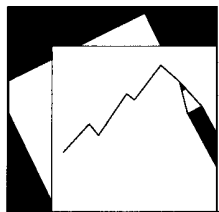


# Jamaica Debt Exchange



# IMF Working Paper

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## Jamaica Debt Exchange

*David A. Grigorian, Trevor Alleyne, and Alejandro Guerson*

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INTERNATIONAL MONETARY FUND

**IMF Working Paper**  
**Monetary and Capital Markets Department**  
**Jamaica Debt Exchange**

**Prepared by David A. Grigorian, Trevor Alleyne, and Alejandro Guerson<sup>1</sup>**

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Abstract

The sovereign debt restructuring operation in Jamaica undertaken in early-2010 was a unique experiment that perhaps offered less by way of upside, if compared to the conventional sovereign debt exchanges, but provided credible assurances against further downfall and financial sector distress. A case study of a highly indebted country with domestically held debt, the paper discusses the conditions leading to the exchange, the rationale behind it, as well as its operational aspects. Achievements of the exchange, too, are discussed in detail. The paper also outlines the risks stemming from the high levels of debt—which continue to remain high—requiring prompt and coordinated action by policymakers if the legacy of the debt exchange is to be preserved.

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Author's E-Mail Address: [dgrigorian@imf.org](mailto:dgrigorian@imf.org); [talleyne@imf.org](mailto:talleyne@imf.org); [aguerson@imf.org](mailto:aguerson@imf.org)

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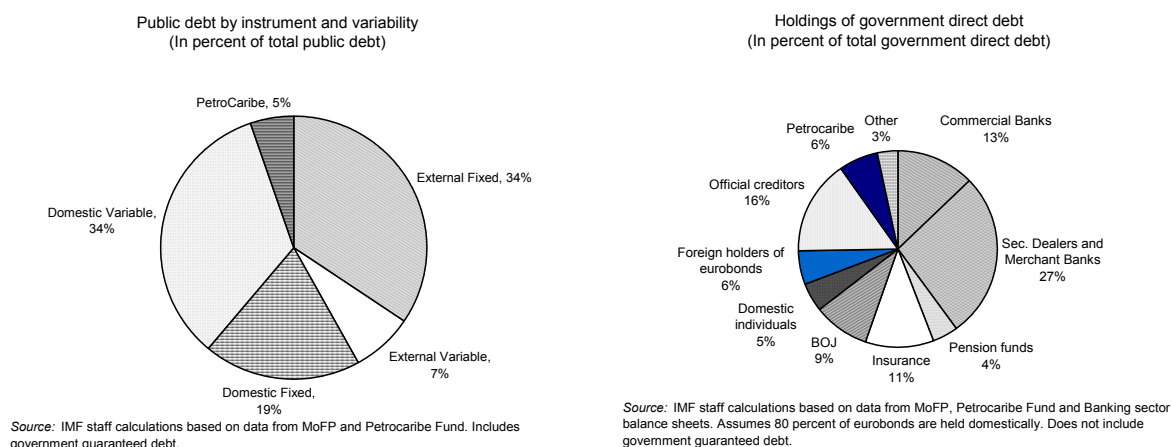
## Contents

I. Introduction .....	<a href="#">3</a>
II. Initial Conditions.....	<a href="#">4</a>
A. The Impact of the Global Crisis.....	<a href="#">4</a>
B. The Initial Policy Response.....	<a href="#">6</a>
III. Rationale for the Debt Exchange .....	<a href="#">8</a>
A. Weighing the Risks .....	<a href="#">8</a>
B. Rationale and Safeguards .....	<a href="#">9</a>
IV. The Jamaica Debt Exchange.....	<a href="#">10</a>
A. Launching of the Exchange.....	<a href="#">10</a>
B. The Outcome .....	<a href="#">12</a>
V. Lessons from the JDX.....	<a href="#">17</a>
A. Factors behind the outcome .....	<a href="#">17</a>
B. Going forward .....	<a href="#">18</a>
Tables	
1. JDX Processing Timetable.....	<a href="#">11</a>
2. Distribution of Bonds Subjected to JDX .....	<a href="#">14</a>
3. Interest Rate and Refinancing Risks, as of March 2010 .....	<a href="#">15</a>
Figures	
1. Composition and Holders' Profile of Jamaican Public Debt .....	<a href="#">3</a>
2. Key Indicators of Economic Activity .....	<a href="#">5</a>
3. International Reserves and Interest Rates .....	<a href="#">6</a>
4. Jamaican and International Spreads.....	<a href="#">7</a>
5. Allocation Rules.....	<a href="#">12</a>
6. Domestic Bond Prices (January 2009-May 2010) .....	<a href="#">13</a>
7. Redemption Profile of Domestic Debt before and after JDX .....	<a href="#">14</a>
8. S&P's Pre- and Post-debt Restructuring ratings of Select Sovereigns .....	<a href="#">16</a>
9. Interest Margins of Banks and SDs .....	<a href="#">16</a>
Appendices	
I. Financial System Support Fund.....	<a href="#">20</a>
II. New Government Benchmark Securities post-JDX.....	<a href="#">21</a>
References.....	<a href="#">19</a>

## I. INTRODUCTION

Jamaica has long struggled with the twin challenges of low economic growth and high public debt. Real GDP growth has hovered around 1 percent on average over the past decade, partly reflecting the country's vulnerability to natural disasters. By 2009, at nearly 140 percent of GDP, Jamaica's debt—which rose sharply following a banking crisis in the mid-1990s—was seen by many as unsustainable.<sup>2</sup> The debt was owed mainly to domestic creditors and was subject to significant exchange rate and/or interest rate risk (Figure 1). Interest payments averaged 52 percent of fiscal revenues during FY2005/06–FY2008/09, making the budget inflexible and leaving too few resources for addressing important social and infrastructure needs. Heavy public debt service obligations resulted in a large risk premium on interest rates, periodic bouts of financial market instability, and a crowding out of bank credit to the private sector, all of which had contributed to a very low potential growth rate.

Figure 1. Composition and Holders' Profile of Jamaican Public Debt



The global crisis of 2008–2009 significantly increased the pressure on the Jamaican economy and pushed already difficult debt conditions closer to the brink. While Jamaica experienced financial sector turmoil in the past (with a subsequent bailout using public funds), the country had maintained a perfect record of servicing its sovereign obligations.<sup>3</sup> However, the worsening macroeconomic conditions effectively forced the government to consider a debt exchange to bring the debt servicing closer to the government's ability to pay.

