



KEY STRATEGIES FOR DRIVING EFFICIENT FINANCING OF PPPS
WORLD BANK/NDRC CONFERENCE

24 June 2009



1. What is PPP
2. Key benefits of PPPs
3. Track record of PPPs around the world
4. Current state of market
5. New models
6. Private sector investment approach



01

What is a PPP?

What is PPP



- **Public-Private Partnerships (PPP)** refer to the partnerships between the public sector and private sector participants (typically developers, investors, constructors and other service providers) to construct and operate core infrastructure assets such as highways, hospitals, schools and power plants under the terms in concession agreements
- The aim of PPP is to deliver high quality essential infrastructure to the public via private sector involvements

Payment structure	Description
Upfront capital & ongoing operations payment	<ul style="list-style-type: none">— Procurer makes pre-determined capital payments and operations payments in order to remunerate project provider— Procurer makes progress payments once deliverer has submitted progress claim for capital costs during construction period and for operating costs during operating period
Availability payment	<ul style="list-style-type: none">— Procurer makes regular, pre-determined, periodic payments to the deliverer for making the infrastructure available— Usually, the availability payment will be a constant real value linked to CPI— Private sector takes no patronage risk on this basis and receives payments for making the infrastructure available to the public
Revenue or usage based funding	<ul style="list-style-type: none">— Procurer provides the party delivering the project access to the cashflows generated from the project— Deliverer takes usage risk

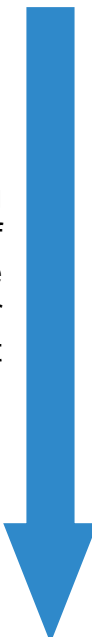
What is PPP



Transfer of risk

Strategy	Transfer of construction risk	Transfer of revenue risk	Private equity	Public control
Public Ownership				
Public ownership / private contracting				
Concession Agreement				
Private ownership				

Increasing levels of private sector involvement

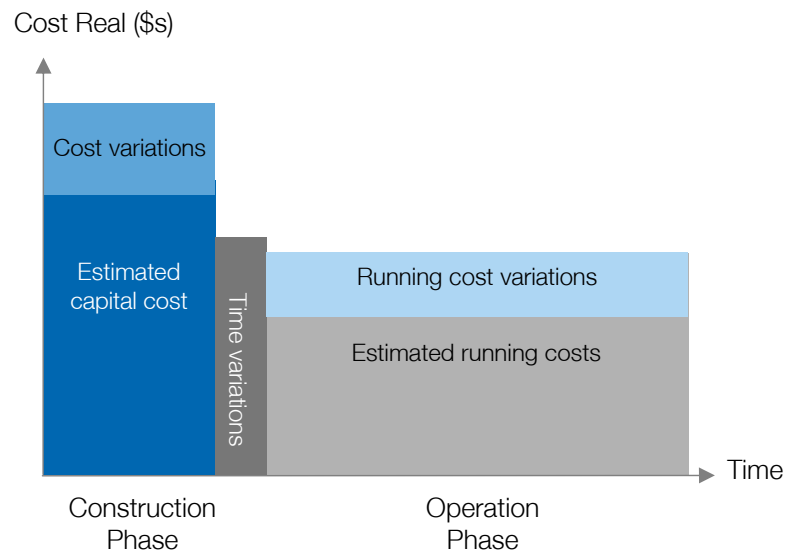


= Yes
 = >Partial
 = Partial
 = No

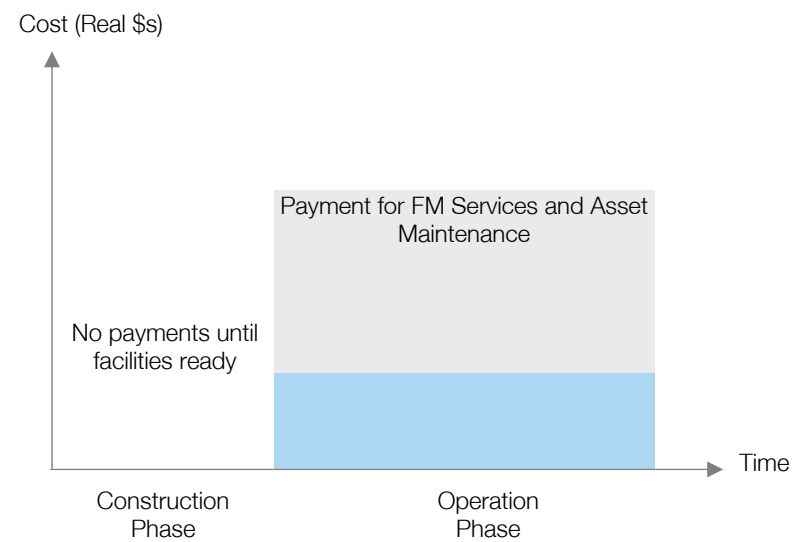
Characteristics of a PPP-style arrangement



