



# Economic Premise

JUNE 2014 • Number 146

## A Framework to Assess the Fiscal Risks of Public Bodies: Jamaica

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*This note outlines a framework for assessing the extent of fiscal risks inherent in the operations of public bodies (PBs), highlighting eight applications in Jamaica. Scenario analysis and stress testing are two components used to determine the combined effects of company- and sector-specific risk factors and macroeconomic shocks on selected PBs. The framework results can help identify the contributions of PBs, as well as determine the PBs' required budget allocations. The framework also provides an opportunity to determine the potential impact of fiscal risks on a country's debt dynamics.<sup>1</sup>*

### Why Is Assessing the Fiscal Risks of Public Bodies Important for Jamaica?

Jamaica has had limited success in its various attempts at fiscal consolidation due to structural weaknesses in public financial management policies and processes. The relatively high debt level (139 percent of gross domestic product [GDP] at end 2013) has been one of the major outcomes of this fragmented process. In fact, it is widely recognized that the high debt is related to chronic public sector deficits, weak budget coverage, and the fiscal burden of a large number of weakly regulated PBs.

While there has been significant emphasis on introducing systems and frameworks to better streamline the operations of central government, reform of the PB segment of the public sector has been lagging. PBs' adherence to existing legislation remains a major challenge. Entities continue to be cited for breaches, including procurement, weak financials, and negligence on the part of fiduciaries. Various committees of Parliament are frustrated because information presented on PB activities is not sufficient to allow proper assessment of fiscal conditions.<sup>2</sup> Additionally, plans to have government sign off on performance targets with management of each PB to ensure alignment with core functions have not been realized.<sup>3</sup>

These issues raise questions on the adequacy of fiscal analysis in Jamaica and the extent to which this gap exposes the government to fiscal risks, which, for purposes of this note, are defined as shocks that could lead to a deviation from budget estimates.<sup>4</sup> There is also no framework in place to capture and quantify the fiscal risk for PBs. In many instances, the failure to quantify, disclose, and prepare for such risks has resulted in additional government obligations, larger public debt, and, occasionally, refinancing difficulties for the state budget. As a result, fiscal outturns often differ substantially from budget.<sup>5</sup>

Fiscal risk assessment is particularly relevant in countries (such as Jamaica) where the fiscal budget is a 12-month cycle (limited long-term forecast) and where cash accounting (or modified cash accounting) is used instead of accrual accounting—and where the treatment of contingencies is not clearly captured.<sup>6</sup> As events like the global economic crisis and the euro zone turmoil have shown, fiscal risks affect both developed and developing countries, with a tendency to become particularly more threatening in countries/companies with limited scope for both maneuvering and accessing financing, such as Jamaica.

The absence of a framework to capture fiscal risk of PBs is often interpreted as a function of the relative importance as-

cribed to such risks, limited capacity to develop and maintain a framework to capture and analyze information, or a deliberate attempt to obscure fiscal exposures due to policy decisions. Examples of the latter could be fiscal risks related to implicit contingent liabilities from banks deemed too big to fail, or guarantees that disguise subsidies to selected entities. Some governments may also strategically opt not to disclose all implicit obligations as a way of minimizing moral hazard and, by extension, the government's exposure. This stems from the fact that by extending explicit financial protection to PBs, through guarantees or other forms of explicit contingent liabilities, the government encourages stakeholders to take on more risks.

This note outlines a framework for assessing the fiscal risks of PBs in Jamaica and then applies it to the eight PBs with the largest perceived fiscal risk. The results can be used to help determine the macroeconomic significance of selected risks for fiscal sustainability.

## The PB Sector in Jamaica

The PB sector, comprising statutory entities and authorities as well as government-owned limited liability companies, plays an important role in Jamaica's economy in terms of revenues, expenditures, and employment. The PB sector crosses 13 sectors and includes a wide range of activities such as developmental, regulatory, social, and commercial. In quite a number of cases, PBs perform *quasi-fiscal activities* (QFAs), that is, public functions on behalf of the government, including regulatory functions and service delivery at subsidized tariffs (for example, for public transport). Many entities incur losses and are heavily indebted and therefore could represent a call on the budget. This raises questions about the viability and the extent of fiscal risks inherent in their operations, as well as whether support from the government effectively compensates PBs for the cost of their QFAs, or rather creates perverse performance incentives (box 1).

