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RESOURCE MOBILIZATION: FINANCING AND INVESTMENT IN TELECOMMUNICATIONS WORLDWIDE

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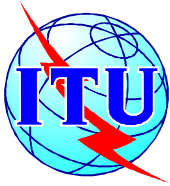

INTERNATIONAL TELECOMMUNICATION UNION

RESOURCE MOBILISATION:
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1998

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Telecommunication Development Bureau

Resource Mobilisation Unit (RMOB)

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1. INTRODUCTION

Financing Of Telecommunications From the Investors' Perspective

The objective of this review is to offer comprehensive information on telecommunications financing to governments, policy makers, operators, infrastructure providers, and regulators especially in emerging economies and developing countries. This will provide a guide for their decisions, most particularly in restructuring the sector.

Sources of finance are essential to satisfy the growing demand for telecommunications. The world telecommunications market is estimated to be worth $600 billion per annum at present, and possibly will double or treble over the next decade. Traditional sources of finance can no longer satisfy telecommunications needs and the market has to resort increasingly to financing from private sources. Recent policy decisions on privatisation, liberalisation, WTO agreements, and universal access as well as technological innovation are opening the telecommunications market to further opportunities and competition which, in turn, put further demands on financial sources.

The changing environment of telecommunications policy affects the techniques of financing used to raise debt and equity finance in markets with widely differing risk profiles. Under the right conditions, the telecommunications market can be very attractive to lenders competing for appointments to manage offerings and arrange debt facilities. The large number of telecommunication privatisations have not exhausted the availability of capital. Corporate investors, banks, and other lending organisations continue to compete for this potentially rewarding market.

This paper also reviews the use of private capital to develop telecommunications industries world-wide from the investor's point of view. It analyses the various forms of investment in telecommunication markets and related risk factors in the developing regions. Examples are given to show the circumstances under which capital is being raised, secured, deployed and repaid, and according to which criteria the arrangers of finance and investors are assessing risks and responding to specific markets. Details illustrate how financial discipline, imposed on private sector operators, can be a key determinant of tariffs and services offered to subscribers.

Experiences with telecommunications financing in the more mature economies offer a longer term base for evaluation, as they have started earlier on the privatisation of State telecommunications operators and the liberalisation of other market segments. The high volume of deals reached in 1997 can be expected to expand in 1998 and beyond. European examples are presented, together with recent investment agreements in the other regions (CIS Countries, Africa and the Arab States, Latin America and the Caribbean, and the Asia/ Pacific Region). Investment in satellite communications and global projects is discussed separately. Expansion of the telecommunications market is likely to grow globally and in particular in Asia (once the region has re-stabilised). China and India will continue to use private capital to develop their telecommunications industries.

2. AFRICA AND ARAB STATES

A. Introduction

In the last three years the African and Arab States telecommunications sectors have been characterised by privatisation, culminating in the sale of a 30% stake in Telkom of South Africa to SBC Communications and Telekom Malaysia. Raising capital for new private sector projects continues to be difficult, given the perceived high risk of financing in the region. However, as liberalised telecommunications markets become the norm, there is every reason to expect that a wider range of options will become available to operators.

B. Background to Privatisation in Africa

The provision of telecommunications is currently inadequate in the majority of African countries. With the exception of South Africa and the Magreb Countries, which have their own particular challenges, teledensities on the continent are among the lowest in the world, on average less than 1 line per 100 population. Prices, especially for international telecommunications, are very high and the quality of service offered is poor.

Telecommunications are widely perceived to be an engine of growth and economic development. Consequently, international development agencies are increasingly interested in the telecommunications sector. For many governments, privatisation of the national telephone company is seen as a means to realise the potential of telecommunications for the economy and is often part of a wider IMF (International Monetary Fund)/World Bank-backed structural adjustment programme. As a result, privatisations have taken place or are planned in many countries on the continent.

C. Privatisation as a Key to Development

In the last three years, faced with the need to improve telecommunications services, most African governments have concluded that privatisation is an indispensable starting point. In 1998 and beyond, attention will increasingly turn to North Africa (Morocco, Egypt, Tunisia), where political opposition to privatisation development appears to be waning.

Licensing new private operators is proceeding apace, and privatisation has become the dominant theme across the continent, culminating in the sale of a 30% stake in Telkom of South Africa to SBC Communications and Telekom Malaysia. By deal size, South Africa stands out (US$1.3bn for the 30% stake), but it is emulated across the Sub-Saharan region in smaller transactions.

The focus on selling equity to strategic and financial investors should not obscure the fact that telecom operators are also tapping the debt markets. See below for a summary of developments in project finance.
Raising capital for new private sector projects is still difficult, given the perceived high risk of financing in the region. However, as liberalised telecom markets become the norm there is every reason to expect that a wider range of options will become available to operators.

D. Privatisation Models

Governments have embraced the concept of privatisation with different degrees of enthusiasm. They typically have a number of diverse objectives, not all of which are achievable within one privatisation framework. *Inter alia* these include the following objectives:

- develop the sector
- promote competition
- raise funds
- reduce tariffs
- protect employment in the sector
- improve efficiency and quality of service.

Three main models of privatisation have been adopted in Africa according to merchant bankers/NM Rothschild, who advised governments in Kenya, Côte d'Ivoire, and the Republic of Congo. Although variants exist, most can trace their roots to one or other of these models. Each model addresses some of the objectives outlined above:

1. Classical Model

- sale of a stake to a strategic investor. This may be a majority or a minority stake, but it almost always involves ceding operational control
- granting of an exclusivity period, at least over basic services
- establishment of a regulator to oversee tariff reductions and development targets
- protection for employees.

*2. Liberal Model (*developed in association with the World Bank, tested in Guatemala, with variants in Ghana and Uganda, but it has not really been tried in Africa)

- immediate introduction of competition into all segments of the market
- no imposition of tariff regulation or development targets
- likely results are an excellent service for the elite and a limited service for others

- most appropriate where the incumbent PTT is in particularly bad condition
- some investing operators prefer this structure because they can avoid taking on the burden of additional employees or the cost of replacing an obsolete infrastructure by bidding for a license and starting a greenfield operation.

3. *Management Contract Model*
   - likely to generate more interest among operators
   - adds value to the business in the medium term
   - does not raise funds for the Government or investment in the short term
   - could be associated with either a strategic investor or an IPO in a subsequent phase.

E. Which Model Suits Africa and the Arab States?

All of these models have been tried at various times in Africa, but most countries opted for the classical one. A review of completed privatisation transactions to date shows that new players are choosing to invest on the continent alongside the European operators with historical and cultural links arising from their former colonial relationships.

Investments in Africa have been on the basis of the classical model with the exception of ***Ghana***. In Ghana a second operator was licensed at the time of the sale of 30% of Ghana Telecom to Telekom Malaysia for US$38m (a further 21% is to be sold eventually). The competitor is ACG Telesytems, a consortium including Western Wireless and the Ghana National Petroleum Co, which paid US$10m for its license.

The classical model is losing its attraction and has run its course in the developed world, although it only fully disappeared from many European countries on 1 January 1998 (Portugal, Spain and Greece have a longer transition period). This model may still be the most appropriate for Africa however (it has proved to be for many other emerging markets, particularly in Eastern Europe and Latin America), as the African continent attempts to force the pace of sectoral development. The classical model has the merit of granting an investor time to revitalise the incumbent operator and to improve productivity over a reasonable period of time while carrying out an often aggressive programme of new line construction. At the same time the regulator (often newly established in parallel with the privatisation) can ensure that development targets and tariff reform are implemented.

Uganda is now also licensing a second national operator before the privatisation of Uganda Telecom Ltd (UTL). In December 1997, the Privatisation Unit received two

bids (from five pre-qualifiers) for the license. These came from South Africa's Mobile Telephone Network (MTN) and UtelNet, a consortium of Portugal Telecom International, the Aga Khan Fund for Economic Development, and ATI Ltd. They offered a somewhat disappointing US$5.6m and US$5.1m respectively. The winner was announced in January 1998.

UtelNet is pledged to find a Ugandan investor, and listing its shares on the local market. MTN has a Ugandan investor, Invesco, with 10% (Telia Overseas has a 50% stake).

Non-bidding pre-qualifiers included France Telecom, Telkom Ltd., and a consortium led by the UK-based Mobile Systems International.

UTL is in the process of splitting away from Uganda Posts & Telecommunications (UPTC), leaving the Post Office as a separate entity. The IFC is advising the Government on restructuring options.

The ***Zimbabwe*** Government still appears willing to underwrite expansion of domestic telecommunications, suggesting that privatisation could be some way off. The state provided guarantees for the first cellular network, Net One, built by Siemens. Funding of the US$24m facility is via Standard Chartered Bank, KfW, and ING. Political risk cover for 85% was also provided by Hermes, ECGD, and Japan Exim Bank. The tenure of the covered portion is 8-1/2 years, with 5 years for uncovered debt.

In the ***Côte d'Ivoire,*** Rothschild assisted the Government to implement a solution based on the classical model that attempts to manage the conflicts inherent in the different objectives. Banque Indosuez advised France Telecom, and will assist in raising follow-on debt finance.

Key Features of the CI-TELCOM Privatisation, Côte d'Ivoire

Country	15m people, GDP[1] per head 1996 $600 (1,500 at PPP)
	Economic capital: Abidjan, 4m people
Company	CI-TELCOM 120,000 lines
	Obligation to construct 300,000 new lines by 2002
Transaction	Sale of 51% to France Cable et Radio
	Proceeds to Government. 2% to employees. Further reduction in Government shareholding planned
Regulation	Independent regulator established
	No change to tariffs in 1997

[1] GDP: Gross Domestic Product.

	Price Cap from 1998 of RPI - 0 then RPI - 7 to 2001
Competition	Monopoly over basic services for 7 years
	3 GSM[2] cellular licenses (none to CI-TELCOM, although CI-TELCOM is able to apply for DCS 1800 license)

F. Telecommunications Privatisations in the Arab States

Arab States Governments are gradually introducing private sector discipline and capital into their telecommunications operations. In the Gulf area privatisation is being discussed in Oman and Saudi Arabia.

Kuwait may follow a sale of shares in the Mobile Telephone Co. with privatisation of the state operator. This is to be established as a corporation, the Kuwaiti Communications Corporation, with share capital in a first phase. According to the Minister of Communications, Electricity & Water, Jassem al-Oun, the second phase would be to sell shares. Political objections include job losses and higher charges, as telephone tariffs are currently subsidised.

***Saudi Arabia*, which awarded a US$4bn fixed and mobile telecoms modernisation package (TEP 6) to AT&T in 1994, has appointed a ministerial steering committee to investigate privatisation options. A tentative schedule has been set for the appointment of advisers to look at restructuring, corporatisation and asset valuation of the PTT. The preparatory stage could take one to two years. Still to be decided

[2] GSM: Group Special Mobile (Global System for Mobile Communications)

are the size of the equity stake and the method of sale. A domestic public share offering seems to be favoured.

Oman is considering selling a minority stake of about 15% of the capital of the state operator GTO to local private investors. This approach is supported by local legislation. Consultants Deloitte & Touche completed a report in late 1997 on restructuring the Omani telecoms industry, including the timing and nature of introducing competition and regulation. Privatisation is politically contentious in Oman.

In ***Jordan,*** the privatisation process of Jordan Telecommunications Co (JTC) is almost as protracted as that of Bezeq. Adviser Merrill Lynch issued an information memorandum to interested investors in autumn 1997. They were offered a 40% stake, an increase on the 26% stake of early 1997. Exclusive operating rights to fixed telecommunications until December 2002 make the investment attractive because the exclusive rights to mobile telephony expire in November 1998. Other areas, like payphones, are already liberalised. JTC had revenues of US$243m in 1996. The Export Finance Bank of Jordan is co-advising with Merrill Lynch.

G. Telecommunications Privatisations in North Africa

Egyptian state operator ARENTO is pushing ahead aggressively with modernisation of its network, awaiting privatisation/liberalisation. The company's Nile Vision project expects to add 800,000 fixed lines over five years in Alexandria, greater Cairo and the Nile Delta.

Morocco adopted a new law in June 1997 allowing liberalisation of the telecommunications sector. This is expected to begin with GSM services, leading to privatisation of the state operator ONPT. Tariff rebalancing is expected in 1998, reducing long distance and international call rates to reflect more closely the costs of providing the services. In late December 1997 the Government announced an investment budget of US$265m to add 500,000 fixed lines and 2,800 km of fibre optic cable.

H. Telecommunications Privatisations in Israel

The case of Israel highlights the importance of carefully structuring the privatisation of the PTT. The Government would like to launch a public share offering of Bezeq shares. However, the complicating factor is a 10.02% stake held by Cable & Wireless, creating uncertainty about the strategic control of Bezeq. A local bank consortium (Poalim Capital Markets, and local boutiques Eyal and Leader), may place US$170m of shares on the domestic stock market in early 1998, assuming the local Securities Exchange Commission clears the offer documents in time.

I. Sub-Saharan Telecommunications Privatisations

While ***Uganda*** is contemplating a new model, countries like Tanzania are likely to adopt the classical model for privatisations in 1998/99. At the end of 1997, groups

of African and foreign banks were busy bidding for the advisory mandate in the sale of a stake in TTCL. This mandate is funded by the World Bank. A foreign telecommunications operator is expected to buy 35% of TTCL's capital, followed by a sale of 20% to investors like the IFC or Commonwealth Development Corporation. A small local flotation is not ruled out thereafter. The privatisation of TTCL is officially earmarked for 1998, preparations permitting.

In ***Senegal*** the Government is floating 18% of Sonatel on the local stock market. France Telecom (advised by Citibank) previously acquired a 33.33% strategic stake and management control for FF650m. BNP was to arrange an OTC listing early in 1998, to be followed by a full listing on a regional stock market in Abidjan. The placement of Sonatel shares was to raise the CFA equivalent of US$65m. Although the intention is to find local retail demand, outside institutional demand will probably account for a high proportion. Employees were targeted with a 10% tranche of Sonatel's capital, and an African telecommunications operator was found to buy a 5% stake.

