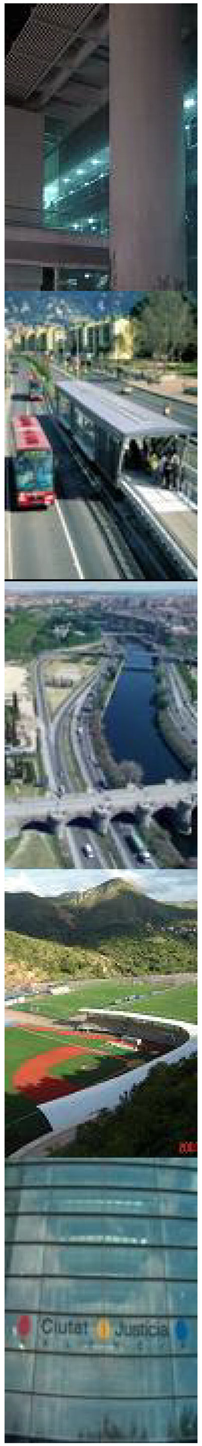

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PRIMER ENCUENTRO TÉCNICO SOBRE LA ESTRUCTURACIÓN DE PROYECTOS DE ASOCIACIÓN PÚBLICO-PRIVADA

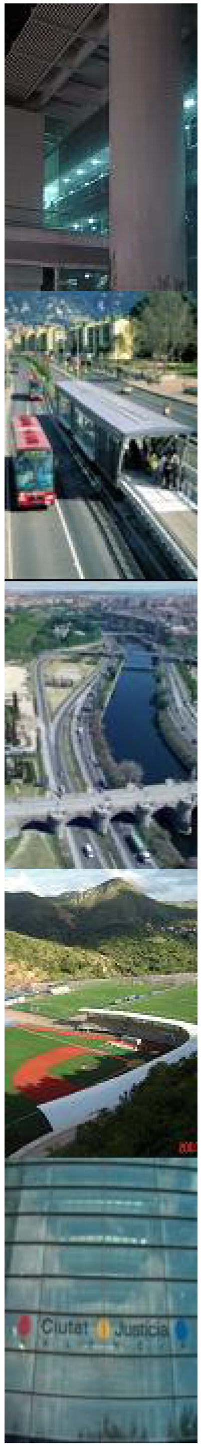
Financiamiento Privado de Infraestructura, Mercado de Capitales y Garantías Financieras

Ellis J. Juan

Banco Inter-Americano de Desarrollo (BID)

19 y 20 de febrero de 2009

México, Distrito Federal.



Esquema general de la presentación

I. BID : Rating Crediticio y Status de Acreedor Preferente

II. Bancabilidad de Proyectos: Volatilidad de Cash Flows

III. Analisis de Riesgos (desde el punto de vista de la Mobilizacion de Capital Privado -- Comite de Credito de Bancos)

IV. Mitigacion de Riesgos (opciones de mitigacion de riesgos disponibles)

V. BID: Apoyo a estructuras APPs

VI. BID: Garantias y Derivados

VII. BID: Casos

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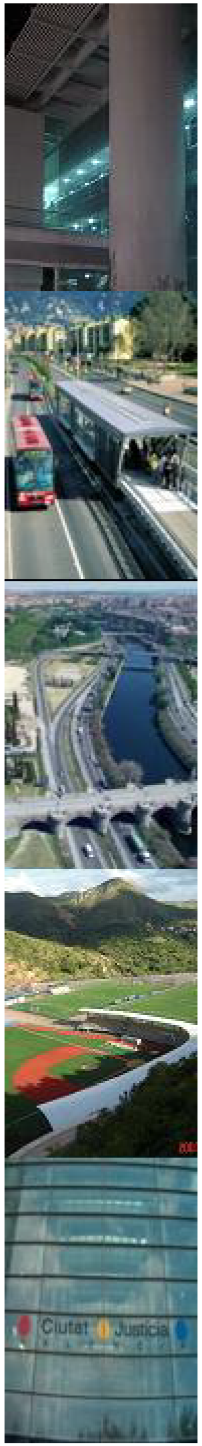

BID: Credit Rating y Acreedor Preferente

- Global Credit Rating **AAA :** Fitch, Moody's & Standard Poors

- Los Estados Unidos Mexicanos (EUM) han sido miembros accionistas del BID desde su creación en 1959. En toda la historia del BID, los EUM **siempre han pagado sus obligaciones al BID y nunca han estado en default con el BID** inclusivo durante las varias crisis que ha atravesado el País.

- Hasta hoy el BID ha financiado **10 proyectos del sector privado** en México de los cuales tres están repagados, cuatro en fase de reembolso y tres en proceso de desembolso o otorgamiento (garantía).   Solo uno de esos proyectos (Energia, IPP) entró en default por un periodo de seis meses.. La situación se resolvió y el proyecto empezó a generar niveles de ingresos suficientes para pagar su deuda con el BID y finalmente fue comprado por una compañía quien prepagó la deuda con el BID.

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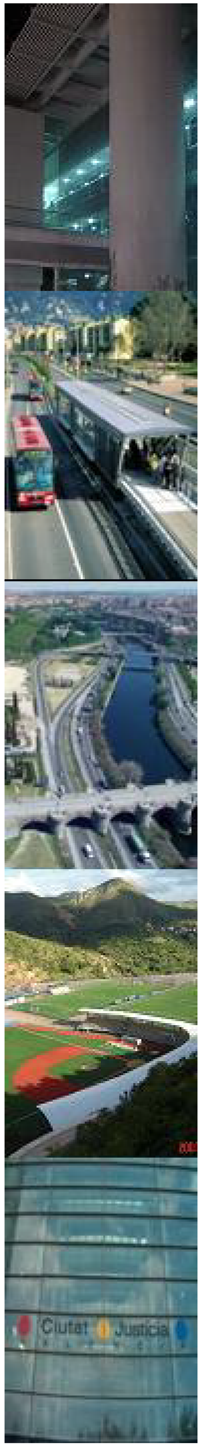
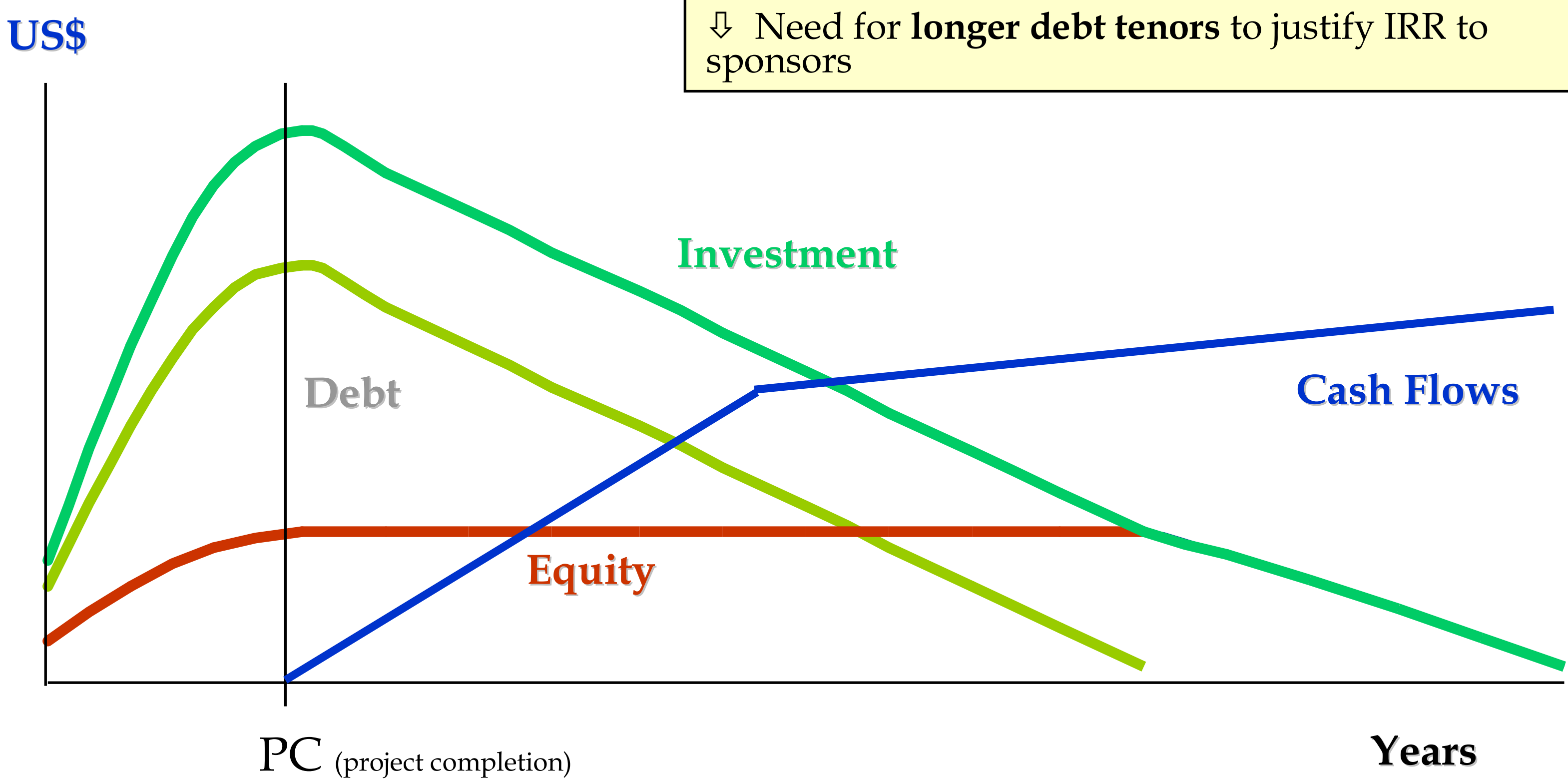
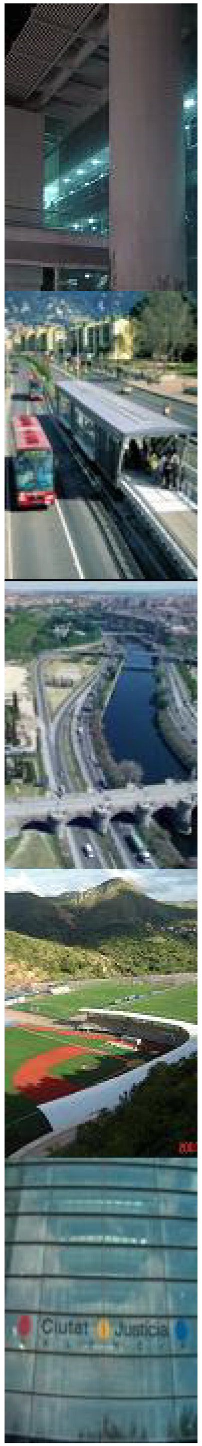


