

## FINANCING MAJOR PROJECTS

31 October 2012

STRICTLY PRIVATE AND CONFIDENTIAL

# Agenda

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# A global platform across commodities

## Capabilities

	Research	Financial	Physical
Oil	✓	✓	✓
Power & gas	✓	✓	✓
Environmental markets	✓	✓	✓
<b>Metals</b>	✓	✓	✓
Agricultural	✓	✓	

## Solutions

- Innovative risk management
- Commodity finance products
- Asset optimization
- Storage and transportation
- Product offtake and supply arrangements
- Financial and physical

## Principal locations

- ★ Main office locations    ● Main physical assets<sup>1</sup>



<sup>1</sup> Includes oil storage, power & gas assets and vessels

- 600 employees
- 10+ main office locations
- Over 2,000 active clients including corporates, investors and governments
- Diversification benefits with fixed income and equities businesses

# Commodity Finance product suite for metals & mining co.'s

## Combining funding with the physical flow of commodities & hedging solutions

Royalty Interest	Project Finance	Prepayment Facility	Pre-Export Finance	Commodity Trade Finance
<ul style="list-style-type: none"> <li>• Creation of a right to a stream of payments from the sale of a commodity</li> <li>• Suitable for pre-production assets</li> <li>• Applicable to all commodities</li> <li>• Non recourse to sponsor</li> <li>• Financial settlement</li> </ul>	<ul style="list-style-type: none"> <li>• Loan repaid from the cash flows generated by a discrete project or asset</li> <li>• Suitable for pre-production assets</li> <li>• Applicable to all commodities</li> <li>• Non recourse to sponsor</li> <li>• Financial settlement</li> </ul>	<ul style="list-style-type: none"> <li>• Upfront payment in return for periodic delivery of a commodity</li> <li>• Suitable for pre-production and operating assets</li> <li>• Applicable to all commodities</li> <li>• Can be recourse or non recourse</li> <li>• Can be physical or financial</li> </ul>	<ul style="list-style-type: none"> <li>• Discounting the value of a commodity that will be exported from the host country</li> <li>• Suitable for operating assets or close to production</li> <li>• Applicable to all commodities</li> <li>• Can be recourse or non recourse</li> <li>• Financial settlement</li> </ul>	<ul style="list-style-type: none"> <li>• Financing based on the value of the reserves of a particular commodity</li> <li>• Suitable for operating assets</li> <li>• Applicable to all commodities</li> <li>• Can be recourse or non recourse</li> <li>• Financial settlement</li> </ul>

J.P. Morgan can work across commodity finance products

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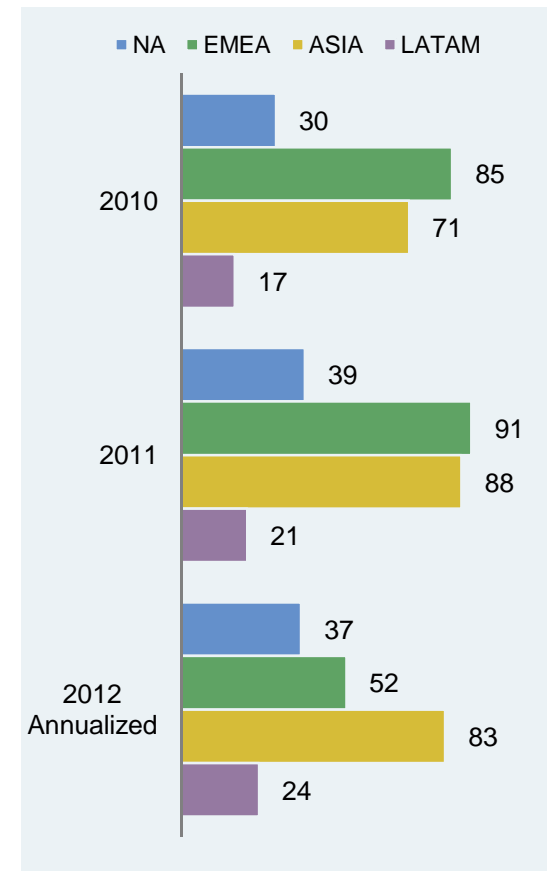
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# Global Project Finance Overview

