Financial Stability Board

Regional Consultative Group for the Americas

Working Group on Shadow Banking

Fourth Report

Notice

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5 March 2018

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FOURTH REPORT

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1. Introduction

The Financial Stability Board (FSB) has described "shadow banking" (SB) as "credit intermediation involving entities and activities (fully or partly) outside the regular banking system."[1] Intermediating credit through non-bank or market-based channels has important advantages, specifically in terms of innovation, efficiency, diversification and competition. Non-bank financing provides a valuable alternative to bank funding and helps support real economic activity. It is also a valuable source of diversification of credit supply from the banking system, and provides healthy competition for banks. However, if non-bank financing is involved in bank-like activities, transforming maturity/liquidity and creating leverage like banks, it can become a source of systemic risk. To this end, the FSB conducts an annual monitoring exercise to assess global trends and risks in the SB system, and to identify financial entity types or activities for which size or rapid growth, in combination with heightened risks, may call for an assessment of existing regulation by the relevant authorities. [2]

This report presents the results of the fourth SB monitoring exercise in the Americas. This exercise was designed and conducted by the Working Group on Shadow Banking (WGSB) set up by the FSB's Regional Consultative Group for the Americas (RCGA). The main objective of the WGSB exercise is to achieve a better understanding of the scope and structure of non-bank credit intermediation in the Americas, and to monitor its development over time. The 17 WGSB member jurisdictions together account for approximately 98% of GDP in the region.[3] The report uses data up to end-2016 based on balance sheet data from national financial account statistics and other (regulatory or private sector) sources.

As in past reports on SB in the Americas, the monitoring process starts by considering all bank and non-bank financial intermediation. The aggregate measure of all non-bank financial intermediation is referred to as the Monitoring Universe of Non-bank Financial Intermediation ("MUNFI"). It is comprised of other financial intermediaries (OFIs), insurance companies and pension funds.

The MUNFI captures some activities and institutions that do not engage in non-bank credit

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[1] Some authorities or market participants prefer to use other terms such as "market-based financing" instead of "shadow banking." The use of the term "shadow banking" is not intended to cast a pejorative tone on this system of credit intermediation. However, the FSB has used the term "shadow banking" as this is the most commonly employed and, in particular, has been used in earlier G20 communications. See FSB, *Global Shadow Banking Monitoring Report 2016*, May 2017.

[2] For Global Shadow Banking Monitoring Reports, see FSB, *Transforming Shadow Banking into Resilient Market-Based Finance*, 2017.

[3] The jurisdictions included are: Argentina, Barbados, Bermuda, the Bahamas, Brazil, the British Virgin Islands, Canada, the Cayman Islands, Chile, Colombia, Costa Rica, Jamaica, Mexico, Panama, Peru, Uruguay and the United States. The Bahamas and Barbados did not provide data for this exercise, so are not included in the results presented in this report.

intermediation. Not all MUNFI activities feature bank-like risks or constitute a potential source of systemic risk for the financial system. Accordingly, the report focuses on a narrower measure of SB that may pose financial stability risks. The third RCGA report accomplished this with a measure comprised of OFIs, net of non-bank financial activities within prudentially consolidated banking groups and entities not directly involved in credit intermediation (e.g. equity investment funds). Following Recommendation 3 of that third report, this year's exercise for the Americas applies for the first time the narrowing down methodology introduced in the FSB's 2013 high-level *Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities*.[4] Consequently, the narrow measure in this report is based on the classification by authorities of entities into one of 5 economic functions described in the 2013 Policy Framework, using the same general methodology as used in the FSB's GSBMR (the "Narrow Measure").[5] This Narrow Measure more accurately reflects the size and composition of the SB sector, and generates results more comparable to those from recent FSB GSBMRs than did the third report.

The inclusion of non-bank financial entities or activities in the Narrow Measure does not constitute a judgement that policy measures applied to address the financial stability risks from shadow banking of these entities and activities are inadequate or ineffective, nor necessarily reflect a judgement that regulatory arbitrage is a relevant factor. It is based on a conservative assessment of the potential risks they may pose during stressed events on a pre-mitigant basis (i.e. assuming policy measures and/or risk management tools are not exercised). [6] This pre-mitigant assessment allows authorities to then assess existing policy tools to address financial stability risks that may arise from shadow banking and identify any residual risks that may warrant policy responses. This approach also helps improve the consistency in the assessment across jurisdictions and capture potential changes in risks from the shadow banking system. As a result, the Narrow Measure may overestimate the degree to which non-bank credit intermediation currently gives rise to post-mitigant financial stability risks.

This exercise, as in previous ones, also captures offshore activities in international financial centers (IFCs). The incorporation of this information was motivated by the activities of several

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[4] See FSB, *Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities*, August 2013. The 2015 GSBMR was the first to narrow the focus of the global exercise to those non-bank financial entities classified into five economic functions.

[5] The five economic functions are: (i) management of collective investment vehicles with features that make them susceptible to runs; (ii) loan provision that is dependent on short-term funding; (iii) intermediation of market activities that is dependent on short-term funding or on secured funding of client assets; (iv) facilitation of credit creation; and (v) securitisation-based credit intermediation and funding of financial entities. See Section 4 of this report for more details.

[6] Non-bank financial entities are assessed (or classified into five economic functions) conservatively, on a pre-mitigant basis and are only excluded if data are available and the analysis in accordance with the classification guidance provides sufficient grounds for exclusion. For details, see Section 4.

jurisdictions in the RCGA that provide significant offshore financial services as IFCs.[7]

Following the recommendations in the third report of the RCGA, this fourth exercise also included a questionnaire on finance companies that the WGSB sent to member jurisdictions.[8,9]

Several observations resulted from the monitoring this year of non-bank financial intermediation activities. The most important include:

- The onshore MUNFI, comprised of total financial assets of OFIs, insurance corporations and pension funds, reached US dollars (USD) 65.3 trillion (tn) in the Americas at end-2016.[10]
- The offshore MUNFI reached USD 7.4 tn in 2016, composed of USD 6.7 tn of other financial intermediaries (including investment funds and securitized vehicles) and USD 0.65 tn of insurance companies. The OFI sector in the Cayman Islands drove this growth, rising to USD 6.4 tn in 2016, from USD 5.8 tn in 2015.
- The Narrow Measure, an activities-based approach that classifies assets of entities into the 5 economic functions, is USD 16.7 tn (26% of MUNFI) for onshore assets, and USD 4.7 tn (64% of offshore MUNFI) for offshore assets of IFCs.[11]
- Total financial assets of all OFI subsectors except broker-dealers grew, on average across participating jurisdictions, in 2016. Investment funds continue to be the key driver of growth in OFIs since 2008.

The main results from the WGSB questionnaire on finance companies, reflecting responses from 9 jurisdictions, can be summarized as follows:[12]

- There are many types of finance companies operating in responding jurisdictions.

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7 These IFCs include the Bahamas, Barbados, Bermuda, the British Virgin Islands, the Cayman Islands, and Panama. Barbados and the Bahamas did not participate in this exercise.

8 See FSB RCGA, *Working Group on Shadow Banking Third Report*, May 2017.

9 See the *questionnaire* for more details. The motivation for the focus on finance companies is outlined in the first report of the WGSB and in Section 5 of this report. The first report also recommended future exercises examine broker-dealers, non-bank deposit-taking institutions, and investment funds and finance companies. The first 3 of those topics were examined in the 2nd and 3rd reports of the WGSB. See FSB RCGA, *Report on Shadow Banking in the Americas*, August 2014.

10 *See infra*, Section 3, for a more detailed discussion of the MUNFI.

11 *See, infra*, Section 4 for a more detailed discussion of the Narrow Measure.

12 Respondents were Argentina, Brazil, the British Virgin Islands, Canada, the Cayman Islands, Chile, Mexico, Peru and the United States. Colombia did not fill the questionnaire given that finance companies are regulated and supervised as banks; therefore, they are not considered as OFIs (they are classified as non-bank DTIs). See the *questionnaire* for more details.

- Finance companies account for relatively large shares of OFI assets in Argentina, Brazil, Chile and Mexico (10-24% of OFI assets). Measured in absolute (dollar) terms, the United States, Canada and Brazil have the largest sectors.

- A significant portion of finance company assets are lending assets, with many jurisdictions reporting lending to be near 70% or more of total financial assets of these companies.

- Indicators of maturity transformation and leverage are low to moderate, with some exceptions.

- There are few regulatory restrictions on finance companies' capital, liquidity and leverage. In contrast, disclosures of SB risks (i.e., maturity transformation, liquidity transformation, leverage, and credit risk transfer) to regulators and investors are more common.

This report unfolds as follows. Section 2 describes the methodology employed for this report and the main differences from both past RCGA reports and the 2016 GSBMR, including the templates for both the MUNFI and the new Narrow Measure. The results from the monitoring exercise using the MUNFI are presented in Section 3, and the Narrow Measure is presented in Section 4. Section 5 examines the observations from responses to the WGSB questionnaire on finance companies. Finally, a recommendation for future RCGA exercises is presented in Section 6.

2. Monitoring Methodology

Information for WGSB templates is sourced from national flow of funds data, sectoral balance sheet data or regulatory reporting from financial intermediaries up to the end of 2016 (when available). To aggregate amounts across jurisdictions, national data is converted into US dollars (USD) using market exchange rates. National growth rates are presented in local currency to avoid impacts from currency fluctuations, and are also in real (inflation-adjusted) terms. Data are reported for 15 jurisdictions, including 4 IFCs.

This monitoring exercise aims to follow the two-step approach carried out by the FSB in the GSBMRs of 2015 and 2016.[13] In the first step, the exercise seeks to "cast the net wide" and obtain a broad measure of all financial assets held by each group of financial institutions. In the second step, the exercise seeks to "narrow down" the focus of monitoring to exclude measures of non-bank financial activities within consolidated banking groups and to focus on those activities that may entail bank-type risks, using the FSB's economic functions approach. In both steps, data is collected and submitted by individual jurisdictions using a set of templates based on the FSB

[13] The decision to use this approach follows from the recommendations outlined in the second SB report of the WGSB, published in October 2015. See FSB RCGA, *Working Group on Shadow Banking Second Report*, October 2015.

model, to improve comparability with FSB member jurisdictions.[14]

Regarding the first step of the process, there are four differences between the WGSB "macro-mapping" template and the corresponding FSB template used in the 2016 GSBMR. First, investment funds are split into money market funds, public funds and non-public funds.[15] This contrasts with the FSB template that divides investment funds into money market funds (MMFs), hedge funds and other funds categories. The WGSB believes that the non-public funds category reflects the characteristics of hedge funds, while capturing other funds with very similar characteristics that are not labeled as "hedge funds" in participating jurisdictions.[16] Second, the WGSB template asks for assets of commodity funds. Third, the WGSB template seeks to gather information on the role of the public sector in financial markets in the Americas by including a specific column for development banks, and by asking jurisdictions to report the share of public sector ownership in commercial banks. Although these are not part of the SB system, the WGSB considers that having these data is useful for understanding the size and dynamics of the OFI sector in the region.[17] Fourth, the template asks for information on assets in non-bank credit card companies given their importance in several jurisdictions.

In line with the second step of the outlined process, this year's exercise includes an additional template designed to collect the information required to narrow down the MUNFI to those non-bank financial entities with bank-type risks or potentially posing systemic risks to the financial system, based on classification of entities into the FSB's 5 economic functions. This Narrow Measure filters out non-bank financial entities prudentially consolidated (in all aspects) into a

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[14] See the *reporting templates* for more details.

