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Bank Regulation and Supervision around the World

A Crisis Update

Martin Čihák
Aslı Demirgüç-Kunt
María Soledad Martínez Pería
Amin Mohseni-Cheraghlou

The World Bank
Office of the Chief Economist
Finance and Private Sector Development Network
&
Development Research Group
Finance and Private Sector Development Team
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Abstract

This paper presents the latest update of the World Bank Bank Regulation and Supervision Survey, and explores two questions. First, were there significant differences in regulation and supervision between crisis and non-crisis countries? Second, what aspects of regulation and supervision changed significantly during the crisis period? The paper finds significant differences between crisis and non-crisis countries in several aspects of regulation and supervision. In particular, crisis countries (a) had less stringent definitions of capital and lower actual capital ratios, (b) faced fewer restrictions on non-bank activities, (c) were less strict in the regulatory treatment of bad loans and loan losses, and (d) had weaker incentives for the private sector to monitor banks' risks. Survey results also suggest that the overall regulatory response to the crisis has been slow, and there is room to improve regulation and supervision, as well as private incentives to monitor risk-taking. Specifically, comparing regulatory and supervisory practices before and after the global crisis, the paper finds relatively few changes: capital ratios increased (primarily among non-crisis countries), deposit insurance schemes became more generous, and some reforms were introduced in the area of bank governance and bank resolution.

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Bank Regulation and Supervision around the World:

A Crisis Update

Martin Čihák, Aslı Demirgüç-Kunt, María Soledad Martínez Pería,

and Amin Mohseni-Cheraghlou[1]

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I. INTRODUCTION

Bank regulation and supervision has been the subject of much recent debate and attention, due in large part to the global financial crisis that started in the late 2000s. A number of studies have pointed to weaknesses in regulation and supervision as one of the factors leading to the crisis (Dan, 2010; Lau, 2010; Levine, 2010; Merrouche and Neir, 2010; and Barth et al., 2012). Not only did the crisis raise important questions on the appropriateness of the regulatory and supervisory approaches pursued in the run-up to the crisis, but also it prompted regulators to consider important changes in regulation and supervision. Despite the high level of interest in the topic and extensive work on the global regulatory framework (exemplified for instance by the various initiatives of the Basel Committee on Banking Supervision), there is a surprising lack of consistent and up-to-date information on the regulatory and supervisory approaches pursued in countries around the world and the changes brought about by the crisis.

This paper presents and examines the World Bank's 2011–12 Bank Regulation and Supervision Survey (BRSS). The survey is an updated and substantially expanded version of earlier surveys of the same name, released by the World Bank in 2001, 2003, and 2007.[2] The current, fourth iteration of the survey provides information on bank regulation and supervision for 143 jurisdictions (Table 1) and includes close to 300 questions. It covers the period 2008–10, and therefore, allows us to examine the recent state of bank regulation and supervision in a wide range of countries and to compare it to the pre-crisis situation.

Using the BRSS, this paper addresses two main questions: What are the features of the regulatory and supervisory frameworks of countries that were directly hit by the global financial crisis, and did they differ from the rest of the world? How have national regulatory and

[2] Note that the three previous surveys captured information as of 1999, 2001, and 2005, respectively.

supervisory practices changed since the previous survey in response to the global financial crisis?

Based on a series of univariate tests, we find significant differences between crisis and non-crisis countries in several aspects of regulation and supervision. First, crisis countries had less stringent definitions of capital and lower actual capital ratios. Second, banks in crisis countries faced fewer restrictions on non-bank activities such as insurance, investment banking, and real estate. Third, regulations concerning the treatment of bad loans and loan losses were less strict in crisis countries. Finally, in crisis countries, there were weaker incentives for the private sector to monitor banks' risks.

Comparing regulation and supervision before and after the global crisis, we see that the overall regulatory response to the crisis has been slow, although we find evidence of a number of significant changes. In particular, capital ratios increased, deposit insurance schemes became more generous, and reforms were introduced pertaining to bank governance and bank resolution. In some of these areas, we observe differences between crisis and non-crisis countries. These findings suggest the reform process is ongoing and there is still room for changes in both regulation and supervision frameworks and incentives for private monitoring.

This paper is related to studies that have examined previous rounds of the BRSS. Barth et al. (2001) present the data from the first BRSS. Using this survey, Barth et al. (2004) assess the relationship between specific regulatory and supervisory practices and banking-sector development, efficiency, and fragility. With the same dataset, Barth et al. (2006) show that restrictions on the entry of banks, government ownership of banks, and restrictions on bank activities hurt banking system performance. Finally, Barth et al (2008) compare the first three BRSSs (covering the period 1999-2005) and conclude that while many countries strengthened

capital regulations and official supervisory agencies over this period (following Basel guidelines), the reforms are not likely to improve bank stability or efficiency.

The rest of the paper is organized as follows. Section II introduces the 2011-12 BRSS, describing how it has been designed and implemented. Section III examines differences between the regulatory and supervisory framework of crisis and non-crisis countries. Section IV examines recent changes in regulation and supervision distinguishing between crisis and non-crisis countries. Section V concludes. Appendix I presents more detailed survey results, going through every section of the survey, providing an update on the state of regulation and supervision around the world across advanced economies and emerging and developing countries.

II. THE DESIGN AND IMPLEMENTATION OF THE 2011-12 BRSS

The survey provides data for 143 countries[3], of which 37 are advanced economies and 106 are emerging markets and developing economies (EMDEs).[4] These include most major economies (all G-20 countries except for Japan and Saudi Arabia) and countries from all regions (Figure 1). Overall, the survey sample provides a broadly balanced representation of countries in terms of level of income and population size.

In terms of topical coverage, the survey is quite comprehensive, providing a unique and valuable set of information on a wide range of issues related to bank regulation and supervision. It contains over 270 questions, some with sub-questions. In total, the survey covers about 630 features of bank regulation and supervision, in the following 14 broad areas: (1) entry into banking, (2) ownership, (3) capital, (4) activities, (5) external auditing requirements, (6) bank

[3] The 2011–12 Bank Regulation and Supervision Survey is available at http://go.worldbank.org/WFIEF81AP0. Data from previous iterations of the survey are available at http://go.worldbank.org/SNUSW978P0.
[4] See Table 1 for a detailed list of countries in this survey. The distinction between "advanced economies" and "emerging market/developing/economies" follows IMF's September 2011 *World Economic Outlook*.

governance, (7) liquidity and diversification requirements, (8) depositor (savings) protection schemes, (9) asset classification, provisioning and write-offs, (10) accounting and information disclosure, (11) discipline/problem institutions/exit, (12) supervision, (13) banking sector characteristics, and (14) consumer protection. For reasons of comparability with the previous three rounds of the survey, about a half of the questions in the 2011–12 survey are similar to those in previous rounds. To result in more precise answers, a few questions have been reformulated. Also, almost half of the questions added were in particular on issues highlighted by the crisis (e.g., macro-prudential regulation and consumer protection) and on matters related to the implementation of the new Basel rules. Some 58 percent of the survey consists of binary questions that could be answered "Yes" or "No". About 5 percent of the questions are categorical questions, wherein respondents are required to choose one or more options from a set of alternatives. The remaining 37 percent are quantitative questions, which include various questions about ratios, currency amounts, and other numerical indicators.

The survey was generally addressed to the head of banking supervision in the central bank or to the head of a separate banking supervision agency. In some countries, the responses were provided directly by the agency head. In other countries, the agency head delegated the completion of the questionnaire to the relevant senior-level staff.

The design and implementation of the survey entailed a significant and lengthy effort to ensure the consistency and comprehensiveness of responses across countries. First, in order to make questions clearer and answers more comparable across countries, detailed guidelines were drafted with the help of a senior banking regulator. Also, in each of the survey's sections, the respondents had the option of entering other relevant country-specific information that was not captured by any of the existing questions in the survey that they thought needed to be included in

the dataset to ensure comprehensiveness. Second, after initial survey responses were received, they were cross-checked by an external consulting company (PKF UK and its partner Auxilium), World Bank staff, and a senior supervisory expert. In cases of obvious errors and inconsistencies in the responses, the regulators were contacted and requested to correct their responses. Finally, after cross-checking the responses obtained, the dataset was sent back to the regulators for their review and correction (if necessary).[5]

Responses to some of the quantitative questions in Section 13 and some other sections of the questionnaire were excluded from the published version of the survey due to issues of comparability. Those questions cover topics on which consistent cross-country data are already available, such as total banking system assets. These questions are indicated with an asterisk in the guide to the survey.

The detailed country-by-country survey results and the guide to the questionnaire are available online, at http://www.worldbank.org/financialdevelopment. The rest of the paper highlights the main findings from the survey. More detailed tables and discussion of survey results can be found in Appendix I.

III. DIFFERENCES BETWEEN CRISIS AND NON-CRISIS COUNTRIES

Much has already been written about the causes of the recent global crisis (Caprio, Demirgüç-Kunt, and Kane, 2010; Demirgüç-Kunt and Serven, 2010; Rajan, 2010, among others), and discussion on the explanations of the crisis is still ongoing. In this section, we do not attempt to sort out among the many possible contributing factors that brought about the crisis, but rather focus on the potential role of gaps in regulation and supervision. To this effect, we set

[5] 74 countries responded with minor changes.

out to assess whether there were notable differences in the regulatory and supervisory structure of countries that were engulfed in the recent global crisis and those that were not. More specifically, we analyze the BRSS responses by crisis-hit countries and compare them to the rest of the world, using univariate tests to identify which parts of the regulatory and supervisory framework were different between these two groups of countries. We report differences between crisis and non-crisis countries based on the 2007 and 2011–12 surveys. The reason why we consider both surveys is because regulation and supervision could have changed during the crisis and we do not want to interpret differences found during the crisis as explaining why some countries experienced the crisis more strongly than others.

We identify crisis countries using the database assembled by Laeven and Valencia (2010). For the purpose of our calculations, crisis countries consist of two groups of countries identified in the Laeven and Valencia (2010) database. The first group comprises 13 countries that experienced a *systemic banking crisis* between 2007 and 2009 (United States, United Kingdom, Iceland, Ireland, Latvia, Belgium, Luxembourg, Netherlands, Austria, Denmark, Germany, Kazakhstan, and Ukraine). The second group includes 8 countries that experienced a *borderline systemic crisis* in the same period (France, Greece, Hungary, Portugal, Russia, Slovenia, Spain, and Switzerland). All the other countries in our database are treated as non-crisis countries. As a robustness check, we also perform calculations in which only the first group of 13 countries classified as *systemic banking crisis* is identified as crisis countries, with broadly similar results.

To determine whether there are significant differences in regulation and supervision in crisis versus non-crisis countries, we conduct a series of mean t-tests on responses to individual survey questions. From this analysis, summarized in Table 2, five main findings stand out. First,

crisis countries tended to allow for less stringent definitions of capital, had more discretion in how banks calculated capital requirements, and exhibited lower actual capital ratios than the rest of the world. Both the 2007 and 2011–12 BRSSs show that crisis countries were more likely to allow the initial disbursement or subsequent injections of capital to be done with assets other than cash or government securities. At the same time, while 80 (100) percent of crisis countries allowed Tier 3 (Tier 2) in regulatory capital, only 28 (85) percent among non-crisis countries did so. Moreover, crisis countries were also more likely to allow hybrid debt instruments to be part of Tier 1. Also, the share of crisis countries that allowed banks to calculate their capital requirement for credit risk based on banks' internal ratings models was 95 percent, about twice as a large as in the rest of the world. Finally, while the average level of the actual risk based capital ratio (Tier 1 capital to assets) of the banking system prior to the crisis was 16 (14) percent among non-crisis countries, this figure was 12 (9) percent among crisis countries. The same pattern is observed if we look at the statistics gathered in the 2011–12 Bank Regulation and Supervision Survey.

Second, banks in crisis countries faced fewer restrictions to engage in non-bank activities such as insurance, investment banking, real estate, as well as in non-financial activities. Using an index of 1 to 4 to measure restrictions imposed on bank activities, where higher values denote greater restrictions, we find that non-crisis countries were less likely to allow for a full range of non-bank activities to be conducted directly in banks.

Third, crisis countries were less likely to have in place non-performing loans and provisioning requirements and were more lax in the treatment of bad loans and loan losses. Close to 90 percent of non-crisis countries had an asset classification system under which banks had to report the quality of their loans using a common regulatory scale, while 57 and 65 percent of

crisis countries had such systems in place in the 2007 and the 2011–12 survey, respectively. Also, half of the crisis countries allowed accrued though unpaid interest/principal to enter the bank income statement when loans are non-performing, but only 24 percent of non-crisis countries allowed this by 2011-12. The comparison with the 2007 survey suggests that the practice of overestimating loan interest and principal payments got worse as the crisis unfolded and as banks tried to prop up their balance sheets. Moreover, while according to the 2011–12 survey in 53 percent of crisis countries banks were allowed to upgrade the classification of a loan or advance immediately after it had been restructured, this was the case in only 30 percent of non-crisis countries. According to the 2011–12 BRSS, while 70 percent of non-crisis countries had a regulatory requirement for general provisions on loans and advances, only 25 percent of crisis countries had such provisions in place. The 2011–12 survey shows that only 30 percent of crisis countries had minimum levels of specific provisions for loans and advances set by the regulator. Finally, almost 80 percent of non-crisis countries had such requirements in place.

