Macroprudential Supervision:

Regional Initiative Implementation Plan

August 2011

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Acronyms

BIS	Bank for International Settlements
BSCEE	Committee of Banking Supervisors of Central and Eastern Europe
ECB	European Central Bank
ESRB	European Systemic Risk Board
EU	European Union
FDIC	Federal Deposit Insurance Corporation
IMF	International Monetary Fund
OCC	Office of the Comptroller of the Currency
PFS	Partners for Financial Stability Program
PMP	Project Monitoring Plan
SEE	Southeast Europe
USAID	United States Agency for International Development

About PFS

The United States Agency for International Development (USAID) Partners for Financial Stability (PFS) Program is led by the Office of Economic Growth in the Europe and Eurasia Bureau (E&E). The project addresses the challenges facing the financial sector in 12 Partner Countries: Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro and Serbia (Southeastern Europe) as well as Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine (Eurasia). Other countries in the E&E region that are considered USAID 'graduates' serve as Mentor Countries in the PFS Program.

The PFS Program is designed to complement the work of the bilateral USAID missions' Economic Growth programs in the region by bringing together regional players to address regional challenges. PFS Program activities include benchmarking studies, conferences, knowledge sharing, research and technical assistance. The PFS Program addresses the challenges of the financial systems in these regions, working in a broad range of subject areas including anti-money laundering, banking and non-bank financial regulation, supervision and institutional rehabilitation, corporate governance, financial literacy, access to finance and implementation of international standards in financial sector reporting.

1. Executive Summary

The global financial crisis revealed the failure of Central Banks, Finance Ministries and financial regulatory authorities to understand, monitor and address the build-up of systemic risks in the financial sector. The authorities were accused of not seeing the forest for the trees. The severe and rapid economic and financial havoc wrought by the crisis underscored the need for more coherent monitoring of the macroeconomy and financial sector, including a renewed focus on the stability of the entire financial system and not just the stability of individual financial institutions. The crisis also revealed that countries lacked a coherent set of policies, processes and tools to do just that. The response has been to encourage the authorities to collect and analyze a broader and more comprehensive array of data in order to understand the interconnections between real economy and the financial system and so better limit risks.

> Macroprudential tools do not solve systemic risk, but they can help to detect it early by providing more comprehensive data and thus allow for more timely and refined solutions to be crafted.

Macroprudential policy and supervision are the new terms used to cover the range of policies, indicators, tools and actions needed to understand and contain system-wide risks. Appendix 1 provides general definitions and essential elements for effective macroprudential supervision and macroprudential policy. International organizations (the IMF, BIS and the Financial Stability Board) have been tasked by the G-20 to establish a framework for Macroprudential policy and supervision based on international best practices. The standards are beginning to emerge though much of the literature and studies to date have focused more on the advanced countries than the emerging markets. However, the overall goal is to ensure greater coherence between to macroeconomic and financial sector prudential policies.

Southeast Europe and Eurasia were deeply impacted by the financial crisis. The economic recovery in the region remains fragile. The banking sectors in SEE and Eurasia face systemic risks from both external and internal sources. This includes (1) the ongoing EU sovereign debt crisis and the impact on EU bank which dominate the banking sectors in the region, (2) high levels of non-performing loans, and, (3) euroization of the banking system. Stress in the EU owned systemically important financial institutions in PFS countries creates volatility and negatively impacts financial stability, confidence and economic recovery in Southeast Europe and Eurasia.

It is therefore important that the PFS beneficiary countries move quickly to adopt the macroprudential policies and supervision that are emerging in order to better monitor and manage risks in their banking systems in this time of continuing uncertainty. Given the serious risks these countries face, assisting their key economic and financial institutions (Central Banks and Finance Ministries) to accelerate the development of the appropriate macroprudential policies and processes will not only prepare them to respond more quickly and coherently to any new crises but also provides for improved coordination and collaboration with neighboring countries.

A PFS survey conducted in May 2011[1] showed that there is basic understanding of macroprudential process in the Central Banks in SEE which have benefited from basic training from the European Central Bank (ECB). However, in Eurasia, they are farther behind, the needs are greater and the sources of assistance limited, so the initial focus of PFS work in the Macroprudential area would be the Eurasian countries.

Table 1 below provides an overview of the regional initiative: the key objectives, the potential partnerships to be formed in meeting the objectives and carrying out regional activities, the regional

[1] See PFS Macroprudential Survey Results, May 2011

activities to be carried out, the expected outcomes of the regional activities, and indicators to be used to monitor progress toward meeting the objectives.

