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(Article begins on next page)



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The Managers of Information:

International Organizations, Data, and Financial Stability

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1. Introduction

Four years after the 'credit crunch' burst into the consciousness of mainstream political actors, the Global Financial Crisis (GFC) remains the foremost point of reference around which policymakers across the advanced industrialized world continue to orient their activities. Given the regulatory shortcomings brought to the surface by the crisis,ⁱ debates over 'big picture' policy reforms have been at the forefront of post-crisis analyses. Opinion remains divided over the ongoing attempts to reform global financial regulation; while some analysts suggest that the post-crisis regulatory reform process has proceeded quite slowly and by way of incremental adjustments, others have argued that the basis is being laid for substantive change (cf. Moschella and Tsingou 2013; Broome et al 2012; Ferran et al 2012). Given the continuing efforts to re-draw domestic and international regulatory frameworks across the fields of banking, insurance, and securities trading, these important debates are destined to roll on for some time. But below this first-order uncertainty, it is already possible to discern significant trends in the post-crisis pattern of regulation. Here, we focus on the current moves to bolster the capacity of international organisations to monitor and 'make sense of' global financial linkages through the Data Gaps Initiative (DGI).

The DGI was launched by the International Monetary Fund (IMF) and Financial Stability Board (FSB) in 2009, and constitutes the first major post-Crisis attempt to enhance global data-collection capability. For any large bureaucratic organisation, effectively managing information so that the complexity of the social world is mediated into a series of analytically tractable issues is a key pillar of operational success. For international organizations (IOs), which are often presented with ill-defined goals in relation to issues that

(by definition) involve multi-level interactions, both the importance and difficulty of this process is significantly enhanced. And for IOs involved in global financial regulation, faced with an object that has historically remained in the shadows but whose capacity to ferment instability was all too plainly demonstrated through 2007-08, functioning as effective managers of information is a goal of the utmost importance. The Data Gaps Initiative represents an ambitious attempt to extend IMF surveillance to cover private financial flows and a range of indicators of financial sector stability. While the basis for significant improvements in data-gathering are being laid through the Initiative, the relative lack of focus on analytic capacity remains a significant weakness. Owing to this balance of successes and shortcomings, we suggest that at present the DGI represents a 'job half done'. The DGI framework was approved jointly by the IMF and FSB; however, as the Fund has primary responsibility for translating its agenda into operational reality, the chapter focuses in the main on this institution.

In presenting our analysis, the chapter develops through the following structure. In the second section we present a brief review of the existing literature on data collection in global governance, which provides useful conceptual guidance around which we frame our analysis. In the third section we outline the context in which the DGI emerged. The roots of the Fund's role as a data-collection hub run deep into the organisation's history, and we see in recent decades that financial crises have been followed by 'data rushes' within the institution. We then in the fourth section review the main features of the DGI, and also evaluate the capacity of the IMF to maximise the effectiveness of the Initiative. While significant achievements have been made, limitations of analytic capacity in relation to the spillover effects of financial sector disruptions continue to limit the prospects for the DGI. In the concluding section, we summarize the main findings and review the wider implications that follow from our analysis in relation to the themes set out in the Introduction to this volume.

In common with the conclusion reached by additional contributors to this volume in their analyses of other areas of global financial regulation, we find that post-Crisis reforms to data collection networks are serving to increase the complexity of transnational governance structures. This dynamic is in significant part driven by the prevalent belief that market stability is achievable through the timely provision of

comprehensive flows of information. With policymakers continuing to exhibit a preference for adaptation (the making of minor modifications to existing practices and the layering of new tasks in to existing programmes) in this area, the drive toward increasing complexity will remain the dominant pattern in post-Crisis reforms to financial sector surveillance. Indeed, it should be acknowledged that the dynamics surrounding the Data Gaps Initiative examined in this chapter represent but one component of this dynamic. On the one hand, important differences in domestic regulatory frameworks continue to inform competing surveillance practices; on the other, private actors will continue to rely on a wide arrange of fast moving market and non-market signals when taking decisions. The DGI represents an important post-Crisis attempt to bring order to this picture of complexity.

The dynamics explored through this chapter coalesce closely with the focus of Andrew Baker's contribution to this volume. Where Baker examines the intellectual underpinnings of what he terms the Macroprudential Project, the Data Gaps Initiative is itself in part a product of the growing consensus in global and national arenas that regulatory frameworks need to be extended beyond providing oversight of individual financial institutions, to encompass a focus on smoothing out systemic tendencies towards rapid growth and reversals. And in parallel to Baker's finding that the rise of macroprudentialism on policymaking agendas has been driven by technocratic expertise rather than overt political contestation, our analysis demonstrates that relatively low-key incrementalism has remained the order of the day in relation to data collection. Given the lack of clarity regarding how to conceptualise or measure relevant systemic tendencies, historically established trajectories residing within existing data-collection networks continue to determine patterns of evolution in this regard.

