Financial Stability Board

Regional Consultative Group for the Americas

Working Group on Non-bank Financial Intermediation

Sixth Report

Notice

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6 December 2021

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1. Executive Summary

Since December 2012, the Financial Stability Board (FSB) Regional Consultative Group for the Americas (RCG Americas) has conducted a regional monitoring exercise of the non-bank financial intermediaries' (NBFI) sector within its member jurisdictions, following the work done by the FSB's Non-bank Monitoring Experts Group (the Experts Group).[1] This report presents the results of the sixth exercise.[2] The aim of this monitoring exercise is to assess the size, structure and recent trends of the NBFI sector in the region, recognizing that this information is crucial, as re-emphasized by the COVID-19 shock, in order to identify potential risks to financial stability at the local jurisdiction level, as well as those arising from potential cross-border linkages. Understanding potential risks is important 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.

The COVID-19 related market turmoil highlighted the structural vulnerabilities within the financial markets and stressed the role that interconnectedness, within the financial system, can play in the propagation and amplification of shocks. Specific to NBFI, the impact of the COVID-19 pandemic on market liquidity in the spring of 2020 re-emphasized that not only is it important to monitor developments in the NBFI sector, but also to understand how the sector interconnects with the rest of the financial system, including banks and across borders. Ultimately, this will help jurisdictions to better assess how vulnerabilities and shocks within the NBFI sector may lead to financial instability. Financial authorities have since started the task of evaluating several potential areas of improvement in market practices, as well as international standards and regulation relating to NBFIs and their implications on the banking sector and financial markets' resilience more generally.

The monitoring exercise is based on time series financial sector data from 14 participating jurisdictions, representing about 97% of GDP of the Americas' region.[3] The Report uses data up to end-2019 based on balance sheet data from national financial account statistics and other (regulatory or private sector) sources. The Report does not cover the period of COVID-related market turmoil observed during March-May 2020. However, section 2.1 below describes some of the events and the impact relating to financial stability, with particular focus on the NBFI sector at the time in selected jurisdictions. Furthermore, Annex I contains a series of graphs showing the changes in total assets in jurisdictions at the sector level, and Annex II contains case studies on the impact of this pandemic for Bermuda and Mexico's NBFI sector, including some of the immediate actions taken by these countries to mitigate such impact. This exercise also captures offshore entities or activities in several

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[1] Previously, non-bank financial intermediation was referred to as "shadow banking". The change in terminology, which was announced by the FSB on 22 October 2018, is intended to emphasize the forward-looking aspects of the FSB's work to enhance the resilience of non-bank financial intermediation. This change in terminology does not affect the substance of the agreed monitoring framework and policy recommendations, which aim to address bank-like financial stability risks arising from non-bank financial intermediation. See FSB, Global Monitoring Report on Non-bank Financial Intermediation 2018, February 2019.

[2] The fifth report was published on 30 June 2020 and used data up to end-2018 for 16 participating jurisdictions.

[3] Two jurisdictions did not submit data for the 2020 exercise; thus, figures and growth rates presented in this Report are not comparable to those reported in the previous one. Improvements to data coverage and new data availability have also been incorporated and have an impact on the calculations.

jurisdictions in the RCG Americas that provide significant offshore financial services as international financial centers (IFCs).[4]

This regional monitoring exercise follows the FSB methodology in the same manner as carried out by the Experts Group in the case of the FSB's global monitoring exercise, which considers a two-step approach.[5] 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 non-bank financial entities. In the second step, the exercise seeks to "narrow down" the focus of monitoring by excluding entities prudentially consolidated into a banking group, and any other entities/activities not involving credit intermediation, and focuses on those activities that may pose bank-like financial stability risks, using the FSB's economic functions approach.

Several observations resulted from the monitoring of non-bank financial intermediation activities using 2019 end-of-year data. The most important include:

- Total regional financial assets, as per the exercise data collection process[6] (domestic and offshore), reached over USD 140.1 trillion at end-2019, experiencing faster growth of 10.1% during 2019, which contrasts with an annualized growth of 3.6% for the period between 2013 and 2018 and to the negligible annual contraction registered during 2018 of 0.2%.
- IFCs' total financial assets[7] registered as offshore were USD 10.4 trillion at end-2019, up from USD 8.8 trillion at end-2018. The dominant type of entity within offshore financial assets is non-public investment funds, which makes up 79.2% of total offshore financial assets, followed by offshore banks with 7.7% of the share.
- The onshore NBFI sector, comprised of Other Financial Intermediaries (OFIs), insurance companies and pension funds' assets increased to USD 81.5 trillion at end-2019, up from USD 72.5 trillion at end-2018. The offshore NBFI total assets were USD 9.5 trillion at end-2019, up from USD 7.9 trillion at end-2018;
- Financial assets belonging to entities that have been registered as prudentially consolidated into a banking group rose to USD 3.1 trillion at end-2019, all corresponding to the OFIs sector—an 5.3% annual growth;
- Overall, the aggregate data shows a marked increase in growth in total OFI assets largely driven by the largest jurisdiction (United States). However, for most jurisdictions at the individual level, the sector presents positive growth rates although with heterogeneity in the levels; and
- The regional narrow measure as per the FSB methodology (net of prudential consolidation) reached USD 27.7 trillion at end-2019, up from USD 24.4 trillion at end-2018. The annual growth rate for the aggregate narrow measure net of prudential consolidation was higher for

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4 The assets in question are counted in the Total National Financial Assets of the corresponding jurisdiction.

5 The practical two-step approach is based on the monitoring framework to assess bank-like financial stability risks from NBFI as set out in FSB (October 2011) *Shadow Banking: Strengthening Oversight and Regulation*.

6 Data is collected in templates which have sector categories that are largely aligned with sectoral balance sheet statistics. This data provides generally consistent financial sector data for mapping the global size and trends of NBFI, and the main template was referred to as macro-mapping as it gave a broad view of a jurisdiction's financial system. The Global Monitoring Report on Non-bank Financial Intermediation dropped the term "macro-mapping" in its 2019 report.

7 Exhibit A-1 in the Annex shows a comparison of the evolution of the share of financial assets by sector for participating jurisdictions.

the region (13.7%) than that observed in the past years (compound growth rate for the 2013-2018 period was 3.7%).

- Within the narrow measure, NBFIs are categorized into five economic functions (EF):
  - Collective investment vehicles with features that make them susceptible to runs (EF1) grew by 17.1% in 2019 and made up 76.2% of the narrow measure;
  - Non-bank financial entities engaging in loan provision that is dependent on short-term funding (EF2), net of prudential consolidation, grew by 4.1% in 2019 and made up 65.8% of the narrow measure;
  - Market intermediaries that depend on short-term funding or secured funding of client assets (EF3), net of prudential consolidation, grew by 1.3% in 2019 and made up 7.9% of the narrow measure;
  - Entities involved in the facilitation of credit creation (EF4), such as financial guarantors and credit insurers net of prudential consolidation, and taking into account the reported off-balance sheet positions, grew by 4.1% in 2019 and made up 0.2% of the narrow measure;
  - Securitization-based credit intermediation (EF5) grew by 10.2% in 2019 and made up 5.7% of the narrow measure; and
  - Unallocated assets represent about 4.3% of the total narrow measure.[8]
- With regards to financial intermediaries' interconnectedness data collected to assess the potential risks to financial stability, including risk concentration (risk metrics) associated with narrow measure entities/activities, the submission rate is still very low and the quality may be insufficient for some of the reporting jurisdictions. Therefore, these present important areas for improvement in the future. For the region, banks' credit exposures is about 4.7% of banks' assets (net of prudentially consolidated assets) while OFIs' credit exposures to banks is about 3.2% of OFIs assets.

Finally, some recommendations going forward regarding monitoring the NBFI sector are included. In particular, the continuation of the annual exercise, and its improvements on the closing of data gaps and risk measurement, are considered important areas for further development. It is also strongly suggested to update the data collection process and its granularity in order to align it more closely to the global monitoring exercise.

2. Introduction

Non-bank Financial Intermediation (NBFI) is broadly defined as credit intermediation involving entities and activities (fully or partly) outside the regular banking system.[9] 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, such as maturity and liquidity

[8] The "unallocated assets" category captures financial entities that the authorities determined are involved in bank-like financial stability risks from NBFI, but which could not be assigned to a specific EF.

[9] See *Shadow Banking Scoping the Issues*, FSB, 2011.

transformation and/or the creation of leverage, it can become a source of systemic risk. To this end, the Financial Stability Board (FSB), along with financial authorities in the Americas region, have coordinated efforts to assess trends and risks in the NBFI system and to help identify rapidly growing new activities that pose bank-like risks that may need to be addressed.[10] Furthermore, the recent events in the global financial system relating to the COVID-19 shock exposed some structural vulnerabilities in the NBFI sector and showed how extraordinary stress can quickly spill over across entity types and markets. In particular, demand for liquidity was the main source of stress at the onset of the pandemic (see section 2.1).

This report presents the results of the sixth NBFI monitoring exercise in the Americas.[11, 12] This exercise was designed and conducted by the Non-bank Financial Intermediation Working Group (NBFI-WG) set up by the FSB's RCG Americas. The main objective of the NBFI-WG monitoring 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 RCG Americas' monitoring exercise and annual report serves to maintain robust surveillance of the region's financial system. In particular, the exercise aggregates information about those portions of the financial system where risks may be accumulating due to the natural evolution of financial intermediation and adds to authorities' understanding of the different incentives underlying the financial intermediation decisions in normal times and in stress across entity types. In particular, results show how important data gaps are still largely present, and efforts should continue in order to better measure the components and mitigate related data gaps. Improved measurement will likely lead to improved risk monitoring and forward-looking assessments that could inform authorities for their policy design. In addition, there is still some heterogeneity in the understanding of the FSB methodology, and owing to this repeated exercise, some corrections have been discussed bilaterally with jurisdictions. This Report benefits from these interactions and from more individually focused revisions. The Report greatly benefits from the goodwill and cooperation of the participating jurisdictions, with the aim of having a better common understanding of the jurisdictions' particularities and therefore increasing consistency in the FSB methodology implementation.

The remainder of this report unfolds as follows. Section 3 describes the methodology employed for this report and the main differences from past reports. The results from the monitoring exercise using the macro-mapping and the offshore template to obtain an NBFI measure are presented in Section 4 along with a description of the main trends. In this section, Box 1 describes the experience of COVID-19 as it relates to the NBFI sector, including the impact of measures taken by authorities across the region to help mitigate the impact of the pandemic. The narrow measure is presented in Section 5. Section 5 also examines the main observations gathered from the risk metric data collected for each

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[10] To see the key FSB documents related to Non-Bank Financial Intermediation and all past Global NBFI Monitoring Reports (2011-2019) see FSB, *Enhancing Resilience of Non-Bank Financial Intermediation*.

[11] The previous report was published on 30 June 2020 and used data up to end-2018.

[12] In past reports, the term MUNFI (Monitoring Universe of Financial Intermediation) was used as the main NBFI reference and it comprised the Insurance corporations, Pension funds and the Other financial intermediaries (OFIs). In this Report, the term MUNFI is replaced by NBFI in accordance to the same change in the *Global Monitoring Report on Non-bank Financial Intermediation 2020*, published in December 2020.

Economic Function. Finally, the main conclusion and some recommendations for future RCG Americas exercises are presented in Section 6.

3. Monitoring Methodology

This report applies the narrowing down methodology introduced in the FSB's 2013 high-level *Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities.*[13] The methodology uses a two-step approach. As a first step, it focuses on a data collection process that enables a broad overview of participating jurisdictions' financial system assets on a resident basis. That is, domiciled entities and financial assets are under the scope of analysis for any given jurisdiction. Jurisdictions may use different data sources in order to populate the data templates required for the purpose of this exercise; however, the original construct was based on flow of funds statistics. Some jurisdictions, however, use data from other sources, such as supervisory and commercial data, to complement and/or supplement the flow of funds statistics.[14] The total information provides a broad measure of the NBFI sector, and allows an assessment of recent trends. This first step is referred to as macro-mapping.

The second step involves taking the former broad measure as a starting point to analyze in further detail the activities and potential risks to financial stability of the different sectors within the broad measure but restricting the analysis to those entities or activities involved in credit intermediation. The outcome of the analysis is a refinement of the broad measure referred to as the narrow measure. To arrive at the narrow measure, an activity or economic function-based approach is followed.

This Economic Function (EF)-based approach centers on classifying the different entities identified as part of the narrow measure into five EFs based on the type of vulnerabilities arising from the activities these entities carry out.[15] The approach is conservative because it is both inclusive in scope and assumes that policy measures and/or risk management tools have not been exercised.[16] More precisely, RCG Americas' takes a pre-mitigant approach to classifying entities and including them in the narrow measure, without regard to existing risk-mitigating regulation. This approach is intended to produce a consistent and comparable measure of NBFI across participating jurisdictions. As a result, the narrow measure may overestimate the degree to which non-bank credit intermediation poses risk to financial stability on a post-mitigant basis. Nevertheless, this pre-mitigant assessment can help authorities to continue assessing existing structural features and policy tools to address financial stability risks that

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

[14] To aggregate amounts across jurisdictions, amounts reported in national data are converted into US dollars (USD) using market exchange rates. Measures of growth throughout this Report are adjusted for exchange rate effects by applying a constant end-2019 exchange rate across all past years to convert data denominated in local currencies into USD.

[15] The vulnerabilities present in different entities/activities in the run-up to the Global Financial Crisis have been identified and discussed extensively by FSB (see Shadow Banking: Strengthening Oversight and Regulation, FSB (2011)).

[16] Recent events during the March market turmoil support this conservative approach and have even called into question whether specific regulation in place for some NBFIs incentivized abrupt asset selling behavior and contributed to deterioration in market liquidity at the peak of the crisis.

may arise from NBFIs and identify any residual risks that may warrant policy responses.[17] Moreover, this approach contributes to detecting any sudden changes or developments that could be worth exploring in detail.

In addition, this classification approach is flexible in that the five EFs are not mutually exclusive – thus, if an entity engages in more than one function and regulators are able to determine the split of the entity's financial assets involved in each function, the entities assets will be allocated across multiple EFs. Participating jurisdictions classify their specific entities according to guidance designed to promote classification in a consistent manner.[18] Authorities also discuss classification of new activities and adjust guidance if necessary so that the monitoring approach is also forward looking. With this approach, the goal is to focus on the specific sectors that have the potential to accumulate systemic risk if vulnerabilities should persist. Furthermore, the narrow measure filters out non-bank financial entities prudentially consolidated (in all aspects) into a banking group.

Regarding the first step of the process, there are four differences between the RCG Americas NBFI-WG main template (formerly known as the 'macro-mapping' template) and the corresponding FSB's 'Global Monitoring Report on Non-bank Financial Intermediation' template. First, investment funds are split into Money Market Funds (MMFs), Public funds and non-public funds.[19] This contrasts with the FSB's 'Global Monitoring Report on Non-bank Financial Intermediation' template that divides investment funds into MMFs, hedge funds and other funds categories.[20] The NBFI-WG believes that the non-public funds category reflects the characteristics of hedge funds while capturing other funds with very similar characteristics that are not labelled as "hedge funds" in participating jurisdictions.[21] Second, the NBFI-WG template asks for assets of commodity funds.[22] The third difference is that the

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17 The analysis of regulation and the policy toolkit available to regulators/supervisors is not part of the scope of this report. Thus, the inclusion of non-bank financial entities or activities in the narrow measure does not constitute the judgement that policy measures applied to address the financial stability risks from credit intermediation of these entities and activities are inadequate or ineffective, nor necessarily reflect the judgement that regulatory arbitrage is a relevant factor. It is based on a conservative (i.e., inclusive) 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).

18 The FSB policy framework takes into account that there may exist differences across jurisdictions due to varying legal and regulatory settings, and guidance is meant as a tool to help authorities in their assessment of the underlying economic functions and risks of certain entities or activities.

19 Public funds are 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.

20 This "other investment fund" category is broken down further into: equity, fixed-income, mixed and other funds in the global exercise.

21 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) of them use high levels of leverage; significant performance fees (often in the form of a percentage of profits) are paid to the hedge funds' manager in addition to an annual management fee; investors are typically allowed to redeem their interests periodically, e.g. quarterly, semi-annually or annually; often the hedge funds' manager invests significant amounts of his/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's most recent report on the topic, *Report on the fifth IOSCO Hedge Funds Survey (2020)*. 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 daily redemption.

22 The RCG Americas monitoring exercise requests information from jurisdictions on the split of equity, fixed-income, commodity and other funds for both public and non-public funds.

NBFI-WG template requests data separately for credit unions as this type of entity is prevalent in the region.[23]

The fourth difference is that the exercise includes, as in earlier reports by the NBFI-WG, an additional template to be submitted only by IFCs. Monitoring NBFI activities in IFCs merits special attention as they are significant in the region and represent a significant share of total national financial assets in some jurisdictions. As IFCs' activity is exclusively or almost exclusively with international counterparts (non-residents), this analysis and the resulting observations help in closing a material data gap present in the Global Monitoring Exercise.[24] Six member jurisdictions of the NBFI-WG have been identified as IFCs, with four providing the IFC requested data for the purpose of the exercise.[25] For IFC jurisdictions, financial assets registered with domestic authorities are split into those held by local (domestic sector) and offshore (international sector) 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.[26, 27] The NBFI-WG 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.

For this report, the monitoring exercise is based on time series data gathered from 14 participating jurisdictions with final data observations up to end-2019. The participating jurisdictions that have submitted data for this year's report include: Argentina[28] (AR), Bahamas (BH), Bermuda (BM), Brazil (BR), British Virgin Islands (BVI), Canada (CA), Cayman Islands (KY), Chile (CL), Colombia (CO), Costa Rica (CR), Jamaica (JA), Mexico (MX), United States (US), and Uruguay (UR). Together, these jurisdictions represent about 97% of the region's GDP. The report covers the period from 2002 through 2019, using annual data (end-of-year 2019).

While data submission quality is very heterogeneous across jurisdictions, entity/activity coverage has improved relative to the last publication. However, there remains important scope to improve the information available to authorities with the aim of enhancing the overall assessment process. Some of the jurisdictions participate as part of the FSB Non-bank Monitoring Experts Group which

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[23] Jurisdictions report credit unions and other similar entities separately from deposit taking institutions if the regulation and supervision is not bank equivalent or if these entities do not have backstops similar to those established for the banking sector.

[24] For this reason, although not a FSB member, Cayman Islands, the largest IFC in this report by asset size, has participated since 2014 in the FSB's Global Monitoring Exercise; however, the Global Monitoring Report does not separate domestic and international financial sectors.

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

[26] One example is the class B bank category in Panama and the Cayman Islands, which cannot take deposits from residents. In the Cayman Islands, the holder of a "B" licence is not allowed to 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 on the Islands.

[27] Importantly, there is no unique definition for international financial center but for the scope of this report, assets and liabilities of entities in this particular sector are with non-resident counterparties. However, no particular rationale regarding taxation treatments of the offshore assets should be implied in this context or for this report's purposes.

[28] In the report, growth rates in the particular case of Argentina reflect a high rate of inflation (54% inflation according to CPI in 2019).

undertakes the Global Monitoring Exercise.[29] Their involvement and proficiency in the methodology, as well as the data collection process, and their experience in financial system surveillance has continuously assisted in the improvement of data among RCG Americas members.

4. Overview of Financial Intermediation: Total Financial Assets (Domestic: Onshore and Offshore)

This section provides an overview of the composition, size and growth of the different financial sectors of participating jurisdictions through time. The information described is the result of the FSB monitoring framework, and corresponding analysis as applied to the particular countries, in a similar fashion to the Global Monitoring Report on NBFI produced by the FSB on an annual basis. One difference, however, is that in contrast to the last report, this section of the analysis does not split national financial system assets into two categories- domestic (onshore) and offshore- and presents them jointly, dedicating a specialized section of IFCs at a later section in the Report. This is possible as a macro-mapping data template is filled for both domestic and offshore sectors for participating jurisdictions.[30]

4.1 Overview and Trends

To give a sense of the relative size of the region's financial assets for the two sectors (domestic and offshore), Exhibit 4-1 shows an overview of the domestic and offshore sectors' total asset trends from 2002 to 2019.[31] In recent years, the two sectors have shown similar trends in terms of their growth (or contraction), as there seems to be some co-movement. However, growth rates for the offshore sector exhibit more volatility; often times the offshore sector grows at faster rates than the domestic sector assets, and often times it contracts by more. Nonetheless, the offshore sector's growth (or contraction) occurs from largely different levels. Total regional financial assets grew by 10.1% during 2019; the domestic sector grew by 9.5%, and the offshore sector by 18.2%. The offshore sector's growth during 2019 managed to reverse the contraction observed at end-of-year 2018 (-4.7%).[32] In terms of growth trends, 2018 was an atypical year for many of the analyzed sectors with many of them presenting significant contractions.

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[29] The following jurisdictions (29) participate in the FSB's Global Monitoring Exercise: Argentina, Australia, Belgium, Brazil, Canada, Cayman Islands, Chile, China, France, Germany, Hong Kong, Indonesia, India, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Spain, Switzerland, Turkey, United Kingdom, and the United States. The 21-members plus the euro area as a whole is also used in certain sections of the Report.

[30] The FSB's Global Monitoring Exercise requests jurisdictions to register financial assets in the macro-mapping template on a residence-basis; that is, considering legally established financial entities /activities, and therefore captures all domestic and offshore entities into the same template. The NBFI WG has the information split into two templates which can be added to obtain the jurisdictions' aggregate financial assets that are legally established residents although their services may be offered or restricted to be offered to foreign counterparts.

[31] The series for the offshore sector in the graph present important data quality issues for data points prior to 2008, introducing some jumps in the series, therefore growth rates are not presented for the affected years.

[32] The financial assets' annualized growth rate for the 2013-2018 period is 4.2% and 3.5% for the domestic and offshore sectors, respectively.

Box 1. The COVID-19 experience

Based on extra qualitative data reported by several participating jurisdictions, the analysis shows that, generally, the NBFI sector experienced acute stress, notably in the first quarter of 2020, at the onset of the pandemic.[1] A flight to safety behavior was observed in general in the first part of the stress episode and investors rebalanced their portfolios towards safer and more liquid assets, which affected capital and liquidity flows.[2] As a result, key funding markets were under severe stress. For Collective Investment Vehicles (CIVs), in general there was an increase in redemptions in Q1 2020, which suggests a demand for liquidity driven by heightened uncertainty in the market as the COVID-19 pandemic emerged – this left several funds under severe liquidity stress.[3] In some jurisdictions, money market funds that invested primarily in government debt securities experienced significant inflows through the pandemic. The opposite occurred with money market funds primarily invested in non-government debt.[4]

Short-term funding market strains arose in several jurisdictions, and secondary market asset valuations became impaired. Public sector authorities responded to liquidity strains by providing exceptional liquidity support through a number of programs, which helped restore confidence in the market. Measures included liquidity interest rate cuts, asset purchase programs, FX market interventions (use of USD swap lines), lending facilities, and expanded eligible counterparties in repo operations, among others. As the market regained confidence, there was an increase in the NAV of most investment funds, which suggests that the underlying assets in these CIVs regained value.

The COVID-19 shock affected NBFI activities differently across the region. Specific to the insurance sector, particularly activities related to EF4, some jurisdictions reported increases in claims on business lines such as business interruption and event cancellation - primarily driven by widespread business closures, and trade credit and mortgage claims related to the severe knock-on effects of COVID-19 on the economy and unemployment. As credit supply tightened, authorities across the Americas region responded to the COVID-19 shock by adopting a range of policy measures intended to ensure proper functioning of the financial markets more broadly and to contribute to safeguard financial stability. Measures sought to alleviate stress in both the bank and NBFI sector, but also to support borrowers facing the sharp economic slowdown associated with restrictions imposed on some economic sectors as lockdowns were imposed by governments for non-essential activities. Some jurisdictions implemented measures to support credit intermediation including temporary deferred payment programs on outstanding loans for borrowers whose income flow was reduced. Other measures to support banks and some NBFIs included the temporary relaxation of regulatory investment limits[5], and delayed implementation of prudential reforms. There were also measures that enhanced NBFI supervision, for example, an increase in the frequency of system stress-testing and monitoring of daily redemption limits and credit risk indicators. Other jurisdictions have embarked on reforming their capital and liquidity frameworks for NBFIs where the existing framework was considered to be insufficient.

It is also important to note that the level of the COVID-19 impact varied across jurisdictions, with some jurisdictions being affected more significantly, especially those that faced structural or cyclical headwinds prior to COVID-19, such as economic recession, high inflation rates, and volatility in markets. Notably, events, directly and indirectly linked to the COVID-19 pandemic, are still unfolding and this increases the overall uncertainty associated with assessing the full impact of the pandemic on the NBFI sector.

[1] Jurisdictions contributed brief notes describing the events in their respective financial systems during the COVID-19 shock stress episode, with particular focus on the NBFI sector. Contributing jurisdictions were: AR, BM, BR, CA, CO, JA, MX, and US.

[2] For a broader analysis of stress event, see FSB's *Holistic Review of the March Market Turmoil* (November, 2020), which describes in detail the market events throughout the stress period, including the policy measures introduced.

[3] Several jurisdictions reported that their jurisdictions' fixed-income open-ended funds faced significant redemption pressures and were forced to sell assets in order to meet them.

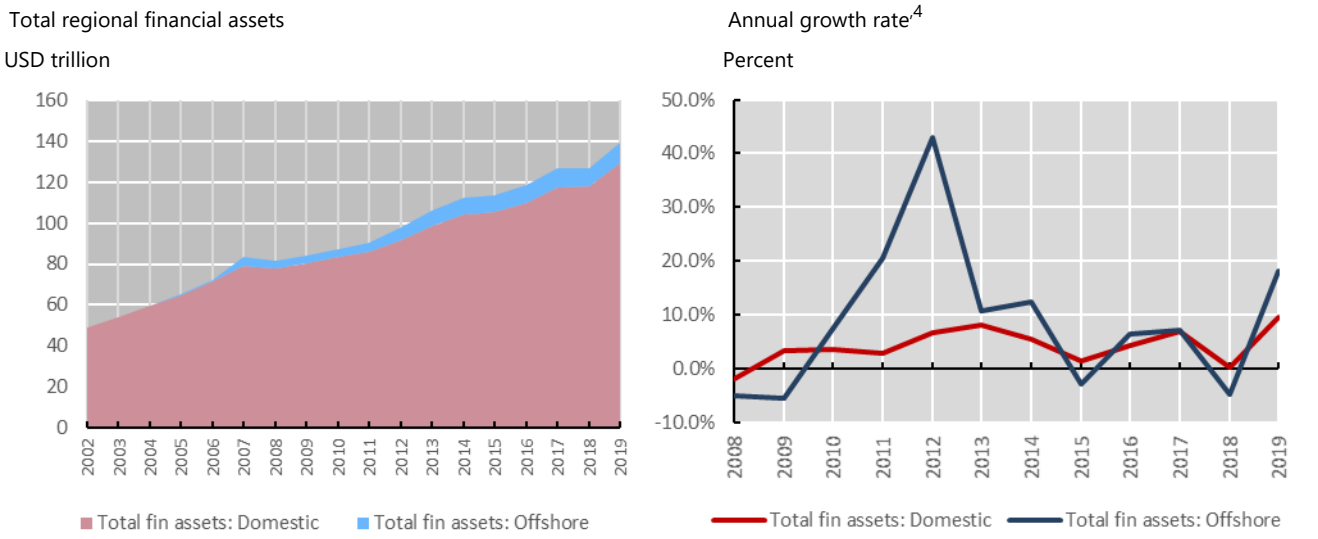
[4] One jurisdiction has stated opined that this flight-to-safety behavior by investors as funds flowed into money markets funds primarily invested in government securities reflects the belief that those funds were the former was a safer alternative to non-cash ETFs and mutual funds in times of market stress. See *Non-bank financial intermediation in Canada: a pulse check* - Bank of Canada (2021).

[5] For example, some jurisdictions increased the limit of allowable short-term borrowing of funds' net asset value or allowed flexibility in VaR limits to facilitate liquidity management in the face of redemption pressure and other demands for cash.

Macro-mapping of the financial system: domestic and offshore[1,2,3]

14 jurisdictions

Exhibit 4-1



[v1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. [2] Financial auxiliaries are included. [3] Total regional financial assets include all financial assets domiciled in the corresponding jurisdictions (i.e. onshore and offshore). [4] Before 2008 there are jumps in the series (offshore assets). Thus, growth rates are not informative. The series in the graph start in 2008.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

The next subsections contain an overview of the recent trends observed in total financial assets across the different sectors.