<sup>2</sup> Monte Carlo simulations conducted by IMF (2008b; Table in paragraph 58) illustrate that the probability of reaching debt targets below 90 percent of GDP within five years, given the historic behavior of macroeconomic variables, will be very low.

<sup>3</sup> A relatively recent episode of costly financial sector bailout in Jamaica took place in the late 1990s that led to an increase in the domestic debt stock by 37 percent, accounting for 27 percent of GDP.

The Jamaica Debt Exchange (JDX) was launched in January 2010. It was designed to offer relief to fiscal accounts through a sizable reduction of the coupon rates as well as through the extension of maturities on most domestically issued bonds. While par-neutral, the exchange aimed to provide a solid foundation for reducing Jamaica's debt to sustainable levels in the medium term via offering an effective cap on interest payments on public debt and stronger growth prospects. The latter was supposed to have been achieved via providing budgetary space for more growth-enhancing public investment and lower borrowing costs for the private sector.

The JDX was also designed to safeguard the stability and the integrity of the financial system. As most public debt was held by domestic financial institutions, it was feared that a (conventional) debt exchange could have had a sizable (direct and indirect) adverse impact on the financial sector, threatening the financial stability. And while the results of stress-testing conducted by the Bank of Jamaica (BoJ) suggested that the financial sector was capable of withstanding an orderly debt exchange, centralized support measures were seen as necessary in the short run to ring-fence the system against tail risk. Measures that were subsequently devised to this end made the JDX unique in terms of the amount of attention given in its design to the issue of financial stability.

Despite the progress achieved under the JDX (described in detail throughout the paper), it appears as if the benefits have been ephemeral. In the absence of complementary measures to address long-standing structural fiscal and growth issues, the outstanding public debt stock again is approaching 140 percent of GDP, making it a major source of vulnerability for the Jamaican economy. Thus, as before, Jamaica's debt sustainability will require a strong commitment to structural fiscal and growth reforms, and effective debt management strategies to contain the risks emanating from the debt.

The remainder of this paper is structured in the following way: Section II provides an overview of macroeconomic and financial conditions preceding the debt exchange and the authorities' policy measures. Section III outlines the rationale behind the exchange, while Section IV discusses the operational design of the exchange. Section V outlines the remaining vulnerabilities and concludes.

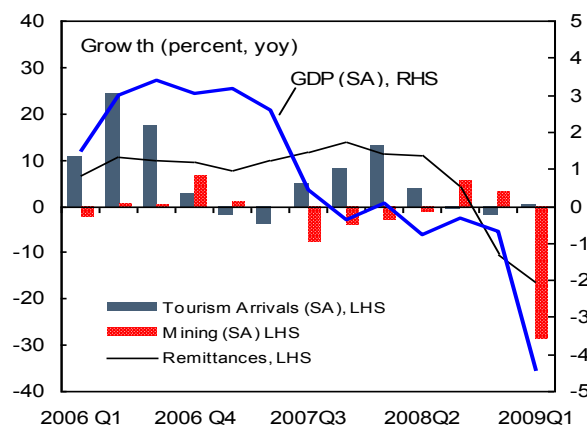
## **II. INITIAL CONDITIONS**

### **A. The Impact of the Global Crisis**

Like the rest of the Caribbean, Jamaica was put under severe pressure beginning in the second half of 2008 as a result of the spillover from the global financial crisis. Tourism receipts declined by an estimated 15 percent in 2009:Q1 (Figure 2) even as stay-over arrivals remained flat (better than most other Caribbean destinations). Remittances—which had been growing at a rate of 12 percent (y-o-y) in 2008:H1—plummeted by 15 percent in 2009:Q1.

Most significantly, bauxite/alumina production and exports fell by 30 percent, as plants closed due to the large global oversupply. As global private credit dried up, both the nonbank financial sector and the government faced critical external funding shortfalls. The BoJ had to set up a special facility to assist financial institutions that found it difficult to meet margin calls on external loans. A eurobond payment maturing in early 2009 was paid using financing from multilateral development banks.

Figure 2. Key Indicators of Economic Activity



The structure and the depth of Jamaica's financial sector became a key concern. Prior to the crisis, the banking system was seen as highly profitable due mostly to high interest rates on government securities (IMF, 2010). However, despite a strong initial capital position, the rapid growth in NPLs since December 2008 (as a result of a contagion stemming from the global crisis) had eroded the buffers and made the matters more challenging for the banks going forward.

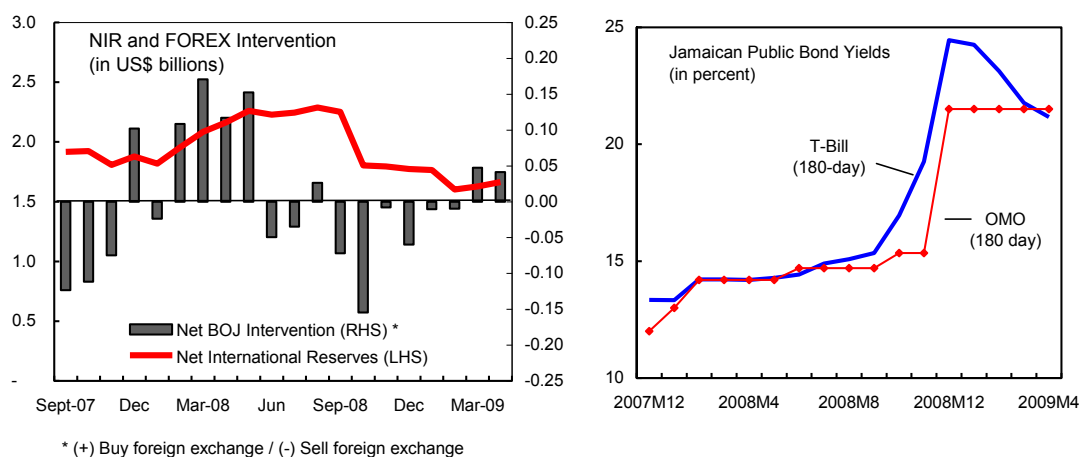
The SDs were an important mechanism for placing government debt in Jamaica. With minor exceptions, most of their assets were in the form of government bonds, making them especially vulnerable to any conventional debt restructuring operations involving a face value (FV) haircut. In addition, they were exposed to fallout from a debt operation given the sector's inherent maturity mismatch and rollover risks. What was likely to complicate matters even more was that the resolution/exit of SDs was seen as very challenging due to the peculiarities of the model and lack of previous experience of the authorities in doing so.<sup>4</sup>

<sup>4</sup> The design of the "retail repo" product—the basis of the securities dealer business model—is akin to a deposit. The customer makes a short term investment with a guaranteed return and does not directly take on the risk of the associated GOJ instrument, which remains with the dealer. The SDs were thus vulnerable to a confidence shock, in a condition where the rollover by depositors was not forthcoming while the portfolio of government bonds was not liquid.

