



World Bank



Tools to Mitigate Risks in Highway PPPs

Mobilizing Private Capital and Management into Infrastructure Development

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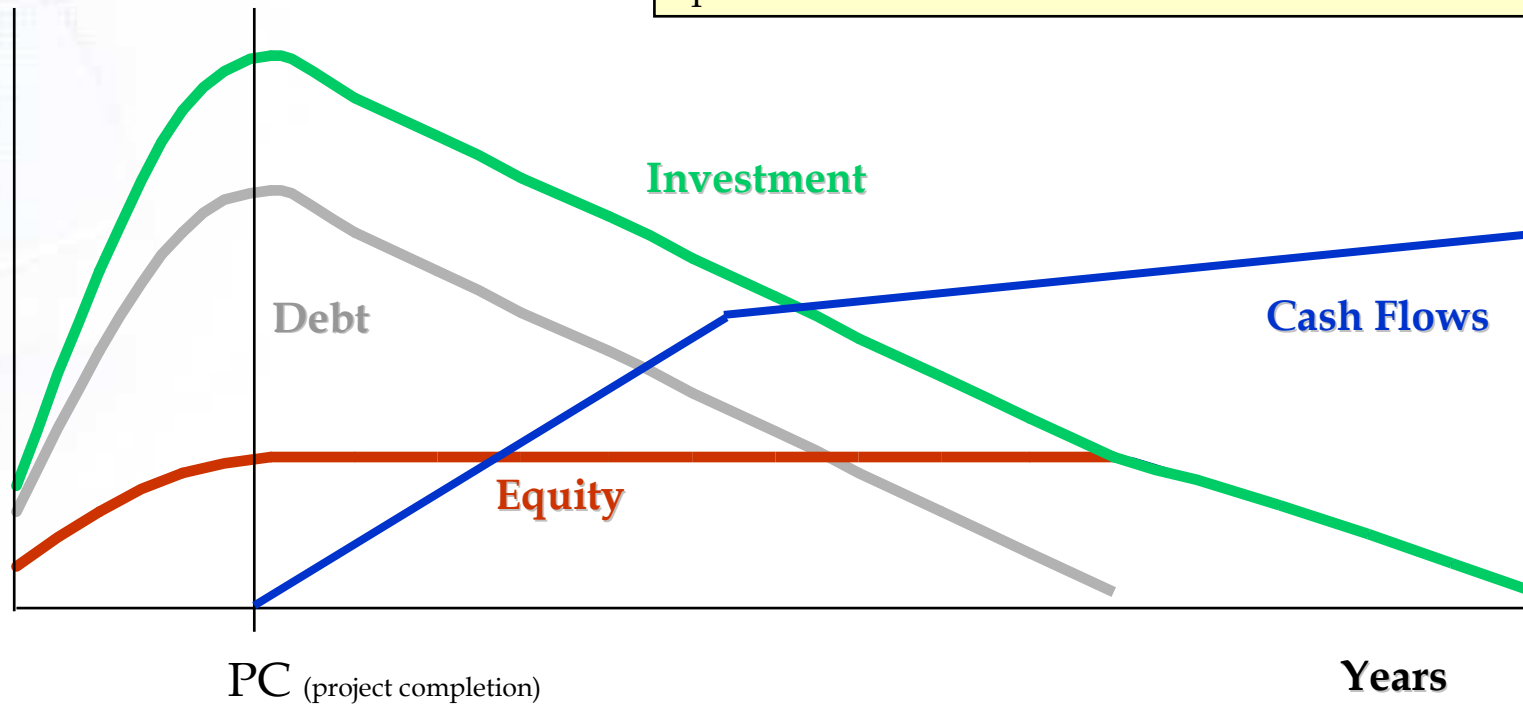
Workshop, PPP in Highways, April 3rd, 2006



Toll Road PPP : Cash Flow Fluctuations (Proxy for risk)

Basic Structure :