As of August 2013, the number of PBs registered with the Ministry of Finance and Planning (MOF&P) stood at 195, of which 90 are characterized as self-financing (SFPBs),<sup>7</sup> while the other 105 entities are included in the central government budget and financial reporting. SFPBs are entities that have some authority to collect revenue, borrow, and spend outside of the central government budget, but in most cases with MOF&P and/or a line ministry's approval. While these entities are expected to be independent of central government finances, in practice, the government of Jamaica provides guarantees and implicitly assumes the liabilities of PBs. MOF&P closely monitors and reports on the activities of 65 SFPBs (with gross assets equivalent to 74.6 percent of GDP and a staff complement of 10 percent of the total public sector workforce). Of these 65 entities, 17 SFPBs are subjected to greater scrutiny given their size and potential for fiscal risk.

The performance of the PB sector has improved in recent years, but risks remain. PBs recorded a deficit of 0.6 percent of GDP in fiscal year (FY) 2011/12, representing a significant improvement from the average deficit of close to 2 percent of GDP over the preceding four years (figure 1). This outturn reflected, among other things, the divestment of several loss-making entities over this period.

Net transfers to government from the SFPBs have remained positive. When comparing the level of transfers from and to government across the 65 monitored SFPBs, it was found that these are highly concentrated in a small number of PBs, with only six SFPBs capturing 80 percent of the government transfers, and the aggregated contribution of only seven PBs representing 85 percent of the total transfers to government from these 65 SFPBs.

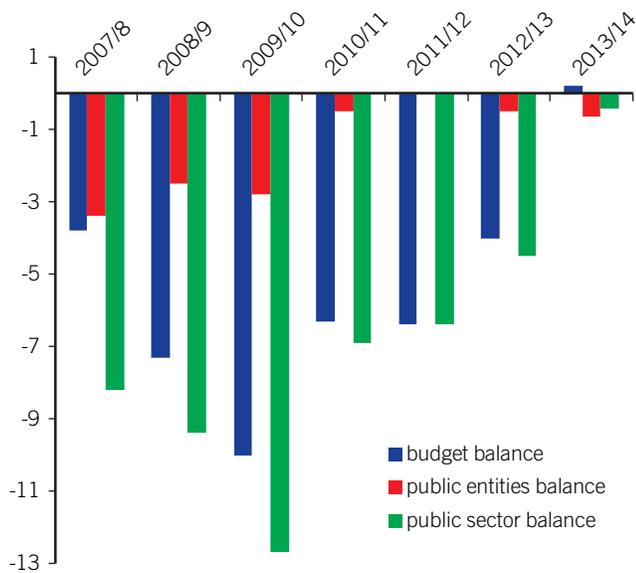
### Box 1. Is the Underperformance of PBs Linked to Negative Incentives?

Many of the PBs in Jamaica underperform relative to their budget, and, for the most part, depend on government support through subsidies, waivers, and transfers. CAP, for example, is a perennial loss-making entity. Prior to the decision in 2013 to insulate the budget from CAP's operations, which was also included as one of the structural benchmarks in the IMF program, expenditure outpaced income by almost 2 to 1. The entity was running losses of 0.6 percent of GDP, which, when coupled with a net debt equivalent to approximately 2.5 percent of GDP, highlight significant government exposure. NWC and JUTC are in similar positions. They are both loss-making entities with a combined net debt position of 3.5 percent of GDP. In the cases of NWC and JUTC, the losses in part represent uncompensated QFAs, because user tariffs for water and bus transport do not cover the cost of investment and operation. CAP, on the other hand, functions only in commercial markets.

An assessment of the accounts of all three companies suggests that current operations are such that in the absence of a commitment to substantial restructuring, the residual obligation that would accrue to the government if one were allowed to fail would be quite significant. Notwithstanding this fact, as well as the existence of a comprehensive legislative framework to improve performance, it appears that not enough is being done to avoid this scenario. The government has not developed a method to assess QFA compensation paid to PBs. This creates uncertainty about the nature of PB losses—whether they are due to underperformance of the PB or represent mandated but uncompensated QFAs. Enforcement of existing performance standards is also weak, the government rarely enforces sanctions against board members of weak performing institutions. Value for money and performance audits in the public sector are equally rare, which does not bode well for accountability and transparency. The combination of these factors creates perverse incentives for maintaining the status quo.

Source: Authors' compilation.

**Figure 1. Evolution of Public Sector Balances (as a percent of GDP)**



Source: MOF&P; IMF.

