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BELIZE

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June 23, 2016

Approved By
Western Hemisphere Department

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AML/CFT	Anti-Money Laundering and Combating the Financing of Terrorism
AQRs	Asset Quality Reviews
ATS	Automated Transfer System
BIS	Bank for International Settlements
BOP	Balance of Payments
CAR	Capital Adequacy Ratio
CARICOM	Caribbean Community
CARTAC	Caribbean Technical Assistance Centre
CBA	Correspondent Banking Account
CBB	Central Bank of Belize
CBR	Corresponding Banking Relationship
CCA	Credit Card Settlement Account
CDD	Customer Due Diligence
CFATF	Caribbean Financial Action Task Force
CFZ	Commercial Free Zone
CU	Credit Union
DFC	Development Finance Corporation
EPZ	Export Processing Zone
FATF	Financial Action Task Force
FCIB	First Caribbean International Bank
FDI	Foreign Direct Investment
FSR	Financial Stability Report
FSAP	Financial Sector Assessment Program
FIU	Financial Intelligence Unit
FSU	Financial Stability Unit
FX	Foreign Exchange
GDP	Gross Domestic Product
GOB	Government of Belize
IBA	International Banking Act
IBC	International Business Company
IFC	International Finance Corporation
IFSC	International Financial Services Commission
IFRS	International Financial Reporting Standard
ML/FT	Money Laundering/Financing of Terrorism
MOF	Ministry of Finance
MTB	Money Transfer Business
NBFI	Nonbank Financial Institution
NPLs	Non-Performing Loans
NPS	National Payments System
ROAs	Returns on Assets
TFP	Total Factor Productivity

TOWARD A BETTER UNDERSTANDING OF MACRO-FINANCIAL LINKAGES

A. Executive Summary

1. **Belize's banking system's weaknesses appear to have diminished since the 2015 Article IV Consultation.** Non-performing loans have declined further, while provisioning continues to increase. The banking system's Capital Adequacy Ratio (CAR) rose to the highest level in several years, owing in part to capital injection, sale of asset and modest profits recorded. However, this CAR continues to mask inflated capital buffers in some banks because of low provisioning.

2. **The loss of correspondent banking relationships (CBRs) has taken systemic proportions**. Only two (27 percent of the banking system's assets at end-March 2016) of the nine domestic and international banks that had CBRs have managed to maintain at least one CBR with full banking services. Other banks have so far maintained wire transfer arrangements, including with nonbank providers of payment services. The Central Bank of Belize lost three of its five CBRs in the last two years.

3. **Global financial institutions' decisions to withdraw CBRs are driven by a number of considerations.**[1] Generally, they reflect banks' cost-benefit analysis, shaped by the re-evaluation of business models in the new macroeconomic environment and changes in the regulatory and enforcement landscape notably with respect to more rigorous prudential requirements, economic and trade sanctions, anti-money laundering and combating the financing of terrorism (AML/CFT) and tax transparency. These factors inform banks' risk and reputational cost perceptions. Further pressures to withdraw CBRs may arise where regulatory expectations are unclear, risks cannot be mitigated, or there are legal impediments to cross-border information sharing. These factors operate concurrently, with their relative significance varying case by case.

4. **Although the most recent data indicate a decline in the value of international transactions in Belize, available data do not yet allow a reliable inference regarding the impact of the loss of CBRs, as most CBRs were only lost in late 2015 or early 2016.** For example, a major global bank was providing CBRs with wire transfers to most domestic banks until April 2016, and to most international banks until the second half of 2015.[2] Credit card transactions continue through banks' accounts with major credit card companies, though for some banks' proceeds from such transactions can only be used through restricted accounts.

[1] See Erbenová et al. (2016).

[2] The term "international banks" in Belize denotes banks that collect deposits and other liabilities from non-residents and provide loans mainly to non-residents, including those who invest in Belize, and domestic businesses in the Export Processing Zones and Commercial Free Zones. Both domestic and international banks are regulated and supervised by the Central Bank of Belize.

5. **Nonetheless, the cost and processing time of key international financial transactions has increased, and deposits in Belize's international banks have declined sharply, resulting in a contraction of overall deposits**. The cost of wire transfers has increased three-fold in some banks. The processing times of wire transfers has also increased from "within twenty-four hours" to "several days." International banks' deposits have declined by more than 20 percent in 12 months to March 2016. Whereas the deposits in domestic banks increased at the rate of 6.5 percent at end-March 2016 (y/y), which is close to their historical average growth rate since 2011, the total deposits (in both domestic and international banks) contracted by 3.7 percent at end-March 2016 (y/y).

6. **Updated stress tests suggest that the banking system is more resilient than at the time of the 2015 Article IV Consultation.** Last year, a few banks had their CARs fall below the regulatory minimum in the baseline. For 2016, under the baseline scenario, which does not assume any potential direct impact from the loss of CBRs on banks as they are assumed to find cost-neutral workarounds, no bank would see their CARs fall below the regulatory minimum, reflecting the slightly higher reported capital buffers at end–2015. Under high stress, the banking system could have capital shortfalls starting in 2020 as some banks remain weak, particularly a major bank. Last year, shortfalls were projected to start in 2017.

7. **The importance of macro-financial linkages justifies their continuous monitoring, not only for financial stability but also for overall macroeconomic stability**. Both domestic and international banks play important roles in mobilizing savings for domestic investment and in facilitating external trade, on which the small open economy of Belize strongly depends. Both also extend significant credit to the economy. Their exposure to the government appears limited but non-negligible. Nonbank financial institutions have significant exposure to domestic banks via bank deposits.

8. **The banking system is facing significant challenges that could have a negative impact on the wider economy**. NPLs remain high and provisioning is still not adequate. The comfortable levels of the banking system's reported CARs ratios mask low or inflated capital buffers in some banks, including a major bank. Government securities represent a non-negligible share of banks' portfolios, and losses on government securities would wipe out the capital buffers of a few banks. There is a risk that the loss of CBRs would not be reversed for an extended period of time, which may durably affect banks' balance sheets, including through higher financial transactions costs. The weaker economy and fiscal position could in turn affect borrowers' ability to repay their debt, which would further weaken banks and reduce their ability to lend, and thus create a vicious circle that amplifies threats to the stability of the financial system and the rest of the economy.

9. **Under adverse scenarios, the loss of CBRs could have a sizeable impact on Belize's economy and financial stability as fewer CBRs, different local banks' business models, or stricter due diligence requirements could kick many economic agents out of formal trade and finance channels**. In a scenario that assumes that only 30 percent of the affected transactions find workarounds, real GDP could drop by 5–6 percentage points annually relative to the baseline during 2016–2021. The banking system's CAR would fall by close to 9 percentage points but would remain

above the prudential minimum of 9 percent, though some banks could become insolvent, including a major bank.

10. **Threats to the financial system, including those related to money laundering (ML) and terrorist financing (TF), should be tackled on multiple fronts, including through closer coordination with regional and global public and private partners**. Recommendations discussed during the 2015 Article IV Consultation remain in order. In particular, the true strength of banks' capital buffers should be assessed through an asset quality review (AQR), and weak banks should be required to raise more capital. Well-designed capital markets would help banks strengthen balance sheets more rapidly. The CBR challenge requires closer regional and global coordination to ensure that home authorities of global banks proactively clarify and communicate their regulatory expectations, and affected countries continue to strengthen their regulatory and supervisory frameworks, including those for Anti Money Laundering and Combating the Financing of Terrorism (AML/CFT) and entity transparency, to meet relevant international standards, with the help of technical assistance where needed. In extreme circumstances, the public sector may consider the feasibility of temporary mechanisms to prevent the complete loss of access to the global financial system. In this context, Belize could seek to address the loss of CBRs through stronger AML/CFT regulation and supervision as well as mechanisms to ensure entity transparency and make beneficial ownership available, and understand and mitigate ML/FT risks, especially in the offshore business sector. Some of the solutions to the CBR challenge proposed in the Caribbean rely upon US private financial institutions shifting the perceived internal cost-benefit balance of having CBRs with Belizean banks in favor of restoring them to those banks that have lost their CBRs. This will likely take some time. Therefore, public sector involvement in addressing the loss of CBRs, such as seeking fast-track approval for, or fast-track acquisition of a US-licensed financial institution, in conjunction with other affected countries in the Caribbean, should be seriously considered.

B. Introduction

11. **This note updates the assessment of Belize's financial system made during the 2015 Article IV Consultation, and analyzes selected macro-financial linkages, with a focus on the potential impact of the loss of correspondent banking relationships (CBRs)**. After a description of key macro-financial linkages, the strength of balance sheets of the largest banks and the largest credit union is reviewed in light of recent developments and risks to the economic outlook. Then, the potential impact of the loss of CBRs on banks' capital, lending capacity, net foreign assets and GDP is estimated under plausible "CBR stress scenarios."

12. **Belize's financial system remains large relative to the size of the economy and data indicate that overall, it is slowly strengthening**. Its assets at end-March 2016 were equivalent to 156 percent of GDP, of which 123 percent of GDP represented the banking system's assets (Table 1). Domestic banks' assets at end-March 2016 amounted to 91 percent of GDP and international (offshore) banks to 32 percent of GDP. Credit unions also play an important role, with assets equivalent to 23 percent of GDP at end-March 2016. Banks' balance sheets are slowly improving with declining NPLs and increasing provisioning (Table 2). Reported capital buffers have also improved, including because of new capital injections. The authorities are developing a framework for

consolidated supervision and continue to advance key projects that would improve the financial system infrastructure, including the automated transfer system that is expected to go live in September 2016.

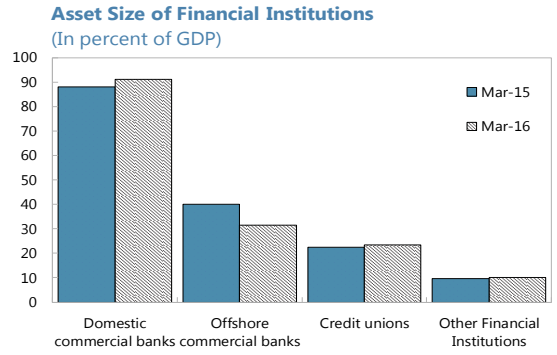
13. **The relative size of the financial system and the importance of macro-financial linkages justify their continuous monitoring, not only for financial stability but also for overall macroeconomic stability**. Both domestic and international banks play important roles in mobilizing savings (13.7 percent of GDP in 2015) for domestic investment (23.5 percent of GDP in 2015) and in facilitating external trade (85.5 percent of GDP in 2015). Both also extend significant credit to the economy (70.8 percent of GDP at end-March 2016). Their exposure to the government appears limited but non-negligible (8 percent of total credit). The banking system is facing significant challenges that could have a negative impact on the wider economy. The loss of CBRs may not be reversed, and could affect banks' balance sheets, including through higher financial transactions costs and a weaker economy caused by CBR-related challenges. The weaker economy and fiscal position could in turn affect borrowers' ability to repay their debt, which would further weaken banks and reduce their ability to lend, and thus create a vicious circle that amplifies threats to the stability of the financial system and the rest of the economy.

14. **The remainder of the note is organized as follows**. Section C below gives an overview of the financial sector and the main macro-financial linkages. Balance sheets developments and their stress tests are discussed in section D. Section E discusses policy options for a stronger banking system. Section F assesses the impact of the loss of CBRs, and section G discusses specific policy options to address this specific challenge. Concluding remarks are presented in section H.

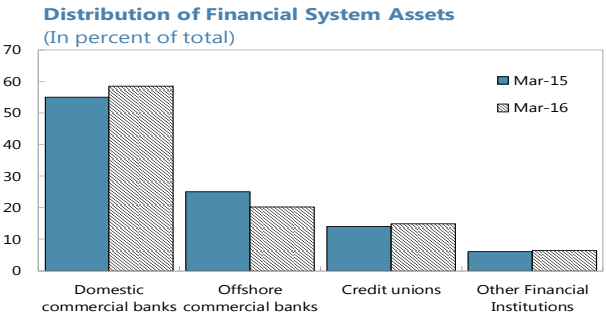
C. Overview of the Financial System and the Main Macro-Financial Linkages

The Financial System

15. **The composition of the financial system has changed slightly since the 2015 Article IV Consultation (Table 1).** The key development is the reduction in the number of domestic banks to 5 following the acquisition of First Caribbean International Bank (FCIB) by Heritage Bank in December 2015. FCIB was a small domestic bank and a branch of First Caribbean International Bank of Barbados, a Canadian bank ultimately owned by the Canadian Imperial Bank of Commerce. The rest of the financial system is as follows: 5 international (offshore) banks, 9 domestic insurance companies, 12 credit unions, the state-owned Development Finance Corporation (DFC), the Social Security Board, 44 money service providers (MSBs), and 54 money lenders.



Sources: Central Bank of Belize; Fund Staff calculations

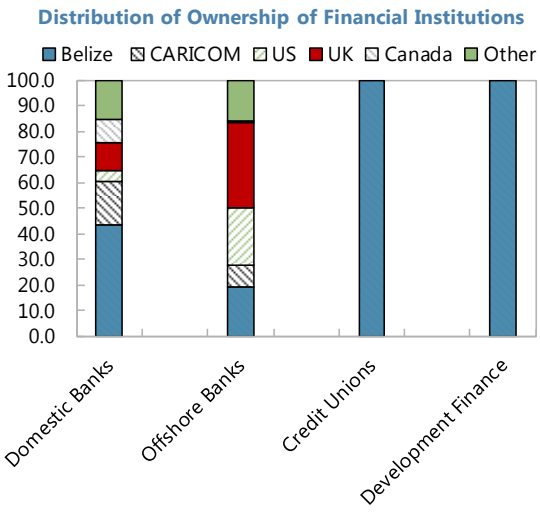


Sources: Central Bank of Belize, Fund staff calculations

16. **The financial system remains large relative to the size of the economy (Table 1).** The assets of the financial system are estimated at BZ$5.5billion (156 percent of GDP) at end-March 2016, though they declined by about 4 percentage points of GDP compared to end–March 2015 (BZ$53 million), reflecting higher projected nominal GDP and winding down of offshore bank's activities due to loss of correspondent banking relations (CBRs). The banking system accounted for 78.6 percent of the financial system's assets (122.4 percent of GDP). Domestic banks' assets increased to BZ$3.2 billion, 91 percent of GDP from BZ$3.0 billion in March 2015. The assets of international banks (offshore), the second largest component of the financial system were BLZ$1.1 billion (32 percent of GDP), about 5 percentage points lower than the level at end–March 2015. Credit unions accounted for 15 percent of total assets (23 percent of GDP), while the domestic insurance sector and the DFC holds 6.5 percent of the system's assets (about 10 percent of GDP).

17. **Domestic banks now play a greater role in the banking system, mostly reflecting the loss of CBRs (section F)**. International banks have scaled down their operations significantly, as they are severely impacted by the loss of CBRs. Compared to March 2015, domestic banks now hold a larger proportion of assets (74.4 percent) and deposits (76 percent), up 5.7 percent and 7.2 percent, respectively. However, their share of capital (73 percent) and loans (80 percent) remained broadly unchanged. The biggest bank in the domestic banking system in terms of assets continues to hold roughly one-third of the assets (27.7 percent of GDP), deposits and loans. The second biggest bank in terms of assets holds half of total capital of the domestic banking system. The sector continues to be dominated by three institutions, which together accounts for 82 percent of the assets. In the offshore sector, two big banks were hard hit by the loss of CBRs. The only international bank that has a CBR with full banking service is now the biggest bank, in terms of assets, with share of total assets, total deposits and total loans, increasing by 7.6 percent, 10.4 percent, and 8.5 percent to 34 percent, 40.3 percent, and 14 percent, respectively. That bank's share of total capital of the offshore banking system also increased to 21 percent, reflecting higher earnings. The credit unions sector, the third largest component of the financial system, is also very concentrated. The largest credit union is the fourth largest financial institution in Belize, and controls 64 percent of the sector's assets at end-March 2016, equivalent of 15 percent of GDP, and 34 percent of membership.

18. **Ownership structures in the financial system are complex (Box 1).** The recent exit of FCIB has diluted foreign ownership. At end March 2016, local ownership of the domestic banking sector stood at 44 percent of the total, while entities in North America, United Kingdom, CARICOM and Honduras controlled 13 percent, 11 percent, 17 percent and 15 percent, respectively. For the offshore banking sector, United Kingdom accounted for 33 percent ownership, United States (22 percent), Belize (19 percent), CARICOM (9 percent) and other extra-regional entities (16 percent). All credit unions are locally-owned.



Sources: Central Bank of Belize; Fund staff calculations.

Box 1. Financial Institutions Ownership Linkages in Belize

The banking system

One domestic bank is a subsidiary of the Canadian Bank of Nova Scotia. Another domestic bank is majority–owned by a Honduran holding company, Sociedad Nacional de Inversiones, S.A. (SONISA).

A large domestic bank, which is ultimately owned by a holding company controlled by a prominent investor, also owns an international bank in Belize and is indirectly linked to a bank in Turks and Caicos through a parallel banking structure without the containment of consolidated supervision.

A domestic bank is majority-owned by an international bank. Both banks maintain integrated functions and share the same board, management, premises and staff. Meanwhile, the international bank is majority-owned by a private locally incorporated holding company, and partly by an Antigua-based international bank, which itself is ultimately owned by another holding company in Antigua.

The nonbank financial system

With respect to the insurance sector, one life insurer shares common ownership with a domestic bank. One general insurer is a branch of a foreign company and another is an agency of a foreign company. Two general insurers form part of a regional conglomerate with operations extending outside the Caribbean.

Some major registered agents (legal entities) in the nonbank offshore sector are owned by international banks and operate from the same premises.

19. **The authorities remain committed to tight supervision of the financial system and are developing the framework for consolidated supervision**. The central bank of Belize (CBB) conducted ten on-site examinations in 2015, including full-scope examinations for three international banks, and two credit unions, as well as AML-focused examinations of three banks and two credit unions. It published its first Financial Stability Report (FSR) in March 2016, covering the year 2014. The FSR for 2015 is not yet available because limited human resources mean that the CBB is still updating the FSR database. The authorities plan to use the soon-to-be completed consolidated supervision framework to effectively monitor group risk, group capital adequacy, group governance and regulatory arbitrage.

20. **The authorities continue to advance key projects that would improve the financial system infrastructure.** In 2015, the ongoing modernization of the national payment system (NPS) focused on the legislative framework and procurement of an automated transfer system (ATS). The NPS bill and regulations are expected to be submitted to parliament in the second half of the year, with the ATS expected to go live on September 2016. In order to ensure readiness for the project launch, the CBB has conducted a series of workshop for its staff and financial market participants, and developed a plan to hire additional staff to manage the ATS. Moreover, the CBB is developing a centralized database management system to manage economic, monetary and financial statistics, which is expected to be completed in July this year. It also continues to improve its risk-based tools for AML/CFT inspections, which would allow it to better mitigate risks in the financial system.