Fourth, regulators in crisis countries were less able to demand banks to put up more equity, to constitute greater provisions or to suspend bonus and management fee payments. Based on the 2011–12 BRSS, in 83 percent of non-crisis countries the regulator had the power to request banks to put up new equity. This was true only in 65 percent of crisis countries. Similarly, according to the 2011–12 survey, in 98 percent of non-crisis countries, the regulator could request banks to constitute provisions to cover actual or potential losses. This was true in only 90 percent of crisis countries. Finally, according to the 2007 survey, in almost 70 percent of non-crisis countries regulators could suspend banks' decision to pay certain bonuses or management fees. This was true in only 32 and 37 percent of crisis countries, respectively.

Fifth, even though crisis countries had stronger information disclosure requirements, the incentives for the private sector to monitor bank risks were weaker in these countries. At the start of the crisis, all crisis countries were required to produce consolidated accounts covering all bank and any non-bank financial subsidiaries. Crisis countries were more likely to require banks to disclose risk management procedures, capital ratios, transactions with related parties, and the scope of consolidation. In over 95 (79) percent of crisis countries, issuance of bonds (commercial paper) received a credit rating, whereas this happened in 47 (32) percent of non-crisis countries. While all crisis countries had an explicit deposit insurance scheme before the crisis erupted, this was in effect in about 50 percent of the non-crisis countries before the crisis and in 72 percent by the 2011–12 BRSS. According to the 2007 survey, in a larger share of crisis countries (11 percent in crisis versus 2 percent in non-crisis), the deposit insurance agency had the power to insure liabilities beyond any explicit deposit insurance scheme.

Overall, while these tests do not imply causality, they nevertheless provide suggestive evidence that crisis countries suffered from greater weaknesses in their bank regulations and supervision frameworks.

IV. Regulatory Changes in the Context of the Global Financial Crisis

By comparing responses to the 2011-12 and 2007 surveys, we are able to provide the first documentation of recent regulatory changes in the context of the global financial crisis. Overall, the survey responses underscore the evolutionary, slow nature of regulatory and supervisory changes. It does not appear that the recent global financial crisis caused a major and sudden change in regulatory frameworks around the world. For example, 85 percent of “yes” or “no” responses remained unchanged between the 2007 and 2011–12 surveys (i.e., “no” remained “no”, “yes” remained “yes”). Similarly, most of the quantitative indicators showed relatively

little overall movement throughout the crisis. Notwithstanding this gradual evolution of regulatory frameworks, there have been some notable changes in some areas of regulation and supervision.

Table 3 shows the subset of questions for which we observe statistical significant changes between the 2007 and 2011-12 surveys. The table presents responses from the 2007 and 2011-12 surveys for all countries combined and also distinguishes between crisis and non-crisis countries. Furthermore, for each question, the table shows the p-value from a test of differences in responses across the two surveys.

Overall, we find changes in the area of bank capitalization, governance, activities, diversification, auditing, and deposit insurance. Furthermore, in some instances we find differences between crisis and non-crisis countries. First, we find that non-crisis countries exhibited an increase in their risk based and tier 1 capital ratios, while changes among crisis countries were not statistically significant. Second, among non-crisis countries we observe an increase in the share of countries that set regulatory limits on related party exposures. On the other hand, the percentage of crisis countries that set regulatory limits on related party exposures declined between the 2007 and 2011-12 surveys. Third, among non-crisis countries there was an increase in the percentage of countries that impose regulatory rules or supervisory guidelines regarding asset diversification. Fourth, most countries (and especially) non-crisis countries exhibited a relaxation of restrictions on bank activities between 2007 and 2011-12. Fifth, the share of countries requiring audits and risk management procedures to be disclosed increased significantly across all countries. Sixth, the share of countries with explicit deposit insurance increased among non-crisis countries and the coverage of deposit insurance increased across all countries.

Comparing responses between the 2007 and 2011-12 surveys and attributing the changes observed to the crisis can be problematic because we cannot be certain that the changes observed were indeed triggered by the crisis. Hence, to investigate the changes that were directly related to the crisis, the 2011-12 survey includes questions that specifically ask regulators to identify reforms introduced in response to the crisis.

Table 4 lists these questions, the responses provided by crisis and non-crisis countries, and the p-values from tests of the null that the changes observed across countries are not significant. The responses confirm the changes in regulations pertaining to bank governance and deposit insurance highlighted above. Furthermore, Table 4 also suggests that bank resolution was also an area of reform after the crisis.

Interestingly, regulatory changes during the global financial crisis did not seem to differ significantly (with some exceptions) between countries that were directly hit during the global financial crisis and those that avoided the direct crisis impact (Table 4).[6] In the area of bank governance, crisis-hit countries were more than twice as likely as non-crisis countries to introduce new requirements on executive compensation (Table 4). In the area of deposit protection, we observe no significant differences. Similarly, in the area of bank resolution framework, the differences are not very strong.

Overall, while some of these reforms are encouraging, the survey suggests that the regulatory response to the crisis has been slow, and that there is room for further improving the regulatory and supervisory frameworks as well as private incentives to monitor risk-taking.

[6] The analysis in this section uses the same definition of "crisis" and "non-crisis" countries as used in the preceding section.

V. CONCLUSIONS

The data collected via the 2011–12 Bank Regulation and Supervision Survey provide interesting insights into the state of regulatory and supervisory practices around the world against the background of the global financial crisis. The unique dataset, made publicly available at http://www.worldbank.org/financialdevelopment, illustrates differences in regulation between crisis and non-crisis countries and also highlights the ways in which bank regulation and supervision has changed so far as a result of the global financial crisis.

Comparing responses from crisis and non-crisis countries, we find that crisis countries (those with either full-fledged or borderline systemic banking crisis in 2007–09) tended to allow for less stringent definitions of capital, more discretion in how banks calculated capital requirements, and also exhibited lower actual capital ratios. At the same time, the analysis revealed that banks in crisis countries faced fewer restrictions to engage in non-bank activities such as insurance, investment banking and real estate activities. Crisis countries were also more lax in the treatment of bad loans and loan losses. Similarly, regulators in crisis countries were less able to demand banks to recapitalize banks, to constitute greater provisions or to suspend bonuses or management fees. Finally, even though crisis countries had stronger information disclosure requirements, the incentives for the private sector to monitor banks' risks were weaker in crisis countries. Overall, while these tests do not imply causality, they nevertheless suggest that crisis countries had weaker regulatory and supervisory frameworks compared to those countries that fared better during the global financial crisis.

The survey results also underscore the evolutionary nature of the regulatory and supervisory changes at the national level. The recent financial crisis did not trigger a major and sudden change in national regulatory and supervisory frameworks around the world and most of

the observed changes are relatively slow and gradual. Nonetheless, there have been some notable developments in several areas: capital ratios increased (primarily among non-crisis countries), deposit insurance schemes became more generous, and reforms were introduced in the area of bank governance and bank resolution. While some of these reforms are encouraging, overall the survey results suggest that there is room for further improving the regulatory and supervisory frameworks as well as private incentives to monitor risk-taking.

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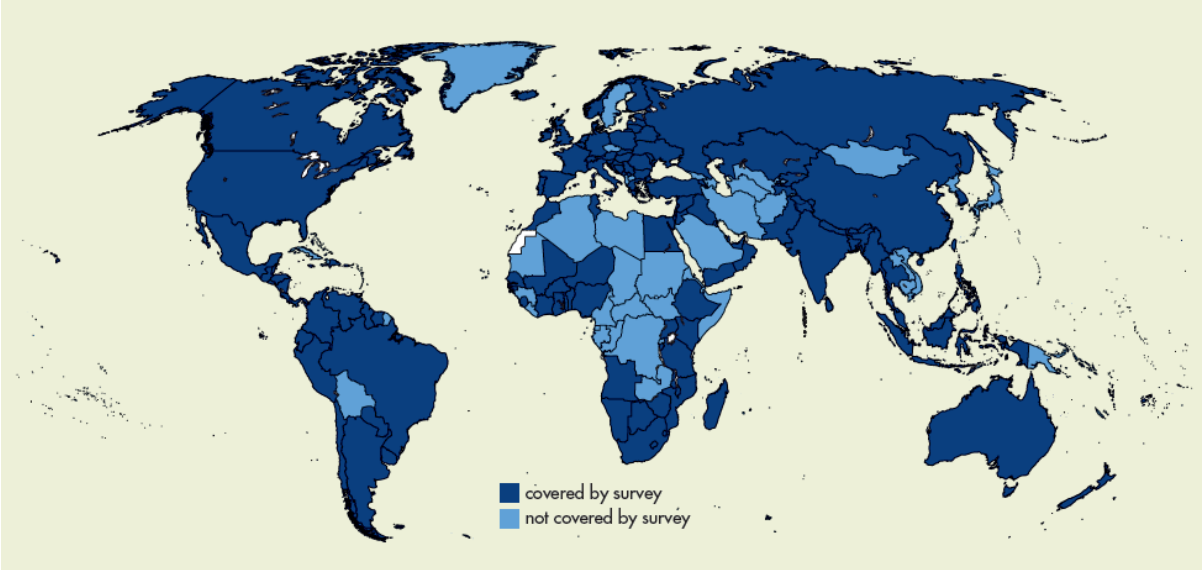
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FIGURE 1. GEOGRAPHICAL DISTRIBUTION OF THE COUNTRIES IN THE 2011–12 SURVEY



Source: The World Bank's 2011–12 Bank Regulation and Supervision Survey.

TABLE 1: JURISDICTIONS PARTICIPATING IN THE SURVEY

Angola	**Hong Kong SAR, China**	Pakistan
Argentina	Hungary	Palestinian Territory
Armenia	**Iceland**	Panama
Australia	India	Paraguay
Austria	Indonesia	Peru
Bahrain	Iraq	Philippines
Bangladesh	**Ireland**	Poland
Belarus	**Isle of Man**	**Portugal**
Belgium	**Israel**	Puerto Rico
Belize	**Italy**	Qatar
Benin	Jamaica	Romania
Bhutan	**Jersey**	Russian Federation
Bosnia and Herzegovina	Jordan	Samoa
Botswana	Kazakhstan	Senegal
Brazil	Kenya	Serbia
Bulgaria	Korea, Republic of (South Korea)	Seychelles
Burkina Faso	Kosovo	Sierra Leone
Burundi	Kuwait	**Singapore***
Canada	Kyrgyzstan	**Slovakia**
Cayman Islands	Latvia	Slovenia
Chile	Lebanon	South Africa
China-People's Rep.	Lesotho	**Spain**
Colombia	**Liechtenstein**	Sri Lanka
Cook Islands	Lithuania	Suriname
Costa Rica	**Luxembourg**	Swaziland
Côte d'Ivoire	**Macao, SAR**	**Switzerland**
Croatia	Madagascar	Syrian Arab Republic
Cyprus	Malawi	**Taiwan, China**
Denmark	Malaysia	Tajikistan
Dominican Republic	Maldives	Tanzania, United Republic of
Ecuador	Mali	Thailand
Egypt	**Malta**	Togo
El Salvador	Mauritius	Tonga
Estonia	Mexico	Trinidad and Tobago
Ethiopia	Moldova, Republic of	Tunisia
Fiji	Montenegro	Turkey
Finland	Morocco	Uganda
France	Mozambique	Ukraine
Gambia	Myanmar	United Arab Emirates
Germany	Namibia	**United Kingdom**
Ghana	Nepal	**United States**
Gibraltar	**Netherlands**	Uruguay
Greece	**New Zealand**	Vanuatu
Guatemala	Nicaragua	Venezuela, Bolivarian Republic of
Guernsey	Niger	**Virgin Islands, British**
Guinea-Bissau	Nigeria	Yemen
Guyana	**Norway**	Zimbabwe
Honduras	Oman	

Notes: Advanced economies in bold. Emerging markets and developing economies in regular font. The classification follows IMF's September 2011 *World Economic Outlook* (WEO). For jurisdictions not classified by IMF's 2011 WEO, 2010 output per capita figures were used to place the jurisdiction in one of the two income categories utilized in this paper.
*A response was provided but only on a confidential basis; not part of the published dataset.

TABLE 2. DIFFERENCES IN RESPONSES BETWEEN CRISIS AND NON-CRISIS COUNTRIES

This table shows responses to questions for which we found statistically significant differences between "crisis" and "non-crisis" countries. Following Laeven and Valencia (2010), the "crisis" countries between 2007 and 2009 include United States, United Kingdom, Iceland, Ireland, Latvia, Belgium, Luxembourg, Netherlands, Austria, Denmark, Germany, Kazakhstan, and Ukraine (cases of systemic banking crises); France, Greece, Hungary, Portugal, Russia, Slovenia, Spain, Switzerland (borderline cases). Student's t-test are used to test for the equality of the means between crisis and non-crisis samples.

** denotes an index on activities' restrictions takes that takes values from 1 to 4 where higher values denote stronger restrictions.1: A full range of these activities can be conducted directly in banks; 2: A full range of these activities are offered but all or some of these activities must be conducted in subsidiaries, or in another part of a common holding company or parent; 3: Less than the full range of activities can be conducted in banks, or subsidiaries, or in another part of a common holding company or parent; and 4: None of these activities can be done in either banks or subsidiaries, or in another part of a common holding company or parent.

