



## **WORLD BANK**

### **STRATEGY AND BUSINESS PLAN FOR THE PAKISTAN INFRASTRUCTURE PROJECT FINANCING FACILITY (IPFF)**

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14<sup>th</sup> May 2009

### **Pakistan Infrastructure Financing Market Update**

Submitted by: **Cambridge Economic Policy Associates Ltd**

in association with: **Greengate LLC**  
**United Bank Ltd.**

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## 1. INTRODUCTION

This note provides an update on the Report submitted by the CEPA-led Consortium in November 2007 (*Market Assessment Report*), as part of the assignment to develop a Strategy and Business Plan for the Pakistan Infrastructure Project Financing Facility (IPFF). The Report presented a detailed assessment of the infrastructure PPP financing market in Pakistan, including key financing gaps as existent in 2007. This note builds on the Report by presenting an update of the state of the Pakistan infrastructure financing market as on date, and in particular, by analysing the implications of the global financial crisis and the changes in the macroeconomic environment in Pakistan.

This note is structured as follows:

- **Section 2** provides background information on the Pakistan economy.
- **Section 3** summarises the key effects of international financial shocks and domestic political issues on the Pakistan economy.
- **Section 4** summarises the progress on the infrastructure enabling environment.
- **Section 5** provides a summary update of the demand for infrastructure finance.
- **Section 6** presents recent developments in the supply of infrastructure finance.
- **Section 7** sets out the key conclusions.

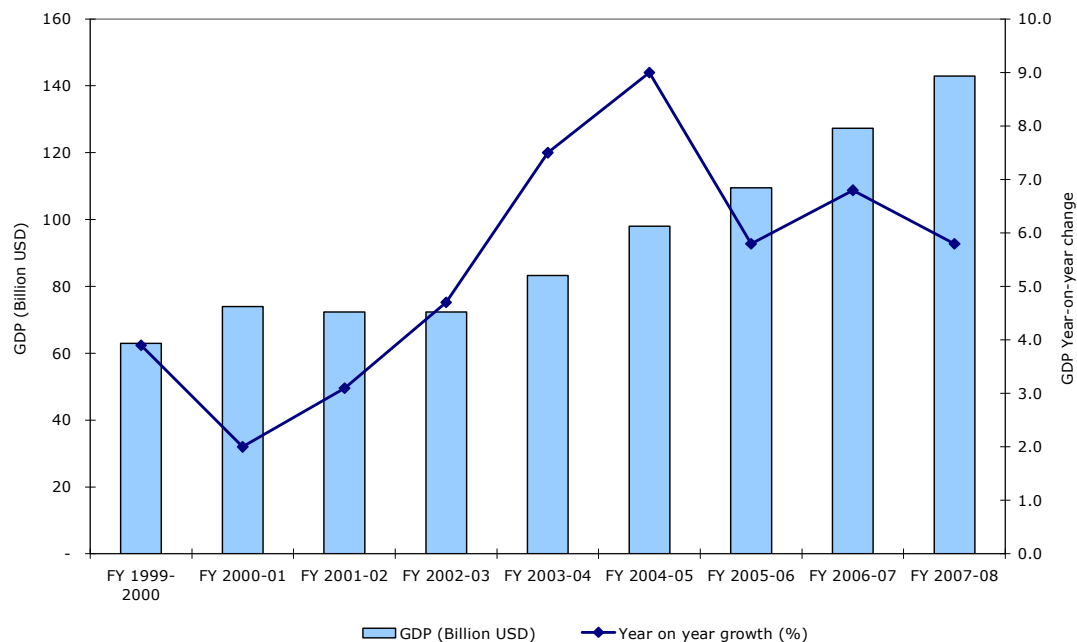
The note is supported by three annexes with details on projects closed and in pipeline, and the envisaged PPP process in Pakistan.

## 2. BACKGROUND ON PAKISTAN ECONOMY

### 2.1. Economic growth

Despite significant external financial and internal political shocks, Pakistan's economic growth has not faltered much, especially compared to OECD economies.<sup>1</sup> Domestic factors include heightened political tensions, an unstable law and order situation, and supply shocks. These have coincided with external factors such as the deep international financial crisis and an unprecedented rise in global food and energy prices. These factors have tested the strength of Pakistan's economic fundamentals. However, despite the fall in the growth rate, the economy still grew at 5.8% in 2007-08 (as against 6.8% during 2006-07), taking the overall GDP figure to about \$140 bn.

Figure 2.1: GDP and GDP growth



Source: Bloomberg, World Bank WDI

Figure 2.1 above shows that growth in GDP has been at an average rate of 6.6% per annum for the last six years. This enables cautious optimism that regaining macroeconomic stability as well as reinvigorating the growth momentum in the medium term, through a combination of adjustments and reforms, appears plausible. The commodity producing sector, with agriculture (especially major crops) and manufacturing performing badly, were the primary contributors of less-than-targeted GDP growth for the year 2007-08. The services sector was the strongest component of GDP growth, with the exceptional performance of the financial sector enabling the economy to remain closer to higher growth trajectory.