Selected Macro-Financial Linkages

21. **Belize is a small open economy dependent on external trade and foreign financial inflows, though a significant portion of economic flows escapes the formal system.** Exports of goods are concentrated in a narrow set of agricultural commodities (citrus, banana, marine products and oil) and accounted for about 31 percent of GDP in 2015. The service sector is an important part of the economy, with tourism receipts amounting to 21 percent of GDP, while total exports of goods and services totaled 63 percent of GDP in 2015. Belize's imports amounted to 71 percent of GDP in 2015 and are mostly made of manufactured goods (machinery, equipment, chemical products, etc.). Informal trade flows at the border with Guatemala and Mexico could amount to several percentage points of GDP. There are other trade flows that escape the financial system. Anecdotal evidence suggests that for example, exporters may ask clients to make payments to suppliers on their behalf. Net capital and financial account inflows amounted to 5.7 percent of GDP in 2015, of which 3.6 percent of GDP were net inflows to the public sector.

22. **Both domestic and international banks play important roles in mobilizing savings for domestic investment (Text Figure below).** Domestic banks collect deposits from residents, mostly in Belize dollars, and international banks collect deposits from non-residents in foreign currency. Deposits in domestic and international banks together amounted to 100.9 percent of GDP at end-2015, of which 28 percent of GDP were time deposits. Domestic banks mainly lend to residents in domestic currency, while international banks service the offshore sector and provide loans to the domestic economy, mainly to non-residents who invest in Belize, especially in real estate, hotels, and restaurants, and domestic businesses that earn foreign exchange such as those in the export processing zones (EPZs) and the commercial free zones (CFZs). Lending by domestic banks and international banks amounted to 56.6 and 13.7 percent of GDP at end-2015 respectively.

23. **The domestic banking sector is essential for facilitating external trade.** Exporters and importers in the formal economy rely on domestic banks to make payments to suppliers and to receive payments from foreign clients. Exporters outside EPZs and CFZs are a significant source of foreign exchange for banks as they are mandated to sell their FX earnings to domestic banks or, if permitted by the CBB, to keep their foreign exchange earnings in a domestic bank account. Companies in the EPZs and CFZs are permitted by regulation to open accounts in foreign exchange

in domestic and international banks. Banks are the main source of foreign exchange for importers and facilitate their payments to suppliers.

24. **The direct credit exposure of domestic banks to the tradable sector appears moderate, but the indirect exposure could be significant.** The share of loans to the export sectors (agriculture and tourism) in total bank credit appears moderate, at about 15 percent as of end-March 2016 (text figure below). This could be attributed to several factors. Investors in the tourism sector rely in part on foreign financing, while smaller exporters, especially farmers, have more limited access to bank credit. Banks' credit exposure to domestic distributors of imports also appears moderate, at about 9 percent of total credit. However, total exposure to firms that import could be significantly larger as firms in most other sectors would also rely on imported inputs.

25. **Domestic and international banks typically do not lend and borrow from one another but are interconnected in some instances through ownership linkages.** Domestic and international banks are typically not significantly exposed to one another either via loans or deposits. However, in some cases, they are interconnected through ownership linkages (see Box 1).

26. **Nonbank financial institutions (NBFIs) have significant exposure to domestic banks via bank deposits.** Insurers' investment in domestic government securities appears small due to the limited availability of long-term bonds. Exposure to nonresident securities (mainly from Europe, Mexico and other Central American states) is also small. Therefore, insurers have large investments in bank deposits, which are estimated at about 37 percent of their total assets. Credit unions also appear mainly exposed to banks via deposits.

27. **The domestic banking sector's exposure to government securities is moderate.** Government securities are issued at maturities of up to one year and a significant share is held by the CBB. The domestic banking sector's total credit exposure to the government is estimated at about 8 percent of total credit (including T-bills and direct loans). The domestic banks also have some investments in government bonds in other Caribbean countries (mainly Trinidad and Tobago, Barbados and St. Lucia) but these exposures are estimated to represent only about 2.7 percent of their capital.

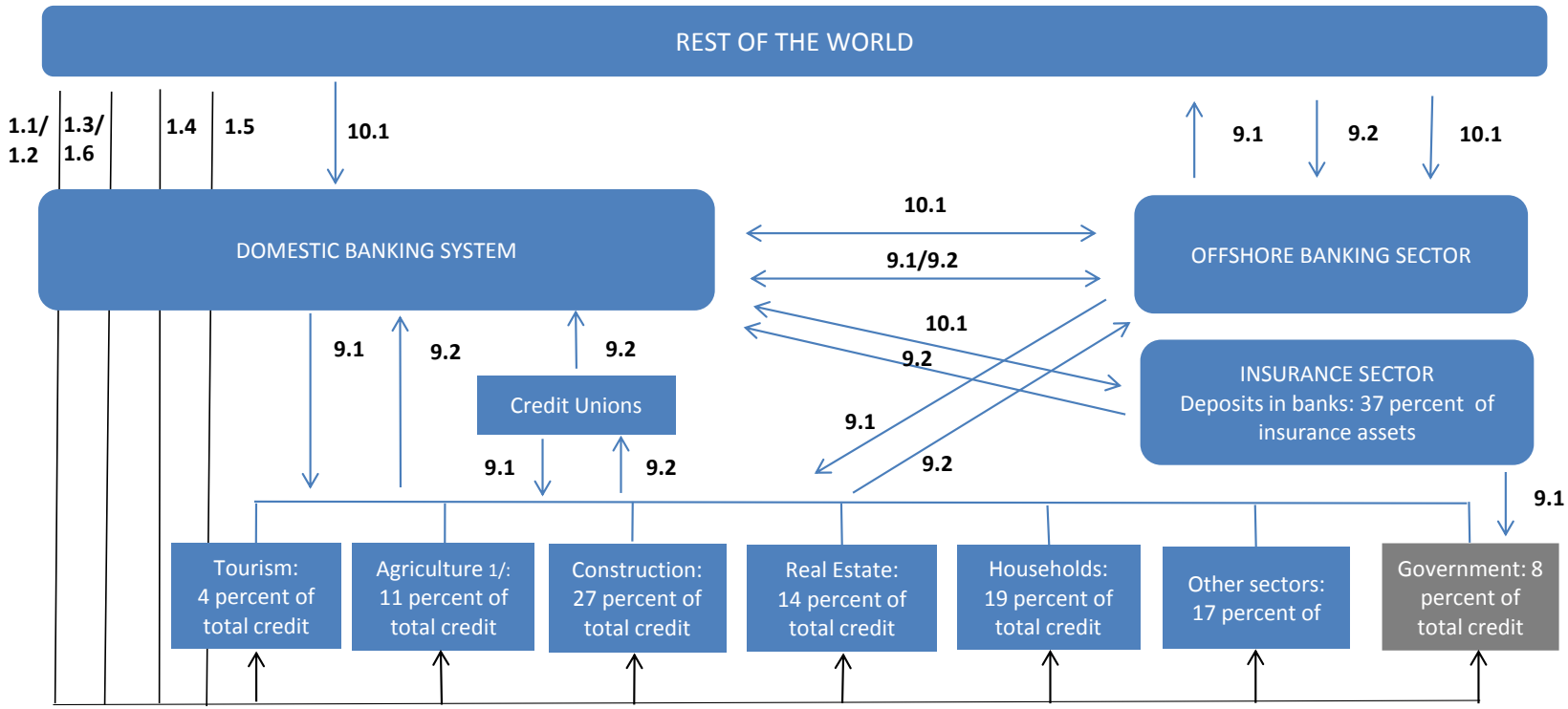
28. **A large part of the assets and liabilities of offshore entities registered in Belize appears intermediated by banks outside Belize (Figure 1).** The International Financial Services Commission (IFSC) licenses registered agents involved in the creation of companies and trusts, as well as financial service providers (e.g. in FX, trading, insurance). Registered agents are required to have physical presence in Belize but financial service providers are not. Both registered agents and financial service providers have to deposit the required capital in international banks in Belize (Annex I). The nonbank offshore sector comprises around 150,000 international business companies (IBCs), of which 60,000 are active, 456 Limited Liability Companies, of which 226 are active, 254 foundations, of which 205 are active, and 2400 trusts, of which 1800 are active. These offshore entities' deposits in Belizean international banks amounted to US$ 423 million at end-March 2016 and their borrowing from Belizean international banks was US$ 246 million at end-March 2016. This is well below the large estimate of assets and liabilities reported by the Bank for International Settlements (BIS) area banks

vis-à-vis counterparties resident in Belize. According to BIS Locational Banking Statistics, total claims of Belizean counterparties vis-à-vis BIS banks were about US$ 14.7 billion at end-2015 (equivalent to 842 percent of 2015 GDP) while their total liabilities vis-à-vis Belizean counterparties represented about 3.7 billion USD (equivalent to 209 percent of 2015 GDP).[3]

[3] These exposures likely include assets and liabilities of both domestic and offshore entities.

Selected Macro-Financial Linkages

(in percent unless otherwise indicated)



International trade in goods (**link 1.1**)
International trade in services (**link 1.2**)
Flows intermediated by money transfer businesses (**link 1.3**)
Net income flows (**link 1.4**)

Capital and financial account flows (**link 1.5**)
Direct wire transfers through the banking system (**link 1.6**)
Loans (**link 9.1**)
Deposits in banks (**link 9.2**)
Ownership links (**link 10.1**)

1/ Agriculture, forestry and fisheries (marine products).

29. **The bulk of BIS banks' exposure to Belize pertains to nonbanks and is in the form of US denominated deposits and loans (Figure 1).** Claims of Belizean banks vis-á-vis BIS banks are estimated at about US$ 697 million at end-2015 (4.7 percent of Belizean counterparties' total claims vis-à-vis BIS banks) and their liabilities were about US$61 million at end-2015 (1.7 percent of Belizean counterparties' total liabilities vis-à-vis BIS banks) (text Table below). These exposures are denominated mainly in US dollars, with 91 percent of the interbank claims representing Belizean banks' deposits in banks outside Belize, while 70 percent of the interbank liabilities represent lending by BIS banks to Belizean banks. In 2015, Belizean banks' borrowing from BIS banks increased by US$ 48 million while their deposits declined by US$ 47 million.

Cross-border Positions Reported by Banks in the BIS Reporting Area vis-à-vis Counterparties Resident in Belize
(in millions of US dollars)

	Claims outstanding		Liabilities outstanding	
	Q4 2014	Q4 2015	Q4 2014	Q4 2015
All instruments	3,310	3,678	14,544	14,774
By sector of counterparty				
Banks	13	61	744	697
Non-banks	3,211	3,556	13,490	13,736
Unallocated	85	61	310	342
By currency				
US dollar	2,402	2,509	10,259	11,305
Euro	430	448	2,101	1,655
Yen	51	35	116	112
Pound sterling	62	113	300	293
Swiss franc	97	293	271	161
Other currencies	9	18	149	166
Unallocated	259	262	1,347	1,081
Loans and deposits	2,427	2,509	13,336	13,485
By sector of counterparty				
Banks	9	6	588	489
Non-banks	2,340	2,454	12,451	12,659
Unallocated	78	50	297	338
Debt securities	104	115	29	33
Other instruments	779	1,053	180	220
Unallocated	0	0	999	1,036

Source: Bank for International Settlements Locational Banking Statistics.

D. The Current Strength of Banks' Balance Sheets

Balance Sheet Developments and Risks

30. **Banks' balance sheets are reported to be slowly improving despite legacy non-performing loans (NPLs).** The stock of NPLs fell to 15.8 percent of total loans at end-March 2016 (5.7 percent net of provisions), from 16.1 percent at end-March 2015 (or 6.1 percent net of provisions). At the same time, provisioning for NPLs increased to 60 percent from 57 percent. The reported capital adequacy ratio (CAR) increased by about 1.3 percentage points to 25 percent, due primarily to capital injection by two domestic banks, the sale of a valuable piece of real estate asset by an international bank and modest profits recorded. Return on assets for the banking system was 0.4 percent at end-March 2016, unchanged from end-March 2015. While the banking system as a whole remains amply liquid, offshore banks' liquid assets in excess of mandatory requirement fell from 131. 4 percent in March 2015 to 55.3 percent in March 2016. At the same time, domestic banks' liquid assets in excess of mandatory requirement rose from 77 percent in March 2015 to 101 percent in March 2016.

31. **A major bank's NPL ratio rose due to a recently classified legacy loan (US$14 million, or one-third of capital).** Its NPL ratio stood at 28.6 percent (13.5 percent net of provisions) at end-March 2016, compared to 23 percent at end-March 2015 (9.3 percent net of provisions). Its CAR was 15.1 percent at end-March 2016 (13.2 at end-March 2015), but it could fall below the regulatory minimum of 9 percent if the above-mentioned legacy loan is fully provisioned or written off. The bank has applied to the CBB for approval to restructure the loan portfolio of the affected larger borrower. If this request is granted, the bank's CAR, excluding the disputed government asset on its balance sheet (US$21.5million), would fall to 9.6 percent.

32. **Spillover from a regional financial institution under liquidation is expected to be minimal.** Two Belizean banks partly owned by a bank in Antigua and Barbuda, which is currently under receivership, have a combined financial exposure to the parent of about US$6.8million at end-March 2016. If these assets are written off, the CAR of the two Belizean banks would fall to 13.5 percent and 17.4 percent, respectively, from their current levels, above the prudential requirements. The Belizean authorities are working with the liquidators to resolve the issue, and continue to monitor the situation.

Main Sources of Systemic Risks

33. **The main threats to the banking system broadly remain as identified during the 2015 Article IV Consultation (Table 3**). The loss of CBRs could persist and have an impact on banks' balance sheets, including through the higher cost of doing business and a weaker economy. The weak fiscal position and the projected increase in gross financing needs could further heighten government debt distress. Since government securities represent a non-negligible share of banks' portfolios, losses on government securities would wipe out the capital buffers of a few banks. This risk could to some extent be mitigated by the fact that the CBB is the buyer of last resort of government securities, although its own position too would fall into difficulty in the event of fiscal

failure. Some domestic banks, including the largest bank, which is of systemic proportions, still have low capital buffers and raising new capital to avoid a deterioration of their capital adequacy ratios could be a challenge, raising the prospect that the public sector might have to intervene. Other threats remain as described during the 2015 Article IV Consultation. Any shock that would lead to an active defense of the exchange rate would likely involve an interest rate hike, which in turn would undermine repayment capacity and increase NPLs. Effective capital controls could mitigate this risk, but may affect the economy and the repayment capacity of borrowers adversely. With banks' non negligible exposures to agriculture, tourism, and export sectors, negative shocks in these sectors would have some low to moderate impact on financial stability. Finally, connected lending and large exposures could be higher than reported and would indicate even higher NPLs and probably the insolvency of some banks if they are jointly exposed to the same weak borrowers.

Largest Banks Capital Shortfalls Under Various Capital Adequacy Measures (December 31, 2015) 1/

(In thousands of U.S. dollars, unless otherwise indicated)

Name of the bank	Share of banking system's assets (percent)	CAR=9% 2/	CAR=12% 2/	CAR_g=9% 3/	CAR_g=12% 3/	Cap/TA=5% 4/
Largest banks	87	2,690	4,067	3,474	5,112	6,947
in percent of GDP	...	*0.2*	*0.2*	*0.2*	*0.3*	*0.4*
Systemic bank	22	0	0	0	0	0
in percent of GDP	...	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Memorandum item:						
Nominal GDP (US$ millions)	1,753					

Sources: Belize authorities; and IMF staff estimates.

1/ Shortfalls in provisions are deducted from qualifying capital.
2/ Capital adequacy ratios (CARs) are computed with risk-weighted assets (RWA) that uses weights prescribed by the Basel I agreement.
3/ Capital adequacy ratios (CARs) are computed with risk-weighted assets (RWA) that uses weights prescribed by the Basel I agreement, with the exception of the weight on government securities, which has a weight of 10 percent instead of zero percent.
4/ Cap/TA is the ratio of capital to total assets.

Stress Testing Banks' Balance Sheets

34. **The updated stress tests show that the banking system appears stronger than at the time of the 2015 Article IV Consultation, partly reflecting new capital injection in two banks, sale of a valuable piece of asset by another bank, and modest profits recorded.** However, the macroeconomic outlook is worse than the already weak prospects at the time of the 2015 Article IV Consultation, which could put upward pressures on projected NPLs, particularly in the context of weak export performance. Under the baseline scenario, which does not assume any potential direct impact from the loss of CBRs on banks as they are assumed to find workarounds, no bank would see their CARs fall below the regulatory minimum, reflecting the slightly higher reported capital buffers at end–2015. Last year, a few banks had their CAR fall below the regulatory minimum in the baseline. Under high stress, the banking system could have capital shortfalls for two years as some banks still remains weak, particularly a major bank . The largest credit union continues to exhibit resilience to a severe shock. Analysis of capital buffers under various scenarios for the impact of the loss of CBRs is presented in section F.

35. **The banking sector stress tests were updated by staff in 2016 as part of the assessment of the risks and vulnerabilities of the financial sector.** Similar to the 2015 assessment, static and

forward–looking stress tests were conducted in cooperation with the Financial Sector Supervision Department of the Central Bank of Belize (CBB). The forward–looking stress tests were conducted using a credit risk econometric model and three models of bank profitability under a baseline and two stress scenarios.[4] The parameters and assumptions are broadly as in the 2015 exercise. All stress tests were conducted using the end–2015 data. The baseline scenario does not assume any potential direct impact from the loss of CBRs on banks. The results are summarized in Table 4. Analysis of capital buffers under various scenarios for the impact of the loss of CBRs is presented in section F.

36. **The static single-factor stress tests examined the impact of liquidity shocks, exchange rate shocks, credit risk, and credit concentration risk.** These tests adhere to standard practices of assessing these intermediation risks.

- **Liquidity shock.** The liquidity stress test simulated the impact of a run on banks by its different classes of depositors. Results show that liquidity risk is still low, and improved slightly compared to 2013. The banking system could easily meet an outflow of deposits of around 50 percent over a month. It would take 37 days (40 days in 2015) for the banking system to completely exhaust its liquidity and 17 days (18 days in 2015) for the liquidity ratio to breach the 23 percent mandatory requirement. Liquidity risks have increased and are higher than the banking sector average for six banks, including the two banks identified last year. One of these banks would see its liquidity ratio fall below the prudential ratio after only five days, two after six days, and another after eight days. Meanwhile, it would take 20 days for the largest credit union to breach the prudential ratio.

- **Exchange rate shock.** The impact of a 25 percent devaluation of the Belize dollar versus other currencies was simulated by multiplying the net open position and accrued net interest income by the amount of the devaluation. The domestic banks maintained positive, but lower net open foreign exchange positions as of end-2015, except for two banks, including the one identified last year. The positive gains on the net open position and the net interest income position of domestic banks were summed up and added to pre-shock capital to calculate post-shock capital and capital adequacy ratios. The results indicate that post-shock CAR for domestic banks would rise by only 2.4 percentage points (1.4 percentage points in 2015).