	Question	Crisis	Non-crisis	p-value
Capital regime and actual capital levels	Can the initial disbursement or subsequent injections of capital be done with assets other than cash or government securities? (% Yes)			
	2007	57	37	0.086
	2011	70	29	0.000
	Is Tier 2 allowed in regulatory capital? (% Yes)			
	2011	100	85	0.068
	Is Tier 3 allowed in regulatory capital? (% Yes)			
	2011	80	28	0.000
	Are hybrid debt capital instruments allowed as part of Tier 1? (% Yes)			
	2011	79	32	0.000
	Was the so-called advanced internal ratings-based approach (A-IRB) offered to banks in calculating capital requirements for credit risk? (% Yes)			
	2007	81	42	0.001
	2011	95	45	0.000
	What was the actual risk based capital ratio of the banking system as of end of: (Average %)			
	2007	12	16	0.004
	2011	16	18	0.076
	What was the actual Tier 1 capital ratio of the banking system as of end of: (Average %)			
	2007	9	14	0.001
	2011	12	18	0.079
Restrictions on bank activities**	Securities activities (Average Index)			
	2007	1.3	2.0	0.008
	2011	1.2	1.9	0.002
	Insurance activities (Average Index)			
	2007	2.8	3.3	0.012
	2011	2.2	2.6	0.047
	Real estate activities (Average Index)			
	2007	2.4	3.3	0.000
	2011	2.1	3.0	0.001

TABLE 2. DIFFERENCES IN RESPONSES BETWEEN CRISIS AND NON-CRISIS COUNTRIES (CONT.)

	Question (Yes/no)		Crisis	Non-crisis	p-value
Asset classification mechanisms	Do you have an asset classification system under which banks have to report the quality of their loans and advances using a common regulatory scale? (% Yes)				
		2007	57	88	0.001
		2011	65	89	0.004
	Does accrued, though unpaid, interest/principal enter the bank's income statement while the loan is classified as non-performing? (% Yes)				
		2007	26	12	0.092
		2011	50	24	0.021
	Are banks allowed to upgrade the classification of a loan or advance immediately after it has been restructured? (% Yes)				
		2011	53	30	0.062
	Do you require banks to write off non-performing loans after a specific time period? (% Yes)				
		2011	0	47	0.000
	Are there minimum levels of specific provisions for loans and advances that are set by the regulator? (% Yes)				
		2011	30	79	0.000
	Is there a regulatory requirement for general provisions on loans and advances? (% Yes)				
		2011	25	70	0.000
Supervisory powers in cases of bank losses	Can the supervisory agency require commitment/action from controlling shareholder(s) to support the bank with new equity (e.g. capital restoration plan)? (% Yes)				
		2011	65	83	0.059
	Can the supervisory agency order the bank's directors or management to constitute provisions to cover actual or potential losses? (% Yes)				
		2007	90	96	0.313
		2011	90	98	0.049
	Can the supervisory agency suspend the directors' decision to distribute: Bonuses? (% Yes)				
		2007	32	68	0.002
	Can the supervisory agency suspend the directors' decision to distribute: Management fees? (% Yes)				
		2007	37	69	0.007
Incentives and information for markets to monitor banks	Is there an explicit deposit insurance protection system? (% Yes)				
		2007	100	48	0.000
		2011	100	72	0.006
	Does the deposit insurance agency have the power to insure liabilities beyond any explicit deposit insurance scheme? (% Yes)				
		2007	11	2	0.065
	Must banks disclose to public: (% Yes)				
	Risk management procedures?	2007	71	40	0.008
	Regulatory capital and capital adequacy ratio?	2011	95	74	0.034
	Transactions with related parties?	2011	90	66	0.025
	Scope of consolidation	2011	90	73	0.087
	Which bank activities are rated: (% Yes)				
	Bonds issuance?	2007	95	47	0.000
	Commercial paper issuance?	2007	79	32	0.000
	Are financial institutions required to produce consolidated accounts covering all bank and any non-bank financial subsidiaries (including affiliates of common holding companies)? (% Yes)				
		2007	100	83	0.044
		2011	100	96	0.399

TABLE 3: CHANGES IN REGULATION AND SUPERVISION ACROSS COUNTRIES DURING 2007-2011

This table shows responses to questions for which we found statistically significant differences between the 2007 and 2011 surveys. Following Laeven and Valencia (2010), the "crisis" countries between 2007 and 2009 include United States, United Kingdom, Iceland, Ireland, Latvia, Belgium, Luxembourg, Netherlands, Austria, Denmark, Germany, Kazakhstan, and Ukraine (cases of systemic banking crises); France, Greece, Hungary, Portugal, Russia, Slovenia, Spain, Switzerland (borderline cases). Student's t-test are used to test for the equality of the means between responses to the 2007 and 2011 surveys.

Section	Question		All	Crisis	Non-Crisis
Capital regime and actual capital levels	What was the actual risk based capital ratio of the banking system? (Average %)	2007	15.45	12	16
		2011	17.45	14	18
		p-value	0.003	0.126	0.012
	What was the actual Tier 1 capital ratio of the banking system? (Average %)	2007	13.38	10	15
		2011	15.93	12	17
		p-value	0.013	0.101	0.037
Governance	Is there a regulatory limit on related party exposures? (% Yes)	2007	87	100	85
		2011	96	77	100
		p-value	0.024	0.082	0.00
Restrictions on activities	What are the conditions under which banks can engage in securities activities? (Index takes values from 1 to 4 where higher values denote stronger restrictions.)	2007	1.98	1.5	2.1
		2011	1.73	1.2	1.8
		p-value	0.0134	0.0563	0.0374
	What are the conditions under which banks can engage in insurance activities? (Index takes values from 1 to 4 where higher values denote stronger restrictions.)	2007	3.07	2.8	3.1
		2011	2.48	2.2	2.5
		p-value	0.000	0.0235	0.000
	What are the conditions under which banks can engage in real estate activities? (Index takes values from 1 to 4 where higher values denote stronger restrictions.)	2007	3.12	2.4	3.3
		2011	2.83	2.2	3
		p-value	0.008	0.204	0.019
Asset diversification	Are there any regulatory rules or supervisory guidelines regarding asset diversification? (% Yes)	2007	46	43	46
		2011	59	52	60
		p-value	0.025	0.493	0.032
	Are banks prohibited from making loans abroad? (% Yes)	2007	9	10	9
		2011	18	0	22
		p-value	0.018	0.162	0.002
Deposit insurance	Is there an explicit deposit insurance protection system for commercial banks? (% Yes)	2007	66	100	58
		2011	77	100	71
		p-value	0.000	.	0.000
	Does the deposit insurance scheme also cover foreign currency deposits? (% Yes)	2007	81	90	78
		2011	16	20	14
		p-value	0.000	0.000	0.000
	Does the deposit insurance scheme also cover interbank deposits? (% Yes)	2007	9	0	12
		2011	86	95	82
		p-value	0.000	0.000	0.000
	Were any deposits not explicitly covered by the deposit insurance scheme at the time of failure compensated the last time a bank failed (excluding funds later paid out in liquidation procedures)? (% Yes)	2007	38	12	53
		2011	21	12	27
		p-value	0.031	.	0.018

TABLE 3: CHANGES IN REGULATION AND SUPERVISION ACROSS COUNTRIES DURING 2007-2011 (CONT.)

Section	Question		All	Crisis	Non-Crisis
Auditing	Are banks required to prepare consolidated accounts for accounting purposes? (% Yes)	2007	91	100	89
		2011	97	100	97
		p-value	0.020	.	0.020
	Is it required by the regulators that bank audits be publicly disclosed? (% Yes)	2007	77	75	77
		2011	90	95	86
		p-value	0.011	0.1036	0.040
	Must banks disclose their risk management procedures to the public? (% Yes)	2007	49	68	44
		2011	82	95	78
		p-value	0.000	0.030	0.000

Table 4. Regulatory Changes Introduced in Response to the Crisis

Following Laeven and Valencia (2010), the "crisis" countries between 2007 and 2009 include United States, United Kingdom, Iceland, Ireland, Latvia, Belgium, Luxembourg, Netherlands, Austria, Denmark, Germany, Kazakhstan, and Ukraine (cases of systemic banking crises); France, Greece, Hungary, Portugal, Russia, Slovenia, Spain, Switzerland (borderline cases). Student's t-test are used to test for the equality of the means (percentage of "Yes" responses) between crisis and non-crisis samples.

Have you introduced changes to the bank governance framework in your country as a result of the global financial crisis?	**Crisis**	**Non-Crisis**	**p-value**
a. New requirements on executive compensation? (%Yes)	67	28	0.001
b. Independence of the Board? (%Yes)	0	13	0.104
c. Chief risk officer direct reporting line to the Board or Board Committee? (%Yes)	0	12	0.123
d. Existence of a Board risk committee? (%Yes)	0	19	0.043
e. Other? (%Yes)	33	58	0.059
Have you introduced changes to your deposit protection system as a result of the global financial crisis?	**Crisis**	**Non-Crisis**	**p-value**
a.Expansion of coverage (types of exposures, nature of depositors etc.)? (%Yes)	16	17	0.878
b.Increase in amount covered? (%Yes)	68	61	0.573
c.Temporary inclusion of guarantees on bank debt? (%Yes)	0	0	.
d.Government guarantee of deposits and bank debts? (%Yes)	16	4	0.119
e. Other? (%Yes)	21	33	0.359
Have you introduced significant changes to the bank resolution framework in your country as a result of the global financial crisis?	**Crisis**	**Non-Crisis**	**p-value**
a. Introduce a separate bank insolvency framework? (%Yes)	6	9	0.643
b. Implement coordination arrangements among domestic authorities? (%Yes)	23	43	0.137
c. Other? (%Yes)	82	54	0.032

APPENDIX I: THE SURVEY RESULTS, SECTION BY SECTION

Section 1: Entry into Banking

This part of the survey contains 18 questions covering bank licensing and entry requirements, the existence of entry restrictions for foreign entities, and the number of applications for bank licenses received, accepted, and denied during the five years prior to the survey. More than 90 percent of the questions in this part of the survey are similar to those included in the 2007 survey, making temporal comparisons readily possible.

We observe changes between the 2011–12 and 2007 surveys along several fronts (Table A1). First, the percentage of countries requiring more than one license for entry into banking declined significantly from 47 percent in 2005 to 16 percent in 2010.[7] Second, a slightly higher percentage of countries (an increase from 92 percent in 2005 to 97 percent in 2010) legally required that the source of funds that are to be used as entry capital be explicitly identified. Third, between 2005 and 2010, a higher percentage of EMDEs prohibited entry of foreign entities through joint ventures and to some degree through acquisition of domestic banks and via the establishment of subsidiaries. While restrictions on the entry of foreign banks through the establishment of branches have declined in EMDEs, it is still, however, by far the most common form of entry restriction among EMDEs. In contrast, there are no prohibitions to the entry of foreign banks in advanced economies. Fourth, between the two rounds of the survey, the median of the minimum capital required for entry increased significantly for EMDEs (from 5.9 to 11.5 million dollars), while it has remained almost unchanged among the advanced economies. Fifth, relative to advanced economies, EMDEs have become a more popular destination for foreign banks. While the number of foreign bank applications increased by 74 percent in EMDEs between 2005 and 2010, this figure declined by 51 percent for the advanced economies. Note that if we concentrate on a "matched sample" – those countries that responded to both survey – we observe a smaller contrast between advanced economies and EMDEs. Among the latter, foreign bank applications increased by 19 percent and they declined by 21 percent for advanced countries. Finally, both the number of total license applications and rejections increased between 2005 and 2010. The increase in rejections was mainly driven by a 15 percentage points increase in the rejection rate for domestic bank applications, which was in turn mainly due to an increase in rejection rates from 9 to 26 percent in EMDEs.

[7] If we limit our analysis only to those countries that have responded to both surveys, the drop is slightly larger from 49 percent in 2005 to 16 percent in 2010.

Table A1. Entry into Banking: Selected Responses

	ALL	ADV	EMDEs
A. Licensing Requirements	**% Yes**	**% Yes**	**% Yes**
Do you have the authority to take legal action against those entities that undertake banking activities without a given license?	91	95	90
Is more than one license required (e.g. one for each banking activity, such as deposit-taking, consumer lending etc.)?	16 (47)	16 (51)	16 (45)
What is legally required to be submitted before issuance of the banking license?			
Draft bylaws	94 (96)	92 (92)	95 (97)
Intended organizational chart	99 (99)	100 (95)	99 (98)
Structure of Board (composition, committees, functions)	98	100	97
Market / business strategy	100	100	100
Financial projections for first three years	99 (99)	100 (97)	99 (99)
Financial information on main potential shareholders	100 (98)	100 (95)	100 (99)
Background/experience of future board directors	99 (97)	100 (97)	98 (97)
Background/experience of future senior managers	93 (95)	86 (89)	95 (97)
Source of funds to be used as capital	97 (92)	92 (84)	99 (94)
B. Entry of Foreign Entities	**% Yes**	**% Yes**	**% Yes**
Are foreign entities prohibited from entering through acquisition?	3 (2)	0 (0)	4 (3)
Are foreign entities prohibited from entering through subsidiary?	4 (2)	0 (0)	5 (3)
Are foreign entities prohibited from entering through branch?	14 (20)	0 (0)	19 (26)
Are foreign entities prohibited from entering through joint venture?	9 (5)	0 (0)	12 (7)
C. Minimal Capital Entry Requirements	**Median**	**Median**	**Median**
What is the minimum capital entry requirement for commercial bank operations for domestic bank? (2010 Million USD)	10.0 (6.4)	7.2 (7.5)	11.5 (5.9)
What is the minimum capital entry requirement for commercial bank operations for a subsidiary of a foreign bank? (2010 Million USD)	8.1	7.1	10.5
What is the minimum capital entry requirement for commercial bank operations for a branch of a foreign bank? (2010 Million USD)	6.4	2.4	8.1
D. Rejection Rates for Entry Applications	**ALL**	**ADV**	**EMDEs**
Number of domestic applications received	782 (321)	198 (109)	584 (212)
Fraction of domestic denied (% out of # applications received)	22 (7)	10 (2)	26 (9)
Number of foreign applications received	1,141 (1,282)	421 (868)	720 (414)
Fraction of foreign applications denied (% out of # of applications received)	7 (4)	3 (1)	9 (12)
Number of total (foreign and domestic) applications received	1,923 (1,603)	619 (977)	1,304 (626)
Fraction of total applications denied (% out of total received)	13 (5)	5 (1)	17 (11)

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (Table 1 provides the complete list of countries).

