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Grey matter in shadow banking: international organizations and expert strategies in global financial governance

Cornel Ban[a], Leonard Seabrooke[b] and Sarah Freitas[a]

[a]*Boston University, Boston, MA, USA;* [b]*Department of Business and Politics, Copenhagen Business School, Copenhagen, Denmark*

ABSTRACT

Who controls global policy debates on shadow banking regulation? We show how experts secured control over how issues in shadow banking regulation are treated by examining the policy recommendations of the Bank of International Settlements, the International Monetary Fund and the Financial Stability Board. The evidence suggests that IO experts embedded a bland reformism opposed to both strong and 'light touch' regulation at the core of the emerging regulatory regime. Technocrats reinforced each other's expertise, excluded some potential competitors (legal scholars), coopted others (select Fed and elite academic economists), and deployed *measurement*, *mandate*, and *status strategies* to assert issue control. In the field of shadow banking regulation, academic economists' influence came from their credibility as arbitrageurs between several professional fields rather than their intellectual output. The findings have important implications for how we study the relationship between IO technocrats and experts from other professional fields.

KEYWORDS

shadow banking; experts; professions; fields; linked ecologies; lawyers; economists; international organizations.

INTRODUCTION

Shadow banking scares regulators. In 2014 the US authorities acknowledged the importance of shadow banking by extending official credit and other safety nets to the system and its depositors (the so-called 'institutional cash pools', see Helgadottír 2016; Pozsar et al. 2010). A year later, the European Central Bank warned that this lightly regulated part of the finance sector was a systemic threat due to its 'increased size and remaining opaqueness'.[1] Even China's recent financial troubles cannot be adequately grasped without understanding the functioning of this country's distinct shadow banking system. Nine years after the outbreak of the crisis, there is still a great deal of uncertainty over how regulators should approach shadow banking.

The existing literature in International Political Economy tells us that regulators and their networks of experts should rush to establish authority over technically complex issues in global governance (Büthe and Mattli 2011; Lall 2014). We also know that state, private sector, and civil groups are active in propagating expert networks on financial issues (Kastner 2014; Newman and Posner 2016). Critical in this regard is 'issue control' or who has the right to speak with authority on a given issue of the regulatory agenda (Henriksen and Seabrooke 2016; Seabrooke and Henriksen, 2017). Issue control is important for professional and organizational networks and does not simply rely on organizational mandates and agenda setting. This concept is particularly important in the world of financial regulation, whose extreme technical complexity and exposure grants a privileged place to the 'grey matter' of prominent experts (Baker 2013; Mügge and Perry 2014; Seabrooke and Tsingou 2014). As such we need to know more about the environment in which knowledge about shadow banking regulation is produced.

The Bank of International Settlements (BIS), the Financial Stability Board (FSB), and the International Monetary Fund (IMF) have put together an emerging global regulatory regime regarding traditional bank finance (Baker 2015; Moschella and Tsingou 2013; Mügge and Perry 2014). At the same time, they also cobbled together an understudied regulatory regime regarding non-bank finance. While we have excellent information on how interational organization (IOs) interact with experts and lobbyists in conventional banking (Young 2012), we don't have any systematic research regarding shadow banking.

This article addresses this gap by focusing on what kind of expertise has been mobilized by these IOs and how their expertise relates to knowledge deployed by competing actors, such as economists, lawyers, central bankers, and private sector practitioners. Our approach joins others interested in professional 'fields' and 'linked ecologies' in the international political economy, where a wide range of agents are considered as potentially important on an issue rather than isolating actors by their organizational type (Fourcade and Khurana 2013; Helgadottír 2016; Mudge and Vauchez 2012; Seabrooke and Tsingou 2015; Stone 2013). Here we delve into what distinctive intellectual frameworks were deployed in debates and who is involved in shaping the expert consensus on the key issues. This is important to establish, given that IOs were required to respond to shadow banking issues on which they professed little expertise prior to the 2008 crisis.

Eric Helleiner (2014) has typified the response to 2008 as the 'status quo crisis' but other scholars found that orthodoxy experienced significant challenges in the area of conventional banking regulation (Baker 2013), capital controls (Gabor 2015; Gallagher 2014), monetary policy (Moschella 2015) and fiscal policy (Ban 2015). Shadow banking regulatory reform has also reflected this 'revisionist' turn that rejects bold regulatory interventionism proposed by some experts, as well as the anti-regulation neoliberal orthodoxy rampant prior to the crisis. Our main finding is that expert debates on shadow banking were shaped by a reformist recalibration of pre-crisis financial economics and controlled by IO staff and their expert allies via distinct organizational strategies.

The shadow banking regulatory agenda has been managed by the BIS, FSB, and IMF staff, who asserted issue control by drawing on research provided by the Fed and a handful of economists based in elite universities. The IOs left outside this epistemic policy community have little influence, as do legal scholars and economists with substantial private sector experience but no affiliation to elite academic or policy institutions.

We show that the strategies the IO staff deployed to assert issue control have been IO-specific. The BIS relied on its reputation for practical experience with systemic risk issues as part of what we identify as a *status* strategy. The FSB used a *measurement* strategy to make the most of its authority over definitions and data. The IMF called on its macroeconomics expertise as part of a *mandate* strategy. Jointly deployed, these complementary strategies produced a self-referential and piecemeal reform agenda. Our findings affirm contemporary theories of global financial governance in highlighting how IOs use external information selectively (Young 2012) as well as how they rely on a club-like system of experts to govern how issues are established and treated (Tsingou 2015).

Before proceeding, three caveats are in order. First, unlike research on financial regulation examining the entirety of the policy process (see Knaack 2015 for a recent example), our interest is the agenda setting stage of the regulatory process. Second, due to word count constraints, the study does not examine the role of systemically important central banks (the so-called C5), leaving this task to future research. Third, we do not seek to adjudicate between structural and ideational debates on financial regulation. Our position is that institutional and material factors as well as instrumental and structural forms of power mediate the policy impact of expert ideas of experts in important ways (Ban 2016). Interests are ideas.

PROFESSIONAL BOUNDARIES AND STRATEGIC ACTION IN GLOBAL SHADOW BANKING DEBATES

Shadow banking in IPE

So far, IPE scholars working on shadow banking have focused on the inadequacy of the early regulatory responses (Rixen 2013; Thiemann 2014), while others looked at the role of pre-crisis regulatory arbitrage and the search for yield as key mechanisms in the growth of shadow banking and its role in the 2008 financial meltdown (Lysandrou and Nesvetailova 2015). Blyth (2013), Gabor (2015) and Gabor and Ban (2015) brought to the fore the repo market as a site of shadow banking activity intimately connected with systemic risk dynamics. Bryan, Rafferty and Wigan (2016, 2017) uncover the previously unexplored relationship between shadow banking, intangible assets, and the tax 'optimization' strategies of transnational capital. Similarly, Helgadottír (this issue) stresses the link between shadow banking, rents and inequality, while Daniela Gabor invites us to rethink the relationship between state treasuries and financial markets in a global financial system deeply transformed by shadow banking (see also Gabor 2016).

By shifting the focus to experts and expertise in IOs and academia, this article contributes to this debate in two ways. First, it systematically connects specific understandings of the issues raised by shadow banking to specific expert groups and subgroups. Using a novel methodological toolkit, we provide an accurate map of who pleads for a drastic regulation of the industry, for 'light touch' regulation, or for a reformist compromise. Second, our approach lends itself to establishing what knowledge actually matters and shows that the politics of expertise is important for tracing the origins of the emerging global regulatory regime (see also Helgadottír 2016; Thiemann et al. 2016).