## Framework for Assessing Fiscal Risks

This note builds on the risk framework for state-owned enterprises implemented by Indonesia's Ministry of Finance and explained in Verhoeven et al. (2008).<sup>8</sup> The framework focuses on nonfinancial PBs that represent significant fiscal risks. First, a baseline outlook is constructed based on historical data. The baseline represents the expected outcome of normal operations absent of exogenous shocks. This step includes making assumptions about general macroeconomic conditions, both domestic and international including, among others, prices, interest and exchange rates, and GDP growth.<sup>9</sup>

Assumptions are also made regarding sectoral and PB-specific factors, including changes in regulations governing the sector. Three scenarios (baseline, optimistic, and pessimistic) are assessed to demonstrate the impact of unforeseen developments on the operations of the selected entities. These may be macroeconomic in nature, reflect trends in the sector where the PB operates, or may be specific to the entity. Scenario analysis is a useful tool for fiscal risk analysis because it highlights both risks and opportunities. The next step is a stress test analysis to show how macroeconomic risks may affect aggregate financial conditions for the PBs. The key variables typically used to evaluate the financial health and fiscal risks of PBs include net contribution of the PB to the budget, financing need of the PB, net debt, and off-balance sheet liabilities.

## Selection and Description of Key PBs

To implement the framework, the PBs representing the largest source of fiscal risks were selected. In this regard, the 17 more closely monitored SFPBs were listed in descending order of

perceived risk according to various criteria, which included size (assets, liabilities, and net assets), losses (net income), net debt (total liabilities minus current assets), and net transfers from the government. Entities with the greatest number of appearances in the top rankings of each criterion were selected for further assessment. Applying these risk criteria, the top eight PBs selected for this study were: Clarendon Aluminum Partners (CAP), Jamaica Urban Transit Company (JUTC), National Housing Trust (NHT), National Road Operating and Constructing Company (NROOC), National Water Commission (NWC), Port Authority Jamaica (PAJ), Petrojam Limited (PJAM), and Urban Development Corporation (UDC). Most of the selected entities were also among those highlighted in the International Monetary Fund's (IMF) program for special monitoring as well as entities that will play some role in the Government of Jamaica Global Logistics Hub Initiative.

Although performance of the individual entities varies, the selected eight PBs together account for 2 percent of GDP (measured as total earnings before interest, taxes, depreciation and amortization). Of the eight PBs, three recorded losses in FY2011/12 (CAP, JUTC, and NWC). Not surprisingly, with the exception of NHT, with its large pool of undistributed refunds, most are significantly indebted, averaging above 2.5 percent of GDP. The operations of CAP, NWC, JUTC, and NROOC have been beset by chronic losses and accumulated deficit from previous years, which has eroded the capital bases of these companies. This indicates that that a recapitalization effort or a substantial restructuring would be needed to reduce their substantial dependence on central government support, in contrast with the Extended Fund Facility (EFF) conditionality of close to zero balance for selected PBs.<sup>10</sup> Notably, transfers from central government to support these entities amounted to J\$15.1 billion (1 percent of GDP) in FY2013/14.

## Results of Implementing the Fiscal Risk Framework

The fiscal risk analysis uses firm-level data and benefited from inputs from the MOF&P as well as selected PBs. The analysis requires detailed operational insight into the determinants of PB revenues, expenditures and balance sheet items, and relies on available information from published PB accounts, annual reports, audit reports, and information in the public domain. Information on debt profile and extra ordinary transactions, where otherwise not available, were obtained through interviews of officials from the selected entities. The analysis covered FY2010/11 through FY2015/16.<sup>10</sup>

### Establishing a baseline

The key macroeconomic assumptions used to set the baseline scenario for this exercise are in line with the macroeconomic framework of the IMF EFF program and assume a return to moderate GDP growth (averaging 1.4 percent over the next

three years) and continued significant inflation (averaging 9.7 percent). Additional assumptions largely consistent with the IMF *World Economic Outlook* projections include a moderate depreciation of the exchange rate and mostly stable interest rates and oil prices. Under baseline assumptions, the operating balance on an accrual basis of the key eight PBs deteriorates in FY2013/14, to then improve over the medium term by about 0.7 percentage point of GDP in FY2015/16 relative to FY2012/13. Over the same period, the overall financial position of the PBs remains broadly unchanged—at 0.3–0.4 percent of GDP in FY2012/13 and FY2015/16—after a steep decline to -1.5 percent of GDP in FY2013/14. The financial performance under baseline assumptions is calculated for each of the eight selected PBs separately, and then aggregated. Table 1 presents the aggregation of the financial performance for the eight entities. The diverging pattern of the operational and financial outlook for this set of PBs reflects various trends, which partly offset each other.

