Strengthening the Early Warning Exercise

Enhancing IMF and FSB coordination

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Key points

- ~~Global integration of production means that imported components account for a rising share of the value of exports. Apple iPods show how a final assembler in China captures only a small share of a product's value.~~
- ~~Official trade statistics attribute all the value to the final exporter and are uninformative or misleading about a country's participation in global supply chains.~~
- ~~This paper constructs value-added measures that incorporate the necessary production and trade data and compares them against similar measures based on gross trade.~~
- ~~The findings show that value-added measures provide a more revealing and consistent view of patterns of global integration.~~

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Introduction

The failure of policymakers and international financial institutions to foresee the 2007–08 financial crisis exposed significant gaps in the international financial architecture. The severity and global nature of the crisis spurred policymakers to undertake numerous governance reforms. Several of these focused on improving inter-organisation communication so as to in turn improve regulatory oversight. However, increased collaboration across and among international financial governance institutions is a growing phenomenon that has yet to be understood from an inside-out perspective. Little is understood about how international organisations collaborate on policies, how organisational culture affects intra-organisational collaboration on policy outcomes, and how this is evaluated by member states.

A key articulation of the G20 and many governments is the need to improve global policy coherence among and across international economic and financial institutions. Rightly or wrongly, it was assumed that the global financial crisis of 2007–08 could have been prevented, or at a minimum better contained, had there been effective communication links and transparency of financial flows between states and markets. One component of the G20 reforms has been to initiate the Early Warning Exercises (EWEs) as a method of detecting global financial risks and encouraging appropriate policy responses. Beginning in 2009, the International Monetary Fund (IMF) and the Financial Stability Board (FSB) were tasked with undertaking the EWE so as to identify developing vulnerabilities within the global financial system.

> **The International Monetary Fund and the Financial Stability Board were tasked with undertaking the Early Warning System in 2009.**

Yet the EWEs have not been subject to rigorous external review. This paper seeks to fill this gap, and calls for enhanced accountability and transparency of an important global governance tool. We begin with an overview of the origins of the FSB and an outline of the EWE process. We then identify a series of challenges that have undermined the efficacy of the EWE. In particular, we note that the advantages accruing from the joint nature of the exercise have not been fully realised. A series of recommendations are proposed to generate greater implementation of EWE findings among national policymakers.

Origins of the FSB

In autumn 2008, the global financial system went into cardiac arrest. What had begun as a series of failures involving obscure US investment vehicles quickly unleashed chaos across the US financial sector. The crisis soon went global, as investors began to reassess the sustainability of the rapid credit growth that had occurred throughout the developed world in the preceding half decade – particularly in the United States, the United Kingdom and the Eurozone periphery. Before long, the global nature of international finance ensured that even emerging market economies were drawn into the crisis.

While the immediate cause of the crisis was the collapse of the US shadow banking system and the housing market bubble it had spawned, these were also symptoms of a broader disquiet within the financial sector. Together, excessive leverage, perverse incentives within financial institutions that favoured short-term profits over long-term sustainability, insufficient attention to incentive problems inherent in the originate-to-distribute model of loan generation, limited supervisory capacities – and, above all, a misplaced degree of intellectual deference to the presumption of the inherent efficiency of mature financial markets, effectively produced the largest financial collapse since the Great Depression.

The systemic nature of the 2008 crisis spurred intensive efforts towards improving global cooperation in financial governance. In April 2009, the newly convened G20 leaders forum established the Financial Stability Board (FSB, or 'the Board') (Griffith-Jones *et al.* 2010, p. 6). During its London summit, a G20 communiqué admitted the failure of the current global regulatory framework, stating that 'major failures in the financial sector and in financial regulations and supervision were fundamental causes of the crisis' (G20 2009). The FSB was intended to share best practices between regulators and enhance requirements for macro-prudential oversight.

The FSB was built on the framework of the Financial Stability Forum (FSF). Founded in 1999, the Forum was created in the aftermath of the Peso and East Asian financial crises as part of a broader set of reforms intended to improve the 'international financial architecture'. Alarmed by the rapidity with which the crises arose and spread, the G7 became interested in creating an organisation that would detect, address and solve financial crises *before* they occurred (Donnelly 2012, p. 262). As such, the Forum was primarily intended to improve coordination and share practices among the different agents responsible for financial stability: finance ministers, central bankers and regulatory officials within the G7 and a small number of key states (Financial Stability Board 2013). In practice, however, the organisation failed to live up to expectations (Helleiner 2010). Hostility on the part of the Bush administration limited the institution's ability to take a leading role in identifying and responding to financial-sector vulnerabilities, and the exclusion of many emerging market countries undermined its legitimacy (Blustein 2012). Without a clear mandate, the Forum's activities were limited to promoting better regulation and encouraging policy change (Baker 2010).

