸⁴ Yet the motivation for *CoVaR* is a strong one. As Adrian and Brunnermeier write:

*Selling of assets can lead to mark-to-market losses for all market participants who hold a similar exposure—common exposure effect. Moreover, the increase in volatility might tighten margins and haircuts forcing other market participants to delever as well (margin spiral). This can lead to crowded trades which increases the price impact even further.*⁸⁵

In the absence of specific data at this stage, it may be possible to analogise from historical data across all fund types. Oura and others assessed⁸⁶ the contribution to systemic risk—defined as the *CoVaR*⁸⁷—of funds according to investment focus: advanced or emerging market, and corporate bonds or equity. In this broad sweep what we see is that on average distress in funds of bonds always contributes less to systemic risk than equity funds by a factor of about three. Evidently this only tells us about a system as defined—here banks, insurers and the top 150 funds worldwide in the given markets, and it is not at all clear whether PEPP would qualify as a 'corporate bond' for this analysis e.g. if it is limited to exchange-traded securities. Yet even these data support a counterintuitive conclusion, for Oura and others discover⁸⁸ that there is little relationship between fund size and risk—what matters most is investment focus. Smaller funds make a disproportionately bigger contribution to *CoVaR* than larger funds. Accordingly they recommend that 'oversight of the industry should not simply focus on large funds. My reading of these data is that the obvious direct impact of a large fund collapsing, though relevant, is not the sole risk, for the indirect impact of smaller funds in distress, and impact primarily

⁸³ Tobias Adrian and Markus Brunnermeier, 'CoVaR' (September 2008) Federal Reserve Bank of New York Staff Reports no.348, 5.

⁸⁴ As to the case of SIBs see *inter alia* e.g. Adrian and Brunnermeier (n 83); Germán Lopez-Espinoza and others, 'Asymmetric CoVaR: An application to international banking,' (Systemic Risk, Basel III, Financial Stability and Regulation Conference 2011, 1 March 2011) <http://ssrn.com/abstract=1773902> accessed 10 February 2016;

⁸⁵ Oet (n 10) 8.

⁸⁶ Hiroko Oura and others, 'The asset management industry and financial stability', (IMF, April 2015) 116 and Appendix 2.

⁸⁷ $q = \leq 5\%$.

⁸⁸ Oura (n 86) 119.

on falling asset prices, are also important. Zepeda argues⁸⁹ that by raising regulatory costs to market entry the AIFMD has actually eaten into smaller AIFs' profitability and returns such that AIFMs have been forced to take bigger risks even to compete. This may cause smaller AIFs to congregate around innovative products ignored by established funds. Oura and others conclude⁹⁰ that 'the SIFI discussion for funds and asset managers should take into account specific risks of products in addition to size'. Where a particular product, such as PEPP, becomes the 'symbol' of a market driven sell-off as CDOs did, we may well see these indirect, concentrated contributions to systemic risk coming to the fore.

The aspect of indirect connectivity is very important. By virtue of herding behaviour we may plausibly treat unconnected entities as 'one' in terms of attributing losses to all where the same value is at risk in a given market. The classic herding measure of Lakonishok and others⁹¹ does not help us however because it examines properly herd-like movements in a liquid market i.e. do fund managers tend to all buy into or sell out of a stock at the same time? PEPP is at least intended to be held to term so a more static analysis is appropriate, where we determine who has taken the same securities at the point of issuance. That there may be issuance-based herding by funds in the PEPP market would correlate with fund behaviours in other established markets. Oura and others have shown that for all traditional security types (equities and bonds in the US and emerging markets) both institutional and retail funds displayed markedly increased herding from June 2006 to May 2014.⁹²