The difference in outlook for operational and overall balances of the eight PBs is mainly attributable to the larger net transfers of PBs to the government. As part of its agreement with the IMF, the government has legislated larger transfers from NHT out of its substantial pool of financial resources.<sup>12</sup> As of FY2012/13, NHT holds equity of some 8.5 percent of GDP, most of it due to the accumulation of nonrefundable employers' contributions to the NHT. As a result, net transfers from the government decline by about .5 of a percentage point of GDP in FY2013/14. Another key driver for the less favorable outlook of overall balances is the rapid increase in

outstanding payments (mostly to central government), which has served to provide a financial buffer, but at the same time raised PBs' obligations. Increases in such outstanding payments, as well as depreciation, are the main components of the adjustment from accrual to cash operational balance. It is imprudent to assume that PBs will continue to see the share of their bills that remain outstanding at the end of the year increase. As a result, the aggregate operating balance on a cash basis for the eight PBs is set to improve only by about half of the increase in the accrual operational balance (.5 of a percentage point of GDP) between FY2012/13 and FY2015/16. Lowered capital expenditure helps limit the deterioration of the aggregate overall balance by FY2014/15 and reduces the needed room to return to positive overall balance by FY2015/16. As a result of ongoing efforts to contain administrative expenditure and enhance operational efficiency in PBs, an improved outlook for the aggregate operational balance can be achieved without a large increase in capital expenditure. For the eight PBs, gross capital expenditures are projected to decline by about .25 of a percentage point of GDP in FY2015/16 relative to FY2012/13.

At the entity level, the framework used in this study assumed that CAP's activity would continue to break even in terms of sales cost. Because this would require CAP's operational losses to stay about the same, government transfers were assumed to continue as in the FY2013/14 budget. However, the recent decision not to privatize as planned by end-2013, but to insulate the budget from CAP activities, will negatively impact its activities relative to the baseline considered at the time the model was prepared. With regard to the operations of NHT, while remaining very profitable, the first year with larger transfers to the government is estimated to cause a deterioration to a negative overall balance in FY2013/14. However, NHT will eventually integrate into its activity the larger transfers to government and return to a positive overall balance in subsequent years. PAJ is projected to register operating losses in FY2013/14 and a negative overall balance up to FY2014/15, assuming the authorities accept responsibility for the dredging of the port (estimated to take 18 months). But eventually PAJ is likely to return to profitability, as well as to a positive overall balance by FY2015/16, after privatization of the Kingston Container Terminal (KCT). CAP, JUTC, NROCC, and NWC are projected to perform at best with a negative, but close to zero, overall balance, which would further increase the net debt on their balance sheets. UDC's future performance under the baseline scenario assumes a very conservative operation going forward, which will avoid the overall balance falling to a negative figure.

The PBs whose operations signal very significant levels of financial risk are NROCC, CAP and NWC—these three have more debt than assets and increasing levels of debt pro-

**Table 1. Baseline Scenarios for the Aggregate of Eight Selected Public Bodies**

Performance indicators	Forecast (% of GDP)			
	2012/13	2013/14	2014/15	2015/16
1. Operating balance (accrual)	2.8	2.2	3.1	3.5
Adjustment accrual to cash	1.0	1.0	0.9	0.8
2. Operating balance (cash)	3.2	3.2	3.9	4.3
3. Net transfers from central government	-1.3	-1.3	-1.5	-1.5
4. Gross capital expenditure (including inventories)	3.4	3.4	2.9	2.4
5. Overall balance (-=financing need; 5=2+3-4)	-1.5	-1.5	-0.5	0.4

Sources: MOF&P; authors' estimates.

jected under the baseline assumptions. A full disclosure of fiscal risks would include significant risks from this select group of PBs.

