



**CERPAC:**  
First Future Flow  
Securitisation in Nigeria Successfully Takes Off

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**Background;**

**Future flow financing, an innovative funding mechanism.** Nigeria needs to explore the potential of other forms of innovative financing to accelerate and sustain its growth even as non-traditional sources of finance have grown in importance. In this context, future flow securitisation technology deserves serious attention as a viable alternative innovative funding mechanism for corporates looking to raise capital using the strength of their future predictable cashflows. In a typical future flow securitisation, a company issues debt instruments whose repayment of principal and interest to investors is secured by payments on the future cash receivables the company expects to generate through its normal course of operations. To issue this debt instruments, special purpose vehicles (SPVs) or trusts are usually used as conduits. While the repayments of the debt is largely affected by the generation of future receivables, the success of future flow securitisation transactions is hinged on the company's continuing operations.

**Future flow securitisation has been widely used in many countries.**

Issuance of future flow backed bonds has registered strong growth in recent years and recent developments suggest that growth should remain strong going forward. Annual future flow financing issuance have exceeded \$30billion globally, with more growth ahead. The first future-flow transaction was undertaken in 1987 by Mexican state-owned telephone company, Telmex, with the securitization of telephone receivables. While Sub-Saharan Africa remain dormant for future flow financing, overall, African Export -Import Bank facilitated the first future flow securitisation transaction in Africa, where it arranged for Ghana to borrow US\$40million in favour of a development bank, backed by Western Union remittance receivables.

In Nigeria, the first successful future flow securitisation transaction in the Debt Capital Markets (DCM) was undertaken by CERPAC Receivables Funding SPV Plc in 2017, with the securitisation of the Combined Expatriate Residence Permit and Alien Card receivables (CERPAC) due to Continental Transfert Technique Limited (CTTL); a deal arranged by DLM Advisory Partners (DLMAP). The success of the transaction means that more future flow securitisation transactions will be recorded in Nigeria in the short to medium term and DLMAP is expected to continue to champion these types of transactions. DLMAP has been active in other securitisation transactions including Asset-Backed/Mortgage-Backed and Loan securitisations. In the mid-term, we believe that the Nigerian fure flow securitisations market will grow moderately to over ₦50 billion.

“In a typical future flow securitisation, a company issues debt instruments whose repayment of principal and interest to investors is secured by payments on the future cash receivables the company expects to generate through its normal course of operations”

**Typical assets used in future flow securitisation transactions**

Historically, the underlying assets used in future flow securitisations include; oil and gas export receivables, telephone receivables, workers' remittances receivables, tax receivables, migrant remittances receivables and even export receivables to be generated by developing new investment projects. However, since 2000, Payment Rights have been the dominant asset class.

**Table 1: Future-Flow Securitization Worldwide, by Asset, 1992–2000**

Sources of collateral	Volume (\$'m)	Share (%)	No. of transactions	Average size (\$'m)
Oil and gas	26,250	31.3	63	417
Direct Premium Remittance System (DPRs)	23,084	27.5	122	189
Remittances	1,782	2.1	16	111
Credit card vouchers	13,044	15.6	63	207
Minerals and metals	9,164	10.9	55	167
Agriculture	2,705	3.2	22	123
Ticket receivables	1,486	1.8	8	187
Telecoms	1,310	1.6	15	87
Others	4,978	5.9	23	216
<b>Total</b>	<b>83,803</b>	<b>100</b>	<b>387</b>	<b>1,704</b>

Sources; Fitch Ratings, Moody's, Standard & Poor's



### About the Sponsor/Service

**Continental Transfert Technique Limited plays the critical role of Service/Sponsor/Seller under the transaction.** CTTL is a private limited liability company incorporated on the 26<sup>th</sup> of July 1984 with the aim of revolutionizing and delivering cutting-edge biometrics data capturing solutions and creating value for its stakeholders. CTTL specialises in secure systems integration, particularly in automated systems for e-governance and the authentication of people, objects and documents, leveraging their expertise in biometric technology. The company is part of a larger combination of companies under the Contec Global Group; a company with long operational and established track records in several developing countries, and a broad offering of products and services, including energy, infrastructure, hospitality, agriculture/commodity trading, secure technologies, and car manufacturing among others. The company is a technical partner to the Federal Government of Nigeria (FGN) on the CERPAC project. The CERPAC Scheme, and the Intelligent Immigration Gate Management Scheme and Trusted Travelers' Scheme (also known as E-pass), are CTTL's flagship projects in Nigeria.

**Evaluation of the CERPAC and E-pass Projects.** The CERPAC contract was awarded to Contec Global on the back of the CERPAC Contract Agreement dated 25 May 1999 entered into between the Federal Ministry of Internal Affairs (now Ministry of Interior) and Contec Global, through CTTL to provide the raw materials and technological support for the issuance of CERPAC Cards to expatriates in Nigeria. The CERPAC GREEN CARD is a document that allows foreigners to reside in Nigeria and carry out an approved activity as specified on the permit, or to accompany a resident or citizen of Nigeria as a dependent. The E-pass biometric project is designed by the FGN to ensure that all non-ECOWAS immigrants visiting Nigeria with a Tourist or Business Visa pay a certain amount of money if they intend to stay beyond an aggregate of 56 days in a year.

There have been 4 addenda to the original CERPAC Contract Agreement, the latest of which was executed in 2014. Under the terms of the fourth addendum of the CERPAC Agreement, CTTL is expected to supply and sell 900,000 CERPAC forms with a three (3) year extension commencing 18th December 2014 and expiring on the earlier of 3-years or expiration of number of cards. It is imperative to note that, CTTL currently have the sole right to operate the CERPAC project and continues to operate and improve on the CERPAC Scheme for the Nigerian Immigration Service with a much more enhanced security platform. The company has established 28 additional CERPAC production centres across the country and was totally financed by CTTL.

“ CTTL specialises in secure systems integration particularly in automated systems for e-governance and the authentication of people, objects and documents, leveraging expertise in biometric technology ”

The 4th addendum to the CERPAC Contract Agreement adjusted the revenue sharing formula to allow CTTL recoup its investments from the proceeds of the sale of the forms until the total cost of establishing the 28 additional CERPAC production centres is fully recouped. The new revenue sharing formula indicates that 55% of the cash inflows is payable to CTTL. This comprises of 40% as amended in December 2018 under the Tripartite Operative Agreement, and additional 15% for operating expense. Enforcement cost of 7% is payable to the Nigeria Immigration Service, while 33% and 5% are payable to the Federal Government of Nigeria and Ministry of Interior for effective monitoring of the Scheme. In December 2018, the Federal Ministry of Interior increased the price of the CERPAC form from US\$1,000 to US\$2,000 per annum which has already been implemented.

**Rationale for a Future Flow Securitisation structure.**

Prior to the future flow backed bond issuance, CTTL relied on short term bank loans which were relatively expensive to fund its projects. Given the current high interest rate environment, and the need to improve its debt maturity profile, there was a need for the company to secure long term funding by tapping the capital markets in order to take advantage of new investment opportunities and expand its scale of operations. Consequently, the company launched a ₦25.0billion Future flow Securitisation financing programme in 2017, linked to its future receivables from the CERPAC form sales. Cashflows from the sale of CERPAC forms have benefited from the relative political stability and devaluation of the naira. As CTTL's operational stability depends on the CERPAC and E-pass projects, we considered the business profile to be strong and support the programme size funding approach.