While there are key differences between the Board and the Forum, one major contrast is found in the circumstances of their creation. During the 1990s, the stresses brought on by financial crises in developing economies led the industrialised world to respond with the FSF, a body made up exclusively of representatives of developed states. The intent was to standardise international best practices that would then be exported to the developing world. Financial instability, in short, was viewed as emanating exclusively from developing states and not from the 'sophisticated' financial systems of developed states. The events of 2008, however, demonstrated the myopia of these assumptions. A result of the regulatory failings of the developed world, the crisis created an impetus for a body whose expertise was more diverse and that incorporated a greater portion of the world's major economic powers. With this in mind, the Forum was refashioned as the Board at the G20 London Summit in 2009.

Structure, operations and the EWEs

Former US Treasury Secretary, Timothy Geithner, has hailed the FSB as an effective 'fourth pillar of global finance' (US Treasury 2009). Yet, despite the enhanced scope of the organisation, its authority and capabilities are rather limited when compared to other international financial organisations. Like its predecessor, the FSB is not a treaty organisation and, thus, does not create obligations for its member states under international law. Moreover, although its resources have been increased, the FSB's secretariat still employs about 40 full-time staff – a modest number by the standard of international institutions. Due to these constraints, the Board continues to rely on informal persuasion to impact the policy of its member states.

Unlike the FSF, the FSB is a more formalised and empowered body, able to undertake a more proactive role within international regulatory system. The FSB's original Charter, which outlines the mandate of the organisation and the duties of its member states, was amended at the G20 Los Cabos Summit in June 2012. Article 1 of the charter states:

> The Financial Stability Board (FSB) is established to coordinate at the international level the work of national financial authorities and international standard setting bodies (SSBs) in order to develop and promote the implementation of effective regulatory, supervisory and other financial sector policies. In collaboration with the international financial institutions, the FSB will address vulnerabilities affecting financial systems in the interest of global financial stability. (FSB Charter 2012, Article 1)

Article 2 of the Charter outlines ten specific tasks for the Board to undertake in pursuit of this objective. The Board is to (1) assess vulnerabilities affecting the global financial system and conceptualise ways to solve them; (2) promote coordination and information exchange among authorities; (3) monitor and advise on market developments and their implications for regulatory policy; (4) advise on and monitor best practice in meeting regulatory standards; (5) undertake joint strategic reviews of the policy development work of the international standard-setting bodies; (6) set guidelines for and support the establishment of supervisory colleges; (7) support contingency planning for cross-border crisis management; (8) collaborate with the International Monetary Fund (IMF) to conduct Early Warning Exercises; (9) promote implementation of agreed commitments by members via monitoring, peer review and disclosure; and (10) undertake any other tasks agreed by its Members within the framework of the Charter (FSB Charter 2012, Article 2).

The creators of the Board also sought to address some of the legitimacy problems that have plagued the FSF. In addition to the 12 original national jurisdiction members of the Forum, the FSB incorporated another 12, reflecting the diverse nature of the global economy. The Board also attempts to incorporate more states through the use of consultative members incorporated into 'Regional Consultative Groups'.[1]

The FSB's Plenary Committee comprises representatives from all of its members: central bankers, regulators and finance ministers representing 24 jurisdictions plus Hong Kong, and 12 international financial bodies, including the IMF. A state's economic and financial weight determines the number of seats it receives on the Plenary Committee. The Plenary Committee appoints the Chair and Steering Committee through consensus (Donnelly 2012, p. 267); these positions direct the Board's work. The Chair plays a critical role as the head of the Steering Committee and proposes the Standing Committee members, who engage in the substantive work of the FSB. Following the Chair's proposal, membership in the Standing Committees is decided by the Plenary.