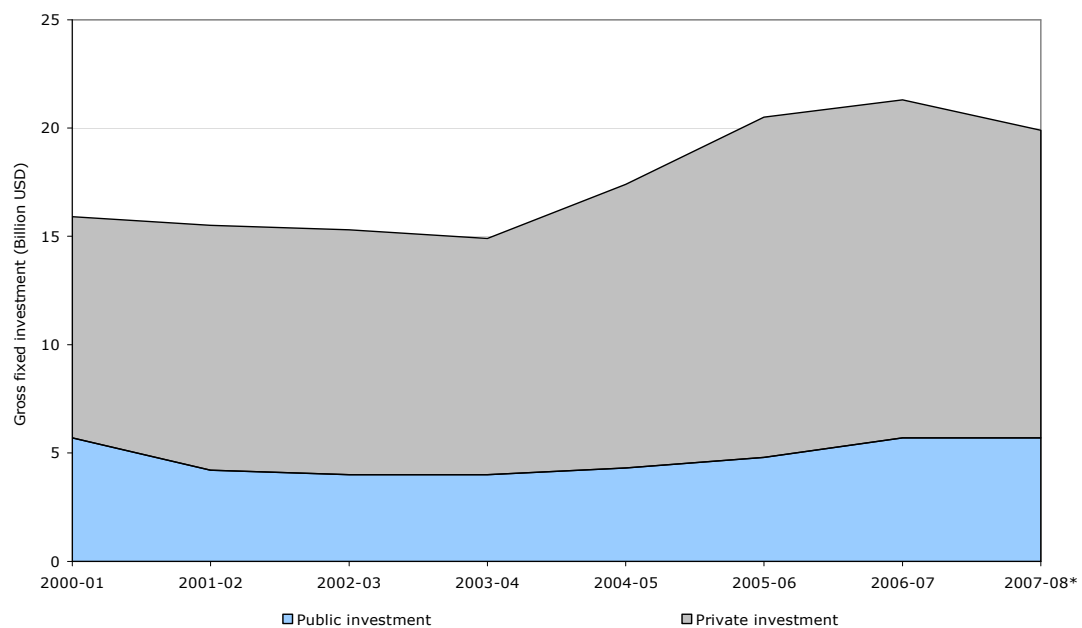
<sup>1</sup> Source: Pakistan Economic Survey 2007-08. However, Pakistan's economic instability and considerable growth in budget and trade deficits have shaken the fundamentals of the economy, leading to the provision of an IMF bail-out package of \$7.9 bn.

Pakistan's real per capita income has risen at 4.5% per annum on average in rupee terms over the same period, with average per capita income at \$1,085 in 2007-08. This trend has led to a sharp increase in consumer spending, which, while feeding into higher economic activity, is one of the driving forces in building inflationary pressures.

## 2.2. Private and public investments

As shown in Figure 2.2, the composition of gross fixed investment between the private and public sectors (across all sectors) has changed during the last three years, particularly with the large spurt in private investment since 2003-04.

Figure 2.2: Distribution of gross fixed investment

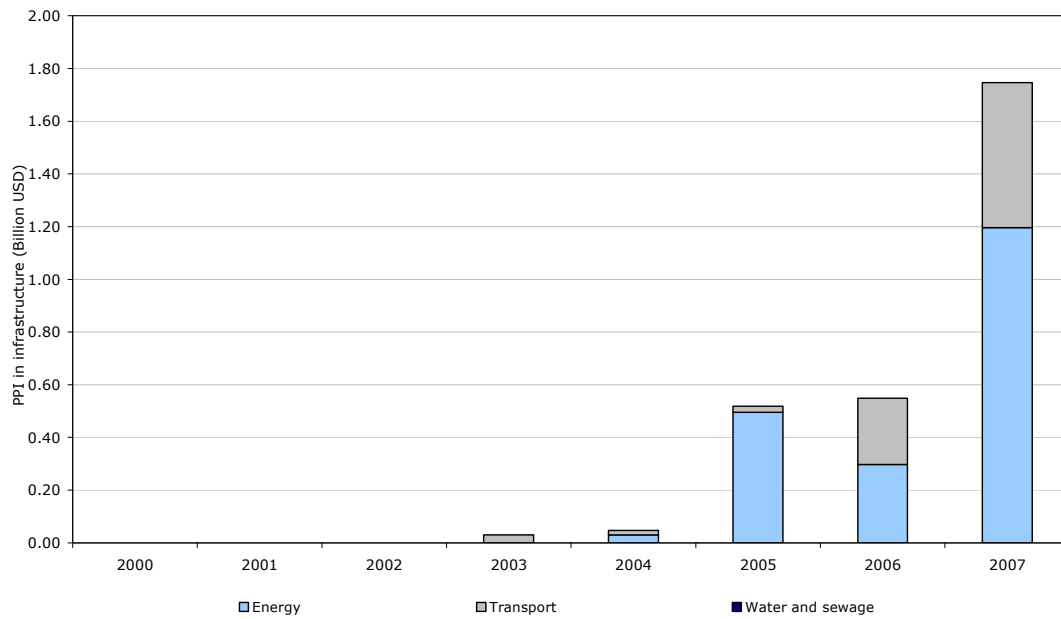


Source: Pakistan Economic Survey 2007-08 (2007-08 figures are provisional)

