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# BELIZE

## SELECTED ISSUES

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INTERNATIONAL MONETARY FUND

# BELIZE

## SELECTED ISSUES

September 1, 2015

Approved By
**Western Hemisphere Department**

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# Glossary

| | | |
|---|---|---|
| ACP | - | Africa, Caribbean and the Pacific |
| AML/CFT | - | Anti-Money Laundering and Combating the Financing of Terrorism |
| AQRs | - | Asset Quality Reviews |
| ASR | - | American Sugar Refining |
| ATM | - | Automated Teller Machine |
| BOA | - | Bank of America |
| BCBS | - | Basel Committee on Banking Supervision |
| BEL | - | Belize Electricity Limited |
| BELCOGEN | - | Belize Cogeneration |
| BSCFA | - | Belize Sugar Cane Farmers Association |
| BSI | - | Belize Sugar Industries |
| BTU | - | British thermal unit (unit of energy) |
| CAMELS | - | Capital Adequacy, Assets, Management Capability, Earnings, Liquidity, Sensitivity |
| CAP | - | Common Agriculture Policy |
| CAR | - | Capital Adequacy Ratio |
| CARTAC | | Caribbean Technical Assistance Centre |
| CBA | - | Central Bank Act |
| CBB | - | Central Bank of Belize |
| CBR | - | Corresponding Banking Relationship |
| CFE | - | Mexico's Federal Energy Commission |
| CRS | - | Credit Reporting System |
| CFATF | - | Caribbean Financial Action Task Force |
| CGBS | - | Caribbean Group of Banking Supervisors |
| CRR | - | Cash Reserve Ratio |
| CU | - | Credit Union |
| CUA | | Credit Union Act |
| DBFIA | - | Domestic Banks and Financial Institutions Act |
| DFC | - | Development Finance Corporation |
| DNFBPs | - | Designated Non-Financial Business Professionals |
| DNFBs | - | Designated Non-Financial Businesses and Professions |
| ECCB | - | Eastern Caribbean Central Bank |
| ECCU | - | Eastern Caribbean Currency Union |
| ELA | - | Emergency Liquidity Assistance |
| EPA | - | European Partnership Agreement |
| FSR | - | Financial Stability Report |
| FSAP | - | Financial Sector Assessment Program |
| FATF | - | Financial Action Task Force |
| FI | - | Financial Institution |
| FIU | - | Financial Intelligence Unit |
| FSCTCI | - | Financial Services Commission of Turks and Caicos Islands |

| | | |
|---|---|---|
| FSSD | - | Financial Sector Supervision Department |
| FSU | - | Financial Stability Unit |
| GOB | - | Government of Belize |
| IBA | - | International Banking Act |
| IBC | - | International Business Company |
| ICRG | - | International Cooperation Review Group |
| IFC | - | International Finance Corporation |
| IFSC | - | International Financial Services Commission |
| IFRS | - | International Financial Reporting Standard |
| MESTPU | - | Ministry of Energy, Science, Technology, and Public Utilities |
| MLTPA | - | Money Laundering and Terrorism Prevention Act |
| MOF | - | Ministry of Finance |
| MOU | - | Memorandum of Understanding |
| NBBL | - | National Bank of Belize Limited |
| NEP | - | National Energy Policy |
| NPLs | - | Non-Performing Loans |
| NPS | - | National Payments System |
| NPOs | - | Not-for-Profit Organizations |
| PEARLS | - | Protection, Effective Financial structure, Asset quality, Rates of return and cost, Liquidity and Signs of growth |
| POS | - | Point of Sale |
| PUC | - | Public Utilities Commission (PUC) |
| RBA | - | Risk-Based Approach |
| ROAs | - | Returns on Assets |
| RFP | - | Request for proposals |
| SICB | - | Sugar Industry Control Board |
| SCPC | - | Sugar Cane Production Committee |
| SDP | - | Strategic Development Plan |
| SIFIs | - | Systemically Important Financial Institutions |
| SIRDI | - | Sugar Industry Research and Development Institute |
| SOI | - | Supervisor of Insurance |
| TA | - | Technical Assistance |
| TCI | - | Turks and Caicos Islands |
| TRQ | - | Tariff Rate Quota |
| WEO | - | World Economic Outlook |
| WTO | - | World Trade Organization |

# A REVIEW OF RECENT EFFORTS TO STRENGTHEN BELIZE'S FINANCIAL SECTOR[1]

## A. Executive Summary

**1. Belize's banking system has continued to strengthen since the 2014 Article IV Consultation in June 2014.** Non-performing loans (NPLs) continue to decline and their provisioning continues to improve. The banking systems' ability to absorb losses continues to move in the right direction. Some banks reported losses recently because of higher expenses on provisioning, loan write-offs, and inability to make profitable use of abundant liquidity in the system.

**2. The authorities continue to implement key recommendations of the 2011 FSAP mission**. In addition to offsite examinations, they have conducted in 2014 full-scope onsite examinations of two banks, including the systemic one, and AML-focused onsite examinations of one bank and three credit unions. They are aiming to prepare bi-annual Financial Stability Report (FSRs), including quarterly stress tests of banks. With assistance from CARTAC, the authorities will use the newly completed consolidated supervision framework to effectively monitor group risk, group capital adequacy, group governance and regulatory arbitrage. Revisions to the Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) framework in early 2014 increased Belize's compliance with the 2003 Financial Action Task Force (FATF) recommendations. As a result, Belize exited the Caribbean Financial Action Task Force (CFATF) monitoring process in May 2015. Important reforms are still needed to ensure effective implementation of the 2012 FATF standard. The authorities have prepared a financial crisis management plan with IMF TA, including bank resolution templates as well as an updated list of technical partners the authorities may call on at short notice to support their crisis management efforts.

**3. Despite recent improvements, some banks' balance sheets are still weak and exposed to adverse macroeconomic developments.** Gross NPLs remain high and capital buffers may be overestimated because provisioning is still insufficient. The updated stress tests show that the banking system is stronger compared to the assessment made during the 2014 Article IV Consultation. Under the baseline scenario, fewer banks compare to last year would see their CARs fall below the regulatory minimum by 2020. Under high stress, the banking system could have capital shortfalls for a few years. The largest credit union appears strong enough to withstand a severe shock.

**4. Efforts to strengthen the regulatory, supervisory, and crisis management frameworks as well as the financial infrastructure should therefore continue.** As recommended during the

[1] The main authors of this note are Joel Okwuokei and Jacques Bouhga-Hagbe (all WHD), with very valuable inputs from the Central Bank of Belize.

2014 Article IV Consultation, the supervision department of the Central Bank could benefit from examiners specializing in information technologies (IT) with the view of ensuring the integrity of banks' IT systems. Asset quality reviews and forward-looking stress tests could complement current supervisory practices and improve Central Bank's assessments of banks' balance sheets. Given challenges faced with collateral valuation in the context of still illiquid market, the authorities should raise provisioning requirements to 100 percent on all loan losses, and cease the practice of requiring banks to write off the loan loss. The possibility of exemptions to limits on large exposures should be removed from the banking law and banks willing to extend large loans must raise capital for that purpose. The Central Bank should be able to enforce remedial action on banks without prior consultation with or approval of the Minister of Finance. Bank resolution and liquidation could become truly administrative actions and court approvals should be removed from the banking law. The latter should supersede company insolvency laws. A registry of moveable property would help deepen financial markets. The authorities should continue their support for greater coordination and cooperation among regional financial authorities.

**5. The authorities agreed with the thrust of staff's recommendations but continue to share different views on some issues.** On regulation and supervision, the authorities are of the view that the current provisioning rules are prudent enough to safeguard the reliability of banks' balance sheets, including capital buffers. The authorities do not agree with removing the possibility to grant exemptions to the limit on large exposures. In their view, the small size of the Belizean market would require extremely large and disproportionate capital injections to support large credit to the productive sector. This would put upward pressure on already high interest rates as highly capitalized banks seek to maintain their ROAs. On Central Bank autonomy, the authorities continue to agree with the idea of allowing the Central Bank to enforce remedial action on banks without prior consultation with the Minister of Finance in the case of increases in capital requirements. However, in the case of liquidation or cancellation of license of a systemic domestic bank, they continue to be of the view that at the minimum there should be some degree of consultation with the Minister of Finance given that the systemic risk and fiscal contingency falls on the government. The authorities did not commit to changing current provisioning rules but noted that provisioning requirements of 100 percent on all loan losses (secured or unsecured) was considered in the past. They decided that 50 percent provisioning for fully secured loan losses was prudent after discussions with banks, which were then given a certain number of years to provide for the legacy loans.

## B. Introduction

**6. This note reviews the strength of the balance sheets of large banks in Belize as well as progress made on financial sector reforms since the 2014 Article IV Consultation.** It focuses on developments since then with additional insights on the strength of the largest credit union and constraints to stronger regional financial sector supervision.

**7. Belize's financial sector remains sizeable and continues to strengthen.** Its composition and size remain broadly unchanged since the 2014 Article IV Consultation. Total assets increased only modestly in nominal terms but stood at about 159 percent of GDP at end-March 2015, reflecting projected higher nominal GDP growth. Banks' balance sheets have been improving,

including because of loan write-offs and new capital injection. Capital buffers have also been improving, though they may be overestimated because of still low provisioning.

**8. Nonetheless, Belize's financial sector continues to pose non-negligible financial stability and fiscal risks, which warrant continued close monitoring.** Weaknesses identified during the 2011 FSAP mission and highlighted during the 2014 Article IV Consultation remain, including high NPLs, especially at a systemic bank. In addition to being overestimated, capital buffers may not be sufficient to absorb large but plausible losses. Since the 2014 Article IV Consultation, further progress has been made on the regulatory, supervisory, and crisis management frameworks. The recent decision by major international banks to terminate key correspondent banking relationships (CBRs) with Belizean banks is a new threat to financial stability. Progress on regional supervision and financial crisis management is held back mostly by weaknesses in the regulatory and supervisory frameworks of Caribbean countries. The refusal of another Caribbean supervisor to address a parallel banking issue with Belize remains a stumbling block for Belize's participation in projects to strengthen regional supervision.

**9. The remainder of the note is organized as follows**. Section C presents recent financial sector developments and risks. Section D reviews banks' balance sheets as well as the main sources of systemic risk to the financial system. Section E discusses the updated stress tests for the banking system, including a new model of banks' profitability. Section F assesses the crisis management framework and regional financial supervision. Section G describes the next steps toward an even stronger financial system, including the authorities' views. Concluding remarks are in section H.

## C. Recent Developments in the Financial System and Risks

*The composition and size of Belize's financial system remains broadly unchanged since the 2014 Article IV Consultation. The authorities continue to address gaps identified by the 2011 FSAP mission, including consolidated supervision. Significant progress in AML/CFT allowed Belize to exit the CFATF ICRG monitoring process in May 2015. A directive was issued to address a difficulty for a fuel importer to acquire all its foreign exchange from any single dealer despite an adequate supply in the market. The recent decision by major international banks to terminate key correspondent banking relationships (CBRs) with Belizean banks has had a limited impact so far. Belize has made significant progress towards modernizing its national payment system (NPS).*

### Financial System Structure

**10. The size of the Belize's financial system remains broadly unchanged since the 2014 Article IV Consultation (Table 10).** The financial system remains large relative to the size of the economy. Its assets stood at BZ$5.6 billion, equivalent to 159.2 percent of GDP at end-March 2015. In March 2014, financial system assets was BZ$5.4 billion (159.5 percent of GDP) implying an increase of 3.6 percentage points in nominal terms, which stems from increases in the assets of domestic banks (4.4 percent), credit unions (8.9 percent), and domestic insurance (6.3 percent). Except for the voluntary withdrawal of the license of a small private finance company late

last year, the composition of the financial system remains broadly unchanged. The financial system continues to enjoy significant foreign presence. In March 2015, 5 out 6 of domestic banks are considered foreign-owned, with assets representing 54.3 percent of total assets of the financial system.

**11. As noted during the 2014 Article IV Consultation, the domestic banking system is still dominant in the financial system (Table 1).** At end-March 2015, the banking system accounted for 80 percent of the financial system's assets, equivalent to 127.3 percent of GDP. Domestic banks' assets increased to BZ$3.1 billion, 87.5 percent of GDP from BZ$2.9 billion in March 2014 (Table 10). In the banking system, domestic banks hold a large proportion of assets (68.7 percent), deposits (69 percent), capital (72 percent) and loans (81 percent) (Table 2). The biggest bank in the domestic banking system in terms of assets holds roughly one-third of the assets (28 percent of GDP), deposits and loans. The second biggest bank in terms of assets holds 53 percent total capital of the domestic banking system. The assets of international banks (offshore), the second largest component of the financial system was broadly unchanged at BLZ$1.4 billion, representing 25 percent of financial system assets (about 40 percent of GDP). The international banking sector continues to be dominated by three institutions, which together accounts for three quarter of the assets.

**12. The new public bank has increased lending having received additional funding from the government.** Financed by Petrocaribe resources, new capital injection amounted to BZ$20 million, increasing the bank's paid-up capital to BZ$30million as at March 2015. This has allowed the bank to rapidly expand its loan portfolio to BZ$24.4 million since it commenced operations in September 2013. The loans were for residential construction and real estate in line with the banks' mandate to provide affordable mortgage credit for first time home owners, particularly teachers and public officers. Total loans represent 81.4 percent of the bank's total assets. The bank recently reported a small portfolio of non-performing loans (BZ$0.26 million in March 2015). Meanwhile, it started accepting deposits in September 2014, which stood at BZ$1.3 million in March 2015.

**13. Heritage Bank Belize plans to acquire the assets of First Caribbean International Bank Belize (FCIB).** The transaction, which is subject to approval from the Central Bank of Belize and the Central Bank of Barbados, is expected to the completed in a few months. With assets totaling BZ$300 million in March 2015 (9.8 percent of domestic banks' assets), FCIB is 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 (CIBC). Heritage bank, on the other hand, is a smaller domestic bank with assets of BZ$233 million (7.6 percent of domestic banks assets), which is majority owned by the biggest international bank in Belize worth BZ$378 million in assets (26.9 percent of international banks' assets). The international bank is majority-owned by a privately incorporated holding company and partly owned by an international bank in Antigua. This impending acquisition would strengthen Heritage Bank's balance sheet although the bank has not indicated how the purchase would be financed.

**Table 1. Belize: Financial System**

| | No. of Institutions | | | | Asset Size (BZ$ million) | | | | % of Total | | | | % of GDP | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Dec-10 | Dec-13 | Mar-14 | Mar-15 | Dec-10 | Dec-13 | Mar-14 | Mar-15 | Dec-10 | Dec-13 | Mar-14 | Mar-15 | Dec-10 | Dec-13 | Mar-14 | Mar-15 |
| **Depository Institutions** | | | | | | | | | | | | | | | | |
| Domestic Banks | 5 | 6 | 6 | 6 | 2,498 | 2,830 | 2,955 | 3,085 | 57.3 | 54.4 | 54.5 | 55.1 | 89.3 | 87.1 | 87.0 | 87.5 |
| International Banks | 8 | 6 | 6 | 6 | 975 | 1,339 | 1,415 | 1,404 | 22.4 | 25.7 | 26.1 | 25.1 | 34.9 | 41.2 | 41.6 | 39.8 |
| Credit Unions | 13 | 12 | 12 | 12 | 535 | 717 | 722 | 787 | 12.3 | 13.8 | 13.3 | 14.1 | 19.1 | 22.1 | 21.3 | 22.3 |
| **Non-depository Fis** | | | | | | | | | | | | | | | | |
| Development Financing | 1 | 1 | 1 | 1 | 149 | 92 | 94 | 91 | 3.4 | 1.8 | 1.7 | 1.6 | 5.3 | 2.8 | 2.8 | 2.6 |
| Microlending | 1 | 1 | 1 | 0 | 1 | 2 | 2 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 |
| Unit Trust | 1 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 |
| **Insurance Companies** | | | | | | | | | | | | | | | | |
| Life (Long Term) | 5 | 6 | 7 | 7 | 117 | 147 | 147 | 147 | 2.7 | 2.8 | 2.7 | 2.6 | 4.2 | 4.5 | 4.3 | 4.2 |
| Nonlife (General) | 6 | 6 | 5 | 5 | 53 | 51 | 59 | 59 | 1.2 | 1.0 | 1.1 | 1.0 | 1.9 | 1.6 | 1.7 | 1.7 |
| Composite | 2 | 2 | 2 | 2 | 23 | 26 | 27 | 27 | 0.5 | 0.5 | 0.5 | 0.5 | 0.8 | 0.8 | 0.8 | 0.8 |

Source: Central Bank of Belize.

**Table 2. Belize: Deposits and Loans for Domestic Banks and Credit Unions (December 2010 - March 2015)**

| | Domestic Banks | | Credit Unions | |
|---|---|---|---|---|
| | Loans (BZ$'000) | Deposits (BZ$'000) | Loans (BZ$'000) | Deposits (BZ$'000) |
| Dec-10 | 1,762 | 1,962 | 367 | 429 |
| Dec-11 | 1,756 | 2,065 | 389 | 477 |
| Dec-12 | 1,803 | 2,290 | 427 | 529 |
| Dec-13 | 1,854 | 2,305 | 488 | 579 |
| Mar-14 | 1,850 | 2,415 | 487 | 588 |
| Mar-15 | 1,918 | 2,551 | 527 | 642 |

Source: Central Bank of Belize.

**14. The credit unions sector is macro-critical, and remains the third largest component of the financial system.** At end-March 2015, seven credit unions accounted for 14 percent of the financial system assets (23 percent of GDP). Compared to March 2014, credit unions registered increases in assets, loans and deposits of 6–8 percentage points. The sectors' membership base continues to grow, and is close to half of Belize's population. Membership is largely unrestricted with a minimum of 100 members, and a small registration fee. Moreover, the sector is very concentrated—a single credit union controls 64 percent of the sector's assets, and 35 percent of membership. A second group of four mid-sized credit unions with assets between BZ$40 million−BZ$80 million holds 35 percent of the sectors' assets, while the remaining two just have 5 percent. Today, about three small credit unions are insolvent, with assets amounting to BZ$1.76 million, representing 0.2 percent of credit unions total assets. One of the insolvent credit unions is under administration, and could be liquidated soon.

**15. The largest credit union is bigger than most banks.** With assets amounting to BZ$501 million, equivalent of 14.2 percent of GDP, the largest credit union is the fourth largest financial institution in Belize. It is bigger than three domestic banks and all international banks. It plays a significant financial intermediation role with a loan portfolio of BZ$302 million at end-March 2015. Besides controlling the credit union's sectors assets, it holds 70 percent, 63 percent and 57 percent of the sectors' capital, deposits and loans, respectively.

**16. Credit unions in Belize offer financial services similar to those of banks although their objectives and prudential requirements differ.** Unlike banks, the main objective of credit unions is to promote the economic well-being of its member-owners with a greater focus on saving. Credit unions are viewed as better suited to provide smaller scale unsecured lending at lower interest rates. The Belize credit union Act defines permissible activities for credit unions. They are subject to different prudential requirements compared to banks. Nonetheless, they accept deposits and provide services, which for the most part, are similar to those of banks (savings account, checking accounts, credit cards, ATM, mortgage lending, online banking, wire transfers, etc) and thus are exposed to the same financial stability risks. Indeed, credit unions and commercial banks offer competitive rates for deposits and loans (Table 3). Financial services and activities which pose risks that are similar should be subject to a similar regulatory regime, in order to mitigate the risk of regulatory arbitrage which could have dire consequences for financial stability.

**Table 3. Belize: Deposit and Lending Rates of Commercial Banks and Credit Unions**
(In percent)

| | Mar-13 | Jun-13 | Sep-13 | Dec-13 | Mar-14 | Jun-14 | Sep-14 | Dec-14 | Mar-15 |
|---|---|---|---|---|---|---|---|---|---|
| **Average Lending Rate** | | | | | | | | | |
| Credit unions | 10.7 | 11.6 | 12.3 | 13.1 | 14.6 | 11.8 | 11.7 | 11.8 | 11.8 |
| Commercial banks | 11.0 | 10.7 | 9.0 | 9.8 | 9.1 | 9.3 | 8.9 | 8.9 | 10.2 |
| **Average Deposit Rate** | | | | | | | | | |
| Credit unions | 1.42 | 1.12 | 1.32 | 1.78 | 1.96 | 3.72 | 3.25 | 4.23 | 3.2 |
| Commercial banks | 2.52 | 2.33 | 1.93 | 1.92 | 1.68 | 1.62 | 2.17 | 1.99 | 1.9 |
| **Residential Mortgage Rate** | | | | | | | | | |
| Credit unions | 12.1 | 12.1 | 12.1 | 12.0 | 12.0 | 11.4 | 11.4 | 11.4 | 11.4 |
| Commercial banks | 10.1 | 10.0 | 9.1 | 8.8 | 8.8 | 8.8 | 8.6 | 8.6 | 8.6 |

Sources: Central Bank of Belize and Fund staff calculations.

## Regulation and Supervision

**17. The authorities are determined to keep the financial system under tight supervision.** The Central Bank continued its risk-based approach to supervision and conducted several on-site examinations of banks and credit unions in 2014 and early 2015. In 2014, there were full-scope onsite examinations of two banks, including the systemic bank, and AML-focused onsite examinations of one bank and three credit unions. In early 2015, the Central Bank conducted on-site examination for one international bank and one credit union. Examining a domestic bank, the Central Bank found inconsistency in loan classification, which after correction saw the NPL to total loan ratio of that bank increase from 6.9 percent in June 2014 to 9.2 percent in September 2014. In another domestic bank, the examiners noted improvement in underwriting standards following the implementation of new policies and procedures. Meanwhile, the Central Bank has allocated resources

**Table 4. Belize: New Provisioning Standards**
(In percent)

| | Domestic Banks | International Banks | Credit Unions |
|---|---|---|---|
| Substandard | 20 | 20 | ... |
| Doubtful | 50 | 50 | 35 |
| Loss | | | |
| Unsecured | 100 | 100 | 100 |
| Mortgage | 50 | 70 | 50 |

Source: Central Bank of Belize.

to hire an in-house legal expert, who could also assist in banking supervision, and is searching for a suitable candidate.

**18. The Central Bank has implemented a number of reforms to strengthen credit unions, since it took over the responsibility of regulating and supervising the sector in 2005.** Most recently in 2013, it implemented new loan classification and provisioning guidelines, broadly similar to the ones introduced for banks in December 2011. Before then, loan classification and provisioning for credit unions were not standardized (Table 4). Under the new loan classification system, loans that are up to 3 months past due are classified as non-performing. Non-performing loans are further categorized as doubtful (3–12 months past due) and loss (over 12 months past due). The implementation of the new rules showed provisioning to be understated for almost all the CUs. Unsecured loans classified as loss are required to be written off within 12 months[2], while loans classified as loss but secured by mortgages must be written off within four years. The Central Bank continues to publish individual financial information of the seven large credit unions on quarterly basis.

**19. Despite recent progress in credit union supervision, weaknesses identified during the 2011 FSAP mission remain.** There are still no limits on large exposures although credit unions are required to reports such transactions to the Central Bank. The FSAP mission also recommended setting appropriate minimum CAR requirement, strengthening internal controls, and setting stricter administrative penalties for non-compliance. Revisions to the Credit Union Act of 2003, which are yet to be completed, are expected to address these issues, including strengthening the resolution powers of the Central Bank.