Bancabilidad de Proyectos : Volatilidad Cash Flows

- **Repayment of Debt is based on project cash-flows (non-recourse to sponsors)**
- Relatively high initial investments
- Need for **longer debt tenors** to justify IRR to sponsors

Basic Structure :



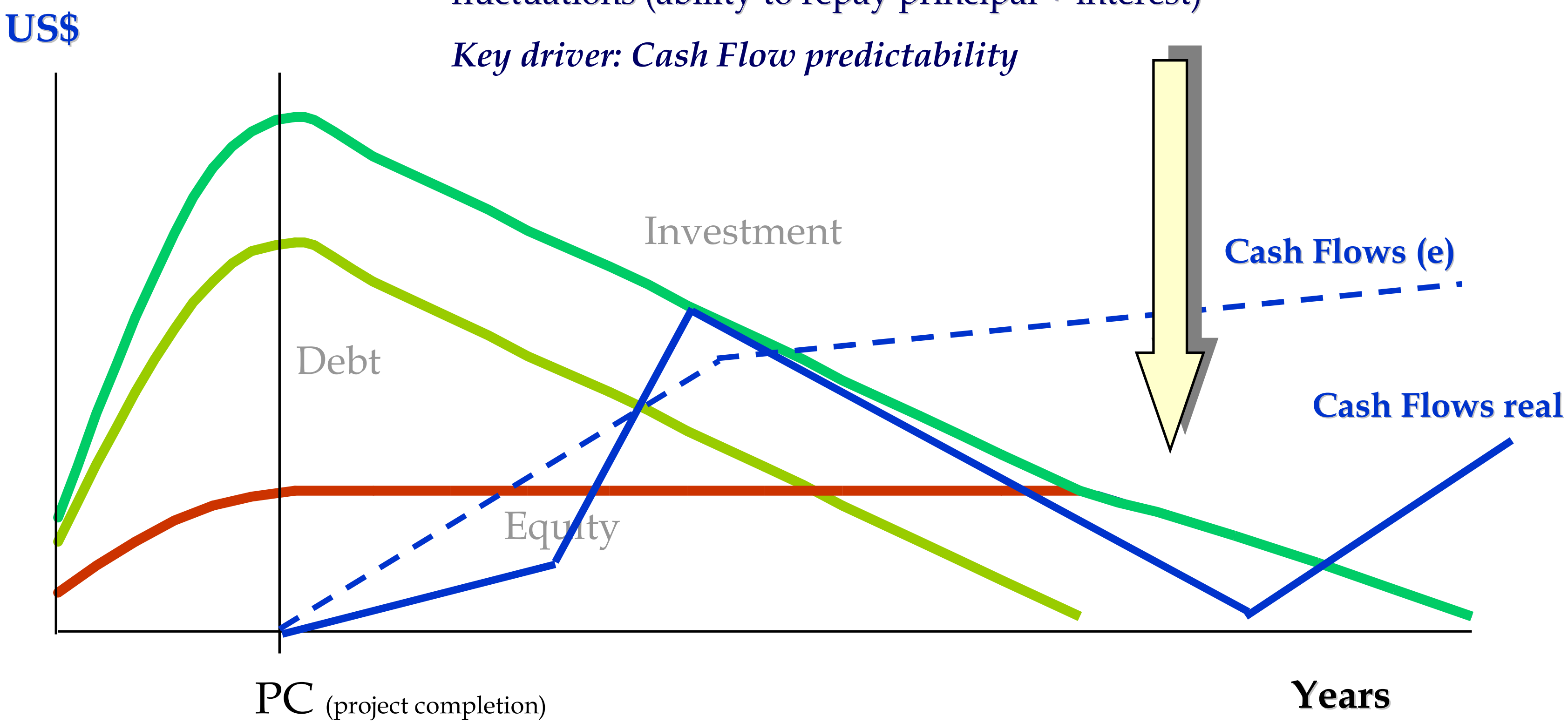


Bancabilidad de Proyectos : Volatilidad Cash Flows

Basic Structure :

Risk Mitigation products : Minimize cash flows downward fluctuations (ability to repay principal + interest)

Key driver: Cash Flow predictability



<u>Capital Markets:</u> Long-Term Financing

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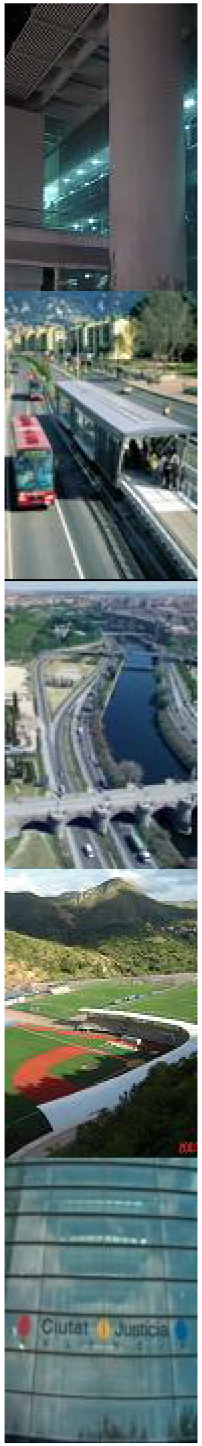

Análisis de Riesgos: Identificación

Riesgos Relacionados al Proyecto

(relativamente manejables por inversores y prestamistas)

- **Construcción y Puesta en Marcha (costo de ingeniería y construcción / plazo de construcción)**
- **Riesgo Operacional**