The decision to adopt a future flow structure among other funding sources available was supported by the following; 1) a future flow transaction structure would result in the bond being rated higher than would have been obtained in a plain-vanilla bond as the bond payment obligations are tied to the stable cashflow receivables of CTTL; 2) CTTL's business involves the sale of a product with stable demand in the foreseeable future as a good number of expatriates are expected to travel to and work in Nigeria in any given year. This therefore provides stable and predictable cashflows upon which debt securities can be issued. For example, as at December 2017, revenue from the sale of the CERPAC forms accounted for c.91% of CTTL's total revenue; 3) securitisation of the receivables will provide relatively cheaper and longer duration funding; 4) CTTL has entered into an ironclad agreement with the FGN and other parties that guarantees its rights to cashflows from the CERPAC sales and defines the maximum number of CERPAC forms that need to be sold by CTTL; 5) there existed 14-years of collection history by CTTL under the CERPAC scheme This therefore provides a strong level of certainty on the amount of receivables expected over the life of the CERPAC project. The financing structure has so far enabled the issuing SPV to be rated higher than CTTL and so allow CTTL to obtain financing at much lower interest rates than currently obtainable from commercial banks and for much longer tenured borrowings.

“ The company launched a ₦25.0billion Future flow Securitisation financing programme in 2017, linked to its future receivables from the CERPAC form sales ”

**The CERPAC Future Flow Securitisation Transaction.**

**The Issuer, CERPAC Receivables Funding SPV Plc (CRFS)** is a special purpose company set up in Nigeria and incorporated as a public limited liability company. The Issuer was set up as a future flow company which raises finance via the issuance of debt and/or equity securities to purchase receivables from entities such as CTTL.

**Sale by Assignment of Receivables.** Under the structure, the seller and the issuer entered into a Receivables, Sale and Purchase Agreement (RSPA) under which the issuer will make payments totaling ₦25billion to the seller in exchange for all its rights, title, and interest in all its future receivables due to the seller from the sales of the CERPAC forms which is effective from the period commencing on the transaction closing date and expiring on the date upon which the obligations of the issuer under the transaction are fully satisfied.

**Purchase Price of Receivables.** Pursuant to the RSPA entered into between the seller and the issuer on the Closing Date, and in consideration of the purchase price, the seller (CTTL) sold, assigned and transferred to the Issuer (SPV), all of its rights, title and interest in, to and under the receivables existing as of the closing date, if any, and all the receivables thereafter originated by or accruing to the seller for the duration of the sale period. The issuer shall fund the Purchase Price with the proceeds of the bonds issued and purchased by investors, and the sale of ordinary shares of the issuer. The outstanding balance of the purchase price thereafter will be duly acknowledged and provided for by the issuance of a subordinated bond to the seller. Both the ordinary shareholders and the holder of the Subordinated Bond represent Residual Interest(s). In the case where only one of the two is issued, then the term shall refer to the only one that was issued. Both parties shall have Residual Claims (which term shall mean/refer to the Available Residual Payments which refers to the naira amount to be collected by the bond trustee towards the redemption of the bond on the payment frequency), accruing from the receivables to the bondholders.

**Servicing of Receivables.** The Receivables is administered by the seller in its capacity as a servicer under the terms of the Servicing Agreement entered into with the issuer. The collections from the sales proceeds account (SPA) is deposited in a Master Transaction Collections Account (TCA) and then a weekly deduction amount is transferred into a Bond Collection Account (BCA) maintained with the Account Bank/Bond Trustees.

**Seller Collateral.** The seller, as the legal and beneficial owner granted for the benefit of the issuer, security over all pledged assets of the seller under the

“ The Issuer shall fund the Purchase Price with the proceeds of the Bonds issued and purchased by investors, and the sale of ordinary shares of the Issuer

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## Nigeria | Transaction | Future Flow Securitisation

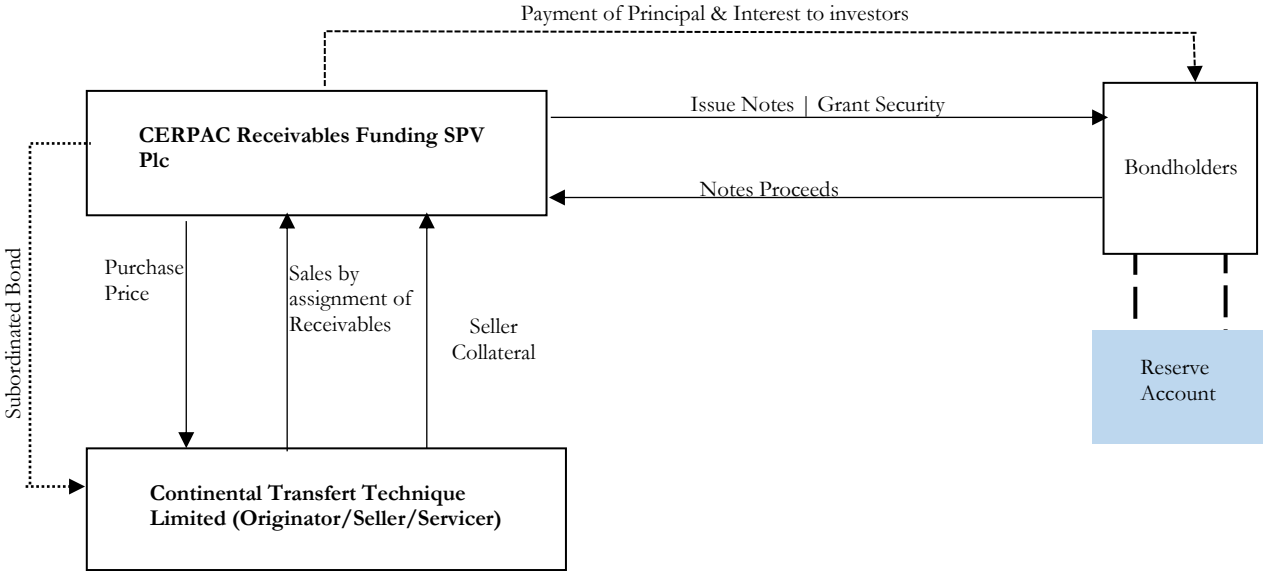
transaction as continuing security for the generation and delivery of future receivables, as well as the performance and discharge of all the seller's obligations in generating the future receivables.

**Issuer Collateral.** Pursuant to a Security Deed entered into between the issuer and the security trustees, the issuer granted to the Security Trustees for the benefit of the secured parties, a fixed charge over the cash proceeds in the Transaction Accounts. Prior to and following an occurrence of an enforcement time, the Bond Trustee and Security Trustee are empowered to exercise direction and control over all fund flows into the transaction accounts for the benefit of the Investors.

