

CHAPTER 2 COMPLEMENTARITY BETWEEN DEVELOPMENT FINANCE AND OTHER SOURCES OF FINANCE: EVOLVING PRACTICES AROUND THE WORLD AND IN SADC

Introduction

2.01 The previous chapter established that in order to be effective, and derive maximum value from the range of options that are now available in emerging markets, national and/or sub-regional sources of *development finance* need to work in concert with other sources of finance, commercial or public. To an extent that has been characteristic of the overall financial structure of most DFIs, if not necessarily at the level of individual projects. However, with project *co-financing* from a variety of sources being resorted to on an increasing scale it is also becoming true at the level of the individual project.

Emerging Synergy between Development Finance and Commercial Finance

2.02 Scrutiny of the financial structure of the World Bank or the major RDBs (Mistry:1995), makes it immediately obvious that over 90% of their loanable resources are financed by the *private sector*. This is done through bond issues on international capital markets, which are taken up mainly by private investors whether institutional or individual. Only the equity capital of these multilateral DFIs (and the callable capital guarantees which support their borrowings) is *public* (i.e. funded by governments) as are their soft-window, concessional resources (e.g. IDA and AfDF).

2.03 The pattern of *public equity* being supplemented by *private debt* was also characteristic of national DFIs in Asia and Latin America until they were privatised, with public equity being gradually replaced by private equity in relative and absolute terms. It is true of DFIs in South Africa which have not yet been privatised. But it is *not* true generally of DFIs elsewhere in Africa or in other SADC countries; mainly because DFIs in these countries (with the exceptions perhaps of Botswana and Mauritius) have not been sufficiently creditworthy to attract borrowings from private sources. When they have borrowed, it has usually been from their own governments on preferential terms, from official bilateral sources, or from the AfDB, the WB or other smaller multilateral DFIs (e.g. the OPEC Fund or the Arab aid funds and DFIs).

2.04 In considering the future of development finance in SADC at the sub-regional level, it is essential to realise that it will be exceptional for DFIs to finance large-scale projects entirely on their own. More usually they will work with other sources of finance, whether public, quasi-public, or commercial. Since 1990 the principal actors with which national and sub-regional DFIs in the developing world find themselves interacting in financing either their own balance sheets or specific projects (especially infrastructure) include:

- the major *global or regional MDBs* (the WB, the relevant RDB, or their private sector departments or affiliates such as the IFC) for co-financing, guarantees or credit enhancement under their respective PPI initiatives;
- *sub-regional MDBs* (such as the EIB or the Nordic Investment Bank);
- *foreign commercial banks* (for syndicated and ST loans or bridge-finance);
- *foreign investment banks* and securities brokerages (for complex financial engineering and for raising equity or debt on international capital markets);

- *asset and fund management institutions* interested in portfolio investment in large primary financing deals (*viz.* mutual funds, unit trusts, venture funds, infrastructure funds, equity funds, pension funds and insurance companies);
- domestic, regional or international *securities exchanges*, when projects being financed involve listing new securities on these exchanges;
- *export credit agencies* from OECD countries as well as industrialised developing countries which are exporters of capital goods;
- *bilateral investment and financing agencies* (such as CDC, FMO, DEG etc.);
- *export-import banks* of equipment-exporting countries or third countries;
- *local commercial banks*;
- *local investment banks*;
- various levels of government and public enterprises interested in co-financing (central, provincial or municipal); and
- *other DFIs* in neighbouring countries.

2.05 DFIs in the more advanced developing countries now work with all of these different sources of finance. But in SADC that is true only for South Africa and, to a lesser extent, Mauritius and Zimbabwe. In the smaller SADC countries, DFIs are exposed to only a few of these sources, whereas a sub-regional DFI would probably be exposed to all of them. In working with these other institutions, national and sub-regional DFIs invariably find that optimal combinations of development and commercial (or public) finance depend largely on a number of pertinent project and risk factors. The most important of these are:

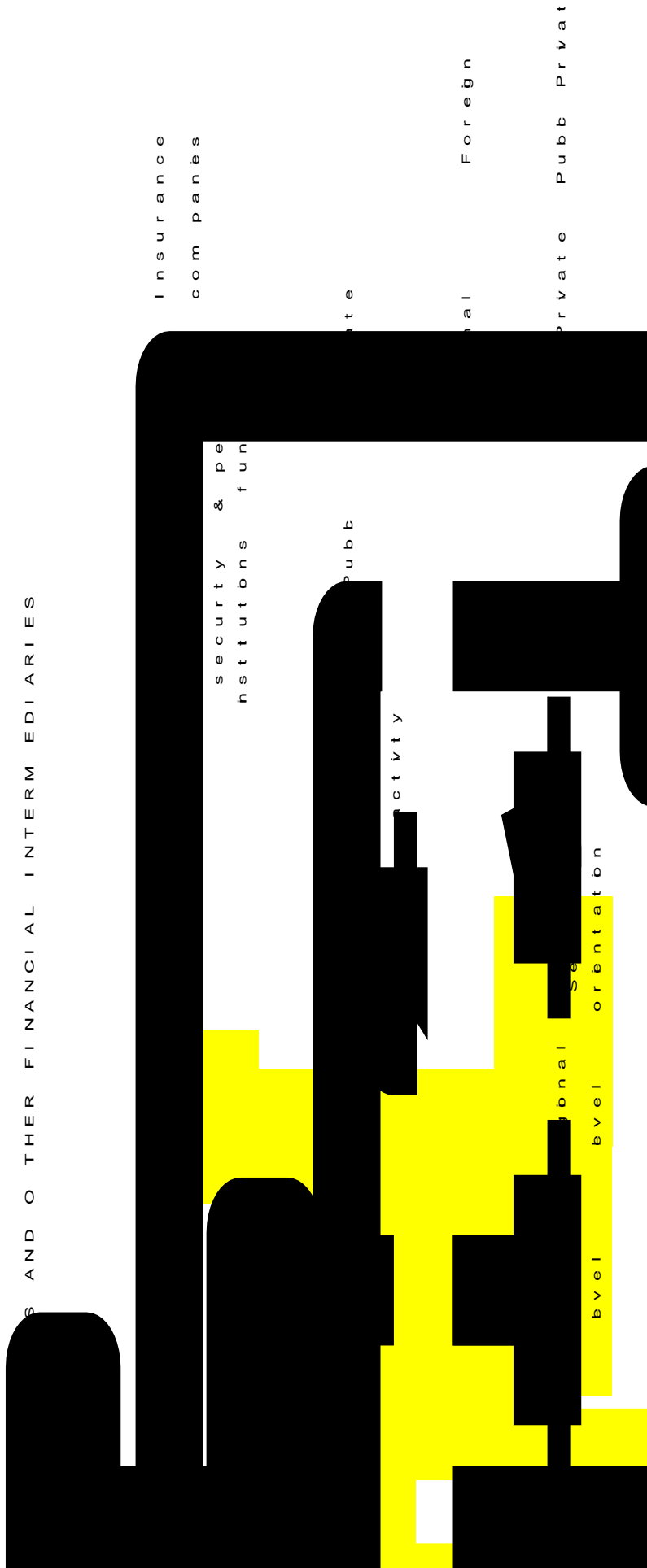
- the *nature of the project* being financed and the extent to which project cash flow can be garnered to service the debt and equity financing which is put in place;
- the *length of time* (i.e. tenure) for which financing is required and, for long-gestating projects, the gap between the construction and operating periods during which interest costs must be capitalised and carried;
- the *equity structure* of the project, i.e. the nature of the equity contributors involved and their expectations about rates of return through dividends, coupon returns and capital appreciation;
- the *debt structure* of the project, i.e. sources of debt funds, the terms on which different types of institutions are willing to provide debt and the guarantees and credit enhancements they may require; and
- the nature and combination of *risks* involved.

2.06 In an apparent circularity, it is also the case that the risks which any project or enterprise entails are in turn compounded by the complexity of the project, the length of time involved for project design and construction, and the time it takes for future project cash flow streams to service and ‘pay back’ the up-front financing provided. In emerging markets these risks generally include country risk (political and war risk), exchange or currency risk, term-transformation risk, funds transfer risk (because of exchange controls), technology risk, commercial and market risk, performance risk, risks involving relationships among multiple sovereign debtors or guarantors, and of course, credit risk (of the country or the project agency concerned).

**Financial Sector Banking and Non-banking
intermediaries**

CENTRAL BANK/TREASURY

AND OTHER FINANCIAL INTERMEDIARIES



2.07 There are of course other specific risks involved in those areas in which development financing has been specifically targeted, namely: industry, infrastructure, agriculture and rural credit, financing for small and medium (SME) as well as micro-enterprises; credit for low-cost housing and, finally, gender-specific credit (i.e. financing aimed specifically at women's groups). In developed economies specialised financing institutions also exist for purposes such as student loans. As indicated earlier this study focuses attention on the typical, traditional types of development financing and DFIs, i.e. those which finance industry and infrastructure. Other areas of specialised financing have been exempted from detailed treatment for two reasons: (i) they generally concern issues best handled at the national rather than regional level; and (ii) these other sector-specific institutions were not intended to be covered by the terms of reference.

Financing Industrial Projects

2.08 By and large, most *industrial* projects, especially when they are *not* being undertaken by the public sector, can now be financed entirely by commercial finance, often supported by export credit finance. When *development finance* is necessary for such projects (whether for debt or equity), it is usually because:

- *domestic* commercial sources of finance - i.e. capital markets and banks - are insufficiently developed to undertake either the sophisticated financial engineering tasks or the risks involved;
- the country and credit risk involved is too great for *foreign* sources of finance to absorb without credit enhancement, explicit third-party guarantees, or risk-sharing through co-financing; and/or
- the gestation period involved is too long in an uncertain environment (which has lost credibility and reputation) for commercial sources of finance to be comfortable with, in the absence of some type of cover or comfort provided by a credible and creditworthy third-party.

2.09 There are two main reasons that explain why most industrial projects are now financed commercially rather than with development finance. The *first*, is that most developing countries are moving away from relying on parastatals and public funding, or on tax distortions, subsidies and very high rates of effective protection, to support the viability of such projects. However, many concessions (by way of location incentives or tax breaks) are still provided to attract such projects, especially when they are large in terms of their investment or employment effects. The cash flow streams from the productive assets financed under such projects are clearly discernible and usually accrue directly to the project and the commercial entity involved in undertaking it. The *second* reason was explored in Chapter 1, i.e. domestic and foreign commercial sources of finance have become more capable and more willing to take risks in emerging markets which, before 1990, they had shown no capacity to do.

2.10 *In the smaller SADC countries (especially BLNS) national DFIs will continue to play a major role in financing industrial projects largely because capital markets and private investment banking capacity remain nascent and as yet undeveloped.* Commercial banks in these countries are rarely willing to commit themselves to long-term funding and no other alternatives really exist. Clearly South Africa's capital markets and institutions could play a larger role in *industrial* project financing throughout SADC (especially where South African direct investors are involved) if the barriers which inhibit them from operating freely across the region were to be lowered and eventually eliminated.

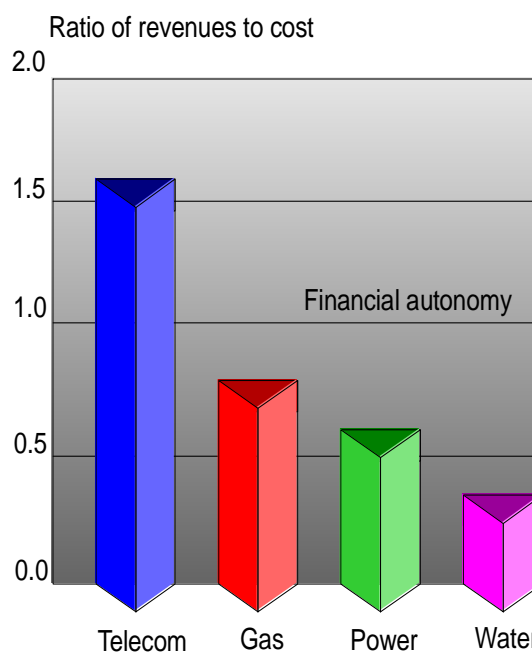
Financing Infrastructure

2.11 *Infrastructure* projects on the other hand pose a different set of financing problems even though, since 1990, an increasing number of infrastructure projects have begun assuming private commercial characteristics. That has resulted in fundamental changes in the way they are being financed with the private sector now playing a much larger role in infrastructure. As the WB observed in its 1994 World Development Report on *Infrastructure for Development*, increasingly innovative and diverse financing techniques are being employed resulting in a transition from public to mixed (public-private) risk bearing in the provision of infrastructure with the degree of the shift depending on the nature of the project.

2.1.2 Annual expenditures by developing countries on infrastructure have been estimated as being between US\$200-220 billion a year. Prior to 1990 there was virtually no private financing involved in these projects. Since then 35-40% of the privatisation proceeds derived by developing countries have been from the privatisation of infrastructure. Between 1993-97 about 15 institutionally managed special purpose national or regional *infrastructure equity investment*

funds have been launched totalling about US\$8 billion for participation in the equity structure of infrastructure projects in the developing world.

Figure 2.B Costs are seldom fully recovered in infrastructure



Source: Telecom, ITU 1994; gas, World Bank data; power, Besant-Jones 1993; water, Bhatia and Falkenmark 1993.

2.13 The amount of internationally sourced private equity (direct and portfolio) *actually invested* in infrastructure projects in developing countries in between 1990-97 was estimated at US\$98.6 billion. Moreover, debt financing for infrastructure projects undertaken by private firms in developing countries, raised either through bond issues in capital markets or commercial bank loans was estimated at roughly 5-6 times the level of equity investment (UNCTAD, WIR:1996). Commercial *debt* financing for infrastructure investment in developing countries is likely to grow even more rapidly than amounts raised for investments in the equity of such projects (World Bank:1997). Thus private financing is becoming an increasingly significant component in infrastructure financing. So far private finance has been concentrated mainly in *power, telecommunications* and *transport*, which are the sub-sectors in which the largest number of privatisations have occurred. They are also the sub-sectors in which enterprises can be subjected to competition and market discipline.

2.14 If present trends continue, private finance for infrastructure in developing countries can be expected to grow from around 5% of total infrastructure financing in 1990 to over 10% in 1994 (although in the three sub-sectors mentioned above it was 50% in some countries) to around 30% by 2005 and levelling off at about 50% by 2010. But, the increasing role of private financing should not obscure the reality that infrastructure financing, especially in the poorer

countries of SADC, will still involve features and risks which require a large component of public or development financing as a *sine qua non* in structuring such projects.

Table 2.A Infrastructure financing raised by developing countries by type of borrower and instrument, 1986-95
(Millions of US Dollars)

Type of borrower and instrument	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Total	1351	2543	910	3503	2641	6312	8835	18027	23314	22297
Sovereign Loans	286	850	143	0	0	6	116	0	0	205
Bonds	0	0	0	0	0	0	0	0	0	0
Other Public Sector	965	1529	630	2587	640	2798	2963	5759	7580	6485
Loans	847	1476	549	2448	306	2013	1682	2571	2185	2188
Bonds	118	53	81	139	334	748	1030	3034	1003	2035
Equity	0	0	0	0	0	36	251	154	4391	2262
Private Sector	100	165	137	917	2002	3509	5756	12267	15734	15607
Loans	100	165	137	767	1380	126	1536	6271	6007	11086
Bonds	0	0	0	150	500	740	1155	3867	5810	3262
Equity	0	0	0	0	121	2643	3065	2130	3918	1259

Note: Amounts refer to amounts covered by closed transactions and not necessarily to disbursements.

Source: Euromoney Loanware and Bondware and World Bank Staff Estimates

- 2.15 Up to now, apart from using their own public revenues from taxes (and in South Africa from domestic and international market borrowings), governments in SADC have relied heavily on official development finance (aid-funded ODF) for financing infrastructure. Indeed the erstwhile SADCC (SADC's predecessor) was established primarily to coordinate donor funding for investments in infrastructure. While the share of officially supported external financing for infrastructure amounted to about 12% for all developing countries (WDR:1994) it accounted for about 30% in SADC; excluding South Africa which, till 1994, did not have access to ODF on an unconstrained basis.
- 2.16 Among others, there was a particular *financial* reason for infrastructure being financed by governments up to the early 1990s. The theory of finance suggests that in any country, government should be the most creditworthy borrower, able to borrow at lower rates than other entities. This axiom enabled governments to finance infrastructure projects that would not have been possible for other entities to do between 1950-90. But classical finance theory was up-ended in the aftermath of the developing country debt crisis. In SADC, several countries are now less creditworthy than many private entities *within* those countries. They are much less creditworthy than *foreign* private entities with interests in constructing and operating infrastructure on a global scale. Also, the supposed lower cost advantage of government borrowing to finance infrastructure throughout the developing world (and especially in Africa and SADC) has been vitiated by inefficiencies and lack of accountability or transparency in public control over capital and operating costs. Moreover public ownership of infrastructure assets resulted in their outputs being regarded as 'political goods' whose pricing was rarely sufficient to recover costs.