There are currently four standing committees: the Standing Committee on Supervisory and Regulatory Cooperation (SCSRC), the Standing Committee on Standards Implementation (SCSI), the Standing Committee on Budget and Resources (SCBR), and the Standing Committee on the Assessment of Vulnerabilities (SCAV). The SCSRC maintains contact with important financial institutions in order to ensure 'consistency, cooperation, and a level playing field across jurisdictions'. The SCSI carries out peer reviews of member states' regulatory practices. The SCBR oversees the budget of the FSB and deals with matters pertaining to the organisation's financial governance. Finally, the SCAV examines possible threats to financial stability.

To this end, one key practice undertaken by the SCAV is the carrying out of Article 2(h), the Early Warning Exercise. The rapidity of financial activity and the sprawling nature of the financial system have created a situation whereby crises could arise from unexpected areas at unexpected times. The EWE thus leverages the analytical powers of the IMF and the FSB to scan the horizon for systemic dangers (IMF 2010, p. 4): the IMF investigates quantitative risks, represented by financial flows within and throughout regions, while the FSB investigates regulatory failures or gaps that may create major stresses. Policymakers argued that the greater regulatory expertise

[1] Added together, the economic power of the members of the Plenary is significant, totalling approximately (using IMF data for 2011) $57,531,500,000,000, or about 82.3% of total global output. When the GDPs of the consultative groups are incorporated, the sum is $8,723,479,000,000, about 12.5% of global GDP. This totals about 94.8% of global GDP.

of the FSB – obtained through their direct engagement with domestic regulatory and supervisory agencies – would complement the traditional expertise of the IMF on macroeconomic issues and macro-financial linkages. At the same time, the EWE provides an opportunity for frank discussion between national policymakers on some of these future risks.

Perhaps unsurprisingly, the decision to construct the EWE as a joint initiative between the IMF and the FSB has generated some questions on how governing international finance can work across international organisations and their member states. The IMF's surveillance capacities had been greatly enhanced in the aftermath of the 2008 crisis. Hence, some stakeholders interviewed for this study have questioned the inclusion of the FSB within the EWE (confidential interview 2012). Indeed, given the size and breadth of the IMF's human resources, the value-added provided by FSB involvement in the EWE has also been questioned by some of the stakeholders interviewed for this study.

The reasons for the FSB's involvement in the EWE are both political and practical. On the political side, IMF and government officials interviewed for this study highlighted the FSB involvement in the EWE as part of a broader drive for inclusive policy and decision-making processes following the 2008 crisis. In this formulation, the inclusion of the FSB was primarily intended to dilute the role of any one player, particularly the IMF, in the Exercise (personal interview 2012). Several officials also indicated that there was a practical value in the inclusion of the FSB. According to one FSB official, 'the FSB's value is that the core central membership that you have, specifically central banks, banking supervisors and market supervisors and these are people you don't have in the IMF … [the FSB brings] an idea of what's going on because supervisors at central banks have all of these data and sometimes quite confidential data' (personal interview 2013). The FSB therefore brings a qualitative perspective to the econometric analysis produced by the IMF and provides access to data that might otherwise be missed. The very fact that the IMF, as 'the principal institution dedicated to promoting global stability, missed the most devastating crisis since the 1930s' (IMF, TSR 2011) underscores the need to broaden the intellectual base utilised in conducting global surveillance.

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Mapping the Early Warning Exercise

The IMF and FSB each conduct the Early Warning Exercise (EWE) twice per year, beginning two to three months before the Spring and Fall Annual IMF and World Bank Meetings.

IMF preparation for the Exercise

The Early Warning Group (EWG) is responsible for carrying out the Exercise, and First Deputy Managing (FDMD) Director David Lipton oversees it. The EWG comprises eight staff from four Departments: the Strategy, Policy, and Review Department (SPR), which coordinates the EWG's work; the Monetary and Capital Markets Department (MCM); the Fiscal Affairs Department (FAD); and the research Department (RES).

The IMF's contribution to the Exercise begins with a series of meetings in which the EWG brainstorms problems that could arise in the global financial system. The EWG considers data from publicly available IMF resources like the *World Economic Outlook*, *Fiscal Monitor* and *Global Financial Stability Report*, and from internal resources such as the IMF's Global Risk Assessment Matrix (GRAM). The EWG builds on these IMF processes to formulate its empirical work for the Exercise. As the biannual meetings approach, EWG staff meet more frequently. In the final weeks leading up to the Spring and Annual Meetings, the EWG dedicates most of its time to the Exercise.