The economics profession, academic economists and international organizations

Contemporary social science is a hierarchical field. Research shows that it is economics, the field with the greatest impact on public policy, where hierarchies are most relevant and rigid (Fourcade et al. 2015). This article intervenes in ongoing efforts to theorize the influence on economic policy-making of professions in general and economists in particular (see Hirschman and Popp Berman 2014). Regarding international policy making via IOs, scholars have stressed the importance of academia as a prime mover in shaping how these institutions think via chains of training and recruitment (Ban 2015; Broome and Seabrooke 2015; Chwieroth 2015; Helgadottír 2016; Nelson 2014).

Our approach is different. First, we systematically assess the impact on regulatory debates of a less direct mechanism of policy influence for academics: publications in top journals. Research on the sociology of the economics profession suggests that economists are very active in protecting their territory by forming elite clubs where disciplinary boundaries are strictly monitored by the editorial boards of prestigious journals (see Fourcade et al. 2015). Our interviews with legal scholars suggested that a similar dynamic is at work in the legal profession, the source of a distinct form of expertise on shadow banking. Moreover, the staff in IOs, such as the IMF, have organizational cultures and professional incentives to see themselves as quasi-academics who pay tribute to the professional status hierarchies certified by journal publications (Ban 2015; Momani 2007). Our aim is to examine when an elite academic economist, as opposed to a central banker or private sector economist, has voice and access in emerging financial regulation regimes.

Second, this article studies the impact of economists on global financial governance by comparing them to other professional groups. Eleni Tsingou has noted that lawyers stand next to economists as 'gatekeepers in the policy process determining what counts as evidence and as credible arguments' (Tsingou 2015: 23). Katarina Pistor's (2013) work highlights the critical role of legal professions and jurisdictions in the functioning of transnationalized finance. Yves Dezalay and Bryant Garth have investigated, over many volumes, how transnational legal expertise is constructed to shape regulatory outcomes (for example, Dezalay and Garth 2010; see also Eagleton-Pierce 2017). Abraham Newman and co-authors have shown how transnational network push soft law in the governance in global finance (Newman and Bach 2014; Newman and Posner 2016). Finally, Annalise Riles (2011) has demonstrated how legal academics and qualified lawyers were sources of much shadow banking activity from their work within law firms and lobbying activities. In short, lawyers also have influence on how markets and policies are designed.

IO staff and agenda setting in international organizations

In the current literature a lot of explanatory weight is given to the intellectual entrepreneurship of IO economists (Chwieroth 2015; Nelson 2014) rather than to academic economists in their own right. For some, the impact of academia on policy thinking in IOs is mediated by the interaction between the political interests of the IOs' principals, their mandates and the strategies of IO staff (Gallagher 2014; Moschella 2015). Demonstrating expertise is considered important for IO staff in cementing their reputation with external actors, as well as enhancing their capacity to demand certain kinds of knowledge and have greater control in policy debates (Broome 2008). This is particularly the case in the world of financial regulation, where esteem is held to be an important form of professional 'currency' (Baker, 2017).

We contribute to this literature by suggesting IO staff exercise issue control via various strategies that include expertise production with peers in other IOs and likeminded professionals. Three such strategies are identified: *measurement, mandate* and *status*. Through measurement, IOs with first mover advantage can control the issue by capitalizing on their particular advantage at issuing definitions and metrics used in policy assessments. Other IOs can practice issue control by making the observance of their institutional mandate a passage point for how the issue should be regulated. Others deploy the high professional status of their staff in niche areas as a source of comparative advantage. When the issue being debated is pressing to policy makers, but is new to academia, IO staff can use their first mover advantage, embedded institutional positioning, and professional status, to promote their work and selectively use academic and non-academic outsiders.

METHODOLOGY AND DATA

Drawing on Cornel Ban's past work (Ban 2015; 2016), we use a combination of content, network, and prosopographic methods to establish how 'grey matter' works in shadow banking. Content analysis processes the content of scholarship cited in debates on shadow banking, and high-profile reports issued by the BIS and FSB, and the IMF. Network analysis visualizes the linkages between these reports and their institutional suppliers of expertise based on the professional affiliations of the authors cited by IOs. Prosopographic methods trace the career histories of the experts involved and how their trajectories (paths to seniority) and career experience differ (see Seabrooke and Nilsson 2015).

To better map out the professional field of expertise on shadow banking we turned to a conventional site of influence in public policy (academic journals) and then connected the findings to the policy output of the BIS, FSB, and IMF. First, we looked at two markers of professional prestige in economics: papers dealing with shadow banking that had over 100 citations on Google Scholar or that were published in prominent professional journals. This distinction is important because some of the most influential interventions in this debate do not appear in top academic journals. There is, after all, no reason why regulators should hold academic publications in regard as opposed to working paper series from IOs and think tanks where their peers are more likely to appear.

We then looked at articles on shadow banking published in the top journals in economics (*American Economics Review, Quarterly Journal of Economics*) as well as in specialized journals in finance economics that had the highest impact factors in the subfield (*Journal of Finance, Journal of Banking and Finance; Journal of Financial Economics; Review of Financial Studies*).

To gauge lawyers' views of shadow banking regulation we first looked at prestigious publications such as *Stanford Law Review, Harvard Law Review*, and *Columbia Law Review*, as well as business law journals that financial practitioners identify as the most authoritative voices of financial law expertise. Specifically, we read articles on shadow banking published in the *Banking Law Journal*.[2] Finally, we looked at lesser ranked journals that had a higher coverage of shadow banking issues authored by professors from high-prestige law schools: the *Review of Banking and Finance Law* as well as the *Journal of Corporation Law*.

To provide a granular view of the expert debate on shadow banking, we first use content analysis to map out policy recommendations being made using three categories: interventionism, reformism and neoliberalism. Our coding strategy for each of the three spectra of policies is based on two litmus tests: (1) the extent of advocated change relative to the status quo and (2) the treatment of shadow banks versus conventional banks.

Our understanding of the 'neoliberalism' draws on approaches that avoid its popular conflation with 'market fundamentalism' and stress the combination of neoclassical optimism about the virtues of the market and the responsibility of the state to intervene though market-making regulations and the socialization of losses in cases of market failure (Ban 2016). Our use of the term 'reformism' is based on Cornel Ban's (2015) study of fiscal policy change in the IMF) and brings to the surface differences of degree relative to neoliberalism. While weak reformism does not aim to challenge the structural privileges of the financial system and could be seen as part of the neoliberal nebulae, we think that strong reformism nevertheless expresses a great deal of skepticism towards the neoclassical view of the financial market that is espoused by neoliberals. If strong reformist measures were applied to shadow banking institutions and activities across the board, rather than selectively, then we labeled these opinions as interventionist.[3]

To ensure reliability, two coders deployed the coding scheme described above with regard to a third of the corpus of selected articles. Then, a third coder did a random selection of the coded articles and highlighted differences in order to calibrate the final coding sheet, which was then used to code all articles (see Table 1). For network analysis visualization we used Gephi. Next, we used citation analysis to identify the boundaries, linkages and central nodes of the expert networks that shape the debate. Finally, we went through the authors' professional biographies to get a sense of how one's professional status and mobility

Table 1 Coding sheet for schools of thought in shadow banking regulation

Regulatory school of thought	Main implications for regulators
Interventionism	Extensively intervenes the day-to-day risk-taking activities of shadow banking institutions, in terms of the statutory limits imposed on their economic freedom and the intensity of supervision. Treats shadow banks like conventional banks in regulatory terms, without any significant privileges granted to them.
Reformism	Recalibrates the existing regulatory status quo, as defined by the benchmarks of Dodd Frank or Basel III towards more monitoring, more data collection (weak reformism) and a recalibration of the existing regulatory instruments, using statutory capital buffers, compulsory insurance systems targeted at specific forms of shadow banking, or the selective curbing of certain financial innovations associated with it (strong reformism).
Neoliberalism	Rolls back post-2008 regulations and reverts to the 'light-touch' regulation of corporate governance as a means to realign agents' incentives so that systemic risk in the shadow banking is extensively reduced. Provides shadow banks the safety net provided to conventional banks in times of crisis but without loading them with additional regulation.

between different professional fields shapes one's access to international sites of decision-making.