### Scenario analysis

An important consideration in scenario analysis is the choice of indicators used to assess fiscal risks due to unforeseen events or shocks. The present analysis considers three indicators: net flows to the central government, overall balance (or net financing need) of the PB, and change in PBs' net debt. These indicators identify fiscal risks as they emerge through: (i) an immediate impact on government finances (net flows to the government); (ii) a reduced scope for sustainable central government deficits as PBs increase their borrowing (PB overall balance/financing need); and (iii) an enhanced risk of future calls on government assistance to address rising PB indebtedness, especially when operational revenue lags behind debt service obligations (PB net debt). In the scenario analysis, the latter indicator for net debt is related to operational revenue to provide a sense of the revenues for debt service requirements that the PB is expected to generate. Specifically, the analysis looks at the ratio of operational revenue over net debt; if this ratio goes up (down), the ability to service the debt from operational revenues is presumed to increase (decline). In other words, fiscal risk increases as the ratio of operational revenues over net debt goes down.

Conducting scenario analysis involves trade-offs regarding how changes in operational conditions are translated into balance sheet items. This determines which fiscal risk indicator would show the impact, but does not affect the findings of the fiscal risk analysis. For example, one can assume that a shock that unfavorably impacts the operational balance is reflected in a deterioration of current assets, increased debt, or smaller net payments to the government budget. This choice is sometimes difficult to foresee, unless well-defined policies direct how government transfers respond to unforeseen circumstances.<sup>13</sup> Fortunately, the indicators of fiscal risk capture the impact consistently, but not necessarily with the same indicator. In addition to the stated example above, a sharp reduction in current assets would be reflected in an increase in net debt; increased debt would show as a lower overall balance/larger financing need as well as increased net debt, while increased payments from the government would be captured in net transfers to the government.<sup>14</sup>

The scenarios have been designed to reflect macroeconomic assumptions as well as entity-specific potential events to illustrate key fiscal risks in the pessimistic scenario as well as scope for opportunities in the optimistic scenario. It should be noted that shocks that hurt the bottom line of some entities may have a favorable impact on other entities. For example, while most PBs see their operational losses increase as a result of increasing interest rates, some have considerable fi-

ancial investments and benefit from higher domestic and foreign rates.

The financial position of the selected PBs respond differently to the various shocks considered. For CAP, the analysis considers changes in operational performance (sales volume and operational efficiency) and borrowing rates. The larger (smaller) financing need in the pessimistic (optimistic) scenario may lead to larger (smaller) transfers from the government to CAP.

The scenario assumptions for JUTC relate to the increase of passenger fares, rehabilitation of the deteriorating bus fleet so that assets can be used productively, and key cost components (fuel prices in U.S. dollars and the exchange rate). In the pessimistic scenario (with higher fuel prices, less favorable exchange rate, higher interest rates, and bus fares remaining unchanged), JUTC would have very substantial borrowing requirements in the medium term, about J\$3.5 billion or 0.20 percent of GDP in FY2015/16. The possibility of oil prices rising sharply over the medium term is highly likely given rising geopolitical tensions in many oil-producing states. It is also not impractical to assume an overshooting of the exchange rate adjustment under the IMF program. Under more favorable assumptions (with lower fuel prices, more favorable exchange rate, lower interest rates, and higher fares), JUTC would have significant surpluses. Box 2 presents the findings from scenario analysis for JUTC.

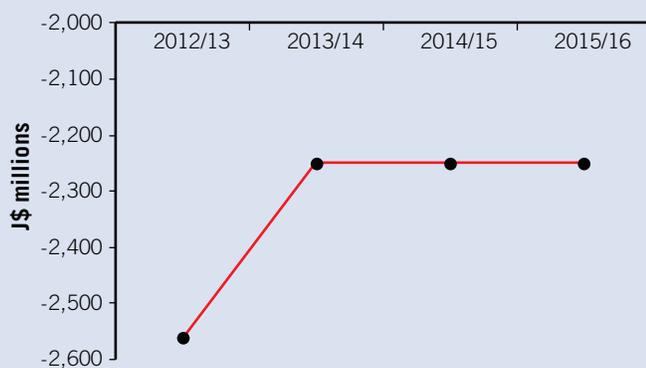
The scenarios for NWC focus on capital expenditure (lower in the optimistic scenario), regulated water prices, borrowing rates, and exchange rates. In all scenarios, NWC will have a substantial financing need in the medium term. With transfers from government declining as planned, this will likely entail increased borrowing, which is expected to increase debt ratios for FY2014/15 and FY2015/16. NWC's balance sheet, as measured by operational revenue over net debt, will improve only in the optimistic scenario.