Table 2.B Infrastructure financing raised by developing countries by region and type of instrument, 1986-95

(Millions of US Dollars)

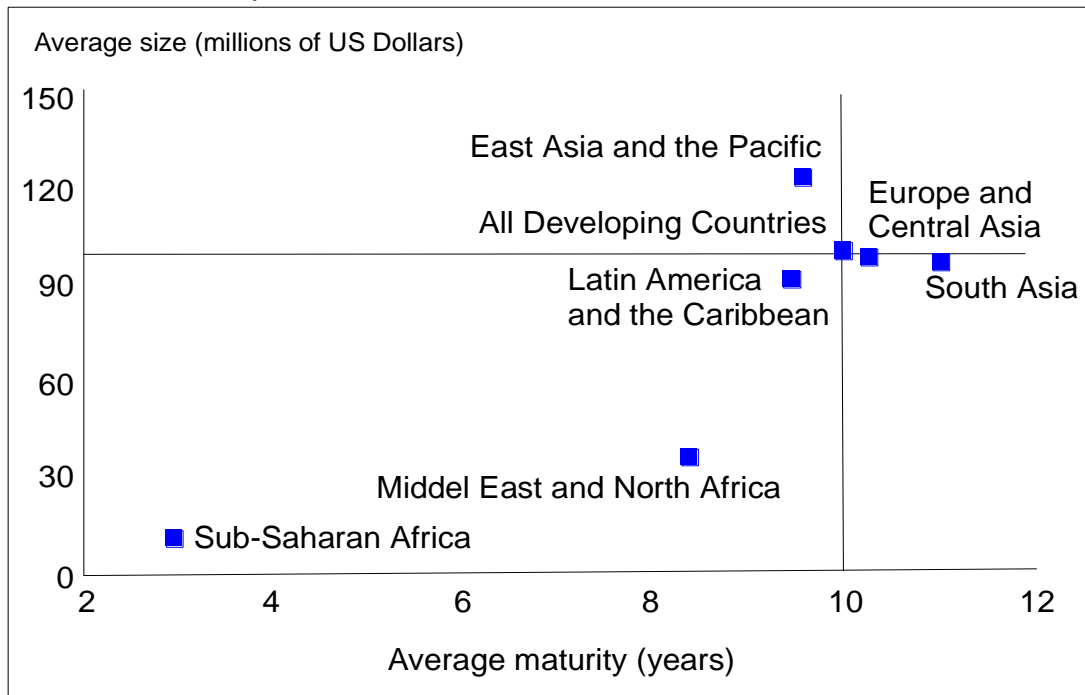
<i>Region and instrument</i>	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
All developing countries	1351	2543	910	3503	2641	6312	8835	18027	23314	22297
Loans	1233	2490	829	3215	1686	2145	3334	8841	8192	13479
Bonds	118	53	81	289	834	1488	2135	6901	6813	5297
Equity	0	0	0	0	121	2679	3316	2284	8309	3521
Sub-Saharan Africa	0	7	0	0	0	6	0	42	0	396
Loans	0	7	0	0	0	6	0	42	0	0
Bonds	0	0	0	0	0	0	0	0	0	396
Equity	0	0	0	0	0	0	0	0	0	0
East Asia and the Pacific	935	693	260	2210	1798	1188	3831	9329	10786	13712
Loans	817	640	260	2210	1525	797	2489	5987	4146	7598
Bonds	118	53	0	0	250	215	480	2377	2557	2809
Equity	0	0	0	0	23	175	863	965	4083	3306
South Asia	0	93	0	583	117	415	120	489	2850	1914
Loans	0	93	0	583	117	415	115	234	1030	1576
Bonds	0	0	0	0	0	0	0	180	0	150
Equity	0	0	0	0	0	0	5	75	1820	188
Europe and Central Asia	369	1162	316	466	334	862	448	2496	1662	3657
Loans	369	1162	235	328	0	464	148	1673	963	3124
Bonds	0	0	81	139	334	398	300	764	253	506
Equity	0	0	0	0	0	0	0	59	445	27
Latin America and the Caribbean	0	382	284	243	392	3841	4431	5630	7543	2248
Loans	0	382	284	93	44	462	578	890	1579	811
Bonds	0	0	0	150	250	875	1405	3580	4003	1437
Equity	0	0	0	0	98	2504	2448	1160	1961	0
Middle East and North Africa	47	206	50	0	0	0	4	41	474	370
Loans	47	206	50	0	0	0	4	16	474	370
Bonds	0	0	0	0	0	0	0	0	0	0
Equity	0	0	0	0	0	0	0	25	0	0
Memo Item										
Project financing for all developing countries through loan syndications	7027	6297	6672	7149	8704	14922	16046	19566	22654	27403

Source: Euromoney Loanware and Bondware and World Bank Staff Estimates

- 2.17 In addition, most governments (in developed and developing countries) no longer have the budget capacity to finance all the investments required to meet growing demand for infrastructure services or to bring their infrastructure standards closer to levels needed for them to become globally competitive. The weight of such financing in developing countries is therefore falling increasingly on global and domestic capital markets, on institutional portfolio investors, and on international, regional, sub-regional and national DFIs working together with commercial sources of finance whether domestic or international. *The share of public financing for infrastructure should therefore fall from nearly 100% before 1990 to around 70% by 2000 and perhaps under 50% by 2010; perhaps plateauing at that level thereafter.*
- 2.18 In SADC, which is relatively well-endowed with infrastructure assets compared to the rest of Africa (except Angola and Mozambique where infrastructure has been destroyed by two decades of war and is only now being reconstructed), annual investment requirements in infrastructure are estimated at between 4-6% of GDP (around 10% in Angola and Mozambique). That share translates into dollar investments of US\$7-10 billion in 1995. That amount can be expected to grow at 4-5% annually. For this level of investment to be achieved and sustained, SADC governments *and DFIs* will need to work closely with international sources of finance (including global and regional MDBs that have launched new initiatives to facilitate the *private provision of infrastructure - PPI*). Together, these sources of finance will need to focus on:

Fig 2.C The size and terms of infrastructure borrowing vary across developing countries

International loan syndications, 1986-95



International bond issues, 1986-95

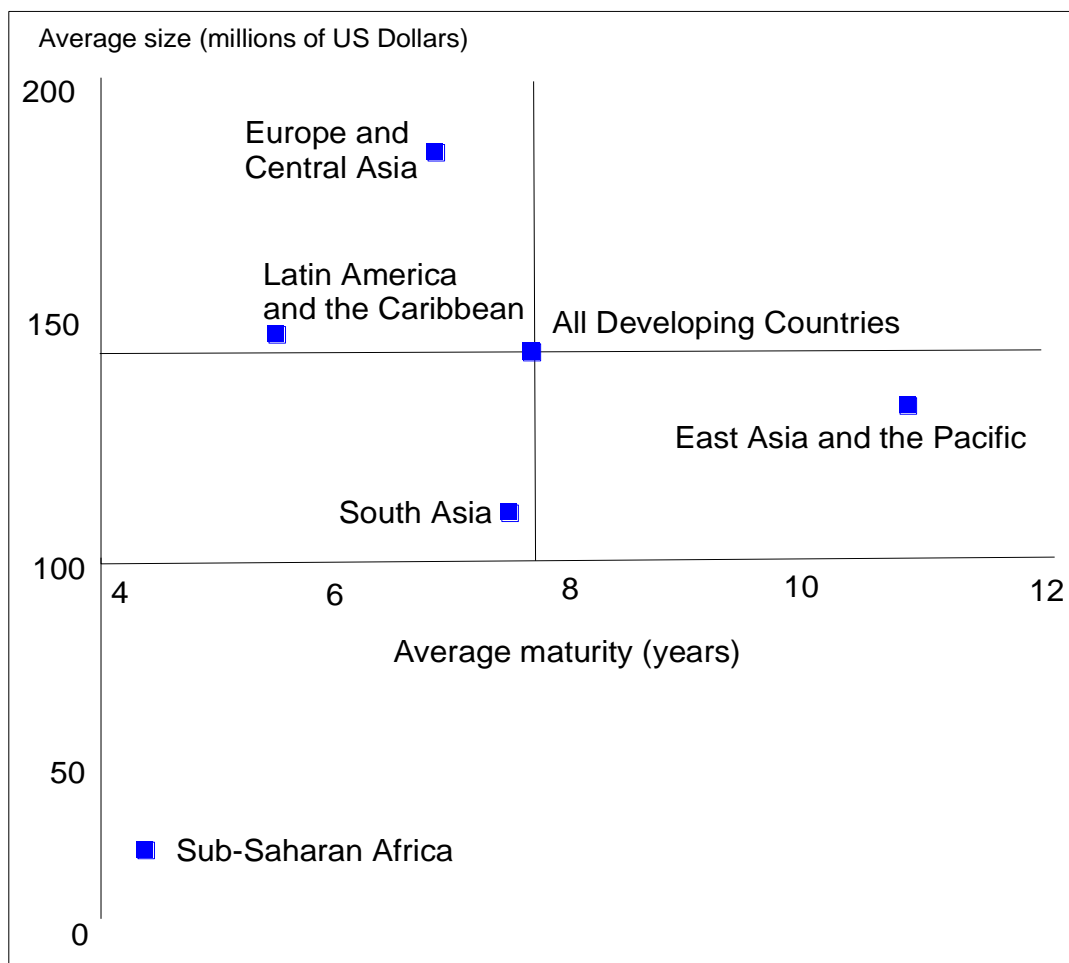
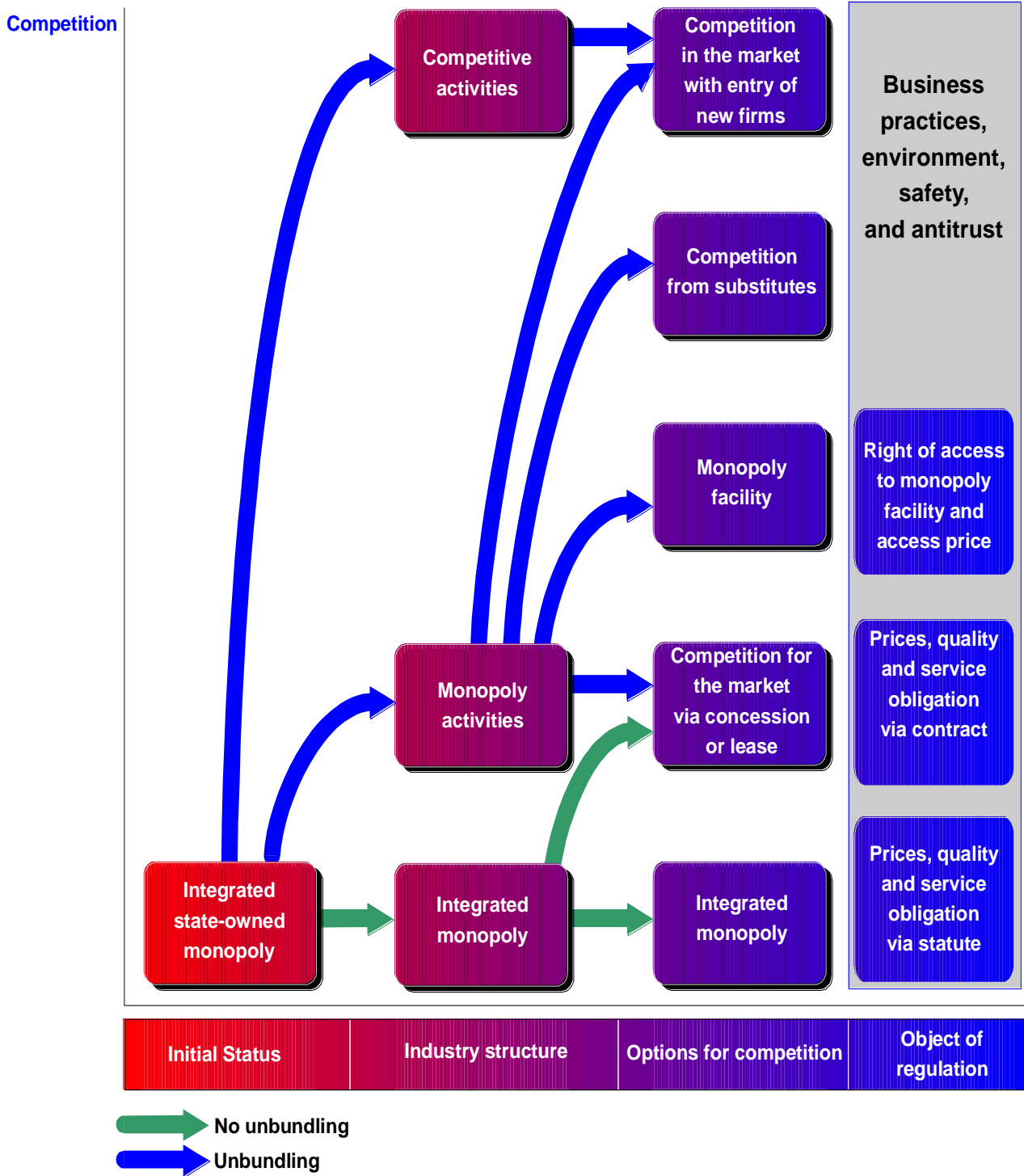


Fig 2.D Unbundling activities increases the options for competition and private sector involvement



Source : World Bank

- *Unbundling existing infrastructure assets* and enterprises into: (i) industries where competitive supply and commercial operations are possible and which are likely therefore to attract domestic and foreign investor interest; and (ii) those in which competition in supply is difficult to assure and where natural monopoly characteristics will therefore continue to prevail.
- *Privatising infrastructure* in areas such as power, telecommunications, road haulage, air transport and airport/seaport operations where international operators and global construction firms are actively seeking investment opportunities in SADC in association with local companies. Such global firms bring their project and plant management, construction, operating and technical expertise and, more importantly, their sound credit standing and ability to bear in raising equity and debt finance in global (and domestic) capital markets for their investments.
- Privatisation, rather than the corporatisation of public enterprises, or public enterprises being operated under management contracts, will be essential because global infrastructure companies are most comfortable operating through *private* companies, which can be listed on securities exchanges. They prefer **not** to work in joint-ventures with parastatals subject to political interference and public funding constraints. Moreover, privatisation is likely to facilitate synergistic cross-holdings in the power, telecommunications, transport and water supply industries across SADC. These are unlikely to occur as long as investments in these industries are dominated by parastatals.
- *Developing adequate regulatory frameworks* in both the areas in which infrastructure services can be provided competitively, but more urgently in areas where natural monopolies will continue to prevail (e.g. road and rail networks, water supply and sewerage).

2.19 As events unfold over the next decade, privatised as well as new infrastructure projects in SADC will be owned, as elsewhere in the developing world, by special-purpose corporate entities whose shareholders will include: direct foreign investors; foreign institutional (portfolio) investors; domestic institutional and individual investors; local operating partners; DFIs; and probably even central or provincial governments (but as minority shareholders). On the demonstrated operating strengths of their principal sponsors such vehicles have demonstrated a remarkable capacity to attract both equity and debt finance from global markets on the basis of policy assurances and (often) binding rate of return guarantees. Increasingly, the MDBs as well as some national DFIs have played a valuable role through credit enhancements and their own guarantees in expanding the volume of commercial financing that such vehicles and projects have been able to tap from international as well as domestic sources.

Fig. 2.E The main institutional options for provision of infrastructure

Function	Option A					Option B		Option C	Option D
	Government department	Public enterprise				Leasing contract	Concession contract	Private (including cooperative ownership and operation)	User or community provision ("self-help")
	Traditional	Corporatised and commercial	With Service contract	With management contract					
Ownership of assets	Public		Public (majority)			Public (majority)		Private (majority)	Private or in common
Sectoral investment planning, coordination, policymaking, regulation	Internal to government	By parent ministry	Parent ministry or separate public authority			Public authority negotiated with private operator		None or public authority	None or public authority
Capital financing (fixed assets)	Government budget	Subsidies and public loans	Mainly market-based financing			Public	Private operator	Private	Private
Current financing (working capital)	Government budget	Mainly subsidies	Mainly internal revenues			Private operator		Private (government may pay for public service obligations)	Private
Operation and maintenance	Government	Public enterprise		Private operator for specific services	Private operator	Private operator		Private	Private
Collection of tariff revenues	Government	Government or public enterprise	Public enterprise			Private operator		Private	Private
Other characteristics:	Government		Public enterprise		Private operator	Private operator		Private	Private
Managerial authority	Government		Public enterprise		Mainly Public	Private operator		Private	Private
Bearer of commercial risk	Government		Public enterprise		Mainly Public	Private operator		Private	Private
Basis of private party compensation	Not applicable			Fixed fee based on services rendered	Based on services and results	Based on results, net of fee paid by operator for use of existing assets		Privately determined	Privately determined
Typical duration	No limit			Fewer than 5 years	About 3-5 years	5-10 years	10-30 years	No limit	No limit

Source : World Bank: WDR, 1994

Table 2.C Infrastructure privatisations in developing countries, 1988-1995
(Millions of US Dollars and percentage)

<i>Industry</i>	<i>Total Revenues</i>	<i>Foreign Investment</i>	<i>Foreign investment as a share of total revenues</i>
Utilities	11130	3994	35.9
Power/Gas/Electricity	10903	3905	35.9
Water and Sanitation	227	89	39.4
Telecommunications	21293	14253	66.9
Transport	7518	2178	29
Airlines	6106	1739	28.5
Railroads	453	99	21.8
Road transportation	431	64	14.8
Ports and Shipping	528	276	52.3
Total	39941	20425	51.1

Source: World Bank, privatization database

Note: Preliminary estimates

Table 2.D Infrastructure FDI flows relative to gross domestic capital formation in selected countries, 1992
(Millions of US Dollars and Percentage)

<i>Country</i>	<i>Total investment in infrastructure (US\$ million)</i>	<i>FDI flows into infrastructure (US\$ million)</i>	<i>Ratio of FDI to total investment in infrastructure-related industries (%)</i>
Developed Countries			
Denmark	631	95.8	15.2
Finland	1811	14.8	0.8
France	30655	181.4	0.6
Greece	2209	81.1	0.3
Italy	38715	24.6	0.6
Netherlands	7882	319.4	4.1
Norway	3636	4.2	0.1
South Africa	1708	103.1	6.0
Sweden	6103	6.8	0.1
United Kingdom	17312	527.7	3.0
United States	54652	2114.0	3.9
Developing Countries			
Kenya	19	1.4	7.4
Korea, Republic of	3236	11.3	0.3
Nepal	47	3.4	7.3
Pakistan	1730	70.1	4.1
Venezuela	881	4.6	0.5
Zimbabwe	26	0.1	0.4