PROFESSIONAL FIELDS AND EPISTEMIC POWER IN SHADOW BANKING REGULATION

Status and affiliation

To map out the entire field of debate we did a biographical analysis of the professional status and affiliations of the authors published in all the professional journals under analysis ($N = 108$) and the authors writing policy and research reports for IOs ($N = 59$). We define status as the social standing of an actor based on commonly agreed norms. Since professions in general and professional publication outlets, in particular, are hierarchical social fields (Fourcade 2009; Fourcade et al. 2015) we also ranked these authors in terms of their professional ranking. Specifically, we assigned the highest value (3) to authors who were senior management in public or private non-academic institutions, senior professors in elite academic institutions, or partners in law firms. We then assigned the lowest value (1) to authors occupying entry-level positions in public or private non-academic institutions, to lecturers in non-elite academic institutions, or ‘simple’ lawyers in law firms. We gave an intermediate status rank (2) to authors with professional positions that sat in the middle of these two extremes.

The results are presented in the spider chart above (Figure 1) that matches affiliations and status positions. Its shows that the shadow banking debate brings together experts whose professional expertise is concentrated in elite academic circles, mid-ranking IO staff and law firm attorneys, as well as those with low-ranking positions in domestic public sector institutions, private financial firms and central banks. The authors published in economics journals are typically professors in leading economics departments who could engage in ‘epistemic arbitrage’ by exploiting opportunities between bodies of professional knowledge produced between different professional fields (Seabrooke 2014). They did so via professional connections to central banks, private financial firms and domestic policy institutions (career information on the FSB is not available as reports are not signed). The average contributor to the shadow banking debate hosted by law journals is a middle-to-low rank person in academia or a law firm, with minor experience in non-financial private sector and domestic public policy positions.

Positioning strategies and policy influence

To map out possible intellectual alliances and the policy relevance of the authors, we conducted a citation analysis that traced citations deemed relevant by the international shadow banking regulation ‘triad’ under analysis. Then, we processed the CVs of the cited authors to identify their affiliations at the time they authored the research for which they were cited in the reports. Our readings of official IO reports came up with 182 names between 2009 and 2014. We then used network analysis to map the epistemic linkages that they developed with the regulatory triad. The sources cited by all three IOs are the most influential (we call them ‘senior brokers’), while those that are shared only by two are lower on the scale of epistemic status (‘junior brokers’).

The findings are visualized in Figure 2 and suggest that while the legal profession may be prominent in domestic regulatory debates, or in informally shaping global financial regulation, it has little relevance for how shadow banking is treated as an issue among IO staff. The key story here is that the BIS, FSB, and IMF all draw on their own staff and on Fed research (the most central node) as the chief source of expertise, with selective input from academic economists.

In line with conventional thinking, the high prestige academic names in this debate come from elite US universities. But contrary to the conventional view that economists matter for high-level policy circles via their

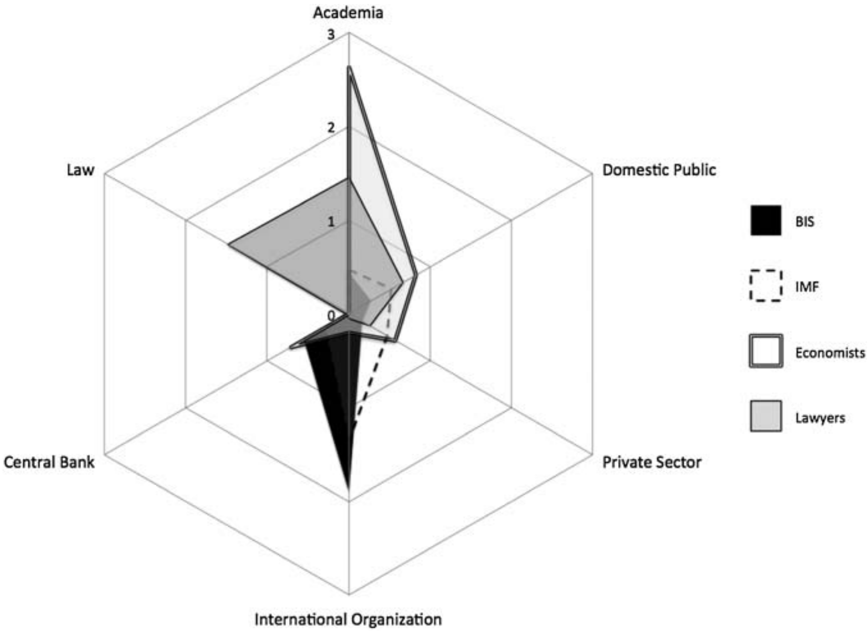

Figure 1 Career experience and professional status among shadow banking experts.

high status in the world of economics departments and journals, we found that the most cited academics are business school professors who are cited for papers showcased by think-tanks (e.g. Brookings Institute) or their own university (e.g. Chicago Booth). All of these academic authors have used the revolving doors between academia and sites of (mainly American) policy power. This suggests that IO staff care less about the academic prestige of a publication or affiliation to an economics department than the conventional accounts would lead us to believe. We also speculate that this may be due to different professional incentives. For faculty based in economics departments the rewards come from publishing highly formalized research in top journals without specific regard to pressing policy issues. It is simply self-defeating for these academics to undermine their own professional standing by doing work that would appeal to IOs. In contrast, the professional incentives and culture of business schools stresses applied research relevant to the ongoing policy agenda. This research might not make it in the top economics journals, but it would attract the attention of domestic and international policymakers.

While global economic governance has become more multipolar and less US-centric (Gallagher 2014), this is less true when it comes to leading expertise on shadow banking regulation. Indeed, all the institutions that supply senior broker knowledge are US-based, with the Fed economists