## B. The Initial Policy Response

Investor concerns about the prospects for the economy put pressure on the currency. Between September 2008 and February 2009, the BoJ first intervened in the foreign exchange market and subsequently sharply tightened monetary conditions through increases in the policy rate and the cash reserve ratio. The policy rate was increased by over 600 basis points to 21 percent and the interest rate on treasury bills settled in excess of 20 percent after having jumped to almost 25 percent by year-end. The government was finding it increasingly difficult to issue longer-dated domestic securities, with investors demanding mainly shorter-dated variable rate and exchange rate indexed securities. Despite the increase in interest rates, the currency depreciated by 22 percent against the U.S. dollar and international reserves fell from US\$2.4 billion in August 2008 to US\$1.6 billion in February 2009 (Figure 3).

Figure 3. International Reserves and Interest Rates



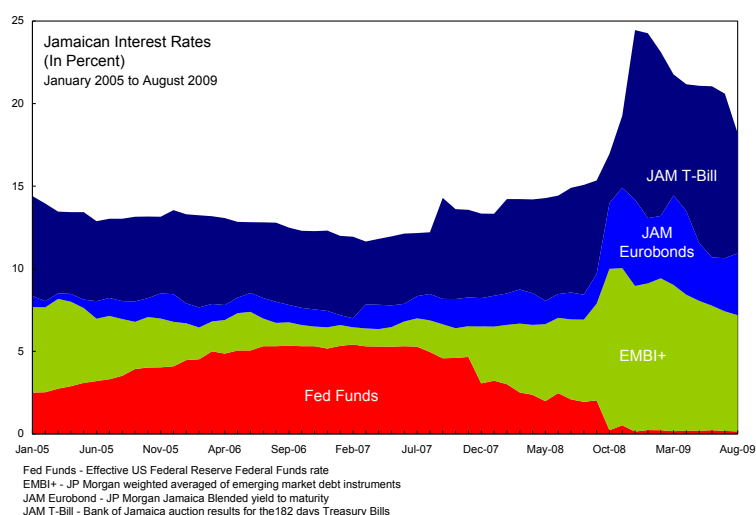
Given Jamaica's large debt and mounting rollover problems, there was little room for countercyclical policy to help attenuate the sharp fall in economic activity. For the March 2009 budget, the authorities introduced deficit cutting measures equivalent to some 2.5 percentage points of GDP. Most notably, these included (i) a freeze on most civil service wages and salaries; (ii) a reduction in capital spending; (iii) an increase in the gasoline tax; and (iv) a broadening of the VAT base. Divestment of certain state assets was also expected to reduce financing needs by about 1 percent of GDP. However, it became clear soon that the measures would be insufficient to achieve the fiscal target. Revenues were coming in below projections because of lower-than-projected economic activity. More importantly, the sharp jump in interest rates had caused the interest bill to rise from 12.2 percent of GDP in FY2008/09 to a projected 16.2 percent of GDP in FY2009/10, or 60 percent of revenues. Finally, financing needs remained very high (in excess of 25 percent of GDP per year over the medium term).



The deteriorating fiscal situation raised concerns about the possibility of a fiscal crisis. Downside risks were increasing, including in the form of further increases in interest rates, a collapse of the domestic bond market, or a market a possible sharp decline in international reserves. Rising uncertainties about external and fiscal sustainability could have resulted in the government facing difficulties to rollover maturing domestic debt obligations, as investors decided to switch to foreign-currency assets. In an extreme case, this scenario could have unraveled into a crisis, possibly involving a run on the currency and on financial institutions, including nonbanks. In this context, the risk to financial system stability was also heightened. Large holdings of government securities by Jamaican financial institutions made both commercial banks and especially the securities dealers (SDs) vulnerable to the government's weakening fiscal position. Given the relative size of the SD sector and inter-linkages within financial conglomerates, pressures within the SD sector (including through the asset values) had the potential of spilling over to the financial system more broadly.

Downgrades of sovereign debt by ratings agencies in July 2009, and again in October 2009, further heightened concerns over debt sustainability in the short run. Markets had already effectively closed for Jamaica prior to the July 2009 ratings downgrade—Jamaican bonds were trading at over 1,000 bps above those of other emerging economies since late 2008 (see Figure 4). The October 2009 sovereign downgrade was followed by the downgrade of a large commercial bank with a sizable exposure to the government and large margin calls to two securities dealers.

Figure 4. Jamaican and International Spreads



### III. RATIONALE FOR THE DEBT EXCHANGE

#### A. Weighing the Risks

Jamaica had a very strong record of servicing its debt and initially, there were concerns about the efficacy of a debt restructuring. The country had never reneged on its debt payments. There was a concern that a debt operation risked impairing the government's reputation to honor debt obligations, could give rise to capital flight, and increase the cost of borrowing, thus fundamentally impairing the government's ability to fund itself on an ongoing basis. However, given the challenges facing the economy, the debt exchange was motivated by the government's (severely affected) *ability to pay* rather than on its (unquestionable) *willingness to pay*. Indeed, (large) holders of Jamaica's public debt recognized the government's precarious position and showed openness to discuss the situation. It was believed that, if accompanied by a comprehensive fiscal reform strategy, a debt exchange would preserve Jamaica's reputation and be beneficial for the economy and all stakeholders. On the other hand, absent a credible plan to address the debt overhang, the country's ability to service its debt obligations would remain in serious doubt going forward and the risk of financial instability would remain high.

The authorities also had to address some issues pertaining to the legality of a debt exchange. Notably, Jamaica's constitution contains provisions making government's debt payments senior to other expenditure categories at any given time and it was not clear what implications this may have on the ability of the government to restructure the debt contracts. Although the voluntary nature of the debt exchange was emphasized throughout the preparatory process (which was seen as a way of fend off any potential legal challenge), a thorough legal review was initiated with an objective to minimize and potentially eliminate sources of contention down the road (see below).

