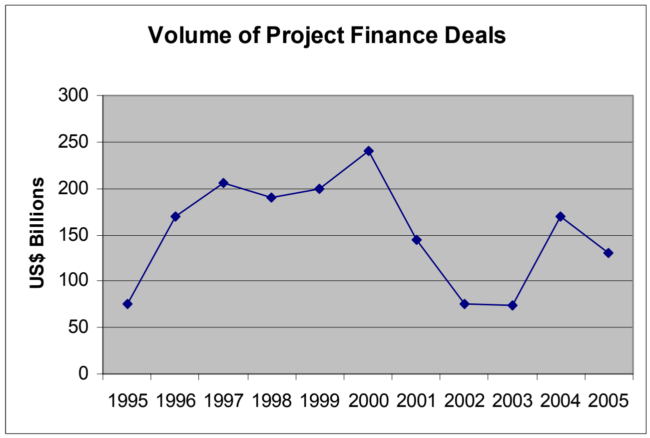
Interstice Consulting Corporation
Research Note
October 2005

Trends in the Global Infrastructure and Project Finance Market

The overall market has recovered from credit problems in the early 2000s

The overall project finance market was generally growing between 1995-2000, followed by a sharp drop-off in 2001-2003. By 2004, overall market volumes had recovered strongly.



(source: Dealogic; 2005 total is an estimate based on 1st 7 months activity)

However, examining total volumes masks significant underlying trends and changes in the composition of the market.

In developed markets, problems in the US power sector in 2001-2 included the California energy crisis and the collapse of Enron. Moreover, investment in telecom projects dropped sharply following the end of the technology investment "bubble". Offsetting these developments was the strong demand in the UK and western Europe arising from public-private partnership transactions, which have expanded the range of sectors accessing limited recourse financing. Power, transport and infrastructure sectors have led the recovery.

As for emerging markets, some of the dynamic factors included the Asian and Russian financial crises of the late 1990s and the subsequent Latin American crises in Argentina and Mexico. In Asia, the relative over-investment in the 1990s led to a period of overhang of excess capacity. Restructurings of Asian project debt were mostly settled in the post-crisis years of 1998-2003. At the same time, most Asian countries have built up solid foreign reserves and their domestic financial institutions are flush with liquidity. The recovery in emerging markets lending has been concentrated in energy projects in the Middle East and CIS.

A significant portion of overall market volume has consisted of re-financings as the general level of interest rates has declined dramatically, and as project risks decline post construction.

Data from the Institute of International Finance (IIF), which tracks international capital flows, demonstrate that international debt and equity flows into the emerging markets have rebounded.

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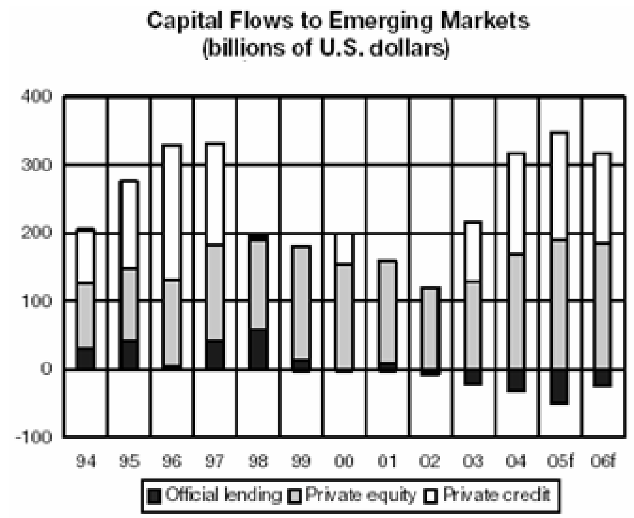

(source: IIF)

After a peak in 1996, private credit contracted significantly between 1998-2002 as a result of the series of crises in emerging markets discussed above. Commercial lenders were focused on restructuring and exiting their bad debt, and the need for new external capital was not great given the over-investment in capacity. There has also been a steady trend within total private credit flows towards non-bank providers (see table below). Since 2003, private credit has been expanding and is approaching pre-crises levels as the credit quality of emerging markets has improved. In the new environment, domestic financial institutions are much more liquid than in the past decade and are more active participants in financing capital investment.

Equity flows (both direct and portfolio) have been more resilient than debt, and continue to outpace debt flows as equity has proven to be a more reliable source of capital from the perspective of project sponsors. On the supply side, the emerging markets have found their share of the global growth in savings, as economic growth in key markets has been sustained for several years. The IIF projects 2005 to be a record year for private external financing into the emerging markets, with another strong year in 2006.