PAJ's financial bottom line is likely to be strongly influenced by plans to privatize KCT and developments in trade and cruise travel. Under all scenarios, operational revenues as a share of net debt would decline as revenues come under pressure from a global decline in business volume (pessimistic scenario) or revenues from the KCT end due to completion of planned privatization (in the baseline and optimistic scenario). PAJ will need to borrow substantial resources in FY2013/14–15/16 to move forward with plans to dredge the harbor, which will allow Jamaica to profit from servicing larger ships associated with the completion of the improvements to the Panama Canal.<sup>15</sup> Surpluses in the overall balance will return in FY2015/16 under all scenarios. The projected activity points to increasing debt ratios, where by FY2015/16, PAJ would almost have as much debt as assets.

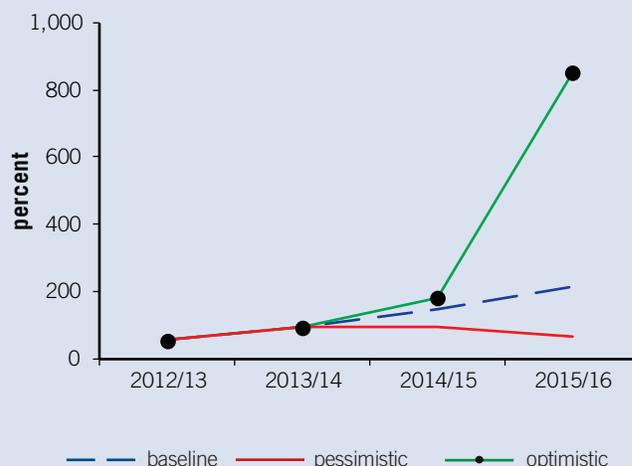
Petrojam is in a very different situation compared to the other PBs. It provides substantial transfers to the government

## Box 2. Example of Scenario Analysis: Jamaica Urban Transport Company (JUTC)

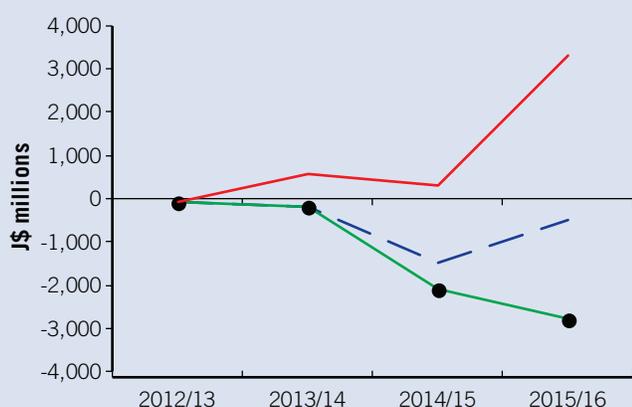
### a. Net flows to the central government



### b. Operational revenue/net debt<sup>a</sup>



### c. Net financing need<sup>b</sup>



Sources: MOF&P; authors' estimates.

a. Net debt equals liabilities minus current assets.

b. Net financing need of the PB equals the overall deficit (or minus overall balance); ↑/↓ indicates optimistic/pessimistic scenario.

Notes: Assumptions: (i) baseline: bus fares increase by 27 percent (zone 1) and remain unchanged (concessional) over FY13/14–15/16; ↑ fare increases are 35 percent (zone 1) and 25 percent (concessional); ↓ fares remain unchanged; (ii) baseline: number of buses in operation remains unchanged as problem maintenance improves; ↑ rehabilitation of the fleet raises the number of buses in operation by 1 percent by FY15/16; ↓ bus maintenance does not improve and the operational fleet declines by 14 percent by FY15/16; (iii) baseline: fuel costs are in line with projections for world oil prices (flat in US\$ terms); ↑ same; ↓ fuel prices increase reflecting a rise in world oil prices by US\$20 per barrel from FY13/14; (iv) baseline: the exchange rate depreciates by 33 percent between FY12/13 and FY15/16; ↑ same; ↓ in FY13/14, the exchange rate depreciations by an additional 20 percent.

as it passes on special consumption tax receipts and is not a net debtor like some of the other PBs (its current assets exceed liabilities). Over the medium term, Petrojam's situation is expected to develop favorably, with improvements in net transfers to the government and net assets as well as in the overall balance. Even if world oil prices decline, capital expenditure increases and sales growth falls, Petrojam would continue to strengthen its financial position.