External consultations are conducted as part of the EWG's work. The purposes of the external consultations are: (1) to hear ideas that the EWG may not have considered; and (2) to verify the EWG's assertions. Discussions focus on questions of systemic and country risks. Academics are the chief external consultants because 'they have time to think differently' than policymakers and technocrats (anonymous source 2012). The EWG also consults central bankers and private-sector economists. Detailed market information is also gathered from market participants such as hedge fund managers.

Once the EWG has completed its empirical work, it carries out the Vulnerability Exercises for Advanced and Emerging Economies (VEAEE). The purpose of these VEAEEs is to classify countries into vulnerability states (IMF 2010). The VEAEE helps to assess regional and global vulnerabilities against different types of shocks (IMF 2010). Given the country-specific nature of the VEAEE, its results are for the EWG's internal use only.

A key objective of the EWG is to produce an Early Warning List (EWL). The EWL documents the risks and vulnerabilities deemed to be of greatest concern. Once the EWG has been narrowed down a few topics, the SPR gives a presentation to FDMD. The FDMD examines the presentation and deliberates. There are a few rounds of negotiation between the FDMD and his colleagues about the content of the List. Once the final List has been arrived at, the FDMD presents it to the IMFC at the Spring and Annual Meetings.

FSB preparation for the Exercise

The Secretariat, which receives its mandate from the Plenary, issues tasks to the SCAV and the Analytical Group on Vulnerabilities (AGV), which conducts the technical work for the Exercise. The AGV comprises approximately 30 individuals, three of whom are members of the FSB Secretariat. The remainder of the AGV is composed primarily of central bank economists, whose national affiliations align proportionally to the composition of the SCAV. The AGV works closely with the Secretariat throughout the exercise and reports to the SCAV, which comprises central bank governors and representatives from international financial institutions.

The FSB's contribution to the Exercise begins with the Secretariat's preparation of a list of potential risks and vulnerabilities for the AGV to examine. This initial list of topics stems from the FSB's year-round work. The AGV collects and analyses data on these topics, obtaining most of the data directly from the FSB's national members. Potential tail risks are the AGV's primary concern. Deciding which tail risks to analyse involves a qualitative judgement: there is no standard deviation that constitutes a precise threshold.

Once the AGV has assessed the probabilities and potential impacts of various risks and vulnerabilities, it reports its findings to the SCAV. The SCAV then might suggest different perspectives from which to approach these findings, or additional topics to consider. After a few exchanges between the AGV and the SCAV, a penultimate draft of the FSB's Early Warning List is submitted to the Plenary for approval. Once the Plenary approves the List, the Secretariat prepares a short set of slides to present at the IMFC Meeting. Typically, the Chair of the SCAV gives the final presentation to the IMFC.

The Spring and Annual Meetings of the IMFC

At the Spring and Annual Meetings, the FSB and IMF each provide a 15-minute presentation to the IMFC. According to an IMF source with intimate knowledge of the Exercise, 'the IMFC is properly scared when the List is presented' (anonymous 2012). Indeed, part of the objective is to startle policymakers and make them realise that severe vulnerabilities, which they probably had not considered, could actually happen.

There is no formal opportunity for the IMFC to discuss the contents of the presentations once the presentations are complete. Rather, IMFC members must communicate the contents of the presentations back to their jurisdictions to mitigate domestic risks and to insulate themselves against external risks. When asked why there is no document for the IMFC members to circulate to ensure a sound feedback mechanism, FSB staff emphasised that the purpose of the Exercise is to provide a forum for 'structured dialogue'. In addition, there seems to be trepidation, among some but not all, that a formal publication could rile markets and realise the risks outlined in the Exercise.

However, an informal discussion of the presentations does occur during a breakfast meeting that takes place the morning after the IMF and FSB present their Lists to the IMFC. The breakfast is very informal, highly confidential and exceptionally exclusive. It is where the most important discussion happens. The attendees include only IMFC heavyweights, but attendees do not read notes, and there are plenty of interjections. Past attendees have stated that the private, informal discussion held at the breakfast meetings is just as important, if not more important, than what happens at the formal IMFC meetings.

Challenges to the Early Warning Exercise

At the level of policy processes, research compiled for this study reveals significant room for improving the EWE. Indeed, at present the institutional design, execution and implementation of the EWE can challenge the efficacy of the exercise. To address these challenges, the EWE processes must confront five core issues pertaining to coordination, capacity, consultation and feedback, which will determine the future success of the EWE.