## Project Amount (\$bn)

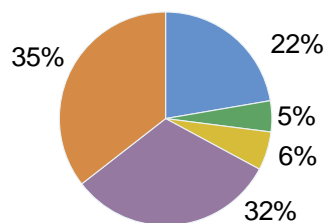
Project Amount (\$bn)	2010	2011	2012 YTD	2012 Annualized
<b>Alternative Energy</b>	<b>45</b>	<b>50</b>	<b>29</b>	<b>38</b>
Renewable fuel	22	31	15	19
Wind Farm	23	20	14	18
<b>Commercial</b>	<b>52</b>	<b>54</b>	<b>25</b>	<b>32</b>
<b>Infrastructure</b>	<b>101</b>	<b>107</b>	<b>73</b>	<b>94</b>
<b>Metals &amp; Steel</b>	<b>10</b>	<b>6</b>	<b>7</b>	<b>9</b>
Steel mill	10	6	7	9
<b>Mining</b>	<b>12</b>	<b>21</b>	<b>10</b>	<b>12</b>
Mining	12	21	10	12
<b>Oil &amp; Gas</b>	<b>64</b>	<b>74</b>	<b>64</b>	<b>82</b>
Gas Distribution	5	2	3	4
Gas pipeline	14	18	13	16
Gasfield exploration and development	2	19	13	17
Oil pipeline	0	1	1	1
Oil Refinery/LNG and LPG Plants	23	15	23	30
Oilfield exploration and development	19	18	11	14
Other downstream	0		1	1
Other upstream			0	0
<b>Power</b>	<b>72</b>	<b>86</b>	<b>42</b>	<b>55</b>
Power	72	86	42	55
<b>2012 Ann.</b>	<b>356</b>	<b>399</b>	<b>250</b>	<b>323</b>
<b>Total (ex. Commercial &amp; Infrastructure)</b>	<b>203</b>	<b>238</b>	<b>152</b>	<b>196</b>

## Project by Region (\$bn)

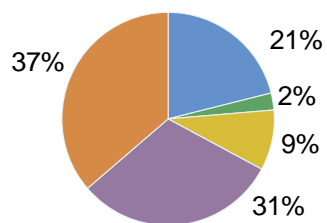


Source: Dealogic data as of Oct 11, 2012  
Excludes Commercial and Infrastructure