Private-sector investment grew by 9.7% during 2007-08 against 13.3% during 2006-07 in nominal terms. Public sector investment has increased by 15.7% per annum during the last four years and 9.7% during the current fiscal year. The latter has created spillover effects for the private sector through a massive increase in development spending particularly on infrastructure. Furthermore, the share of the private sector in domestic fixed investment has increased from less than two-thirds to more than three-quarters in the past seven years, potentially reflecting the growing confidence of private sector in the current and future prospects of the economy.

As evident from Figures 2.3, private participation in infrastructure (PPI) sectors such as power and transport has increased since 2003, including a dramatic rise in energy investments in 2007. While in 2005, the majority of PPP investments in energy involved payment commitments to the government, since then, all private investment has been in physical assets

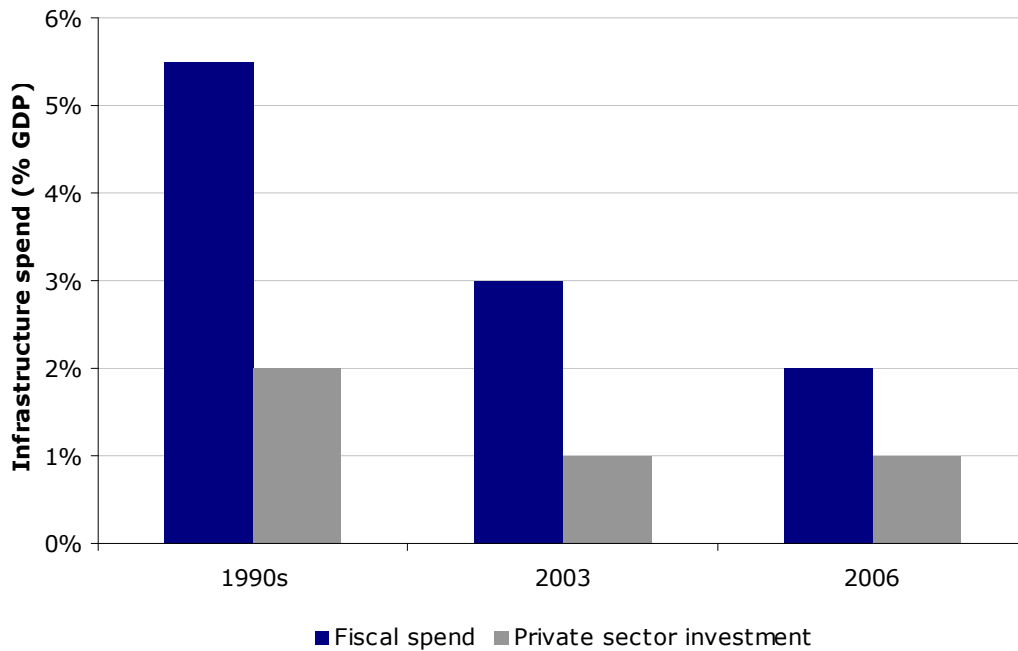
Figure 2.3: Investments through PPI projects in key sectors (2000-07)



Source: World Bank/ PPLAF PPI database

In addition to the sectors shown, there has also been PPI investment of \$11 bn in telecoms since 2004. However, despite gains in PPI, Figure 2.4 shows that as of 2006, the Government remained the main investor in infrastructure projects.

Figure 2.4: Recent trends in public and private investments in infrastructure



Source: World Bank estimates

### **3. IMPACT OF GLOBAL CREDIT CRUNCH AND ECONOMIC DOWNTURN**

The impacts of the global economic turbulence, ranging from financial market turmoil to a surge in global commodity prices, have been uneven by region. Turmoil in one segment of the financial markets in America, that is, the housing market and securitization, has had a ripple effect on all other segments and most countries. The resultant flight to safety has also put pressure on commodity prices.

The global economic downturn is only partly relevant to Pakistan, which has also been subject to complex macroeconomic problems as domestic fiscal and external current-account deficits rose sharply in 2007-08, with initially few countervailing measures. As a small open economy and a commodity importer, Pakistan suffered a net loss and large trade deficits from the surge in global commodity prices in 2008, particularly that of oil – the cost of imports of which rose to 6.9% of GDP – and other strategic imports. On the domestic account, oil subsidies surged creating an unsustainable fiscal burden.