Coordination/collaboration

One of the most testing aspects of the policy processes surrounding the preparation of the EWE concerns the level of coordination and collaboration between the IMF and the FSB. According to the FSB, there are many conference calls and in-person meetings that occur when the IMF travels to Basel and when FSB staff travel to Washington. Moreover the FSB states that the two organisations provide each other with feedback to ensure that their messages are complementary, and that they are conveyed clearly and appropriately.

Although official documentation stresses a high level of collaboration, research for this study indicates that cooperation levels are lower than official pronouncements suggest, and could be significantly improved. Lower levels of coordination undermine the 'value added' provided by the joint nature of the EWE process. As noted above, the case for IMF and FSB involvement in the EWE was premised on combining the differentiated but essentially complementary mandates and skill sets of each organisation in order for the two to work together in ways that advance a more comprehensive understanding of the risks and vulnerabilities in the global economy.

The importance of IMF–FSB collaboration is highlighted in the 2010 EWE Methodological Toolkit published by the IMF (IMF 2010). The Toolkit points to the comparative strength of the IMF on macroeconomic issues and macro-financial linkages. The FSB, in contrast, possesses stronger expertise on micro-prudential issues pertaining to the financial sector and individual financial institutions, given FSB involvement with domestic regulatory and supervisory bodies. The FSB has also been more proactive on macro-prudential issues than the IMF, such as the regulation of Systemically Important Financial Institutions (SIFIs), which link the activities of individual financial institutions to the broader stability of the financial system (see Jacome & Nier 2012).

An additional advantage of FSB–IMF collaboration in the preparation of the EWE stems from the constraining nature of the IMF's international legal obligations. As outlined in its Articles of Agreement, the IMF is not permitted to share information between member states. As a result, while the IMF conducts excellent bilateral surveillance, the organisation has struggled to leverage this expertise into its assessments of system-wide challenges, which stems both from the inherent difficulty of 'connecting the dots' between country-specific risks and vulnerabilities, and the constraints placed upon IMF officials in effectively conveying this information. Beyond this legal barrier, there is increasing doubt as to whether risks to the system can be discerned by aggregating country-level data – the IMF's approach, given the risk of committing the 'fallacy of composition'. The FSB would sidestep the IMF's legal restrictions by allowing national officials to share information about their national economies, while at the same time inquiring about perceived economic problems elsewhere. Together, the two organisations would be better able to paint a clearer picture of the global economy, including the extent and nature of systemic risks and areas of vulnerability. While the Toolkit emphasises the close working relationship between the two institutions, interviews with IMF staff suggest that exchange between the two bodies could be improved.

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Furthermore, in the final stages of the EWE process – the drafting and presentation of the final product – significant coordination is needed and underutilised. Rather, the IMF and FSB prepare their own separate EWE list and EWE presentation. With stronger inter-organisational coordination between the IMF and FSB, perhaps the IMFC would be presented with a more holistic picture of global economic risk than currently provided. Moreover, location matters: the clustering of international organisations within key international cities such as Washington, Geneva and New York can help improve inter-organisational coordination. Physical proximity can be particularly beneficial when organisations are tasked to work closely together. In the case of the EWE, however, the physical distance between the IMF in Washington and the FSB in Basel has potentially impeded coordination between the two bodies.

Organisational capacity

As a body with no more than 40 full-time staff members, the FSB is dwarfed by the IMF's 2,400 employees. The limited capacity of the FSB shapes perceptions of the body's capabilities (for example, see Pauly 2010). IMF staff interviewed for this study expressed concerns regarding the FSB's capacity. When asked about the division of labour between the two organisations, one IMF official pointed to a widespread perception that the IMF is undertaking most EWE-related work. Others went further, suggesting that the IMF could complete the EWE without the FSB. It is possible that the IMF's (mis)perceptions of the FSB have contributed to a general reluctance to cooperate. One former government official noted in an anonymous interview that there continues to be 'huge suspicion in the IMF and huge displeasure with the rise of the FSB. The IMF felt that they should play this role.'

National-level policymakers interviewed for this project also indicated that the FSB's capacity constraints limited its ability to contribute to the EWE. Doubts regarding the rigour of the FSB's EWE process stem from the perception that staff resources (FSB staff dedicated to the EWE number only two or three individuals) are too limited given the expansive nature of the EWE. Thus, while praising the efforts and output of FSB staff, these officials noted that the majority of the Board's work – orientated towards financial-sector reform that prioritises baseline risks and current reform efforts – inherently limits staff ability to carry out the diagnostic work of the EWE.