  (know how técnico y operativo)
- **Riesgo de Crédito**

  (project leverage)
- **Riesgo Ambiental**

  (pasivos pasados y futuros, retrasos, sobrecostos)

Riesgos No Relacionados al Proyecto

(no manejables por inversores y prestamistas)

- **Riesgo Politico**

  (expropiación, violencia política, convertibilidad y transferencia de moneda)
- **Riesgo Regulatorio**

  (default de obligaciones contractuales del Gobierno; ej., fórmulas de ajuste, derechos de vías)
- **Marco Macroeconómico**

  (cambios en el balance macro en corto plazo; ej., tipo de cambio, inflación, etc.)
- **Marco Legal**

  (regla legal, ej., sistema judicial, procedimientos regulatorios y arbitraje)

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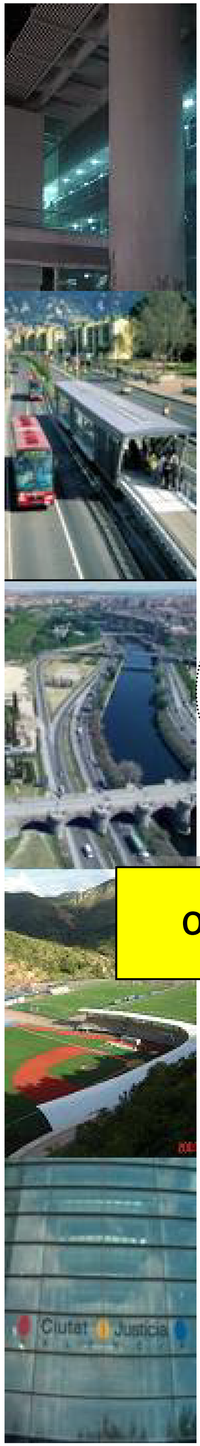
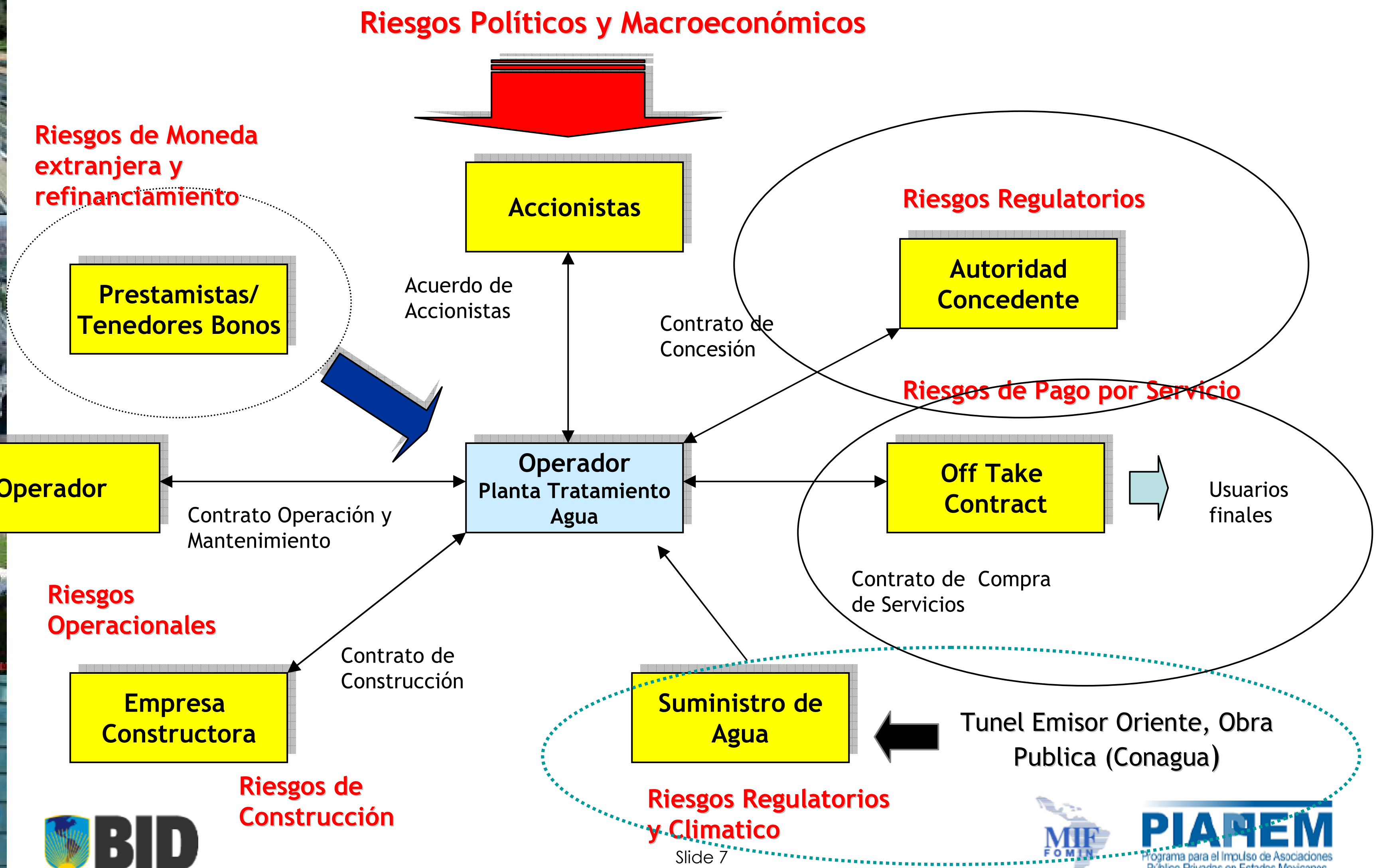