Traditional procurement



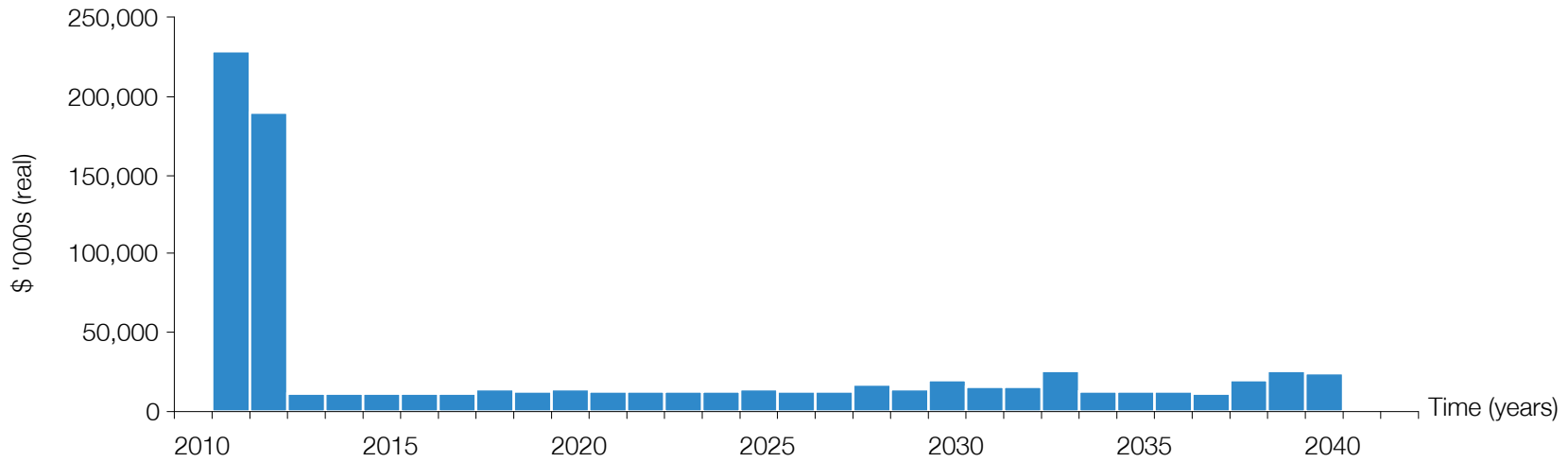
PPP-style arrangement



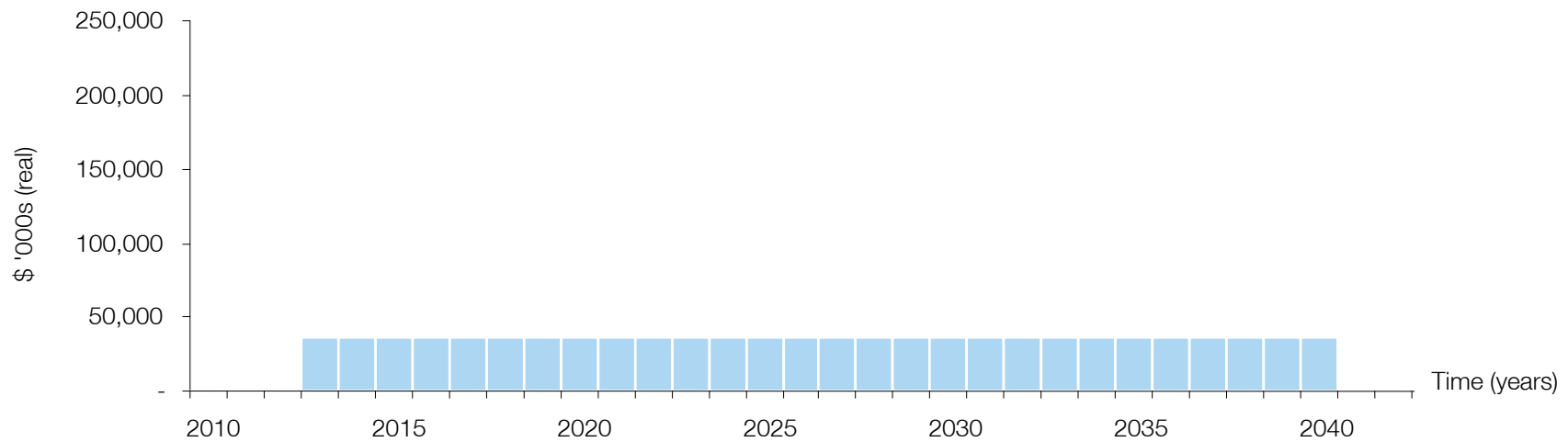
Cash flow comparison



Traditional payment streams



PPP payment streams





02

Key benefits of PPPs

Key benefits of PPPs



- Timely Delivery
 - Private sector expertise at managing projects
 - Financial penalties for late opening
 - Common for construction of PPP projects to be completed early
 - Private sector has ability to rapidly deliver a large number of sequential projects
- Efficiency
 - Frees up Government resources
 - Focuses all stakeholders' attention on "value for money"
 - Private sector has experience in dealing with the asset to maximize its use and resultant revenue streams
 - Economies of scale in project management, design, construction, operation
- Innovation
 - Competitive tender process encourages innovative solutions

Key benefits of PPPs



- Risk Allocation and Management
 - Whole of life risks (construction, operations, performance etc) transferred to the private sector
 - Each party manages risks they are best able to handle
 - Results in the management of risk in a transparent manner
 - Experience shows that the private sector will accept greater risk transfer as the PPP market matures
- Financial Discipline
 - Imposing financial discipline to large capital expenditure programs
- Performance
 - Penalties for under-performance
 - Motivated by the same incentives as any business owner – Good service means good business
 - Private owner sees expenditure on asset as investment, public sector sees it as cost



03

Proven record of PPPs

PPPs have a proven track record



PPP works

- PPPs have a proven track record of delivery
- Primary benefit is that project risks are held by private equity holders
- Of the 630 signed UK PFI projects, 540 are operational
- According to HM Treasury, a February 2009 published survey of operational projects by IpsosMORI indicated that PFI continues to perform well delivering high levels of user satisfaction in vital areas of public service delivery:
 - 96% of contract managers rate overall performance as satisfactory or better of which 73% of contract managers rate overall performance as good or very good;
 - 94% of contract managers report that contract service levels are always or almost always achieved; and
 - 92% of contract managers who have carried out a user assessment found services were being delivered to an acceptable standard.

PPPs deliver value!



- Recent UK Treasury study into PPP projects showed:
 - 89% coming in on time or early
 - No cost overruns on construction borne by public sector
- Noting:
 - 70% of Non-PPP were delivered late, and
 - 73% ran over budget
- UK National Audit Office Study of Highway PPP's found savings of:
 - 19% on capital costs
 - 34% on operating costs
 - 17% overall lifecycle savings
- Reasons for cost savings in UK PPP's
 - Transfer of risk and “whole life” responsibility to private sector
 - Broader competition (not just contractors, but also operators, suppliers)
 - Reduction in scope for claims against governments
 - Economies of scale in project management, design, construction, operation

Case study of the track record of PPPs – Royal Women’s Hospital



Background

- On 6 October 2003, the State Government of Victoria (the “State”) in consultation with the Department of Human Services (“DHS”) announced the redevelopment of the Royal Women’s Hospital (“RWH”). The new hospital will be located on the Royal Melbourne Hospital site and is being delivered under the Partnerships Victoria policy.
- The Project involves design and construction (“D&C”) of the new hospital, a 980-space underground car park, a new 60 bed private hospital and 14 consulting suites. Following the D&C phase, the private sector consortium will provide maintenance, engineering and asset renewals, grounds maintenance, operation of on-site car parking, cleaning and security services.
- In February 2005, the State selected the winning consortium (“RWHP”) to design, construct, operate and provide long-term maintenance for the new RWH and surrounding site. The concession term is around 28 years, with construction likely to take around 3 years and operations due to commence in June 2008.