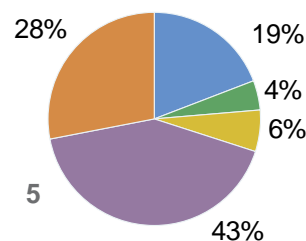
### 2010 Sector Breakdown



### 2011 Sector Breakdown



### 2012 Sector Breakdown



- Alt. Energy
- Metals & Steel
- Mining
- Oil & Gas
- Power

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# 2012 Top Projects

## Top Projects

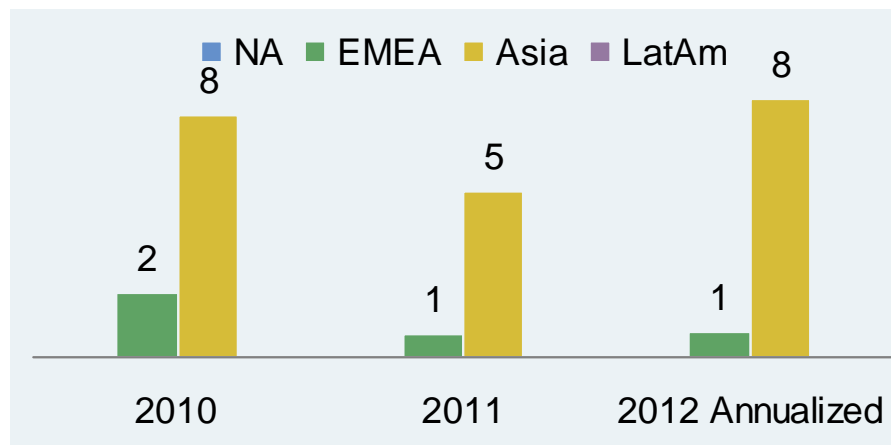
#	Project Name	Sector	Country	Remarks	Project Amount (\$bn)
1	Curtis Island Australia Pacific LNG Project	Oil & Gas	Australia	LNG facilities	12.89
2	Cheniere Sabine Pass LNG Liquefaction Trains	Oil & Gas	United States	Two liquefaction trains.	5.53
3	Surgil Ustyurt Gas Chemical Complex	Oil & Gas	Uzbekistan	Gas field and gas-based chemical products plant	3.96
4	Open Grid Europe Acquisition	Oil & Gas	Germany	12,000km gas transmission network	3.58
5	Cutbank Ridge Montney Shale Gas Project	Oil & Gas	Canada	Shale gas development.	3.28
6	Solveig Gas Transportation Facility Acquisition	Oil & Gas	Norway	Acquisition of 24.1% stake of an integrated gas transportation grid	2.98
7	Krakatau POSCO Integrated Steel Mill	Metals & Steel	Indonesia	Integrated steel mill with capacity of 3MTPA	2.66
8	Telfer Mine Refinancing 2	Mining	Australia	Gold Mining Asset	2.50
9	Mozambique and Brazil Oil & Gas Field Portfolio	Oil & Gas	Mozambique	63 TCF Gas, 410 mmbbl of Oil & condensate	2.49
10	Aditya Aluminium Smelter-Power Plant Project	Metals & Steel	India	4.2mtpy bauxite mine, 1.5mtpy alumina, 359,000tp smelter and 900MW captive power plant	2.45
11	Topaz Solar Farm Project	Alternative Energy	United States	550MW solar power plant	2.44
12	PowerSeraya Privatisation Refinancing	Power	Singapore	3100MW Power Station	2.12
13	1MDB Energy Tanjong Energy Acquisition Bridging	Power	Malaysia	Tanjong Energy owns total 3981MW capacity of energy portfolio	1.99
14	Meja Thermal Power Plant Project	Power	India	1,320MW thermal power plant	1.95
15	Jorf Lasfar Power Plant Expansion Project - JLEC56	Power	Morocco	Adding 700MW capacity to the existing 1350MW coal-fired power plant	1.86

Source: Dealogic data as of Oct 11, 2012

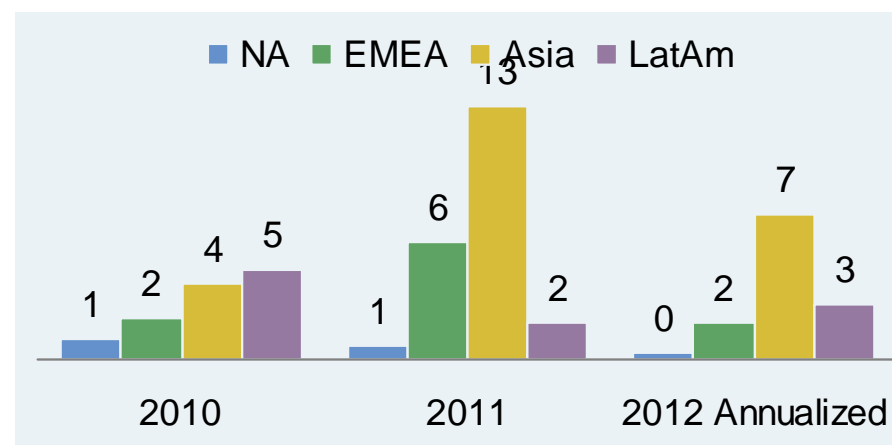
Excludes Commercial and Infrastructure

# Metals & Mining

## Metals (\$bn)



## Mining (\$bn)



## 2012 Top Projects

#	Project Name	Sector	Country	Remarks	Project Amount (\$bn)
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2	Telfer Mine Refinancing 2	Mining	Australia	Gold Mining Asset	2.50
3	Aditya Aluminium Smelter-Power Plant Project	Metals & Steel	India	4.2mtpy bauxite mine, 1.5mtpy alumina, 359,000tpy smelter and 900MW captive power plant	2.45
4	Sierra Gorda Copper Molybdenum Project	Mining	Chile	Development of copper/molybdenum project	1.81
5	Kansanshi Copper-Gold Mine Expansion	Mining	Zambia	Increase copper output production to 400,000 tonnes	1.00