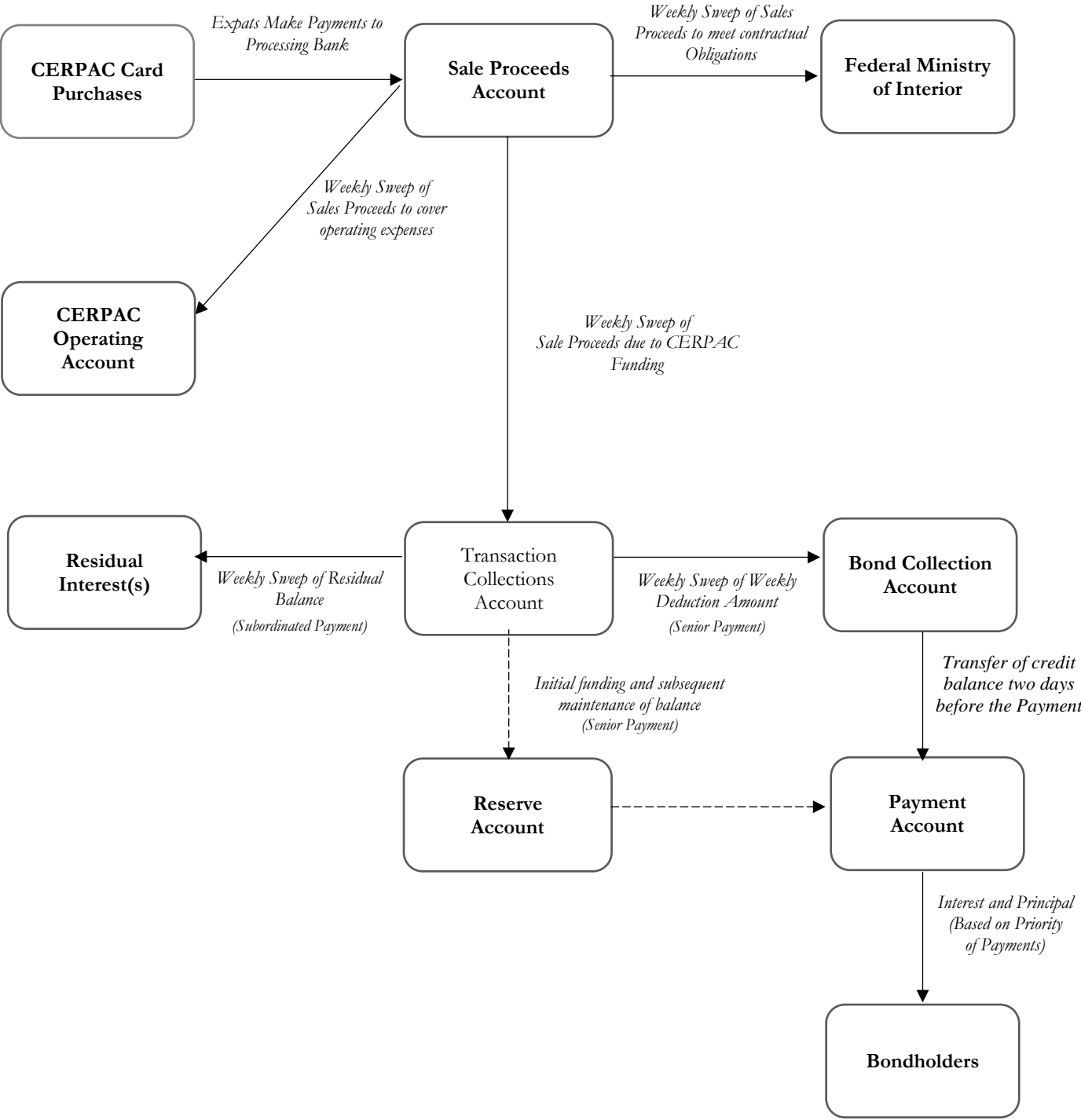
**Collection of Receivables.** Pursuant to the assignment of rights to all future receivables by the seller to the Issuer, in accordance with the terms of the Receivables, Sale and Purchase Agreement entered into by the relevant parties; the seller instructed the collection bank to, on a weekly basis, pay directly into the Transaction Collection Account (TCA) the share of daily sale proceeds of CERPAC forms due to the seller.

**Funding the Reserve Account.** The Reserve Account is available to pay interest and principal on the bonds in the event that the aggregate outstanding cash balance in the BCA are insufficient to make the payments due on a Payment Date. The Reserve Account was funded on the closing date with an initial amount equal to 50% of the aggregate annual principal and interest due on the Bonds. Following any drawings from the Reserve Account, the account is replenished from weekly deductions made from the Master Transaction Collection Account such that the Reserve Account will be funded at all times to the maximum amount equal to 50% of the aggregate annual principal and interest due on the bonds.

The CERPAC Future Flow Securitisation Transaction Structure.



Transaction Accounts Cashflow and financing structure



Key Transaction Documents/Legal Agreements that underpinned the transaction	Relevant Parties	Description
<b>Receivables Sales and Purchase Agreement</b>	Seller and Issuer	The Issuer and Seller enter into a Receivables Sale and Purchase Agreement pursuant to which the Seller assigns to the Issuer without recourse, all of its rights and interest in its receivables for the duration of the sale period.
<b>Trust Deed</b>	Issuer and Trustee	The Issuer and the Trustee enter into a trust deed pursuant to which the Notes is constituted. The trust deed sets out the terms and conditions of the Notes as well as priority of payments.
<b>Account Bank &amp; Collections Agreement</b>	Issuer, Account Bank, Collection Agent and Trustee	The parties enter into this agreement pursuant to which the Account Bank agreed to open and maintain the debt service accounts while the Collections Agents will maintain the permitted accounts.
<b>Paying Agent and Agency Agreement</b>	Issuer, Trustee, Paying Agent, Registrar and Account Bank	The parties enter into this agreement pursuant to which the Paying Agent agreed to act as agent for the payment of all the Issuer's payment obligations on the applicable due date. The Registrar agreed to maintain the Notes Register and provide such ancillary services as set out in the agreement
<b>Calculation Agency Agreement</b>	Issuer, Note Trustee and Calculation Agent	The parties enter into this agreement pursuant to which the Calculation Agent agreed to make calculations and any required adjustment to the deduction amounts due the Notes or the subordinated note
<b>Liquidity Facility Agreement</b>	Issuer, Trustee and Liquidity Facility Provider	This agreement allows the Issuer to be entitled to make drawings if, and to the extent that, after the amounts available on the Reserve Account, there is a shortfall in the collections available to meet the items of the priority of payment.
<b>Subordinated Note Agreement</b>	Issuer and Seller	The Issuer and Seller enter into this agreement pursuant to which the Subordinated Note shall be issued as an acknowledgement of indebtedness of the Issuer of the outstanding purchase price payable on the receivables by the Issuer to the Seller under the Receivables Sale and Purchase Agreement
<b>Security Deed</b>	Issuer, Seller and Security Trustee	The parties enter into this agreement in consideration of the purchaser purchasing the receivables and as security for the obligation of the Seller to generate and deliver the receivables to the purchaser in pursuance of the Receivables Sale and Purchase Agreement, to grant the security interests constituted in favour of the Security Trustee.

**Cash diversion risk mitigated with payment collection mechanics.**

CERPAC cash flows have been structured to be less susceptible to diversion as the transaction structure mitigates the risk with mandatory weekly deductions and payments to transaction-specific collection accounts by a third-party processing bank, managed by the bond trustee until scheduled debt service is paid to investors.

**Credit enhancement and other key consideration by rating agencies.**

**The transaction is structured to have maximum investors' protection.** In order to obtain a high rating, certain credit enhancement structures were put in place and form an important part of the transaction which enabled the transaction to achieve investment grade ratings. The credit enhancement forms key assumptions used in formulating the issuer's funding model. Specifically, credit enhancements structures incorporated in the transaction include; Over-collateralization, Early amortization trigger (EAT), Cash Reserve Account, and Cash Accumulation Trigger.

**Cash collection.** The cash collection procedure put in place ensures effective cash collection management and eliminates cash diversion risk. The proceeds from the sale of the CERPAC forms accruing to CTTL are paid into a Master collection account in the joint names of the seller and the issuer maintained by the Trustee. After netting off an amount required to meet debt payment obligation on each payment date, collections representing subordinated claims on cash flows accruing to the Issuer from the assigned CERPAC Sales proceeds are transferred into the operating accounts of CTTL.