Finally, UDC's failure to fully insure all its properties against natural disasters would have a significant effect on its financial position in the event of a natural disaster. If 25 percent of its uninsured property is affected, losses could amount to about J\$2.5 billion (0.17 percent of GDP).

#### Stress tests

The stress test analysis focuses on assessing the accumulated impact on the eight selected PBs from shocks on key macroeconomic variables. The analysis considers an exchange rate depreciation of 20 percent in 2013/14, an increase of US\$20 per barrel in world oil prices, and increases in domestic and international interest rates of 6 and 2 percentage points, respectively.

The aggregate impact of the shocks on the eight selected PBs is calculated by year, and then the effects are added over FY2013/14–15/16. Petrojam is the only PB out of the selected eight that benefits from these shocks—with positive net assets (and negative net debt) denominated for the most part in U.S. dollars, Petrojam gains from exchange rate depreciation and increases in interest rates. Petrojam's bottom line also benefits from higher oil prices. The cumulative outcome of the stress tests over FY2013/14–15/16 without the favorable impact on Petrojam is also calculated.

Significant net debt holdings in U.S. dollars by CAP, NROCC, NWC, and PAJ contribute to a large fiscal risk associated with the exchange rate. A depreciation of 20 percent in FY2013/14 would increase net debt by 1.7 percent of GDP for the eight PBs by FY2015/16 and increase their financing need (decline in the overall balance) by 0.6 percent of GDP over the medium term. As arrangements for covering additional losses from the budget are unclear, the direct impact on the budget is small and represents mostly changes in profit tax payments. But, increased strain on vulnerable PBs may shift much of the additional financing need to the budget. There is

a risk that this could exceed the cumulative effect on the eight PBs, as Petrojam will see its overall balance increase by 0.4 percent of GDP. The government may end up with much of the responsibility for covering the financing need of the remaining seven PBs, amounting to 1 percent of GDP over FY2013/14–14/15, while not receiving substantial additional payments from Petrojam.

Interest rate and petroleum price shocks have a smaller but still considerable impact on PBs' financial health and fiscal risks. An increase in domestic and foreign interest rates (by 6 percent and 2 percent, respectively) would increase net debt by about 1 percent and financing need by .5 percent of GDP over the medium term. The impact is mostly through the effect on debt service payments. As for petroleum prices, the beneficial impact of higher oil prices on Petrojam offsets about two-thirds of the negative impact on the other seven PBs. With limited access to the windfall gains of Petrojam, the government still faces significant fiscal risks, as net debt and financing requirements of the other seven PBs increase by over .5 percent of GDP over the medium term.

The plausible and modest events explored in the stress tests have an added effect of 2 percent of GDP over the medium term. This may seem modest, but given present tight fiscal conditions in Jamaica, such risks would be difficult to manage if they were to materialize. Also, the impact of less likely but more severe macroeconomic risks, such as associated with a global or regional economic crisis, would be much larger—and much more difficult to deal with. Moreover, this represents only the impact of 8 out of 195 PBs—and although the PBs were selected based on their perceived fiscal risk, other PBs (such as the Road Maintenance Fund) may also present substantial additional fiscal risk. Finally, the stress tests do not include the risks from sector- and PB-specific sources of risk (for example, related to capital investment programs, regulatory price setting, natural disasters, and developments in international trade and cruise ship tourism), which were illustrated in the scenario analysis.

## Conclusion and Recommendations

Evidence suggests that the impacts of shocks, whether institution or sector specific, or triggered by macroeconomic realignment, pose significant risks to fiscal sustainability. For example, a shock to the exchange rate could lead to a 2 percent increase in the debt stock over the medium term, which for a country like Jamaica is very significant, given existing high debt levels.

Significant fiscal risks are embedded in several PBs' operations and should be closely monitored. Specifically, CAP, JUTC, NROCC, and NWC present the greatest risk to the government's performance target. Larger than programmed movements in interest and (increased) exchange rates (faster rate of depreciation), with no changes in the price of services

delivered, will have significant negative implications for JUTC, NWC, and NROCC. Results here show that, given the relative size and importance of the entities considered, meeting the objectives for the overall sector as outlined in the IMF-supported EFF requires careful management of fiscal risks as well as continued restructuring efforts.