It was clear that any debt restructuring operation had to consider the potential impact of the operation on the financial sector. As described above, the domestic financial system held a large share of public debt (both domestically- and externally-issued) and was vulnerable to valuation losses of public debt securities. Stress tests conducted by the Bank of Jamaica revealed the following conditions:

- While banks would likely have been able to fully absorb losses arising from an orderly debt restructuring operation, the capital adequacy would have been impaired if the credit rating on government was set at *selective default* and new risk weighting standards were enforced.
- An orderly debt operation was seen as likely to impair the capital base in some SDs, possibly creating sizable funding gaps in the short-term. Some degree of regulatory forbearance would be necessary to mitigate the immediate impact.

- A distressed exchange—resulting in loss of confidence in the financial system that triggers a widespread capital flight and/or a deposit run—could overwhelm the system.

## B. Rationale and Safeguards

The final design of the debt exchange was shaped by the need to ensure that the risks and concerns described above were adequately addressed.

- **Legal considerations:** The Attorney General’s formal opinion was sought on constitutionality of the proposed features of the debt exchange, as well as the final detailed plan in order to minimize the risk of debt exchange being challenged in the courts.<sup>5</sup>
- **Financial sector stability:** Detailed analysis was conducted for the banking, SDs, and insurance sectors, including their holdings of government securities. Stress test exercises—at institution-by-institution level—were carried out to study the impact of different exchange proposals on the financial sector’s viability and stability.
- **Stakeholder buy-in:** The debt exchange proposal was presented to creditors not as an isolated initiative but as part of a broader, comprehensive medium-term economic strategy. This was also communicated to the rating agencies. Consultations were held with bond holders about their balance sheet needs prior to finalizing the specifications of the new bonds to increase the take-up of the offer.

A mixture of “carrots” and “sticks” was employed to encourage high participation and to dissuade free riders.

- Communication with bond holders immediately prior and during the operation launch made it clear that the government would make every effort to ensure that no debt holder would obtain a competitive advantage by opting out of the operation and holding on to the old securities. While emphasizing the voluntary nature of the exchange, the authorities had indicated during meetings with creditors that they would consider introducing various measures to reduce the incentives to holdout (including introducing tax surcharge on interest income earned from the old bonds and exercising the call option embedded in old bonds).

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<sup>5</sup> In response to MOF’s query, the Attorney General ruled that the proposed debt exchange would not violate the Constitution.

- The potential for an IMF Stand-By Arrangement played a positive role. By late 2009, the strong sentiment among analysts and market participants was that, unless there was an agreement on an IMF-supported program, Jamaica would quickly tumble into an economic and financial crisis. The government’s announcement that there would be no IMF agreement unless there was a debt exchange was an important factor encouraging participation by financial institutions.
- An important “carrot” was the establishment of the IMF-funded Financial System Support Fund, financed by the multilateral institutions, designed to provide liquidity support (at non-punitive rates) for financial institutions that might be negatively affected by the debt exchange (see Appendix I for details). The government announced that access to the Fund (with new bonds as eligible collateral), was to be open only to institutions that exchanged over 90 percent of the old government bonds in their portfolios. Access to the Fund was seen as particularly important for nonbanks (SDs and insurance companies) since—unlike commercial banks—they had no formal access to the BoJ discount window in the event of a liquidity shortfall.<sup>6</sup>
- Some regulatory forbearance was applied to ease the impact of the exchange. It was agreed that a 100 percent risk weighting of GoJ foreign currency bonds (a standard international practice following an exchange where the sovereign receives a *selective default* rating) would be introduced through a two-year period (a structural benchmark for the IMF-supported program).<sup>7</sup> This required a parliamentary amendment of bank capital rules to allow the implementation of risk weights on government’s foreign currency instruments, which were previously capped at 20 percent. No change in risk weighting for J\$-denominated government securities took place.

#### IV. THE JAMAICA DEBT EXCHANGE

##### A. Launching of the Exchange

JDX was launched on January 14, 2010. It remained open until February 3, one week longer than envisaged to accommodate a much higher-than-expected participation (see Table 1). Citi acted as the adviser for the GoJ for the debt exchange. The transaction itself involved a FV-neutral exchange of all government of Jamaica domestically issued bonds for newly

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<sup>6</sup> Access for the banks to the BoJ’s temporary discount windows was expected to remain unchanged, requiring liquid collateral.

<sup>7</sup> While remaining committed to a two-year time frame for implementation of 100 percent, BoJ subsequently requested an amendment to the IMF program requirement of equal installments to be able to exercise some flexibility, if a financial institution has difficulty meeting the target.

issued bonds with reduced coupons and extended maturities. Externally issued bonds were excluded from the transaction because their terms (maturity and interest rate) were not viewed as problematic.