[15] Public funds were defined as funds that have no restrictions on the type of investor, minimum subscription amount or sales method (i.e., not restricted to private placements). Under this definition, both closed-ended and open-ended funds are included. Non-public funds, in contrast, are not public and have similar characteristics to hedge funds.

[16] See IOSCO, *Hedge Funds Oversight*, June 2009. IOSCO notes that there is no universal definition of a "hedge fund", although hedge funds are normally seen as sharing certain common characteristics. IOSCO considered as hedge funds all those investment schemes displaying a combination of some of the following characteristics: borrowing and leverage restrictions, which are typically included in collective investment schemes related regulation, are not applied, and many (but not all) hedge funds use high levels of leverage; significant performance fees (often in the form of a percentage of profits) are paid to the manager in addition to an annual management fee; investors are typically permitted to redeem their interests periodically, e.g., quarterly, semi-annually or annually; often the manager invests significant amounts of his or her own funds; derivatives are used, often for speculative purposes, and there is an ability to short sell securities; and more diverse risks or complex underlying products are involved. See IOSCO, *Hedge Fund Oversight (2009)* at 4-5. Some of these common characteristics differ from the characteristics of public funds. Hedge funds are not subject to the same legal provisions applicable to mutual funds in terms of investment strategies, disclosure/transparency and immediate access to funds.

[17] The category of public development banks is meant to include these institutions only in the case when they do not receive deposits, or when they do receive deposits but have a different regulatory and prudential treatment than private banks. If a development bank receives deposits and has the same treatment as private banks, it should be classified as a bank.

banking group. It is important to emphasize that the working assumption of the exercise is that only fully consolidated financial entities (that is, entities that are consolidated *in all aspects* of prudential regulation into a banking group) or subsidiaries to which bank-equivalent prudential regulation applies on a solo basis, should be excluded from the Narrow Measure.

Finally, the exercise includes, as in earlier reports by the WGSB, an additional template to be submitted only by IFCs. Monitoring SB activities in IFCs merits special attention as they are significant and represent a material data gap in the global monitoring exercise. Six member jurisdictions of the WGSB have been identified under various methodologies as providing offshore financial services as IFCs.[18] All but two of these six (Barbados and the Bahamas) provided data for this exercise. For IFC jurisdictions, financial assets registered with domestic authorities are split into those held by local and offshore institutions. Offshore institutions are defined on a *de jure* basis as those that by regulation are precluded from participating in local financial markets or are restricted from offering financial services to domestic residents. One example is the class B bank category in Panama and the Cayman Islands, which cannot take on deposits from residents.[19] The WGSB is aware that this approach to separating offshore and onshore financial institutions and activities has limitations, because market contacts suggest that many IFC institutions that are allowed to offer services to resident investors *de facto* focus exclusively on providing services to non-resident clients. However, the current lack of sufficiently granular data makes it difficult to implement a *de facto* separation.

This year's IFC template incorporated two changes with respect to the WGSB's previous IFC template. First, catastrophe bonds and special purpose insurance companies were put in a separate category from insurance companies. Second, real estate investment trusts and funds were added to the template, for more consistency with the onshore template.

3. Results of the "macro-mapping" exercise

This section summarizes the main observations from the WGSB's macro-mapping exercise based on both the standard template and the offshore IFC template.[20] Jurisdictions submitted annual data up to the end of 2016 based on sector balance sheet data using national financial accounts statistics (i.e., "Flow of Funds"), complemented with supervisory data and private sector data sources. Some jurisdictions that currently lack sector balance sheet statistics may have used other data sources which may be less consistent across participating jurisdictions. Even when sector balance

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[18] See IMF, *Concept of Offshore Financial Centers: In Search of an Operational Definition*, April 2007.

[19] In the Cayman Islands, the holder of a "B" licence shall not take deposits from any person resident in the Islands, other than another licensee, or an exempted or an ordinary non-resident company which is not carrying on business in the Islands.

[20] Unless stated otherwise, financial assets in these jurisdictions include only domestic assets. That is, offshore assets are not included. These offshore activities in IFCs are discussed in Section 3.5.

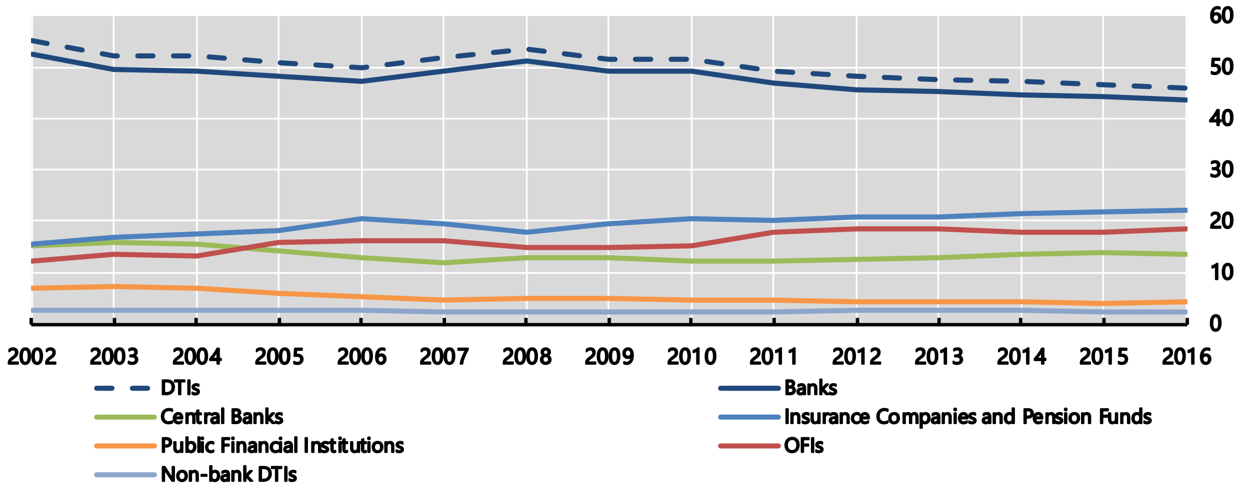
sheet data are available, their granularity and definitions differ across jurisdictions, which may impact comparability across jurisdictions.

3.1. Structure of financial systems

On average across WGSB jurisdictions, banks dominate financial activities, holding 44% of onshore financial assets (Exhibit 3-1). This share has been declining steadily since 2008 due to increases in OFIs, insurance companies and pension funds.

Distribution of total assets by entity

In per cent, 15 jurisdictions* Exhibit 3-1



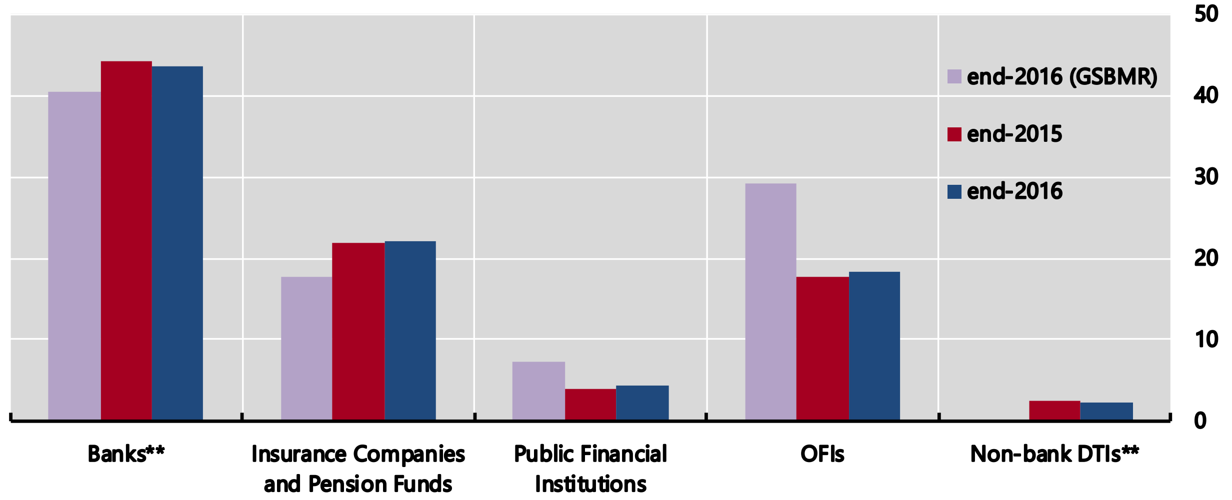
*Domestic assets only; simple average across WGSB jurisdictions

Sources: National flow of funds data; other national sources

Broadly speaking, the relative importance of the different entities in the financial sector of WGSB jurisdictions has not changed significantly since end-2015 and is similar to that of the average jurisdiction in the 2017 GSBMR (Exhibit 3-2). OFIs account for a smaller share of total assets in WGSB jurisdictions, while the asset share of pension funds and insurance companies is higher on average for WGSB jurisdictions. Non-bank deposit-taking institutions (non-bank DTIs) are relatively small in both groups of jurisdictions.

Distribution of total assets by entity type: Comparison with GSBMR

In percent, 15 jurisdictions* Exhibit 3-2



*Domestic assets only; simple average across WGSB and GSBMR jurisdictions
**GSBMR total for 'banks' includes assets of all deposit-taking institutions, including banks and non-bank DTIs
Sources: National flow of funds data; other national sources

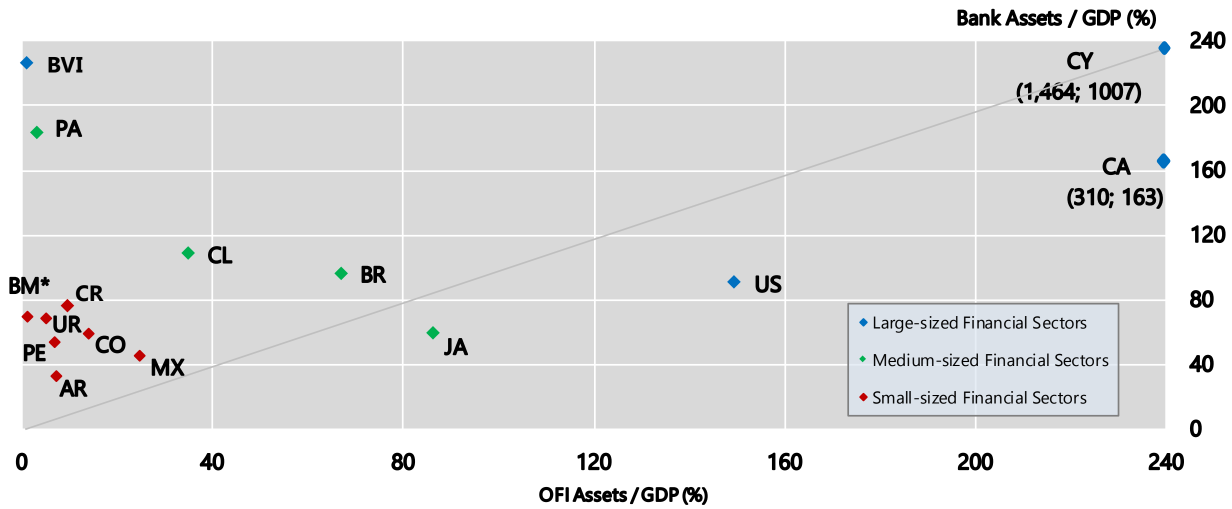
There is significant heterogeneity across individual WGSB jurisdictions in terms of the relative importance of different financial entities (see Annex 1). Banks have the largest shares of assets in all jurisdictions except Canada, the Cayman Islands, Jamaica, and the United States. In Panama the share of the banking sector is highest, exceeding 90% of total assets. In Canada, Colombia, Costa Rica, Jamaica, Peru, and the United States non-bank DTIs are also relevant. In Chile, Colombia, Bermuda, and the United States, insurance companies and pension funds are relatively more important than in the average WGSB jurisdiction. Finally, the OFI sector varies from over 50% of total domestic assets in the Cayman Islands to less than 5% of assets in Bermuda, Panama, Peru and Uruguay.