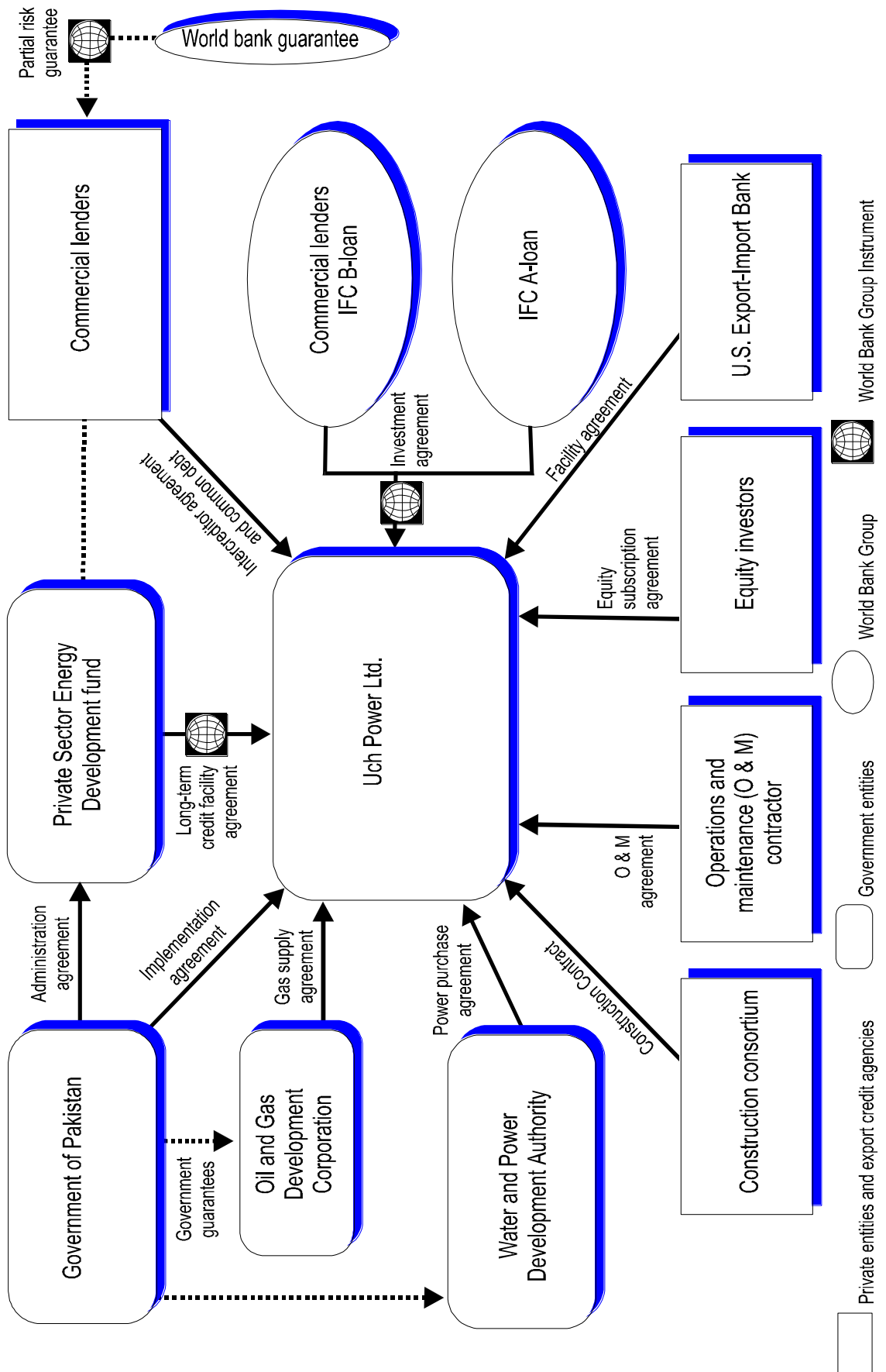
Source: UNCTAD estimates, based on annexure table 11; and United Nations, 1995

Fig 2.F Feasibility of private sector delivery varies by infrastructure components

		Potential for competition	Characteristics of goods or service	Potential for cost recovery from user charges	Public service obligations (equity concerns)	Environmental externalities	Marketability index
Telecom	Local services	Medium	Private	High	Medium	Low	2.6
	Log distance and value added	High	Private	High	Few	Low	3.0
Power/gas	Thermal generation	High	Private	High	Few	High	2.6
	Transmission	Low	Club	High	Few	Low	2.4
	Distribution	Medium	Private	High	Many	Low	2.4
	Gas production, transmission	High	Private	High	Few	Low	3.0
Transport	Railbed and stations	Low	Club	High	Medium	Medium	2.0
	Rail freight and passenger services	High	Private	High	Medium	Medium	2.6
	Urban bus	High	Private	High	Many	Medium	2.4
	Urban rail	High	Private	Medium	Medium	Medium	2.4
	Rural roads	Low	Public	Low	Many	High	1.0
	Primary and secondary roads	Medium	Club	Medium	Few	Low	2.4
	Urban roads	Low	Common property	Medium	Few	High	1.8
	Port and airport facilities	Low	Club	High	Few	High	2.0
	Port and airport services	High	Private	High	Few	High	2.6
	Water	Urban piped network	Medium	Private	High	Many	High
Nonpiped systems		High	Private	High	Medium	High	2.4
Sanitation	Piped sewerage and treatment	Low	Club	Medium	Few	High	1.8
	Condominial sewerage	Medium	Club	High	Medium	High	2.0
	On-site disposal	High	Private	High	Medium	High	2.4
Waste	Collection	High	Private	Medium	Few	Low	2.8
	Sanitary disposal	Medium	Common property	Medium	Few	High	2.0
Irrigation	Primary and secondary networks	Low	Club	Low	Medium	High	1.4
	Tertiary (on-farm)	Medium	Private	High	Medium	Medium	2.4

Source : World Bank

Figure 2.G The Uch Power Project in Pakistan Shows the Role of World Bank Group Guarantees



Source : World Bank

Using Development Finance to Mitigate Risks

- 2.20 Funding from international capital markets for new project entities with no previous operating history or track record is made possible by deploying time-tested techniques of non-recourse or limited-recourse *project financing*. These techniques permit commercial funds to be raised by securing them with both future revenues streams and the physical assets of the project being financed rather than relying only on the creditworthiness of the country (sovereign financing) or project sponsor (balance sheet financing) concerned. For that reason, project financing requires a much sharper understanding, unbundling and specific delineation/assignment of the several different risks involved.
- 2.21 Being different from publicly funded projects, in which governments effectively bear all the risks involved, the process of separating out and allocating risks across different operating and financial participants in a privately financed and operated infrastructure project is difficult, both conceptually and operationally. It requires complex legal and financial engineering skills and is time-consuming. Cutting edge expertise is required because new types of risk safeguards, conventions, collars and caps (often using complex tailored financial derivative instruments) are evolving and emerging by the day. In SADC countries, where (outside of South Africa) the capacity and knowledge base of private investment banking institutions are as yet undeveloped, national DFIs can become the natural repositories for developing such skills. Moreover, because of the way in which DFIs are funded and their ability to provide limited recourse, they can often bear certain types of risks (especially bridge-financing, term-transformation and policy risks) which commercial sources may not initially be able to bear.
- 2.22 Also, private funding for infrastructure projects can provide a disciplinary mechanism whose positive externalities go beyond PPI simply augmenting the availability of money. PPI-related project finance now invariably incorporates statutorily supported requirements for performance, accountability and transparency, which are monitored not just by regulators but also by professional institutional investors and financial markets. Consequently, these market disciplinarians design contractual mechanisms for rewards and penalties. They impose norms against which performance is measured to ensure that projects are completed on time, do not incur cost overruns, and meet specified targets for service volumes and quality, as well as for operating profitability in a manner compatible with safeguarding consumer interests. Such discipline complements the positive benefits of improved regulation and market competition in service production and delivery.
- 2.23 The downside, however, is that in developing country environments, which are prone to frequent political and policy changes, and where regulatory and competition standards are still in the early stages of evolution, private financiers and infrastructure facility operators (to meet agreed performance standards) often demand binding investor and rate-of-return protection covenants from governments which come dangerously close to posing serious *moral hazard* and *perverse incentive* problems of their own. Private operators resort to overkill in this respect, because PPI is always exposed to *policy default risk* (e.g. governments changing their stance on tariff policy, or on cost recovery, or the terms of agreements negotiated by previous governments) through the long construction and even longer operating lives of the specific projects concerned.
- 2.24 It is in covering such risks that the provision of public finance or, more usually, of *development finance* can prove productive, especially if costly protective covenants are to be avoided. Moreover, such risks are also more manageable when: (i) projects are not too large in the relative context of a particular country; and (ii) contracts with governments are credible and

involve mutually satisfactory, efficient dispute settlement mechanisms allowing for arbitration outside the jurisdiction of the country concerned.

2.25 The lessons that have been learned with risk-distribution (often called risk-bearing or risk-sharing) in PPI-related project financing between 1992-97 include the following:

- The success of project financing depends heavily on contracts which are highly specific and detailed in *identifying the risks involved*, unbundling them, and assigning them to specific parties (e.g. project operators and promoters, contractors and constructors, different types of financiers, different levels of government and regulatory or licensing authorities, fuel providers, service consumers, etc.).
- Although time consuming and inordinately expensive in terms of up-front legal costs, clear-cut *risk allocation* is central to determining whether privately operated infrastructure projects can attract commercial finance and reinforcing performance incentives. DFIs can play a special role as neutral lenders and advisors in the risk unbundling and allocation process and in lowering the up-front costs involved.
- Experience with PPI so far, indicates that private foreign infrastructure operators are averse to assuming any short or long-run *currency risk* on the foreign component of their equity (and sometimes even debt) contributions to PPI projects. Usually, the returns to such investors (and sometimes even service prices) are either denominated in (or pegged to) convertible currencies or, if denominated in local currency, are fully covered for exchange risk and *transfer risk* by the government or a specified credible intermediary.
- In developing countries with no efficient futures or swap markets in currencies, and with unstable economies, such open-ended currency risk coverage for the operating lives of infrastructure projects (of 30 years or more) poses an obstacle to private investment in infrastructure. Such risks can sometimes be partially dealt with through appropriately designed inputs of development finance; structured so as to reduce risks for private investors and operators while containing such risks within manageable bounds for the DFI.
- PPI has resulted in more sophisticated unbundling and pass-throughs of various types of *commercial* and *performance risks*. Risks concerning control over costs of construction and service production are usually passed on to: (i) turnkey contractors, through penalty clauses for delays in plant construction and commissioning; and (ii) the operating company, through automatically triggered reductions in rates of return if capacity utilisation is below agreed norms. Risks concerning increases in fuel costs (for power plants or transport operations) are usually: (i) mitigated by long-term supply contracts; (ii) passed-through to the consumer; or (iii) buffered to some degree by intermediary mechanisms which are financed to bear part of such risks.
- In more efficient capital markets such risks can be partially managed for limited periods of time through the use of traded or tailored *financial derivative contracts*. In countries where capital markets are less developed, a capable DFI can perform some of these risk-allocation, risk-monitoring, risk-bearing enforcement, and risk-management functions by assisting with: the design of penalty and incentive clauses in PPI contracts; the construction of tailored derivatives (sometimes as a counterparty if it is credible and creditworthy enough); and by operating in derivative markets to hedge against such risks.
- Most private investors in infrastructure are willing to bear the *market risk* themselves - i.e. failure of estimated demand levels to materialise, or materialise too slowly, or failure to compete effectively in service provision. But they are unwilling to bear *policy risks*

concerning *tariff changes or top-ups* (which are politically contentious), changes in *competition policy*, and *assured access to key public services* - e.g. private electric power generators need guaranteed access to transmission networks which are often publicly owned, on a non-discriminatory basis, as do cellular phone or pipeline or private rail service operators.

- The risks of performance failure in these policy areas need to be borne by governments. But to enhance credibility and project ‘financeability’ in international markets, the MDBs are now providing policy risk guarantees as part of their PPI initiatives. *There is a role for national DFIs in SADC to play in working with the MDBs to offer optimally designed policy-risk cover in ways which provide incentives for governments to ensure that they do not default in pushing ahead with policy changes which are essential to the viability of PPI.*
- But, while coverage of *policy risks* is part and parcel of the new PPI ‘rules-of-the-game’, a balance has to be struck to ensure that risk coverage is not overdone to protect private providers of infrastructure against failures in commercial judgements. The assumption by PPIs of cost-related and commercial risks creates strong incentives for sound managerial and business performance because of their need to: (i) ensure reasonable returns on equity investments so as to satisfy their shareholders; and (ii) generate sufficient net cash to satisfy their creditors about the safety and security of debt service. Institutional shareholders and creditors thus become a central part of the performance monitoring process under PPI. Such market-governance actually works. Privately financed infrastructure projects have had fewer time and cost overruns than publicly funded projects.
- Another feature of PPI is that a private global market in infrastructure risk insurance and re-insurance is now gradually emerging which enables private operators to cover and manage their risks through negotiated premiums. DFIs in SADC, working together with major regional and international insurance companies and underpinned by appropriately structured arrangements with the MDBs, could play a role in developing the *regional* infrastructure risk insurance market further, thus reducing risk perceptions (and costs) of PPI in the sub-region.
- In addition to policy risk guarantees, *contract compliance guarantees* have become typical features of PPI agreements as transitional measures till the necessary policy reforms which are underway in developing countries have been completed and new policy and regulatory regimes have stabilised.
- Under these guarantees, *buyers* of the infrastructural services being provided through new private investment (which can be large captive industrial plants or zones, or alternatively state-owned transmission companies) agree to pay minimum specified amounts for a basic quantum of services (the ‘take-or-pay’ formula) whether those services are actually used or not.
- Compliance guarantees have become necessary because financially troubled service buyers in developing countries (such as municipalities, or state electricity transmission companies) have reneged on purchase contracts. Their cash flow (often politically influenced) does not always permit them to honour undertakings. DFIs in SADC are uniquely placed to underwrite/intermediate compliance guarantees while working with the buyers concerned to ensure contractual performance.

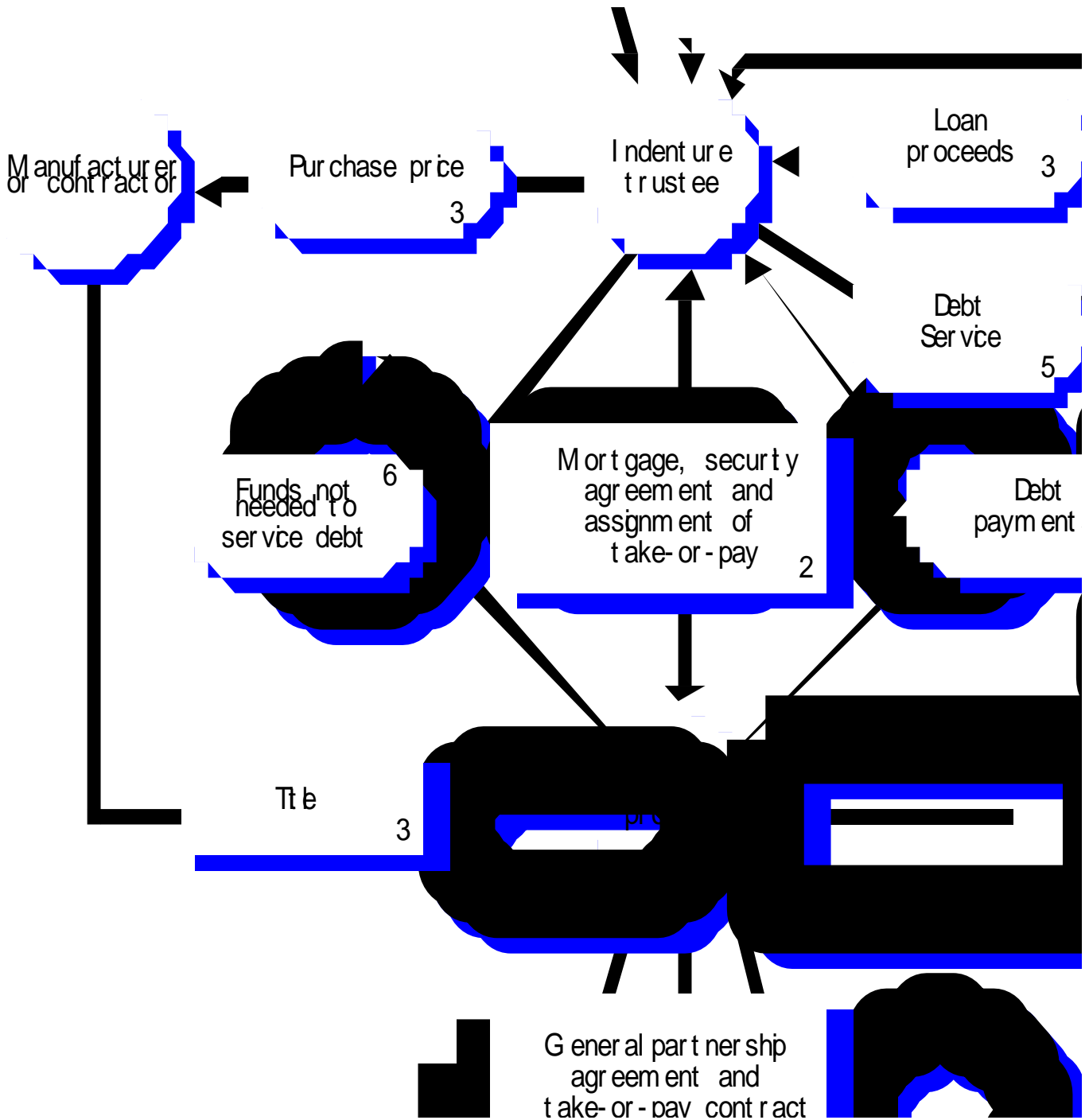
- With the experience of the debt crisis, private investors in infrastructure are generally disinclined to absorb *country risk* especially in countries with a less-than-investment-grade credit rating. Lenders to PPI projects look instead for country risk cover from banks, creditor country export credit or risk insurance agencies, or from the MDBs and MIGA, which in turn require enforceable counterguarantees from the developing countries concerned.
- The principal providers of country risk guarantees are, however, careful to separate country risk from commercial risk (in order not to create moral hazard problems). Sometimes (e.g. the WB and AfDB) can combine country risk cover with capital market credit guarantees. This enables *term transformation* in lengthening the maturities of credit facilities for PPI projects in countries to which the market would not, without credit enhancement, provide funds with the same maturities.

2.26 As the incidence of PPI in the developing world continues to grow, financial markets and specialised institutions - foreign and domestic - are responding in providing long-term equity and debt resources through new channels and instruments. As indicated above, foreign resources from private markets are becoming an integral feature of PPI projects in the developing world; especially in sub-regions like SADC where domestic savings are insufficient. But, the experience of the debt crisis suggests that there are limits to the amount of external funding that can (or should) be relied upon for infrastructure financing in SADC, especially for debt financing.

2.27 By their very nature, infrastructure projects require external debt service to be financed by domestic revenues. Their sheer size (especially of sub-regional projects in SADC), and overall external account constraints, make it essential for any sustained programmes of investment in infrastructure to rely heavily on increasing domestic savings. With government budgets across SADC coming under increasing pressure, that will mean relying more on *private savings*. It will also require resource mobilisation from domestic or sub-regional capital markets, although governments and public enterprises may, after privatisation, remain significant owners of infrastructural assets and entities.