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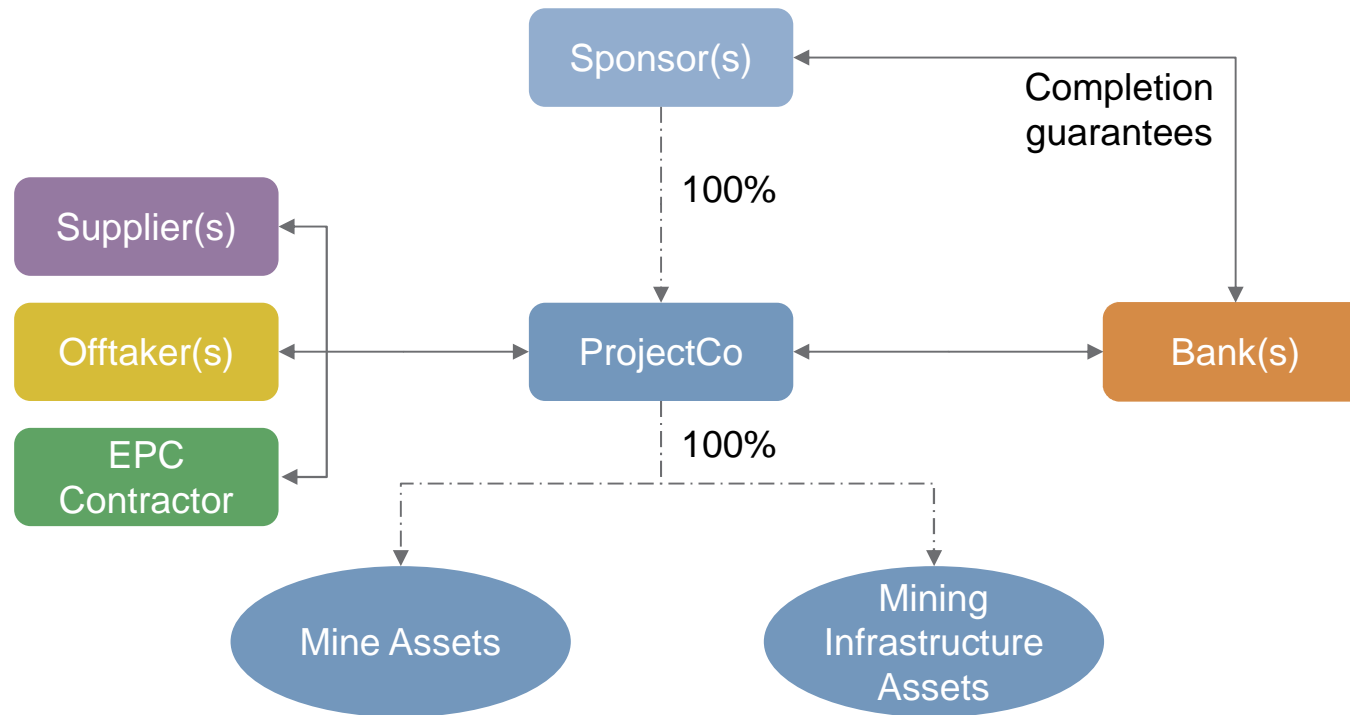
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# Recent trends in mining project finance

