

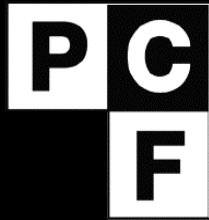


# Project Structuring for CDM and JI Projects

December 15, 2004

Charles Cormier, World Bank

# World Bank Carbon Finance Business



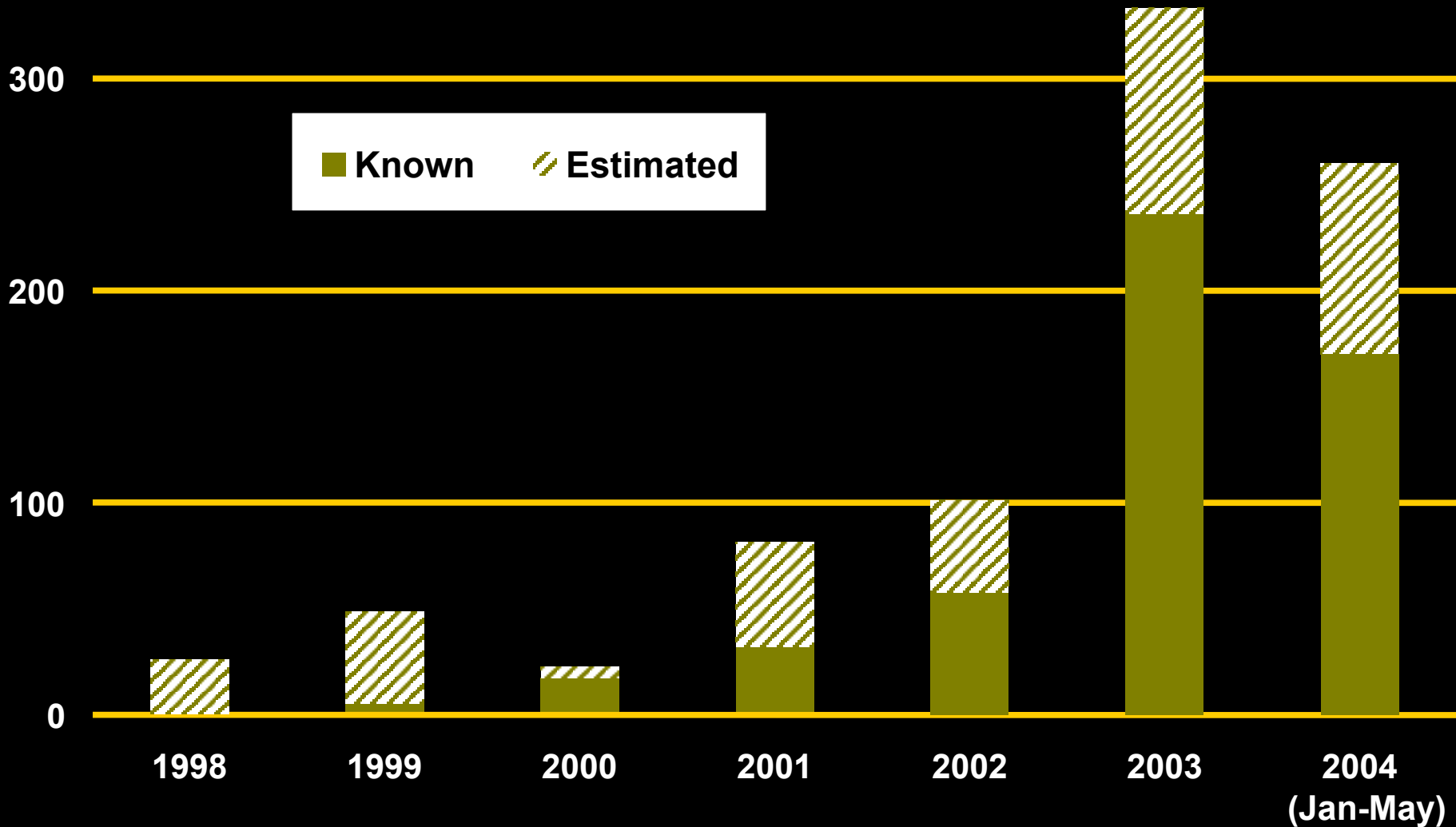
Netherlands JI  
Facility



\$450 million in carbon finance under management

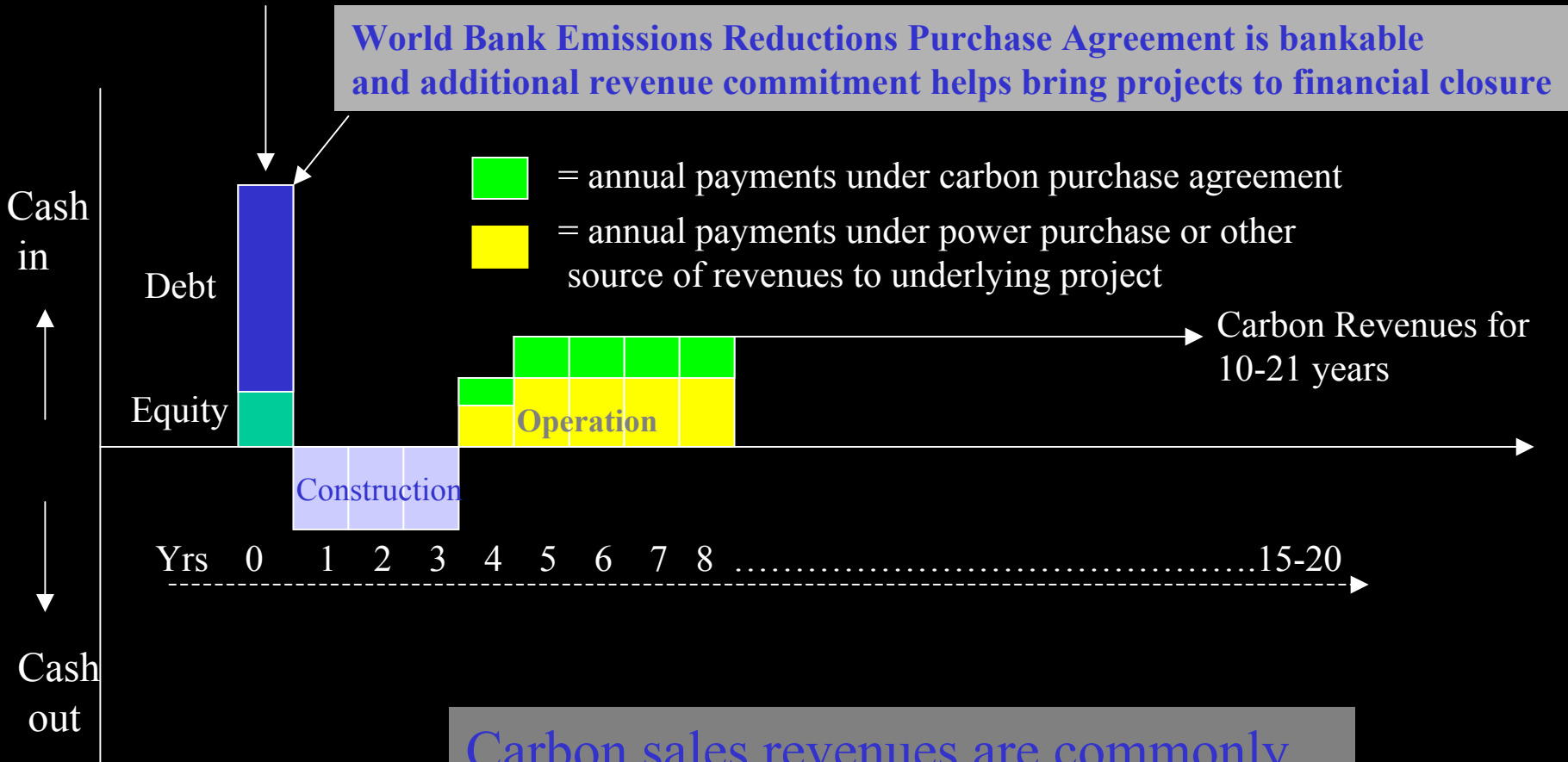
\$760 million including written commitments

# Total Value of Carbon Projects (in million U.S.\$, nominal)



# Understanding the impact of carbon finance on project financing and financial sustainability

Construction Capital for underlying climate friendly project



Carbon sales revenues are commonly in the range from 10-50% of total revenues for power and waste management projects



# 5Y of ERPAs – The Main Challenges

- Environment of Regulatory Uncertainty
- Complex Procedures and High Transaction Costs
- Political Regulator
- Additional Sovereign Risks
- SECURING UNDERLYING FINANCE FOR A PROJECT- in era where foreign direct investments to developing countries and economies in transition are decreasing