Exhibit 3-3 suggests three groupings of WGSB jurisdictions, based on the size of total financial system onshore assets compared to GDP.[21] In the first group, which is characterized by relatively large financial sectors, Canada, the Cayman Islands and the United States have sizable OFI sectors. In the second group (with medium-sized financial sectors), Jamaica has a larger OFI sector than Brazil, Chile, and Panama. The remaining jurisdictions are in the third group with relatively small banking and OFI sectors.

[21] The first group includes countries where bank and OFI financial assets sum to above 200 percent of GDP, the intermediate group those countries where the figure lies between 100 and 200 percent, and the lower group includes the rest.

Relative sizes of banking and OFI Sectors

As a percentage of assets over GDP, at end-2016 Exhibit 3-3



AR = Argentina; BM = Bermuda; BR = Brazil; BVI = British Virgin Islands; CA = Canada; CY = Cayman Islands; CL = Chile; CO = Colombia; CR = Costa Rica; JA = Jamaica; MX = Mexico; PA = Panama; PE = Peru; UR = Uruguay; US = United States

* All OFI activities have been classified under IFC because it is estimated that the domestic proportion is immaterial

Sources: National flow of funds data; other national sources

3.2. Pension Funds and Insurers

The relative size of onshore insurance companies and pension funds has been stable over the past five years while their absolute size grew steadily. The combined assets for both sectors grew 5.4% in 2016 to USD 31.1 tn. On average, insurance companies' assets grew at an exchange rate and inflation adjusted rate of 7.8% in 2016, and pension funds at 4.2%. All WGSB jurisdictions experienced real growth rates of insurance assets, and only Argentina, Bermuda and Panama experienced a real decrease in pension fund assets. Panama had the highest real growth rate in 2016 for insurance company assets (35%) and Uruguay had the highest growth rate for pension funds (19%).

The size of insurance companies and pension funds varied considerably across jurisdictions. The two sectors constituted 59% of total financial system assets in Bermuda, 37% in Chile and 31% in the US. Meanwhile, they constitute 4% of Panama's total assets, and 3% of the Cayman Islands' onshore assets. The simple average across WGSB jurisdictions is 22%.

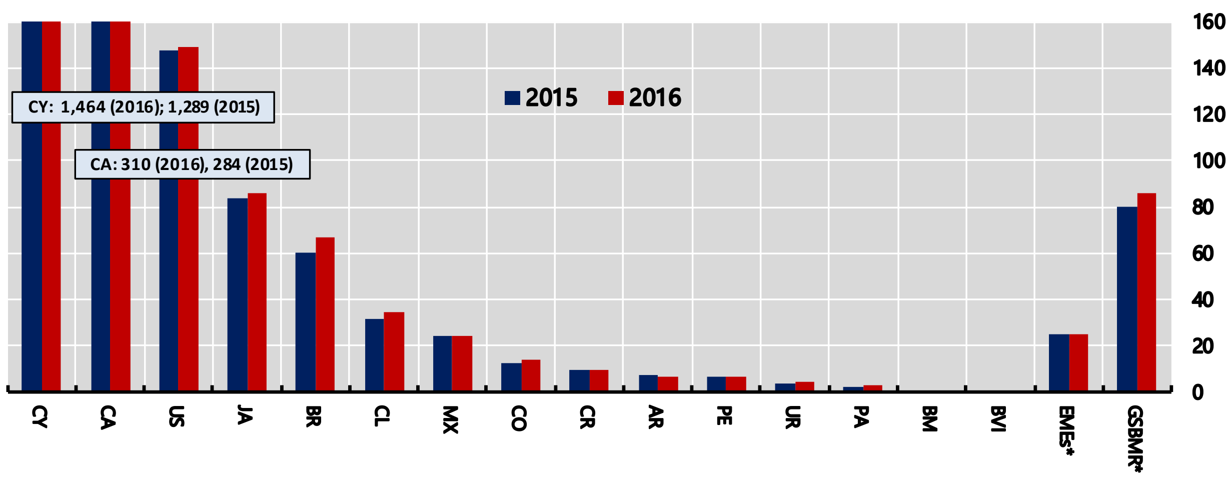
3.3. OFIs

Onshore assets of OFIs in WGSB jurisdictions rose to USD 34.2 tn, up USD 2 tn (6.2%) in 2016. The simple average real growth rate across jurisdictions was 10.3%. In fact, all WGSB jurisdictions except Argentina saw increasing real (inflation-adjusted) OFI assets. Uruguay (+39%) and Panama (17%) experienced the fastest growth in 2016; for Uruguay this growth was driven by SFVs and new data on non-public funds, while for Panama the growth was in finance companies.

The size of the OFI sector varies considerably across WGSB jurisdictions when measured against GDP (Exhibit 3-4). The median ratio of OFI assets to GDP in the Americas (for countries with domestic OFI assets) is 25%, about one-third of the median ratio in the jurisdictions in the GSBMR. Several jurisdictions are below the median for the subset of EMEs in the FSB's exercise, which is consistent with the fact that most jurisdictions in the region are less financially developed.

Size of OFI sector

As a percentage of GDP, at end-2016 — Exhibit 3-4



AR = Argentina; BM = Bermuda; BR = Brazil; BVI = British Virgin Islands; CA = Canada; CY = Cayman Islands; CL = Chile; CO = Colombia; CR = Costa Rica; JA = Jamaica; MX = Mexico; PA = Panama; PE = Peru; US = United States; UR = Uruguay

*Emerging Market Economies (EMEs) include Argentina, Brazil, Chile and Mexico (RCGA); China, India, Indonesia, Russia, Saudi Arabia, South Africa and Turkey (Non-RCGA). GSBMR median based on 21 jurisdictions + euro area.

Sources: National flow of funds data; other national sources

The largest subsectors of OFIs in the region are investment funds, including MMFs and other investment funds, both public and private (Exhibit 3-5).[22] Investment funds make up more than 60% of the OFI sector in Brazil, the Cayman Islands, Chile, Peru, and the United States. The next-largest OFI subsector in the region is 'other', which generally includes trust companies, non-bank credit card issuers, central counterparties, and captive financial institutions and money lenders. This other subsector represents 51% of OFI assets in Canada (mostly assets of captive financial institutions and money lenders), 44% of OFI assets in Uruguay (mostly non-bank credit card issuers), and 36% of OFI assets in Colombia (including non-financial cooperatives and lenders that do not take deposits); for most other jurisdictions, it represents 10% or less. The third-largest OFI subsector is finance companies, which are described in more detail in section 5. As a share of OFIs, these are especially important in Panama and Mexico. Costa Rica and Uruguay have

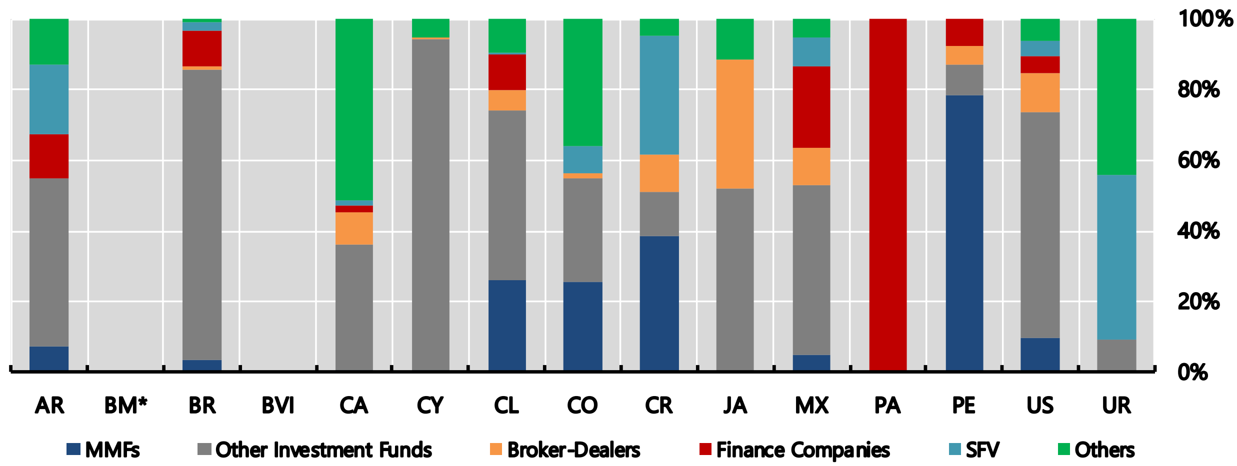
[22] Although the WGSB template disaggregates investment funds into three types – money market, public and private – not all jurisdictions are able to make this division with the available data. Thus, for Exhibit 3-5, two categories of investment funds are used: MMFs and other investment funds.

structured finance vehicles accounting for more than 30% of total OFIs. Broker-dealers account for over 35% of OFI assets in Jamaica.

Composition of OFI sector

In per cent, at end-2016

Exhibit 3-5



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*All OFI activities have been classified under IFC because it is estimated that the domestic proportion is immaterial.

Others: REITs, prize-linked saving accounts, US holding companies, and US funding corporations

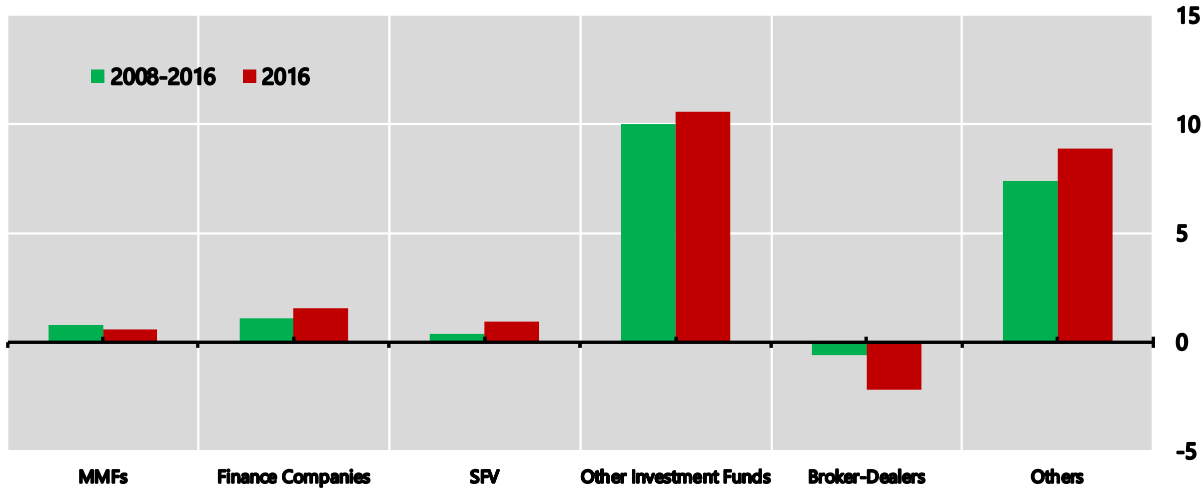
Sources: National flow of funds data; other national sources

In addition to accounting for the largest share of OFIs, the investment funds subsector was the key driver of OFI growth during 2016; while money market fund assets grew on average by 1% across jurisdictions, other investment fund assets grew by more than 10%, although this may be driven in part by an appreciation of asset prices.[23] The ‘others’ category also grew significantly in 2016, by almost 9% (Exhibit 3-6).