2. Data in the World of International Organisations

Information matters in the world of international organizations (IOs), and it is now widely agreed that a key driver of member states' decisions to delegate functions to an IO is the prospect of gaining additional information on a given policy issue at a low marginal cost. And while the existing literature remains

somewhat disjointed, when viewed holistically it can be seen that this core activity is comprised of two closely linked components. In order to maximise their success, IOs must accomplish two tasks: they must institute effective data collection networks; and they must develop their analytic capacity so that meaningful interpretations of the resulting data can be provided, and decisions over necessary reforms to the data-collection network be effectively taken. The difficulties associated with the effective achievement of either of these technocratic and analytic components should not be underestimated, but in the field of global financial supervision it is vital that significant advances are achieved along both pathways in as short a timescale as is possible.

A range of studies have suggested that, in making the decision to sign-up to participate in formal international organisations, the benefits flowing from the receipt of comprehensive, policy-relevant information from an IO's highly specialised staff is a primary factor of consideration for state actors (e.g. Abbott and Snidal 1998 ; Goldstein et al. 2000 ; Hawkins et al. 2006 ; Koremenos, Lipson, and Snidal 2001). In the words of Mark Pollack (2006, 170): 'the empirical world is inherently uncertain, and legislators face constant demands for policy-relevant information about the state of the world'. Given the high costs associated with unilaterally establishing data-collection networks with which to reduce uncertainty to a manageable level, this feature of international politics creates an important role for international organisations (Thompson 2006, 230). By maintaining regular communication with national health agencies to provide early warning on the development of global pandemics, as is done by the World Health Organisation, or providing privileged access to information on economic developments in member states, as is done by the International Monetary Fund, IOs can provide substantial efficiency gains in relation to data collection.

There are, however, at least three common challenges confronting IOs in their efforts to establish efficient data-collection networks. First, low data-collection capabilities on the part of national authorities can significantly inhibit IOs' abilities to collate standardised data across multiple national spaces. This issue is particularly prevalent in developing countries (Denk and Weber 2011, 3), and indeed building the statistical capacity of domestic agencies is now seen as a central pillar in achieving sustainable development

(UN 2002). And while advanced industrialised states have more robust systems in place, limitations of institutional capacity can still serve to frustrate the efforts of policymakers and leading officials to implement purposive change (Vanoli 2005). Second, member states can be reluctant to release certain types of data to international organisations. This reluctance appears most commonly when issues of national security are perceived to be at stake (Gupta et al 2000), but many governments have also displayed a strong propensity towards keeping data relating to particular aspects economic performance in the shadows (Martin 2006). Third, in situations where competing national templates for managing a policy problem have developed, international institutions can struggle to encourage members to collate internationally-comparable data. While, for example, governments of advanced-and emerging-market economies routinely collate 'unemployment' figures, the lack of a commonly-held definition renders the analysis of global trends a problematic exercise (World Bank 2012). Given the close relationship between data collection processes and national regulatory frameworks, this source of conflict can prove to be very difficult to resolve (Sunder 2002). As is demonstrated below, each of these issues is apposite to the case of the IMF-FSB Data Gaps Initiative. And although these intersections between IOs and data collection are significant and a valuable focus of analysis, an additional dimension exists that it is also important to explore.

Following the seminal contribution of Barnett and Finnemore (2004), a line of scholarship has emerged that aims to explore the processes through which the 'intellectual lives' of international organisations shape global politics. Within this literature a particular focus is placed on the mechanisms through which IOs use their positions of authority to establish operational templates that become the 'common sense' understanding of a given issue (e.g. Broome and Seabrooke 2012; Clegg 2010; Moschella 2012). Through a combination of formal guidelines setting out the range of permissible action in a given field, and more informally-held understandings of what constitutes the most effective means of achieving policy ends, arenas of global economic governance exert a subtle yet potent form of influence. Owing to the complexity of the institutional structures involved, these ideational frameworks tend to evolve in an incremental fashion (cf. Clegg 2012a; Clegg 2012b ; Moschella 2012; Vetterlein 2007 ; Nielson, Tierney, and

Weaver 2006). In the realm of financial surveillance, widely shared beliefs about the causes of crises can be also seen to contribute to this tendency.

Within the dominant paradigm of global economic management, instability in financial markets has in recent decades been by and large treated as a result of 'uncertainty' (Best 2004). Indeed, Chwieroth (2010) has demonstrated that the rise to dominance of the 'neoliberal' paradigm amongst IMF staff from the 1980s served to embed the view that, owing to actors' assumed capacity to process information efficiently, the provision of timely and accurate information would enhance stability. According to this worldview, as information shortages rather than the inherent tendencies of internationalised financial markets were the primary drivers of instability, more information rather than tighter regulation comes to be seen as the antidote to periods of disruption. These beliefs serve to establish a tendency toward a particular type of operational change in the field of financial sector supervision, which can be elucidated by drawing on the insights of Ernst and Peter Haas.