Section 2: Ownership

Section 2 of the 2011–12 survey includes 12 questions and focuses on regulations of bank ownership. We observe that public disclosure of the ultimate owner of banks is required in over 50 percent of the jurisdictions (Table A2). Furthermore, while the criminal and bankruptcy records of potential shareholders are scrutinized by regulators in most countries, educational background and banking-related experience are assessed only in 40 to 60 percent of the countries. While not all questions in Section 2 can be compared to the previous round of the survey, generally, we observe small changes for those questions that are comparable. There is, however, one notable exception, related to nonfinancial firms' ability to own voting shares in commercial banks. Specifically, a significant share of EMDEs shifted from not having the right to own voting shares to being able to own 100 percent equity in commercial banks.

Table A2. Ownership: Selected Responses

	ALL	ADV	EMDEs
A. Overview	**% Yes**	**% Yes**	**% Yes**
Does the regulator have the legal authority to oppose the ultimate (beneficial) owner when assessing bank ownership?	89	90	89
Do laws or regulations require the ultimate (beneficial) owner and controller of a bank to be publicly disclosed?	52	47	54
Can related parties own capital in a bank?	96 (97)	100 (95)	95 (98)
B. Requirements for Evaluation/Approval of Significant Bank Shareholders	**% Yes**	**% Yes**	**% Yes**
Minimum level of education	42	37	44
Minimum level of financial and/or banking related experience	61	54	63
Financial capacity to support bank capital	93	91	94
No criminal record	94	89	96
No bankruptcy record	92	91	93
Lack of conflict of interest	81	80	81
C. Nonfinancial Firms Own Voting Shares in Commercial Banks	**% Yes**	**% Yes**	**% Yes**
Nonfinancial firm may own 100 of the equity in a commercial bank.	15 (7)	11 (14)	17 (5)
Nonfinancial firm may own 100 of the equity in a commercial bank, but prior authorization or approval is required.	56 (52)	69 (62)	51 (48)
Limits are placed on ownership of banks by nonfinancial firms, such as maximum percentage of a commercial bank's capital or shares.	29 (30)	22 (24)	32 (32)
Nonfinancial firms cannot own any equity investment in a commercial bank	1 (11)	0 (0)	1 (15)
D. Maximum Percentage of a Bank's Equity That Can be Owned by a Single Owner	**Median**	**Median**	**Median**
2010 (%) 2005 (%)	100 (100)	100 (100)	100 (100)

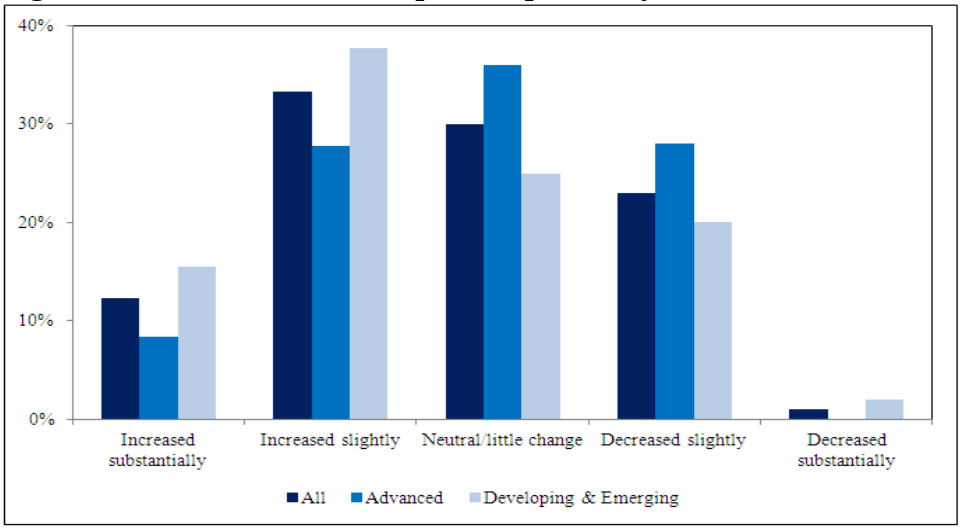
Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (Table 1 provides the complete list of countries).

Section 3: Capital

With 24 questions, the third section of the 2011–12 survey attempts to shed light on the regulations pertaining to bank capital requirements. About half of the questions are similar to those found in the 2007 round of the survey. The responses (Table A3) confirm that advanced economies tend have a broader definition of capital. While Tier 2 and 3 are allowed as regulatory capital in 100 and 60 percent of advanced economies, respectively, only 83 of EMDEs allow Tier 2 as capital and 23 percent allow Tier 3. At the same time, while 95 percent of advanced economies are using Basel II, only 42 percent of EMDEs are currently doing so. However, there is strong evidence of convergence between the two groups in the near future, as 62 percent of EMDEs will apply Basel II by 2014. From the different variants of Basel II, the Standardized Approach is the most popular both among advanced economies and EMDEs.

The impact of the adoption of Basel II differs between advanced economies and EMDEs (Figure A2). While 36 percent of advanced economies experienced slight or significant increases in the regulatory capital levels in the aftermath of adopting Basel II, 53 percent of EMDEs report experiencing an increase in capital levels due to their adoption of Basel II.

Figure A2. How Was Bank Capital Impacted by the Move to Basel II?

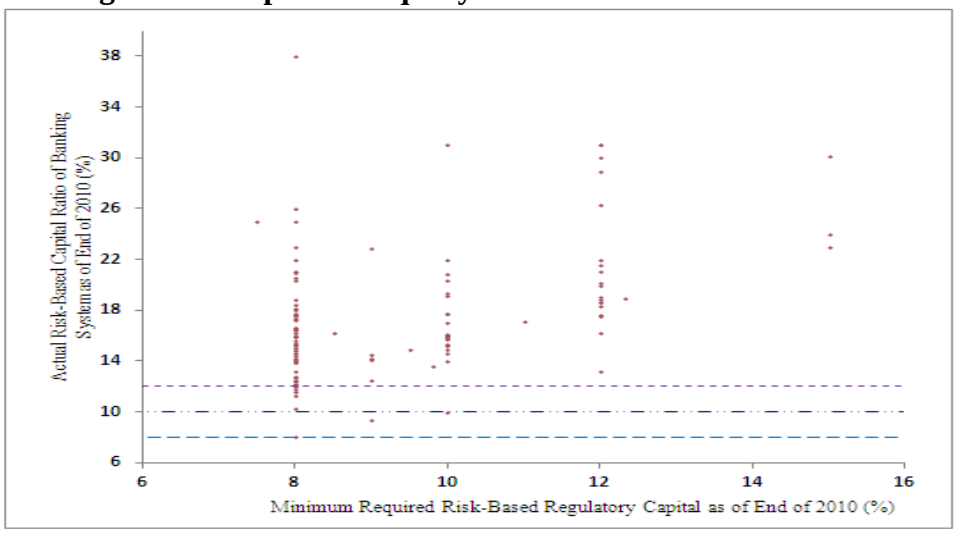


Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey.
Note: The exact wording of the relevant question was as follows: "What was the impact of moving to Basel II on the overall regulatory capital level of the banking system?"

With regards to the minimum regulatory capital ratio, the global median increased slightly from 8 percent in 2005 to 8.3 percent in 2010. This increase was driven by the increase observed for EMDEs from 8 percent in 2005 to 10 percent in 2010. Moreover, both the actual risk-based and Tier 1 capital ratios experienced notable increases between 2005 and 2010. This increase could be due to an attempt by countries to secure stronger capital positions in the face of the massive financial turbulence. In a cross-country comparison, there is a weak positive relationship between the minimum required capital adequacy ratio in a country and the actual risk-based capital ratio of that country's banking system (Figure A3).

Interestingly, the percentage of countries that include leverage ratio, which is the simple capital/asset ratio not adjusted by risk, in their capital regulation increased among the advanced countries, but decreased among EMDEs.[8]

Figure A3. Capital-Adequacy Ratios: Minimum and Actual



Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey.

[8] In the "unmatched" samples– i.e., when we compare all the countries that responded either to the 2007 or to the 2011–12 samples (or both)- the decline for EMDEs is from 23% to 16%, but in the " matched" sample – i.e., that including the same countries - the decline is from 17% to 15%.

Table A3. Capital: Selected Responses

	ALL	ADV	EMDEs
A. Overview	**% Yes**	**% Yes**	**% Yes**
Do you require banks to perform an internal assessment of their capital adequacy against their economic capital?	60	89	49
Do you review internal assessments performed by banks?	95	100	91
Does your agency have the legal authority to require additional capital that is over-and-above the minimum required capital for individual banks if deemed necessary?	88	100	83
Is Common equity allowed in regulatory capital?	84	92	81
Is Tier 1 allowed in regulatory capital?	94	100	92
Is Tier 2 allowed in regulatory capital?	88	100	83
Is Tier 3 allowed in regulatory capital?	36	69	23
B. Minimum Regulatory Capital Ratio Vs. Actual Capital Ratio in Banking System	**Median**	**Median**	**Median**
What was the minimum required risk-based regulatory capital ratio as of end of: 2010 (%) 2005 (%)	 8.3 (8.0)	 8.0 (8.0)	 10.0 (8.0)
What was the actual risk based capital ratio of the banking system as of end of: 2010 (%) 2005 (%)	 16.2 (14.3)	 15.4 (12.3)	 17.1 (14.7)
What was the actual Tier 1 capital ratio of the banking system as of end of: 2010 (%) 2005 (%)	 14.1 (12.5)	 12.7 (9.6)	 14.6 (13.4)
C. Regulatory Capital Adequacy Regimes	**% Yes**	**% Yes**	**% Yes**
Leverage Ratio	15 (19)	14 (9)	15 (23)
Basel I	47	14	59
Basel II	57	95	42
Simplified standardized approach (SSA)	15	16	14
Standardized approach (SA)	80 (96)	95 (100)	70 (94)
Foundation internal ratings-based approach (F-IRB)	55 (55)	92 (86)	30 (40)
Advanced internal ratings-based approach (A-IRB)	55 (49)	95 (83)	28 (33)
Basel II: Will Implement by 2014	17	5	21
Percent of Countries Implementing Basel II by 2014	73	100	62

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (Table 1 provides the complete list of countries)

Section 4: Activities

Section 4 of the 2011–12 survey, which includes six main questions, gathers information on the regulations regarding the activities in which banks can engage, such as securities, insurance, and real estate, as well as on the extent to which banks can own voting shares in non- financial firms and the type of financial conglomerates allowed. Table A4 summarizes selected responses.

Overall, but especially among advanced economies, the share of countries allowing for a full range of securities and insurance activities (either conducted directly or through subsidiaries, in the case of EMDEs) increased between 2005 and 2010. While the share of countries allowing banks to engage in real estate activities directly or through subsidiaries increased from 12 to 16 percent (especially, among EMDEs, from 6 to 13 percent) a much higher percentage of countries restricted such activities all together. In particular, while 40 percent of jurisdictions reported that their banks cannot engage in real estate related activities, only 17 percent and 7 percent expressed such restrictions for the case of insurance and securities activities, respectively.

The percentage of jurisdictions allowing for banks to own 100 percent of equity in any non-financial firm went up from 7 percent in 2005 to 24 percent in 2010, highlighting the growing influence of banks in various non-financial sectors of the economy. The increase was particularly notable among EMDEs.

Finally, regarding the type of financial conglomerates that are allowed, we find that the most common form for EMDEs involves those cases where the bank is the parent (64 percent). On the other hand, among advanced economies, 59 percent allow conglomerates whose parent was a non-financial institution.[9]

[9] If we limit our analysis to only those countries that have responded to both surveys (i.e., the "matched" sample), the resulting trends highlighted in this section are similar with only slight changes in the magnitudes of these trends.