US\$



- ↓ 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

Capital Markets: Long-Term Financing





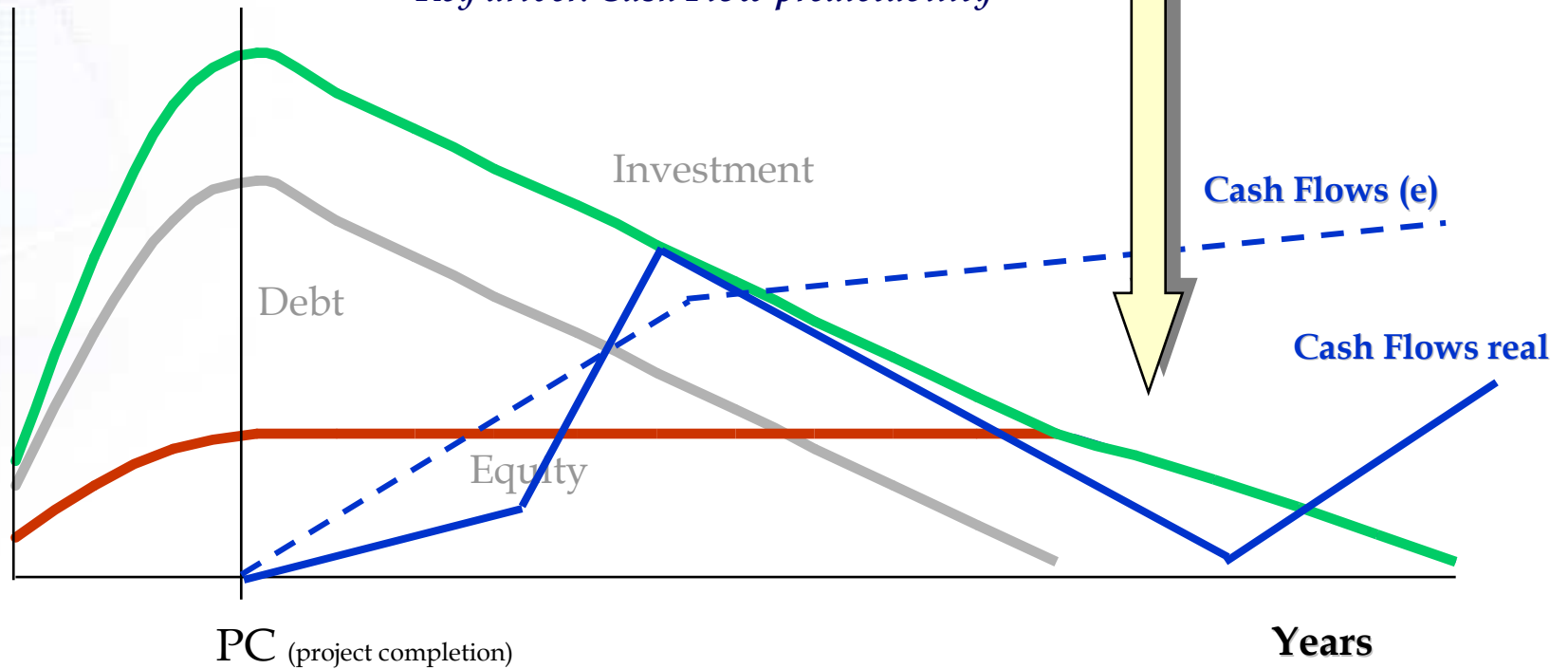
Toll Road PPP : Cash Flow Fluctuations (Proxy for risk)

Basic Structure :

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

Key driver: Cash Flow predictability

US\$



Capital Markets: Long-Term Financing





Toll Road PPPs : Risk Assessment

Project Specific Risks (non-sovereign)

- Completion Risk (engineering & construction cost / time cost control)
- Operational **Performance Risk** (technical & operational know-how)
- Environmental Risk (future liabilities, project delays, costs overruns)
- Credit Risk (project leverage)

Country (Economy wide) Risks (sovereign)

