

# RISK TRANSFER & DISASTER RISK MANAGEMENT PRODUCTS



Philadelphia

June 2<sup>nd</sup>, 2015

#### Main Message

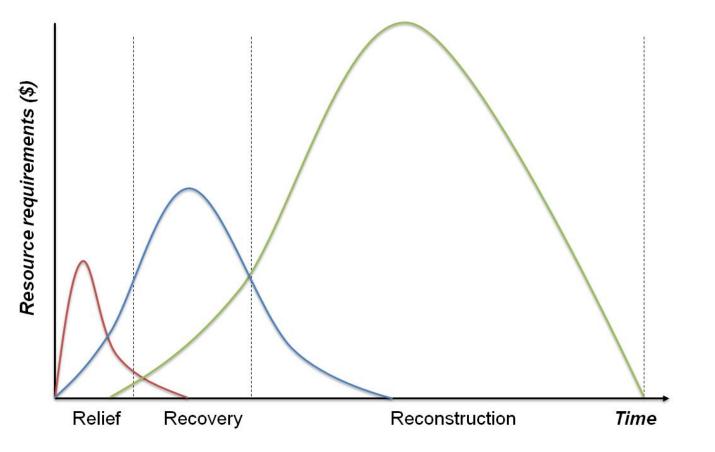
- The World Bank Group (WBG) is a trusted and client-focused one-stop financial service provider with a powerful product platform and network of relationships
- The WBG offers clients a wide menu of innovative financial products and unique knowledge & advisory services
- Our goal is to help clients achieve their strategic objectives by offering tailored financial solutions

# NO "ONE-SIZE FITS ALL"



# **Development Challenge**

- The Treasury of the World Bank focuses natural disaster Risk Transfer Solutions
- The main objective is to enable Governments to respond quickly to emergencies





### **Mapping Clients' Needs to Financial Solutions**





#### **World Bank Product Menu**

Financing	Grants (IDA) Credits (IDA/Blend) IBRD Flexible Loan (IBRD/Blend) IBRD Enclave Financing (IDA)
Contingent financing	Deferred Drawdown Option (IBRD/Blend)
Credit Enhancement	Credit Guarantee (IDA/IBRD) Risk Guarantee (IDA/IBRD)
Hedging Products	Currency swaps Interest rate swaps Non-IBRD Hedge Interest rate caps and collars Commodity price swaps
Disaster Risk Financing	Cat DDO (IBRD/Blend) Intermediation of financial products for disaster-related risks (IDA/IBRD) Insurance Pools (IDA/IBRD) Catastrophe bonds
Advisory Services	Asset management (IDA/IBRD) Public debt management (IDA/IBRD)



#### Natural disaster and weather risk management

#### Long-standing and strong partnership across WB Bank units

- <u>Disaster Risk Management</u> (DRM) in Social, Urban, Rural and Resilience GP (GSURR) leads disaster risk management dialogue with clients in collaboration with sector colleagues and specialists to define vulnerabilities and programs for disaster risk prevention and management
- <u>Global Facility for Disaster Reduction and Recovery</u> (GFDRR) in the Climate Change CCS can provide grants and seed financing to enable the engagement with clients and the technical studies and knowledge solutions to help define a disaster risk management framework
- **Disaster Risk Financing and Agriculture Insurance** (DRFAI) in Finance and Markets leads the technical dialogue with clients regarding disaster risks and helps countries in define a disaster risk financing framework based on severity vs. frequency
- <u>**Treasury**</u> (TRE) leads the discussions with the markets, structures and executes the financial transactions for clients



### **Disaster risk financing instruments**

- Address immediate liquidity needs
- Manage and transfer financial risks to the market

Low ₽↑	•• • • •	Insurance- linked Securities	Catastrophe bonds	MultiCat program Capital-at-Risk program	<b>Risk Transfer</b>
Probability of Severity of	of Impact		Natural Disaster Derivatives	Insures against weather or geologic losses, based on an index	
		Insurance Pools	Caribbean & Pacific	Regional facilities pooling risks to cover against natural disasters in 16 Caribbean countries and 5 Pacific countries	fer
	Minor	Contingent Loans	Cat DDO	Provides immediate liquidity following a natural disaster	Risk Retention

#### Technical Assistance in budget planning for natural disasters

- Analysis of fiscal impact of natural disasters
- Ex ante budget planning



### **Catastrophe Deferred Drawdown Option**

Contingent credit line, the Cat DDO

- Provides immediate liquidity following natural disaster to IBRD country
- Secures access to up to US\$500 million or 0.25% of GDP (whichever is less) before an event occurs
- Following declaration of a state of emergency due to a natural disaster, funds immediately available for disbursement



### Case Study Philippines

#### **Development Challenge**

- Philippines is highly exposed to natural disasters.
- Disaster risk management is a government priority.