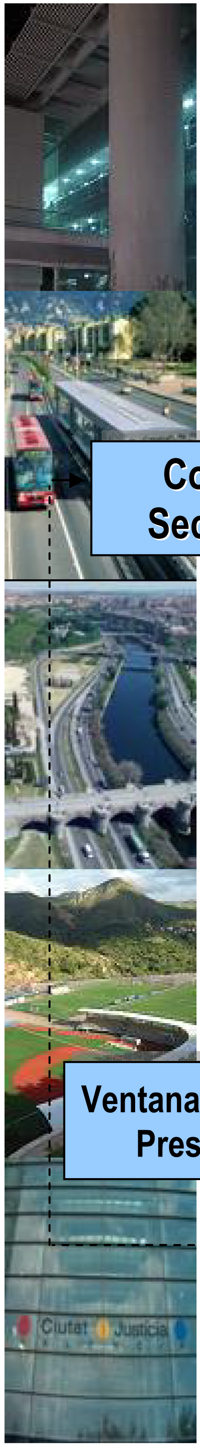
Análisis de Riesgos: Estructura



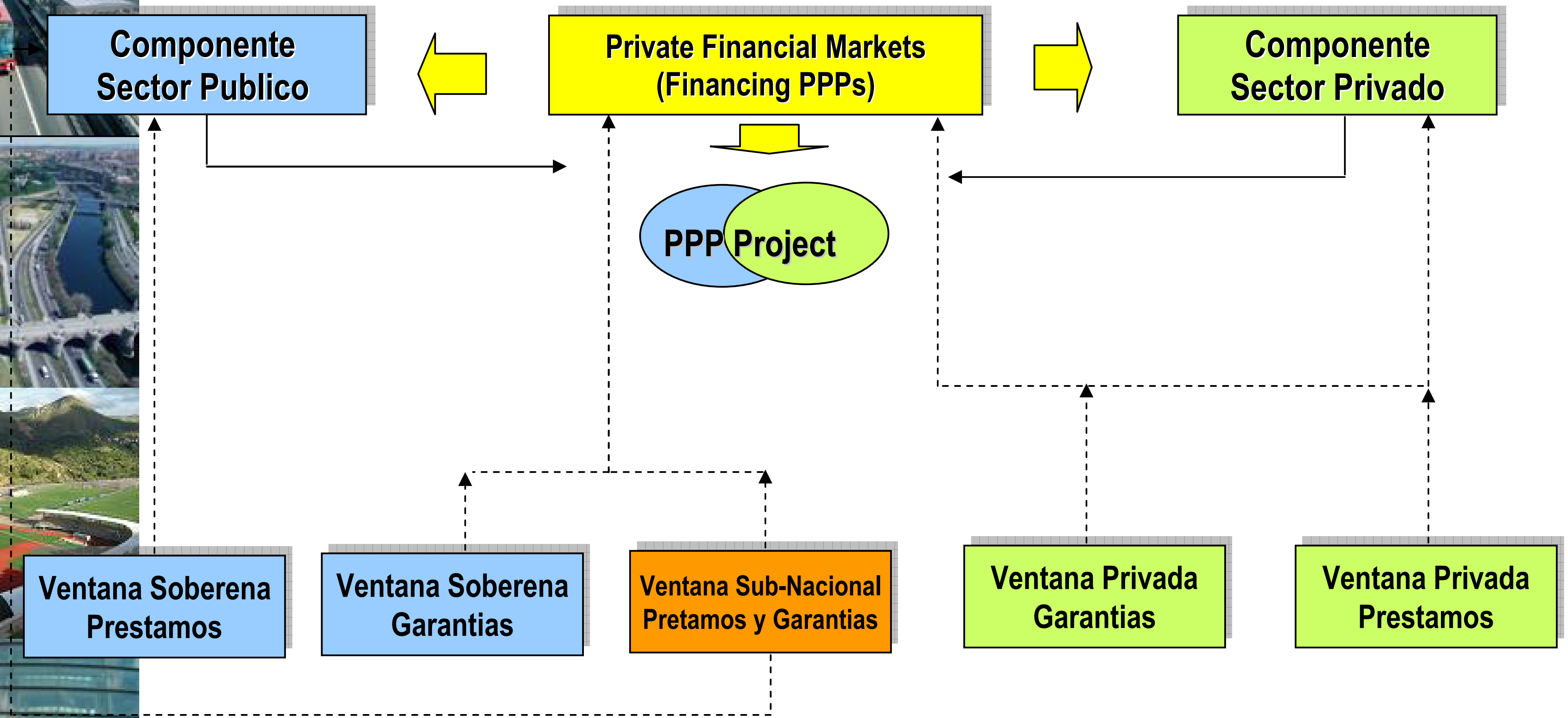
Evaluación y Mitigación de Riesgos

No Soberanos ←→ Soberanos

Riesgos	Riesgo Construcción	Riesgo Operación	Riesgo Medio ambiental	Riesgo de Demanda	**Riesgo Político**	**Riesgo Regulatorio (Caso Planta Tratamiento Agua)**	Riesgo Macroeconómico
Efecto en Flujo de Caja	Sobrecostos y Retrasos	Generación de ingresos y aumento de costos de operación	Pasivos Ocultos	Generación de Ingresos	Expropiación transferencia convertibilidad y cese en la generación de ingresos	Pago de Agua tratada. 3 entidades responsables del pago de tarifa. No existe presupuesto multi anual.	Generación de Ingresos. Devaluación inflación, capacidad de pago usuario
Impacto	Medio	Bajo	Medio	Alto	Bajo (MEX)	Alto	Bajo (MEX)
Instrumento de Mitigación	EPC Contract and performance bonds	Contrato de Operación	Evaluación Ambiental	Garantía de Ingresos / **VPN** Concession Garantías Parciales de Riesgo	Seguro de Riesgo Político	Contrato de concesión Garantías Parciales de Riesgo. Garantias parciales de credito (AAA)> Derivados	Financiamiento en moneda Local Derivados Deuda en tasa fija
Asignación (allocation)	Privado	Privado	Privado/ Publico	Privado/ Publico	Privado/ Publico	Publico	Privado/ Publico



BID : Soporte Financiero para Estructura APPs



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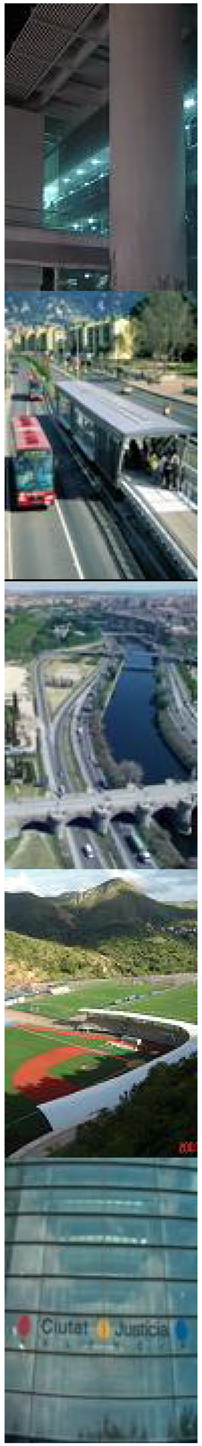
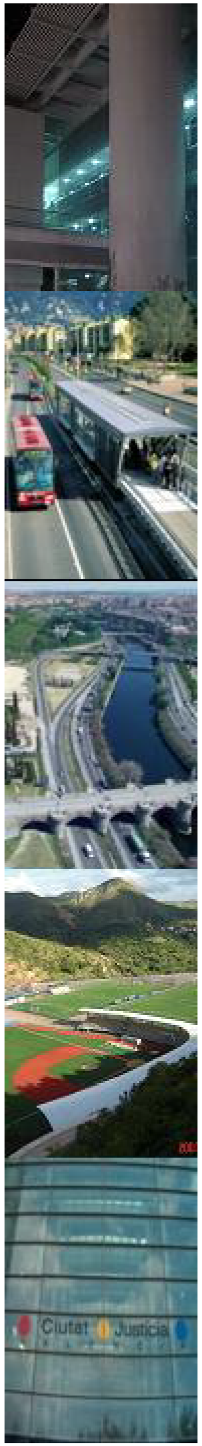


BID : Soporte Financiero para Estructura APPs

- **Ventana Soberana**
  - Prestamos
  - Garantias

- **Ventana Sub-Nacional (Estados y Municipios)**
  - Prestamos
  - Garantias
  - Subordinada

- **Ventana Privada**
  - Prestamos
  - Garantias
  - Subordinada

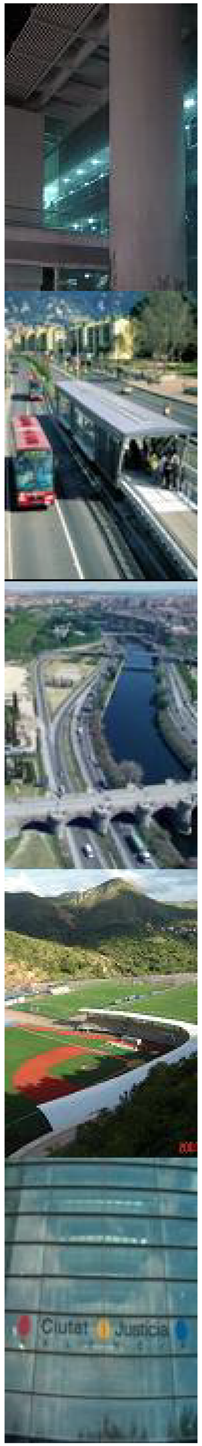


BID: Garantias y Derivados

Aplicaciones:

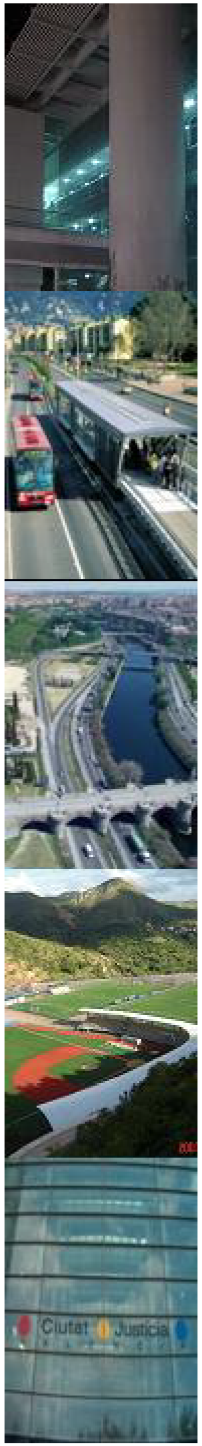
Design the "optimal" partial credit enhancement for a given project in order to improve its credit risk profile enough to capture private capital on adequate terms & conditions

- **Mezzanine Guarantee**
- **Pool Guarantee**
- **Rolling Guarantee**
- **Maturity Guarantee**
- **Co-Wrap Guarantee with Co-insurance**



BID: Garantias y Derivados

- **Mezzanine Guarantee**
  - A "credit" loss protection enhancement with IDB providing a guarantee for a **specified mezzanine layer of credit risk, thereby elevating the overall transaction to investment grade on the local currency scale**. It is anticipated that subsequent to the provision of the mezzanine guarantee by the IDB, the issuer could seek, if warranted, a full wrap guarantee on the transaction from a private financial guarantor.
    - Illustration: For a project bond, the IDB could provide a partial guarantee for an external liquidity reserve, which would pay out after the transaction's internal credit enhancement (such as cash reserves or sponsor recourse) has been exhausted, but prior to the local investor's capital being at risk for the remaining exposure.