It is difficult to predict how a major telecommunications market like ***Nigeria***/Nitel will be privatised. Advisers have yet to be appointed, and no precise timetable is available. A strategic stake sale is the most likely route. Nigerian business circles are pressing for privatisation of both telecoms and oil & gas.

The ***Zambian*** Privatisation Agency was expected to appoint financial advisers for a significant strategic stake sale in ZAMTEL in 1997, but legislative and political hurdles remain to be cleared. Price Waterhouse is advising on telecommunications matters there.

Privatisation in ***Kenya*** is officially underway with the appointment of a bank group led by NM Rothschild to advise on strategy. The initial report advocated a strategic stake sale of 26-27% of the telecommunications unit of KPTC, followed by an IPO of 49% at a later date. Employees were to receive 2-3%. Parliament is currently considering legislation to split KPTC into post and telecoms units (Telecom Kenya Ltd). A sale is planned for mid-1998, political considerations permitting. Barclays Bank Kenya and the Cooperative Bank of Kenya are advising alongside Rothschild. Consultants Booz Allen Hamilton are advising on establishment of a regulator and on mobile licensing.

The privatisation of Telkom in ***South Africa*** was the largest deal on the continent in 1997. SBC Communications and Telkom Malaysia paid US$1.3bn for 30% of the company. Merrill Lynch advised the buyers, Goldman Sachs advised Telekom, and SBC Warburg advised the Government. Dresdener Kleinwort Benson advised the Malaysian telecommunications company early on in the deal.
The two new foreign partners are obliged to add three million lines in six years, almost doubling current capacity. They will also digitise 1.2 million lines and provide Internet access to schools and clinics. They have exclusive rights to fixed telephone services for six years.

South Africa is forging close links with other emerging economies to further

telecommunications development. On 1 January 1998, it was to sign a bilateral trade agreement with ***China*** to include telecommunications equipment.

The Government of ***Mauritius*** took bids in mid-December 1997 for advisers on the sale of a 30% stake in Mauritius Telecom. Part of the Government's stake in telecommunications is to be placed in a new emerging markets fund, the US$60m Port Louis Fund, to be set up by BNP Emerging Markets. Valuation of the PTT was conducted by Deloitte & Touche.

J. *The Feasibility of Bond Markets*

The ***Republic of South Africa's*** success in tapping the US dollar yankee bond market in 1997 suggests that international bond markets could be an option open to the best telecommunications credits, since these often have near-sovereign credit ratings. South Africa's mobile operators MTN and Vodacom have both successfully raised loan finance. They could tap the capital markets in the next financing round.

For lesser credits, including well managed new private telecommunications operators, the North American high yield bond market could provide opportunities.

For example, new ***Israeli*** long distance/international operator Barak (shareholders Global One, Clalcom, Matav Cable), raised US$170m in a high yield issue via Lehman in November 1997. As a measure of perceived investor confidence in the business, Clalcom is expected to hold its IPO in the near future. Barak is the main asset of Clalcom, 73% owned by Clal Industries. The second long distance operator (Golden Lines: shareholders Telecom Italia, Aurec) has yet to announce its funding plans. Bezeq's market share fell by 40% in the six months following licensing of competition, which indicates how well these new operators are performing.

Potential African issuers can be guided by North American investors in the Republic of South Africa issue, which saw the deal increased from US$250m to US$500m. Whereas 35 institutional investors had bought to Republic's 1996 yankee bond, this time an additional 15 funds joined in. A key new investment grade rating from Duff & Phelps (BBB) opened the way for insurance companies to invest. Merrill Lynch analysts feel that the climate for further issues in 1998 from South Africa is enhanced by prudent economic management, which should see declining interest rates.

Telkom's ambitious build-out targets require financing techniques that can mobilise large amounts of finance. Telkom is pledged to double installed lines to six million over six years. Telkom's new 30% shareholders Telekom Malaysia and SBC will cooperate closely on financing techniques. As most of the lines are to be installed in rural areas where economics are more uncertain, project financing is unlikely to provide the answer.

K. Project Financing

The main issue in structuring project financing is identifying the revenue stream which will service the loans. In telecommunications, as opposed to an energy or minerals project, the output is rarely exported. Hence there are no long term contracts in foreign currency to give lenders comfort. Market risk is extremely high in the telecommunications sector.

Project financing in Africa and the Arab States lacks the diversity and depth found in other regional markets. There tend to be only a few large deals, largely in oil and gas (Yanpet/Saudi Arabia, Oman LNG etc), a sector that is accustomed to project financing techniques, even in unusual locations, that 'ring fence' the project from local political, foreign exchange, and commercial risks. Nevertheless, bankers detect a growing interest in off balance-sheet financing to meet the expectations of the people for improved energy and infrastructure provision.

South Africa is notable for having a PFI (Private Finance Initiative) to direct funds into infrastructure. In another infrastructure example, the successful N4 toll road project found domestic and international investors willing to supply both debt and equity. The Governments of Mozambique and South Africa cooperated in putting the project together, as the road links the two countries. A locally-placed rand-denominated loan had an attractive inflation-linked structure.

Making History in Lebanon

The largest project financed telecommunications deal in the region in 1997 was the France Telecom Mobile Lebanon (FTML) mobile telephone project. Arranged by SocGen and the IFC, the transaction raised US$100m. This first Lebanese syndicated loan on record was successfully distributed to a group of banks with a wide geographical spread. The US$100m package breaks down into three tranches supplied by the IFC and a US$25m commercial bank loan provided by domestic Lebanese banks. The IFC tranches comprise a US$20m senior loan, a US$10m subordinated loan for the IFC's account, and a US$45m commercial bank loan taken by foreign banks. Foreign banks receive a margin of 300 basis points over five years. FTML has a 10 year BOT contract granted by the Ministry of Post & Telecommunications in 1994. Shareholders are FTMP and the Makiti family.

L. ECAs & Development Agencies

The potential for ECAs and development agencies to support projects in sub-Saharan Africa is enormous, given the perceived high risk of lending to the region.

Prominent among development banks is the Commonwealth Development Corporation (CDC). In 1997, CDC undertook to lend US$15m towards the US$41m

cost of building Telecel's CDMA network in the ***Republic of Congo.*** The balance is being met by vendor financing from Motorola and shareholder equity. This is the first CDMA network in Africa.

CDC and Canada's development agency are funding separate telecommunications projects in Tanzania.

The ITU-backed WorldTel organisation is also expected to bring significant projects to fruition in the near future. ***Tanzania*'s** TTCL is working on a rural telephone development programme that is to use WorldTel financing. Similarly, negotiations are in progress with other countries in East and Southern Africa.

A regional East African project is being developed by the European Investment Bank (EIB) and African Development Bank (ADB). The two agencies are funding a US$67m project to build a 2,000km network linking Mombasa, Nairobi, Kampala, and Mbarara under the East Africa Cooperation organisation covering Kenya, Tanzania, and Uganda.

The second national GSM operator in ***Ghana,*** ACG Telesystems, agreed on a US$70m financing from CDC and IFC. The license cost US$10m, with the balance for network construction. Shareholders are Western Wireless and Ghana National Petroleum Co. The IFC provides advisory services, as in ***Uganda,*** as well as loans and equity.

M. New Licenses

A small number of markets in Africa and the Arab States account for most of the new license interest. Tenders are expected, or have been announced, for mobile licences in South Africa, Israel and Kuwait.

Despite its small size, ***Israel*** awarded two private international licenses and took bids on a third mobile license in late 1997. Bidding groups for the latter were led by foreign operators AT&T Cellular, Mannesmann, and Hutchison Telecom respectively. Each was allied with local companies. However operations cannot start before November 1998, as the two existing operators (Motorola/Bezeq's Pelephone and the BellSouth-led Cellcom) have an exclusive period until then.

South Africa's buoyant mobile telecommunications market should see award of a third mobile license in 1998 to compete with Vodacom (Vodafone, Telkom, Rembrandt) and MTN (Cable & Wireless, M-Net). Bidding groups formed at the end of 1997 with the involvement of black empowerment groups. The license tender is expected in May 1998.

N. Regional Operators

Southern Africa could see the development of the first regional mobile operators in coming years. Vodacom and MTN are likely to expand operations northwards into neighbouring markets as opportunities arise. ***Botswana*** is in the midst of licensing a second national GSM operator. In addition to the two South African bidders, India's Bharti Global and Telecom Consultants India Ltd. (TCIL) are to bid. Botswana's PTT already selected Vodacom as its partner in mobile activities.
Similarly, both Vodacom and MTN are expected to bid to form a 50/50 joint venture with the PTT of ***Swaziland*** for mobile operations. Both are expected to insist on management rights before agreeing to the venture. The state was trying to impose a call option on the foreign equity tranche, which may deter private investors.

Vodafone is also in discussion with ***Kenya*'s** state operator KPTC to cooperate in developing a mobile business. These talks assume urgency as the Government plans to license a second operator during 1998. Vodafone is expected to take a 30% stake which should build to a 50,000 subscriber capacity in Mombasa and Nairobi.

Despite difficulties in its attempts to launch privatisation, ***Nigeria*** has licensed a large number of competitive mobile operators. Key private operators with national licenses include Multilinks (Indian investors Ezekiel Ramani and Fatoye, and Nigerian financier Interlinks) and NITTI (BT Teleconsult, Emir of Kano, Ouni of Ife). Foreign telecommunications operator Telecel, with investments elsewhere in Africa, saw its national license withdrawn when build-out requirements were not met. Multilinks has begun build-out in Lagos. Aside from these national licenses, there are 10 to 15 regional licensees, such as StarCom, Mobitel, and InterGlobal Communications. Half a dozen of these operators are currently locked in interconnection negotiations with Nitel, on which the fate of their businesses depends. Foreign finance will be necessary, as Nigerian banks are not likely to provide more than one third of their financing needs. In 1997 Nigeria also licensed a second international VSAT operator to rival Nitel. Other VSAT operators are limited to domestic services.

Zimbabwe had difficulties in licensing private GSM services. Econet, with the backing of MTN, had bid for a license alongside half a dozen others and may contest the award of a license to Telecel.

In the Gulf area, ***Kuwait*** approved establishment of a second mobile operator to rival Mobile Telephone Co (MTC). The Government will hold 24% of the new operator, with the balance in private hands. The total capital of the new company is expected to be around US$100m. An early stock market listing will be sought. Beyond this, the state is expected to reduce its 49% holding in MTC. The precise method for implementing these steps was to be spelled out in a new decree towards end-1997. This decree may also detail plans for privatising the fixed telephone operator in Kuwait, along with similar plans to reduce the state's involvement in transport, water and power.

When conditions are suitable**,** ***Palestine*** operator Paltel plans to build a GSM network, as well as expanding its fixed network.

O. Conclusions

As global telecom financiers become increasingly comfortable with investing in emerging markets, African and Arab States operators will find high yield debt, project financing and other new techniques appearing on the menu. Vital in this process of gaining the confidence of the bank market will be the success of those South African and Arab States operators who have tapped the project finance market by satisfying the conditions of their loans. However, there are likely to be markets which remain too risky for private capital. As a result, development agencies and ECAs will have a continuing role to play.

Satellite and Cable Projects/Africa and Arab States

Large distances and scattered populations mean that satellite and submarine cable systems offer useful solutions for the African and Arab States regions.

UAE-based Eutelsat is behind the Al Thuraya satellite based mobile communications project, which successfully raised US$500m in a private placement of equity among regional telecommunications companies. Merrill Lynch arranged the deal. A further US$500m in non-recourse debt finance is to be raised in 1998, with new banks to be appointed as arrangers. Supplier Hughes Space & Communications is expected to take a small equity stake.

Al Thuraya should have a competitor. In 1997 Lockheed Martin's Satphone located additional funding shareholders in two Saudi Arabian entities, Al-amoudi and Advanced Technology Fund.

Foreign telecommunications were asked to bid by February 1998 to join the US$1.2bn RASCOM satellite project. The Regional African Satellite Organisation holds the new shareholders responsible for financing, manufacturing, launching and operating the system in a BDT scheme. The assets will be handed back to RASCOM at the end of the concession period.

The EAST project initiated by Matra Marconi Space has secured the investment participation of the Cyprus Telecommunications Authority (through its subsidiary Digimed). The project will be established as a limited liability company in London. Suppliers will include Matra Hughes Technologies and Nera of Norway. The project plans two geostationary satellites to provide telephony and data services in Europe, Africa and the Arab States Project cost is US$800m.

Submarine cable projects to improve intra-African links and links from Africa to the rest of the world are proving harder to launch. The US$1.3bn Africa ONE submarine cable project has yet to secure financing from operators, shareholders or outside parties. The prime movers, AT&T-SSI and now Tyco Submarine Systems and Alcatel, appear to be looking for help to push the project ahead. However private investors and even landlocked countries contributed to the significant cost of securing financing for the total project (US$1.6bn).

Telkom of South Africa's US$300m SAFE cable, which will run from Africa to Asia, has signed up several investors but still has to decide on a financing structure. To date, investors are Telekom Malaysia, Cable & Wireless, Mauritius Telecom, and France Telecom. Recent examples in the trans-Atlantic submarine cable market and the FLAG cable (Asia-Europe) suggest that project financing is becoming an accepted option. Further down the road, Telkom of South Africa harbours ambitions to build a link to South America as well.