What do the PEPP data tell us that suggests static herd connectivity of this kind? The 25 holders of 1% or more of total PEPP securities together hold 69.4% of such securities. In aggregate they hold a total of 667 PEPP securities by issuance, but this number makes no allowance for multiple holdings of the same security. Given that these data for holders at 2RD indicates 399 of the 552 PEPP securities issued historically are held today, we can minimise this holding ratio to determine that on average each top 25 institution holds *at least* one PEPP security that is held by one of the other 25. Looked at another way, if one institution suffers a significant value at risk loss with respect to one PEPP security and determines that this is reason to divest itself of both PEPP securities, this immediately affects at least a second institution in the manner described by Adrian and Brunnermeier.⁹³ This is all the more significant because of the tailored and potentially illiquid nature of PEPP securities. Exit by one holder removes the most obvious purchaser from the other holder of that particular security (they have skin in the game and are familiar with the borrower). In the minimal case of just two holders, the divestment by one amounts to a significant downward pressure on the value of the PEPP security, leading to the second holder to consider exiting its position, both with respect to the immediately affected security but also with respect to the other security it holds, and so on. At some point this chain reaction could determine general market views of PEPP securities such that all holders consider exiting their position. The minimal connectivity scenario thus does not indicate less systemic risk, but rather has its own risk when connected with high concentration—PEPP securities become proportionately more sensitive to the movements of one institution. In all likelihood the actual intersection of holding is likely to be much higher, but the lengthy analysis of each security to determine each holder must be undertaken in further research. I do claim that it is plausible that the combination of this kind of connectivity with the specific concentrations of this market should give regulators pause for thought.

⁸⁹ Rodrigo Zepeda 'To EU, or not to EU: that is the AIFMD question' (2014) 29(2) JIBLR 82, 95.

⁹⁰ Ibid.

⁹¹ Josef Lakonishok and others 'The impact of institutional trading on stock prices' (1992) 31 Journal of Financial Economics 13.

⁹² Oura (n 86) 113.

⁹³ Oet (n 10).

Finally, we are simply not in a position to assess the third structural ‘c’—contagion⁹⁴—from the data available. Contagion indicator models tend to focus on the capacity of loss at one institution to cause capital impairment in up to 30% of the financial system analysed and/or the immunity to such shock of related institutions. The relevant liquidity data is not available to me (as yet) but even if it were available, its comparative utility for macroprudential analysis is low. For the reasons cited in Section B, AIFs are able effectively to determine bespoke liquidity strategies and so render themselves incomparable. The best that can be achieved is specific assessments for each AIF and cross-market comparisons appear to be tremendously difficult.