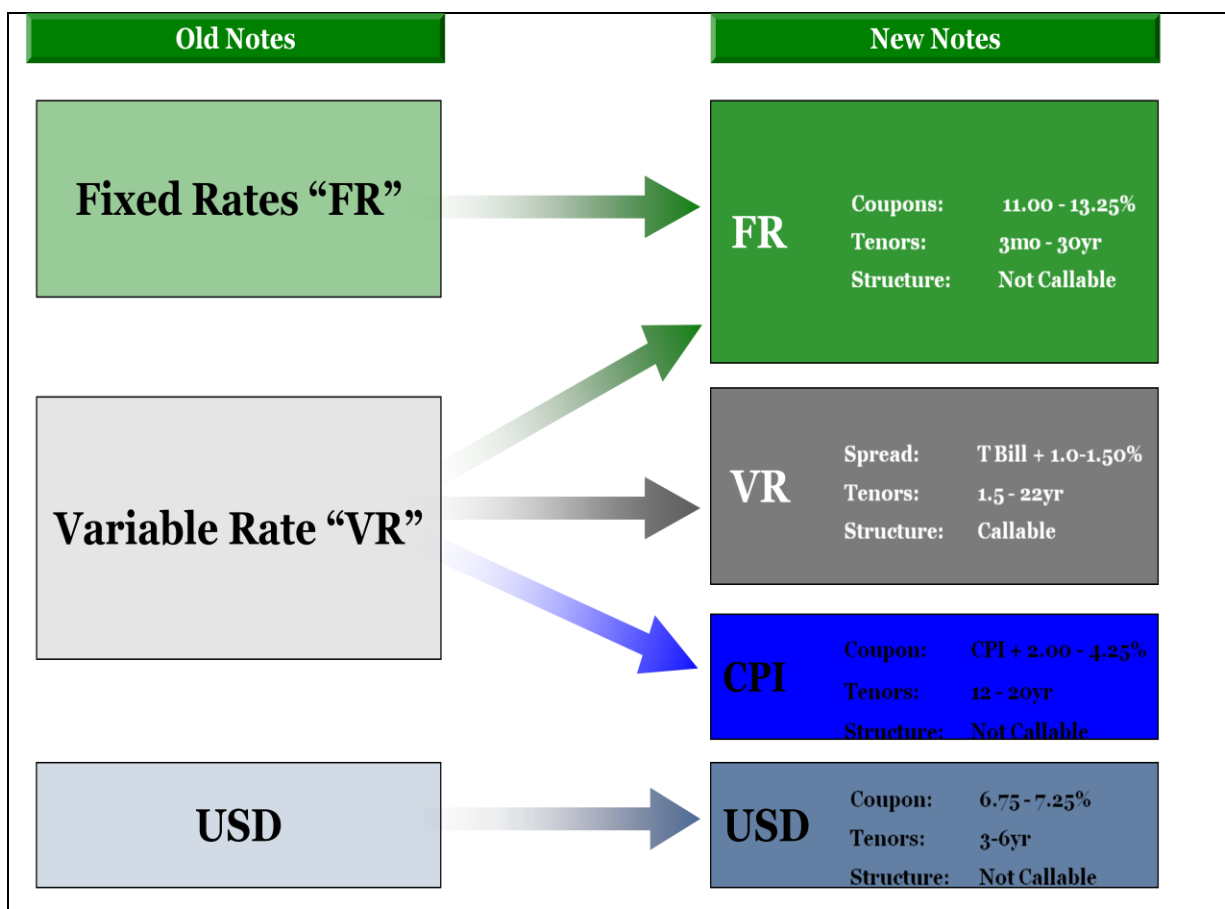
**Table 1. JDX Processing Timetable**

January 14	Launch Date
January 26	Offer Expiration Date
February 3	Extended Expiration Date
February 16	Settlement Date
February 24	Extended Settlement Date

The old bonds targeted by the debt exchange included local currency (fixed, variable, and US\$-indexed) securities and US\$-denominated debt. In total these bonds amounted to US\$7.8 billion, equivalent to 65 percent of GDP. The J\$-denominated debt had an average interest rate of 19 percent, while the US\$-denominated debt had an average interest rate of 9 percent. In exchange for the old bonds, investors were given an option of selecting from a menu of new fixed, floating, and inflation- and US\$-indexed securities, subject to the allocation rules (see below). The initial average yield on the new J\$-denominated bonds was set to 12.5 percent across instruments and maturities, while the initial yield on the new US\$-denominated bonds was set to an average of 7 percent.

The exchange was to be guided by allocation rules (Figure 5). These rules were intended to ensure (i) a reduction in the share of variable rate and US\$-denominated to lower exchange rate and interest rate risk; and (ii) an increase in the maturity of the debt stock post exchange. Thus, holders of fixed-rate instruments were permitted to swap only into other fixed-rate instruments; holders of variable rate [and US\$-denominated] instruments were required to swap into some new fixed-rate and inflation-indexed bonds; and only holders of old US\$-denominated debt were permitted to acquire new US\$-denominated securities. Finally, all debt had to be exchanged for new portfolios having a longer average maturity. To further lock in fiscal savings, the coupon rates on variable bonds were fixed for the first three to 12 months (depending on maturities) at 11.75 percent—the coupon rate on new one-year fixed rate bonds. With the exception of variable rate bonds, new bonds were to be stripped of call options to make them more attractive for investors to hold.

Figure 5. Allocation Rules



Source: Citi.

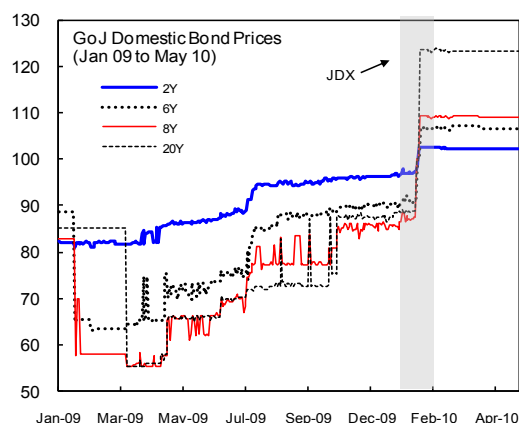
### B. The Outcome

The results of the debt exchange were substantially better than originally expected. The amount of eligible bonds was significantly broader<sup>8</sup> and the participation rate was higher than envisaged (99.2 vs. 80 percent), resulting in significantly larger fiscal savings (approximately 3.5 percent of GDP). Furthermore, the average maturity of domestic debt was significantly extended from 4.7 years before the exchange to 8.3 years after the exchange. This resulted in a reduction of projected amortization during 2010–2012 by J\$300 billion. A small amount of eligible debt that was not tendered was subsequently called and redeemed for cash at face value in May 2010.

<sup>8</sup> The authorities had originally planned to limit the debt exchange to short-dated (i.e. maturity less than three years), fixed rate domestic debt. In the end, they decided to expand the range of eligible debt.

While FV-neutral, the exchange initially resulted in a 15–20 percent reduction in net present value (NPV), depending on the specifics of the bonds.<sup>9</sup> However, as the details of the exchange became known to participants, bonds began trading up, resulting in gains for marked-to-market investors.<sup>10</sup> Moreover, these initial NPV losses were reversed within weeks from the exchange as interest rates dropped below the coupon rates on the new securities.<sup>11</sup> Prices on both domestic bonds and eurobonds rallied significantly upon launch of the JDX and had continued to trade above par in the post-JDX period (Figure 6).<sup>12</sup>

Figure 6. Domestic Bond Prices  
(January 2009–May 2010)



On February 4, 2010, following the news of initial success of the JDX, the IMF Executive Board approved the 24-month US\$1.27 billion Stand-By Arrangement with Jamaica. Soon after the approval of the Fund program, the World Bank, IDB, and Caribbean Development Bank assembled a massive loan package for the government. In all, pledged assistance from the multilateral financial institutions totaled approximately 20 percent of GDP. Coupled with

<sup>9</sup> These values are based on a formula that uses the face value of the outstanding stock as the benchmark. A typical justification for using this approach is that default/restructuring entitles creditors to immediate and full repayment of the face value amount, which then becomes the relevant comparator against which to measure the present value of the new instruments. The haircut would have been even smaller if the NPV of the new securities were compared with the NPV of the old securities at an exit yield (see Sturzenegger and Zettelmeyer, 2008).