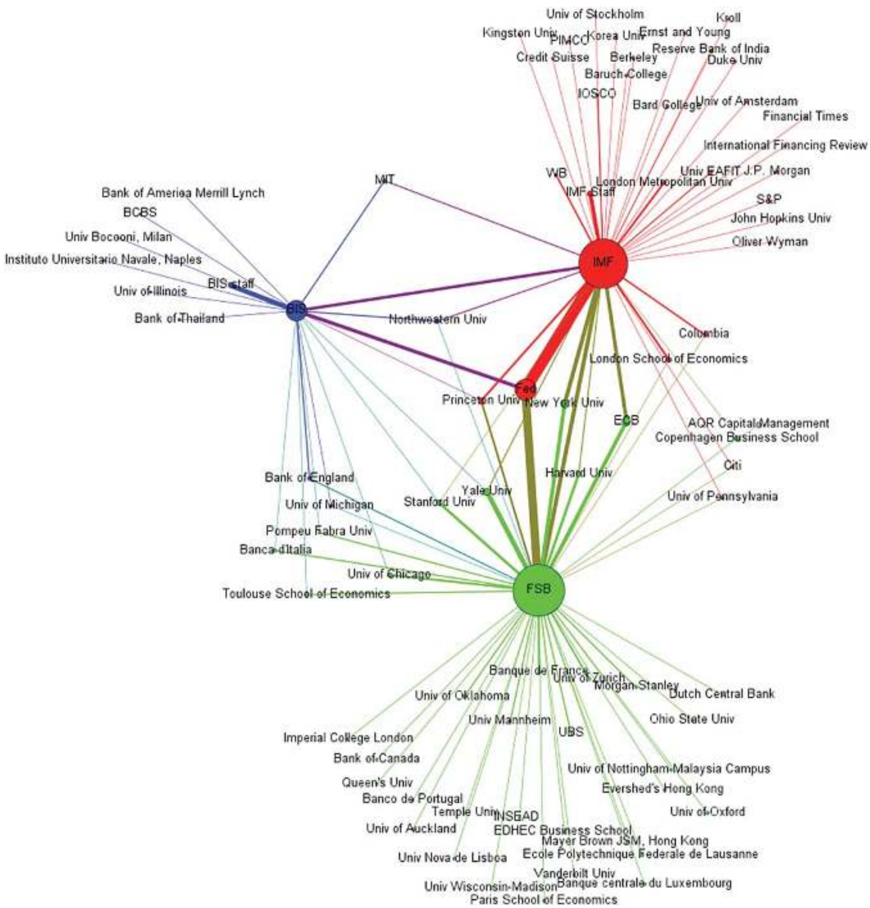

Figure 2 Citation network for BIS, IMF, and FSB, by institutional affiliation at the time of authorship.

playing the leading role, followed by top economics departments (Yale, Princeton, Northwestern). The IMF relies on Fed-originated shadow banking research almost as much as it does on its own staff. In contrast, even though IMF data suggests the Eurozone has had a growing shadow banking sector (IMF 2014), the central bank of the Eurozone is only a junior broker in our citation network.

Even as Anglo-American academic institutions have become increasingly international in their hiring patterns and graduate profiles and even if they play second fiddle to internal IO expertise, research by their faculty dominates the academic supplier pool for the FSB and IMF. Yet the dominance of Anglo-American academia appears weaker if we look at the sources shared by BIS and FSB. Here, University of Chicago and

Table 2 Affiliation at time of publication of shadow banking expertise brokers

Name	Affiliation	Cited by
Hyun Song Shin	Princeton	BIS, FSB, IMF
Zoltan Pozsar	New York Fed	BIS, FSB, IMF
Tobias Adrian	New York Fed	BIS, FSB, IMF
Adam Ashcraft	New York Fed	BIS, FSB, IMF
Hayley Boesky	New York Fed	BIS, FSB, IMF
Antoine Martin	New York Fed	BIS, FSB
Adam Copeland	New York Fed	BIS, FSB
Dmitry Orlov	Stanford University	BIS, FSB
Stefan Nagel	University of Michigan	BIS, FSB
Jeremy Stein	Harvard University	BIS, FSB
Claudio Borio	Bank of International Settlements	BIS, IMF
Nikola Tarashev	Bank of International Settlements	BIS, IMF
Ricardo J. Caballero	MIT	BIS, IMF
Charles Calomiris	Columbia; IMF; Shadow Open Market Committee	BIS, IMF
Charles Goodhart	London School of Economics	FSB, IMF
Darrell Duffie	Stanford University	FSB, IMF
Manmohan Singh	International Monetary Fund	FSB, IMF
Viral V. Acharya	NYU	FSB, IMF
Gary Gorton	Yale	FSB, IMF
Andrew Metrick	Yale	FSB, IMF
Lasse Heje Pedersen	NYU; Copenhagen Business School; AQR Capital Management	FSB, IMF
Angela Maddaloni	ECB	FSB, IMF
T. Sabri Öncü	NYU	FSB, IMF

Bank of England experts are joined by those employed by continental institutions such as the Italian central bank, Spain's Pompeu Fabra University, and France's Toulouse School of Economics. Outside of the narrow and elite pool of brokers, the range of institutions cited by a single IO is more diverse in terms of status and type, with Berkeley academics sharing the stage with J.P. Morgan, alongside a navy institute from Sicily.

If academic economists are not important players in the overall network, they are selectively important for IOs. Table 2 shows economists cited at least by two of the following: BIS, FSB, and the IMF. The data strongly suggests that academic economists from Columbia, Harvard, MIT, NYU, Princeton, Stanford, and Yale play prime knowledge broker functions. The other senior brokers are from the Fed, IMF, and the BIS.

The IOs tasked to produce policy templates for shadow banking regulation have drawn predominantly on their own expertise to define what is to be done about this critical pillar of global finance. While the crème de la crème of academic economics remained relevant at the center of this network of influence (albeit not in the broader network), legal scholarship has been almost completely ignored in these IOs. The next section maps out the content of policy ideas about shadow banking regulation circulating in high-prestige economics and law journals.

ECONOMISTS AND LAWYERS IN THE SHADOW BANKING DEBATE

Economists' expertise on shadow banking

The most visible shadow banking expertise published in elite journals is American in origin and largely reformist in content. There are, however, important variation patterns. US-based academic *and* policy economists authored the most cited journal articles but New York Fed economists are by far the most prominent. Rather than the kind of math-heavy modeling exercises that make one respectable in most specializations in economics (Fourcade 2009), this flagship research is largely descriptive micro-oriented accounts. As one of the pillars of the shadow banking literature confesses, the aim of these interventions was not so much to show case mathematical prowess, but 'to put shadow banking on the radar of economists, policy makers and market participants' – mapping the system and identifying 'credit, maturity and liquidity transformation by non-banks without access to official liquidity and credit puts' (Pozsar 2015: 2).

Among this crème de la crème of economists cautious reformism shares the room with radical interventionism. The most cited paper in the literature is a Fed staff report that resulted from the cooperation between three Fed economists and a Bank of America expert (Pozsar et al. 2010). The paper comes closest to interventionist radicalism when it effectively demands applying the same regulatory regime to shadow banks and conventional banks as the best way to limit regulatory arbitrage.

Similarly interesting is the case of a celebrated paper authored by two Yale School of Management professors deeply embedded in the Fed and systemic central banks or in the U.S. President's Council of Economic Advisors (Gorton and Metrick 2010). The authors see key pillars of shadow banking (money market mutual funds or MMMFs, securitization, and repos) as the main drivers of the Lehman crisis overlooked in the Dodd-Frank Act. They deplore this situation and lash out at pure private sector solutions to ensure the stability of the banking sector. Their solutions border on interventionism when they demand the enforcement, by a new regulatory authority, of strict standards for collateral and minimum haircuts for repos, while treating MMMFs as conservative investment funds or as publicly protected 'narrow' conventional banks. Against the grain of the conventional objection that shadow bankers are too Schumpeterian to be regulated, Gorton and Metrick respond briskly: 'If today's regulators are found not to be up to the task, they should be better trained and better paid. If instead the task is simply impossible, then either we are destined to have more crises, or we will be forced to live with greatly constrained financial systems' (2010: 289).

Such radical interventionism born from the early stages of the crisis is largely isolated and shares the stage with a relatively cautious reformism centered around macroprudential regulation (see Baker 2013). A Fed-BIS paper on securitization (Adrian and Shin 2010) simply upholds the FSB's reforms, while a paper authored by a Harvard-Chicago team of business school professors tied to the Fed-Treasury-White House policy complex further narrows down the regulatory imagination by opposing the imposition of similar macroprudential regulations on a given type of credit exposure, irrespective of whether it is held by conventional or by shadow banks (Hanson et al. 2010). They argue than any broad-based regulation should be limited to haircuts and ABSs.