For Haas and Haas (1995: 259-63), processes of change can be characterised as being underpinned by either institutional 'learning' or 'adaptation'. Learning occurs when actors respond to a crisis by fundamentally re-examining underlying beliefs about relationships between means and ends in policy programmes. Adaptation, the more common form of response, entails layering in relatively minor changes into bureaucratic routines. The recurrence of post-crisis data rushes at the IMF suggests that processes of global financial governance retain their hard-wired tendency toward adaptation. The Data Gaps Initiative is no exception. While the swift re-configuration of the data-collection networks through which global financial surveillance is exercised has been impressive, the impact of these developments will remain limited by these foundational issues.

With their broad membership bases and established mechanisms for communicating with national agencies, international organisations are uniquely well placed to establish data-collection networks capable of generating comprehensive and comparable indicators in relation to a given global policy issue. However, rather than providing a neutral 'snapshot' of a pre-existing reality, these networks reflect the intellectual

assumptions held by their founders. In the case of the DGI, we see that the response to financial crisis by policymaking elites remains predicated on the assumption that more information will lead to smoother market adjustments. This proclivity for making incremental adjustment rather than engaging in deeper learning exercises reflects dominant neoliberal beliefs that the major cause of irrational behaviour is information shortage (see also Baker in this volume). While the significance of the incremental adjustments made should not be underplayed, this tendency toward adaptation provides a root cause of the increasing complexity of structures of transnational financial governance. With attempts to expand the scale and scope of data-collection networks continuing to outpace the Fund's institutional learning on financial sector developments, this dynamic will continue to evolve over the medium term.

3. The IMF and Financial Crises: Data to the Rescue

A central function of the IMF is to carry out surveillance at the country-, regional-, and systemic-levels in support of global financial stability. Over the course of its long history, the Fund has established considerable data-collection capabilities to facilitate its execution of these activities. After briefly reviewing the evolution of the Fund's role as data-collection hub, we reflect on the interaction between these activities and the periodic eruption of financial crises. By so doing, we contextualise the reforms that were required by the IMF-FSB Data Gaps Initiative. The recurrence of data rushes through the Fund's history demonstrates that the belief in the ability of predictable and comprehensive flows of data to smooth adjustments in global financial markets is well established at the IMF.

The IMF's Articles of Agreement are notably vague on the subject of information gathering. By joining the organisation, member states agree to furnish the organisation with 'such information as [the Fund] deem necessary for the effective discharge of [its] duties'. The Articles contain an indicative list of types of data that may be required by the Fund, which are primarily focused on the provision of timely disclosures in relation to holdings of gold and foreign exchange, and aggregate measures of national economic activity. However, with the expansion during its early decades of operation of the range of

factors that were seen by Fund staffs as contributing to balance of payments crises, there was a corresponding increase in the range of data requested from member states. In particular, the growing focus on patterns of government income and expenditure through the 1970s and 1980s served to expand the volume of data that Mission Teams and Desk Economists routinely requested from country authorities continued to expand significantly through this period.

During this time, the IMF remained something of a passive recipient of information from country authorities. In what at the time was a relatively de-centralised organisation, staff from different Area Departments followed a range of metadata protocols (lists and definitions of core indicators) when collecting information from Finance Ministries and Central Banks. Indeed, even within the same Area Department staffs' attentive focus to the particularities of a given country meant that the creation of readily comparable data tables was rarely a straightforward task (IMF 1982b: 1). Internal staff communications provide a window into the situation as it existed in the early 1980s, with a memorandum sent from the Chief of the FAD Government Expenditure and Analysis Division to the FAD Director communicating obvious frustration over this state of affairs:

It has always seemed to me... extraordinary that area departments do not produce at least some of their country tables on a strictly intercountry comparable basis. I realise, of course, it is easier not to, but for an international institution such as the Fund comparability... is – or ought to be – one of our major strengths (IMF 1982a: 1).

Inter-departmental politics played a significant role in repositioning the IMF as a more proactive shaper of data-collection networks. Through the early 1980s the support of Jacques de Larosière, the then IMF Managing Director, for moves to routinely generate comparable data tables significantly bolstered Functional Departments' efforts to promote greater homogenisation. And in addition to these institutional dynamics, a period of rapid technological change served to catalyse this transformation.