**20. The Central Bank plans to harmonize its legislations in compliance with IFRS following IMF TA.** Financal reporting by banks follows IFRS standards, except for provisiong for loan lossess which are guided by Central Bank directives. In April 2015, the IMF provided technical assistance to the Central Bank to address issues related to impairment loss recognition under IFRS**.** The authorities plan to revise the domestic banks and financial institutions act, as well as loan loss classification and provisioning regulations taking into account the TA recommendations.

**21. In order to further strengthen the supervision of the non-bank offshore sector, the authorities are considering moving international insurance under the supervsion of the SOI.** The sector is noted to be small with about 33 registered providers of international insurance services in 2015. Nothwithstanding, supervison of the sector, which is the responsibility of the International Financial Services Commission (IFSC) has been generally lax. Thus, as part of efforts to strengthen the IFSC, the supervisor of domestic insurance is expected to take over the supervisory responsibility of international insurance.

[2] The Central Bank may allow up to 24 months.

**22. The authorities are developing a consolidated supervision framework.** They are being assisted by CARTAC, and aim to enhance their capacity to monitor group risks, including for cross-border financial entities. In April 2015, the Central Bank issued a regulation, establishing minimum standards on corporate governance to be implemented by the Board and management of banks.

**23. Recent progress in AML/CFT allowed Belize to exit the CFATF monitoring process in May 2015, but further efforts are needed to ensure effective implementation of the 2012 FATF standard (Annex II).** As noted during the 2014 Article IV Consultation, Belize passed in February 2014 new important legislations and amended existing ones to ensure adequate compliance with international standards and obligations relevant to money laundering and terrorist financing. The CFATF~~)~~ in its May 2015 plenary acknowledged the significant progress made by Belize in strengthening its AML/CFT regime and removed it from its monitoring process. However, this progress relates to technical compliance with the 2003 FATF standard, and important reforms are still needed to ensure effective implementation of the 2012 FATF standard.

**24. The authorities are determined to effectively implement their AML/CFT framework.** They insisted that their recent exit from the CFATF follow-up and monitoring process confirms the significant progress Belize has made on AML/CFT. They are strongly of the view that the recent favorable CFATF review of Belize's AML/CFT framework and the termination of correspondent banking relationships with Belize do send contradictory messages and called for greater consistency in the assessment of AML/CFT frameworks. They are confident that future rounds of CFTAF mutual evaluations will only confirm the continuous progress Belize is making on AML/CFT.

**Monetary and Exchange Rate Policy**

**25. The monetary policy stance remains unchanged since the 2014 Article IV Consultation.** The Central Bank deploys a mix of direct and indirect policy tools to accomplish its monetary policy objectives. Direct policy tools may be used occasionally to set limits on interest rates, bank credit and Central Bank's lending facilities. Reserve requirements remain the conventional monetary policy tool although the Central Bank is moving towards the use of open market operations to signal its policy stance. However, given the slow pace of credit growth, and increases in international reserves, it decided to keep the policy stance unchanged since the 2014 Article IV Consultation. Thus, the statutory and cash reserve requirements of domestic banks remained at 23 percent and 8.5 percent, respectively. The minimum interest rate on savings deposits is 2.5 percent. Government securities issued including for liquidity management have stayed at the same levels for a number of years: Treasury bills (BZ$175million), Treasury notes (BZ$136.5million) and Treasury bonds (BZ$10million).

**26. Central Bank's lending to the government has not changed much.** At end-December 2014, it held Treasury bills of BZ$86.8 million, and Treasury bonds of BZ$10million, unchanged since the 2014 Article IV Consultation. Overdraft facilities extended to the government amounted to BZ$62.3million (equivalent of 7.2 percent of government's estimated recurrent revenue for the previous fiscal year), compared with BZ$55.4 million at end-2013.

**27. The Central Bank introduced a new directive in November 2014 to address difficulties faced by an importer in acquiring foreign exchange in a market that had no shortage of foreign exchange.** The directive mandates commercial banks to supply foreign currency to a designated fuel importer (PUMA Energy Bahamas). The amount to be supplied by each commercial bank is being determined by the Central Bank using each commercial bank's share of foreign assets in the banking system.

**Financial Infrastructure**

**28. Major global banks have recently either terminated their correspondent banking relationships (CBRs) with many banks in the Caribbean, including Belizean banks or have threatened to discontinue them (Box 1).** For Belize, five banks (59.2 percent of the banking system's assets at end-March 2015) out of twelve saw at least one of their CBRs terminated, including the systemic bank (21.3 percent of the banking system's assets at end-March 2015) and three international banks (21.5 percent of the banking system's assets at end-March 2015). The affected banks have not been given any reason for the termination of the relationships, making it particularly difficult to find replacements. The new arrangements that have been put in place with the support of the Central Bank and major credit card companies (Visa and MasterCard) seem to be working as international financial transactions have not been disrupted as initially feared.

**29. Belize has made significant progress towards modernizing its national payment system (NPS).** The NPS Bill was presented to key stakeholders last year. The bill is in its final stages of drafting, and is scheduled to be submitted to Cabinet this year. Considerable progress was made in drafting accompanying regulations. A vendor has been selected to supply the automated infrastructure for the payment system, a critical part of the system. It is expected that, in 2015, the NPS legislation will be passed into law, and the installation of the system's infrastructure will commence.

**30. Implementation of a new credit bureau is slated for 2016.** The pace of implementation of this project has been slow following resistance from some segments of the society. The credit reporting draft legislation has been approved by cabinet and will be sent to parliament by the first half of 2016. The legislation will provide for the establishment of a credit reporting system in Belize, data protection and confidentiality, consumer rights and remedies, and the Central Bank's power to oversee the system.

## D. Banks' Balance Sheets Developments and Risks

*Since the 2014 Article IV Consultation, banks' balance sheets have strengthened. All domestic banks except one have met the new provisioning requirements. The recent decision of some US banks to end correspondent banking relationships is a new threat to financial stability. Credit union's balance sheets are improving following recent central bank efforts to tighten supervision of the sector.*

### The Banks' Balance Sheet Development Since March 2014

**31. The banking systems' ability to absorb losses continued to move in the right direction since the 2014 Article IV Consultation (Table 5).** The banking system's ratio of non-performing loans (NPLs) (domestic and international banks) to total loans stood at 16.1 percent at end-March 2015, compared with 17.6 percent at end-March 2014. NPL ratios were generally in double digits and higher in international banks (24 percent of total loans) than in domestic banks (14.3 percent of total loans). NPL ratios are in single digits in three domestic banks. Provisioning improved further from 44.8 percent of total NPLs at end-March 2014 to 57 percent at end-March 2015. The ratio of NPLs net of specific provisions to total loans fell to 6.2 percent at end-March 2015 (9.4 percent at March 2014), while NPLs net of provisions to capital amounted to 29.6 percent (41.7 percent in March 2014). The new public bank reported NPLs of 1.2 percent of total loans for the first time in December 2014 since it started operation, although it has sufficient provisions (133 percent of NPLs) and capital buffers.

**Table 5. Belize:Financial Soundness Indicators 1/**
(Domestic and international banks; in percent)

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | Mar-15 |
|---|---|---|---|---|---|---|---|---|
| Capital/risk-weighted assets 2/ | 20.4 | 22.2 | 23.9 | 24.2 | 19.8 | 21.6 | 21.7 | 23.7 |
| Capital/total assets | 15.6 | 16.5 | 16.5 | 14.7 | 11.6 | 12.0 | 12.1 | 12.3 |
| Excess statutory liquidity 3/ | 30.1 | 33.5 | 43.8 | 64.3 | 83.5 | 79.1 | 84.4 | 94.7 |
| NPLs/total loans | 11.7 | 14.0 | 18.7 | 21.4 | 20.3 | 17.6 | 15.7 | 16.1 |
| Provisions/NPLs | 24.1 | 18.1 | 15.5 | 24.4 | 34.9 | 42.8 | 55.1 | 57.0 |
| Provisions/total loans | 2.8 | 2.5 | 2.9 | 5.2 | 7.1 | 7.5 | 8.7 | 9.2 |
| NPLs net of provisions/capital | 40.0 | 48.2 | 61.9 | 66.1 | 63.6 | 46.5 | 30.8 | 29.6 |
| Return on Assets After Tax | 0.1 | 0.2 | 0.2 | 0.1 | -0.1 | 0.4 | 1.2 | 0.5 |
| | | | | | | | | |
| **Memorandum items:** | | | | | | | | |
| Capital/risk-weighted assets 4/ | ... | ... | ... | ... | ... | 20.4 | 20.9 | 19.5 |
| NPLs net of provisions/capital 4/ | ... | ... | ... | ... | ... | 45.7 | 33.5 | 28.8 |

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

1/ Includes BZ$43 million award to Belize Bank Ltd. by the London Court of International Arbitration (LCIA). The amount is being disputed by the government.
2/ The required capital adequacy ratios for domestic and international banks are 9 percent and 10 percent, respectively.
3/ In percent of statutory liquidity requirement.
4/ Excludes BZ$43 million award by the LCIA.

**32. Notably, the banking systems' reported capital adequacy ratios (CARs) increased but they are likely overstated (Table 5).** The CAR was 23.7 percent at end-March 2015 compared with

21.6 percent a year ago. However, gross NPLs that are classified as losses, fully collateralized and free of provisioning before December 2011(about BZ$134 million at end-May 2015) are only provisioned at 50 percent. Banks have until November this year to pass the remaining provisions or face the prospects of writing them off, which would require the recapitalization of two banks.

**33. The portfolio of NPLs in some domestic and international banks is still sizable.** NPLs in the banking system remain concentrated in domestic banks. Gross NPLs in that sector stood at 73 percent of the systems' total in March up from 69 percent a year ago. The systemic bank accounted for almost half of NPLs in domestic banks. Similarly, half of the NPLs in the international banks are in the largest bank, while the second largest bank accounted for 33 percent.

**34. The banking system remains liquid and is returning to profitability.** The system's liquid assets in excess of statutory requirement, was 94.7 percent at end-March 2015 (104.3 percent in March 2014). In a small domestic bank, excess liquid assets have stayed above 200 percent of requirements since 2012, representing around 40 percent of the domestic banking system's total. At the same time, that same bank has been reporting losses since 2010. Some banks reported losses recently because of loan write-offs, increased provisioning expenses and inability to make profitable use of liquidity in the system. Nevertheless, banks are now poised to return to profitability having met the provisioning requirements set by the Central Bank. The system's ROA stood at 0.5 percent at end-March 2015.

### Credit Unions' Balance Sheet Developments

**35. Assessment of financial soundness of credit unions follows a different set of prudential norms (Table 6).** Parallel to the CAMELS standards used by banks, credit unions apply the PEARLS approach,[3] which looks at, among others things, the effectiveness of financial structure, asset quality, protection for unexpected losses, and profitability. The objective is to safeguard credit union members' savings from losses and to ensure that credit unions operate in a sound manner.

[3] The PEARLS approach was developed by The World Council of Credit Unions.

**Table 6. Belize: Financial Soundness Indicators**
(Credit Unions; in percent)

| | Mar-13 | Jun-13 | Sep-13 | 2013 | Mar-14 | Jun-14 | Sep-14 | 2014 | Mar-15 |
|---|---|---|---|---|---|---|---|---|---|
| Net institutional capital/total assets 1/ | 10.9 | 12.2 | 12.0 | 8.8 | 9.2 | 10.7 | 10.4 | 10.2 | 9.9 |
| Excess liquidity 2/ | 333.4 | 316.0 | 300.7 | 271.2 | 289.4 | 286.2 | 279.4 | 272.5 | 289.7 |
| Net loans/total assets 3/ | 61.8 | 62.1 | 63.9 | 27.2 | 62.6 | 62.7 | 58.8 | 64.0 | 62.9 |
| NPLs/total loans 4/ | 6.2 | 6.4 | 6.3 | 14.0 | 12.3 | 10.5 | 10.4 | 10.3 | 9.2 |
| NPLs net of provisions/total loans | 1.5 | 1.6 | 1.8 | 9.7 | 5.1 | 3.0 | 3.1 | 3.3 | 3.1 |
| Provisions/NPLs | 76.3 | 73.9 | 71.9 | 30.9 | 58.7 | 71.9 | 70.5 | 68.1 | 66.1 |
| NPLs net of provisions/Net institutional capital | 37.0 | 34.2 | 35.2 | 107.9 | 90.2 | 66.9 | 68.1 | 69.6 | 62.5 |
| Return on assets 5/ | 4.7 | 5.1 | 4.8 | 4.3 | 4.5 | 4.4 | 4.5 | 4.1 | 4.7 |

Sources: Central Bank of Belize; and Fund staff estimates.
1/ The standard minimum is 10 percent.
2/ In percent of statutory liquidity requirement.
3/ The standard minimum is 80 percent
4/ The standard maximum is 5 percent
5/ Annualized

**36. The NPLs of credit unions rose recently reflecting tightened regulations and supervision.** Gross NPLs of credit unions stood at 9.2 percent of total loans at end-March (12.3 percent in March 2014), above the standard requirement of 5 percent. Notably, following the implementation of new classification and provisioning rules by the Central Bank in 2013, NPLs more than doubled (14 percent) in December that year. According to the new rules, loans that are 6–12 months past due are classified as doubtful and require 35 percent provisioning. Loans that are one year past due are classified as loss, and provisioning for secured and unsecured portions of such loans are 50 percent and 100 percent, respectively. At the same time, provisioning improved from 30.9 percent at end-2013 to 66 percent at end-March 2015. As a result, NPLs net of provisions fell from 9.7 percent of total loans at end-2013 to 3.1percent at end-March 2015.

**37. Capital buffers are barely adequate relative to standards although the sector is extremely liquid and profitable.** Net institutional capital—a measure of capital adequacy and effectiveness of financial structure—was 9.9 percent of total assets at end-March 2015 up from 8.8 percent at end-2013 but below the standard minimum of 10 percent. Net loans to total assets ratio[4] stood at 63 percent in March 2015 below the threshold of 70–80 percent. Liquid assets have remained above 270 percent of statutory requirements since March 2013. Meanwhile, return on assets has averaged 4.5 percent since 2013.

**38. The balance sheet of the largest credit union is relatively sound (Table 7).** Its NPLs stood at 13.4 percent of total loans at end-March 2015 compared to 17 percent at end-2013. Reflecting improved provisioning, NPLs net of provisions was 4.5 percent at end-March 2015 (11.4 percent at end-2013). Its net institutional capital was 11.7 percent of total assets, slightly above the prudential norm. The systemic credit union is more liquid than others. Excess liquid assets rose to 416 percent of statutory requirements at end-March 2015.

[4] The net institutional capital/total assets and net loans/total assets ratios, both measures of the effectiveness of financial structure, have significant impact on growth, profitability and efficiency of credit unions.

**Table 7. Belize: Financial Soundness Indicators**
(The Largest Credit Union; in percent)

| | Mar-13 | 2013 | Mar-14 | 2014 | Mar-15 |
|---|---|---|---|---|---|
| Net institutional capital/total assets 1/ | 13.1 | 9.8 | 10.9 | 12.0 | 11.7 |
| Excess liquidity 2/ | 424.1 | 391.4 | 407.8 | 402.9 | 416.4 |
| Net loans/total assets 3/ | 55.5 | 57.3 | 55.0 | 55.5 | 54.9 |
| NPLs/total loans 4/ | 7.3 | 17.1 | 13.9 | 14.7 | 13.4 |
| NPLs net of provisions/total loans | 1.0 | 11.4 | 3.2 | 4.7 | 4.5 |
| Provisions/NPLs | 87.0 | 33.5 | 76.9 | 68.3 | 66.4 |
| NPLs net of provisions/Net institutional capital | 4.3 | 71.0 | 18.0 | 24.1 | 23.2 |
| Return on assets 5/ | 4.7 | 4.3 | 4.5 | 4.1 | 4.7 |

Sources: Central Bank of Belize; and Fund staff estimates.
1/ The standard minimum is 10 percent.
2/ In percent of statutory liquidity requirement.
3/ The standard minimum is 80 percent
4/ The standard maximum is 5 percent
5/ Annualized

## Main Sources of Systemic Risks

**39. Main threats to the banking system broadly remain as identified during the 2014 Article IV Consultation with loss of CBRs emerging as a new threat (Table 9).** First, public debt is very high and this could increase the possibility of a debt distress. Since government paper represents a significant share of banks' portfolios, including the systemic bank, losses on government paper would wipe out the capital buffers of many banks, including the systemic bank. This risk could nonetheless be mitigated by the fact that the Central Bank is the buyer of last resort of government paper as noted above. Second, some domestic banks still have low capital buffers (Table 8), and raising new capital to avoid a deterioration of their capital adequacy ratios could be a challenge, increasing the risk of public sector intervention. Third, major Belizean banks have received termination of correspondent banking relationships with U.S. banks and finding replacement correspondents is very difficult. Fourth, exchange rate shocks may lead to a rise in interest rates, which in turn would undermine repayment capacity and increase NPLs. However, this risk, which could be mitigated by capital controls, has a low likelihood of occurring. Fifth, given some banks' exposures to agriculture, tourism, and export sectors, negative shocks in these sectors would have some low impact on financial stability. Finally, large exposures in the banking system deserve continued close monitoring by the Central Bank.

**Table 8. Belize: Largest Banks Capital Shortfalls Under Various Capital Adequacy Measures (December 31, 2014) 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 | 0 | 3,828 | 0 | 6,346 | 0 |
| *in percent of GDP* | ... | *0.0* | *0.2* | *0.0* | *0.4* | *0.0* |
| Systemic bank | 21 | 0 | 2,188 | 0 | 4,007 | 0 |
| *in percent of GDP* | ... | *0.0* | *0.1* | *0.0* | *0.2* | *0.0* |
| **Memorandum item:** | | | | | | |
| Nominal GDP (US$ millions) | 1,763 | 1,841 | 1,931 | 2,021 | 2,114 | 2,207 |

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.

**Table 9. Financial Sector Risk Assessment Matrix**

| Source of Main Threats | Relative Likelihood | Impact if Realized | Policy measures |
|---|---|---|---|
| 1. Distress in the banking system. | **High**<br>• Major Belizean banks have already received notice of termination of correspondent banking relationships with US banks and finding replacement correspondents is very difficult.<br>• 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**<br>• Financial intermediation could be damaged and seriously disrupt economic activity.<br>• Absorption of the financial cost of recapitalizing distressed banks by the government could entail significant fiscal costs, putting additional pressure on public finances | • 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 and by the banking sector as a whole.<br>• Order undercapitalized banks to raise more capital, perform asset quality review of all banks, and maintain tight supervision. |

| Table 9. Financial Sector Risk Assessment Matrix (concluded) | | | |
|---|---|---|---|
| 2. Fiscal policy implementation. | **High**<br>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. | **High**<br>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 ("Plan B") could reduce the need for a strong fiscal adjustment. |
| 3. Negative shocks to agriculture, tourism or exports of goods. | **Low to Medium**<br>A significant share of the banking system lending has been extended to borrowers from these sectors. | **Low**<br>A 25 percent increase in NPLs in these sectors will leave the banking system adequately capitalized. The CARs of a systemic bank will fall but will remain slightly above the regulatory minimum. | Monitor and minimize credit exposure to sectors |
| 4. External or internal exchange rate shocks. | **Low**<br>If the exchange rate has to be defended, domestic interest rates would have to be raised significantly. | **Low to Medium**<br>An increase in interest rates would undermine capacity and raise NPLs. | Implement policies necessary to protect the peg. |
| 5. Large exposures | **Medium**<br>The banking systems exposure to large borrowers are significant | **Medium to High**<br>Stress tests indicate that if the top borrowers of each bank default, the CAR of some banks will turn negative. | Continue to monitor large borrowers and gradually reduce such exposures. |

## E. Assessing the Strength of Banks' Balance Sheets

*The updated stress tests show that the banking system appears stronger than at the time of the 2014 Article IV Consultation, partly reflecting lower loan write-offs, new capital injection in a weak bank and slightly improving profitability. Projected weak export performances would put upward pressures on projected NPLs. Under the baseline, fewer banks compare to last year would see their CARs fall below the regulatory minimum by 2020. Under high stress, the banking system could have capital shortfalls for a few years. The largest credit union appears to have enough capital buffers to withstand a severe shock.*

**40. The banking sector stress tests were updated by IMF staff in 2015 as part of the assessment of the risks and vulnerabilities of the financial sector.** The stress tests are in two broad categories: the static and the forward-looking ones. The latter were conducted using a credit risk econometric model and three models of bank profitability under a baseline and two stress scenarios. Stress tests were conducted in cooperation with the Financial Sector Supervision Department of the Central Bank of Belize (CBB). The parameters and assumptions are broadly as in the 2014 exercise. In addition, staff assessed the strength of the largest credit union in Belize—applying the same methodology subject to data availability. The credit union was treated as a domestic bank. All stress tests were conducted using the end-2014 data. The results are summarized in Table 12.

**41. The static single-factor stress tests again looked at the impact of liquidity shocks, exchange rate shocks, credit risk, and credit concentration risk, due to lack of sufficiently detailed data to analyze other relevant risks.** 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 40 days (35 days in 2013) for the banking system to completely exhaust its liquidity and 18 days (15 days in 2013) for the liquidity ratio to fall below the 23 percent mandatory requirement. Liquidity risks remains higher than the banking sector average for the two banks identified last year: one bank would see its liquidity ratio fall below the prudential ratio after only five days, and the other bank after six days. Meanwhile, it would take 20days for the credit union to breach the prudential ratio.

- *Credit risk.* Two tests were applied. 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 1.1 percentage points. However, the CAR of all the banks will remain above the minimum requirement. Last year, two banks were noted to face capital shortfall of about 0.1 percent of GDP each to meet the minimum CAR. Second, the impact of a "generic" stress test was analyzed by shifting 10

percent of current performing loans to the "substandard" category. The banking system's CAR declined by 0.4 percentage point, lower than last year but 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. The impact of sectoral shocks remains marginal. An increase in NPLs by 25 percent across all sectors would lead to a decline in domestic banking systems CAR by 1 percent of GDP, and the CARs of all banks would remain above the minimum requirement. Two banks appear particularly exposed to sectoral credit risks. The first bank would see its CAR fall by 1.3 percentage points following shocks to tourism, citrus and banana sectors. The CAR of the second bank would decline by 1.6 percentage points following shocks to the tourism sector.

- *Large loan exposure.* A range of stress tests were 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 considered 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 two, same as 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 14.8 percent of GDP (16.4 percent of GDP in 2013) 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 three banks would require recapitalization amounted to 3.0 percent of GDP (3.2 percent in 2013) to 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 would amount to 3.9 percent of GDP (4.5 percent in 2013).

**42. 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.[1] Then, the first of the three forward-looking models is simulated. This model further assumes that banks' capital before deductions of shortfalls in provisioning remain at their end-2014 level in

[1] 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.

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-stress scenarios, the banking system's CAR would remain above the prudential requirement throughout the projection period. However, under the baseline scenario, the CARs of two domestic banks would fall below the requirement by 2020. Last year, one international bank was noted to require additional capital to meet the regulatory minimum CAR in all projection years under the baseline scenario. However, following the sale of an important real estate asset (US$23 million) in December 2014, which boosted the capital of that bank, no capital injection is required under the baseline scenario. Under the low stress scenario, the CAR of two domestic banks and two international banks would not remain above the regulatory minimum throughout the projection period. Furthermore, if shocks materialize under the high stress scenario, the CAR of only two banks would remain above the regulatory minimum. The credit union is estimated to be adequately capitalized under the three scenarios.