**Over- collateralization**

We highlight that one of the most important forms of credit support to the future flow transaction is the creation of over-collateralization. The transaction is significantly over-collateralised by the sale of more receivables than are needed to cover the payment of the bonds; the surplus receivables above the aggregate value of the bonds is funded by the residual interests. This ensures that the bonds have the senior claim and the subordinated bond or equity investors (if any) provide very strong credit protection. The issuer is obliged to pay the available residual payment to the residual interests only to the extent of funds being available to the issuer from collections on the receivables after satisfaction of its senior obligations. The residual interest is fully subordinated to any rights of the secured obligations of the issuer. The residual payments due will be derived from the residual cash flow in the Transaction Collection Account after the subtraction of the weekly deduction amount. The bondholders are protected by the residual interests who will absorb the first loss and due to this credit support, the Bonds are significantly protected from default risk arising from a decline in the Receivables through the absorption of initial losses by the Residual Interests.

“ Specifically, credit enhancements structures incorporated in the transaction include; Over-collateralization, Early amortisation trigger, Cash Accumulation Trigger and Cash Reserve Account ”



**Early Amortisation Triggers (EAT);**

The Early Amortisation Trigger is designed to enhance the transaction's credit quality by directing all collected cash flows of the Seller to repay investors in case an event occurs that could potentially threaten the performance of the transaction. The key early amortisation trigger event under the transaction include; debt service cover shortfall event – If the DSCR drops below the periodic or monthly base case 1.2x. The triggers provide protection for investors through early detection of deteriorating credit qualities of the seller or its receivables.

**Reserve Account.** The Reserve Account was funded on the Closing Date with an initial amount equal to 50% of the aggregate annual principal and interest due on the Bonds. Following any drawings from the Reserve Account, the account will be replenished from monthly deductions made from the Transaction Collection Account such that the Reserve Account is expected to be funded at all times with a maximum amount equal to 50% of the aggregate annual principal and interest due on the Bonds.

**Cash Accumulation Trigger (CAT).** In the event the number of CERPAC forms sold in any given month exceeds a monthly threshold of 5,500 forms (weekly equivalent threshold of 1,375 cards), this will result in a Cash Accumulation Trigger. Following the occurrence of a Cash Accumulation Trigger, the excess cash accruing to the Seller from each additional unit of CERPAC forms sold, over the weekly threshold of 1,375 forms, and transferred into the Transaction Collections Account will be retained and deposited into a Cash Accumulation Account.

*Typically, in addition to the above listed credit enhancements, other credit considerations by rating agencies for future flow transaction of this nature before a good rating is assigned include; Transaction structure, originator's credit assessment, business continuity evaluation, cash collection mechanism evaluation, strength and size of Debt Service Coverage Ratio, and political risk evaluation.*

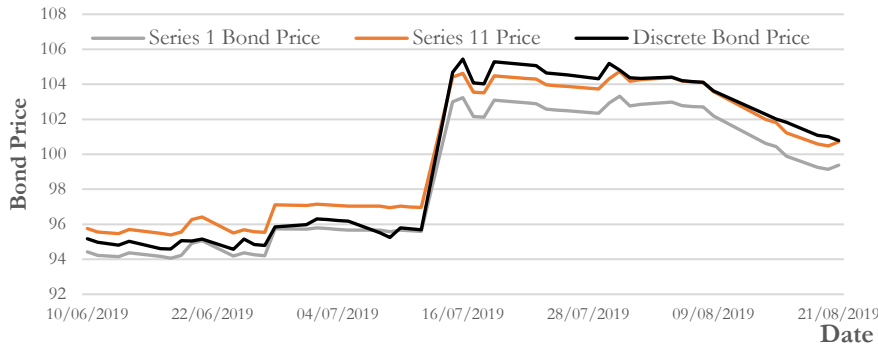
**Summary of issuances under the CERPAC Future Flow**

The bond structure is reasonably complex and is the first of its kind in Nigeria. However, strong underlying contractual arrangement with government coupled with strong cash flows, along with transaction structure has made the bonds attractive to investors. Total issuance under the CERPAC future flow securitisation transaction currently stands at ₦18.97billion, with the first issuance being a ₦4.87billion–Discrete bond which was issued in December 2017 and priced to a yield of 18.25%. CRFS constituted a ₦25.0billion funding programme under which the issuer has so far undertaken three successive issuances; ₦4.87billion–Discrete bond; ₦12.5billion Series 1 bond priced to yield of 15.25%; and a ₦1.6billion Series 2 bond with a yield of 15.50%. The bonds are amortising with 5-year tenors each, and with a weighted average yield of 16.04% for all issuances. All the bonds rank pari-passu among themselves and all other secured obligations of the issuer.

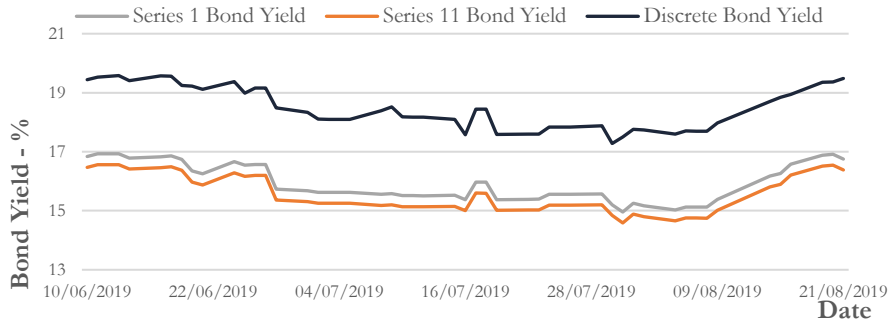
Bond Issued	Bond size ₦'bn	Yields (%)	Tenor	Issue Date	Outstanding Bal ₦'bn
Discrete	4.87	18.25%	5-years	Dec., 2017	3.79
Series 1	12.5	15.25%	5-years	May, 2018	10.02
Series 2	1.6	15.50%	5-years	July, 2018	1.37
<b>Total</b>	<b>18.97</b>	<b>16.04%</b>			<b>15.18</b>

The three (3) series of the CERPAC bonds are listed on the FMDQ Securities Exchange platform. While the bonds are currently being traded on the corporate bond segment and with rising demand, the prices of the bonds have been increasing (since being issued at par, the bonds have traded in the range of ₦95.72 to ₦105.44), thereby providing bond holders with opportunities for capital gains. As at the close of business 21 August 2019, yields have increased 123bps to 19.48% for the Discrete Bond, 151bps to 16.76% for the Series 1 Bond, and 88bps to 16.38% for the Series 2 Bond.

“ CRFS constituted a ₦25.0billion funding programme under which the issuer has so far undertaken three successive issuances; ₦4.87billion–Discrete bond; ₦12.5billion Series 1 bond priced to yield of 15.25%; and a ₦1.6billion Series 2 bond with a yield of 15.50%. ”

**Fig. 1: CERPAC Bonds price Trend on FMDQ (10<sup>th</sup> June – 21<sup>st</sup> August 2019)**

*source: FMDQ, DLM Research*

“ Price tightening due to drop in interest rates and strong performance ”

**Fig. 2: CERPAC Bonds Yield Trend on FMDQ (10<sup>th</sup> June – 21<sup>st</sup> August 2019)**

*source: FMDQ, DLM Research*

“ Yield curve tightened since issuance based on better than expected performance ”

### Transaction and Sponsors' ratings.

The principal credit rating agencies for the transaction are Global Credit Ratings Co., Agosto & Co. Ltd and DataPro. We note that factors such as: transaction structure, credit enhancement, originator's credit assessment, business continuity evaluation - contractual relationship with the Federal Government, collection mechanism evaluation and political risk evaluation among other considerations were the key factors considered by the rating agencies before ratings were accorded to the transaction and sponsor. At the time of closing of the transaction, the three rating agencies accorded the securitisation transaction a rating of AA-(NG), while the Sponsor/Serviceer was assigned a long term and short-term national scale ratings of BBB+(NG) and A2(NG) respectively, with a stable outlook, representing four notches below the transaction rating. The transaction rating underpins low cash diversion risk, as well as strong structural protections in place. The ratings support our view that the perceived political risk inherent under the CERPAC Scheme is insignificant. The credit strength of the transaction is linked to the performance of the CTTL business model under the CERPAC scheme to continue operating and the strength of CERPAC Receivables flows.