# 5Y of ERPAs – What is it worth?

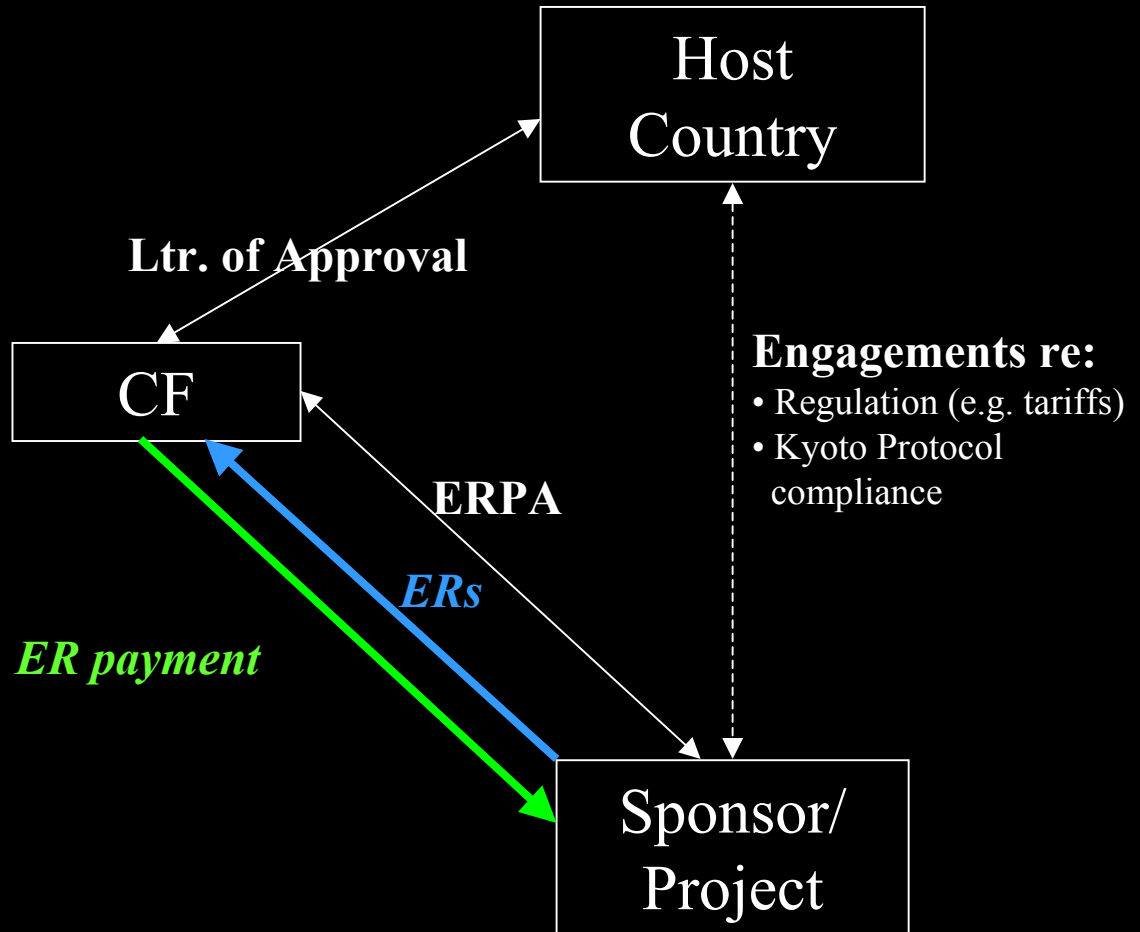
- **Additional Revenues to the project** – An ERPA increases cash flow and boosts internal rate of return
- 0.5- 2.0 in renewable energy projects/ energy efficiency; between 5-15 % for methane mitigation
- **Additional high quality income stream** - in \$ or € from investment grade payer from OECD country
- **Additional Due Diligence** – An ERPA leads to additional scrutiny and risks assessments of the project
- **Forming Additional Partnerships** – An ERPA broadens the stakeholder basis and the support for a project
- **Additional Knowledge Generation** – Developing an ERPA provides a learning experience to all parties