**43. In the second model, bank capital is 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. Here, 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 the baseline and low stress scenarios, the CARs of the banking system would remain above the standard requirement over the projection period but the system would become undercapitalized by 2019 under the high stress scenario. Under the baseline scenario, two domestic banks and one international bank would fail to meet the requirement at various times. Except for three banks, the rest would need to be recapitalized at different times under the low stress scenario. In the high-stress scenario, three banks would need capital injection throughout the projection period with their CAR turning negative, while two others would also need to be recapitalized at some point over the period. The credit union would remain adequately capitalized under the three scenarios.

**44. Similar to the second model, the third one projects capital using returns on assets.** Capital is projected by adding retained earnings after taxes to the previous period's capital while assuming no payment of dividend. Similar to the second model, 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 only two domestic banks failing to meet mandatory requirements. In the low-stress case, negative capital of most banks implies the CAR of the banking system will fall below the requirements by 2020. In the high-stress scenario, the banking system would become undercapitalized in 2017 and face negative CAR in 2019–20. Only one bank would remain adequately capitalized throughout projection years. The CAR of the credit union would rise throughout the projection period under the three scenarios.

## F. Crisis Management and Regional Financial Supervision

*Belize continues to develop its framework for handling potential crisis. Progress on regional supervision and financial crisis management is held back mostly by weaknesses in the regulatory and supervisory frameworks of Caribbean countries. For Belize, the refusal of another regional supervisor to address a parallel banking issue with Belize remains a stumbling block for its participation in projects on regional supervision.*

### Macro-Prudential Surveillance and Crisis Management

**45. The authorities' latest financial stability report highlighted the weaknesses in domestic banks.** The updated financial stability report for March 2014 identified as risks deposit and loan concentration, and the still-high liquidity in the banking system. Large loan exposures—loans above 10 percent of capital represented 28 percent of total loans in March 2014. Deposit exposures—20 largest depositors accounted for 38 percent of total deposits in the domestic banking system. Deposit concentration is reported to be above 60 percent in two domestic banks. Furthermore, quarterly stress tests conducted by the Central Bank indicated the need for some institutional strengthening of capital to build resiliency. The financial system is found to be most vulnerable to large loans and related-party shocks. However, recent delays in the completion of financial stability reports were mainly due to capacity constraints which are being addressed. A database that will facilitate production of future reports is being finalized.

**46. A recent CARTAC TA assisted in strengthening the analytical capacity of the FSU.** The aim of the TA, which took place in February 2015, was to review the draft FSR with a view to assisting the Central Bank upgrade its analytical content, and produce a publishable version. The TA also assisted in strengthening stress testing.

**47. Information sharing on financial stability issues is set to improve following recent MOUs between the Central Bank and other supervisors.** In July 2014, the Central Bank signed an MOU with the Financial Intelligence Unit (FIU) for information exchange. A similar one was also signed with the SOI in the second quarter of 2015.

**48. The authorities have prepared a financial management plan with IMF TA.** This includes bank resolution templates as well as updated list of technical partners they may call upon on short notice to support crisis management efforts.

### Regional Financial Supervision

**49. Similar to the case of Belize, financial sector supervision across the Caribbean is fragmented.** Except for Suriname that has a single supervisor with responsibility for oversight of the entire financial system, others have separate supervisors for different segments of the financial system. Besides creating regulatory gaps, a separate institutional arrangement tends to complicate coordination and information sharing not only at the national level but also at the regional level. However, there are ongoing efforts toward a more integrated approach to financial

sector supervision. For example, all ECCU countries have moved supervision of the nonbank financial sector to single regulatory authorities while the ECCB continues to supervise the domestic banking system. Nonetheless, it is generally agreed that for any model to work, a high level of coordination and information sharing within a single supervisory agency, and among relevant agencies and authorities both domestic and foreign, is required.

**50. Cross-supervisor communication and coordination is emerging at the national level.** Institutional arrangements, such as a Financial Stability Committee (FSC), which facilitates the assessment of systemic risks to the financial sector and coordinates policy responses across supervisors, is in place in a limited number of countries. Such frameworks are helpful in information exchange but appear to be more developed in Jamaica and The Bahamas.

**51. There are differences in the quality of bank supervision across the Caribbean which hinders regional cooperation.** It reflects to some degree the structure of the banking sector and the level of supervisory capacity across countries. Foreign banks and large regional banking groups are more dominant in some countries, while the financial sector in some countries are more advanced. These differences can impede effective consolidated and cross-border supervision, as well as effective crisis management across the region.

**52. Some Caribbean supervisors lack sufficient autonomy to fulfill their mandates.** Similar to the case of Belize, the Ministry of Finance in some countries can interfere in banking sector supervision through refusal to approve certain decisions made by the Central Bank. However, some countries in the region are taking steps to strengthen central bank independence.

**53. The Caribbean Group of Banking Supervisors (CGBS) is the main body responsible for regional cooperation.** The CGBS was established in 1983, with a mandate to enhance and coordinate the harmonization of the bank supervisory practices in the English speaking Caribbean, to bring them in line best practices. It has been formally accepted as a regional grouping under the Basel Committee for Banking Supervision. Its membership comprises banking supervisors from sixteen regional jurisdictions, including CARICOM and non-CARICOM countries.

**54. Cooperation among supervisors has improved following a regional MOU, but further efforts are needed to eliminate information asymmetries.** The region took an important step toward enhanced collaboration in 2011, with regulatory authorities signing a multilateral Memorandum of Understanding (MOU) on the exchange of information, cooperation and consultation. However, not all financial regulators of the countries participating in the MOU, are signatory to the agreement, leading to potentially important coverage gaps. The signatories are primarily the bank regulators of the participating countries. Efforts to strengthen regional collaboration should be extended to the supervision of financial institutions with important cross-border activities. In particular, the regional MOU appears restricted to information sharing and could be broadened to specify the principles for supervisory cooperation on financial institutions with cross-border activities.

**55. The region should consider strengthening regional resolution regime after national authorities have established sound bank resolution regimes.** The CGBS is developing a regional financial crisis management plan for the banking sector. As a first step, a national crisis management plan has to be established across countries. In this context, supervisors of banks with regional operations need to consider close cooperation and information exchange with home supervisors when designing their domestic crisis management plan.

**56. The CGBS was tasked by regional central bank governors to investigate and recommend measures to resolve a parallel banking dispute between Belize and Turks and Caicos Islands (TCI) on 27 May 2011.** On 22 November 2014, the CGBS finally presented its findings to the governors which confirmed that a parallel structure was deliberately created by TCI, in violation of a bilateral MOU they previously signed with Belize. Guyana then introduced a resolution to regional governors to suspend the Turks & Caicos Financial Services Commission from all CGBS activities until the situation is properly addressed. While all governors have accepted the findings of the CGBS, the majority, including those jurisdictions who headed the CGBS investigation, lack the political will to support the Guyana resolution.

**57. The Central Bank of Belize has signaled its agreement to the regional crisis management plan being developed by the CGBS but has not yet signed the related regional MOU.** This is due to the CGBS's continued reticence on the widely supported Guyana resolution to hold TCI accountable for the creation and continued support of a parallel banking structure. The FSCTCI continues to contravene international best practice by approving the establishment and maintenance of a parallel banking structure which poses a risk to Belize's financial system. Hence, Belize is doubtful of the practical benefits of participating in the MOU and the ability or willingness of the CGBS to hold regional participants accountable for violating its terms and conditions. They reiterated that progress on regional supervision and financial crisis management is being held back due to the refusal of another regional supervisor to address a parallel banking issue with Belize.

## G. Recommendations for a Stronger Financial System

**58. The following measures are key to a stronger financial system in Belize:**

### Banking regulation and supervision

- *Assess the true strength of banks balance sheets through asset quality reviews (AQRs)*. Priority for this measure is high and it should be implemented immediately to assess the extent of banks' problems. Central Bank examiners only review a small share of banks' assets and a reputable international auditor would complements reports from banks internal and external auditors.

- *Order weak banks to raise capital*. Priority for this measure is high and it should be implemented immediately to contain vulnerabilities in banks' balance sheets. Delaying such

orders would magnify these vulnerabilities going forward and undermine the authority of the Central Bank.

- *Complement current static stress tests of banks with forward-looking ones*. Priority for this measure is high and it should be done immediately. The current stress tests do not take into account the evolving outlook of economy and bank profitability. The Central Bank could refine models of bank profitability that are used in this note.

- *Strengthen the supervision and legal capacity of the Central Bank*. Priority for this measure is high and it should be implemented immediately. Information Technologies (IT) Examiners must be hired by the Central Bank to review banks' IT systems and help ensure their integrity. In-house legal experts must also be hired by the Central Bank.

- *Establish criteria for defining systemic banks*. No criteria are given as to why five of the six domestic banks are considered systemic. The authorities referred to: BCBS's "A framework for dealing with domestically systemically important banks" (www.bis.org/publ/bcbs224.pdf).

- *Remove the possibility to grant exemptions to the limit on large exposures*. This recommendation of the 2011 FSAP should be implemented as soon as possible. Banks must increase capital if they want to extend large loans. Stress tests indicate that banks are extremely vulnerable to default from their large borrowers. They should gradually reduce such large exposures and a transition period can be introduced on a case by case basis.

- *Continue preparing financial stability reports (FSRs)*. Continue to prepare FSRs including quarterly stress tests of banks that fully take shortfalls in provisioning into account. Continue monitoring weaknesses highlighted in the latest FSRs, including the need for some institutional strengthening of capital to build resiliency, the still high liquidity, as well as the high concentration of loans and deposits. Adequate resources should be given to units in charge of preparing such reports.

- *Strengthen consolidated supervision*. With the latest technical assistance from CARTAC on the consolidated supervision framework, the authorities should start monitoring group risk, group capital adequacy, group governance and regulatory arbitrage.

- *Raise provisioning requirements*. For all loan losses (secured and unsecured), gradually increase provisioning to 100 percent and discontinue the practice of requiring banks to write off the loan loss. Allow a reasonable transition period during which dividend distribution is strictly forbidden and management fees contained.

**Central bank autonomy**

- *Enable the Central Bank to enforce remedial action on banks without prior consultation with or approval of the Minister of Finance*. This recommendation of the 2011 FSAP should be implemented as soon as possible. The Minister of Finance approval is still needed for the

revocation of licenses of domestic banks. This undermines the Central Bank's authority and creates moral hazard.

**Crisis management and bank resolution framework**

- *Make bank resolution and liquidation truly administrative actions*. This is a medium priority measure, which could be implemented in the near-to-medium term. In particular, court approvals should be out of the banking law and the latter should supersede company insolvency laws.

- *Set up a financial safety net*. Priority for this measure is high and it should be implemented immediately. It could be done through the deposit insurance scheme envisaged in the Financial Management Plan or through a Recovery and Resolution Fund.

- *Establish standard safeguards to the use of the Emergency Liquidity Assistance Facility and set conditions applicable to all*. Priority for this measure is high and it should be implemented immediately. Treatment of banks should not be on a case-by-case basis.

- *As part of the crisis management plan, continue to implement an MOU to facilitate coordination and information sharing among the regulators*—the central bank, MOF, SOI, and the IFSC. Priority for this measure is high and it should be implemented immediately

- *Continue to update the list of technical partners*. This is could support crisis management efforts in the event of financial crisis

**Financial infrastructure**

- *Set up a moveable property registry*. This recommendation of the 2011 FSAP should be implemented as soon as possible to support deepening of financial markets.

- *Review the opportunity to remove the interest rate floor on savings*. This measure should be implemented as soon as possible. The current floor may be raising the cost of financial intermediation, thus contributing to hampering the deepening of financial markets.

**AML/CFT**

- *Continue to effectively implement the AML/CFT framework*. Important reforms are still needed to ensure compliance and effective implementation of Belize's AML/CFT regime in line with the 2012 standard (Annex II).

**59. The authorities agreed with the thrust of staff's recommendations but continue to make some dissenting observations:**

- On **regulation and supervision**, the authorities do not agree with removing the possibility to grant exemptions to the limit on large exposures. In their view, the small size of the

market would require extremely large and disproportionate capital injections to support large credit to the productive sector. This would put upwards pressure on already high interest rates as highly capitalized banks seek to maintain their ROAs.

- On **Central Bank autonomy**, the authorities agreed with the idea of allowing the Central Bank to enforce remedial action on banks without prior consultation with or approval of the Minister of Finance in the case of increases in capital requirements. However, in the case of liquidation or cancellation of license of a systemic domestic bank, they are of the view that at the minimum there has to be some degree of consultation with the Minister of Finance given that the systemic risk and fiscal contingency falls on the government.

- On the **interest rate floor**, the authorities do not agree that the floor on interest rates on savings is raising the cost of financial intermediation. They noted that evidence has shown that the interest rate spreads have widened after the reduction in the interest rate floor on savings. Moreover, they are of the view that in a fixed exchange rate system, a differential is required between international and domestic interest rates to discourage capital flight.

- On **Loan Loss provisioning**, the authorities did not commit to changing current provisioning rules but noted that provisioning requirements of 100 percent on all loan losses (secured or unsecured) was considered in the past. They decided that 50 percent provisioning for fully secured loan losses was prudent after discussions with banks, which were then given a certain number of years to provide for the legacy loans. The authorities are strongly of the view that the value of collaterals for secured loans are inflated and is thus a disincentive to a timely disposal. They greatly appreciated recent IMF TA on loan classification and provisioning and will give due consideration to the TA mission's recommendations.

## H. Concluding Remarks

**60. Belize financial system strengthened since the issuance of the 2014 Article IV Consultation report.** NPLs continue to decline, and provisioning and capital adequacy ratios have also improved, reflecting steadfast implementation of financial sector reforms by the Belizean authorities. The Central Bank continued its risk-focused approach to supervision and conducted several on-site examinations of banks and credit unions. They aim to prepare bi-annual Financial Stability Report (FSRs), including quarterly stress tests of banks. With assistance from CARTAC, the authorities will use the newly completed consolidated supervision framework to effectively monitor group risk, group capital adequacy, group governance and regulatory arbitrage. Significant progress in the strengthening of the Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) framework in line with the 2003 FATF standard allowed Belize to exit the CFATF ICRG monitoring progress in May 2015. Important reforms are still needed to ensure effective implementation of the 2012 FATF standard. They have prepared financial crisis management plan with IMF TA, including bank resolution templates as well as an updated list of technical partners the authorities may call on at short notice to support their crisis management efforts

**61. Nonetheless, significant weaknesses remain in the financial system, which the authorities must continue to address.** NPLs remain high and capital buffers are underestimated because provisioning is still insufficient. The Central Bank should immediately conduct an asset quality review of all banks to assess their true strength, and raise provisioning standard to 100 percent for all loan losses. It should also hire personnel to monitor banks IT systems and ensure their integrity. Weak banks should be ordered to raise more capital. Limits on large exposures must be enforced and banks that plan to extend large loans must raise enough capital to ensure that their large exposures remain within prudential limits. Efforts to modernize the financial infrastructure should be accelerated. Strengthening the land and moveable property registries would greatly support these efforts.

### Box 1. Termination of Correspondent Banking Relationships in the Caribbean

Major global banks have recently either terminated their correspondent banking relationships (CBRs) with many banks in the Caribbean, or have threatened to discontinue them.[1] In the termination notices, the affected banks have not been given any reason for the termination of the relationships, making it particularly difficult for them to seek out replacement correspondents. It is believed that this phenomenon is related to the enforcement of global regulatory standards such as on AML/CFT and prudential regulations. As a result, some customers, business lines, markets and jurisdictions are evidently being perceived as too risky and costly in terms of compliance, and are therefore being cut off. Already at least 10 banks in the region in five countries have (as of June 2015) lost all or some of their CBRs, including two central banks. In Belize, the banks that have already lost major CBRs are of systemic proportions, with assets amounting to more than half of the domestic banking system's total assets or about 50 percent of GDP. In other Caribbean countries, the affected banks so far are either not systemic or have other ongoing CBRs. Nonetheless, the potential loss of vital CBRs has emerged as a major risk for all Caribbean banks.

The loss of CBRs could have destabilizing effects on financial and economic stability in the Caribbean. All international transactions conducted through the affected banks (which now have to use other local banks that still have CBRs, including local central banks) are disrupted, if not discontinued. These include the processing of financial instruments (i.e. cash, checks, money orders, wire transfers, credit and debit cards, and letters of credit) that are critical for key transactions such as remittances, tourism, international trade and foreign direct investment. Such disruptions affect local banks' incomes directly as they lose significant revenue-generating businesses, but also indirectly, at least on a temporary basis, as they hit the economy as a whole and therefore banks' customers. Even when some local banks manage to maintain their CBRs, they may not have the capacity to process a sudden increase in the volume of new transactions, especially wire transfers, coming from other local banks that lost their CBRs. This can result in significant delays in the processing of these transactions.

The impact of the loss of CBRs has been contained so far in the Caribbean, partly because of measures taken by Caribbean authorities. In Belize, the new arrangements that have been put in place with the support of the Central Bank of Belize (CBB) and major credit card companies seem to be working as international financial transactions have not been disrupted as initially feared. The banks that lost their CBRs are sending their customers to other banks to do wire transfers. The CBB is processing their cash documents and can also process their wire transfers using its own CBRs, though the increasing volume of these new transactions will likely pose a challenge to the CBB. In other Caribbean countries, specific measures have yet to be taken to address the loss of CBRs as disrupted transactions can be processed by other banks, including foreign banks. Some concern arises though in some cases where affected banks have had to replace traditional correspondent banks with other banks that are not household names. In other cases where termination has been threatened, there has been a significant upgrade in the promptness and quality of replies to request for information from external authorities. The Caribbean authorities are also working toward greater financial integration and stronger national financial systems and AML/CFT frameworks.

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[1] A correspondent bank is a financial institution that provides services, generally on behalf of a foreign financial institution. A correspondent bank can conduct business transactions, accept deposits, cash checks or money orders and gather documents on behalf of the other financial institution.

## Table 10. Belize: Structure of the Financial System 1/

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Mar-14 | 2014 | Mar-15 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Number of institutions** | | | | | | | | | | | |
| Domestic commercial banks | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 |
| International commercial banks | 8 | 8 | 7 | 7 | 8 | 7 | 7 | 6 | 6 | 6 | 6 |
| Credit unions | 14 | 13 | 14 | 14 | 13 | 12 | 12 | 12 | 12 | 12 | 12 |
| Nonbank financial institutions | | | | | | | | | | | |
| (incl. the DFC) | 1 | 1 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 |
| Domestic insurance companies | 15 | 14 | 14 | 13 | 14 | 12 | 12 | 14 | 14 | 14 | 11 |
| *Of which:* Inactive | 2 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| International insurance companies | | | | | | | | | | | |
| (incl. reinsurance) | 5 | 6 | 7 | 8 | 12 | ... | ... | ... | ... | ... | ... |
| **Financial system assets (BZ$ millions)** | **3,059** | **3,424** | **3,747** | **4,108** | **4,360** | **4,674** | **5,031** | **5,204** | **5,420** | **5,668** | **5,615** |
| Domestic commercial banks | 1,883 | 2,121 | 2,419 | 2,512 | 2,498 | 2,552 | 2,760 | 2,830 | 2,955 | 2,997 | 3,085 |
| International commercial banks | 618 | 716 | 684 | 783 | 975 | 1,178 | 1,308 | 1,339 | 1,415 | 1573 | 1404 |
| Credit unions 2/ | 351 | 391 | 443 | 483 | 535 | 589 | 651 | 717 | 722 | 765.4 | 786.8 |
| Nonbank financial institutions | | | | | | | | | | | |
| (incl. the DFC) | 31 | 31 | 33 | 151 | 159 | 144 | 97 | 92 | 95 | 90.5 | 91.0 |
| Domestic insurance companies | 176 | 166 | 168 | 179 | 193 | 211 | 216 | 226 | 233 | 242 | 248 |
| **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 | 54.5 | 52.9 | 54.9 |
| International commercial banks | 20.2 | 20.9 | 18.2 | 19.1 | 22.4 | 25.2 | 26.0 | 25.7 | 26.1 | 27.8 | 25.0 |
| Credit unions 2/ | 11.5 | 11.4 | 11.8 | 11.7 | 12.3 | 12.6 | 12.9 | 13.8 | 13.3 | 13.5 | 14.0 |
| Nonbank financial institutions | | | | | | | | | | | |
| (incl. the DFC) | 1.0 | 0.9 | 0.9 | 3.7 | 3.6 | 3.1 | 1.9 | 1.8 | 1.8 | 1.6 | 1.6 |
| Domestic insurance companies | 5.8 | 4.8 | 4.5 | 4.4 | 4.4 | 4.5 | 4.3 | 4.3 | 4.3 | 4.3 | 4.4 |
| **Assets as percent of GDP** | **125.6** | **132.7** | **136.8** | **153.4** | **155.9** | **157.0** | **159.8** | **160.2** | **159.5** | **166.8** | **159.2** |
| Domestic commercial banks | 77.3 | 82.2 | 88.3 | 93.8 | 89.3 | 85.7 | 87.7 | 87.1 | 87.0 | 88.2 | 87.5 |
| International commercial banks | 25.4 | 27.7 | 25.0 | 29.2 | 34.9 | 39.6 | 41.5 | 41.2 | 41.6 | 46.3 | 39.8 |
| Credit unions 3/ | 14.4 | 15.1 | 16.2 | 18.0 | 19.1 | 19.8 | 20.7 | 22.1 | 21.3 | 22.5 | 22.3 |
| Nonbank financial institutions | | | | | | | | | | | |
| (incl. the DFC) | 1.3 | 1.2 | 1.2 | 5.6 | 5.7 | 4.8 | 3.1 | 2.8 | 2.8 | 2.7 | 2.6 |
| Domestic insurance companies | 7.2 | 6.4 | 6.1 | 6.7 | 6.9 | 7.1 | 6.9 | 7.0 | 6.9 | 7.1 | 7.0 |
| **Memorandum item:** | | | | | | | | | | | |
| Nominal GDP (BZ$ million) | 2,435 | 2,581 | 2,739 | 2,677 | 2,797 | 2,978 | 3,148 | 3,249 | 3,398 | 3,398 | 3,526 |

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 11. Belize: Financial Soundness Indicators of the Banking System (Commercial Banks)

(In percent, unless indicated otherwise)