<sup>10</sup> “Sagicor Life Reaps JDX Benefits,” *Gleaner*, June 11, 2010.

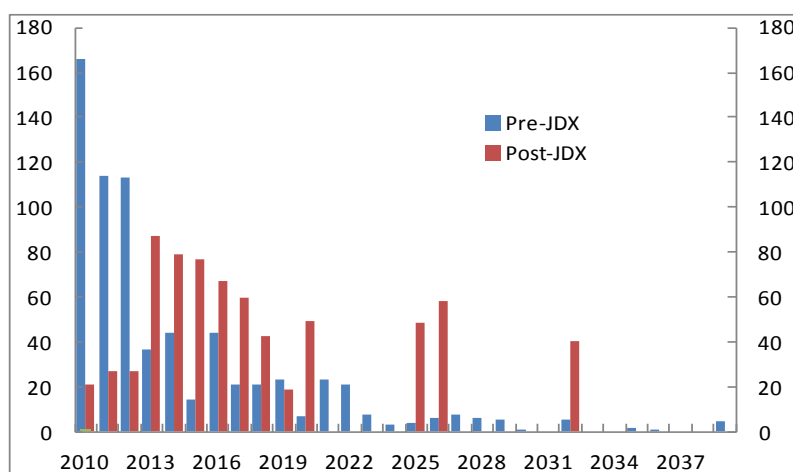
<sup>11</sup> Bonds began trading up during the days leading to the exchange, signaling that the exchange could be NPV enhancing for most holders. Some pension funds and financial institutions that had fixed long-term liabilities against the pre-JDX bonds may have suffered permanent losses as a result of JDX.

<sup>12</sup> The fact that the bonds recovered value and began trading above par so quickly perhaps implies that further fiscal savings may have been achievable without putting the financial stability at risk. However, the significant uncertainties pertaining to the financial sector ability to withstand the restructuring made the trade-off between fiscal savings and financial stability a difficult one to resolve in favor of the latter *ex ante*.

the debt service relief from the JDX, international financial support significantly reduced liquidity risks in the short term (Figure 7).

Figure 7. Domestic Debt Profile *before* and *after* JDX, 2010–2039

(In billions of J\$)



JDX was also successful in reducing interest rate risk by increasing the proportion of fixed rated instruments (Table 2). In addition to locking in fiscal savings, the move towards move fixed rated instruments was seen as insurance against mostly supply-side shocks faced by Jamaica's economy (e.g., periodic hurricanes, etc.), where output decline was accompanied by increase in price levels and nominal interest rates.

**Table 2. Distribution of Bonds Subjected to JDX**

(In percent of total eligible stock)

	Pre-JDX	Post-JDX	Difference
Variable Rate	54	46	-8
Fixed Rate	34	39	5
US\$	12	12	0
CPI-Indexed	0	3	3

Source: Jamaican authorities.

However, risks to the debt portfolio remain. The existing debt stock is still exposed to a sizable interest rate risk (proxied by the share of variable rate debt and debt maturing within a year) and currency risk (proxied by the share of FX-denominated in total) (Table 3). If



materialized, these risks could lead to significant increases in debt servicing and a substantial increase in the debt-to-GDP ratio in the future.<sup>13</sup>

**Table 3. Interest Rate and Refinancing Risks**

(As of March 2010)

	Domestic	External	Total
<b>Interest rate risk</b>			
Variable rate debt (percent)	56.4	20.2	39.3
<b>Refinancing risk</b>			
Debt maturing in <1 year (percent)	10.1	2.9	6.7

Source: Jamaican authorities; and authors' calculations.

The design of the JDX resulted in streamlined functioning of the public debt market. The new (benchmark) bonds—25 in total, comprised of 11 fixed, nine variable, three US\$-denominated, and two CPI-index bonds—replaced over 350 different securities in circulation. This was also expected to facilitate a more efficient price discovery and wider use of public yield data for pricing of private transactions. Appendix II contains a detailed description of post-JDX debt securities.

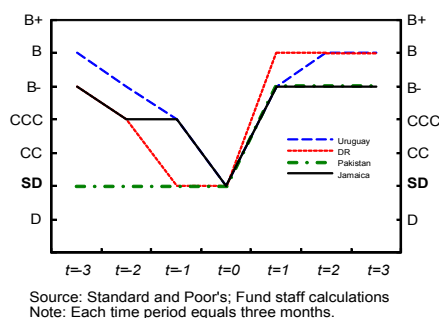
Although rating agencies downgraded domestic debt to “Selective Default” at the time of the launch of the exchange, within one week following the settlement date they upgraded the debt above the levels that existed prior to the exchange. Standard and Poors (S&P) moved its long-term foreign and local-currency sovereign credit ratings on Jamaica at B- (see Figure 8) noting “although the restructuring did not reduce the stock of the government's debt, it lengthened its maturity, improved the debt composition, and decreased debt interest payments.”<sup>14</sup> Moody's raised Jamaica's government bond ratings to B3 from Caa1 (foreign currency) and Caa2 (local currency) to reflect “diminished credit risks following the domestic debt exchange.”<sup>15</sup> Fitch Ratings moved its rating to B-, out of highly speculative. The consensus outlook was seen as positive by all three rating agencies.

<sup>13</sup> By the same token, with the share of variable bonds at 46 percent of total, a sustained reduction of interest rates would provide a substantial reduction in interest cost to the budget, adding to the savings/benefits of the JDX.

<sup>14</sup> “S&P Raises Jamaica Ratings out of Selective Default,” Feb.24, 2010, Dow Jones News Service.