- **Credit risk.** Similar to last year's assessment, two tests were conducted. First, a "migration" stress test was applied by shifting 10 percent of current performing loans to "substandard" status, in addition 20 percent of "substandard unsecured" loans to "doubtful" status, and 20 percent of "doubtful" loans to the "loss" category. This "migration" shock lowered the system-wide CAR by only 0.3 percentage point (1.1 percentage points in 2015). This implies that the CAR of all the banks will remain above the minimum requirement, as noted last year. Second, the impact of a

[4] This model was designed and estimated during the 2011 FSAP, and involved dynamic panel estimation with bank-specific fixed effects over the period 1997Q1 to 2011Q1. The dependent variable—ratio of annual change of NPLs to total loans lagged over four quarters—was estimated as a function of the lagged dependent variable, the lagged change (over four quarters) of the required cash reserve ratio, and the contemporaneous change in total export values over the previous year.

"generic" stress test was analyzed by shifting 10 percent of current performing loans to the "substandard" category. The banking system's CAR declined by 0.2 percentage point, broadly similar to last year and again no bank would face capital shortfalls.

- **Sectoral credit stress tests**. These tests analyzed the impact of a 25 percent increase in NPLs (i) across all sectors, (ii) in the sugar sector, (iii) in the citrus sector, (iv) in the banana sector, (v) in the citrus, sugar, and banana sectors combined, and (vi) in tourism and related sectors. As reported last year, the impact of sectoral shocks continues to be marginal. An increase in NPLs by 25 percent across all sectors would lead to a decline in domestic banking systems CAR by 0.5 percent of GDP, and the CARs of all banks would remain above the minimum requirement. No bank appears to be particularly exposed to sectoral credit risks.

- **Large loan exposure**. A range of stress tests was carried out to assess the banking system's exposure to large borrowers. By large borrowers, it is meant those with a loan in excess of 10 percent of the bank's capital. The analysis again examined three scenarios: (i) default by top ten borrowers of each bank, (ii) default by top five borrowers of the banking system (iii) default by top ten borrowers of the banking system. In the first scenario, where each individual bank's top ten large exposures that are performing migrate into loss status, all banks except three (compared to two last year) would face negative CARs. The CAR of the banking system would also become negative but would require a smaller capital injection of about 12.5 percent of GDP (14.8 percent of GDP in 2015 to meet the 9.0 percent mandatory requirement. In the second scenario, where the performing loans of the top five borrowers from the banking system migrate into loss status, the CAR of the banking system would also turn negative and two banks (compared to three last year) would require recapitalization amounting to 3.0 percent of GDP, unchanged from 2015to meet the mandatory capital adequacy requirement. In the third scenario where the performing loans of the top ten borrowers of the banking system are migrated to loss, capital injection for the same three banks identified last year, would amount to 2.5 percent of GDP (3.9 percent in 2015).

37. **Three forward-looking models were also used to assess the impact of a continued and persistent decline in economic activity on banks' loan quality and capital buffers**. First, a credit model is estimated to project NPLs, using the IMF staff medium term projections for the growth of exports and total bank loans and assuming no change in the monetary policy stance. The first model further assumes that banks' capital before deductions of shortfalls in provisioning remain at their end–2015 level in nominal terms throughout the projection period. Intuitively, it means that banks make zero profit and no new capital is injected. Using projected NPLs, the CARs are projected after deducting provisioning shortfalls from capital buffers. The results show that under the baseline, low-stress and high and stress scenarios, the banking system's CAR would remain above the prudential requirement throughout the projection period. Similarly, under the baseline scenario, the CARs of all the banks would be above the requirement through the projection period. Last year, the CARs of two banks were reported to fall short of requirements by 2020 under this scenario. Under the low stress scenario, the CAR of one domestic bank and one international bank would not remain above the regulatory minimum throughout the projection period, compared to four banks in total last year.

Furthermore, if shocks materialize under the high stress scenario, the CAR of only three banks, two last year, would remain above the regulatory minimum. The credit union continues to be adequately capitalized under the three scenarios.

38. **In the second model, bank capital is again projected using return on equity**. This model is simpler and differs from the second model used in the 2014 stress tests, which projected key elements of banks' income statement to obtain the bank capital. Similar to last year, retained earnings for each projection year for each bank under the three scenarios are estimated after adjusting projected returns on equity to account for losses that would arise from loan write–offs in the future. Subsequently, the resulting projections of retained earnings are added to (or, in the case of losses, deducted from) capital buffers of the previous year assuming no payment of dividend. In all three scenarios, the CARs of the banking system would remain above the standard requirement over the projection period. Last year, the banking system was reported to become undercapitalized by 2019 under the high stress scenario. Under the baseline scenario, no bank would be undercapitalized. Under the low stress scenario, four banks, compared to two last year, would become undercapitalized at various times. In the high-stress scenario, two banks (three last year) would need capital injection throughout the projection period with their CAR turning negative, while three others would also need to be recapitalized at some point over the period. The credit union would remain adequately capitalized under the three scenarios.

39. **The third model projects capital using returns on assets.** Similar to the second model, capital is projected by adding retained earnings after taxes to the previous period's capital while assuming no payment of dividend. Retained earnings for each projection year are obtained after adjusting projected returns on assets to account for losses that would arise from loan write–offs in the future. Under the baseline scenario, the banking system's CAR would rise over the projection period with all meeting mandatory requirements compared to two that failed to do so last year. In the low-stress case, the banking system CAR would again remain above requirements but would need to be recapitalized from 2017. Last year, negative capital of most banks implied the CAR of the banking system would fall below the requirements by 2020. In the high-stress scenario, the banking system would become undercapitalized by 2020. Compared to last year, the system was expected to become undercapitalized by 2017 and face negative CAR in 2019–2020. Two banks, compared to one last year, would remain adequately capitalized throughout projection years. The CAR of the credit union would rise throughout the projection period under the three scenarios mainly because of the assumed re-investment of tax-free earnings, after adjusting for loan write-offs.

E. Policy Options for a Stronger Banking System

40. **Policies aimed at further strengthening banks' balance sheets should continue**. In particular, the authorities should order the recapitalization of banks by their owners, including through sales of seized collateral. For banks that were granted an extension on provisioning requirements, current restrictions (prohibition to distribute profits and greater scrutiny on payment of management fees and lending) must remain until the authorities are fully confident that these banks are in a sound financial position. These policies must be complemented with measures that would have a greater long-term impact on financial stability (para. 41).

41. **The worsening of the economic outlook and risks to financial stability since the 2015 Article IV Consultation call for prompt implementation of staff recommendations during that Consultation (see Country Report no 16/93).** Few of these recommendations have so far been adopted, and implementation is now very urgent. In addition to the AML/CFT regime (Section G and Annex I), two areas deserve particular attention:

Banking Regulation and Supervision

- *The authorities should assess the true strength of banks' balance sheets through asset quality reviews (AQRs)*. Priority for this measure remains high. A major bank's recent request to restructure a large loan that has been classified as non-performing and the exposure of other banks to this borrower illustrate the urgent need to know the true strength of banks' portfolio through a review by a reputable international auditor.

- *The authorities should require weak banks to raise more capital*. Priority for this measure also remains high.

- *The authorities should address weaknesses in the framework for NPL resolution (Annex II)*. As banks depend on a private credit bureau with voluntary participation, setting up a formal credit bureau is a priority. In addition, setting up public registers for movable property and for real estate transactions would increase the information set for collateral valuation and therefore facilitate NPL resolution. Strengthening the insolvency system is also important for resolving bad debts.

- *The authorities should complement their current static stress tests of banks with forward-looking ones*. Priority for this measure remains high as the weakening economy and rising risks are not well captured in current static stress tests.

- *The authorities should allocate the resources necessary for the timely completion of FSRs*, including macro-prudential indicators and measures of systemic risk that were developed with CARTAC technical assistance.

- *The authorities should use the soon-to-be completed consolidated supervision framework* to effectively monitor group risk, group capital adequacy, group governance and regulatory arbitrage.

- *The authorities should raise provisioning requirements.* For all loan losses (secured and unsecured), they should gradually increase provisioning to 100 percent, allowing a reasonable transition period during which dividend distribution is strictly forbidden and management fees contained.

Financial Infrastructure

- *The authorities should develop of capital markets with appropriate safeguards to help strengthen banks' balance sheets more rapidly*. Safeguards must ensure transparency and disclosures, including on beneficial ownership, and guarantee that any investor who acquires a significant

stake in financial institutions fully meet tests of fitness and propriety. Such capital markets could potentially allow banks to tap into the current liquidity to raise capital and promptly bring provisioning to the required prudential levels or else dispose of non-performing assets, including through asset management companies. The CBB could also impose recapitalization of banks more easily, including by diluting existing shareholders.

F. Macro-Financial Linkages—Assessing the Impact of the Loss of CBRs

The Loss of CBRs: An Overview of the Challenge[5]

42. **Several countries have reported a net reduction in CBRs by global correspondent banks in recent years (Text Figure)**. Surveys by the World Bank (World Bank 2015a, b), the IMF with the Union of Arab Banks (IMF/UAB, 2015), and the Association of Banking Supervisors of the Americas (ASBA, 2015) indicate that smaller jurisdictions in the Caribbean, Africa, Central Asia, and Europe, were most affected. To a lesser extent the pressure on CBRs is also seen in Latin America (including in some larger economies such as Mexico), East Asia and the Pacific. In the Middle East and Northern Africa, countries under economic and trade sanctions are most affected by withdrawal of CBRs (IMF/UAB, 2015).

43. **Global banks' decisions to withdraw CBRs have been driven by a number of considerations**. Generally, they reflect banks' cost-benefit analysis, shaped by the re-evaluation of business models in the new macroeconomic environment and changes in the regulatory and enforcement landscape notably with respect to more rigorous prudential requirements, economic and trade sanctions, anti-money laundering and combating the financing of terrorism (AML/CFT) and tax transparency. These factors inform banks' risk and reputational cost perceptions. Further pressures to withdraw CBRs may arise where regulatory expectations are unclear, risks cannot be mitigated, or there are legal impediments to cross-border information sharing. These factors operate concurrently, with their relative significance varying case by case.

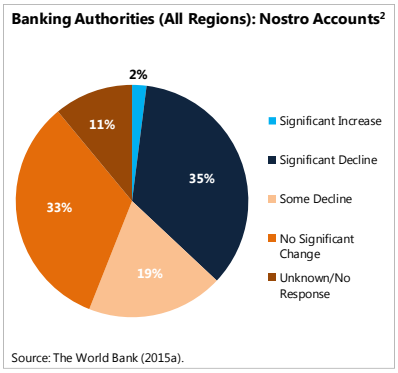
44. **For most countries the economic or financial stability impact of the withdrawal of CBRs has so far been limited, partly reflecting the ability of financial institutions in affected countries to find alternative arrangements**. In many cases where CBRs have been lost, financial institutions have been able to find alternative arrangements including by relying on their remaining CBRs, finding replacement CBRs or using other means of transferring funds across borders. However, the ability of financial institutions to find replacement CBRs has varied. Authorities in many of the affected countries have reported that maintaining existing CBRs has come at a price, including: (i) newly imposed minimum activity thresholds below which the account is closed, (ii) higher costs (often associated with due diligence) passed on to the consumer when establishing a new CBR, and (iii) pressure on the respondent banks to limit their exposure to certain categories of customers (e.g., money and value transfer services) in order to maintain a CBR (World Bank, 2015a).

[5] See Erbenová et al. (2016).

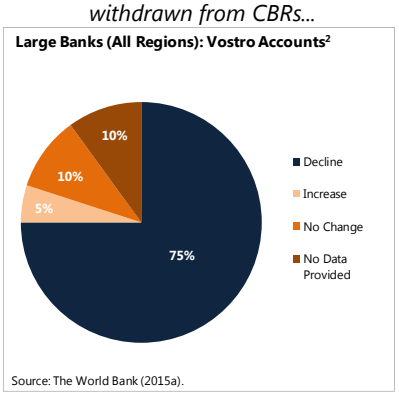
Box 2. The Withdrawal of Correspondent Banking Relationships (CBRs)[1]

Banking authorities, and international, regional and local banks have reported a reduction in CBRs, with the Caribbean particularly affected by the retrenchment of U.S. and U.K.

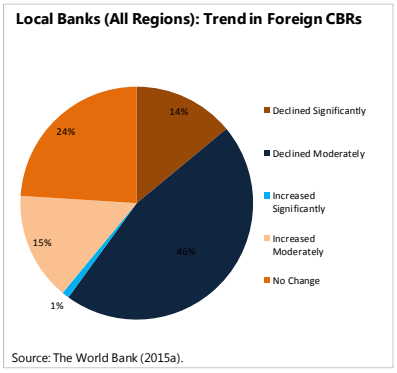
While about 55 percent of banking authorities reported a decline in CBRs…



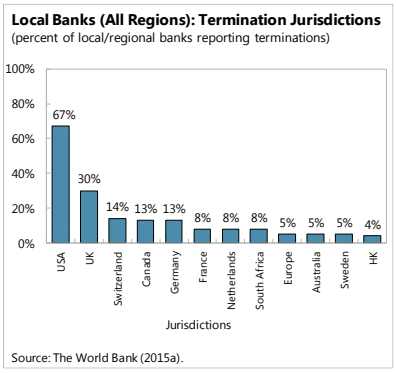
…75 percent of international banks reported that they had withdrawn from CBRs…



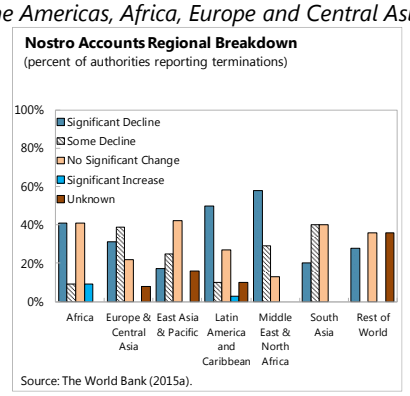
…and 60 percent of local banks reported a decline in CBRs.



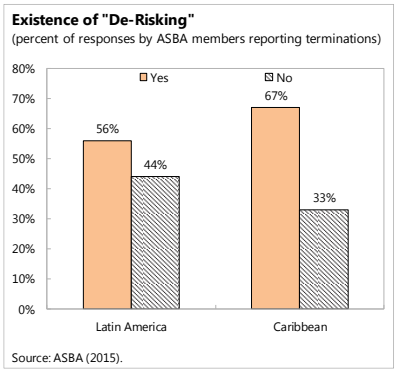
Local/regional banks reported that U.S. and U.K. banks have led the reduction in CBRs.



Authorities indicated that there was a significant decline in the Americas, Africa, Europe and Central Asia,…



…with the Caribbean being particularly affected.



1/ The evidence from the World Bank (2015a) covers the period 2012-mid-2015. The evidence from ASBA (2015) was collected in August 2015 covering an unspecified period.

2 / Nostro and vostro accounts are used to facilitate the settlement of foreign exchange and trade transactions. A nostro account refers to the account of the bank receiving the correspondent banking services; the vostro account refers to the account of the bank providing those services.

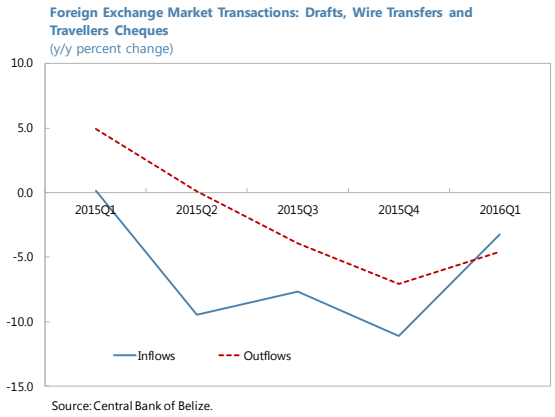
Sources: The World Bank (2015a), and ASBA (2015).

45. **While macroeconomic consequences of the withdrawal of CBRs have not been identified so far at a global level, the CBR challenge has reached a critical level in some affected countries and could have a systemic impact if unaddressed.** Pressure on CBRs could disrupt financial services and cross-border flows, including trade finance and remittances, potentially undermining financial stability, inclusion, growth and development goals.

The Loss of CBRs in Belize

46. **In Belize, the termination of CBRs has taken systemic proportions (Table 5).** Only two (27 percent of the banking system's assets at end-March 2016) of the nine domestic and international banks that had CBRs have managed to maintain at least one CBR with full banking services. One of these two banks is domestic and the other one is international. Other banks have so far maintained wire transfer arrangements, including with nonbank providers of payment services. The CBB lost three of its five CBRs, including a recent loss of a CBR that was used to process selected wires for commercial banks.

47. **Although the most recent data indicate a decline in the value of international transactions, it does not yet allow a reliable inference regarding the impact of the loss of CBRs on these transactions, as most CBRs were only lost in late 2015 or early 2016 (Figures 2–5).** For example, a major global bank was providing CBRs with wire transfers until April 2016 to most domestic banks, and until the second half of 2015 to most international banks (Table 5). Foreign exchange market data through Q1 2016 show a decline in drafts, wire transfers, and travelers cheques, although the reduction of inflows can be attributed to a reduction of exports. The trend for credit card transactions is clearly positive toward the end of 2015, especially for outflows, maybe suggesting an increasing use of credit cards to send funds out of Belize (Figure 3). Anecdotal evidence suggests that some banks were offering higher credit limits on the credit cards they issue, which would have allowed some customers to send their money out of Belize.



Source: Central Bank of Belize.

48. **Disruptions on credit card transactions have been limited throughout 2015 but credit card inflows have slowed down significantly in March 2016 (Figures 3)**. All banks can still process credit card transactions as they have accounts with major credit card networks. Until February 2016, four banks, including a major bank, had restricted bank accounts with Community Federal Savings Bank NY, which were used to manage proceeds from their credit card transactions. Since this arrangement was discontinued, these proceeds are now used either through accounts with credit card networks or through other restricted accounts such as brokerage accounts. Available data for March 2016 indicate that credit card inflows declined by 22 percent in March 2016 relative to March 2015.

49. **The growth rate of deposits in the banking system has fallen significantly, driven by a strong decrease in international banks' deposits**. The growth rate of total deposits (in domestic and international banks) has fallen from an average 8.8 percent (y/y) during 2011Q4–2014Q4 to -3.7 percent during 2015Q1-2016Q1 (Figures 6-7). During the same period, international banks' deposit growth has fallen from an average of 15 percent (y/y) to an average of -22.4 percent. Domestic banks deposit growth has been broadly stable at 6 percent (y/y).

50. **The slowdown in deposits does not yet appear to have affected aggregate credit growth**. The growth rate of total loans increased from an average of 1.8 percent (y/y) during 2011Q4-2014Q4 to an average of 3.3 percent during 2015Q1-2016Q1 (Figure 6). While domestic banks' loan growth followed a similar trend, international banks' loan portfolio remained broadly flat through 2015, before accelerating to about 13 percent (y/y) in 2016Q1, largely because of the low base in 2015Q1. It appears that international banks used their cash and claims on other banks to offset the reduction in deposits (Figure 7).