The arrival of desktop computers in the International Monetary Fund served to focus the minds of senior figures on the issue of data collection and management. In 1982 de Larosière requested that a working group be established to explore the practicalities involved in setting up a 'readily accessible

computer-based data system', with the resolution of metadata inconsistencies appearing high on the agenda of the resulting committee (IMF 1982a: 1, IMF 1982b: 1-2). In the following years the working group's endeavours began to bear fruit, with the launch in 1984 of a Fund-wide Catalogue of Economic Time Series Data marking a particular moment of success. The Catalogue contained 12 chapters, covering income and expenditure, production and labour markets, costs and prices, government finance, financial variables, balance of payments summary, merchandise trade, invisibles, capital account liabilities, international reserves, exchange rates, and foreign investment and debt. In total, these chapters called on staff and country authorities to provide over 1,000 individual data entries. By aligning the Catalogue with its *Balance of Payments Manual* and existing *System of National Accounts* guidelines, and introducing a corresponding *Manual on Government Financial Statistics* in 1986, the Fund entrenched its capacity to define and re-define key terms and data collection techniques. Through the course of the decade, by creating a universal template for staff and country authorities to follow, the IMF was transformed from a relatively reactive recipient of information to a proactive re-fashioner of data-collection networks.

The story of data collection at the IMF through the 1990s was one of significant extension. Throughout the decade, the Fund became increasingly proactive in pushing member states to both collect and publish core macroeconomic and financial sector data. In addition, the organisation began to focus on tracking the macroeconomic impact of international financial linkages (Gola and Spadafora 2009). In part, these shifts were driven by structural changes in the global economy; with the increasing liberalisation of capital controls through the period, IMF practice was pushed to evolve in response to a changed reality. In addition to these systemic dynamics, major financial crises in Mexico and across East Asia in the mid- and late-1990s respectively served to spur these developments in the organisation's surveillance capabilities forward (Moschella 2010).

The 1994 Mexican Crisis and 1997 Asian Financial Crisis injected a sense of urgency into the Fund's data-collection expansion. For Fund staff and policymaking elites, each crisis offered a compelling illustration of the potentially dramatic international spillover effects of weak domestic financial systems. In the Mexican case, although the crisis started as a relatively contained macroeconomic crisis triggered by

growing budget deficits and rising inflation, the fragility of the domestic banking sector served to magnify the extent of domestic disruption. Events took on a transnational dimension when investors reacted by withdrawing firstly from Mexico, and then from a range of emerging-market economies as a generalised collapse in confidence took hold. Capital volatility and financial sector weakness also played a key role in the Asian Financial Crisis. Countries that through the early- and mid-1990s had received the largest share of capital inflows among developing economies experienced capital reversals of unprecedented scale. The ensuing generalised contagion spread from East Asia to Russia and Brazil, with advanced-industrialised economies also experiencing a notable impact.ⁱⁱ Both the Mexican and Asian crises involved major lending interventions from the IMF, and both sparked intense in-house reflection on the organisation's operationalisation of its surveillance role.

Following its eruption, the IMF Executive Board commissioned IMF Counsellor Alan Whittome to produce a report into the implications of the Mexican crisis for the organisation's activities. Amongst the Whittome Report's recommendations, the Board approved the suggestion that surveillance be expanded include reflections on 'the size and sustainability of capital flows', and also to report on the 'deficiencies in data quality and / or lack of timely reporting'.ⁱⁱⁱ And while staffs at this time were encouraged to adopt a proactive approach to identifying domestic impediments to effective data collection (Boughton 2012: 115), it was with the Asian Financial Crisis that more comprehensive institutional reforms occurred. In summer 1997, as the global impact of the crisis was continuing to unfold, the Executive Board began to reflect on the potential mechanisms through which greater openness and accountability in economic policymaking could help prevent the recurrence of a similar event (Boughton 2012: 126-7). Towards this end, through the late 1990s the Fund established a series of standards and codes on data collection and sharing. Amongst the plethora of schemes that were rolled out during this time, the Special Data Dissemination System (SDDS), General Data Dissemination System (GDDS), Financial Soundness Indicators initiative (FSI), and Coordinated Portfolio Investment Survey (CPIS) require particular mention.

The SDDS and GDDS were launched in 1996 and 1997 respectively, with both schemes aiming to provide useable templates to guide members through the process of collating and publishing core

macroeconomic and financial data. The SDDS was conceived for members that either had or were seeking to gain access to international financial markets, and by signing-up member states committed to providing 21 data categories covering the real, fiscal, financial, and external sectors. Significantly, within its framework the SDDS required that data on holdings of foreign reserves be made public, marking a significant break with past practices in relation to this information (IMF 2008: 22-5). It has been suggested that, by facilitating the flow of data to market actors and enhancing signatories' reputation as a responsible financial actor, participation in SDDS provides a discount of around 50 basis points on primary bond issues (Cady 2005). Following the initial success of the SDDS, a parallel scheme was introduced for lower-income members of the IMF. The main focus of the GDDS was on supporting the development of data-collection capabilities; whereas membership of SDDS entails dissemination commitments, the GDDS requires only that signatories publicise information on existing data-collection practices and identify areas of need to which the IMF (and other international organisations) can provide technical assistance (IMF 2008: 55). Currently, around 95 percent of IMF members are signed up to the GDDS and SDDS.^{iv}