4.2 Financial Assets by Sector

Exhibit 4-2 provides a broad overview of the size and evolution of the key parts of the region's financial systems. [33, 34] During 2019, total regional financial assets grew by 9.4% to a level of USD 140.1 trillion. Deposit-taking institutions represents the largest sector outside of other financial intermediaries (OFIs), with total assets of USD 32.1 trillion.[35] The banking sector continues to be the

[33] Domestic data includes only financial system assets domiciled in the corresponding jurisdiction that are related to financial services with no restriction on being offered to domestic residents.

[34] Financial auxiliaries' data have been included in all the analysis in this report (although only a few jurisdictions report data on them), whereas in the previous report they were excluded. The purpose of excluding them was to set a common base of comparison focusing especially on the relevant entities allowing for data to be improved in this sector, but there was no additional information provided in the most recent collection process.

[35] OFIs are financial entities other than central banks, deposit-taking institutions, insurance corporations, pension funds, public financial institutions and financial auxiliaries in the Flow of Funds statistics. However, as some jurisdictions lack these data and as some other entities involved in credit intermediation and non-banks financing have been identified as a result of this and the Global Monitoring Exercise, there have been adaptations in order to include them as part of OFIs.

predominant entity type for most of the region's financial systems (see Annex I for individual jurisdiction asset share data series for the main sectors). However, the large OFI sector in the United States brings down the share of the banking sector for the aggregate.[36]

Macro-mapping of the financial system: total national financial assets[1,2,3]
14 jurisdictions

Exhibit 4-2

	Total regional financial assets	Central banks	Deposit taking institutions		Public financial institutions	Insurance corporations	Pension funds	OFIs	Financial auxiliaries
			Total	Of which banks:					
Size at the end-2019 (USD trillion)	140.1	5.9	32.1	26.0	10.4	13.2	27.3	50.6	0.6
Share of total regional financial assets (%)	100	4.2	22.9	18.6	7.4	9.4	19.5	36	0.5
Growth in 2019 (year-over-year, %)	10.1	6.3	4.8	4.7	3.3	12.1	8.1	16.4	5.3
Growth in 2018 (year-over-year, %)	-0.2	-5.7	1.6	1.6	3.0	-0.7	0.7	-1.8	1.4
Growth 2013-2018 (annualized growth, %)	3.6	2.8	3.2	3.3	3.1	3.6	3.6	4.0	8.7

[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. [2] Deposit taking institutions include banks. In contrast to last year's monitoring exercise, financial auxiliaries' assets have been included this year as part of the total regional financial assets (5 jurisdictions reported data). [3] Total national financial assets include all financial assets domiciled in the corresponding jurisdictions (i.e. onshore and offshore).

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

In the same period, the banking sector grew at a rate of 4.7%, higher than the annualized growth rate observed during the prior five-year period (3.3%). Other sectors increased markedly in size during the last year, in contrast to 2018 when a contraction was observed. For example, insurance corporations and OFIs' assets increased by 12.1% and 16.4%, respectively. Overall, most sectors experienced a marked growth during 2019 and at higher growth rates than those previously observed for a long period of time. Heterogeneity in jurisdictions' contributions to growth of total regional financial assets by is the result of the heterogeneity in jurisdictions' initial shares and the observed growth rates in assets in each jurisdiction. Some jurisdictions registered moderate growth rates, while others showed large increases that have a marginal impact in the region's growth rate (see Annex I for each jurisdiction's financial assets by sector evolution).[37]

Exhibit 4-3 shows jurisdictions' share in the total regional financial assets, with the United States, Canada, Cayman Islands, Brazil and Mexico accounting for 97.6% of the total assets. The United States by itself comprises 77.6% and thus its weight in the region is a significant driver of results.

[36] The US OFI sector accounts for 25.1% of total regional financial assets, while banks in the region account for only18.6% of total financial assets.

[37] These results may be affected by inflation in some jurisdictions.

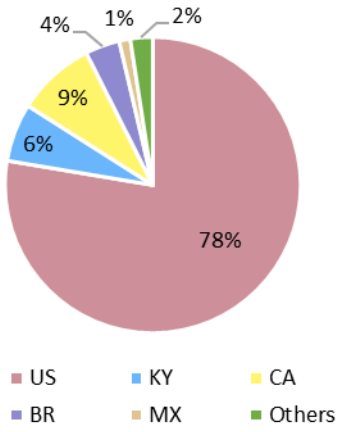
Some jurisdictions stand out for their abnormally high growth rate during 2019 relative to previous years (BVI).[38] In general, growth rates in 2019 exceeded those of 2018 across jurisdictions.

Jurisdictions' total national financial assets [1, 2, 3]

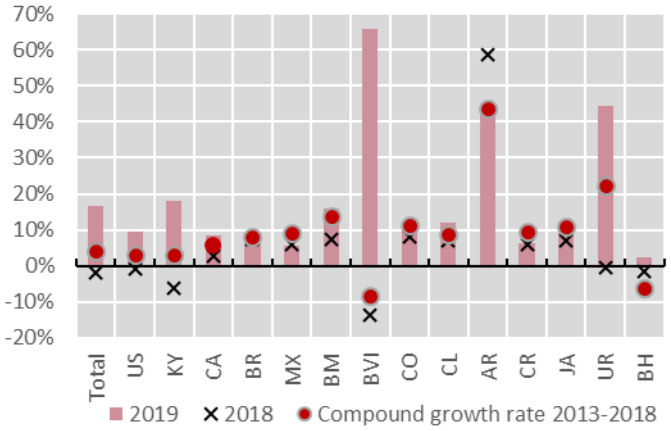
14 jurisdictions

Exhibit 4-3

At end-2019, in percentage of total financial assets



Annual growth rate, in percent



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. [2] Financial auxiliaries are included. [3] Total national financial assets include all financial assets domiciled in the corresponding jurisdictions (i.e. onshore and offshore). AR's growth rates are impacted by high inflation.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

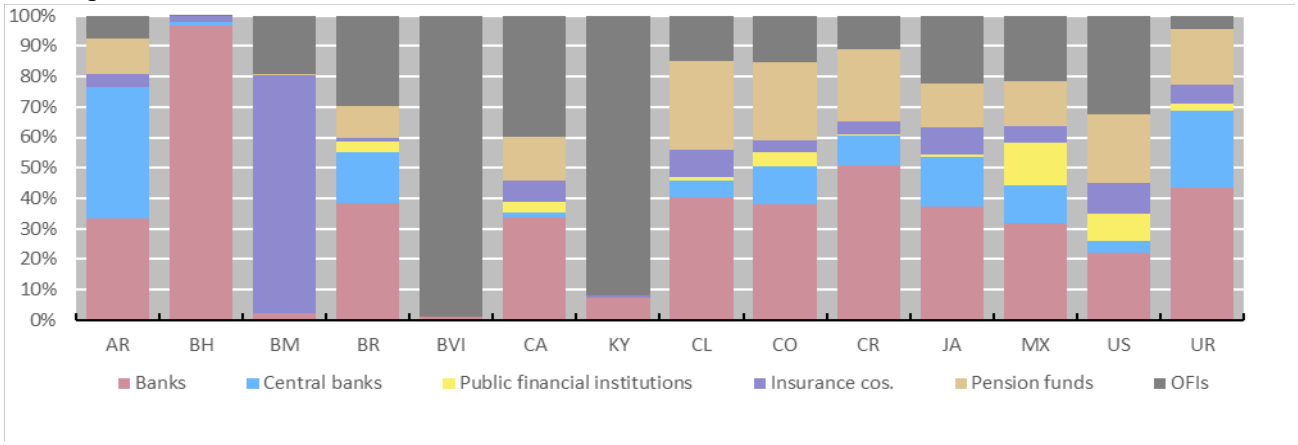
Exhibit 4-4 shows the composition of regions' financial systems into different sectors. OFIs have a large relative share in a number of jurisdictions' financial systems (BVI, CA, KY). Insurance corporations are also significant entities for some jurisdictions (BM).

[38] BVI refers that the increase is due to the appreciation of value of assets and favorable changes in market conditions.

Composition of financial systems by sector[1, 2,3]

14 jurisdictions at end-2019 Exhibit 4-4

Percentage of total national financial assets



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Some jurisdictions' data reflect high inflation rates. Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. [2] Total national financial assets include all financial assets domiciled in the corresponding jurisdictions (i.e. domestic and offshore). [3] Financial auxiliaries are included.

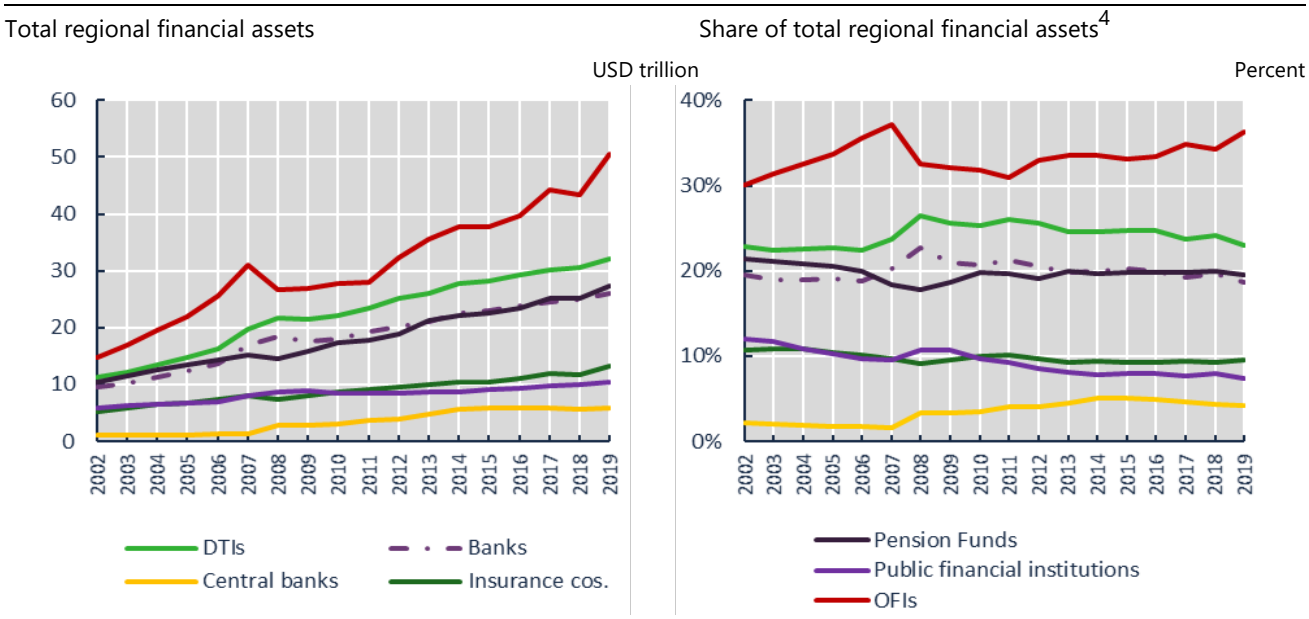
Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

Exhibit 4-5 shows the OFI sector as the largest, showing dynamic growth during the last year of data, similar to that observed in the period leading up to the Global Financial Crisis. DTIs have lost some share to OFIs, while pension funds and insurance corporations' share remains stable for the region as a whole.

Assets of financial intermediaries by sector[1, 2, 3]

14 jurisdictions

Exhibit 4-5



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. [2] Financial auxiliaries are included. [3] Deposit-taking institutions (DTIs) include banks and other deposit-taking entities. [4] Total regional financial assets include all financial assets domiciled in the corresponding jurisdictions (i.e. onshore and offshore).

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

The next sections show analysis in detail of the composition and trends in the NBFI sector.

4.2.1 Non-bank financial intermediaries

The aggregate measure of the insurance corporations, pension funds and Other financial intermediaries (OFIs), formerly known as Monitoring Universe of Non-Bank Financial Intermediation (MUNFI), is now referred to as Non-bank financial intermediaries (NBFIs) to be consistent with the FSB Global monitoring exercise, and it is the starting point for the broad measure. The main reason for including institutional investors (insurance corporations and pension funds) in the broad measure is that, in some instances, insurance corporations and pension funds have been found to contribute to non-bank financing. For example, these institutional investors participate in the credit intermediation chain through the purchase of credit assets and, occasionally, engaging in direct lending activities.[39] The latter activity has caught the attention of authorities, as it is a deviation from these entities' core activities and may be a result of search for yield by institutional investors. In fact, for the Americas region insurance corporations' direct lending increased in 2019 at 6.5% reaching USD 866.4 billion, while its annualized growth rate over the 2013-2018 period was 7.2%. For pension funds, direct lending increased by 13.6% reaching USD 96.8 billion, having shown a growth rate of 10.6% in the

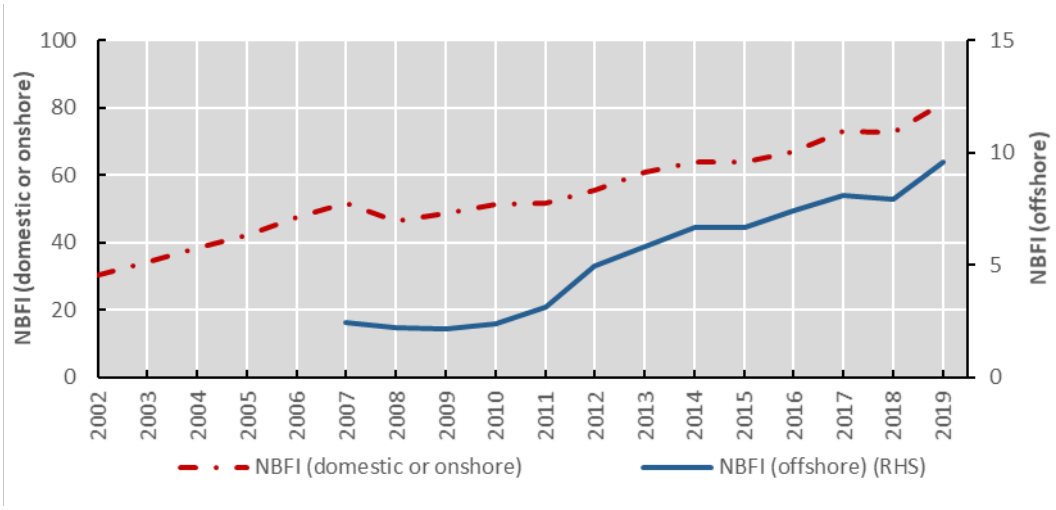
[39] See FSB, Section 2.2 and Annex 7 in Global Shadow Banking Monitoring Report 2016, May 2017.

2013-2018 period. Exhibit 4-2 shows that pension fund assets grew during 2019, at a rate significantly higher to that observed during 2013 to 2018, recovering ground from the small growth attained in 2018. Meanwhile, insurance corporations considering all assets (domestic and offshore) also registered high growth offsetting the contraction observed in 2018. At the same time, the share of DTIs and public financial institutions decreased, albeit at slower rates than NBFIs (See Exhibit 4-5).

Exhibit 4-6 shows the evolution of the NBFI assets for both the domestic and offshore sectors. Growth of total NBFI assets accelerated during 2019, registering 13.2% at year-end, after having registered insignificant growth during the previous year. The domestic NBFI sector stands out since its size is over ten times that of the offshore sector. Nevertheless, the offshore NBFI sector registered significant growth during 2019, driven particularly by non-public investment funds. This accelerated growth is noteworthy as it exceeds the average annual rate observed during the past decade. At end-2018 offshore NBFI assets decreased in size, while domestic NBFI assets showed little growth relative to the previous year. NBFI offshore assets had not contracted since around the crisis.

Total NBFI assets: domestic/onshore and offshore[1, 2, 3]

14 jurisdictions — Exhibit 4-6



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. [2] Financial auxiliaries are included. [3] Offshore assets series are poorly reported before 2007 and therefore are not presented in the graph.

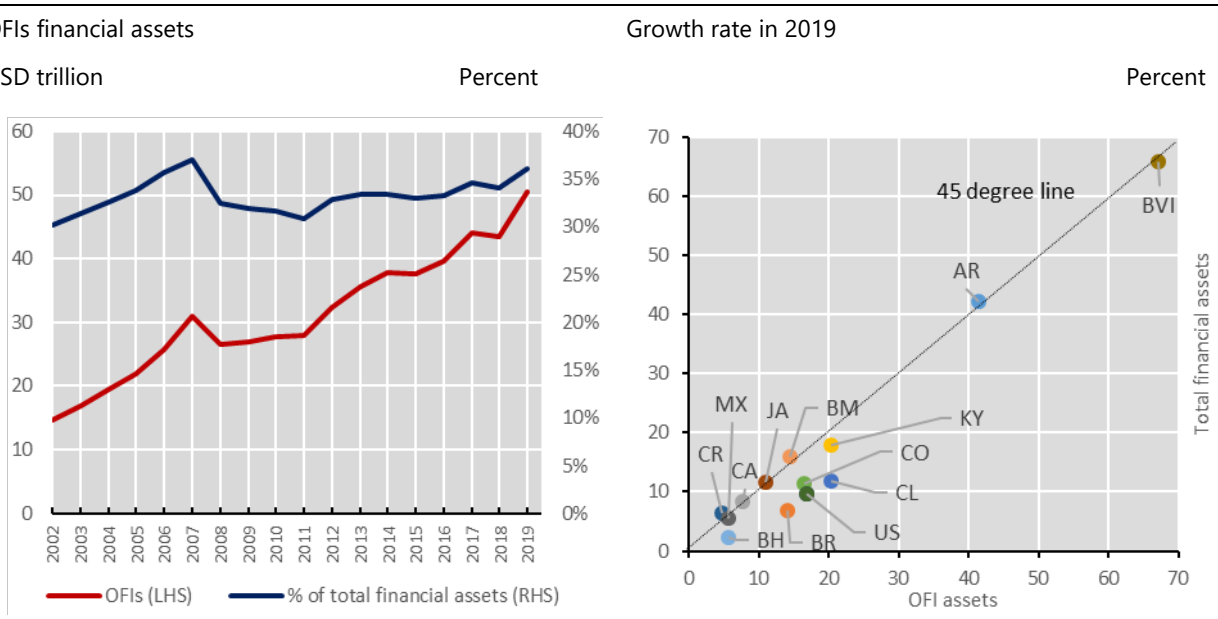
Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

After a slight decrease in size the previous year, during 2019 total regional OFI assets increased at a rate comparable to their average annual growth prior to the Global Financial Crisis (GFC). In addition, OFIs' share of total regional financial assets also increased, approaching the level observed in 2007, after a period of losing its share post-crisis (Exhibit 4-7). This trend is mainly driven by the increase

in size in two of the largest jurisdictions by OFI assets (US and KY).[40, 41] Excluding these two large jurisdictions' data from this calculation, the OFI assets for the rest of the region experienced an annual growth rate of about 10.6% for 2019, which is close to their total financial asset growth rate of 9.1% for the same period. In contrast with the previous year, all the jurisdictions registered positive growth rates for both OFI and total financial assets. Nonetheless, there is large heterogeneity in the levels observed, with some small jurisdictions standing out for their impressive nominal growth rates in both OFIs and in total financial assets (AR, BVI, BM, KY, UR) The high growth was driven by various factors which range from an increase of OFIs entities in some jurisdiction to high inflation effects. (Exhibit 4-7, RHS).

Other financial intermediaries (OFIs) [1, 2, 3]

14 jurisdictions — Exhibit 4-7



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. [2] Financial auxiliaries are included. Growth rates in the particular case of Argentina reflect a high rate of inflation (54% CPI inflation in 2019). [3] Total national financial assets include all financial assets domiciled in the corresponding jurisdictions (i.e. onshore and offshore).

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

In terms of jurisdictions' share of regional total (onshore and offshore) OFI assets, the US, KY and CA dominate, as seen in Exhibit 4-8 (LHS). However, some jurisdictions have been increasing their

[40] However, sometimes jurisdictions present significant inflation growth during 2019, which affects their financial data growth rate calculations (e.g. AR). This effect is not corrected in the data.

[41] For the US, onshore OFIs contracted by 2.4% as of end- year 2018, while during 2019 it expanded by 16.8%.

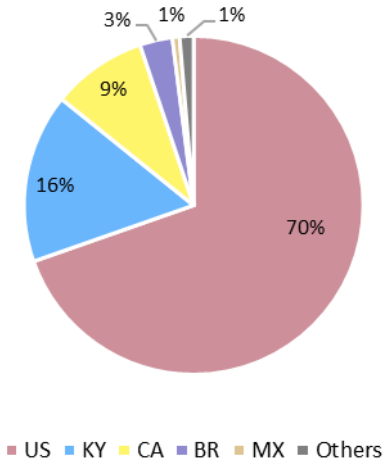
total sector participation for a sustained period of time, albeit from a low base, as seen in Exhibit 4-8 (RHS). Interestingly, due to large OFI shares in the US and KY and high growth rates in 2019, during the last year these two jurisdictions gained almost equal share in total regional OFI assets, while some others lost that share (CA, BR, MX, BM).

Share of regional total OFI assets[1, 2]

14 jurisdictions — Exhibit 4-8

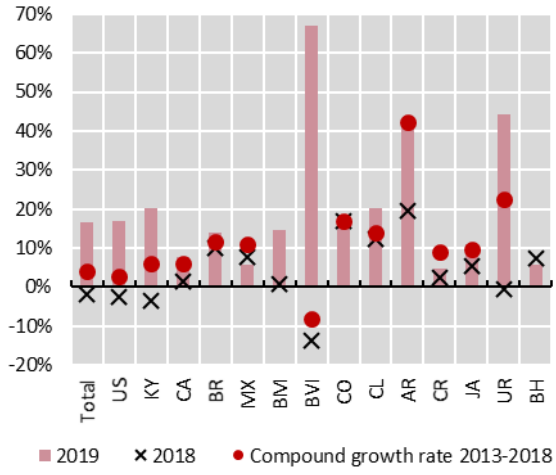
End-2019 share in regional OFI assets

Percent



Annual growth rate[3]

Percent



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. [2] Total regional OFI assets include all assets domiciled in the corresponding jurisdictions (i.e. onshore and offshore). [3] Jurisdictions are placed in descending order along the horizontal axis according to their OFI asset size. For BM and BH the compound growth for period 2013-2018 is not shown as series are not long enough to calculate it. AR's growth rates are affected by high inflation.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

Turning to the composition of the total OFI sector, Exhibit 4-9 shows the main entity types and their relative shares for the region. Public investment funds continue to make up the largest entity type, followed by non-public investment funds and MMFs.[42] In 2019, among the subsectors that experienced growth rates comparable to past periods are catastrophe bonds and credit unions, albeit from a low base. Among subsectors that experienced high growth relative to past years, CIVs in all their forms stand out (i.e. MMFs, public and non-public investment funds). Although credit unions as an entity type make up only about 0.2% of total OFIs for the region, their overall annual growth rate is among

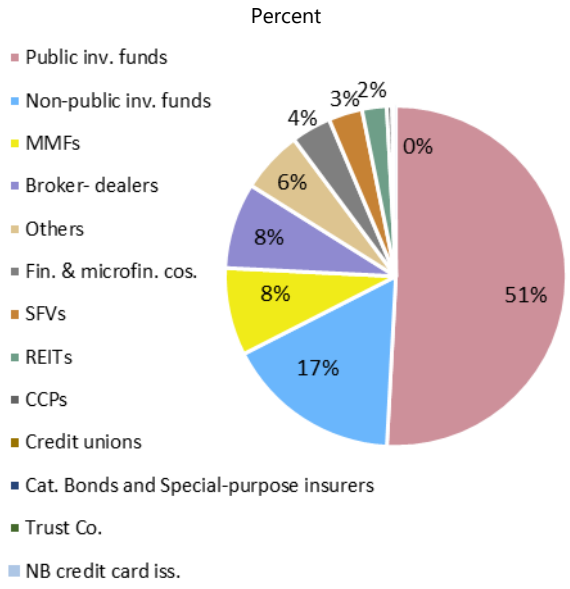
[42] When considering only domestic OFIs this ordering is different, with public investment funds, broker-dealers and MMFs accumulating about 81% of onshore OFI assets.

the highest within OFI subsectors.[43] On the contrary, trust companies contracted after showing high growth rates over a sustained period of time. Trust companies are present in KY, CO and MX.

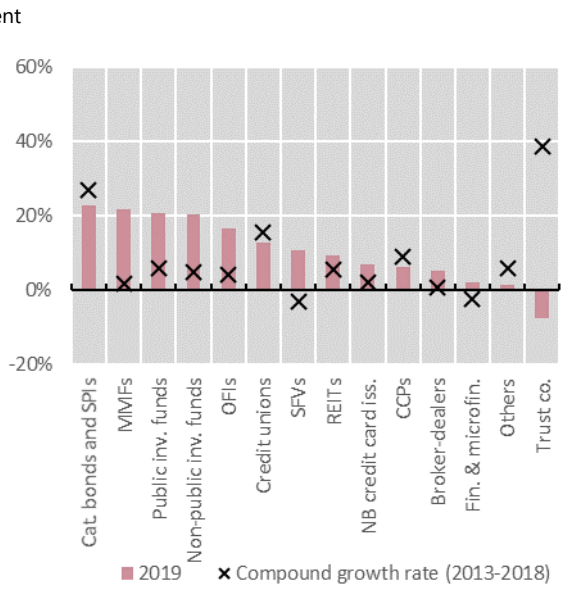
Major OFI subsectors for the region[1, 2, 3]

14 jurisdictions — Exhibit 4-9

End-of-year 2019



Annual growth rate



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. Some jurisdictions' data reflect high inflation rates. [2] Financial auxiliaries are excluded. [3] Total regional OFI assets include all assets domiciled in the corresponding jurisdictions (i.e. onshore and offshore).

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

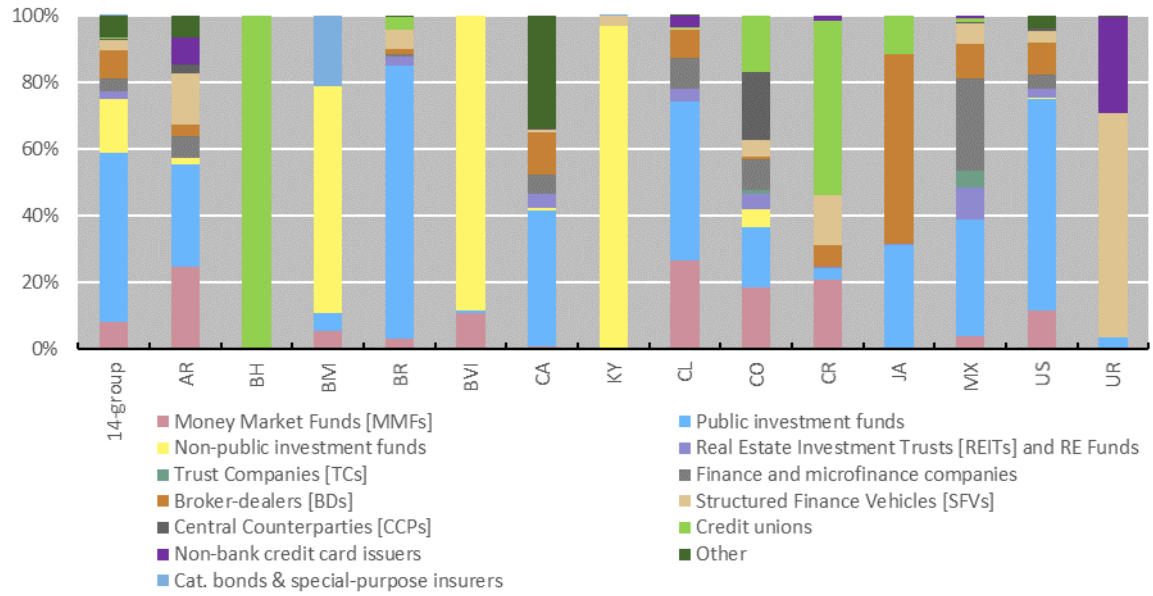
Exhibit 4-10 shows there is large heterogeneity in the OFI subsectors represented within jurisdictions, with some jurisdictions particularly concentrated in specific entity types (BH, BM, BR, BVI, KY, UR) and others more diversified across types (AR, CA, CO, MX). Public and non-public investment funds stand out as the two entity types with large OFI shares across jurisdictions. Credit unions are significant within some jurisdictions' OFIs, whereas non-public investment funds are particularly significant for others. However, public investment funds are the type that stand out as comprising a significant share of OFIs across a broader set of jurisdictions.

[43] Some jurisdictions in the region register credit unions as DTIs and therefore credit unions lay outside of the scope of OFIs in these jurisdictions. This is related to the structure of flow of fund statistics. The methodology used in this monitoring exercise determines whether DTIs are OFIs based on an analysis of whether Basel-equivalent regulation or other central bank backstop apply to them. Hence, where these characteristics are absent jurisdictions register these DTIs as OFIs or classify them in an EF (usually EF2).