51. **Any negative impact of the loss of CBRs on some banks seems to have been partly offset by positive developments for the banks that still have CBRs with full banking services or at least wire transfer or cash letter services (Figures 6-7)**. Three of these banks (Banks A, G, and J) saw significant increases in both their deposits and lending. The other (Bank F) had a noticeable increase in its loan portfolio and a steady deposit base. One bank (Bank D) acquired another one (Bank C) and experienced a jump its deposit and lending base. Excluding this development, the two domestic banks most affected by the loss of CBRs did not have a noticeable increase in their deposit base or lending portfolio and one of them even saw its loan portfolio shrink.

52. **Nonetheless, the cost and processing time of key international financial transactions has increased significantly**. The cost of wire transfers has increased three-fold in some banks. The processing times of wire transfers has also increased from "within twenty-four hours" to "several days".

53. **Weaknesses in the foreign exchange market are also hampering the smooth processing of the increased volume of international transactions through the domestic bank that still has CBRs with full banking services** (Annex IV). Most of the foreign exchange is still generated by the systemic bank, which is also the one that has been the most affected by the loss of CBRs.

Quantitative Analysis of the Potential Impact of the Loss of CBRs in Belize

Taxonomy of channels through which the loss of CBRs can affect the economy

54. **The loss of CBRs is a complex phenomenon that can affect the economy through various channels (Text Figure)**. These channels include disruptions in external trade and finance flows that go through banks affected by the loss of CBRs, direct effects on local businesses that by-pass the financial system, and second-round knock-on effects via local linkages among various sectors of the economy.

Disruptions of external trade and finance flows through the financial system

55. **The loss of CBRs in general may disrupt external trade and finance flows, which require well-functioning CBRs (links 1.1-1.7 of text figure below).** Almost all balance of payments (BOP) flows require movements in accounts in domestic banks and their foreign counterparts linked through CBRs. The loss of CBRs by domestic banks, or increase in the costs of maintaining a CBR, can cause a disruption in these flows:

- **International trade** in goods (link 1.1) and services (link 1.2) between a country and the rest of the world depends on economic agents' ability to make payments through correspondent banking accounts (CBAs) and credit card settlement accounts (CCAs). The loss of CBRs—or some particular services within a CBR—can increase the transaction costs (thereby acting as a tax on international trade), increase time required for transactions, or preclude customers' ability to make the payments altogether. In Belize, annual trade in goods (a sum of exports and imports) has averaged close to US$ 1.5 billion (90 percent of GDP) for the last 5 years. Annual trade in services (a sum of payments and receipts) has averaged US$ 0.7 billion (42 percent of GDP) for the last 5 years, with tourism receipts amounting to US$ 328 million (20 percent of GDP) annually.

- **Current transfers** between a country and the rest of the world can also be disrupted by the loss of CBRs. These include direct wire transfers through the banking system (link 1.7) and flows intermediated by money transfer businesses (MTBs) (links 1.3 and 3.2). In Belize, the annual sums of private sector transfer payments and receipts have averaged US$ 133 million (8 percent of GDP) for the last 5 years, with receipts of workers' remittances amounting to US$ 76 million (4.5 percent of GDP) annually.

- **Income, capital and financial account flows** (links 1.4, 1.5, 1.8, 5.3) can also be disrupted by the loss of CBRs and the ensuing reduced ability to move resources across borders. The loss of CBRs has a significant potential to discourage FDI and other private sector flows as investors can be discouraged by diminished prospects for repatriating dividends and income abroad. In Belize, annual net income account flows averaged US$ 114 million (7 percent of GDP) for the last 5 years. Annual net capital and financial account flows averaged US$ 125 million (7.6 percent of GDP) during the same period, with annual FDI balance averaging US$ 118 million (7.3 percent of GDP).

56. **The loss of CBRs can also disrupt flows to offshore banks (link 1.9), which can directly affect domestic banks (link 2.2) as well as the real sector (link 8.1).** Assets of Belizean international banks amounted to 35 percent of GDP at end-2015. International banks have a direct link to the real sector as they extend loans to Belize residents (13 percent of GDP, or close to 20 percent of their entire loan portfolio at end-2015) and non-residents, using deposits from non-residents as a funding base (25 percent of GDP). Thus, a reduction of international bank deposits in principle can affect domestic lending and the economy. They also have direct financial links with the domestic banks through ownership (two international banks are owned by domestic banks) and financial links.

Direct effects on local entities that by-pass the financial system

57. **The loss of CBRs can also have direct effects on transactions that do not go through the local financial system and are not captured by formal channels (link 1.11).** This could happen with increased cross-border cash-based transactions. In Belize, these flows would most likely be captured by BOP errors and omissions, (averaging 0.2 percent of GDP over the past 5 years). The loss of CBRs can also affect the economy through domestic businesses losing customers and suppliers abroad, which are no longer able to conduct business with these domestic businesses because of reputational concerns or because of the incompatibility between privacy and enhanced due diligence requirements. Likewise, the loss of CBRs can affect the operations of international (offshore) companies and financial service providers under the IFSC (link 1.10).

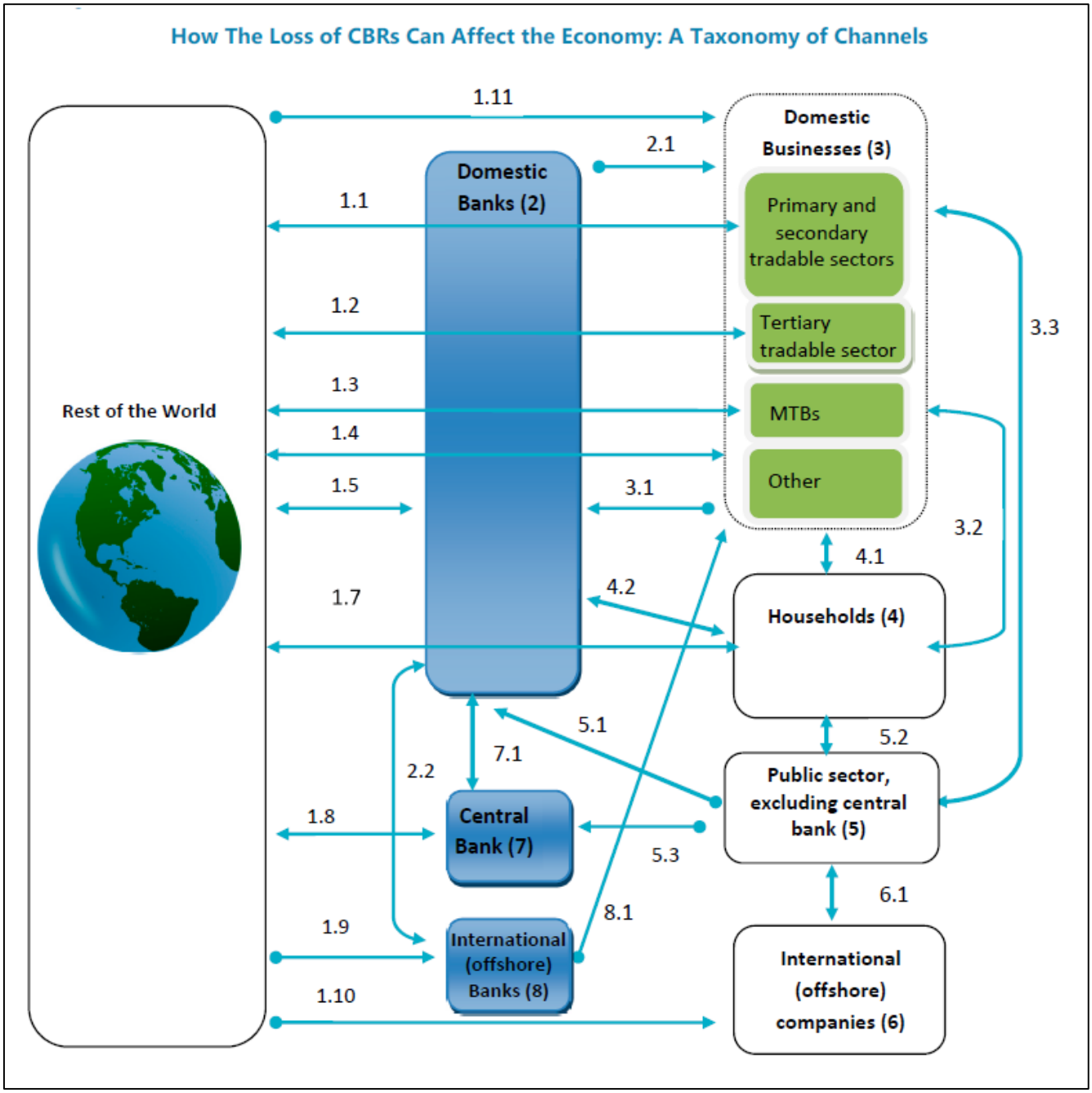
Second-round knock-on effects via local linkages among various sectors of the economy

58. **The disruptions discussed above could have second-round knock-on effects on the domestic economy through various channels and propagate further through intersectoral linkages.**

- The reduction in overall external inflows to domestic or international banks would likely affect their funding base (links 1.5, 1.9). In addition, reduced viability of domestic companies due to higher transaction costs or inability to make payments could worsen banks' balance sheets (links 3.1, 2.2) which will in turn likely reduce loans to the economy, (links 2.1, 2.2 and 4.2). In Belize, domestic banks' foreign liabilities amount to about 1 percent of GDP, and international banks' deposits—which are mostly non-resident—amount to 26 percent of GDP. As of end-2015, the lending portfolio of domestic and international banks was 57 and 14 percent of GDP, respectively.

- Lower remittances received by households are likely to entail losses on consumption, thereby lowering domestic demand and constraining GDP growth (link 4.1) and impacting inclusion and developmental goals. This in turn can, among other things, lower revenues of the public sector (link 3.3 and 5.2) affecting public finances and its sustainability, reduce households' deposits in the banking system (link 4.2). In Belize, private consumption averaged about 85 percent of GDP over 2010-14, government revenue averaged 27.1 percent of GDP and deposits to the private sector represent about 65 percent of GDP.

- Disruptions in lending, consumption, and overall economic activity discussed above can themselves affect borrowers' capacity to repay their liabilities to the banking system (links 3.1, 4.2). This does not only reduce overall bank inflows and therefore further reduce their lending, it could also increase NPLs and worsen banks' balance sheets. Severe cases of disruptions may pose the need for government intervention in the banking system, potentially creating contingent liabilities for the public sector (link 5.1).


How The Loss of CBRs Can Affect the Economy: A Taxonomy of Channels
Rest of the World
Domestic Banks (2)
Domestic Businesses (3)
Primary and secondary tradable sectors
Tertiary tradable sector
MTBs
Other
Households (4)
Public sector, excluding central bank (5)
International (offshore) companies (6)
Central Bank (7)
International (offshore) Banks (8)
1.11
2.1
1.1
1.2
1.3
1.4
1.5
3.1
1.7
4.2
4.1
3.2
3.3
5.1
7.1
2.2
5.2
1.8
5.3
6.1
8.1
1.9
1.10

- Domestic banks could also "de-risk" a number of their clients on concerns that they are risky (link 2.1), effectively excluding them from international trade (or pushing to them less regulated trade channels).

- The loss of CBRs can also affect the economy through offshore banks, which can have ties with local entities at least through ownership (link 8.1) and through the offshore sector, which can also have ties with domestic entities, especially the government (link 6.1). In Belize, annual lending by offshore banks averaged US$ 235 million (13.4 percent of GDP) during 2011–15. The offshore sector accounted for about US$7 million (0.4 percent of GDP) of revenue to the government. Non-residents who own some offshore entities could also have ties to the domestic economy through ownership of other entities such as vacation houses etc.

Estimating the potential impact of the Loss of CBRs in Belize Through a "Stress Test" Approach

59. **The strategy for estimating the potential impact of the loss of CBRs in Belize focuses on selected links described above**. Since banks are not affected by the loss of CBRs in a similar manner, the analysis is done bank by bank. Money Service Businesses (MSBs) are treated as one entity for the purpose of the estimation. Links are regrouped into four broad categories to make the make the estimation more intuitive:

- The first category (**"Trade links"**) includes changes in the value of exports or imports of bank customers due to their inability to send or receive foreign payments or keep the business relation with the foreign customer or supplier. Their implications on exporters and importers' revenue, bank deposits, and ability to service their loans also fall under this category.

- The second category **("Remittance links"**) includes changes in remittance inflows and outflows of banks and MSBs' customers. Their implications on remitters and remittees' disposable incomes, bank deposits, and ability to service their loans also fall under this category. This category is the only one through which MSBs play a role in the estimation of the potential impact of the loss of CBRs.

- The third category (**"Private flows links"**) comprises changes in bank deposits and FDI due to the banks' customers' inability to wire money into or out of Belize.

- The fourth category (**"Banks' balance sheets links"**) comprises: (i) income changes due to banks' inability or reduced ability to process wire transfers; (ii) income changes due to banks' inability or reduced ability to sell foreign exchange; (iii) specific provisions for new NPLs caused by borrowers' inability to wire loan payments to the bank or borrowers' reduced revenue; and (iv) changes in net deposit inflows due to depositors' loss of access to wire transfers.

60. **The potential impact of the loss of CBRs is estimated on banks' capital, maximum lending capacity, their net foreign assets (NFAs), and GDP, using plausible "CBR stress scenarios" (Annex III).** Once shocks for the "stress scenarios" are set, the estimation is as follows:

- The **impact on banks' capital** is estimated as the sum of income changes due to banks' inability or reduced ability to process wire transfers or sell foreign exchange and specific provisions for new NPLs caused by borrowers' inability to wire loan payments to the bank or borrowers' reduced revenue.

- The **impact on the maximum lending capacity** is estimated as the impact on the bank's capital divided by the minimum capital adequacy ratio (CAR) of 9 percent.

- The **impact on NFAs** is estimated as the sum of changes in exports, imports, deposit and FDI changes due to investors' inability to wire funds into or out of Belize.

- For the **impact on nominal GDP**, the contributions to nominal GDP of one BZ$ of bank credit, exports, imports, remittance inflows, remittance outflows, and FDI are first estimated, using prior econometric studies. It is assumed that one BZ$ increase in credit is associated with 0.3 BZ$ increase in nominal GDP (see Were et al., 2012). For the impact of exports on GDP, it is assumed that for every additional BZ$ in exports, nominal GDP will increase by 0.2 BZ$ (Saaed and Hussain, 2015). It is also assumed that import growth has a positive effect on GDP, especially the imports of capital goods, which increases the country's productive capacity. In staff's assumptions, each additional BZ$ of imports is associated with 0.3 BZ$ increase in GDP. These assumptions are based on Kim et al. (2007), which find a positive effect of import growth on TFP through increased competition and technology transfers. Staff also assumes that GDP growth is positively correlated with remittances and each additional BZ$ in inward or outward remittances leads to an increase in nominal GDP of 0.2 BZ$, building on the findings in Fayissa and Nsiah (2008). Finally, staff estimates of the positive impact of FDI on growth assume that an increase in FDI of one BZ$ leads to an increase in GDP of 0.2 BZ$. For the positive correlation between FDI and GDP growth, staff draws upon Louzi and Abadi (2011). These estimated coefficients are then multiplied by the changes in the values of exports, remittance inflows, remittance outflows, import, bank credit, and FDI assumed in the CBR stress scenarios to arrive at the estimate of the overall impact on GDP. The change in bank credit is assumed to equal to the change in the maximum lending capacity.

- The **impact on real GDP** is estimated as the ratio of the impact on nominal GDP to the GDP deflator, which is assumed to be unaffected by the loss of CBRs.

61. **Under unfavorable stress test scenarios, the loss of CBRs could have a sizeable impact on Belize's economy and financial stability as fewer CBRs, different local banks business models, or stricter due diligence requirements could kick many economic agents out of formal trade and finance channels** (Text Table). The "CBR stress scenarios" are presented in more details in Annex III. The most unfavorable but plausible scenario ("High stress scenario") assumes that only 30 percent of the affected transactions find workarounds. In this case, real GDP could drop by 5-6 percentage points annually relative to the baseline during 2016-2021. The value of annual exports of banks' customers drops by about 23-25 percentage points of GDP, and the value of their annual imports by 25-28 percentage points of GDP during the same period. Annual FDIs drop by about 2-3 percentage points of GDP. The banking system's CAR would fall by close to 9 percentage points but

would remain above prudential minimum of 9 percent, though some banks could become insolvent, including a major bank. The impact on banks Net Foreign Assets is marginal as both assets and liabilities are affected in a similar manner. The scenario where 90 percent of transactions affected by CBR losses find workarounds ("Low stress scenario") is discussed in Annex III.

Impact of the loss of CBRs:Stress Scenarios Relative to the Baseline						
	2016	2017	2018	2019	2020	2021
Low Stress Scenario						
Changes in Real GDP (US$ million)	-12.7	-14.9	-14.9	-14.5	-14.5	-14.7
In percent of GDP	-0.9	-1.0	-1.0	-1.0	-1.0	-1.0
Changes in bank's Net Foreign Assets (US$ Million)	-2.4	-1.1	-4.2	-3.8	-3.0	-2.8
In months of import	-0.03	-0.01	-0.04	-0.04	-0.03	-0.03
Changes in bank's CARs (percent)	-4.7	-4.5	-4.3	-4.2	-4.1	-4.0
High Stress Scenario						
Changes in Real GDP (US$ million)	-82.1	-82.3	-82.4	-82.4	-82.9	-83.8
In percent of GDP	-5.9	-5.8	-5.7	-5.6	-5.5	-5.5
Changes in bank's Net Foreign Assets (US$ Million)	-16.9	-7.6	-29.7	-26.5	-21.0	-19.3
In months of import	-0.2	-0.1	-0.3	-0.3	-0.2	-0.2
Changes in bank's CARs (percent)	-9.4	-9.2	-9.1	-8.9	-8.8	-8.7

Source: Central Bank of Belize; IMF staff calculations

G. Potential Policy Options to Address the Loss of CBRs

62. **Coordinated efforts by the public and private sectors are called for to mitigate the risk of financial exclusion and the potential negative impact on financial stability**.[6] An enhanced understanding of the phenomenon, improved data collection, and continued dialogue among stakeholders is imperative to develop appropriate responses tailored to individual country circumstances. Home authorities of global banks should proactively communicate their regulatory expectations and affected countries should continue strengthening their regulatory and supervisory frameworks including for AML/CFT to meet relevant international standards, with the help of technical assistance where needed. Industry initiatives could be pursued to facilitate customer due diligence and help reduce compliance costs (Annex V). In countries facing a severe loss of CBRs and diminishing access to the global financial system, the public sector may consider the feasibility of temporary mechanisms ranging from regional arrangements to public-backed vehicles to provide clearing services.