BID: Garantias y Derivados

Transaction (Receivables Securitization)

Project Revenues (High Credit Risk Quality Layers)

Layer of Lower Credit Risk Quality

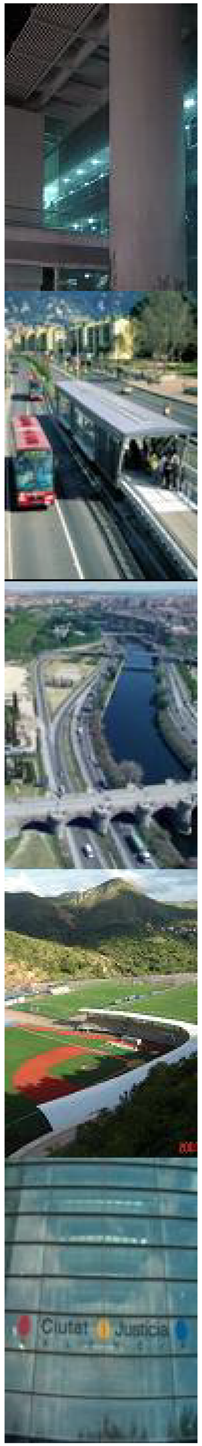
Mitigation of the lower credit risk quality and improving the transaction rating attracts participation of **Monoline Insurers to provide a "wrap"** on the whole transaction, improving further the transaction credit rating.

<u>Transaction Reserves</u>

- Over-collateralization
- Project Debt Service Reserve Acount
- Liquidity Reserve (sponsors recourse)

Partial Guarantee

(a portion of the credit loss on the transaction, -- debt service)



BID: Garantias y Derivados

- **Pool Guarantee for Asset-Backed or Mortgage-Backed Bonds**

  – A partial credit enhancement product with IDB providing a guarantee for a portion of principal and interest sufficient to offset potential losses resulting from non-performing assets within the underlying collateral pool. The Pool Guarantee's amount will be calibrated for each transaction to improve the project's credit rating in a manner sufficient to attract targeted local investors.

    • Illustration: A bank with a mortgage portfolio may pledge mortgage receivables as collateral to repay a bond issue. Although the mortgage collateral enhances the bond's credit quality, the information on the collateral in emerging markets may not be adequate (e.g. incomplete records of past performance) and as such, the collateral may not be sufficient to attract local investors to purchase the bond. The IDB could further enhance the bond with a partial credit guarantee in order for the bond to achieve a credit quality sufficient to interest targeted local investors.

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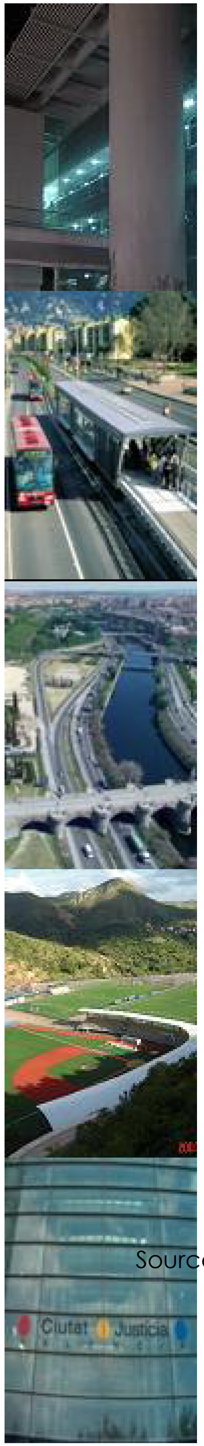

Pool Guarantee: CBO, Illustrative purposes

CBO (Collateralized Bond Obligations) for Emerging Markets (EM) Debt

1. Stressed Default Rates (%)

Collateral Rating	Desired CBO Rating BBB	A	AA
AAA	0.50	1.00	1.50
AA	1.00	1.50	2.00
A	2.00	3.00	4.50
BBB	6.00	11.00	13.00
BB+	22.00	30.00	40.00
BB	24.00	32.00	42.00
BB-	30.00	36.00	48.00

2. Assets Recovery Assumptions

EM Sovereign without guarantee	25%
EM Sovereign with guarantee (principal + 12 month interest)	40%
EM Corporate	20%

Approximation to Required Credit Enhancement
(illustration purposes)

Desired Rating (CBO)	**A**
Underlying Credit Quality of Pool (AVERAGE)	**BB+**
Stressed Default Rate for a A rating	**30.00%**
Recovery Rate (AVERAGE)	**25.00%**
Loss severity (1-recovery rate)	**75.00%**
Expected Loss (Default Rate * Loss Severity)	**22.50%**

Minimum Amount of Credit Enhancement = 22.50%
(for bond holders guaranteed payment of interest + principal)

Source: Rating Agencies Methodology (Case Example)