# Risk Management to Improve Access to Capital Markets



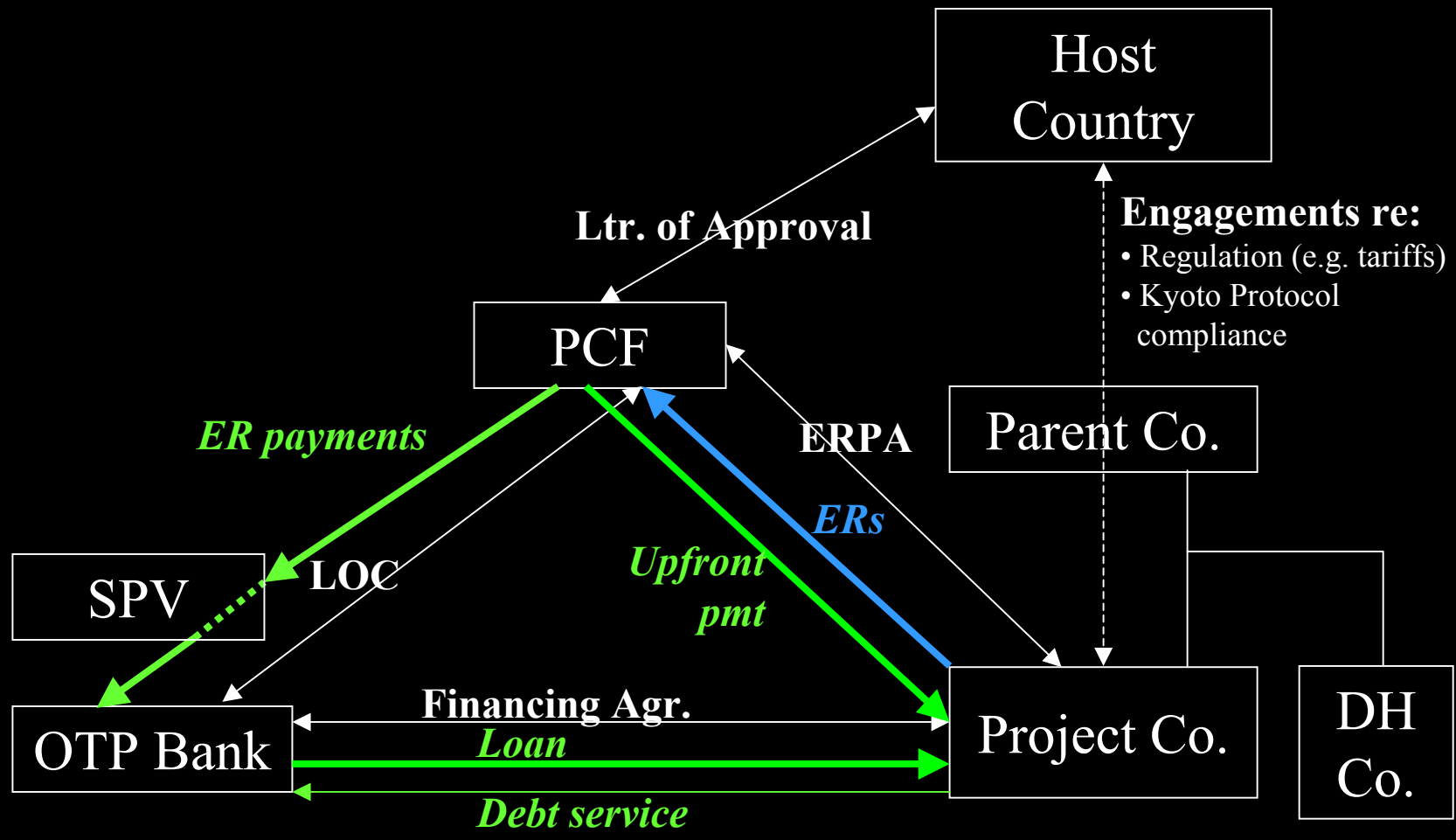
- Improve bankability, ie. Maximize the value of the Emission Reduction Purchase Agreement through the elimination of (perceived or real) risk by:
- **Managing Regulatory Risk**
  - Kyoto and CDM/JI risk
  - Providing value to Emission Reductions beyond 2012
- **Managing Financial Risk**
  - Maximizing ERPA values through structured finance
  - Credit enhancement for underlying projects supported by ERPAs

# Basic Deal Structure





# Hungary Pannonpower Biomass





# Conclusions

- Carbon revenues can:
  - ⇒ Improve returns, esp. in CH<sub>4</sub> mitigation
  - ⇒ Provide a bankable revenue stream
  - ⇒ Soften financing terms by reducing risk
- Carbon *plus* risk mitigation = sustainable energy finance