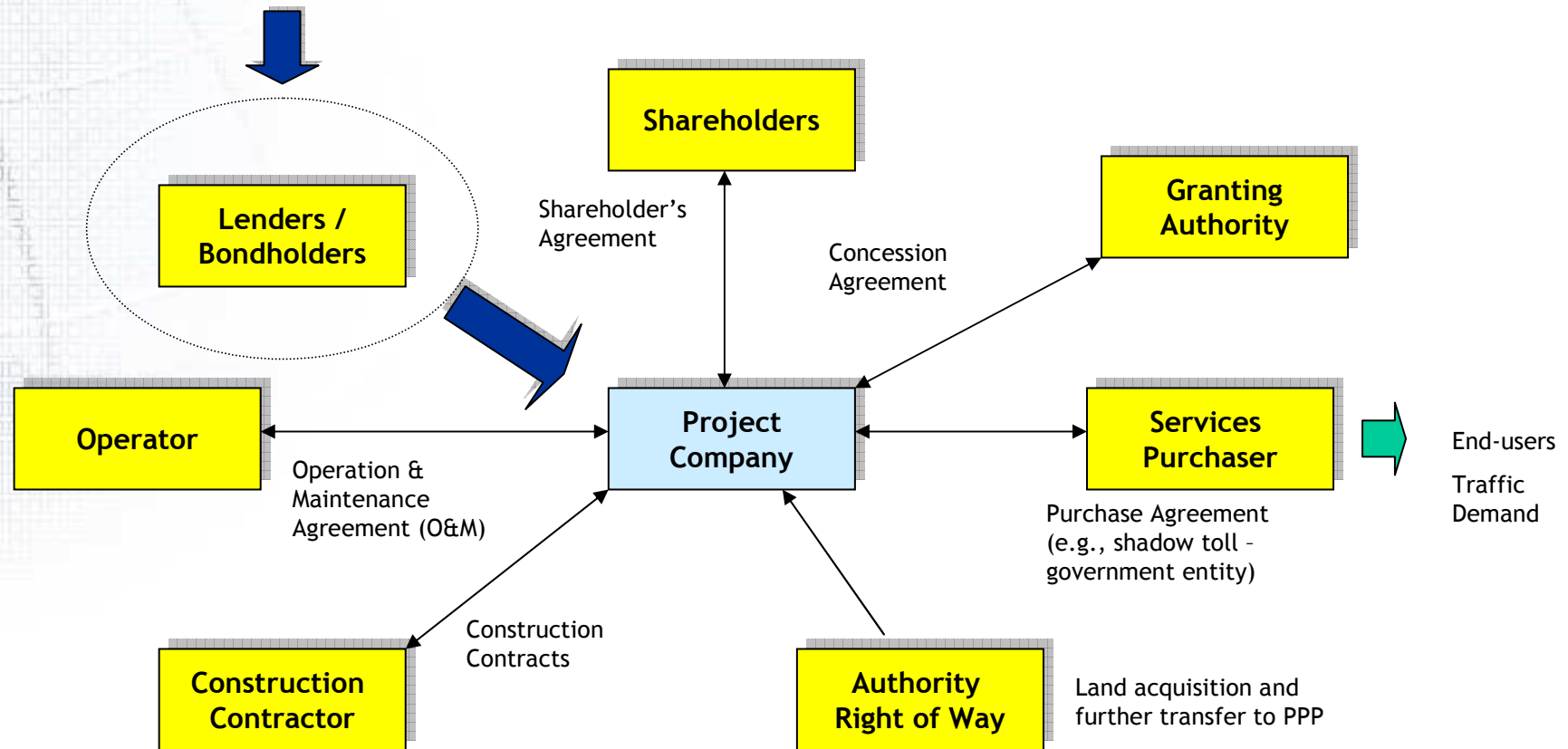
- Inflation, interest rate and **exchange rate fluctuations**
- Political Risk (expropriation, political violence, currency convertibility & transfer)
- **Regulatory Risks.** (Government's default on contractual obligations, i.e., pricing formulas, right of way - land acquisition risk, construction of alternate road, etc.)
- Legal Environment (rule of law, i.e., judicial system, regulatory procedures and arbitration)