63. **In this context, the Belizean authorities should improve their understanding of money laundering and terrorist financing (ML/TF) risks in the financial sector as a whole, as these risks are significant.** They are related primarily to the lack of transparency of legal persons and

[6] See Erbenova et al. (2016).

arrangements (e.g. companies, trusts, and foundations) through the service providers licensed by the IFSC and through the accounts they hold in Belizean international banks (Annex I). The IFSC offers, through a high number of registered agents and their intermediaries abroad, the services of establishing complex entities without a proper mechanism to have the related beneficial ownership information available, accessed, and disseminated in a timely manner. It also licenses service providers (e.g. FX, insurance, trading) without the requirement to have a physical presence in Belize. The IFSC does not properly regulate and supervise the sector. While these services generate relatively low fiscal revenues, their lack of transparency and the possibility for them to hold accounts in Belizean international banks seem to create significant ML/TF risks for Belize.

64. **The Belizean authorities should continue strengthening the risk-based AML/CFT supervision of domestic and international banks**. Stronger AML/CFT regulation and supervision should be built around a forward-looking risk-based assessment. The CBB should enhance the risk-based supervision of banks and impose corrective actions and sanctions when relevant. The IFSC's registered agents and service providers should be subject to proper licensing requirements and be monitored for compliance with the AML/CFT requirements on a risk basis.

65. **Investment in effective mechanisms to ensure entity transparency and better understanding of related ML/TF risks would improve compliance with international standards.** In addition, the authorities should develop mechanisms (e.g. public registry for beneficial ownership) that would allow timely access to adequate, accurate, and current information on beneficial ownership of all types of entities created in Belize. Furthermore, entities' registers should immediately publish basic information related to entities created in Belize. Effective and dissuasive sanctions should apply against those that do not comply with the information requirements. The authorities should also step up their efforts in accessing and sharing beneficial ownership information with relevant foreign authorities in a timely manner. They should identify, assess, and understand, among others, the vulnerabilities and the extent to which legal persons and arrangements created in Belize could be misused for ML/TF.

66. **Stricter licensing and robust prudential requirements together with enhanced transparency and mitigation and reduction of the ML/TF risks would help address the loss of CBRs**. Higher licensing and capital requirements and fees for company registration combined with stricter obligations for financial service providers to hold offices in Belize and have proper ML/TF internal controls would help mitigating the risks related to the offshore sector and increase the revenue of the IFSC, which would enhance its independence and capacity. Increase of market entry capital requirements and fees combined with proper enforcement of the regulations may well lead to a reduction in the number of service providers and related risks in Belize.

67. **Some potential solutions discussed in the Caribbean rely on strong private sector collaboration with US institutions.** These include: (i) collective action to increase the business volume brought to a smaller number of correspondent banks; (ii) introduction of a scheme to purchase CBR insurance policies; and (iii) payment of higher CBR service fees.

68. **Ascertaining the effectiveness or realism of the above-mentioned solutions could require an estimation of "expected risk-adjusted financial costs" of CBR activity in Belize (Table 6).** The risk-adjusted financial cost of CBR activity can be very broadly estimated using historical fines related to various Customer-Due-Diligence (CDD) violations. Such fines have varied depending on the seriousness of the violations and have reached almost US$ 9 billion in 2015 in the case of BNP Paribas (Annex VI). If one computes this expected financial cost of CBR activity as the "probability of being fined" times the "actual fine", there clearly is a strong incentive for global banks to reduce the "probability of being fined" by drastically improving compliance, or if that is not possible, by exiting some CBR markets. Put differently, given the relatively low revenue CBRs generate in Belize[7], maintaining their expected risk-adjusted costs below historical CBR revenue would essentially require "zero compliance failure" from Belizean banks.

69. **Increasing revenues from CBR activity in Belize could help.** If a smaller number of correspondent banks (say, one or two) remain engaged with Belize, this may generate sufficient volume for them to find the risk-adjusted return sufficiently profitable for them to remain. In this case, the revenue generated per CBR could reach US$1.2-2.4 million. Such levels of revenue would be above the expected risk-adjusted financial cost of CBR activity with probabilities of being fined (for no more than US$ one billion for US banks) at less than "one in a thousand", which is close to "zero compliance failure" from Belizean banks. CBR insurance policies could also require premia amounting to a few million dollars. CBR service fees could also reach similar amounts. Stronger compliance frameworks could reduce probabilities of being fined and therefore the amounts mentioned above.

70. **The solutions mentioned above may require that US private financial institutions shift the perceived internal cost-benefit balance in favor of CBRs with Belizean banks that lost their CBRs, which may take some time as the strengthening of the AML/CFT itself takes time**. If Belize is perceived as "high-risk", with the probability of being fined subjectively set at say just "one percent", then the cost-benefit of CBRs with Belize would be hard to balance as the estimated risk-adjusted financial cost of CBR activity reach several millions of US dollars (Table 6).

71. **As a result, contingency plans could be considered to provide for public sector involvement in addressing the loss of CBRs to maintain competition in the processing of international transactions**. This would also help ensure that the cost of international financial services remains affordable and prevent international transactions from moving to less transparent channels. The possibility of having only one domestic bank capable of processing wire transfers in Belize clearly undermines competition, which could end up making access to some financial services unaffordable. Central banks are not equipped to manage the high frequency of international transactions from the private sector and their support can only be limited in scope and time. An alternative solution would be for Belize to set up or acquire a US-licensed financial institution that

[7] The average annual revenue collected by global banks per CBR with Belize at end-2014 is about US$ 80 thousand. This estimate is based on 10 thousand wire transfers (incoming and outgoing) per month, with an average fee of US$ 20 per wire transfer. For example, before the loss of its CBRs, the largest bank in Belize used to process about 600 (740) outgoing (incoming) wire transfers per month. Belize had thirty CBRs with wire transfer services at end-2014.

would process international transactions for Belize. In the context of their current dialogue on strengthening Belize's AML/CFT framework, the US and Belizean authorities, with support from other Belize's development partners, could also discuss options for a fast-track approval or fast-track acquisition of this US-licensed financial institution. With access to the US payment system and possibility to open accounts for all economic agents doing AML/CFT compliant transactions with Belize, this US-licensed institution will ensure that Belize remains financially connected with its main trading partners at affordable costs.

H. Concluding Remarks

72. **Belize's financial system continues to slowly strengthen but faces macro-critical headwinds.** NPLs have been slowly declining. Provisioning and reported capital buffers are also improving, including because of new capital injections. The authorities are implementing important projects that would strengthen the financial system infrastructure, including the Automated Transfer System that will go live in September 2016. Nonetheless, weaknesses remain. NPLs still remain high and provisioning is still not adequate as illustrated by forbearance on provisioning rules for some banks. The comfortable levels of the banking system's reported capital adequacy ratios mask low or inflated capital buffers in some banks. If not addressed, the loss of CBRs could further reduce banks' capital buffers through lower bank income, increased NPLs, and the associated provisioning expenses. Combined with the weak fiscal framework and competitiveness, these challenges could further undermine investor confidence. This could in turn further weaken the economy and borrowers' ability to repay their loans and pose additional threats to financial stability.

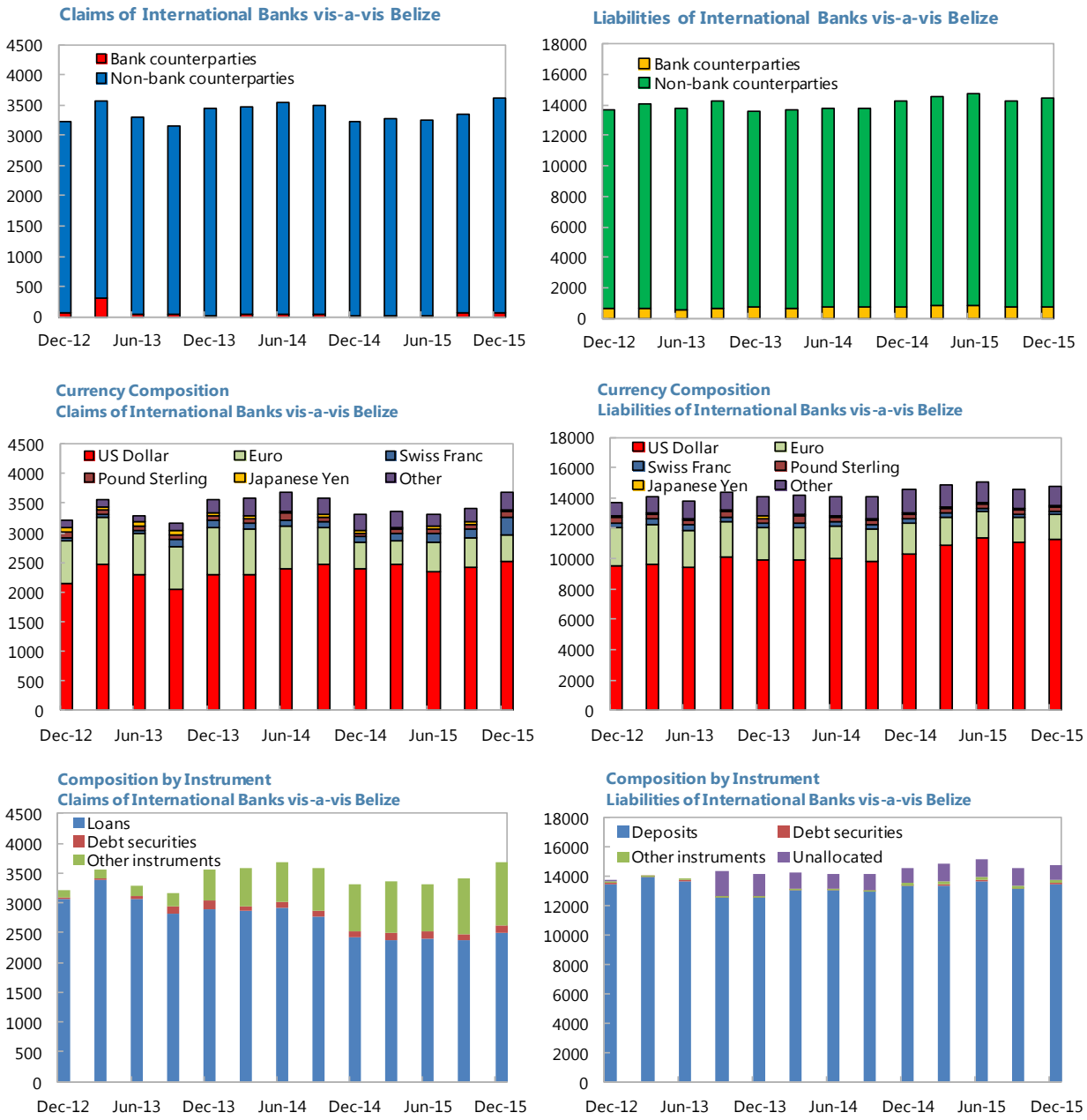
73. **Challenges facing the financial system should be addressed on multiple fronts**. Recommendations discussed during the 2015 Article IV Consultation remain in order. In particular, the true strength of banks' capital buffers should be assessed through an asset quality review (AQR), and weak banks should be ordered to raise more capital. Well-designed capital markets would help banks strengthen balance sheets more rapidly. Safeguards must ensure transparency and disclosures, including on beneficial ownership, and guarantee that any investor who acquires a significant stake in financial institutions fully meet tests of fitness and propriety. Such capital markets could potentially allow banks to tap into the current liquidity to raise capital and promptly bring provisioning to the required prudential levels or else dispose of non-performing assets.

74. **Addressing the loss of CBRs requires closer regional and global coordination.** Such coordination should ensure that home authorities of global correspondent banks proactively clarify and communicate their regulatory expectations, and affected countries continue to strengthen their regulatory and supervisory frameworks to meet relevant international standards, with the help of technical assistance where needed. In this context, Belize's CBR challenge could be addressed through stronger AML/CFT regulation and supervision as well as mechanisms to ensure entity transparency, and understand and mitigate ML/FT risks, especially in the offshore sector. Most solutions to the CBR challenge discussed in Belize and the rest of the Caribbean may require that US private financial institutions shift the perceived internal cost-benefit balance in favor of CBRs with Belizean banks that lost their CBRs, which may take some time as the strengthening of the AML/CFT itself takes time. Use of the CBB platform can only be limited in scope and time as central banks are

not designed to process high-frequency private sector transactions. In addition to the current dialogue between the US and Belize authorities on strengthening Belize's AML/CFT framework, options for a fast-track approval or fast-track acquisition of a US-licensed financial institution that would process international AML/CFT compliant transactions for Belize could be considered. With access to the US payment system and possibility to open accounts for all economic agents doing AML/CFT-compliant transactions with Belize, this US-licensed institution will ensure that Belize remains financially connected with its main trading partners at affordable costs.

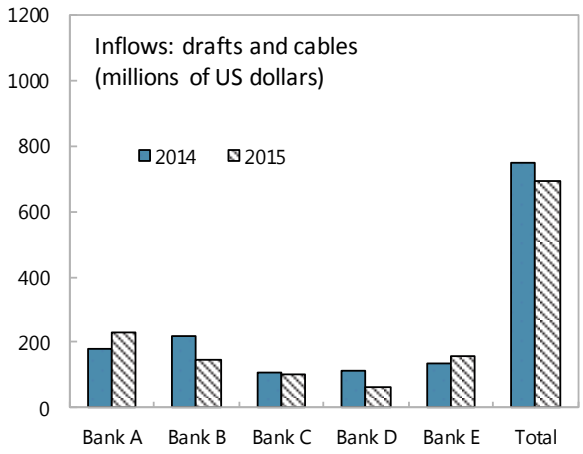
Figure 1. Claims and Liabilities of International Banks in the BIS Area vis-a-vis Belize

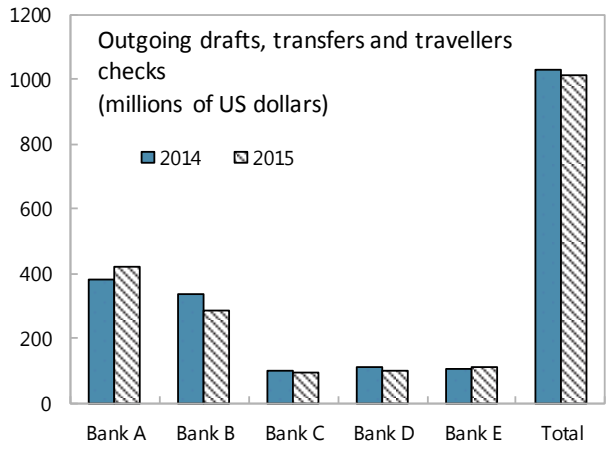
(in USD dollars millions)

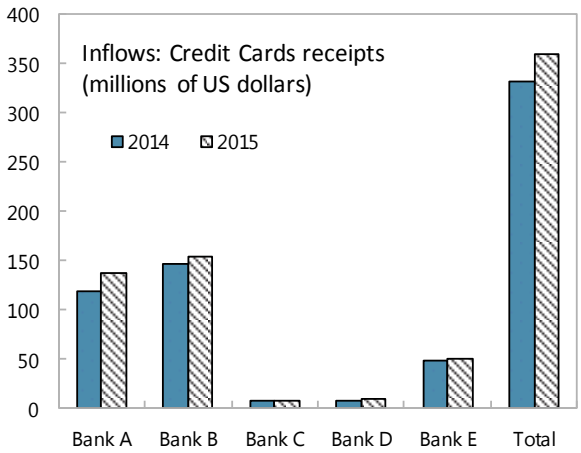


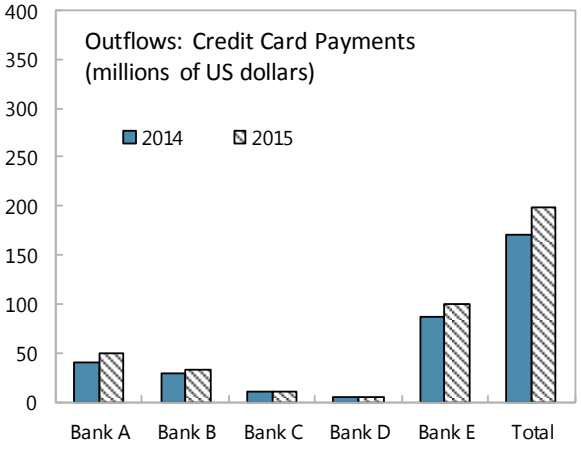
Source: Bank for International Settlements Locational Banking Statistics.

