

Derivatives in Egypt: Recent Developments and Applications

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I. Summary Local Market Overview

FX Market:

- No convertibility restrictions.
- Liquid enough to absorb normal transaction sizes (i.e. \$5-\$20 mio).

Local Treasury Markets:

- The Egyptian Finance Ministry auctions 3, 6 and 12-month Treasury Bills on a weekly basis. Auction sizes range from EGP 500 to 2,000 mio. Secondary market for Treasury Bills is very liquid.
- There are Government Bonds in Local Currency with up to 20 year tenors.
- Current yield indications on Treasury Bills / Bonds:

<u>Maturity</u>	<u>YTM</u>
3 months	8.60p%
6 months	8.80%
12 months	9.00%
4 years	8.90%
7 years	8.90%
10 years	8.90%

II. Comparative Estimated Market Depth

Country	Currency	FX Spot ⁽¹⁾	FX Forwards ⁽²⁾	FX Options ⁽³⁾	IR Swaps ⁽³⁾	IR Options ⁽³⁾	Cross Currency Swaps ⁽²⁾
Egypt	Egyptian Pound / EGP	150 mio	5 mio 6 mths	-	-	-	10 mio (sporadic)
Turkey	New Turkish Lira / TRY	2-3 bln	20-30 mio 2 yrs	1 bln 2 yrs	200 mio 5 yrs	-	200 mio 5 yrs
Ukraine	Ukrainian Hryvnia / UAH	50 mio (restricted market)	2 mio Non deliverable forwards	-	-	-	-
Romania	Romanian Leu / ROL	500 mio	2 mio Non deliverable forwards	-	-	-	-
Russia	Russian Ruble / RUB	8 bln	Non deliverable forwards	Non deliverable options 50-100 mio 5 yrs	Non deliverable swaps 5 yrs	Case by Case basis 5 yrs	-
Croatia & Slovenia	Croatian Kuna / HRK & Slovenian Tolar / SIT	400 mio	both 5 mio 3 mths	-	-	-	-
Slovakia	Slovak Koruna / SKK	300 mio	5 mio 5 yrs	300 mio 5 yrs	200 mio 10 yrs	50 mio 10 yrs	500 mio 10 yrs
Hungary	Hungarian Forint / HUF	1 bln	10 mio 5 yrs	500 mio 5 yrs	100 mio 10 yrs	50 mio 10 yrs	500 mio 10 yrs

Source: Citigroup

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¹⁾ Volumes per day (\$ equivalent);

²⁾ Volumes per trade (\$ equivalent);

³⁾ Volumes per week (\$ equivalent)

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III. Accessing the Local Markets

◆ Practical Restrictions for Offshore Investors:

- Custody facility required
- Offshore investors are USD or EUR based and are generally unable to fund in EGP
- Limited local presence of foreign banks actively trading local securities

◆ The Use of Synthetic Access Products:

● Main Investors:

- Hedge Funds and other real money funds
- Private Banking Accounts

● Preferred Investment Format:

- EGP-indexed Total Return Swaps in USD (or EUR)
- EGP-indexed Credit Linked Notes or Deposits in USD (or EUR)

● Advantages:

- All flows are cash-settled in USD (or EUR)
- Synthetically passes through all underlying risks associated with holding T-Bills directly (Credit, FX, Interest Rate, Convertibility and Transferability)

◆ Investor Appetite:

- Citigroup has overseen over USD 1 bln of synthetic (foreign) investor flows into the local Treasury Bill market since January 2005, enabled primarily through a very efficient partnership between Citibank Egypt (in sourcing the assets) and Citigroup London/New York (in placing the risk offshore).
- Supply is often outweighed by demand and orders are difficult to execute in single clips exceeding USD 40 mio.

IV. Hedging in the Local Market

- ◆ Currently no established FX Forwards, FX Options, Interest Rate (“IR”) or Cross-Currency Swaps (“CCS”) Markets
- ◆ This is due to a combination of:
 - Inability for market participants to short EGP Treasury instruments
 - Very thin liquidity in instruments with tenors > 1 year
 - Lack of hedging interest / know-how
 - Legal enforceability issues on local and cross-border derivative transactions
- ◆ Sporadic hedge transactions do however occur, although they tend to be relatively one-sided (i.e. the hedger is looking to go long EGP, and short USD)