Alongside the GDDS and SDDS, the Asian Financial Crisis served to catalyse developments in the Fund's efforts to identify and promote a range of Financial Soundness Indicators. Through the late 1990s IMF staff, in consultation with national regulatory agencies, began to explore methods of capturing systemic risks to members' financial sectors through the use of what were termed Macroprudential Indicators. Following a Board review in 2001 the FSI moniker was adopted, and by 2004 64 advanced- and emerging-market economies had opted in to the multilateral effort to measure the 'current financial health and soundness of the entire sector of financial institutions in a country, and of the corporate and household sectors that are the financial institutions' clients' (IMF 2006: i). The project was formalised with the launch of a *Compilation Guide for Financial Soundness Indicators* in 2004; in total, some 40 individual FSIs were included in the Fund's *Compilation Guide*, divided into 12 'core' and 28 'encouraged' FSIs (see Table 1). Core Indicators all relate to deposit-taking financial institutions, and the encouraged Indicators relate to deposit takers, other financial corporations, non-financial corporations, households, the real estate market, and financial market conditions (IMF 2007b: 1-9). The launch of the *Compilation Guide* was

accompanied by an attempt to gather FSIs from the 64 participating member states, through the Coordinated Compilation Exercise (CCE) (IMF 2007a: 6-12). While universal reporting on core data was achieved, data collection on measures relating to non-bank financial corporations, households, and market liquidity was more variable (see Figure 1). At the time that the global 'credit crunch' began to emerge, discussions were ongoing as to how best to embed the FSI process into international and national regulatory practices.

Table 1 and Figure 1 here

Beyond the FSIs, after the Asian Financial Crisis the IMF Board established a Task Force to improve the functioning of its Coordinated Portfolio Investment Survey. By taking a comprehensive audit of holdings of cross-border equities and long- and short-term debt holdings, and recording the country of residence of the issuer, the scheme was intended to bring precision to the Fund's measurement of global capital flows. The results of the first CPIS were published in 1999, and from 2001 IMF staff have conducted the Survey on an annual basis (IMF 2002: 1-3). With its insights forming a core input into the IMF Global Financial Stability Report (the first of which was published in 2002), CPIS rapidly became a high-profile tool in the organisation's monitoring arsenal. As member states moved to integrate the Survey into national regulatory cycles, the number of participating members rose from just 29 in the initial 1999 iteration to over 70 by the late 2000s (IMF 2010: 1-2).

Though operating on a voluntary basis, by 2007 significant advancements had been made by the IMF in relation to its data-collection activities. With the SDDS, FSI, and CPIS the organisation had begun to consolidate its efforts to establish and disseminate 'best practice' models in relation to the collation of macroeconomic and in particular financial sector data. In executing this role of data-collection hub, IMF support was designed to ameliorate problems associated with weak national capacity and the non-comparability of different national templates, and more broadly to establish the idea that transparency in

economic data was of benefit to state actors. And in tandem with this evolutionary adaptation of existing data-collection practices, efforts were also made to enhance the Fund's institutional understanding of the changing role of financial sectors in many member states. Throughout the late 1990s, senior management at the Fund had remained aware that successfully securing this broadened focus was contingent on enhancing the organisation's analytic capacity in relation to financial sector management and the domestic and international implications of financial sector developments (IMF 1997; 1998; 1999). The Monetary and Exchange Affairs Department initially provided the institutional location within which these efforts were centred, and gained an important ally in 2001 with the creation of the International Capital Market Department (ICMD) (IMF 2001). From its inception the ICMD held primary responsibility for the production of the Global Financial Stability Report, and was the lead Department on CPIS. The Fund's expanding financial-sector expertise was given a positive assessment in a 2006 internal review, albeit with the important caveat that 'limited inroads [have been made] to identifying and highlighting potential spillover channels and effects' in contexts with extensive cross-border financial flows (IEO 2006: 9).^v Despite the more expansive data flows, analytic capacity in relation to the transmission of financial shocks across borders remained under-developed. As is demonstrated below, this important shortcoming continues to limit the organisation's post-GFC Data Gaps Initiative.

4. The IMF-FSB Data Gaps Initiative: A Job Half-Done

Following a call in 2008 by the G20 Finance Ministers for the IMF and the Financial Stability Board 'to explore gaps and provide appropriate proposals for strengthening data collection' in the light of the Global Financial Crisis,^{vi} the organisations rapidly issued a joint report identifying the main financial and economic information gaps (IMF and FSB 2009). The Data Gaps Initiative highlighted shortcomings in relation to risks in the financial sector, cross-border financial exposures, vulnerabilities of domestic economies to financial shock, and communication among supervisors.

The proposals within the resulting Data Gaps Initiative fall broadly into two groups: on the one hand are proposals that aim to make modest conversions to existing data-collection practices, and on the other are proposals that aim to layer in new practices. When reviewing the achievements regarding each of these areas in turn, we also reflect on the extent to which institutional learning has occurred in relation to the domestic and international spillover-effects of financial sector disruptions. In view of the short time lapse since the launch of the Data Gaps Initiative, our assessment that the job remains 'half done' represents an evaluation of a work in progress.