Emerging Market Economies' External Financing
(billions of U.S. dollars)

	1996	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005f**	**2006f**
Current account bal	-95.5	29.3	48.0	29.2	78.8	118.0	151.9	194.4	180.7
External financing, net:									
Private flows, net	335.0	153.2	187.6	126.0	120.4	213.7	317.4	345.2	317.8
Equity inv, net	127.7	168.3	149.6	145.8	118.8	128.9	167.5	191.3	184.4
Direct inv, net	92.3	148.9	135.3	134.6	117.7	95.9	132.2	148.9	145.8
Port inv, net	35.3	19.4	14.4	11.1	1.1	33.0	35.3	42.3	38.7
Private credit, net	207.4	-15.1	37.9	-19.7	1.6	84.8	149.8	153.9	133.3
Comm banks, net	123.8	-51.5	-0.3	-26.4	-3.9	25.4	61.1	63.5	57.8
Nonbanks, net	83.6	36.4	38.2	6.7	5.4	59.4	88.7	90.4	75.5
Official flows, net	4.3	12.6	-4.0	14.0	-3.3	-21.4	-30.6	-50.4	-24.2
IFIs	7.0	2.3	2.3	23.7	7.8	-6.6	-16.4	-23.9	-12.4
Bilateral creditors	-2.7	10.2	-6.3	-9.7	-11.1	-14.8	-14.2	-26.5	-11.8
Resident lending/other, net[1]	-158.1	-140.2	-161.2	-84.1	-45.1	-37.6	-38.6	-87.7	-72.3
Reserves (- = incr)	-85.7	-54.9	-70.3	-85.2	-150.8	-272.6	-400.0	-401.4	-402.0

(source: Institute of International Finance)
f = IIF forecast
[1]Including net lending, monetary gold, and errors and omissions.

These boom and bust cycles, in both emerging and developed markets, should not be perceived as extraordinary but rather as core characteristics of the project finance market. From the perspective of a financial institution, they emphasise the need for geographic and industry diversification, strong credit structures, and active risk management.

Public private partnerships have been important drivers of project finance volume, particularly in developed markets

Particularly in the developed markets, public-private partnerships (PPPs) have given the project finance market a significant boost. PPPs appeal to governments as a method of investing in infrastructure without having an impact on their credit rating. Economic efficiencies through involvement of the private sector are also frequently cited as motivation for introducing PPPs. Moreover, in European Union countries which are constrained by the deficit targets of the Maastricht Treaty such as Germany, Italy and Portugal, PPPs have been an essential method of mobilising investment in public infrastructure.

The UK's Private Finance Initiative (PFI) is the most established programme, having raised approximately €33 billion in private sector funding over the past decade. As of December 2004 there were 700 separate PFI schemes on offer.

Following the success of the UK's PFI and of other early leaders such as Australia, Spain and Canada, a number of countries have moved to enact the necessary legislation and organisations to undertake PPP projects.

Some of the principal countries with active PPP projects include:

United Kingdom	Korea	Brasil
Australia	India	Romania
Spain	China	Russia
Portugal	Poland	Oman
Germany	South Africa	Indonesia
Italy	Chile	Philippines
France	Argentina	Ghana
Greece	Colombia	Mozambique
Canada	Mexico	
United States	Czech Republic	
Japan	Hungary	
Taiwan	Ukraine	

Germany is expected to be a large market for PPP financings over the next several years, with volume estimates in the range of €4-6 billion.

The United States may also be gearing up for large, sustained PPP volumes. Federal initiatives including the *Transportation Infrastructure Finance and Innovation Act (1998)* and several large state initiatives such as in California and Texas, are encouraging private financing of public infrastructure. Although few transactions have been consummated, the sheer size of the US market merits close attention. Re-building of infrastructure following Hurricane Katrina may also bring a boost to private finance.

In addition, there is a growing market in securitisation of PPP debt. Deals have been completed which achieve an economic transfer of risk from the original financial institutions onto institutional investors, via credit risk default swaps.

Emergence of the "B Loan" market has provided additional flexibility to project sponsors

Non-bank credit providers have become active participants in the project debt market in developed markets, constituting the "B Loan" market. These investors include loan funds, mutual funds, bond funds, and hedge funds. Generally, B Loans offer a competitive source of post construction re-financing with relaxed covenants compared to bank lenders.