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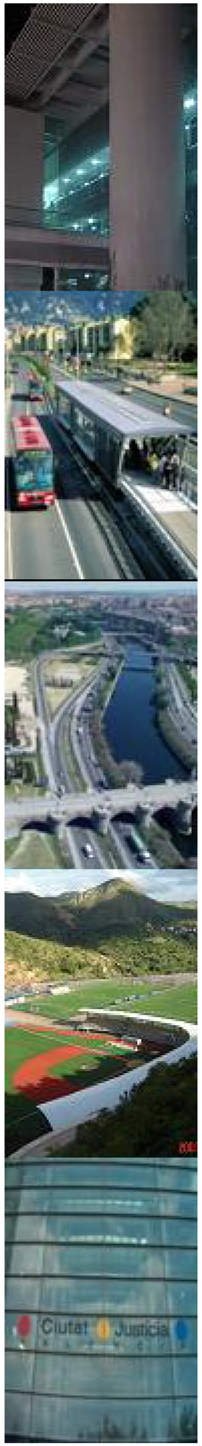
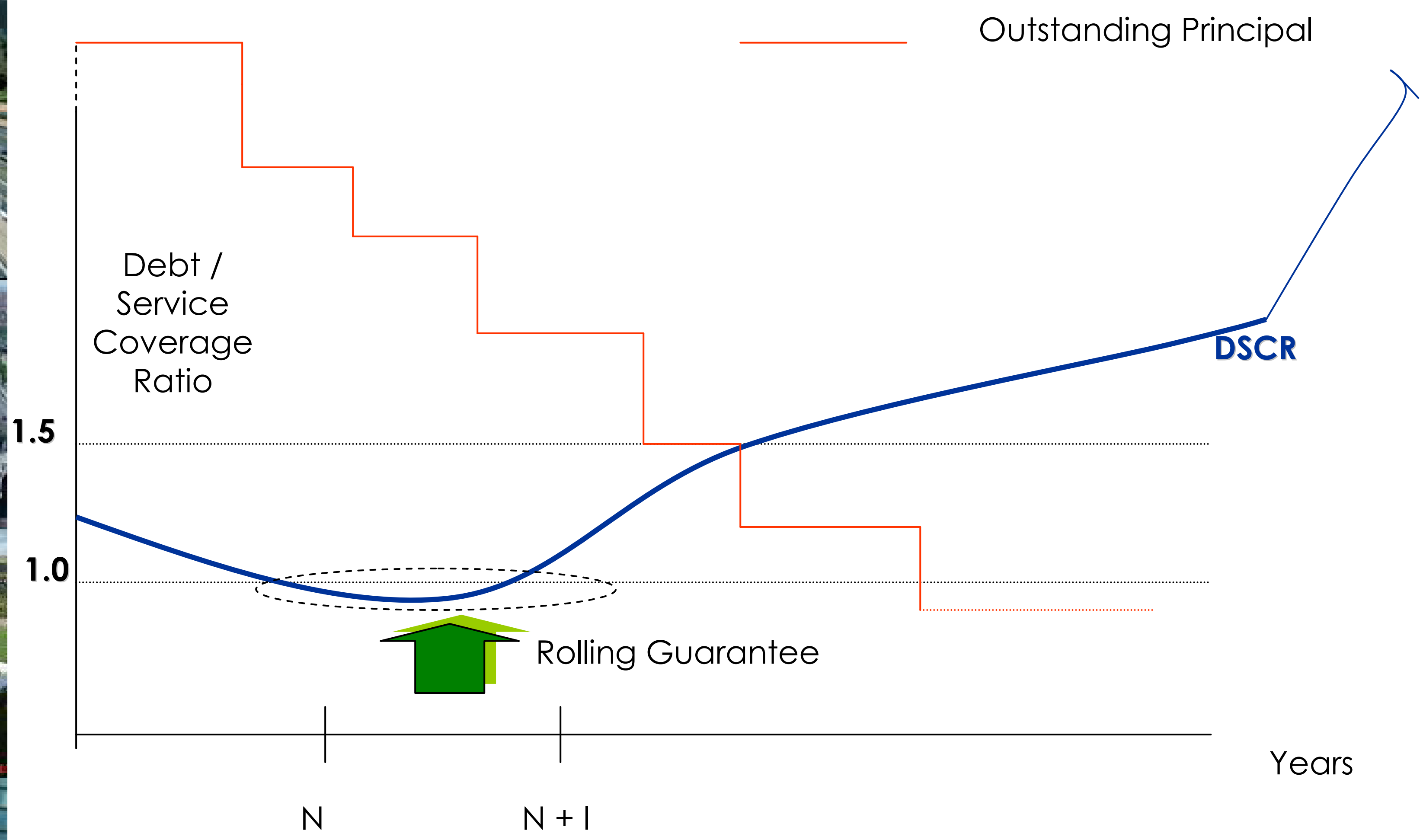
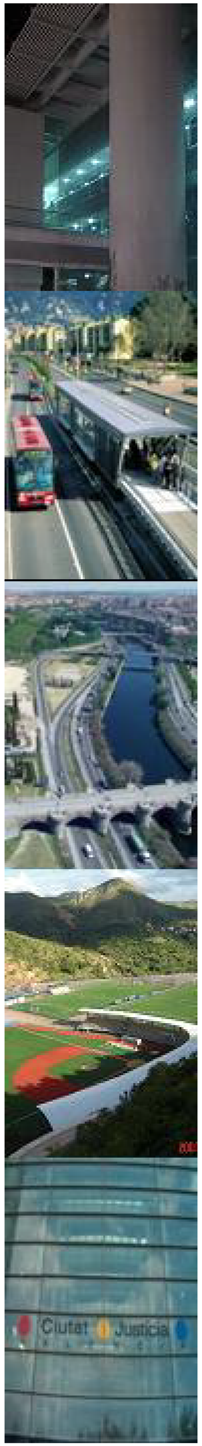


BID: Garantias y Derivados

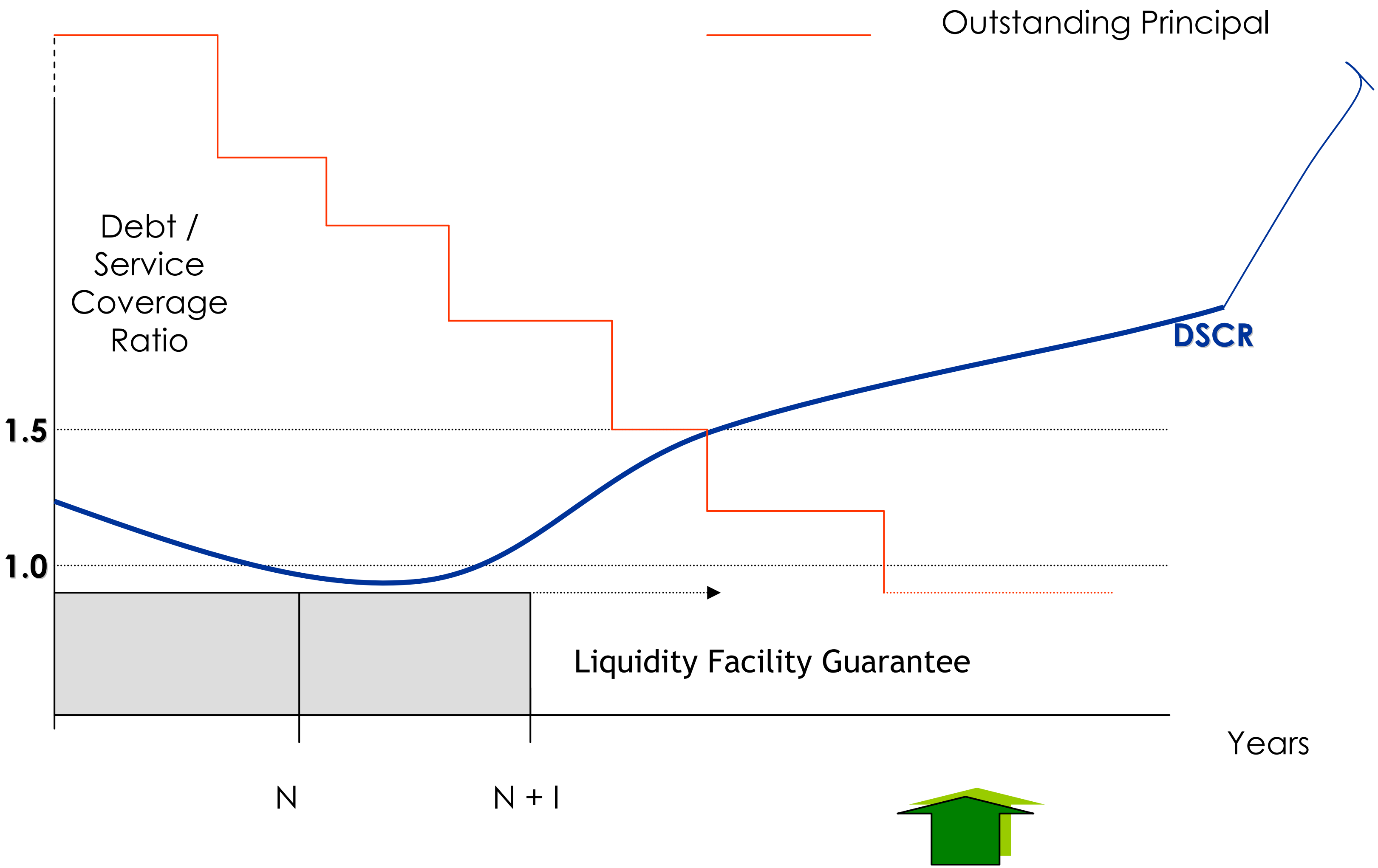
- **Rolling Guarantee**
  - A partial credit enhancement product with IDB providing a guarantee of a specified number of interest and/or principal payments, on a rolling forward basis – i.e. the guarantee rolls forward to the next installment date upon payment by the issuer of the current installment -- so that the IDB guarantee covers a rising share of remaining debt service.
  - Illustration: For a project or corporate bond issue where investors perceive a potential risk associated with a variation in the debt service coverage at some point within the overall bond tenor, or are uneasy about a period of heavy corporate expenditures, the IDB could provide a rolling guarantee to smooth out the repayment profile and allay investor concerns about potential timing/cash flow issues.