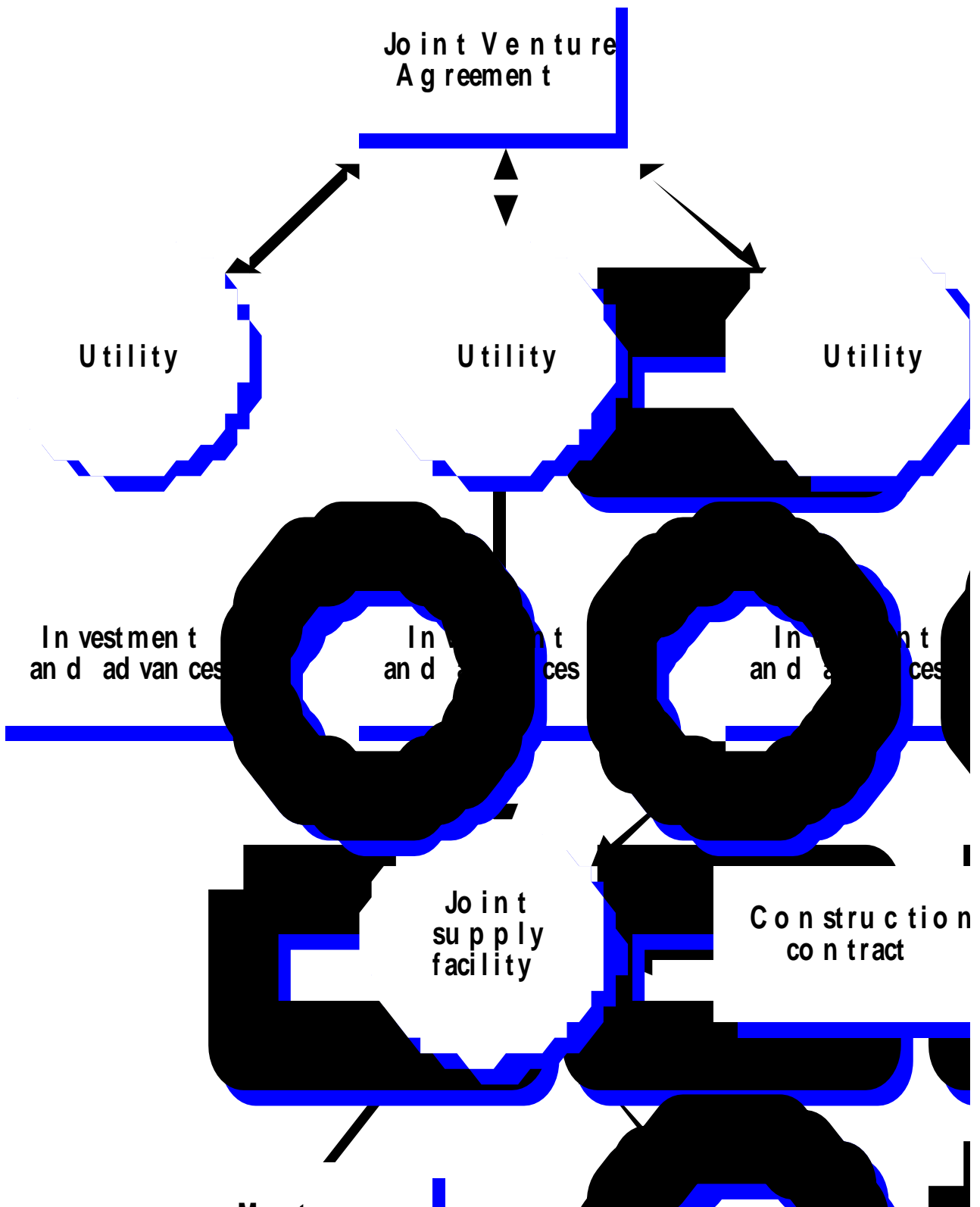
2.28 It is in providing *specialised intermediation* between PPI and domestic or regional capital markets in the arena of infrastructural financing that the more capable DFIs in SADC - acting individually or as a network - or a sub-regional DFI, can play a significant role. Infrastructure requires long-term finance with pay-outs depending on steadily growing annual cash flows rather than on returns based on spectacular capital appreciation. That feature is particularly compatible with the investment objectives and horizons of contractual savings institutions - such as pension funds, trust funds, and insurance companies which derive their own funds from levying fixed premiums or requiring monthly contractual savings. Such institutions have steady and predictable cash flows based on regular premium or contractually agreed savings inflows and, on the outflows side, for meeting long-term liabilities which are actuarially determined. They are also risk averse, thus making them ideal suppliers of finance for infrastructure projects. That is also the case with some mutual funds and reflects the proclivities of domestic investors in certain international markets, e.g. the Japanese capital market in which domestic investors have an appetite for emerging market *bonds* but not equities.

Fig 2.H Partnership Financing Structure with a limited recourse secured debt and take-of-pay contract



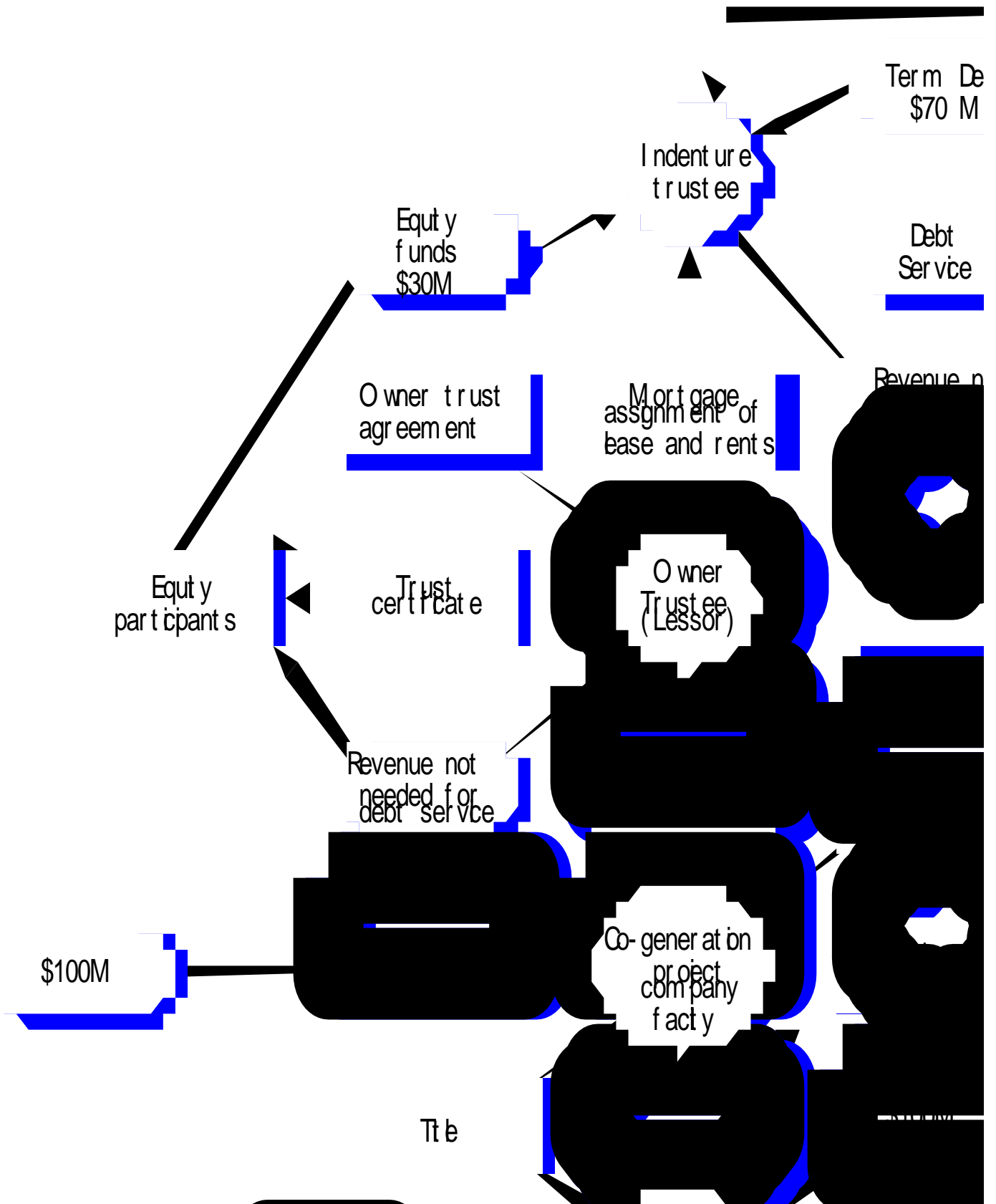
Source : Euromoney (Project Financing)

Fig 2.1 Joint venture financing structure financed by joint venture



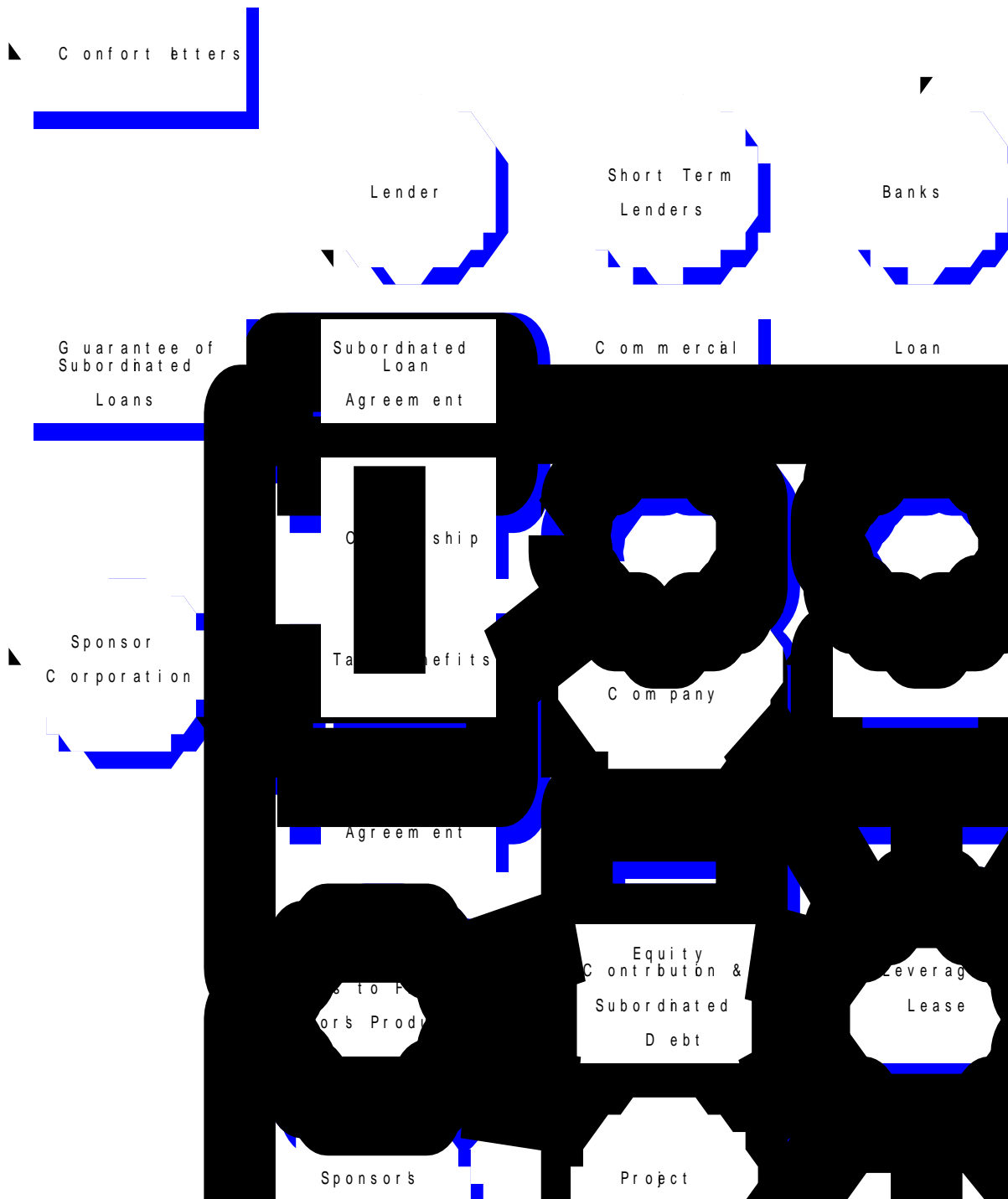
Source : Euromoney (Project Financing)

Fig 2.1 Financing a Co-generation plant operated by a utility with off-take and financing by captive industrial plants



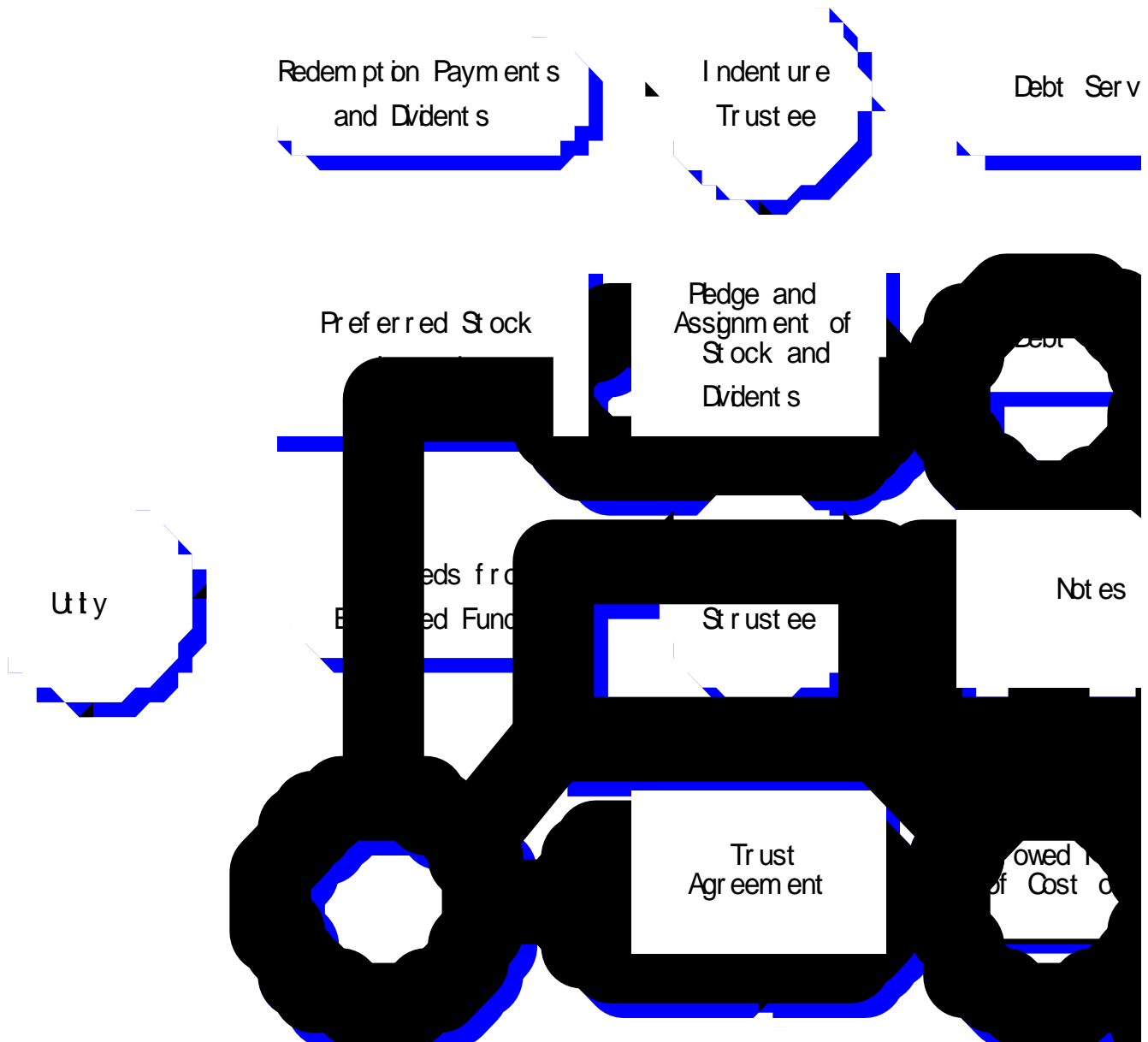
Source : Euromoney (Project Financing)

Fig 2.K Structuring project finance to achieve debt leverage and off balance sheet financing



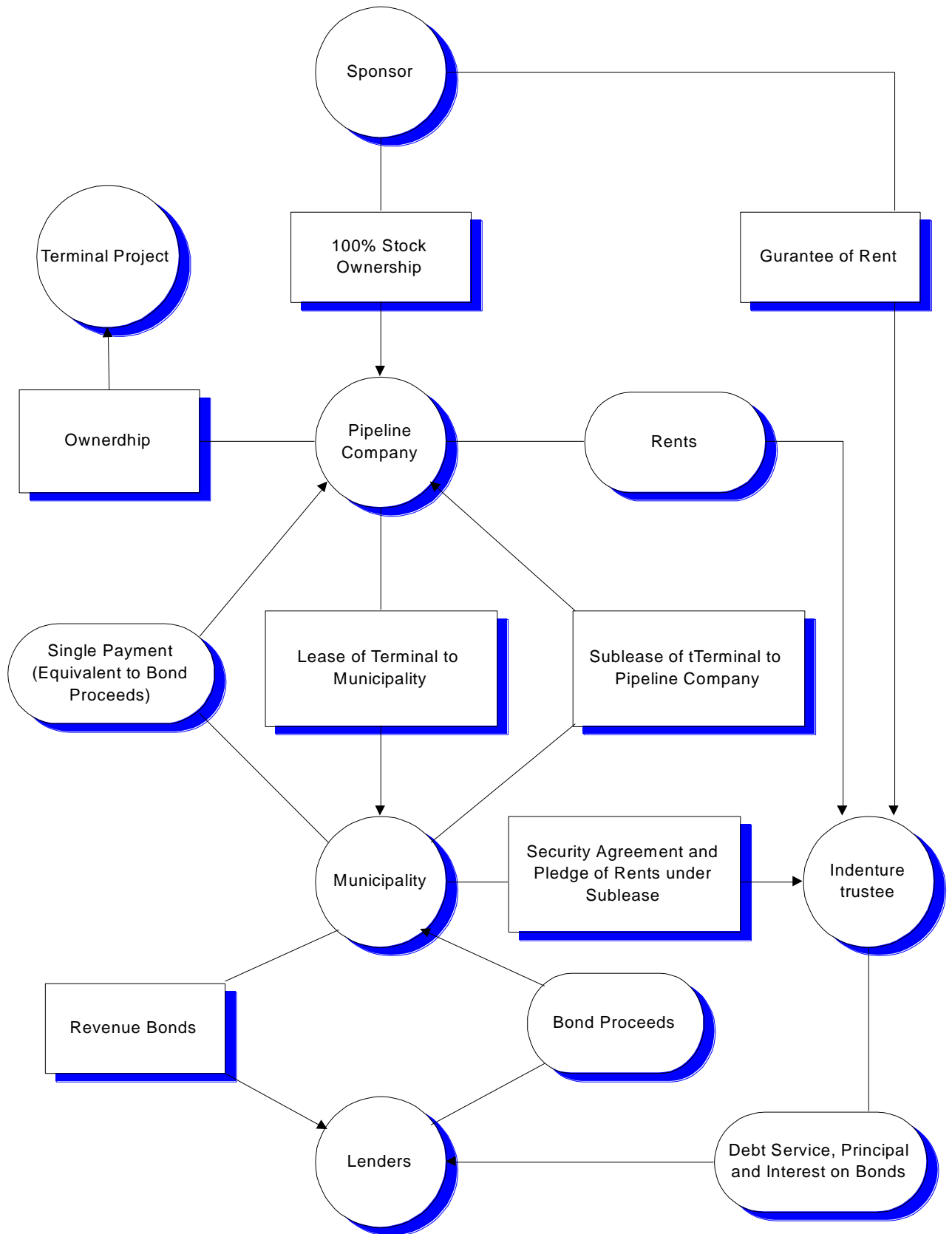
Source : Euromoney (Project Financing)