The first group of proposals that were raised by the Data Gaps Initiative tied closely in to pre-existing reform efforts, and relate in the main to efforts to enhance the production and publication of Financial Stability Indicators and Coordinated Portfolio Investment Survey data. With a history going back to the Asian Financial Crisis, the FSIs were at an important juncture at the onset of the GFC. Having recently completed the Coordinated Collection Exercise and gathered a range of core and encouraged data from the 64 signatory members, the Executive Board was in early 2007 exploring mechanisms for further integrating the FSIs into its operational activities. Following the DGI review, efforts to mainstream these Indicators have been stepped up. With staff and senior management's promotion of the Indicators, an increasing number of states are regularly collecting and releasing both core and encouraged data. Through the course of 2011 an additional three of the G20 member states began reporting Financial Stability Indicators, such that by the end of the year a total of 18 were engaged with the initiative (IMF and FSB 2011: 6). In addition, the IMF has begun to employ its own communication mechanisms in order to further enhance the profile of the FSIs; in July 2009 an online Financial Stability Indicator database was launch by the Fund, and as of April 2011 core Indicators are now integrated into the organisation's biannual *Global Financial Stability Report* (IMF and FSB 2010: 20; IMF and FSB 2011: 6-7).

Beyond these profile-raising activities, progress in extending domestic authorities' reporting of Financial Soundness Indicators has been relatively modest. Core indicators relating to the performance of recognised deposit-taking banks have been widely collated and disseminated, perhaps reflecting the well-existing domestic channels of communication between national regulators and such entities. However,

reporting on non-core indicators remains less comprehensive. Amongst G20 states, only five have submitted data for the 2006-12 period on the assets of non-bank financial corporations (Indicator 26), four on household debt service to income ratios and the average daily turnover of securities markets (Indicators 34 and 36), and three on household debt to GDP (Indicator 33).^{vii} In general terms the areas with low reporting rates follow the pattern revealed by the Coordinated Collection Exercise, and in an effort to address this shortcoming moves are underway to more completely integrate the Financial Stability Indicators into the Special Data Dissemination System.

With the SDDS protocol having been designed for countries on the cusp of private market access, the Data Gaps Initiative raised the suggestion of creating a new tier that was customised for economies with particularly significant financial sectors. The SDDS-Plus was launched in 2012, with signatories committing to the full observation of a range of data categories – including the FSIs – by December 2019 (IMF 2012b). The consolidation of the Fund’s expansion of its data-collection network to cover non-bank financial entities, non-financial corporations, and households will, it seems, require time. Unfortunately, it was suggested at a recent ‘user conference’ on the FSIs that these areas where data coverage was at its weakest were precisely the sectors to which risk had been transferred by responses to the Global Financial Crisis (Braasch 2009). In addition, at the same event critical reflections were aired in relation to the analytic framework that overlaid the FSIs. First, it was suggested that the annualised data-collection processes remained too infrequent – even if functioning perfectly – to usefully shed light on rapidly developing crises. Second, and perhaps most significantly, at the conference findings were reported from *post hoc* analyses that suggested the FSI dataset provided little assistance in understanding the evolution of the Global Financial Crisis (Braasch 2009; Enoch 2009). As such, in addition to its technocratic shortcomings, the intellectual underpinnings of the Financial Soundness Indicators were also brought into question.

In contrast to the range of issues surrounding the FSIs, the Fund’s efforts to enhance the Coordinated Portfolio Investment Survey have been relatively smooth. Alongside the FSIs, CPIS reforms represent an additional attempt to make modest conversions to pre-existing schemes. However, given the existing successes of the Survey, reforms planned under the Data Gaps Initiative have been minor. As CPIS

was by the onset of the Global Financial Crisis already generating comprehensive data on holdings of foreign investments by resident entities in over 70 advanced- and emerging-market economies, through the DGI the main proposal was to double the periodicity of data collection from an annual to a biannual basis (IMF and FSB 2010: 6). The Data generated by the Survey continues to be used in analyses of global financial linkages by both practitioners and academic observers (e.g. IMF 2012a; Milesi-Ferretti and Lane 2010 ; Song et al 2009).^{viii}