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | Mar-15 |
|---|---|---|---|---|---|---|---|---|---|---|
| **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 | 25.1 |
| Regulatory capital to total assets | 16.4 | 17.2 | 14.4 | 15.2 | 15.3 | 14.1 | 13.1 | 13.7 | 13.1 | 13.3 |
| **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 | 22.5 |
| Agriculture | 7.7 | 7.6 | 7.8 | 7.4 | 7.5 | 7.6 | 6.9 | 8.2 | 10.4 | 10.5 |
| Building and construction | 22.8 | 22.8 | 23.6 | 26.4 | 25.4 | 25.3 | 26.5 | 27.3 | 27.2 | 28.2 |
| Manufacturing | 1.8 | 2.0 | 2.4 | 2.7 | 2.7 | 2.0 | 1.8 | 1.3 | 1.1 | 1.1 |
| Tourism | 5.7 | 8.9 | 7.6 | 7.2 | 7.8 | 6.2 | 5.3 | 5.0 | 5.0 | 4.8 |
| Real estate | 11.7 | 9.6 | 10.6 | 10.9 | 10.8 | 12.1 | 13.3 | 14.3 | 14.4 | 14.3 |
| Retail and wholesale | 12.5 | 11.6 | 13.1 | 12.3 | 12.4 | 12.1 | 11.2 | 9.8 | 9.5 | 9.4 |
| Transport | 3.3 | 3.5 | 4.4 | 4.2 | 3.3 | 2.9 | 2.8 | 2.1 | 2.3 | 2.1 |
| Others | 11.5 | 10.6 | 8.6 | 8.1 | 8.2 | 8.7 | 8.5 | 8.2 | 7.3 | 7.0 |
| **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 | 14.3 |
| Provisions to nonperforming loans | 34.5 | 34.2 | 23.1 | 19.5 | 18.2 | 28.0 | 40.8 | 46.0 | 57.8 | 60.0 |
| 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 | 31.6 |
| Specific provisions to gross lending | 1.3 | 1.2 | 2.0 | 1.4 | 2.3 | 4.5 | 6.2 | 5.9 | 7.3 | 7.6 |
| **Banking sector earnings and profitability** | | | | | | | | | | |
| Return on average equity (before taxes) | 21.8 | 20.8 | 21.1 | 15.5 | 3.0 | 0.2 | -3.6 | 3.0 | -7.8 | 13.1 |
| Return on average assets (before taxes) | 3.5 | 3.5 | 3.3 | 2.6 | 0.7 | 0.3 | -0.2 | 0.7 | 1.3 | 2.7 |
| Return on average assets (after taxes) | 3.5 | 3.5 | 3.1 | 2.3 | 0.4 | 0.0 | -0.5 | 0.4 | -1.1 | 1.8 |
| Interest margin to gross income | 45.9 | 47.1 | 36.1 | 40.4 | 45.6 | 49.3 | 54.5 | 57.6 | 59.8 | 43.3 |
| Non-interest expenses to gross income | 38.5 | 37.6 | 42.8 | 35.4 | 38.9 | 43.2 | 46.5 | 51.4 | 47.2 | 53.4 |
| 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 | 8.9 |
| **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 | 32.8 |
| 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 | 40.3 |
| Total deposits to total loans | 99.8 | 100.1 | 104.5 | 108.3 | 111.4 | 117.5 | 127.0 | 124.3 | 128.1 | 133.0 |
| Foreign currency liabilities to total liabilities | 8.0 | 3.8 | 6.8 | 3.5 | 2.1 | 0.9 | 0.3 | 1.1 | 1.4 | 1.0 |
| **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 | ... |

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

**Table 12. Belize: Stress Tests - Projected Banking System Capital Adequacy Ratios and Capital Shortfalls**

| Type of Stress Test | Dec. 2014 Actual | Dec. 2015 Proj. | Dec. 2016 Proj. | Dec. 2017 Proj. | Dec. 2018 Proj. | Dec. 2019 Proj. | Dec. 2020 Proj. |
|---|---|---|---|---|---|---|---|
| Current CAR 1/ | 21.5% | | | | | | |
| CAR taking into account shortfall in provisions 1/ | 21.0% | | | | | | |
| **CAR Under Selected Shocks 1/** | | | | | | | |
| Migration shock | 19.9% | | | | | | |
| Credit Concentration Risk 2/ | | | | | | | |
| Impairment of loans of top ten borrowers of each bank | -5.2% | | | | | | |
| Impairment of loans of top five borrowers from the banking system | 14.6% | | | | | | |
| Impairment of loans of top ten borrowers from the banking system | 13.2% | | | | | | |
| Liquidity Shock - Days to Illiquidity | | | | | | | |
| Days till illiquid | 40 | | | | | | |
| Days till breach of Legal Requirement | 18 | | | | | | |
| **CARs in Forward-Looking Stress Test Models 3/** | | | | | | | |
| Model 1 | | | | | | | |
| Baseline scenario | 22.0% | 20.9% | 20.0% | 19.0% | 18.1% | 17.3% | 16.5% |
| Low-stress scenario | 22.0% | 18.8% | 18.0% | 17.1% | 16.2% | 15.4% | 14.6% |
| High-stress scenario | 22.0% | 16.4% | 15.5% | 14.5% | 13.4% | 12.5% | 11.5% |
| Model 2 | | | | | | | |
| Baseline scenario | 22.3% | 20.8% | 19.9% | 19.5% | 19.1% | 18.8% | 18.6% |
| Low-stress scenario | 22.3% | 19.0% | 17.7% | 16.5% | 15.4% | 14.4% | 13.4% |
| High-stress scenario | 22.3% | 14.9% | 13.1% | 11.5% | 9.9% | 8.5% | 7.1% |
| Model 3 | | | | | | | |
| Baseline scenario | 22.3% | 22.8% | 23.6% | 24.8% | 26.1% | 27.7% | 29.1% |
| Low-stress scenario | 22.3% | 18.6% | 16.5% | 14.4% | 12.4% | 10.5% | 8.7% |
| High-stress scenario | 22.3% | 13.6% | 9.1% | 5.2% | 1.4% | -2.1% | -5.6% |
| **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% |
| Low-stress scenario | | 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% |
| Model 2 | | | | | | | |
| Baseline scenario | | 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% |
| High-stress scenario | | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 0.9% |
| Model 3 | | | | | | | |
| Baseline scenario | | 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% | 0.2% |
| High-stress scenario | | 0.0% | 0.0% | 2.1% | 4.0% | 5.6% | 7.1% |
| **Memorandum item:** | | | | | | | |
| Nominal GDP (US$ millions) | 1,699 | 1,763 | 1,841 | 1,931 | 2,021 | 2,114 | 2,207 |

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.

# Annex I. Status of Implementation of FSAP Recommendations

| 2011 FSAP Recommendations | Actions Taken |
|---|---|
| Introduce more conservative loan classification and provisioning criteria; which would apply to both secured and unsecured loans. | The prudential guidelines for loan loss provisioning were revised to bring them in line with international standards and to compensate for the elevated risk levels. The revised guidelines became effective as of 1 December 2011 and it applied to all banks and financial institutions licensed under the DBFIA and IBA. The introduction of DBFIA Practice Direction #3 changed the loan provisioning requirements as follows:<br>• All loans and other assets classified "substandard", specific provisions equivalent to twenty percent (20%) of such loans and other assets shall be maintained.<br>• All loans and other assets classified "doubtful", specific provisions equivalent to fifty percent (50 percent) of such loans and other assets shall be maintained.<br>• For all loans and other assets classified "loss" which are fully unsecured, specific provisions equivalent to one hundred percent (100%) of such loans and other assets shall be maintained.<br>• Specific provisions were instituted for all loans and other assets classified "loss" which are fully secured by mortgages, equivalent to seventy percent (70%) of the outstanding loan balance and subsequently reduced to 50% on April 1, 2013.<br>After the revised guidelines were implemented on 1 December 2011, banks were given a 3-year transition period to meet the requirement. Few banks were granted a 5-year transition period. The 3-year transition period expired on 30 November 2014. |
| Broaden definitions of "a group of connected borrowers" and of "related party of a licensee" to include holding companies, affiliates and other bank-related parties. | Section 7 of the DBFIA (pg 46) gives the Central Bank the authority to issue regulations which prescribe certain requirements and standards including the area of corporate governance. Additionally, the Act strengthened corporate governance by establishing minimum requirements for the number of directors and the creation and composition of specific oversight committees of the board.<br><br>In April 2015 the Central Bank issued Practice Direction #6 on Corporate Governance. This Practice Direction establishes minimum standards on corporate governance to be implemented by the Board and management to pursue their objectives that are in the interests of the licensee and its shareholders and which facilitate effective monitoring.<br><br>Section 51 of the DBFIA (pg 117) requires that the board of directors of a licensee should establish and maintain |

| 2011 FSAP Recommendations | Actions Taken |
|---|---|
| | adequate internal controls. A licensee that does not comply will be subject to substantial fines. Also, the recently implemented Practice Direction #6 on Corporate Governance stipulates that licensees should have an effective internal controls system and a risk management framework (including a chief risk officer or equivalent) with sufficient authority, stature, independence, resources and access to the Board. As regards internal controls, Practice Direction #6 requires the following:<br>(a)The licensee should maintain sound control functions, including an effective compliance function that, among other things, routinely monitor compliance with laws, corporate governance rules, regulations, codes and policies to which the licensee is subject and ensure that deviations are reported to an appropriate level of management and, in case of material deviations, to the Board.<br>(b) The Board and senior management should recognize the importance of the effectiveness of the internal audit function to identify problems with a licensee's governance, risk management and internal control systems, and should enhance it by:<br>i. encouraging internal auditors to adhere to national and international professional standards;<br>ii. requiring that audit staff have skills that are commensurate with the business activities and risks of the licensee;<br>iii. promoting the independence of the internal auditor by ensuring that internal audit reports are provided to the Board and the internal auditor has direct access to the Board or the Board's audit committee;<br>iv. recognizing the importance of the audit and internal control processes and communicating their importance throughout the licensee;<br>v. requiring the timely and effective correction of identified internal audit issues by senior management; and<br>vi. engaging internal auditors to judge the effectiveness of the risk management function and the compliance function, including the quality of risk reporting to the Board and senior management, as well as the effectiveness of other key control functions. |
| Remove the possibility to grant exemptions to the limit on large exposures. | This recommendation was not implemented due to the likely negative impact on lending but may be reconsidered in the future. |
| Establish consolidated supervision of holding companies. | Section 73(3) of the DBFIA (pg 138) establishes consolidated supervision of holding companies. It states that:<br>In accordance with section 79(2) (Central Bank's responsibility for supervision) and section 80 (Central Bank's authority to examine and to appoint examiners) the Central Bank may apply reporting requirements:- |

| 2011 FSAP Recommendations | Actions Taken |
|---|---|
| | (a) to a licensee on an individual basis; and<br>(b) on a consolidated basis, to a financial holding company, to include all subsidiaries and members of the financial group.<br>In accordance with Section 73(3) of the DBFIA, since April 2014 CARTAC has assisted the Central Bank to draft a consolidated supervision framework, which is still in the draft stage. Once the draft is completed, CARTAC will be providing further technical assistance to help formulate a Practice Direction or guidelines for consolidated supervision. |
| Introduce requirements for corporate governance and internal controls. | Section 7 of the DBFIA (pg 46) gives the Central Bank the authority to issue regulations which prescribe certain requirements and standards including the area of corporate governance. Additionally, the Act strengthened corporate governance by establishing minimum requirements for the number of directors and the creation and composition of specific oversight committees of the board. In April 2015 the Central Bank issued Practice Direction #6 on Corporate Governance. This Practice Direction establishes minimum standards on corporate governance to be implemented by the Board and management to pursue their objectives that are in the interests of the licensee and its shareholders and which facilitate effective monitoring.<br><br>Section 51 of the DBFIA (pg 117) requires that the board of directors of a licensee should establish and maintain adequate internal controls. A licensee that does not comply will be subject to substantial fines. Also,<br>the recently implemented Practice Direction on corporate governance stipulates that licensees should have an effective internal controls system and a risk management framework (including a chief risk officer or equivalent) with sufficient authority, stature, independence, resources and access to the Board. As regards internal controls, the draft practice direction requires the following:<br>(a)The licensee should maintain sound control functions, including an effective compliance function that, among other things, routinely monitor compliance with laws, corporate governance rules, regulations, codes and policies to which the licensee is subject and ensure that deviations are reported to an appropriate level of management and, in case of material deviations, to the Board.<br>(b) The Board and senior management should recognize the importance of the effectiveness of the internal audit function to identify problems with a licensee's governance, risk management and internal control systems, and should enhance it by: |

| 2011 FSAP Recommendations | Actions Taken |
|---|---|
| | i. encouraging internal auditors to adhere to national and international professional standards;<br>ii. requiring that audit staff have skills that are commensurate with the business activities and risks of the licensee;<br>iii. promoting the independence of the internal auditor by ensuring that internal audit reports are provided to the Board and the internal auditor has direct access to the Board or the Board's audit committee;<br>iv. recognising the importance of the audit and internal control processes and communicating their importance throughout the licensee;<br>v. requiring the timely and effective correction of identified internal audit issues by senior management; and<br>vi. engaging internal auditors to judge the effectiveness of the risk management function and the compliance function, including the quality of risk reporting to the Board and senior management, as well as the effectiveness of other key control functions. |
| Remove legal restrictions on information sharing among domestic agencies and make formal bilateral and multilateral MOUs. | Section 84(2)b of the DBFIA (pg 156) empowers the Central Bank to disclose information to any local or foreign regulatory agency or body, that regulates or supervises financial entities for purposes related to regulation or supervision. Also, section 84(4) states that the Central Bank may enter into a Memorandum of Understanding with the entity performing the functions of deposit insurer, the designated authority, or any local or foreign regulatory agency or body that regulates financial entities with respect to sharing information, but the absence of such Memorandum of Understanding shall not prevent the disclosure of information by the Central Bank to such regulatory authority.<br><br>In accordance with Section 84(4) of the DBFIA, the Central Bank entered into a MOU with the Financial Intelligence Unit in July 2014. Also, In March 2015, the Central Bank signed a Memorandum of Understanding with the Supervisor of Insurance to facilitate the exchange of information for the Financial Stability Report. |
| ***Credit Unions*** | |
| Revise CUA to set appropriate minimum CAR requirements. | CUA is slated for revision in 2016. |
| Revise CUA to strengthen internal controls, set stricter administrative penalties for non-compliance, and | |

| 2011 FSAP Recommendations | Actions Taken |
|---|---|
| establish large exposure limits. | |
| Revise CUA to provide clear time frame for corrective action and resolution of troubled credit unions. | |
| ***Crisis management and bank resolution framework*** | |
| Amend the CBA to include an explicit financial stability mandate. | While the CBA has not been amended to include an explicit financial stability mandate, the Central Bank established a Financial Stability Unit in August 2012. The work of the unit is supervised by a Financial Stability Committee, which is comprised of the Deputy Governor (Research) and the Directors of the Research and Financial Sector Supervision departments. The unit was given a mandate to establish a framework for macro prudential surveillance to identify and mitigate systemic risks in the financial sector. |
| Amend the BFIA to allow for the appointment of a statutory administrator to take control of a problem bank before insolvency and with the powers to restructure; strengthen the bank liquidation framework. | Part X of the DBFIA (pg 160) improved the resolution structure to allow for a Statutory Administrator with sufficient legal powers to undertake restructuring transactions and implement a mechanism for orderly liquidation. |
| Establish clear procedures for the provision of (Emergency Liquidity Assistance) ELA by the CBB and solvency support by the government. | The Central Bank of Belize is awaiting the approval of the Financial Management Plan for Domestic Banks and FIs from the Ministry of Finance. |
| Resolve differences with the Financial Services Commission of the Turks and Caicos Islands (FSCTCI) to allow participation in Caribbean Group of Banking Supervisors (CGBS) MOU. | The CGBS was tasked by regional central bank governors to investigate and recommend measures to resolve the dispute on 27 May 2011. On 22 November 2014, the CGBS finally presented its findings to the governors which confirmed that a parallel structure was deliberately created by TCI, in violation of a bilateral MOU they previously signed with Belize. Guyana then introduced a resolution to regional governors to suspend the Turks & Caicos Financial Services Commission from all CGBS activities until the situation is properly addressed. While all governors have accepted the findings of the CGBS, the majority, including those jurisdictions who headed the CGBS investigation, lack the political will to support the Guyana resolution. |
| Finalize and make operational the CBB's domestic and the CGBS's regional crisis management plan. | The Financial Management Plan for Domestic Banks has been drafted and reviewed by the Central Bank's board of directors. The plan was submitted to the Ministry of Finance for review on 10 June 2013.<br>While the CBB has signaled its agreement to the regional crisis management plan developed by the CGBS it has not |

| 2011 FSAP Recommendations | Actions Taken |
|---|---|
| | signed the regional MOU due to the group's reticence on the Guyana resolution to hold TCI accountable for the creation and continued support of a parallel banking structure. The FSCTCI continues to contravene international best practice by approving the establishment and maintenance of a parallel banking structure which poses a risk to Belize's financial system. Hence, Belize is doubtful of the practical benefits of participating in the MOU and the ability or willingness of the CGBS to hold regional participants accountable for violating its terms and conditions. |
| ***Financial Infrastructure*** | |
| Establish a legal framework, with an appropriate oversight function, to create a credit reporting system and a moveable property registry. | Assisted by IFC and CIDA, the Central Bank has been working to draft legislation for the establishment of a credit reporting system for Belize. The Central bank is currently working on the draft legislation. The legislation aims to establish credit reporting in Belize with a view to reducing risk, promoting financial inclusion and increasing the efficiency of the credit adjudication process. |

# Annex II. Toward an Effective AML/CFT Regime in Belize

*After having been publicly listed for its AML/CFT shortcomings by the Caribbean Action Task Force (CFATF) in May 2013, progress made by Belize in improving the AML/CFT framework was acknowledged by the CFATF in May 2015. However, this progress relates to formal compliance with the 2003 Financial Action Task Force (FATF) standard and the CFATF did not assess effective implementation of the 2012 FATF standard. In particular, the authorities are urged to continue enhancing the operational independence and effectiveness of the financial intelligence unit (FIU), develop a framework for the risk-based AML/CFT supervision of all reporting institutions, and enhance the transparency of legal entities and arrangements.*

## A. Background

**Belize's 2011 AML/CFT assessment identified significant shortcomings.** The 2011 CFATF Mutual Evaluation Report noted a number of deficiencies, including with respect to preventive measures, supervision of financial and non-financial institutions, operational independence of the FIU, and transparency of legal persons and arrangements. Since 2011, the CFATF has been working with the country to address the identified deficiencies. Due to insufficient progress, the CFATF issued a public statement in November 2013 calling on member countries to consider taking counter measures against Belize and planned to refer Belize to the FATF International Cooperation Review Group.

**Despite the 2013 CFATF listing, improvements in the AML/CFT framework were not significant until early 2014.** The Fund's Legal Department provided Belize with AML/CFT TA in 2012 and 2013. Staff's recommendations included (i) strengthening the AML/CFT regulatory and supervisory framework and practices for domestic and offshore banks and non-bank financial institutions by the introduction of a risk-based approach (RBA) to AML/CFT supervision by the Central Bank of Belize (CBB), (ii) improving the institutional framework to ensure national cooperation and coordination between relevant entities and institutions, and (iii) enhancing the analytical and operational capability of the FIU. As a result, Fund staff decided to end the AML/CFT TA project with Belize due to the absence of progress made in implementing regulatory and institutional reforms that were initiated under the project, in particular in terms of risk-based supervision, and in developing the operational capacity and independence of the FIU.

## B. Progress Achieved in Strengthening the AML/CFT Framework

**The authorities did step up their efforts in strengthening the compliance of their AML/CFT framework with the 2003 FATF standard since February 2014.** In February 2014, Belize approved six laws and three regulations, including (i) comprehensive amendments to the Money Laundering and Terrorism Prevention Act (MLTPA), which included the establishment of the National Anti-Money Laundering Committee as a statutory body to advise the Minister of Finance and co-ordinate national AML/CFT efforts; (ii) amendments to the FIU Act to strengthen its operational independence, enhance security of tenure for the FIU Director and minimize opportunity for political

interference by requiring that the FIU Director can be removed only by the Governor General for misbehavior and after recommendation by an advisory council; (iii) memoranda of understanding (MOUs) between the CBB and the FIU, and between the Corozal Free Zone Management Agency and the FIU, and (iv) new regulations to more fully articulate the supervisory regime applicable to Designated Non Financial Business Professionals (DNFBPs) and to set out details regarding the constitution and procedures of the National AML Committee.

**The CFATF recognized progress made by the Belizean authorities.** In May 2014, the CFATF public statement noted that Belize had made significant progress in addressing its deficiencies. In May 2015, the CFATF acknowledged that Belize has significantly improved its level of compliance with the FATF standard, and decided to remove the country from the CFATF Follow-up and Review processes.[1]

## C. Next Steps toward an Effective AML/CFT Regime

**Additional effort is needed to effectively implementing Belize's AML/CFT regime in line with the 2012 FATF standard.** While the laws and regulations are likely to assist Belize in achieving a higher level of technical compliance with the FATF Recommendations, it is not yet possible to assess any improvement that may have taken place in the overall effectiveness of Belize's AML/CFT regime. Some of the measures necessary for Belize to develop an effective AML/CFT regime include: (i) continuing to enhance the operational capacity and the effectiveness of the FIU by maintaining the operational independence of the Director and, in general, continuing to enhance its ability to undertake its core functions and to prioritize the allocation of its resources across it various mandates, (ii) continue to develop the capacity of the CBB to implement a RBA to AML/CFT supervision including the use of tools that would allow CBB to assess institution's inherent risk as well as the quality of their risk management, (iii) ensuring the operational capacity and the effectiveness of the AML/CFT supervision of the International Financial Service Commission and the Supervisor of Insurance, and (iv) strengthening the implementation of AML/CFT preventive measures by DNFBPs (i.e. notably lawyers, notaries, accountants, and trust and company service providers), and enhancing the risk-based AML/CFT supervision of those professions. In addition, international initiatives to address money laundering and tax evasion might challenge Belize's business model and have adverse impact on the financial system and domestic economy. In this context, the authorities are urged to strengthen, where necessary, and effectively implement the legal and regulatory framework in line with the 2012 FATF Recommendations, including with regard to the transparency of international business companies and trusts, the coverage of serious tax crimes as predicate offenses to money laundering, and the framework related to national and international cooperation.

[1] https://www.cfatf-gafic.org/index.php/member-countries/a-d/belize.

**The authorities reported progress in effectively implementing their AML/CFT legislation, including before 2014.** They insisted that the CBB instituted a pilot project in October 2012 whereby a Risk Based Approach (RBA) tool, Financial Risk Assessment Return 1 (FRA R1), was introduced to select institutions and this tool was implemented system wide in September 2013. They also mentioned training and AML-focused onsite examinations of various entities, and increased human and financial resources for the FIU. The CBB and the FIU have been conducting training workshops, seminars, and outreach to the financial community and DNFBPs over the past year. According to the authorities, this outreach and feedback efforts have also resulted in improvements in the quality of STRs received. Financial intelligence is also reported to have been disseminated spontaneously to relevant authorities abroad.

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# CAN BELIZE COPE WITH THE NEW WORLD SUGAR MARKET?[1]

## A. Executive Summary

**1. The sugar sector makes a very important contribution to Belize's economy.** In Northern Belize, where most sugarcane is grown, about 85 percent of the population depends on the sugar sector. The sector is estimated to account for about 4–5 percent of GDP, 9–10 percent of total exports, 8 percent of employment and 5–6 percent of foreign exchange earnings. In addition, sugarcane ("bagasse") is a source of input into electricity co-generation, which supplies 15 percent of the economy's electricity needs.

**2. The reform of the EU sugar regime, with the dismantling of quotas for domestic sugar beet production, will take full effect in 2017 and most likely cause a significant drop in the EU sugar price.** Limits on production and distribution of beet sugar and isoglucose will be removed and only the most competitive suppliers will survive in the EU market. Since the onset of the EU reform, the EU sugar prices have fallen in anticipation of these changes by about 30 percent. The EU sugar price is expected to decline further after 2017 and gradually approach the free market price.

**3. Consequently, Belize's production costs will have to drop by at least 30 percent for the country to remain competitive in the world sugar market after 2017.** Belize's current production costs of US$20–22 cents per pound still have to fall by US$4–8 cents for the industry to remain viable. Production costs are pushed up by low cane field productivity, low cane quality, inefficiencies in harvesting and delivery, and high transportation costs.