Table A4. Activities: Selected Responses

	ALL	ADV	EMDEs
A. Conditions Under Which Banks Can Engage in Securities Activities	**% Yes**	**% Yes**	**% Yes**
A full range of these activities can be conducted directly in banks.	50 (49)	78 (54)	39 (47)
A full range of these activities are offered but all or some of these activities must be conducted in subsidiaries, or in another part of a common holding company or parent.	30 (25)	11 (38)	37 (20)
Less than the full range of activities can be conducted in banks, or subsidiaries, or in another part of a common holding company or parent.	13 (17)	11 (5)	14 (21)
None of Such activities can be done in either banks or subsidiaries, or in another part of a common holding company or parent.	7 (9)	0 (3)	10 (12)
B. Conditions Under Which Banks Can Engage in Insurance Activities	**% Yes**	**% Yes**	**% Yes**
A full range of these activities can be conducted directly in banks.	5 (1)	11 (5)	3 (0)
A full range of these activities are offered but all or some of these activities must be conducted in subsidiaries, or in another part of a common holding company or parent.	50 (16)	56 (22)	48 (14)
Less than the full range of activities can be conducted in banks, or subsidiaries, or in another part of a common holding company or parent.	28 (44)	25 (65)	29 (37)
None of such activities can be done in either banks or subsidiaries, or in another part of a common holding company or parent	17 (38)	8 (8)	20 (49)
C. Conditions Under Which Banks Can Engage in Real Estate Activities	**% Yes**	**% Yes**	**% Yes**
A full range of these activities can be conducted directly in banks.	16 (12)	22 (30)	13 (6)
A full range of these activities are offered but all or some of these activities must be conducted in subsidiaries, or in another part of a common holding company or parent.	23 (14)	33 (14)	19 (14)
Less than the full range of activities can be conducted in banks, or subsidiaries, or in another part of a common holding company or parent.	21 (17)	17 (24)	23 (15)
None of such activities can be done in either banks or subsidiaries, or in another part of a common holding company or parent.	40 (57)	28 (32)	45 (65)
D. Can Banks Own Voting Shares in Nonfinancial Firms	**% Yes**	**% Yes**	**% Yes**
A bank may own 100% of the equity in any nonfinancial firm.	24 (7)	25 (11)	23 (6)
A bank may own 100% of the equity in a nonfinancial firm but ownership is limited based upon a bank's equity capital.	34 (49)	32 (62)	35 (44)
A bank can only acquire less than 100%.	39 (34)	43 (27)	38 (36)
A bank may not have any equity investment in a nonfinancial firm.	3 (11)	0 (0)	3 (15)
E. Type Of Financial Conglomerate Structures Involving Banks That Are Allowed	**% Yes**	**% Yes**	**% Yes**
Conglomerates whose parent is a bank.	60	50	64
Conglomerates whose parent is a non-bank financial institution (e.g. insurance company or securities firm).	22	26	20
Conglomerates whose parent is a non-financial institution (e.g. non-operating financial holding company).	44	59	37

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (Table 1 provides the complete list of countries).

Section 5: External Auditing Requirements

Section 5 of the survey contains 19 questions, about half of which are also found in the 2007 survey. The main change observed in the data since the previous survey is an increase in the percentage of countries that require that the auditor's report on each bank be publicly disclosed (Table A5). This percentage rose from 75 to 87 percent among all countries.[10] Another significant change has been the increase in the powers of the supervisor vis-à-vis the auditor in EMDEs. The percentage of countries where the supervisor has the power to take actions against the auditor increased from 59 to 76 percent.[11] Furthermore, the share of EMDEs where the supervisor has taken legal actions against the auditor rose from 10 to 42 percent.[12]

Table A5. External Auditing Requirements: Selected Responses

	ALL	ADV	EMDEs
A. Overview	**% Yes**	**% Yes**	**% Yes**
Is an audit by a professional external auditor required for all commercial banks in your jurisdiction?	100 (99)	100 (97)	100 (100)
Are specific requirements for the extent or nature of the audit spelled out?	85 (84)	70 (78)	91 (87)
Does the banking supervisor have the right to meet with the external auditors and discuss their report without the approval of the bank?	93 (91)	92 (92)	93 (90)
Is the audit report on the financial statements of a bank required to be publicly disclosed together with these financial statements?	87 (75)	95 (71)	84 (76)
Are auditors required to promptly inform banking supervisors when they identify information that could affect the safety and soundness of a bank?	90 (86)	100 (86)	86 (85)
In cases where the supervisor identifies that the bank has received an inadequate audit, does the supervisor have the powers to take actions against the external auditor?	70 (60)	57 (61)	76 (59)
Has legal action been taken against an auditor in the last 5 years?	40 (14)	35 (22)	42 (10)
In cases where the supervisor identifies that the bank has received an inadequate audit, does the supervisor have the powers to take actions against the bank?	91	89	91
Do supervisors delegate part of their supervisory tasks to external auditors?	42	41	43
Do regulations explicitly prohibit auditing firms from providing non-audit services to the banks whose financial accounts they audit?	55	31	65
Are external auditors subject to independent oversight by: Ministry of Finance or other government department? Specialized public entity (e.g. independent audit regulator)? Banking supervisory agency?	 24 42 23	 22 51 11	 25 39 28

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (Table 1 provides the complete list of countries).

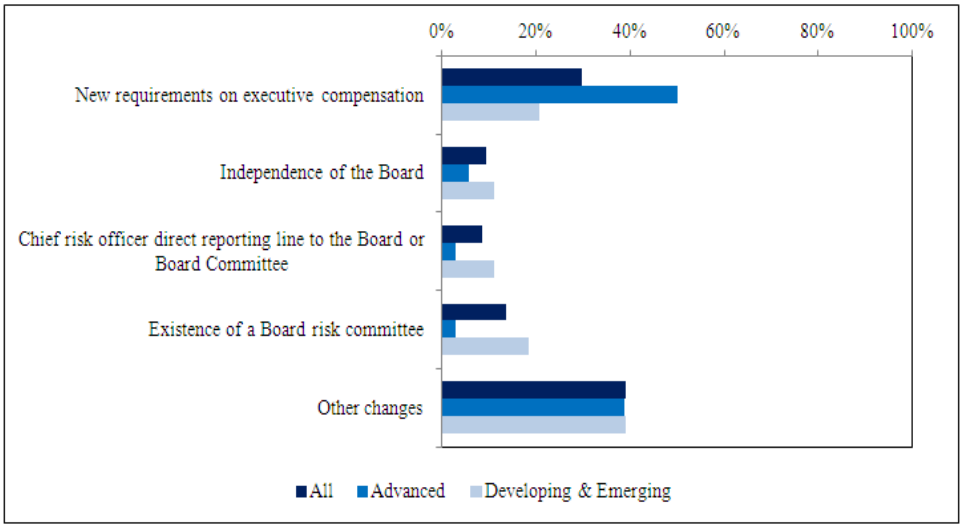
[10] If we focus on the sample of countries that responded to both the 2007 and 2011–12 survey (i.e., the "matched" sample) the increase is smaller from 82 to 88 percent.
[11] Note that in the "matched" sample, the increase is smaller from 68 to 73 percent.
[12] Once again, in the "matched" sample, the increase is smaller from 11 to 27 percent.

Section 6: Bank Governance

The recent global crisis highlighted many deficiencies in the regulations and practices related to bank governance. Hence, while the 2007 survey included only two questions on this topic, the 2011–12 survey dedicated 10 questions to bank governance. Furthermore, many of the current regulations and practices in bank governance have been adopted following the recent global crisis. As a result, it is not possible to compare the responses from the two surveys.

Excessive risk-taking on the part of bank executives, fostered by the expectation of higher remuneration, has been singled out as an important factor contributing to the recent global crisis. Hence, it is not surprising that this is an area where reforms were commonly introduced following the crisis (Figure A4). Relative to EMDEs, a larger share of the advanced economies introduced new regulations pertaining to bank remuneration. On the other hand, EMDEs adopted a more diverse set of reforms including regulations pertaining to the independence of the board, the existence of risk committee, and so on.

Figure A4. Changes to the Bank Governance Framework during the Financial Crisis



Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey

Two prominent issues covered by the 2011–12 Bank Regulation and Supervision Survey are the appointment and compensation of board members, senior management, and other bank staff. The 2011–12 survey shows (Table A6) that in close to 85 and 79 percent of the countries, supervisor's approval is required for the appointment of board members and senior management. Differences between advanced economies and EMDEs in these areas are negligible. On the other hand, there are sizeable differences between advanced economies and EMDEs in the area of remuneration. While in 74 to 78 percent of advanced economies, the supervisor evaluates the remuneration of board of directors, senior bank management, and other bank staff as part of the supervisory process to ensure that they do not lead to excessive risk-taking, this only occurs in 45 to 53 percent of EMDEs. In 89 percent of advanced economies, the supervisor can take regulatory actions if it considers that the remuneration is excessive. Among EMDEs, the supervisor has this power only in 68 percent of the countries. Nevertheless, over the last five years, there has not been actual enforcement of any of these powers in advanced or developing countries.

Another important issue covered by the 2011–12 Bank Regulation and Supervision Survey pertains to the definition and the limits on related party exposures. About 95 percent of respondents state that their countries include as "related parties" significant controlling shareholders and board of directors along with the relatives and business interests of these two parties. In general, EMDEs have slightly stricter regulations and guidelines governing related parties. Note that what appears to be a drop in the median of the limit of related party exposure as a percentage of a bank's regulatory capital from 100 percent in 2005 to 25 percent in 2010 is in large part driven by differences in the sample of countries that responded to both surveys. If we focus on the "matched" sample, this change disappears.

Table A6. Bank Governance: Selected Responses

	ALL	ADV	EMDEs
A. Authority Over Appointments	**% Yes**	**% Yes**	**% Yes**
Does the supervisor exercise approval authority with respect to the appointment of Board directors?	85	91	83
Does the supervisor exercise approval authority with respect to the appointment of Senior bank management?	79	80	78
B. Remuneration or Compensation	**% Yes**	**% Yes**	**% Yes**
Is the remuneration or compensation of Board directors evaluated as part of the supervisory process to ensure that they do not lead to excessive risk-taking?	59	74	53
Is the remuneration or compensation of Senior bank management evaluated as part of the supervisory process to ensure that they do not lead to excessive risk-taking?	59	78	52
Is the remuneration or compensation of Other bank staff (e.g. traders) evaluated as part of the supervisory process to ensure that they do not lead to excessive risk-taking?	53	75	45
Does the supervisory agency have the authority to take regulatory action when it considers that the remuneration or compensation is excessive?	74	89	68
C. Related Parties	**% Yes**	**% Yes**	**% Yes**
Does the regulatory definition of related parties include Significant/controlling shareholders?	95	94	96
Does the regulatory definition of related parties include Board directors?	97	94	98
Does the regulatory definition of related parties include Relatives of significant/controlling shareholders and board directors?	94	94	94
Does the regulatory definition of related parties include Business interests of significant/controlling shareholders, board directors, and their relatives?	94	89	96
Is there a regulatory limit on related party exposures?	95	86	99
D. Some More Details …	**Median**	**Median**	**Median**
How many enforcement actions have you taken over the past 5 years (2006-2010) based on a breach of any of the above bank governance requirements?	0	0	0
What is the limit on related party exposure as a percentage of a bank's regulatory capital (%)?	20 (100)	25 (100)	20 (100)

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (Table 1 provides the complete list of countries).

Section 7: Liquidity and Diversification Requirements

Section 7 of the 2011–12 survey includes nine main questions covering regulations on liquidity and diversification requirements, approximately half of which are comparable to the previous round of the survey.

Overall, 86 percent of the countries have rules or supervisory guidelines regarding contingency funding plans, including stress testing of banks' liquidity management (Table A7). About three quarters of the jurisdictions that participated in the recent survey reported having regulatory rules or supervisory guidelines regarding diversification of funding sources of banks' liquidity management, requirements for the management of foreign currencies and regulatory minimum ratio on liquid assets. On the other hand, 55 percent of the countries have maturity mismatch/gap limit requirements.

There have been some notable changes between the current and previous rounds of the survey. For example, in 2010, 56 percent of countries reported having regulatory rules or supervisory guidelines regarding asset diversification, which was 10 percentage points higher than in 2005.[13] Furthermore, 28 percent of EMDEs in 2010, up from 11 percent in 2005, reported that they prohibited making loans to foreign borrowers. On this front, the share of the advanced economies dropped from a mere three percent in 2005 to zero percent 2010. Moreover, 99 percent of jurisdictions in 2010, a slight uptick from 97 percent in 2005, report having limits on their lending to a single borrower or group of inter-related borrowers. This slight increase was mainly driven by advanced economies. Finally, changes were also experienced in reserve requirements. While the share of countries with Central Bank reserve and/or deposit requirements declined slightly from 90 percent in 2005 to 86 percent in 2010, the percentage of countries requiring their banks to hold reserves in foreign currencies or other foreign-denominated instruments increased by 10 percentage points from 25 percent in 2005 to 35 percent in 2010.[14] While both of these changes were mainly driven by advanced economies, a notably higher percentage of EMDEs had such requirements in place in 2005 and 2010. These findings highlight the fact that ensuring financial stability through stricter reserve requirements has been more prevalent among EMDEs relative to advanced economies.

[13] If we limit our analysis to only those countries that have responded to both surveys – the matched sample-, the increase is larger from 43 percent in 2005 to 57 percent in 2010.

[14] Limiting our analysis only to those countries that have responded to both surveys, the increase is somewhat smaller from 29 percent in 2005 to 36 percent in 2010.