Major OFI subsectors by jurisdiction[1, 2, 3]

14 jurisdictions, end-2019 Exhibit 4-10

Percent



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. Some jurisdictions' data reflect high inflation rates. [2] Financial auxiliaries are excluded. [3] Total regional OFI assets include all assets domiciled in the corresponding jurisdictions (i.e. onshore and offshore).

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

When looking at the evolution of total (domestic and offshore) collective investment vehicles (CIVs), public investment funds constitute the majority of CIV assets exhibiting sustained growth with the exception of 2018 (Exhibit 4-11). A similar trend is present for non-public investment funds, which also registered a contraction during 2018. In contrast, MMFs' asset size for the region continued to be very stable over time. Within the public investment funds category, equity funds have been the main driver of growth.[44] Fixed-income funds also supported this recovery last year; other funds remained relatively stable in assets under management. With regard to non-public funds, the main driver of their recovery from the 2018 contraction was the other funds category, which accounts for 70% of assets invested in non-public funds. The majority of assets under management by non-public investment funds are located in off-shore sectors in various jurisdictions. The CIVs recovery in 2019 is partially due to increased valuations of assets under management (AUM). This report does not analyze the source of AUM growth.[45]

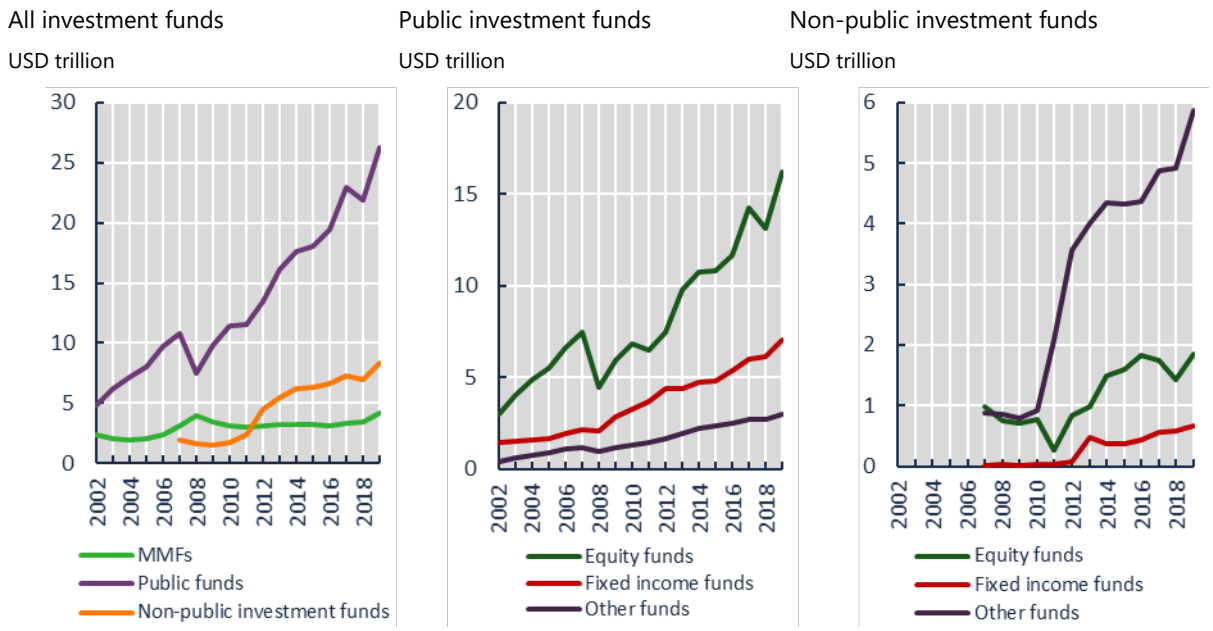
[44] This report does not adjust for changes in valuation. Thus, year-over-year changes may be attributable in part to changes in market valuations.

[45] The *Global Monitoring Report on Non-Banks Financial Intermediation 2020* contains analysis on the subject.

Investment fund decomposition: public vs non-public investment funds[1,2,3,4]

14 jurisdictions

Exhibit 4-11



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. Some jurisdictions' data reflect high inflation rates. [2] Financial auxiliaries are excluded. [3] Total regional OFI assets include all assets domiciled in the corresponding jurisdictions (i.e. onshore and offshore). [4] For non-public investment funds, data in series above starts in 2007 due to poor reporting quality prior to that year.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

4.2.2 Interconnectedness

An important aspect of the financial system that became apparent in the aftermath of the Global Financial Crisis (GFC) was the level of interconnection between the banking sector and the NBFIs prior to the GFC. The FSB, in coordination with financial authorities, has taken steps to improve the measurement of interconnectedness. One lesson learned from the GFC was that regulators/supervisors needed better information to assess vulnerabilities. This led to different efforts directed at closing data gaps. At the time, limited data about the NBFI sector was available or accessible to authorities. As a result, in some jurisdictions, entities belonging to this sector are now subject to higher reporting standards; however, work is still needed on this front and there are currently some initiatives directed at this. The March 2020 financial market stress again highlights how interconnectedness in the financial markets facilitates transmission of shocks.

As part of the monitoring exercise, the level of interconnection across different sectors in the economy is analyzed with the data collected. For the monitoring exercise with data up to end of 2019, ten jurisdictions partially reported the requested interconnectedness data, therefore any conclusions or observations need to take this caveat into account. Overall, for the Americas region, the interconnectedness data collected is limited and still of scarce coverage, as some jurisdictions are either

lacking statistical sources or are still inexperienced in supplementing data from other sources (i.e. market intelligence, commercial and supervisory data).

Interconnectedness data corresponds to current financial exposures among the different financial intermediaries that are residents of the reporting jurisdictions. Data collected includes exposures on both sides of their balance sheet (i.e. assets and liabilities) and excludes other counterparty types (i.e. non-financial sector). Special attention is given to the interconnection between banks and OFIs, stemming from both the asset and liability side of their balance sheet. For the purpose of the interconnectedness analysis, the exercise separately considers data reported on a gross basis and data reported for entities that are prudentially consolidated. This treatment makes an analysis of bank exposures to OFIs net of prudentially consolidated assets possible. However, few jurisdictions provide sufficiently granular data to permit this distinction, the analysis of interconnectedness data may reflect gross exposures for some jurisdictions instead of net exposures. In addition, for the time series presented below improvements of data over time may give a false impression that the series are increasing through time. [46]

Acknowledging these limitations, analysis suggest that banks appear to be weakly interconnected to OFIs on the asset side when considering total bank assets as the base of comparison. However, when considering total interconnectedness to financial entities, banks' claims on OFIs (net of bank prudentially consolidated OFI assets) comprise 49.2% of total financial sector claims (including banks) [47], but these claims represent only 4.7% of total bank assets (6.5% when considering gross exposures). Meanwhile, banks' liabilities to OFIs represent 67.2% of total liabilities with financial sector entities and about 6.2% of total banks' assets (6.3% when considering gross exposures).

On the other hand, OFIs' claims on banks (net of bank prudentially consolidated OFI assets) represent about 25% of OFIs' total claims on financial entities but only 6.2% of total OFIs' assets, with the majority of OFIs' claims having an OFI as counterpart (74%). OFIs' liabilities to banks represent only 12% of total OFIs' liabilities to financial entities, while liabilities to insurance corporations, pension funds and OFIs represent 19%, 40% and 29% of total OFI liabilities, respectively.

Exhibit 4-12 shows the level of interconnectedness between banks and OFIs by jurisdiction. Some jurisdictions report moderate funding dependence of banks on OFIs (considering other sources such as deposits), in particular with MMFs, other investment funds and broker-dealers.[48] In contrast, some jurisdictions report relatively low funding dependence by OFIs on banks, likely reflecting their market-based orientation. OFIs' claims on banks reach a considerable share of OFI assets in some jurisdictions.

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[46] In the last report, only gross data was presented in this section.

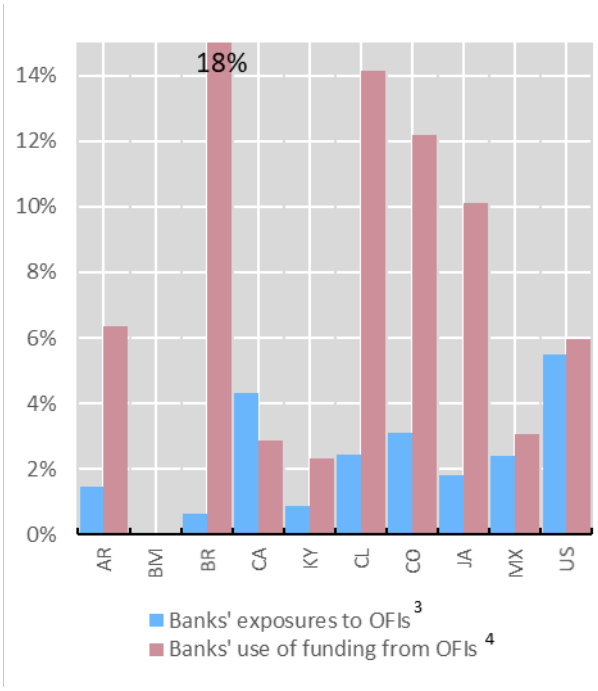
[47] Total claims and total liabilities to and from banks and OFIs with the rest of the financial entities was only provided, at least partially, by: AR, BR, CA, CL, JA, MX and US so that the percentages using these figures, and stated in the main text, are only representative for these jurisdictions.

[48] Another important dimension of interconnectedness is that of cross-border linkages via credit exposures and funding. In this dimension, data gaps are particularly significant.

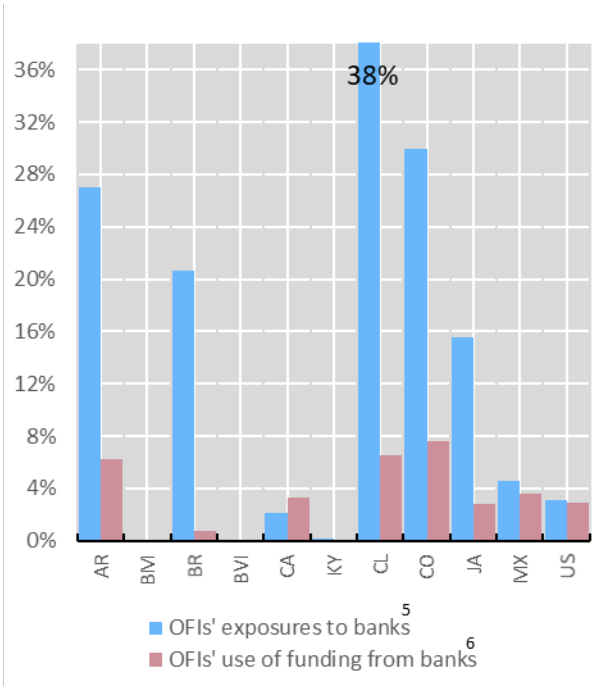
Interconnectedness between banks and OFIs net of prudentially consolidated assets[1, 2]

At-end-2018 Exhibit 4-12

Percentage of banks' assets



Percentage of OFIs' assets



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] Considers both onshore and offshore assets and liabilities. Bank assets and liabilities are reported by jurisdictions and do not equal DTIs figures (The FSB's Global Monitoring Report on NBFI uses DTIs instead for the same graphs). [3] Banks' claims on OFIs as a share of bank assets. [4] Banks' liabilities to OFIs as a share of bank assets. [5] OFIs' claims on banks as a share of OFI assets. [6] OFIs' liabilities to banks as a share of OFI assets.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other national data).

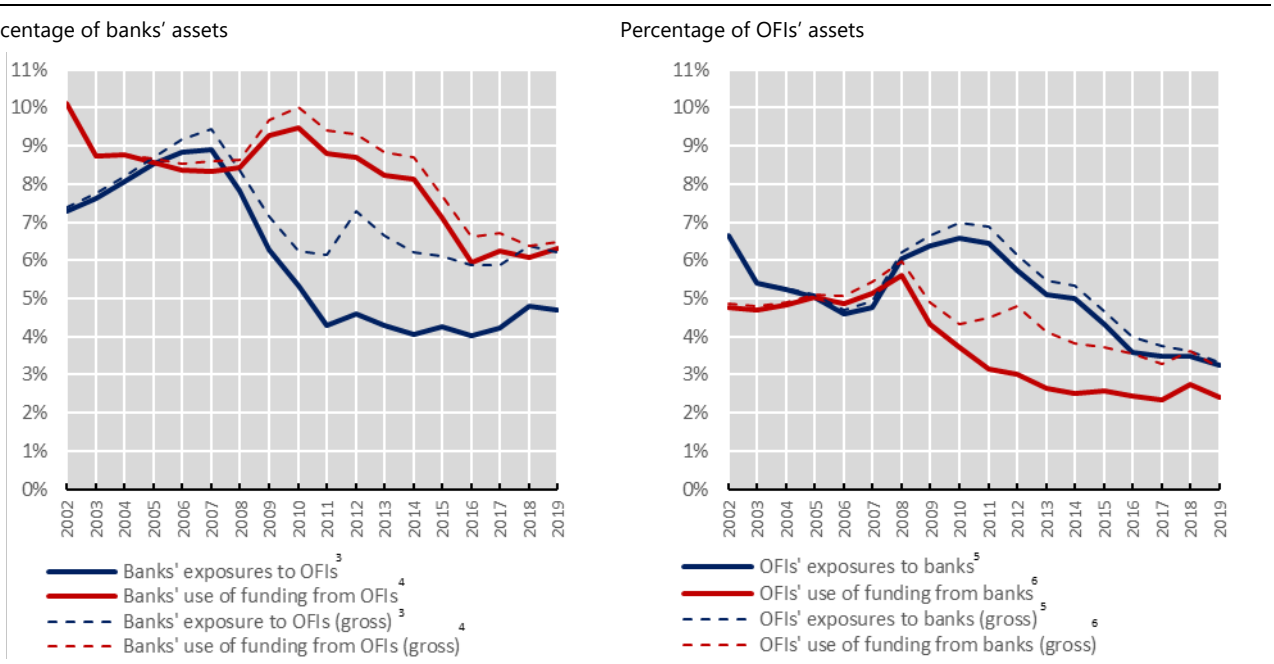
In terms of the regional evolution of interconnectedness (considering onshore and offshore sectors), Exhibit 4-13 shows how the funding dependence among banks and OFIs has evolved through time. Net of prudential consolidation, banks' funding dependence on OFIs increased in the aftermath of the GFC and until 2010 when it reached about 9.5% of banks' assets and afterwards started a declining trend. On the asset side, the credit exposures to OFIs by banks has remained stable at around 4% since 2010. For OFIs, funding dependence on banks, net of prudential consolidation, also fell sharply in the aftermath of the GFC until around 2010 when it stabilized, and has since stabilized at around 3.5% to 4% of OFI assets. Likewise, OFIs' exposures to banks has gradually declined since around 2011, reaching about 3.4% of OFI assets at end-2019. When looking at these positions on a gross basis, they seem to be matched for both banks and OFIs after a period of widening in the aftermath of the GFC (Exhibit 4-13).[49]

[49] This analysis depends very much on the quality of data submitted, particularly on the calculations of prudentially consolidated assets as reporting this data is not broad based across jurisdictions.

Evolution of interconnectedness between banks and OFIs: gross and net of prudentially consolidated assets[1, 2]

11 jurisdictions

Exhibit 4-13



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] Considers both onshore and offshore assets and liabilities. Bank assets and liabilities are reported by jurisdictions and do not equal DTIs figures (Global Monitoring Report uses DTIs instead for the same graphs). [3] Banks' claims on OFIs as a share of bank assets. [4] Banks' liabilities to OFIs as a share of bank assets. [5] OFIs' claims on banks as a share of OFI assets. [6] OFIs' liabilities to banks as a share of OFI assets.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other national data).

Cross-border interconnectedness can be analyzed with the data gathered despite only a small number of jurisdictions reporting some of the requested exposures. The data suggest that the rest of the world's financial claims on OFIs relative to total financial sector claims, are significant in some jurisdictions. Disregarding the data limitations, the rest of the world's claims on OFIs are about 53% (net of bank prudentially consolidated OFI assets) of its total financial sector claims for the region, a share that has remained constant relative to the last report. On the other hand, the rest of the world's liabilities to OFIs are about 36% of its total financial sector liabilities.[50] In both cases, the OFI sector continues to be much more interconnected to the rest of the world than domestic banks through both claims and liabilities in absolute terms, but with the size of the region's OFI sector almost twice the size of banks. OFIs' figures may be underestimated if we consider that it is likely that reporting quality is higher in the case of banks. However, despite not having a flow of fund statistics, some jurisdictions have very

[50] A caveat regarding this data is that none of the jurisdictions reported figures for prudentially consolidated liabilities, which may reflect difficulty in obtaining this data.

good OFI data coverage (e.g. BR). With the data at hand, a concentration analysis of claims and liabilities is out of scope.

4.2.3 Credit Intermediation: Credit and Lending Assets

Data relating to credit and lending assets for different types of credit intermediaries was collected in supplementary templates. Credit assets include deposits, as they constitute a credit exposure to a bank or other deposit-taking entity. The entities for which data was requested include deposit-taking institutions (including banks), public financial institutions, insurance companies, pension funds and OFIs. Data for a selection of OFIs entities (i.e. MMFs, non-public funds, other investment funds, broker-dealers, trust companies, finance companies and structured finance vehicles) was also requested. The data template requires credit assets and their break-down, if available, between loans and deposits. Credit intermediation is thus measured by the loans granted and investment in debt securities (i.e. all credit assets, excluding cash deposits). Assembling these data was demanding, and data coverage remains low and comparable to previous year's data submissions. In this section, we present some key highlights from the data collected.[51]

Credit assets (including deposits) for the aggregate of jurisdictions in the region amounted to USD 58.3 trillion as of end-year 2019. Banks hold 41.0% of total credit assets in the region. During 2019, credit assets by banks grew at a slower rate than OFIs' credit assets (4.9% vs 12.7%), a trend observed since 2016. Excluding deposits, the relative shares by each entity type remain very similar, but the growth rates vary across these entities. Banks' credit assets, excluding deposits, grew at 5.4% during 2019 (4.8% at the end of 2018), while OFIs grew at a rate of 12.6% (7.0% at the end of 2018). Total credit assets excluding deposits for the region amounted to USD 55.4 trillion, with OFIs accounting for almost 35.8%.

OFI credit assets as a share of total OFI financial assets reached 40.9% as of end-year 2019, down 1.4 percentage points from the previous year's level (Exhibit 4-14).[52] Within OFIs, 'other investment funds' make up the largest category in terms of credit asset holdings, followed by MMFs as the second largest. Both categories experienced low growth rates during 2018 (1.6% and 6.7%, respectively) relative to the rates observed in 2019 (16.0% and 19.7%). Between 2013 and 2018 growth was more moderate for both entity types (annual compound rates of 6.0% and 2.3%, respectively). Non-public funds showed significant growth in both 2018 and 2019, growing at about 21.5% and 21.5%, respectively. Other entities that registered significant credit asset growth rates during the last year in the data were SFVs (6.7%) and broker-dealers (5.8%) For the latter, the previous year had been one of noticeable growth (17.3%).

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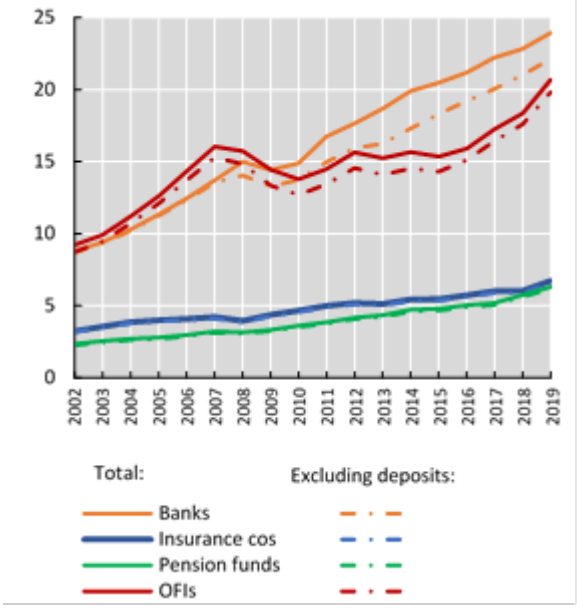
[51] Roughly half of the jurisdictions reported some data, with better quality for DTIs relative to the rest of the entity types.

[52] Data for OFIs' credit assets was provided by: AR, BR, CA, CO, KY, CL, MX, and US.

Credit assets[1, 2, 3, 4] Exhibit 4-14

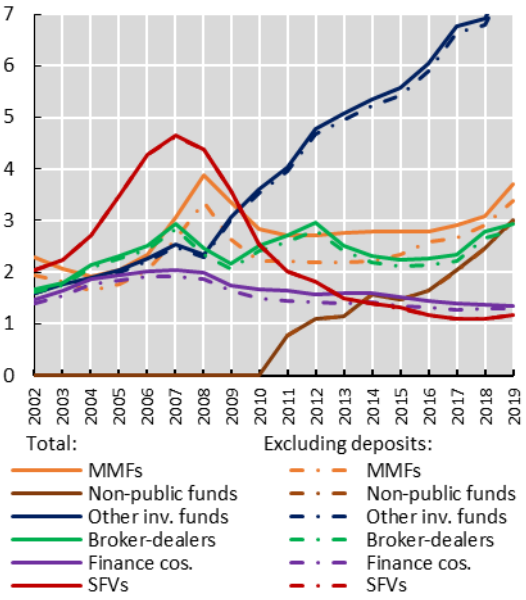
Credit assets held by entity type

USD trillion



Credit assets held by selected OFI sub-sectors

USD trillion



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] Considers onshore and offshore assets. [3] Increases in aggregate data may also reflect improvements in the availability of data over time at a jurisdiction level. Seven jurisdictions provided some data on credit assets. [4] Credit assets include debt securities, loans, and cash on deposit.

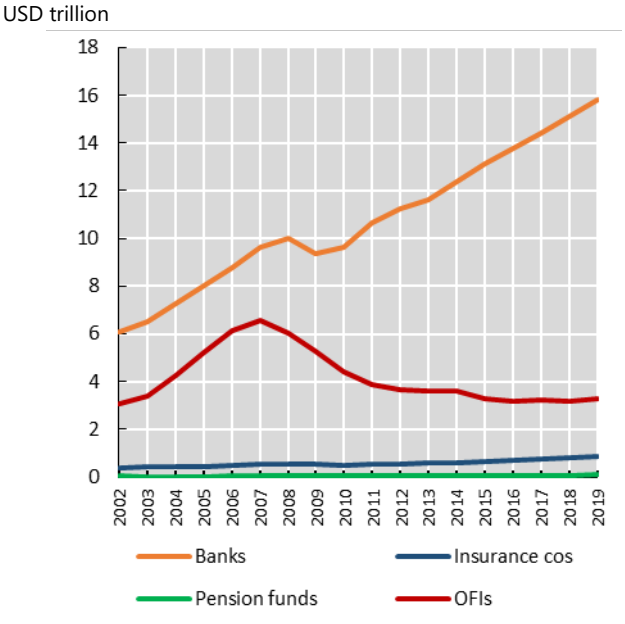
Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other national data).

Exhibit 4-15 shows that banks continue to be the main direct lender in the region, while OFIs lend about a fifth of the amount of bank lending. Nonetheless, OFIs' direct lending growth has picked up in the last few years. The rest of the entities altogether lend just about 6.1% of total bank lending. Among OFIs, investment funds of all types show a decline in loans during 2019, despite showing positive marginal growth over the 2013-2018 period.[53] In contrast, broker- dealers increased their lending by 16.8% during 2019, relative to a 3.5% average annual rate for the same five-year period. Strikingly, finance companies show a slight decreasing trend in their loans, while SFVs show a moderate increase in direct lending relative to the previous year.

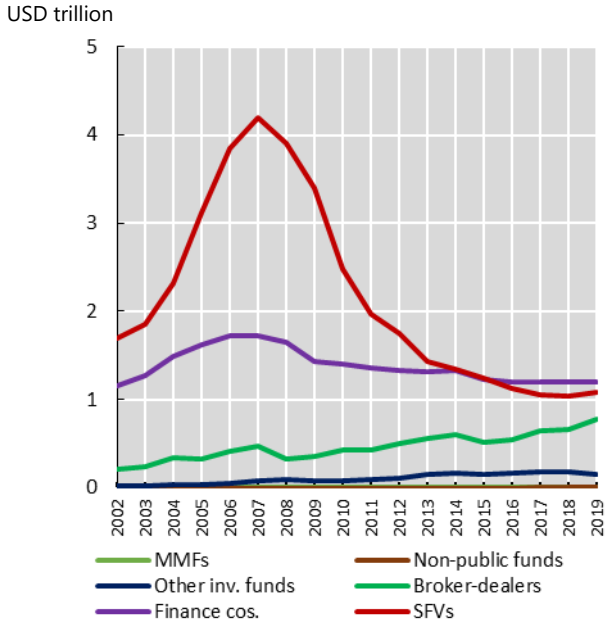
[53] Non-public investment funds credit assets' data has poor reporting coverage. Thus, credit asset data is likely underestimated.

Lending[1, 2, 3] Exhibit 4-15

Lending entity type



Lending held by selected OFI sub-sectors



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] Considers onshore and offshore assets. [3] Increases in aggregate data may also reflect improvements in the availability of data over time on a jurisdiction level. Seven jurisdictions provided some data on credit assets.

Sources: Jurisdictions' 2019 submissions (national sector balance sheet and other national data).

4.3 International Financial Centers (Offshore)

This section describes the composition, evolution and main features of the IFCs (offshore financial services sector) located in some jurisdictions within the region. IFC entities are defined on the basis that they exclusively (or almost exclusively) conduct financial transactions with non-residents. Thus, in the IFCs' context, onshore entities refer to entities that are domiciled domestically and whose services and activities are managed, marketed and sold to the domestic market. Offshore entities refer to entities domiciled domestically, but whose activities are marketed and sold internationally/offshore. In this report, the analysis in the previous sections already included the financial assets for IFCs, referred to as offshore assets or offshore sector. This section provides a deeper look into the regions' jurisdictions offshore sector.

Several jurisdictions in the RCG Americas provide significant offshore financial services as IFCs relative to their domestic or onshore sector and also relative to their GDP, making financial services a critical activity for their economy.[54] Large volumes of bank and non-bank credit intermediation

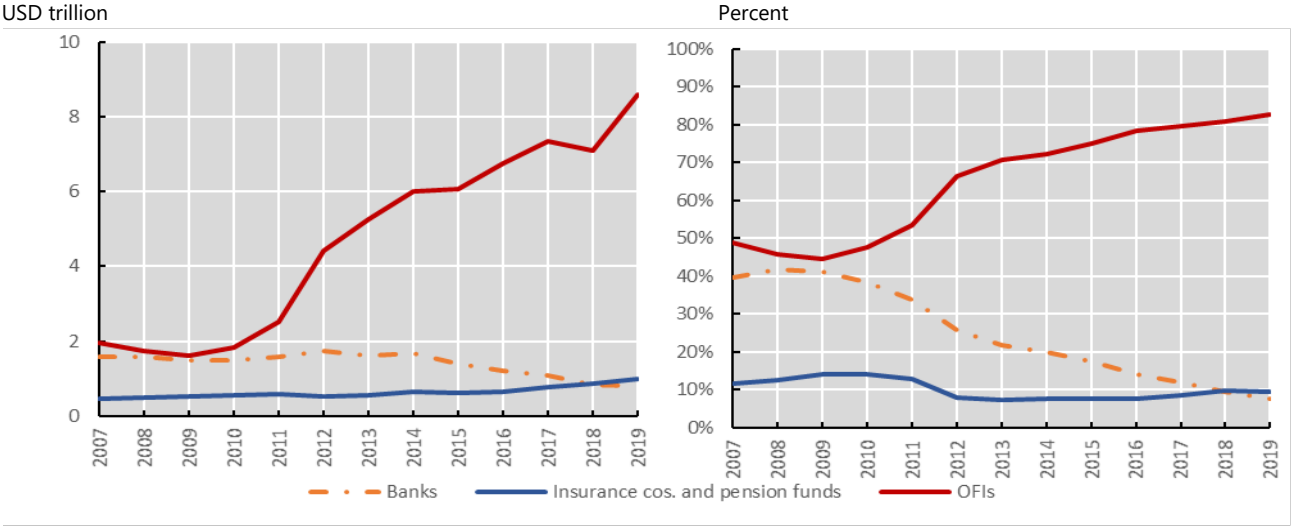
[54] For the purposes of this report by the RCG Americas NBFI-WG, four IFC jurisdictions are covered in this exercise (i.e. Bahamas, Bermuda, the British Virgin Islands, the Cayman Islands). Barbados and Panama did not participate in the current exercise.

activities of other jurisdictions (onshore) flow through IFCs. In addition, other OFI entity types perform important activities in the region's jurisdictions involved in offshore financial services.