The level of macroeconomic stress is also manifested in the government's growing reliance on central bank financing, leading to declining foreign exchange reserves and currency depreciation. An expanded money supply, high oil prices, utility-price adjustment, currency depreciation, and a spike in commodity prices have contributed to high inflation, resulting in lower purchasing power and competitiveness. This has necessitated proactive monetary tightening.

The banking system has performed reasonably well despite the growing public and private sector demands for credit, although public speculation regarding banks did lead to liquidity constraints. Timely interventions by the Central Bank have maintained a degree of financial market liquidity, although liquidity has come under pressure on account of greater public sector borrowing, demand from the banking system, withdrawal of Government deposits, seasonal Eid cash withdrawals from banks, and the low growth in deposits. Steadily, public confidence is being restored and banks are regaining lost deposits, while a degree of financial stability has been achieved since September 2008.

Growing economic and fiscal pressures on the Pakistan economy led to fears of a 'crisis of confidence', a run on its currency, and a subsequent default on foreign loans – leading to the International Monetary Fund (IMF) extending a financial support package of \$7.6 bn in November 2008. Further details of the support package are set out below.

#### **3.1. The IMF package**

The first instalment of \$3.06 bn under the IMF program was disbursed in November 2008. The program, which spans 23 months, is aimed at establishing various fiscal and monetary targets as well as policy changes in Pakistan, subject to quarterly review. The policy level benchmarks include contingency plans for handling private sector banks facing issues, tax reforms for harmonizing income tax and General Sales Tax administration, a schedule for eliminating power subsidies by June 2009, and reduction of inter-corporate circular debt. A 200 basis points discount rate hike preceded the IMF

program. The combination of the initial funds injection by IMF and rise in discount rate has had the following immediate outcomes:

- *Softening of inflationary pressure.* This trend is more evident in Wholesale Price Index (WPI), compared to Consumer Price Index (CPI) as one of the largest components of the CPI basket house rent is the 24-month geometric mean of construction cost, thus making reversal trends sluggish. WPI dropped to 19.9% in November 2008 compared to 35.7% in August 2008.
- *Easing of Balance of Payment pressure.* The current account deficit has come down to \$0.8 bn in November 2008, showing a more than 50% year on year decline.
- *Narrowing of Fiscal Deficit.* The fiscal deficit is down to 1% in Q1 of 2009 vis a vis 1.5% a year ago.
- *Contraction of the real economy.*
- *Real M2 experiencing negative growth*, which is unprecedented.

All the above developments as well as a 50-70% reduction in commodity prices indicate that interest rates may have seen their peak, and that the tightening of monetary policy has achieved its purpose. The State Bank of Pakistan (SBP) has recently undergone a “changing of the guards” and the policy stance under the new SBP Governor witnessed relaxation in the form of downward revision in discount rate by a 100 basis points on April 20, 2009. The second tranche of IMF Loan worth \$848 m was released in early April, further easing the fiscal and liquidity pressure in the economy.

The liquidity position is expected to remain tight, however, as domestic banks’ Advances to Deposits ratio hovers around 76-78%. Recently, liquidity has been pumped into the system through certain SBP measures (Cash Reserve Requirement and Statutory Liquidity Ratio related circulars);<sup>2</sup> however it covers the current crunch facing the financial sector and the fact that October to December period faces peak credit demand due to seasonal financing of agricultural and farm products. It may be expected that by Q1 of 2010, repayments of the agricultural facilities will commence. Further, with the expected stabilization in the foreign exchange market, demand for USD/ other foreign currencies may normalize, after which the faltered demand for PKR is expected to regain and part of the liquidity that has been lost by the financial market is expected to be recovered.

With the IMF support of \$7.6 bn, there appears to be semblance of stability in the foreign exchange market, which is evident from the fact that the fast depreciation of PKR against the USD is demonstrating signs of weakening. Going forth, the currency weakening is expected to normalize to 4-6% per annum, as IMF would continue to influence currency adjustments to reflect inflation differential.

The domestic economy will continue to experience a contraction in the GDP as it undergoes a low growth phase. Meeting the IMF June 2009 targets of reducing fiscal

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<sup>2</sup> Further details on this are provided in Section 4.2 of this note.



borrowing to 4.3% of GDP continues to pose a challenge, as it will be difficult if not impossible to curtail government borrowings.

## **4. ENABLING ENVIRONMENT FOR PSP IN INFRASTRUCTURE**

The November 2007 Market Report provides a detailed account of all relevant legislation and policies. There have been no new PPP legislation or major policy changes since then.

The PPP policies of the State Bank of Pakistan – Guidelines for Infrastructure Project Financing (IPF) is currently being discussed, and the SBP has solicited comments from the banking sector on these Guidelines.

The two points to note in regard to the PPP enabling environment since our 2007 assessment are (a) the new draft PPP policy, dated April 2009; and (b) recent changes to SBP prudential norms, affecting the supply of infrastructure project financing by the banking sector.

Both of these are discussed below.