Table 1: Overview of Regional Initiative

<table>
<tr><th>Objective</th><th>Partnerships</th><th>Activity</th><th>Outcome</th><th>Monitoring</th></tr>
<tr><td>Determine needs and gaps in knowledge and practice of macroprudential supervision and policy among Eurasian partners.</td><td>• Central banks from Beneficiary countries</td><td>1. Conduct a survey of macroprudential capacity and needs</td><td>Economic authorities and financial sector supervisors in PFS Eurasian countries are better informed on needs and gaps in macroprudential processes, tools, and policy options</td><td>Completion of a Study Report, including (1) survey questionnaire, (2) survey results, and (3) conclusions on macroprudential practice needs.</td></tr>
<tr><td>Facilitate sharing of knowledge, experience, strategies, and successful transition approaches between mentor and partner countries.</td><td>• PFS mentor country counterparts
• PFS beneficiary countries’ financial sector authorities</td><td>2. Facilitate a Study tours to mentor country/ies which have shown leadership on macroprudential topics.</td><td>Macroprudential supervision experts establish and strengthen personal and institutional relationships with their peers within the PFS region and are better informed about macroprudential processes, strategies and tools.</td><td>75% of study-tour PFS beneficiary country participants are at least "Satisfied" regarding key learning objectives (sharing of experience, strategies, and tools in macroprudential supervision)</td></tr>
<tr><td>Advance technical skills in specific aspects of macroprudential processes.</td><td rowspan="2">• IMF, World Bank, Financial Stability Institute, European Central Bank
• PFS mentor country counterparts
• PFS beneficiary countries’ financial sector authorities
• Banking Supervisors for South East Europe
• Federal Reserve, FDIC, OCC.</td><td>3. Organize technical workshops/conference hosted by a Eurasian country.</td><td>Broader and deeper technical knowledge on macroprudential topics</td><td>75% of workshop/conference participants are at least "Better Informed" on macroprudential processes, strategies and tools, and are at least "Satisfied" regarding key learning objectives (sharing of experience, strategies, and tools in macroprudential supervision).</td></tr>
<tr><td>Strengthen knowledge and capacity of Eurasia partner countries macroprudential processes tailored to the reality of the financial markets in these countries.</td><td>4. Other demand-driven activities</td><td>Stronger macroprudential processes</td><td>To be determined</td></tr>
</table>

2. The Development Challenge

The global financial crisis underscored the need for economic and financial authorities to pay greater attention to an ever broadening array of data and institutions, to enhance coherence between monetary and financial policies and to review and upgrade the toolkit of the economic and financial authorities to address systemic risks. This was particularly true in developed market economies. However, emerging markets were not spared the spillover effects from international banking organizations facing strained liquidity, withdrawal of credit lines, and calls for repatriation of capital to home countries. The PFS beneficiary countries in Southeast Europe and Eurasia survived the initial challenges of the financial crisis through a series of ad hoc responses, but serious economic and financial sector challenges remain to ensure continued economic growth supported by sound and dynamic banking sectors.

Multiple risks continue to threaten the banking sector

SEE and Eurasian banking sectors in Southeast Europe and Eurasia continue to show signs of heavy exposure to credit, foreign exchange, and liquidity risks. Appendix 2 summarizes some key data regarding banks' risk profiles in six partner countries. Data from that sample reveal a number of striking statistics which highlight the need for roust macroprudential monitoring.

- Credit risk continues to threaten capital levels.
- Asset and liability values are heavily influenced by the value of the Euro, the US dollar, or both.
- Liquidity levels vary greatly between the countries.

In particular, the ongoing EU sovereign debt crisis poses a threat to financial sector stability in Southeast Europe and Eurasia. Many of the systemically important financial institutions (SIFIs) in PFS partner countries are headquartered in the EU countries which presently face sovereign debt issues.[2] Contagion risk is high, as these EU financial institutions deal with financing challenges as well as threats to the value and liquidity of government debt they hold as assets. When such institutions are SIFIs in PFS partner countries, there is a clear need for identification, monitoring, dialogue, and specific planning and coordination to address possible liquidity and capital repatriation, availability of credit lines, and ongoing provision of financial services.

Macroprudential processes are an essential component of the ability of authorities to identify, measure, monitor, and pro-actively respond to those concerns. Macroprudential tools do not solve systemic risk, but they can help to detect it early by providing more comprehensive data and thus allow for more timely and refined solutions to be crafted.

Standards are emerging but needs are immediate

International standards for an effective macroprudential policy and supervision framework are still evolving. Principles will likely be formalized in the near future, but the need to build macroprudential processes in the PFS target region is immediate. Much of the foundation building can be started prior to the full establishment of the international standards and practices.

An IMF Framework Background Paper of March 2011 emphasizes that (1) the goal is to limit the build-up of systemic financial risk; (2) one size does not fit all and a country specific framework should take into account local conditions; (3) macroprudential policymaking requires the collaboration of numerous economic institutions in a country, (3) a formal mechanism in each country should be established to ensure consistency and coordination; and, (5) the Central Bank should be given a prominent role.

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[2] Greece, Ireland, Italy, Portugal and Spain

The European Systemic Risk Board (ESRB) was formed to monitor aggregate exposures in the Euro-currency region, not only those affecting only one country. The ESRB reporting and monitoring processes will likely result in macroprudential standards for EU countries. Those standards and any related training will not necessarily be available to the PFS beneficiary countries, particularly those in the Eurasia region. PFS can start immediately to help to build knowledge and capacity so that its Eurasia partner countries, in particular, can establish and/or strengthen macroprudential processes tailored to the reality of the financial markets in these countries.