TABLE I

Expected Privatisations and Licenses in Africa and the Arab States

Country/Operator	**Proposal**	**Timing**	**Adviser**
Botswana	Mobile license	1998	
Congo/ONPT	Strategic stake		Rothschild
Gabon	Stake sale	1998	
Israel	3rd mobile license	1998	
Israel	2nd fixed license	1999	
Israel/Bezeq	Public offering	1998	Merrill Lynch /Hapoalim
Jordan	2nd mobile license	1998	(McCarthy Tétrault)
Jordan/JTC	Sell 40% stake	1998	Merrill Lynch
Kenya	2nd mobile license	1998	
Kenya/KPTC	Sell 30% stake		Rothschild
Kuwait	2nd mobile license	1998	
Malawi/PTT	Privatisation		(BMP International)
Mauritius/PTT	Sell 30% stake		Appointing early ‘98
Niger	Privatisation, mobile license	1998	IFC, World Bank
Oman/GTO	Sell 15% (IPO)		(Deloitte)
Saudi Arabia/PTT	Stake sale/IPO	1999/2000	(Rana Investment)
Senegal	2nd mobile license	1998	
South Africa	3rd mobile license	1998	
Swaziland	Mobile jv with PTT	1998	
Tanzania/TTCL	Sell 35% stake		Appointing early ‘98
Togo	Stake sale		

Zambia/Zamtel	Strategic stake sale		

Note: Preparatory advisory appointment denoted by brackets around name.

TABLE II

Key Recent Telecommunications Financing in Africa and the Arab States

Borrower/Issuer	Deal Type	Amount	Terms	Arranger	Comment
ACG Telesystems (Ghana))	Loan	US$70m		CDC, FMO, IFC	Second operator
Bezeq (Israel))	Loan	US$150m	7 yr	Dresdner, Fuji, UBS	
CI-TELCOM (Ivory Coast))	Privatisation			Rothschild	France Telecom acquired 51%
FTML (Lebanon))	Loan	US$100m	300 bp, 5 yrs	SocGen	IFC A, B, C loan
Ghana Tel (Ghana)	Privatisation	US$38m		CSFB	Telekom Malaysia acquired 30%
JMTSC (Jordan))	Loan	US$38m		IFC	Loan (US$18m), B loan (US$20m)
KPTC (Kenya))	Loan	US$120m		CDC, IFC	Converts to equity on privatisation
Malawi PTT (Malawi)	Loan	Y1.8bn		AfDB	NEC/Mitsui fixed telecoms expansion
MTN (South Africa))	Loan	US$123m	5 yr, 130 bp (L)	Citibank	
Net One (Zimbabwe))	Loan	US$24m	5 & 8.5 yrs	StanChart, KfW, ING	Govt guaranteed financing
SIM (Ivory Coast))	Loan	CAF3.1bn	5 yr, 11.5%	BNP	100% France Telecom subsidiary
Sonatel (Senegal))	Privatisation	FF650m		CCF	France Telecom acquired 30%
Sotelgui (Guinea))	Privatisation				Telekom Malaysia acquired 60%

Telecel (Zambia))	Loan	US$15m		CDC	Part of US$41m CDMA expansion
Telkom (South Africa))	Privatisation	US$1.3bn		SBC Warburg	Tel Mal, SBC acquired 30%
TIW (Uganda))	Equity/loan	US$15m			CDC, IFC funded 60% debt portion
Vodacom (South Africa))	Loan	US$300m	3 yr, 55 bp (L)	NatWest	

3. LATIN AMERICA AND THE CARIBBEAN

A. Introduction

The Latin American telecommunications market ranges from being highly developed and competitive, as in the case of ***Chile***, to a traditional, under-developed state monopoly, as in many of the continent's smaller countries. While the latter are embarking on the route to privatisation and the introduction of competition, this creates challenges for operators and their bankers. Most telecommunications development and financing activity comes from the countries that lie between these extremes, among them ***Brazil, Mexico,*** and ***Colombia.***

Although the Asian economic crisis may yet dampen financing activity in Latin America, the many successes in obtaining telecommunications financing in 1997 showed a complete recovery from the region's own currency crisis of 1994/5. Latin American operators used a full range of financial tools, from syndicated loans through international bond and equity placements. Local capital markets also contributed funds, notably in ***Peru***, ***Colombia***, and ***Brazil.***

B. Positive Loan Market Slow Down

The opening of the long distance market to competition in ***Mexico***, the award of cellular B Band licenses in ***Brazil,*** and consolidation in the ***Argentine*** cable sector provided the backdrop to 1997, project finance loans for newly established operators.

Credit committees from New York lending banks were willing to finance the build-out of new networks in the fixed and cellular sectors across the Latin American continent during 1997. However, the November currency crisis in Asia caused the terms of some loans and bonds to be redrafted in an otherwise competitive environment with keen pricing for borrowers. Some loans were rescheduled by the end of the year, others were put on hold until 1998. The market is expected to open again in 1998, but remain below the competitive terms of 1997.

C. Benchmark Project Financings

Two key project finance deals of 1997, both in excess of US$300m, came from the ***Mexican*** long distance operators Avantel (MCI, Banacci) and Alestra (Alfa, AT&T). Together with a number of Latin American telecom loans, these were supported by multilateral institutions, in this case US Exim and the Export Development Corp of Canada for Avantel. Other loans in Latin America were supported by the IFC (see below). Avantel came first in February after the Alestra deal was finalised in November 1997.

Further completed deals include a US$100m loan for BellSouth Chile via Citibank, comprising a one year bridge loan, converting to a 4 year term facility in ***Chile***. US$30m will be held by the Central Reserve to comply with capital reserve requirement rules.
Project loans also emerged for cellular operators in ***Uruguay,*** where ABN AMRO is financing a US$60m expansion project for the cellular operator Ancel, and in ***Venezuela,*** where the cellular operators required finance to meet heavy demand.

Chase Manhattan Bank was in the process of putting together a US$200m five-year loan for Telcel, CANTV's Cellular subsidiary, at the end of 1997. The deal was initially planned as a high yield bond. ABN AMRO, meanwhile, structured Movilnet's US$78m project finance loan with the IFC providing the A tranche. The deal was oversubscribed, with commitments of US$80-100m received from banks.

While top tier international banks generally loan to Latin American borrowers, local banks will typically come in as participants. In the case of NetSul in ***Brazil***, the syndicate for the US$80m loan via Citibank and Bank of Boston included Bozano Simonsen and Banco Safra. Similarly, the US$1.1bn underwritten syndicated loan deal via Société Générale for Cablevision was co-led by the domestic bank Banco Superveille, although the deal saw only limited syndication due to the year-end market conditions. Su Leasing, a domestic leasing company in ***Colombia,*** arranged a US$40m deal for the Colombian cellular operator Celumovil.

D. Leasing Market Development

In ***Colombia*** in particular, tax laws favour leasing arrangements. One significant deal was the financing of Ericsson's portion of the Bogota revenue share project with Telecom (110,000 lines) via Chase Manhattan. The US$70m deal was structured in two portions over five years. The first tranche was for US$35m and was guaranteed at 90% by the Swedish export credit agency EKN.

There were certain notable aspects to the deal. First, it included a cross-border lease between two special-purpose companies set up in ***Colombia*** and Sweden, provided by the EKN under the EKN's supplier credit programme. The lenders supply funds to the special-purpose leasing company to finance equipment purchased from Ericsson. This equipment is then leased to a special-purpose company in Bogota. Second, while the loan is amortised through the lifetime of the loan, there is some flexibility to postpone interest payments, albeit by incurring an increased rate of interest. With this flexibility, repayment can be by single bullet payment under extreme circumstances

Further revenue-share agreements were reached in March 1997, signed between the long-distance operator Telecom and equipment suppliers Nortel, Siemens and Ericsson. These were to build 500,000 lines in the cities of Cali, Medellin, Manisales, and Bucaramanga. Despite the drive to build out more revenue share lines, only a small percentage, some 17%, of a previous 550,000 line contract between suppliers and Telecom had been built-out at the end of 1997. This is partly due to disagreements over interconnection tariffs between the participants in the

project (called Capitel) and the local operator Empresa de Telecomunicaciones de Bogota (ETB). Towards the end of the year, Bank of America was mandated to refinance all of the revenue share agreements that were awarded to Nortel, as well as new lines awarded in 1997. This could take place either separately or as one package, and may amount to US$500m.

E. Issuers Improve Bond Terms

Latin American bond issuers had some success in 1997 although, like the loan market, bonds suffered some uncertainty towards the end of the year. One particular benchmark deal that showed significant confidence in the Latin American market was for a consortium of local telecommunications operators in ***Colombia***, Transtel. Transtel, a holding company embracing seven municipal telcos, raised US$150m by issuing a ten-year bond via Bankers Trust offering investors a coupon of 12.5%. The deal was particularly significant as it is among the first Latin American high yield bonds in the telecommunications sector to be issued without warrants so a percentage of the issue is converted into equity in the company. Aside from the bond financing, Transtel's capital comprises cash equity of US$30m and municipal assets worth US$70m.

Other deals came from UBS, which arranged a US$100m high yield facility for the cellular operator Otecel in ***Ecuador***, and possibly a US$150m bond via Chase Manhattan for Telcel in ***Venezuela***. Although this was restructured as a loan, its syndication would start at the beginning of 1998.

The ***Mexican*** operator Lusacell also came to the market with US$375m combined bond and loan financing via Chase Manhattan. The seven-year bond was privately placed under rule 144a.

F. Local Funding

The majority of telecom finance debt in 1997 has been dollar denominated, via either bonds or internationally syndicated loans. There has, however, been some local funding activity, notably in ***Brazil*** and ***Peru***. According to Humberto Baranek of Banco Pactual, speaking at the IBC Latin American Telecom Finance Conference in New York, the total funding required to finance telecommunications projects in Latin America will be in excess of US$100bn over the next six years, leading borrowers to access the local markets with greater frequency. One of the principal benefits of local funding is that the borrower has a high degree of immunity against local currency risk. Also, with a developed local credit history, demand for a given company's debt increases, reducing pricing for future debt issuance.

One example of local banks taking an active role in financing telecom projects is Tele2000 in ***Peru***, which issued a US$50m subordinated bond via Banco de Crédito. The bond has a seven-year term and offers investors around 10%. Interest on the loan is capitalised during the first two years prior to the commencement of payment. The deal reflects the increasing sophistication of domestic banks in Latin America; the previous bond deal for Tele2000, in 1994, was issued via the Bankers Trust of the United States.

Americel Funds Locally in Brazil

As an exception to the limited recourse financing planned by some of the prospective players in the liberalised ***Brazilian*** B Band cellular sector, the Americel consortium (winner of area seven and headed by Bell Canada) has opted to finance their project locally. Investment restrictions imposed on Brazilian pension funds by the Government made it impossible for Citibank, a shareholder in the consortium, to raise debt finance by a project loan. This is one reason for the decision to use the local market.

In stage one of Americel's investment plan, R$150m of commercial paper was issued in the summer, comprising four 90 day roll-overs paying 103% of CDI. Alongside this was a R$200m three year local debt issue (12%+ inflation) to finance the license payment. The second stage of Americel's financing plan will see R$200m raised over 8-10 years, offering a spread over TJLP (Brazilian Libor equivalent), which is currently 9-9.5%.

With huge capital requirements expected from ***Brazil's*** private infrastructure modernisation, Brazil's national development bank BNDES, with total assets of US$46bn, is preparing to take a major role in the financing of telecoms projects. The equity arm of BNDES, BNDESPAR, recently agreed to take a 5% equity stake in the Americel consortium. This may increase to 19% if Americel gains more licenses.

G. Mergers, Acquisitions, and Local Sales

In Latin America's more developed markets, consolidation of the ***Argentine*** cable sector and the merger of CTC and VTR (for some sectors) in ***Chile*** were among the significant merger and acquisition (M&A) deals of 1997.

The privatisation of the Telebras system in ***Brazil*** will surpass Latin America's telecommunications deals in 1998.

In a stop-start sale, VTR agreed to sell 93.6% of its long-distance operation and the remaining 45% of Startel, the cellular joint venture, to CTC, controlled by Telefónica. The assets were valued at US$425m for Startel, and US$52m for the emerging long-distance business. VTR will use the proceeds of the sale to pursue interests in local telephony and cable. VTR's shareholders, SBC and Luksic, were advised by JP Morgan and Morgan Stanley respectively.

Colombia, meanwhile, provided investment bankers with mandates in both the cellular and fixed line sectors, although the final structure of the industry has yet to emerge and uncertainty persists over the future of the long-distance sector. The need for investment banking advice in Colombia was based on two principal factors., The three-year shareholder lock-in for cellular industry participants expired in the spring In the fixed sector, Colombia's local operators became key players, as financial groups aim to build up a critical mass of lines (150,000) to compete in the long-distance sector. These long-distance licenses were scheduled for December

1997 but, to date, have not been issued. International operators, required to pay US$150m for a long-distance license, may prove reluctant to invest. Unauthorised operators are already active, so licensed operators are not certain of an exclusive market.

Domos Withdraws from Cuba

In 1997 the Grupo Domos from Mexico finally released the stake that it owned in the Cuban operator Etecsa. The stake, approximately 17%, was sold to co-investor Telecom Italia for some US$300m. Two reasons were behind the withdrawal: first, a US$300m payment for the stake was never made due to the Mexican peso crisis at the time of the sale; second, the effect of the USA's Helms-Burton law (which discriminates against foreign companies investing in Cuba) would have more effect on the Domos group, based in Monterrey, Mexico, than on Telecom Italia. Domos bought a 49% stake in Etecsa in 1994 for US$750m. The need to raise finance and gain technical expertise led to the initial sale of 12.5% of ETECSA to Telecom Italia (then STET). Rothschild and KPMG advise on the deal.

H. Context of Operators' Equity Sales

Domestic market considerations fuelled several sales of municipally-owned telecoms companies in ***Colombia***. Key drivers were the bidders' needs for upcoming long-distance licenses to possess a minimum of 150,000 local telephone lines. Buying interest has come chiefly from domestic financial and industrial corporations. Cities with telecoms companies to sell saw the opportunity to sell at attractive valuations. For instance, Empresas Municipales de Manisales completed the first stage of the sale of 55% of its telecommunications assets, with employees taking 18.22%. The second round, which should be finalised by early 1998, will see 36.88% (with management rights), sold to a strategic investor. The prequalifiers were Empresas Públicas de Medellín (advised by Santander Investment), the private operator Transtel (possibly leading a larger consortium), and ETB. Rothschild was advising on the sale.