[23] Growth rates of financial assets presented in this Report are not adjusted for the appreciation or depreciation of asset prices, which in 2016 tended to exert an upward influence on growth rates.

Real growth of main sub-sectors of OFIs

In per cent (annualized)*, 13 jurisdictions, at end-2016 Exhibit 3-6



*Average across jurisdictions reporting OFIs. Same jurisdictions as in 3-5, except BM and BVI.
Sources: National flow of funds data; other national sources

3.4. OFI connections with the banking system

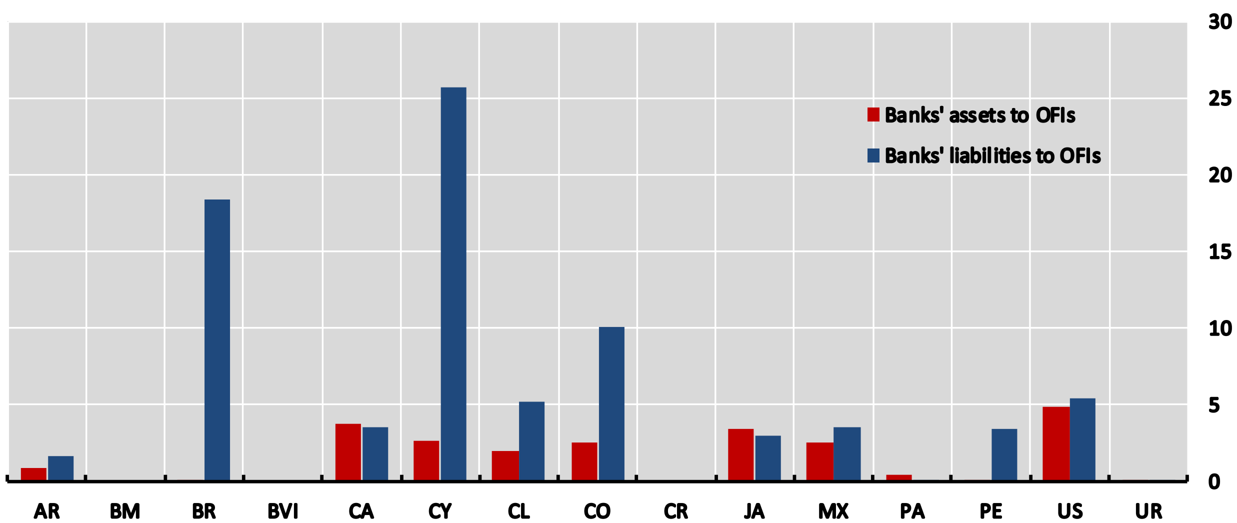
In several jurisdictions, links between OFIs and domestic banks are important. In the Cayman Islands, Brazil, and Colombia banks rely on OFIs for funding – usually through investment funds.[24] Balance sheet inter-connections between banks and the OFI sector in the remaining jurisdictions of the WGSB are very low (Exhibit 3-7). Note, however, that these measures can sometimes underestimate the links. The main limitation is that they do not always include off-balance sheet positions between OFIs and banks – like derivative positions.[25]

[24] In Brazil, fixed-income investment funds comprise around 86% of the OFI sector, and their assets are mainly composed of federal government bonds (43%) and repurchase agreements with the banking system backed up by federal government bonds (26%). These repos represent about 73% of banks' liabilities to OFIs, but their credit and liquidity risk are not significant because sovereign bonds are used as collateral.

[25] In the case of Colombia, exchange rate derivatives are included.

Banks' assets and liabilities to OFIs

In per cent, as a share of domestic banks' total assets*, at end-2016 Exhibit 3-7



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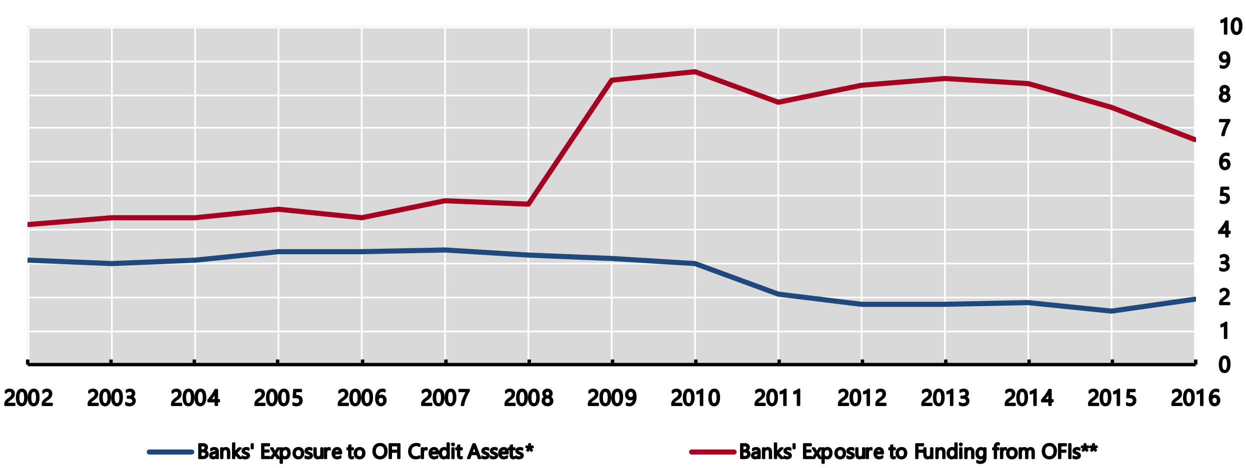
*Net assets/liabilities that are of prudentially consolidated banking groups

Sources: National flow of funds data; other national sources

Exhibit 3-8 shows the evolution of the (unweighted) average exposures from banks' lending activities to OFIs, and banks' borrowing from OFIs. Bank assets to OFIs as a share of bank assets has trended downward post-crisis, though it rebounded slightly last year (see blue line below). Bank liabilities to (funding from) OFIs, as a share of bank assets, is on average still above the pre-crisis level, though some large countries like the US have seen this ratio fall post-crisis.

Interconnectedness between Banks and OFIs

As average share of bank assets, in percent 15 jurisdictions Exhibit 3-8



* Banks' Exposure to OFI Credit Assets = Banks' claims on OFIs as a share of bank assets

** Banks' Exposure to Funding from OFIs = Banks' liabilities to OFIs as a share of bank assets

Sources: National flow of funds data; other national sources

3.5. International Financial Centers

Several jurisdictions in the RCGA provide significant offshore financial services as IFCs. Large volumes of bank and non-bank credit intermediation activities of other jurisdictions flow through IFCs. These offshore non-bank credit intermediation activities, especially large investment funds registered in IFCs, may pose systemic risk and thus warrant close monitoring and vulnerability assessment.

Six jurisdictions in the WGSB are IFCs – the Bahamas, Barbados, Bermuda, the British Virgin Islands, the Cayman Islands, and Panama. With the exception of the Bahamas and Barbados (who did not participate in the current exercise), the IFCs completed a separate template to identify the nature of their international financial activities.[26]

In the Cayman Islands, offshore assets are composed of special license banks (USD 1,019 bn), insurance companies (USD 56 bn), and OFIs, which include private funds (USD 6,325 bn), MMFs (USD 2 bn), Structured Finance Vehicles (USD 94 bn) and catastrophe bonds and special purpose insurers (USD 4 bn) (Exhibit 3-9). Bermuda has an important insurance sector (USD 594 bn), specializing in catastrophe reinsurance. Meanwhile in the British Virgin Islands, offshore assets are largely composed of OFIs (USD 152 bn), coupled with a smaller international banking sector of USD 28 mn.

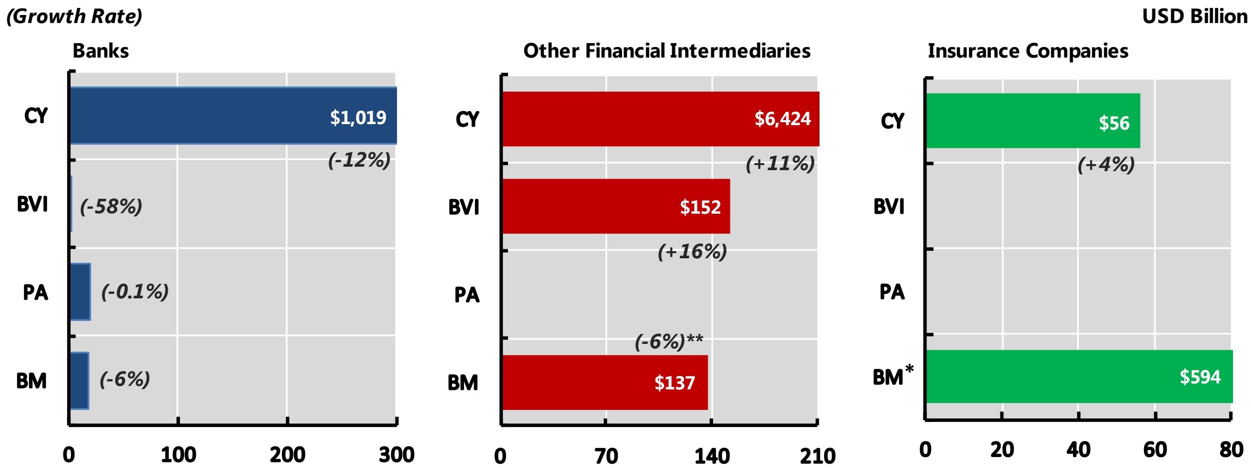
In Panama, like the Cayman Islands, the reported offshore assets correspond to banks that operate with special licenses. The special bank licenses in Panama and the Cayman Islands prohibit deposit-taking from residents and limit the activities that these banks can conduct in local markets to conducting business with other licensees. All offshore banks are prudentially regulated and supervised by the local authorities, although in Panama prudential requirements and intensity of supervision is lower than for full license onshore banks. In Bermuda, banks serve both domestic and international clients (e.g. global reinsurance firms headquartered in Bermuda) without separating them.[27]

[26] Barbados and the Bahamas completed the IFC template in previous exercises. Barbados has an offshore insurance sector that at end-2015 had USD 52 billion in assets. The Bahamas has an offshore banking sector with end-2015 assets of USD 181 billion.

[27] For the purpose of this study, the separation between Bermuda's domestic and IFC banking activities was estimated based on the share of assets held by banks in local currency and all other currencies.

Size of financial intermediaries in the international financial centers

Offshore assets, at end-2016 Exhibit 3-9



CY = Cayman Islands; BM = Bermuda; BVI = British Virgin Islands; PA = Panama
*At end-2015
**Growth rate excludes catastrophe bonds, for which 2016 data is not available
Sources: National flow of funds data; other national sources

4. The Narrow Measure of shadow banking

In assessments of SB it is useful to "cast the net wide" and obtain a first pass at measuring the size, scope and structure of non-bank financial activities. Data from WGSB jurisdictions show the onshore MUNFI (which includes pension funds, insurers, and OFIs) was USD 65.3 tn at end-2016, while offshore MUNFI assets of international financial centers reached USD 7.4 tn.

However, these broad measures capture certain activities and institutions that do not engage in non-bank credit intermediation. Not all activities included in the MUNFI or OFIs feature risks associated with SB.