5. Analysis of regulatory concentration and connectivity risk—beneficiaries of PEPP

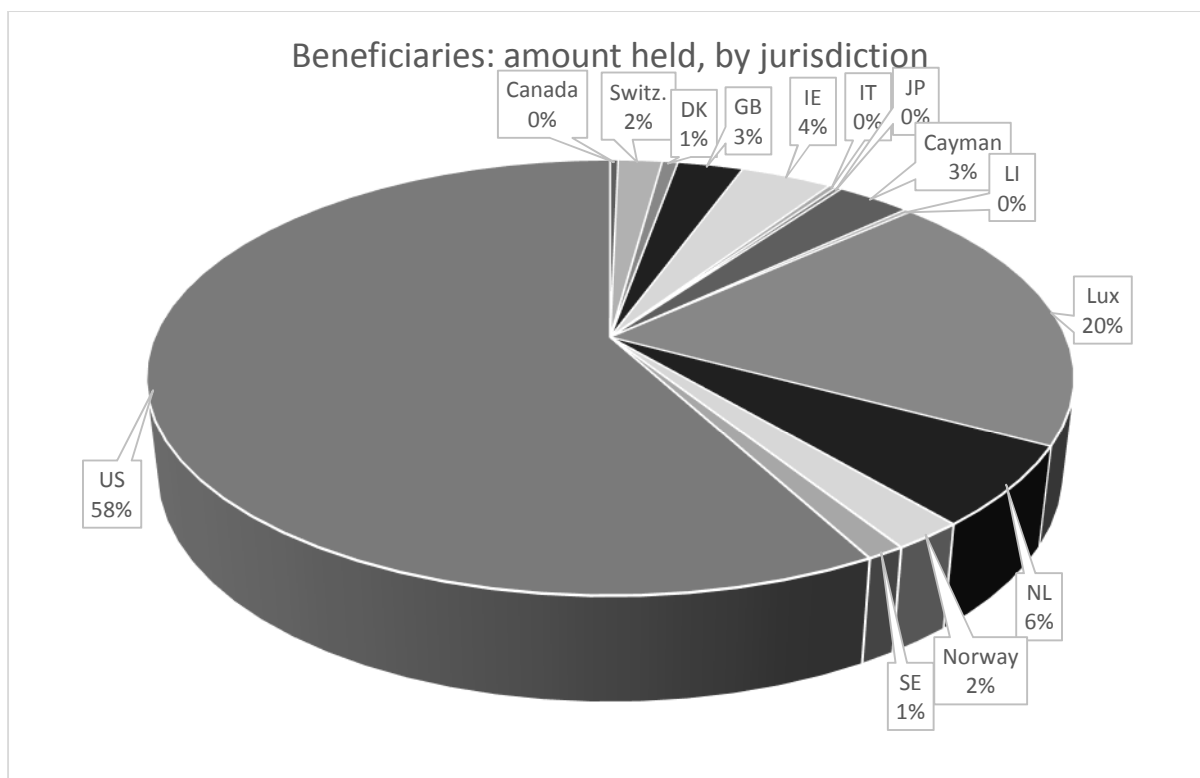
I now consider the ‘beneficiaries’ of AIFs which term is used to cover persons who are silent investors in the AIF, be they limited partners, share or unit holders, or trust beneficiaries proper. Analysis of this second circle of interested parties is interesting in its own right for systemic risks may arise here independently due to connectivity, contagion, and concentration. Thus by way of extreme example all interests may be held by one beneficiary. When this general potential for risk is combined with the inherent connectivity of beneficiaries with AIFs we can imagine scenarios where risks at the level of holders filters immediately through to connected beneficiaries, before spreading between beneficiaries of all kinds by virtue of mutual connection, contagion, and herd-like concentration. But let us first examine the data to determine which such risks may be indicated.

The market in which 162 beneficiaries of PEPP holdings participate is less concentrated than that for holders. All but one of the beneficiaries are funds, though 21 funds (being beneficiaries of 6.1% of the total securities) are ostensibly ‘named’ bank-approved funds. Only one such bank exceeds a beneficial interest of 1%. There are 8 ‘named’ insurer funds; beneficiaries of 3.5% of the total. With just one non-fund participant this high concentration of beneficiaries of PEPP is remarkable and as with PEPP holders indicates herding at issuance of PEPP.

The 25 biggest beneficiaries of PEPP by investment (here $\geq 0.79\%$ interest) together hold 49.93% of all PEPP securities. This amounts to an aggregate interest in 432 issued securities, confirming once again that as a minimum each of the top 25 shares an interest in a security in which a second member of the 25 is also interested. Yet the diversity of PEPP portfolio strategies is remarkable: the largest beneficiary by interest—Jupiter JGF with 9.66% market share—is interested in 85 different securities, while the fourth largest—Vanguard HY Corp Fund, with 2.6% total—is interested in only five PEPP issues. This suggests that we may see differing connectivity risks depending on the market participant, for a Jupiter exit could affect more market participants, but a Vanguard exit, assuming its interest intersects with another participant, will exert greater downward pressure on a single PEPP security. To this analysis we must add the interaction between beneficiaries seeking to exit a fund and the holders discussed in the previous section who must be in a position to return capital to beneficiaries on exit and so may well exit their corresponding holdings, driving down prices in the holder market examined above.

Figure 5: Amount held, by jurisdiction (0=negligible)

⁹⁴ James Thomson, ‘On systemically important financial institutions and progressive systemic mitigation’ (2009) Federal Reserve Bank of Cleveland Policy Discussion paper No.47.