Fig 2L Financial structuring using leveraged preferred stock



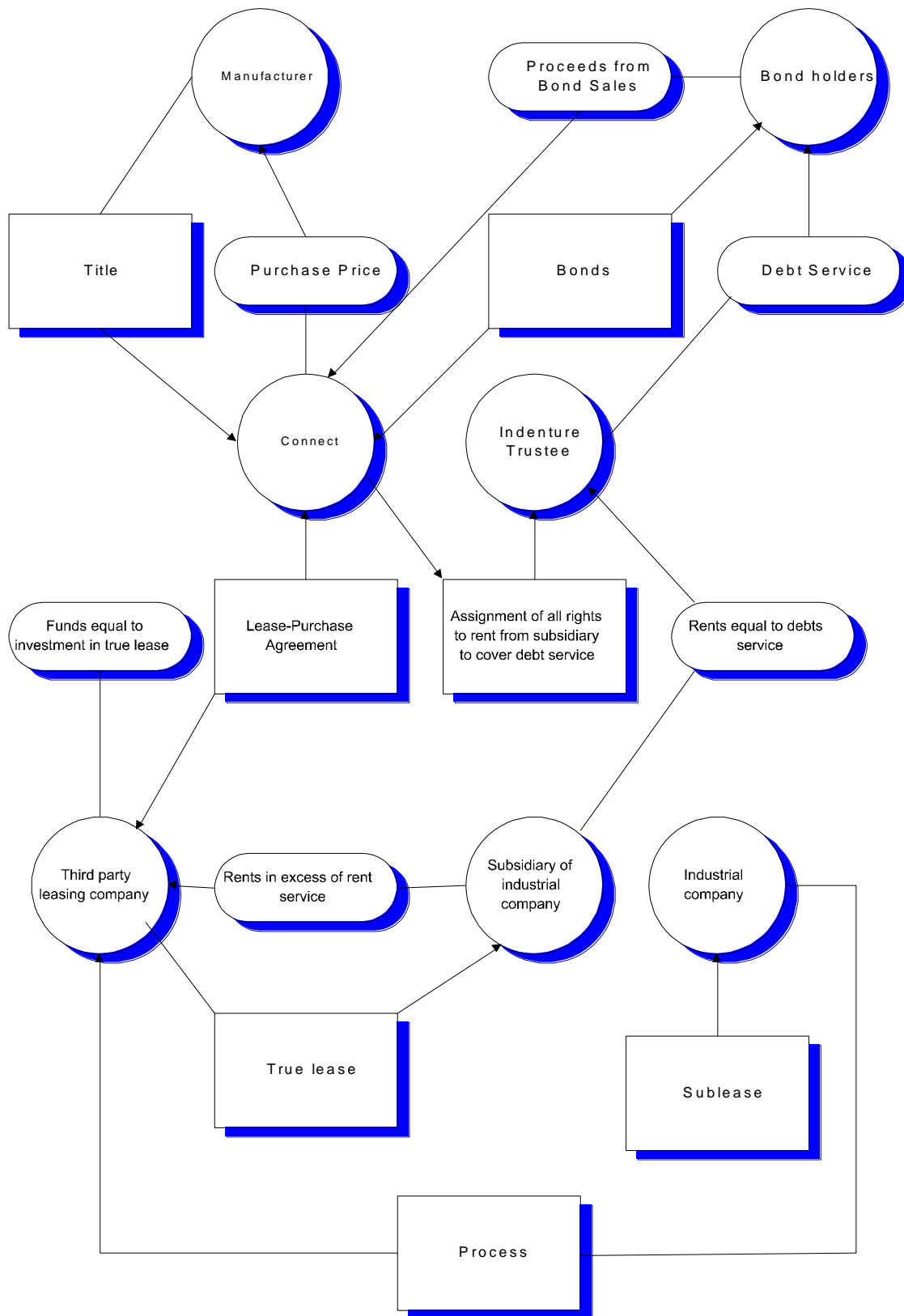
Source : Euromoney (Project Financing)

Fig 2.M Project financing using municipal bonds repayable with project revenues and guaranteed by issuer



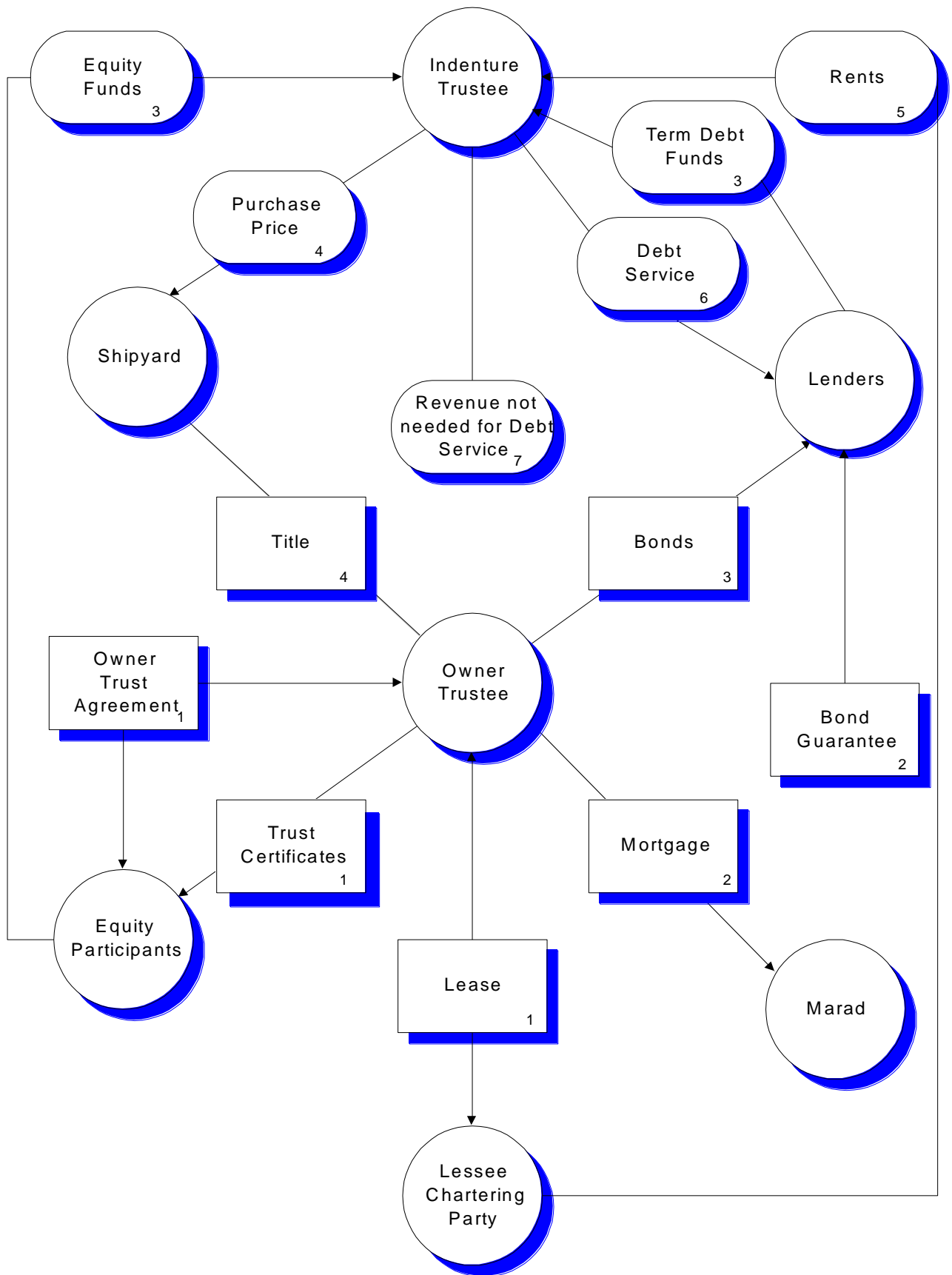
Source : Euromoney (Project Financing)

Fig 2.N Project Financing with a leveraged lease using industrial revenue bonds as leveraged debt



Source : Euromoney (Project Financing)

Fig 2.O Financing ship purchase through a non-recourse loan



Source : Euromoney (Project Financing)

Fig 2P Take-or-pay contract structure

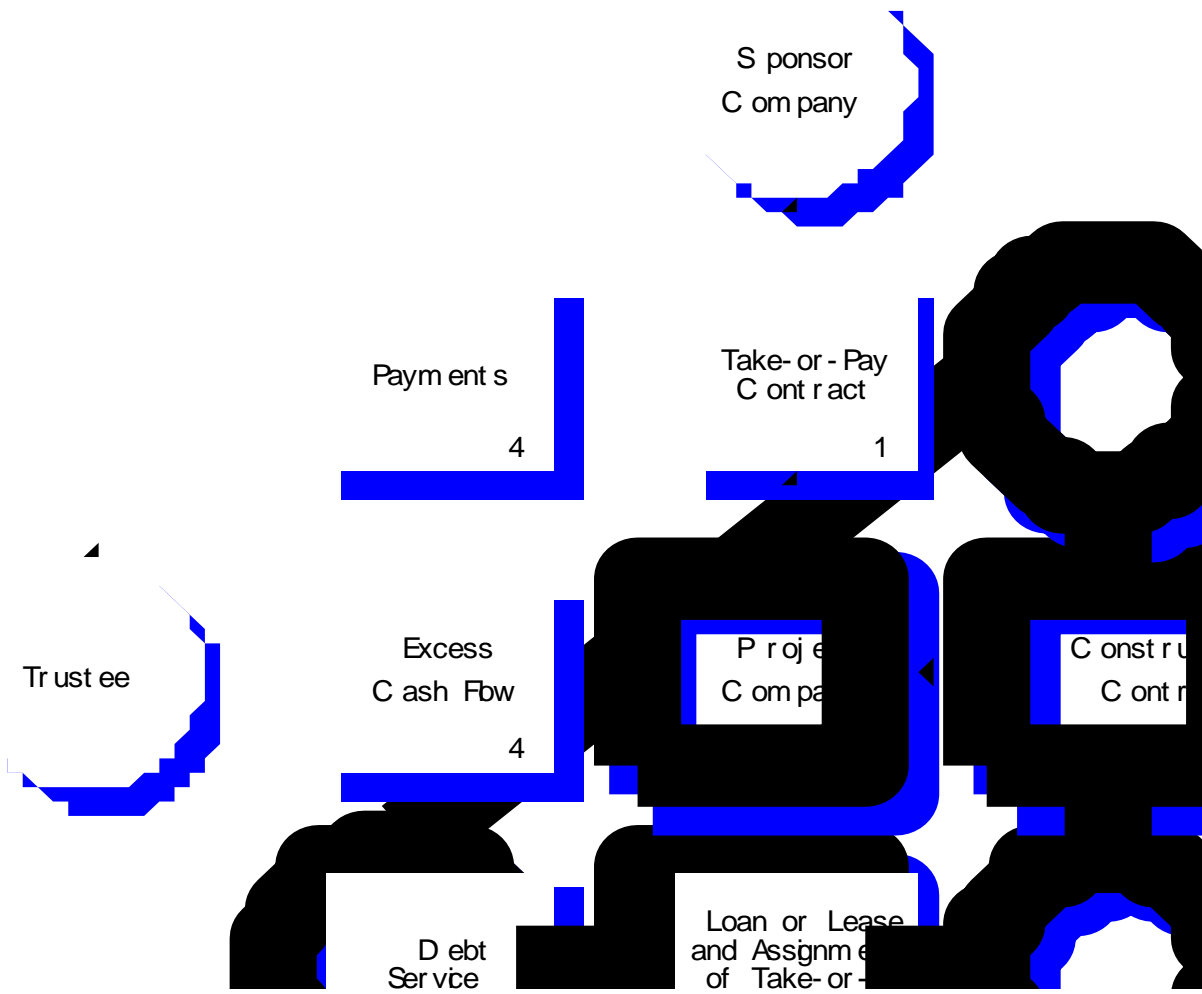


Fig 2.Q Fuel purchase contract supported by "hell-or-high-water"