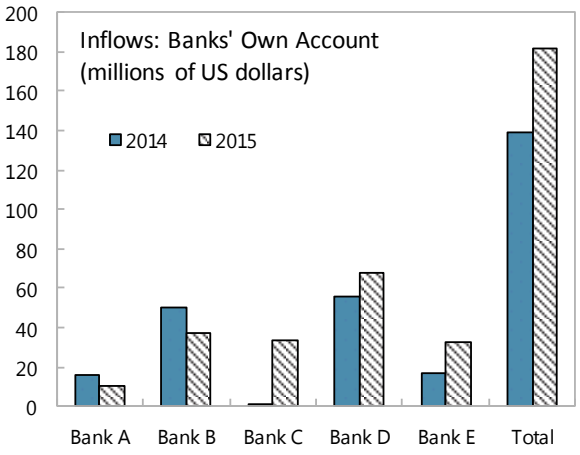
Figure 2. Belize: Evidence from FX Market Data, 2014-15

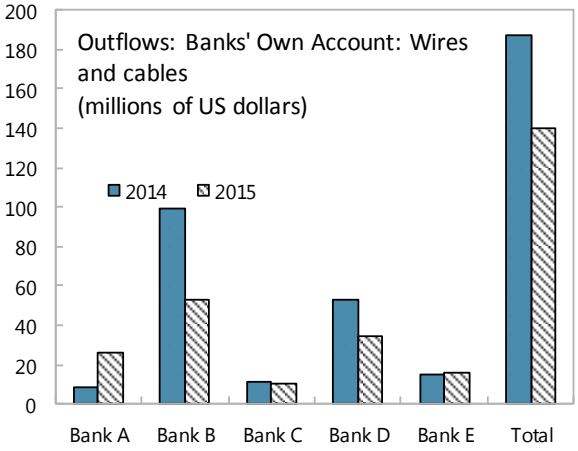






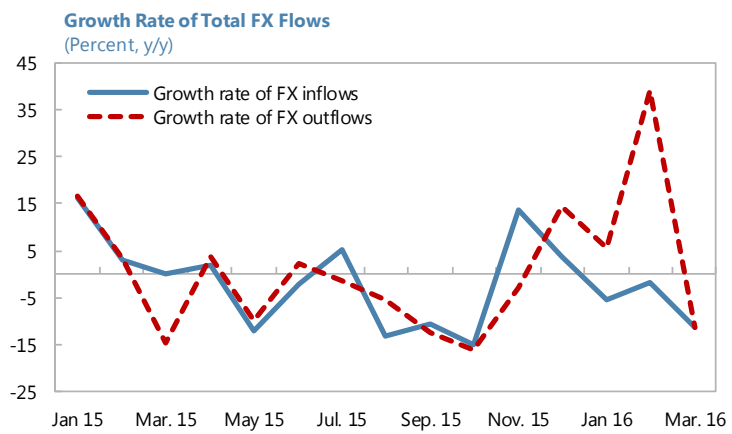


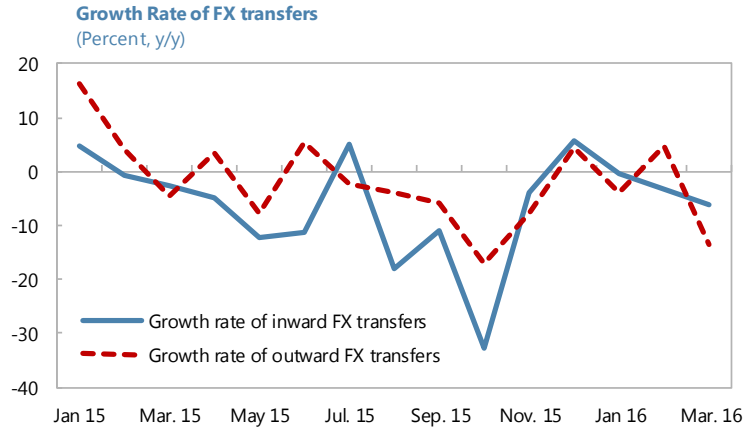


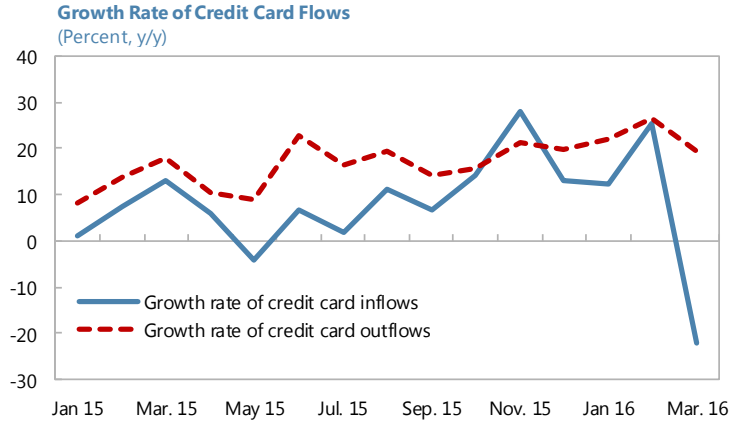


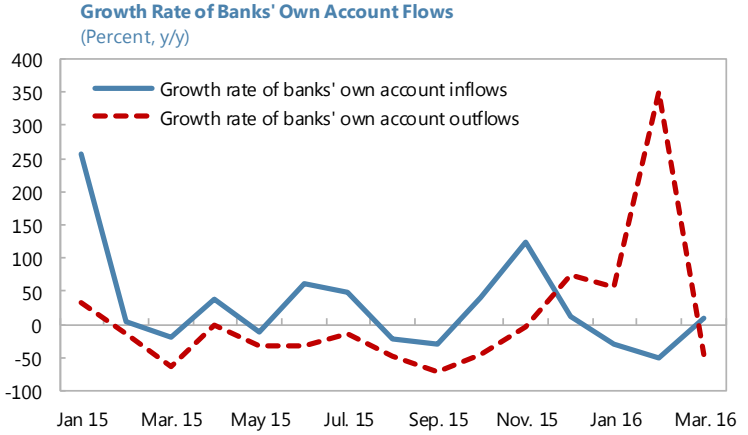
Source: Central Bank of Belize.

Figure 3. Belize: Growth Rates of Foreign Exchange Flows by Instrument







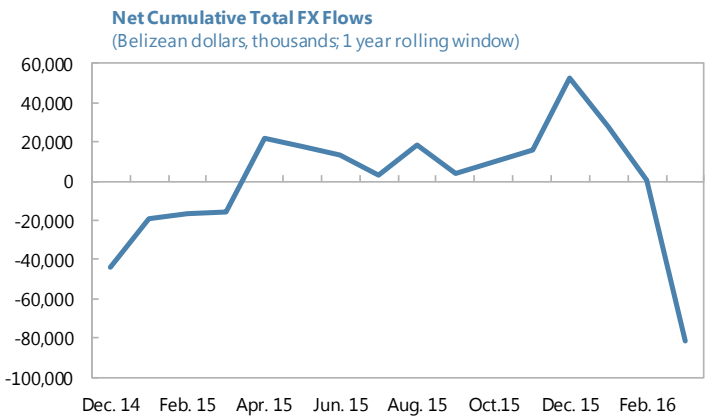


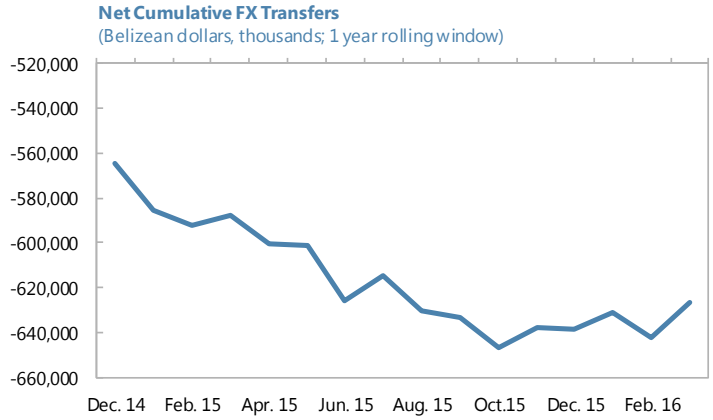
Source: Central Bank of Belize and Fund staff calculations.

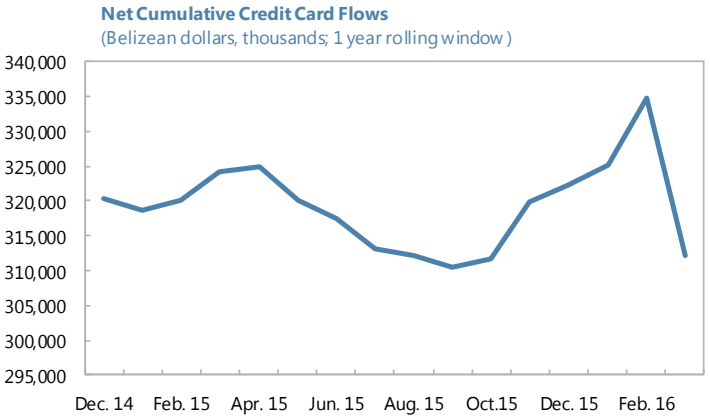
Figure 4. Belize: Annual Net Foreign Exchange Flows by Instrument

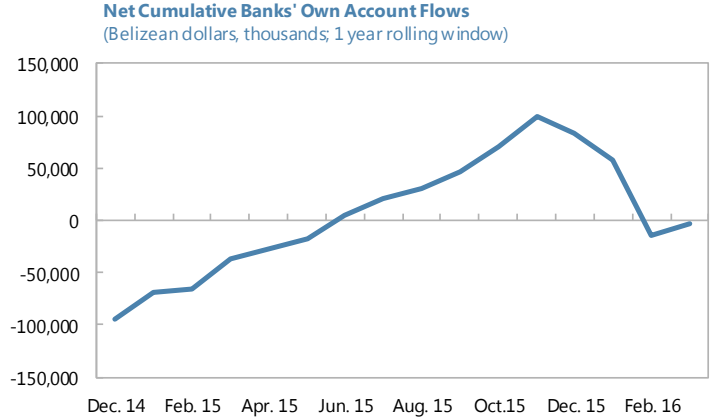
Source: Central Bank of Belize and Fund staff calculations.

Figure 5. Belize: Net Cumulative Foreign Flows by Instrument



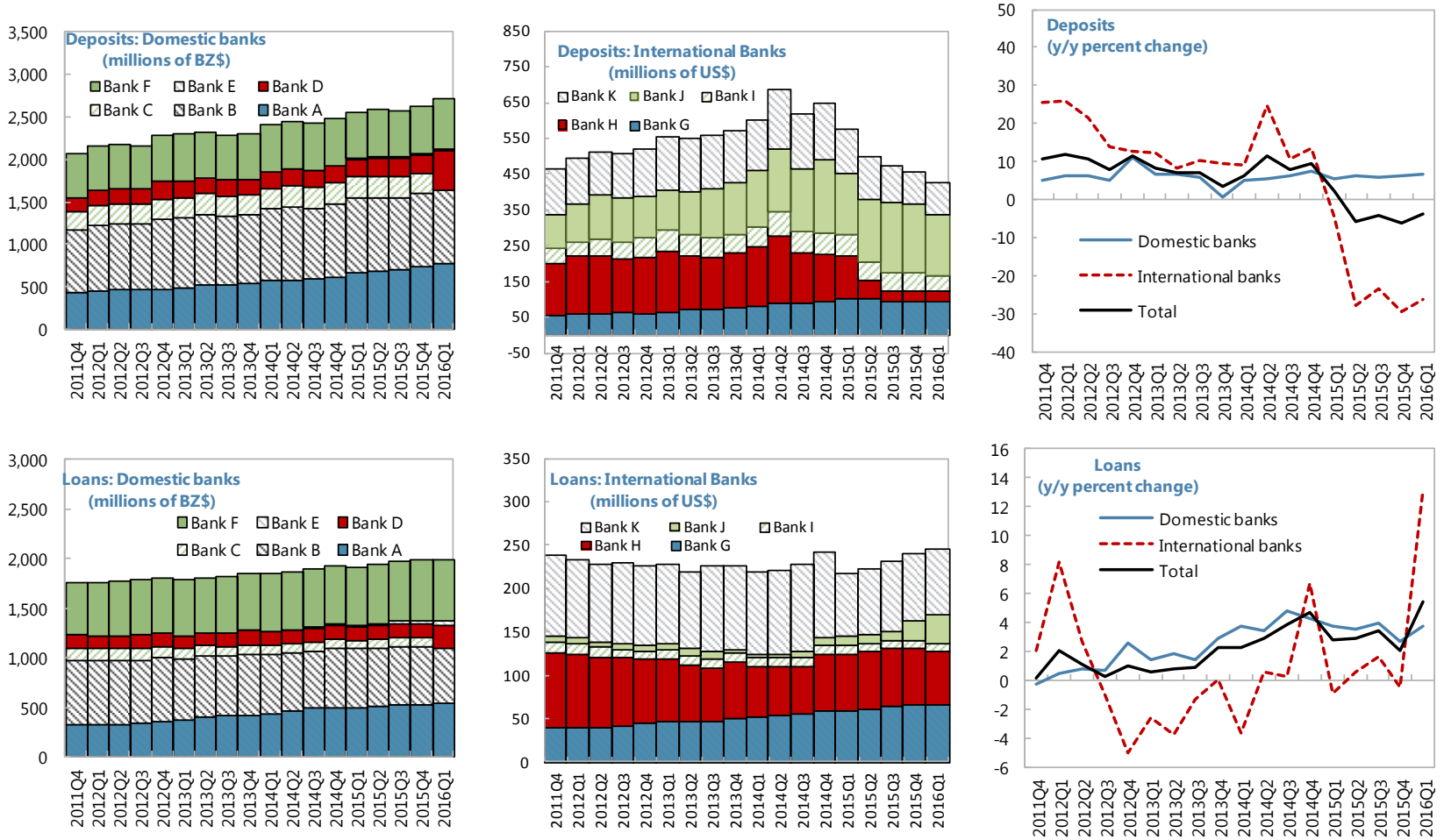






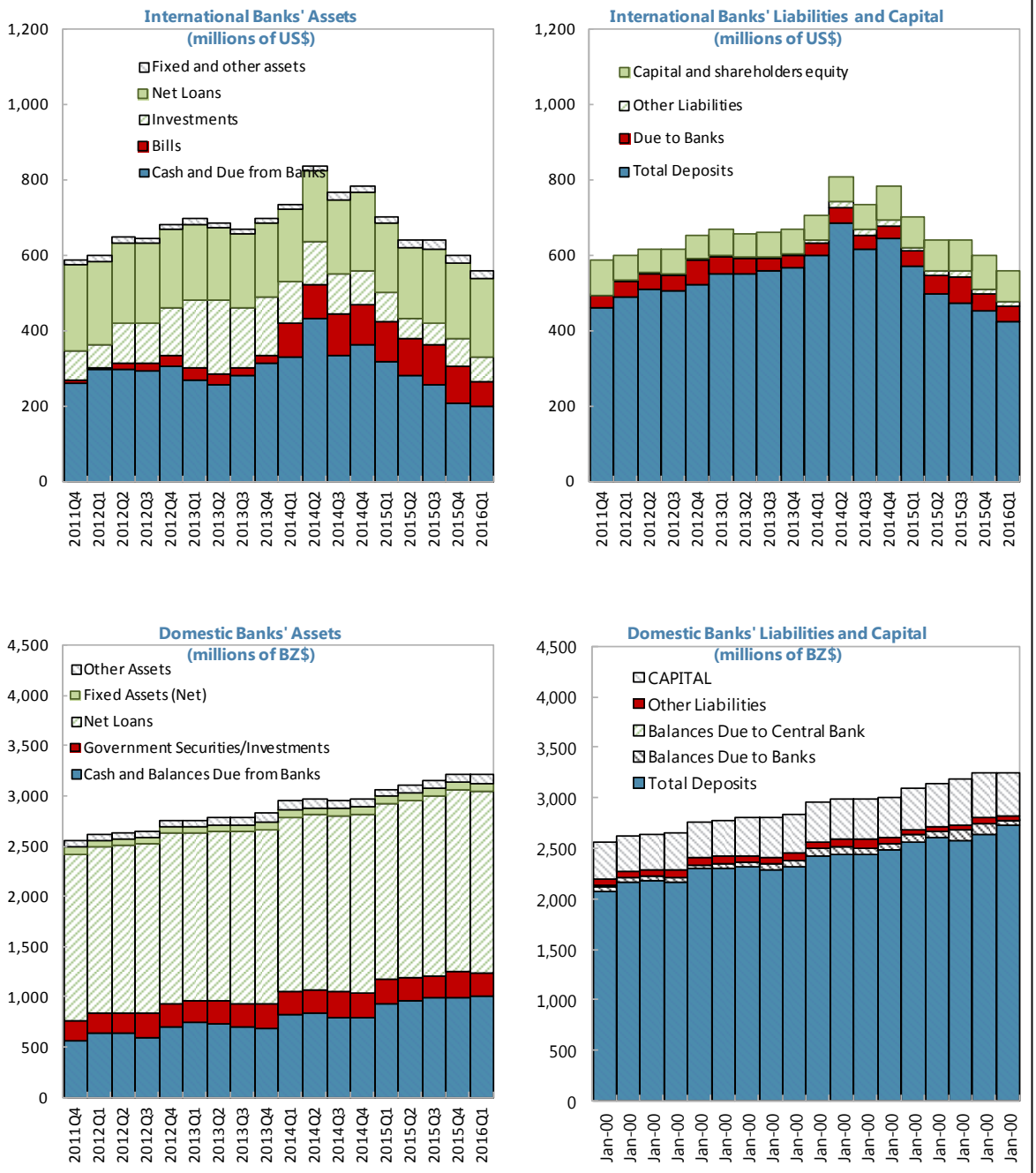
Source: Central Bank of Belize and Fund staff calculations.

Figure 6. Belize: Domestic and International Banks' Deposits and Loans, Dec. 2011-Mar. 2016



Source: Central Bank of Belize and Fund staff estimations.

Figure 7. Belize: Bank Balance Sheets, Dec. 2011-Mar. 2016



Source: Central Bank of Belize and Fund staff estimations.

Table 1. Belize: Structure of the Financial System, December 2006–March 2016 1/

	2006	2007	2008	2009	2010	2011	2012	2013	2014	Mar-15	2015	Mar-16
Number of institutions												
Domestic commercial banks	5	5	5	5	5	5	5	6	6	6	6	5
International commercial banks	8	8	7	7	8	7	7	6	6	5	5	5
Credit unions	14	13	14	14	13	12	12	12	12	12	12	12
Nonbank financial institutions (incl. the DFC)	1	1	1	3	3	2	2	2	1	1	1	1
Domestic insurance companies	15	14	14	13	14	12	12	14	12	10	9	9
Of which: Inactive	2	1	...	...	...	...	...	...	...	...	...	...
Financial system assets (BZ$ millions)	**3,059**	**3,424**	**3,747**	**4,108**	**4,360**	**4,674**	**5,031**	**5,204**	**5,674**	**5,615**	**5,642**	**5,562**
Domestic commercial banks	1,883	2,121	2,419	2,512	2,498	2,552	2,760	2,830	2,997	3,085	3,249	3,247
International commercial banks	618	716	684	783	975	1,178	1,308	1,339	1573	1404	1204	1119
Credit unions 2/	351	391	443	483	535	589	651	717	765.4	786.8	831.3	831.3
Nonbank financial institutions (incl. the DFC)	31	31	33	151	159	144	97	92	90.0	91.0	104.0	107.0
Domestic insurance companies	176	166	168	179	193	211	216	226	248	248	253	258
Assets as percent of total financial system												
Domestic commercial banks	61.6	61.9	64.6	61.2	57.3	54.6	54.9	54.4	52.8	54.9	57.6	58.4
International commercial banks	20.2	20.9	18.2	19.1	22.4	25.2	26.0	25.7	27.7	25.0	21.3	20.1
Credit unions 2/	11.5	11.4	11.8	11.7	12.3	12.6	12.9	13.8	13.5	14.0	14.7	14.9
Nonbank financial institutions (incl. the DFC)	1.0	0.9	0.9	3.7	3.6	3.1	1.9	1.8	1.6	1.6	1.8	1.9
Domestic insurance companies	5.8	4.8	4.5	4.4	4.4	4.5	4.3	4.3	4.4	4.4	4.5	4.6
Assets as percent of GDP	**125.6**	**132.7**	**136.8**	**153.4**	**155.9**	**157.0**	**159.8**	**160.0**	**165.1**	**160.2**	**160.9**	**158.7**
Domestic commercial banks	77.3	82.2	88.3	93.8	89.3	85.7	87.7	87.0	87.2	88.0	92.7	92.6
International commercial banks	25.4	27.7	25.0	29.2	34.9	39.6	41.5	41.2	45.8	40.1	34.4	31.9
Credit unions 3/	14.4	15.1	16.2	18.0	19.1	19.8	20.7	22.0	22.3	22.4	23.7	23.7
Nonbank financial institutions (incl. the DFC)	1.3	1.2	1.2	5.6	5.7	4.8	3.1	2.8	2.6	2.6	3.0	3.1
Domestic insurance companies	7.2	6.4	6.1	6.7	6.9	7.1	6.9	7.0	7.2	7.1	7.2	7.4
Memorandum item:												
Nominal GDP (BZ$ million)	2,435	2,581	2,739	2,677	2,797	2,978	3,148	3,252	3,436	3,506	3,506	3,506

Source: Central Bank of Belize.