Eurasian countries lack donor support

SEE PFS partner countries have and may continue to benefit from technical assistance projects of the European Union and the European Central Bank (ECB). Eurasian partner countries do not have access to the ECB training program nor other course offerings. Eurasian PFS partners are also at earlier stages of development and implementation of macroprudential processes, and they have a greater need to build institutional and staff capacity.

While a number of organizations have presented seminars for central bankers on macroprudential supervision, to date the international donor organizations have not provided coordinated, longer term technical assistance programs focusing on this topic. In addition, the formulation and implementation of macroprudential policy is a multi-institution responsibility and requires other government economic institutions to take part and be trained.

3. Objectives of Regional Initiative

Overarching Objective

To strengthen awareness, knowledge, technical skills and know-how, and capacity of PFS beneficiary countries to accelerate the establishment of a macroprudential framework, and identify key institutional players who are responsible for the preparation, adoption, and implementation of macroprudential processes in those countries. Successful completion of this overarching objective will result in improved financial sector oversight and stronger set of policy tools and activity to detect, respond to and reduce systemic risk.

Intermediate Objective 1

To determine specific macroprudential process needs and gaps in knowledge and practice among Eurasian PFS partner countries. Successful completion of this objective will ensure that further activities are appropriately targeted and effective.

Intermediate Objective 2

To facilitate sharing of knowledge, experience, strategies, and successful transition approaches between PFS mentor and partner countries. This objective seeks to leverage foundation work from USAID financial sector projects and recent ECB projects targeting macroprudential processes. Successful completion of this objective will result in better informed economic and financial sector authorities with stronger interpersonal and institutional connections.

Intermediate Objective 3

To build on improved knowledge, connections, and capacity, and to advance technical skills in specific aspects of macroprudential processes. Successful completion of this objective will enable PFS partner countries to broaden and deepen their technical knowledge on macroprudential topics and elements which they themselves have identified.

Intermediate Objective 4

Other demand-driven objectives may be added as international standards and best practices for macroprudential processes oversight emerge.

4. Partnerships

Likely partnerships for macroprudential processes include:

- International organizations (IMF, World Bank, Financial Stability Institute, European Central Bank) as organizers of related events and/or providers of subject matter experts;
- PFS mentor country counterparts as hosts for study tours, subject matter experts, and presenters at conferences;
- PFS beneficiary countries' financial sector authorities as participants on study tours, attendees and hosts of conferences;
- Possibly groups of financial sector supervisors such as the group of Banking Supervisors for South East Europe as potential sponsors of seminar or workshop at the same venue as their annual meeting;
- Possibly American financial sector supervisors (Federal Reserve, FDIC, OCC) as providers of subject matter experts and presenters at conferences.

5. Proposed Activities

Three activities are envisioned to clarify specific macroprudential needs, to facilitate the exchange of experience and best practices, and to advance supervisory processes throughout the region. While all PFS partner countries can and should benefit from activities on this topic, greatest emphasis should be placed on Eurasian partners, at least through 2011 since they are behind and have less access to targeted EU assistance in this area.

Activity 1

Conduct a survey to determine macroprudential capacity and needs among PFS beneficiary countries. PFS carried out this survey during Q2-2011 via individual e-mail invitations to the heads of supervision, their deputies, and/or the specific individual responsible for macroprudential supervision.

Activity 2

Based on responses to the survey, facilitate study tour(s) to PFS mentor country/ies which have shown leadership in macroprudential supervision and policy. Study tours would be formed in small groups, in order to limit the burden on host country/ies. Time frame for this activity is Q4-2011.

PFS will identify the mentor countries, e.g., Poland or Slovakia, that have shown leadership in the field of macroprudential supervision. EU-member mentor countries participate on the European Systemic Risk Board. EU-member mentors are therefore likely to be well informed on emerging best practices and the processes involved in reaching EU standards for macroprudential supervision. Identification of willing hosts will be coupled with small groups of authorities from beneficiary countries for short study tours. Ideally, two or three beneficiary country delegations could participate in the same study tour provided numbers remained small (only two or three members per any delegation). This approach would strengthen interpersonal relationships with mentor country as well as with other partner delegations.

Activity 3

Cost-share the organization of technical workshops or a conference focused on the specific needs identified. Conference would be hosted by one of the PFS beneficiary countries in the Eurasia region; all PFS partner countries would be invited to attend. Presenters would be invited from PFS mentor countries as well as other subject matter experts on the topics identified. Likely topics for the conference include at least two of the following:

- identification of and policy toward systemically important financial institutions
- transmission mechanism from model to policy,
- detection and monitoring of contagion risk,
- detection and monitoring of liquidity risk.