#### **Financial Solution**

- In 2012 the Philippines signed its first Cat DDO – first outside of LCR, largest to-date.
- After tropical storm 'Sendong' hit the country, the government withdrew the \$500 million Cat DDO for recovery and reconstruction activities.







### The World Bank Risk Transfer Products

#### **Derivatives**

- Cat Swap
- Fully Collateralized Cat Swap

#### **Bond Format**

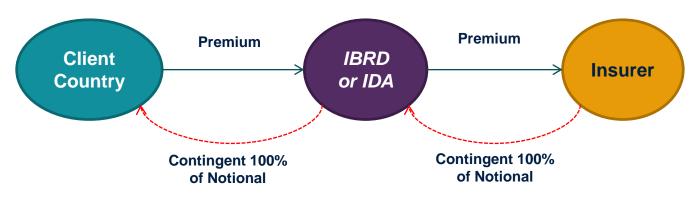
- MultiCat Program
- Capital-at-Risk Notes

#### Perils/Risks

- Wind (hurricanes and tropical cyclones)
- Earthquakes
- Tsunamis
- Excess rain
- Drought
- Longevity/mortality
- Excess mortality



### **Cat Swap**

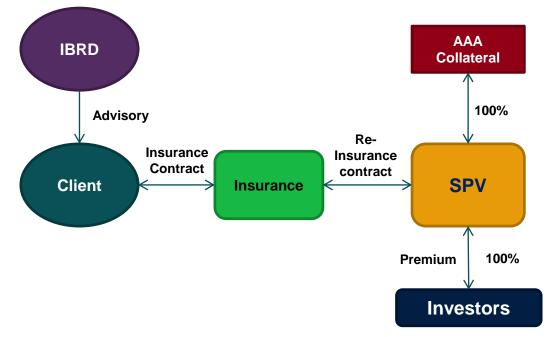


- Cat Swaps are simple vehicle used by the Bank to transfer risks to the reinsurance sector
- Used to transfer cat risk including earthquakes, wind, tsunami but also rainfall and drought
- The Bank has used Cat Swaps under the following transactions
  - Caribbean Catastrophe Risk Insurance Facility (CCRIF), pooling risk transfer for EQ and TC for 16 countries in the Caribbean
  - Pacific Catastrophe Risk Insurance Pilot program, also a pooling risk transfer for EQ, TC and Tsunami for 5 island countries in the Pacific
  - Uruguay Weather Derivative, the largest ever weather derivative linked to drought and oil prices to hedge the Electric Utility Company of Uruguay
  - Malawi weather option to cover the country against drought



### MultiCat Bond

- The coverage sourced through the MultiCat is passed to the Insured through an insurance company
- Proceeds of the cat bond are kept in a collateral account invested in US Treasuries or other AAA liquid assets
- Used for Mexico MultiCat 2009 and 2012



#### OFFERING CIRCULAR

#### MultiCat Program

Principal At-Risk Variable Rate Note Programs (Issuable in Series by Separate Issuing Entities)

One or more separate issuing entities (each, an "Issuer") may from time to time offer notes ("Notes") pursuant to such Issuer" principal arcival variable rate note program under specific terms set forth in the applicable offering circular supplement (each, an "Offering Circular Supplement") to this Offering Circular ("Offering Circular"). Each Issuer will offer Notes in separate sarries (each, a "Series" of Notes" or "Series"), each of which will centain one or more classes (each, a "Class" or "Class of Notes", al (one or more Trigger Divento coce will respect to Class within a Series of Notes, all or a portion of the interest possible on each Psyment Date and all or a portion of the Outstanding Principal Amount payable on the Redemption Date to the holders of such Class will be reduced by central amounts payable by the Issuer of such Class to the applicable Counterparty pursuant to the related. Counterparty Contrast.