Meanwhile, in December 1997, Edatel, the regional operator in Medellín, was set to auction 21m shares simultaneously in the Bogotá, Cali, and Medellín exchanges, via Citibank. The offer represented just over 18% of the company, raising the total capital sold to 40%. About 22% was sold in late autumn to the pension funds Colfondos, Horizonte, Davivir, and Proteccion. Investors from ***Colombia*** including the pension fund of the Sarmiento Group, Porvenir, which did not buy shares in the first round, were expected to buy.

By the end of 1997 political events in ***Colombia*** had made the sale of Bogota's operator Empresas de Telecomunicaciones de Bogota (ETB), the second largest operator after Telecom, more likely to happen in 1998. The new mayor of Bogotá, Enrique Penelosa, stated publicly that the privatisation of ETB is a top priority.

While ETB has already been transformed into a joint-stock company, all shares are currently owned by the regional Government, the Consejo Municipal, and the sale of these shares to private shareholders is permitted not yet. Inverlink and Citibank undertook a valuation of ETB during 1997.

The Consejo has so far opposed the investment of private capital in the company. Although the Mayor is now in favour, entrenched opposition to the privatisation may be difficult to overcome. Similarly, while the Government favours the sale of the long distance operator Telecom, the sale is meeting trade union opposition.

Other local sales in ***Colombia*** are on course for 1998. Empresas Públicas de Pereira appointed Inverlink to advise on the sale of 30-40% of its telecommunications assets, some 100,000 lines, during the first half of the year. Salomon Brothers is advising on the sale of the telecommunications assets of Empresas Públicas de Bucaramanga. Inverlink will also advise on the sale of the telecommunications assets in Propayan, some 25,000 lines.

In ***Colombia***'s cellular sector several new operators are considering equity sales, driven by either the need to raise capital or the interest of foreign shareholders to refocus on other markets. Several banks were awarded mandates in 1997. Comcel, with 200,000 subscribers in the Eastern region of Colombia, initially planned to issue an ADR, raising US$200m via the local and international exchanges. However, as more cellular operators in Colombia plan shareholder changes, a general realignment of the cellular sector in Colombia is underway. The planned initial public offer (IPO) for Celcaribe, in which Millicom is the principal foreign operator, was delayed while Millicom negotiates the sale of its Latin America assets. The sale was to be undertaken by Morgan Stanley, which is now in charge of the Millicom's Latin American asset sale. Goldman Sachs is advising potential purchasers who may split the properties between them.

Brazil Set for 1998

Presentations by bankers took place at the end of December 1997 for the Telebras valuation and sale mandate. This involves the restructuring and valuation of the 28 existing Telebras subsidiaries into three fixed line operators and nine cellular (A Band) operators. The long distance operator Embratel will also have to be valued. Following reviews by the Brazilian National Development Bank (BNDES) and the Ministry of Telecommunications during January, a mandate three month job in February 1998 was awarded for the to Morgan Stanley and Salomon Brothers. Competing advisers were:

- Morgan Stanley, SBC Warburg, Salomon
- Goldman Sachs, JP Morgan, Garantia
- CSFB, BZW, Morgan Grenfell
- Kleinwort Benson, Lehman Brothers
- ABN AMRO, Rothschild, Merrill Lynch

One prospectus to privatise all of the 13 companies is expected to be issued (Embratel, 3 Telebras units, eight A band cellular units).
Bankers were also seeking an advisory role for Brazil's Southern operator, CRT, which appointed Banco Essi as its adviser in January 1998 The smaller private operators such as CETERP, CTBC, and Sercomtel also require advice relating to their positions in the future restructured telecommunications sector. Banco Essi, CapitalTec and Marros Filho e Associados were appointed by the state of Parana to advise on the valuation and privatisation strategy of Sercomtel. Bids were also submitted by Deutsche Morgan Grenfell with Banco Fator and Salomon, alongside Patrimonio.

I. Privatisation Hurdles

1997 was to see the sale of state equity in two operators take place – Antel in ***El Salvador*** (where Morgan Stanley and Citibank were advising the Government) and Guatel in ***Guatemala*** (where the adviser JP Morgan worked with the Government to sell up to 95% of the operator). However, this did not occur. It may still happen in 1998. In ***Ecuador,*** despite mid-year political upheaval, the stake sale was still on course at the end of the year, but was stalled in the final bidding stage. The IFC is advising on the sale in Ecuador and aims to reschedule the sale for 1998. Potential bidding operators are also conscious of the forthcoming opportunities in ***Brazil*** resulting from the privatisation of Telebras, so may be hesitant to commit to less significant investments elsewhere on the continent.

The sale of a stake in the state operators of Latin America's smaller countries can require several attempts. Bankers advising on the sales have to deal with trade union attempts to block the sales or with unrealistic valuations and sale models. In the case of ***El Salvador***, Congress reviewed the law governing the sale of Antel when no bids were received in November. The original plan was to split the

operator in two and sell a 35% stake to new operators, a model impractical for El Salvador. Under the new model, one strategic operator will be allowed to own 51% of Antel. The telecommunications sale in El Salvador is now expected for 1998. In ***Guatemala*** also, the sale of the state operator fell through just as the deal neared completion in December.

J. Privatisation Successes

In contrast, following a failed attempt in 1996, the strategic sale of ***Panama*'s** Intel, led by Salomon Brothers, was concluded successfully in 1997. Cable & Wireless and GTE were the final shortlisted bidders for the 49% management stake, which was finally sold to Cable & Wireless in May for an initial payment of US$652m against a book value for Intel of US$463m and a US$500m reserve price. Intel, with C&W onboard, was also given the right to a second cellular concession within 12 months.

The sale of Intel's structure has characteristics in common with sales planned in ***El Salvador*, *Honduras*** and ***Ecuador***. Under the license agreement, Intel will have exclusive rights for some services. In the case of Panama, local, national, and international services will be exclusive for five and a half years. Intel will also be required to meet certain build-out and modernisation requirements.

K. Private Operators Secure Partners

Two of the continent's existing private operators increased their ability to finance future network build-out by taking on foreign investors. In ***Peru,*** BellSouth took a 57% stake in the cellular operator Tele2000 for US$100m. The stake was bought from the founder and former owner Genaro Delgado Parker. In ***Mexico,*** meanwhile, Korea Telecom, advised by Merrill Lynch, took a stake in the long distance operator Miditel. Ongoing, at the end of 1997, was the sale of a controlling stake in Telex ***Chile*** to MetroCom, a subsidiary of Metrogas, and Bell Canada International. As the deal finalised, DMG was adviser to Telex Chile, and Salomon Brothers and Citibank were advising MetroCom and BCI respectively.

WorldTel in Latin America

Latin America was also where WorldTel acquired experience through its investment in the northern Mexican operator Telinor. Alongside Bell Canada International, the ITU-backed telecommunications fund, WorldTel took a 49% stake in the operator. Through the acquisition of spectrum in Mexico's auctions, Telinor aims to provide cellular and long distance services throughout Mexico. Telinor's new shareholders BCI and WorldTel, owning stakes of 27% and 22% respectively, are expected to invest equity of US$250m. The Blackstone Group advised Telinor in the transaction, which will see the AIG-GE capital Latin American infrastructure fund, the Chattergee Group, and Metropolitan Life Insurance investing through WorldTel.

L. Brazil's Cellular Telephony: Huge Capital Need

Brazil's cellular sector is one of the most promising for foreign financial institutions seeking to support telecom projects in the region. When BellSouth proposed US$2.6bn as a license payment for the Sao Paulo City cellular franchise, the potential need for Brazilian debt finance for cellular projects appeared to be enormous, particularly since 40% of the payment was required immediately. Fewer deals than expected were actually put in place by the end of 1997. In fact, BellSouth financed its license payment on balance sheet, while delays left bidders and bankers unsure of how much to raise. Although consortia have their bankers in place, banks structuring deals for 1998 are likely to require more shareholder support and wider margins due to fallout from the Asian crisis.

The restructuring of Citibank's US$300m loan to Souther Brazilian fixed line operator, Companhia Riograndense de Telecomunicacoes (CRT) is indicative of the effect the Asian crisis may have on terms and pricing for B Band Borrowers and borrowers throughout Latin America.

Brazilian Cellular Auctions

Region	Winner	Status	Price Paid	Price/Pop (US$)
1 Sao Paulo	BellSouth	Awarded	R$2.6m	144
2 Sao Paulo	Telia/AirTouch	Pending	R$1.3m	73
3 Rio, Esp. Santo			Pending	
4 Minas Gerais			Pending	
5 Parana, SC			Pending	
6 Rio Grande do Sul			Pending	
7 Center West	BCI/TIW	Awarded	R$338m	24
8 Amazon			No bid	
9 Bahia/Sergipe	Telecom Italia	Awarded	R$250m	16
10 North West	BellSouth	Awarded	R$556m	23

Financing for new ***Brazilian*** B Band operators commenced with Avantel, the AirTouch led group, working with Bank of America. The consortium put in place a US$1bn financing scheme, drawable when the consortium wins a license. The eight-year deal is guaranteed by Avantel's shareholders AirTouch, Camargo Correa, Odebrecht, and Unibanco. Banks may request early repayment after three years.

Americel (Bell Canada, TIW, Citibank), meanwhile, opted to finance the build-out of its cellular network via local commercial paper issuance. Other bidders await license awards for the remaining areas that will define financing requirements. Vendor finance from the equipment suppliers will provide for some of the initial costs of the B Band winners. Nortel, advised by Bank of America, has had the most success so far in achieving equipment supply contracts and is working on a loan facility with Bank of America to fund equipment supply worth over US$300m for BellSouth's areas. The vendor finance deal will accompany a facility arranged by JP Morgan which will provide limited recourse funding of US$1bn. Bankers Trust and Mediocredito are expected to provide a similar facility for the construction of Telecom Italia's network in Bahia and Sergipe, market conditions permitting.

While tenders for the award of licenses in all 10 ***Brazilian*** cellular areas were scheduled for completion in 1997, legal disputes - particularly over area two, where TESS (Telia), and Avantel (AirTouch) compete for the license - , will affect borrowers significantly. Had licenses been awarded, the financing terms available to borrowers would have been more favourable than those be available in 1998. With four areas not yet awarded, borrowers do not even know how much financing is required.

M. Conclusions

Latin America is fairly advanced in the cycle of liberalisation and consolidation (notably ***Mexico***, ***Chile***, ***Colombia***), as operators seek to gain a stable and viable market share. Mergers and acquisitions activity should therefore remain at a high level. Elsewhere, markets like ***Brazil*** promise explosive growth. Despite knock-on effects of the Asian economic crisis, geographical proximity to the North American capital market should continue to entice institutional investors to buy considerable amounts of Latin American issues. An interesting feature to watch is local capital markets. They are likely to play a growing role, especially in Brazil. The lesson financiers and their clients have learnt in recent years is that large and complicated deals can be completed, but that timing is often underestimated.

Principal Latin American Cellular Operators

Operator	**Wireline Subs (m)**	**Wireless Subs (`000)**
Telebras (Brazil)	13.8	2,428
Telmex (Mexico)	8.8	1,098
Telefonica/Telecom (Argentina)	6.3	674
CANTV (Venezuela)	2.4	475
CTC (Chile)	2.1	336
Telefonica del Peru	1.4	200

Table.- Key Recent Telecommunications Financing in Latin America

Borrower/Issuer	Deal type	Amount	Terms	Arranger	Comment
CANTV (Ven)	Yankee bond	US$150m		Chase	1st deal since share offering
Avantel (Mex)	Loan	US$490m	3,10yr 125.5 bp (L) (15 bp covered)	Bank of America	US Exim/ EDC guarantee
Tele2000 (Peru)	Bond	US$50m	10%+ Coupon	Banco de Credito	Interest capitalised 2 yrs
Multicanal (Arg)	Bond	US$300m	T + 287 bp (5 yrs) T + 387 bp (10 yrs)	CSFB/Bank of Boston	
CTC (Chile)	Loan	US$315m	28 bp over Libor	Dresdner	
BellSouth Chile	Loan	US$100m	45 bp (L), 20 bp fee	Citibank	1 yr bridge/ 4 yr term facility
Conecel (Ecuador)	HY bond	US$100m		UBS	
Telmex	Loan	US$1bn	60 bp over Libor	Chase, JP Morgan	refinances existing debt
Intel (Panama)	Strategic sale	US$635m		Salomon	49% sold to C&W
Celumovil (Col)	Loan	US$90m	3 yrs, L + 250 bp	Santander	A (US$50m) bullet, B amortised
Ericsson	Loan/leasing	US$70m	5 yr, L+125 bp/ L+625 uncovered	Chase	2 SPVís for equipment leases
Telgua (Guatemala)	Privatisation	US$500m - US$800m		JP Morgan	Failed December, Telmex last bidder
Ancel (Uruguay)	Loan	US$60m		ABN AMRO	Increased from US$30m
Hondutel	Privatisation	47% sale		Rothschild	Now expected 1998
Antel (El Sal)	Privatisation	51% stake		Morg Stanley/ Citi	
Restructured after Nov. attempt					
Americel (Brazil)	CP	US$150m	1yr, 103% of CDI	Banco do Brazil	Four 90 day roll overs
Telecom (Arg)	Bond	Lit400bn	10 yr BTP swaps + 160 bp	JP Morgan	BBB- rated, 75% locally sold
Telex Chile	Partner search			DMG	BCI, MetroCom negotiating purchase
Avantel (Brazil)	Standby loan	US$1bn	8yr, 3yr put 105 bp-249 bp (L)	Bank of America	Was available until Dec. 97
Brazil government	Advisory			Dresdner KB/Lehman	Structuring Telebras sale model
Mexico government	Advisory		PCS/WLL auctions	JP Morgan	Ongoing, 108 concluded in 1997
Nortel Colombia	Loan	US$300-500m		Bank of America	Refinance revenue-share debt
Iusacell (Mex)	Bond/loan	US$375m	7yr,T+374bp/ 5yr L+175bp	Chase	Popular: Bell Atlantic control

VTR (Chile)	Loan	US$142m	5yr, 250 bp (L)	ING	Restructured from 1996
Movilnet (Ven)	Loan	US$75m	8 yrs, 175 bp & 200 bp (L)	ABN AMRO	IFC A (US$40), B (US$35m) structure
Supercanal (Arg)	Loan	US$200m	1yr, 650 bp (L)	ING Baring	Offers lenders 10% warrants at IPO
Supercanal	Loan	US$360m	5yr, 450 to 150 bp (L)	ING Baring	Priced on Debt/EBITDA grid
Ameritel (Mex)	Loan	US$100m	7yr, 3yrs grace	Nissho Iwai	
Alestra (Mex)	Loan	US$335m	18.75 bp (covered) 300 bp (uncovered) (L)	NationsBank	US Exim 70% comprehensive cover
CRT (Br)	Loan	US$300m	18 MTh, L+312.5 bp	Citibank	Changed from 5 yr deal (L+125/150 bp)
Cablevision (Arg)	Loan	US$1.1bn		Socgen, Superveille	Underwritten, not syndicated

4. ASIA AND PACIFIC REGION

A. Introduction

Factors external to the telecommunications market affected progress in telecommunications projects throughout the Asia and Pacific Region more than the forces of globalisation and liberalisation.