A Eurasian location is desirable, but an alternative would be to plan the conference to precede or follow the annual meeting of BSCEE supervisors (dates and location to be announced), inviting nonmembers Armenia, Azerbaijan, Georgia, and Kosovo to attend as well. Time frame for this activity is Q1-2012.

Activity 4

"Other demand-driven activities"

Further activities may be planned depending on the success of study tours, the issues raised during workshops and conferences, and other demands from PFS partner countries. Additional activities will be considered if they have a strong chance of succeeding in improving macroprudential processes in PFS partner countries and meeting the final international standards and best practice.

6. Expected Outcomes

The overall outcome is better managed and reduced systemic risks in PFS partner countries.

More specifically,

- Economic authorities and financial sector supervisors in PFS Eurasian countries are better informed on needs and gaps in macroprudential processes, tools, and policy options.
- Macroprudential supervision experts establish and strengthen personal and institutional relationships with their peers within the PFS region and are better informed about macroprudential processes, strategies and tools.
- Economic authorities (i.e. Finance Ministries) and financial sector supervisors develop, establish, and/or strengthen macroprudential processes. Examples include:
    - Macroprudential body/unit created with specific mandate and objectives,
    - Systemically important financial institutions identified,
    - Periodic inputs to macroprudential models modified and improved,
    - Macroprudential models strengthened,
    - Macroprudential reports improved,
    - Communication between PFS partners' macroprudential units improved,
    - Communication between financial sector supervisors and systemically important financial institutions strengthened, and/or
    - Macroprudential policy tools expanded.

- Economic Authorities and financial sector supervisors deepen technical knowledge and expertise on macroprudential topics.

7. Monitoring Plan

This section of the Regional Initiative Implementation Plan outlines how PFS will measure and monitor whether PFS activities are on track and contribute to the achievement of Regional Initiative Outcomes.

PFS will track the results of this Regional Initiative as part of its PFS PMP, using various data sources, such as PFS assessments and benchmarking studies, international institutions data reporting, counterpart self-assessments and reporting. PFS will also use surveys to measure overall satisfaction with PFS events amongst stakeholders (for example, after study tours or knowledge-sharing events), and thereby also gauge future demand for PFS initiatives/interventions. PFS will track cost-sharing amounts and percentages by the beneficiaries of the activities and by other co-financing organizations. Beneficiaries' and other organizations' willingness to share in the costs of PFS activities is a strong indicator of the usefulness of the events.

The Monitoring Plan below highlights the existing Project Monitoring Plan indicators to which this Regional Initiative will contribute; as well as specific indicators at the Regional Initiative's Objective level (outcome-type indicators), and Activity level (output-type indicators).

Table 2: "Macroprudential Supervision Regional Initiative Monitoring Plan"

E&E/EG Office Level	**AO: Broad-based, inclusive and sustainable economic growth and integration in the E&E region**			
	IR: Increased Financial Sector Stability, Growth and Inclusion			
	IR Indicators:	Credit to the private sector as of GDP (FA Framework)		
		Interest rate spread percentage (FA Framework)		
		Capital adequacy		
		NPL as a % of total lending		
	Sub IR 1.1: Increased financial sector integration	**Sub IR 1.2**: Increased harmonization of policies and practices with intl standards	**Sub IR 1.3**: Increased institutional capacity of financial sector actors	**Sub IR 1.4**: Increased access to financial services for historically underserved groups
PFS Program PMP-Level	**Sub IR Indicators:**			
	Number of formal partnerships developed with regional and international standard organizations, donor organizations, and research organizations in PFS areas	Number of Financial Sector Professionals trained on international standards with PFS assistance (PPR)	Number of Financial Sector Supervisors or Regulators trained with PFS assistance (PPR)	Number of financial institutions supported by PFS technical assistance in the area of SME lending
	Number of networks established between PFS financial sector stakeholders across PFS technical areas across E&E region	Number of internationally recognized financial sector standards adopted as a result of PFS assistance	Number of material improvements in the infrastructure institutions that reduce market risks made with PFS assistance (PPR)	Positive change in utilization of donor credit lines or guaranty facilities for onlending to SMEs by those financial institutions supported by PFS technical assistance
		Number of financial sector training and/or certification programs established or supported that meet international standards (PPR)	Increase in revenue of PFS partners associations, training institutions or other organizations for provision of training or other services to financial sector stakeholders. Number of new projects or programs flowing to the partners from PFS and follow-on projects.	Additional indicators will be proposed as part of the proposed Financial Literacy Regional Initiatives.