In terms of jurisdiction, 58% of beneficiaries were based in the US, with the Cayman Islands accounting for the next largest non-Western European source, viz. 3%. One EU jurisdiction hosts beneficiaries for the majority of PEPP debt held by EU-based beneficiaries. This is Luxembourg, with 20% of PEPP, being 56% of all EU PEPP beneficiaries. Once again as it is not possible to establish whether specific entities are AIFMD regulated with respect to individual products, I cannot make definite claims about the percentage of the market which sits outside of AIFMD oversight. It may indeed be the case that all US beneficiaries deal with AIFMs, while all US holders market to EU-citizens, and that as such AIFMD captures all PEPP activity, but I find that highly improbable. It seems plausible that in respect both of holdings and beneficial interests, a significant proportion of all PEPP debt is being handled outside of the scope of AIFMD, and under other regulatory systems such as that of the US. Comity of regulators supports the view that we should not be concerned in terms of investor protection, but our concern is rather oversight of macroprudential developments. Here, the evidence of growth, the nature of holders and beneficiaries, and qualitative assessments of systemic risk factors, suggest we should be questioning the overseer's competences under the existing regulatory regime.

D. REGULATORY IMPLICATIONS: CAPITAL MARKETS UNION AND PRE-EMPTING THE NEXT CRISIS

As the discussion in Section B suggested, there is now a sizeable body of literature⁹⁵ examining the role of AIFs of various kinds in the GFC and critiquing the efficacy of the AIFMD as a response.

⁹⁵ Aside from the official reports mentioned in this article, cf. e.g. Eilis Ferran, 'The Regulation of Hedge Funds and Private Equity: A Case Study in the Development of the EU's Response to Financial Crisis', (February 2011) University of Cambridge Faculty of Law Working Paper No 11/2011, <http://ssrn.com/abstract=1762119> accessed 1 February 2016; Stefano 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; Andrew Ang., Sergiy

In this Section I build on the empirical work of Section C to argue that this literature must now go further. I suggest that relatively exotic interventions of funds in the worst excesses of the GFC, through risk transfers in securitizations and MMFs, must be seen in the light of a wider market transfer of credit risk—by which I mean a transfer of the role of credit provider—to AIFs and funds not within the scope of AIFMD. I submit that the data from the PEPP market is symptomatic of that wider transfer of credit risk into a less adequately regulated sector. Furthermore, I claim that a macroprudential focus on SIFIs, and particularly SIBs, risks overlooking the potential for smaller FIs acting ‘as one’ as part of a ‘local’ crisis in a specific market, which herd behaviour could spill over into the financial system as a whole. I will now attempt to sketch out the systemic significance of this change

The broad claim, which rests on the data and on specific regulatory and market deficiencies to be highlighted below, is that as specialised as the PEPP market is, and as comparatively small as some of its lead participants are, this market and any of its type have financial stability implications. The concept of *CoVaR* informs us, I believe correctly, that indirect causation of loss is a significant factor when considering stability. This widens our focus then to consider not just lynchpin banks in a financial system whose losses ‘contractually’ hit other actors, but also aggregates of actors who display similar investment strategies. Here we come up against the qualitative element of the ‘three C’s’: the need to define the market or financial system to be analysed. Taking the *CoVaR* of the whole system and an AIF’s contribution to it is important, but it seems also wise to look at specific markets both in terms of the type of investor, their strategy, and the instruments invested in. So doing may find a suitable balance between those who have argued that we should consider Systemically Important Financial Instruments on a par with SIFIs and infrastructure, and those who argue,⁹⁶ to turn a phrase, that instruments are not bad, it’s the people who invest in them. This layered analysis of markets or sectors is directly suggested by the HHI methodology which borrows from antitrust regulation. Here the justification for a market definition is somewhat *a posteriori*—the aim is to prevent abuse and if abuse is found and prevented then to some extent the definition is justified. Could we not also argue that if a definition of a financial market leads to a discovery of instability risk, this end justifies the definition proposed? Such a heuristic approach is in line with the qualitative nature of various Early Warning Systems deployed today.