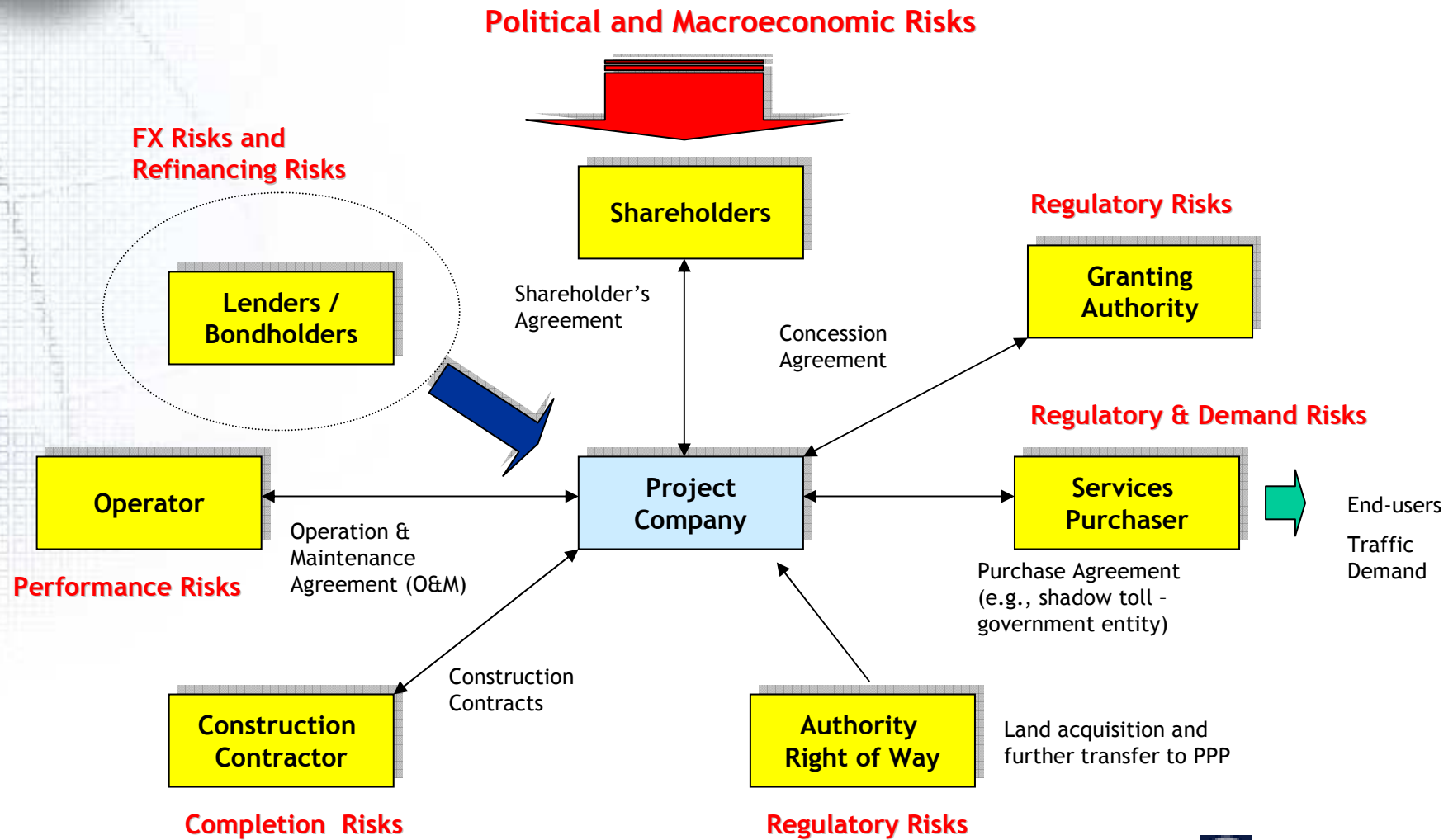
Toll Road PPP Finance : Risk Structuring

Key Stakeholders in the Risk Assessment and Risk Allocation of Toll Roads PPP Finance