## Overview of the CERPAC Receivables

**Expected cash flows from the sales of CERPAC forms.** The receivables under the transaction are the total cash amount accruing to Continental Transfert Technique Limited (Servicer) from the sales of the CERPAC forms. Based on the last contract revision in December 2014, CTTL is expected to supply and sell an additional 900,000 CERPAC forms. As at December 2018, the total cumulative forms sold stood at 345,605, indicating outstanding balance of 554,395. The Issue is over-collateralized by the sales of the CERPAC forms with a value estimated at ₦219.25billion representing the value of CERPAC receivables expected to accrue to the Issuer from the outstanding forms, thus giving a Receivables Cover of 9.33 times relative to the outstanding bond balance of ₦23.50billion (principal and interest).

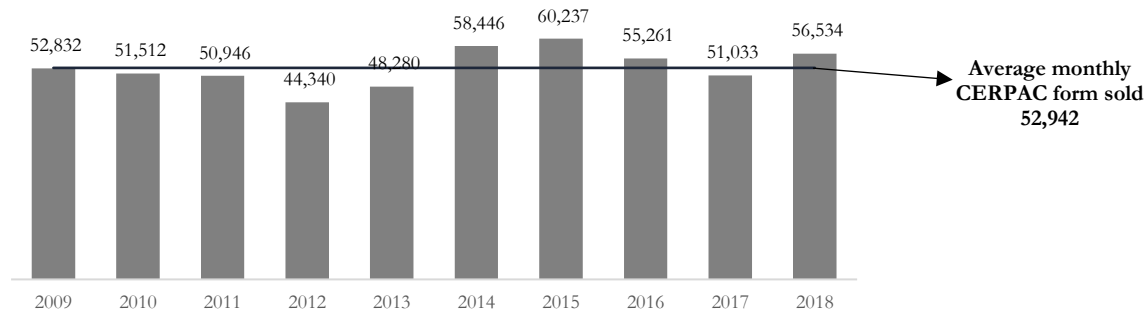
**Table.2: CERPAC Receivables highlights**

CERPAC Receivables highlights	Amount
Total number of CERPAC forms to be sold	900,000
Total number of forms sold as at Dec 2018	345,605
Total outstanding forms to be sold	554,395
Last ten years average monthly forms sold	4,412
Last five years average monthly forms sold	4,692
Last ten years highest monthly forms sold	6,108
Last five years highest monthly forms sold	6,108
Last ten years minimum monthly forms sold	2,619
Last five years minimum monthly forms sold	3,253
Last ten years maximum annual forms sold	60,237
Last ten years minimum annual forms sold	44,340
Last five years maximum annual forms sold	60,237
Last five years minimum annual forms sold	51,033
Average price per form (USD)	1,970
Exchange rate (₦/US\$)	365.00
Total expected receivables (₦)	398,637,724,750
Allocation to CERPAC (%)	55%
Allocation to CERPAC (₦)	219,250,748,613
Bond outstanding balance (₦)	23,497,203,433
Estimated Receivables Cover	9.33x
Estimated DSCR till maturity of the Bonds (Base Case)	3.56x
Estimated DSCR till maturity of the Bonds (Worst Case)	2.78x

**Overview of historical CERPAC Forms sales.** The annual CERPAC forms sold has been uneven and randomly distributed as upside swings are cancelled out with declines (**Fig 3**). Historically, forms sold in December followed a predictable trend, reflecting seasonality effect (**see table 3**). For a ten-year period commencing from 2009 – 2018, 65% of month-on-month CERPAC forms sold ranged between 4,000 to 4,999, another 20% of the forms sold ranged between 5,000 to 5,999. Overall, 85% of monthly collections are between 4,000 and 5,999. (**see table 4**). Given that there are fewer low CERPAC forms sold month-to-month over the review period, hence, frequency distribution of forms sold is negatively skewed as the volume of monthly forms sold fall toward the higher side of the scale (**Fig.4**). Prior to the bond issuance, it was estimated that it will take up to 13 years to sell the remaining forms. However, given the current run rate, we are of the view that it will now take between 10 - 11 years to sell the remaining forms. This is 2x the expected maturity of the bonds.

## Nigeria | Transaction | Future Flow Securitisation

Fig. 3: Total annual CERPAC Forms sold 2009 – 2018

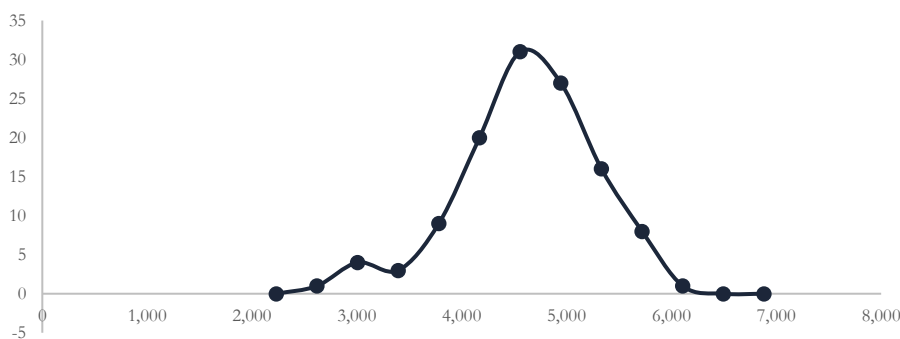


Source: CTTL, DLM Research

Table 3. Ten years historical monthly CERPAC Forms sold

Month	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
January	4,189	3,865	3,699	2,619	4,172	4,215	5,127	5,191	4,406	4,906
February	4,440	4,337	4,323	4,972	4,124	4,604	4,677	4,723	4,121	4,506
March	5,122	5,618	5,047	4,741	4,045	6,108	5,243	4,995	4,995	4,915
April	4,671	4,182	3,545	3,720	4,134	5,585	4,449	5,377	3,931	4,967
May	4,354	4,296	4,916	3,000	4,397	5,252	4,816	4,980	4,723	5,438
June	4,776	4,761	4,715	3,001	3,823	4,611	5,644	4,998	4,004	4,807
July	4,104	3,912	4,370	3,002	4,207	4,439	5,385	4,192	4,110	4,680
August	4,230	4,447	4,344	3,111	3,518	4,300	4,901	4,486	4,028	4,251
September	4,811	4,120	4,448	4,258	4,199	5,258	4,620	3,988	3,850	4,087
October	4,617	4,426	4,072	4,266	4,087	4,737	5,686	4,181	4,388	5,406
November	4,089	4,309	4,068	4,719	4,345	5,373	5,203	4,724	4,902	5,318
December	3,429	3,239	3,399	2,931	3,229	3,964	4,486	3,426	3,575	3,253