Benefits

- **Transaction structure supported highly rated and robust financial structure**
 - Risk allocation with State and the subcontractors ensured risks were allocated to the parties best able to manage the risks
 - Builders obligations were underpinned by a fixed-price and fixed-time building contract, further supported by a parent company guarantee and appropriate levels of performance bonding.
 - Operator has been contracted to provide fixed price services (for the same periods as RWHP is obliged to provide to the State), further supported by a parent company guarantee and appropriate levels of performance bonding
 - Service Payment from the State has been structured to directly match RWHP’s projected cost base including any variations in inflation
- **Innovative and complex financial structure resulted in low cost of capital, whilst providing sufficient protections to bondholders**
 - Two tranches of capital markets debt were issued by RWHP (both rated Aa2 by Moodys) on 21st June 2005: A\$148 million, 12 year scheduled maturity nominal interest-only bullet bond, priced at 50 basis points over swap; and A\$145 million, 28 year Indexed Annuity bond (“IAB”), priced at 66 basis points over Commonwealth Government 2020 CIB.
 - The 28 year IABs are particularly effective as they best matched the term and profile of the service payment to be received from the State. Additionally, a letter of credit is provided during the construction period to insulate bondholders from construction risks
 - The proceeds of the bonds are initially invested using Guaranteed Investment Contracts (“GIC”) to enable progressive draw down of funds throughout the construction period.
 - As part of the funds in the GIC are used to service the IABs during the construction period, a portion of the GIC is inflation linked to hedge the inflation exposure



04

State of the markets

State of the market

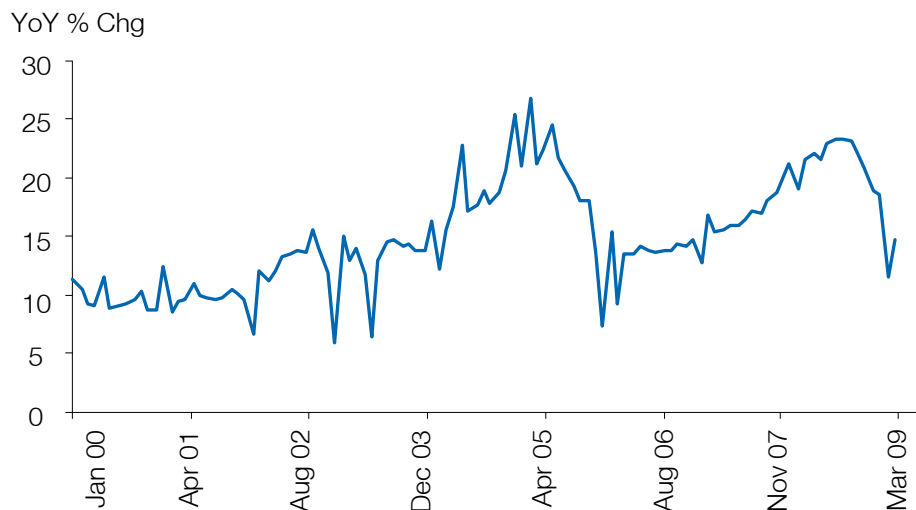


Macroeconomic outlook reflects some real recovery signs

Macroeconomic outlook

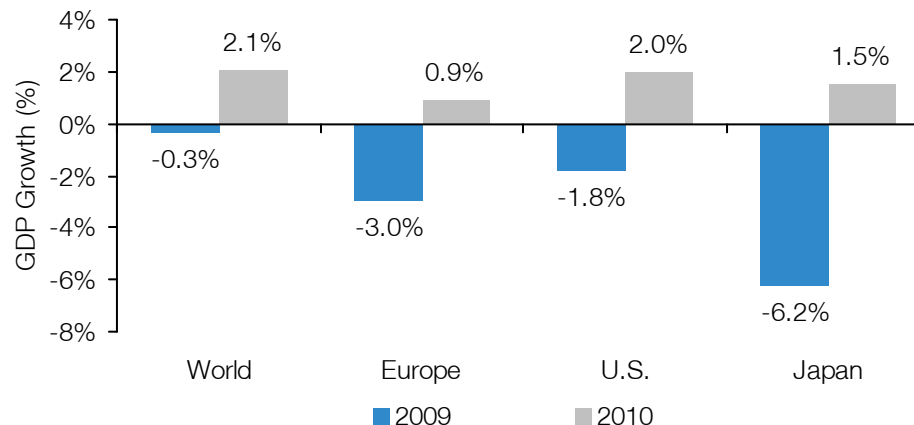
- Global economy has finally provided some real recovery signs
 - US and European manufacturing data suggesting a bottom may have been reached
- Macquarie's global economics team is forecasting the global economy to contract by 0.3% in 2009
 - Growth is expected to bounce back in 2010, but is likely to remain well-below trend
- The market will remain focused on China's continued growth
 - Ongoing signs of resilience in its domestic economy with retail sales and auto sales holding up