Table A7. Liquidity and Diversification Requirements: Selected Responses

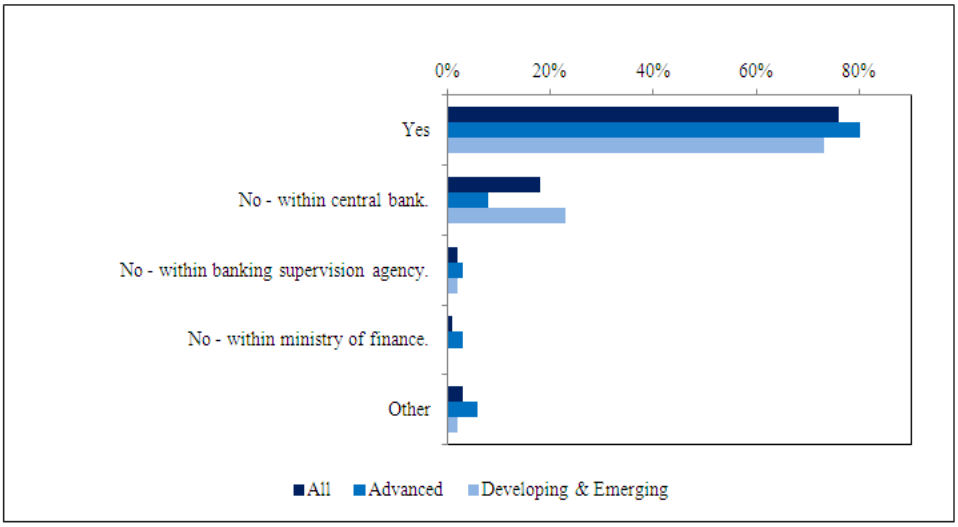
	ALL	ADV	EMDEs
A. Overview	**% Yes**	**% Yes**	**% Yes**
Are there any regulatory rules or supervisory guidelines regarding asset diversification?	56 (46)	59 (49)	55 (45)
Are there regulatory rules or supervisory guidelines regarding diversification of funding sources of banks' liquidity management?	75	86	72
Are there regulatory rules or supervisory guidelines regarding contingency funding plans, including stress testing of banks' liquidity management?	86	94	83
Is banks' liquidity management of foreign currencies requirements in place in your jurisdiction?	73	71	74
Is regulatory minimum ratio on liquid assets (e.g. as a percentage of total balance sheet or deposit base) requirements in place in your jurisdiction?	74	67	77
Is maturity mismatch/'gap' limit requirements in place in your jurisdiction?	55	63	53
B. Risk Concentration	**% Yes**	**% Yes**	**% Yes**
Are banks prohibited from making loans abroad?	20 (9)	0 (3)	28 (11)
Are banks limited in their lending to a single borrower or a group of inter-related borrowers?	99 (97)	97 (92)	100 (99)
C. Reserve Requirements	**% Yes**	**% Yes**	**% Yes**
Is Central Bank reserve and/or deposit requirements in place in your jurisdiction?	86 (90)	69 (76)	93 (95)
Are banks required to hold reserves in foreign currencies or other foreign-denominated instruments?	35 (25)	26 (8)	39 (31)

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (Table 1 provides the complete list of countries).

Section 8: Deposit (Saving) Protection Schemes

Section 8, including 29 questions, covers a wide variety of issues related to depositor protection schemes, such as the authority of the deposit insurance agency, the membership and coverage requirements for the deposit insurance scheme, and the depositor insurance reimbursement practices among other topics. More than three quarters of respondents reported having an explicit deposit insurance protection system for commercial banks in their jurisdictions (Table A8). Of the countries with such an explicit system, almost 80 percent have a legally separate deposit insurance agency (Figure A5). Furthermore, in 95 percent of jurisdictions, participation of domestic banks in the deposit insurance system is compulsory. However, in 51 and 71 percent of the countries the deposits at foreign branches and subsidiaries of domestic banks, respectively, are excluded from the deposit insurance system.

Figure A5. Is There a Legally Separate Deposit Insurance Agency?



Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey.

When it comes to foreign banks, 88 and 65 percent of jurisdictions require the participation of foreign bank subsidiaries and foreign bank branches, respectively. The median ratio of total deposits of participating commercial banks that were actually covered by the depositor protection schemes was at 37 percent in 2010 which was slightly higher than the 35 percent in 2008. While this slight increase was observed in both advanced economies and EMDEs, the median ratio for advanced economies (54 percent) was about twice as large as that of EMDEs (31 percent).

Relative to the 2007 Bank Regulation and Supervision Survey, the 2011–12 version of the survey shows several important changes in deposit insurance regulations and practices (Table A8). First, the share of countries having an explicit deposit insurance protection system for commercial banks increased by 20 percentage points, from 56 percent in 2005, and was mainly driven by the sample of EMDEs.[15] Second, the share of deposit insurance agencies/fund administrators in EMDEs having bank intervention authority as part of their mandate increased from 21 percent in 2005 to 32 percent in 2010.[16] Third, the percentage of jurisdictions excluding interbank deposits from deposit insurance coverage declined substantially from 91 percent in 2005 to 77 percent in 2010. Both the advanced economies and EMDEs were equally responsible for this drop.[17]

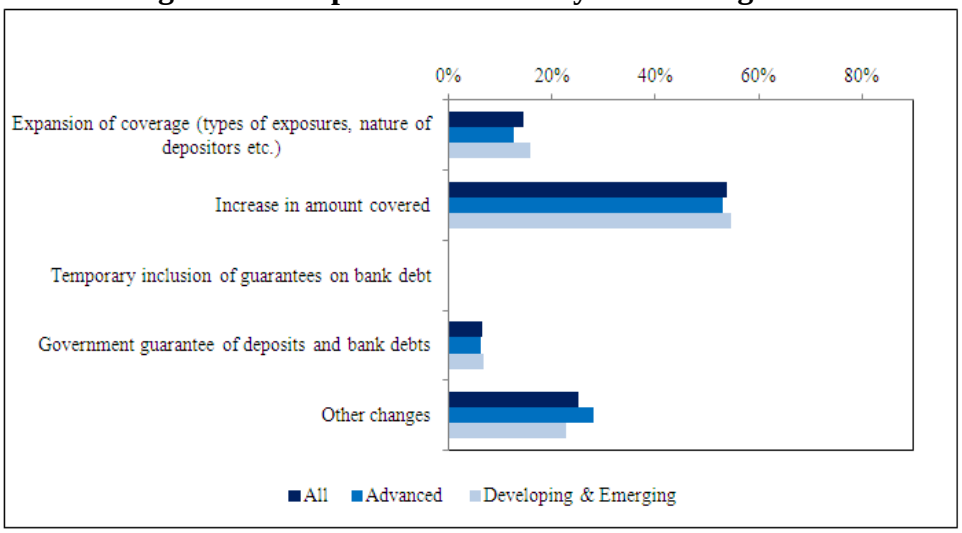
In response to the financial crisis, about half of the responding countries reported introducing changes to their deposit insurance schemes. This was mainly driven by advanced economies, 74 percent of which introduced changes following the financial crisis. The most prevalent change (more than 50 percent of all changes) was an increase in the coverage amount of the deposit insurance (Figure A6).

[15] If we limit our analysis to only those countries that have responded to both surveys, the increase is smaller from 65 percent in 2005 to 77 percent in 2010. Furthermore, both the advanced and the EMDEs are equally responsible for this growth.

[16] Restricting the analysis to those countries that have responded to both surveys, the increase is smaller from 25 percent in 2005 to 32 percent in 2010.

[17] If we consider only those countries that have responded to both surveys, the drop is smaller from 90 percent in 2005 to 77 percent in 2010.

Figure A6. Changes to the Deposit Protection System during the Financial Crisis



Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey.

Table A8. Deposit (Saving) Protection Schemes: Selected Responses

	ALL	ADV	EMDEs
A. Overview and Authority	**% Yes**	**% Yes**	**% Yes**
Is there an explicit deposit insurance protection system for commercial banks?	76 (56)	89 (78)	71 (47)
Does the deposit insurance agency/fund administrator have: Bank examination authority as part of its mandate? Authority to access information collected by banking supervisors as part of its mandate? Method of failure resolution authority as part of its mandate? Paybox authority as part of its mandate?	 34 67 37 75	 24 59 18 88	 39 71 47 68
Does the deposit insurance agency/fund administrator have bank intervention authority as part of its mandate?	27 (20)	18 (18)	32 (21)
Does the deposit insurance authority by itself have the legal power to cancel or revoke deposit insurance for any participating bank?	24 (26)	29 (21)	22 (29)
B. Membership and Coverage	**% Yes**	**% Yes**	**% Yes**
Is participation in the deposit insurance system compulsory for Domestic banks? Foreign bank subsidiaries? Foreign bank branches?	 95 88 65	 97 97 53	 94 83 71
Is foreign currency deposits excluded from deposit insurance coverage?	17 (21)	18 (28)	17 (17)
Is interbank deposits excluded from deposit insurance coverage?	77 (91)	79 (96)	75 (89)
Are deposits of the foreign branches of domestic banks excluded from deposit insurance coverage?	51	38	57
Are deposits of the foreign subsidiaries of domestic banks excluded from deposit insurance coverage?	71	85	63
Is the deposit insurance coverage Per depositor account? Per depositor? Depositor reimbursement Per depositor per institution?	 10 18 81	 9 9 88	 11 22 78
C. Depositor Reimbursement	**% Yes**	**% Yes**	**% Yes**
Were insured depositors wholly compensated (to the extent of legal protection) the last time a bank failed?	76 (79)	79 (79)	74 (78)
Were any deposits not explicitly covered by the deposit insurance scheme at the time of failure compensated the last time a bank failed (excluding funds later paid out in liquidation procedures)?	24 (36)	21 (17)	26 (45)
D. Some More Details …	**Median**	**Median**	**Median**
What is the basic deposit insurance limit per category of insured deposits as of end of 2010? (2010 Thousands USD)	66	127	25
What percentage of the total deposits of participating commercial banks was actually covered by the scheme as of end of 2008? (%) 2009? (%) 2010? (%)	 35 37 37	 52 53 54	 30 30 31
From the time of the event's trigger, within how many days is the deposit insurance scheme legally obligated to fully reimburse insured depositors?	30	20	30

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (Table 1 provides the complete list of countries).

Section 9: Asset Classification, Provisioning, and Write-offs

With 17 questions, Section 9 highlights the fact that, at least on paper, EMDEs tend to have a more comprehensive and stricter asset classification, provision, and write-off framework than advanced economies (Table A9). For example, while 96 percent of EMDEs have an asset classification system under which banks have to report the quality of their loans and advances, only 58 percent of advanced economies report having such a system in place. Similar differences between advanced and EMDEs exist when it comes to the coverage of asset the classification system, the minimum levels of specific provisions for loans and advances, the regulatory requirements for general provisions on loans and advances, and the requirement for banks to write off non-performing loans after a specific time period. Furthermore, the median for the maximum time that a loan or advance can be non-performing before it has to be written off is 12 months among EMDEs, while this figure is 18 months for advanced economies.

Most of the questions in Section 9 were new and, therefore, it is hard to document any changes relative to the 2007 survey. The only major measurable change that is observed between the two rounds is regarding the accrued, though unpaid, interest/principal entering banks' income statement while the loan is classified as non-performing. The share of countries responding positively to this question increased by two-folds, from 14 percent in 2005 to 28 percent in 2010, with a larger increase happening among EMDEs.

Table A9. Asset Classification, Provisioning, and Write-off: Selected Responses

	ALL	ADV	EMDEs
A. Asset Classification	**% Yes**	**% Yes**	**% Yes**
Do you have an asset classification system under which banks have to report the quality of their loans and advances using a common regulatory scale?	86	58	96
Does Asset classification system:			
Apply to all commercial banks?	95	77	100
Cover all types of borrowers (e.g. including government)?	86	73	90
Cover all loans and advances to a borrower?	90	69	96
Impose a uniform classification requirement for specific borrowers	36	12	43
Are banks allowed to upgrade the classification of a loan or advance immediately after it has been restructured?	33	41	31
B. Provisioning and Write-off	**% Yes**	**% Yes**	**% Yes**
Are there minimum levels of specific provisions for loans and advances that are set by the regulator?	71	19	91
Is there a regulatory requirement for general provisions on loans and advances?	63	36	73
Do you require banks to write off non-performing loans after a specific time period?	40	14	49
Does accrued, though unpaid, interest/principal enter the bank's income statement while the loan is classified as non-performing?	28 (14)	39 (31)	23 (8)
If a customer has multiple loans and advances and one of them is classified as non-performing, are all the other exposures classified as non-performing as well?	53 (50)	48 (35)	54 (55)
C. Some Additional Information	**Median**	**Median**	**Median**
What is the maximum time (in months) that a loan or advance can be non-performing before it has to be written off?	12	18	12
Up to what level (if any) is specific provisions tax deductible?	0	0	1
Up to what level (if any) is general provisions tax deductible?	0	0	0

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (Table 1 provides the complete list of countries).

Section 10: Accounting/Information Disclosure

Section 10 contains 16 questions related to accounting standards and information disclosure. Almost all jurisdictions (97 percent) that participated in the survey report that banks are required to prepare consolidated accounts for accounting purposes (Table A10). This represents an increase by 11 percentage points relative to 2005. [18] All of this increase was due to changes in the EMDEs. However, only 14 percent of countries (5 percent of advanced and 18 percent of EMDEs) report that commercial banks are required by supervisors to have external credit ratings. Regarding the disclosure practices of banks, the survey results show that, except for the case of audited financial statements, advanced economies have notably broader public disclosure practices than EMDEs. Moreover, and possibly because of the role of misleading accounting practices in the run up to the financial crisis, a slightly larger share of jurisdictions in 2010 (95 percent in 2010 compared to 89 percent in 2005)[19] reported holding bank directors legally liable if information disclosed is erroneous or misleading.