There were the predictable political events, such as the transfer of the British colony ***Hong Kong*** to ***China***, the presidential elections in ***South Korea*** (won by the opposition leader Kim), ***Indonesia,*** and the ***Philippines,*** and the effect of the WTO Agreement on Telecommunications Services.

But more dramatic, and more damaging, was the sudden and massive devaluation of the ***Thai***, ***Malaysian,*** and ***Philippine*** currencies, which caused instability in many Asian stock exchanges and banking collapses in ***South Korea***. Lulled into a sense of security by an annual progression of high growth figures in recent years, the Asian financial markets were ill-prepared for the negative effects of such sharp drops in value. Moreover, the delayed introduction of reform in banking practices only served to deepen a crisis that continues to affect both the Asia-Pacific region and Western financial markets.

The telecommunications industry in the region has been undergoing its own revolution, as governments realised the advantages and inevitability of relinquishing old concepts of monopoly and control over communications and infrastructure. The down-to-the-wire negotiations at the World Trade Organisation (WTO) resulted in important concessions and firm commitments to introduce competition in telecommunications from countries throughout the world. As a result, with the exception of ***North Korea*** and ***China***, the concept of open markets is now established throughout the region.

Moves toward competition have resulted in the introduction of privatisation for national operators and the award of new licences at all levels of the telecommunications market. These developments have stimulated a search for funding, calling on the resources of development banks, merchant banks, funding institutions at both the national and international level, and many consulting firms. However, open and fair competition depends on governments following up on promises to establish regulatory structures and practices, thus assuring good return on investment for lending institutions in the region.

Instability on the currency markets also undermined bankers' confidence in the short- and medium-term future, forcing lending agencies to reassess many projects and reconsider priorities, a process that could have had adverse consequences for operators' long term plans. Many projects did, nevertheless, find funding, thanks to the key position the telecommunications sector holds in many economies, both as infrastructure and stimulus for potential growth. By the end of 1997, several operators had been successfully launched on local and international stock

exchanges, and preparations to privatise national operators and loans for network expansion and equipment acquisition continued, albeit with greater caution.

B. Initial Public Offers

Several initial public offers (IPO) were subjected to delays but in ***Australia***, the preparations to introduce three operators to international stock exchanges dominated all other telecommunications news. All three, Telstra, Optus, and AAPT, spent most of the year trying to be first on the market. AAPT finally won over Telstra. Optus' plans were delayed and finally postponed until early 1998. The situation was exasperated by legal disputes between Telstra and Optus over Telstra's plans to merge its Foxtel joint venture with Australis Media in the cable television market. AAPT went public in October, with a float of 41 million shares worth A$76m, achieving a market capitalisation of A$473m for its principal shareholders (AAP International, Singapore Telecom and the Todd Group). The search for advisers and arrangers for the Telstra IPO began in January 1997 and resulted in the appointment, in March 1997, of CS First Boston, ABN AMRO/Hoare Govett-Rothschild and JB Were as global co-ordinators. At the same time Telstra took out a A$3bn loan, arranged by CS First Boston and JP Morgan, to pay its dividend to the Australian Government. Following the announcement of strong results projected for 1997, Telstra's IPO raised A$14bn, $4bn more than expected, and came in at more than six times cashflow. This success prompted talk of a further sale of Government shares in the near future.

In other countries, the move towards privatisation of the principal telecommunications operators slowed down considerably, following markets downturn in the region. In ***Japan***, delays arose due to necessary revisions of the laws controlling KDD's and NTT's monopolies. This did not stop either company from preparing the ground for mergers and joint ventures with other operators. In order to place itself on the long distance market, KDD merged with Teleway in November 1997, while NTT, facing competition in all its national markets, set up a joint venture with IDC, another international carrier, and may take an equity stake in ID the reorganisation and privatisation of NTT is completed. Despite the legislative difficulties, NTT began its search for financial advisers in January 1997 and, although financial institutions were keen to offer their services, a decision remains outstanding. During 1997, a number of non-telecommunications companies indicated their interest in entering the telecommunications sector: Toyota (cars), Sony (films), Nippon Steel and the Japanese electric companies are all looking for new investment opportunities.

In ***South Korea***, the political timetable was the major factor delay, with presidential elections scheduled for the end of 1997. The stock market crash in the second half of the year forced Government officials and bankers to postpone most plans for the telecommunications industry in the short term. October 1997 saw the equity issues of Korea Telecom and its main rival Dacom (their foreign co-ordinators were Morgan Stanley and Dresdner KB respectively) suspended, as well as that of KT's mobile subsidiary SK Telecom (SBC Warburg). The latter did not let the financial crisis stop it from placing a US$100m block of ADRs in December 1997.
In South East Asia, the currency crisis took a toll on investors' confidence, leading to postponement of IPOs in ***Malaysia*** the ***Philippines*** and ***Thailand***. Nevertheless,

the will to bring major national operators on to the market remained strong and preparations continued throughout the region. ***Thailand***, the first country to suffer a sharp fall in its currency's value, had to postpone equity sales for CAT and TOT, and 1999 is now the probable date. TOT, in its search for potential strategic partners, approached major telecommunications operators such as Singapore Telecom, Deutsche Telekom, KPN, and others. Discussions did not progress far. No decisions on financial advisers had been reported by the end of the year. CAT sought proposals from advisers for its strategic partner search for November 1997.

IPO preparations also continued in ***Malaysia***. Flotations of Time Telekom (fixed network), Binariang (satellite and mobile operator), and Mutiara (fixed and mobile) were expected during the year, but the currency crisis brought delays in this as in fund-raising generally. Significant process has been made in various phases prior to launch, including searches for foreign partners. In particular, Binariang may be of interest to Cable & Wireless, while Time Telekom has been talking with Telekom Malaysia. Mutiara, with Swisscom already on board, has concentrated on going to market as soon as possible.

Three operators launched their IPOs in ***India***. India's international operator, VSNL, began its search for financial advisers for its IPO. Dresdner Kleinwort Benson, Jardine Fleming, and Salomon were appointed global co-ordinators in February 1997. On 24 March, 3.9 million Government shares were offered, together with nearly 15 million new shares. The issue, oversubscribed tenfold, was valued at US$448m. Further issues of shares, including 0.6 million secondary shares for the domestic market, are expected in due course. Second on to the market was Bharti, the first private operator, advised by Dresdner Kleinwort Benson, DLJ and HSBC. December saw MTNL's IPO three times oversubscribed, providing some US$359m for the Delhi/Mumbai operator, thanks to the efforts of Goldman Sachs, HSBC and Merrill Lynch. The ***Pakistani*** Government was expected to sell a 25% strategic stake in Pakistan Telecoms, having mandated UBS and Nomura to arrange for a US$100 exchangeable bond.

In the ***Philippines*,** Smart and the Benpres Group, including BayanTel were planning to enter the Stock Market. Smart Communications was hoping to raise US$170m with its flotation in September 1997. With its partners, NTT and Metro Pacific, Smart offered to buy back IPO shares at issue price in March 1999, in an effort to encourage investors to hold on to their stock. The situation for BayanTel and its subsidiary ICC was serious, to the point where BayanTel sought and obtained a US$360,000 grant from the United States Government Trade and Development Agency find foreign investors. BayanTel and ICC then went ahead with a convertible preferred share issue in December, but at a lower offering of US$100-120m. Chase Manhattan and All Asia Capital were the placement agencies. These companies were also exploring the possibility of a merger with Globe Telecom at the end of the year, after JP Morgan and Chase Manhattan were appointed financial advisers on the deal. Globe's moves towards an IPO were well advanced by the end of the year, with subscriptions set to begin early in 1998.

In June 1997, Cable & Wireless sold some of its shares in ***Hong Kong*** Telecom to China Telecom (5.5% for US$1.2bn) as part of a move towards acquisition of HKT shares by the Chinese operator after the island's transition to China. ***China*** Telecom launched its share issue in October 1997 in a difficult market, with Goldman Sachs

(global co-ordinator) and China International Capital Corporation (CICC) as lead underwriter. Its 2.6 billion shares raised HK$31bn (US$4bn). In August China Telecom secured a major loan with 644 million shares in Hong Kong Telecom, purchased from Cable & Wireless. China Telecom is the only Chinese telecommunications company permitted to make direct foreign investments, the Government having set a limit of 25% for outside investors.

C. Search for New Partners

Asian and Pacific countries have continue the search for new partnerships, whether to broaden their own interests by investing elsewhere or to improve domestic development by offering equity to other telecommunications companies.

Indonesian telecommunications companies were particularly active in their partner searches. Mobisel, Komselindo, PT Multimedia Nusantara, Centralindo, and Cellnet all instigated moves to attract new partners, as did the Rajawali Group for its subsidiaries Telesera and Excelcomindo. Of these moves, few had progressed far by the end of year, though Singapore Telecom appeared to be interested in a stake in the AMPS operator, Komselindo. Similarly PT Multimedia Nusantara despite not yet having a license was talking to potential partners US West, TCI, Telstra, and AT&T. Centralindo completed deals giving it access to the TV market. Meanwhile PT Indosat acquired a stake in PT Pramindo Ikat Nusantara (KSO operator).

In addition to talking with Komselindo, ***Singapore's*** SingTel was also following up opportunity to expand beyond its territory. During the second half of the year, SingTel discussed an alliance with ***Thailand's*** domestic operator, TOT, though it was not the only international operator in the competition. Meanwhile Wireless Communications Services (WCS) succeeded in attracting ***South Korea's*** SK Telecom who took a 20% stake. Samart finally made an agreement with Telekom Malaysia for a strategic stake in Samart's PCN subsidiary Digital Phone Co. The ***Malaysian*** operator paid US$180m for a package that includes shares in both Samart and DPC. Telekom Malaysia did not stop there, but went ahead to raise a US$400m loan to finance its acquisition of a stake in Telekom South Africa and appointed JP Morgan to advise on equity purchases in TV3, a local television company. Telekom Malaysia also took stakes in mobile operators in ***Bangladesh***, ***India***, ***Sri Lanka***, and ***Malawi***.

Taiwan's UHC and Chunghwa Telecom were seeking potential partners. Chunghwa Telecom and Hong Kong Telecom were supposed to make a two-way deal. There are tight restrictions on foreign ownership in Taiwan, and during 1997 no progress in either the searches or possible changes in Government policy was apparent. In ***Hong Kong***, New World Telecom began its search for a foreign partner among the top European companies. Hong Kong Telecom's CSL (which holds a GSM license) was able to buy Pacific Link, a local PCS operator, in December 1997.

In the early part of 1997, ***Philippine*** operators were active in finding partners but, with the peso's substantial drop in value, several companies faced difficulty in meeting their commitments. Strengthened by revenue in overseas currencies, Philcom was better placed than other Philippine companies. Its search, begun in May 1997, could be more successful in the present climate and may interest both Telefonica and STET. Meanwhile, Philcom took an option on 20% of mobile

operator Philtel's stock, although, due to the currency crisis, Philcom finally preferred to bail out the operator rather than become a shareholder.

International operators expressed interest in ***Sri Lanka's*** telecommunications operators during 1997. Sri Lanka Telecom finally chose NTT, which paid US$225m for a 35% stake, over France Telecom, the only other operator to place a bid with the PERC. NTT was advised by ABN-AMRO, while Deutsche Morgan Grenfell advised SLT. Korea Telecom had shown an interest in both Sri Lanka Telecom and Lanka Bell. Hutchinson also began discussions with Lanka Bell before taking an additional stake worth US$25m in Lanka Cellular Networks to become sole owners. Lanka Bell ended the year still searching for a partner.

In September 1997, the ***Chinese*** Minister of Posts & Telecommunications made it clear that restriction of foreign investment would remain in place for both telecommunications and broadcasting despite relaxation of other restrictions.
However, there were signs of Government movement toward a more structured approach to regulation of both sectors. Currently non-Chinese companies must work through joint ventures with Chinese operators. Despite these constraints, Western and Asian operators continued to show considerable interest in the Chinese telecommunications sector.
Lian Tong, ***China's*** second carrier, decided to attract outsiders into its new US$1bn project to build the first competitive long distance network in the country. With a network construction project timed for completion in 2000 including links to the railway's fibre backbone, Lian Tong faces a tough task and could welcome foreign assistance. Early interest from Telstra, France Telecom and Sprint depend on the Chinese Government's willingness to ease restrictions on direct foreign investment. Star Digitel was also seeking a foreign partner. Based in Hong Kong but linked to the People's Liberation Army, Star Digitel offered a 10-20% stake for a new strategic investor. Malaysia's Lion Teck Chiang (LTC) Telecommunications went ahead with two new joint ventures. It took a 95% stake in Guizhou Lion financing (calculated at S$22.6m), a GSM network in the Guizhou Province set for completion in February 1998. Its second venture is with China Railways Telecom Centre for a similar network in Henan Province. Both networks will be operated by China Unicom/Lian Tong.