Rolling & Reinstatable Guarantee (Carreteras)





Rolling & Reinstatable Guarantee (Carreteras)



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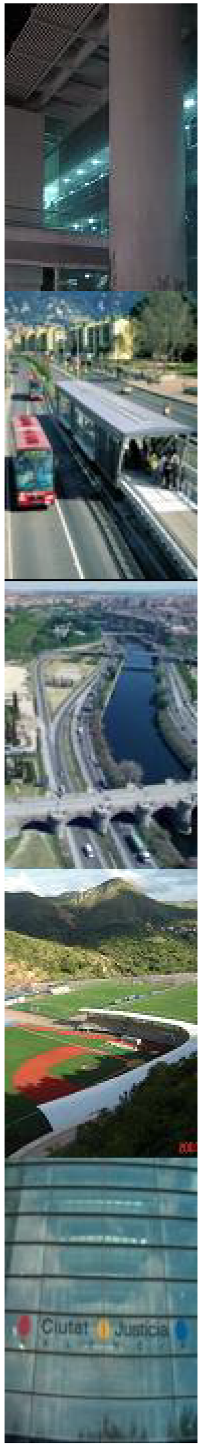
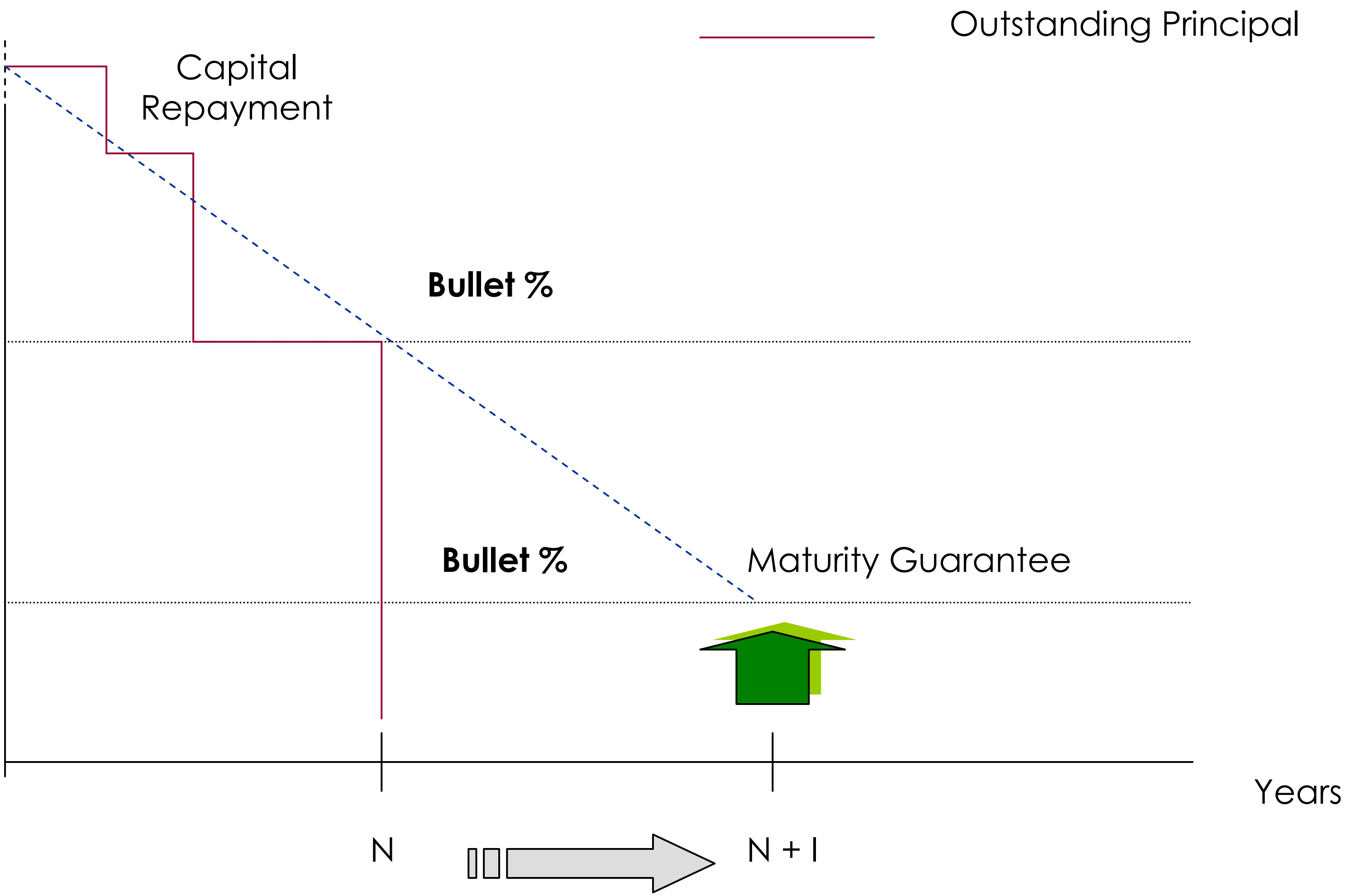
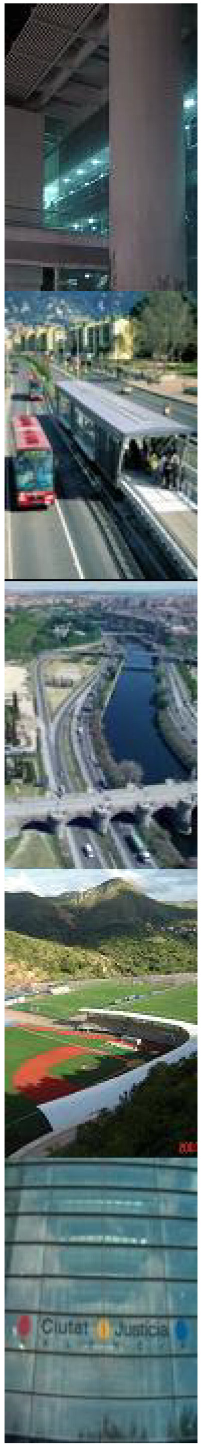


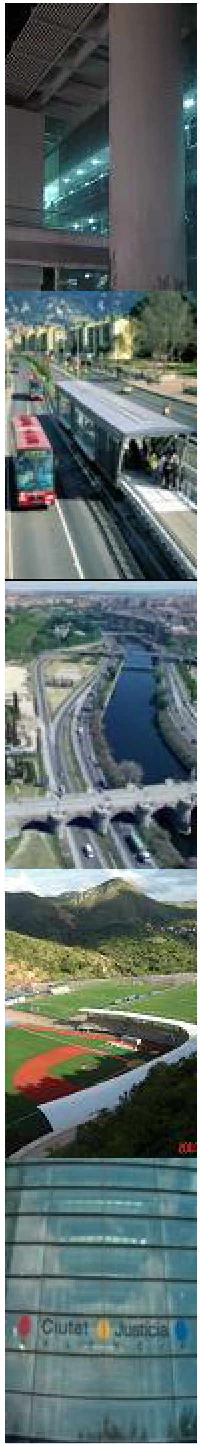
BID: Garantias y Derivados

- **Maturity Guarantee**
  - A partial credit enhancement product with IDB offering a put option to investors to refinance an issue at maturity with the IDB -for the purpose of persuading investors to accept longer maturities.
    - Illustration: In certain emerging markets the interest rate environments are such that even for private issuers with very strong credit quality, tenors longer than three years, for example, are just not available. In these markets, the IDB could offer issuers a maturity guarantee, to attract local investors with an appetite for 3-year paper into longer maturities, by providing them an exit if desired.