### **4.1. Summary of the draft PPP policy, April 2009**

A draft policy on PPPs has been released by the government (April 2009, Government of Pakistan – Pakistan Policy on Public Private Partnerships: Private Participation in Infrastructure for Better Public Services).<sup>3</sup> This is an expansion of the equivalent document released in November 2007, which summarises the objectives and implementation structure for PPPs, and provides some guidelines of viability gap funding, the project life-cycle and unsolicited proposals. The process for PPPs, as set out in the policy, is summarised in Annex 3.

The high-level key objectives for the PPP programme as clarified by the April 2009 guidelines are to promote inclusive economic and social development through infrastructure; leverage private financing for infrastructure PPP projects; facilitate private investment by creating an enabling environment; protect the interests of all stakeholders; establish efficient and transparent institutional arrangements for the PPP process; and develop appropriate risk sharing mechanisms. The scope of the programme is more broadly defined as transport and logistics, mass urban public transport, local government services, energy, tourism, and industrial projects.

The updated guidelines provide details of the institutional arrangements for PPPs. The Ministry of Finance (MoF) is the coordinating Federal body, responsible for policy, implementation support, government financial commitments, risk management, and the IPDF. The MoF and IPDF are currently implementing the Project Development Fund (PDF) and Viability-gap Fund (VGF), and will have a role in appraising disbursements. The PDF will provide financial assistance to institutions to properly resource feasibility studies and support the appointment of transaction advisors. The Planning Commission reviews and screens potential PPPs from within the Public Sector Development Programme (PSDP), while its Central Development Working Party (CDWP) identifies

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<sup>3</sup> We understand that this is a draft policy and is being discussed with various key infrastructure and government stakeholders in Pakistan, with a view to finalise it. We will discuss this in more detail with the Government and IPDF officials when we are in Islamabad in the week of 18<sup>th</sup> May 2009.

and coordinates PPP projects. Line Ministries, Federal bodies, provincial/ local authorities and SOEs are the contracting parties on behalf of the government.

As the contracting parties build their capacity, they will require support from the Planning Commission, MoF and IPDF. The latter is already assisting contracting institutions to improve proposals and prepare them for tendering in an advisory capacity. The IPDF, whose board is headed by Finance Minister, has a major role in advising all government PPP institutions and the private sector on the approval process and procedures. In general, approval authority involves three inter-related processes, namely general government processing and due diligence; internal consultation between government bodies; and contractual interfacing between public and private parties. Approval for PPP project development is made by the relevant public institution, which then, along with the government, awards the PPP contract to the successful bidder. The IPDF decides whether it provides structuring and implementation support. Approval processes for the PDF and VGF are being determined currently.<sup>4</sup>

The guidelines also clarify the financial framework for projects. Tariff-based project revenues, involving user-charges, or unitary-payment based revenues (where the government pays the private contractor a fixed fee, or an adjustable fee under objective criteria), are well understood. A third structure is defined, which will be based on user charges, but with support from the government. In general, projects identified by the government or IPDF as not 'bankable' can receive different types of support from various sources in order to attract a private partner. These can include VGF funding, long-term commercial financing through the IPDF, government incentives (fiscal and other), and other forms such as guarantees and development support. The government intends to impose ceilings on the level of support it provides for each of these.

The government intends to issue Risk Framework Guidelines to describe generic risks (country and one-off risks) and to provide guidance on how to deal with them. Feasibility studies on a project by project basis will identify and allocate project-specific risks (i.e. performance and business risks). The government aims to allocate risks according to the public or private party best able to manage it at a minimum cost, which usually means that the private sector is responsible for infrastructure and service delivery. Guidelines are to be issued for risk mitigation principles, while tendering documents will perform the same function on a project by project basis. A Risk Management Unit is being established in the MoF to manage government liabilities from PPP contracts. Finally, the government is designing a framework for managing the fiscal liabilities from PPPs which will include a Guarantee Fund to cover and monitor all contingent guarantees for PPP projects. The policy also suggests that concession agreements will include possible mechanisms for clawing back returns to the government if the project outturn is more favourable than anticipated – although no description of such mechanisms are provided.

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<sup>4</sup> A CEPA-led Consortium is also working on advising the Ministry of Finance on the operationalisation of the VGF and PDF.

A step-by-step guideline is provided for unsolicited proposals, whereby the private-sector seeks guidance from the government on the overall framework for unsolicited bids, and the project's pre-feasibility studies, and essentially conform with all issued guidelines (e.g. project has public merit) such that the government makes clear it has no objection in principle. The private-party then develops the project at its own risk, submitting a study and proposal to the government, who then appraises the project. Detailed guidelines are due to be issued by the MoF and IPDF.

#### 4.2. SBP prudential guidelines

Related issues for project finance include recent relaxation of SBP prudential regulations for the banking sector in order to improve liquidity prospects and allow more freedom in investment policies.