China retail sales growth remain strong



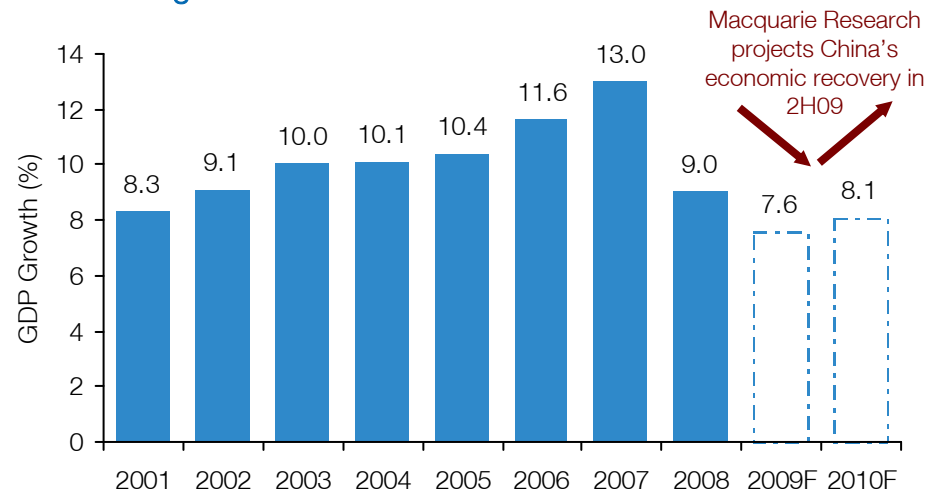
Source: NBS of China, CEIC, Macquarie Research