Offshore OFIs registered high growth in 2019, reversing the transitory contraction observed in the previous year (Exhibit 4-16). Within offshore OFIs, non-public offshore investment funds stand out as the largest subsector in the region. Following a year of lower valuation and outflows, IFC offshore assets rebounded markedly in 2019 (18.2% growth rate). Total IFC offshore financial assets amounted to USD 10.4 trillion at end-2019, up from USD 8.8 trillion at end-2018. This increase is attributable to the largest component of offshore assets: non-public funds. This trend was also observed for other OFIs (MMFs, equity funds, fixed-income funds), but not for other funds (within public funds), which continued to decrease. The offshore assets of banks have also continued to decrease since around 2012. In contrast, the insurance sector in the region shows sustained growth over time, along with catastrophe bond-related entities, albeit their share of offshore total assets is still very small.

Assets of financial intermediaries: offshore[1, 2, 3] Exhibit 4-16

Total regional financial assets | Share of total regional offshore financial assets



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. [2] Financial auxiliaries are included. [3] Deposit-taking Institutions (DTIs) include banks and other deposit-taking entities.

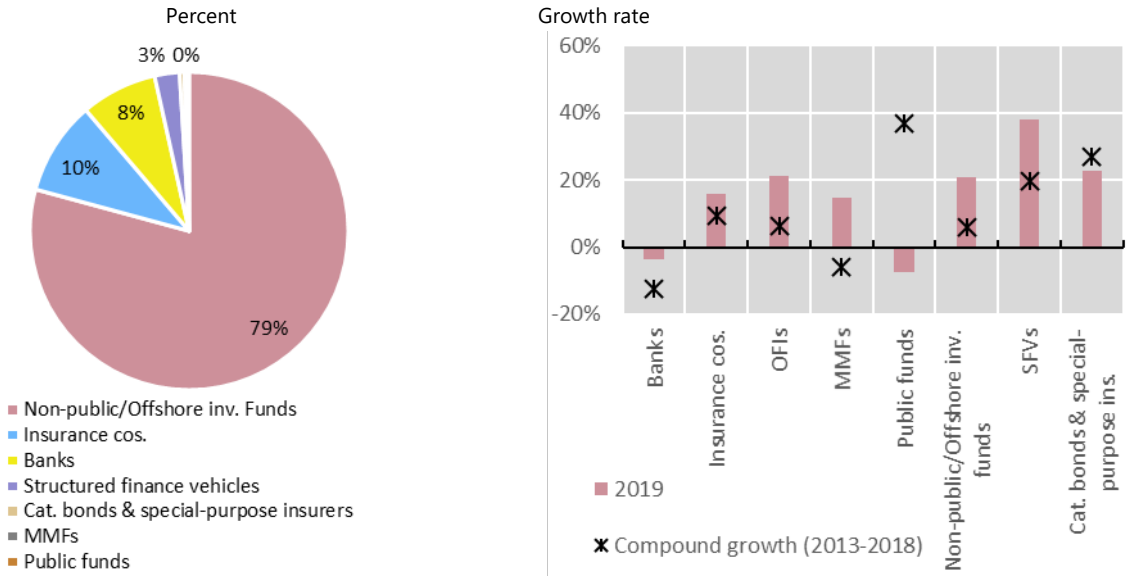
Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

Overall, the largest entity type for the offshore sector in the region are non-public investment funds, which account for about 79% of total offshore financial assets (Exhibit 4-17). Nevertheless, public investment funds in the region showed the largest compound growth rate over the 2013-2018 period, although they contracted in both 2018 and 2019. Favorable valuation effects are likely to be the main driver of historical growth.

Composition by entity type of IFCs offshore financial assets in the region [1, 2, 3]

Offshore assets, 4 jurisdictions

End-2019 Exhibit 4-17



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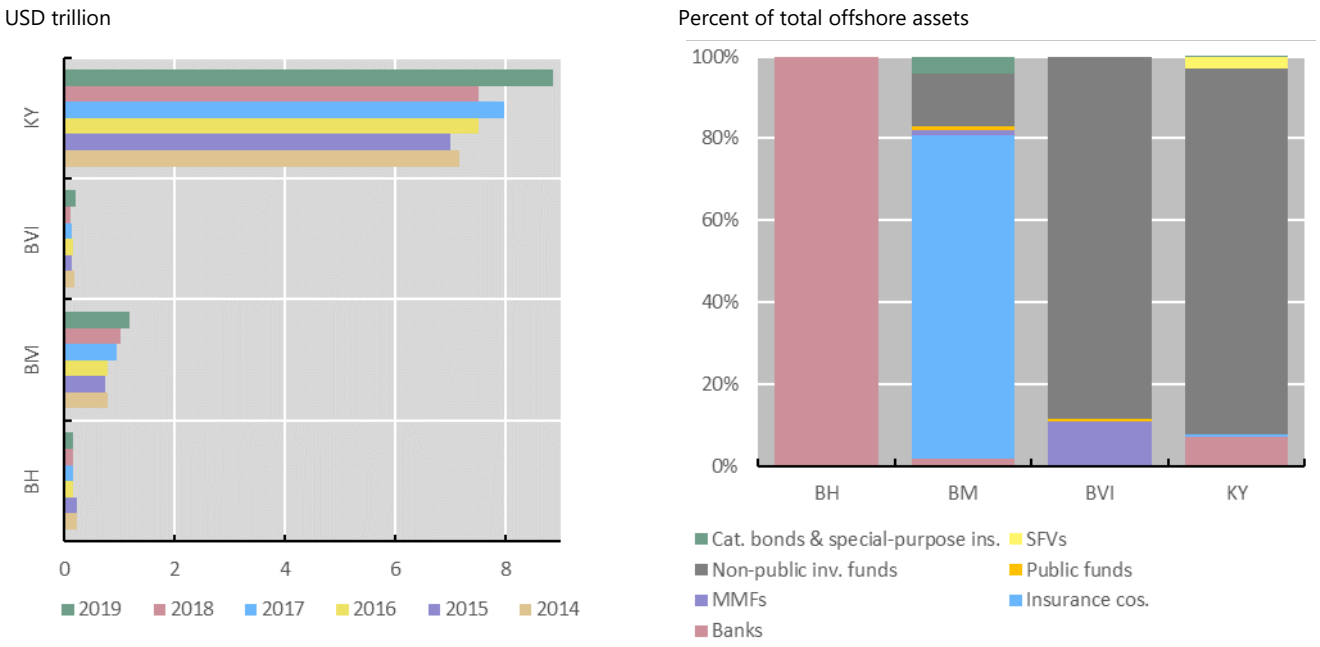
[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). Increases in data may also reflect improvements in the availability of data over time at the jurisdiction level. [2] Financial auxiliaries are included. [3] Deposit-taking Institutions (DTIs) include banks and other deposit-taking entities.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other data).

As previously reported, while some of the IFCs are specialized and focus on the banking sector (BH), others focus on insurance (BM) and investment funds (BVI and KY). However, by far, the Cayman Islands hold the largest share of offshore assets among IFCs (see Exhibit 4-18 below) and these assets are largely concentrated in non-public funds.

Size of financial intermediaries in the international financial centres[1, 2]

Offshore assets, 4 jurisdictions, end-2019 Exhibit 4-18



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] BH= Bahamas; BM=Bermuda; KY= Cayman Islands; BVI= British Virgin Islands.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other national data).

In the Cayman Islands, offshore assets are composed of special license banks (USD 616 billion), insurance companies (USD 63 billion) and OFIs, which include private funds (USD 7,900 billion), structured finance vehicles (USD 263 billion), MMFs (USD 975 million) and catastrophe bonds (USD 4.6 billion) (Exhibit 4-18). Bermuda has a significant insurance sector (USD 976 billion), specializing in catastrophe reinsurance (USD 48 billion included in OFIs). Other offshore assets in Bermuda include banks (USD 20 billion) and OFIs (USD 224 billion), which include special-purpose insurers (USD 48 billion) and MMFs (USD 12 billion). In the British Virgin Islands, offshore assets include a small and shrinking international banking sector (USD 3 million) and a large and increasing OFI sector (USD 201 billion), which is largely composed of non-public funds (USD 177 billion) and MMFs (USD 22 billion).[55] The Bahamas' offshore assets are exclusively composed of offshore banks (USD 168 billion).

There is no standard methodology for separating onshore and offshore entities/activities among the IFCs. For example, in the Cayman Islands, special bank licenses prohibit deposit-taking from residents and limit the activities that these banks can conduct in local markets to conducting business with other licensees. Importantly, all offshore banks are prudentially regulated and supervised by the local

[55] According to BVI, the increase is due to the appreciation of value of assets and favorable changes in market conditions.

authorities. In Bermuda, banks serve both domestic and international clients (e.g. global reinsurance firms headquartered in Bermuda) without separating them. For the purpose of this report, assets were allocated between Bermuda's domestic and IFC banking activities based on the share of assets held by banks in local currency relative to the share of assets held by banks in all other currencies.

5. The Narrow Measure and the Economic Function Classification

Turning to the narrow measure, and away from the broad measure or the aggregation of financial assets by onshore and offshore NBFIs altogether, jurisdictions classify non-bank financial entities into five Economic Functions (EFs) according to the entities business activities. They also exclude the portion of the non-bank financial entities' assets in each EF that is prudentially consolidated into a banking group, and other assets that are not related to credit intermediation or activities that give rise to vulnerability. The sources of vulnerability considered are: maturity and liquidity transformation and/or leverage and imperfect risk transfer. The five EFs are described in the 2013 Policy Framework, and the monitoring exercise for the America's region uses the same general methodology used in the FSB's Global Monitoring Report on Non-bank Financial Intermediation. The five EFs are described in Exhibit 5-1.

Economic Function Classification (EFs) Exhibit 5-1

EF	Definition	Examples of entities:
EF1	Management of collective investment vehicles with features that make them susceptible to runs	MMFs, fixed income funds, mixed funds
EF2	Loan provision that is dependent on short-term funding	Finance companies, leasing/factoring companies, consumer credit companies
EF3	Intermediation of market activities that is dependent on short-term funding or on secured funding of client assets	Broker-dealers, securities finance companies
EF4	Facilitation of credit creation	Credit insurance companies, financial, guarantors, monolines
EF5	Securitization-based credit intermediation and funding of financial entities	Securitization vehicles, structured finance vehicles, asset-backed securities

In addition to the five EFs, the narrow measure also includes assets that authorities are not able to classify in a specific economic function due to lack of information about the type of activities, but that at the same time authorities could not determine should be excluded from the narrow measure. This sixth asset category is referred to as "unallocated". The collection of non-bank financial entities' assets excluded from the narrow measure is referred to as "outside the narrow measure".[56] The sixth category

[56] Occasionally, in the classification process there is a residual that arises from a national financial accounts' construct. These residuals are the difference between a jurisdiction's total OFI financial assets, as they are published in sectoral balance sheet statistics, and the sum of all known sub-sectors therein. These residuals are excluded from the narrow measure to avoid major inconsistencies across jurisdictions.

includes financial assets in a jurisdiction that, starting from the broad NBFI measure, are assessed not to be involved in credit intermediation or activities that give rise to vulnerability.[57]

The decision to classify assets in the narrow measure is based on a conservative assessment of the potential vulnerabilities associated with financial intermediation on a pre-mitigant basis (i.e. assuming policy measures and/or risk management tools are not exercised). Classification does not imply that regulation or policy measures to address potential vulnerabilities are inadequate or ineffective. This pre-mitigant assessment allows authorities to assess existing policy tools to address vulnerability and identify any remaining vulnerabilities that may warrant policy responses. This approach also helps to improve consistency in the assessment across jurisdictions and to capture potential changes in vulnerabilities. As a result, the narrow measure may overestimate the degree to which non-bank credit intermediation currently gives rise to vulnerabilities on a post-mitigant basis, but allows for continued attention to, and analysis of, vulnerabilities as they may materialize as observed during the March 2020 market turmoil (See Section 3 for further explanation on the methodology).[58]

Exhibit 5-2 shows the region's aggregate narrow measure and its annual growth rate over time. The narrow measure for the region has been increasing since the GFC at different yearly rates. While in 2018 growth of the narrow measure slowed, growth in 2019 picked up noticeably, at a rate not seen since before the GFC (13.7%). By contrast, the annualized growth of the narrow measure over the previous five years was only 3.7%. Within the region, EF1 has gained share over the last few years, while EF3 and EF5 have lost share over the same period.

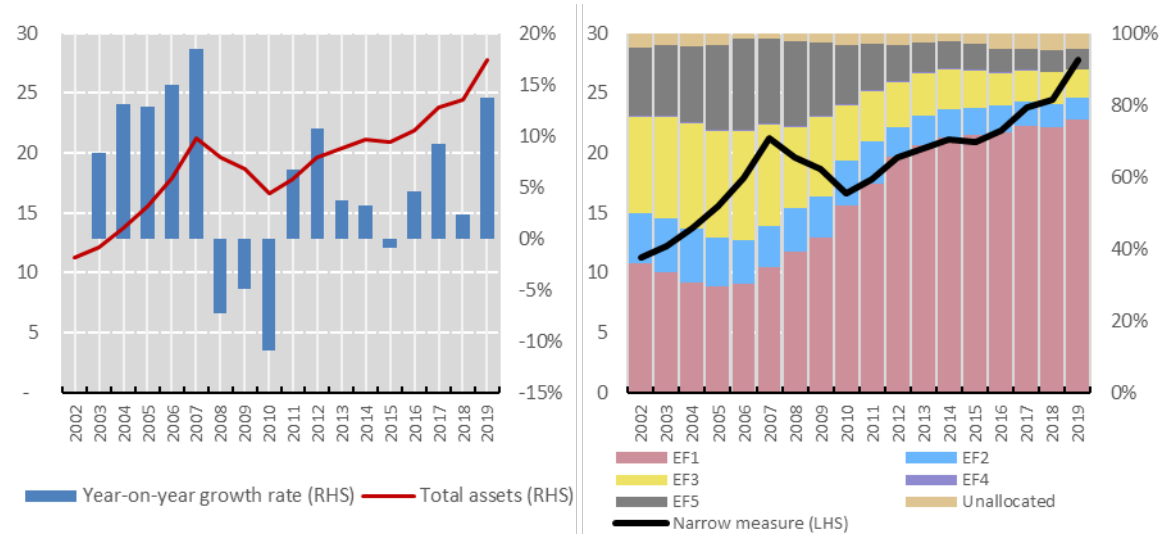
[57] For the purpose of the Economic Function classification, the NMEG has established common guidance for jurisdictions to follow.

[58] For a review of vulnerabilities, see FSB's *Holistic Review of the March Market Turmoil* (November, 2020).

Narrow measure: financial asset size and annual growth rate for the region[1, 2, 3]

11 jurisdictions

Exhibit 5-2



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] Financial auxiliaries are included. [3] Offshore and onshore financial assets are aggregated in the narrowing down analysis and the narrow measure is net of prudentially consolidated assets. Some jurisdictions were unable to provide narrowing and economic function classification data (BH, BVI, CR).

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other national data).

Exhibit 5-3 shows jurisdictions' narrowing down calculations starting from NBFI aggregate -the broad measure- which is the first bar in the left-hand side graph. The green bar to the right represents the narrow measure, and is the result of carving out from the broad measure those assets not involved in credit intermediation, maturity/liquidity transformation, leverage and/or imperfect risk transfer, and also assets of entities that are prudentially consolidated into banking groups,. Growth rates for the narrow measure vary across jurisdictions for the last year, with almost all jurisdictions registering higher growth than in the previous five-year period (except AR, BR, CA, MX).

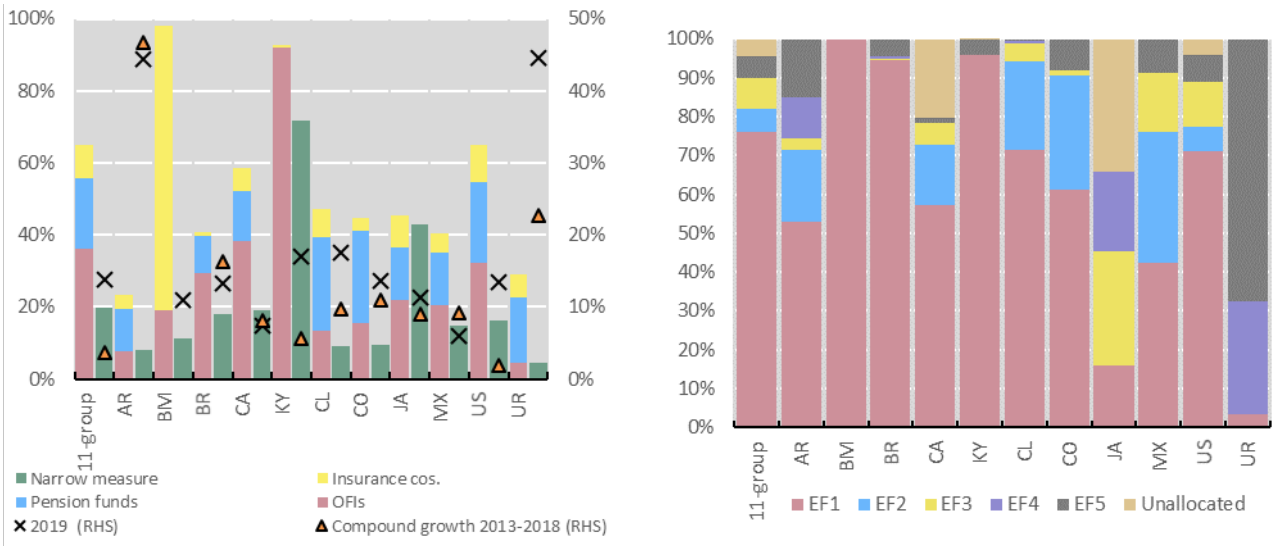
Jurisdictions differ in the share of assets that is effectively classified as "financial stability relevant". For some jurisdiction the insurance sector is deemed to be as mostly outside of the narrow measure, while for others it has been classified as relevant, therefore carving out fewer assets in relative terms. Pension funds fall outside the narrow measure for all jurisdictions across the region.

The narrow measure is further detailed in Exhibit 5-3 RHS to show its composition by Economic Function by for each jurisdiction, following the FSB framework. Across jurisdictions, EF1 is still the largest economic function by relative size. With the exception of Jamaica and Uruguay, EF1 is the largest Economic Function across jurisdictions. In the case of Jamaica, EF3 has a larger share than

EF1, but this may be affected by the large unallocated portion of assets that the jurisdiction was not able to identify/classify. Uruguay is a contrasting case relative to other jurisdictions' allocations as most assets have been classified into EF4 and EF5. The next most relevant Economic Functions for the region are EF2 and EF3. This contrasts with the findings from the 2020 Global Exercise, where EF5 was the second largest, closely followed in size by EF3.[59] Within the narrow measure, entities included in various EFs continued to grow at different rates in 2019.

Narrowing down by jurisdiction[1, 2, 3] Economic Function classification by jurisdiction[1, 2, 3]

End-2019 Exhibit 5-3



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] Figures Include only jurisdictions that submitted specific data. Some jurisdictions were unable to provide narrowing measure (BH, BVI, CR). For BM, lack of data does not allow to calculate the five-year compound growth rate. [3] For some jurisdictions, high annual growth rates are partially explained by high levels of inflation.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other national data).

An analysis of each Economic Function, including the entities and/or activities within that individual EF is provided below.

5.1 Economic Function 1: Collective Investment Vehicles (CIVs) with Features Making them Susceptible to Runs

EF1 includes collective investment vehicles (CIVs) with features that make them susceptible to runs. CIVs may act as shock absorbers in the financial system as losses from an entity's distress or insolvency or from adverse financial market conditions are shared among a disparate group of investors. However, in extreme circumstances, some CIVs with maturity/liquidity transformation and/or leverage can be susceptible to runs. To address potential run risk, many jurisdictions have

[59] See FSB Global Monitoring Report on Non-Bank Financial Intermediation 2020, December 2020.

mandated structural features to address potential vulnerabilities related to liquidity transformation for some or all of their EF1 entities. As noted above, the classification analysis is done on a pre-mitigant basis.[60]

Trends in Economic Function 1

EF1 is the largest economic function by assets for the region. This is consistent with the global trends, as noted in the Global Monitoring Reports. EF1 also presents a variety of entity types involved in the pooling of investors' resources to be directed at different kinds of investments. The largest type of entities in terms of assets under management for the region as a whole within this Economic Function are fixed-income funds, non-public funds and money market mutual funds (MMFs). Within non-public funds, there are mainly hedge funds and pooled credit funds.

Exhibit 5-4 shows that as of end-year 2019, EF1 assets reached around USD 21.2 trillion. The 2019 annual growth rate increased to 17.1% as compared to the annual growth rate of 1.9% observed in the previous year. Four jurisdictions make up 98.4% of the total EF1 for the region (US with 59.1%, KY with 28.9%, CA with 6.1% and BR with 4.3%).

For the region as a whole, and considering onshore and offshore financial assets, MMFs, non-public funds, and public fixed-income funds grew at an annual rate of 21.7%, 20.4% and 15.8%, respectively. These growth rates are considerably higher than the annualized level observed in the period between 2013 and 2018. Assets in other fund categories also increased in 2019, however, at more moderate rates. Public commodity funds showed significant growth, albeit from a very small base.

The main jurisdiction driving the results for the fixed income funds and MMFs is the US given its large relative size of total regional assets for each type 81.9% and 95.7%, respectively). In contrast, KY comprises 93.9% of total non-public funds' assets in the region. Note that the report does not attempt to state the role of valuation effects in driving asset growth, relative to inflow or outflow effects. Nevertheless, these can be significant drivers of the size of certain entity types. The Global Monitoring Report, however, has taken to the task of analyzing this issue in the last two publications[61], and while it documented valuation effects being significant in driving the declines in investment funds during 2018, for 2019 there was a mixed effect, with both inflows and valuation effects driving the strong rebound. The same dynamics seem to be present for the region analyzed in this report. Carrying out a similar analysis is an area of improvement for future RCG Americas' exercises.

At the individual jurisdiction level, some jurisdictions exhibit growth rates in investment funds (collective investment vehicles in general, excluding equity funds) that exceed the annualized growth rate for the 2013-2018 period (e.g. BM, BVI, KY, CL, CO, CR, MX and US). However, relative sizes

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[60] For example, structural features to address potential vulnerabilities related to liquidity transformation include asset allocation requirements, minimum allocations to liquid assets, liquidity risk management requirements, and leverage limits. In addition, In addition, tools designed to limit the probability of stress scenarios include redemption fees, and swing pricing; and tools designed to limit the impact of stressed scenarios include suspension of redemptions and withdrawal gates.

[61] See Global Monitoring Report on Non-bank Financial Intermediation (2020 and 2019).

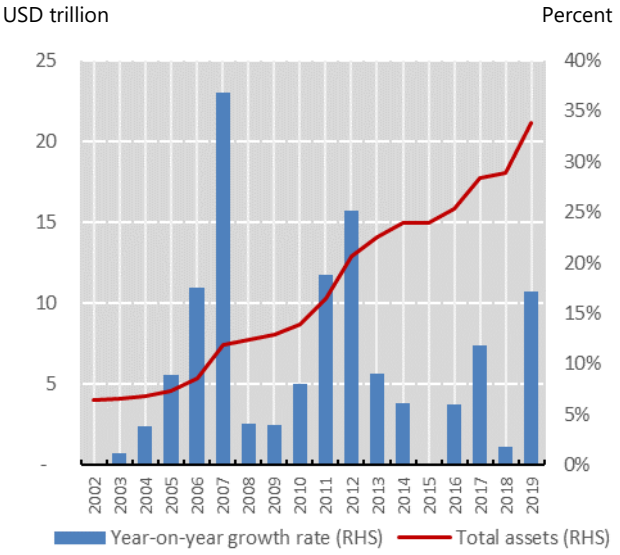
for these jurisdictions vary significantly and some start from a relatively small share of total financial assets.[62]

Economic Function 1 trends and composition[1, 2, 3]

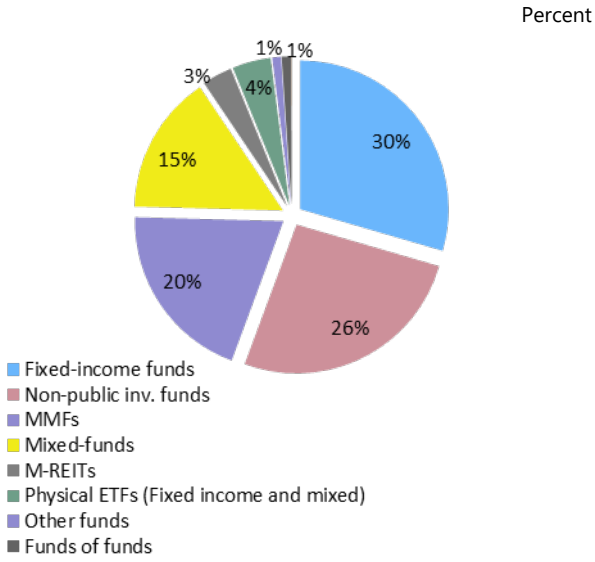
11 jurisdictions

End-2019 Exhibit 5-4

Financial assets level and growth



Breakdown by entity type at end-2019 [4]



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] Financial auxiliaries are included. [3] Offshore and onshore financial assets are aggregated in the narrowing down analysis and the narrow measure is net of prudentially consolidated assets. Some jurisdictions were unable to provide narrowing and economic function classification data (BH, BVI, CR). [4] Synthetic ETFs is not shown in the graph as it accounts for 0.02% of EF1 total financial assets.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other national data).

5.2 Economic Function 2: Loan Provision Dependent on Short-term Funding

EF2 entities engage in loan provision that could be dependent on short-term funding. This EF captures lending or credit provision for both retail and corporate customers, including provision of credit lines, conducted outside of the banking system, and funded with short-term liabilities. In the case of increased risk aversion or liquidity strains, these entities are likely to experience stress in their operations. Liquidity strains may spread quickly among EF2 entities due to risk aversion. EF2 entities' normal functioning may be further compromised if these entities, on top of having this short-term funding dependency, hold illiquid assets.

Entity types in this category often specialize in areas such as auto finance, consumer finance, retail mortgage provision, physical equipment finance, among others. Often these entities depend on their parent or a related entity for funding, and may suffer if the parent struggles in financial stress episodes

[62] In the case of AR, growth rates are affected by high inflation rates.

or and when the parent is operating near a low point in the business cycle. Within some jurisdictions where EF2 represents a substantial portion of intermediation activity, EF2 may be concentrated within a small number of entities, and this concentration may represent a source of vulnerability.

Trends in Economic Function 2

EF2 is the third-largest economic function by assets within the region. This is, in contrast to the global case, where EF2 is the fourth largest category as evidenced in the Global Monitoring Reports.[63] Jurisdictions' submitted data reveals that about a fifth of total reported financial assets in EF2 entities/activities is prudentially consolidated within a banking group. Prudentially consolidated assets are excluded from the narrow measure.

Exhibit 5-5 shows that the size of EF2 has been relatively stable in recent years. However, during 2019, its growth rate increased, more than offsetting the contraction in EF2 assets observed in 2018. Across jurisdictions that classified entities into EF2, assets in this EF2 grew by 4.1% in 2019, after having contracted by 3.0% in 2018 (net of assets that are prudentially consolidated). In contrast to the Global Exercise, there is greater heterogeneity in the type of entities reported for the region. Relative to the previous report, some entities were reclassified among EF2 categories because some of them switched legal figures or legal entity type in 2019, but with no impact for EF2 total assets (MX).[64, 65] Finance companies are the most common entity type classified into this EF comprising about 83.5% of assets classified in EF2 or about USD 1.3 trillion at end-2019. Cooperatives and other credit providers represent 8.1% and 1.8% of EF2 assets, respectively. Non-bank credit cards issuers only represent 0.5% of EF2, and credit unions, classified in EF2 by two jurisdictions (KY and MX) represent 0.2% of EF2 assets, with other jurisdictions excluding credit unions from the narrow measure. Some entity types within EF2 are specific to some jurisdictions. For example, CA is the only jurisdiction reporting mortgage lending companies in this category, which is noteworthy since mortgages are long-term investments and thus there may be potentially significant maturity transformation.[66]

At the jurisdiction level, annual growth rates for end-year 2019 are generally lower than the annualized growth rate observed for the 2013-2018 period (with the exception of BR, KY and US). Meanwhile, the US, which was the only jurisdiction that exhibited a contraction in this Economic Function during 2018, registered a rebound in 2019 of 4.6%. Given its share of regional EF2 assets (71%) it continues

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63 *See FSB Global Monitoring Report on Non-bank Financial Intermediation 2020.*.