1/ Except for the number of institutions, no data exists for the international insurance companies and other international companies.

2/ Data from the seven largest credit unions.

Table 2. Belize: Financial Soundness Indicators of the Banking System (Commercial Banks), December 2006–March 2016

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Mar-16
Capital adequacy											
Regulatory capital to risk-weighted assets	21.2	23.1	19.5	20.7	22.4	23.7	22.3	24.4	23.7	19.4	25.4
Regulatory capital to total assets	16.4	17.2	14.4	15.2	15.3	14.1	13.1	13.7	13.1	13.8	13.4
Banking sector asset composition											
Sectoral distribution of loans to total loans											
Households	23.2	23.5	21.9	20.7	21.8	23.1	23.6	23.7	22.9	22.9	20.3
Agriculture	7.7	7.6	7.8	7.4	7.5	7.6	6.9	8.2	10.4	10.2	10.5
Building and construction	22.8	22.8	23.6	26.4	25.4	25.3	26.5	27.3	27.2	29.1	29.2
Manufacturing	1.8	2.0	2.4	2.7	2.7	2.0	1.8	1.3	1.1	1.8	2.2
Tourism	5.7	8.9	7.6	7.2	7.8	6.2	5.3	5.0	5.0	4.8	4.9
Real estate	11.7	9.6	10.6	10.9	10.8	12.1	13.3	14.3	14.4	14.8	15.0
Retail and wholesale	12.5	11.6	13.1	12.3	12.4	12.1	11.2	9.8	9.5	8.6	9.3
Transport	3.3	3.5	4.4	4.2	3.3	2.9	2.8	2.1	2.3	2.4	2.4
Others	11.5	10.6	8.6	8.1	8.2	8.7	8.5	8.2	7.3	5.4	6.2
Geographic distribution of loans to total loans											
Domestic	94.6	93.4	91.8	90.4	90.2	...	...	...	...	...	...
Foreign	5.4	6.6	8.2	9.6	9.8	...	...	...	...	...	...
Banking sector asset quality											
Nonperforming loans to gross loans	6.2	6.6	12.7	12.2	18.4	19.0	17.2	14.8	14.3	14.0	13.9
Provisions to nonperforming loans	34.5	34.2	23.1	19.5	18.2	28.0	40.8	46.0	57.8	61.9	63.1
NPLs net of specific provisions to capital	22.3	23.3	53.4	50.9	74.2	70.7	55.2	42.3	34.6	29.7	27.3
Specific provisions to gross lending	1.3	1.2	2.0	1.4	2.3	4.5	6.2	5.9	7.3	7.3	7.9
Banking sector earnings and profitability											
Return on average equity (before taxes)	23.2	22.4	0.1	2.9	2.3	0.7	-4.6	0.2	-7.8	-10.1	4.6
Return on average assets (before taxes)	3.7	3.7	0.6	1.3	1.2	1.0	0.5	1.1	1.3	-0.5	1.6
Return on average assets (after taxes)	3.7	3.7	0.0	0.4	0.3	0.1	-0.6	0.0	-1.1	-1.4	0.7
Interest margin to gross income	45.9	47.1	36.1	40.4	45.6	49.3	54.5	57.6	59.8	56.7	54.3
Non-interest expenses to gross income	38.5	37.6	42.8	35.4	38.9	43.2	46.5	51.4	47.2	63.1	46.6
Spread between average lending and deposit rates	8.5	8.3	7.8	7.9	8.2	9.4	9.4	9.0	8.5	8.6	8.5
Banking sector liquidity											
Liquid assets to total assets	19.9	19.7	20.3	21.9	24.3	27.2	29.6	28.8	30.1	32.2	35.3
Liquid assets to total short-term liabilities	25.4	25.6	25.7	27.4	30.5	33.4	37.0	35.5	36.3	40.0	43.1
Total deposits to total loans	99.8	100.1	104.5	108.3	111.4	117.5	127.0	124.3	128.1	132.4	136.5
Foreign currency liabilities to total liabilities	8.0	3.8	6.8	3.5	2.1	0.9	0.3	1.1	1.4	1.2	0.6
Banking sector sensitivity to market risk											
Net open positions in FX to capital	19.3	27.7	11.5	16.3	30.2	...	...	68.7	63.5	32.3	...

Sources: Central Bank of Belize; and Fund staff calculations.

Table 3. Financial Sector Risk Assessment Matrix

Source of Main Threats	Relative Likelihood	Impact if Realized	Policy measures
1. Distress in the banking system.	**High** • While declining, non-performing loans remain high, and while improving, provisioning remains relatively low. Some domestic banks, including the largest bank, which is of systemic proportions, still have low capital buffers, and raising new capital to avoid a deterioration of their capital adequacy ratios could be a challenge, increasing the risk of public sector intervention.	**High** • Financial intermediation could be damaged and seriously disrupt economic activity. • Absorption of the financial cost of recapitalizing distressed banks by the government could entail significant fiscal costs, putting additional pressure on public finances	• Order undercapitalized banks to raise more capital, and maintain tight supervision.
2. Reduced financial services by global/regional banks (withdrawal of CBRs)	**High** • Major Belizean banks have already lost correspondent banking relationships with global/regional banks and finding replacement correspondents is very difficult.	**High** • Financial intermediation could be damaged and disrupt economic activity.	• Support regional efforts to address challenges posed by withdrawal of CBRs. • Temporarily allow banks to use the central bank platforms to process international transactions, while ensuring that appropriate AML/CFT due diligence measures are effectively implemented for these transactions by the banking sector as a whole. • Strengthen the AML/CFT framework and enhance entity transparency

Table 3. Financial Sector Risk Assessment Matrix (Concluded)			
3. Fiscal policy implementation: hesitation in implementing a credible fiscal adjustment will leave the country in a highly vulnerable position.	**High** • Declining petroleum revenue, the increases in compensations for civil servants, and the rolling out of the national health insurance scheme and other spending pressures stemming from the political environment have reduced the likelihood of a significant improvement in the primary balance. Moreover, the authorities are of the view that deteriorating social, infrastructure, and security conditions constrain Belize from tightening the fiscal stance beyond the primary surplus target of 1 percent of GDP.	**High** • Debt will continue to increase in an unsustainable manner. Gross financing needs would rise sharply over the medium term. Securing such financing would be a challenge due to undeveloped domestic market and limited external market access	• Carry out fiscal consolidation gradually raising the fiscal primary balance to 4 -5 percent of GDP by cutting non-essential spending, improving PFM, and raising more revenue by reducing exemptions and strengthening revenue administration. Vigorous growth-enhancing structural reforms could reduce the need for a strong fiscal adjustment.
4. Connected lending and large exposures.	**Medium** • The true extent of connected lending and large exposures is not known as the supervisors still cannot ascertain the identity of all ultimate owners of borrowing entities.	**Medium to High** • If borrowers are connected to the bank or to each other, the level of NPLs could actually be much higher and some banks may actually be insolvent. If the top ten borrowers of each bank default, the CAR of each bank will turn negative, except for three banks.	• Gradually reduce exposure to connected and large borrowers
5. External or internal shocks leading to the need to defend the fixed exchange rate.	**Low to Medium** • If the exchange rate has to be defended, domestic interest rates would have to be raised significantly.	**Medium** • An increase in interest rates would undermine capacity and drive up NPLs further.	• Implement policies necessary to protect the peg.
6. Negative shocks to agriculture, tourism or exports of goods.	**Low** • A significant share of the banking system lending has been extended to borrowers from these sectors.	**Low** • A 25 percent increase in NPLs in these sectors will leave the banking system adequately capitalized. The CARs of a major bank will fall but will remain above the regulatory minimum.	• Monitor and minimize credit exposure to sectors

Table 4. Belize: Stress Tests—Projected Banking System CARs and Capital Shortfalls

Type of Stress Test	Dec. 2015 Actual	Dec. 2016 Proj.	Dec. 2017 Proj.	Dec. 2018 Proj.	Dec. 2019 Proj.	Dec. 2020 Proj.	Dec. 2021 Proj.
Current CAR 1/	24.4%						
CAR taking into account shortfall in provisions 1/	24.4%						
CAR Under Selected Shocks 1/							
Migration shock	24.3%						
Credit Concentration Risk 2/							
Impairment of loans of top ten borrowers of each bank	-1.2%						
Impairment of loans of top five borrowers from the banking system	19.6%						
Impairment of loans of top ten borrowers from the banking system	18.3%						
Liquidity Shock - Days to Illiquidity							
Days till illiquid	37						
Days till breach of Legal Requirement	17						
CARs in Forward-Looking Stress Test Models 3/							
Model 1							
Baseline scenario	25.5%	24.5%	23.4%	22.4%	21.6%	20.8%	20.0%
Low-stress scenario	25.5%	21.9%	22.1%	21.4%	20.7%	20.1%	19.6%
High-stress scenario	25.5%	18.1%	17.9%	16.9%	16.1%	15.3%	14.5%
Model 2							
Baseline scenario	25.5%	24.5%	23.9%	23.2%	22.8%	22.4%	22.0%
Low-stress scenario	25.5%	22.2%	20.7%	19.4%	18.3%	17.3%	16.3%
High-stress scenario	25.5%	17.6%	15.5%	13.6%	11.8%	10.1%	8.4%
Model 3							
Baseline scenario	25.5%	26.7%	27.8%	28.9%	30.0%	31.2%	32.2%
Low-stress scenario	25.5%	22.4%	21.4%	20.4%	19.6%	18.8%	18.1%
High-stress scenario	25.5%	17.0%	14.4%	11.8%	9.4%	6.9%	4.6%
Capital Shortfalls in Forward-Looking Stress Test Models under a CAR minimum of 9% (share of GDP) 3/							
Model 1							
Baseline scenario	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Low-stress scenario	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
High-stress scenario	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Model 2							
Baseline scenario	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Low-stress scenario	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
High-stress scenario	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Model 3							
Baseline scenario	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Low-stress scenario	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
High-stress scenario	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	2.0%
Memorandum item:							
Nominal GDP (US$ millions)	1,753	1,779	1,863	1,948	2,023	2,099	2,178

Sources: CBB data; and Fund staff calculations.

1/ Refers to all banks in the banking system.
2/ Effect of shift of loans to large borrowers from the performing to loss category.
3/ Excludes Choice Bank Ltd. and Caye International Bank Ltd. as in the 2011 FSAP.

Table 5. Belize: Correspondent Banking Relationships 1/

Names Banks	Names of Correspondent Banks	Termination Date of Banking Relationship	Type of Services	Type of Currency
		I. Domestic Banks		
Bank A	Bank of America	18-Dec-15	Full Banking Services	USD,CAD & GBP
	Commerzbank	4-Apr-16	Wire Transfer	USD,CAD, GBP & EURO
	Bank of New York	-	Wire Transfer	USD, Settlement Account for VISA and MASTER CARD
	U.S. Century Bank	-	Wire Transfer and limited Cash Letter Service	USD
Bank B	Bank of America	30-Apr-15	Full Banking Services	USD,CAD & GBP
	Commerzbank	4-Apr-16	Full Banking Services	USD,CAD, GBP & EURO
	Community Federal Savings Bank	29-Feb-16	Settlement for Credit Cards	USD
	Aktif Bank 2/	-	Wire Transfer	GBP & EURO
Bank D	Bank of America	5-Oct-15	Full Banking Services	USD,CAD & GBP
	Commerzbank	4-Apr-16	Wire Transfer	EURO & GBP
	RVB Currency UK Ltd.	29-Oct-15	Wire Transfer	USD & GBP
	Community Federal Savings Bank	29-Feb-16	Settlement for Credit Cards	USD
	WorldClear	-	Wire Transfer	USD, EURO & GBP
Bank F	Bank of America	-	Full Banking Services	USD
	HSBC (UK)	-	Full Banking Services	EURO & GBP
	JP Morgan Chase	-	Full Banking Services	USD
	Citibank NA Inc.	-	Full Banking Services	USD
		II. International banks		
Bank G	Bank of America	25-Jul-15	Full Banking Services	USD,CAD & GBP
	Commerzbank	28-Aug-15	Full Banking Services	USD,CAD, GBP & EURO
	Bancredito Int'l Bank	-	Wire Transfer	USD
Bank H	Bank of America	30-Apr-15	Full Banking Services	USD,CAD & GBP
	Commerzbank	28-Aug-15	Full Banking Services	USD,CAD, GBP & EURO
Bank I	RBS Citizen Bank	30-Apr-15	Wire Transfer	USD
	DMS	31-Mar-15	Prepaid Cards	USD
	Intercommercial Bank Limited	-	Wire Transfer	USD
	Cascadia Premium Finance Corp	-	Wire Transfer	USD & CAD
Bank J	Bank of America	30-Jun-15	Full Banking Services	USD,CAD & GBP
	Commerzbank	30-Sep-15	Full Banking Services	USD,CAD, GBP & EURO
	Community Federal Savings Bank	29-Feb-16	Settlement for Credit Cards	USD
	North Channel Bank	-	Full Banking Services	USD,CAD, GBP & EURO
Bank K	Commerzbank	28-Aug-15	Full Banking Services	EURO & GBP
	Bank of America	5-Oct-15	Full Banking Services	USD,CAD & GBP
	RVB Currency UK Ltd.	Oct-15	Wire Transfer	USD & GBP
	Community Federal Savings Bank	29-Feb-16	Settlement for Credit Cards	USD
	WorldClear	-	Wire Transfer	USD, EURO & GBP

Source. Belizean authorities

1/ One bank ("Bank C") was bought by another one in 2015. One domestic bank ("Bank E") is relatively new and does not have a correspondent bankin relationship.
2/Bank B's USD account with Aktif Bank was closed on 18 March 2016.

Table 6. Belize: Expected Risk-adjusted Cost of Correspondent Banking Activity Under Various Probabilities of Being Fined

	Probability of being fined		
	One in a hundred	One in a thousand	One in ten thousands
Reference fine 1 (US$ 1 million)			
"Probability of being fined" x "Reference fine 1 " (US$ million)	0.01	0.001	0.0001
In percent of Belize's 2015 GDP	0.0006	0.00006	0.000006
In percent of Belize's Banking System's Total Assets at end-March 2016	0.0005	0.00005	0.000005
Reference fine 2 (US$ 10 million)			
"Probability of being fined" x "Reference fine 2 (US$ million)	0.1	0.01	0.001
In percent of Belize's 2015 GDP	0.006	0.0006	0.00006
In percent of Belize's Banking System's Total Assets at end-March 2016	0.005	0.0005	0.00005
Reference fine 3 (US$ 100 million)			
"Probability of being fined" x "Reference fine 3 " (US$ million)	1	0.1	0.01
In percent of Belize's 2015 GDP	0.06	0.01	0.001
In percent of Belize's Banking System's Total Assets at end-March 2016	0.05	0.005	0.0005
Reference fine 4 (US$ 1 billion)			
"Probability of being fined" x "Reference fine 4 " (US$ million)	10	1	0.1
In percent of Belize's 2015 GDP	0.6	0.06	0.006
In percent of Belize's Banking System's Total Assets at end-March 2016	0.5	0.05	0.005
Reference fine 5 (US$ 10 billion)			
"Probability of being fined" x "Reference fine 5 " (US$ million)	100	10	1
In percent of Belize's 2015 GDP	5.7	0.6	0.06
In percent of Belize's Banking System's Total Assets at end-March 2016	4.6	0.5	0.05
Memorandum Items			
Belize's 2015 GDP (US$ billion)		1.75	
Belize's Banking System Assets at end-March 2016 (US$ billion)		2.18	

Source. IMF staff estimates

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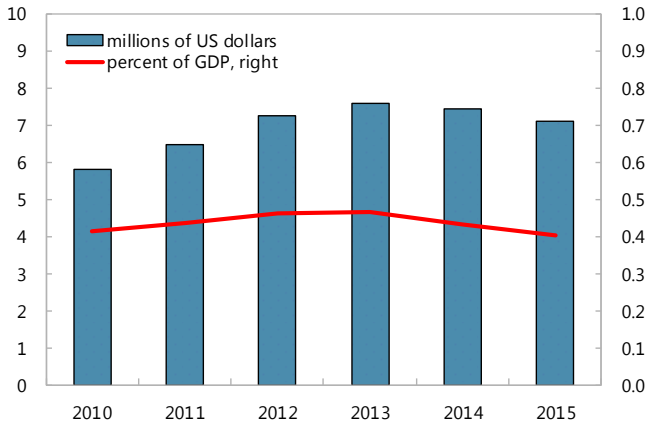
Annex I. Belize's Offshore Sector and the Associated ML/TF Risks

1. **Belize is not a major regional financial center, but has a substantial offshore financial sector.** The International Financial Services Commission (IFSC) offers, through a high number of registered agents (RAs), the services of establishing legal persons and arrangements. There are currently around 150 RAs that were involved since 1991 in the creation of a high number of entities: around 150,000 International Business Corporations (60,000 active), 456 Limited Liability Companies (226 active), 254 foundations (205 active), and 2400 trusts (1800 active). The RAs have extensive network of foreign business introducers, and offer online creation of complex structures with bank accounts in Belize. The IFSC also licenses financial service providers (e.g. FX, insurance, trading, mutual funds) without the requirement to have a physical presence or operate in Belize.

2. **The offshore sector generates relatively low fiscal revenues, and its deposits in Belize international banks appear limited (text table below)**. The IFSC licenses several types of businesses. The licensed providers are required to deposit their capital in Belizean Banks. Additionally, the IFSC generates revenue from the registration of entities and related fees (e.g. creation, renewal, certificates). The financial services are not required to hold offices and therefore they do not have to have employees in Belize. However, the 150 registered agents have on average 1 to 10 employees.

Fiscal Revenue Collected from the Offshore Sector



Source: The International Financial Services Commission.

3. **However, the offshore sector offers services that are highly vulnerable to money laundering and terrorism financing**. Money laundering and terrorist financing (ML/TF) risks stem from the complexity (e.g. shell IBCs with chain of companies in multiple jurisdictions) and related potential misuse of legal persons and arrangements (e.g. companies, trusts, and foundations), their lack of transparency and the possibility for them to hold accounts in offshore banks. They also create significant reputational risks for Belize. The IFSC lacks the capacity to properly regulate and supervise the RAs and financial service providers. There are two company registers that hold basic information about these entities (e.g. company name, proof of incorporation, address), but are not opened to the public. Moreover, the related beneficial ownership information is not always available and often not up-to-date nor accurate. The highest number of companies is under the form of IBCs, which can issue bearer shares and have no explicit requirement to have their beneficial ownership information and other records kept by RAs in Belize. Most large registered agents are owned by international banks and operate from the same premises.