Finally, the influential Squam Lake report authored by fifteen high-status economists, whose credibility is underlined by a long history of using the revolving doors between academia and US policy circles (French et al. 2010), hesitates between moderate and strong reformism: regulation with a systemic focus (macroprudential regulation) in addition to a focus at the firm-level (microprudential regulation). Despite being some of the boldest forms of reformism in the debate, these proposals fall short of the ambitious attack against regulatory arbitrage demanded by the interventionists. In short, the crème de la crème is US-centric and divided in terms of how much public authorities should intervene. However, once we move away from the 'star' papers and look at all the economists published in the top finance economics journals the picture changes. The authors published in the top journals are overwhelmingly based in elite sectors of academia and they produce a relatively bland reformist consensus.

Authors agree on the deep pathologies of shadow banking, oppose pure private solutions and demand further regulatory interventions, albeit without going for sharp departures from the status quo (Bernal et al. 2014; Gorton and Metrick 2012; Krishnamurty et al. 2014). Some show that shadow banks create money via short-term claims collateralized by securitized loans, and that they should be incorporated in central banks' monetary policy and safety nets in exchange for reserve requirements and haircut regulation (Kashyap and Stein 2012). Others show that shadow banking is fraught with frictions that create a channel through which their risk-taking disrupts the ability of creditworthy firms to raise financing and invest (Chernenko and Sunderam 2014; Gennaioli et al. 2013; Kacperczyk and Schnabl 2013).

While some scholars saw little ideational change in the economics profession since 2008 (Mirowski and Nik-Khah 2013), in shadow banking the neoliberal voices barely fit on the stage and are not supported by high status academic institutions. Neoliberal authors are also less frequent users of revolving doors between academia and top policy institutions.

The two articles that fit this profile most closely (DeAngelo and Stulz 2014; Plantin 2014) acknowledge the risks posed by shadow banking but instead of more regulation they demand less of it. Guillaume Plantin (2014) argues that the best way to reduce conventional banks' incentives to have more shadow banking activity is cut down on 'excessive' leverage-capping capital requirements on traditional banks. His argument is anchored in a version of the classic neoliberal thesis about the regulator's impotence: bankers can bypass capital requirements because the regulator cannot measure risks more accurately than private agents or observe their transactions with MMMFs. DeAngelo and Stultz (2014) follow the same line when they show that high leverage is optimal for banks and advocate treating leverage simply as a force of nature in the market, a mere reflection of healthy competition.

Lawyers' expertise on shadow banking

In contrast to economics, neoliberal voices dominate the law journals. Support for radical interventionism comes strictly from academia, while neoliberalism is the guiding light of private lawyers and junior academics in law schools. Very few elite academics in this professional field find neoliberalism and even reformism a tempting prospect.

For neoliberal jurists, existing regulations like Dodd-Frank are repressive and, at best, doomed to be eventually ineffective against the financial innovation capabilities of shadow banking (Hill 2011; Rhee 2010; Scharfman 2011; Tarbert and Bachrach 2014). Reform proposals for the regulation of hedge funds and private equity are framed as tantamount to inhibiting economic activity across the economy (Frucht and Novak 2009). Some go as far as arguing that any regulatory oversight system will become 'an ad hoc and politically contingent system' (Coffee 2011: 796). Many see the moral problem of banking culture as a strong reason why government regulators cannot really do much to constrain shadow banking (Hill 2011; Williams and Conley 2014).

In lieu of regulation, neoliberal legal scholars emphasize soft measures such as self-propelled changes in the culture of banking via innovative soft law, the training of legal professionals, the voluntary adoption of shared leverage evaluation techniques, investor accreditation standards, and pushing some systemic risk regulation out of regulatory agencies and into the market (Frucht and Novak 2009). This last transformation can be achieved in two ways. First, the government can use corporate governance reforms as an opportunity to create a risk-averse class of voting shareholders and dilute the equity of common shareholders, who typically demand excess leverage to increase profits quickly and easily (Coffee 2011). Others propose government ex ante incentives to encourage risk management and self-monitoring, as well as the use of derivatives markets to act as insurance against shareholder liability that would more accurately reflect risks in the capital market, thus making shadow banks more risk-averse (Conti-Brown 2012). A lot of passion goes into articulating resistance against the imposition on shadow banking managers of a 'duty to manage risk', with the argument that this would give rise to market-distorting tort liability (Hurt 2013).

While a rare species among economists, interventionist radicals are the second most important school of thought in legal scholarship. The standard interventionist line is to regulate shadow banks the same way one regulates conventional banks. They argue that since shadow banks issue money-like instruments, and therefore become part and parcel of the monetary system through their money creation function, they should not be treated any differently by the regulator than commercial banks (Ricks 2012). Shadow banks should be forced into the same 'joint venture' with the government that traditional banks have and thus should be subject to 'portfolio requirements and capital requirements, and… pay risk-based fees to the monetary authority' (Ricks 2012: 746–47).

Other legal scholars go further, crossing into forms of strong interventionism no one in economics dares to advance. Some propose that in addition to enhanced disclosures (of indicators of long-term value, risk, losses), regulators should simply prohibit speculative derivatives transactions made by shadow banks or limit them only to standardized derivatives (Dallas 2011). Other strong interventionists focus on agency reform and plead for a 'big bang' democratization of the regulatory infrastructure as the only answer to agency capture (Levitin 2013; Omarova 2011). These authors argue that the capture of technocratic regulatory agencies by vested interests mattered more as a structural cause of the crisis than deregulation or technical flaws in supervision. Their solution lies either in the establishment of new, democratically accountable agencies, the creation of a more independent, technocratic, and politically insulated agency system, or leveraging interest group pressure to counteract political pressure (Levitin 2013).

In between the dominant but low-status neoliberal field and the small but high-status interventionist one stand the reformists. A great deal of the reformist conversation of the weak variety takes places around enhanced disclosure and improving executive compensation schemes (Jackson 2012). The bulk of reformist thinking ventures beyond these modest proposals. Some authors demand the encouragement of simple innovations and the discouragement of complex ones (Judge 2012), stress tests for bank holding companies performed every six months (Wall 2011), the inclusion of systemic risk-magnifying activities such as hedging transactions (and CDSs in particular) in regulatory oversight (Fletcher 2014), and the restructuring of compensation schemes to align incentives not only with diminished systemic risk, but also with long-term investment strategies and creditor protection (Schwarcz 2012; Squire 2010). Others still demand an end to the vague terms by which shadow banking or systemic risk are defined in the existing laws and demand the involvement of the judiciary in the receivership process of financial institutions (Horton 2011).

A handful of reformists border on interventionism when they demand the closing of regulatory arbitrage opportunities by regulating shadow banks more tightly (Schwarcz 2012), including by extending the Basel III reserve requirements to them (E. Lee 2014) and the tighter regulation of securitization technologies so that they stop being 'arbitrage delivery vehicles' (Borod 2011). These arguments are all critiques of the regulatory status quo and if adopted they would constrain shadow banking more than the Dodd-Frank-FSB frameworks do. However, they represent changes that do not challenge the regulatory imperative of the existing frameworks: regulate shadow banking more lightly than conventional banking.

In short, shadow banking scholarship published in the top law journals brings to the surface a world dominated by neoliberal ideas upheld by a mix of professionals working for the financial sector and junior legal academics. Contrary to popular narratives about elite law schools as breeding grounds for vested interests and privilege, our evidence suggests that the law school mandarinate supply some of the most radical interventionist ideas available in this entire debate. But what positioning strategies have these authors used and how much did this scholarly work actually matter for IOs?