How might the PEPP market initiate financial instability? The scenario⁹⁷ that suggests itself with respect to all funds is the asset price feedback loop combined with the leverage (or margin spiral) feedback loop, leverage being an applicable concern in the cases discussed in section B.3 above. It does not matter where a fall in the underlying value of PEPP securities originates—this may be due to macroeconomic factors such as deflation or currency fluctuations—but once balance sheet assessments of PEPP securities start to mark down value across the PEPP market, one may find that AIFMs determine to move out of PEPP securities or at least cease to invest in new issues. This may initiate a further downgrade of PEPP securities’ value and spark another round of hedging that could become a loss spiral. This becomes more likely where the market for PEPP-securities is oversaturated. A less benign reading of the recent inversion of growth in PEPP compared to all fixed income is that in a sense

Gorovvy and Gregory van Inwegen, ‘Hedge Fund Leverage’ (2011) NBER Working Paper 16081, <http://www.nber.org/papers/w16801.pdf> accessed 1 February 2016; Patrick McCabe and others ‘The Minimum Balance at Risk: A Proposal to Mitigate the Systemic Risks Posed by Money Market Funds’ (Federal Reserve Bank of New York Staff Report No. 5, 2012) 64; Maria Stromqvist, ‘Hedge Funds and Financial Crises’ (2009) *Economic Review of the Sveriges Riksbank* 87.

⁹⁶ Willem Buiter first raised the idea of licensing financial instruments in a manner akin to food and drugs. For a consideration of views on this proposal cf. Stephen Connelly, ‘Is it Time for a More Concrete Focus on Systemically Important Financial Instruments?’ (2014) 29(5) *Journal of International Banking Regulation* 274.

⁹⁷ For discussions of asset price and margin spirals cf. the oft-cited Brunnermeier, and others (n 17); cf. with respect to AIFs Johnston (n 15) 780, who applies Hyman Minsky’s analysis speculation-hedge cycles developed from JM Keynes.

the PEPP market has peaked and that investors now choose listed corporate bonds over PEPP, only returning to PEPP when listed corporate bonds perform badly or returns there are poor. Such a reading implies that any turbulence in PEPP would quickly see a reversion back to classical bond issuance, leaving AIFs holding illiquid, if still performing assets. Looking back before the inversion, in June 2014 EIOPA shared its risk data with the ESRB and reported (albeit in one sentence) that it was concerned that illiquid investments such as private placement bonds were making their way into investment portfolios just as defaults were rising.⁹⁸ The inversion shown in the data may imply that the push/pull factors from listed bonds may in fact still be dominating movements into and out of PEPP rather than PEPP fundamentals.

Now PEPP securities are not as liquid as other typical AIF investments. Indeed even with standard AIFs investors typically cannot redeem on demand where a ‘run’ occurs because AIFMs retain ‘the right to invoke prohibitive redemption policies (e.g. gates and lock-ups) in the event of significant investor withdrawals.’⁹⁹ Nevertheless ‘gates’ of this particular kind are responsive to, not predictive of, mass withdrawals¹⁰⁰ and so a mere recalibration of balance sheets may be enough, especially if defensive behaviour is reinforced by such capital adequacy requirements as are in force under AIFMD. This is because we are dealing not just with the PEPP market but also the market for investors in PEPP-investing AIFs. Recalibration of balance sheets may lead beneficiaries to reassess the wisdom of AIFMs and to withdraw funds from not just specific AIFs but from the set of AIFs investing in PEPP. Here again the herd behaviour and concentration of a class of investors plays the key role—it is *as if* one larger FI is in trouble. This withdrawal of funds creates a specific problem for PEPP-holding funds precisely because of any illiquidity: here is a specific liquidity mismatch that resonates with a problem that as the AIFMD correctly notes bedevils all funds. Where the AIF in question also relies on leverage to fund PEPP acquisitions (which is understandable in speculative periods) and/or to smooth liquidity mismatches, AIFs may well feel a leverage squeeze as creditors react to reducing AIF balance sheets and so cease providing margin and start calling it. This compounds the AIF’s existing liquidity problems and may well force it not just into fire-sales of PEPP but of other assets. Again it is the commonality of the herd of AIF-holders and their concentration which exacerbates these effects. As the downward pressure on asset prices spreads into other market sectors we can begin to speak, in analogy with *Oura* and others, of the systemic *CoVaR* due to the aggregate PEPP-holding market.