V. Application of Credit Derivative Technology

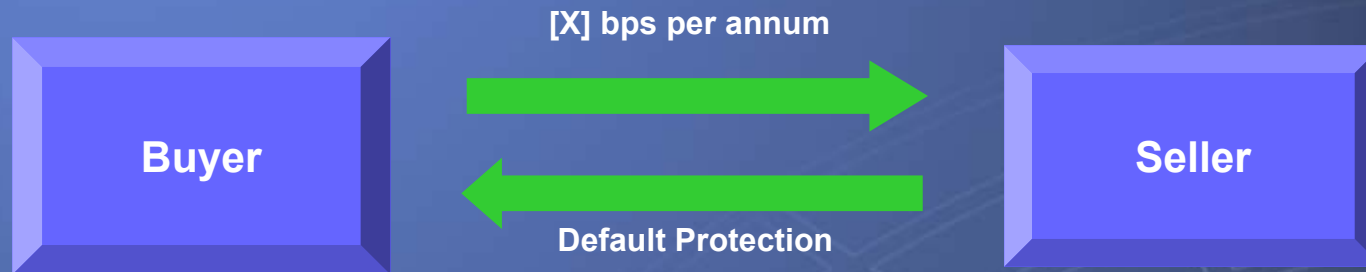
What is a Credit Derivative:

- ◆ Credit Derivatives are contractual obligations that involve the transfer of a pre-defined “Credit Risk” from one party to another.
- ◆ The form and amount of the risk being transferred determines the terms of a Credit Derivative contract.
- ◆ Most Credit Derivative transactions involve over-the-counter agreements and are governed under standardized ISDA definitions.
- ◆ In the normal course of operations, Corporate and Sovereign Entities face financial risks such as Foreign Exchange, Interest Rates, Commodities, Equities, as well as CREDIT RISK. They have traditionally hedged the risk inherent in Foreign Exchange, Interest Rates and Commodities. More and more, these entities are now focusing on Credit Risks as well as other areas that may have a significant impact on expenses and earnings (such as taxes).
- ◆ Inversely, Financial Institutions and other specialised investors are increasingly looking at Credit Derivatives as a means of achieving yield pick-up in tailor-made format.

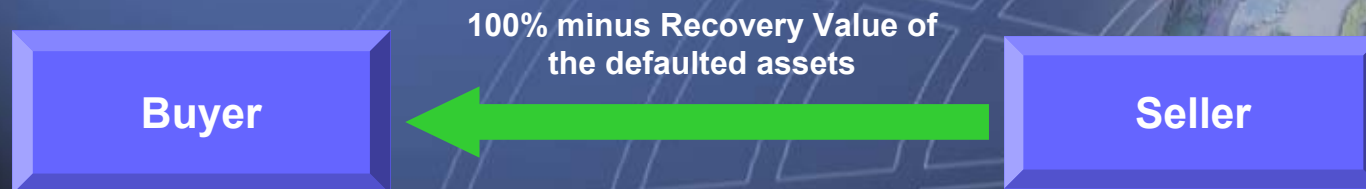
V. Application of Credit Derivative Technology

Mechanics of a Credit Derivative Contract:

- ◆ The Seller receives fee or premium for providing default protection;
- ◆ In return, the Seller agrees to make a contingent payment upon certain credit events associated with the Reference Entity.



- ◆ Upon a default by the Reference Entity, the Seller of protection compensates the Buyer for any losses suffered:



V. Application of Credit Derivative Technology

Example of a Structured Liability Management Solution:

CASE DESCRIPTION:

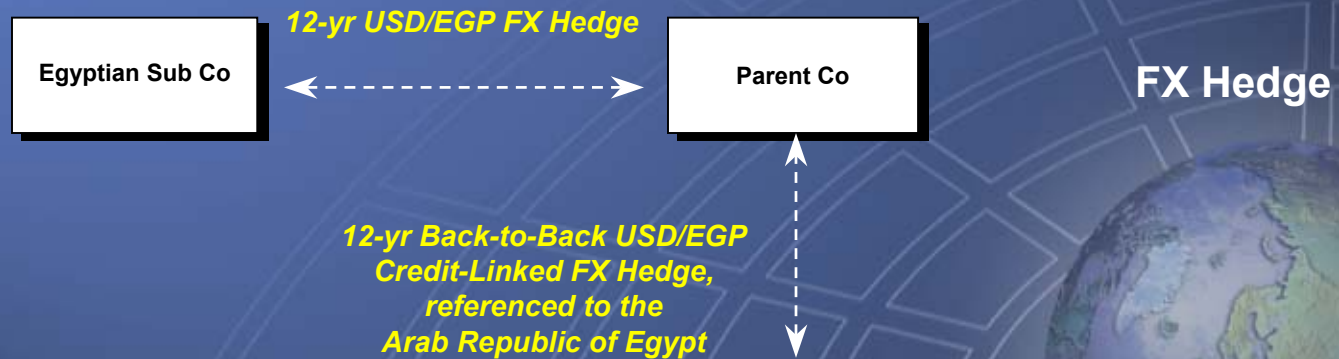
- ◆ Egyptian Subsidiary company (“Sub Co”) of foreign multinational company (“Parent Co”) is looking to raise intercompany financing, where the principal amount is repayable in EGP, in 12 years’ time.
- ◆ Parent Co is not willing to take any EGP exposure
- ◆ Size: USD 100 mio assumed (currently equivalent to EGP 577 mio)