Positioning strategies and issue control

To understand how economists and lawyers positioned themselves in the debate we did a comparative analysis of the professional experiences and professional status of the identified 108 economists and lawyers writing on shadow banking in scholarly journals. Our coding strategy was to organize their professional experiences published in CVs into six fields:

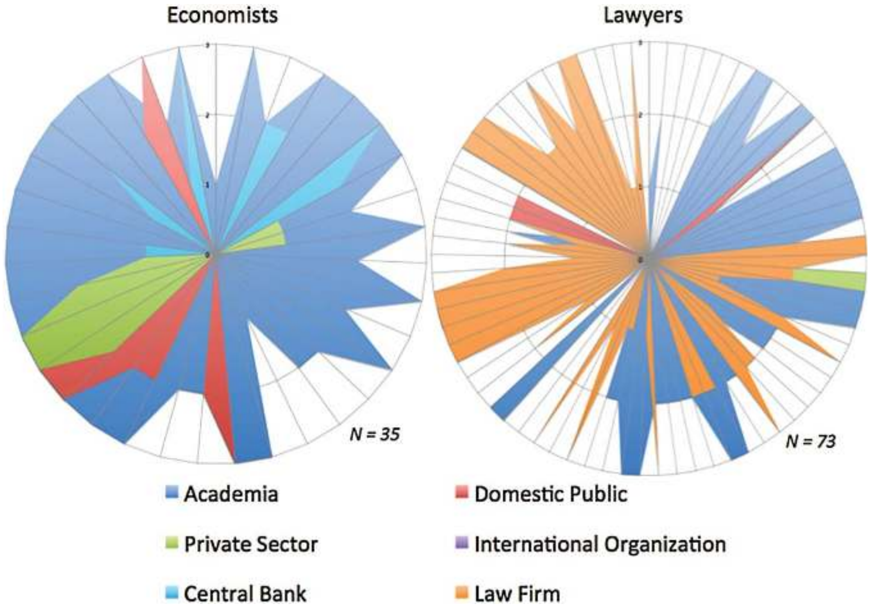

Figure 3 Professional experience and status in article journals on shadow banking.

academia, domestic public sector, central banks, IOs, private financial firms, and law firms.

The charts (in Figure 3) capture the results of the combined data on professional experience and status. Each wedge is an individual career. A large number of professionals had at least two kinds of professional experiences in both categories of journals.

The evidence suggests a massive imbalance between the two professional groups. Critically, lawyers seemed keener to work on shadow banking as an issue. More than twice as many lawyers entered the debate than economists. While almost half of the cited references in the law journals are from economics, the economists published in the top economics journals ignore the debates on shadow banking taking place in the law journals (on similar dynamics in economics, see Fourcade et al. 2015). IO economists also remain oblivious to lawyers' research, a clear metric of this professional group's weak impact on the debate.

The network visualization in Figure 4 shows that economists published in the top journals plug into references connected almost exclusively to high-status US economic departments (Chicago, Yale, UPENN, Stanford, MIT). While economists take the Fed research seriously, the work produced by the BIS and the IMF is marginal while the FSB's work is completely ignored. If academic economists matter at all for global

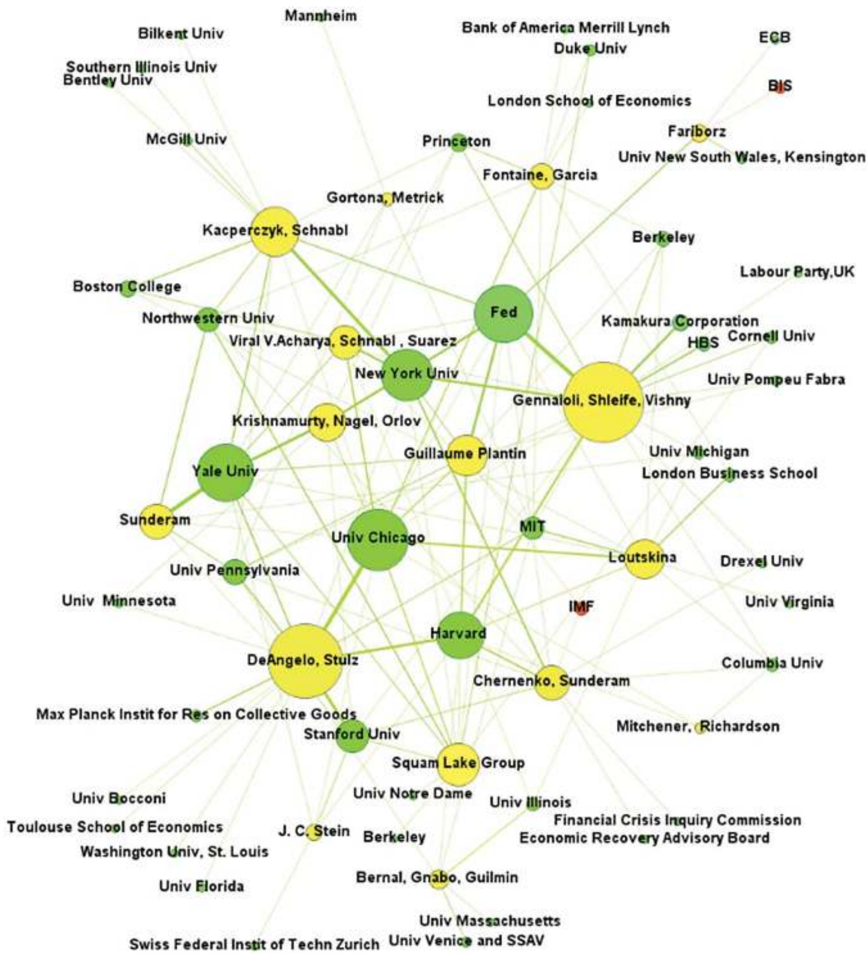

Figure 4 Top economics journal authors and their cited allies.

shadow banking regulation, they do not matter via their high prestige publications.

PROFESSIONAL EXPERTISE AND THE TECHNOCRACY OF GLOBAL SHADOW BANKING REGULATION

Measurement: the FSB's constitutionalized reformism

Of the three IOs, the FSB is the newest, most informal and most important institution in the shadow banking regulation regime (Helleiner 2010). Born from the scramble of the G-20 to monitor, advise, and coordinate regulatory efforts in the aftermath of the Lehman crisis, the FSB emerged as the main site of expert deliberations about the future design of the global financial system. In the words of Treasury Secretary Tim Geithner, it stood to become 'a fourth pillar' of the global economic governance architecture (Griffith-Jones et al. 2010; Wouters and Odermatt 2011; see Helleiner 2012 for a skeptical take).

Soon after its establishment, the FSB was tasked to put together the first international policy response to shadow banking-specific issues. The FSB publishes *Policy Framework* and *Global Monitoring* reports focused on shadow banking (see FSB 2013a, 2013b, 2013c, 2013d; 2014 for overviews). It also created specialized working groups and institutional partnerships with central banks and other IOs. By 2015 the FSB shadow banking monitoring processes covered 90% of banking assets and 80% of global GDP. Systemically important central banks and the IMF conduct their own assessments of the shadow banking system using the FSB's annual monitoring reports. Indeed, the FSB's definitions of shadow banking and its perspective on the sector's strengths and weaknesses have become part of the canon (see FSB 2014 for an overview).

A close reading of these regular reports from the 2011–2014 period shows that they cover the entire reformist side of the spectrum. In terms of the sources cited by FSB economists (see Figure 2 above), there is extensive reliance on the Fed and the IMF expertise followed, by some way, the ECB and elite economics departments. A very diverse set of institutions, from the high-prestige French central bank to an obscure Portuguese university make up the universe of the less systematically cited sources.