D. Seeking Funds in India

The ***Indian*** telecommunications market had undergone transformation through the introduction of areas for the purposes of fixed and mobile licenses. However the immediate difficulty facing possible franchise winners, due to banker reserve on the future of the Indian market, was finding international and national funding for their projects. The problems were both financial and regulatory. Due to low levels of penetration in non-metropolitan areas, Indian financial institutions need strong evidence, lacking at that time, of potential profits before investing in mobile operators in more rural regions. Meanwhile, the lack of a strong independent regulatory authority meant that operators, both for fixed and mobile networks, were still unsure of their ability to negotiate interconnection agreements quickly with DOT, the incumbent carrier.

In order to break the stalemate, the Government relaxed restrictions on international investment in telecommunications operators, raising the ceiling on project cost to 50%. The establishment of the Telecom Regulatory Authority of India (TRAI) early in the year was a reassuring step, but it was only after the TRAI indicated its intention to take a firm stand on disputes, usually supporting new operators against the DOT's practices, that operators and banks became willing to make deals to raise the finance needed. The newly formed Cellular Operators Association of India asked the TRAI to consider a number of questions relating to licenses, license fees and price caps.

After spending much of the year talking with advisers and persuading bankers, ***Indian*** and foreign, to provide mixed rupee/dollar financing, operators began to see results. By December a number of operators had successfully concluded loans and IPOs. This progress should encourage both Indian and foreign financial institutions to bring more funds on to the market, ensuring that operators will indeed achieve a higher penetration rate and guaranteeing good financial results.

E. New Licenses Throughout the Region

Many governments issued new licenses during 1997, particularly in the mobile field, although few licenses for fixed services and networks were awarded. As these decisions became public, operators had to find additional funding for network building, system equipment, and commercial launches.

The first group handed out during 1997 were the six ***Taiwanese*** GSM and DCS licences. All six companies launched themselves into a long process of fund-raising and building in order to begin offering commercial services as quickly as possible. In their search for funding, four companies used international financial advisers: Far EasTone (Citibank), Pacific Telecom (ICBC), Smart Link (HSBC, ING, Toronto Dominion and China Trust Commercial), Mobital (ABN-Amro), while Transasia Telecom and United Hosyin Communications drew on their own resources to back up their preparations. Twenty trunk radio licenses were issued in May, and the Taiwan Government announced tenders for both fixed and mobile satellite services as well as for basic telecommunication services. With such a large number of licenses in a single year, it is certain that there will continue to be a high demand for loans in 1998 and beyond.

In ***Indonesia***, POSTEL began tender procedures for the award of two national licenses and separate DCS 1800 and PHS licenses in seven areas. When PT Primasel and the Indosat/Telkom/INTI consortium obtained their regional license, both groups turned to JP Morgan for advice. As the currency crisis hit Indonesia, however, POSTEL decided to slow down the process, aware that companies would have difficulty in producing the amounts needed to pay for license fees and building networks. The high number of licenses on offer suggests that the market might become saturated with too much choice -DCS (Distributed Communications Systems), GSM (Groupe Special Mobile: Global System for Mobile Communications), and PSH received offers in each region- which might play against investors' interests. However local analysts remain positive, especially as less than 1 million Indonesians have taken up mobile telephony in a country with a population of 200 million.

Plans for new licenses in ***South Korea*** also had trouble following the collapse of the region's stock exchanges. The Ministry of Information & Communications announced auctions for new local telephone, long-distance, and wireless services licenses to be awarded in June 1997. Two were issued by August. The Hanaro Tongshin consortium (including Dacom, KEPCO, Samsung, Hyundai, Daewoo, SK Telecom and Thrunet) received a local service license and Onse Tongshin (backed by a group of South Korean companies) collected a domestic long-distance license to compete with Dacom and KT. No further news on these two companies' plans was available after the stock market crash in late 1997.

Much talk about new PCS (Personal Communication Service) licenses in ***Singapore*** resulted in the TAS finally issuing tender documents during the autumn of 1997. The deadline was 31 December 1997. Interest from potential licensees was likely to be high, although TAS had stated a preference for high quality mobile services. StarHub, TelecomOne, and Direct Line prepared bids for two fixed licenses to be issued during 1998. StarHub announced the appointment of UBS as financial adviser, while TelecomOne picked ABN-AMRO. Direct Line expected to handle its bid with the support of its backer WorldCom. The new licensees will have to wait until spring 2000 to start services, as Singapore Telecom retains its monopoly on domestic fixed telephony until then.

In other countries new licenses have not caused quite so much activity. The ***Vietnamese*** authorities awarded one mobile license to Saigon Postel and two Business Co-operation Contracts (BCC) licenses, to France Cable & Radio and NTT respectively for fixed line projects in Hanoi and Ho Chi Minh City. Negotiations on two other BCCs with Cable & Wireless and Telstra were still continuing at the end of the year. Meanwhile, in the Philippines, the proposals for PCS licenses underwent a number of revisions and the process of tendering was set to continue into 1998. BellTel finally received its fixed license in October, following a court judgement against the regulatory authority. BellTel began looking for financial support to build its 300,000 line network across 150 cities.

There appeared to be a general reluctance to take out fixed licenses in ***India***, despite those awarded early in 1997 to Bharti, backed by STET (Madhya Pradesh circle) and Reliance (Gujurat circle). To encourage more operators to make commitments themselves, DOT set a new deadline, and introduced changes to the license agreements. For many candidates, the outlay of a hefty license fee was a major obstacle, given the difficulties experienced in fund raising for building and equipment. The new license conditions included easing certain financial restrictions which should help financial institutions reduce their risk.

However, several operators still sought extensions of the deadline for payment of license fees, notably Tata Teleservices, Essar, and Basic Teleservices. Bharti expanded its activities by taking up a license in the ***Seychelles*** in October. Early in the year, the ***Nepalese*** Government did not issue GSM licences as expected, preferring to first establish an independent regulatory authority. Legislation was passed late in 1997, and the procedures for awarding new licenses in GSM and paging will now take place. Preparations for the privatisation of the national operator, NTC, began with the appointment of Andersen Management International as advisers.

Bangladesh issued its first three GSM licenses to GrameenPhone, TM International (TMI), and Integrated Systems. All three have foreign links. Integrated Systems and TMI are backed by ***Malaysian*** companies, GrameenPhone by Telenor of Norway. GrameenPhone was reportedly seeking a US$90m debt and equity package with the Asian Development Bank, IFC, and the Commonwealth Development Bank for its project planning needs.

In ***Hong Kong*** plans for new CAS and PHS licenses were postponed indefinitely because the regulatory body, OFTA, worried that market conditions were not sufficiently well established to maintain additional competition. A less open policy on the part of the new ***Chinese*** authorities may make investors wary of becoming involved in the island's telecommunications market, particularly the mobile sector.

F. Expansion in China

In ***China***, the growth area was mobile communications. Early in 1997, the Ministry of Posts & Telecommunications announced plans to increase the number of mobile subscribers from 7 million to 11 million by the end of 1997 and up to 30 million by the end of 2000. By August the number of mobile subscribers in China had already reached 10 million.

In the Shanghai region there was fierce competition. Shanghai PTA expected to double its subscriber list, having added a DCS license to its analogue and GSM services, and smaller rival Lian Tong intended to match that. Shanghai PTA divided its network contracts between Nokia and Ericsson, each expecting to provide an additional 150,000 lines. NTT started a joint venture with Shanghai PTA (Shanghai NTT Telecommunications Engineering) to expand the local operator's GSM network. Shanghai Changcheng Mobile Communications finalised its negotiations for the biggest CDMA (Call Division Multiple Access) network supply contract in China with Samsung Electronics. With this deal, the regional operator will install a network covering 20 cities starting with 68,000 lines in Shanghai. In 1997 DCS networks were also installed in Beijing, Guangdong and Fujian.

The American company AVIC Group International was also very active in ***China.*** Through its local subsidiary, Hebei United Telecommunications Engineering Co. (shared with the Hebei Electronc Industry Commission), AVIC signed with the Hebei cable television to expand services for its 630,000 subscribers. This came on top of a contract to expand the Hebei monopoly cellular operator by adding 30,000 new subscribers. AVIC then went on to acquire the American Network Technologies data network.

In the fixed network market, Lian Tong Telecommunications prepared to launch ***China's*** first competitive local service. Backed by Sprint and Sumitomo Bank, Lian Tong intended to offer alternative service in 8 cities during 1997, starting with Tianjin, Chengdu and Hefei. Through its new subsidiary, China Unicom Long Distance Communications Co, Lian Tong launched its first fixed network in Tianjin in July 1997. It was making progress on the second network for the Sichuan region. Lian Tong and China Unicom continued to consolidate their strong position with agreements on interconnectivity for Liang Tong's paging network and fibre optic networks with China Rail.

G. New Equipment Contracts

With all the new activity and network building from the previous year, the major telecommunications equipment manufacturers had a busy year. A lot of new contracts came on the market and financing was available, especially in the earlier part of the year. Generally speaking, all Western manufacturers did well. Their proven expertise and reliability was sought by many new and existing operators. But the crisis in the second part 1997 made negotiations more difficult. Many new contracts were linked to the new mobile licenses, where competition is now well-established, but several countries encouraged installation of new fixed and wireless networks with the promise of licenses for basic and nation-wide services. In particular, Western manufacturers obtained a number of equipment contracts in ***China*** for GSM networks, switching systems, infrastructure equipment, and satellite-based systems. Many new deals announced throughout the second half of 1997, indicated that, despite the crisis in the rest of Asia, confidence in the future of Chinese telecommunications markets remained high. These contracts were spread amongst the major companies (US, European, and Japanese) but others were awarded to Tricom Holdings **(*Hong Kong*)** and Tadiran Telecommunications of ***Israel***. At the same time, NEC and KDD established new companies to provide engineering and consulting services in China. NEC created a joint venture, Guilin NEC, with Lijiang Radio Factory in the Guangzi Province, while KDD established KDD Shanghai Communications Consulting Co. in Shanghai. Another joint venture linked IPC Corporation with Nanjing PT to make WLL products in China. Ministry figures issued in November 1997 reported telecommunications product imports valued at US$890m for the first three quarters of 1997.

H. Conclusions

Overall, 1997 was a better year for telecommunications entrepreneurs in the Asia/ Pacific region than anyone might have thought during the autumn. Although the process of freeing national operators from their monopoly positions still has a long way to go before reaching the level of competition European principal operators are now facing, there is room for newcomers to take a significant market share in the peripheral sectors of mobile, paging and wireless communications. By gradually building up their experience of launching new services and building networks, many of these operators will be better placed to challenge the established operators in the more difficult sector of fixed national or regional services. The lending institutions will carefully watch the way in which the various national regulatory authorities make sure fairness and transparency are brought to bear on all operators, ensuring fair opportunities for market development, and hence good returns on investment.

Table

Key Recent Deals in the Asia/Pacific Region

Country	Borrower	Deal type	Amount	Terms	Arrangers	Comment
Australia	Telstra	Syndicated loan	A$3 billion		JP Morgan, CS First Boston	payment of government dividend on IPO.
China	Guangxi PTA	Loan	US$26 million	4 years 3 months, at 1.50% p.a. over Libor	Deutsche Bank, United Overseas Bank	Expansion of cellular network
China	Heilongjiang PTA	Loan	US$41 million	5 year,	United Overseas Bank, Commerzbank	Equipment lease
China	Liaoning PTA	Term loan	US$41 million	1.68% p.a. over Libor	Korea Development Bank	Delivery of Ericsson equipment for GSM network
China	New Century International Leasing	Loan	US$98 million		Svenska Handelsbanken, ING Bank	Purchase of Ericsson GSM equipment for lease to Shandong PTA
China	Shenyan Nortel	Syndicated loan	US$40 million		DKB Dalian, Commerzbank, IBJ, OCBC	
Hong Kong	China Everbright	Loan	US$1.05 billion	1 year, 20 bp over Libor	China Construction Bank, CICC, China Development Finance, HSBC, Goldman Sachs, HSF	Purchase of 900,000 HKT shares
Hong Kong	China Telecom (HK)	Loan	US$860 million	2 year, 20 bp over Libor, underwriting fee at 2 bp, management fee of 13 bp	China Construction Bank, China Development Finance, CICC	Secured against 644m Hong Kong Telecom shares
Hong Kong	P-Plus Communications Ltd	Term loan.	US$20 million	No ECA cover. Additional US$50m available	Merita Bank, Den Danske Bank	Initial deliveries of Nokia equipment.