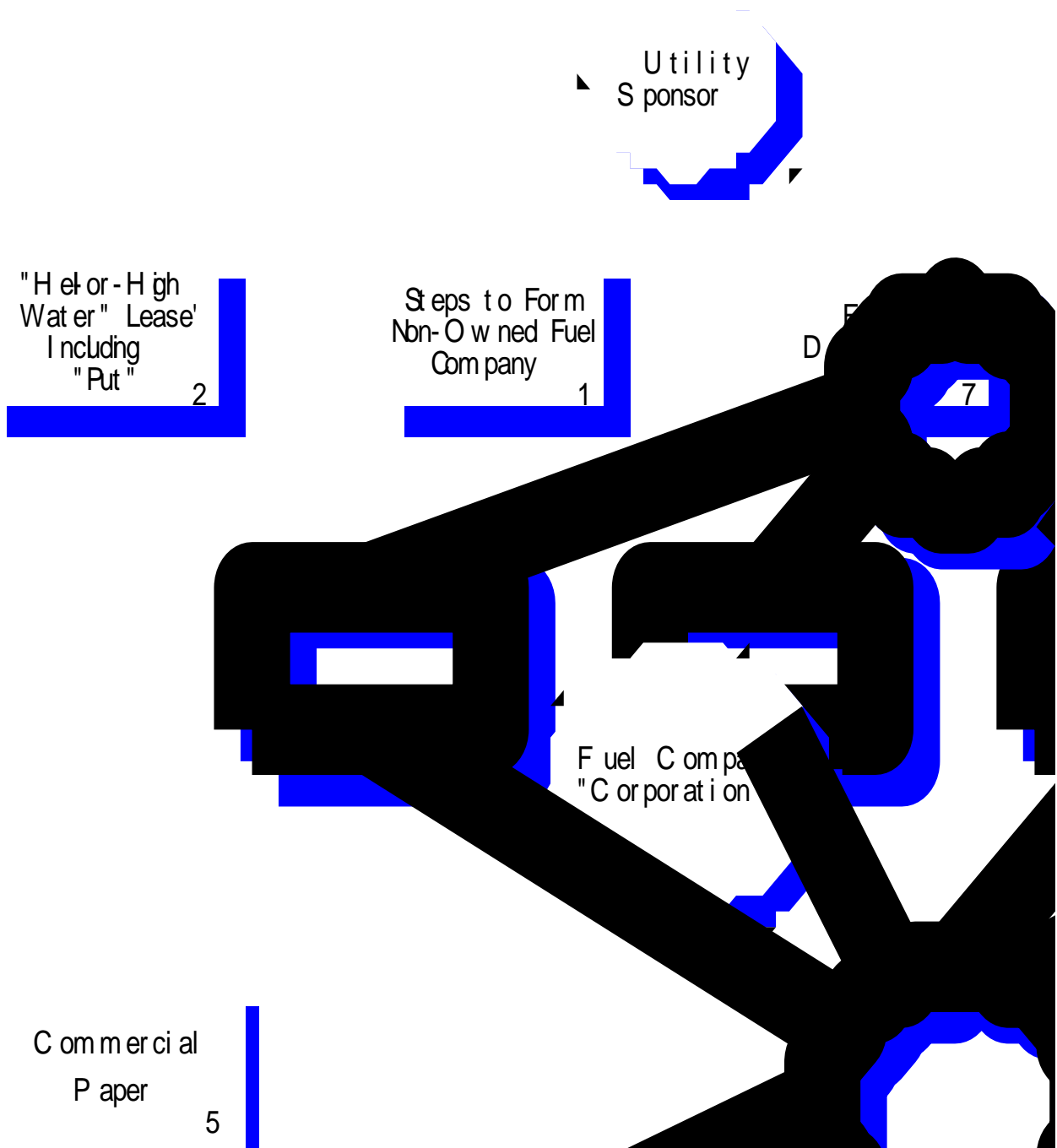


Fig 2R Financing a pipeline project with a “throughput contract

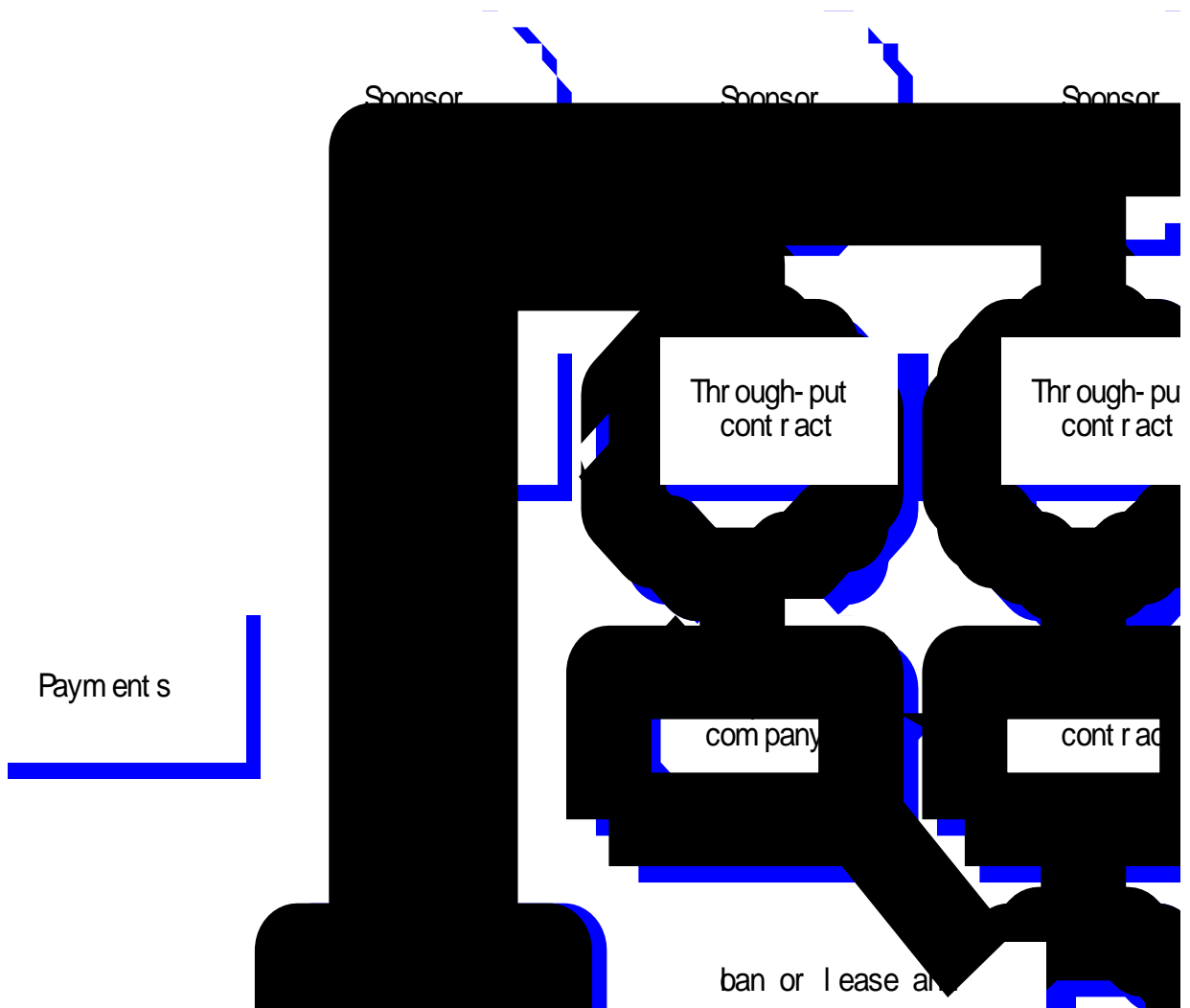


Fig2S Typical structure of leveraged lease financing

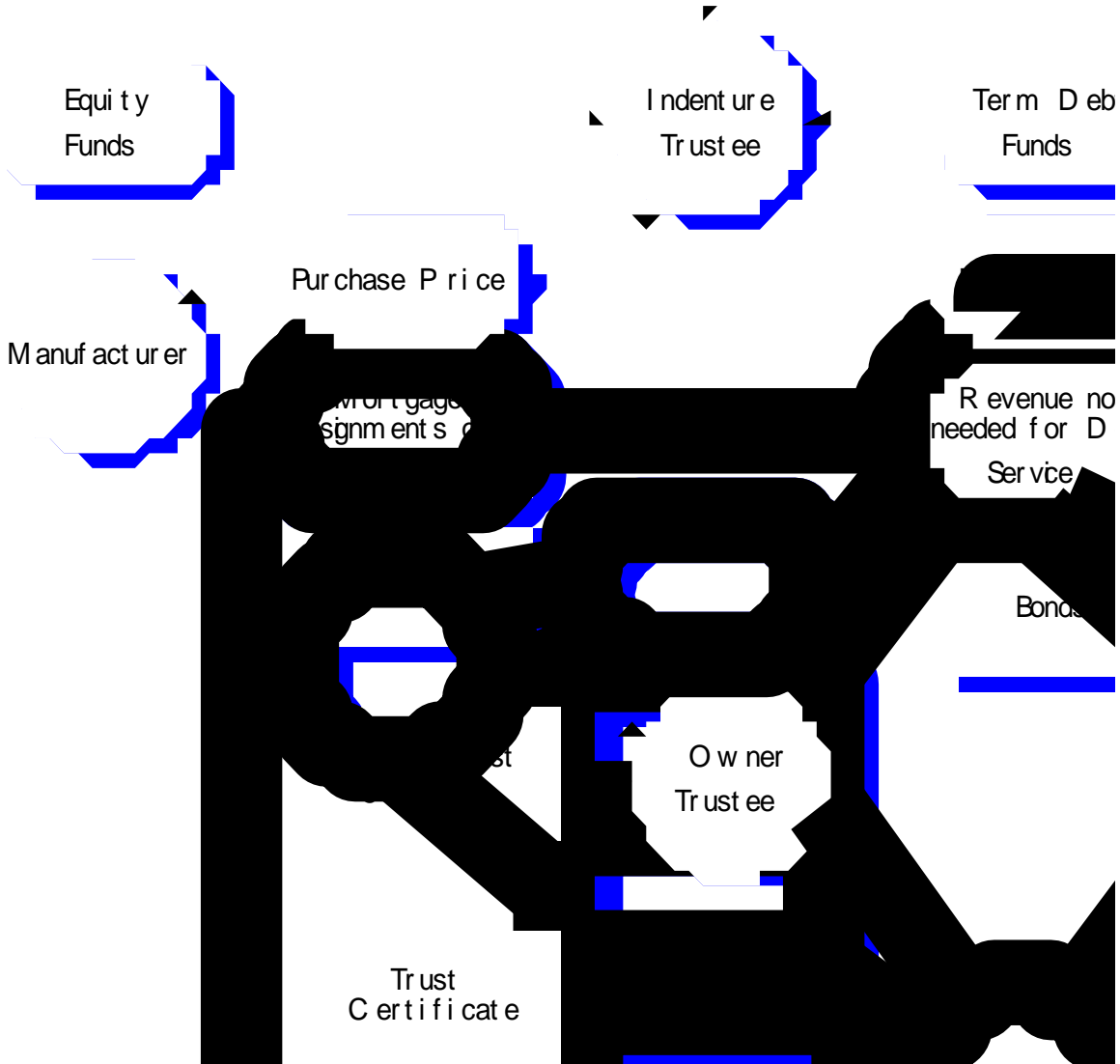


Fig 2 T Leveraged lease financed by non-recourse debt and take-or-pay contract

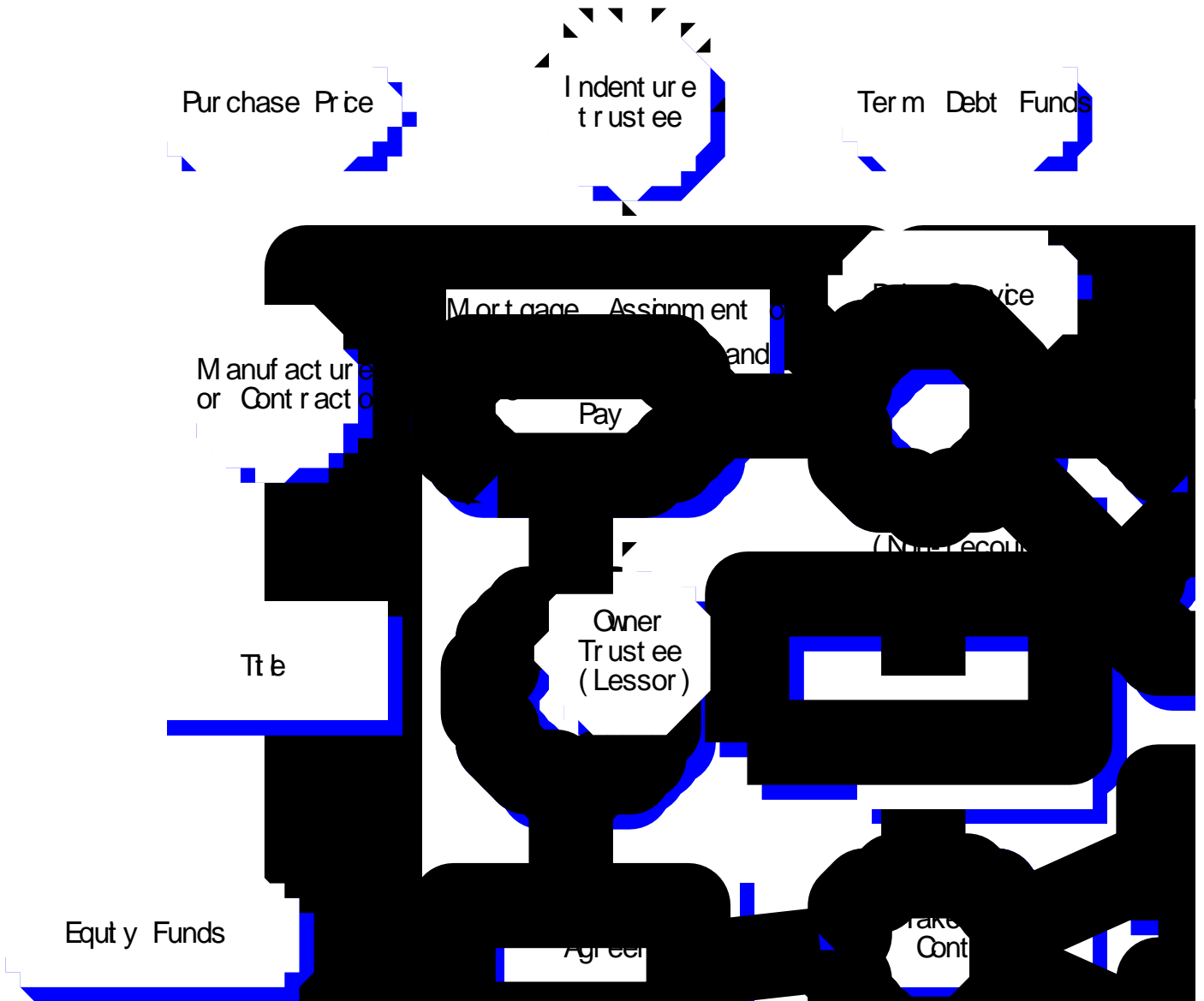
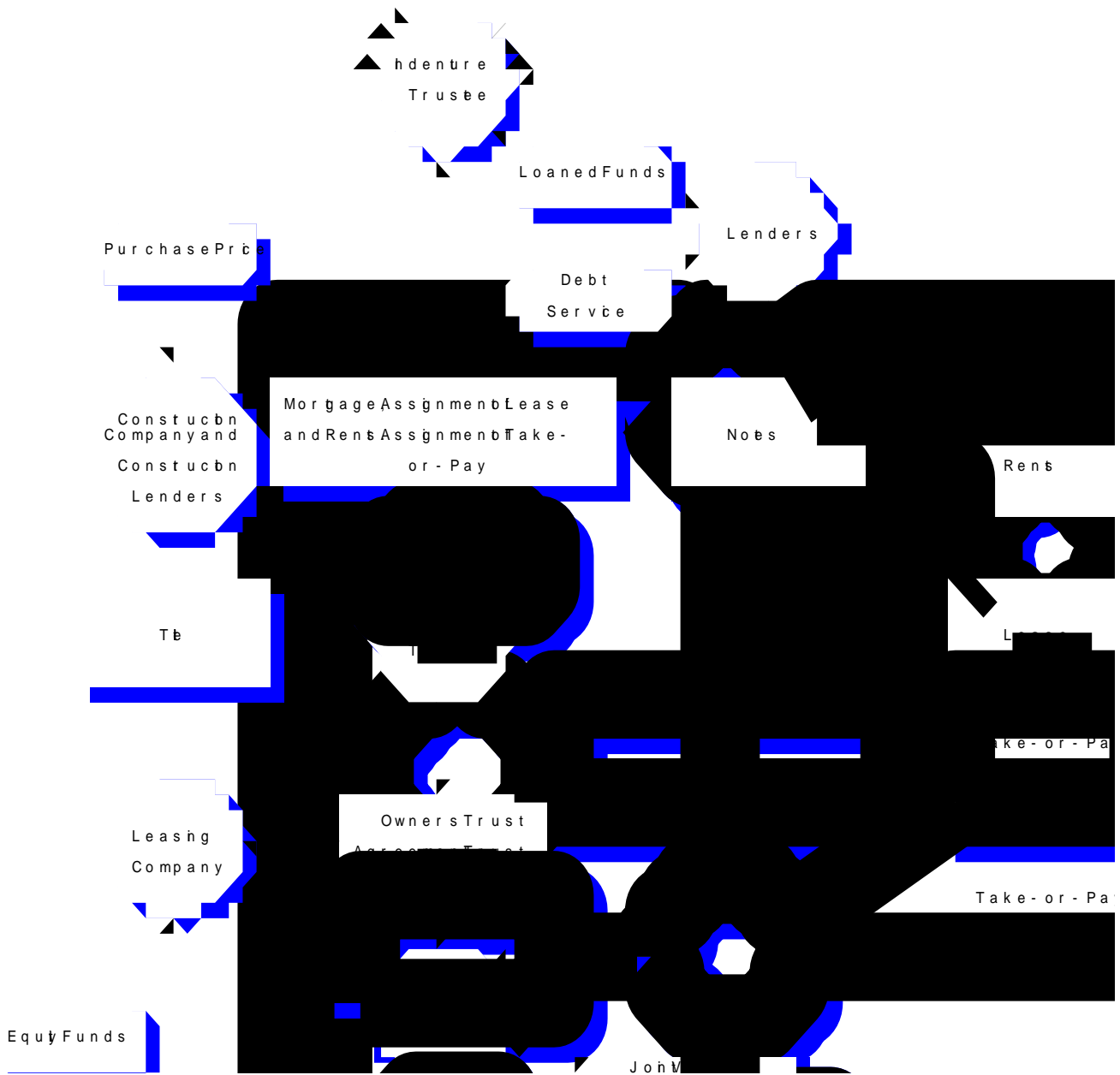


Fig 2.U Joint venture financing for a co-generating plant with leveraged lease



- 2.29 The quality of infrastructure financing, and the sophisticated financial engineering and risk management involved, will depend heavily on the quality of the technical and project appraisal skills which are brought to bear on each project. In SADC such skills reside mainly in the DFIs. In South Africa they are also available across a range of domestic and foreign investment banks. *Over the next decade, DFIs in SADC will therefore have a special role to play in the financial structuring of PPI projects - intermediating between private project investors/promoters on the one hand and banks, capital markets and institutional investors on the other.* Simultaneously, in order to mitigate the risks involved, they will need to work with their governments to improve the quality of regulation, competition, greater accountability and transparency (through improved disclosure and reporting standards) as well as the development of indigenous credit rating and risk insurance capabilities in domestic financial systems.
- 2.30 There is much to be learnt from the mixed (but generally negative) experience of specialised infrastructure financing institutions in *developing* countries, and the generally better performance of such institutions in *developed* countries (World Bank: WDR 1994). It is clear that DFIs in SADC which engage in PPI financing will need to avoid the negative features associated with government ownership and funding of such institutions. These include, for example, under-capitalisation, inefficient targeting of loans, heavily subsidised lending, political interference in lending decisions, corruption, inadequate risk diversification, poor financial discipline, lack of transparency and substantial arrears and non-performing assets.
- 2.31 Instead, DFIs in SADC should aim to emulate the more successful DFIs in Asia that have focused on capital market intermediation and public-private partnerships in financing infrastructure. These DFIs have developed sound infrastructure portfolios and securitised them by selling their loans and equity investments in the capital market once a sound operating and financial history has been established for the projects financed. They have also provided *specialised construction financing* facilities to contractors on infrastructure projects to overcome the problem of contractor illiquidity because of uncertain cash flows (largely because public authorities do not pay them on time) and insufficient collateral.
- 2.32 Development finance for infrastructure in SADC could be augmented through *Special Purpose Funds* both public and private designed and floated by the region's DFIs acting collectively. These funds could help to accelerate privatisation of existing infrastructure assets in SADC and to finance new projects. A publicly-supported ***SADC Infrastructure Debt Fund*** (constructed on the lines of similar funds in Jamaica and Pakistan) could be established to raise a pool of long-term *debt* funds (with maturities of 15-20 years) to finance up to 65% of the total cost of PPI projects. Such a fund could raise long-term debt resources from the MDBs (the World Bank and AfDB) as well as from bilateral and private market sources (e.g. through bond issues in the South African and Asian markets). The Fund could then on-lend to PPI projects in SADC with a small intermediation spread.
- 2.33 A ***SADC Infrastructure Equity Fund*** (of the kind that has been raised in Asia, Latin America, India America and Central Europe) could augment a debt fund. Such a fund would raise a complementary pool of equity capital from sources such as IFC, AfDB, bilateral investment agencies as well as private institutional investors in regional and world capital markets. The equity fund could participate as an institutional, but involved, investor in up to 40% of the equity capital of PPI projects undertaken in SADC.

Box 2.A: Direct Investment Funds and Infrastructure Development

Direct investment funds have been created to invest in medium and long-term projects (5-10 years) in developing countries, mostly in infrastructure development, through equity (usually with a controlling stake of 10 percent or more) or convertible debt. Foreign investors whose capital comprises direct investment funds are a diverse group that includes institutional and private investors, TNCs, other private companies, regional banks and multilateral organisations. Some TNCs or domestic private companies may already have considerable experience in the type of projects in which the fund plans to invest (e.g. power plants). Examples of direct investment funds are the AIG Asian Infrastructure Fund (which raised over US\$1 billion in 1994); Asian Infrastructure Fund (with US\$500 million capital); and Scudder Latin America Infrastructure Fund (with committed capital of US\$100 million).

What has triggered the emergence and proliferation of these funds are the enormous financial requirements of developing countries for infrastructure. By pooling resources through direct investment funds, foreign investors hope to lower the risk of investing in infrastructure projects in developing countries. The participation of regional or multilateral organisations with experience in financing private sector development projects also helps to lower the risks involved.

Despite the enormous investment potential offered by infrastructure projects in developing countries, direct investment funds have not been investing heavily. The costs and risks involved in infrastructure development (including those from exchange rate changes) have discouraged them from investing large amounts of capital unless a rate of return can be assured that can be high by usual international standards. Some host countries are themselves not always eager to have foreign equity participation. Others still need to clarify their regulatory and administrative procedures relating to foreign equity participation in infrastructure to alleviate any fears of expropriation. Overall, however, direct investment funds represent a potentially important source of foreign capital for the modernisation of infrastructure in developing countries.

Select Direct Investment Funds for Infrastructure Projects

Fund	Core Investors	Capital Raised as of '94
AIG Asian Infrastructure Fund	American International Group Government of Singapore Bechtel Enterprises	US\$1-1.2 billion
Alliance ScanEast Fund, L.P.	Equitable Life Assurance Society of American International Group IFC EBRD	US\$22 million
Asea Brown Boveri Funding	Asea Brown Boveri	US\$500 million
The Asian Infrastructure Fund	Pergrine Investment Holdings Soros Fund Management Frank Russel Company IFC AsDB	US\$0.5-1 billion
Central European Telec Investments, L.P.	Kreditanstalt Bankverein IFC	US\$42 million
Global Power Investments Company, L.P.	GE Capital Corporation Soros Fund Management IFC	US\$0.5-2 billion
Scudder Latin American Trust for Independent Power	IFC NRG Energy, Inc. CMS Energy, Inc. Corporation Andida de Fomento	US\$100-300 million

Source: IFC, 1996

2.34 Both types of fund have become accepted vehicles by now with a number having been floated in world markets. They would need no innovations in order to be accepted in the case of SADC. These types of funds could provide a soft-entry into increasingly closer regional financing arrangements and mechanisms for specific purposes, involving the existing network of DFIs in SADC, without requiring SADC's governments to establish a sub-regional development bank for this purpose. At the same time such an approach would not compromise the possibility of a sub-regional bank emerging later in time if that institutional (rather than funding) option came to be seen as a viable one to pursue.