Toll Road PPP Finance : Risk Structuring





Toll Road PPP Finance : Risk Mitigation

	Non-sovereign ←			→ Sovereign			
Risks	Completion Risk	Performance Risk	Environmental Risk	Demand Risk	Political Risk	Regulatory Risk (inc. Land Acquisition Risk)	Macroeconomic Risk
Cash Flow effect	Cost overruns and delays.	Revenue generation and operational costs increase	Hidden liabilities	Revenue generation	Expropriation , transfer, convertibility Cease of revenue generation	Revenue generation. Tariff Adjustment; Right of Way, Termination payment	Revenue generation. Devaluation / inflation impact of cash flows
Impact	High	Low	Low	High	Low	High	High
Risk Mitigation Instrument	EPC Contract and performance bonds	Performance based contracts	Environmental Assessment	Traffic Minimum Revenue Guarantees / VPN Concession Partial Credit Guarantees	Political Risk Insurance	Concession Contract Partial Risk Guarantees	Local currency financing
Provider	Private	Private	Private	Private/Public	Private /Public	Public	N.D.



Demand and Tariff Risk: Rolling Guarantee

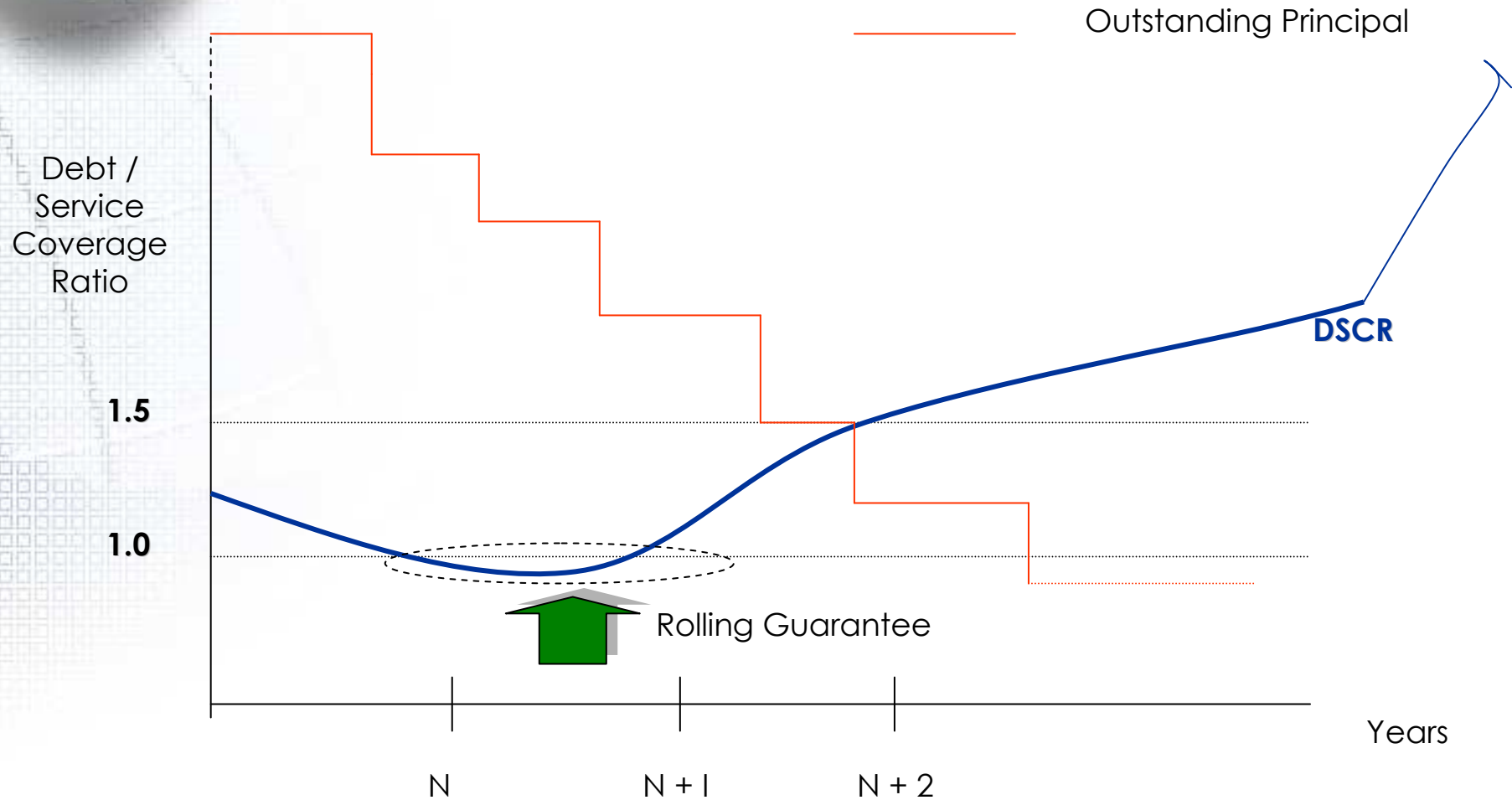
Rolling Guarantee

- A partial credit enhancement product 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 automatically (if no claim has taken place) or upon payment by the issuer of a previous claim -- so that the guarantee covers a rising share of remaining debt service.
- For a toll road project where investors perceive a potential risk associated with a variation in the debt service coverage due to slow traffic, delays on tariff adjustments or both at some point within the overall bond tenor, or are uneasy about a period of heavy investments (i.e., rehabilitation), the rolling guarantee will *smooth out the repayment profile* and reduce investor concerns about potential timing/cash flow issues.





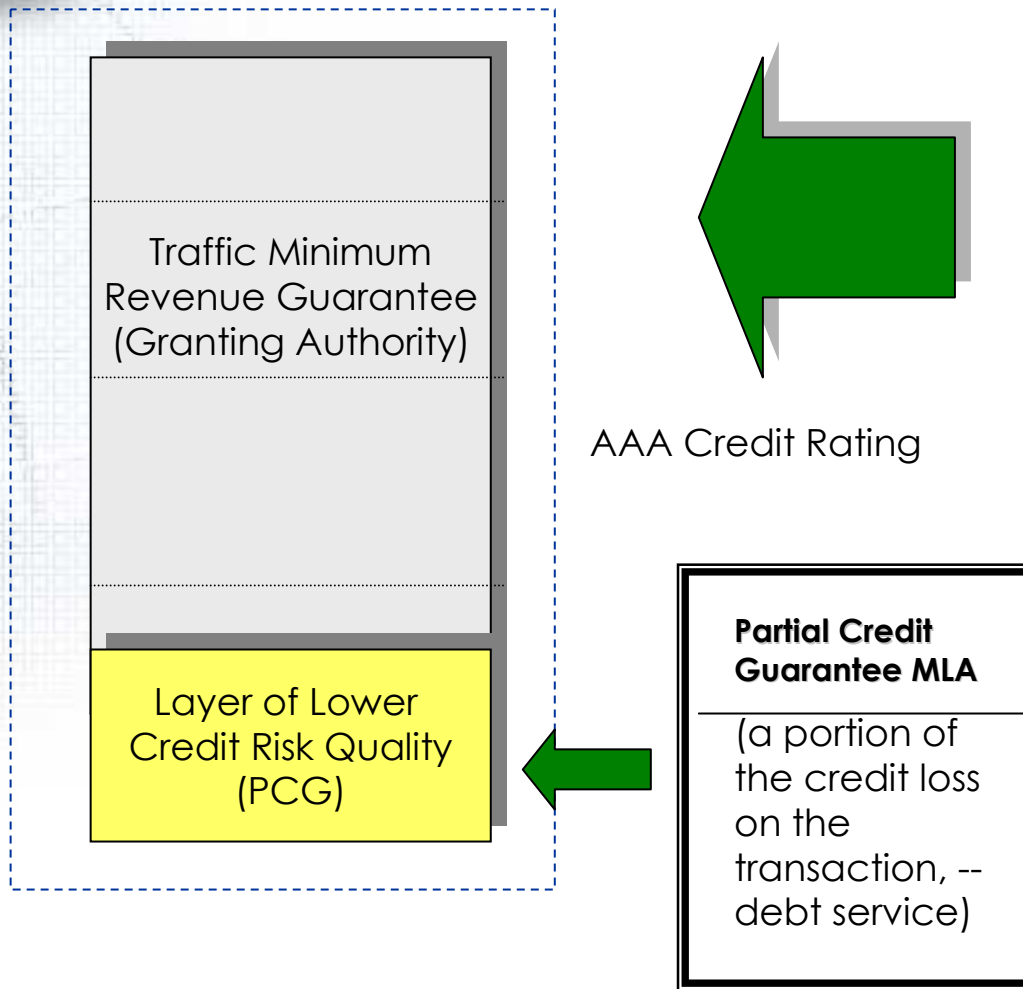
Demand and Tariff Risk: Rolling Guarantee