Private equity investment in projects is growing

Private equity is emerging as a fast-growing segment of the infrastructure and project finance marketplace. The general growth in private equity funds has led to increasing specialisation and, similar to project debt's characteristics, project equity provides a relatively less risky asset class. At the same time, the limited universe of project sponsors has imposed constraints on raising project equity for the myriad of proposed projects. Institutional money will play an increasingly important role as a catalyst for greenfield projects and as a source of post closing liquidity for project sponsors. Leaders in this area include Macquarie, ABN Amro, Barclays, Innisfree, and Westpac. CIT and Santander have also recently established funds.

In emerging markets, Export Credit Agencies are becoming more adept at assessing project risks

Export Credit Agencies and other official agencies have traditionally relied on local guarantors for credit support, but are now increasingly looking at taking project risks. The OECD consensus now has rules concerning project finance lending standards. While there are longer lead times involved during the ECA's evaluation period, transactions covered by ECA guarantees are generally more profitable to financial institutions from a return on capital perspective, and are also a crucial source of long-term funding in emerging markets.

Infrastructure and project finance is an attractive market segment with multiple revenue streams

Although there have been wide swings in the market for infrastructure and project financial services, there is an undeniable underlying need for such funding in both developed and emerging markets. Experience has shown that the asset class carries lower risks than was commonly thought. Indeed, as part of the Basel II regulatory process the major global banks active in project finance initiated a collaboration with Standard & Poor's to demonstrate the relative recovery rates of limited-recourse project debt as compared to other debt categories. Standard & Poor's reports the following historical recovery rates:

Recovery Rates by Asset Type

Asset type	Mean	Median
Project finance	72.4%	100.0%
Leveraged loans	77.6	99.7
Senior secured debt	75.9	95.0
Senior debt	64.6	76.4
Senior unsecured debt	45.7	38.3

(source: Standard & Poor's Risk Solutions, January 2005)

The mean recovery for project debt was 72.4%, broadly in line with corporate senior secured debt and leveraged debt, while the median recovery is actually 100%. Enhanced monitoring of project construction and operation, control over receipts and bank accounts, and clearly set out processes during defaults all contribute towards the credit quality of project debt.

With the increasing sophistication of financing alternatives, more opportunities for secondary market trading and re-financings will be available. Additionally, the potential for financial institutions to act as true project catalysts, by providing advice and arranging both equity and debt financing, will be an important driver in the longer run.

The market will continue to grow and the range of products will expand in order to meet both supply and demand factors

Total volume for the first seven months of 2005 was a solid $76.3 billion. Dealogic reports the following transaction volumes by sector:

Sectoral Breakdown of Project Finance Volume

Sector	Total $	Number
Power	33.8 bn	79
Transport	15.8	32
Oil & gas	13.0	29
Infrastructure	6.8	53
Telecom	3.9	8
Petrochemicals	1.9	6
Mining	1.0	8
Ind.	.1	1

(source: Dealogic ProjectWare, 1 Jan - 1 Aug 2005)

Looking forward, in the near term, a survey carried out by Project Finance Magazine as part of their *Global Directory 2005* of market participants' expectations for 2006 indicates that the demand for non-recourse debt will be high, in particular within the transport and oil & gas sectors. The Middle East, China, Canada, the US, and Central & Eastern Europe are expected to be the most active regions.

Beyond the next 12 months, the secular trend towards institutional investment in project finance deals should continue. This is reinforced by the strong demographic shifts in the developed markets which are favouring investment portfolios of less risky assets. Project finance investments, with their relatively lower degree of risk of loss, fit well with such risk preferences. Opportunities to offer structured debt and equity products directly to investors will grow.

On the demand side, debt re-financing activity is expected to slow due to the trend towards higher interest rates. However, a new wave of infrastructure investment in North America is expected as the effects of sustained economic growth place strains on existing facilities. The severe increase in oil prices in the past 12 months has encouraged diversification of fuel supplies, with a number of new coal-fired power plants on the drawing board. New investment in toll roads, via PPPs, is also expected.

Robust growth in emerging markets will undoubtedly raise the need for investment in infrastructure, although the major emerging markets are increasingly able to finance their needs internally with local currency instruments. Emerging markets growth is concentrated in a relatively few number of countries. According to World Bank statistics for 2004, Brasil, China, India, Mexico, and Russia accounted for 88% of the estimated increase in net FDI flows to all developing countries. Offsetting this demand are the challenging legal environments in many of these countries, which lead to longer gestation periods and higher uncertainties.