Consultation

As part of the EWE, the IMF conducts external '[c]onsultations with market participants, academics, think tanks, and country authorities' to help it 'take stock of risk perceptions in a timely way'. With respect to such consultations the official document is vague, providing little in the way of details including who is being consulted, how often consultations are conducted and what the consultation process entails. Although we obtained additional information from an IMF official with first-hand knowledge of such consultations, it quickly became clear that the scarcity of information about consultations was correlated with their apparent lack of formality, regularity and structure. When they do occur, external consultations are generally ad hoc, informal and limited in scope. Robust and relatively systematic consultations with significant financial institutions could be a beneficial undertaking, because these institutions are globally connected and (presumably) understand the level and nature of their connectivity/exposure. To date, however, these types of consultation have yet to occur.

Organisational culture differences

The IMF is a universal membership organisation possessing a large staff of highly trained economists and a senior management able to undertake independent initiatives. The FSB, in contrast, is member-driven organisation with a skeleton staff charged primarily with supporting the initiatives of its member states. Partially as a result of these structural differences, the two institutions possess distinct organisational cultures, which can potentially challenge coordination in the context of the EWE. IMF staff tended to view the EWE as an opportunity to demonstrate their analytical capacity, both individually and organisationally. Conversely, the culture of the FSB is consensus based and generally risk averse, and is reflected in the cautious approach the organisation takes in the preparation of the EWE.

Difficulties stemming from cultural differences between the organisations are compounded by a lack of clarity as to the ultimate purpose of the EWE following the 2008 financial crisis. Disagreement persists regarding whether the exercise should focus exclusively on tail risks or impending risks. In 2010, IMF Deputy Managing Director, John Lipsky, argued that the EWE was to 'identify the most relevant tail risks, to demonstrate how the possible emergence of these risks could be recognized, and to specify the policy changes that would need to be implemented if they were to materialize' (Lipsky 2010). Others, however, have suggested more modest goals for the EWE, such as the promotion of structured dialogue among national officials and contributing to the broader work on vulnerabilities conducted by the two institutions.

Despite the largely separate preparation of the IMF and FSB on the EWEs, national-level policymakers indicated that there is often little direct contradiction between the findings of both organisations; disagreement results primarily from differences in emphasis stemming from the expertise of each organisation. Policymakers further noted that areas of divergence often proved helpful in highlighting intractable policy problems and showcasing different perspectives. The IMF and FSB should therefore highlight areas of productive divergence, with the aim of spurring greater dialogue among national policymakers.

Presentation/feedback loop

The relevance of the EWE is contingent on its ability to generate traction with national-level officials responsible for advocating and implementing policy change. As noted, the primary mechanism through which the findings of the EWE are transferred to these officials are the semi-annual presentations to the IMFC. Prior to the formal presentation to the IMFC, the IMF and FSB EWE presentation is delivered to the IMF's Executive Board. Following this, it is assumed that members of the IMFC receive a briefing on the presentation content from their respective Executive Directors.

The EWE presentation is approximately 30 minutes. The degree to which the content of this presentation is conveyed to national capitals is fully at the discretion of IMFC members. The potential for EWE findings to 'dead end' with the presentation to the IMFC indicates a challenge to bolstering effective uptake of the process. The brevity of the presentations, coupled with the complexity of the content and schedule constrains of IMFC meetings, may limit the ability of IMFC members to absorb the information contained in the EWE. Transmission of the EWE presentation may also be too dependent on technical acumen and knowledge of financial and macroeconomic phenomena. IMFC members must also retain this information and effectively convey it to relevant policymakers and regulators days after intensive annual and spring meetings.

Conveying the contents of the EWE is thus overly reliant on the ability of IMFC members to absorb, process and retain this information. But it is also a matter of willingness. Domestic political considerations may lead to censorship or interpretive bias that hinders the impact of the EWE. As one public servant confirmed, there is nothing to guarantee that information from the EWE is shared with relevant domestic officials. In his words, 'you just don't sail up to the minister and ask to have a de-brief [...] he does it [shares information] on an as-needed basis from his perspective'. Moreover, national political officials operate on short time horizons and are likely to be more concerned about *impending* risks rather than *tail* risks. The probabilistic nature of the scenarios outlined in the EWE may also be difficult to communicate effectively. Thus, tail-risk scenarios may not be taken seriously by political officials at the national level.