Moving on to efforts instigated through the Data Gaps Initiative that require the introduction of new lines of data-collection activities into global financial governance, the core tasks have related to the identification of systemically important economies, Systemically Important Financial Institutions (SIFIs), and Global Systemically Important Financial Institutions (G-SIFIs). The IMF has played a lead role in the former task, and a relatively minor role in relation to the latter tasks. In terms of systemically important economies, the G20 has become the core unit of analysis for post-Crisis reforms. Working with the European Central Bank, Organisation for Economic Cooperation and Development, United Nations, and World Bank, the IMF has led efforts to construct a Principal Global Indicators (PGI) dataset. By combining the data-collection networks in and around these agencies, the PGI presents internationally-comparable statistics from the G20 members (plus five additional systemically important economies) on the real economy, portfolio investment positions (from CPIS), domestic credit, and consumer and business confidence. In addition, through its Mutual Assessment Process, IMF staff in 2009 delivered Sustainability Report on the seven members of the G20 whose external imbalances were thought to have significant implications for global stability (IMF 2011b). The similarity of these new responsibilities to the Fund's 'traditional' bilateral surveillance activities help explain the relatively swift progress in this regard. And whereas the Fund has led in identifying and collating data on systemically important economies, on SIFIs and G-SIFIs the organisation has played a decidedly more supporting role.

As with the Principal Global Indicators, the IMF is currently working in concert with a range of other agencies to identify and manage the risks associated with (Global) Systemically Important Financial Institutions. In these efforts, while the Fund has served as an important consultative partner, the Bank for

International Settlements and the Financial Stability Board have served as the lead agencies. In 2011 the FSB released its initial list of 29 G-SIFIs; these institutions are required to hold higher levels of reserve capital, with the magnitude of this surplus levied according to the potential disruptiveness of the institution's failure (FSB 2012b; 2011b). In addition, the Board has released a 'best practice' guide for the orderly resolution of a SIFI collapse. By so doing, a series of legal and regulatory pre-requisites are highlighted for national authorities to move toward the establishment of (FSB 2011a). These impressive BIS- and FSB-led efforts intersect with IMF data collection operations in the realm of bilateral surveillance. In particular, the Fund's regular Financial Sector Assessment Programmes will be used to keep track of the extent to which members are meeting the obligations laid out in the FSB-endorsed framework documents. It is through monitoring and disseminating information on compliance that the IMF will support efforts to contain the risks posed by SIFIs and G-SIFIs.

The Global Financial Crisis served to emphatically demonstrate that the contemporary global economy is formed of complex networks of interdependence, through which shocks can be dramatically magnified through their transmittal across sectors and across borders. The reforms initiated under the Data Gaps Initiative have been designed so as to enhance policymakers' ability to keep tabs on these evolving linkages. From the efforts to expand the coverage of the Financial Soundness Indicators into the realms of non-bank financial entities, firms, and households, to the minor enhancements of the Coordinated Portfolio Investment Survey, to the efforts to enact intensive surveillance over systemically important economies and financial institutions, the IMF's latest data rush has been an extensive enterprise. However, as was hinted at in relation to the FSI reviews noted above, significant questions remain over the Fund's institutional capacity to make sense of these global financial linkages.

Through 2006-07, weaknesses in the Fund's understanding of macro-financial linkages contributed to the failure of the organisation to provide robust early warning of the Global Financial Crisis (IEO 2011b). In part, through the pre-GFC years the weaknesses in the International Monetary Fund reflected the dominant patterns in the field of Macroeconomics that defines the organisation's professional culture. As is noted in a recent, and admirably candid, internal review:

For years, economists were trained in models without money or a financial sector... Recent economics graduates would be familiar with the 'financial accelerator' approach in which financial market conditions can greatly amplify initial shocks... but those models were out of favour with the efficient-markets thinking that dominated the profession (IEO 2011a: 4)

In the years since, however, there is little evidence of a significant intellectual shift having taken place. Across the institution, around 10 percent of the IMF's operational budget is dedicated to the production of research outputs. A large majority of this output continues to be produced by the Fund's Area Departments, and to take a policy-orientated approach (IEO 2011c). From 2005-08, approximately two percent of the organisation's research output was directed toward exploring the domestic and international spillover effects of financial sector disruptions. Moreover, the operational utilisation of this research activity remained 'difficult to discern' (IEO 2011a: ii, 5).

Attempts have been made recently to outline areas for future IMF research in relation to the links between finance and the real economy. Senior management and Executive Directors have made calls for both a greater focus on macro-financial linkages, and a more effective utilisation of research in IMF operations (IEO 2011c: 41-5). In addition, current work programmes in the Research Department include projects exploring the links between financial structures and financial stability, the drivers of real estate cycles, and the impact of regulation on financial intermediation (IEO 2011a: 14-15). However, as is noted by the recent Triennial Surveillance Review (IMF 2011a), substantial work is still needed to improve the Fund's understanding of macro-financial interconnections, financial risk and the sources of external imbalances beyond exchange rate policies.