As a consequence, the FSB developed a second step to its monitoring approach to arrive at a narrow measure of shadow banking. The 3rd Report on Shadow Banking in the Americas based its narrowing down approach on the narrow measure outlined by the FSB in the GSBMRs of 2013 and 2014.[28] This 4th report of the RCGA applies the FSB approach from the 2015 and 2016 monitoring exercises, and publishes for the first time the Narrow Measure based on the economic functions set out in the FSB Policy Framework.[29] An example of jurisdictions' considerations in determining whether to include entities in or outside an economic function is provided by Bermuda in Annex 2.

28 For more detail on the previous narrowing-down approach by the RCGA, see Section 3.5 of the FSB RCGA's *Working Group on Shadow Banking Third Report*, May 2017.

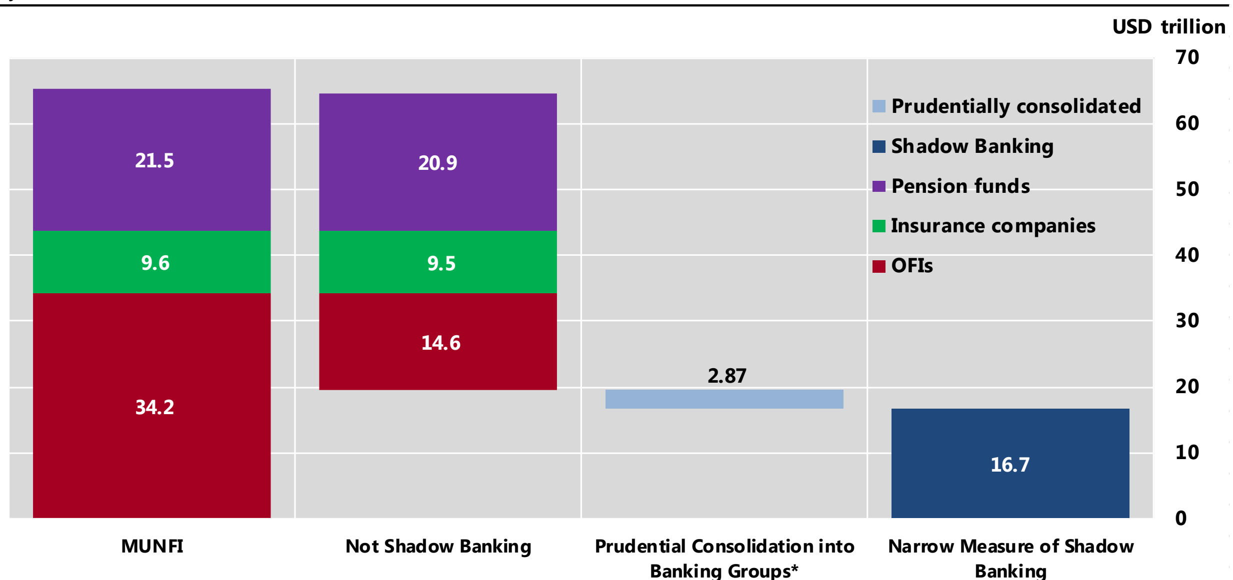
29 See FSB, *Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities*, August 2013.

As detailed below, the Narrow Measure in the Americas (based on the aggregate assets of entities classified into economic functions 1 to 5, plus other non-bank entities engaged in credit intermediation not classified into an economic function) were USD 16.7 tn (onshore) and USD 4.7 tn (offshore).

From MUNFI assets of USD 65.3 tn (onshore) and USD 7.4 tn (offshore), there was USD 47.9 tn (onshore) and USD 2.7 tn (offshore) in assets of non-bank entity types assessed not to engage in credit intermediation or not to engage in activities described by the 5 economic functions. For onshore assets, this included USD 20.9 tn of pension fund assets, USD 9.5 tn of insurance company assets, USD 14.6 tn of OFIs not classified into the economic functions, and USD 2.9 tn of assets from OFIs fully (in all aspects of regulation) consolidated into a banking group for the purposes of prudential regulation.[30] The (onshore) narrowing down from the MUNFI to the Narrow Measure is illustrated below. The onshore Narrow Measure is 26% of the MUNFI, while the offshore Narrow Measure is $4.7 tn, or 64% of the offshore MUNFI.

Narrowing down to Shadow Banking from MUNFI (onshore)

15 jurisdictions at end-2016 Exhibit 4-1



*Also includes bank-like regulated institutions

Sources: National flow of funds data; other national sources

[30] Financial institutions that are not fully consolidated are understood to potentially pose bank-type systemic risk to the financial system while still being outside bank-type financial intermediation. It was left to the discretion of each jurisdiction to decide whether any particular institution was fully or only partially consolidated into a banking group.

Economic Function 1: Management of collective investment vehicles with features that make them susceptible to runs

Economic function 1 is the largest economic function by assets across WGSB jurisdictions. All WGSB members but Panama and Uruguay classified entities into this economic function. Included were money market funds, fixed income funds (including exchange-traded funds), certain mixed funds (including exchange-traded funds), mortgage real estate investment trusts, certain non-public funds and others. In total, jurisdictions classified USD 11.2 tn of onshore assets into economic function 1. On average across WGSB members that classified assets into EF 1, onshore assets in this economic function grew by 9.7% in 2016, and 10.6% annually since 2011. All WGSB members with entities in economic function 1 experienced a real (inflation-adjusted) increase in assets in 2016, with particularly strong real growth in Jamaica (+25%) and the Cayman Islands (+20%).[31]

In addition, two IFCs (the Cayman Islands and Bermuda) classified offshore assets into economic function 1, with the Cayman Islands including USD 4.6 tn, and Bermuda including USD 125 bn.[32]

Economic Function 2: Loan provision that is dependent on short-term funding

This economic function had the fourth most assets in aggregate at USD 1.3 tn. On average across jurisdictions this economic function accounted for the third-highest share of assets in the Narrow Measure. Most WGSB jurisdictions classified entities into this economic function (all but Bermuda, Jamaica and Uruguay), including finance companies, leasing and factoring companies, mutual and cooperatives, non-bank credit card issuers, and others. On average, this economic function grew by 5.8% in 2016, and 3.9% annually since 2011, for the ten jurisdictions classifying entities into EF 2. In 2016, real (inflation-adjusted) growth rates exceeding 15% were experienced by Mexico and Panama. The United States experienced the largest real decline (-9%), while Argentina (-2%) and Brazil (-1%) saw modest declines.

Economic Function 3: Intermediation of market activities that is dependent on short-term funding or on secured funding of client assets

This economic function had the second most assets classified into it (USD 1.9 tn), but on average (unweighted basis) was the fourth largest economic function (by share of Narrow Measure assets) across WGSB members. All members but Argentina, Bermuda, Panama and Uruguay classified entities into economic function 3. The most common entity classified into this economic function is broker-dealers. On average across jurisdictions with entities in this economic function, assets

31 Growth rates in this section are presented in real, not nominal terms. Adjusting for inflation significantly lowers the growth rate for some jurisdictions. Consequently, growth rates might differ from those rates reported for the same jurisdiction in the 2017 GSBMR.

32 Offshore EF1 amounts were offshore funds (domiciled abroad), that were managed/marketed domestically or for IFCs – funds that are domiciled domestically by licence, but managed/marketed/sold international/offshore.

in this economic function grew by 6.4% in 2016, and 3.3% annually since 2011. In 2016, 6 WGSB jurisdictions saw assets grow, while 4 experienced declines.

Economic Function 4: Facilitation of credit creation

This economic function had by far the fewest assets of classified entities, at USD 80 billion across 7 jurisdictions. Jurisdictions classified some insurance companies (e.g., those engaged in financial guarantees), mortgage insurers and mutual guarantee societies into this economic function. On average across jurisdictions that classified entities into this economic function, assets in this economic function grew by 7.5% in 2016, and 6.4% annually since 2011. Only the United States experienced a (real) decline in 2016; in contrast, Argentina saw assets in this economic function rise by 28% (though it represents only around of 1% of Argentinian OFIs).

Economic Function 5: Securitization-based credit intermediation and funding of financial entities

This economic function had the third most assets in aggregate at USD 1.4 tn. On average, it was the second-most important economic function for WGSB jurisdictions, measured by share of Narrow Measure assets. Special finance vehicles were the most common entity type classified into this economic function. On average across jurisdictions that classified entities into this economic function, assets in this economic function grew by 2.8% in 2016, but fell by 0.7% annually since 2011. Experiences in 2016 varied, with strong real growth in Uruguay (over 40%) and the Cayman Islands (12%) and real declines of 24% in Argentina, 14% in Chile and 10% in the United States.[33]

Residual Shadow Banking

In addition to the 5 economic functions, the Narrow Measure also includes assets of non-bank entity types which (at least partly) engage in shadow banking activities but which could not be classified into a specific economic function. The Cayman Islands (catastrophe bonds), the US (funding corporations) and Uruguay (non-bank credit card issuers) included assets of entities in this residual, which was USD 0.9 tn at end-2016.

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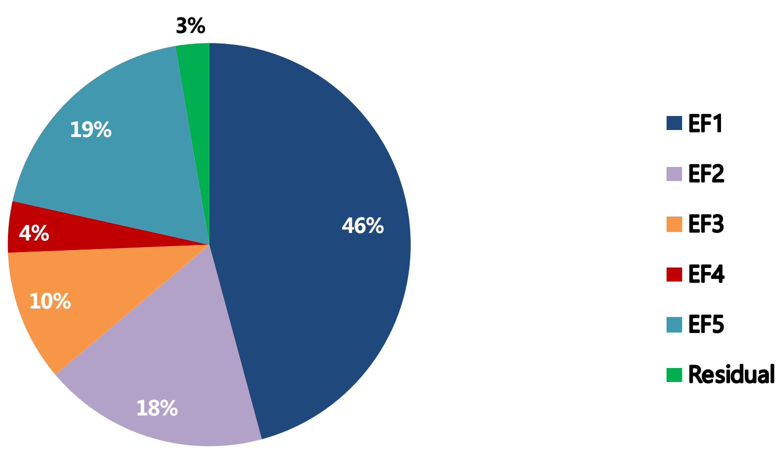
33 Despite the strong 2016 growth in Uruguay's structured finance vehicles, at USD 1.2 bn these represent only 1.5% of the country's total financial assets. In Chile, the decline reflects the fact that this is no longer an active market. For several years no securitizations have been issued; these entities are only managing the outstanding portfolios which decline in value as the underlying assets mature.