SUMMARY OF THE STRUCTURE:

- ◆ Parent Co extends USD 100 mm of 12-year inter-company funding to Egyptian Sub Co.
- ◆ Parent Co and Sub Co enter into 12-year subsidized forward FX transaction (the “FX Hedge”) on the USD 100 mm principal repayment amount only, whereby Parent Co. agrees to pay Sub Co USD 100 mm at maturity, and to receive EGP 577 mio at maturity.
- ◆ In order to subsidize the FX Hedge, Sub Co agrees to pay annual amounts in USD to make up for the interest differential (effectively, the forward FX points).
- ◆ Parent Co enters into a back-to-back FX Hedge transaction with Citigroup, credit-referenced to the Arab Republic of Egypt, the sovereign jurisdiction in which Sub Co is based.

V. Application of Credit Derivative Technology

A – At Inception:

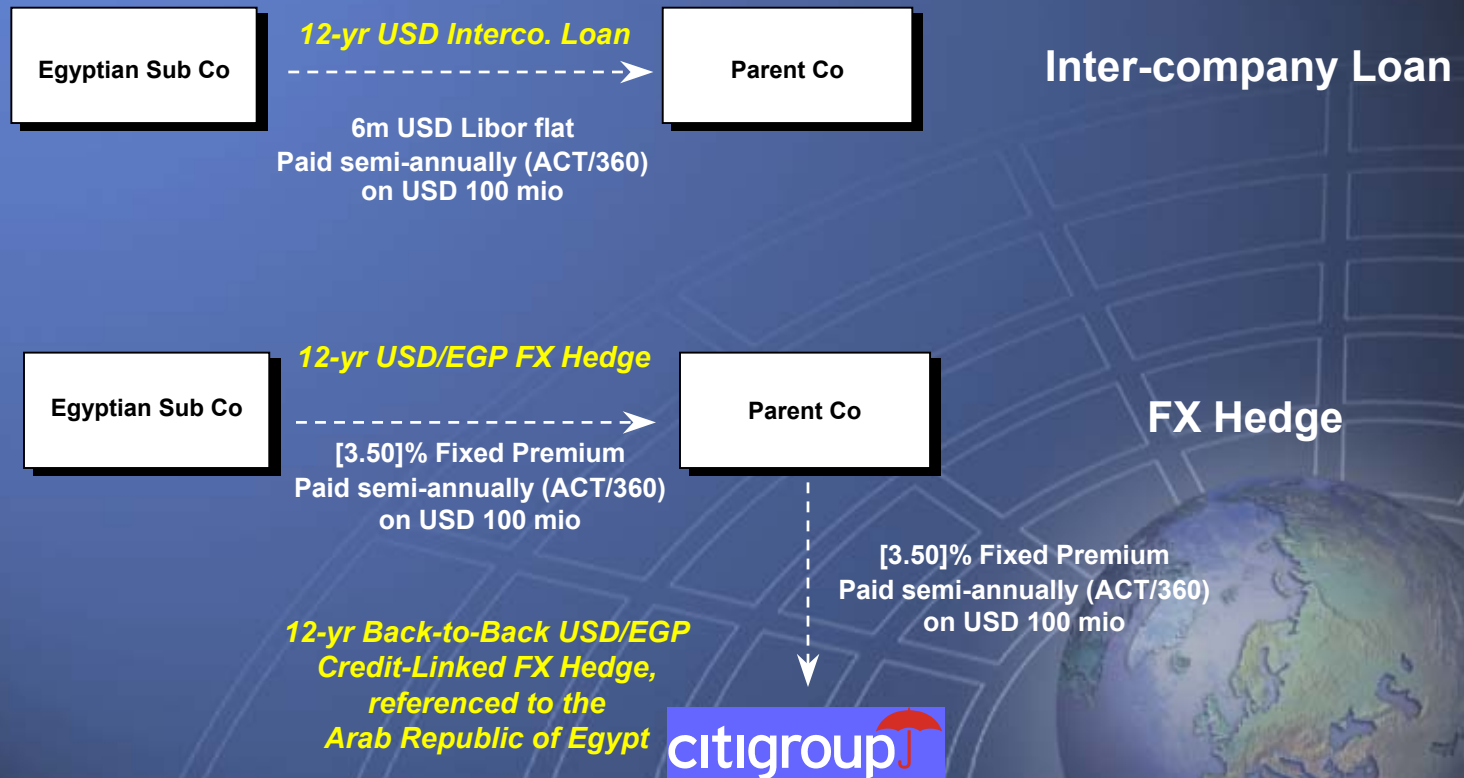


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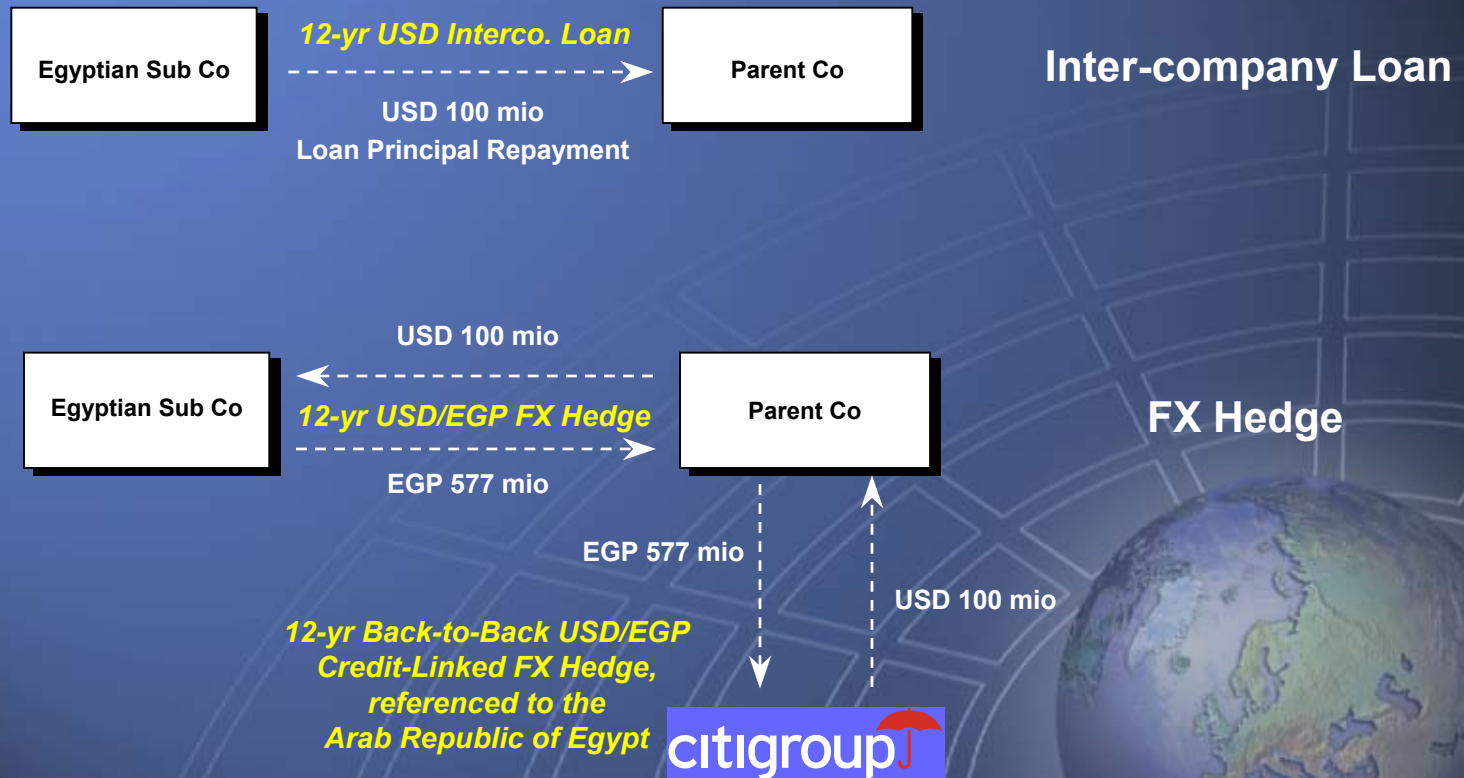
V. Application of Credit Derivative Technology