Project Initiative (RIIP) Level	Regional Initiative Implementation Plan - Macroprudential Supervision			
	Notional Budget: $150,000			
	RIIP Primary Objective:			
	RIIP Intermediate Objective 1: Determine needs and gaps in knowledge and practice of macroprudential supervision and policy among Eurasian partners.	**RIIP Intermediate Objective 2:** Facilitate sharing of knowledge, experience, strategies, and successful transition approaches between mentor and partner countries.	**RIIP Intermediate Objective 3:** Advance technical skills in specific aspects of macroprudential processes.	**RIIP Intermediate Objective 4:** Strengthen knowledge and capacity of Eurasia partner countries macroprudential processes tailored to the reality of the financial markets in these countries.
	A Study Report, including (1) survey questionnaire, (2) survey results, (3) conclusions on macroprudential practice needs, and (4) recommendations on closing the gaps and addressing the needs in macroprudential supervision and policy.	% of study-tour PFS beneficiary country participants are at least "Satisfied" regarding key learning objectives (sharing of experience, strategies, and tools in macroprudential supervision)	% of workshop/conference participants are at least "Better Informed" on macroprudential processes, strategies and tools, and are at least "Satisfied" regarding key learning objectives (sharing of experience, strategies, and tools in macroprudential supervision).	TBD
	Unit of measure: Timely completion of the survey, and the Study Report	Unit of measure: Pre-study-tour and post-study-tour surveys of participants and hosts regarding key learning objectives desired and addressed	Unit of measure: Cumulative number of surveyed participants that mark "Better Informed" on the post conference/workshop survey. Percent of those "Better Informed" to total number of participants calculated.	Unit of measure: TBD

	Activity	Activity Indicator(s)	Related RIIP Objective(s)	Related PMP Objective(s)
Activity Implementation Level	**Activity #1:** Conduct a survey of macroprudential capacity and needs	Four steps complete: Step 1: Design the survey/questionnaire and determine the mechanism for conducting survey. Step 2: Conduct the survey. Step 3: Summarize survey results in a Study Report; draw conclusions and provide recommendations. Step 4. Distribute the Report to the Financial authorities of the surveyed countries and discuss findings and recommendations.	**RIIP Intermediate Objective 1:** Determine needs and gaps in knowledge and practice of macroprudential supervision and policy among Eurasian partners.	**Sub IR 1.1.** Increased financial sector integration **Sub IR 1.3:** Increased institutional capacity of financial sector actors
	Activity #2: Facilitate a Study tours to mentor country/ies which have shown leadership on macroprudential topics.	Number of PFS mentor countries willing to host PFS beneficiary country delegations to share knowledge, experience, strategies, and successful transition approaches in macroprudential regulation	**RIIP Intermediate Objective 2:** Facilitate sharing of knowledge, experience, strategies, and successful transition approaches between mentor and partner countries.	**Sub IR 1.1.** Increased financial sector integration **Sub IR 1.3:** Increased institutional capacity of financial sector actors
		Number of PFS beneficiary countries participating in study-tours on strategies, methods, tools and approaches in macroprudential topics		
		Cumulative number of study-tour participants from PFS beneficiary countries		
	Activity #3: Organize technical workshops/conference, hosted by a Eurasian country.	Cumulative number of conferences/workshops participants, trained in macroprudential processes, strategies and tools.	**RIIP Intermediate Objective 3:** Advance technical skills in specific aspects of macroprudential processes.	**Sub IR 1.3:** Increased institutional capacity of financial sector actors
	Activity #4: Other demand-driven activities	To be Determined	**RIIP Intermediate Objective 4:** Other demand-driven objectives.	**Sub IR 1.3:** Increased institutional capacity of financial sector actors

Appendix 1: About Macroprudential Supervision

What are macroprudential processes?

Macroprudential processes seek to identify, measure, monitor, and respond to potential systemic risk. Goods, services, investments, government spending, and net exports of a country comprise its macro economy. Governments and central banks seek to provide a platform from which the macro economy can operate: stable currency, a reliable payment system, reasonable access to credit, adequate liquidity, and the general absence of asset-price bubbles are important elements of a well-functioning macroeconomic system.[3] Absence or unreliability any of these elements can lead to systemic risk wherein participants in the economy lose confidence in the overall economic system. Lost confidence in the economy typically results in job losses, bank failures, unstable currencies, and/or changes in governments.

Systemic risk in emerging market economies can manifest in several forms including the following:[4]

- From spillovers and contagion from international markets (capital inflow reversals, interruptions in foreign currency liquidity, and financial effects of rising fiscal burdens);
- From domestic credit and market risks due to rapid credit growth and rapid increases in asset prices;
- From domestic markets due to contagion from common exposures and networks as some position holders exit rapidly to limit their losses.

There are two key dimensions of systemic risk: a time dimension and a cross-sectional dimension. The time dimension refers to economic cycles. Financial institutions can amplify the effects of economic expansion or contraction. During expansionary times, credit is more widely available, asset prices increase, and overall risk grows. During periods of economic contraction, the credit supply drops, asset prices decrease, and credit providers seek to address problem assets on their books. The cross-sectional dimension refers to the quantity and type of financial system participants and the need to have a clear understanding of aggregate exposures and cross relationships between participants. For example, if banks and insurance companies have significant exposures in one segment of the economy, macroprudential supervision should require data from both types of entities to be monitored. This allows for a more accurate view of risk concentrations and a clearer picture of the economy and the financial entities within it. Cross relationships are important, too. This emphasizes the need for consolidated supervision as well as the ability to see relationships between financial entities.