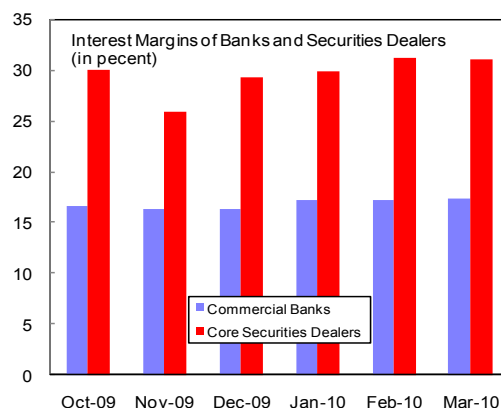
<sup>15</sup> “Moody's upgrades Jamaica's rating to B3 following debt exchange,” March 2, 2010, Moody's Investors Service Press Release.

Figure 8. S&amp;P's Pre- and Post-debt Restructuring Ratings of Select Sovereigns



The fallout of JDX on financial institutions was limited, reflecting positive market developments and institutional efforts to minimize the impacts. Financial institutions were proactive in their efforts to minimize interest income losses related to the JDX and enhance the robustness of balance sheets post debt exchange. In the period leading up to the exchange, SDs actively repositioned their books towards shorter-term liabilities (e.g. 30- and 90-day contracts), thus allowing for a rapid pass through of reduced interest earnings to clients. As a result, net interest income margins have largely remained unchanged relative to the pre-JDX period (see Figure 9).<sup>16</sup> To recoup lost interest income earned on government bonds, *commercial banks* reduced deposit rates and introduced new fees. In addition, they adopted a range of cost cutting and efficiency measures, including downsizing and compensation reform to reduce operating costs.

Figure 9. Interest Margins of Banks and SDs



Positive market developments since the launch of the debt exchange have also played an important role in helping to contain potential financial sector spillovers. Bank deposits remained stable and liquidity pressures in the SDs sector did not emerge. The fact that bonds

<sup>16</sup> Subsequently, dealers sought to unwind the increase in maturity mismatch risks resulting from the exchange through secondary market operations.

traded above par in the post-JDX period provided an important boost to institution's balance sheets and underlying capital positions. These positive market developments in combination with efforts by financial institutions to reduce operating costs and minimize JDX-related interest earnings loss helped preserve capital positions.

## V. LESSONS FROM THE JDX

### A. Factors Behind the Outcome

The key factors determining the outcome of the JDX and corresponding lessons learned can be summarized as follows:

- **Operational design:** The design of the exchange relied heavily on analysis of critical issues, such as: (i) stress testing of the debt exchange to secure the integrity of the financial system; (ii) bond holders' balance sheet needs to maximize the demand for the new instruments; (iii) legal implications of the exchange, including constitutional issues, to minimize potential sources of contention; and (iv) potential reaction of rating agencies to minimize the international fallout from the operation.
- **Burden sharing:** There was a perception that the burden of the exchange was being shared across the society to achieve a better outcome for the country as a whole. This was critical for making the accompanying fiscal consolidation plan acceptable to those directly affected, including tax payers and public sector employees.<sup>17</sup>
- **Communication strategy:** The debt exchange was presented as a critical component of a broad macroeconomic program (including comprehensive structural reforms) instead of a stand-alone operation. During the launching of the exchange, it was made clear that holdouts would not be allowed to gain any competitive advantage.
- **IMF involvement:** The debt holders' perception that IMF involvement was critical for: (i) addressing concerns of current account sustainability given the significant external shocks associated with the global financial crisis, which undermined credibility in domestic financial and foreign exchange markets; (ii) achieving high participation given that the debt exchange was a precondition for the Fund support; and (iii) ensuring that the government would adhere to the fiscal consolidation and structural reform program, which was critical given the government past behavior of systematic budget slippage.

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<sup>17</sup> There was a general understanding on the need to change course, away from a history of continued public debt expansion and government deficits, which had not delivered in terms of economic growth and improved standards of living.

The importance of these factors were discussed in a recent IMF report on emerging market sovereign debt restructuring experience of the last two decades (see IMF (2012) and the accompanying background paper, Das, Papaioannou, and Trebesch, 2012).

## **B. Going forward**

Despite its achievements, JDX arguably did not directly address the debt overhang problem. The stock of debt and its structure continue to pose risks for fiscal sustainability and policy slippages could put Jamaica right where it started before the JDX. Jamaica's debt outlook remains vulnerable to a wide range of issues including fiscal and structural, as well as to the external factors (such as the path of the global recovery).<sup>18</sup> JDX did not trigger any meaningful fiscal consolidation beyond the reduction of the interest bill. Instead, the sense of additional fiscal space created by lower interest bill gave way for more pressures on the public wage front, building permanent pressures into the fiscal outlook and weakening the overall/net impact of the exchange in the medium term. Another critical aspect that may have gotten worse around the timing of JDX (having been exacerbated by the global crisis and its implications on the domestic economy) that could jeopardize its achievement and debt sustainability in general is the contingent liabilities.<sup>19</sup>

All in all, there is an urgent need to implement policies that would help restore debt sustainability and investor confidence, as well as safeguard the stability of the financial sector. A multi-year credible fiscal adjustment framework would be required to put the debt ratio on a downward trajectory. In contrast to consolidation attempts in the past, this effort would have to be underpinned by efforts that would aim to substantially strengthen expenditure management and expand the scope of public liability management to include public entities, which have in the past had a significant drain on public resources, mostly taking place off budget. Jamaica's debt overhang is likely to be a key factor behind the weak economic growth and financial market volatility and until/unless addressed would remain a drag on economic progress for years to come.

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<sup>18</sup> These vulnerabilities are consistent with those outlined in Johnston and Montecino (2012).

<sup>19</sup> Over the years, the government of Jamaica has taken on large amounts of contingent liabilities (including guarantees and other commitments) that at least in some cases have been called, requiring fiscal resources to settle. The stock of debt guaranteed by the central government that is held by public enterprises amounts to US\$1.44 billion, equivalent to 12 percent of GDP as of 2010. Most of this debt is denominated in foreign currency (US\$1.1 billion). In addition, non-guaranteed loans of public enterprises amounts to US\$883 million, equivalent to 7 percent of GDP, which could have implications for the public debt if the servicing of it is taken over by the government.

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## **VI. APPENDIX I: FINANCIAL SYSTEM SUPPORT FUND**

A Financial Sector Support Fund (FSSF) was established with US\$950 million of IMF funds as a contingent measure to address possible negative impacts of the debt exchange on the financial sector. The FSSF was to be available to individual institutions that encounter specified problems, primarily liquidity, directly related to the debt exchange. Access to the fund was restricted to those financial institutions (banks, securities dealers and insurance companies) that participated at a rate of at least 90 percent in the debt exchange. In this context, the FSSF acted as an incentive to participate in the debt exchange.