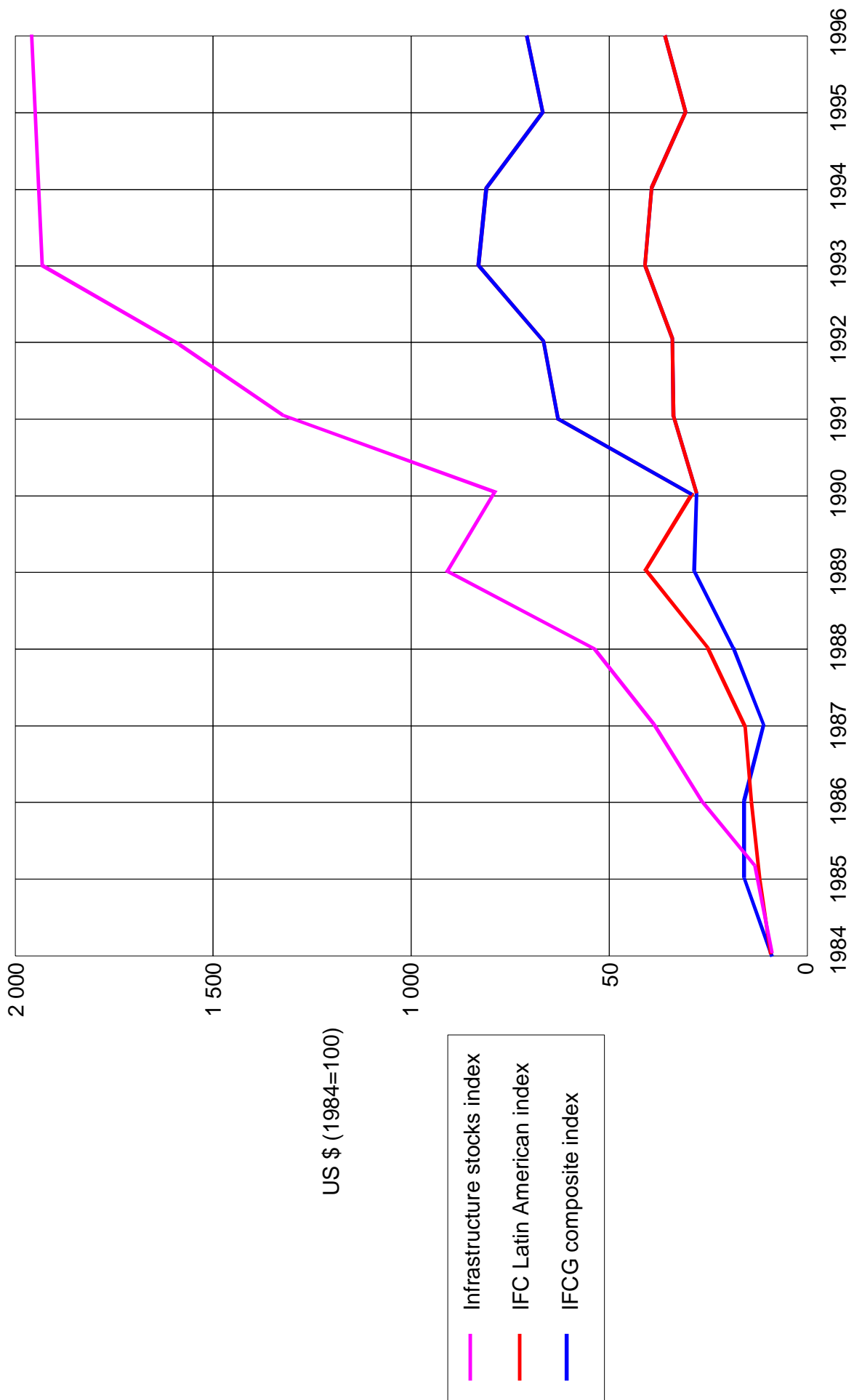
- 2.35 In the longer run, DFIs in SADC can also help lower tiers of *local* (sub-sovereign) government (at the provincial and municipal levels) to float revenue bonds in domestic and regional capital markets. Such resources could be used to finance local reticulated infrastructure, supplement local taxes and central government transfers, cover fluctuations in expenditures, and prevent large, sudden shifts in their revenue bases. As a prelude to the emergence of a specific segment for sub-sovereign borrowers in domestic and regional capital markets, DFIs can help to pool the borrowing requirements of local authorities whose individual requirements may be too small or whose creditworthiness may be weak - by floating instruments of their own. When such borrowing by local government entities is loose and unsupervised, it can become a soft-option to escape budgetary discipline, allowing local authorities to borrow excessively and then default, leaving either the intermediary DFI or the central government to make good.
- 2.36 To prevent such an eventuality from occurring, the price that DFIs would need to extract from local governments in SADC wishing to tap capital markets would be to: require local authorities to subject themselves to DFI-imposed discipline in public budgeting and accounting, promote transparency and accountability, and help make local governments more financially responsible and efficient. Such a process would be beneficial to central governments anxious to impose a strong 'hard-budget' discipline and would reinforce the process of political and service accountability at the local electoral level.

Reprise on Infrastructure Financing and PPI: Implications for DFIs in SADC

- 2.37 Evolving experience with PPI in developing countries - a trend which will manifest itself rapidly in SADC over the next decade - suggests that SADC will experience a transition similar to that which is occurring in Latin America and Asia in meeting the funding needs of infrastructure from 100% public-financing to a state of 70:30 public-private funding before moving eventually to a 50:50 ratio. This will inevitably mean a phase of rapid privatisation throughout SADC, especially of power, telecommunications and transport operations, coupled with a rapid increase in financing from private market sources for privatisation of existing assets and the future transformation and expansion of SADC's infrastructure through PPI vehicles.
- 2.38 The shift to more open, transparent and efficient systems of financing infrastructure (which financing through the public budget has proven not to be) will impose greater systemic burdens of: (i) scrutiny over project design and construction to minimise cost and time overruns and project cost efficiencies, (ii) proper regulation of ongoing operations within a disciplined, transparent, rule-based framework to ensure competition and protection of consumer interests; (iii) the unbundling, allocation and management of a number of different risks borne by different players under PPI; (iv) complex financial engineering and packaging of financial facilities provided by different types of investors with different risk-return proclivities and different interests in securing their investments; and (v) greater accountability to private investors and public interests.
- 2.39 The options available to SADC countries in exploiting new channels of finance under constrained budgetary conditions will depend on: (i) the administrative capabilities of the individual countries concerned, (ii) their creditworthiness, (iii) the state of development of their domestic capital markets, and (iv) the capabilities and credibility of their DFIs. SADC countries vary widely in all of these respects. In exploring options for structuring *project finance* for PPI projects, it is certain that most SADC countries and their DFIs will require external technical assistance - whether from South African institutions, other external sources of expertise or the MDBs.

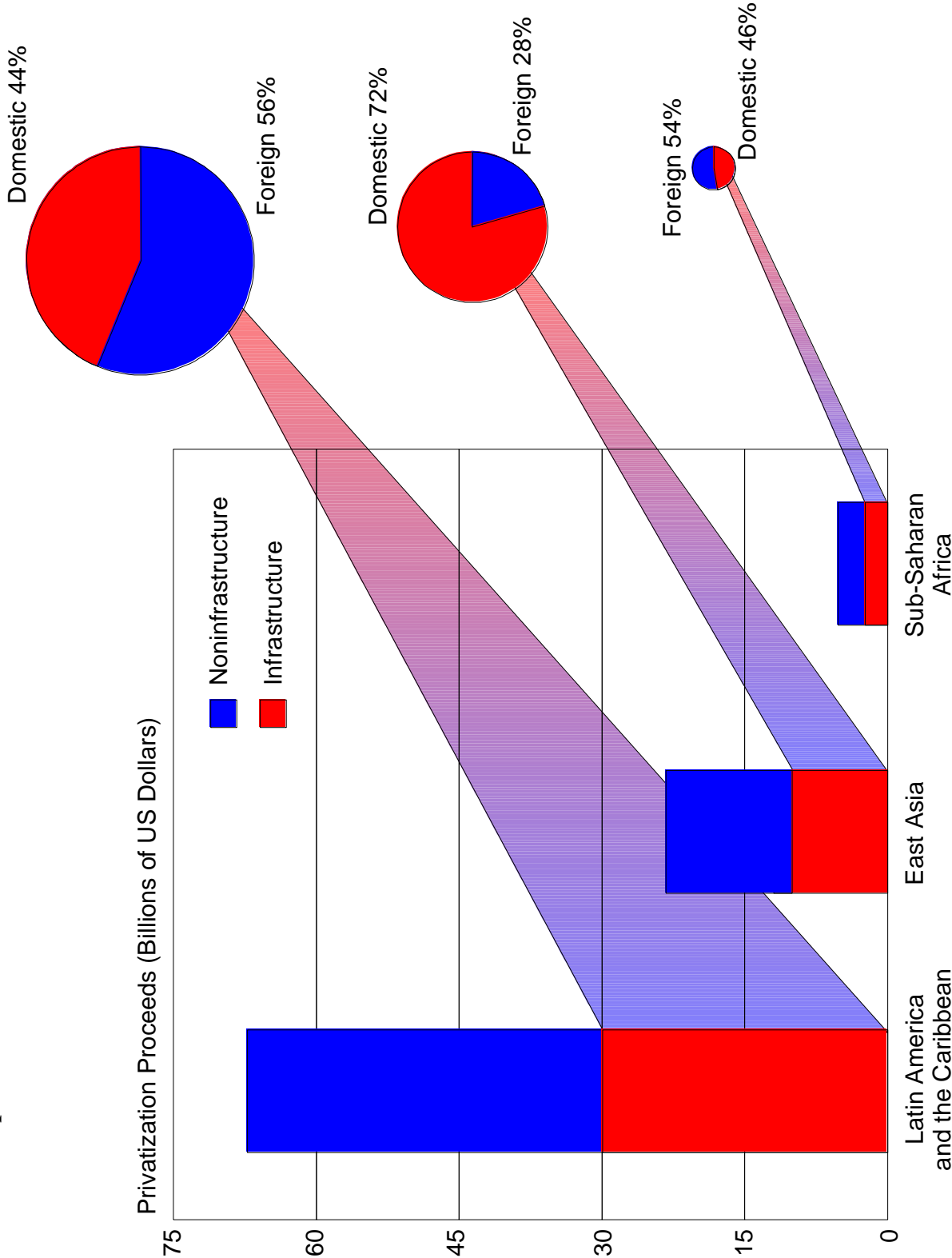
- 2.40 Where capital markets are insufficiently developed - as is the case in nine of the twelve SADC countries (those other than South Africa, Mauritius and Zimbabwe) - the only option in the short and medium term will be to rely on their *specialised long-term financial intermediaries* (i.e. DFIs) or on a sub-regional institution. The latter option is, of course, understandably appealing for those countries in SADC which have neither capital markets nor strong DFIs and are generally uncreditworthy. It is much less appealing for countries which have the opposite attributes and characteristics.
- 2.41 Reliance on specialised institutions, however, is only a transitional option. It cannot be perceived as an end in itself. Once DFIs have become sufficiently capable in filling the gaps that undeveloped capital markets create, they must turn (as they have in other parts of the developing world) to catalysing the development of such markets through: the dissemination of their technical skills, securities underwriting and issuance in the primary market; and the development of robust and liquid secondary markets. Primary markets cannot exist without secondary markets to support them. Secondary markets in turn require improvements in credit assessment capability throughout the financial system, better risk management capabilities across all financial institutions, market-making by a number of competitive investment banks and securities brokerages, efficient clearing settlement and payment systems, scripless electronic trading with central registries for equity and debt securities, the development of national depositories for traded securities; and the promotion of efficient, properly regulated securities exchanges.
- 2.42 These measures have to be taken and accelerated across SADC over the next decade since much time for the evolution of these markets has been lost over the previous four. SADC has a major asset in having - in South Africa and, to a lesser extent, in Mauritius and Zimbabwe - DFIs and capital markets, which are sufficiently developed to provide the basic pillars on which *sub-regional financing* and *sub-regional capital market structures* can be created relatively quickly, and inexpensively. But, artificial barriers to the cross-border operations of financial institutions and cross-border regulation of their activities need to be immediately lowered. It is possible that excessive attention on the need for a sub-regional DFI may actually deflect and divert attention from achieving these broader aims of developing better regionally linked financing mechanisms and capital markets.

Fig 2.V Infrastructure equities have outperformed other stocks by a huge margin



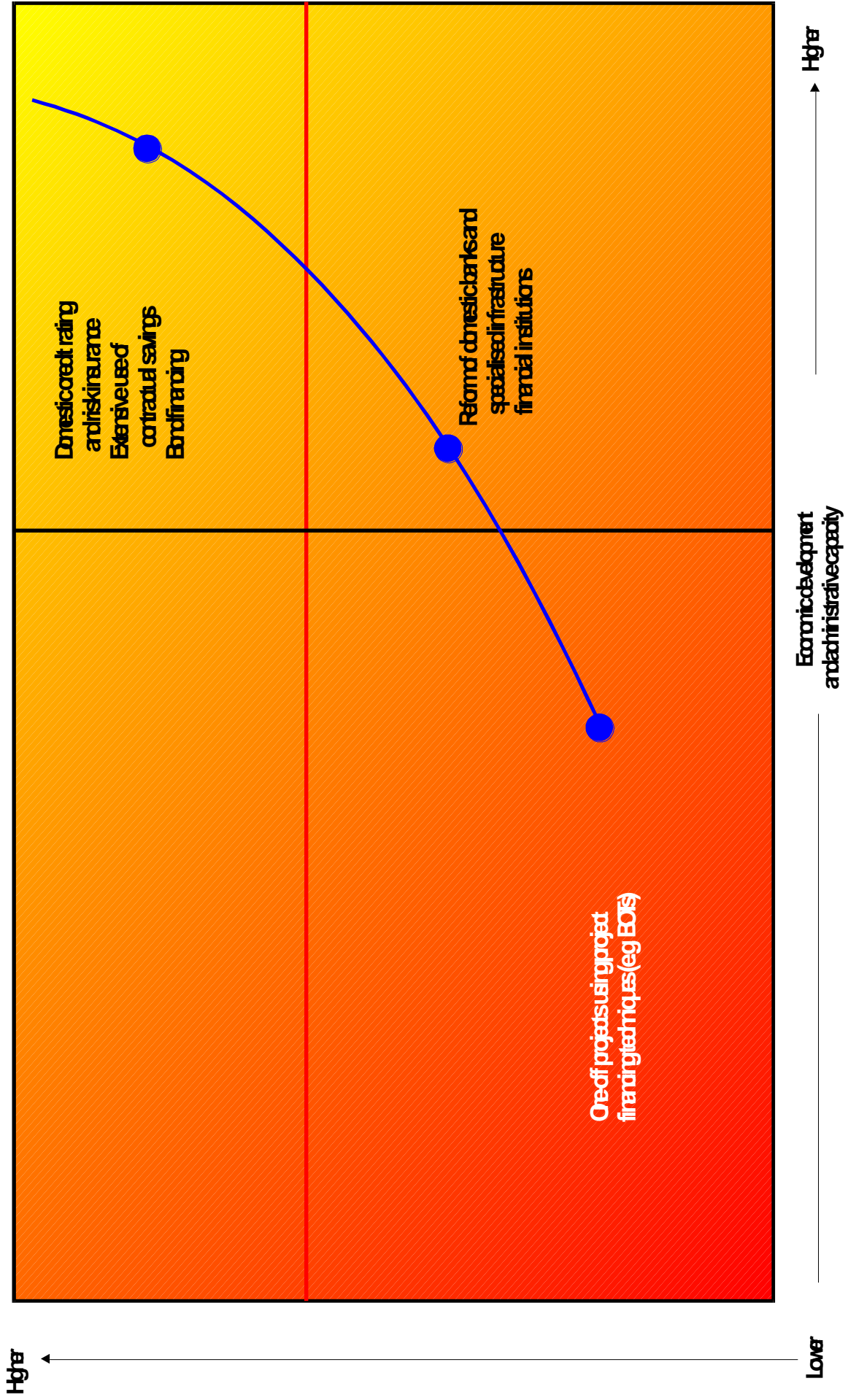
Source : IFC

Fig 2.W Infrastructure is a large share of privatisation process; foreign financing of infrastructure privatisation is important in Latin America and Africa



Source : Sader 1993

Figure 2X Options for financing in areas with high administrative capacity and maturity of domestic capital markets



Mobilising Finance from International Sources for SADC through DFIs

- 2.43 Box 6B in Chapter 6, indicates the different types of DFIs that exist in SADC. It shows that there are nearly 40 different DFIs in the region. Of these *eight* specialised in financing industry, mining and infrastructure, *six* financed SMEs and micro-enterprises, *seven* provided only agricultural and rural credit while *two* specialised in housing finance. The rest undertook various combinations of these activities. Collectively, these DFIs had an equity capital base equivalent to US\$ 1.54 billion of which over 90% was funded by governments. The collective net worth of these DFIs at the end of 1996 amounted to approximately US\$4.2 billion and they had aggregate assets/liabilities of US\$ 9.5 billion. Of their liabilities, external sources of funds accounted for 50% of the total with official finance (mainly from the MDBs and bilateral sources) accounting for 40% of that total and market borrowings from abroad accounting for a further 10%.
- 2.44 As is evident, foreign financing accounts for a significant amount (in US dollar terms) of the total liability structure of DFIs in SADC, including those in South Africa. Until 1994 South African DFIs had virtually no access to official sources of funding or to the MDBs. Between 1994-97 they had not borrowed from the MDBs. Yet, the foreign liabilities of the IDC and DBSA, the two largest DFIs in South Africa amounted to a total of nearly US\$1.1 billion or nearly 69% of their combined *borrowed* liabilities albeit less than 25% of their *total* liabilities; i.e. including shareholder capital and reserves. These foreign liabilities were accounted for almost entirely by borrowings through bond issues in international markets backed by sovereign guarantees.
- 2.45 The foreign liabilities of DFIs in the other SADC countries also account for between 50-65% of their total borrowed liabilities and between 30-50% of their total liabilities including shareholder capital. The bulk of these external borrowings are owed to official lenders mainly the WB, AfDB, European funds, and to bilateral official creditors. Surprisingly, even in countries as well off (relatively) as Botswana and Mauritius, the bulk of their outstanding external liabilities were owed to official creditors and were not raised in international capital markets although this pattern of reliance is likely to change dramatically for both countries in the coming decade.
- 2.46 Cumulative lending to DFIs in SADC (excluding South Africa) by the WB and AfDB is estimated to have amounted to over US\$1.42 billion between 1965-98, averaging about US\$40 million annually, of which about 50% has been repaid while the other half remains disbursed and outstanding. These two sources (including their soft-window and private sector affiliates) have accounted for over 75% of the borrowed liabilities of DFIs in SADC. The remaining 25% has been provided by European and Arab plurilateral sources and by bilateral creditors. But, the MDBs' ardour for continuing to finance DFIs in Africa has cooled considerably since 1990, when the WB and AfDB focused on lending for structural and sectoral adjustment and for overall financial sector liberalisation, reform and capital market development (and for recapitalising commercial banks) rather than for traditional project or DFI financing.
- 2.47 Moreover, with few exceptions (e.g. Botswana and Mauritius), WB and AfDB lending to DFIs in SADC, especially to DFIs in Lesotho, Malawi, Swaziland, Tanzania and Zambia (as well as sub-regional DFIs such as the PTA Bank) has proven to be disappointing while experience with lending to DFIs in Zimbabwe has been mixed. The MDBs had not, for political and other reasons, lent to DFIs in Angola, Mozambique, Namibia, and South Africa up to 1997. In the first three of these countries DFIs have not existed as separate entities but as windows in their main commercial banks; the main Namibian DFI was established relatively recently, after Namibian independence. Also, the lending programmes of the major MDBs in these four countries were activated *after* MDB lending to DFIs became unfashionable. In the larger

SADC countries in which the MDBs did lend to DFIs, these institutions were publicly owned, poorly managed, with large portfolios of concentrated covariant risk in outstanding to parastatals. They were overwhelmed in the 1980s by non-performing assets, which eroded their net worth.