On the weakly reformist end of this spectrum, the FSB has advocated for a system-wide monitoring system designed to track down the build-up of systemic risks and to ignite corrective action when needed. As a result, the FSB has morphed into the main initiator and coordinator of policy measures aiming to reduce the build-up of systemic leverage, maturity, and liquidity mismatching. Specifically, the FSB integrated the wider calls made by most scholars that systemic risks endogenous to shadow banking activities deserve monitoring. Its regional consultative groups implemented this objective by conducting annual monitoring exercises and publishing results that name and shame laggards. Similarly, the FSB cooperated with the private sector and central banks to collect global data on securities financing transactions. A FSB-IOSCO partnership resulted in the implementation of guidelines on how to make securitization processes simpler and more transparent. As a result, this IO has also become the world's largest data collection and aggregation machine on shadow banking issues. The FSB is a technocratic expert-based institution that is also backed by state power (Reisenbichler 2015).

On the strongly reformist end of the spectrum, the FSB went further than Dodd-Frank in constraining shadow banking by proposing financial soft law that targets specific activities and entities with high systemic risk. This is reflected in the FSB's assembly of five shadow banking working groups, with three working on shadow banking entities and two on activities. It also asked the Basel Committee on Banking Supervision (BCBS) to draft policies meant to stem the spill-over of risks from the shadow banking system to conventional banks (the so-called 'interconnectedness' problem). But although off-balance sheet interactions between conventional banks and shadow banks have powered the Lehman crisis, the BCBS has failed to offer guidelines for prudential regulation applicable to these interactions, such as instruments to limit the size and nature of a bank's exposures to shadow banking entities, or risk-based capital requirements for banks' exposures. In contrast, the FSB-IOSCO partnership has been more successful at diffusing clear standards (subsequently adopted by US and EU authorities) on regulation and management of MMMFs across national jurisdictions. Similarly, by 2014 the FSB adopted numerical and qualitative standards to cut and calculate haircuts on collateral used in the repo market. The measure was designed to limit the build-up of excessive leverage in non-banks and reduce the procyclicality of that leverage.

The FSB's thinking and actions generally reflect the solid reformism of mainstream economics, albeit without any of the interventionist temptations one could find among some of the senior brokers coming from what we have identified as the crème de la crème. FSB staff have controlled agenda setting discussions by 'firewalling' definitions of what shadow banking is and then focusing on *measurements* used in policy to control how shadow banking is assessed. Debates on how to define and measure shadow banking inevitably flow back to the FBS staff.

Mandate: the IMF's balancing of intervention and reformism

Although the Fund published working papers on shadow banking (Claessens et al. 2012; Singh and Aitken 2010), it was not until its 2014 *Global Fiscal Stability Report* that the IMF took an official and public position on what is to be done about shadow banking (IMF 2014, chapter 2). The network analysis presented in Figure 2 (above) shows that the Fund's position relies for economic expertise on its own staff, the FSB and the Fed, with academic and private sector institutions taking a backseat. Eight out of the twelve economists cited in the sections of the report that have policy implications are IMF staff, most of them from the IMF's Research Department. The others are two NYU economists and two lawyers from a prominent New York law firm (Clearly Gootlieb Steen

Hamilton LLP) that services some of the largest banks and non-financial firms in a dozen countries. The presence of lawyers from global law firms on the IMF's lineup of advocates of interventionism is intriguing considering the otherwise marginal role of scholarly legal research.

On content, the Fund has tried to shadow the FSB's initiatives but it has also gone further in the direction of interventionist policy advice, an outcome one may attribute to the different expert network the Fund relies on. As such, the IMF has begun to push the FSB from the 'left' corner of the debate. Specifically, like the other two IOs analyzed here, the Fund has not been ready to treat shadow banking as a villain, as the radical interventionist would have it, or to lionize it to the point of letting its problems be solved privately, as orthodox neoliberals suggest.

Some of the IMF thinking on this issue is illustrative of mild reformism: greater transparency, international coordination on risk monitoring. But unlike the other two IOs involved, the IMF economists have been very explicit about their strong reformism and often venture into interventionist thinking. The 2014 GFSR openly states that two of the main objectives of regulation should be to shrink the size of shadow banking and curtail opportunities for regulatory arbitrage in exchange for the provision of public safety nets. Bolder still, Fund economists make it clear that any forms of shadow banking growth linked to regulatory arbitrage should be effectively repressed using the same regulatory tools applied to conventional banks, such as restrictions on leverage, maturity, or liquidity transformation. The boldest interventionist statement is that 'the lack of a safety net means that, for a given contribution to systemic risk, more conservative regulatory measures are needed for shadow banks than for banks' (IMF 2014). Such measures concern not only reserve requirements, but also the curtailment of the scope for regulatory arbitrage via the extension of monitoring from entities to shadow banking functions. Such monitoring would require the establishment of a public authority that could make decisions regarding the use of collateral (IMF 2014: 24).

The Fund's main entry point in the debate is its invocation of the IMF's global mandate regarding the nexus between fiscal and financial issues, including training and technical assistance. Its economists suggest that the strictness of regulations should increase with the level of leverage and warn that treasuries should not become mere appendices of shadow banks by accepting to supply the volume of safe assets that shadow banks demand (see Gabor in this issue). Instead, regulators should impose restrictions on new financial instruments. The Fund's experts argue against the unconditional extension of public backstops to shadow banks and make the case that such safety nets should be put in place only in exchange for collateral and governance conditions. In making such arguments they also pose as constructive critics of the FSB's milder kind of reformism. As one senior IMF staff member put it, the FSB's policy approach 'does not gauge the risks that shadow banking poses to the financial system' and 'does not measure the amount of debt used to purchase assets (often called leverage), the degree to which the system can amplify problems, or the channels through which problems move from one sector to another' (Kodres 2013: 43).

Status: BIS experts and varieties of reformism

Known as the 'bank of central banks' the Bank of International Settlements is a critical node in the governance of the global financial sector. Since the Lehman crisis the BIS has emerged as one of the main suppliers of knowledge and policy templates regarding the challenges posed by shadow banking.

Unlike the FSB, the opinions of the BIS are richly footnoted and referenced, thus enabling the examination of its networks of insider and outsider experts. We looked at 89 authors and their 12 co-authors and mapped their connections. The findings suggest that the BIS also relies on its own experts to deal with shadow banking issues, with a few co-authors based in universities, think tanks, and central banks. Most of the authors are BIS staff, with the bulk of research coming from the institution's own monetary policy, statistics and research departments (in this order). Unlike in the case of the more elitist IMF, the academic co-authors of BIS staff come from prominent (Cass, Berkeley, Peterson Institute) as well as less prominent institutions (Keynes College, Hanken School of Economics, Helsinki).

A closer look suggests that the BIS intervenes in the shadow banking debate by asserting its high status as the greatest depository of experience-based policy expertise. When we unpack the career sequences of the economists responsible for taking a stand on shadow banking issues we found that almost a third of the BIS staff involved in the debate were experts who have gone through the revolving door between at least two of the following social domains before their BIS appointment: academia, domestic public sector institutions, public IOs, and the private financial sector. For example, BIS's head of the Monetary and Economic Policy Department (Claudio Borio) was also a professor at Oxford and a senior economist at the OECD. Jaime Caruana served as governor of the Bank of Spain, advisor to the IMF's managing director and head of Money and Capital Markets Department at the same institution, all after having spent 10 years in private finance. One of the most prolific experts is Adrian van Rixtel, a senior economist at BIS who has experience as a researcher for the central banks of Spain, Japan, and the Netherlands, a professor at the prestigious European business school Instituto Empresa and a research economist for a number of London and Amsterdam-based private financial institutions.