Table A10. Accounting/Information Disclosure: Activities: Selected Responses

	ALL	ADV	EMDEs
A. Overview	**% Yes**	**% Yes**	**% Yes**
Are banks required to prepare consolidated accounts for accounting purposes?	97 (86)	97 (97)	97 (82)
Are commercial banks required by supervisors to have external credit ratings?	14	5	18
Are all banks operating in your country (including foreign bank branches) required to make available to the public their annual financial statements:			
On an individual basis?	92	84	95
On a consolidated basis (if applicable)?	89	92	88
Do supervisors require banks to publicly disclose:			
All fines and settlements resulting from non-compliance with regulations?	22	16	24
Other information not required by financial reporting standards?	41	49	38
Are bank directors legally liable if information disclosed is erroneous or misleading?	95 (89)	97 (92)	95 (88)
B. Disclosure Practices of Banks	**% Yes**	**% Yes**	**% Yes**
Do banks disclose to the public:			
Full audited financial statements?	94	92	95
Off-balance sheet items?	78	86	74
Governance and risk management framework?	73	86	68
Regulatory capital and capital adequacy ratio?	77	86	74
Transactions with related parties?	70	86	64
Any other material information? *	74	81	72
Scope of consolidation? **	76	89	71

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (see Table 1 provides the complete list of countries).
* Such as information which omission or misstatement could change or influence the assessment or decision of a user relying on that information for making decisions.
** Including reasons for not including certain entities, where appropriate.

[18] If we focus on the matched sample, the increase is smaller from 90 to 96 percent.
[19] If we limit our analysis to only those countries that have responded to both surveys, the gap is smaller (92 percent in 2005 and 95 percent in 2010).

Section 11: Discipline/Problem Institutions/Exit

This section includes 19 questions in two broad sub-categories of enforcement and resolution (Table A11). Responses to this part of the survey indicate that EMDEs have a broader discipline framework. For example, more than 71 percent of EMDEs report having a separate bank insolvency framework that is distinct from that of non-financial firms, while only 57 percent of advanced economies have such a framework in place.

The survey indicates that 85 percent of all jurisdictions operate an early intervention framework (e.g. prompt corrective action) that forces automatic action when certain regulatory triggers/thresholds are breached. The survey also highlights the existence of a wide range of enforcement powers of the supervisory agencies. For example, while 100 percent of supervisory agencies in the survey have the power to require banks to enhance governance, internal controls, and risk management systems, only 76 percent of them can require banks to reduce or suspend bonuses and other remuneration to bank directors and managers. Overall, the survey shows supervisory agencies in EMDEs enjoy more enforcement powers than their counterparts in advanced economies.

Surprisingly, the median for the proportion of banking system's assets being resolved or liquidated, remained at 0 percent between 2008 and 2010. However, the survey may underestimate the share of assets resolved or liquidated because of the regulatory delays that are part of bank resolution and liquidation procedures.

Table A11. Discipline/Problem Institutions/Exit: Selected Responses

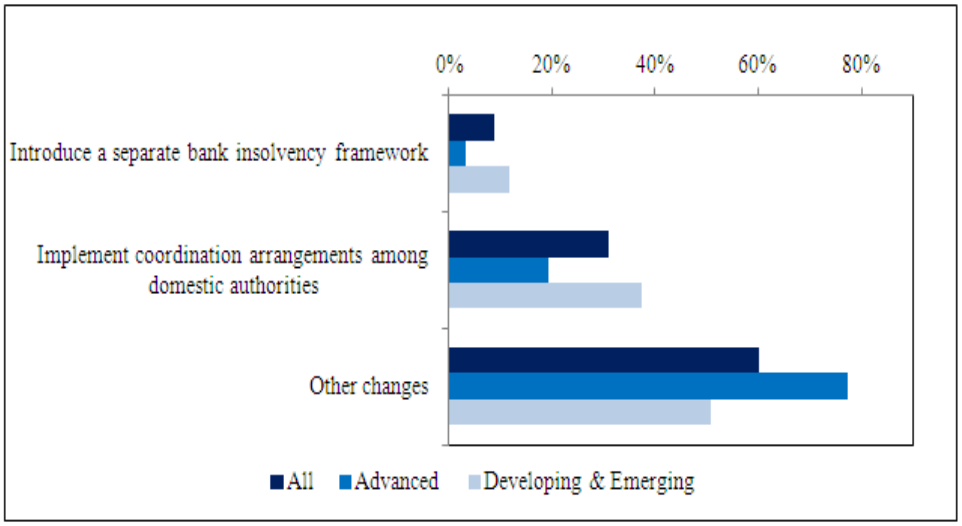
	ALL	ADV	EMDEs
A. Overview	**% Yes**	**% Yes**	**% Yes**
Is there a separate bank insolvency framework that is distinct from that of non-financial firms?	67	57	71
Is the insolvency framework the same for bank holding companies and banks?	59	65	56
Is court approval required to: Declare insolvency? Supersede shareholders' rights?	 53 35	 65 49	 48 31
Are bank regulators/supervisors required to make public formal enforcement actions, which include cease and desist orders and written agreements between a bank regulatory/supervisory body and a banking organization?	30	30	30
Does the supervisory agency operate an early intervention framework (e.g. prompt corrective action) that forces automatic action when certain regulatory triggers/thresholds are breached?	85	72	90
B. Mechanisms in Existing Legislation to Resolve a Problem Bank Prior to its Closure and Liquidation	**% Yes**	**% Yes**	**% Yes**
Open bank assistance	64	58	67
Purchase and assumption transaction (with or without government support)	71	68	72
Government intervention (e.g. via conservatorship or nationalization)	60	62	58
Bridge bank	38	41	37
C. Enforcement Powers Available to the Supervisory Agency	**% Yes**	**% Yes**	**% Yes**
Cease and desist-type orders for imprudent bank practices?	95	94	96
Forbearance (i.e. to waive regulatory and supervisory requirements)?	72	66	74
Require a bank to meet supervisory requirements (e.g. capital, liquidity etc.) that are stricter than the legal or regulatory minimum?	96	100	95
Require bank to enhance governance, internal controls and risk management systems?	100	100	100
Require bank to apply specific provisioning and/or write-off policies?	93	86	96
Require banks to constitute provisions to cover actual or potential losses?	97	91	99

Restrict or place conditions on the types of business conducted by bank?	95	97	95
Withdraw the bank's license?	97	94	98
Require banks to reduce/restructure their operations (e.g. via asset sales and branch closures) and adjust their risk profile?	97	100	96
Require banks to reduce or suspend dividends to shareholders?	93	94	93
Require banks to reduce or suspend bonuses and other remuneration to bank directors and managers?	76	86	73
Suspend or remove bank directors?	92	94	92
Suspend or remove managers?	89	86	91
Require commitment/action from controlling shareholder(s) to support the bank with new equity (e.g. capital restoration plan)?	80	57	89
D. Fraction of Assets Resolved and Liquidated	**Median**	**Median**	**Median**
What proportion of banking system assets was resolved in: 2008-2010? (%)	0	0	0
What proportion of banking system assets was liquidated in: 2008-2010? (%)	0	0	0

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (see Table 1 provides the complete list of countries).

Finally, a majority of countries (61 percent) introduced changes in regulations regarding bank resolution following the financial crisis. Similar to what we observe for the sections on bank governance and deposit insurance schemes, a larger share of advanced economies (i.e., 74 percent) introduced changes to their bank resolution framework relative to EMDEs (i.e., 56 percent). Regarding the type of changes introduced, most countries (i.e., about 60 percent) reported changes that did not fall into the two categories highlighted in the survey (a) introducing a separate bank insolvency framework, (b) implementing coordination arrangements among domestic authorities (Figure A7). Nonetheless, about 40 percent of EMDEs introduced changes pertaining to improving coordination arrangements among domestic authorities involved with bank resolution, pointing to ongoing efforts in EMDEs to reduce inefficiencies associated with the less effective organizational arrangements.

Figure A7. Changes to the Bank Resolution Framework during the Financial Crisis



Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey.
Note: This figure is based on a survey question that asked: "Have you introduced significant changes to the bank resolution framework in your country as a result of the global financial crisis?"

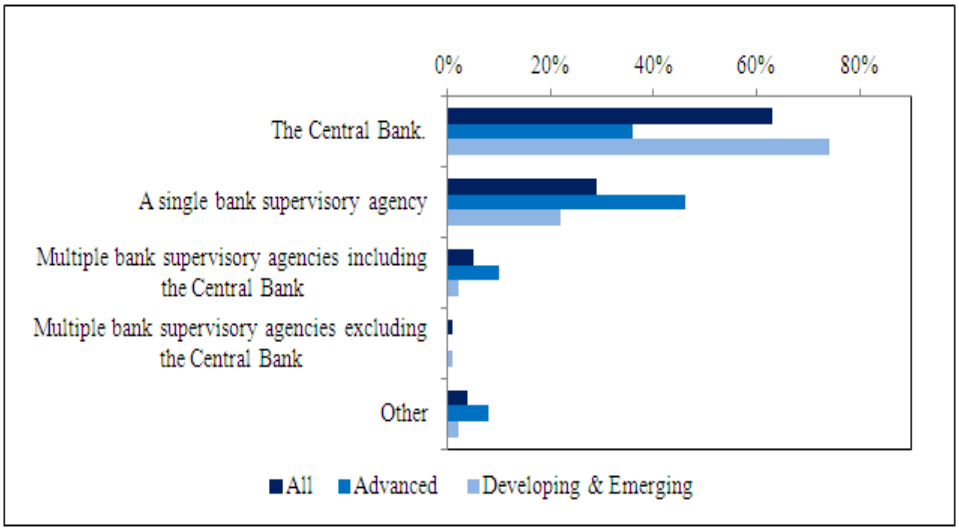
Section 12: Supervision

With more than 50 questions divided into five different sub-sections, section 12 is by far the most detailed section of the survey, capturing information on (a) institutional structure and mandate of supervisors, (b) supervisory approach, (c) consolidated supervision, (d) systemic supervision, and (e) supervisory staff. Overall, the survey confirms that supervisors in most jurisdictions have wide-ranging powers (Table A12). Only 11 percent of countries report having banks that are not under the jurisdiction of their supervisory agencies. In 90 percent of jurisdictions, the supervisor has the authority to force a bank to change its internal organizational structure. In addition, most supervisors across the world are fairly independent in their functioning. Less than a quarter of supervisors require government's approval when issuing binding regulations for the banking sector, defining their organizational and compensation structures, and hiring or firing senior staff. Only in a third of the countries, the supervisory agency requires government approval to determine its budget.

In more than 60 percent of jurisdictions, central banks are the agencies that supervise commercial banks for prudential purposes (Figure A8). There is, however, a differentiation here between the countries in the two income groups. While central banks are the supervisory bodies in about 75 percent of EMDEs, only about 40 percent of advanced economies have central banks as supervisory bodies for commercial banks. Instead, about 50 percent of advanced economies use a separate bank supervision agency.

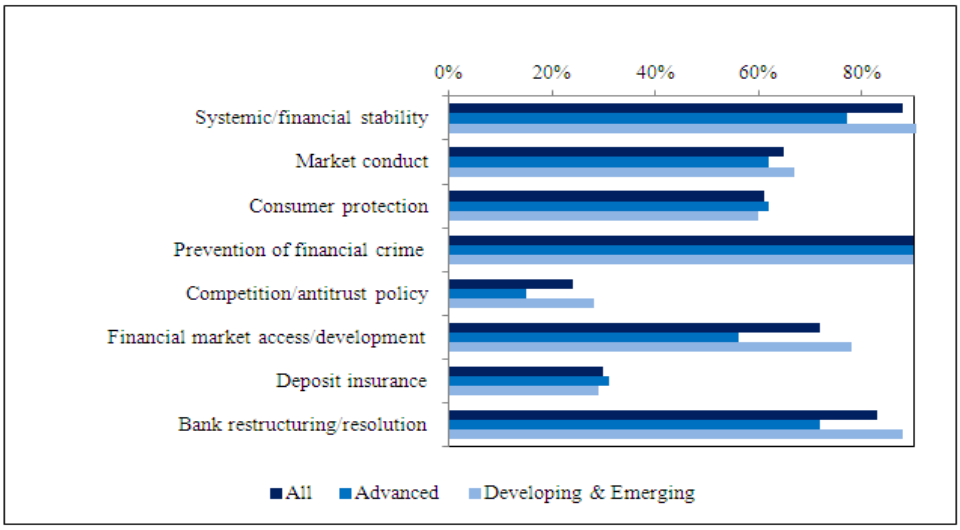
The survey confirms that for bank supervision agencies in both advanced economies and EMDEs, the mandates of financial stability, bank resolution, and prevention of financial crime have become rather common (Figure A9). Somewhat surprising is perhaps the share of supervisors that now have an explicit mandate in the area of financial market access and development. This is especially common among EMDEs (78 percent) relative to advanced economies (56 percent). Also noteworthy is the share of supervisory agencies in charge of consumer protection (61 percent).

Figure A8. Body/Agency Supervising Commercial Banks for Prudential Purposes



Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey.

Figure A9. What Does the Supervision Agency's Written Mandate Also Include?



Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey.

The results indicate that supervisors in EMDEs are more exposed to lawsuits than their counterparts in advanced economies. While a larger percentage of EMDEs (23 percent in EMDEs versus 13 percent in advanced) can hold supervisory staff personally liable for damages to a bank caused by their actions or omissions committed in the good faith exercise of their duties, in a larger share of advanced economies it is the supervisory agency that can be held legally liable for damages to a bank caused by its actions (59 percent in advanced economies versus 51 percent in EMDEs).