Macquarie global growth forecasts – 2009 and 2010



Source: Macquarie Research

China GDP growth remains robust

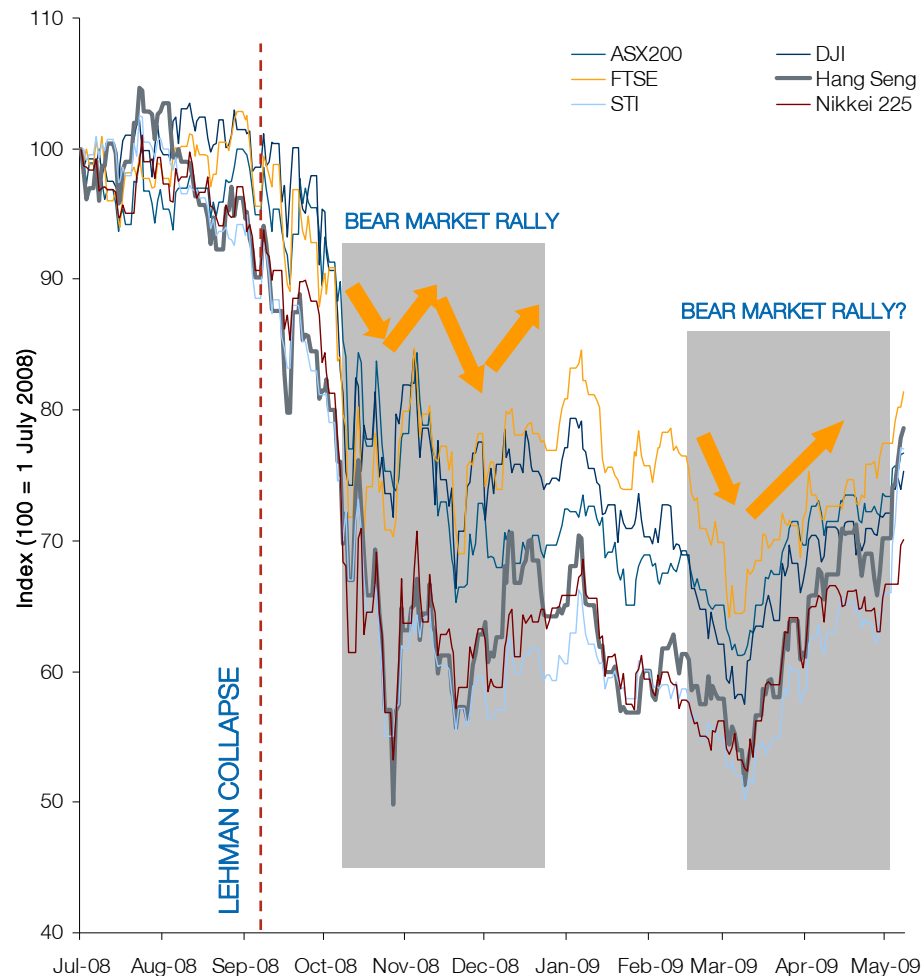


Source: CEIC, Macquarie Research

Current state of equity markets



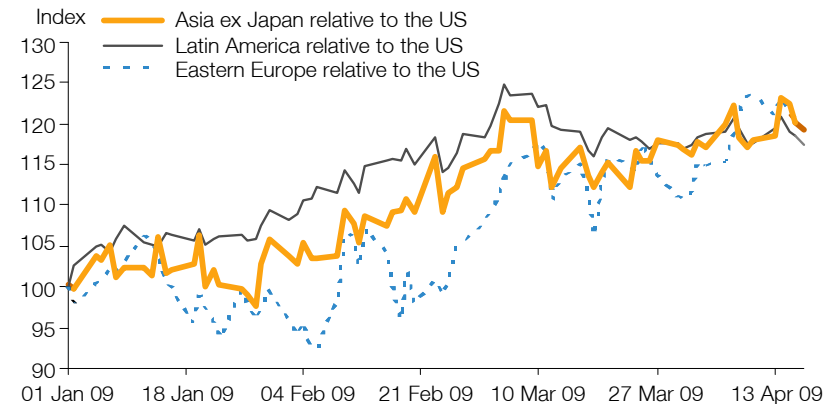
Performance of global Indices since 1 July 2008



Source: Bloomberg

- Triggered by positive economic signals, global markets have rallied strongly and are up ~25% to ~55% from March lows. The impact of low interest rates, the pumping of liquidity into the system and significant fiscal spending have begun to show signs of success.
- A key characteristic of the rally has been the 'long squeeze', whereby long only funds who were sitting on cash during most of Q1 are being forced to deploy capital even as valuations rise rapidly. This momentum trend should be short lived, and there is endless debate on whether the resultant impact will be stabilised markets or a major downward correction.
- Investors are getting increasingly confident with market conditions and have accordingly begun looking at actively switching between countries, sectors and companies in order to maximise returns.
- Appetite for risk is returning however significant uncertainties remain and it is still too early to make any judgments on sustained market improvements.

Relative performance of emerging markets



Source: MSCI, Datastream, Macquarie Research

Chinese debt markets have been largely unaffected by the financial crisis

- Banks currently open to do deals
- Lending metrics have remained largely unchanged
 - Government stimulus have kept the domestic debt market stable
 - According to the PBOC, Lending in China was up 26% year on year 591.8 billion yuan (\$86.7 billion). M2, the broadest measure of money supply, rose 26% from a year earlier.
 - For example, Bank of China (BOC) recently approved syndicated loans worth nearly 20 billion yuan (\$2.93 billion), which will be provided to COSCO Container Lines Co Ltd (COSCON) in the next 3 years. BOC will grant a credit line of \$1.75 billion in the coming 2 years for the construction and operation of 28 COSCON container vessels. It will offer \$1 billion in liquidity loans in the next 3 years to help cover COSCON's operating costs

Loan markets



With the credit crisis having heavily impacted on loan markets, banks refocus on opportunities with high credit quality and economics

Bank market

- In Asia, this has become a relationship-driven credit market, where scarce bank capital will be apportioned for core relationships
- More international banks are retreating to home markets, hence a wider relationship network with international, regional and domestic banks is vital in sourcing debt
- Banks refocus on opportunities with higher credit quality and sound economics

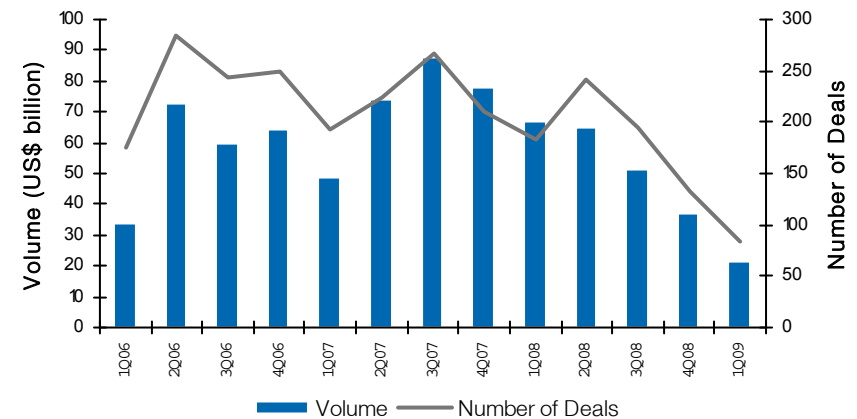
Loan volumes

- Overall Asian loan markets remain stagnant: 1Q09 Asian loan volume dropped below 2006 levels, as banks have continued to tighten credit