In view of the global slowdown in growth and capital accumulation, the SBP introduced two important measures - downward revision of cash reserve requirement (CRR) and relaxation of minimum paid-up capital for commercial banks. On 1<sup>st</sup> November 2008, the SBP, in an effort to ease the liquidity situation in the banking sector, slashed the CRR by 1%. The move was made 15 days in advance as part of the SBP's banking bailout plan of releasing PKR270 bn. The second measure of relaxation of minimum capital requirement has also provided the much needed breather to the banking sector in terms of more time available to raise minimum capital. Table 4.1 summarises the previous and revised deadlines for minimum capital requirements:

*Table 4.1: SBP capital adequacy guidelines*

Year ending 31 Dec	Previous minimum paid-up capital requirement	Revised minimum paid-up capital requirement
2009	PKR 6 bn	PKR 6 bn
2010	PKR 10 bn	PKR 7 bn
2011	PKR 15 bn	PKR 8 bn
2012	PKR 19 bn	PKR 9 bn
2013	PKR 23 bn	PKR 10 bn

## 5. UPDATE ON DEMAND FOR INFRASTRUCTURE FINANCE

### 5.1. Projects closed

As shown in Table 5.1, around 15 infrastructure projects – predominantly IPPs – were closed in 2007 and 2008.<sup>5</sup> Seven IPPs are expected to come online in 2009, with four becoming commercially operational in 2010. Annex 1 provides further details on these closed projects.

Table 5.1: Projects closed in 2007-08

Project type	Closed in 2007	Value (\$m)	Closed in 2008	Value (\$m)
IPP	6	1,230	5	1,378
Petrochemical	1	1,000	1	241
Refinery	0	N/A	1	350
Grain terminal	1	93	0	N/A
<b>Total</b>	<b>8</b>		<b>7</b>	

### 5.2. Project pipeline

An updated list of projects currently being developed by the IPDF, as provided to us on 16 April, 2009, is set out in Annex 2. The IPDF pipeline includes 18 projects with a total value of \$3.2 bn. Table 5.2 summarises the size and sector distribution of these projects.

Table 5.2: Summary of updated IPDF pipeline

Type of project/ sector	Projects	Average size
Commerce	4	\$98m
Health	2	\$10m
Highway	5	\$104m
Port/ rail	2	\$1,009m
Transport/ logistics	2	\$98m
Water and sanitation	3	\$20m
<b>Total</b>	<b>18</b>	

While recognising their capacity constraints, the IPDF is in discussion with the Planning Commission and relevant Ministries to identify further projects which can be implemented through PPP. They are particularly targeting projects which are at the conceptual/ pre-feasibility stage.

The IPDF's updated pipeline does not provide details on the stage of development for each project; i.e. the progress made so far in conducting feasibility analysis or structuring the project.

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<sup>5</sup> Source: United Bank Limited, Pakistan. The values represent total debt committed. Also, there may be other smaller ticket transactions that may have achieved closure – the table presents the main large PPP transactions in the last two years.

## 6. UPDATE ON THE SUPPLY OF INFRASTRUCTURE FINANCE

This section summarises recent trends in the supply of infrastructure project finance, and in particular the performance of equity and bond markets in Pakistan.

Capital markets were not immune to the volatility in global finance in 2008. Table 6.1 shows the decline in inward capital flows in the most recent full fiscal year compared with the previous year.

Table 6.1: Changes in key financial flows

Source	Inward investment 2007-08	Change from 2006-07 (comparable period)
Foreign private investment	FDI	-17%
	Portfolio investment (equity)	-88%
	Portfolio investment (debt)	-100%
Foreign public investment	Portfolio investment (equity)	-100%
	Portfolio investment (debt)	(increased from a small outflow to a small inflow)

Source: State Bank of Pakistan (SBP)

The capitalisation of equity markets fluctuated for the most part in line with regional and international markets trends, but was also influenced by domestic events. The SBP considers the financial sector to be overly reliant on banks at the expense of growth of Non-Bank Finance Companies (NBFCs) and the insurance sector. NBFCs face direct competition from banks and are not likely to grow significantly until funding sources and costs are streamlined. At the same time, growth in the insurance sector is weak, and private pension funds have only recently shown signs of growth (and require improved innovation and efficiency in order to expand further).<sup>6</sup> Further impetus for growth may be provided by banks associating with insurance companies and developing new products for cross-selling. As seen in other Asian emerging markets where they have become principal institutional investors and the main providers of long-term funds, private pension funds have enormous potential.

Infrastructure projects in Pakistan have typically been financed by syndications amongst the local commercial banks, with very little participation from Development Finance Institutions (DFIs) and mutual funds. This is primarily due to:

- the absence of a strong secondary market and therefore an exit avenue for non-banking investors;
- the lack of depth in the primary market (limited options available); and
- a mismatch between risk, return and tenor expectations of the potential investor market, and the tenor and risk appetite requirement for infrastructure projects.