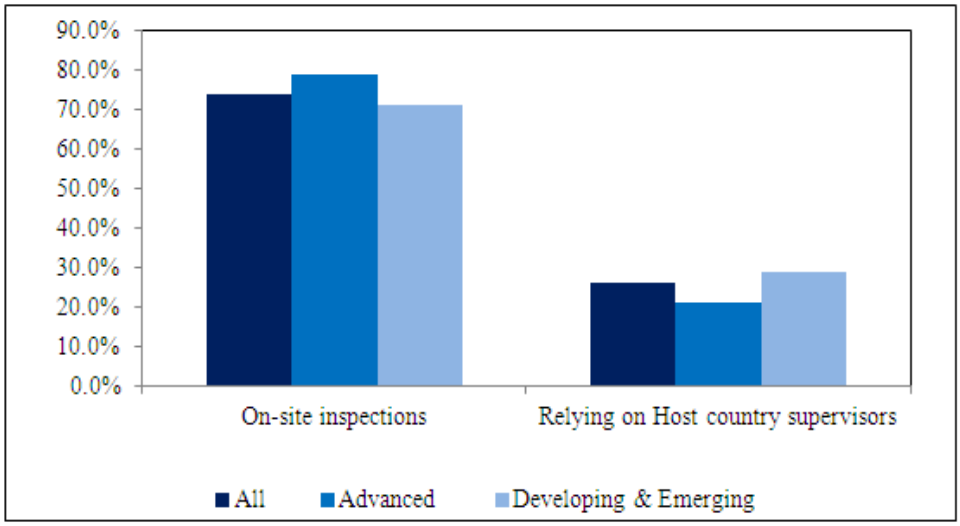
The need for systemic supervision and greater emphasis placed on financial stability was highlighted by the recent crisis. At least in terms of having a dedicated department that overseas financial stability and of producing a financial stability report, EMDEs seem ahead of advanced economies. About three-quarters of respondents from EMDEs reported having specialized departments in their agencies dealing with financial stability and systemic supervision, while only 44 percent of respondents from advanced economies did so. Furthermore, about two-third of supervisory agencies in EMDEs are responsible for publishing a financial stability report, this ratio is less than half for advanced economies. However, across both sets of countries a large majority (80 to 82 percent) of supervisory agencies conduct stress tests to assess systemic stability.

The recent crisis also highlighted the need for tools to dampen boom and bust cycles in credit markets. However, so far very few countries have countercyclical measures in place. Overall, only 9 and 7 percent of countries have counter-cyclical capital requirements and loan to value ratios in place, respectively. However, these are more common in advanced economies (20 and 9 percent) relative to EMDEs (5 and 6 percent). Counter-cyclical provisioning requirements are slightly more common, since 19 percent of countries have adopted them, and in this case, they seem to be more prevalent among EMDEs (21 percent) compared to advanced economies (12 percent).

In terms of monitoring the activities of large or interconnected institutions, a large majority of countries responded that they perform closer or more frequent supervision of these institutions. Some 90 percent of jurisdictions report that they perform on-site inspections of all material foreign operations; a small group of countries report that they mostly rely on host country supervisors to inspect such foreign operations (Figure A10). Less than half of the countries adopt other measures such as requiring additional capital or having in place liquidity or risk diversification requirements. Restrictions on the size of the institutions, a topic that has been widely debated during the crisis, are in place in some 19 percent of countries.

Regarding the nature of the supervisory staff, the survey shows that while 80 percent of jurisdictions report having fixed terms (median of 5 years) for the head of the supervisory agency, a mere 29 percent of them report having a maximum number of terms, with a median of two terms. Furthermore, over one-third of the supervisory staff has more than a median of 10 years of experience, while the median tenure of banking supervisors is eight years, up a year from 2005.

Figure A10. Inspections of Material Foreign Operations



Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey.
Note: The figure reports the percentage of domestic supervisors who perform on-site inspections of material foreign operations, and the percentage of those that mostly rely on host country supervisors.

Table A12. Supervision: Selected Responses

	ALL	ADV	EMDEs
A. Legal Authority of Supervisory Agency	**% Yes**	**% Yes**	**% Yes**
Are there any banks that are not under the jurisdiction of this agency?	11	11	12
Can the supervisory authority force a bank to change its internal organizational structure?	90	92	89
Is the body/agency in charge of supervising banks also responsible for the supervision of the:			
Insurance sector?	47	76	35
Securities sector?	34	64	22
Pension funds?	33	43	28
Does the supervisory agency need to obtain approval from the government in order to:			
Issue binding secondary regulations for the banking sector?	24	34	20
Determine its budget?	33	49	27
Obtain funding?	28	40	23
Hire and fire senior staff?	11	6	13
Define salaries and benefits structure of staff?	24	17	26
Define its organizational structure?	14	9	16
Can individual supervisory staff be held personally liable for damages to a bank caused by their actions or omissions committed in the good faith exercise of their duties?	17 (20)	3 (11)	23 (24)
Can the supervisory agency be held legally liable for damages to a bank caused by its actions?	53 (51)	59 (51)	51 (49)
B. Systematic Supervision and Financial Stability	**% Yes**	**% Yes**	**% Yes**
Is there a specialized department dealing with financial stability and systemic supervision?	66	44	74
Is your agency responsible for publishing a financial stability report?	58	42	64
Do you conduct stress test as part of the process of assessing systemic stability?	80	82	80
Do you supervise systemic institutions in a different way than non systemic ones?	47	61	42
In order to dampen boom/bust cycles in credit flows:			
Do you have counter-cyclical capital requirements?	9	20	5
Do you have counter-cyclical loan to value ratios?	7	9	6
Do you have counter-cyclical provisioning requirements?	19	12	21
Do you have granular capital requirements based on loan to value ratios?	12	27	6
Do you have temporary restrictions on dividend and bonuses distribution?	27	34	24
To oversee more closely and/or limit the activities of large/interconnected institutions:			
Are additional capital requirements employed?	39	50	33
Are additional liquidity requirements employed?	30	41	23
Are asset/risk diversification requirements employed?	33	36	31
Are restrictions/limits on activities employed?	41	48	38
Are restrictions/limits on size of institution employed?	19	23	17
Are additional corporate taxes for large institutions employed?	3	9	0
Is closer or more frequent supervision employed?	89	100	83
Are restrictions on the group's legal structure employed?	23	29	21
C. Supervisory Staff	**% Yes**	**% Yes**	**% Yes**
Does the head of the supervisory agency have a fixed term?	80 (76)	78 (72)	80 (77)
Is there a maximum number of terms?	29	29	30
D. Some More Details …	**Median**	**Median**	**Median**
How long (in years) is the term of the head of the supervisory agency?	5 (5)	5 (5)	5 (5)
How many terms are permitted for the head of the supervisory agency?	2	2	2
What % of the bank supervisors have more than 10 years experience in bank supervision?	36	37	35
What is the average tenure of banking supervisors?	8 (7)	7.5 (7)	8.5 (7)
How many onsite examinations per bank were performed in the last 5 years (2006-2010)?	4 (3.5)	2 (2.5)	5 (4)

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (see Table 1 provides the complete list of countries).

Section 13: Banking Sector Characteristics

Section 13 of the 2011–12 survey asked about quantifiable characteristics of the banking sector such as size, structure of the banking sector, performance, and asset and liabilities composition. It has 27 quantitative questions where respondents were requested to enter a value for any given question (Table A13). Although, there is no equivalent section in the previous round of the survey in 2007, some of the questions in section 13 of the 2011–12 survey could be located in other parts of the 2007 survey. Two immediate observations and comparisons can be made. First, bank concentration is quite high both in advanced economies and EMDEs alike. The median share of assets held by the largest five banks is about 75 percent across all countries. Such a high level of concentration, as we saw with financial crisis, may lead to "too big to fail" scenarios and, therefore, may distort the incentives of the senior management of these large institutions. Second, the median fraction of banking system's assets in foreign-controlled banks increased notably from 39 percent to 49 percent. Finally, some of the quantitative questions were excluded from the published version of the survey due to issues of comparability. Those questions tend to cover topics where consistent cross-country data are already available (such as total banking system assets) are indicated by an asterisk in the questionnaire accompanying the dataset at http://www.worldbank.org/financialdevelopment.

Table A13. Banking Sector Characteristics: Selected Responses

	ALL	ADV	EMDEs
A. Overview	**Median**	**Median**	**Median**
How many commercial banks were there at the end of:			
2010?	24	54	19
2005?	(23)	(52)	(20)
Of commercial banks in your country, what % of total assets was held by the five largest banks at the end of :			
2010?	73	73	73
2008?	74	74	73
Of commercial banks in your country, what % of total deposits was held by the five largest banks at the end of:			
2010?	75	72	75
2008?	75	75	74
What % of the commercial banking system's total gross income was in the form of non-interest income in at the end of:			
2010?	32	36	30
2008?	31	31	31
What % of the banking system's assets was government-controlled banks (e.g., where government owned 50% or more equity) at the end of:			
2010?	8	1	13
2005?	(4)	(0)	(10)
What % of the banking system's assets was foreign-controlled banks (e.g., where foreigners owned 50% or more equity) at the end of:			
2010?	49	35	49
2005?	(39)	(21)	(43)
What was the ratio of specific provisions to gross non-performing loans in:			
2010?	47	35	49
2008?	46	36	54
What was the ratio of general provisions to total gross loans at the end of:			
2010?	1	0.8	2
2008?	1	0.5	1

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey, which reflects values as of 2010. Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey, which captures data as of 2005.
ADV: advanced economies, EMDEs: emerging and developing economies (see Appendix I for list of countries).

Section 14: Consumer Protection

This section is new to the survey, it has been added in the current survey round. Issues related to consumer protection did not receive any attention in previous rounds of the survey. With 14 questions, this part of the survey highlights various aspects of consumer protection schemes around the world. Depending on the regulation, between one-third to two-third of jurisdictions participating in the survey reported having different requirements in place in order to protect the interest of consumers (Table A14). For example, 66 percent and 51 percent of jurisdictions have laws that restrict deceptive advertising and unfair or high-pressure selling practices, respectively. Furthermore, while 69 percent of agencies have the authority to issue warnings to financial institutions, only 33 percent of them require providers to refund excess charges. About 60 percent of agencies can impose fines and penalties and 41 percent of them can withdraw the offending provider's license to operate. Therefore, consumer protection schemes around the world are not as strong as perhaps consumers would desire.

While the majority of responses are more-or-less comparable between advanced economies and EMDEs, for two questions the differences are particularly large. First, while 70 percent of jurisdictions in advanced economies reported that in order to enforce consumer protection laws they could issue public notices of violation, only 28 percent of EMDEs reported having such authority. Second, only 34 percent of the EMDEs reported having the power to withdraw the offending provider's license to operate, while 57 percent of advanced economies did so. These may be linked to the level of transparency in the political structure (higher transparency in the advanced economies) and the level of government ownership of the financial sector (more government ownership in the EMDEs).

Table A14. Consumer Protection: Selected Responses

	ALL	ADV	EMDEs
A. In Order to Enforce Consumer Protection Laws and Regulations:	**% Yes**	**% Yes**	**% Yes**
Your agency can issue warnings to financial institutions.	69	71	67
Your agency can require providers to refund excess charges.	33	26	35
Your agency can require providers to withdraw misleading advertisements.	56	66	52
Your agency can impose fines and penalties.	59	54	59
Your agency can issue public notice of violations.	41	71	28
Your agency can withdraw the offending provider's license to operate.	41	57	34
B. By Law or Regulation, the Following is Part of the Disclosure Requirements that Banks Need to Comply with Upon Signing any Financial Product Contract:	**% Yes**	**% Yes**	**% Yes**
Plain language requirement (Clear and simple language that can be readily understood by any customer).	61	64	60
Local language requirement.	49	50	48
Prescribed standardized disclosure format (e.g., one-page "Key Facts" document).	37	47	33
Clearly spell out recourse rights and processes.	50	53	49
C. By Law or Regulation, the Following is Part of the Disclosure Requirements that Banks Need to Comply with Upon Signing a Deposit Contract:	**% Yes**	**% Yes**	**% Yes**
Annual percentage yield and interest rate.	66	58	69
Method of compounding.	47	46	47
Minimum balance requirements.	50	44	52
Fees and penalties.	62	61	62
Early withdrawal penalties.	59	61	57
D. By Law or Regulation, the Following is Part of the Disclosure Requirements that Banks Need to Comply with Upon Signing a Credit Contract:	**% Yes**	**% Yes**	**% Yes**
Annual percentage rate using a standard formula.	64	53	69
Fees.	66	56	71
Computation method (average balance, interest).	53	47	56
Required insurance.	46	42	48
E. By Law or Regulation, the Following is Part of the Disclosure Requirements for Periodic Statements for Deposit Products:	**% Yes**	**% Yes**	**% Yes**
Annual percentage yield calculated using a standard formula.	37	36	38
Amount of interest earned.	44	39	46
Fees imposed.	42	42	42
Account balance.	49	39	53
F. By Law or Regulation, the Following is Part of the Disclosure Requirements for Periodic Statements for Credit Products:	**% Yes**	**% Yes**	**% Yes**
All transactions concerning the account for the period covered by the statement.	51	53	50
Annual percentage rate (applied during the period).	48	44	49
Interest charged for the period.	55	50	57
Fees charged for the period.	54	47	57
Minimum amount due.	44	42	45
Date due.	48	50	48
Outstanding balance.	48	50	48
G. Specific Provisions in the Existing Laws and Regulations Restrict:	**% Yes**	**% Yes**	**% Yes**
Deceptive advertising.	66	78	62
Unfair or high-pressure selling practices.	51	68	44
Abusive collection practices.	42	50	38
Unauthorized use of client data or breach of client confidentiality.	70	78	67

Source: Calculations based on the 2011–12 Bank Regulation and Supervision Survey.
Notes: ADV: advanced economies, EMDEs: emerging and developing economies (Table 1 provides the complete list of countries). Values in parentheses refer to the 2007 Bank Regulation and Supervision Survey.