Macroprudential processes include both supervision and policy. Macroprudential supervision is ongoing monitoring of the overall economy and its underlying essential elements for systemic risk. It works best when complemented with sound microprudential or institution-specific supervision of financial entities such as banks, securities firms, insurance companies, and pension funds. If financial entities have significant foreign assets, ownership, or influence, macroprudential supervision becomes international as well with cross-border reporting and information sharing encouraged. Macroprudential policy, on the other hand, seeks to reduce systemic risk, strengthen the financial

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[3] Other structures and practical frameworks are needed as well including but not limited to a reliable legal framework and judicial system, stable government and standardized accounting and reporting processes. Within the PFS region, most of the most basic infrastructure elements (water, power, transportation and communication networks, food supplies, etc.) are well in place.

[4] Ramon Moreno, Policymaking from a “macroprudential” perspective in emerging market economies, January 2011

system against shocks, and help the economy continue functioning stably.[5] Macroprudential policies can be powerful and have quick and long-lasting effects. Decisions to change macroprudential policy must be made with great care and implemented with caution.

To summarize, macroprudential processes seek to monitor and limit systemic risk. There is a time dimension and a cross-sectional dimension to systemic risk. The former allows for evaluation over time and through the economic cycle. The latter provides perspective on the depth and breadth of risk exposures and allows for better monitoring of risk concentrations and cross exposures between financial entities in the financial sector. Macroprudential supervision refers to ongoing monitoring, and macroprudential policy refers to the tools available to moderate systemic risks. Microprudential or institution-specific supervision of financial entities is essential to understanding the overall economy. However, the macro-level view is important because aggregate risks in the financial sector may be greater than the sum of the risks in individual institutions.

What should macroprudential processes do?

Macroprudential processes should provide a view of the current and emerging systemic risks present in an economy. The financial sector, due to its strong link to the real economy, is an appropriate place to look for information. Financial sector supervisors as the implementers of microprudential supervision provide important data and perspective. When systemic risks emerge, macroprudential supervision should identify those risks, and macroprudential policy options should be explored and applied with great care. If executed well, macroprudential supervision and policy can work together to reduce systemic risk and to dampen the effects of the high and low points of the economic cycle.

It is important to note that macroprudential processes do not replace the marketplace as the arbiter of profits, losses, and sound risk management. Even robust micro and macroprudential processes will not stop failures, eliminate price bubbles, or force enthusiastic bankers to slow growth to a manageable pace. Macroprudential processes focus on emerging systemic imbalances or risks and seek to limit the effects of systemic risks on the wider economy.

Essential Elements for Macroprudential Processes

Macroprudential processes should be supported with a clear mandate, good quality data, well qualified personnel, excellent communication, and good governance. A clear mandate for macroprudential supervision and policy provides clarity of mission, access to necessary data, and justification for policy decisions when they are made. Good data are essential to monitoring processes. Without reliable data, even the best supervisors and models will make faulty conclusions. Well qualified personnel with appropriate monitoring tools and policy options are also needed. Macroprudential supervision professionals should communicate regularly with microprudential supervisors, with foreign supervisors (home-host relationships or through supervisory colleges), and with macroprudential policy makers. Finally any mandate to monitor and limit systemic risk should be coupled with good governance which allows macroprudential supervisors to have operational independence as well as clear accountability for their actions.[6] Figure 1 shows these essential elements and interactions which transform macroprudential supervisory reports and recommendations into macroprudential policy and actions.

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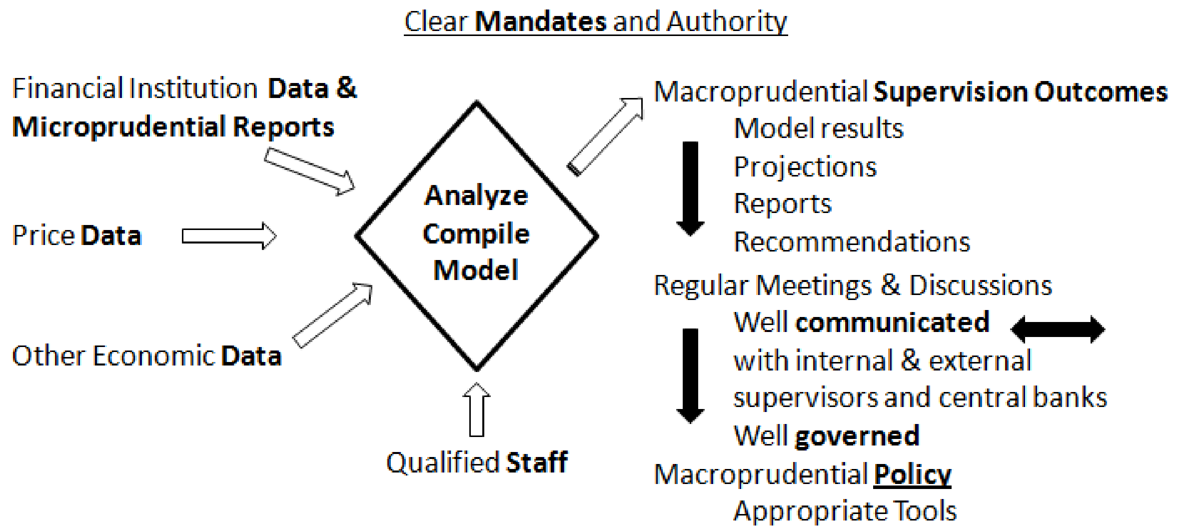
[5] Committee on the Global Financial System (Bank for International Settlements) – Macroprudential instruments and frameworks: a stocktaking of issues and experiences, p. 1