Middle Eastern investors have traditionally shown significant interest in Pakistan-based projects. However, the global recession has significantly curtailed their participation in

<sup>6</sup> This may require privatization and possible breakup of the dominant state-owned insurance company.

infrastructure projects. Going forward, banks may expect to see an inflow of private equity investment from Middle East in infrastructure, in primarily power and food sectors.

The global financial crises and credit crunch have had little impact on the local infrastructure project finance market, given that the Pakistan credit market has had little or no exposure to mortgage derivatives. The credit spreads and tenors for PKR based infrastructure project financing continue to remain in the same range i.e. 8-14 years and base rate plus 200-300 basis points. The banking sector is recently experiencing sector concentration constraints especially in the IPP sector, on account of substantial exposures taken on the IPPs closed in the past two years. Going forward, factors such as liquidity, sector ceilings, portfolio consolidation may impede the banking sector's active participation in the upcoming IPP investment opportunities.

## 7. KEY CONCLUSIONS

The adverse economic environment in Pakistan and problems in global debt markets had an adverse effect on the number of infrastructure projects reaching financial close, particularly since mid-2008. Budgetary constraints might pose a non-trivial risk to the government's proposed infrastructure investment plans. Furthermore, non-banking finance, insurance and pension funds sectors remain underdeveloped, posing significant obstacles to the project finance sector.

However, the government does remain publicly committed to infrastructure finance and is continuing to pursue enabling reforms for PPI. Projects involving private participation in power and transport sectors particularly have seen some activity in recent years, indicating that there is an appetite among investors for infrastructure projects. Recent improvements in macroeconomic stability after receiving the IMF package, combined with relative resolve in the rate of economic growth in 2007-08, should enable cautious optimism going forward.

Based on the recent trends, we have updated the infrastructure financing estimates that were presented in the 2007 Market report. These are based on our discussions with and estimations of United Bank Limited, a key project financier in Pakistan, and their contact with the key infrastructure financing stakeholders in the country.

Tables 7.1 – 7.2 provide the past estimations and forecasts of local debt financing available for infrastructure projects in Pakistan. Whilst 2007 and 2008 saw a large increase in the supply of project financing, 2009 is expected to see a significant drop in terms of projects reaching financial close and debt being disbursed on earlier closed projects (\$900m).

*Table 7.1: Estimates of the supply (disbursement) of total project finance (debt capital) in recent years*

<b>Year</b>	<b>Estimate (US\$ mn)</b>
2004	300 – 350
2005	400
2006	550
2007	1,000
2008	2,000
2009 (expected)	900

Based on the grim market outlook until at least mid-2010, the debt financing forecast for the next three years has been revised downwards (Table 7.2). The realistic debt supply per year for the next three years is estimated to be c. \$0.75-0.90m.



Table 7.2: Forecasts of the supply of debt by local banks for infrastructure projects in the medium term (3 years)

Forecast	2007 estimate (\$ bn)	Revised estimate (US\$ bn)
Conservative	\$0.75 - 1 bn p.a.	\$0.5-0.6 bn p.a.
Realistic	\$1 - 1.5 bn p.a.	\$0.75-0.90 bn p.a.
Optimistic	\$2 - 2.5 bn p.a.	\$1-1.36 bn p.a.

Table 7.3 presents the potential annual infrastructure financing gap in Pakistan, which is now estimated at \$3.2-3.5 bn (much higher than the 2007 estimate of \$2-2.5 bn).<sup>7</sup>

Table 7.3: Estimated infrastructure financing gap in Pakistan

Particulars	Value (US\$ per annum)
Infrastructure requirements across sectors (MTDF estimates)	\$ 7 – 7.5 bn
Less: Government financing	\$ 2.5 - 3 bn
Less: Expected capacity of private financing (debt + equity)	\$ 1 – 1.3 bn
<b>Infrastructure financing gap</b>	<b>\$ 3.2 – 3.5 bn</b>

This is based on:

- The estimated infrastructure investment needs across sectors, as per the Medium Term Development Framework (2005-10), which suggests that the total financing requirement across energy, transport, water and telecoms sectors is about \$7-7.5 bn per annum.
- The potential infrastructure spend of the Government of Pakistan at \$2.5-3 bn per annum. However, this may be lower, given the fiscal pressures and IMF targets to reduce government borrowing and deficits.<sup>8</sup>
- The expected availability of private finance for infrastructure projects – both debt and equity – of \$1-1.3 bn a year.<sup>9</sup>

<sup>7</sup> These are informed by informed estimations as per the recent projects closed and outlook for private financing capacity in the near to medium term.

<sup>8</sup> The size of the infrastructure financing gap would be greater, if the public budget for infrastructure projects is lesser than our 2007 estimate of \$2.5 – 3 bn per annum. We hope to understand better the government budget for infrastructure projects on our field visit to Islamabad in the week of 18<sup>th</sup> May 2009.

<sup>9</sup> Given that the realistic estimate of available project debt financing is \$0.75-0.90 bn p.a., the total private financing for infrastructure (debt and equity) is roughly estimated at \$1 – 1.3 bn p.a. This presumes that the equity: debt structure on a typical project is 30:70.