Demand and Tariff Risk: PCG + Monoliner

Future Flows Securitization of Tolls



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.

BBB Credit Rating



Financial Markets

Local Currency Debt Markets

- Domestic savings capacities
- Bank Markets. Short-term nature. Depth and liquidity dependent upon financial sector reform and competition.
- Capital markets. Depth and liquidity dependent upon social and safety net reform (pensions, insurance, etc.) and adequate securities regulatory framework

Cross-border Debt Markets

- Global Financial Markets
- Driven by risk & return balance
- Highly sensitive to political –economic volatility (i.e., financial crisis 1997-2001)
- Bank markets : have not quite return to developing countries infrastructure finance
- Capital markets : depth and liquidity. Risk & return oriented (new participants). Volatile.

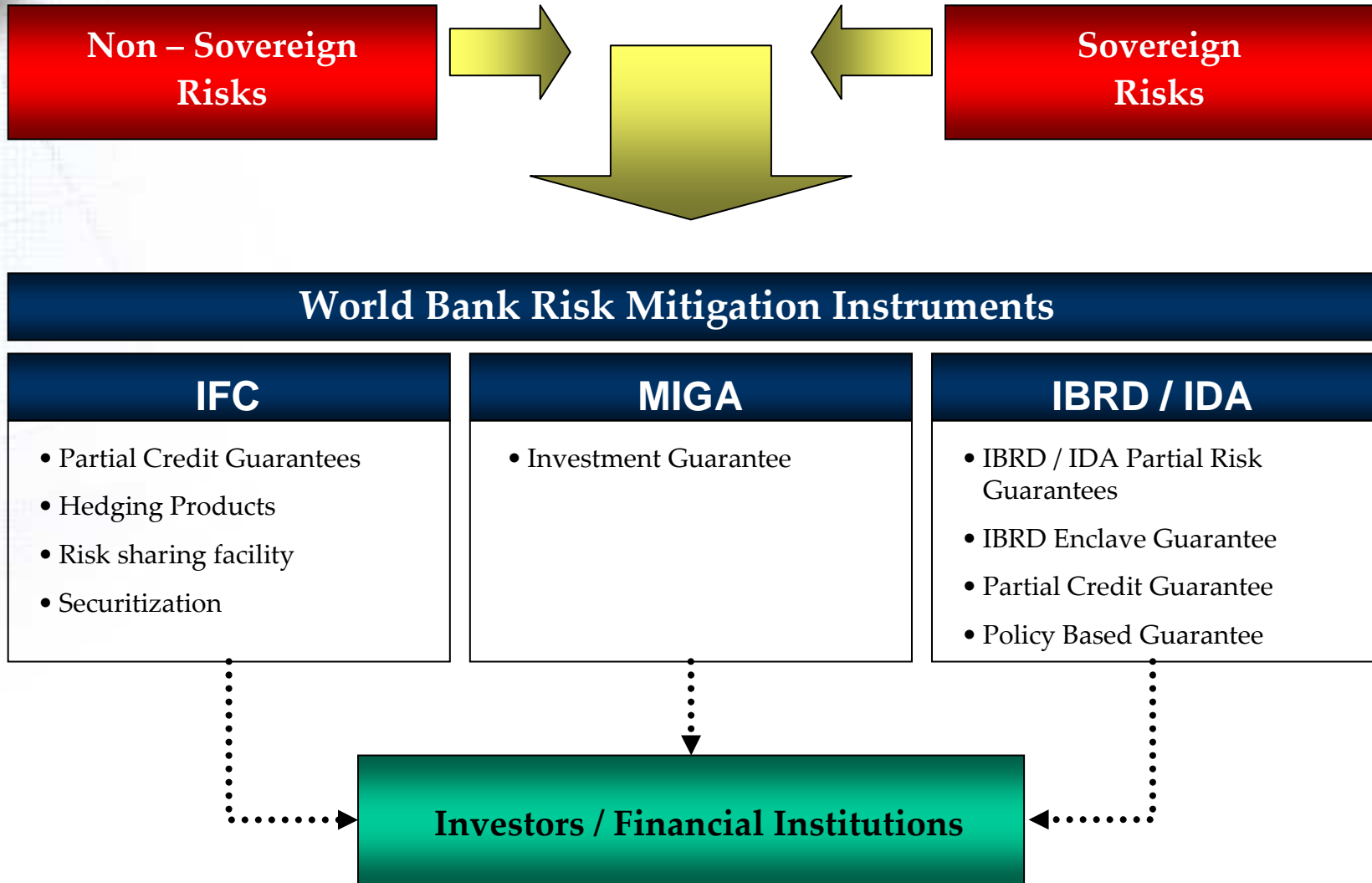
Risk Mitigation Providers

- Multilateral Development Banks and Donors (Aid, lending and guarantees)
- Export Credit Agencies (ECAs)
- Private Insurance & Guarantors
 - Political Risk Insurance
 - Financial Guarantee providers (i.e., **monoliners**, specialized risk support)
 - Derivatives





WBG: Risk Mitigation Framework





Comparison of World Bank Group Risk Mitigation Instruments

	IFC	MIGA	IBRD/IDA
Products	Partial Credit Guarantees Hedges for clients (interest rate, currency and commodity swaps)	Non-commercial political risk insurance	PRG – IBRD & IDA PCG & PBG – IBRD <u>Only</u>
Clients	Private sector investors, lenders for private sector projects	Private sector investors, lenders for private projects	Private lenders for public projects
Loans	Yes	Yes	Yes
Equity (Quasi-Equity)	Yes	Yes	No