The Data Gaps Initiative of 2009 closely paralleled earlier post-crisis data rushes at the IMF. Indeed, major aspects of the DGI hooked directly in to reform efforts that had been catalysed through the 1990s by the 1994 Mexican Crisis and 1997-8 Asian Financial Crisis. With core Financial Soundness Indicators having been integrated into reporting processes, steps in place to extend the collation and publication of FSIs covering non-bank entities, firms, and households, and a strengthening of the Coordinated Portfolio Investment Survey having been implemented, the organisation's activities as a data-collection hub are set

to continue to expand over the medium term. With the Fund also exercising enhanced surveillance over systemically important economies and reviewing the extent of member states' compliance with regulatory guidelines issued by the Bank for International Settlements and the Financial Stability Board, the organisation's place at the summit of global data-collection processes appears to be securely set. However, in spite of these achievements, major questions remain over the capacity of the IMF to 'make sense' of these ever-greater flows of data.

Conclusions

Data collection has been identified by IO scholars as an activity in which multilateral arenas hold significant sources of comparative advantage. With their well-established channels of communication with relevant national authorities, IO staff are able establish global templates according to which readily comparable data can be collated. Through such processes, international organisations can function as effective data-collection hubs, assisting in the development of domestic actors' capacity to generate and disseminate information sets, and helping to embed an understanding of transparency in policymaking processes as being a public good. Since the 1980s, the International Monetary Fund has worked to proactively shape member states' data gathering activities, establishing templates through the latter decades of the twentieth century for the collection of information on government finances, macroeconomic indicators, and real external linkages. Driven by events of the 1990s and the Global Financial Crisis, recent data rushes have seen the Fund increasing moving to both track the linkages between national financial markets, and between financial sectors and real economic activities. While the IMF response to the Data Gaps Initiative remains a job half done, the transnational data-collection networks flowing around the IMF continue to grow in complexity.

With their hard-wired preference for adaptation over learning, international organisations have an established tendency to respond to crisis events by making minor modifications to established projects, and layering new tasks in to pre-existing programmes. In the case of global financial surveillance, this proclivity

has been joined by an intellectual worldview in which the provision of greater flows of information came to be seen as a primary means through which stability could be achieved. In common with earlier data rushes, the Data Gaps Initiative reflects this core assumption that the 'indeterminacies' in global financial markets can be successfully managed through a 'technical fix'. Given the remaining analytic weaknesses in relation to the links between financial sector and the real economy, the intellectual infrastructure needed to underpin deep processes of learning is yet to be effectively established.

Contemporary networks of financial interdependence are undoubtedly complex, and undoubtedly entail extensive transnational interconnections. However, in the incremental moves toward ever greater complexity in data-collection networks, it is possible that global policymakers are in danger of 'missing the wood for the trees' in post-crisis regulation. In a recent paper, Andrew Haldane, Executive Director of Financial Stability at the Bank of England, provides evidence of this tension. For Haldane (2011), based on a sample of 100 global banks, the most effective predictor of collapse remained a basic ratio of assets to liabilities (FSI 13; ironically, the first 'non-core' measure). While the IMF is working to support reforms identified through the Data Gaps Initiative by enhancing efforts to track global financial flows and extend the coverage of a range of new and pre-existing indicators, it is important, too, that regulators focus on implementing basic principles effectively; although a source of significant potential benefits, ever-increasing levels of sophistication in data-collection networks will not automatically lead to the more effective governance of global financial markets. While there is value in ensuring that data-collection infrastructure functions effectively, it is ultimately processes of interpretation that will make the difference.

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ⁱ A substantial body of literature on the causes of the global financial crisis already exists. For useful overviews, see Carmassi et al (2009), de Larosi re (2009), IMF (2009), and Obstfeld and Rogoff (2009).

ⁱⁱ For detailed overviews of the Asian Financial Crisis see Haggard (2000), and Noble and Ravenhill (2000).

ⁱⁱⁱ The 1995 Guidance Note on Surveillance is quoted in Boughton (2012: 115).

^{iv} Authors' analysis of the IMF's Special Data Dissemination Bulletin and General Data Dissemination Bulletin. See IMF Official Website, available at <http://dsbb.imf.org/pages/gdds/CountryList.aspx> and <http://dsbb.imf.org/Pages/SDDS/NSDPPages.aspx>. Accessed 22/11/12.

^v For more information on these developments, see Morchella (2011).

^{vi} Technically, as the FSB had not at that point been created, this initial G20 call was in fact issued to its predecessor the Financial Stability Forum. However, following its creation in 2009 the FSB took up this task alongside the IMF.

^{vii} Authors' analysis of IMF e-Library Cross-Dataset. See IMF Official Website, available at <http://elibrary-data.imf.org/QueryBuilder.aspx?s=322&key=1445284&f=1&ts=1&ys=2002&ye=2011&ms=1&me=12&ds=1&de=31&did=323&id=195>. Accessed 23/11/12.

^{viii} In parallel to developments inside the International Monetary Fund with CPIS, efforts are underway within the Bank for International Settlements to register locational data in relation to the originator and recipient of cross-border capital flows (BIS 2012). While this shift is not explicitly aligned with the Data Gaps Initiative, the development again illustrates the increasing layers of complexity being layered in to international financial sector surveillance efforts.