In the absence of a comprehensive fiscal risk monitoring framework, it is likely that potential sources of risks will be overlooked. Adopting and implementing a similar framework to the one proposed here, which uses an integrated approach to identify, disclose, mitigate, and manage fiscal risks presented by PBs, will help Jamaica better manage contingent liabilities and streamline its operations. The management and disclosure of fiscal risks in Jamaica will need to be facilitated by a strong policy framework in which the legal and administrative arrangement clearly establishes responsibilities and relationships among public and private actors, including transparent compensation of QFAs from the government budget.

## Acknowledgments

The authors would like to thank Allan Dizioli, Pedro L. Rodriguez, Eric Le Borgne, Auguste Tano Kouame, Francisco Galrao Carneiro, and Sona Varma for helpful comments. Special thanks to the Public Enterprise Division of Jamaica's MOF&P and representatives from the selected entities for providing data and invaluable insights into their operations. The Auditor General Department also provided useful insights.

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## Notes

1. This note is based on a paper that will be published later this year in the World Bank Working Paper Series.
2. Less than 50 percent of SFPBs submit financial reports within the six-month window allowed. The Auditor General's Office has also stressed the need for PBs to strengthen their reporting.
3. As noted in the government of Jamaica's Accountability Framework for Senior Executive Officers, assessing PB performance has been problematic mainly due to: the governance framework of the PBMA Act being less complete than that of the Executive Agencies; PBs not promptly fulfilling their reporting responsibilities with the Public Enterprise Division at MOF&P; the poor quality of PBs' corporate plans; and the unstructured method used to objectively analyze performance, as well as the absence of performance agreements for staff.

4. See Polackova Brix and Schick (2002) for a more detailed definition of fiscal risks.
5. See *Jamaica Public Bodies: Estimates of Revenue and Expenditure* for the year ending March 2014, <http://www.mof.gov.jm/ped/publicdocs>.
6. Contingencies may be defined by law or contract (explicit liabilities), or arise due to popular expectations and political pressure (implicit liabilities; Cebotari 2008).
7. See *Jamaica Public Bodies: Estimates of Revenue and Expenditure* (various editions), <http://www.mof.gov.jm/ped/publicdocs>.
8. The annual budget documentation in Indonesia includes a section on state-owned enterprises' fiscal risks (<http://www.anggaran.depkeu.go.id/dja/acontent/Finacial%20Note%20and%20Indonesia%20Budget%20FY%202013-lengkap.pdf>). The projections of key PB items are contingent on current expectation of operations. Therefore, the exercise should be understood as ongoing, requiring updates to reflect any new events of economic significance that may have an influence in the operation of the entities.
9. Scenario analysis assesses fiscal risks in alternative states of the world. Key to scenario analysis is the development of a consistent set of alternative assumptions rather than using the baseline projections (for example, an increase in oil prices can worsen profitability, which could increase a company's financing cost and debt rollover risks). Designing scenarios involves some judgment (normative exercise) on how the entity and government would react under the alternative scenarios. Stress tests provide a more mechanical estimation (positive exercise) of the impact on the entity from an ad hoc change in one specific variable (for example, the exchange rate) and can be used if the same tests are applied to all key PBs to assess the aggregate fiscal impact of a specific event. Stress tests should be based on changes that have a reasonable probability of occurring.
10. On May 1st, 2013, the IMF's Board approved a US\$932 million program of engagement with the government of Jamaica through an Extended Fund Facility (EFF) to support the country's comprehensive economic reform agenda. The EFF includes quantitative performance criteria limiting not only the overall deficit of the central government, but also the overall deficit of the wider public sector. There are also specific targets for selected PBs. For more details on the EFF, see <http://www.imf.org/external/pubs/ft/scr/2014/cr1485.pdf>.
11. The fiscal year in Jamaica runs from April 1 to March 31.

12. The programmed transfer from the NHT of J\$11.4 billion (0.77 percent of GDP) annually is for a period of four fiscal years through FY 2016/17 and has been established as part of the IMF EFF program.

13. This exists for select cases in Jamaica. For example, Petrojam transfers special consumption taxes it collects to the government. Therefore, if tax revenues fall in response to, say, lower fuel prices or lower sales volume, this would be reflected in lower transfers by Petrojam. In other cases, decision making on transfers is more discrete. This includes most other tax payments—for example, profit-making PBs typically do not transfer corporate taxes, but instead make or receive a lump sum net transfer.

14. This includes the response of PBs to unfavorable events by accumulating payables that would reduce their net assets.

15. The assumption is that dredging is the prerogative of the landlord, which suggests that if the project is to move forward, it will have to be financed through loans to PAJ.

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