- 2.48 That outcome was a direct consequence of their clients' inability to survive under the combined effects of: (i) the *exchange risks* that materialised with large devaluations under successive structural adjustment programmes; (ii) the *collapse of demand* in the stabilisation phase of adjustment as government budgets and imports were compressed, unemployment increased and real incomes fell; (iii) an acute shortage in the availability of *foreign exchange* for intermediate and spare parts imports which caused a large fall in effective capacity and in capacity utilisation levels which were well below break-even points; (iv) a sudden contraction in *liquidity* from the banking system which eliminated access by enterprises to working capital; and (iv) the effective *de-industrialisation* of these economies with premature import tariff liberalisation which resulted in a flood of imports with which domestic industries were simply unable to compete as excessively high tariff barriers and non-tariff barriers (NTBs) were dismantled. *In that limited sense, the effects of structural adjustment on DFI portfolios - and consequently on their balance sheets - might be seen as a spectacular 'own-goal' scored by the MDBs in accelerating the effective financial dismantling of DFIs in which the MDBs themselves had a large vested portfolio interest; but one which was protected by their preferred creditor status.*
- 2.49 An equivalent assertion can be made with even more force in the larger number of 'own goals' that governments in Africa scored in debilitating their national DFIs in which they had a stronger vested interest, and a larger financial stake than the MDBs. Instead of guaranteeing their success, they predestined their failure, by pursuing economic, industrial and financial policies that were unsustainable, and doomed to self-destruct. They contributed to disabling DFIs through political intervention in management and decision-making, directed credit and financial repression, and constraining portfolio choice in an extreme fashion. They implicitly compelled DFIs to finance projects and enterprises, which relied too much for their success on protectionist and anti-competitive, anti-market industrial policies with parastatals dominating DFI portfolios to the virtual exclusion of the private sector.
- 2.50 Thus African governments (and the MDBs) unfairly discredited and condemned the 'DFI model' - which had worked well in other environments and which had demonstrated a capacity to evolve under propitious policy conditions - as a defective vehicle when it was not the vehicle that was deficient but the drivers and the fuel-providers. In retrospect, it is difficult to see how any DFI - no matter how well managed - could possibly have succeeded in the environments which their governments chose to construct and which the MDBs chose to correct through adjustment policies of the kind which were implemented.
- 2.51 That experience of the 1980s has cast a pall on the perspective in which most national DFIs in Africa and SADC are generally viewed by MDBs and by the academic and financial communities. Instead of being seen as pragmatic, viable and essential 'way-stations' in undeveloped financial environments which are groping their way toward capital market development, DFIs are now seen in the world of official finance as intrinsically and inherently flawed mechanisms which are more likely to do harm than good - although a considerable body of experience in Europe, Asia and even Latin America suggests otherwise. In such an environment, therefore, the prospects of individual, national DFIs in SADC attracting significant funds from international sources (official or market) is decidedly mixed.
- 2.52 A brief country-by-country review of the prospects of national DFIs raising international finance from official or private sources is summarised below:

Table 2.E SADC Country Credit Ratings and Access to Official Funds

Country	Credit Rating	Prospects of national DFI for raising funds from						
		IBRD	DIA	AfDB	AjDF	OOF*	RCM*	ICM*
Angola	25	0	1	0	1	2	0	0
Botswana	75	4	0	4	0	5	5	5
Lesotho	15	0	2	0	2	2	1	0
Malawi	20	0	1	0	2	3	0	0
Mauritius	75	4	0	4	0	5	5	5
Mozambique	10	0	1	0	1	2	1	0
Namibia	40	2	0	3	0	3	3	2
South Africa	45	3	0	5	0	4	5	5
Swaziland	35	2	0	3	0	3	3	2
Tanzania	15	0	1	0	2	2	0	0
Zambia	20	0	1	0	1	2	0	0
Zimbabwe	35	1	1	2	2	3	3	3

* OOF = Other Official Flows; RCM= Regional Capital Market; ICM= International Capital Markets

- 2.53 The table shown above is based on informed judgements about the access that national DFIs from each SADC country are likely to have to the (hard and soft windows of the) two major MDBs, as well as their access to other official flows (OOF) and to funding from regional (RCM) and international capital markets (ICM). The degree of access is indicated on a scale of 0-5 where '0' indicates no access and '5' indicates full access. The table also shows the present creditworthiness of each country derived on a scale of 0-10 where '0' indicates the lowest degree of international creditworthiness and '10' indicates the highest. This scale has been derived from the composite weighted average of credit ratings from the three major international credit agencies Standard and Poor, Moody's and Fitch (where these ratings are available) and from internal MDB documents which assess individual country creditworthiness.
- 2.54 The scale has been adjusted slightly to reflect impressionistic judgements of the credit standing of SADC countries relative to each other and perceptions of their relative standing in terms of access to regional capital markets. Such assessments can never be entirely objective and scientific. No matter how sophisticated the rating methodology employed, they are invariably subjective and impressionistic. Moreover, circumstances and judgements can change quite rapidly, sometimes within the space of a calendar month. Nonetheless, the table is useful in illustrating: the diversity of access opportunities for individual countries across the sub-region; the problems that such diversity creates; and the consequent pressures that arise for creating a regional DFI - which would enable the less creditworthy countries of SADC to circumvent their access constraints.
- 2.55 As the table above suggests only three - Botswana, Mauritius and South Africa - of the twelve SADC countries retain an international credit standing which enables their DFIs to maximise access to all sources of international funding. To the extent that access to MDBs is shown at less than the maximum for their national DFIs it is because in these countries MDBs would prefer to avoid lending to traditional DFIs (except as clean conduits) while being prepared to lend for other purposes. The exception to this general rule may perhaps be in South Africa where the MDBs seem more anxious to lend than the South African government is to borrow from them, preferring (quite correctly) instead to rely on market access rather than on borrowings from sources whose propinquity to intrude in policy affairs may exceed the value derived from their doing so.

- 2.56 In 1997 (when this study was done) the SADC sub-region had three members - Namibia, Swaziland and Zimbabwe - with intermediate access to both MDBs and to the regional and international capital market. But deteriorating economic conditions in Zimbabwe have removed it from that list in 1998. In the case of the two smaller economies such access probably exceeds their *national* needs for development finance. Whether it is sufficient to raise the resources required to enable these countries to meet financial obligations for supporting sub-regional infrastructure development is more difficult to discern.
- 2.57 Zimbabwe's present access to official and market sources of funds is now almost non-existent. Clearly Zimbabwe's access is considerably less than it could/should be and much less than the amounts of development and project finance it needs. Its access is limited for reasons that have more to do with market perceptions of *increasing* political and country risk (an opposite trend to that of other SADC countries which are now less risky than before) than on grounds of the country's obvious economic potential. The notion gaining currency in regional and global capital markets is that, in the short-run, Zimbabwe's politics are evolving in a direction which will severely inhibit its government from pursuing vigorously those policies which would yield results by way of expanded output, investment, growth and employment-creating opportunities.
- 2.58 The other six SADC members - Angola, Lesotho, Malawi, Mozambique, Tanzania, and Zambia - are basically uncreditworthy (except for Angola's access to resources based on the securitisation of its oil revenues). They have limited or no access to official finance for their DFIs (except from the soft windows of the MDBs or from bilateral sources) and virtually no access to borrowings from regional or international capital markets even with sovereign backing. These six countries cover almost 50% of SADC's land area, comprise nearly 60% of its population but account for less than 15% of its GDP, under 22% of its FDI stock and 12% of FDI annual inflows, and less than 14% of GDI. Together they absorb over 78% of total foreign aid flows to the sub-region.
- 2.59 *It is in the asymmetry between these two halves of SADC's membership that the crux of the sub-regional development financing problem lies.* The larger, more populous countries of SADC require development finance in the medium-term, until they are better placed to attract commercial financing from private market sources. Unfortunately, they are not in a position to source such funding with any degree of ease. On the other hand, except for South Africa, which is also a large and populous SADC member, the other five countries are relatively small, creditworthy and (except for Zimbabwe) probably have more access to development finance than they actually need. They also have more access to private commercial finance than they are inclined to utilise.
- 2.60 Relying on their *national* DFIs will not provide sufficient recourse to the uncreditworthy countries. The option of creating a sub-regional DFI therefore appears logical and appealing to them. But, to the more creditworthy countries of SADC the creation of a sub-regional DFI appears to be an undesirable proposition because it involves using their creditworthiness and headroom for borrowing to support an institution which they do not need for their own resource mobilisation or project financing purposes.
- 2.61 That fundamental divergence of view aside there can be little question that, from the viewpoint of facilitating the mobilisation of resources from regional and international capital markets, a *sub-regional* DFI - backed by the full faith and credit of all SADC members, whose borrowings were supported by joint and several sovereign guarantees - would be able to raise commercial funds reasonably efficiently; and to a larger extent, than any single national DFI in SADC. It would be able to raise more than any national DFI outside of those in South Africa. It is doubtful however whether a sub-regional DFI would be an appealing borrower for the

MDBs to lend to. Their previous experience inclines them to believe that lending to institutions owned and guaranteed by a number of sovereign governments is more complex and risky than lending to national entities.

- 2.62 A sub-regional DFI might, however, be an attractive borrower to other multilateral (e.g. European or Arab) sources and possibly even some bilateral sources of official finance (e.g. Nordic donors). Whether, in view of the politics involved (which invariably but unfortunately play too large a role in the operations of regional and sub-regional DFIs), a sub-regional DFI for SADC would be efficiently directed and managed, and allocate effectively the resources mobilised, remains an open question. Other more complicated questions concerning aspects of sub-regional DFIs other than their external resource mobilisation capacities are explored more fully in later chapters of this report.

Can Development Finance Bridge the Resource Gap in SADC?

- 2.63 As observed above, a sub-regional DFI may be able to mobilise external resources from market sources more efficiently than a number of disparate national DFIs. Most of these are not adequately capitalised and many have too large a proportion of non-performing assets (NPAs) on their books for comfort. But, it is unlikely that development finance will be able, by itself, to bridge the size of the resource gap that the SADC sub-region will confront if it attempts to achieve a sustainable growth rate of 5-7% per annum or a per capita real growth rate of 1-2% annually. The paragraphs below explain why.
- 2.64 Between 1990-98 the sub-region as a whole saved less than 17% of sub-regional GDP while it invested just under 18%, leaving an overall resource imbalance of about -1% although the imbalance varied widely in each country. The regional savings-investment equation was in rough overall balance mainly because, over that period, South Africa invested too little and averaged a positive resource balance of 3%, while the rest of the region (excluding Angola) taken together had a resource gap of 4% of GDP. This gap was covered almost entirely by foreign aid flows.
- 2.65 However, with GDI at 17% of GDP, the region as whole grew at a rate of 2-3% per annum between 1990-94 with a per capita growth rate of -1%. Between 1995-98, however, SADC grew at an annual average rate of over 5%. This happened partly because GDI and capital formation were stepped up (sub-regional GDI was 3% higher in 1995-98 than 1990-94) but *mainly* because increases in output were triggered by: (i) a one-time political change in South Africa where the growth rate, which had averaged 1% per annum between 1981-94, increased to an annual average of 4% between 1995-98; (ii) increased utilisation of existing industrial and mining capacity throughout the sub-region; and (iii) substantially increased agricultural output as a result of more propitious weather conditions than SADC had experienced in the previous three years.
- 2.66 Obviously these factors cannot be relied upon in future years to deliver continued high levels of growth. For significant levels of output growth to be sustained into the next decade SADC will need to step up its GDI from a weighted average of around 18% to over 25% of GDP once surplus capacity has been absorbed. This level of investment will not be possible at current levels of gross domestic savings across the sub-region which, between 1990-98, averaged 15-16% of SADC members' collective GDP.
- 2.67 The following table indicates the level of resource imbalance that is likely to arise if GDI is to be stepped up while the sub-region's domestic savings remain at present levels.

Table 2.F SADC Savings, Investment & Resource imbalance as % of GDP

Country	Average 1990-96		Present/Future Resource Imbalance	
	GDS	GDI	1990-96	GDI @ 25%
Angola	31.6	16.1	15.8	6.6
Botswana	31.5	33.0	-1.5	6.5
Lesotho	-27.6	137.5	-109.9	-52.6
Malawi	4.4	16.8	-12.4	-20.6
Mauritius	23.5	29.0	-5.5	-1.5
Mozambique	1.2	53.3	-52.1	-23.8
Namibia	12.2	19.7	-7.5	-12.8
South Africa	17.6	14.1	3.5	-7.4
Swaziland	14.2	21.1	-6.9	-10.8
Tanzania	4.1	32.8	-28.7	-20.9
Zambia	9.1	12.5	-3.4	-15.9
Zimbabwe	18.0	22.2	-4.2	-7.0
SADC Weighted Avg.	17.3	17.2	0.1	-7.7

2.68 The table above has been derived from World Bank and national data series on savings and investment in SADC countries between 1990-96. Seven-year averages have been used to indicate resource imbalances largely because most SADC economies have shown unstable rates of gross domestic savings and investment under adjustment pressure. For example, savings and investment rates in countries like Malawi, Mozambique, Swaziland, Tanzania, Zambia and Zimbabwe have fluctuated by 10-15% of GDP within that 7-year period making analysis on the basis of any one year's figures unreliable. A more stable pattern of savings and investment is evident in Angola, Botswana, Mauritius, Namibia and South Africa, although the positive resource balance in South Africa has been diminishing steadily. Angola features as a country with high public savings (from oil revenues) but, given its political circumstances, virtually no investment in the wider economy except in the oil sector. That characteristic may change dramatically in the coming decade should peace be restored and infrastructure be reconstructed.

2.69 In SADC, Botswana exhibits all the economic characteristics of an East Asian economy with high levels of savings, investment and output growth. Unfortunately, that performance is not yet reflected in as broadly-based overall development and as large an improvement in the skills levels of the local population as East Asia has demonstrated. Mauritius and Namibia share similar characteristics but with less impressive overall performance in terms of numerical indicators. Mauritius' performance must be deemed more impressive than that of other SADC countries because it has not had the advantage of income from diamonds and other minerals which Botswana and Namibia have enjoyed. Instead it has been an export-oriented manufacturing success, deploying its quota-based access advantage to EU markets which of course other ACP economies also enjoy but yet have not exploited as successfully.

2.70 In the above table, Lesotho stands out as a somewhat unusual economy with external investment in the Lesotho Highlands Project (for supplying water and electricity to South Africa) being extremely large relative to Lesotho's GDP and its consistently *negative* domestic savings rate. Lesotho's savings, investment and resource imbalance numbers represent a departure from 'normality' which is so large as to be best explained as atypical. That is also partially true of GDI in Tanzania and Mozambique which is very high relative to GDP mainly because of foreign-aid funded project investments to restore basic infrastructure which are large relative to these countries' GDPs.

2.71 Taking these differences into account, the overall resource imbalance for SADC would amount to nearly 8% of the sub-region's GDP if a GDI level averaging 25% of GDP were to be

achieved to support a growth level of around 5% annually. In 1996 that resource imbalance would have amounted to over US\$14 billion in dollar terms, or about US\$9 billion more than the region received in foreign aid and net inward capital inflows, part of which were deployed to finance external debt service of about US\$4.6 billion. Such a large amount cannot possibly be financed by efforts on the part of SADC governments to negotiate increased grant aid flows, attract foreign investment or step up inflows from official sources. Much of the resource gap will need to be filled by increasing sub-regional *domestic* savings to at least around 22% of the region' GDP which would effectively mean increasing GDS in South Africa to around that level.

- 2.72 To put the role that national DFIs in SADC play in perspective, the net effective disbursements of all the DFIs in SADC in 1996 amounted to under US\$1 billion (or about 0.6% of sub-regional GDP and 3.5% of GDI). Over 60% of the resources they disbursed were sourced from abroad.
- 2.73 *Taking this performance as a base, it is difficult to see how either the national DFIs collectively, or a new sub-regional DFI, would be successful in making a significant difference to increasing the level of investment in the region, or in bridging more than a small portion of the potential resource gap of nearly 8% of GDP that would arise over the medium term (until domestic savings levels were increased) if a sub-regional growth target of 5% was to be achieved and sustained. To bridge even a quarter of that gap would require incremental levels of DFI equity capitalisation as well as domestic and external borrowing which would be a multiple of 3-4 times existing levels which, under prevailing circumstances, appears to be an unrealistic prospect. For that reason, emphasis on creating a new sub-regional DFI, may be misplaced when looked at against what such an institution might be capable of achieving after it is established.*