Coverage (Risk)	Full and timely payment of principal and/or interest up to a specified amount - IFC covers all risks that may result in non- payment of a client's obligations.	<ul style="list-style-type: none"> •Currency convertibility and transferability •Expropriation •War and Civil Disturbance (incl. terrorism and sabotage) •Breach of Contract 	Government contractual Obligations <i>including</i> : <ul style="list-style-type: none"> • Currency convertibility and transferability • Expropriation • Political Violence • Breach of Contract • Regulatory • Subsidy payment (e.g. OBA)
Guaranteed Percentage	Determined on a case by case basis (credit risk driven).	Debt: up to 95% Equity: up to 90%	Up to 100% of a tranche





Comparison of World Bank Group Risk Mitigation Instruments [Contd.]

	IFC	MIGA	IBRD/IDA
Eligibility	Must be a member country	Must be a member country	Must be a member country
Tenors	Market based but IFC's involvement can lengthen tenors	Up to 15 years (20 years in some cases)	Market based
Limits	Based on client's needs	Project: up to \$110mm (net) Country: up to \$420mm (net)	Based on project and country needs and CAS allocation.
Priority Areas of Focus	All IFC recipient member countries. Providing long-term local currency financing and development of domestic capital markets.	<ul style="list-style-type: none"> • Africa • IDA eligible countries • South-South investments • SMEs 	<ul style="list-style-type: none"> • Infrastructure • IDA eligible countries
Government Counter Guarantee	No	No (through the MIGA Convention)	Yes – for IDA in the event borrower is not the sovereign, a sovereign guarantee <u>may not</u> be required.
Public Sector Projects	No	No	Yes
Areas of Collaboration	Joint project preparation, environmental analysis, Board processing, etc.		