Each Issuer will be specified in the applicable Offering Circular Supplement and, unless otherwise specified in the applicable Offering Circular Supplement, will be a Cayman Islands exempted company. Each offering of Notes (sech, an "Offering" and, collectively, the "Offerings") will be for the purpose of supporting the Islatd Susser's obligations to the applicable Counterparty under the applicable Counterparty Contract upon the occurrence of one or more Trigger Events during the applicable Risk Period.

Information with respect to each Offering by an Issuer can be found in this Offering Circular and in the applicable Offering Circular Supplement.

Each of the Programs is arranged by the International Bank for Reconstruction and Development. (Continued on the next page)

Investing in the Notes is speculative and involves a high degree of risk. See "Risk Factors" beginning on page 14 for a discussion of certain factors to be considered in connection with an investment in the Notes.

THE NOTES ARI WITH LIMITED RECOURSE TO CERTAIN ASSITS OF THE ISSUER AND WITHOUT RECOURSE TO THE PROGRAM ARRANGER, THE COUNTERPARTY, THE INSURED, IF ANY, THE REINSURED, IF ANY, OR ANY OF THEIR RESPECTIVE AFFILIATES.

THE NOTES HAVE NOT BEEN AND WILL NOT BE REGISTIBIED UNDER THE U.S. SECURITIES ACT OR ANY U.S. STATE OR FOREIGN SECURITIES LAWS AND ARE BEING OPPERED IN BOOK ENTRY FORM ONLY TO U.S. STATE OR FOREIGN SECURITIES LAWS AND ARE BEING OPPERED IN BOOK ENTRY FORM ONLY TO U.S. STATE OR FOREIGN SECURITIES LAWS AND ARE BEING OPPERED IN BOOK ENTRY FORM ONLY TO LAWSTORS WHO ID ARE QUALIFIED INSTITUTIONAL BUYERS THAT, WITH RESPECT TO U.S. IFRISONS, ARE ALSO QUALIFIED FUNCTASERS (OR, SOLELY IN CONNECTION WITH THE INITIAL OPPERING OF EACH SERIES OF NOTES, ARE INNOVAL PRICATASERS THAT ARE INSTITUTIONAL INVESTORS APPROVED BY THE RESPECTIVE ISSUER AND THE INITIAL PURCHASERS, PRIOR TO THE ISSUANCE OF SUCH INSTITUTION OR A PERMITTED NON-U.S. JURISDICTION, PROSPECTIVE PURCHASERS ARE HEREBY NOTFIED THAT THE SELLERS OF THEI NOTES MAY BE RELYNG (OR THE EXIM-TION FROM THE PROVISIONS OF SECTION 5 OF THE U.S. SECURITIES ACT PROVIDED BY RULE 144A. THE NOTES ARE NOT TRANSFERABLE INCEPT IN ACCORDANCE WITH THE RESTRUCTIONS DESCRIBED UNDER "NOTE" TO INVESTORS' EACH INCLASSING CHIENDITS IN MARKING INS PROCEASE MILLE DEEMED TO HAVE MADE CERTAIN ACKNOWLEICHMENTS. REPRESENTATIONS AND AGREEMENTS AS SET FORTH UNDER "NOTES TO AN UNDER "NOTES TO AN UNDER "NOTE" TO MAN END TO FORM THE SEMILATIONS AND AGREEMENTS AS SET FORTH UNDER "NOTES" CALL INCLASSING.

Each Series of Notes offered on each Issuance Date will be offered by one or more initial purchasers for such Series, as specified in the applicable Offering Circular Supplement (each, an "Initial Purchaser" and, collectively, the "Initial Purchasers"), subject to receipt and acceptance by each Initial Purchaser and subject to each Initial Purchaser's right to roject any order in whole or in part.

The date of this Offering Circular is October 8, 2009.