**4. An important step was recently taken to strengthen the Belize sugar sector.** The Sugar Act was amended in January 2015 to permit the establishment of new farmers' associations. This helped break the impasse between the sugar manufacturer Belize Sugar Industries (BSI) and Belize Sugar Cane Farmers' Association (BSCFA), which were bogged down in negotiations over a new long-term commercial agreement for the purchase and sale of sugarcane. Part of the disagreements revolved around the purchase price of sugarcane bagasse, a residue of the sugar production process used for electricity co-generation.

**5. Additional measures would be needed to create a business environment conducive to industry growth**. All stakeholders, including the Government, are committed to developing a Strategic Development Plan (SDP) that will spell out concrete measures to make the industry sustainable. The Government could support the sector's restructuring by providing an enabling environment, including through well-designed public-private partnerships, infrastructure

[1]The main authors of this note are Kalin Tintchev, Jacques Bouhga-Hagbe and Joel Okwuokei (all WHD).

improvements, and social protection for vulnerable segments of the population affected by the transition. Domestic prices of sugar and co-generated electricity that reflect market conditions could help attract more private sector involvement and encourage co-generation of electricity and diversification into the production of bio-ethanol.

## B. Introduction

**6. The sugar sector is critical to Belize's macroeconomic and social stability.** In Northern Belize, where most sugarcane is grown, about 85 percent of the population depends on the sugar sector. It accounts for about 4-5 percent of GDP, 9-10 percent of total exports, 8 percent of employment and 5-6 percent of foreign exchange earnings. In addition, sugarcane ("bagasse") is a source of input into electricity co-generation, which supplies 15 percent of the economy's electricity needs.

**7. The Belize's sugar industry has received impetus from foreign direct investment.** American Sugar Refining Inc. (ASR Group), the world's largest global sugar refinery, invested US$100 million in 2012 to acquire 81 percent ownership of the single domestic sugar manufacturer Belize Sugar Industries Limited (BSI). This investment was equivalent to 6 percent of 2012 GDP. Since then, ASR has invested a further US$15 million to improve mill efficiency and strengthen its business viability.

**8. However, there are emerging risks from the global sugar market that could put at risk the viability of the sector barring productivity-enhancing reforms.** In 2017, changes to the EU sugar regime will come into effect and will remove the limits on production and distribution of beet sugar and isuglucose, restricting exports to the EU only to the most competitive suppliers. Therefore, the higher prices that provided revenues above world prices would cease. Belize, which exports sugar mainly to the EU, would need to reduce production costs at least by 30 percent to regain competitiveness in the new market environment.

**9. This remainder of the note is organized as follows.** Section C describes the main challenges that are emerging in the world sugar market, with an emphasis on the impact of the EU sugar reform. Section D discusses Belize's ability to cope with these new challenges. Section E describes the regulatory framework and the sugar sector development strategy. Policy options and concluding remarks are presented in Section F.

## C. Emerging Challenges in the World Sugar Market

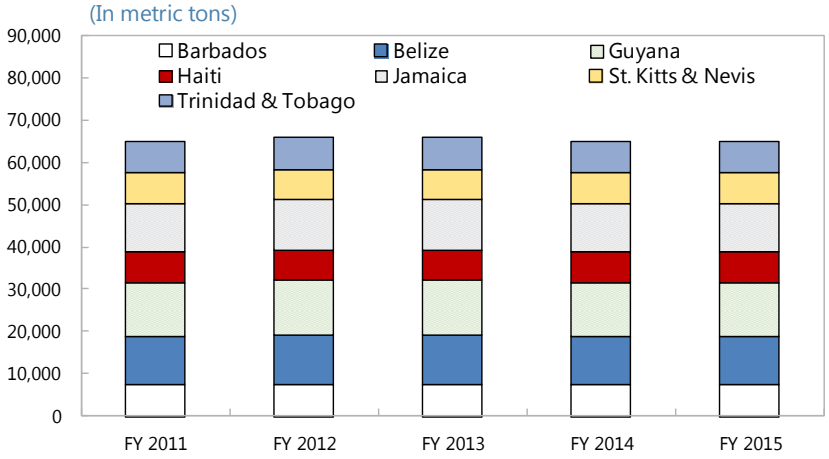
*The EU reform of its sugar regime, with the dismantling of quotas, will likely lower sugar prices and have profound implications for Caribbean exporters. The volatility of sugar prices in the coming years will likely increase and their level will be determined by many factors, including the strength of the US dollar, oil prices, which affect demand for ethanol, and the availability of sugar alternatives. In order to remain financially viable in the face of these emerging challenges, the Caribbean sugar industries would have to improve competitiveness, including through a private sector-led reform, which also taps into all available sources of external aid and financing. Governments have an important role to play by creating an enabling environment for success.*

### The International Sugar Market

**10. The international sugar market has traditionally been characterized by a high degree of domestic protection.** Domestic sugar prices tend to be regulated while countries typically resort to import quotas and export subsidies to stimulate domestic production. About 70 percent of the world's sugar is consumed in producer countries and only 30 percent is traded internationally. In the EU, protectionist measures took the form of guaranteed minimum payments to sugar producers based on production quotas.

**11. Similarly to the rest of the Caribbean, Belize has enjoyed preferential access for sugar exports to the higher-priced EU and US markets.** Under the European Partnership Agreement (EPA), Belize enjoys a tariff-free access to the EU market, which remains its single most important sugar market. The EU absorbed the bulk of its total sugar exports in 2014. The United States is the second most important preferential export market for Caribbean producers and Belize benefits from a basic tariff-rate quota allocation (TRQ) of about 11,000 long tons annually. In recent years, Belize has not consistently delivered its U.S. TRQ allocation given production shortfalls and variability of prices in the USA market relative to the higher EU prices combined with a favorable euro/US dollar exchange rate. Although Belize enjoys also preferential access to the CARICOM market, its exports have been limited because of prevailing lower prices in that market.

**Figure 1. US Tariff-Rate Quotas in the Caribbean**
(In metric tons)




Source: Office of the United States Trade Representative.

## The EU Sugar Reform

**12. The Caribbean sugar trade with the EU has a long history.** Sugar has provided livelihood to a large part of the Caribbean population for centuries and represents an integral part of its cultural heritage. In 1975, the EU granted under the so-called Sugar Protocol quota-based duty-free access to 19 sugar producers from the Africa, Caribbean and the Pacific region (ACP). This arrangement included seven Caribbean producers—Barbados, Belize, Guyana, Jamaica, St. Kitts and Nevis, Suriname, and Trinidad and Tobago. Total quota amounted to about 1.3 million tons. The price was renegotiated each year but was set close to the EU intervention price for domestic producers.

**13. In 2005, the EU launched a comprehensive reform of its sugar regime with profound implications for Caribbean exporters.** In 2003, Australia, Brazil and Thailand challenged successfully the cross-subsidization of EU sugar before the World Trade Organization (WTO), triggering a comprehensive EU sugar reform with significant repercussions for ACP exporters (Text Box 1).

### Box 1. The Reform of the EU Sugar Regime

The EU sugar regime was established in 1968 and remained largely intact until 2006. It was based on supply quotas defined by the Common Agriculture Policy (CAP) for each EU member. "Quota" beet sugar was sold at an above-market support price. By contrast, "out-of-quota" sugar did not receive price support and export refund. Since 1977, isoglucose (high fructose syrup) has been also subject to quota, which limits its production to 5 percent of the sugar market.

In 2006, following a ruling by the WTO that "out-of-quota" exports were cross-subsidized by high domestic prices, the EU imposed limits on "out-of-quota" sugar exports. Other measures included a stepwise reduction of the reference prices and minimum beet prices for quota sugar, a total quota reduction, and restructuring aid for EU members that renounce their quota. The reference price declined by more than 30 percent over the next four years while the minimum beet price was reduced by 20 percent. The export limits turned the EU into a large net importer of sugar. The total quota was reduced from 17.6 million tons to 13.3 million tons and was scheduled to be eliminated by 2015 although this was later extended to September 2017.

This most recent EU reform aims to enhance the competitiveness of the EU sugar sector by removing barriers to production and trade. The quota elimination will put an end to the market segmentation between "quota" and "non-quota" sugar and between sugar and isoglucose. Since EU members will be free to produce and market an unlimited quantity of sugar, suppliers with a comparative advantage will expand production while inefficient suppliers and importers will have to leave the market or seek government subsidies to try and remain in the market.

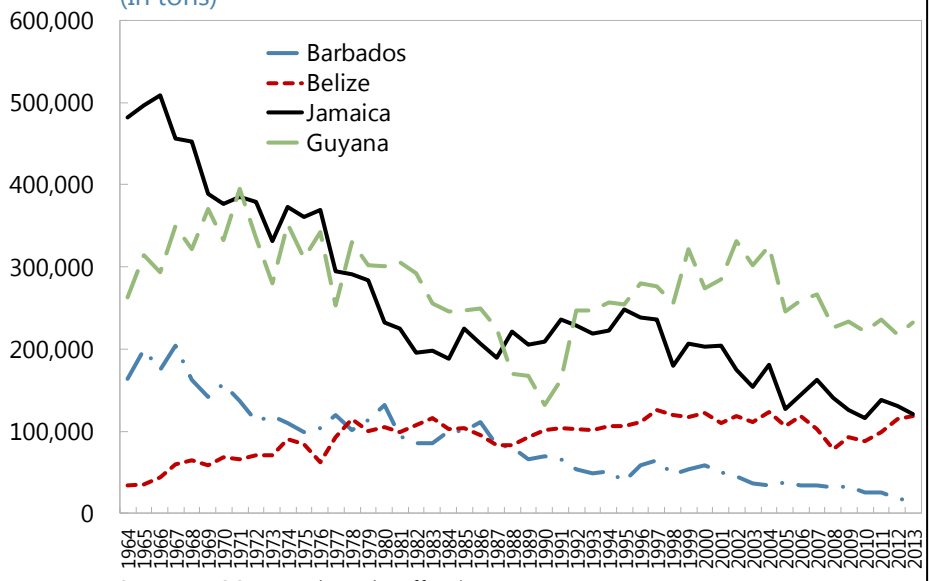
The abolition of the quota system is expected to induce volatility in the EU price. The reform could lower the price per ton by an estimated EUR €100, leading to an increase in domestic beet sugar production and a decline in imports from higher-cost suppliers. Over time, the EU could gradually become self-sufficient in sugar.

## Impact of the EU Reform on Caribbean Producers

**14. The EU reforms have already lowered the price paid to Caribbean producers, depressing growth in their production volumes.** EU sugar prices have been typically 2–3 times

higher than the world price. In 2009, the Sugar Protocol officially expired and was replaced by transitional arrangements. The guaranteed sugar price was reduced but maintained until September 2012 when it was replaced with negotiated market-related prices whereas the import quotas were replaced by a general ceiling on imports from all ACP suppliers, broadening access to the EU market. Lower EU prices have pushed down Caribbean producers' volumes from the peaks achieved in past decades (Figure 2).

**Figure 2. Caribbean Sugar Production Volumes**
(In tons)




Source: FAOSTAT and Fund staff estimates.

**15. Caribbean producers face increased competitive pressures in the new market environment.** Although ACP countries have retained duty-free access, the EU price reduction has already cost them an estimated EUR 462 million in lost export earnings in the transition period. Their losses would have been greater if not for unexpected supply shortages, which pushed up the world price of sugar, and because of the appreciation of the euro relative to the US dollar during that period. Following the full liberalization of the EU market, Caribbean farmers would face increased competition from EU producers and other lower cost suppliers.

**16. The exposure of Caribbean sugar producers to EU price volatility would depend to some degree on the extent of their market concentration.** In 2012, the UK Department for International Development estimated that the impact of the EU reform would be greater on the average selling prices of Guyana, Belize, and Barbados because of their larger EU export concentration and small domestic markets. Some Caribbean countries (for example Guyana) have taken steps to reduce dependence on the EU market by increasing exports to CARICOM.

**17. Caribbean exporters are also exposed to currency risk stemming from the strong outlook for the US dollar.** Their currencies are typically pegged or fluctuating within a narrow band against the US dollar, whereas their export earnings are denominated mainly in euro. Therefore, the

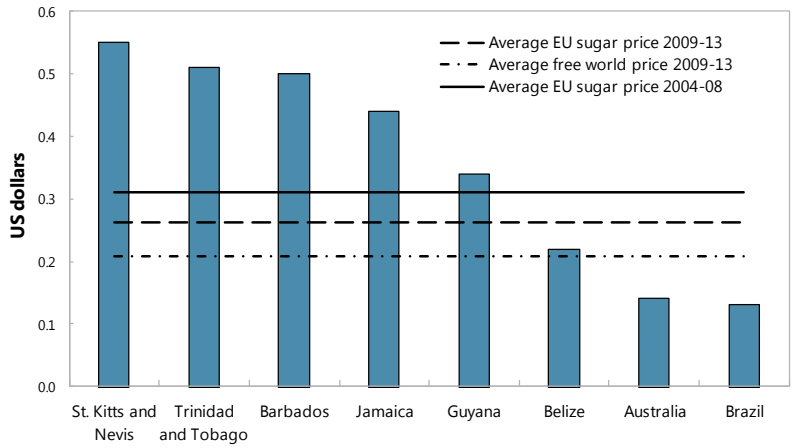
strengthening of the US dollar against the euro in 2015 and its stronger outlook could impact negatively the domestic currency equivalent of their export earnings.

**18. The EU provides financial assistance to mitigate the impact of its sugar reform on affected ACP exporters.** Assistance under the so-called Accompanying Measures for Sugar Protocol Countries amounting to about 1.25 billion was provided in the period 2006-13 for productivity-enhancing reforms of viable Caribbean sugar sectors, as well as to promote economic diversification, social and environmental protection, and macroeconomic stability.

## The Caribbean Producers' Restructuring Strategies

**19. High EU prices masked production inefficiencies, which have contributed to Caribbean sugar industries' gradual decline.** Production costs vary across Caribbean producers and some producers have been making losses even at pre-reform EU prices. Several factors have been pushing up production costs in the Caribbean, including limited economies of scale, rising cost of production inputs (labor, land and fertilizers), poor management in state-run companies, and lack of capital for investment in innovation. Last but not least, preferential access to the higher-priced EU market has reduced incentives to improve efficiency.

**Figure 3. Sugar Production Costs in the Caribbean**
(Per pound)



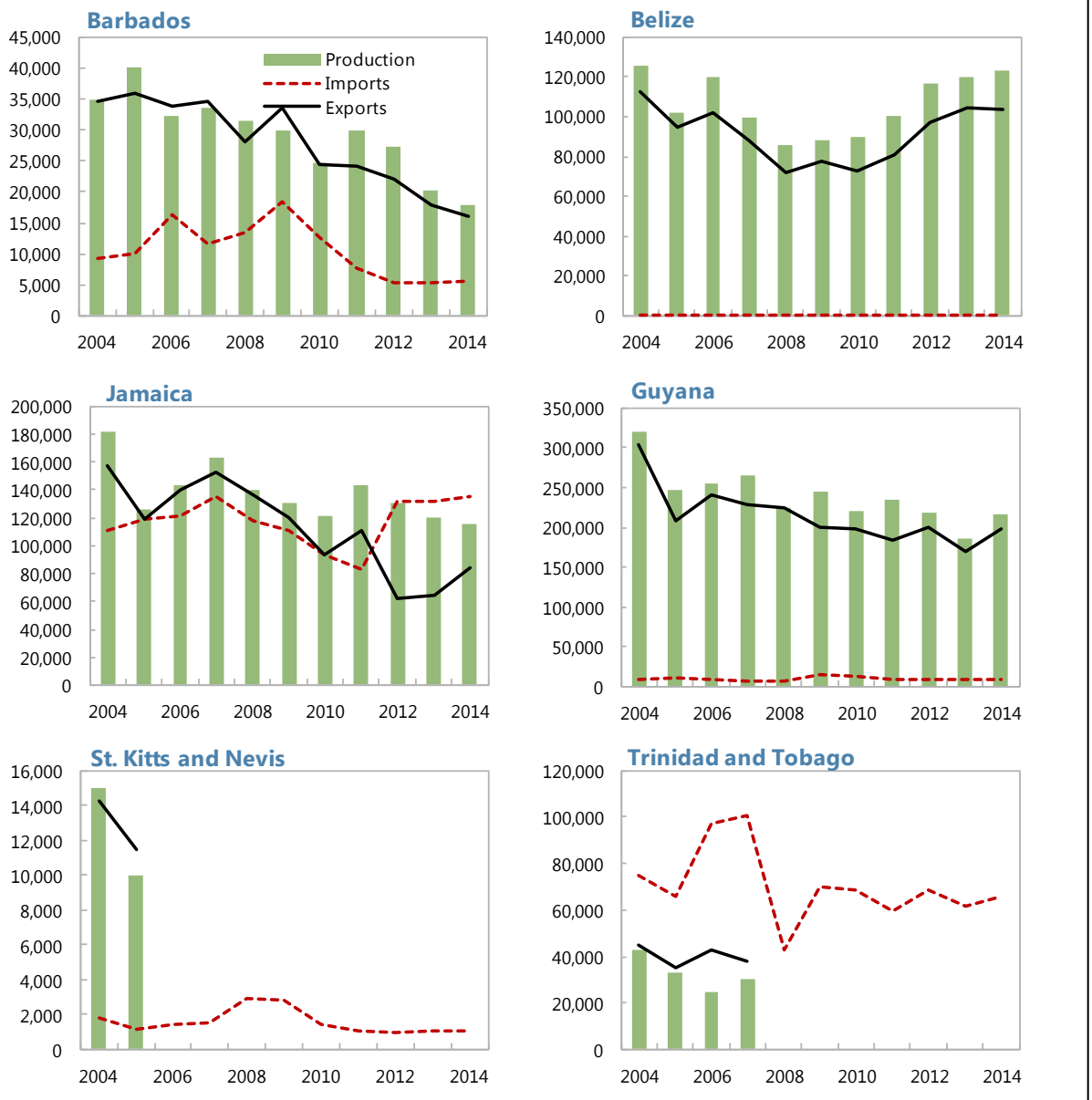

Sources: Bulte and Ruben (2007); various articles on sugar in the Caribbean; WEO, and Fund staff estimates.

**20. In response to the EU market challenges, some Caribbean producers have left the market, while others have undertaken a restructuring of their industries.** Suriname was the first Caribbean exporter to stop producing sugar back in the 1990s. St. Kitts and Nevis and Trinidad and Tobago followed suite in the mid-2000s as they were not profitable at the pre-reform EU prices (Figure 4). In contrast, Barbados, Belize, Guyana, and Jamaica undertook a restructuring of their industries through public-private partnerships and outright privatization.

**21. In some cases, the reforms preserved the state ownership of the sugar sector but increased collaboration with private partners.** In February 2015, the government of Barbados entered into a public private partnership with Inter-Sugar Partnership, a leading Caribbean advisor, to implement a cost reduction strategy that centers around the construction of a new state-of-the art production facility. The strategy envisages boosting revenue by tapping niche markets for premium specialty sugars and diversifying into co-generation of electricity and rum production. The US$270 million project will be completed by 2017 and operated by the government. Guyana implemented a similar restructuring strategy of the state-owned sugar company GUYSUCO, constructing state of the

art production and packing facilities and diversifying into co-generation of electricity and packaged sugar.

**Figure 4. Sugar Production in the Caribbean**
(In metric tons)




Sources: International Sugar Organization 2012 Yearbook , country authorities, Fund staff estimates.

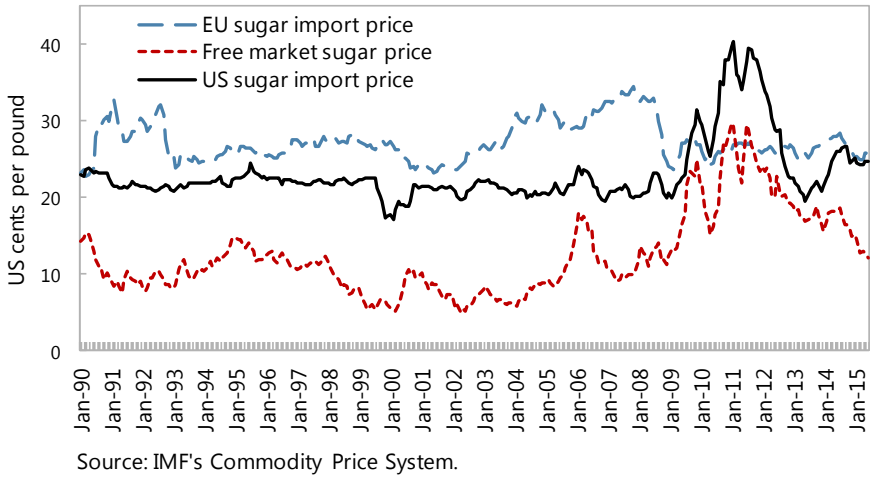
**22. In other cases, the domestic sugar company was sold to strategic foreign investors in an attempt to revitalize the industry.** In 2007, the Jamaican government decided to sell the loss-making state-owned Jamaica Sugar Corporation to strategic foreign investors. The process was completed in 2011 with the sale of the remaining subsidiaries to China's Complant International Sugar Sector. Foreign direct investment played also a key role in the rehabilitation of the sugar

industry in Belize, where the underperforming domestic sugar company was acquired by a strategic foreign investor in 2012.

## Outlook and Risks

**23. The full liberalization of the EU market in 2017 is expected to align more closely the EU sugar price with the free market price.** The EU sugar price has been trading at a premium relative to the free market price because of the quota limits on domestic production and the need to attract imports (Figure 5). The EU sugar reform process compressed this premium from about US$23 cents at end-2007 to about US$5 cents at end-2012. Since 2012, the premium bounced back to US$8-10 cents owing to supply shortages in the EU and a faster decline in the world sugar price. The EU price is expected to approach the free market price following the completion of the EU sugar reform in 2017. Increased consumption in the growing economies of Asia and Africa pushed up the world market price above US$20 cents per pound between 2009 and 2011. However, supply outstripped demand as more sugarcane was processed into sugar than bio-ethanol, pushing the price to US$12 cents in 2015.

**Figure 5. Sugar Prices in the EU, US and the Free Market**
(US cents per pound)



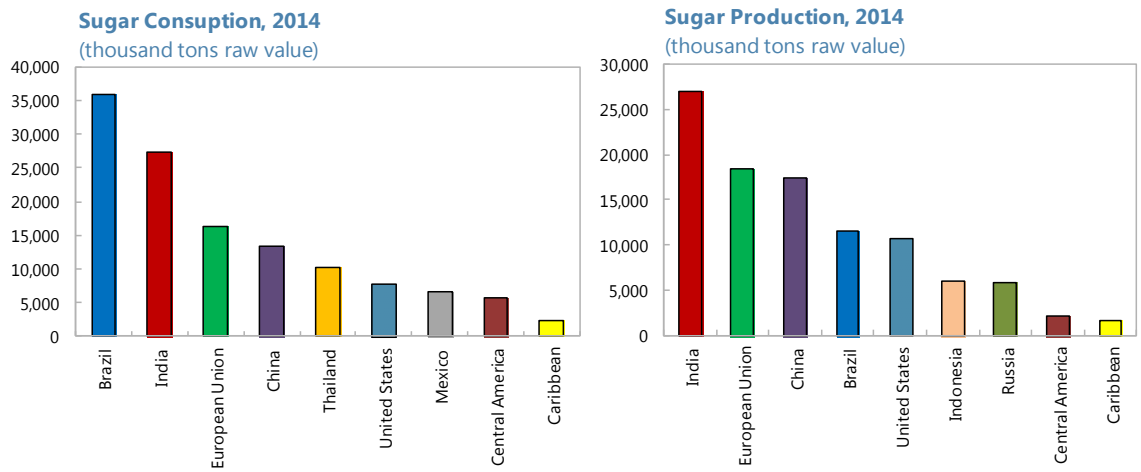

Source: IMF's Commodity Price System.