	Definition	Size (in USD)
EF 1	Management of collective investment vehicles with features that make them susceptible to runs	11.2 tn (onshore) and 4.7 tn (offshore)
EF 2	Loan provision that is dependent on short-term funding	1.3 tn
EF 3	Intermediation of market activities that is dependent on short-term funding or on secured funding of client assets	1.9 tn
EF 4	Facilitation of credit creation	80 bn
EF 5	Securitization-based credit intermediation and funding of financial entities	1.4 tn
Residual	Entity types which (at least partly) contain shadow banking activities but which could not be classified into a specific economic function	0.9tn
Total Assets in Narrow Measure of Shadow Banking		**16.7 tn (onshore) and 4.7 tn (offshore)**

Classification by Economic Function*

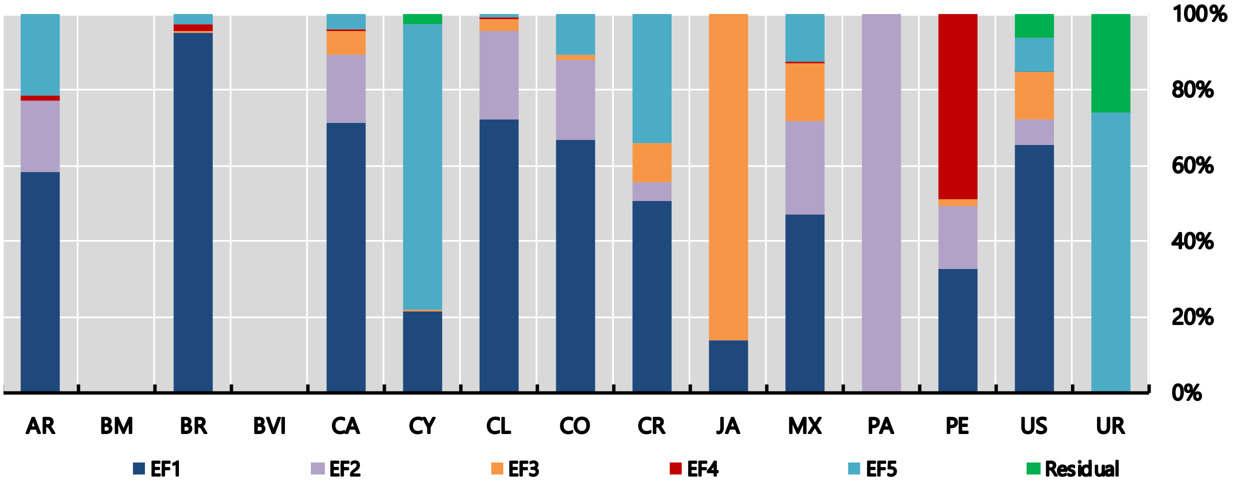
Relative size of economic functions, 14 jurisdictions, at end-2016 Exhibit 4-2



*As unweighted averages of the share of each jurisdiction's (onshore) economic function total over its Narrow Measure total.
Sources: National flow of funds data; other national sources

Economic Function Classification, by Jurisdiction*

In per cent, at end-2016 Exhibit 4-3



AR = Argentina; BM = Bermuda; BR = Brazil; BVI = British Virgin Islands; CA = Canada; CY = Cayman Islands; CL = Chile; CO = Colombia; CR = Costa Rica; JA = Jamaica; MX = Mexico; PA = Panama; PE = Peru; US = United States; UR = Uruguay

*Based on onshore assets.

Sources: National flow of funds data; other national sources

5. Finance Companies Questionnaire

The first report of the WGSB, published in August 2014, recommended that future work on SB should pay particular attention to four areas that were identified as posing potential risks to financial stability in the region. Two of these areas were covered in the 2015 (second) report of the WGSB: non-bank deposit taking institutions and broker-dealers. Another area was covered in the WGSB's third report: open-ended funds. The fourth area was finance companies.

The first report identified several potential vulnerabilities associated with finance companies: households may build up leverage through borrowing from finance companies; there may be risks arising from interconnections with the banking section, whether through direct exposures of banks holding credit in their loan portfolio, or competition between finance companies and banks leading to credit being offered to more risky borrowers; and finally, there is large degree of heterogeneity of regulation across entity types and jurisdictions. To better understand the shadow banking risks and the regulatory and supervisory aspects of finance companies in the Americas, the WGSB undertook a review of finance companies in the Americas through a survey sent by the WGSB to member jurisdictions. This survey complements information already collected through the onshore templates that WGSB members complete.[34]

[34] No finance companies have been identified in the offshore templates completed by IFCs.

5.1. Methodology and Structure of the Survey

The WGSB sent the questionnaire to member jurisdictions to complete regarding finance companies in their jurisdiction. The finance company questionnaire had three sections. Section 1 asked jurisdictions to identify all types of finance companies in their jurisdictions.[35] Section 2 asked for quantitative information on finance companies, including assets (total, credit, lending, long-term, short-term, and liquid assets), liabilities (long- and short-term), market share and interconnections with other parts of the financial system. Sections 3-6 asked for information on the regulatory environment in which these companies operate (with each section covering prudential, market-conduct, competition and stability regulation, respectively).[36]

Nine countries within the Americas completed the finance company questionnaire, namely, Argentina, Brazil, the British Virgin Islands, Canada, the Cayman Islands, Chile, Mexico, Peru and the United States. The data and key observations presented in this section are based on information received from these nine countries in response to the questionnaire.

5.2. Overview of Finance Company Survey Results

There are many types of finance companies operating in responding jurisdictions.[37] There are consumer lending companies, which can include (but not always) personal lending, store credit, payday lending and non-bank credit card companies, in Argentina, Canada, the Cayman Islands, Chile and the United States. Mortgage finance companies can be found in Canada, Peru and the United States. Transport finance companies (e.g., auto, train or aircraft financing) are in Argentina, Canada, the Cayman Islands, Chile and the United States. Business finance companies (equipment leasing and invoice financing) are in Argentina, Chile, Peru and the United States, while Brazil and Peru identified micro-finance companies.

Finance companies account for relatively larger shares of OFI assets in Argentina, Brazil, Chile and Mexico (10-24% of OFI assets).[38] Measured in absolute terms, the United States, Canada and Brazil have the largest sectors of the responding jurisdictions. The share of assets across finance

[35] Note the coverage of this survey did not extend to non-bank deposit-taking institutions, as these were previously considered in the WGSB's 2nd report. For example, Colombia's finance companies are considered non-bank deposit taking institutions and Mexico's micro-finance companies (Sofipos) are not included as they were covered with other savings and loans companies in the 2nd report.

[36] See the *questionnaire* for more details.

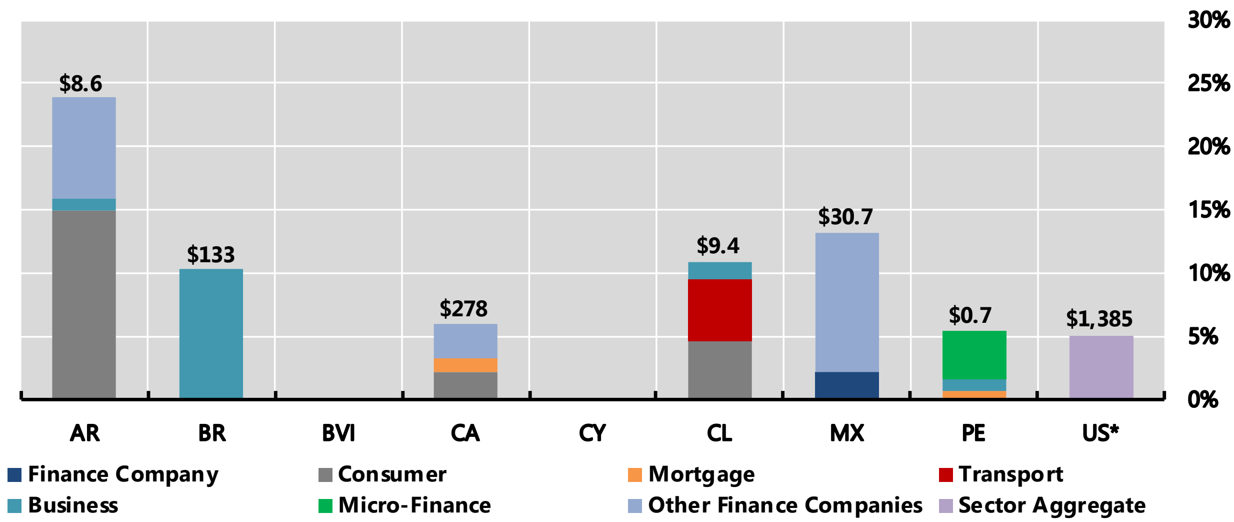
[37] In some cases, there are finance companies focused specifically in a segment, whereas in other cases individual finance companies operate in many segments. The description of different types in a jurisdiction correspond to both such cases.

[38] In Panama, finance companies make up the entire OFI sector; however, they are not included in this exhibit as the finance company template was not completed.

company sub-sectors, where available, is presented in exhibit 5-1. In some cases (US and Canada), data is not granular enough to determine the size of various finance company sub-sectors.

Composition of Finance Company Sector — Exhibit 5-1

As a percentage of total OFIs, 9 jurisdictions, at end-2016 — Jurisdiction total in $USD billion

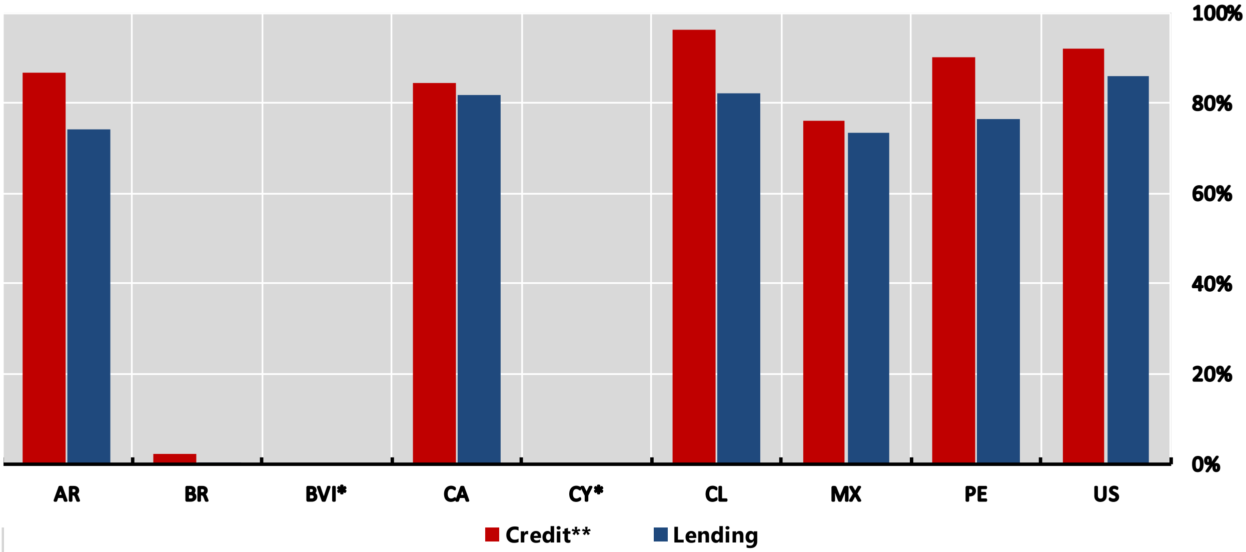


AR = Argentina; BR = Brazil; BVI = British Virgin Islands; CA = Canada; CY = Cayman Islands; CL = Chile; MX = Mexico; PE = Peru; US = United States
*Unable to disaggregate categories.
Sources: National flow of funds data; other national sources

Given their business models, it would be expected that a significant portion of finance company assets are lending assets. This expectation is confirmed in exhibit 5-2 below. One exception is for Brazil, where nearly the entire finance company sector (by assets) is comprised of leasing companies that are linked to banking groups and are not used for lending. The clear majority (approximately 85%) of the assets are high quality liquid assets, while only 2% of the assets are credit assets. Over 99% of Brazilian leasing company financial assets are prudentially consolidated into banking groups.

Credit and Lending within the Finance Company Sector

As percent of sector's total financial assets, 9 jurisdictions, at end-2016 Exhibit 5-2



AR = Argentina; BR = Brazil; BVI = British Virgin Islands; CA = Canada; CY = Cayman Islands; CL = Chile; MX = Mexico; PE = Peru; US = United States
*Data not available.
**Credit-related assets including debt securities.
Sources: National flow of funds data; other national sources

Maturity transformation and leverage are the main risks generally associated with finance companies. In particular, a combination of high maturity transformation and high leverage can pose rollover risk. Exhibit 5-3 shows measures of these shadow banking risks. The left-hand panel plots measures of maturity transformation and leverage for all finance company types in responding jurisdictions where data allowed the calculation of either measure. The right-hand panel shows leverage and maturity transformation for finance company subsectors in jurisdictions where data allowed for calculation of both. The greater the assets (in USD), the larger is the circle.