Hong Kong	Telpo Communications	Term loan	US$200 million	3 year, 122 over Libor	Credit Lyonnais, LTCB, Sanwa	Financing for Ericsson equipment.
India	Birla AT&T	Loan	US$283 million		Bank of America, Toronto Dominion	

India	Birla AT&T	Non-recourse syndicated loan	US$283 million, of which US$40 million (approx.) in rupees.	55 bp for US$4-10m, 70 bp for US$10-14m, 85 bp for US$15m.	Bank of America, Toronto Dominion	
India	BPL Cellular Holdings	ADRs	US$100 million		SSKI Corporate Finance	
India	Escotel Mobile Communications	Loan	US$129 million	7 year	Chase Manhattan	
India	Modicom	Bridging loan	US$60 million		ING Barings, GE Capital	
India	Sterling Cellular/ Aircel Digilink	Bridging loan	US$100 million		UBS	
Indonesia	MGTI	Limited recourse loan	US$480 million.		ANZ, Deutsche Morgan Grenfell, DKB.	Construction of 400,000 lines in central Java
Indonesia	Mitratel	Loan	US$130 million		ABN-AMRO, ING Barings, Sanwa	
Indonesia	Satelindo	Loan	US$132 million		Paribas,	GSM equipment
Indonesia	PT Mobisel Selular Indonesia	Short term loan	Rp75 billion		PT Makindo Securities, Bank Umum Servita	Commercial launch of NMT 450 service.
Korea	Korea Telecom	Bond	US$200 million	10 year, at 98.994 with 7.625% coupon, 90 bp over Treasuries.	Saloman Bros, Citicorp, Daewoo Securities, Morgan Stanley	
Korea	Shinsegi Telecomm	Loan	US$100 million	5 year, at 70 bp over Libor	BoT-Mitsubishi, BNP, Cho Hung Bank, HSBC Kookmin Bank, KEB	

Korea	Shinsegi Telecom	Club loan	US$30 million	5 year, 65 bp over Libor, fee of 60 bp	Hanil Bank, KEB, Kookmin, Sanwa	
Korea	SK Telecom	Yankee bond	US$230 million	7 year: at 99.559, 7.75% coupon, 94 bp over Treasuries.	Merrill	
Korea	Thrunet	Loan	US$40 million	5 years, 70 bp over Libor	BoT-Mitsubishi	

Japan	NTT DoCoMo	Bond	Y10 billion	5 years, at par with coupon of 1.60%	DKB International	
Malaysia	MBNS	Loan	M$500 million		Aseambankers, Malayan Banking	
Malaysia	Telekom Malaysia	Loan	US$400 million	7 years at 25 bp over Libor and 10 years at 30 bp over Libor.	BoT-Mitsubishi, BZW, Chase, IBJ	Acquisition of stake in Telkom of South Africa
Pakistan	Pakistan Telecommunic ations	Loan	US$50 million		ABN-AMRO	
Pakistan	PTCL	Bonds	US$250 million	6 years, 225 bp over US Treasuries.	ABN-AMRO, Citibank	
Philippines	Eastern Telecom (ETPI)	Loan extension	US$30 million			from Alcatel for equipment sales
Philippines	Eastern Telecom (ETPI)	Bridging loan	US$40 million	1 year, 150 bp over Libor	ING Barings	Financing for 300,000 lines using Alcatel equipment
Philippines	ICC	Loan	US$70 million		Chase Asia	Investment in Telic Phil backbone project and working capital
Philippines	Infocom Communicatio ns Network	Loan	US$15 million		ABN-AMRO	
Philippines	PLDT	Bond issue	US$500 million	10 years at 99.924 with 7.85% coupon, 150 bp over Treasuries 20 years at 99.624 with 8.35% coupon, 170 bp over Treasuries	Goldman Sachs, Citibank	
Philippines	PLDT	Loan	US$24 million		Japan Eximbank, Bank of America, Sumitomo Trust	Telephone equipment from Marubeni Corp.

Philippines	Smart Communications	Loan	US$85 million	2 years	ING Barings	
Philippines	Smart Corporation	Loan	US$112 million		FEB, Land Bank of Philippines, UCPB	

Taiwan	Far EasTone Telecommunications	Bond/bank guarantee/ NIF convertible	NT8.66 billion		Citibank Taipei	
Taiwan	Pacific Communications	NIF	NT$6.6 billion	7 year,	ICBC	Funding of Siemens' DCS 1800 network construction.
Taiwan	Pacific Communication Services	Performance bond	NT$6 billion		ICBC	
Thailand	AIS/Shinawatra Computer & Communications	Loan	US$130 million	3 years with margin of 40 bp over Libor	BA Asia, Paribas	
Thailand	AIS /Shinawatra	Loan	US$23 million		BA, Svenska, Handelsbanen	
Thailand	Total Access Communications	Long term loan	US$104.805 million	7 years	Chase, Citicorp	N-AMPS equipment
Thailand	TAC	Revolving credit	US$200 million		UBS	
Thailand	UCOM	Loan	US$60 million		ABN-AMRO	
Vietnam	VNPT	Loan	US$30 million		ABN-AMRO	Oversubscribed.

5. EUROPE AND CIS COUNTRIES

A. Introduction

Financial institutions in the European Time Zone cater to the needs of telecom projects in markets ranging from the most developed in the world to some of the least developed. The risk profile of a project in a developed market can be similar to one from an emerging market, however, as market risk rises with the number of operators. Hence, a third or fourth mobile operator in a western European economy may be obliged to seek substantial shareholder support, much like an operator in a CIS republic. What emerges in the following chapter is the growing variety of financing options available to innovative borrowers.

B. Background

The introduction of full competition to the European telecommunications market from January 1, 1998 suggests a coordinated approach to regulating the industry. Varying degrees of deregulation have created significant differences between European markets, however. In non-EU European countries there are even more variables, with both international operators and new local companies competing for opportunities in the newly privatised sector.

C. Sources of Capital

Telecommunications operators use a variety of financing techniques based on market conditions and risk factors. These range from project financing to equity funding, initial public offerings, and refinancing of existing loans.

Project finance facilities are often used to get new GSM projects off the ground. For example, the Lit1.8tr loan for Omnitel Pronto Italia in ***Italy*** was arranged by BCI, Chase Manhattan, JP Morgan and UBS in November 1995.

Raising capital from equity is appropriate when sponsors have huge cash resources and are likely to fund the first few years of the project from equity. This was the case with the E2 mobile phone project in ***Germany***, with its three ‘cash rich’ sponsors Viag, British Telecom, and Telenor.

Initial Public Offering (IPO) is used as a borrowing method for new operators who sell new technology with an untested subscriber uptake. With major help from its arrangers, Ionica (promoter of a fixed radio access network based on new Northern Telecom technology) managed to achieve a successful IPO and raise £300m from banks in the UK.

Refinancing is required when companies change their structure. Financiers must keep up with the ever-changing corporate scene. Cable & Wireless Communications, for example, was once a mobile phone operator and three separate cable companies. It is now a large, diversified group. As a result, existing loans have had to be refinanced and borrowings brought up to date to suit the new company structure.

D. Mobile Phone Financing

Throughout Europe the raising of funds for mobile phone networks is still the main thrust of bank lending to telecommunications companies. Banks are generally keen lenders to this sector, but growth is not likely to continue indefinitely.

For example, in a small country like ***Denmark*,** which already has two successful GSM operators, financiers have to question the likely business prospects for the holders of third and fourth cellular licenses.

Although the ***UK*** already has four mobile operators (Vodafone, Cellnet, Mercury One-2-One, and Orange), banks have confidence in the business there. Orange raised a successful £1.2bn project finance facility through JP Morgan Securities and Chase Manhattan in 1995. In the autumn of 1997, Hutchison Telecommunications (UK) and its parent company Orange plc managed to refinance and increase that original deal to £1.75bn for overseas investments with a reduced margin (from 1.5% - 1% base points (bp) over Libor). The company is one of the shareholders in Connect Austria, ***Austria'****s* third-largest GSM operator. Orange now has more than 1,200,000 subscribers and is available to 96% of the population in the UK. Bankers were lending on the strength of Orange's performance in the UK and the belief that its success can be repeated elsewhere.

In ***Italy***, Omnitel Pronto Italia (OPI) – the second GSM operator – is similarly successful. BCI, Chase Manhattan, JP Morgan, and UBS received a mandate in June 1997 for a Lit2.8tr facility for the company. The deal was an amendment and increase of the Lit1.8tr project loan arranged in November 1995, maturing in 2005 and priced down from 175bp to 100bp over Libor. This successful deal raised a total of Lit4.48tr from the market, although it was not increased. Funds are slated to accelerate its build-out and enhance its coverage. OPI, which started operations in December 1995, had 2.4 million subscribers by January 1998.

Airtel By-Passed Project Finance

In ***Spain*** the success of the second GSM operator, Airtel, enabled it to replace its original bridging loans (via BCH and Banco Santander) with a Ptas60bn eight-year loan through the European Investment Bank (EIB), thus by-passing a project finance facility offered by private banks. Airtel's original funding came as bilateral loans from bank shareholders.

The successes of Orange and OPI can obscure the fact that the arrangement of a large debt financing is a challenge. Bouygues Telecom**,** ***France*****'s** third digital cellular operator and first national DCS 1800 operator, had to restructure its large loan facility after launch . Arrangers (ABN Amro, BNP, JP Morgan, and WestLB) tried to syndicate a FF15bn loan for Bouygues Telecom during the summer 1997. However, British and North American banks were perturbed by the lack of financial covenants for the first four years of the deal because under-performance would go undetected in the early years. Arrangers appeared to assume that, providing the network was properly built, Bouygues Telecom would be profitable and financiers would be willing to take that risk.

When the facility was structured the lead banks took the view that, as France is massively under-penetrated, the priority would be to build out the network as fast as possible to the highest possible quality. There would be therefore heavy drawing in the early years, with potentially high subscriber ship later on. The arrangers drew on experience from the evolution of the cellular market in western Europe and assumed that banks would understand the need for Bouygues Telecom to provide a high quality service early on.

For the arrangers, the deal did contain provisions to protect lenders, including an availability schedule reflecting the business plan, a regular population coverage test, and FF1bn in contingent equity from shareholders in case the project was delayed.

Nevertheless, the deal was restructured in response to wide criticism from banks. The new term sheet included an availability test linked to subscriber growth, which will be a condition for drawing. Also, from June 1999 a minimum revenue per subscriber clause comes into effect which takes account of the fact that, although the correct number of subscribers may have been reached, they may not yet be generating enough revenue. The final deal was very similar to what some banks had originally offered Bouygues Telecom.

E. Knowing the Competition

A question of increasing relevance to holders of third or fourth mobile phone licenses is how many operators are already competing in their market. Test cases are come from ***Denmark*** and the ***Netherlands.*** In Denmark, France Telecom-backed Mobilix owns the third and fourth licenses. France Telecom asked for arranging bids on a DKr1.6bn financing. This created ill-feeling because the arrangers got a 150 basis points arrangement fee. But Denmark is a small country and between them the first two operators already have 30% of the market. ABN-Amro and Credit Lyonnais with Unibank and Den Danske were ultimately awarded the mandate for the loan. The pricing will be watched with interest by competitors.

Shareholder Issues Cause Delay

The complexity of shareholder issues may hold up the financing of successful projects. In May, lead bankers to mobile operator E-Plus in ***Germany*** agreed to go ahead with a DM600m increase to their existing project finance facility. Equity was also increased by DM630m to meet the company's new target of 95% geographical coverage by the end of 1998.

However, negotiations were held up for months by shareholder issues. When RWE pulled out of the E2 project in Germany there were immediate discussions over how it could buy into E-Plus. In February, RWE and Thyssen (lead shareholder in E-Plus) could not agree on the value put on Thyssen's assets by RWE. While these negotiations continued the banks were stalled. If RWE had joined, the original facility would have been prepaid and there would have been no call for increased funding.

F. Tracking International Moves

The increasing globalisation of telecommunications was demonstrated last year by the attempted merger of British Telecom and MCI to form Concert. Concert was quickly able to raise more than US$14bn from the market without paying any arrangement fees or upfront fees. Concert actually wanted a US$10bn syndicated credit to support the merger. It was arranged by Bank of America, Chase Securities, Citibank (as global co-ordinator) and JP Morgan. Concert was not entitled to draw on the facility until the merger was complete. However, Worldcom's US$37bn bid for MCI won, and bankers expect MCI/Worldcom to return to the syndicated loan markets this year to arrange a roll-up of the two companies' credit facilities. NationsBank is expected to lead any financing.

G. Sophisticated Borrowers' Behaviour

One new trend in Western Europe is for sophisticated operators to devise complicated facilities which maximise opportunities across all financial markets. A leading example is Cable & Wireless Communications (CWC) in the ***UK***. CWC was created in April 1997 from the merger of Mercury Communications and three cable companies, Nynex Cablecomms, Bell Cablemedia and Videotron. The company had originally set up a £2.9bn two-year bridge facility through Chase Manhattan, Toronto Dominion, and HSBC. When news of its refinancing emerged, CWC planned to borrow in several different markets and looked at a number of institutions, both investment and commercial banks, to lead different parts of the financing. The original loan refinanced all of the four constituent companies existing debt except for four high yield bonds-two for Bell Cablemedia and two for Videotron. These could cause problems because the bondholders are unlikely to surrender them early and the cost of refinancing could be prohibitive.

Similarly, in ***France*** alternative network operator Telecom Developpement (owned by Cegetel and SNCF) is in advanced discussions with banks over a highly innovative set of funding proposals. Cegetel, whose majority shareholder CGE is leading the talks, is considering a multi-pronged strategy that incorporates a general corporate loan, a securitisation based on its subsidiary SFR's client-based receivables, and high yield debt or something more innovative. Vendor finance is also likely to feature. SFR is a joint venture of Cegetel (70%) and Vodafone (30%). It seems that the finance team at CGE is so strong there is no need to appoint a bank adviser. Existing bank lenders to SFR may not like the securitization plans, but CGE, a strong corporate name in France, may be successful.

Virgin: Identification of a Niche

In the mature markets of western Europe, the success of some deals depends on identifying a niche. Banque Paribas had great success with Virgin Radio in the UK. A year ago Bankers Trust and Banque Paribas arranged an £18m recapitalisation facility for Virgin Radio, the purpose of which was to buy out initial shareholders, including Apax Partners, and replace shareholder equity with bank funding. However, at the end of the year when Ginger Media Group acquired Virgin Radio, Banque Paribas saw an opportunity to arrange £42.5m in loan facilities for the acquisition. Apax Partners bought back in, convinced that under Ginger Group leadership Virgin Radio had greater growth potential.