**24. Global sugar demand has been growing moderately.** Sugar supply and demand are dominated by developing countries, which produce nearly 85 percent of global output and account for 80 percent of global consumption (Figure 6). India, China, Indonesia and Pakistan, together account for nearly one third of total consumption. Although consumption has been declining in developed countries, where health concerns stimulate demand for sugar alternatives, rising incomes and population growth in developing countries, especially in Asia, are the main drivers of sugar consumption. Demand growth is projected to moderate slightly from 2.4 percent in 2011-14 to about 2 percent over the medium term.

**25. However, large swings in global sugar supply are associated with considerable price volatility.** Global production and exports can change abruptly as they are concentrated in a few large developing countries. Brazil, India, the European Union, China, Thailand, and the United States together accounted for about 65 percent of global production at end-2014 (Figure 6). Brazil and

Thailand are the largest exporters of sugar from sugarcane, whereas the EU is the largest producer of sugar from beet.[2] Brazil dominates the global sugar market, accounting for about 22 percent of global production and 44 percent of global exports.

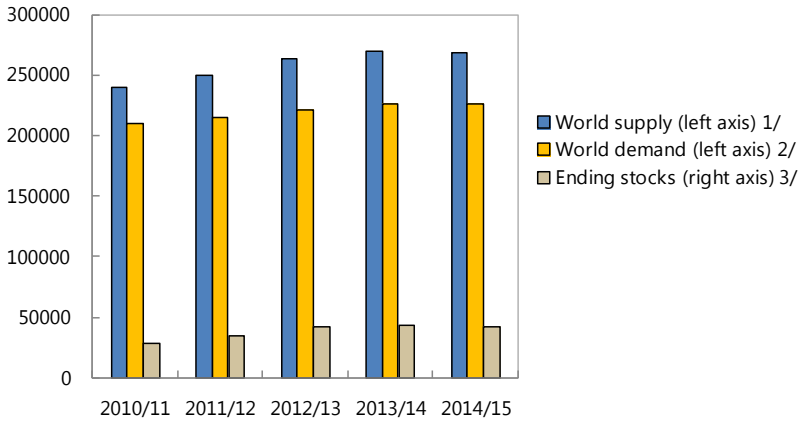
**Figure 6. Sugar Consumption and Production**




Source: United States Department of Agriculture.

**26. Growth in Brazil's sugar and ethanol production is a key determinant of sugar supply.** Brazil dominates the sugar export market with its significant cost advantage and considerable capacity to expand production on a large scale. Ethanol is a key alternative use of sugarcane, and changes in the demand and price of ethanol affect the price of sugar. Brazil tends to switch between sugar and ethanol production depending on the market conditions. Lower international oil prices in 2015 would reduce the attractiveness of ethanol, incentivizing Brazil to produce more sugar. Although 2014 data pointed to a somewhat lower global sugar surplus on reduced output in Brazil, Thailand and

**Figure 7. World Demand and Supply of Sugar**
(Thousand metric tons raw value)




Source: United States Department of Agriculture.
1/ World domestic production plus imports plus beginning stocks.
2/ World domestic consumption plus exports.
3/ World supply minus world demand.

[2] Sugar from sugarcane makes up 80 percent of global sugar production.

China, OECD-FAO expects that stocks will be gradually rebuilt (Figure 7). Higher projected export volumes are also expected to narrow the price premium between white refined sugar and raw sugar.

**27. Overall, the world price of sugar is projected to trade in a lower range in the coming years owing also to the stronger outlook for the US dollar and weaker outlook for international oil prices.** Changes in the outlook for the US dollar and international oil prices affect the sugar price. The price is quoted in US dollars and falls when the US dollar strengthens. Lower oil prices depress demand for ethanol, boosting sugar supply. Hence, the April 2015 WEO projects the sugar price to fluctuate within a somewhat lower range of US$14–16 cents per pound in the medium term given the stronger outlook for the US dollar and weaker outlook for international oil prices.

**28. The expiry of the EU quota for isoglucose is also expected to increase the supply of sugar alternatives.** Industry experts believe that the share of isoglucose in the sweetener market could increase from 5 percent to at least 10–15 percent by 2024. Although this would depend on a variety of factors, in particular the future price of grains versus sugar beet production and the evolution of consumer preferences, it may be hard for isoglucose to reach the 40 percent market share it holds in the United States, where it has never been restricted.

## D. How Can Belize Cope with the New World Sugar Market?

*The sugar industry continues to play a significant contribution to Belize's macroeconomic and social stability. The expected fall in international sugar prices in 2017 after the reform of the EU sugar regime takes full effect could jeopardize this contribution as well Belize's macroeconomic and social stability. Policies that could help Belize cope with the new world sugar market after 2017 must tackle production costs that are pushed up by low cane field productivity, low cane quality, inefficiencies in harvesting and delivery, and high transportation costs. Given the limited fiscal space, private sector involvement and an enabling investment environment would be crucial to any successful reform strategy of the sector.*

### Background and Structure of the Belize Sugar Sector

**29. Sugarcane is mainly cultivated in Northern Belize, with area under cultivation amounting to about 36 percent of cropland.** Sugarcane is produced by an estimated 5,000 independent famers in the northern districts of Orange Walk and Corozal. An estimated 28,500 hectares of land are cultivated annually. The sugarcane season starts from early December and ends in mid-June of the following year. Occasionally, sugarcane production is disrupted by adverse weather during the critical crop-growing period, which also leads to lower yields and interruptions in processing at the sugar factory.

**30. The sugar sector is privately owned unlike in most other countries of the region.** This arrangement is supported by all stakeholders, including the Government. Currently, there are several key private stakeholders in the sector. The sugar manufacturer BSI owns the only operating sugar processing mill—Tower Hill Sugar Factory in the Orange Walk District, which is supplied with cane by

more than 5,000 cane farmers. BSI's majority owner is ASR, while the remaining shares are held by the BSI employees' trust. The other major participants are the farmers who are represented by three cane producer associations, in particular the Belize Sugar Cane Farmers Association (BSCFA), Progressive Sugar Cane Producers Association (PSCPA) and Corozal Sugar Cane Producers Association (CSCPA).

**31. A new regulatory framework was put in place in 2001 to foster private sector participation.** The passage of the Sugar Sector Act (2001) was an attempt to provide the framework to guide private sector participation and implement necessary reforms to improve the efficiency and competitiveness of the sector. The legislation created new institutions in order to further the objective of increasing cane sugar production, field efficiency and cane quality. The Government is represented on the committees and exercises oversight of the sector.

**32. The sugar sector is an important source of electricity generation with a large potential to help reduce energy imports.** In 2009, BSI invested US$65 million in a 30 MW co-generation plant (BELCOGEN) that produces and sells renewable electricity to the national power grid using a residue of sugar production, known as bagasse. Currently, BELCOGEN supplies about 15 percent of the economy's needs and with significant investment and expanded sugar production could increase its contribution to 22 percent in the future.

**33. Financing has been a major challenge in the sugar sector.** Domestic financial institutions are the main source of finance for the sector. However, securing credit has been extremely difficult because of banks' high rates and balance sheets weaknesses and the lack of reliable information on borrowers. Commercial banks provide agricultural loans that are tightly linked to crop seasons at short maturities and double-digit interest rates. Famers also find it difficult to access a line of credit from the EU (EUR€7.5 million). Most farmers are members of credit unions, which are an important source of finance to the sector.

**34. Domestic sugar prices are regulated.** Legislation empowers the Minister of Finance to regulate the quantity and price of sugar sold in the domestic market.

## Recent Developments and Challenges in the Belize Sugar Sector

**35. The sugar sector has traditionally been a significant contributor to Belize's agricultural GDP.** Belize has been historically one of the countries in the Caribbean that were most reliant on the sugar sector for growth and employment. Commercial sugar production in Belize began in 1960s. In the 1963–84 period, the sugar processing facility was owned by Tate & Lyle, which divested over a 10-

**Table 1. Belize: Agriculture Contribution to GDP**

| | 1990-94 | 1995-99 | 2000-04 | 2005-09 | 2010-13 |
|---|---|---|---|---|---|
| Sugar | 6.2 | 5.2 | 2.8 | 2.6 | 2.8 |
| Banana | 2.8 | 3.2 | 3.0 | 3.0 | 2.5 |
| Citrus | 2.2 | 2.9 | 2.0 | 1.4 | 1.7 |
| Livestock | 2.0 | 1.7 | 1.9 | 1.6 | 2.0 |
| Forestry | 2.1 | 1.4 | 1.1 | 1.1 | 0.5 |
| Fishing | 2.3 | 2.7 | 4.1 | 2.9 | 2.7 |
| Total | 17.6 | 17.1 | 14.7 | 12.6 | 12.3 |

Source: Statistical Institute of Belize, IMF staff calculations

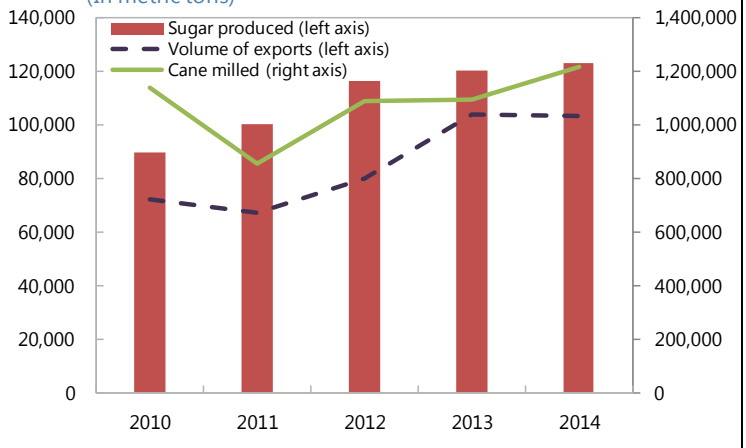
year period, transferring majority ownership of BSI to an employees' trust in 1994. In 1993–94, sugar accounted for nearly 11 percent of GDP and about 77 percent of agricultural GDP. Cane was grown by about 8,000 thousands small farmers and was cut by hand. The peak production of approximately 131,000 tons was achieved in 1997 on 22,000 hectares of cane land, with an average yield of 47 tons per hectare. The 2014 output is however very close to that figure.

**36. Sugar has remained a key commodity for Belize but its relative importance in the agricultural mix has diminished.** Belize has diversified its agricultural base in the past decades and sugar contributed nearly a third of agricultural GDP in 2014.[3] There are approximately 5,000 workers directly employed by the sector, in addition to 5,000 registered cane farmers. It is estimated that about 40,000 persons depend directly and indirectly on the sector, equivalent to about 13 percent of the population.

**37. The sugar sector remains critical for the wellbeing of Northern Belize, where sugar production is concentrated.** Poverty in Northern Belize remains high as the region was hard hit by the global recession and declining sugar productivity. Poverty is accentuated by poor access to education. This reduces the socio-economic mobility of the population in this region, which has limited employment alternatives.

**38. In contrast to the declining sugar output of the region, sugar production in Belize has received a recent boost from large foreign investment.** The Belize sugar sector has typically processed sugarcane of less than 1 million tons into about 90,000 tons of sugar. However, the acquisition of the sugar company by ASR in 2012 has provided impetus for growth. The firm has expanded the mill's capacity, which processed 1.2 million tons of cane into 123,000 tons of sugar in 2014. New foreign direct investment is also expected to come online. In 2012, one of the largest independent sugar growers in Guatemala, the Santander Group, has started building a second mill in Belize and cultivating some 10,000 acres of cane land. The project is expected to be completed by 2016 and to boost production of sugar by about 100,000 tons.

**Figure 8. Belize Sugar Production**
(In metric tons)




Source: Belize Sugar Industries.

[3] Fishing is included in the calculation of agriculture GDP.

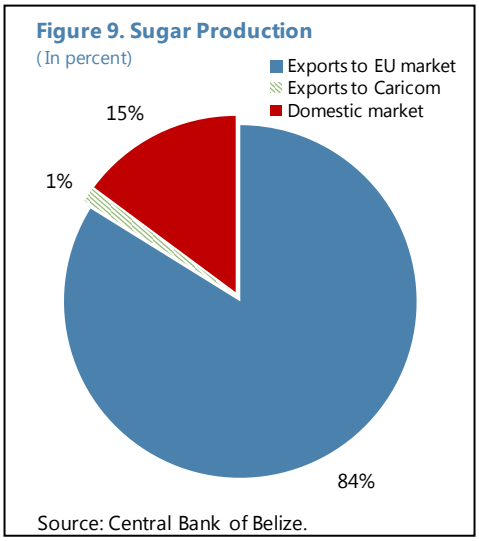
**39. Growth in the sector was also supported by a successful shift into premium Fairtrade-certified sugars.** In 2008, Belize shifted into value-added Fairtrade-certified sugars, which sell at a premium to the regular price (Text Box 2). In order to become Fairtrade-certified, sugar producer associations have to meet certain quality and institutional standards, including a democratic decision-making process and other requirements. Fairtrade members receive a premium of about US$60 dollars per ton of sugarcane over the negotiated price to invest in community, business and environmental projects.

### Box 2. Fairtrade in Belize

Belize was the first Caribbean producer to earn a Fairtrade certification. The Fairtrade foundation, based in Europe, supports underprivileged small-scale sugar farmers that are unable to get a fair value for their products in the global market. The foundation buys their sugar at a premium, which they can invest in the sustainable development of their communities. In 2008–09, Belize Sugar Industries' investor, Tate & Lyle, converted all its sugar brands into Fairtrade-certified sugar. Its main sugarcane supplier in Belize, the Belize Sugar Cane Farmers Association (BSCFA) became Fairtrade certified in 2008. Subsequently, Belize has become the leader in Fairtrade-certified trade, accounting for 38 percent of total Fairtrade exports in 2011. Practically, 100 percent of its exports in 2011 were Fairtrade certified. BSI's new owner, ASR Group, is the leading global supplier of Fairtrade-certified brands and specialty sugars.

The Fairtrade certification involved initial compliance costs but has brought considerable benefits to the industry. Meeting Fairtrade's standards required investment in the mill to improve quality and ensure traceability of Fairtrade sugar and compliance by BSCFA members. However, Fairtrade premiums, which in 2011 amounted to US$4 million, helped finance programs that strengthened BSCFA's capacity to compete effectively in the increasingly challenging global market environment. The funds were used to buy and distribute at no cost to farmers fertilizers and herbicides and to finance programs aimed at improving field productivity and cane quality. Fairtrade funds also enabled BSCFA to establish an environment department that would deal with environmental challenges to cane production.

**40. However, increased export dependence on the EU renders Belize potentially vulnerable to price volatility following the market liberalization**. In 2014, Belize exported more than 80 percent of its sugar production to the EU, which accounted for more than 90 percent of its sugar exports. By contrast, exports to the EU represented less than half of total production in 1997. As Belize's domestic consumption needs are relatively small, estimated at about 18,000 tons per year, the internal market would not be able to absorb a potential loss of EU market share. Hence, Belize needs to diversify its export base in order to enhance its resilience to market volatility.



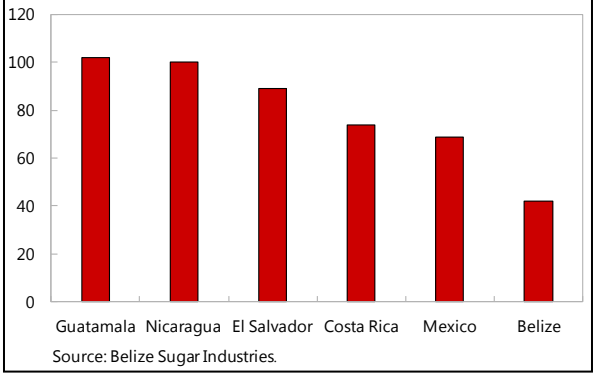

**41. The Belize sugar sector needs to cut production costs to remain competitive after the 2017 EU market**

**liberalization.** Production costs are pushed up by low cane field productivity, low cane quality, inefficiencies in harvesting and delivery, and high transportation costs. Belize's current production costs of US$20–22 cents per pound are among the lowest among Caribbean producers. However, following the EU sugar reform, they would have to fall at least to the new breakeven point of US$15 cents for the industry to remain competitive. Otherwise, maintaining current production volumes may not be feasible without large annual government subsidies.[4]

**42. Low cane yields weigh on field productivity.** Production costs are pushed up by low cane field productivity, which makes Belize's sugar production inefficient compared to Central American producers. The current yield per hectare of about 42 tons of cane is by nearly 50 percent lower than that of key competitors from Central America, Guatemala and Nicaragua in particular. Moreover, the average yield has declined from the 47 tons per hectare in 1997.

**43. Cane yields can be boosted by better field practices.** Yields would need to increase to at least 70 tons per hectare if the sector is to become competitive after the EU market liberalization. This would require better field practices. At least one sixth of the total cane land has to be replanted annually. Currently, only about one ninth of the land is replanted because of financing constraints, leading to lower sugar content than what is considered best practices.

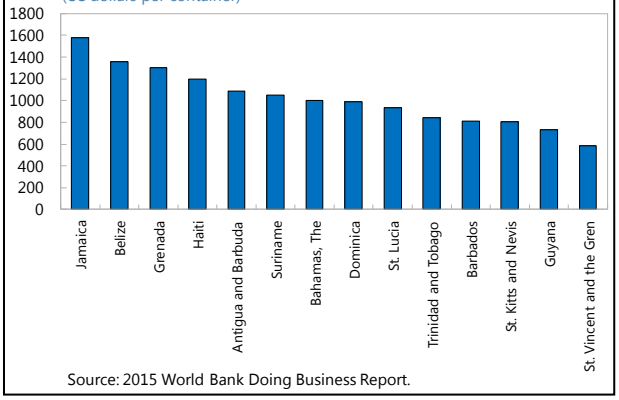
**Figure 10. Cane Field Productivity, 2013/14**
(Yield of sugar cane in metric tons per hectare)




Source: Belize Sugar Industries.

**44. Improvements in cane quality are also hampered by inefficiencies in harvesting and delivery.** Lack of coordination between sugarcane cutting on the field and processing at the mill impacts negatively the freshness of the cane, leading to lower sugar yields. In order to improve efficiency, the sector should adopt best practices, whereby harvesting is aligned with optimal cane maturity and delivery is done in the most efficient and timely manner.

**Figure 11. Cost to Export**
(US dollars per container)




Source: 2015 World Bank Doing Business Report.

**45. The quality of the transportation network in Northern Belize is a major constraint on sugar sector's competitiveness.** Estimates by industry experts suggest that nearly 60 percent of the total costs of production are related to

[4] Industry estimates suggest that in the absence of reforms, the subsidy that would be needed to maintain production at current levels could be as high as 20 million U.S. dollars per annum.

transportation. The quality of the road network in Northern Belize is inferior to that of other regions. Moreover, there is no direct access from the sugar mill to a sea port. Therefore, sugar and molasses have to be transported in small vessels over long distances, considerably increasing transportation costs. Hence, investment in transportation infrastructure is crucial to lower export costs, which according to the 2015 World Bank Doing Business Report are among the highest in the region.

## E. Modernizing the Regulatory Framework and the Sugar Sector Development Strategy

**46. The sugar sector has a complex and somewhat rigid institutional structure.** Sugarcane production is organized in small-scale private farming, with 90 percent of the farms being less than 8 hectares. Up to 2014, the farmers were represented solely by BSCFA, which was bestowed by the 2001 Sugar Act to guarantee provisions of necessary services to its members and coordinate the harvesting and delivery of sugar to the mill. BSCFA negotiated the price of cane, made loans to farmers, provided agricultural inputs, and support services. All sugarcane produced is sold to BSI, which owns the only operating sugar mill in Belize.

**47. Increasing the flexibility of the regulatory framework could provide impetus for industry growth.** The Government regulates the sector through the Sugar Industry Control Board (Annex I). The Board is assisted by the Sugar Cane Production Committee (SCPC), and the Sugar Industry Research and Development Institute (SIRDI). The SCPC coordinates the harvesting and delivery of sugarcane to the sugar mill. SIRDI is engaged in research and development on productivity and quality. Further reforms are needed to improve flexibility at the grassroots level and to provide more autonomy to private stakeholders in the decision-making process in order to strengthen the sector's commercial orientation.

**48. The regulatory reform has already started but needs further deepening.** BSI and BSCFA had been bogged down in negotiations over a new long-term commercial agreement for the purchase and sale of sugarcane. Part of the disagreements revolved around a payment for sugarcane bagasse, a residue of the sugar production process used for electricity co-generation. In order to break the impasse, the authorities amended the Sugar Act in January 2015 to permit the establishment of new farmers' associations. Two new sugar cane producer associations were formed and negotiated separate agreements with BSI for the sale and purchase of sugar cane. The two new associations currently represent one third of the farmers. It is important to maintain the reform momentum and increase further the flexibility of the regulatory framework in order to strengthen the commercial orientation of the sector.

**49. The authorities need to revisit its strategy for the sugar sector in collaboration with private stakeholders.** The current strategy entitled "Belize Country Adaptation Strategy for the Sugar Sector 2006-15" will expire this year. The strategy set forth four priority areas, in particular support to sugarcane production, improvement of the road network, support of enterprise development and capacity building. It envisaged strengthening the viability of the sugar sector through several objectives, including (i) increasing efficiency in sugarcane production, processing and transportation; (ii) further diversification of the sugar sector; (iii) broader agricultural diversification;

(iv) assistance to groups unable to pursue alternative opportunities for livelihoods in agriculture. This strategy needs to be re-examined in light of the new challenges faced by the sector in cooperation with all stakeholders.

**50. It is essential to adopt a Strategic Development Plan that sets out the stakeholders' roles and responsibilities in the industry restructuring.** The main elements of the plan could focus on key priorities, notably improving cane productivity and quality, reducing inefficiencies in harvesting and delivery, providing technical support and affordable credit to farmers, and ensuring an enabling environment for private sector investment in power plant, mill and logistics expansion. It is also important to review and strengthen the regulatory framework and ensure long-term infrastructure support to the industry.

**51. It is also important to mobilize all resources available, including from the EU.** The EU is the largest donor to Belize and the only one that provides assistance to the sugar sector. The EC Multi-Annual Assistance Strategy under the Accompanying Measures for Sugar Program has supported a number of programs over the 2006-2013 period, totaling more than EUR€70 million. The first phase of the program (2006-10) supported road infrastructure projects. The second phase invested in projects on competitiveness, research and development, as well as in rural development, improvements in education and poverty alleviation in Northern Belize. It is crucial that future assistance be geared towards the restructuring needs of the sector.