Pricing

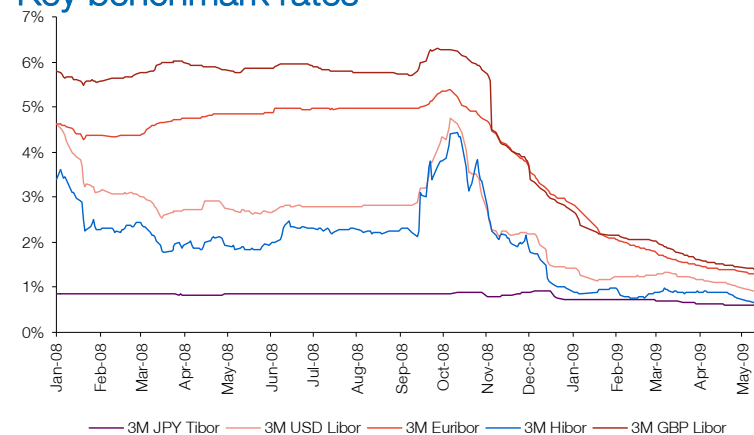
- The cost of a given credit has risen in response to the credit crisis
- Offsetting this is the significant reduction in benchmark interest rates globally

Asia Pacific loan volume



Source: Loan Connector

Key benchmark rates



Source: Bloomberg

Many investors see China as the force to lead the road to global economic recovery

- Investors remain steadfast in the China story
- The low borrowing rates have also given investors incentive to increase risk appetite
- Nevertheless, investors have become more careful with due diligence



05

New models

Current models



- A number of options exist for the procurement of the relevant infrastructure
- Different procurement models transfer different risks to the deliverer

Risk allocation model	Description
Traditional procurement	<ul style="list-style-type: none">— Contract with the deliverer that only includes construction of project— Procurer retains control of the design, maintenance, service provision, ownership & funding
Design & construction contract (D&C)	<ul style="list-style-type: none">— Single contract with the deliverer that includes design and construction— Procurer retains control of maintenance, service provision, ownership & funding
Design, build, maintain (DBM)	<ul style="list-style-type: none">— Contract with private sector to design, construct and maintain the project over the term of the concession period— Procurer retains the control of services and ownership of the project over the concession period and funding over its useful life
Design, build, maintain, operate (DBMO)	<ul style="list-style-type: none">— Deliverer provides and operates the project over the concession term— Procurer retains usage risk in respect of the project and its ownership
Design, build, fund, maintain, operate (DBFMO)	<ul style="list-style-type: none">— Procurer contracts with the deliverer to design, construct, maintain and operate the project over the term of the concession period— Deliverer owns the asset during the term of the concession, however, the procurer retains usage risk
Build, operate, transfer or transfer, operate, transfer (BOT/TOT)	<ul style="list-style-type: none">— Procurer either constructs, and then transfers to deliverer to operate on a long-term concession (BOT). Alternatively, procurer grants a long-term concession to the deliverer and the deliverer constructs, maintains and operates the project at its own cost for term of the concession (TOT)— Private sector consortium then transfers project back to the procurer at an agreed (or market) price or retains the project

Procurement options – risk transfer



	Traditional		D&C		DBM		DBMO		DBFMO		TOT		BOT	
	P	D	P	D	P	D	P	D	P	D	P	D	P	D
Risk														
Design	✓			✓		✓		✓		✓	✓			✓
Construction		✓		✓		✓		✓		✓	✓			✓
Maintenance	✓		✓			✓		✓		✓		✓		✓
Operations	✓		✓		✓			✓		✓		✓		✓
Finance	✓		✓		✓		✓			✓		✓		✓
Ownership	✓		✓		✓		✓		✓		✓		✓	
Usage	✓		✓		✓		✓		✓		✓		✓	✓

— Table above outlines which party (Procurer or Deliverer) is typically allocated the various risks

A number of alternative models have been suggested

- State / Federal Government credit wrap of bond issues
 - Maybe necessary on “ultra-mega” projects, e.g. CBD Metro in Sydney, Australia
 - However, reduces effectiveness of risk transfer
- State / Federal Government grant / capital contribution
 - Reduces need for private sector funding (but only if paid in instalments)
 - Effectively a form of gearing to project company, in particular from a D&C risk perspective
 - Does it stifle innovation??
- State / Federal Government sub-debt / equity investment
 - Reduces effectiveness of risk transfer and controls
- State / Federal Government acting as lender of last resort (i.e. Infrastructure Financing Unit in UK)
 - Provides most direct response to current challenges (i.e. debt markets driven)
 - Potential for Governments to reduce exposure pre / post financial close
 - Removes need to declare “reserve” price
 - Maintains essence of PPP process (transaction documents are essentially unchanged)

Why UK chose lender of last resort?