Fig. 4: Frequency Distribution of monthly CERPAC Forms sold 2009 – 2018



Source: CTTL, DLM Research

Table 4: Distribution of monthly CERPAC Forms sold 2009 – 2018

2,619–2,999	3,000–3,999	4,000–4,999	5,000–5,999	6,000–6,999
0.83%	13.33%	65%	20%	0.83%

“ 85% of monthly collections are between 4,000 and 5,999 forms per month ”



**Key determinants of the CERPAC Receivables.** In estimating future Receivables, we believe that variables such as; a significant fall in expected sales of CERPAC forms, future prices of CERPAC forms, exchange rate movements, and allocations to CTTL under the contract, among other consideration are key factors that may impact future receivables and the servicers ability to meet its obligations under the transaction. To the extent that the contract is an upward review only contract, a review in the price of the CERPAC forms is expected in 2022 – three years after the implementation of the new fee. This in our view, eliminates the impact of an adverse movement in the price of CERPAC forms on future Receivables. We noted the implementation of a reduction in cash allocation to CTTL to 55%, however, we highlight that the impact of this reduction on receivables have been diluted with a corresponding increase in the price of CERPAC forms from \$1,000 to \$2,000 Naira equivalent. This has brought the DSCR to an average of 3.80x per month since the price increase.

“ To the extent that the contract is an upward review only contract, a review in the price of CERPAC forms is expected in 2022 – three years after the implementation of the new fee

”

#### **Estimating CERPAC Receivables;**

In deriving future receivables, Normalised Monthly Sales of the CERPAC forms were estimated for the different months over the last ten-year period commencing from 2009. We assumed four scenarios as follows;

#### **Scenario 1 – Best case.**

In our best-case scenario, we took the highest number of monthly forms sold over a ten-year period commencing from 2009 and applied a discount of 10% to achieve monthly average of 4,802 forms. Based on our estimates, the expected annual number of CERPAC forms to be sold is 57,642 and allocation of the CERPAC form sales proceeds due to CTTL is ₦22.80.82billion (see table 6) with DSCR of 4.02x.

#### **Scenario 2 – Base case.**

In deriving our base case, we normalised monthly sales of the CERPAC forms for different months by taking the average monthly sales for each month over a ten-year period commencing from 2009 to achieve monthly average of 4,412 forms, which effectively tracks historical forms sold. The expected annual number of CERPAC forms to be sold is 52,942 and the expected allocation of the CERPAC form sales proceeds due to CTTL is ₦20.94billion (see table 6) with DSCR of 3.70x.

#### **Scenario 3 – Worst case.**

In deriving our worst-case scenario, we took the lowest number of monthly forms sold over a ten-year period commencing from 2009 to 2018 to achieve monthly average of 3,447 forms. The expected number of CERPAC forms to be sold is 41,365 and the expected allocation of the CERPAC form sales proceeds due to CTTL is ₦16.36billion (see table 6) with a DSCR of 2.89x.

Table 5. Expected CERPAC Sales Volume

Periods	Actual 2018	Estimate Worst Case	Estimate Base Case	Estimate Best Case
January	4,906	2,619	4,239	4,672
February	4,506	4,121	4,483	4,475
March	4,915	4,045	5,083	5,497
April	4,967	3,545	4,456	5,027
May	5,438	3,000	4,617	4,894
June	4,807	3,001	4,514	5,080
July	4,680	3,002	4,240	4,847
August	4,251	3,111	4,162	4,411
September	4,087	3,850	4,364	4,732
October	5,406	4,072	4,587	5,117
November	5,318	4,068	4,705	4,836
December	3,253	2,931	3,493	4,037
<b>Total</b>	<b>56,534</b>	<b>41,365</b>	<b>52,942</b>	<b>57,624</b>

Table 6. Expected CERPAC Sales and cash flow

Description	Best Case	Base Case	Worst Case
Expected CERPAC forms to be sold	57,624	52,942	41,365
Avg. price (USD)	1,970	1,970	1,970
Annual collections (USD)	113,519,871	104,295,937	81,489,050
Expected annual collections (NGN)	41,434,752,915	38,068,017,005	29,743,503,250
Allocable to CERPAC (NGN)	22,789,114,103	20,937,409,353	16,358,926,788
Annual payment requirement (NGN)	5,662,736,038.26	5,662,736,038.26	5,662,736,038.26
<b>DSCR (x)</b>	<b>4.02x</b>	<b>3.70x</b>	<b>2.89x</b>

**Extreme Scenario – Reduction in allocation to CTTL.**

We note the implementation of a reduction in cash allocation to CTTL under the contract to 55%. While a further reduction is unlikely, we assumed two extreme scenarios; reduction to 50% and 40% whilst holding the other key variables; price and exchange rate constant. Based on our estimates, the allocation of the CERPAC form sales proceeds due to CTTL range between ₦20.72billion and ₦11.90billion (see table 7 and 8). Therefore, the cashflows from the CERPAC form sales significantly covers the annual payment obligations with DSCR ranging between 2.10x to 3.66x.

Table 7: Effect of reduction in allocation to 50% on Receivables and DSCR

Description	Best Case	Base Case	Worst Case	
Expected CERPAC forms to be sold	57,624	52,942	41,365	
Avg. price (USD)	1,970	1,970	1,970	
Annual collections (USD)	113,519,871	104,295,937	81,489,050	
Expected annual collections (NGN)	41,434,752,915	38,068,017,005	29,743,503,250	
Allocable to CERPAC	50%	20,717,376,458	19,034,008,503	14,871,751,625
Payment requirement (NGN)	5,662,736,038.26	5,662,736,038.26	5,662,736,038.26	
<b>DSCR (x)</b>	<b>3.66x</b>	<b>3.36x</b>	<b>2.63x</b>	

**Table 8: Effect of reduction in allocation to 40% on Receivables and DSCR**

Description	Best Case	Base Case	Worst Case
Expected CERPAC forms to be sold	57,624	52,942	41,365
Avg. price (USD)	1,970	1,970	1,970
Annual collections (USD)	113,519,871	104,295,937	81,489,050
Expected annual collections (NGN)	41,434,752,915	38,068,017,005	29,743,503,250
Allocable to CERPAC	40% 16,573,901,166	15,227,206,802	11,897,401,300
Payment requirement (NGN)	5,662,736,038.26	5,662,736,038.26	5,662,736,038.26
DSCR (x)	<b>2.93x</b>	<b>2.69x</b>	<b>2.10x</b>

**Average month-to-month deviation in CERPAC form sales.** Using our scenarios above, the average percentage month-to-month deviation in the sales of CERPAC forms is estimated at  $\pm 16.10\%$ ,  $\pm 12.0\%$  and  $\pm 11.0\%$  respectively (see table 9). This indicates that, at every given year, the month-to-month increase/decrease in the number of CERPAC forms sold is expected to range between 257 and 723. Using the last ten-year historical data as a proxy for future expectations, our model showed that seven of the twelve months are more likely to experience upside deviations in sales from month-to-month while five of the twelve are more likely to experience downside deviation.