64 Some of the categories reported are: leasing companies, finance companies, mortgage finance and mortgage investment companies, cooperatives, non-bank credit card issuers, credit unions, and microfinance companies, among others.

65 A switch in legal entity type caused financial assets to migrate from the regulated financial sector to the financial companies sector, which lies outside of the financial system in MX, and is only subject to securities market regulation as this sector obtains funding through bond issuance.

66 There are two types: mortgage investment companies and mortgage finance companies. Mortgage investment companies are lending companies designed for mortgage lending for borrowers that are typically not eligible to qualify for conventional residential mortgage lending at prudentially regulated financial institutions, and are similar to REITs in that they are subject to a special tax treatment, but forced to distribute their income to investors. Mortgage finance companies are large financial institutions that underwrite and service residential mortgages (usually insured), which tend to be securitized and sold to regulated financial institutions through government-sponsored programs and therefore follow underwriting guidelines. See Bédard-Pagé, G. 2019. "*Non-Bank Financial Intermediation in Canada: An Update*." Bank of Canada Staff Discussion Paper No. 2019-2.

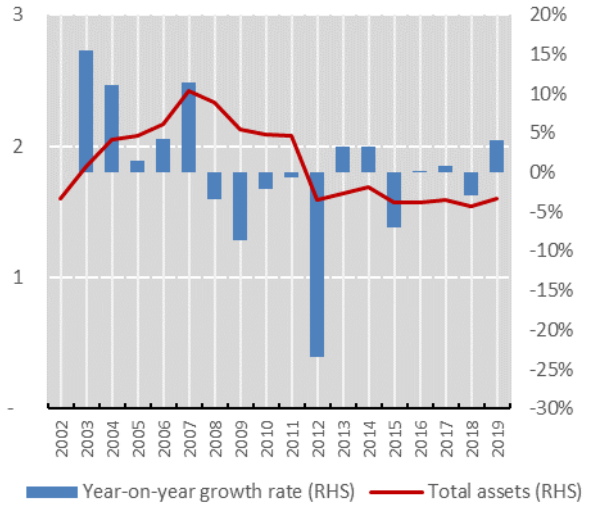
to be a major driver of aggregate data despite other jurisdictions showing significant growth rates albeit from a low base, particularly during 2018.

Economic Function 2 trends and composition[1, 2, 3]

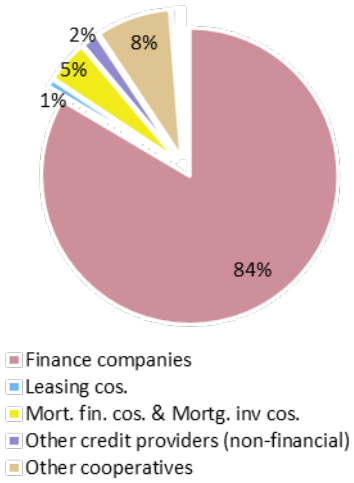
11 jurisdictions

End-2019 Exhibit 5-5

Financial assets level and growth



Breakdown by entity type at end-2019



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] Financial auxiliaries are included. [3] Offshore and onshore financial assets are aggregated in the narrowing down analysis, and the narrow measure is net of prudentially consolidated assets. Some jurisdictions were unable to provide narrowing and economic function classification data (BH, BVI, CR). [4] The rest of entity types (Non-bank credit card issuers, Non-profit social security benefit cos, Credit unions, Employees funds, Micro finance cos.) account for 1.3% of total EF2 financial assets.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other national data).

5.3 Economic Function 3: Intermediation of Market Activities Dependent on Short-term Funding or on Secured Funding of Client Assets

EF3 involves the intermediation that is dependent on short-term funding, including the secured funding of client assets and securities borrowing and lending. EF3 entities tend to be broker-dealers and they fulfil several important functions, including providing short-term credit to their clients in covering their positions, supplying liquidity through market-making activities, facilitating trading activities, providing investment advice to clients, publishing investment research, and helping raise capital for corporates. EF3 entities' intermediation activity may also include securities brokerage services (i.e. buying and selling of securities and derivatives on- and off-exchange including in a market-making role) as well as prime brokerage services to hedge funds.

Broker-dealers conduct the business of intermediating securities for their own account and on behalf of clients.[67] In the purchasing and selling of these securities, broker-dealers play an important role in price discovery. They also act in the reverse repo and securities lending markets by providing liquidity and demanding securities at market rates. Their balance sheets are exposed to market risk. The March 2020 market turmoil evidenced the important role these entities play in moving liquidity from investors willing to supply liquidity to investors that demand liquidity in times of stress.

Although different types of legal entities can intermediate trade using short-term funding, for the purposes of this exercise, most jurisdictions reported broker-dealers as the sole entity type classified in EF3.[68]

Trends in Economic Function 3

EF3 assets net of prudential consolidation totaled USD 2.2 trillion as of end-2019. [69] After registering the highest growth rate among all EFs in 2018, 2019 was a year of small, albeit positive, growth. The 2019 annual growth was 1.3%, while for the previous year it was 6.2%.[70] This latter growth rate also contrasts with the annualized growth rate for EF3 assets in the period between 2013 and 2018, when they contracted 2.2%. However, when excluding the largest jurisdiction in the data (US), remaining EF3 assets again show a moderate increase of 10.1% in the annual growth rate in 2019 and, more strikingly, 24.0% for the previous year. Within this smaller set of jurisdictions, the high growth witnessed in 2019 was driven by a number of jurisdictions (AR, CA, CL, CO, JA, and MX), although some from a smaller base (Exhibit 5-6).[71] Two jurisdictions, however, experienced significant contractions in EF3 entities (BR, KY).

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[67] When acting on behalf of their clients on an agency basis, broker-dealers merely follow instructions–fiduciary duty- and thus no credit intermediation takes place. However, sometimes these entities may provide credit to clients in order to cover short-term changes in their positions. However, it is not their primary goal.

[68] The US also reported custodial accounts separately as part of EF3.

[69] EF3 net of prudentially consolidated assets is 46% of the total gross EF3 asset measure.

[70] For this report, the US has included another type of entity (custodial accounts) which was absent in the 2019 Report. Thus, figures for EF differ and are not comparable to past figures. The EF3 asset size for 2019 increased only by 1.1% on annual terms.

[71] AR shows very large growth rates, partially as a result of high inflation.

Economic Function 3 trends and composition[1, 2]

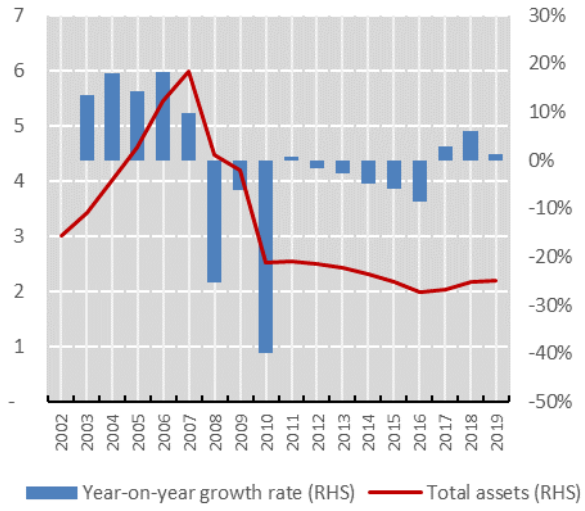
11 jurisdictions

Exhibit 5-6

Financial assets level and growth

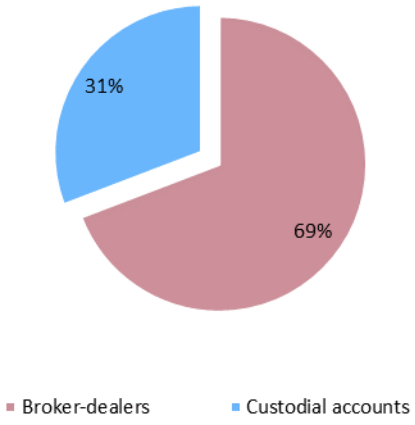
USD trillion

Percent



Breakdown by entity type at end-2019

Percent



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] Financial auxiliaries are included. [3] Offshore and onshore financial assets are aggregated in the narrowing down analysis and the narrow measure is net of prudentially consolidated assets. Some jurisdictions were unable to provide narrowing and economic function classification data (BH, BVI, CR).

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other national data).

5.4 Economic Function 4: Facilitation of Credit Creation

EF4 entities provide credit enhancements to loans made by banks as well as by non-bank financial entities. They also insure or guarantee financial products by writing insurance on structured securities including asset-backed securitizations. EF4 entities may potentially contribute to boom-bust cycles and systemic instability by facilitating credit creation that may not be commensurate with the actual risk profile of the borrowers, and that causes excessive leverage to build up.

Trends in Economic Function 4[72]

This Economic Function had the least assets of classified entities, with USD 64.5 billion across seven jurisdictions, net of prudentially consolidated on- and off-balance sheet assets. EF4 accounts only for 0.2% of the narrow measure for the region, which is smaller than the share found for the 2020 Global Exercise at 0.8%. The US accounts for 75.9% of the total assets classified for the region and its assets increased by 0.04% in 2019. Across jurisdictions that classified entities into EF4, assets in this economic function grew by 4.1% in 2019, and 1.6% annually in the period between 2013 and 2018

[72] When the EF4 function is performed by a legal subsidiary of a parent company, the total balance sheet assets and off-balance sheet exposures for the subsidiary are reported. However, since the notional off-balance sheet exposure is expected to be significant for these entities, these notional amounts are converted to an on-balance sheet equivalent using credit conversion factors such as those specified in the Basel framework. If the assets of the EF4 entity cannot be identified separately, the on- and off-balance sheet amount for the parent entity is reported.

(Exhibit 5-7). Notably, non-US EF4 assets increased at a somewhat higher rate in 2019 (19.1%) than that observed during the 2013-2018 period (14.3%), maybe due to a financial deepening in these jurisdictions. One jurisdiction reported that all EF4 assets were fully prudentially consolidated (CA), while other jurisdictions reported EF4 assets that were not prudentially consolidated, and therefore were part of the narrow measure.

As seen in (Exhibit 5-7 RHS), EF4 assets are concentrated in financial guarantee insurers (52.8%), with the rest of the assets allocated in mortgage insurers (44.3%), insurance companies/credit insurers (1.1%) and, lastly, non-bank credit card issuers (1.8%). At the country level, EF4 assets in all jurisdictions with entities in this economic function grew, with AR, BR and CL experiencing the largest growth rates (60.4%, 16.0%, and 13.9%, respectively).[73]. In the US, EF4 assets represented only 0.3% of its narrow measure, while for others the share is much larger (AR with 10.5%, JA with 20.7%, and UR with 28.9%).

Economic Function 4 trends and composition[1, 2, 3]

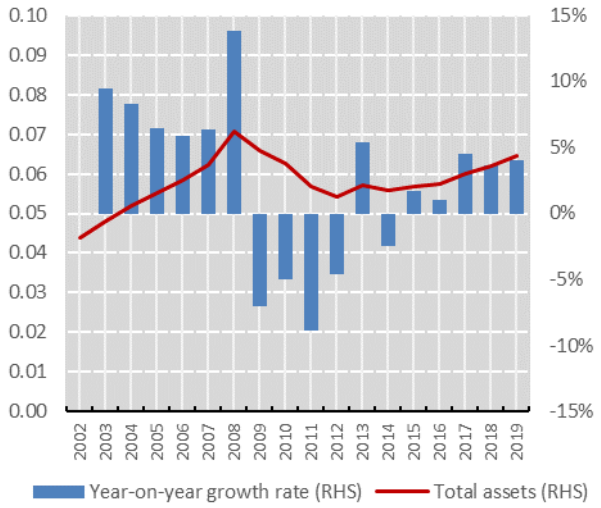
11 jurisdictions

Exhibit 5-7

Financial assets level and growth

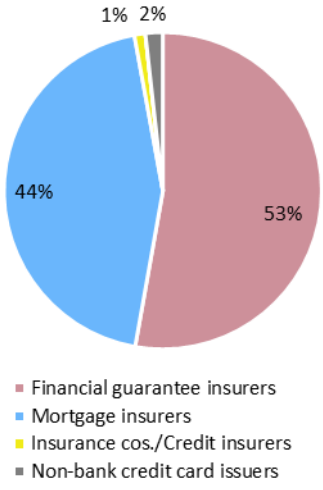
USD trillion

Percent



Breakdown by entity type at end-2019

Percent



[1] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] Financial auxiliaries are included. [3] Offshore and onshore financial assets are aggregated in the narrowing down analysis and the narrow measure is net of prudentially consolidated assets. Some jurisdictions were unable to provide narrowing and economic function classification data (BH, BVI, CR).

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other national data).

[73] In the case of AR, growth rates are affected by high inflation rates.

5.5 Economic Function 5: Securitization-based Credit Intermediation and Funding of Financial Entities

EF5 captures securitization-based credit intermediation or funding of financial entities through investment funds (or other similar structures such as trust companies) to finance illiquid assets by raising funds from markets. Such activities, while they may serve other purposes, are typically used by banks and/or non-bank financial entities for funding/warehousing as well as to reduce their capital requirements under banking regulations. Securitization can facilitate the transfer of credit risk off-balance sheet and therefore reduce the funding costs for financial entities. Nonetheless, securitizations can also facilitate or aid in the creation of excessive maturity/liquidity transformation, leverage or regulatory arbitrage in the system.

Trends in Economic Function 5

Economic Function 5 was the fourth largest EF for jurisdictions in the region in terms of its share in the narrow measure. In 2019, structured finance vehicles (SFVs) remain the largest and most common entity type classified into this economic function, and their assets totaled USD 1.6 trillion at end-2019. The rest of the assets registered in EF5 comprise trust funds and synthetic ETFs. In contrast to the Global Exercise, there is less heterogeneity in the types of entities reported for the region, as 99.8% of assets are in SFVs, in contrast to the Global Exercise, where SFVs represent 80% of EF5 assets and trust companies are a relatively common reported entity, although they have in fact lost share in SFVs in recent years. Only one jurisdiction registered trust funds (CO), while another registered synthetic ETFs (MX).

Aggregated across the nine jurisdictions that classified entities into this economic function, assets in this economic function grew by 10.2% in 2019, but fell by 3.2% annually between 2013 and 2018 (Exhibit 5-8). Experiences in 2019 varied, with high growth in AR (over 35.2%), BR (60.9%), KY (38.0%), CO (19.7%) and UR (60.4%), and declines in CA (-0.5%) and CL (-6.4%). The US, which represents the largest share of EF5 assets across the region, only grew 4.8%.[74]

[74] In the case of AR, growth rates reflect both high inflation rates and the use of a new SFV database (with more complete data not directly comparable with previously reported statistics).

Economic Function 5 trends and composition[1, 2, 3]

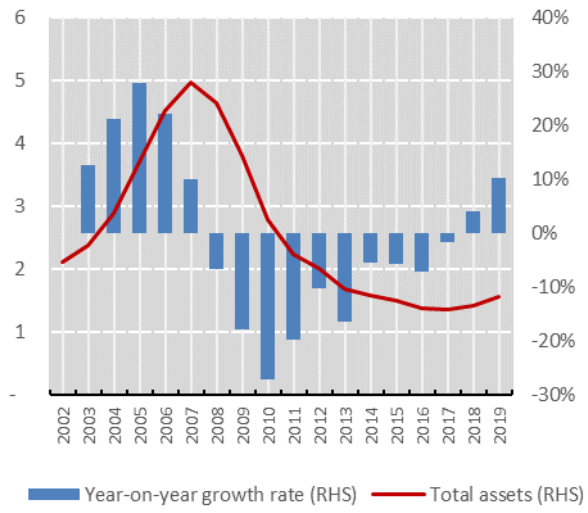
11 jurisdictions

Exhibit 5-8

Financial assets level and growth

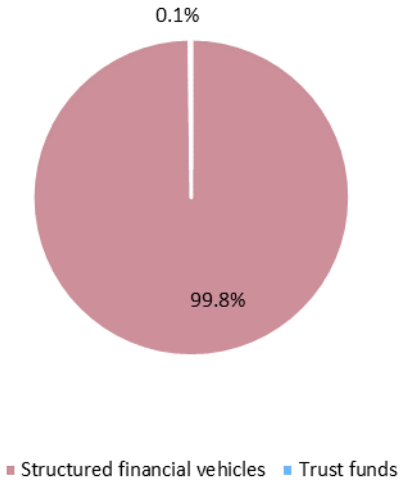
USD trillion

Percent



Breakdown by entity type at end-2019 [4]

Percent



[11] Exchange rate effects have been netted out by using a constant exchange rate (from 2019). [2] Financial Auxiliaries are included. [3] Offshore and Onshore financial assets are aggregated in the narrowing down analysis and the narrow measure is net of prudentially consolidated assets. Some jurisdictions were unable to provide narrowing and economic function classification data (BH, BVI, CR). [4] Synthetic ETFs account for only 0.02% of EF5 assets.

Sources: Jurisdictions' 2020 submissions (national sector balance sheet and other national data).

5.6 Risk Metrics

The FSB has also included a set of risk metrics or indicators tailored to help in the monitoring and assessment of vulnerabilities associated with each economic function. These indicators attempt to be informative in this regard while also increasing their availability and coverage across jurisdictions, as some face significant data availability and granularity limitations. Although there have been some improvements in the data gathered from the previous years, coverage and utility of these figures collected is still an area where more could be done.

A total of nine jurisdictions were able to submit partial data required as inputs for risk metrics calculations. The data collection was done for end-years 2017, 2018 and 2019. Annex III shows the data points calculated using the data submitted for specific entity types in each economic function for the three end-of-year data points requested. For the 2019 exercise, the definitions for the data series underlying the risk metrics calculations were made clearer and more precise to help jurisdictions improve their data submissions. Still, in some cases the dispersion in risk metrics across jurisdictions for the same type of entity types is substantial, and likely related (in some cases) to differences in how jurisdictions interpret the definitions for the inputs requested. In addition, data gaps are still present and not all jurisdictions can provide the requested inputs to calculate the current FSB risk metrics as

described in Annex III.[75] Any risk-related conclusions made with these figures needs to be taken with caution, and this caveat applies to risk metrics presented in prior years' reports as well.

Although, there is still significant room for improvement in estimating risk metrics, the metrics compiled and shown in Annex III may nevertheless be useful in a more exploratory sense and informative for authorities as a reference for their jurisdiction's levels of intermediation activity. They may be helpful in terms of categorizing the entities' activities but cannot be a readily available instrument intended to signal building vulnerabilities given its yearly frequency of collection.

6. Conclusions and Recommendations to Improve the Annual Monitoring Exercise

Following the 2020 COVID-19 related financial market events, with particular turmoil happening around NBFIs, and with global financial authorities placing special efforts towards understanding the events and how to correct the vulnerabilities that led to them, this regional monitoring exercise proves very relevant. Its periodic monitoring of NBFIs trends contributes to RCG Americas' efforts to maintain a robust surveillance of the region's financial system and in particular those portions where vulnerabilities may be building. In addition, this exercise complements the FSB global monitoring exercise by incorporating participation of non-FSB members. In particular, IFCs' data addresses an important data gap.

The NBFI-WG continues to take steps to align the RCG Americas monitoring exercise with the FSBs Global monitoring exercise, but there is still some heterogeneity in understanding the FSB methodology. This year some reporting issues have been discussed bilaterally with jurisdictions with an aim to increase consistency in the reporting and overall implementation of the FSB monitoring methodology. Going forward, the data collection process may benefit from increased cooperation and interaction among international authorities with the aim of closing data gaps and increasing consistency. Enriching the granularity of the data set in the same direction as the Global Exercise will also be desirable to maintain this consistency. For example, the RCG Americas could consider adding data collection and analysis regarding flow vs. valuation effects in trends and growth rates. Further, risk metrics data is still an area for improvement in both data collection and coverage. Improvements to risk metrics data in future monitoring exercises could strengthen the type of conclusions that can be extracted from the current set of risk metrics.

Overall, the aggregate data shows a strong rebound in total OFIs' assets in 2019, reversing the slowdown associated with stock market declines and the decreased valuations in fixed-income debt instruments towards the end of 2018. In addition, some OFIs (e.g. investment funds) registered significant growth, with large heterogeneity in the growth rates across jurisdictions, although with different effects given the heterogeneity in the base levels. The largest jurisdictions tend to drive most of the variations across the region. As for the narrow measure net of prudentially consolidated assets, the growth rate for the region at end-2019 is similar to high annualized growth rates observed in 2004-2007, before the GFC. Next year's exercise will report on the financial system as of end-year 2021,

[75] For more information on the construction of risk metrics, please refer to FSB's Global Monitoring Report on NBFI 2018, Box 4-1.

which will cover the 2020 March market turmoil associated to the beginning of the COVID-19 pandemic.

To continue improving the monitoring and assessment of non-bank financial intermediation risks within the region, the NBFI-WG recommends:

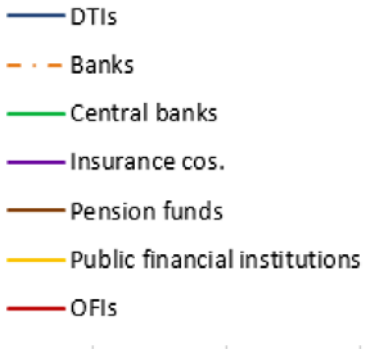
1. To continue enhancing and encouraging participation by jurisdictions in the region and improving data collection coverage and quality for future exercises;
2. To improve risk metric data collection, coverage and analysis in the next report.
3. To include an analysis of how credit intermediation has evolved across entity types within jurisdictions, depending on their reliance on short-term funding-vs. longer-term funding (including equity funding).

Annex I: Share of Total Financial Jurisdiction

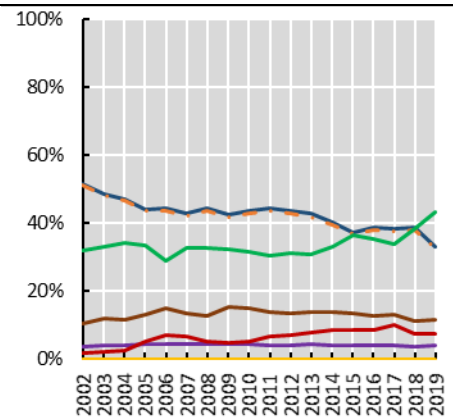
Share of total financial assets by jurisdiction (all domiciled assets)[1]

In percent

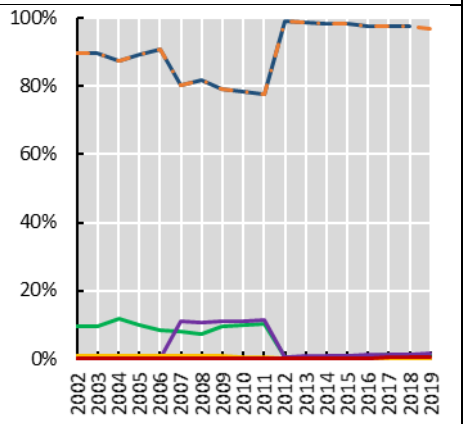
Exhibit A-1



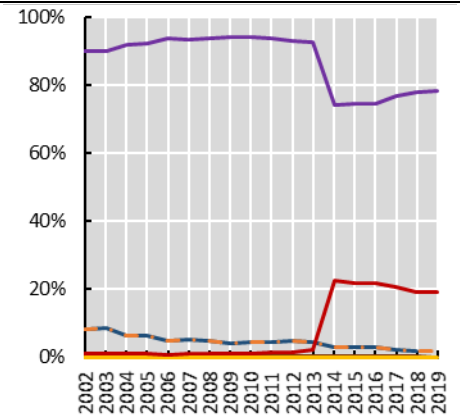
Argentina (AR)



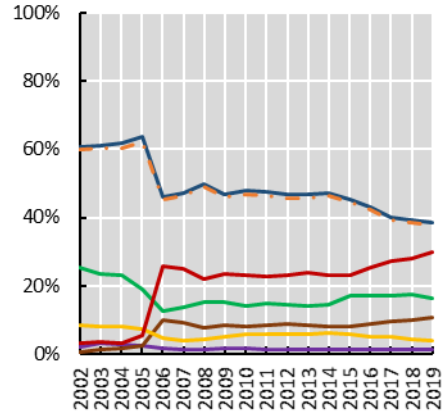
Bahamas (BH)



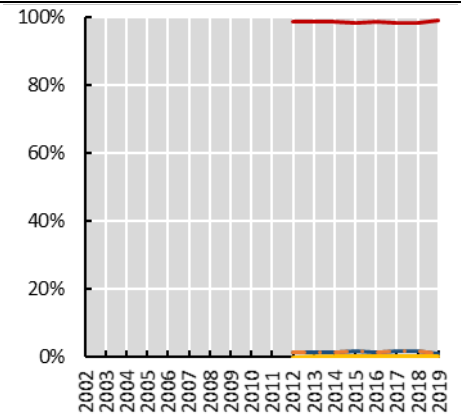
Bermuda (BM)



Brazil (BR)



British Virgin Islands (BVI)



1 Based on historical data included in jurisdictions' 2020 submissions (end-2019 data).

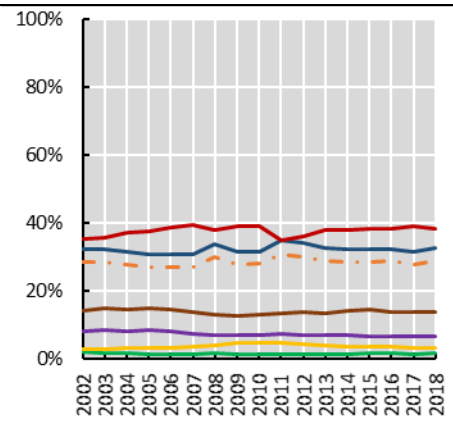
Source: Jurisdictions' 2020 submissions (national sector balance sheet and other data); FSB RCG Americas NBFI-WG calculations.

Share of total financial assets by jurisdiction (all domiciled assets)[1]

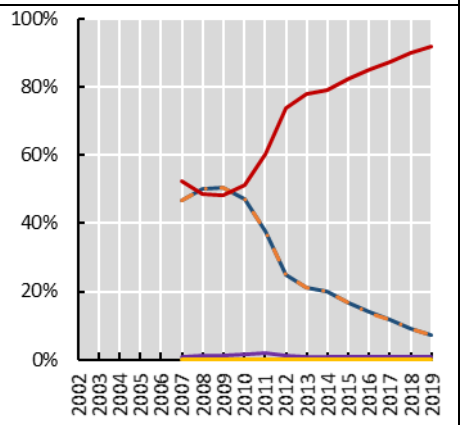
In percent

Exhibit A-1

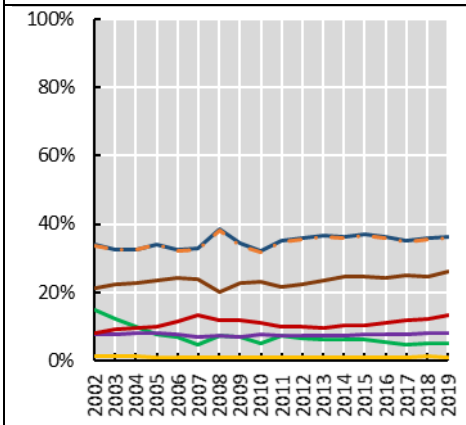
Canada (CA)



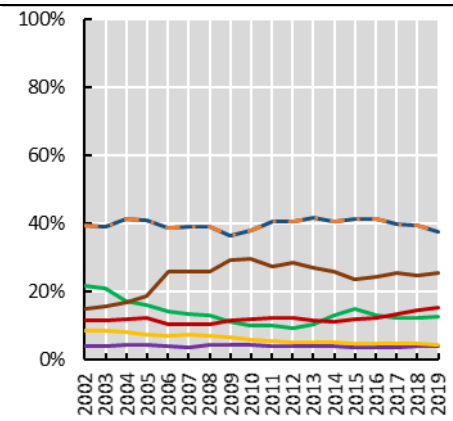
Cayman Islands (KY)



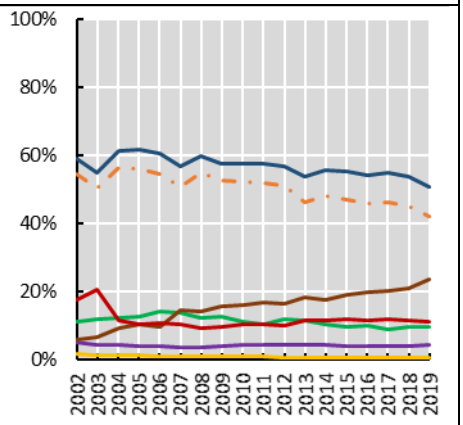
Chile (CL)



Colombia (CO)



Costa Rica (CR)



1 Based on historical data included in jurisdictions' 2020 submissions (end-2019 data).

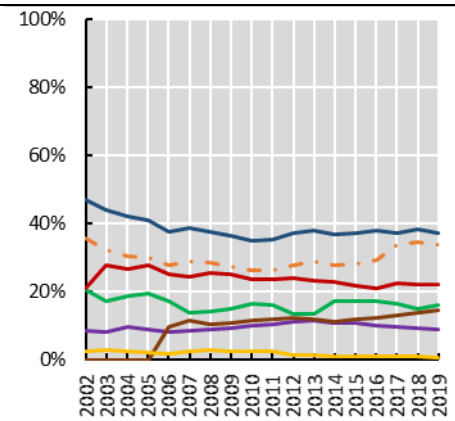
Source: Jurisdictions' 2020 submissions (national sector balance sheet and other data); FSB RCG Americas NBFI-WG calculations.