A maturity transformation ratio greater than 1 implies there is some maturity transformation, and that subsector has short-term liabilities that exceed its short-term assets.[39] The median figure is 1.1, indicating only a moderate amount of maturity transformation. In only one instance did this indicator exceed 2 (Canadian sales finance and consumer lending companies).[40]

Leverage is measured in the exhibit below as total financial assets/equity. Median leverage for finance company subsectors across jurisdictions was 4.3. Only Canadian mortgage finance

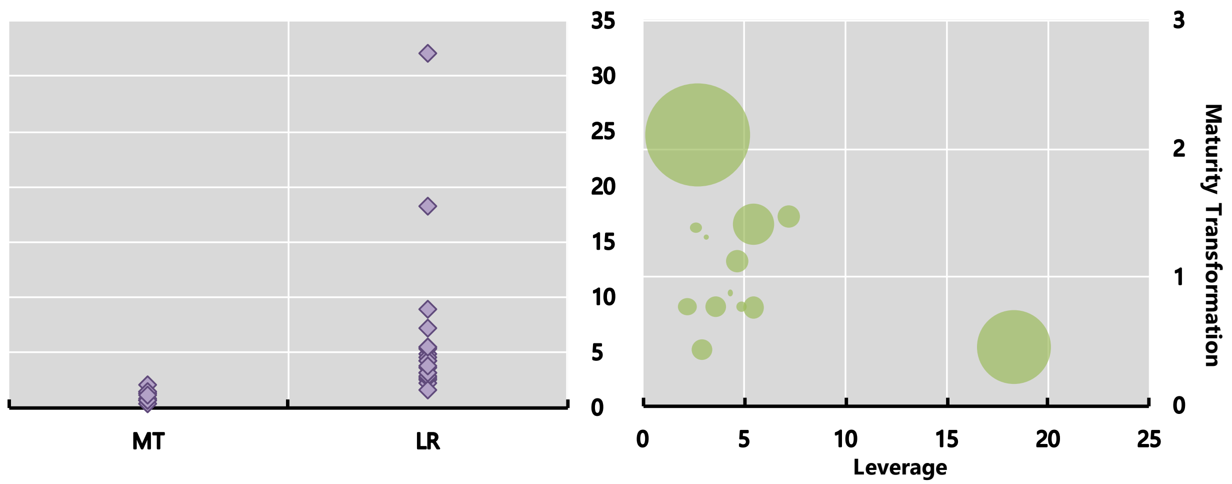
[39] Other risk metrics for maturity transformation can suggest different conclusions. For example, some jurisdictions with a high maturity transformation ratio, as calculated in this section, exhibit zero or negligible maturity transformation under alternative maturity transformation measures – such as the ratio of (Long-term assets-Long-term liabilities-Equity)/Total financial assets.

[40] In Argentina neither mutuals nor cooperatives can accept time deposits, and cooperatives cannot take demand deposits, but mutuals can take (as deposits) contributions only from their members.

companies (18) and Brazilian leasing companies (32) had ratios greater than 10.[41] For Brazil, this reflects leverage in the same leasing companies described earlier, that do very little lending and are prudentially consolidated into banking groups. Consequently, they are not considered shadow banking entities in Brazil.

Maturity Transformation and Leverage for all Entity Types across Jurisdicitons

9 jurisdictions, at end-2016 Exhibit 5-3



Maturity Transformation = Short term liabilities / short term assets; Leverage = Total financial assets / equity

Sources: National flow of funds data; other national sources

Regulatory Environment for Finance Companies

The WGSB questionnaire sought information from member jurisdictions on various forms of finance company regulation and supervision, be they prudential-, market-conduct-, competition- and stability-oriented.

Six of the nine responding jurisdictions indicated their finance companies have a regulator or supervisor. The regulatory or supervisory body varied across jurisdictions, and included central banks, securities regulators and bank supervisors. Three jurisdictions cited minimum capital upon entry for some finance companies. For example, in Brazil, small business credit companies require minimum capital of BRL 200,000, while real estate credit companies and leasing companies require BRL 7 million. In Chile, non-bank credit card issuers require a minimum of $1,000,000 of capital, an amount that grows proportionally with outstanding loans. Peru also has minimum capital requirements.

With respect to capital, liquidity and leverage, there are generally very few prudential regulatory requirements among responding jurisdictions. Only Mexico and Brazil apply Basel capital rules to finance companies, and in Mexico it is only a subset of such entities that are subject to these rules.

[41] For a detailed description of vulnerabilities of mortgage finance companies in Canada, see Don Coletti, Marc-André Gosselin and Cameron MacDonald (2016), *The Rise of Mortgage Finance Companies in Canada: Benefits and Vulnerabilities*, Financial System Review, December 2016.

In addition to the minimum capital requirements mentioned above, Chilean non-bank credit card issuers are subject to liquidity reserve requirements, face capital requirements for operational risk, and are supervised by the banking supervisor. In Argentina, there are leverage and liquidity restrictions for mutuals and cooperatives.

Finance companies in responding jurisdictions face few balance sheet restrictions. None of the 9 jurisdictions cited restrictions on maturity mismatches between assets and liabilities, while Brazil and Peru indicated there are some restrictions on currency mismatches. Restrictions on holdings of commercial loans, consumer loans, housing loans or foreign currency loans are rare among the responding jurisdictions.

While balance sheet restrictions may be rare among the responding jurisdictions, market conduct rules are far more common. In particular, disclosures of shadow banking risks are an important piece to the FSB's policy framework for other shadow banking entities.[42] In about 3/4 of cases, responding jurisdictions reported that finance companies disclose shadow banking risks (leverage, liquidity transformation, maturity transformation and imperfect risk transfer) to their regulator, and in half of cases, they're disclosed to investors.

Finally, none of the responding jurisdictions reported a maximum limit on market share per jurisdiction. Nor did any of the responding jurisdictions report its finance companies to have deposit insurance or access to central bank liquidity or lending of last resort facilities. Argentina, Brazil and Peru noted that resolution plans are required by certain finance companies.

6. Recommendation for Future RCGA Exercises

This fourth WGSB shadow banking monitoring exercise continues to provide useful data on non-banking credit intermediation activities in the region. The exercise complements the FSB global monitoring exercise by incorporating participation of non-FSB members. IFCs' participation, in particular, addresses an important data gap. The WGSB continues to take steps to align the RCGA monitoring exercise with the FSB global exercise. A Narrow Measure of shadow banking based on classification of entities into economic functions has been introduced in this report. To improve the assessment of shadow banking risks among WGSB jurisdictions, the WGSB recommends that:

Recommendation: Future RCGA monitoring exercises should incorporate risk metrics data consistent with data reported to the FSB to examine the extent of shadow banking risks in the Americas.

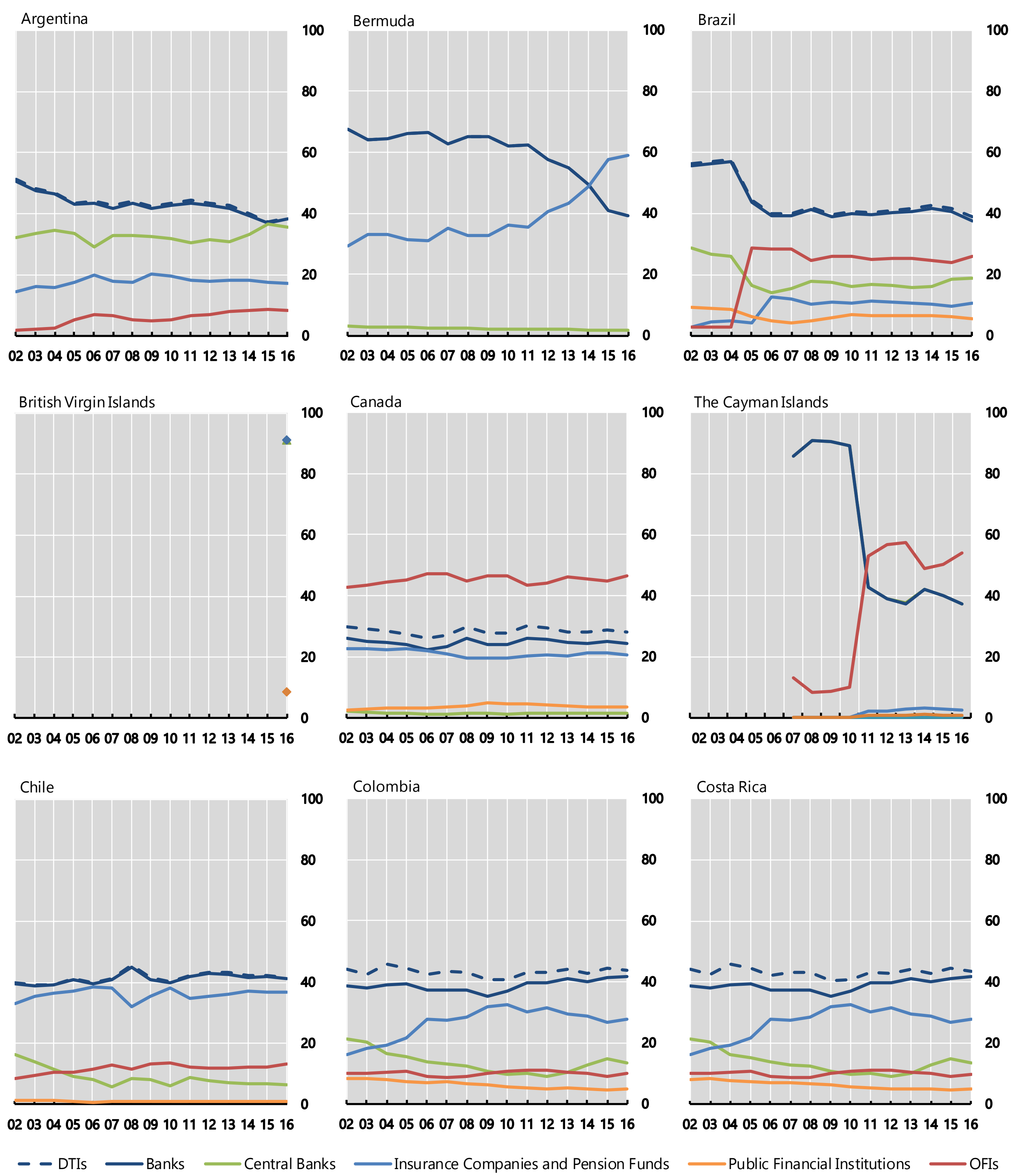
[42] See FSB, *Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities*, August 2013. Principle 3 of the Policy Framework is that "authorities should enhance disclosure by other shadow banking entities as necessary so as to help market participants understand the extent of shadow banking risks posed by such entities."

The WGSB could incorporate into its exercise similar risk metrics data as what is used in the FSB's global monitoring exercises. These risk metrics would be used to examine the degree of maturity and liquidity transformation conducted through, and leverage risks posed by, the shadow banking activities. This should improve monitoring of potential risks of non-bank credit intermediation in the region.