B - On each Interest/Periodic Payment Date:



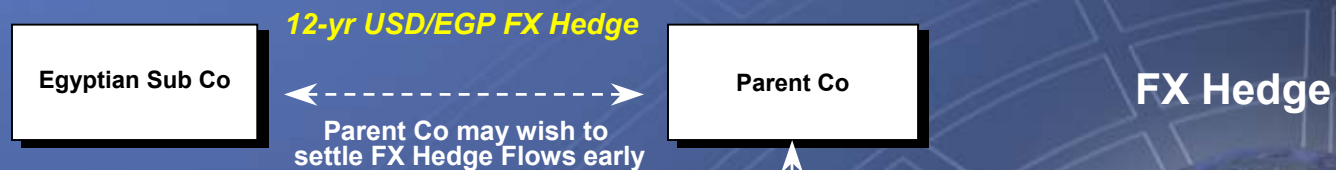
V. Application of Credit Derivative Technology

C – At Maturity (subject to No Default):



V. Application of Credit Derivative Technology

D – Upon the occurrence of a sovereign default by the Arab Republic of Egypt:



12-yr Back-to-Back USD/EGP Credit-Linked FX Hedge, referenced to the Arab Republic of Egypt

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FX Hedge is terminated for zero value

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V. Application of Credit Derivative Technology

NET BENEFITS:

- ◆ No FX risk on the USD principal repayment obligation: the local currency protection provided by the FX Hedge transaction simultaneously enables (i) Sub Co to receive quasi local currency funding, and (ii) the Parent Co to mitigate any local currency exposure.
- ◆ The FX risk to Sub Co is limited to the coupon payments due under the Loan (which may be offset against export revenues for instance).
- ◆ In this example, the cost of the hedge (i.e. the implied 12-year EGP interest rate charged under the FX hedge contract) could be as low as **11.00%**, which compares to 12 month T-Bill yields of around 9.00%.
- ◆ The lack of a meaningful yield curve and liquidity in the EGP market does not allow for more conventional FX hedging opportunities beyond 12 months. In this example, Parent Co has effectively sourced a partial FX hedge out to 12 years at very competitive rates.

VI. Key Development Factors

- ◆ Enforceability and Integration of both ISDA 2000 and ISDA 2003 Credit Derivative definitions and standard derivative contract market practices.
- ◆ Create a meaningful yield curve of actively traded benchmark obligations.
- ◆ Development of a sale and repurchase market on benchmark obligations to enable market participant to short EGP rates out to longer tenors.

VII. Structured Asset Example for the Local Market

SUMMARY TERMS OF A 3Y STRUCTURED EGP NOTE:

Issuer:	Citigroup Funding Inc. (“CFI”)	
Form:	Medium Term Credit Linked Note	
Tenor:	3 years	
Notional:	EGP 50 mio	
Price:	100%	
Coupon:	[11.00]% , subject to the Early Termination Provisions	
Frequency/Daycount:	Semi-annually, ACT/365	
Redemption:	100%, subject to the Early Termination Provisions	
Early Termination:	If a Credit Event occurs with respect to any Reference Entity, the Note will immediately terminate, and the Issuer will deliver defaulted Obligations of the relevant affected Reference Entity to the Investor, with no further payments due.	
Credit Events:	<u>With respect to Turkey, Ukraine and Russia only:</u> Failure to Pay, Obligation Default, Repudiation/Moratorium, Restructuring <u>With respect to the Arab Republic of Egypt only:</u> Failure to Pay, Obligation Default, Repudiation/Moratorium, Restructuring and Inconvertibility	
Reference Entities:	Turkey, Ukraine, Russia and the Arab Republic of Egypt	
Reference Obligations:	<u>With respect to Turkey, Ukraine and Russia only:</u>	Any USD Bond or Loan
	<u>With respect to the Arab Republic of Egypt only:</u>	Any EGP sovereign T-Bill / T-Bond
Governing Law:	English	

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