[6] FSB / IMF / BIS: Macroprudential policy tools and frameworks: Update to G20 Finance Ministers and Central Bank Governors, 14 February 2011, pp 2-3.

Some economists would argue that macroprudential oversight should rest with experts outside of government, outside of the industry, and outside of microprudential supervision.[7] For well developed, market economies this may be partly true due to the breadth and complexity of financial institutions. Most emerging market countries have vested responsibility for macroprudential supervision with the central bank, a financial supervisory authority, or some oversight group comprised of officials from central bank, financial supervisor, and/or academia. In emerging markets, this approach is generally sound.

Figure 1: Essential Elements for Macroprudential Supervision



Outlined arrows show essential elements.
Black arrows show transmission mechanism from macroprudential supervision outputs to macroprudential policy.

Essential Data for Collection and Analysis

The goal of collecting data is to monitor the financial system for sources of instability. The effectiveness of macroprudential supervision depends on many inputs, including quantitative or qualitative information from supervisors, regulators, and macroeconomists (and in some cases from market participants and other stakeholders) in seeking to identify systemic risks.[8] Periodic reports from various kinds of financial institutions should meet most of the data requirements, especially if periodic reports are comprehensive in content and scope. When specific sources of instability are detected through emerging trends, through cross relationships, or through stress-testing analysis, focus may shift to specific institutions and/or to macroprudential policy recommendations.

In June 2001, the IMF Executive Board endorsed a 'core' and 'encouraged' set of financial soundness indicators (FSIs). Six criteria were applied in drawing up this list. Indicators should: focus on core markets and institutions; have analytical significance; have revealed usefulness; have relevance in most circumstances (i.e. should not be country-specific); should be available; and be parsimonious – achieving maximum information content from a limited number of FSIs.[9]

Appendix 1 provides a list of the FSIs: 12 core indicators and 27 encouraged indicators. All twelve core indicators focus on deposit-taking institutions; nearly half of the twenty-seven encouraged

[7] Anne Sibert, A systemic risk warning system, 16 January 2010
[8] Jean-Claude Trichet, Macroprudential supervision in Europe, 11 December 2009
[9] Andrew Moorhouse, An introduction to Financial Soundness Indicators, 1 February 2004

indicators relate to deposit-taking institutions as well. The remaining encouraged indicators seek to collect data on other parts of the financial sector, the non-financial corporate sector, households, market liquidity, and real estate markets. The encouraged set also helps to identify systemically important financial institutions and non-financial corporations. PFS partner countries may determine that other data should also be considered, but the IMF indicators are an international best practice and therefore an appropriate starting place.

Systemically Important Financial Institutions

Systemically important financial institutions (SIFIs) can contribute to systemic risk. Identification of SIFIs can be challenging; there are a number of relevant factors: size of the institution, its interconnectedness with the rest of the financial system, and the degree of substitutability in the event of a failure of the critical services the institution provides.[10] Stated bluntly, SIFIs pose sufficient systemic risk to a financial system that they are considered “too big to fail,” at least in the short run. Approaches toward SIFIs are still emerging. Note that a SIFI in one country may not be a SIFI in another, and vice versa. Moreover, even if an institution is considered a SIFI in more than one country, is may be far important to some countries than to others.

PFS partner country example:

Intesa Sanpaolo Group is based in Italy and is a SIFI there. It is also a SIFI in Serbia (and other PFS countries) where, for instance, subsidiary Banca Intesa is the largest bank in the country with 14% of total banking assets.[11] While systemically significant in both countries, Serbian assets represent only 0.5% of Intesa Sanpaolo Group’s assets.[12] It is therefore critical that Serbian macroprudential processes consider not only the market impact of Banca Intesa in Serbia, but also that bank’s relationship with its parent, the parent company’s presence in other markets, and its consolidated financials.[13] Home-Host relationships are also important in understanding and managing this SIFI; that is to say that local financial supervisors should have strong, ongoing relationships with the financial supervisors in the country where the parent company is based.[14] Taking this example one step further, significant deterioration in credit quality or liquidity or capital at the consolidated parent level could lead to strategic decisions to shrink holdings, sell assets, and/or close banking facilities.