Maturity Guarantee:
Riesgo de Refinanciamiento

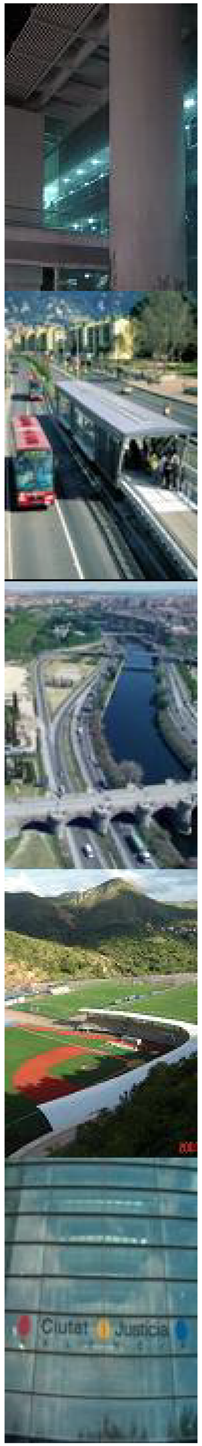






Caso : Chile, Santiago-Valparaíso (Garantia con Monoliner)

- Concession awarded to a consortium led by ACS and SACYR Group (Spain) in 1998 in Santiago de Chile, Chile.
- The toll-road concession consists in the expansion and refurbishing of 110 km linking Santiago-Valparaíso and Viña del Mar
- Investment program of US$ 450 million to be partly financed through a local currency bond issue for the equivalent of US$ 300 million.
- IDB provided a credit guarantee to enhance the bond´s rating to a level acceptable to local institutional investors. The IDB is Guarantor of Record for up to US$75 million with the remaining amount provided by private insurers. FSA (USA based private insurer) acted as co-guarantor of the transaction.
- The issue before the IDB/FSA credit enhancement has been rated Baa2 by Moody’s, which is the highest investment grade rating ever given to a toll road project in Chile. This is also the largest infrastructure bond sold primarily to Chilean pension funds and insurance companies, paying a coupon of 6.02 percent (Unidad de Fomento), with a maturity of 23 years.
- The issue was rated AAA by local rating agencies after the IDB/FSA enhancement. It was successfully placed in April 9, 2002

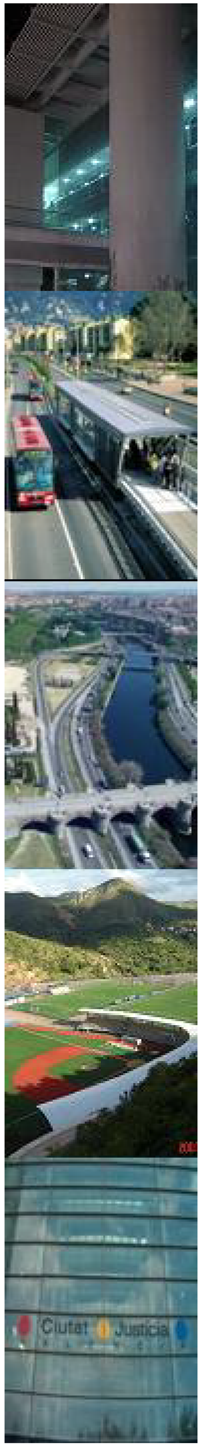


Case : Grana & Montero, Asset Backed Security

- G&M Developer Group is the largest engineering services group in Peru with around US$200 million of total assets and US$180 million in revenues. t is mainly dedicated to the business of engineering and construction services.

- It also provides petroleum services (fuel terminals, drilling, extraction), information systems, engineering and real estate developing services. 70 years of history and excellent work completion track record.

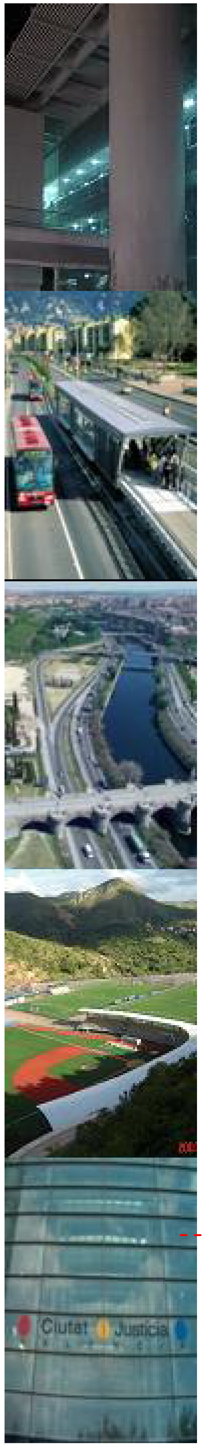
- BBB (triple B) national scale rating as a corporate by Fitch and Equilibraim, local rating agencies



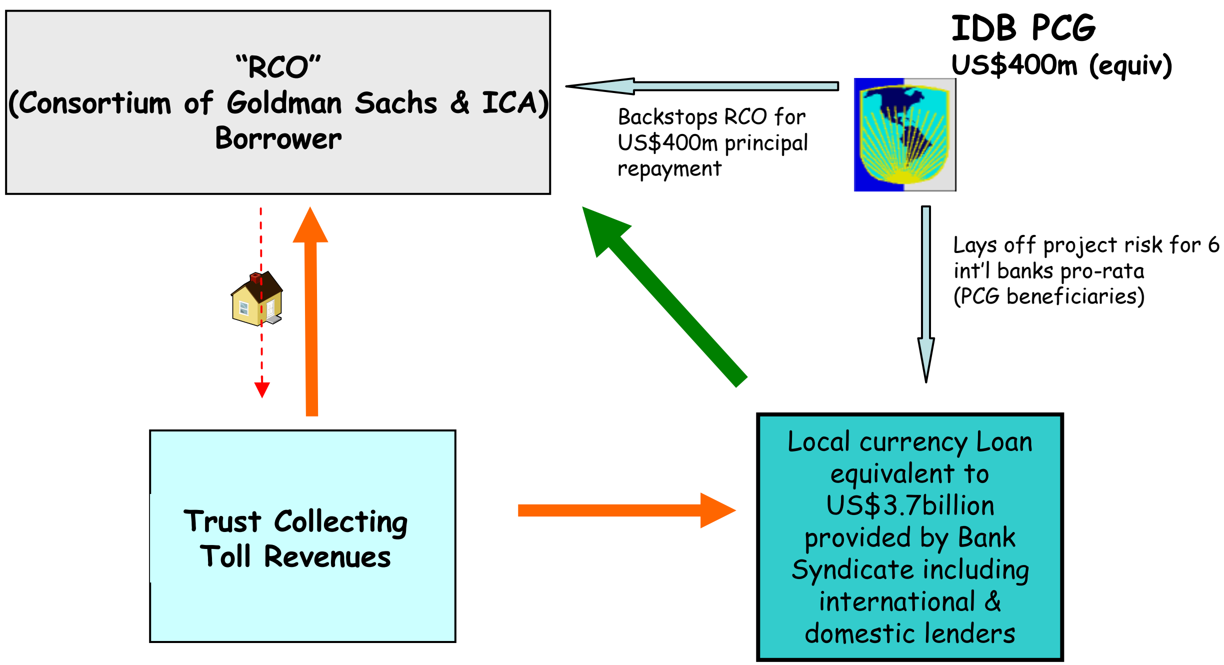
Grana & Montero : Asset Backed Security

- Bond Profile
  - Amount: US$50,000,000
  - Term: 8 years
  - Grace period: 6 months
  - Amortization: Semi-annual principal and interest payment
  - Type of payment: Equal coupons (principal + interest), mortgage style
  - Coupon amount: US$4.3 million (with 8.5% interest rate)
  - Final payment: October 2011
  - Shadow rating -AA/AA

- Guarantee Structure
  - Amount: Up to US$20 million by IDB and FMO
  - Coverage: Callable for the full amount as a back-stop facility or reduction of principal under consecutive events of default



Guadalajara Toll Road PCG (FARAC I)



Legend:

- Traffic Revenues
- Funding received from Syndicated Loan
- Conveyance of Toll Collections
- IDB PCG Exposure & Beneficiaries

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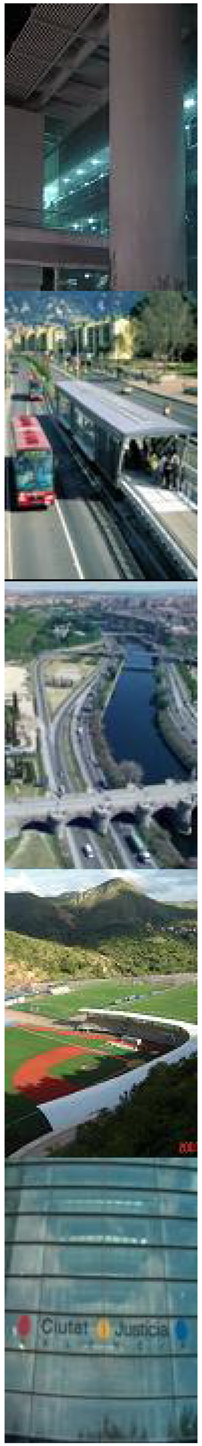

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