**Table 9. Average month-to-month deviation**

	Deviation in sales	Percentage deviation		
	M/M	Worst Case	Base Case	Best Case
January	723.26	27.62%	17.06%	15.48%
February	256.56	6.23%	5.72%	5.73%
March	510.23	12.61%	10.04%	9.28%
April	652.40	18.40%	14.64%	12.98%
May	646.88	21.56%	14.01%	13.22%
June	693.05	23.09%	15.35%	13.64%
July	569.22	18.96%	13.42%	11.75%
August	483.15	15.53%	11.61%	10.95%
September	406.44	10.56%	9.31%	8.59%
October	524.46	12.88%	11.43%	10.25%
November	467.01	11.48%	9.93%	9.66%
December	417.10	14.23%	11.94%	10.33%
<b>Average</b>	<b>529.15</b>	<b>16.10%</b>	<b>12.04%</b>	<b>10.99%</b>

**Effect of volatility on monthly sales and DSCR.** We computed the effect of volatility on monthly sales and DSCR by applying varying multiples (ranging from +2.5x to -2.5x) of the month-to-month deviation on sales to the Normalised Monthly Sales for each month, whilst holding the other key variables; price and exchange rate constant. Analysis of sales variability showed that a drop in monthly sales of c.17% (-2.5 downside deviation) or more across all months will lead to a drop in DSCR (Table 10-13, Fig. 5-6).

**Table 10: Effect of volatility on monthly sales assuming a multiple of -2.5x -0.5x (Base case)**

	-2.5x	-2.0x	-1.5x	-1.0x	-0.5x
January	2,431	2,792	3,154	3,516	3,877
February	3,841	3,970	4,098	4,226	4,354
March	3,807	4,062	4,318	4,573	4,828
April	2,825	3,151	3,477	3,804	4,130
May	3,000	3,323	3,647	3,970	4,294
June	2,781	3,128	3,474	3,821	4,167
July	2,817	3,102	3,386	3,671	3,955
August	2,954	3,195	3,437	3,678	3,920
September	3,348	3,551	3,754	3,957	4,161
October	3,275	3,538	3,800	4,062	4,324
November	3,537	3,771	4,004	4,238	4,471
December	2,450	2,659	2,867	3,076	3,285
	<b>37,068</b>	<b>40,243</b>	<b>43,417</b>	<b>46,592</b>	<b>49,767</b>

**Table11: Effect of volatility on monthly sales assuming a multiple of -2.5x -0.5x (Worst case)**

	-2.5x	-2.0x	-1.5x	-1.0x	-0.5x
January	811	1,172	1,534	1,896	2,257
February	3,480	3,608	3,736	3,864	3,993
March	2,769	3,025	3,280	3,535	3,790
April	1,914	2,240	2,566	2,893	3,219
May	1,383	1,706	2,030	2,353	2,677
June	1,268	1,615	1,961	2,308	2,654
July	1,579	1,864	2,148	2,433	2,717
August	1,903	2,145	2,386	2,628	2,869
September	2,834	3,037	3,240	3,444	3,647
October	2,761	3,023	3,285	3,548	3,810
November	2,900	3,134	3,367	3,601	3,834
December	1,888	2,097	2,305	2,514	2,722
	<b>25,491</b>	<b>28,665</b>	<b>31,840</b>	<b>35,015</b>	<b>38,190</b>

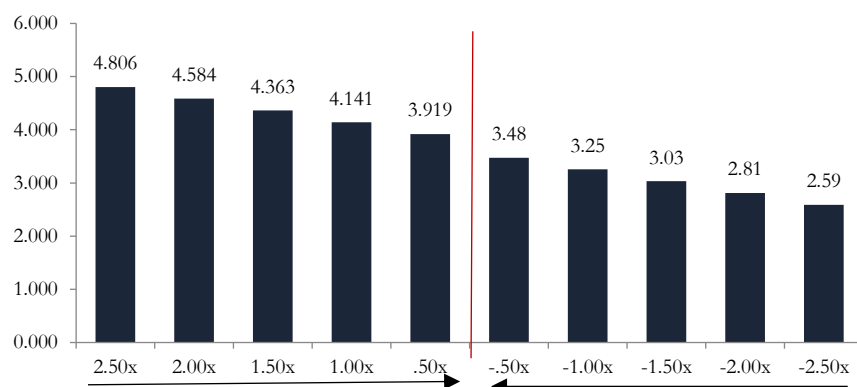
**Table 12: Effect of volatility on monthly sales assuming a multiple of +2.5x +0.5x (Base case)**

	+2.5x	+2.0x	+1.5x	+1.0x	+0.5x
January	6,047.1	5,685.4	5,323.8	4,962.2	4,600.5
February	5,124.1	4,995.8	4,867.5	4,739.3	4,611.0
March	6,358.5	6,103.4	5,848.3	5,593.1	5,338.0
April	6,087.1	5,760.9	5,434.7	5,108.5	4,782.3
May	6,234.4	5,911.0	5,587.5	5,264.1	4,940.6
June	6,246.6	5,900.1	5,553.6	5,207.1	4,860.5
July	5,663.2	5,378.5	5,093.9	4,809.3	4,524.7
August	5,369.5	5,127.9	4,886.3	4,644.7	4,403.2
September	5,380.0	5,176.8	4,973.6	4,770.3	4,567.1
October	5,897.8	5,635.5	5,373.3	5,111.1	4,848.8
November	5,872.5	5,639.0	5,405.5	5,172.0	4,938.5
December	4,535.8	4,327.3	4,118.7	3,910.2	3,701.6
	<b>68,819.0</b>	<b>65,643.6</b>	<b>62,468.3</b>	<b>59,292.9</b>	<b>56,117.5</b>

Table 13: Effect of volatility on monthly sales assuming a multiple of +2.5x +0.5x (Worst case)

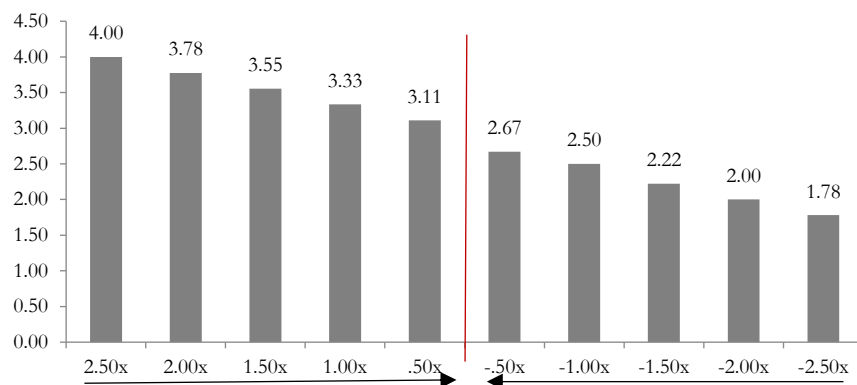
	+2.5x	+2.0x	+1.5x	+1.0x	+0.5x
January	4,427	4,066	3,704	3,342	2,981
February	4,762	4,634	4,506	4,378	4,249
March	5,321	5,065	4,810	4,555	4,300
April	5,176	4,850	4,524	4,197	3,871
May	4,617	4,294	3,970	3,647	3,323
June	4,734	4,387	4,041	3,694	3,348
July	4,425	4,140	3,856	3,571	3,287
August	4,319	4,077	3,836	3,594	3,353
September	4,866	4,663	4,460	4,256	4,053
October	5,383	5,121	4,859	4,596	4,334
November	5,236	5,002	4,769	4,535	4,302
December	3,974	3,765	3,557	3,348	3,140
	<b>57,242</b>	<b>54,067</b>	<b>50,891</b>	<b>47,716</b>	<b>44,540</b>

Fig. 5: Effect of CERPAC form monthly sales volatility on DSCR (Base Case)



Source: CITL, DLM Research

Fig. 6: Effect of CERPAC form monthly sales volatility on DSCR (Worst Case)



Source: CITL, DLM Research

**Threshold DSCR and cash flow sensitivity analysis.**

We tested the sustainability of coverage under various scenarios, including FX stresses (Table 14). We also ran a cashflow sensitivity analysis to gauge the minimum number of CERPAC forms that would need to be sold each month to maintain a



DSCR threshold of 1.2x. Our model showed that no increase in the number of CERPAC forms sold at the current level is needed.