Share of total financial assets by jurisdiction (all domiciled assets)[1]

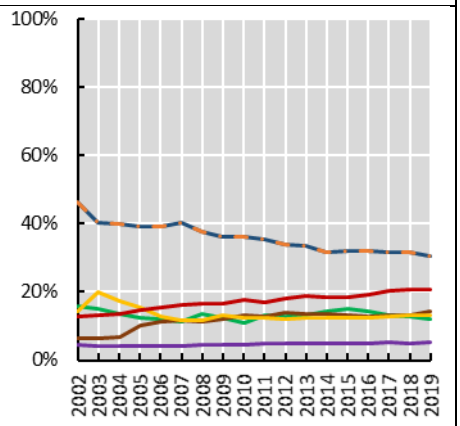
In percent

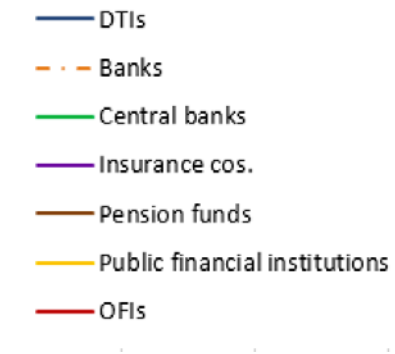
Exhibit A-1

Jamaica (JA)

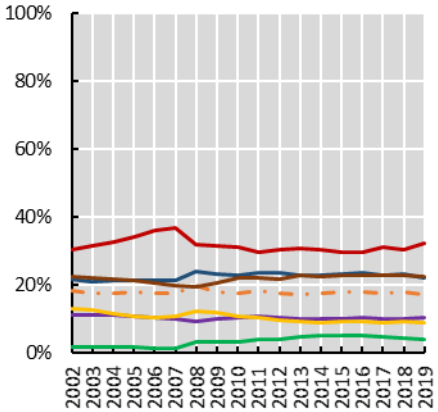


Mexico (MX)

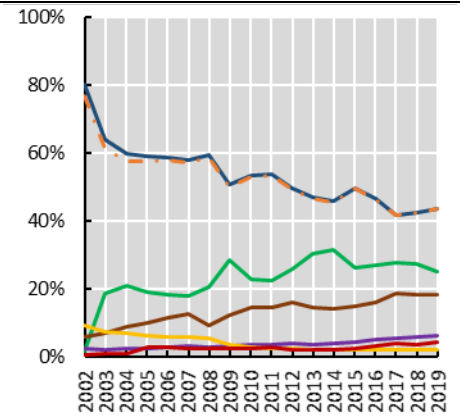




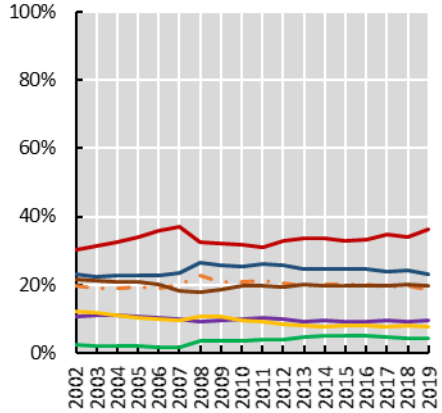
United States (US)



Uruguay (UR)



All



1 Based on historical data included in jurisdictions' 2020 submissions.

Source: Jurisdictions' 2020 submissions (national sector balance sheet and other data); FSB RCG Americas NBFI-WG calculations.

Annex II: Case studies (Bermuda and Mexico)

COVID-19 impact on Bermuda's insurance sector (EF4)

Bermuda's Non-bank Financial Intermediation (NBFI) sector is dominated by international insurance entities that make up 81% of total NBFI assets in Bermuda. One of the immediate consequences of the COVID-19 pandemic on some Bermuda insurers was a significant (albeit temporary) impairment in the value of their assets; however, because of their relatively strong liquidity and capital positions coupled with the rapid recovery of financial markets, Bermuda insurers were not compelled to sell their investments at a loss. In the months following the outbreak of COVID-19, investments, for the most part, regained their value and unrealized losses initially recorded have recouped. On the other hand, the pandemic has helped to intensify the tightening of rates following successive years of severe natural catastrophes. This has increased licensing insurance activity and capital raised by both start-ups and legacy insurers.

Nonetheless, some Bermuda insurers reported a rise in claims on business lines such as business interruption and event cancellation insurance — primarily driven by the widespread business closures — and trade credit and mortgage claims related to the severe knock-on effects of Covid-19 on the [global?] economy and unemployment. Thus, overall, the COVID-19 impact to the Bermuda insurance market was an 'earnings' event affecting the insurers' income statements and not a capital event affecting their solvency positions.

Importantly, some insurance events, directly and indirectly linked to COVID-19 pandemic, are still unfolding and this increases the overall uncertainty associated with assessing the full impact of the pandemic to the sector. Accordingly, the Bermuda Monetary Authority (Authority) emphasized to insurers the need for them to take prudent measures, including avoiding actions to reduce liquidity and capital through return of capital, dividend and share repurchases until insurers have sufficient clarity as to the underwriting and financial exposure resulting from COVID-19. On a case by case basis, the Authority has put dividend restrictions on a number of insurers. The Authority has also increased the frequency and level of supervisory colleges and information exchanges with other regulators as well as bilateral meetings with relevant international partners including EIOPA, NAIC, IAIS etc.

The NBFI sector in Mexico and its COVID-19 crisis impact

The economic and financial environment became more complex and uncertain after the COVID-19 related shock hit Mexico in late February 2020. Domestic financial markets exhibited negative performance and increased risk aversion, in line with the situation observed in international financial markets. In particular, trading conditions in foreign exchange and fixed-income markets deteriorated, affecting the depth and liquidity of those markets. The significant fall in oil prices also affected domestic financial markets.

In an environment of higher global and domestic volatility, there was a rebalancing of portfolios towards safer and more liquid assets, which impacted capital flows. EME-invested global funds experienced abrupt withdrawals pushing them to sell large amounts of their positions in an attempt to increase their liquid assets, which had an impact on asset prices

and significant spillovers to local markets.[76] During the fourth quarter of 2019, net capital inflows were relatively small and net flows in the first quarter of 2020 were mixed (both in local currency government debt and equities), with significant capital inflows in the first two months of the year and sizable outflows in March. The Mexican peso depreciated against the US dollar, meanwhile, interest rates along the yield curve in Mexico and risk premia increased in line with those in other emerging markets and developing economies. The fiscal, financial, and monetary stimuli implemented in systemically important economies contained global risk aversion, and domestic and international financial markets recorded a gradual recovery between the end of March and the beginning of June 2020.

At the domestic level, financial authorities implemented a set of policies to preserve an orderly functioning and adjustment of markets. Some of these had the goal of mitigating financial institutions' procyclical response to the health crisis that could lead to an excessive tightening of credit when it was most needed. In this regard, the National Banking and Securities Commission (CNBV, for its acronym in Spanish) established a special temporary accounting program that allowed borrowers of CNBV-regulated and supervised financial intermediaries (banks and non-banks) more flexibility to defer payments of loan capital and interest for up to six months in agreement with the individual financial intermediary opting for the program. This gave debtors space and helped maintain portfolio levels and credit risk indicators from deteriorating abruptly. CNBV also allowed temporary flexibility on both bank liquidity and capital regulations so that buffers were accessible to absorb the shock, among other measures, with the aim to support credit and market liquidity.

Banco de México's Governing Board approved additional measures to support an orderly functioning of the financial system. The objectives of the implemented measures were: i) providing support to credit through funding; ii) improving liquidity conditions; iii) ensuring the proper functioning of financial markets; iv) implementing regulatory facilities; and, v) facilitating operations and operational continuity. That is, they are intended to preserve financial system stability. From the described measures, those in domestic currency to support the functioning of the financial system added up to MXN 800 billion, amounting to 3.3% of GDP.[77] The use of the facilities has been limited but its announcement likely calmed markets. The measures adopted allowed banks to maintain their credit flows in March and April 2020, in the midst of the crisis associated with the pandemic.

It is worth noting that commercial banks' capitalization levels have increased between March 2020 and March 2021. As to commercial banks' and other non-bank lenders' risks, some credit risk metrics increased due to the higher risk of consumer and private sector's credit portfolios, although the impact of the pandemic on delinquency rates has been limited so far. Overall, market risk has decreased significantly since March 2020. Although liquidity risk for some institutions increased at the beginning of the pandemic, institutions generally had ample liquidity reserves. Meanwhile, risks to financial stability from other non-bank intermediaries are estimated to be limited. Nevertheless, despite the mitigating measures, liquidity and solvency of some small non-bank lenders entities may have weakened, given that their financial position before the start of the pandemic was less resilient. This, however,

[76] See FSB's *Holistic Review of the March Market Turmoil* (November 2020),

[77] See Summary of Financial Stability Report June 2020, Banco de México.

does not represent financial stability concerns, given their relatively small size and very low interconnectivity with other financial intermediaries.

At the peak of the crisis, and as a result of increased volatility in March, some domestic investment funds hit their pre-established VaR limits; however CNBV adopted temporary measures that added flexibility in this regard, and there were no significant redemption pressures at the sector level.[78] Nevertheless, there were flows from equity investment funds into fixed-income funds. CNBV increased its monitoring of daily redemption limits at the fund level, their investment in liquid assets as specified in their investor prospectus, and also their implementation of swing pricing (used only by four funds). The regulation was also amended to allow investment funds to enter repo transactions for up to 5% of AUM and exceptionally to enter repos for up to 10% of AUM if deemed necessary for the fund, in order to honor its redemptions requests under disorderly market conditions. It is worth noting that investment funds are generally prohibited from raising cash using repo transactions (they can only take on reverse repos).

Broker-dealers are exposed to liquidity risk as a significant share of their securities investments is financed through repos and abrupt valuation losses could affect significantly their securities' financing. Nevertheless, there was no systemic risk event surrounding them. Broker-dealer supervision was enhanced during the Covid-19 shock period through a weekly monitoring process. Moreover, the Central Bank recently made improvements to margin and repo regulations for broker-dealers that are directed at mitigating liquidity risk.

For other NBFIs (finance companies) that rely on wholesale funding sources, and which are very sensitive to market confidence, the experience has been mixed. Some issuers with stronger company profiles that have access to the international markets do not have material refinancing risks in the near term. Medium and smaller NBFIs with less diversified funding profiles, limited or no access to contingent credit lines and local short-term debt programs, are exposed to higher refinancing risks but have not shown further deterioration now that economic activity has resumed. Their outlook is more optimistic as the vaccine roll out gains speed and a sense of normalcy returns to economic activity after a strong contraction in April and May 2020 due to the COVID-19 pandemic and the measures adopted to address it. During the second quarter of 2021, the improvement in activity has rendered a better outlook for most NBFIs in terms of their loan portfolio quality and also the prospect of better borrower behavior, but authorities remain vigilant.

[78] See Summary of Quarterly Report April-June 2020, Banco de México.

Annex III: Financial stability risk metrics

For EF1:

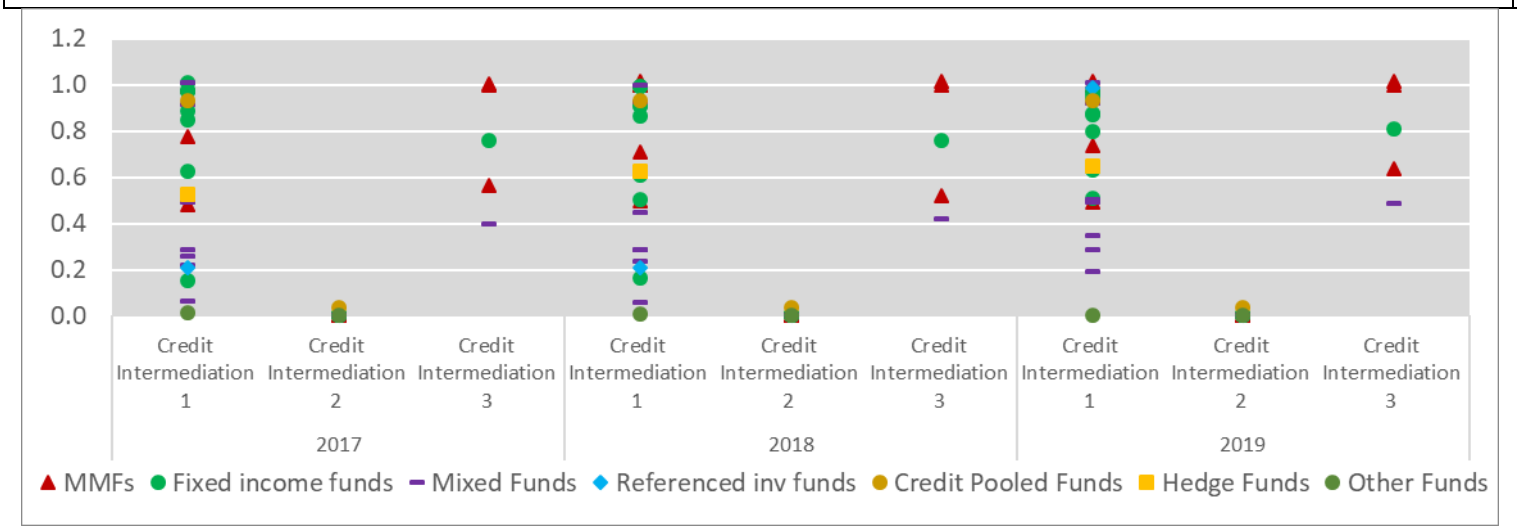
Calculated Risk Metrics	Description
Credit Intermediation (CI)	
Credit Intermediation 1 (CI1)	= credit assets / AUM
Credit Intermediation 2 (CI2)	= loans / AUM
Credit Intermediation 3 (CI3)	= (credit assets + credit off balance sheet exposures) / (AUM + total off balance sheet exposures)
Maturity Transformation (MT)	
Maturity Transformation 1 (MT1)	= (long term assets - long term liabilities - nonredeemable equity) / AUM
Maturity Transformation 2 (MT2)	= (short term liabilities [≤ 12 months] + redeemable equity [≤ 12 months]) / short term assets [≤ 12 months]
Maturity Transformation 3 (MT3)	= (short term liabilities [≤ 30 days] + redeemable equity [≤ 30 days]) / short term assets [≤ 3 months]
Liquidity Transformation (LT)	
Liquidity Transformation 1 (LT1)	= (AUM - liquid assets [narrow] + short term liabilities [≤ 30 days] + redeemable equity [≤ 30 days]) / AUM
Liquidity Transformation 2 (LT2)	= (AUM - liquid assets [broad] + short term liabilities [≤ 30 days] + redeemable equity [≤ 30 days]) / AUM
Credit Risk Transfer (CRT)	
Credit Risk Transfer 1 (CRT1)	= credit off balance sheet exposures / (AUM + total off balance sheet exposures)
Leverage (L)	
Leverage 1 (L1)	= AUM / NAV
Leverage 2 (L2)	= (AUM + total off balance sheet exposures) / NAV
Leverage 3 (L3)	= GNE / NAV

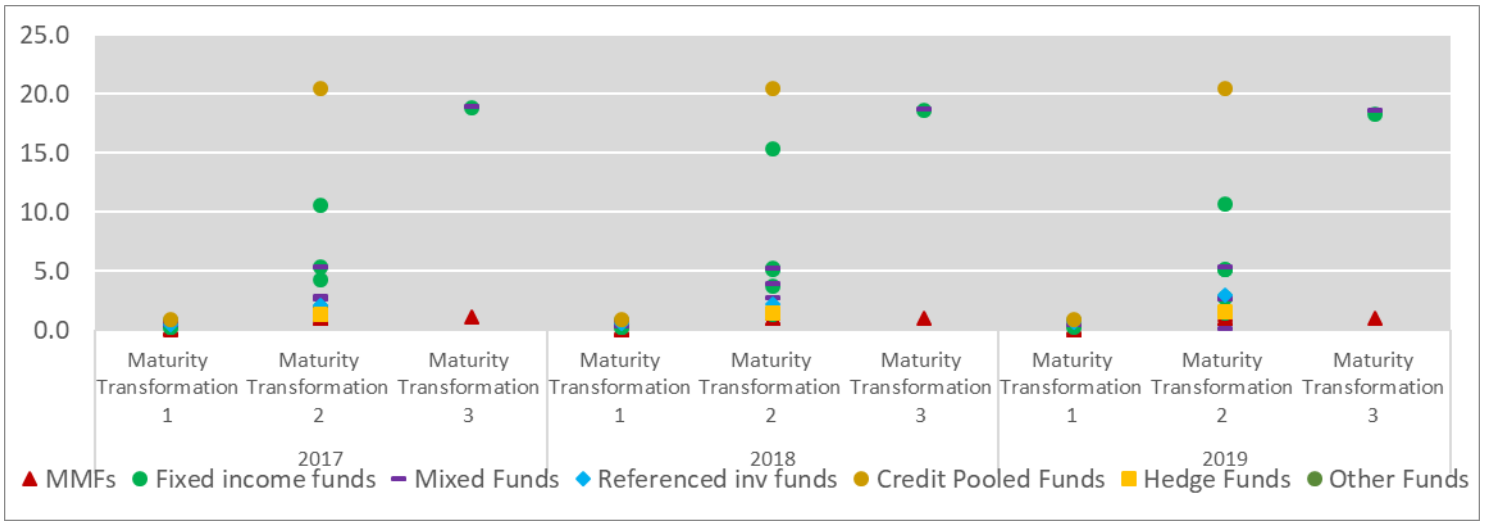
For EF2 -EF5 (except for NPLs in last row, which is only required for EF2):

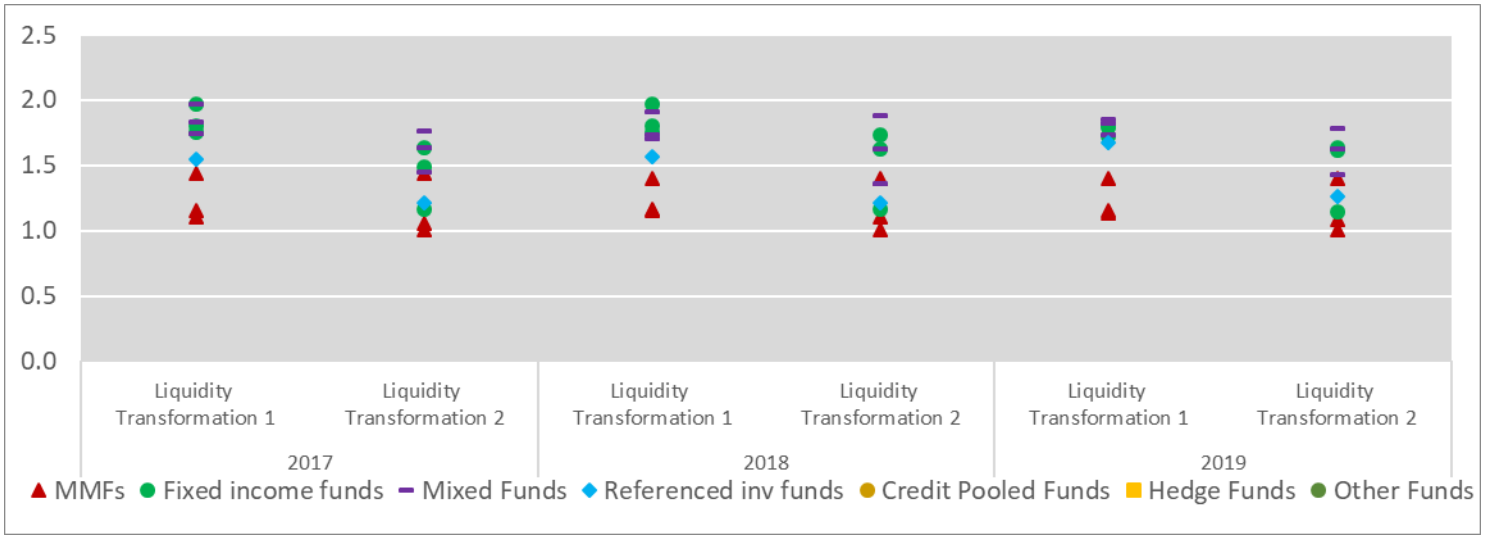
Calculated Risk Metrics	Description
Credit Intermediation (CI)	
Credit Intermediation 1 (CI1)	= credit assets / total financial assets
Credit Intermediation 2 (CI2)	= loans / total financial assets
Credit Intermediation 3 (CI3)	= (credit assets + credit off balance sheet exposures) / (total financial assets + total off balance sheet exposures)
Maturity Transformation (MT)	
Maturity Transformation 1 (MT1)	= (long term assets - long term liabilities - equity) / total financial assets
Maturity Transformation 2 (MT2)	= short term liabilities [≤ 12 months] / short term assets [≤ 12 months]
Maturity Transformation 3 (MT3)	= short term liabilities [≤ 30 days] / short term assets [≤ 3 months]
Liquidity Transformation (LT)	
Liquidity Transformation 1 (LT1)	= (total financial assets - liquid assets [narrow] + short term liabilities [≤ 30 days]) / total financial assets
Liquidity Transformation 2 (LT2)	= (total financial assets - liquid assets [broad] + short term liabilities [≤ 30 days]) / total financial assets
Liquidity Transformation 3 (LT3)	= short term liabilities [≤ 30 days] / liquid assets [broad]
Credit Risk Transfer (CRT)	
Credit Risk Transfer 1 (CRT1)	= credit off balance sheet exposures / (total financial assets + total off balance sheet exposures)
Leverage (L)	
Leverage 1 (L1)	= total financial assets / equity
Leverage 2 (L2)	= (total financial assets + total off balance sheet exposures) / equity
Non-performing loans ratios	
NPL (NPL1)	= Non-performing loans / Loans

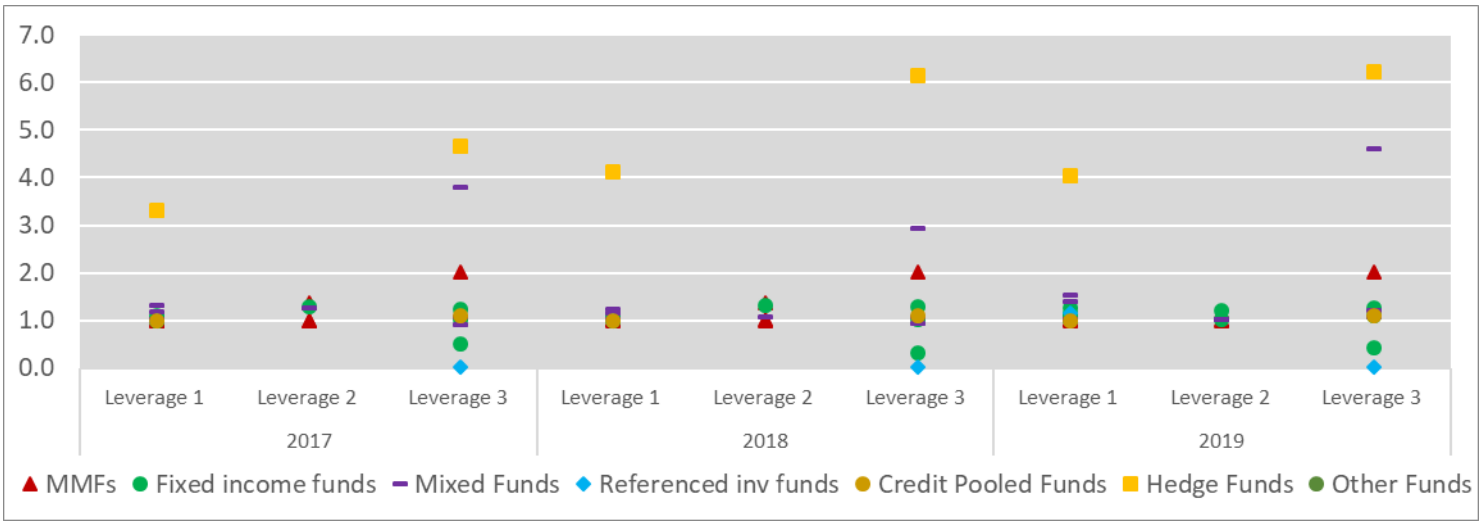
Note: The following graphs show individual data points submitted for each entity type within an EF for the risk metrics as defined above. These were calculated for the corresponding entity types for those jurisdictions that submitted the necessary inputs for the calculation. Submitting jurisdictions are not identified but data points serve as a visual reference for comparison, while at the same time the graphs show how scarce the calculations are for some of the current FSB risk metrics (empty data point risk metrics were removed from the corresponding graph).