Challenges stemming from an anaemic feedback loop from the EWE to national level policymakers are to a large extent attributable to the lack of a formal document outlining the key findings of the EWE. Although the official rationale for not publishing the results of the EWE emphasises the market sensitivity of the issues under consideration, many interviewees from the public and private sector rejected this line of reasoning. As they pointed out, information that could be considered 'market sensitive' is regularly published in various national reports, as well as the IMF's *WEO*, *GFSR* and *FM* (*Fiscal Monitor*). They further suggested that the publication of an EWE document is often resisted for political reasons.

Conclusion and recommendations

The 2008 financial crisis alerted policymakers to the need to detect and respond to systemic vulnerabilities within the international financial system. The EWE, conducted jointly between the FSB and the IMF, was established as part of a broader call to improve national-level intelligence regarding the character of systemic risk. Nevertheless, weaknesses in the policy process through which EWE findings are generated and presented may undermine the efficacy of the exercise. This article suggests a number of ways that the EWE process may be improved. In particular, we point to the need to improve collaboration between the IMF and the FSB so that the potential joint gains accruing from the complementary expertise of each institution may be leveraged. Though future-orientated exercises such as the EWE remain intensely challenging, implementation of these recommendations can improve the conduct of the Exercise.

We recommend a number of organisational and coordination reforms to help further improve this key activity. First, the international financial and political community would benefit from a clarification of the purpose and scope of the Early Warning Exercise. Debate continues on whether the EWE should focus exclusively on tail risks, impending risks or some combination of both risk types, and such uncertainty regarding the nature of the risks identified by the EWE is likely to further undercut the ability of its reports to gain traction among high-level policymakers. The FSB and IMF should therefore jointly produce a terms of reference document. This should outline the purpose, scope and methodology of the Exercise, and should also clarify the responsibility of each institution in the preparation of the EWE. To enhance transparency, these terms of reference should be made publicly available. In terms of scope, it would seem appropriate to focus on tail risks for two reasons. First, there is already a plurality of resources focused towards analysing and formulating policy for impending risks. Second, the exercise was formulated as a response to the global financial crisis, a crisis generally considered to have occurred as a result of tail risks. Given this exigency, it seems reasonable that the exercise be calibrated towards identifying tail risks.

Second, it would be beneficial to formalise the presentation of the outputs of the EWE to the FSB Plenary Committee. Participants interviewed for this study also indicated that the EWE is discussed in the FSB's Plenary Committee alongside the work on vulnerabilities undertaken by the FSB secretariat. This process should be better formalised. Unlike the IMFC, the Plenary includes representatives from domestic agencies, such as the US Securities and Exchange Commission and the UK Financial Services Authority, with significant domestic regulatory responsibilities. Moreover, formalising the presentation of the EWE to the FSB Plenary would mainstream the Exercise into the broader discussion dialogue on vulnerabilities, and encourage the IMF and the FSB to integrate the Exercise within their ongoing work.

Third, the IMF should increase the level and diversity of consultation with outside stakeholders in preparations of the EWE. Given its advantages in staff capacity, the IMF should take the lead in broadening the consultations undertaken in the preparation of the EWE. There also appears to be a strong bias in favour of consultations within developed countries, particularly the US. Greater emphasis should thus be placed on consultation with market participants and academics, as well as authorities within emerging market countries. Ideally, a formalised system of consultations should be established to ensure balanced inputs from developed and emerging market countries.

Finally, in line with modern calls for greater transparency and accountability, we recommend the IMF and FSB create a publication to showcase the core findings of the EWE. Consultations with public- and private-sector actors in this study suggest that objections to publishing EWE findings premised on their ostensibly market-sensitive nature are not sufficient to preclude the creation of such a publication. They note that, generally, the content of the EWE has often already been discussed or identified by other organisations or in other publications, and at the national level publications of a 'market sensitive' nature are often published by governments. One prime example would be the Bank of Canada's Financial Stability Report, which often identifies future risks to the Canadian economy. Its presence in the public forum allows for a generation of greater discussion and increases the probability that action will be taken. At the same time, the frank closed-door discussion of policymakers is valuable, and the confidentiality of those discussions should be maintained, but by no means should that preclude the publication of a document covering the broad strokes of what has been discussed. Given this, it seems reasonable that the IMF and the FSB should coordinate to produce a short document summarising the core findings of the EWE, either as a standalone publication or as a section within the IMF's *Global Financial Stability Report*.

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