**Minimum form sales threshold:** With monthly debt service requirements of ₦471.89million, and for DSCR to hit the Early Amortisation Trigger level of 1.2x, form sales per month would have to fall to about 1,432 (17,182 annually). It is imperative to note that the minimum form sales recorded within the ten-year review period is 2,619 i.e. 1.8x the minimum monthly threshold. This supports our view that the current level of sales is more than is required for bond payments. Based on our stress tests, annual form sales will have to drop to 23,900 at a conservative interbank exchange rate of ₦265/USD, for DSCR to fall to 1.21x, which is unlikely in the medium term. At the current level, the expected cash flows are significantly adequate to support debt service over the life of the bond even in an extremely stressed environment.

**Table 14: FX stresses and cash flows sensitivity analysis**

		₦265/ \$	₦290/\$	₦300./\$	₦315/\$	₦330/\$	₦345/\$	₦365/\$	₦375/\$	₦390/\$
Best Case	57,624	57,624	16,546	18,106	18,731	19,667	20,604	21,540	22,789	23,413
Base case	52,942	52,942	15,201	16,635	17,209	18,069	18,930	19,790	20,937	21,511
Worst Case	41,365	41,365	11,877	12,998	13,446	14,118	14,790	15,463	16,359	16,807
Historical Low	23,900	23,900	6,862	7,510	7,769	8,157	8,546	8,934	9,452	9,711
Payment Requirements (₦bn)		5,663	5,663	5,663	5,663	5,663	5,663	5,663	5,663	5,663
<b>DSCR</b>										
Best Case		2.92x	3.20x	3.31x	3.47x	3.64x	3.80x	4.02x	4.13x	4.30x
Base case		2.68x	2.94x	3.04x	3.19x	3.34x	3.49x	3.70x	3.80x	3.95x
Worst Case		2.10x	2.30x	2.37x	2.49x	2.61x	2.73x	2.89x	2.97x	3.09x
Historical Low		1.21x	1.33x	1.37x	1.44x	1.51x	1.58x	1.67x	1.71x	1.78x

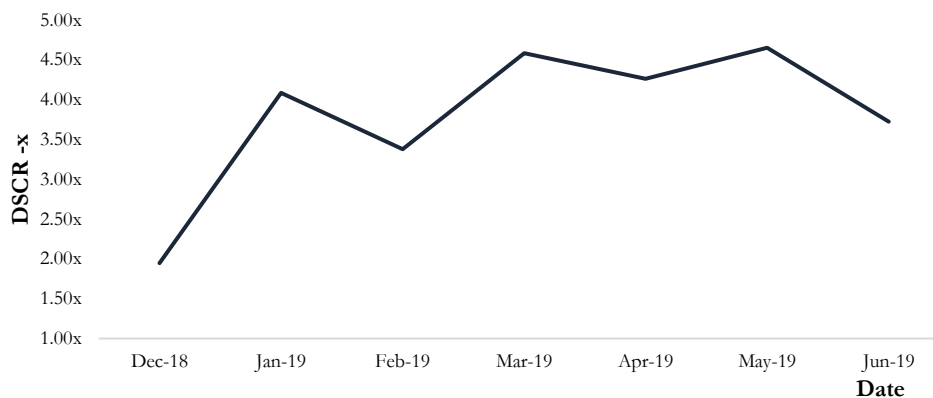
**Performance of the transaction to date.**

The transaction performance in the first year remained robust and the impressive performance is expected to continue, particularly given the improvement in cash flow and strong cash collection management by the trustee which should give investors' confidence on the transaction going forward. We highlight that key performance triggers such as Cash Accumulation, and Early Amortisation Triggers have not been breached and the transaction has so far performed much better than expected. As of 15, July 2019, CRFS paid its third scheduled Semi-Annual payment for the ₦4.877billion discrete and the ₦12.5billion Series 1 Bonds, as well as second scheduled Semi-Annual payment for the ₦1.6billion Series 2 Bonds, with all payments constituting interest and principal due 15th of July 2019. Following these payments, the aggregate principal outstanding for all the bonds currently stand at ₦3.79billion, ₦10.02billion, and ₦1.37billion respectively and with average life-Time to Maturity of 1.92, 2.19 and 2.19 as at 20<sup>th</sup> August, 2019.

“ Key performance triggers such as Cash Accumulation, and Early Amortisation Triggers have not been breached and the transaction has so far performed much better than expected ”

**Debt management is prudent, reflected in strong historical and projected coverage.** We take strong comfort in the Issuer's track record of maintaining strong coverage. The DSCR has consistently exceeded the programme base case DSCR of 1.7x. and the monthly threshold of 1.2x. DSCR averaged 3.80x over the last six months to June 2019. However, a lower monthly DSCR of 1.95x was recorded in December 2018 which was due to seasonality effect and lower price effect as CERPAC forms were sold at \$1,000 for the most part of December 2018, before the last upward review in the price of CERPAC Form. The strong DSCR reflects our view that CERPAC cashflows stream should be able to withstand a stressed environment without much effect on the transaction's performance. Furthermore, the current size of the reserve account provides c.19% credit protection to the program as at 20<sup>th</sup> August 2019.

Fig. 7: CERPAC Average monthly DSCR – December– June 2019 (x)



Source: CCTL, DLM Research

## Outlook

The transaction performance remained robust in the first year and the outlook for the transaction is positive supported by the performance of CTTL's business under the CERPAC scheme and its predictable cashflows. The Issuer's debt burden is moderate but expected to increase following plans to raise additional funds (₦4.0bn) through commercial papers in line with its funding program. The proposed CP is expected to have a minimum tenor of 270-days. Overall, we expect the additional debt to lower DSCR to around 1.7x-1.8x equivalent to A+/AA- rating – at the same time, additional cash accumulation into transaction collection account should support the CP payment on maturity. Upon the CP maturity, we expect annual DSCR to range between 2.89x and 4.02x and the monthly DSCR to average around 3.8x. Furthermore, the current size of the reserve account, in proportion to the debt service requirements provides additional protection to bondholders and we see this trend continuing satisfactorily unperturbed.

The timely payment of the bond will continue to depend on the continued generation of the receivables, sales proceeds collections procedure and distribution by a third-party processing bank. The naira exchange rate has been relatively stable, even as outlook for the naira is enveloped with a cloud of uncertainty. While there had been three devaluations –November 2014, February 2015 and June 2016, a further devaluation is unlikely. However, we believe that a further depreciation is unavoidable given constant and continued pressure on the naira and limited foreign exchange earnings. That said, on the other hand, we also expect occasional appreciation on the naira, however, a significant appreciation is unlikely over the long term given increasing demand for dollar. Therefore, we think that exchange rate of ₦360/US\$1 will be maintained over the short to medium term which should support predictable cashflows from the sales of CERPAC forms.

We note the reduction of cash allocation to CTTL under the contract to 55%. While a further reduction is unlikely in the medium term, we highlight that any further reduction in cash allocation to CTTL will be accompanied with a corresponding increase in the price of the CERPAC form. To the extent that the contract is an upward review only contract, an upward price review is expected in 2022 – three years after the implementation of the new fee. This in our view eliminates the impact of an adverse movement in the price of CERPAC form on future Receivables.

In conclusion, given current level of sales, we believe cash flow is significantly adequate to support continued performance of the funding programme.

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