## **Sponsors need to think creatively to create the liquidity their projects need**

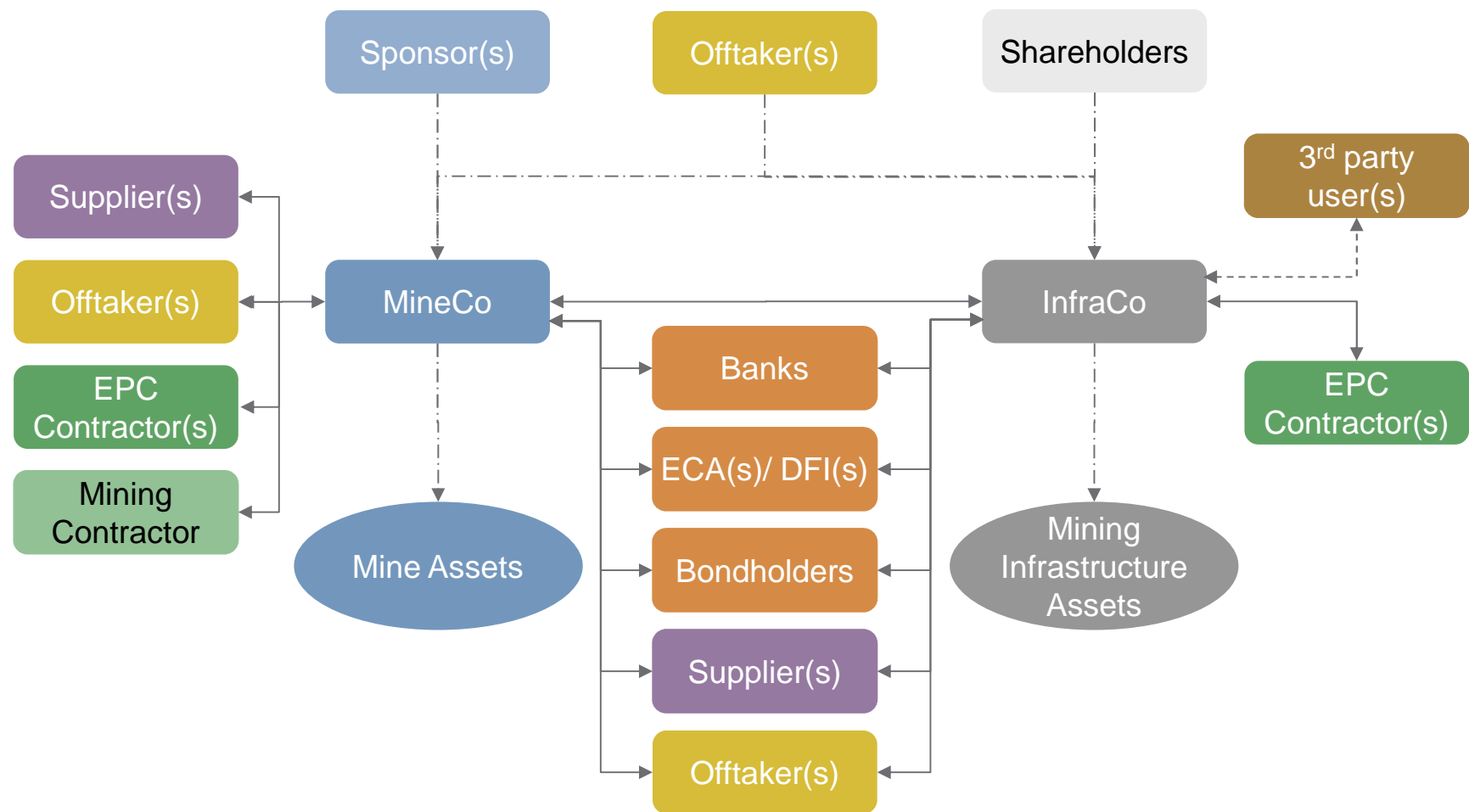
- Traditional project finance banks are still working their way through the aftermath of the credit crunch
  - Bank liquidity has dried up materially but for sponsors with the strongest banking relationships
  - Tenors have shorten and pricing has gone up
- Traditional lenders of last resort, i.e. ECAs and/or DFIs, have seen significant increase in enquiries
  - Resources are being stretched
  - Focus on critical opportunities
- New financiers of last resort, i.e. the state-backed companies from natural resources poor Asian countries, have also seen a significant increase in enquiries
  - Focus on key opportunities
  - Looking for less “visible” roles, e.g. offtaker and minority shareholder
- Sponsors are focused on optimising project costs e.g. contract mining

## The “traditional” project finance structure



- Simple corporate and project structure
  - The sponsor(s) retain(s) control over the project's value chain
- Financing/ technical/ commercial negotiations are broadly independent/ sequential
- Single class of commercial bank lenders
  - “Simple” and “streamlined” financing process

# The “new” project finance structure



- Complex corporate and project structure
- Financing/ technical/ commercial negotiations become interdependent
- Multiple classes of lenders with different risk appetites and objectives

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# Conclusions

**The financing optimisation should be conducted in parallel with the commercial and procurement activities, in particular for large projects**

- Liquidity for a project can be increased by tailoring
  - Commercial contracts
    - Offtake/ supply for financing including with banks having physical capabilities
  - Procurement strategy
    - Financing arm of equipment manufacturers
  - Asset ownership structure
    - Infra funds and DFIs into mining infrastructure assets (rail, port, IPPs)
- Attractiveness of non traditional sources of financing to be analysed in the context of the broader financing needs
  - Facilitates/ hinders the project financing?
  - Improves/ limits the commercial flexibility of the sponsor(s)?