The FSSF was established by the government of Jamaica and managed by the Financial Regulatory Council (FRC), an existing interagency body, chaired by BoJ, which was charged with overseeing the disbursement of funds under the FSSF.

The primary use of the FSSF was to provide liquidity support in the event of external funding calls or pressure on deposits or assets under management that were attributable to the debt exchange. The interest rate was to set to avoid any fiscal costs. Any borrowing from the FSSF was to be repaid within 6 months or else a punitive rate would begin to apply. Liquidity support above a threshold level (as a percent of the capital of the borrowing institution) would trigger increased regulatory intervention. A regulatory circular would be issued specifying supervisory actions to be taken when emergency liquidity support reached predefined trigger levels. Banks and nonbank financial institutions would be intervened if a maximum level was breached. At an aggregate level, the government was required to report to Fund staff once 50 percent of the FSSF funds had been disbursed, at which time the use of the FSSF would be reviewed. The uses and funding of the FSSF were also to be re-examined during regular program reviews.

All financial institutions that accessed the FSSF for capital support would be subject to enhanced monitoring by the BOJ or FSC. Deposit taking institutions and nonbank institutions would be required to submit a five-year business plan by December 2010 and December 2011 respectively, substantiating their viability and ability to comply with the minimum capital requirements over a 2 to 3-year horizon. GOJ capitalization support would come with additional strings. GOJ would place representatives on the entity's board of directors, and supervisory oversight would be more intensive, reporting requirements more demanding, while operations might be restricted, depending on circumstances.

## VII. APPENDIX II: NEW GOVERNMENT BENCHMARK SECURITIES POST-JDX

	Instrument Type	Prospectus Name	Currency	Issue Date	Maturity Date	Initial Interest Rate	Reset Margin	Reset Basis	Call Option	Prudential Treatment
1	Fixed Rate USD Benchmark Notes	FR 6.75% USD BM Notes 2013	USD	24/02/2010	22-Feb-13	6.75			Non-call life	Liquid Asset
2	Fixed Rate USD Benchmark Notes	FR 7.00% USD BM Notes 2014	USD	24/02/2010	24-Feb-14	7.00			Non-call life	None
3	Fixed Rate USD Benchmark Notes	FR 7.25% USD BM Notes 2016	USD	24/02/2010	24-Feb-16	7.25			Non-call life	None
4	Variable Rate Benchmark Investment Notes	VR BM Investment Note 2011	JMD	24/02/2010	24-Aug-11	11.75	1.00	1mth-TB	Any time	Liquid Asset
5	Variable Rate Benchmark Investment Notes	VR BM Investment Note 2012	JMD	24/02/2010	24-Aug-12	11.75	1.00	1mth-TB	Any time	Liquid Asset
6	Variable Rate Benchmark Investment Notes	VR BM Investment Note 2013	JMD	24/02/2010	23-Aug-13	11.75	1.00	1mth-TB	Any time	None
7	Variable Rate Benchmark Investment Notes	VR BM Investment Note 2015	JMD	24/02/2010	24-Feb-15	11.75	1.25	3mth-TB	Any time	None
8	Variable Rate Benchmark Investment Notes	VR BM Investment Note 2017	JMD	24/02/2010	24-Feb-17	11.75	1.375	3mth-TB	Non Call-5	None
9	Variable Rate Benchmark Investment Notes	VR BM Investment Note 2018	JMD	24/02/2010	23-Feb-18	11.75	1.375	3mth-TB	Non Call-7	None
10	Variable Rate Benchmark Investment Notes	VR BM Investment Note 2020	JMD	24/02/2010	24-Feb-20	11.75	1.50	3mth-TB	Non Call-8	None
11	Variable Rate Benchmark Investment Notes	VR BM Investment Note 2027	JMD	24/02/2010	24-Feb-27	11.75	1.50	3mth-TB	Non Call-10	None
12	Variable Rate Benchmark Investment Notes	VR BM Investment Note 2032	JMD	24/02/2010	24-Feb-32	11.75	1.50	3mth-TB	Non Call-16	None
13	CPI-Indexed Investments Notes	Benchmark CPI 2022 Notes	JMD	24/02/2010	24-Feb-22	2.00		JI	Non-call life	None
14	CPI-Indexed Investments Notes	Benchmark CPI 2030 Notes	JMD	24/02/2010	22-Feb-30	2.50		JI	None	None
15	Fixed Rate Benchmark Investment Notes	FR 11.00% BMI Notes 2010 (A)	JMD	24/02/2010	21-May-10	11.00			Non-call life	Liquid Asset
16	Fixed Rate Benchmark Investment Notes	FR 11.25% BMI Notes 2010 (B)	JMD	24/02/2010	24-Aug-10	11.25			Non-call life	Liquid Asset
17	Fixed Rate Benchmark Investment Notes	FR 11.75% BMI Notes 2011 (A)	JMD	24/02/2010	24-Feb-11	11.75			Non-call life	Liquid Asset
18	Fixed Rate Benchmark Investment Notes	FR 12.00% BMI Notes 2012	JMD	24/02/2010	24-Feb-12	12.00			Non-call life	Liquid Asset
19	Fixed Rate Benchmark Investment Notes	FR 12.25% BMI Notes 2013	JMD	24/02/2010	22-Feb-13	12.25			Non-call life	None
20	Fixed Rate Benchmark Investment Notes	FR 12.50% BMI Notes 2014	JMD	24/02/2010	24-Feb-14	12.50			Non-call life	None
21	Fixed Rate Benchmark Investment Notes	FR 12.625% BMI Notes 2016	JMD	24/02/2010	24-Feb-16	12.625			Non-call life	None
22	Fixed Rate Benchmark Investment Notes	FR 12.75% BMI Notes 2019	JMD	24/02/2010	22-Feb-19	12.75			Non-call life	None
23	Fixed Rate Benchmark Investment Notes	FR 12.875% BMI Notes 2024	JMD	24/02/2010	23-Feb-24	12.875			Non-call life	None
24	Fixed Rate Benchmark Investment Notes	FR 13.25% BMI Notes 2040	JMD	24/02/2010	24/02/2040	13.25			Non-call life	None
25	Fixed Rate Benchmark Investment Notes	FR 11.75% BMI Notes 2011 (B)	JMD	24/02/2010	24-Feb-11	11.75			Non-call life	None