### **WB Capital-at-Risk notes**

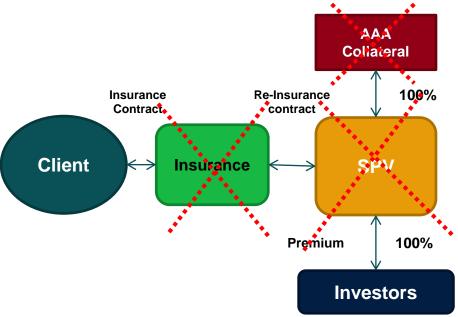
- Approved in February 2014 by the Bank's management
- Documentation is an addendum to the World Bank Global Debt Issuance Facility (May 2008), our standard bond issuance program
- It enables the issuance of non-principal protected World Bank bonds, thus rated less than our AAA
- It also allows our smaller client countries a flexible vehicle to transfer risks leveraging on our issuance platform
- Can issue in several forms, from 144a to RegD



## WB Capital-at-Risk (CAR)

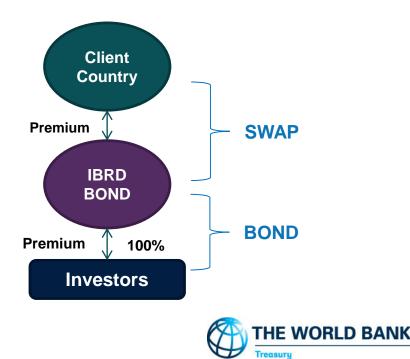
#### **Typical Cat Bond Structure**

- The coverage sourced through a Cat Bond is passed to the Insured through an insurance company
- Proceeds of the cat bond are kept in a collateral account invested in US Treasuries or other AAA liquid assets
- Basically the investors act as the insurers, with the insurance company intermediating in the derivative format



#### **WB Cat Bond**

- The Bond is issued under the World Bank Global Debt Issuance Facility Special Program, and thus not rated AAA
- The Proceeds of the cat bond are kept in balance sheet of the World Bank at US Treasuries plus our funding spread
- If the Bond triggers, the WB would pass the proceeds to Client Country.



### **Main Benefits of CAR Notes**

- IBRD bonds will be rated separately from our AAA rating
- Benefits from the existing infrastructure of the World Bank's MTN program
  + our existing tax and SEC exemptions
- An efficient and cost effective solution for clients and small institutions that do not have the ability to access the market directly
  - Fewer parties involved
  - Collateral in IBRD balance sheet at US\$ LIBOR rates
  - Less documentation
  - No SPV
  - Leverage on World Bank for communication with investors and the public
  - Partial indemnification by World Bank
- Builds off our experience as Arranger of the MultiCat Program, but will significantly reduce transaction and time to market



#### **First IBRD CAT Note – CCRIF** Caribbean Catastrophic Risk Insurance Facility (CCRIF)

Issuer:	World Bank	
Nominal amount:	USD 30,000,000	
Redemption amount:	The nominal amount reduced by all principal reductions as a result of applicable Caribbean tropical cyclone or earthquake events (as defined in the terms of the notes)	
Settlement date:	June 30, 2014	
Coupon:	6 month LIBOR + 6.30%, floored at 6.50%, quarterly	
Maturity date:	te: June 7, 2017	
Listing:	Luxembourg	





#### World Bank sells first ever 'Cat Bond'

"The World Bank has issued first ever catastrophe bond as hunger for yield allows developing countries to transform their fiscal position.

"The \$30m deal will help provide earthquake and hurricane coverage for a group of 16 Caribbean island nations over the next three years.

"This is the first time the World Bank has issued a catastrophe bond and the first time it is doing a non-AAA bond," said Madelyn Antoncic, Treasurer of the World Bank Group. It is likely to be a model for future deals."

-- Financial Times



### **CCRIF Bond Specifics**

Perils	Earthquake and Hurricane	
Trigger Type:	Modeled Loss AEL @ 3.65% (cumulative) and 1.78 multiple	
Agencies:	Automated Tropical Cyclone Forecast (ACTF) National Earthquake Information Center (NEIC/USGS)	
Agents:	CCRIF as Calculation Agent PWC as Calculation Validation Agent and Reset Agent Modeling by: KINETIC Analysis Corp.	
Reset:	Annually based on countries change in coverages	
Partners:	Guy Carpenter – Lead Swiss Re and Munich Re - Advisors	



## **Other Applications**

- Longevity and mortality
- Infrastructure finance
- Weather
- Now epidemic and pandemic (health bonds)
- Social impact bonds
- Credit derivatives



### **The World Bank Group**



IBRD and IFC both issue bonds in the capital markets. They share the same overall development goals, but are legally separate entities. Each entity has its own risk profile and capital structure.