Economic Function 1









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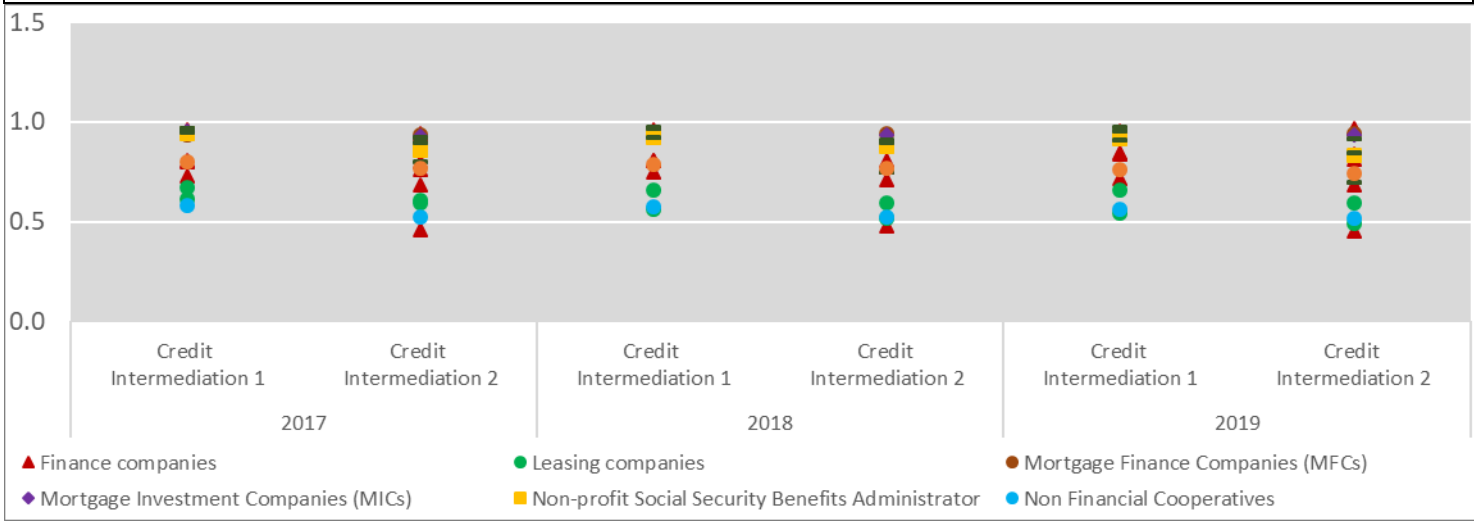
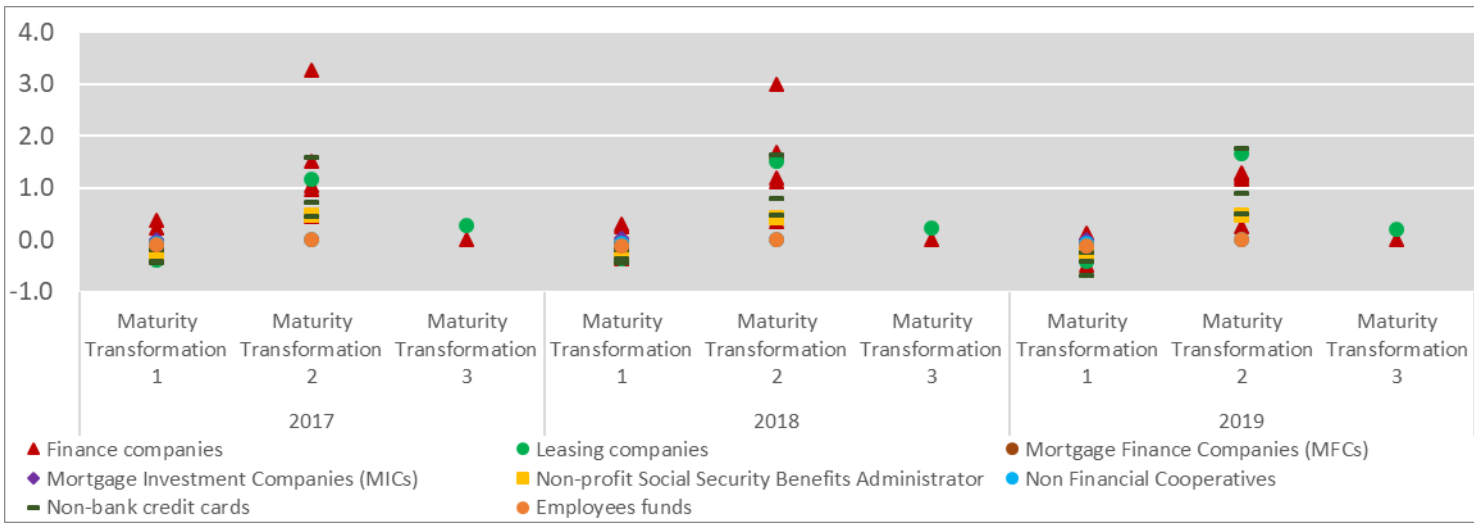
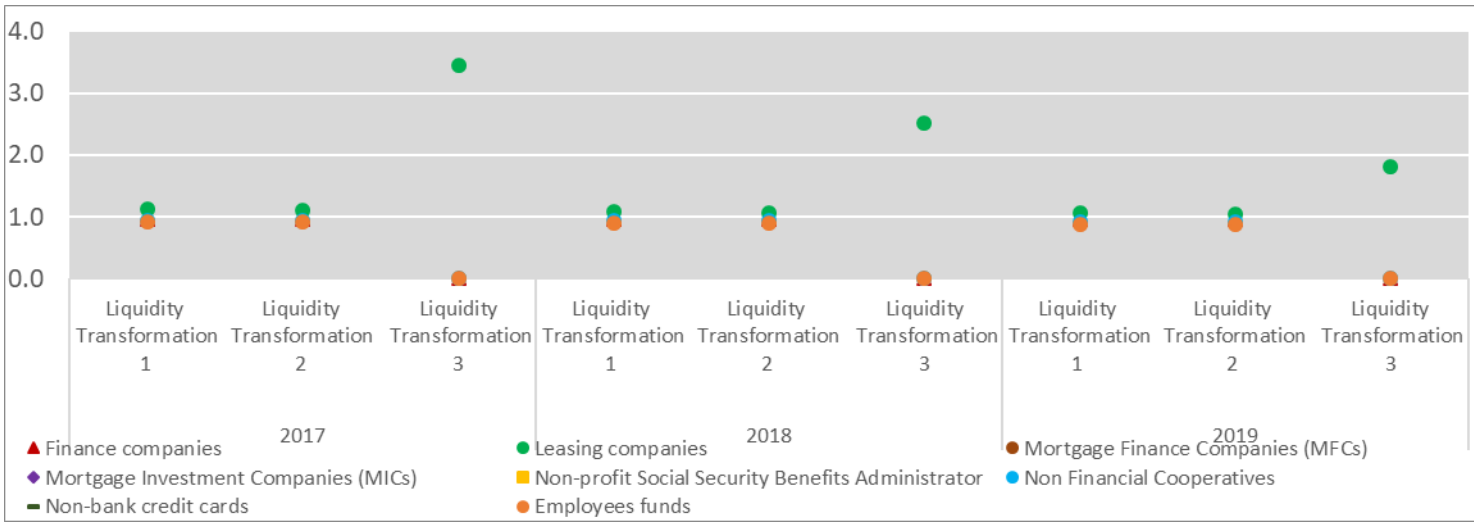
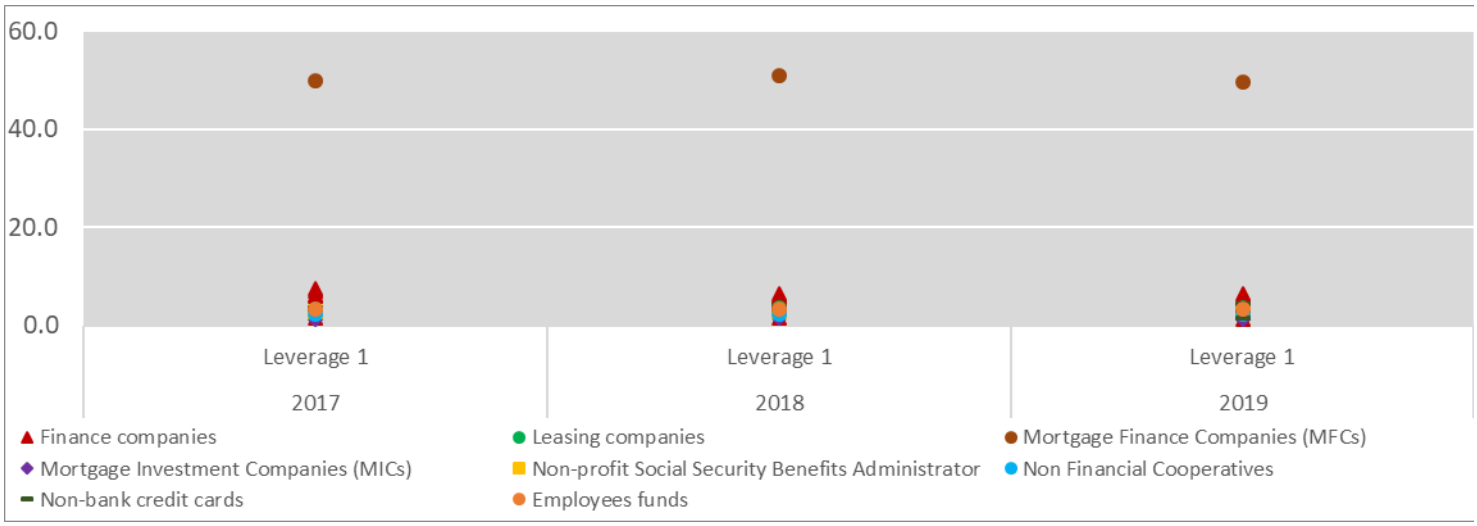
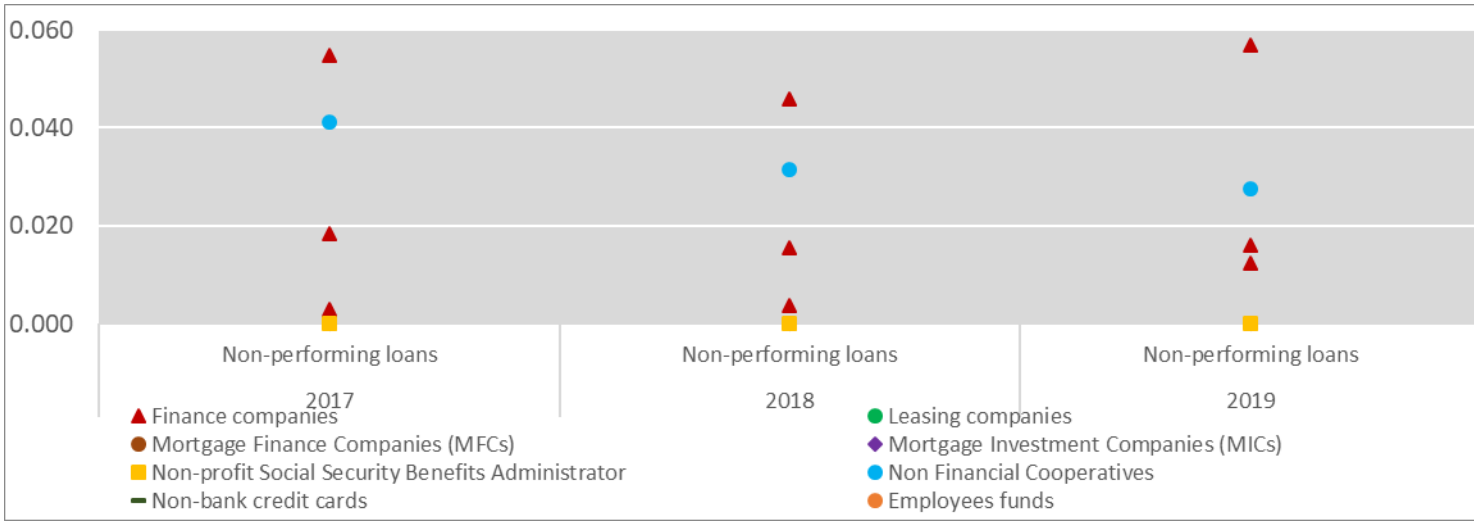
Economic Function 2



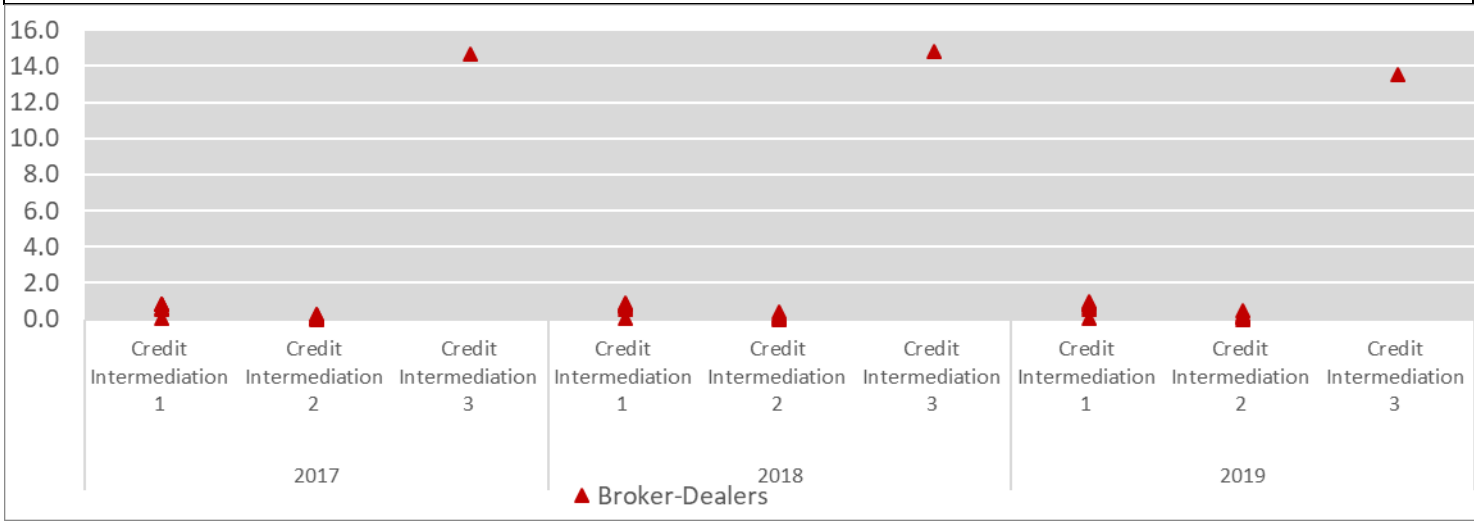


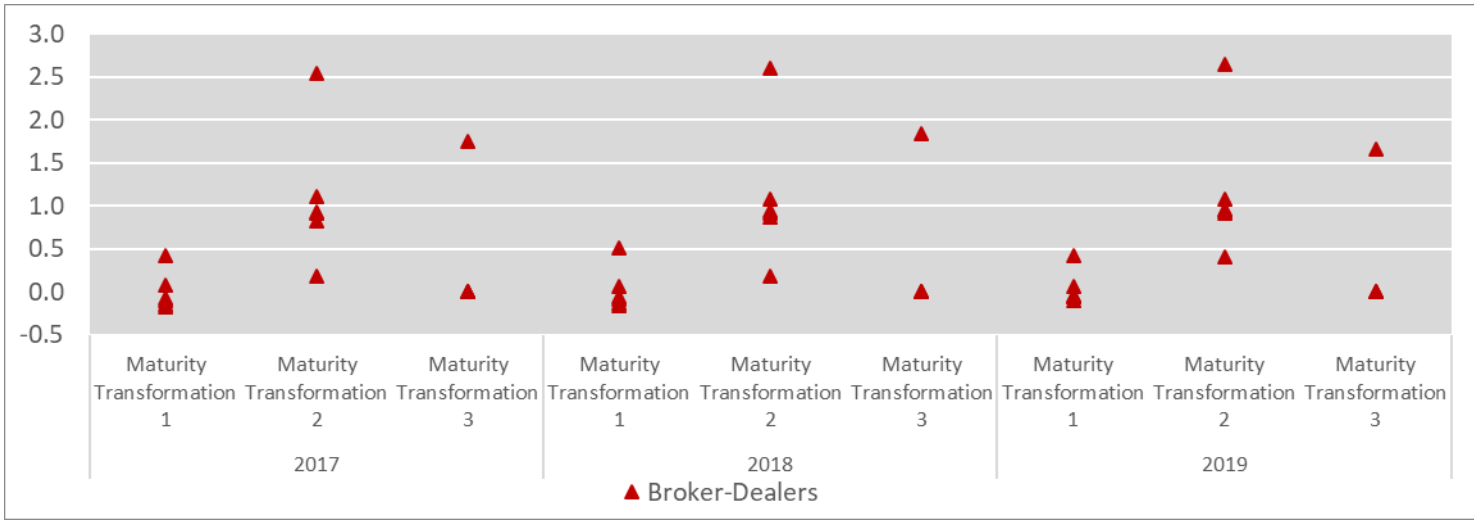

4.0
3.0
2.0
1.0
0.0
Liquidity Transformation 1
Liquidity Transformation 2
Liquidity Transformation 3
2017
2018
2019
Finance companies
Leasing companies
Mortgage Finance Companies (MFCs)
Mortgage Investment Companies (MICs)
Non-profit Social Security Benefits Administrator
Non Financial Cooperatives
Non-bank credit cards
Employees funds

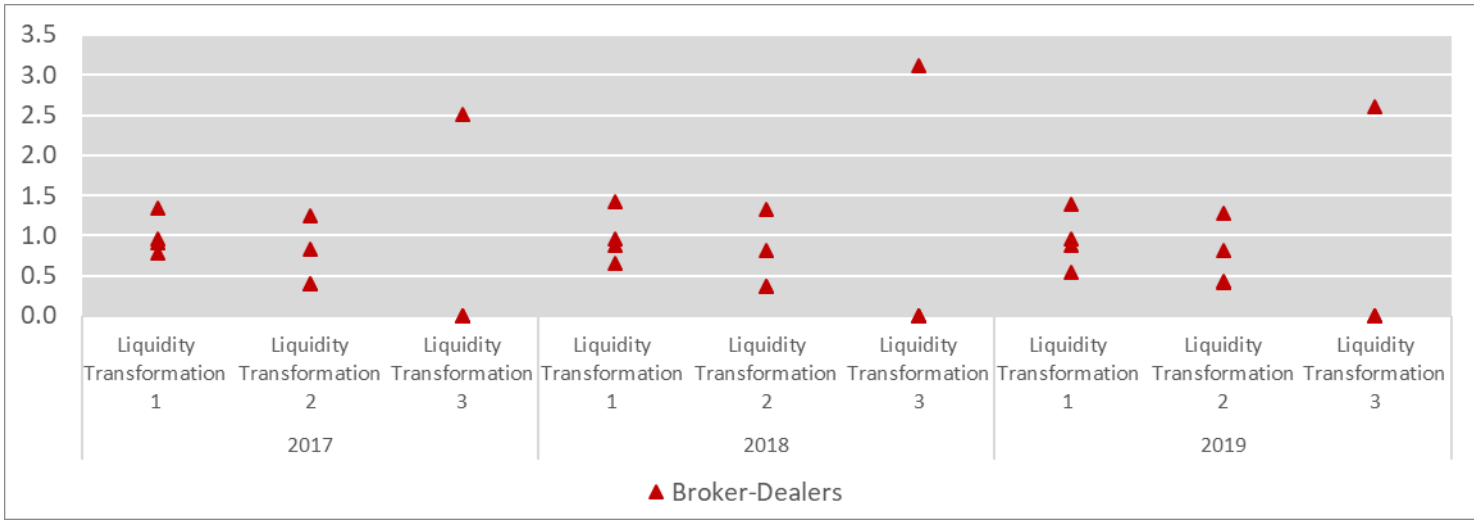

60.0
40.0
20.0
0.0
Leverage 1
2017
2018
2019
Finance companies
Leasing companies
Mortgage Finance Companies (MFCs)
Mortgage Investment Companies (MICs)
Non-profit Social Security Benefits Administrator
Non Financial Cooperatives
Non-bank credit cards
Employees funds

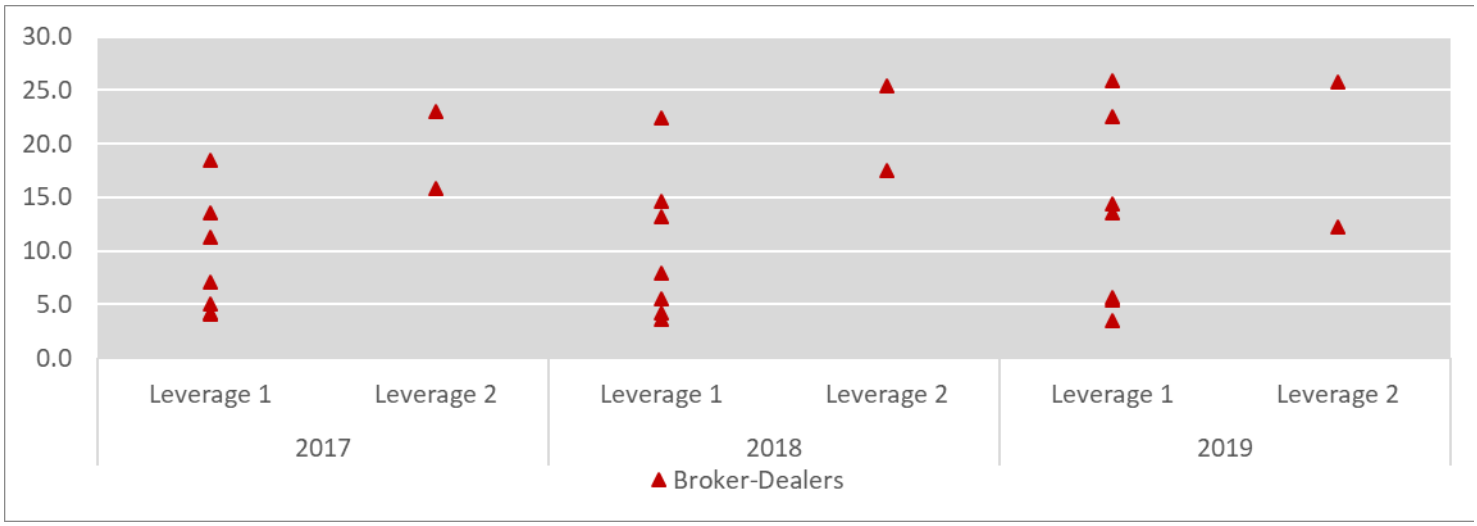

0.060
0.040
0.020
0.000
Non-performing loans
2017
2018
2019
Finance companies
Leasing companies
Mortgage Finance Companies (MFCs)
Mortgage Investment Companies (MICs)
Non-profit Social Security Benefits Administrator
Non Financial Cooperatives
Non-bank credit cards
Employees funds