Many BIS staffers have private sector experience, mostly in financial consulting, the economics and research departments of global banks (Deutsche, Citi, Santander), and credit card companies. An even larger percentage went through the revolving door between the BIS and the international civil service track offered by international development banks (World Bank, EBRD, IADB), international think tanks (OECD, Woodrow Wilson) and the IMF. A similar percentage had academic appointments in economics departments and business schools with mixed levels of status (ranging from the University of New South Wales, Bonn, Zagreb up to Chicago School of Business, Princeton, the Wharton School, Oxford, Warwick, and Instituto Empresa Madrid). The majority of BIS staff writing on shadow banking come from national central banks and ministries of finance, with a smattering of national financial regulatory commissions and heads of state economic councils in the background. Compared to IMF staffers BIS authors have careers that are less dedicated to the institution.

Intellectually, the BIS is a solidly reformist institution, but unlike the IMF, it hesitates to come anywhere near interventionism. While it is not always addressed explicitly, the overall approach of BIS, and more specifically, the BCBS, toward shadow banking is to target and correct for market failures that occur in the complex linkages between non-bank financial institutions and the traditional banking system. Since 2008, several members of the BIS management spoke publicly about the regulation of shadow banks via the traditional banking channel (Basel III) and the supervision of the overall financial system.

The overall tone in initial speeches on shadow banking was one of cautious reformism. In 2012, General Manager Jaime Caruana suggested merely monitoring of the evolution of shadow banking and, where called for, considering regulation of the shadow banking system in areas where systemic risk and regulatory arbitrage appear. But by 2014 Caruana took a more aggressive stance, praising initiatives to set minimum haircuts for certain securities lending transactions and reduce the risks associated with money market funds. The toughening of the stance of others in the BIS management (Stefan Walter, Secretary General of the BCBS, and Stephan Cecchetti, former Economic Advisor and Head of the Monetary and Economic Department) is evident in their advocacy for integrating regulatory policy recommendations on shadow banking directly in the context of the Basel standards. The BIS research staff fleshed out these positions further. This happened particularly after 2014, when the BIS research department was packed with heavyweights from academia who had cut their teeth in academic debates on shadow banking regulation during the previous five years. Of these the most notable new hire was Hyun Song Shin as its Economics Advisor and Head of Research, former Professor at Princeton, member of the Federal Reserve of New York, among other high prestige positions, and a highly cited author on shadow banking. The BIS relies heavily on its own staff on shadow banking and brought in high prestige economists to boost its capacity. Its lack of reformist zeal may be, in part, a function of its status.

CONCLUSIONS

Using a mix of network analysis, content, and career analysis we have provided an assessment of the 'grey matter' in shadow banking expertise. Three main sets of findings stand out. First, instead of stasis, the crisis ignited an extensive recalibration of pre-crisis policy knowledge and ideas about how to regulate finance. Overall, the direction of this recalibration has been towards an uneasy reformism that straddles the post-Lehman appetite for interventionism and the pro-market orthodoxy so familiar to the pre-Lehman world. That said, in professional fields as diverse as the IMF and select academic circles we have identified relatively few interventionist calls for very restrictive regulation, with most made by prominent American legal scholars. Future comparative research could establish if reformist ideas are more likely to have weight on new issues that are not covered in mainstream economics before the crisis.

Second, there is overwhelming evidence that the thinking of the emerging global regulatory regime on this issue is shaped most extensively by IO staff that sit at the core. With the exception of the Fed, all other actors (academic economists, legal scholars, private sector experts) have been allowed to join the debate on a very selective basis.

Given the highly legalistic character of shadow banking actors and activities, we expected lawyers to have influence in these debates. They do not. Similarly, scholars who assume a smooth flow of ideas between elite economics departments and IOs would be puzzled by our findings. Rather than relying on academic economists' ideas, IO staff used them selectively to boost their own claims to expertise (see also Lindvall 2009). Surprisingly, the argument that academic status in economics translates into policy relevance seems overblown, at least in the case of shadow banking.

Moreover, the academic economists that had potential influence on IO staff came from business schools not economics departments and their role as knowledge brokers between IOs is a reflection of their professional culture and incentives rather than the prestige of their employing institution. In general, the role of Fed economists dwarfed that of academic institutions and acted as the main knowledge broker among the three IOs. Working papers from IOs and think tanks are often far more important carriers of policy ideas and knowledge than top economics journals.

The finding regarding IO staff dominance does not reinforce the view that IOs can be studied in isolation, as some kind of professional silos. Rather, our findings highlight how even IO staff working on highly technical issues like shadow banking call on outside expert networks, and other IO staff, to assert the authority of their expertise on an issue. We suggest that professional fields operate as 'linked ecologies', with experts using connections between IOs, academia, think tanks, and domestic regulatory institutions to substantiate their claims to expertise. Professionals then fight over issue control, calling upon their preferred professional and organizational networks to do so. This article contributes to a growing body of work maps professional competition among transnational and supranational policy elites (Lebaron 2013; Mudge and Vauchez 2016; Seabrooke and Wigan 2016).

Third, we suggest that such an environment calls upon IO staff to then differentiate themselves from their peers and adopt different strategies. We have described how the IO staff studied used *measurement*, *mandate*, and *status* to treat shadow banking with greater flexibility and authority. We found that the FSB's strategy was to leverage its authority to define what shadow banking is and to measure its size and interconnectedness with conventional banking. In contrast, the IMF deployed its macroeconomic mandate to take positions on shadow banking that link financial and fiscal policy issues. Finally, the BIS used the high status awarded to of its professionals as seasoned financial sector regulators to claim jurisdiction over agenda setting in shadow banking regulation.

This article raises several questions for further research. To what extent is this largely inward-looking conversation of the BIS-IMF-FSB triad an outgrowth of previously existing expert networks and network dynamics left untouched by the financial crisis? What explains the weak influence of academic publications from economists and lawyers, given how they are held in high regard in our own academic community? What is the relationship between the production of regulatory knowledge and the role of business school as opposed to elite economics departments in universities? (see Fourcade and Khurana 2013).

Finally, this article provides some tools for investigating claims from professional groups over what are appropriate ideas and knowledge on an issue of great importance in the international political economy. We appreciate that this is a first take on understanding this complex world of expert claims on a highly technical transnational issue, but hope that in outlining the 'grey matter' in shadow banking we have shed some light.

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NOTES

1. Cited in *Financial Times*, May 28, 2015.
2. While the *American Business Law Journal* and the *Journal of Law and Economics* were also recommended, these journals contained little to no discussion of shadow banking and were excluded from our sample.
3. We caution that one should not read too much into this reformism, strong as it may be. Reformists are not ready to advocate comprehensive limitations of financial innovation and continue to uphold the presumed virtues of the global integration of finance. References to bolder calls for regulation similar to those governing commercial banks for any issuer of short-term 'money-like' claims remain rare and buried in non-committal footnotes.

NOTES ON CONTRIBUTORS

Cornel Ban is an assistant professor of political economy at Boston University's Frederick S. Pardee School for Global Studies. His research engages with the politics of macroeconomic and financial policy issues and has a strong focus on Europe and transnational expert networks.

Leonard Seabrooke is a professor in International Political Economy at the Copenhagen Business School and Chief Scientist of the ENLIGHTEN (#649456) project funded by the European Commission's Horizon 2020 Framework Program.

Sarah Freitas is a researcher at Boston University.

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