Government had considered less drastic forms of assistance before becoming a 'lender'

- Lender of last resort is where an institution, usually a country's central bank, that offers loans to banks or other eligible institutions that are experiencing financial difficulty or are considered highly risky or near collapse
- “We discussed making larger capital contributions and guaranteeing bank debt... but we needed something more systemic.” - Gordon McKechnie formerly seconded to HM Treasury as Head of PFI/PPP Policy Unit
- Given the lack of funds, other measures including State taking on Re-finance risk on mini-perms, increasing capital grants, encouraging the subscription of bonds by public sector pension funds or guaranteeing bank debt may not fully address the central problem
- Direct lending may be less politically sensitive (i.e. not raiding public servant's pension funds)

'Government launches
'infrastructure bank' to help
builders'

The Telegraph, March 3 2009

Vs.

'Government raid on pension
funds to rescue schools
building scheme'

The Times, February 20 2009

“The need to assemble clubs of banks had meant that all tended to demand the rates sought by the most expensive lender. The Treasury could use its lending to knock out the most expensive, making deals cheaper”

Richard Abadie of PwC (who preceded Gordon McKechnie on secondment to HM Treasury as Head of PFI/PPP Policy Unit)

£3.8b Greater Manchester Waste PFI IFU's first loan – The feedback



Feedback/Comments from IFU's first transaction:

- The Infrastructure Finance Unit (“IFU”) is a division of the UK Treasury which recently announced a £2bn package to rescue stalled PFI deals by setting up a special unit to administer funds to bring those deals to financial close.
- The Treasury will provide debt via the IFU, which will lend at market rates. The debt will then be sold on to third parties once the market recovers
- “This is what we were set up to do, to get involved where private sector capital is not available. This is a critical project that will provides jobs (est. 5,000 during construction and 116 in operations), on which work can start pretty much immediately, and which is essential to reach waste management targets (increase the recycling rate from 30% to 50% by 2015).”
- – Andy Rose – Head of IFU
 - “This is a fantastic example of how the public and private sectors can work together, particularly in the current tough financial and economic environment, to create forward-thinking solutions that will benefit communities across the region.”
 - David Hardy, Director of John Laing PLC
 - “The Treasury made a significant input ... the unit has shown themselves to be very businesslike and very effective”

Colin Drummond, CEO of Viridor



As an alternative to considering “new” models, vendors and government are modifying their sale processes to reflect market conditions

- Government contemplating the selection of preferred bidders without firm debt commitments in place
 - Preferred bidder will arrange debt financing post selection
- Ability of financiers to hold bids open for short periods of time
 - Get the deal right, and limit evaluation period to create “certainty” via momentum rather than unachievable “availability periods”
- Bidding conditions to attract bidders and maximise funding capacity of project
 - 2 bidders vs 3 bidders
 - Technical offers vs fully financed offers
 - Government support of debt raising process
- Re-evaluate risk sharing model
 - Focus on availability payment structures,
 - Limited appetite from financiers (and governments) for “demand risk” deals



06

Private sector investment approach

Who are the main investors into PPPs around the world?

- Pure Investors are generally classed as those investors participating purely in the equity of the project, however, they may also take small debt pieces to supplement yield for their investment. Commonly the following entities are interested to participate as Pure Investors:
 - Life insurance companies
 - Pension Funds
 - Asset management companies
 - Hedge funds
 - Specialist Infrastructure Funds
 - Other financial institutions
- As they have no alternative revenue from the project other than equity returns, these investors are driven by the risk and return of the asset
- Predominantly they are seeking the following characteristics:
 - Stable and predictable cashflows, providing cash yields and acceptable IRR's
 - Pass through of risks to those parties best suited to bear them, eg all construction risk to construction companies, land acquisition to government, etc
 - Reputable consortium partners, such as experienced and financially secure construction companies and banks
 - Control over decision making at the Project level
 - Stable political and economic environment

Managing investors and the markets approach to valuation



It will be important to steer investors approach on value towards a DCF methodology

Historical investor approach:

Investors	Primary valuation method	Secondary valuation method
International institutions	— DCF	— P/E
	— EV/EBITDA	— EV/Reserves
		— EV/Resources
		— EV/Production
Asian institutions	— P/E	— DCF
		— EV/EBITDA
Retail	— P/E	

Recent observations:

- **Increasing market sophistication:** with the rise of a well capitalised markets and dedicated sector analysts, investors have become increasingly resource savvy
- **Analysts increasingly employing DCF:** particularly where there is significant production growth or upside

Suggested approach in managing investors:

- Distinguish a market value for investors in the PPPs
- Investor site visits
- Allow full access to information during a pre-indicative bid process
- Emphasize production profile and upsides
- Target the investors and markets that fits the PPP investment profile, such as infrastructure funds and strategic investors



MACQUARIE