I have stressed the leveraged case as the *travaux* focus on the risks of AIF leverage¹⁰¹—unsurprising given the deep shadows cast both by Lehman Bros., but also by Long Term Capital Management a decade before. Yet what would happen in the above scenario if the AIF was not significantly leveraged? Evidence provided at the time of the AIFMD’s implementation and subsequent supervisory practice suggests that unleveraged AIFs do not usually pose a significant systemic risk requiring the highest level quarterly reporting. There are however exceptions, notably where an AIF (i) has Assets Under Management in excess of €1 billion, and (ii) which does not invest in non-listed securities and issuers in order to acquire control.¹⁰² The reason for this requirement also goes to concentration and *CoVaR* risk—the possibility of *VaR* being breached is not relevant; what is relevant

⁹⁸ EIOPA ‘EIOPA Risk Dashboard June 2014: Q1 2014 data’ EIOPA-FS-14/057 https://eiopa.europa.eu/Publications/Standards/EIOPA-FS-14-057_EIOPA_Draft_Risk_Dashboard_June_2014.pdf accessed 16 March 2015.

⁹⁹ Evidence of Dan Waters (FSA) in House of Lords European Union Committee, Directive on Alternative Investment Fund Managers (HL 2010 Paper 48-II) para 96.

¹⁰⁰ AIFs with universally applicable gates of greater than five years are not regarded as high risk by ESMA, and need only report annually under its ‘Guidelines on reporting obligations under Articles 3(3)(d) and 24(1), (2) and (4) of the AIFMD’ ESMA/2014/869EN, 8.

¹⁰¹ As discussed in section 2.2 above.

¹⁰² Art.24(1) AIFMD.

is the systemic effect of significant losses should this purportedly unlikely event occur (tail events being by definition not impossible).¹⁰³

The above scenarios of instability will likely be compounded by the following regulatory deficiencies that render overseeing overlooking:

Problem of invisibility—as discussed in Section B, there remain two issues of invisibility which suggest regulators are not able to obtain quality data about PEPP. Firstly, it is designed to be private and so is little covered by regulation at the point of issuance. At best regulators can only indirectly sense what is happening in PEPP through analysing AIF holdings in detail or conducting broad research of the kind in this article. Secondly, and perhaps more critically, the sheer number of potentially non-AIFMD regulated funds involved in the PEPP market means that at best EU regulators are reliant on information transfers from third countries. This is a marked regulatory advantage to such non-EU funds not otherwise covered by AIFMD. Such PEPP-market participants are thus at worst invisible to the current regulatory structure and so invite risk to coalesce around them.

*Problem of regulatory opacity*¹⁰⁴—as likewise discussed above, even for AIFs within the AIFMD's scope, the number of special cases and exemptions, combined with autonomy to determine liquidity strategy, strongly suggests that regulators are being asked to do too much in trying to compare this market's participants for macroprudential purposes. The opacity arises from not being able to adequately identify comparable behaviours and so also best practice. The AIFMD is decidedly pre-GFC in its theoretical basis, for it relies on market-led microprudential regulation that is blind to, but generative of, systemic risk. It is thus quite possible not only that regulators may miss risks in the PEPP market, and in the wider realm of AIFs, but that they may even set requirements which are pro-cyclical i.e. increase financial instability.

Problem of inconsistent treatment of non-EU funds—finally, but consequent on the foregoing, the clear and remarked-upon inconsistency of treatment of AIFs and non-AIFMD regulated funds promotes regulatory arbitrage and so the potential of a flow of capital (specifically credit) away from oversight intended to ensure financial stability. The regulatory boundary problem may not be soluble, but regulation drafted so as to encourage flows to key financial markets outside the EU is hardly desirable.