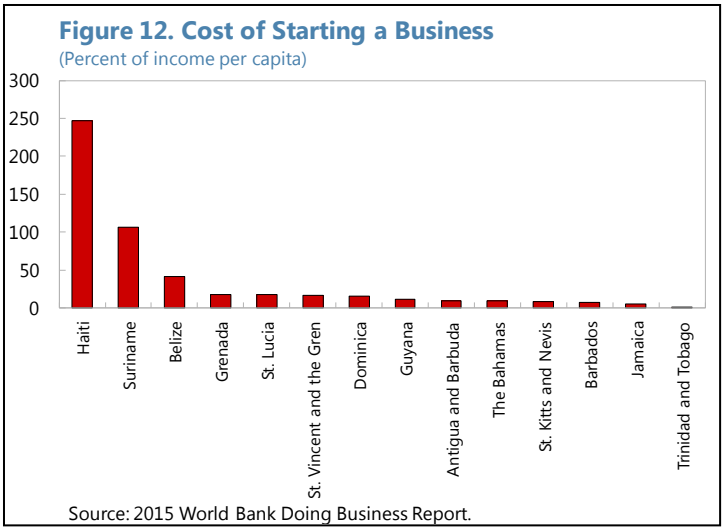
### Enhancing Belize's Sugar Sector Competitiveness

**52. Belize's sugar sector competitiveness could be strenghtened by increasing the scale of production.** Higher output would help lower production costs. The small scale of production is a drag on competitiveness, pushing up average costs above the world price. The sector needs economies of scale to compete effectively on the free market. Estimates by industry experts suggest that output needs to double if BSI is to become competitive at the expected lower EU export price. However, increasing the scale of production would require additional investment to expand the mill's grinding capacity and boost field productivity.

**53. Reforms to boost field productivity are an important pre-requisite for industry growth.** BSI's goal is to double cane yields within the next eight years by applying better farming practices. The company's analysis indicates that cane yields could be boosted by planting sugar varieties with higher sugar content and improving the efficiency of cane harvesting and delivery. Another drag on field productivity is related to shortages of skilled labor, which lead to rapidly rising costs of harvesting. This challenge could be overcome by increasing reliance on mechanized harvesting.

**54. Given Belize's tight fiscal constraints, the industry transformation has to be accomplished through private investment.** ASR is reportedly considering investing about US$100-150 million dollars over the next several years to expand productive capacity to about 2 million tons of sugarcane, yielding 250,000 tons of sugar under the condition that the industry's Strategic Development Plan (SDP) is endorsed by all stakeholders and leads to tangible improvements in field efficiency and productivity.

**55. The industry reform could benefit substantially from closer public private collaboration.** The government could facilitate industry growth through improvements in physical infrastructure, especially drainage, irrigation and roads, and access to a port facility to lower export costs. The investment climate and regulatory framework should become more conducive to industry growth. According to the World Bank 2015 Doing Business Report, the cost of starting a business in Belize remains among the highest in the region.




**56. Government could promote industry growth also through supportive credit policies.** Cane farmers need affordable credit to expand production inputs and invest in new cane varieties and replanting. High lending rates currently constrain their access to credit. In order to remedy the situation, dedicated credit facilities could be put in place by commercial and development banks and government institutions that offer credit to farmers at affordable rates to finance timely purchase of production inputs. In this context, the benefits of the EUR€7.5 million replanting and husbandry revolving credit facility established with EU assistance should be fully exploited. Alternative funding should also be sought, in particular for improving farmers' access to technical support services.

**57. Aligning domestic sugar prices more closely with market conditions could also help improve the investment climate in the sugar sector**. The Government controls administratively the price of sugar sold in the domestic market, which is low compared to the price of key competitors in Central America, Guatemala in particular, which have also lower production costs. Low domestic prices discourage private investment in the sector.

**58. The sector's resilience to market volatility could be also strengthened by expanding electricity co-generation.** Belize's electricity needs are projected to grow at an annual rate of about 4 percent in the coming years. As domestic production is insufficient to cover these needs, Belize imports electricity from Mexico, primarily during the dry season when hydro-generating capacity is low. In this context, expanding co-generation would lower the energy import bill and diversify the industry's revenue sources. However, in BSI's view the current price of co-generated electricity is too low to recover the cost of the investment.

## F. Concluding Remarks

**59. The challenges faced by the Belize sugar sector in the increasingly competitive EU market have important economic and social implications**. The sugar sector makes a significant contribution to real GDP, foreign exchange inflows, and employment, especially in Northern Belize,

where production is concentrated. The analysis suggests that closing the sugar industry could have a large negative impact on growth and external stability (Annex II).

**60. Appropriate policy measures could help Belize cope with the new world sugar market after the reform of the EU sugar regime takes full effect in 2017**. The main objectives of any reform include:

- *Enhancing the sector's competitiveness*. Production costs must decline at least by 30 percent for Belize to compete effectively on a global scale. One option would be to increase the scale of production in order to reduce production costs. This option would require significant foreign direct investment of about US$100-150 million, which the BSI parent company is reportedly willing to provide under certain conditions. Another option is to realize substantial cost savings by improving efficiency and quality at current productive capacity but this may not be sufficient to cushion a potential increase in sectoral unemployment.

- *Achieving greater diversification*. The sector's resilience could be strengthened by diversifying revenue streams through co-generation of electricity, production of bio-ethanol, and broadening export and product markets. Co-generation of electricity could bring energy security and more stable revenues. Shifting into bio-ethanol may appear less attractive under the current low international oil prices but could be a viable medium term option. Without market diversification, the industry could be exposed to increased volatility as a sharp drop in the EU price of sugar could reduce the gains from expanding production. Shifting into higher-margin refined sugars could also enhance resilience.

- *Reviewing the domestic regulatory framework*. Aligning domestic prices more closely with prevailing market conditions could attract more private sector investment in the sugar sector. Given the small size of the Belizean market, immediate production gains may not be significant but the reform could provide impetus for greater production efficiency.

**61. The success of the Belize sugar reform hinges upon closer public private collaboration.** Private and public stakeholders should work together to improve farming and production practices in order to increase productivity and reduce costs. The Government could support the sector's restructuring by providing an enabling environment, infrastructure improvements, and social protection for vulnerable segments affected by the industry transformation. Given fiscal constraints, the authorities could seek to support the industry transformation also through well-designed public-private partnerships.

# Annex I. Key Institutions in the Belize Sugar Sector

| s/n | Institution | Composition | Key Functions |
|---|---|---|---|
| 1. | Sugar Industry Control Board (SICB) | ○ An autonomous entity comprising members appointed by the Prime Minister.<br>○ A senior official of the Sugar Industry Supervising Ministry; The Chief Agricultural Officer; two representatives of the Cane Farmers Association, two representatives of manufacturer; two members not connected with the industry, and one member jointly nominated by manufacturers and the Production Committee | ○ Principal policy-making institution relating to development and control of the sugar industry, including control and supervision of the SCPC, SCRDI, and SCQCA.<br>○ Acts as arbitrators in any dispute between manufacturers and the cane farmers association<br>○ Advising the Minister on granting licenses to manufactures, exporters and importers of sugar, and on the control of domestic sugar sales.<br>○ Fixing the period during which manufacturers should accept delivery of sugar cane from growers and cane farmers.<br>○ Approving the yearly cane farmer register. |
| 2. | The Sugar Cane Production Committee | ○ An autonomous body with the general objective of carrying out a deregulated system of cane production.<br>○ It comprises of 5 members appointed by the Sugar Control Board.<br>○ A representative from the Supervising Ministry; two representatives of manufacturers, two others nominated by the Committee. | ○ Entity responsible for estimating sugar cane production, harvesting, and delivery.<br>○ Conduct cane production census, establish cane farmer registry, gather cane production data, and maintain a database.<br>○ Determine basic cane production of each cane farmer, establish the allocated delivery quantities.<br>○ Establish a Cane Harvesting Committee in each zone to organize and coordinate the harvesting and delivery of cane.<br>○ Coordinate cane production and forecast milling capacity through a system of annual production coefficients |

| | | | |
|---|---|---|---|
| 3. | The Belize Sugar Cane Farmers Association | ○ Autonomous entity, which consist of district associations.<br>○ The Association is managed by a Committee consisting of 6 members. | ○ To promote, foster and encourage the growing of sugar cane by cane farmers.<br>○ To promote the welfare of the cane farming industry.<br>○ To borrow and extend loans to farmers for cane cultivation.<br>○ To provide agricultural services to cane farmers.<br>○ To settle disputes between cane farmers and manufacturers. |
| 4 | The Sugar Cane Research and Development Institute | ○ Autonomous Institute with two representatives nominated by the Production Committee, two representatives nominated by manufacturers, two representatives nominated by the board, three representatives nominated by the supervising Ministry, and the Executive Director of the Institute. | ○ Entity responsible for the development of an efficient and productive sugar industry research and extension system aimed at increasing productivity by enabling the sugar industry, and cane farmers to adopt improved agricultural practices and techniques.<br>○ Research, develop and adopt technology and production techniques for the benefit of the industry.<br>○ Educate and train cane farmers on sugar cane culture and utilization and promote value added and technological developments.<br>○ Assist stakeholders in organizing and coordinating technical activities, and in analyzing the effects and implications of macro-policies.<br>○ Collect industry data, develop a database and provide information necessary for the efficient and sustainable management of the sugar industry. |

# Annex II. Quantitative Analysis

**This section attempts to quantify the risks to the Belize economy from EU sugar price volatility using a stylized macroeconomic approach.** The analysis is based on a simple framework that models the various sectors of the economy (real, external, fiscal, and monetary) and their interlinkages. In particular, the analysis gauges the real and external sector impacts of various EU sugar price shocks under alternative assumptions for the industry's response.

**The analysis covered five negative shock scenarios.** The scenarios assume that the EU price declines to the free market price from 2018 onward. In the passive scenario, the sector ceases production. In the active scenarios, the sector continues producing either at the baseline level or at double capacity. In each scenario, two cases are considered: one in which the free market price follows the baseline path assumed in IMF's April 2018 WEO and another, extreme shock case, in which the price drops by 2 standard deviations in 2018 and remains at that level through 2020. The results are summarized in Table 1.

**The results indicate that the projected shocks to the EU sugar price could have a significant negative impact on growth and external stability if the sector does not become competitive.** In particular, if the EU price falls to the free market level and the sugar industry is closed, GDP growth would be by about 2.4 percentage points lower in 2018. Sugar exports would permanently collapse (currently at about 50 million or 2.5 percent of 2018 GDP), widening the current account deficit. If all the sugar export proceeds are sold to the Central Bank, Belize's international reserves could fall by nearly US$50 million, equivalent to 0.4 months of imports. Their level would not be adequate given the current exchange rate peg.

**Improving competitiveness at the baseline production and export levels would cushion the negative impact on growth but would not mitigate the risks to external stability.** In particular,

- If the EU price falls to the free market price, which then follows the baseline trajectory, and the sector becomes competitive at the baseline production and export level, this would help cushion the negative impact on growth. However, the value of exports would still fall by about US$18 million or nearly 1 percent of 2018 GDP.

- However, if the free market price falls by 2 standard deviations (calculated over the 1990–2014 period), and remains at that level until 2020, growth would decline by about 1 percentage point in 2018, and the current account deficit would widen by about 2 percentage points.

**Improving competitiveness by doubling sugar export volumes would have a positive effect on growth and partly cushion other risks to external stability.** In particular,

- Under the baseline trajectory for the free market price, if the sector doubles baseline export volumes, GDP growth could improve by nearly 2 percentage points in 2018.

- However, the increased sugar production and export volumes would only partly offset the impact on the external current account from a 2 standard deviations shock to the sugar price. In this case, the deficit would still widen by about 1.5 percentage points in 2018.

**Table A1.1. Belize Sugar Industry: Stress Testing Scenarios, 2013-20**
(In percent of GDP, unless otherwise indicated)

| | Est. | | Projections | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| **A. Passive Scenario** | | | | | | | | |
| **EU price falls to the free market level; the Belizean sugar industry is inefficient and ceases production in 2018.** | | | | | | | | |
| Sugar production volume (thousand tons) | 119.2 | 118.3 | 119.5 | 121.5 | 121.6 | 0.0 | 0.0 | 0.0 |
| Sugar exports (millions of US$) | 53.8 | 53.8 | 50.3 | 50.7 | 50.7 | 0.0 | 0.0 | 0.0 |
| Sugar exports to GDP | 3.3 | 3.2 | 2.9 | 2.8 | 2.6 | 0.0 | 0.0 | 0.0 |
| **B. Active Scenarios** | | | | | | | | |
| **1. Sugar industry improves competitiveness at baseline export volumes** | | | | | | | | |
| **1a. EU price falls to the free market level** | | | | | | | | |
| Sugar production volume (thousand tons) | 119.2 | 118.3 | 119.5 | 121.5 | 121.6 | 124.3 | 128.1 | 153.0 |
| Sugar exports (millions of US$) | 53.8 | 53.8 | 50.3 | 50.7 | 50.7 | 32.2 | 33.4 | 40.9 |
| Sugar exports to GDP | 3.3 | 3.2 | 2.9 | 2.8 | 2.6 | 1.6 | 1.6 | 1.9 |
| **1b. EU price falls to the free market level and then declines by two standard deviations** | | | | | | | | |
| Sugar production volume (thousand tons) | 119.2 | 118.3 | 119.5 | 121.5 | 121.6 | 124.3 | 128.1 | 153.0 |
| Sugar exports (millions of US$) | 53.8 | 53.8 | 50.3 | 50.7 | 50.7 | 14.1 | 14.6 | 17.8 |
| Sugar exports to GDP | 3.3 | 3.2 | 2.9 | 2.8 | 2.6 | 0.7 | 0.7 | 0.8 |
| **2. Sugar industry improves competitiveness by doubling baseline export volumes from 2018 onward** | | | | | | | | |
| **2a. EU price falls to the free market level** | | | | | | | | |
| Sugar production volume (thousand tons) | 119.2 | 118.3 | 119.5 | 121.5 | 121.6 | 236.1 | 243.9 | 295.9 |
| Sugar exports (millions of US$) | 53.8 | 53.8 | 50.3 | 50.7 | 50.7 | 66.0 | 68.3 | 84.0 |
| Sugar exports to GDP | 3.3 | 3.2 | 2.9 | 2.8 | 2.6 | 3.2 | 3.2 | 3.8 |
| **2b. EU price falls to the free market level and then declines by two standard deviations** | | | | | | | | |
| Sugar production volume (thousand tons) | 119.2 | 118.3 | 119.5 | 121.5 | 121.6 | 236.1 | 243.9 | 295.9 |
| Sugar exports (millions of US$) | 53.8 | 53.8 | 50.3 | 50.7 | 50.7 | 21.8 | 22.6 | 27.6 |
| Sugar exports to GDP | 3.3 | 3.2 | 2.9 | 2.8 | 2.6 | 1.1 | 1.1 | 1.3 |
| **Memorandum items** | | | | | | | | |
| Baseline real GDP growth (percent) | 1.5 | 3.6 | 2.2 | 3.2 | 3.0 | 2.6 | 2.5 | 2.4 |
| Baseline current account | -4.4 | -7.6 | -6.3 | -7.1 | -7.4 | -7.0 | -6.7 | -6.5 |
| Baseline international reserves (months of imports) | 4.2 | 5.2 | 5.2 | 4.9 | 4.2 | 3.4 | 2.7 | 1.9 |

Sources: Belizean authorities; and Fund staff estimates and projections.

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# BELIZE'S ENERGY SECTOR: CHALLENGES AND OPPORTUNITIES[1]

## A. Executive Summary

**1. Belize's demand for energy has significantly increased in recent years, along with its dependence on imported energy.** Energy consumption increased fourfold during 1980–2012, a consequence of a steady expansion of the economy. Imported energy, essentially fuel products and electricity, grew rapidly during the same period. Imported fuel increased 117 percent during 1980–2013 and net imports of electricity rose 47 percent during 2001–13.

**2. Belize's dependence on imported energy has also increased its vulnerability to volatile energy prices.** This has raised the need to develop and implement a national energy policy that reduces this vulnerability**.** Staff's analysis shows a relationship between GDP growth, energy consumption and energy efficiency. It indicates that improving overall energy efficiency and diversifying energy sources could reduce growth volatility in the short run and raise the potential growth in the long run.

**3. The authorities' strategy for the energy sector envisions an improvement in energy efficiency as well as diversification of energy sources.** The plan aims at improving energy efficiency by 30 percent by 2033 and reducing the country's dependence on imported fuels by 50 percent by 2020.

**4. Implementing the authorities' energy strategy will likely pose challenges.** On the upside, Belize has some comparative advantages in the supply of renewable energy, and a supporting regulatory framework for private sector participation in electric power supply. However, the strategy seems too ambitious; its objectives may need to be revisited, perhaps focusing on just a few of them, in light of Belize's financial and capacity constraints. The success of the strategic plan will depend critically on private sector participation and investments.

## B. Introduction

**5. Belize has seen steady economic growth with an increasing demand for energy in recent years.** Annual GDP growth averaged above 5.4 percent during 1981–2007, but declined to about 2.5 percent during 2008–13. Growth accounting estimates suggest that slower total factor productivity (TFP) growth and less investment in fixed capital are the main drivers of the slowdown of GDP growth after 2008. At the same time, high energy costs, fossil fuel dependence, outdated energy infrastructure, and vulnerability to adverse weather and oil market developments continue to constrain higher and sustainable growth. The government is developing a national strategy to

[1] The main author of this note is Marcio Ronci with research assistance from Anayo Osueke.

promote energy efficiency in all sectors of the economy. The strategy will deepen domestic renewable sources of energy.

**6. The authorities' strategy for the energy sector contemplates improving energy efficiency and conservation across all sectors of the economy as well as diversification of energy sources**. The plan aims at reducing per capita energy consumption by at least 30 percent by 2033, and cutting the country's dependence on imported fuels by 50 percent by 2020. These targets would be achieved by increasing the production of domestic renewable energy resources and improving energy efficiency and conservation.

**7. If well implemented, the national energy strategy could help to support growth, including through attracting private investment**. Staff estimates that a 10 percent improvement in overall energy efficiency could raise real GDP by 9 percentage points over 10 years.

**8. Nonetheless, implementing the authorities' energy strategy will likely pose challenges**. On the upside, Belize has some comparative advantages in the supply of renewable energy, and a regulatory framework that supports private sector participation in electric power supply. Nonetheless, the authorities' strategy seems too ambitious; its objectives may need to be revisited, perhaps focusing only on fewer objectives, in light of Belize's financial and capacity constraints. The success of the strategic plan will depend critically on the extent of private sector participation and investments. Regulatory reforms and an improved business environment are necessary to attract private sector investors to the energy sector.

**9. The strategic plan's objective of replacing most of the fossil fuel may be too costly and alternative options should be considered**. The plan could seek reliability of energy supply by improving dependability and resilience of the electric power grid, and diversifying the electric power generation mix by expanding renewable sources such as biomass. Some renewable energy sources such as solar and wind may be relevant for some remote regions. However, they are unlikely to provide most of the base load electric power as they are still comparatively expensive and there are technical limits to the amount of intermittent sources of energy such wind and solar energy can contribute without jeopardizing the reliability of the electric grid.

**10. This remainder of the note is organized as follows.** Section C presents an overview of Belize's energy sector including the energy matrix, the electricity sector, and the institutional and regulatory framework. Section D examines the macroeconomic effects of energy prices and energy consumption in Belize**.** Section E reviews the challenges and opportunities facing the energy sector. Section F sums up the discussions and provides some recommendations.

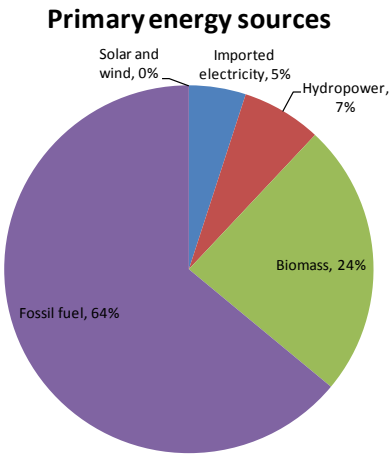
## C. Overview of the Belize Energy Sector

### Energy matrix and efficiency

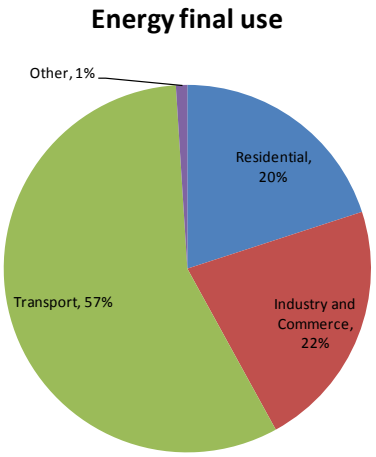
**11. Belize relies heavily on imported fuel and electricity for its increasing energy needs (Figure 1).** The primary energy sources comprise imported fossil fuel, imported electricity, hydroelectric power, and biomass from sugarcane bagasse. The shares of wind and solar energy are negligible. In 2010, the main consumer of energy was the transport sector (47 percent of total energy consumption, essentially fuel products), followed by the industrial sector (27 percent, mostly electricity). The residential, commercial, and service sectors accounted for the remaining energy consumption (mostly electricity). All refined oil products (gasoline, diesel, kerosene, and aviation gasoline) are imported from Venezuela under the Petro-Caribe Agreement and transported to Belize via ocean tankers. Small quantities of gasoline and diesel are also imported from neighbouring countries.

**Figure. 1. Belize: Energy Matrix and Consumption**

*Belize is highly dependent on imported fossil fuel for its energy needs …*




*…transport consumes most of the energy, followed by industry, commercial and households*

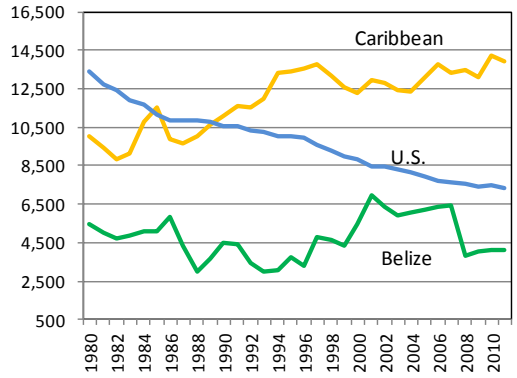



Source: Belize National Energy Policy Framework, 2011.

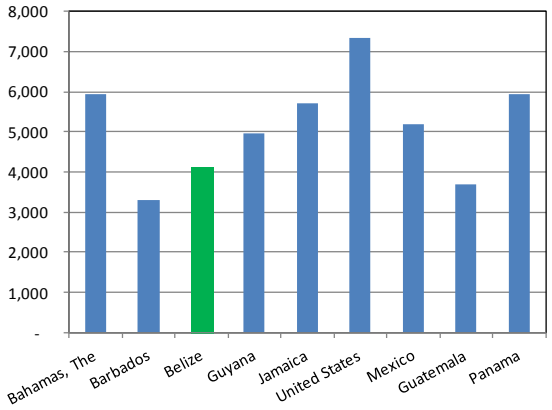
**12. Belize's use of energy per unit of output has remained relatively stable at about 4,000 BTUs per unit of GDP, well below the Caribbean average**. Belize's energy efficiency also compares well with other Caribbean and Central American countries. However, it remains higher than in countries such as Guatemala and Barbados, suggesting room for improvement and a cost effective option to meet the increasing demand of energy.

**Figure. 2. Belize: Energy Consumption Efficiency**
(Consumption of enertgy in BTUs per unit of GDP)

*Belize use of energy per unit of output has remained below the Caribbean average.*




*Belize consumption of energy per unit of output also compares well with other countries.*




Source: EIA.