Understanding that a financial institution is significant is only the first step. Monitoring that institution, its parent, and their holdings, and maintaining good working relationships with the institution’s management and supervisor at the local and consolidated level are important steps as well.

Some PFS beneficiary countries’ recent history:

Recent experience within the region of Southeast Europe and Eurasia provides useful perspective on SIFIs. The banking sector in several countries in Southeast Europe includes sizeable financial institutions from Austria, Greece, and Italy.[15] Some of these institutions would be considered SIFIs in the PFS economies where they operate. After the international financial crisis began and market liquidity dissipated, regulatory authorities in several PFS countries worked with the international

[10] Jose Manuel Gonzalez-Paramo, Reform of the architecture of the financial system, 21 June 2010
[11] September 2010 data, National Bank of Serbia, www.nbs.rs
[12] Intesa Sanpaulo 2010 Third-quarter results, www.group.intesasanpaolo.com
[13] Principle 24, Consolidated supervision, Basel Core Principles for Effective Banking Supervision, October 2006
[14] Principle 25, Home-host relationships, Basel Core Principles for Effective Banking Supervision, October 2006
[15] Banking organizations from these countries moved aggressively into several countries from the former Yugoslavia, mostly through acquisition of existing banking franchises.

banking organizations active in their countries to establish agreements under the European Bank Coordination Initiative (also known as the Vienna Initiative) wherein EU parent banks and home country regulators agreed to maintain their commitments in local PFS markets in exchange for credit enhancement facilities and concessions from the regulators.[16] In this example, macroprudential policy yielded agreements[17] which worked to reduce potential liquidity drains and reductions in credit availability and therefore reduced systemic risk.

Types of Macroprudential Policies

Policy instruments used with a view to preserving the stability of the financial system as a whole – beyond those needed to assure the stability of individual institutions – may be considered "macroprudential."[18] Broadly categorized, these include:

- intervention in the foreign exchange (FX) market or accumulation of FX reserves,
- measures to strengthen bank balance sheets and capital (e.g. minimum capital requirements, loan loss provision rules)
- measures to maintain the credit quality or to influence credit growth or allocation, (e.g. loan-to-value limits, debt-service-to-income limits)
- measures to control capital flows.

Central banks and financial sector supervisors in PFS partner countries should have access to some or most of these tools now.

The Vienna Initiative examples discussed in the previous section are a combination of several macroprudential policy categories in this list, especially the last three. The agreements between supervisors in southeastern Europe and the EU-based SIFIs focused on the maintenance of credit supply and liquidity and discouraged repatriation of liquidity and capital to the home country.

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[16] USAID / PFS Technical Brief #1, pp. 6-7; Note further that USAID supported the National Bank of Serbia as it developed and piloted the first agreement under this initiative.

[17] With USAID's assistance, Serbia piloted the first Vienna Initiative agreement in March 2009. It was followed by similar agreements in: Bosnia Herzegovina, Hungary, Latvia, and Romania.

[18] Ramon Moreno, Policymaking from a "macroprudential" perspective in emerging market economies, January 2011

Appendix 2 – Financial Soundness Indicators: The Core and Encouraged Sets

Core set for deposit takers	
Capital adequacy	Regulatory capital to risk-weighted assets Regulatory Tier 1 capital to risk-weighted assets Nonperforming loans net of provisions to capital
Asset quality	Nonperforming loans to total gross loans Sectoral distribution of loans to total loans
Earnings and profitability	Return on assets Return on equity Interest margin to gross income Noninterest expense to gross income
Liquidity	Liquid assets to total assets (liquid asset ratio) Liquid assets to short-term liabilities
Sensitivity to Market Risk	Net open position in foreign exchange to capital
Encouraged set	
Deposit takers	Capital to assets Large exposures to capital Geographical distribution of loans to total loans Gross asset position in financial derivatives to capital Gross liability position in financial derivatives to capital Trading income to total income Personnel expense to noninterest expenses Spread between reference lending and deposit rates Spread between highest and lowest interbank rate Customer deposits to total (non-interbank) loans Foreign-currency-denominated loans to total loans Foreign-currency-denominated liabilities to total liabilities Net open position in equities to capital
Other Financial corporations	Assets to total financial system assets Assets to gross domestic product (GDP)
Nonfinancial corporate sector	Total debt to equity Return on equity Earnings to interest and principal expenses Net foreign exchange exposure to equity Number of applications for protection from creditors
Households	Household debt to GDP Household debt service and principal payments to income
Market liquidity	Average bid-ask spread in the securities market [19] Average daily turnover ratio in the securities market [20]
Real estate markets	Real estate prices Residential real estate loans to total loans Commercial real estate loans to total loans

[19] Moorhouse, op. cit.; and IMF: Financial Soundness indicators, Compilation Guide, March 2006
[20] Or in other markets that are most relevant to bank liquidity, such as foreign exchange markets.

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