Spanning the above is the wider appreciation that the effect of regulatory and self-imposed restrictions on SIBs' activity is that the direct credit risk transfers pre-GFC have become indirect credit risk transfers—that non-traditional lenders are perhaps filling a gap in the market for debt left by banks in retrenchment. The data suggest that PEPP is just one example of new modes of credit provision beyond the banks which have formed the focus of post-GFC oversight. Although certain supervisors have begun to remark upon the role of certain fund types (money market and exchange traded funds), lumping them into 'shadow-banking' may actually work to lessen the urgency with which supervisors should move to regulate this transfer of risk. What if the emerging situation of non-traditional credit provision is not a dark recess of finance but rather the new normality of credit provision? CMU provides an opportunity for recalibration of our thinking about systemic risk in light of these developments.

¹⁰³ Recital (17) AIFMD; 'Guidelines on reporting obligations under Articles 3(3)(d) and 24(1), (2) and (4) of the AIFMD' ESMA/2014/869EN, 8.

¹⁰⁴ This problem of opacity has also been confirmed by ECB Governing Board member Vitor Constâncio: 'Financial stability risks, monetary policy and the need for macro-prudential policy' Speech by Vitor Constâncio, Vice-President ECB (Warwick Economics Summit, 13 February 2015) <https://www.ecb.europa.eu/press/key/date/2015/html/sp150213.en.html> accessed 13 April 2015.

E. CONCLUSION

In this article I have sought to establish that there has been a significant shift in finance to PEPP since the GFC, as is apparent from the evidence of PEPP-market growth and qualitative responses by the financial sector; that this shift discloses a transfer of credit risk to investment funds; and that the herding of funds around credit provision techniques such as PEPP could pose a systemic threat to financial stability. At the very least supervisors should not only turn the gaze to this sector, but should begin developing the legal instruments which set clear rules that permit appropriate comparison between market participants and do not actively encourage the flow of capital out of the scope of regulation. Supervision as a mode of governance may make great claims, but a focus on SIBs rather than credit growth amongst aggregates of smaller players operating at the edges of inconsistent regulation could lead to overseeing becoming overlooking.

Given the above, by way of conclusion I would suggest the following broader policy recommendations as a starting point. First, a joint working group comprising the FPC, the FCA, and representatives of the regulators of two main markets where traditional private placement is mature (US Securities Exchange Commission and Germany's BaFin¹⁰⁵) should be established to determine existing practice regarding stability risks in the private placement market. The ESRB should also be involved as part of coordination with relevant EU bodies—something important in itself given the prospect of CMU.

Assuming disclosure requirements are extended into PEPP, macro-prudential intervention powers could be extended over non-banks to (i) provide greater information about nominated under-regulated markets than for publicly listed instruments such as that for PEPP debt (the cost of information provision will prove a useful countercyclical measure in a booming market); (ii) lift or modify the 'sophisticated investors' regulatory exemptions for nominated classes of securities where markets for these securities are overheating (thus increasing transparency and also, hopefully, providing disclosures for subsequent public and private enforcement); and (iii) halt fire-sales of PEPP and similar quasi-securitized debt thus containing local crises and preventing contagion.

Actual risks to financial stability need to be identified, correctly assessed as to risk—and post-GFC that means assuming crisis *will* occur, not believing in perfect markets—and where possible such risks should be subjected to a legislative framework which provides supervisors with tools to combat and isolate sector specific instability. As Richard Sharp of the FPC has stated: '[i]n my view, the set-up of macroprudential policy in the UK is right—now it's about the execution'.¹⁰⁶ The execution means fleshing-out the wide financial stability objective of supervisors to ensure that this very width does not lead to complacency about the detail.

In the post-GFC period international finance has been reconfigured not only by the supervisory developments now in place but also through the evolution of new structures of debt finance which call into question the adequacy of the new supervisory regime. The above recommendations are offered partly to provide new impetus to supervisory reform to ensure that what was for some the epistemological shock of the GFC—the appearance of a crisis that had emerged from finance itself as a mass effect—is not forgotten, at least for a short while longer.

¹⁰⁵ Formally in English: the Federal Financial Supervisory Authority.

¹⁰⁶ Speech to the London School of Economics, 'The Financial Policy Committee of the Bank of England: an experiment in macroprudential management—the view of an external member' (4 June 2014) <http://www.bankofengland.co.uk/publications/Documents/speeches/2014/speech733.pdf> accessed 18 April 2015, 9.

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