Annex 1: The Share of Total Financial Assets by Jurisdiction

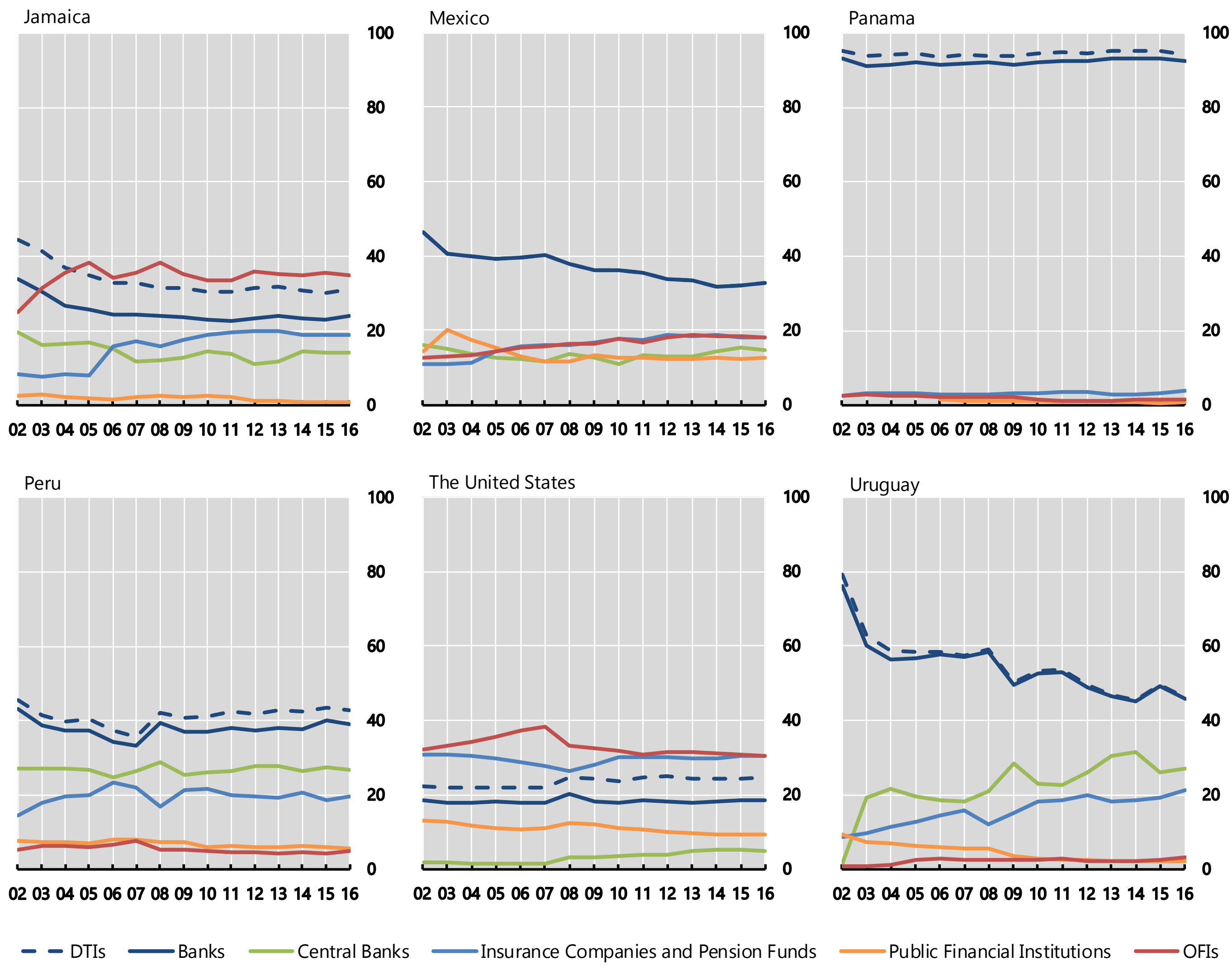
Share of total financial assets by jurisdiction

In per cent



Sources: National flow of funds data; other national sources

Share of total financial assets by jurisdiction
In per cent



Sources: National flow of funds data; other national sources

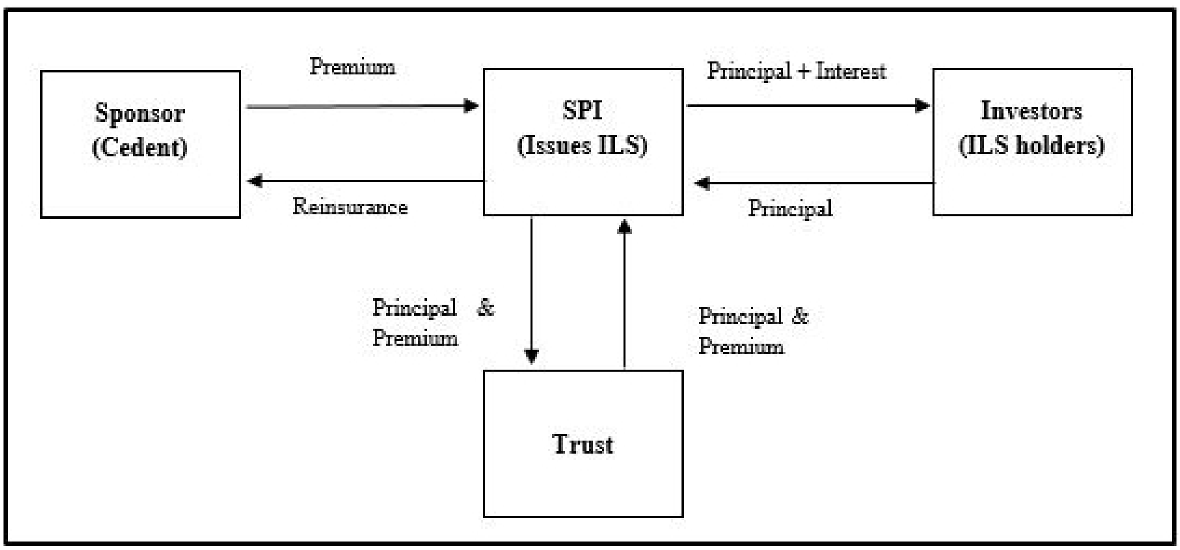
Annex 2: Insurance-linked securities – Bermuda case study[43]

1. Introduction

Insurance-linked securities (ILS) refer to financial instruments (i.e. debt securities or equity securities) that bear insurance risk. In Bermuda, these securities are issued by insurers that hold a special type of insurance license, i.e. the Special Purpose Insurer ("SPI") license, which was introduced in 2009. An SPI assumes pre-specified insurance[44] risks and fully funds its exposure to such risks, through the issuance of ILS. The requirement to be fully funded ensures the SPI's solvency. Under the Bermuda Insurance Amendment Act 2008, SPIs are subject to the full extent of the regulations and on-going supervisory process which are in line with IAIS ICP 13.6 on risk transfer to the capital market.

2. SPI Structure

Figure I - Basic structure of an SPI



Source - BMA

Sponsor (Cedent) – is typically an insurer that is seeking to cede some of its business risk. Ceding risk through an SPI allows the sponsor to obtain insurance capacity from an alternative capital market which is generally less expensive compared to traditional reinsurance. In addition, ceding risk though SPI allows the sponsor to diversify its sources of insurance capacity.

SPI (issues ILS) – the SPI will assume risk from the sponsor and capitalize itself by issuing ILS to investors. The amount of capital raised by the SPI should be equal to the risk exposure that the SPI is assuming less the written premium paid by the sponsor.

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[43] This case study was prepared by the Bermuda Monetary Authority. The views expressed in the case study are those of the BMA and not necessarily the views of the RCGA.

[44] The use of insurance in this box refers to both insurers and reinsurers

Investors (ILS holders) – An SPI investor must be a person who is, or may properly be, treated as a "sophisticated participant". [45]

Investors can participate in the investment returns of insurance-based instruments giving them a high degree of diversification since these instruments are not correlated to traditional financial market assets. However, the rights of the investors are fully subordinated to the insurance obligations of the SPI.

Trust – Proceeds from the investors and premium from the cedent to the SPI are placed into a trust account. The placement of funds into a trust eliminates the credit risk inherent in traditional insurance as well as providing investors certainty on their investment, especially payment of interest (or dividends) and repayment on principal. [46]

3. SPI and shadow banking

The funds in a trust (investors' proceeds and premium from the cedent) are invested in accordance with the investment objectives as set out in the offering memorandum. Usually these funds are invested in high quality assets like US treasury bills, as the Bermuda Monetary Authority (the SPI regulator) requires a conservative approach in the investment of the SPI's assets, aimed at minimising credit and liquidity risks. The SPI is required to provide full disclosure regarding the investment guidelines including the types of acceptable instruments, total composition of the assets and up to date market value of the assets.

If there is no loss event during the life of the SPI (normally 1 to 3 years), the SPI notes will be redeemed at face value and the investors will receive full principal plus interest or dividends. However, if there is a loss event, the sponsor will be entitled to use the funds from the Trust to settle related claims. Any balance left will be returned to investors.

In line with potential shadow banking risks, and as discussed above, the SPI is exposed to minimal credit and liquidity risk. However, for the purpose of measuring and monitoring shadow banking, this information is already captured at fund level, i.e. when the funds in a trust are invested back to the capital market (e.g. money market funds investing in US treasuries). Thus, Bermuda does not consider SPIs to be directly involved in financial stability risks from shadow banking.

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[45] A sophisticated participant includes high income private investors, high net worth private investors, sophisticated private investors and an investment funds approved by the BMA under the Bermuda Investment Funds Act (IFA).

[46] The placement of funds supporting the exposure into a trust account of which the cedent is the beneficiary minimises the credit risk inherent in traditional reinsurance, i.e. the risk that reinsurer may be unable -or unwilling- to pay claims. In addition, investors also benefit from the trust account's arrangements as these include specific instructions regarding the payment of interest (or dividends) and repayment of principal.

Annex 3: WGSB Membership List

FSB Regional Consultative Group for the Americas
Working Group on the Shadow Banking
List of Members

Co-chairs	**Justine Plenkiewicz** Head, Policy and Development Division Cayman Islands Monetary Authority
	Pamela Andrea Cardozo Ortiz Chief Officer of the Monetary and International Investments Division Banco de la República
	Stephen Murchison Adviser to the Governor Bank of Canada
Argentina	**Marcelo Raffin** Banco Central de la República Argentina
	Manuel Duarte Inchausti Deputy Manager Capital Markets Analysis Banco Central de la República Argentina
Bahamas	**Alwyn Jordan** Senior Economist, Research Department Central Bank of The Bahamas
Barbados	**Sadie P.O. Dixon** Legal Counsel Central Bank of Barbados
Bermuda	**Marcelo Ramella** Deputy Director, Policy, Legal Services & Enforcement Department Bermuda Monetary Authority
	Leo Mucheriwa Assistant Director Research

Bermuda Monetary Authority

Brazil	**Frederico Souza** Head of Division, Financial System Monitoring Department Banco Central do Brasil
	Irineu Hiroshi Yokoo Coordinator, Financial System Monitoring Banco Central do Brasil
British Virgin Islands	**Kenneth Baker** Deputy Managing Director, Regulation, Banking and Fiduciary Services Division Financial Services Commission
Canada	**Michael Januska** Principal Economist, Financial Markets Department Bank of Canada
Cayman Islands	**Alvis Bonita Anglin (Bonnie)** Chief Statistician, Policy and Development Division Cayman Islands Monetary Authority
Chile	**Fernando Sepulveda** Banco Central de Chile
	Alfredo Fuentes Senior Economist, Statistics Division Banco Central de Chile
	Leon Sanz Bunster Senior Professional Banco Central de Chile
Costa Rica	**Josué Cortés Segura** Banco Central de Costa Rica
	Genaro Segura Calderón Technical Services Superintendencia General de Entidades Financieras (SUGEF)

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