Capital Requirement Deposited at International Banks in Belize, 2015 1/ (in thousands of US dollars, unless otherwise indicated)			
Types of Licenses	**Number of Licensees**	**Capital required per licensee**	**Total amount deposited**
Registered Agents	106	5	530
Trust Services	54	10	540
Mutual Funds	…	…	…
Public fund	3	50	150
Private fund	2	30	60
Asset Protection	18	25	450
Trading in Securities	101	100	10100
Trading in FX	4	100	400
Money Exchange Services	3	50	150
Brokerage, Consultancy	10	25	250
Safe Custody	2	25	50
Money Transmission	5	50	250
Money Brokering	1	25	25
Money Exchange Services	3	75	225
Payment System	7	50	350
Accounting Services	0	25	0
TOTAL	**319**	**…**	**13,530**

Source: Belize International Financial Services Commission.

1/ These Deposits are held at Belize Bank International Ltd., Choice Bank Ltd., Atlantic International Bank Ltd. and Heritage Int'l Bank & Trust Ltd.

4. **The high ML/TF risks in the offshore sector and the associated reputational costs on Belize could be contributing to the withdrawal of Correspondent Banking Relationship with global banks.** Before the termination of the CBRs, the affected banks were receiving regular requests of information about high-risk accounts mostly held by complex and opaque entities that lack the beneficial ownership information. Respondent banks in Belize faced difficulty sharing the relevant information because of the lack of proper mechanism to have the related beneficial ownership information available, accessed, and disseminated in a timely manner. This might have created a burden on correspondent banks to conduct further enhanced due diligence, which might have led them to re-assess the cost and benefits of the relationship and terminate it.

Annex II. NPL Resolution Framework in Belize

1. **The authorities could further strengthen the framework for NPL resolution.** A good framework for NPL resolution would typically include the following essential elements: (i) adequate information/data availability (credit bureaus, collateral registry, real estate transaction registry, good land cadastral systems, etc.); (ii) strong debt enforcement and insolvency regimes enabling efficient work-outs of insolvency cases and therefore reducing NPLs; (iii) strong supervision of banks by the regulator, including strong practices of prudent collateral valuation and timely/adequate loss recognition and provisioning; (iv) strong capacity of banks in managing their NPLs (e.g. specialized work-out units and knowledge); (iv) a well-functioning market where banks can buy or sell bad loans; and (v) absence of various disincentives towards NPL resolution such as tax disincentives, or protection of special interest groups.

2. **The NPL resolution framework in Belize has some strong features.** Banks have the capacity for dealing with bad debts, and there are no direct impediments for the development of markets for NPLs. There are no regulations prohibiting the trade of NPLs either with other banks or with third parties. Banks are required to have management strategies and action plans for NPL reduction. Banks have dedicated NPL units and appear to have an adequate NPL restructuring toolkit. The CBB indicated that there have been portfolio sales.

3. **However, some weaknesses remain.** There are significant gaps in the information/data framework: (i) there is no formal credit bureau and banks depend on a private bureau with voluntary participation; (ii) there are also no public registers for movable property and for real estate transactions, which reduces information set for collateral valuation. There are also weaknesses in debt enforcement and the insolvency regime as it takes a long time to resolve a corporate insolvency, which lengthens time needed to resolve corporate NPLs.

Annex III. Estimating the Potential Impact of the Loss of CBRs.

1. **The potential impact of the loss of CBRs on Belize is estimated using three "CBR stress scenarios":**

- The "**baseline scenario**" is the one currently assumed in the staff's baseline macroeconomic framework, which does not incorporate any impact from the loss of CBRs. This is due to the fact that there are still banks with CBRs with full banking services and wire transfer arrangements, which are assumed to continue in the baseline. Moreover, the CBB can always step in to facilitate the flow of foreign exchange between banks in Belize and partly correct the uneven distribution of foreign exchange among banks.

- The "**low CBR stress scenario**" assumes that only the banks that currently have CBRs with full banking services will continue to process wire transfers. These banks will only process 90 percent of transactions affected by CBR losses in other banks because of their different business models, capacity constraints or stricter due diligence requirements. Other banks will only be able to process credit card transactions through their accounts with credit card networks or restricted accounts such as brokerage accounts. The CBB will not be able to facilitate flows of foreign exchange between banks, possibly to allow the affected banks to offset the impact of the loss of CBRs with more income from investments abroad. The banks with CBRs with full banking services will be constrained by the amount of foreign exchange their own customers generate. It is assumed that lower financial transactions are associated with lower economic activity associated with these financial transactions in the same proportions. For example, if only 90 percent of the baseline value of an exporter's financial transactions can be processed through banks in a CBR stress scenario, it is assumed that under this scenario, the value of its exports would amount to only 90 percent of their baseline level. Performing loans of borrowers that can no longer do wire transfers to repay their loan become non-performing, which increases specific provisions and reduce banks' capital. Borrowers' reduced revenue are assumed to reduce their performing loans with an elasticity of performing loans to revenue of 2 percent.

- The "**high CBR stress scenario**" is similar to the "low CBR stress scenario" with difference that the banks with CBRs with full banking services will only process 30 percent of the transactions affected by CBR losses. The banks with CBRs with full banking services will be constrained by the (lower) amount of foreign exchange their own customers generate.

2. **In the low CBR stress scenario, the impact of the loss of CBRs on trade links is limited, but is more sizeable through balance sheets links.** Assuming that 90 percent of the affected transactions find workarounds, real GDP could drop by about 1 percentage point every year relative to the baseline during 2016-2021. The value of annual exports of banks' customers drops by about 3-4 percentage points of GDP, and the value of their annual imports by about 4 percentage points of GDP during the same period. Annual FDIs drop by about 0.3 percentage point of GDP. The banking system's CAR would fall by close to 4.5 percentage points but would remain above prudential minimum of 9 percent, though some banks' CARs could fall to close to the prudential minimum, including a major bank. The impact on banks Net Foreign Assets would also be marginal as both assets and liabilities are affected in a similar manner.

Annex IV. Belize Foreign Exchange Market

Foreign Exchange Framework

1. **The currency of Belize is the Belize dollar, which is officially pegged to the U S dollar at the rate of BZ$ 1 per US$ 0.5 since 1978.** The CBB sets the exchange rate and the maximum commissions banks may charge, for foreign exchange transactions. A stamp duty of 1.25 percent introduced in 1984 is levied on all FX sales and is collected by Authorized Dealers (Ads) on foreign exchange sale transactions above $100.

2. **The FX regime operates on the basis that most transactions involving FX require the authorization of the CBB.** However, ADs have delegated authority to sell FX to their clients within certain limits. Transactions in excess of the set limits must be referred to the CBB for approval. CBB authorization for current payments and transfers is granted routinely upon verification of the required documentation. Use of credit card for overseas payments is not subject to limits by the CBB.

3. **There is a general surrender requirement.** FX earners, including exporters are required to repatriate and surrender their foreign exchange earnings with an AD bank, within six months of the date of export unless specifically exempt by the CBB. Sugar export proceeds are sold to the CBB directly. Exporters may retain, with CBB permission, FX receipts on FX accounts with local banks which they can use for imports.

4. **Import payments are generally unlimited.** ADs may provide FX for import payments (through LCs or bank collections) without CBB prior approval except for advance payments. There is a special arrangement in place to provide FX for fuel imports. Since December 2014, banks are required to sell FX in defined amounts to a designated fuel importer (Puma Energy Bahamas SA) in proportion to each bank's share of foreign assets within the banking system.

5. **Capital transactions, both inward and outward are subject to CBB permit.** ADs do not have delegated authority to provide FX for capital transactions such as overseas investment by residents or for loans extended by residents to non-residents. Capital account transactions (such as FDI, portfolio investments, foreign currency loans and deposits, overseas investments) require the prior approval of the CBB. Nonresidents' acquisition of real estate in Belize also requires CBB permit.

6. **To encourage FDI, entities established in export processing and free zones are exempt from the FX controls.** Belize has export processing zones (EPZs) set up under the EPZ Act 2000 (revised). Belize also has Free Zones (FZs) under the Free Zones Act 2005. Entities set up and operating in these zones are exempt from taxes and duties as well as from the foreign exchange regulations. Belize also has a large offshore financial and business sector. This sector comprises 150 registered agents and their intermediaries abroad as well as financial institutions (licensed as international banking institutions). This sector is exempt from the foreign exchange regulatory framework.

The Formal FX Market

7. **The official FX market in Belize consists of three segments.** The CBB regularly trades with the government, one exporter and only occasionally with ADs. The interbank market is shallow and largely inactive despite enabling regulatory framework. The intra-bank market is the most active segment, the transactions volume reaches 86 percent of total FX market volume.

8. **The interbank market is largely inactive.** Although banks may trade with each other within the trading band fixed and announced by the CBB on a daily basis, there is hardly any trading activity in the interbank market. Banks' reluctance to trade with each other previously may have resulted from occasional foreign exchange shortages and competition for costumers. The absence of a net open FX position limit which allows banks to keep long FX positions may have also contributed to the meager interbank trading.

9. **The majority of FX transactions are conducted by ADs in the retail segment.** Domestic commercial banks, the Accountant General and the Postmaster General are licensed as ADs. Out of these, four AD banks (Belize bank, Heritage bank, Atlantic bank and Scotia bank) are the most active participants in the foreign exchange market. Foreign exchange bureaus (cambios) are not legally authorized to conduct foreign exchange business in Belize since 2005. They were de-licensed in 2005 as they were considered contributing to the parallel market.

10. **Two money transfer entities compete with banks in the transfer of minor amounts.** These entities (MoneyGram and Western Union) are specifically licensed by CBB for these activities. Under the current licensing conditions, these entities can only remit foreign exchange out of the country up to the amount of foreign exchange received (by remittances) through them. They primarily conduct transactions for personal remittances (such as for family maintenance, education), and their competitive advantage is in serving under-banked or un-banked segments of the market as well as immigrant workers. They are net FX earners for Belize.

11. **The retail foreign exchange market in Belize shows strong seasonality in both demand and supply**. Most foreign exchange inflows accrue in November through May. This is the peak season for tourism as well as well as for exports of agricultural produce such as citrus fruits, bananas, sugar and marine products. During the remaining period (June to October) foreign exchange inflows are significantly lower. While demand for foreign exchange allegedly has mostly adjusted to this seasonal excess supply in foreign exchange resources, even the diminished demand outstrips the supply in the lean period, occasionally resulting in longer wait time and queues for foreign exchange.

12. **Businesses employ a variety of strategies to deal with the challenges to obtain FX**. Many foreign exchange users (including importers and exporters) maintain accounts with all of the four Ads that are active in the FX market or more. This allows them to shop around and buy FX from the AD which has sufficient FX to offer or collect the total amount of the needed FX in portions from more than one AD. They also occasionally structure their international contracts in a way that allows them to net their FX liabilities for imports with receivables for exports.

13. **The loss of CBRs also constraints banks' ability and willingness to trade with each other.** The termination of CBRs for two of the four banks active in the foreign exchange market has contributed to an imbalance in the availability of FX resources with ADs. Banks, which have lost CBR for USD, have idle foreign exchange resources which can be hardly mobilized for their clients' use. These ADs are allegedly reluctant to sell this FX to other ADs as they expect a revival of their CBRs. The CBB only rarely intervenes, despite the recurring shortage of foreign exchange with some AD banks and imbalance in foreign exchange resources amongst AD banks.

14. **The loss of CBRs has led to a structural change in the retail FX market.** Traditionally Belize bank and Heritage bank provide banking services to businesses in the main export sectors. Hence, the bulk of the FX receipts accrue to these banks. Since the US-dollar CBRs of these banks have been terminated, they can provide only limited international payment services to their clients. ADs that maintain some CBR for Euro and UK Pound Sterling currencies can still provide services in these currencies albeit with delays and at a higher cost. As the bulk of the foreign exchange demand is in US dollar, this limited service does not alleviate their customers' demand for FX. As a result, many of their clients try to obtain FX from other banks that still have US dollar CBRs, especially Atlantic bank and Scotia bank, thus contributing to queues in these banks.

Parallel foreign exchange market

15. **There is anecdotal evidence of the existence of a parallel FX market.** Although the exact nature and volume of transactions in this segment of the FX market is difficult to assess, it appears that a parallel market for both cash and account transactions exists and operates at a premium that varies depending on the actual availability of FX in the official market. The tourism industry is considered as contributing to the parallel market. Allegedly, tour operators, hotels and tourist service providers are also receiving payments for their services outside Belize either in unauthorized foreign currency accounts maintained abroad or indirectly through third parties abroad.

Annex V. Lowering Compliance Costs through Industry Initiative[1]

1. **Various industry initiatives have been proposed to reduce costs of compliance and risk management and to increase the overall efficiency of CBRs so as to reduce negative externalities (CPMI, 2015a).** These include: (i) using know your customer utilities created by private sector entities with the aim of storing in a single repository relevant customer due diligence information; (ii) promoting the use of the Legal Entity Identifier for all banks involved in correspondent banking;[2] (iii) reviewing the format of payment messages to ensure that they meet the needs of clients, the industry and law enforcement in a cost-effective way; and (iv) further facilitating enhanced due diligence by promoting the use of the Legal Entity Identifier for identifying corporate customers, including provisions on information sharing with correspondent banks into the contracts with cross-border payment services customers, and developing centralized databases—building on the Mexican experience—on the identities, business and transactions of banks' customers active in cross-border payment services.

2. **Market-based solutions, such as bundling of banking products and risk-based pricing, may help in some cases.** For some respondent banks, compliance costs relating to customer due diligence may be too high to undertake CBRs. One potential solution would be to bundle other banking services (e.g., credit card clearing, letters of credits, fixed income and wealth management operations) with CBRs. This would allow the use of the same robust compliance system to reduce the fixed cost of compliance over a larger scale of banking services. For correspondent banks, differentiating and increasing pricing of CBRs across different countries and respondent banks, which has been attempted in The Bahamas, may help address the lack of profitability stemming from low volume of transactions or increased compliance costs. The respondent bank could then pass on these higher costs for maintenance of CBRs to its customers. Improving internal systems to prorate compliance costs across customers could also help banks to better price their services and risks.

3. **Innovative money transfer start-ups have entered the remittances market in recent years offering lower cost alternatives to traditional Money or Value Transfer Services.** By offering an alternative to banks, they can enable customers to transfer money more easily, including by the use of virtual currencies and the blockchain distributed ledger technology, for international payments (CPMI, 2015b, He et al., 2016). While the growing presence of non-banks in payment systems is increasing competition and could partially address the reduction in CBRs, it also raises potential issues associated with operational and ML/TF risks, leveling playing field, consumer protection and outsourcing. In particular, in order to be viable, such alternatives need to address financial integrity issues related to their anonymity and cross-border reach to mitigate the risk migration.

[1] This Annex is from Erbenová et al. (2016).

[2] The Legal Entity Identifier is a 20-character, alpha-numeric code, to uniquely identify legally distinct entities that engage in financial transactions and is issued by **Local Operating Units** of the Global Legal Entity Identifier System . http://www.leiroc.org/lei.htm

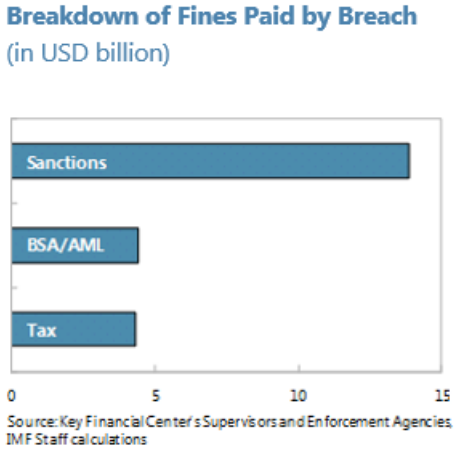
4. **However, the market is still dominated by traditional money transfer systems and start-ups need to be subject to prudential regulations**. Most starts-ups rely on existing banking infrastructure for transfers or settlement. For example, the largest traditional money transfer company accounted for 13 percent of remittance flows in 2014. Despite its growth, the largest money transfer start-up accounted for less than 2 percent of global remittances. It's business model hinges upon building a large network of customers to create opportunities for matching transactions, which will take time. In addition, these starts-up need to be subjected to prudential regulations in order to mitigate operational and market risks.

5. **Effective oversight frameworks for new payment methods need to be developed to safeguard public confidence and financial stability**. In particular, authorities should establish: (i) a clear legal regime; (ii) proportionate AML/CFT measures to prevent financial integrity risks; (iii) fund safeguarding measures such as insurance, similar guarantee schemes, or "pass through" deposit insurance; (iv) contingency plans for operational disruptions; and (v) risk controls and access criteria in payment systems (BIS and World Bank, 2015, Khiaonarong, 2014).

6. **The Legal Entity Identifier approach may help financial institutions manage ML/TF risks through enhanced screening, customer due diligence improvements and implementation of FATF standards**. Know your customer utilities and information-sharing mechanisms require an unambiguous identification of the banks or customers included in the respective databases. The Legal Entity Identifier can be promoted as an efficient global standard for these utilities without the need for a separate standard. This approach can also help financial institutions to identify specific entities unambiguously and increase the effectiveness of automatic screening packages, particularly for identifying sanctioned entities. Finally, it may become an option for supporting the implementation of specific FATF recommendations (e.g., on the provision of originator and beneficiary information in payment messages). However, the feasibility of this approach remains to be tested.

Annex VI. Major Enforcement Actions Against Banks Related to Customer Due Diligence[1]

1. **Most large misconduct fines related to customer due diligence issues have been applied for breach of the U.S. sanctions framework.** A survey of the largest penalties for customer due diligence-related breaches reveals that out of 24 fines of more than US$ 100 million, all but one originate in the U.S. Under this category, most penalties involved egregious violations of economic and trade sanctions, with AML-CFT related penalties representing less than 20 percent of total. Some examples of the fines that have been imposed are:



- **On economic and trade sanctions violations: BNP Paribas**. In 2014, BNP Paribas pleaded guilty to large-scale violations of U.S. economic sanctions. The bank moved billions of dollars through the U.S. financial system on behalf of Sudanese, Iranian and Cuban entities, which were subject to U.S. sanctions. The court ordered the bank to pay US$ 8.9 billion in forfeitures and fines, and sentenced it to a five-year probation during which the bank is required to enhance its compliance policies and procedures.

- **On anti-money laundering: JP Morgan**. In 2014, JP Morgan held the primary bank accounts used in Mr. Madoff's billion-dollar investment fraud. U.S. law enforcement authorities charged the bank for failing to report suspicious transactions related to the accounts used in the scheme. The bank entered into a deferred prosecution agreement and paid US$ 2.5 billion in civil forfeitures and penalties.

- **On tax evasion: Credit Suisse**. In 2014, Credit Suisse pleaded guilty to assisting U.S. taxpayers in filing false tax returns to evade U.S. income taxes and agreed to pay US$ 2.6 billion in forfeiture amounts and penalties. The bank had facilitated fund transfers to evade currency transaction reporting requirements and provided offshore cards to clients to repatriate their funds in undeclared accounts.

[1] This Annex is from Erbenová et al. (2016).