Economic Function 3

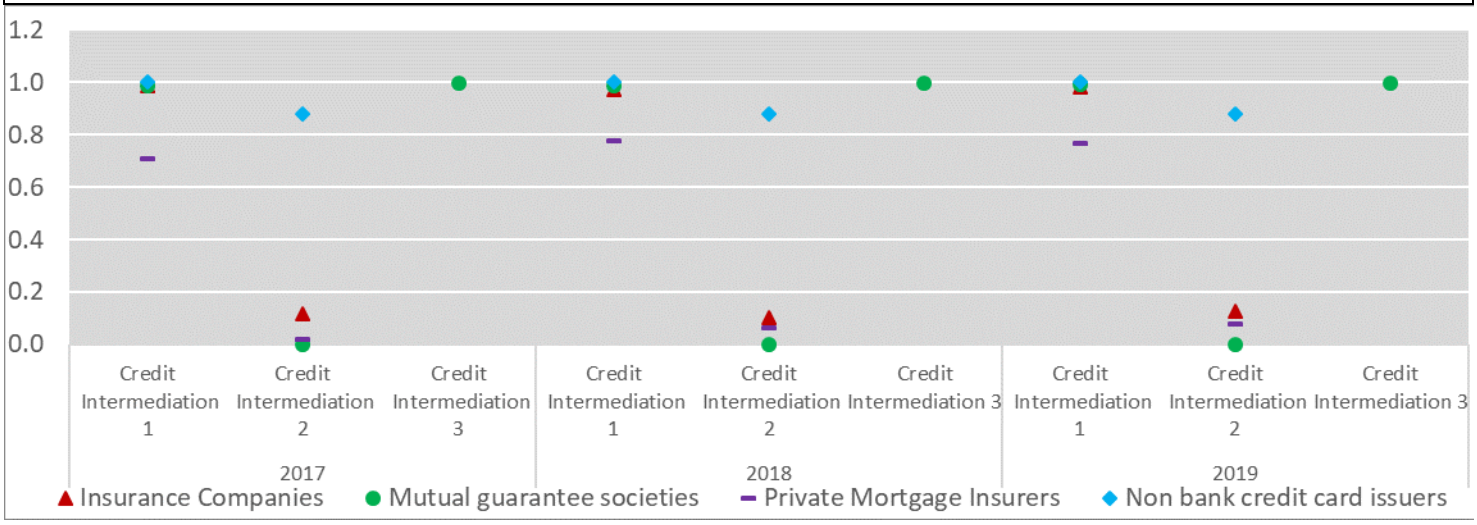


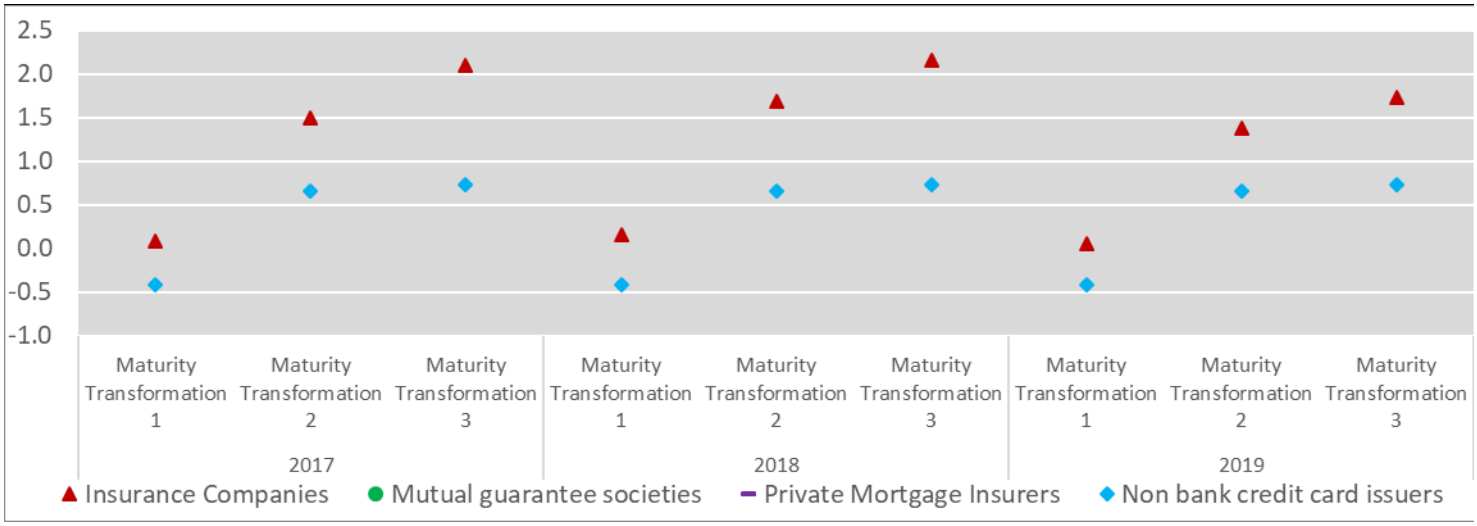


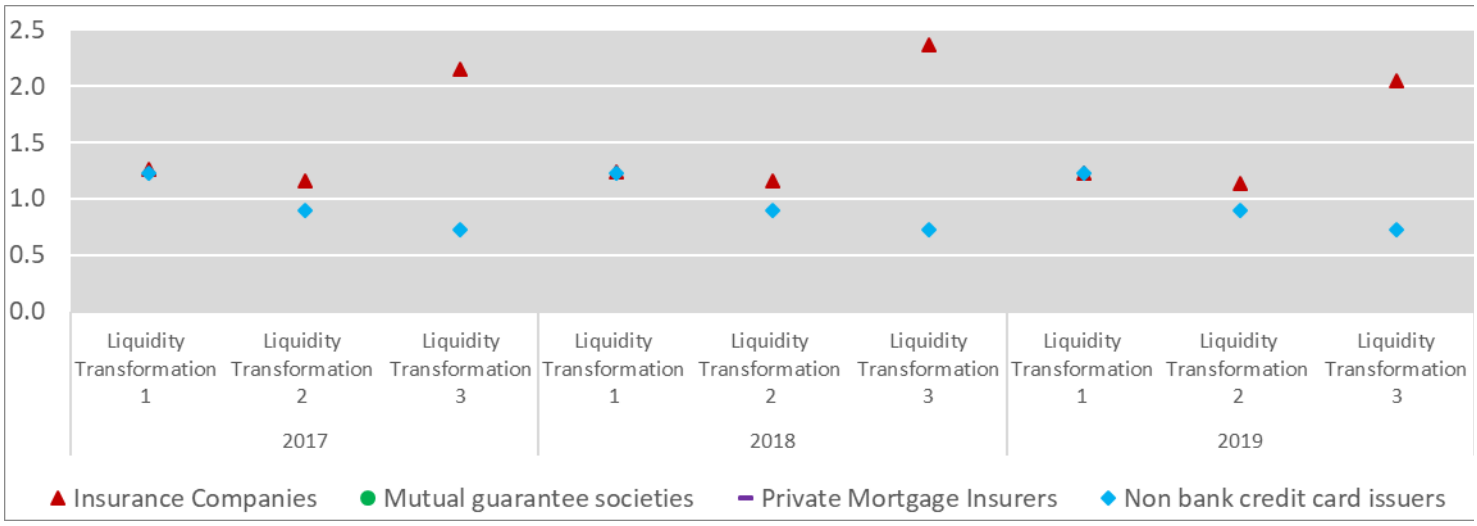


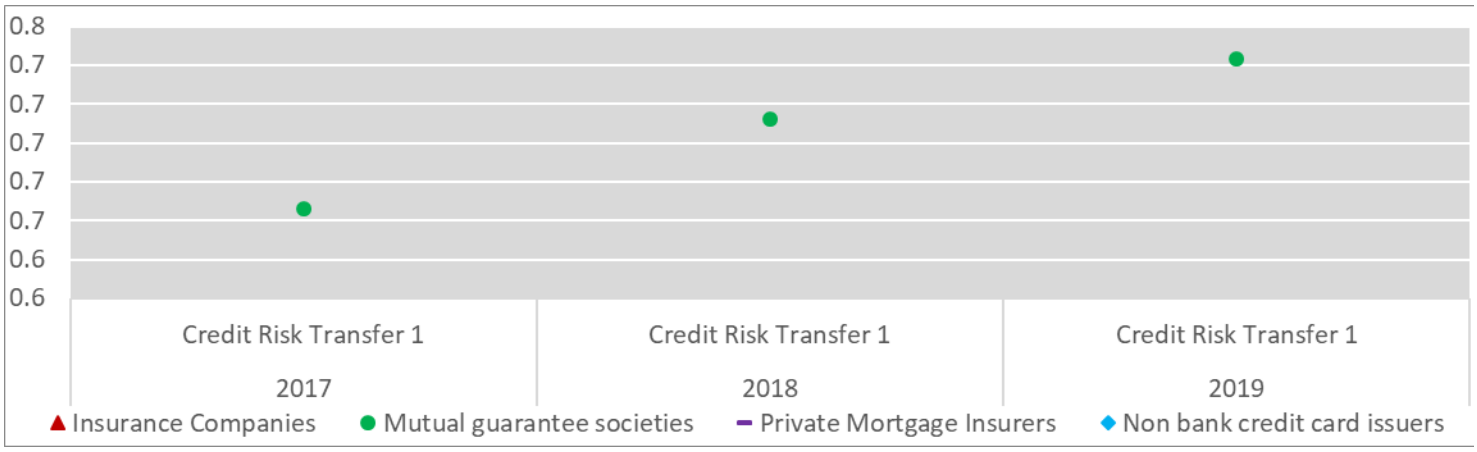


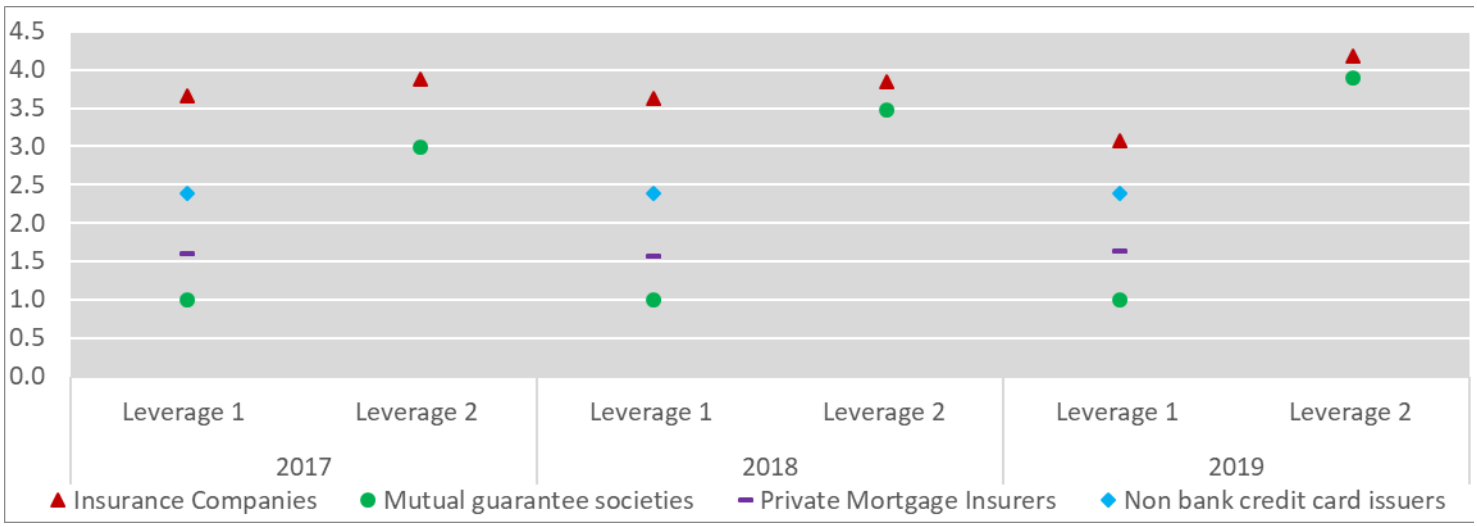
Economic Function 4



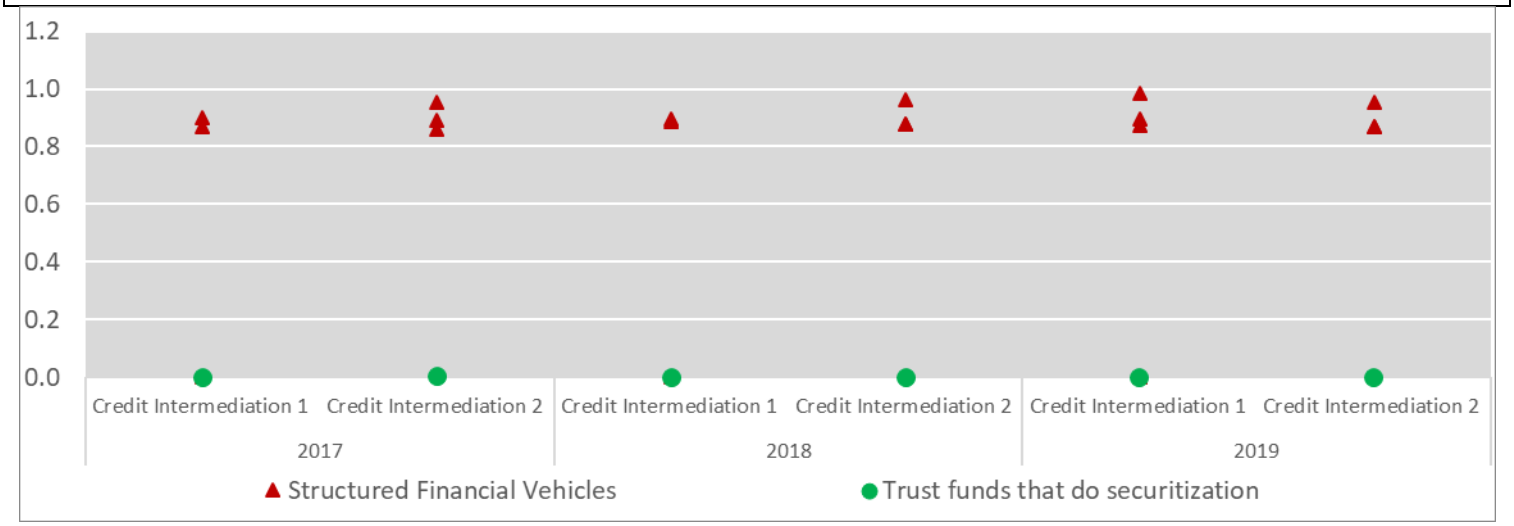


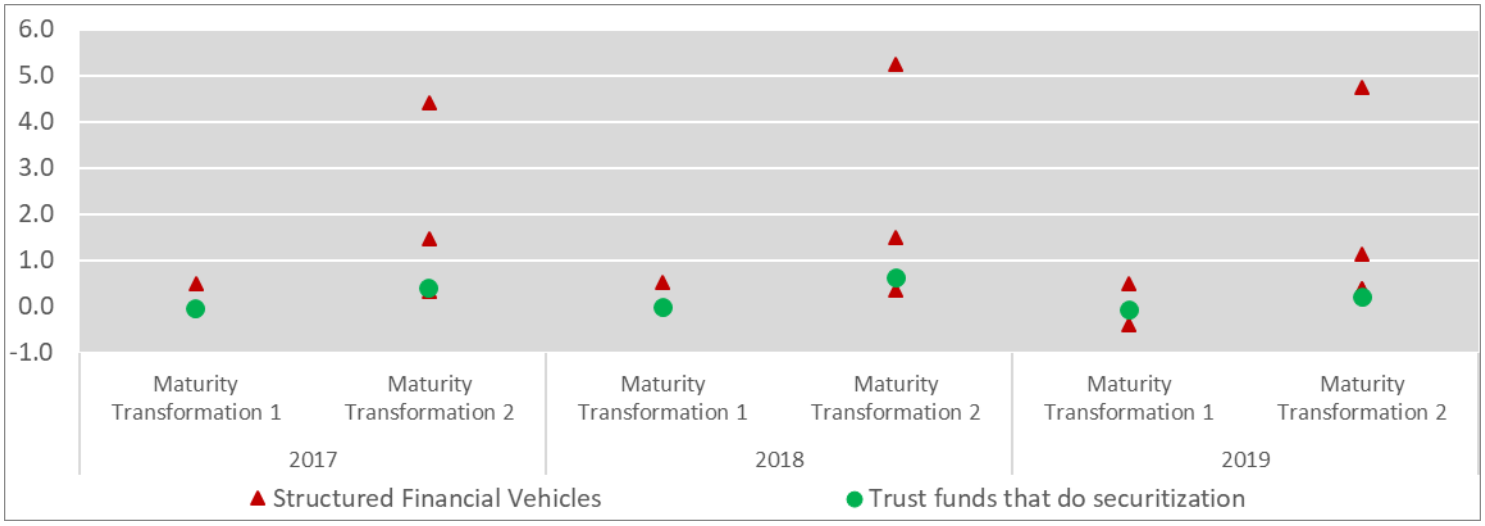

2.5
2.0
1.5
1.0
0.5
0.0
Liquidity Transformation 1
Liquidity Transformation 2
Liquidity Transformation 3
2017
2018
2019
Insurance Companies
Mutual guarantee societies
Private Mortgage Insurers
Non bank credit card issuers

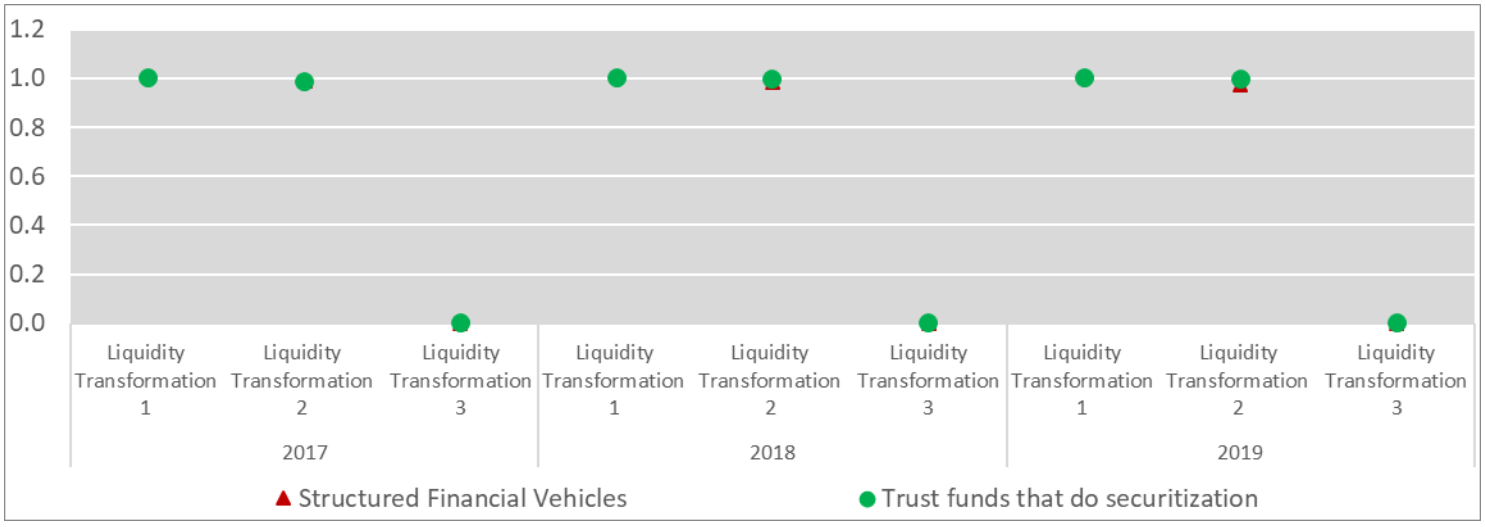

0.8
0.7
0.7
0.7
0.7
0.7
0.6
0.6
Credit Risk Transfer 1
2017
2018
2019
Insurance Companies
Mutual guarantee societies
Private Mortgage Insurers
Non bank credit card issuers

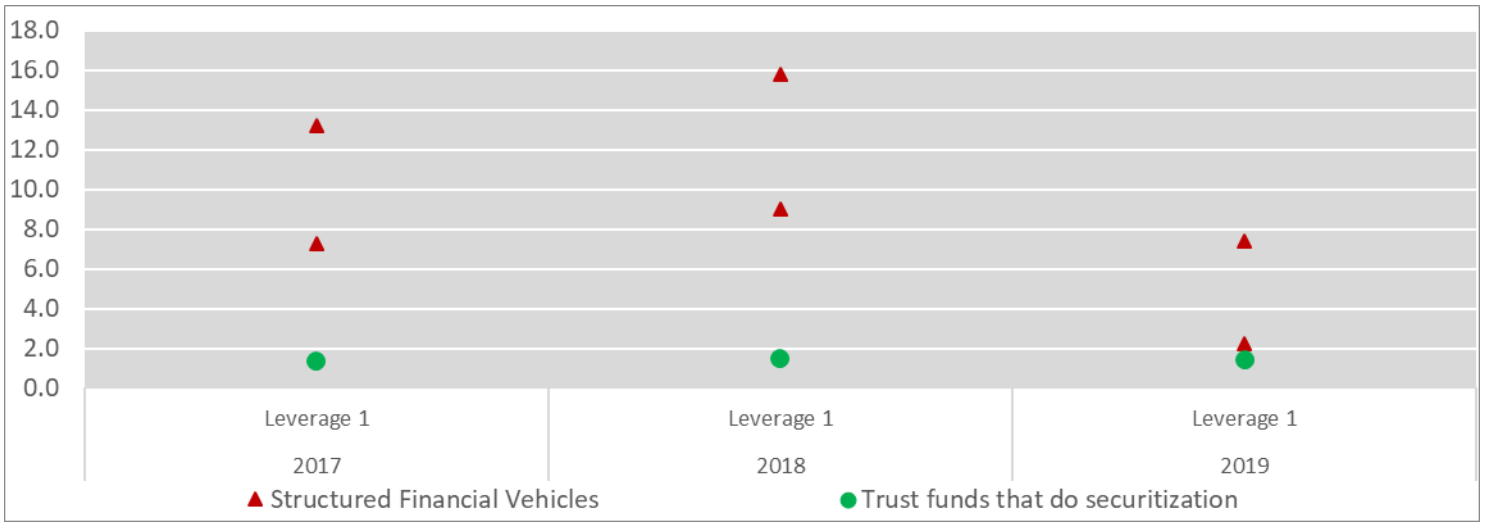

4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Leverage 1
Leverage 2
2017
2018
2019
Insurance Companies
Mutual guarantee societies
Private Mortgage Insurers
Non bank credit card issuers

Economic Function 5








18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Leverage 1
2017
Leverage 1
2018
Leverage 1
2019
Structured Financial Vehicles
Trust funds that do securitization

Annex IV: Main templates for data collection exercise

Regional Consultative Group Americas

Please fill in the template with figures in millions of Domestic currency, and register the exchange rate relative to USD for conversion purposes at the end of the period (Col 39)

STOCK of financial assets as of end-year	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15	Col 16	Col 17	Col 18	Col 19	Col 20	Col 21
	Financial Institutions (Note 2)	**Central Bank**	**Deposit-Taking Institutions (DTC) Note 3**	*of which:* Banks	*of which:* Other	**Public Financial Institutions (Note 4)**	*of which:* Development Bank	*of which:* Others	**Insurance Corporations (Note 5)**	**Pension Funds (Note 5)**	*of which:* defined benefits	*of which:* defined contributions	**Other Financial Intermediaries (OFIs) (Note 6)**	**Money Market Funds (MMF) (Note 7)**	*of which:* constant NAV (Note 7)	*of which:* variable NAV (Note 7)	**Public Investment Funds (Notes 9,10)**	*of which:* equity funds (Note 9,10)	*of which:* fixed income funds (Note 9,10)	*of which:* commodity funds (Note 9,10)	*of which:* other funds (Note 9,10)
2002	0		0							0			0	0			0				
2003	0		0							0			0	0			0				
2004	0		0							0			0	0			0				
2005	0		0							0			0	0			0				
2006	0		0							0			0	0			0				
2007	0		0							0			0	0			0				
2008	0		0							0			0	0			0				
2009	0		0							0			0	0			0				
2010	0		0							0			0	0			0				
2011	0		0							0			0	0			0				
2012	0		0							0			0	0			0				
2013	0		0							0			0	0			0				
2014	0		0							0			0	0			0				
2015	0		0							0			0	0			0				
2016	0		0							0			0	0			0				
2017	0		0							0			0	0			0				
2018	0		0							0			0	0			0				
2019	0		0							0			0	0			0				
Data completeness																					
Consistency check																					

Notes

*: Members may complement the Flow of Funds / National Financial Accounts data with data/information from other sources, while avoiding any double-counting with existing Flow of Funds categories. If data are unavailable, please keep the relevant cell(s) blank. If end-2019 data are not available, please provide the most recent available data point in 2019 and indicate the reference date in the Note cell.

(1) Please report financial assets on an unconsolidated basis at market value (i.e. there is no consolidation between entities of the same sector or sub-sector or within a group). If financial assets are not available, please report total assets and explain that in the relevant Note cell. If unconsolidated figures are not available, please report consolidated figures and explain that in the relevant Note cell. If data at nominal value are available, please indicate that in the Note cell.

(2) The Financial Corporations column is equal to sum of columns 2, 3, 6, 9, 10, 13 and 37.

(3) Deposit-Taking Corporations include banks and other corporations that raise funds through deposits and other equivalent instruments.

(4) Please report all Public Financial Institutions under column 6, avoiding double counting with other categories.

(5) If data for Insurance Companies and Pension Funds can not be separated, please fill the aggregated number in the Insurance Companies' cells and explain that in the Note cell.

(6) Other Financial Intermediaries can be mapped to the SNA 2008 classification system as the sum of sectors S.123 (Money Market Funds) plus S.124 (Non-MMF Investment Funds) plus S.125 (Other Financial Intermediaries, except Insurance Corporations and Pension Funds) plus S.127 (Captive Financial Institutions).

(7) If data for MMFs can not be separated between CNAV and VNAV (or equivalent), please fill the aggregated number in the MMFs cells and explain that in the Note cell.

(8) Non-public funds have restrictions on type of investor, minimum subscription amount or sales method (e.g. restricted to private placement).

(9) If data for Other Investment Funds can not be separated between Equity Funds, Commodity Funds and Fixed Income Funds, please fill in the aggregate number in the Other Investment Funds cells and explain that in the Note cell.

(10) Please provide data for funds that are domiciled in your jurisdiction. For jurisdictions that are (also) home to fund managers managing funds domiciled offshore, please provide financial assets under management by fund managers registered/licenced in your jurisdiction but domiciled offshore at the end of the period in the Note cell. If possible, please also provide the name of the jurisdiction in which these funds are domiciled.

(11) Equity Real Estate Investment Trusts (REITs) and RE Funds only invest in and own physical properties and their revenues therefore come principally from their properties' rents. Mortgage REITs and RE Funds do not invest in physical real-estate but derive most of their income from investment and ownership of debt instruments, such as property mortgages or MBS that support real-estate investments.

(12) Please use these cells to report any unidentified category, as relevant.

(13) If your Flow of Funds / National Financial Accounts data distinguish Financial Auxiliaries, please describe what they are and provide examples in the Note cell. Please only report financial assets not reported in other specified categories.

(14) If available, please report these memo items directly from your Flow of Funds / National Financial Accounts data. Note, in many cases Flow of Funds may not be granular enough to fill in the main table and need to be complemented with data sources from outside Flow of Funds. In that case, there will be a residual between the sum of Financial Corporations (Col 1) and the total for Financial Corporations from Flow of Funds (S.12).

(15) Please indicate the sources used to fill in this template (e.g. supervisory data, market data). For published data, please indicate the compilation agency, publication name, table number, and series ID.

Continued…

Col 22	Col 23	Col 24	Col 25	Col 26	Col 27	Col 28	Col 29	Col 30	Col 31	Col 32	Col 33	Col 34	Col 35	Col 36	Col 37	Col 38	Col 39
Non-Public Investment Funds (Notes 8,10)	*of which*: equity funds (Note 8,10)	*of which*: fixed income funds (Note 8,10)	*of which*: commodity funds (Note 8,10)	*of which*: other funds (Note 8,10)	**Real Estate Investment Trusts (REITs) and RE Funds (Note 11)**	*of which*: equity REIT and RE Funds (Note 11)	*of which*: mortgage REIT and RE Funds (Note 11)	**Trust Companies**	**Finance and Microfinance Companies**	**Broker-Dealers**	**Structured Finance Vehicles**	**(Central Counterparties (CCPs))**	**Credit Unions**	**Non-Bank Credit Card Issuers**	**Others (Note 12)**	**Financial Auxiliaries (Note 13)**	**Exchange Rate at end of Period per USD**
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
0					0												
Please fill in value for 2017 and extend series back to at least					Please fill in value for 2017 and extend series back to at least 2011												

Notes

*: Members may complement the Flow of Funds / National Financial Accounts data with data/information from other sources, while avoiding any double-counting with existing Flow of Funds categories. If data are unavailable, please keep the relevant cell(s) blank. If end-2019 data are not available, please provide the most recent available data point in 2019 and indicate the reference date in the Note cell.

(1) Please report financial assets on an unconsolidated basis at market value (i.e. there is no consolidation between entities of the same sector or sub-sector or within a group). If financial assets are not available, please report total assets and explain that in the relevant Note cell. If unconsolidated figures are not available, please report consolidated figures and explain that in the relevant Note cell. If data at nominal value are available, please indicate that in the Note cell.

(2) The Financial Corporations column is equal to sum of columns 2, 3, 6, 9, 10, 13 and 37.

(3) Deposit-Taking Corporations include banks and other corporations that raise funds through deposits and other equivalent instruments.

(4) Please report all Public Financial Institutions under column 6, avoiding double counting with other categories.

(5) If data for Insurance Companies and Pension Funds can not be separated, please fill the aggregated number in the Insurance Companies' cells and explain that in the Note cell.

(6) Other Financial Intermediaries can be mapped to the SNA 2008 classification system as the sum of sectors S.123 (Money Market Funds) plus S.124 (Non-MMF Investment Funds) plus S.125 (Other Financial Intermediaries, except Insurance Corporations and Pension Funds) plus S.127 (Captive Financial Institutions).

(7) If data for MMFs can not be separated between CNAV and VNAV (or equivalent), please fill the aggregated number in the MMFs cells and explain that in the Note cell.

(8) Non-public funds have restrictions on type of investor, minimum subscription amount or sales method (e.g. restricted to private placement).

(9) If data for Other Investment Funds can not be separated between Equity Funds, Commodity Funds and Fixed Income Funds, please fill in the aggregate number in the Other Investment Funds cells and explain that in the Note cell.

(10) Please provide data for funds that are domiciled in your jurisdiction. For jurisdictions that are (also) home to fund managers managing funds domiciled offshore, please provide financial assets under management by fund managers registered/licenced in your jurisdiction but domiciled offshore at the end of the period in the Note cell. If possible, please also provide the name of the jurisdiction in which these funds are domiciled.

(11) Equity Real Estate Investment Trusts (REITs) and RE Funds only invest in and own physical properties and their revenues therefore come principally from their properties' rents. Mortgage REITs and RE Funds do not invest in physical real-estate but derive most of their income from investment and ownership of debt instruments, such as property mortgages or MBS that support real-estate investments.

(12) Please use these cells to report any unidentified category, as relevant.

(13) If your Flow of Funds / National Financial Accounts data distinguish Financial Auxiliaries, please describe what they are and provide examples in the Note cell. Please only report financial assets not reported in other specified categories.

(14) If available, please report these memo items directly from your Flow of Funds / National Financial Accounts data. Note, in many cases Flow of Funds may not be granular enough to fill in the main table and need to be complemented with data sources from outside Flow of Funds. In that case, there will be a residual between the sum of Financial Corporations (Col 1) and the total for Financial Corporations from Flow of Funds (S.12).

(15) Please indicate the sources used to fill in this template (e.g. supervisory data, market data). For published data, please indicate the compilation agency, publication name, table number, and series ID.

Template for International (Offshore) Financial Sector Entities (Note 1)

Please fill in the template with figures in millions of Domestic currency. **(Domestic Currency, in Millions)**

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15	Col 16	Col 17	Col 18	Col 19			Col 20	Col 21
						of which:					of which...							*of which...*						
STOCK of financial assets as of end-year	Assets to Banks (Note 2)	Liabilities to Banks (Note 2)	**Financial Institutions** *=(col4+col5+col8)*	Banks (Note 3)	**Insurance Companies**	*Pure Insurers*	*Others*	**Other Financial Intermediaries (OFI's)**	Money Market Mutual Funds	Public Funds (Domestic Template)	equity funds	fixed income/bond funds	other funds	Commodity Funds	**Non Public/Offshore Investment Funds**	*Equity Funds*	*Fixed Income/Bond Funds*	*Other Funds*	*Commodity Funds*	*Real Estate Investment Trusts (REITs) and Funds*	Cat Bonds & Special Purpose Insurers	Structured Finance Vehicles	Others (Note 4)
2002			0		0			0		0					0								
2003			0		0			0		0					0								
2004			0		0			0		0					0								
2005			0		0			0		0					0								
2006			0		0			0		0					0								
2007			0		0			0		0					0								
2008			0		0			0		0					0								
2009			0		0			0		0					0								
2010			0		0			0		0					0								
2011			0		0			0		0					0								
2012			0		0			0		0					0								
2013			0		0			0		0					0								
2014			0		0			0		0					0								
2015			0		0			0		0					0								
2016			0		0			0		0					0								
2017			0		0			0		0					0								
2018			0		0			0		0					0								
2019			0		0			0		0					0								
Note (Detailed definition etc.)																							

***: Members may complement the Flow of Funds / sector balance sheet data with other information. If data is unavailable, please fill in "N/A". If the data has value of zero write zero or keep it blank. If end-2018 data is not available, please provide the most recent available data point and indicate the reference date**

Please indicate here whether you are reporting in the above financial assets (preferred) or total assets: **Please indicate financial assets or total assets**
Blue columns contain a formula; please do not modify

Note 1: IFC entities are defined on the basis that they exclusively (or almost exclusively) conduct financial transactions with non-residents. Assets should be recorded in these columns.
Note 2: Assets and liabilities held by the offshore banks **with respect to domestic banks.**
Note 3: This category would include both subsidiaries and branches, and include mainly banks that have licenses that limit their activities with residents.
Note 4: These could include OFIs not already identified, such as finance companies.

Annex V: NBFI-WG membership list

Regional Consultative Group for the Americas

Non-bank Financial Intermediation Working Group Members

Co-Chairs	Fabrizio López-Gallo	Financial Stability General Director Central Bank of Mexico
	Leo Mucheriwa	Financial Stability Advisor and Head of Research The Bermuda Monetary Authority
ARGENTINA	Manuel Duarte Inchausti	Deputy Manager Macroprudential Risk Monitoring Department (Capital Markets Analysis)
BAHAMAS	Sharon Branch	Senior Economist Central Bank of the Bahamas
BARBADOS	Sadie P.O. Dixon	Legal Counsel Central Bank of Barbados
BERMUDA	Marcelo Ramella	Director of the Financial Stability Department Bermuda Monetary Authority
BRAZIL	Frederico Souza	Head of Division, Financial Stability System Monitoring Department Banco Central do Brasil
	Irineu Hiroshi Yokoo	Coordinator, Financial System Monitoring Banco Central do Brasil
BRITISH VIRGIN ISLANDS	Kenneth B. Baker	Deputy Managing Director, Regulation, Banking, Insolvency, Fiduciary Services Division British Virgin Islands Financial Services Commission
CANADA	Alan Walsh	Principal Economist, Financial Markets Analysis and Research Bank of Canada
CAYMAN ISLANDS	Sebastian Goerlich	Head of Division, Financial Stability & Statistics Cayman Islands Monetary Authority
CHILE	Fernando Sepúlveda	Senior Economist, Financial Policy Division Central Bank of Chile
COLOMBIA	Eduardo Yanquen Briñez	Analyst Banco de la República, Colombia

COSTA RICA	Josué Cortés Segura	n.a.
JAMAICA	Leo-Rey Gordon	Head of Financial Stability Department Bank of Jamaica
MEXICO	Ana Mier-y-Terán	Manager Non-bank Financial Intermediation Risk Analysis, Financial Stability Central Bank of Mexico
	Vanessa Veintimilla Brando	Director General International Affairs National Banking and Security Commission
UNITED STATES	Julia Smearman	Deputy Director Office of International Financial Markets U.S. Department of the Treasury, International Affairs
URUGUAY	José Antonio Licandro	Head of Financial Regulation Superintendence of Financial Services Central Bank of Uruguay