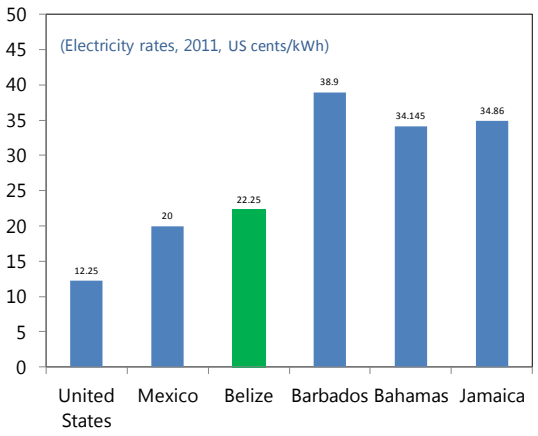
## Electricity sector

**13. Electric power has been essential for economic growth, particularly in the two most important sectors of the economy (tourism and agribusiness).** Electric power generation is provided by a number of independent suppliers, including Mexico. In 2012, 45 percent of the electricity generation output was purchased on the spot market from Mexico's Federal Energy Commission (CFE). Electricity distribution is mainly through a 115 kV transmission line that covers the entire northern and western parts of the country, while the southern areas are partly covered by a 69 kV transmission line. The national electric grid connects all the districts and is interconnected with Mexico. In some remote locations, consumers self-generate electricity. In 2011, the government nationalized the Belize Electricity Company (BEL), acquiring 70 percent of its shares. Currently, BEL is the sole buyer of electricity from public and private generators and the only distributor of electricity to final users.

**14. Belize's electricity rates are low by Caribbean standards, but high by U.S. and Latin American standards**. Electricity is not subsidized. The average electricity tariff was broadly stable at about 0.22 US$/kWh from 2007 to 2012. Since 2012, the average tariff in Belize fell to 0.20 US$/kWh as result of cheaper electricity from Mexico and fossil fuels. The price is mainly determined by generation costs and BEL's transmission and distribution costs, which include taxes. Generation costs are determined by the electricity generation mix, which mainly comprised CFE's imports, low-cost hydroelectric energy, and cogeneration using biomass. However, these hydroelectric resources greatly vary depending on rainfall. Moreover, the electricity imported from Mexico is tied to the international price of crude oil. Compared with the region, Belize's transmission and distribution losses are not substantial at 12 percent.

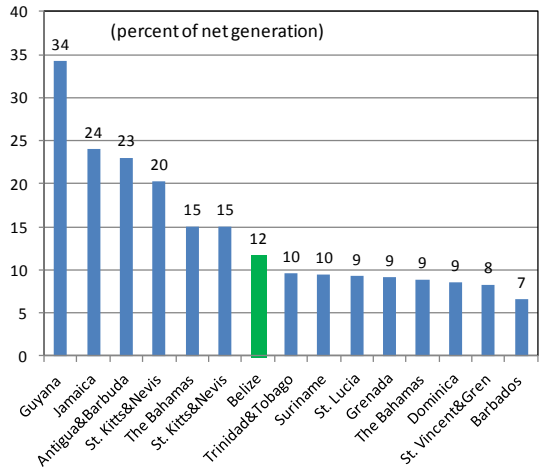
**Figure. 3. Belize: Electricity Sector at Glance**

*Belize rates are lower than Mexico and most of Caribbean, but still 50% higher than the U.S. …*




Source: CARILEC and EIA.

*… transmission and distribution losses are not substantial.*




*Sources: CARILEC, EIA, and CARICOM.*

## Institutional and regulatory framework

**15. Belize has a transparent institutional and regulatory framework for energy**:

- In March 2012, the government created the Ministry of Energy, Science, Technology, and Public Utilities (MESTPU) to supervise and regulate the electricity and gas and petroleum hydrocarbons subsectors.

- The petroleum sector is governed by the Petroleum Act (2000). The Act reserves the Government the right to extract hydrocarbons, or to award contracts to the private sector to do so. Petroleum contracts are issued to qualified petroleum companies to explore and produce petroleum. Existing contracts in Belize are exploration and production contracts. Each contract requires the Contractor to pay a royalty, production share and income tax to the Government. A petroleum surcharge fixed to oil prices was recently introduced in 2008 and is payable according to oil prices. The royalty, production share and working interest is negotiable with a minimum royalty of 7.5 percent for oil and 5 percent for natural gas. The income tax is fixed at 40 percent on net income. The contractor can recover 100 percent of all expenditures before payment of production share and has the right to claim several tax exemptions. No customs duties are to be paid for the importation of physical capital, no export tax on any product, or any additional import or export tax on household goods used by the working crew.

- The Electricity Act (1992), its amendments (1999 and 2007), and the Electricity Bylaws (2005) are the main pieces of legislation that provide the legal framework for the electricity subsector. The bylaws govern the tariffs, rates, charges, and fees for the transmission and supply of electricity and

for existing and new services to be charged by a licensee to consumers in Belize. In addition, the bylaws establish the formulas, and procedures for calculating and determining these tariffs, rates, charges, and fees, as well as the methodology for periodic review proceedings as well as the quality of service (service reliability standards). The Public Utilities Commission (PUC), created in 1999, regulates tariffs and the quality of the electricity service. It also grants licenses for generation, transmission, and distribution, and ensures that all reasonable electricity needs are met.

## D. Macroeconomic Effects of Energy prices and Energy Consumption in Belize

**16. Staff's analysis quantified the impact of oil price volatility on the macroeconomic performance of the Belizean economy using various econometric techniques**. For the short-run analysis, a vector autoregressive (VAR) model was used with block exogeneity restrictions in line with the spillovers effects literature.[2] The analysis also quantified the roles of energy consumption and efficiency strategies in output growth in the long-run using a dynamic cointegration model in line with energy-growth nexus literature.[3]

**17. The short-run analysis indicates that a positive shock to real oil price reduces output in Belize** (see Annex I). Real oil shocks explain on average 8.6 percent of business cycle fluctuations in Belize (Table A1.1). Figure A1.1 shows the dynamic response of growth to a one-percent shock to real oil price: output growth decreases, with effects lasting one to three years, and the largest response typically occurring within one year after the shock. Elasticities derived from the impulse response functions indicate that a 10 percentage point increase in real oil price reduces Belize's real GDP growth by about 0.7 percentage point over three years.

**18. A positive shock to real oil price appreciates the REER, reducing Belize's external competitiveness**. Figure A1.1 also shows the dynamic response of the real effective exchange rate change (REER) for Belize to a one-percent shock to real oil price. Again, elasticities derived from the impulse response functions, indicate that a 10 percentage point could appreciates the REER by 0.2 percentage points over 3 years. After three years, the REER stops appreciating but stays at its more appreciated level.

**19. The long-run analysis indicates that energy consumption, energy efficiency, and gross capital formation play a significant role in determining GDP over the long run** (see Annex I). In the long-term, the results show that an increase of 1 percent of energy use per capita could increase GDP per capita by about 0.37 percent on average, while an increase in 1 percent of gross capital formation could increase GDP per capita by 0.46 percentage points, and an improvement of 1 percent in energy efficiency could increase GDP per capita by 0.94 percentage points.

[2] See Cashin and Sosa (2013) and Osterholm and Zettelmeyer (2008).

[3] See Pesaran, Shin and Smith (1998), Giraud and Kahraman (2014), and Stern and Kander (2012).

**20. In summary, staff's quantitative analysis underlines the vulnerability of Belize's economy to imported energy prices and the need to develop an energy policy to mitigate the undesirable effects**. In particular, it shows a relationship between GDP growth and energy consumption and energy efficiency, indicating that improving overall energy efficiency and diversifying the energy mix could reduce growth volatility in the short run and raise output growth in the long run.

## E. Challenges and Opportunities

**21. The authorities' strategy for the energy sector indeed contemplates improving energy efficiency as well as diversification of energy sources** (Box 1).[4] In 2011, the government launched the National Energy Policy (NEP), which contained an extensive list of policy recommendations to address the problems of the energy sector in Belize. The NEP's two main strategies are promoting energy efficiency in all sectors of the economy and developing domestic dependable domestic renewable sources of energy. In 2012, the MESTPU released its National Strategic Plan for 2012–17. The Plan's objective is to integrate energy, science, and technology into national development planning and decision making to catalyze sustainable development.

**Box. 1. Belize: The Main Objectives of the Energy Strategic Plan**

- Improve energy efficiency and conservation across all sectors: transport, industry, and commercial and residential buildings with a view of reducing per capita energy intensity by at least 30 percent by 2033
- Reduce the country's dependence on imported fuels by 50 percent by 2020, from one million barrels to one-half million barrels, by increasing the production of domestic renewable energy resources, coupled with improving energy efficiency and conservation.
- Triple the amount of modern energy carriers derived from waste material. Depending on the technology choices, electricity, liquid fuels, and gaseous fuels could be produced.
- Turn Belize into a net electricity exporter by 2020.
- Build the Ministry of Energy, Science, Technology, and Public Utilities institutional capacity to accomplish its mandate (MESTPU, 2012).
- Promote and encourage science, technology, and innovation promotion strategies.

**22. The authorities have taken steps to reduce dependence on imported electricity and fossil fuels**. In 2013, the PUC issued a request for proposals (RFP) for new generation capacity to increase by 40 percent the current electric power installed capacity of 156 MW. The RFP called for the addition of 50MW of firm generation capacity (biomass, hydro, or fossil fuel) and 15MW of

[4] There is no definitive costing of the investment required for the energy strategy plan. For the electric sector, the cost is estimated at about US$133 million (8 percent of GDP). Power generation would require private sector investments of about US$59 million (3.6 percent of GDP) according to the IDB, and an additional US$74 million (4.3 percent of GDP) to upgrade the transmission and distribution grid according to BEL.

intermittent renewable generation (most likely wind) to be installed in Belize between 2013 and 2023.

**23. Implementing the authorities' national energy strategy will likely be a challenge given Belize's financial and capacity constraints, and thus alternative options must be considered**. The success of the strategy depends vitally in private sector participation and investments. Improving energy efficiency (both production and consumption of energy) across all sectors of the economy seems to be the best alternative for reducing energy costs in the short term. They would require less investment and rely more on regulatory reforms and building codes ("low hanging fruit"). On the production side, there is room to reduce substantially technical and commercial losses in electric power generation and transmission. On the energy consumption side, there is scope to make buildings more energy efficient. The design and quality (of the construction) of the building envelope are the major determinants of how much light, cooling and heating are used. Over the last two decades, developing countries, following in the footsteps of Europe and the U.S., have become aware of the need to design energy efficiency into buildings. Ways to promote more efficient use of energy in buildings include introducing new building energy efficiency codes, promoting energy auditing, and retrofitting existing buildings with more efficient lighting and cooling systems. In the public sector, major energy saving could be achieved by using more efficient street lighting. Although BEL seems to be operating at acceptable levels, it could improve its operational performance by reducing technical and commercial losses.

**24. Diversifying the electric power generation mix by expanding renewable sources of energy is appropriate, where commercially viable**. Two promising sources of renewable energy in Belize are wind and biomass. The country has some wind resource potential, both offshore and onshore. The National Renewable Energy Laboratory of the United States estimated in 2008 that the country had 737 sq km of moderate to excellent wind resource potential (class 3–7 wind) at 50 m. A study carried out for the government estimated the undeveloped hydroelectric potential of the country to be approximately 75 to 100 MW. Currently biomass accounts for 14 percent of total electricity output, and it could be substantially increased in a relatively short time. According to Belize Co-Generation Energy Limited, the country has additional bagasse resources that could be used for electricity generation.

## F. Conclusion

**25. Belize's increasing demand for energy and its heavy reliance on imported energy has made the country vulnerable to energy price volatility with non-negligible impact on both Belize's short-term and long-term growth**. Staff's quantitative assessment of the macroeconomic effects of energy prices and energy consumption in Belize showed a potential relationship between growth and energy consumption and energy efficiency, indicating that improving overall energy efficiency and diversifying the energy mix could reduce growth volatility in the short run and raise the potential growth in the long run.

**26. The authorities' strategy for the energy sector rightly contemplates improving energy efficiency as well as diversification of energy sources but its implementation could pose**

**challenges given Belize's financial and capacity constraints**. On the upside, Belize has some comparative advantages in the supply of renewable energy, and a regulatory framework that supports private sector participation in electric power supply. The Strategic Plan has correctly identified strategies and policies for the energy sector. However, it seems too ambitious. In particular, its objectives may need to be revisited in light of Belize's financial and capacity constraints. The success of the strategic plan will depend critically on private sector participation and investments. Regulatory reforms and improved business environment are necessary to attract private sector investors to the energy sector.

**27. The authorities could also consider alternative options for the energy sector.** The strategic plan's objective of replacing most of the fossil fuel may be an elusive and costly strategy. Reducing the country's dependence on imported fuels by 50 percent may not be feasible in the foreseeable future. Instead, the plan could seek reliability of energy supply such as building a second transmission line linking to Mexico's grid, improving the dependability and resilience of Belize's electric power grid, and diversifying the electric power generation mix by expanding renewable sources such as biomass. Some renewable energies such as solar and wind may have some relevance for some remote regions. However, they are unlikely to provide most of the electric power as they are still comparatively expensive and there are technical limits to the amount of energy such sources can produce and intermittently inject in the national electric grid. More generally, the strategic plan could perhaps focus more on fewer objectives and projects corresponding to the authorities' implementation capacity. Energy saving measures would require less investment. Priority could be given to new energy efficient building codes, more efficient street lighting, better road infrastructure, reduction of electric transmission losses, and adoption of more efficient household appliances.

# Annex I. Quantitative Assessment of the Effects of Energy Prices and Energy Consumption in Belize

## Quantitative Assessment: Short-run

In order to quantify the oil price impact on output and real exchange rate, the analysis in Reynaud and Mejia (2015) is used. Reynaud and Mejia estimated a Belize-specific vector autoregressive (VAR) model with block exogeneity restrictions. The model contains an external block including foreign economic variables—the real oil price growth rate, advanced economies real GDP growth rates, and the advanced economies real interest rate; and a domestic economy block—including real GDP growth rates and the real effective exchange rate (REER) growth rates. The specification of the model incorporates the small open economy assumption that foreign variables are completely exogenous to the domestic economy. Using variance decomposition analysis, the relative contribution of each of the external factors to the variance of real GDP growth is quantified. Impulse responses, in turn, illustrate how domestic output growth has reacted to each of these external shocks. The model is estimated using annual data from 1976 through 2013.[1]

The main objective of the model is to evaluate the impact of oil prices shocks on Belize business cycle fluctuations and is achieved through two standard tools of VAR analysis: forecast error variance decompositions and impulse response functions. Variance decomposition analysis is used to quantify the relative importance of each type of shock as a source of output fluctuations over the sample. Impulse responses constitute a practical way to illustrate how growth has tended to react to oil price shocks, taking into account not only the direct effects, but also the indirect effect through reactions of other variables.

[1] GDP data is taken from the IMF World Economic Outlook database, data on the Real Effective Exchange Rate (REER) from the IMF Information Notice System, oil price data from the IMF Primary Commodity Prices database The natural disaster dummy variable is constructed as in Acevedo (2014) and accounts for natural disasters of all types (storms, floods, earthquakes, volcanic activity, and droughts).

## Table A1.1. Belize: Variance Decomposition and Elasticity to 10% Oil Price Shock

*Real oil shocks explain on average 8.6 percent of business cycle fluctuations in Belize.*

### Variance decomposition of impact on GDP

| | |
|---|---|
| GDP | 58.6 |
| World demand | 16.5 |
| Oil price | 8.6 |
| Real effective exchange rate | 15.5 |
| World real interest rate | 1.0 |

*A positive shock to real oil price reduces real GDP and appreciates the REER.*

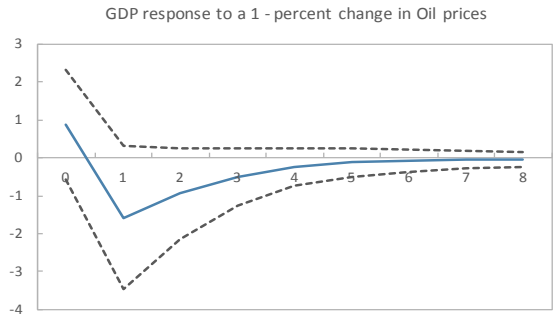
### Elasticity to 10% oil shock 1/ 2/

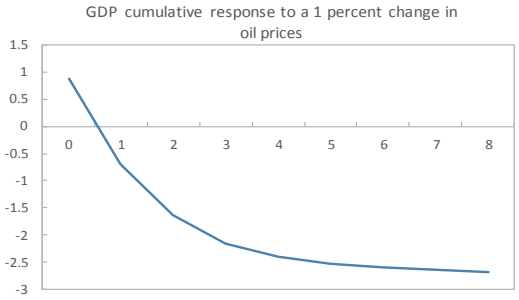
| | Year 0 | Year 1 | Year 2 | Year 3 |
|---|---|---|---|---|
| **pp. on real GDP y/y** | 0.27 | -0.49 | -0.29 | -0.16 |
| **pp. on REER y/y** | -0.09 | 0.26 | 0.08 | -0.02 |

1/ Shock is 1 st. dev., or 32,2 percent increase in oil price.
2/ Sample: 1976-2014.

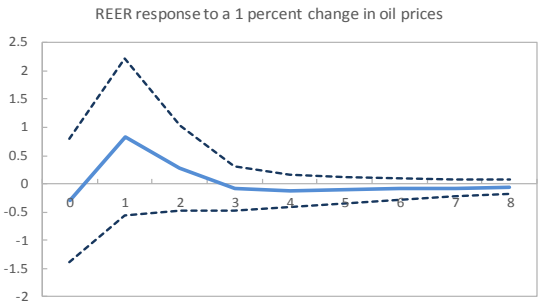
### Figure A1.1. Belize: VAR GDP and Real Effective Responses to a Change in Oil Prices

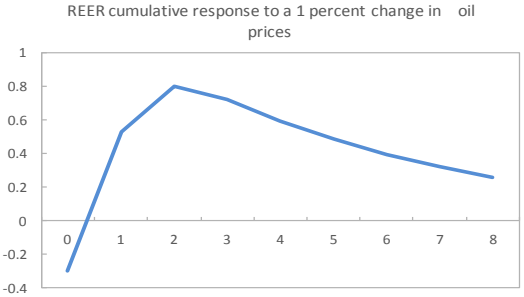
*10 percentage point increase in real oil price reduces Belize's real GDP growth by 0.7 percentage point over three years*




*A positive shock to real oil price appreciates the REER reducing Belize's external competitiveness*



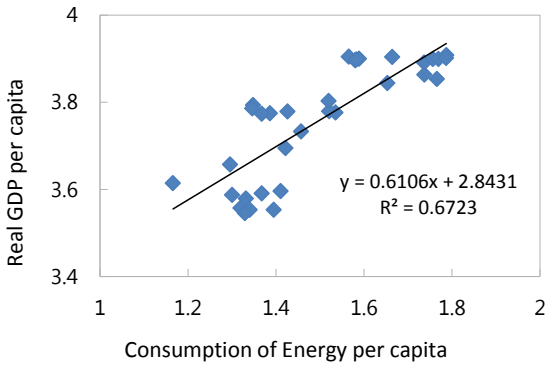
## Quantitative Assessment: Long-run

The short run quantitative assessment has shown that oil price shock could have a potential impact on output and external competitiveness that requires an energy policy to mitigate these undesirable effects. Looking into the long-run relationship between growth and energy can provide parameters and recommendations regarding the alternative energy policies.

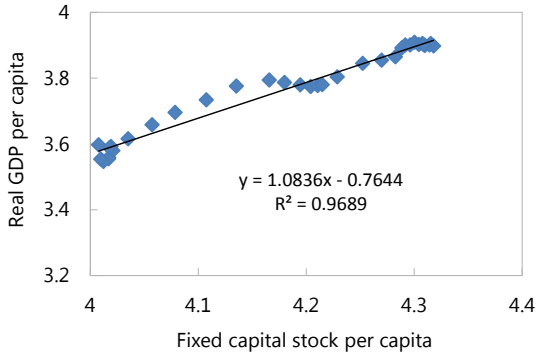
An overview of the data shows that output per capita is positively correlated with capital stock per capita, energy consumption per capita, and energy efficiency defined as energy consumption per unit of carbon emission (Figure A1.2). Energy efficiency has improved significantly since 2008, increasing from an average of 16 million BTU per metric ton of carbon emission during 1980–2007 to 22 million BTU during 2009–12.

**Figure A1.2. Belize: GDP, Capital, Energy Consumption and Energy Efficiency**

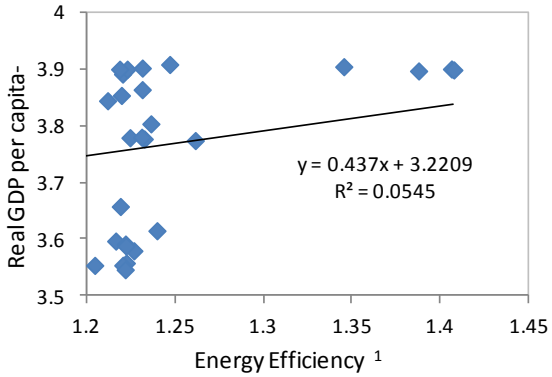
*Real GDP per capita is positively correlated with energy consumption per capita …*



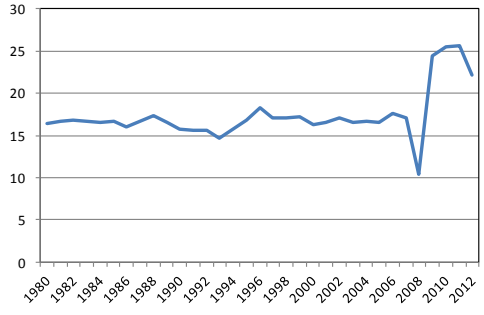

*… and fixed stock of capital per capita …..*




*Real GDP per capita is positively correlated with energy efficiency …*




*… energy efficiency has improved since 2008.*



Cointegration and vector error-correction techniques are used to evaluate the long and short-term relations between energy consumption and GDP in Belize. The model is estimated using annual data from 1980 through 2011.[2] Results indicate that energy consumption, energy efficiency, and gross capital formation play a significant role in determining GDP over the long run (Table A1.2). Cointegration among the variables cannot be rejected at 6 percent significance level. In the long-term, the results show that an increase of 1 percent of energy use per capita increases GDP per capita by about 0.37 percent on average, while an increase of 1 percent of gross capital formation increases GDP per capita by 0.46 percent points, and an improvement of 1 percent in energy efficiency increases GDP per capita by 0.94 percentage points.

**Table A1.2. Long-term Elasticities of Real GDP per Capita**

| | **Caribbean** 1/ | **OECD** | **Belize** 1/ |
|---|---|---|---|
| **Energy consumption per capita *(c)*** | 0.38 *** | 0.67 *** | 0.37** |
| **Energy efficiency *(e)*** | 0.42 *** | 0.60 *** | 0.94 **[2/] |
| **Capital formation per capita *(k)*** | 0.25** | 0.12 *** | 0.46 ** |

Sources: Caribbean estimates by Reynaud and Acevedo (2015), OECD estimates by Gaël and Kahraman (2014), Belize estimates by the author.
1/ Sample 1980-2011 as available.
2/ Energy consumption divided by total carbon emissions.
*** significant at 1% ; ** significant at 5%; * significant at 10%.

[2] Energy Consumption from the U.S. Energy Information Administration (EIA) database, Capital Formation data from the Penn World Table (PWT80), and population data from the World Bank's World Development Indicators. Energy efficiency data is computed as energy consumption per unit of GDP and energy consumption per unit of Carbon emissions.

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