## ANNEX 1: PROJECTS CLOSED SINCE DECEMBER 2006

Figure A1.1: Recent projects reaching financial close

Project	Sponsor	Sector	Details	Date of financial close
Orient Power Project	Private Power Infrastructure Board	Power	Balloki Punjab	Dec-06
Muridke(Sapphire) Power Project	Private Power Infrastructure Board	Power	Muridke Punjab225MW	Jun-07
KESC Expansion Project	KESC	Power	220 MW	Aug-07
Fauji Mari Power Project	Private Power Infrastructure Board	Power	Daharki Sindh 202MW	Sep-07
Sahiwal(Saif) Power Project	Private Power Infrastructure Board	Power	Sahiwal Punjab 225MW	Sep-07
AttockGen Power Project	Private Power Infrastructure Board	Power	Rawalpindi 165MW	Sep-07
Engro Chemical Pakistan Limited	Engro Group	Chemical	Urea Expension Project	Sep-07
Atlas Power Project	Private Power Infrastructure Board	Power	Sheikhupura 225MW	Nov-07
Fauji Grain Terminal	Fauji Foundation and Akbar Group	Logistics	n/a	2007
Nishat Chunian Power Project	Private Power Infrastructure Board	Power	Lahore 200MW	Jan-08
Nishat Power Project	Private Power Infrastructure Board	Power	Lahore 200MW	Jan-08
Bosicor Oil Pakistan	Bosicor Group	Oil	115,000bpd Refinery	Feb-08
Halmore Bhikki	Private Power Infrastructure Board	Power	Bhikki 225MW	Apr-08
Engro Power	Private Power Infrastructure Board	Power	Near Daharki 227MW	Apr-08
Engro Polymer & Chemicals Limited	Engro Group	Chemical	VCM Project	May-08
Liberty Power Tech Project	Private Power Infrastructure Board	Power	200MW	Mar-09
HUBCO-Narowal Project	Private Power Infrastructure Board	Power	Narowal 220MW	Mar-09

Source: United Bank Limited, Pakistan

## ANNEX 2 : IPDF PROJECT PIPELINE

Figure A2.1: Update IPDF project pipeline (received 16 April 2009)

Project	Origination	Size (USD)
<i>Included in Castalia Report</i>		
Karachi and Gwadar Shipyards	Karachi Shipyard and Engineering Works	1,017m
PSEB IT Park	Ministry of Information Technology and Telecommunication	153m
Karachi CNG Buses	Karachi Mass Transit Company	5m
Charsaddah Solid Waste	Municipal Government	8m
Faisalabad Solid Waste Mgt.	Municipal Government and Urban Unit	41m
Faisalabad WASA Billing	Urban Unit	10m
<i>New projects</i>		
FBR Automation	Federal Board of Revenue	127m
NTC Cool Chain Project	Pakistan Horticulture Development Board	190m
Karachi Circular Rail	Karachi Urban Transport Company	1,000m
PTDC Corporate Complex	Ministry of Tourism	28m
PTDC Tourist Village Complex	Ministry of Tourism	85m
Karachi-Hyderabad Motorway M-9	National Highway Authority, Ministry of Communications	100m
Rawalpindi Fly-over N-5	National Highway Authority, Ministry of Communications	285m
Karachi Northern Bypass M-10	National Highway Authority, Ministry of Communications	50m
Muzaffargarh – D.G Khan(N-70) Highway	National Highway Authority, Ministry of Communications	62m
Establishment of Cardiac Surgery Facility at PIMS	Ministry of Health	15m
Institute of Dentistry at PIMS Islamabad	Ministry of Health	4m
Addition of 3 <sup>rd</sup> and 4 <sup>th</sup> Lane Kashmir Highway from Peshawar More to Gholra More	Cabinet Division	25m
<i>Projects being planned</i>		
Multipurpose Water Reservoirs	Ministry of Water and Power, Public Private Infrastructure Board	Various

Source: IPDF

### ANNEX 3: PPP PROCESS DIAGRAM

#### Annexure-A

Project Monitoring and Evaluation  
(Line Ministry/Relevant Department)



Execution of Project including financial close  
(Private Party)



Award of Project and Contract Signing  
(Line Ministry/Relevant Department)



Approval of Project  
(ENEC or Board of Ministry/Relevant Department)



Approval of Project  
(ECC and MOF and/or Board of Ministry/Relevant Department)



Pre-qualification and approval of bidder and PPP structure  
(Line Ministry/Relevant Department)



Approval of Feasibility Report  
(Line Ministry/Relevant Department)



Approval for selection of preferred option(s) for feasibility study  
(Line Ministry/Relevant Department)



Selection and hiring of Transaction Advisor  
( Line Ministry/ Relevant Agency)



Identification of Project  
(Planning Commission, Line Ministry/ Relevant Department/IPDF)

*Source: Pakistan Policy on Public-Private Partnerships*