H. Challenges of Technology

New technology has presented the telecommunication industry with some challenging fund-raising problems. In the ***UK***, Ionica provides fixed telephony services for residential and small business customers using a fixed radio access network. Ionica hopes to become the principal national alternative provider of such services throughout the UK. The company was founded in 1991 and allocated 30 MHz of national radio spectrum in 1993. It developed technology with Nortel and is now building its network in a phased national rollout designed to provide coverage to over 80% of the population by the end of the fiscal year 2001/2002.

Ionica appointed SBC Warburg to lead manage its IPO, with co-leads ABN-Amro, DLJ, and JP Morgan. The deal was successful, with an oversubscription mainly because it was smaller than expected.

On the debt side, arrangers of a £300m facility- Banque Paribas, SBC Warburg, and Société Générale were joined by Northern Telecom International Finance taking £100m, as an underwriter. Although the deal was successfully underwritten by Toronto Dominion, Royal Bank of Scotland, GECC, and NationsBank, syndication banks were generally wary. The arrangers aimed to sell down between £60m and £80m, but they had achieved only the bottom end of that range when the deal was closed. Ionica does not need to draw funds until the end of 1998 and banks will probably hold off until the company has more of an operational track record.

I. Capital Raised by Carriers

Promoters of broad international projects such as Hermes Europe Railtel BV (HER) have been helped enormously by having GTS (Global TeleSystems Group Inc) as a major shareholder. The project is to develop a 17,000km pan-European high capacity fibre optic network designed to connect Central and Western Europe. It successfully raised US$265m in a private placement in August 1997 led by DLJ, with UBS Securities and Lehman Brothers as co-leads. The issue was rated B3/B. Separately, major shareholder GTS also issued a US$135m convertible bond, partly to fund its involvement in HER. Hermes is still considering bank finance.

COLT Telecom met its capital expenditure through to mid-1999 and gave the emerging European high yield market a boost by issuing twin DM150m and £50m 10 year notes and £98.3m in equity. Morgan Stanley and Dresdner Kleinwort Benson were ‘co-leads’. Moody's Investor Services assigned a B3 rating to the bonds, noting that controlling shareholder Fidelity had already committed US$106m to the project. The offer of 16.8 million new shares was priced on the market at 585p. In December 1996 the IPO shares sold at 275p. Proceeds are for capital expenditure on COLT's European network. Negative cashflow is expected in all markets for some time and COLT expects to go to the capital markets again in 1999.

J. Cable Funding

The cable industry in the ***UK*** still needs funding as the trend towards consolidation continues. Successful deals exist for established operators. General Cable put in

place a £500m consolidated finance which would take out its existing credit facilities arranged separately by franchise. It was to take out financings for Yorkshire Cable Group, and the Cable Corporation. CIBC, NatWest Markets, Paribas, and Toronto Dominion were mandated in 1997.

At the end of 1997, Comcast came to the bank markets through Bank of New York and Banque Paribas for a £200m three year financing of its Cambridge and Teesside cable TV franchises. Both are successful franchises with high penetration, and already cashflow positive. Comcast's US parent also received a US$1bn investment from Microsoft. The deal appealed to Comcast relationship banks.

In 1997, the £875m loan for NTL was awarded to Chase Manhattan, which amended the covenant structure after looking for co-arrangers. This reflected the fact that bankers still demand a convincing business case and appropriate pricing and loan structures. The deal was underwritten by Chase Manhattan although, with NTL needing funds by the middle of 1998, the arranger may now try a different approach.

K. Funding for East European Cellular Telephony

In Eastern Europe, telecommunications operators have achieved very low pricing, particularly in *Poland*, ***Hungary*** and the ***Czech Republic***. Strong international corporations, often working in co-operation with local companies, contribute technical competence, and good contacts with international banks which they have used very effectively to put downward pressure on pricing. The enormous demand backlog for fixed phones has virtually guaranteed success for all cellular phone projects so far.

This downward pressure on pricing is particularly noticeable for cellular deals where, based on the extraordinarily high demand for services, borrowers can extract terms much finer than those achieved in western Europe. In ***Poland,*** for example, a DM175m revolving credit and DM200m loan was recently syndicated for PTK Centertel. It was arranged by Société Générale with Rabobank, ABN-Amro, and Crédit Lyonnais. Also in ***Poland***, syndication of GSM operator PTC's DM672m deal via Citibank offered all-in pricing of 95 basis points over Libor.

In the ***Czech Republic,*** RadioMobil mandated Credit Lyonnais and Bayerische Landesbank to arrange a DM300m loan facility. Also in the ***Czech Republic***, EuroTel, the joint venture of SPT (with 51%) and Atlantic West (Bell Atlantic and US West) (with 49%), completed a US$400m revolving credit arranged by Citibank and Chase Manhattan. As an indication of the growth level that lenders expect from some projects in Eastern Europe, subscriber numbers grew by 342% in 1996.

In ***Slovakia***, the DM216.5m financing for Globtel, backed by France Telecom and ***Slovak*** power companies, was oversubscribed. Arranged by ING Barings, the deal

is understood to offer a margin linked to debt/EBITDA performance with a top rate of 90 basis points, reducing to 25 basis points over Libor when the ratio is less than 2:1.

Another France Telecom-led mobile operator, MobilRom in ***Romania***, mandated ING, Société Générale, and the IFC to put a bridge facility in place with a view to progressing towards project finance. The deal is for around US$200m. Meanwhile, also in ***Romania***, MobiFon finalised a US$190m finance package via the European Bank for Reconstruction and Development (EBRD) and a consortium of commercial banks. The A loan was priced at 325 basis points over Libor, while the B loan was priced at 305 basis points over Libor. Lead shareholders are TIW (60%), and AirTouch (10%), and Logic Telecom (16%).

L. Eastern European Privatisations

The wave of privatisations of state operators continues. In ***Poland*** state operator TPSA is preparing for privatisation this year. Other contests are going on in ***Romania*** (Goldman Sachs advising), ***Lithuania*** (UBS), ***Moldova*** (Rothschild), and ***Bulgaria*** (DMG). Banks were appointed in early 1998 to advise on privatisations in ***Estonia***. In addition, ***Macedonia***, ***Georgia*** and ***Kazakhstan*** seem to be moving towards privatisation.

Matav in ***Hungary*** launched its global share offering at the end of 1997. Against an estimated price range of US$18.48 to US$21.39 a share, the Matav ADRs were priced at US$18.65 despite being launched into a market concerned about emerging market debt. Retail shares were priced at Ft730 per share. The 18% institutional tranche was three times oversubscribed, as was the local tranche, which was raised from 2% to 5.9%. The sellers are Hungarian State Holding Company and MagyarCom (Deutsche Telekom/Ameritech). Matav has the monopoly for fixed and basic services until 2001. Deutsche Telekom and Ameritech bought 67% of the operator in 1993 and 1995.

In one of the most protracted regional privatisations, the ***Russian*** Government is expected to sell a 24% stake in the telecommunications holding company Svyazinvest in the second quarter of 1998, according to Privatisation Minister Farik Gazizullin. Parliament must first approve the sale.
In July 1997, Uneximbank and MFK Investment bank led a consortium in the purchase of 25% of Svyazinvest for US$1.875bn. Svyazinvest owns controlling stakes in 85 regional telecommunications companies in ***Russia***, as well as the long-distance provider Rostelecom. The sale of a 24% stake could raise US$3-4bn.

Vimpelcom Loan

In ***Russia,*** due to lack of interest from international banks, the local operators have funded themselves from supplier credits. There has been one recent example of external financing for Vimpelcom, which is building a cellular network in Moscow. By January 1998, the network covered key areas of Moscow and the airport.

ING has arranged a US$90m loan for Vimpelcom which involves taking out commercial risk on existing Ericsson leases. In addition, about one third of the facility will provide further finance for Vimpelcom's D-AMPS network. EKN is believed to be providing political risk cover for 75% of the deal.

Further capital could be raised this year by the sale of more shares. Vimpelcom's IPO took place in 1996 when a total of 5,240,000 shares were offered for around US$20 per ADS via DLJ and Renaissance Capital. Another US$100m was raised through the same banks in a secondary offering in April 1997.

In ***Hungary,*** DLJ and Robert Fleming have been appointed to advise the local operator holding company, HTCC, on acquisitions and long term capital restructuring. Its financing plans for 1998 could involve a secondary share offering. This would allow the company to retire existing debt with Postabank and raise capital for potential acquisitions. HTCC, a locally-owned company, is funded mostly through local banks to avoid currency risk. However, local institutions do not have the limitless balance sheets of international banks. HTCC's principal shareholders are TeleDanmark (20%) and Citizens Utilities. Some 160,000 lines of the HTCC's projected 175,000 lines have already been constructed. To date funding has been provided by the Postabank-arranged deal and vendor finance.

Political Risk Still Exists

Political risk remains an obstacle to financing Eastern European operators. Bayerische Landesbank and Crédit Lyonnais apparently restructured their DM300m five-year loan to the ***Czech*** borrower RadioMobil because of political conditions. In particular, banks are concerned about the lack of clarity regarding the status of the present Government and the possibility of early elections. The deal was been replaced by a bridge of DM80m over seven months which could be extended to one year and increased if necessary. The pricing remains the same, at 30bp over Libor.

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potential acquisitions. HTCC, a locally-owned company has been funded mostly through local banks to avoid currency risk. However, the local institutions do not have the limitless balance sheets of international banks. HTCC's principal shareholders are TeleDanmark (20%) and Citizens Utilities. Some 160,000 lines of the HTCC's projected 175,000 lines have already been constructed. To date funding has been provided by the Postabank-arranged deal and vendor finance.

M. Impact of Large Privatisations on the Financial Market

European privatisations had a successful year. By sheer size of transactions, European privatisations dwarfed other types of financial transactions in the region in 1997. France Telecom and Telecom Italia raised multiple billions of dollars, with further tranches of Portugal Telecom, OTE, and Tele Danmark sold. Privatisations due in 1998/9 are Telecom Finland, Swisscom, PTA (Austria), and possibly Turk Telekom. ***Sweden*** and ***Norway*** are still officially holding out against privatisation, although there are signs that Telenor will be allowed to raise private equity in some way.

The ***Austrian*** Government opted to find a strategic partner for PTA prior to flotation. The company appointed UBS as adviser. Ameritech acquired the ***Danish*** Government's remaining 34.4% stake in Tele Danmark, completing its transfer to the private sector.

Timing was felicitous for the huge France Telecom and Telecom Italia share offerings, coming just before a significant stock market correction in late October 1997. Treasuries in both countries secured excellent value. The key aspect of both issues was large demand from retail investors. In ***France*** 3.9 million retail investors bought shares. In ***Italy*** 2.1 million shares were bought.

This was higher than the 1.9 million retail investors in Deutsche Telekom's massive DM20bn IPO (25% of the capital) in late 1996, although in total almost 70% of the ***German*** offering was placed in German hands. Lead banks there were Dresdner, Deutsche and Goldman Sachs.

These arrangements indicate that timing is paramount for governments considering large privatisations. Coming at roughly the same time, there was a risk (unfounded in the event) that institutional investors could be distracted by alternative offerings. France Telecom started trading on the Paris stock exchange in October. BNP and Paribas were global coordinators for the FF42bn IPO.

The sale of Telecom Italia shares to strategic, institutional and retail investors raised Lit26trillion for the state. Global coordinators were BZW and Mediobanca.

The third tranche of Portugal Telecom was priced just before the French and Italian offerings, raising Esc364bn for ***Portugal***. Global coordinators were Banco ESSI, Merrill Lynch, SBC Warburg, and UBS.

In ***Greece*** the second offering of OTE shares was priced in June 1997, raising Dr307bn. The limited size of the Athens stock market meant that, in comparison to other European privatisations, a greater percentage (over 50%) of shares were placed abroad. Global coordinators were National Bank of Greece, HSBC, and Salomon.

The ***Swiss*** Government appointed SBC Warburg and JP Morgan to be global coordinators for the Swisscom sale. This could amount to 49% of the capital and fetch US$3-5bn.

N. Conclusions

Financing techniques are chosen to suit the risk profile of a project. Risks that concern potential lenders include political risks, market risks, and technology risks. A new cellular operation in Russia, where political risk is a concern, may be no more difficult to finance than a new cellular project in Germany, where excessive competition aggravates market risk.

Where risk is severe, promoters may be forced to inject substantial equity, followed by bridge loans from vendors or subordinated debt from banks or bond markets. This could lead to term project financing, and eventually a flotation in the public equity markets.

A difficulty facing sponsors is that banking is driven by trends similar to that seen in other industrial sectors. For example, the love affair of lenders with the mobile sector may peter out in 1998. Bankers have shown themselves to be relatively slow to risk financing cutting-edge technology, preferring to pass the burden to venture capitalists and other sources.

Table.-.Key Recent Telecommunications Financing in Europe

Borrower	Deal type	Amount	Terms	Arranger	Comment
Bouygues Telecom	Project loan	FF15bn	130bp over Libor	ABN-Amro, BNP, JP Morgan WestLB	The deal was restructured with tighter covenants
COLT Telecom	High yield bond	DM150m, £50m	8-7/8%, 10-1/8%	Morgan Stanley, Dresdner Kleinwort Benson	Good interest. Simultaneous £98.3m equity issue.
Comcast UK Holding Ltd	Project loan	£200m	Tranche A 225bp over Libor; Tranche B 187.5bp over Libor	Bank of New York, Banque Paribas	The deal has a 3 year lifetime
Concert	Term loan	US$10bn	4.5bp facility fee	Bank of America, Chase Securities, Citibank, JP Morgan	Facility could not be drawn until BT/MCI merger complete; now WorldCom.
E-Plus	Project loan	DM600m	200bp - 62.5bp over Libor	DMG	This is an increase to the existing DM2.7bn project loan
EuroTel	Revolving credit	US$400m	25bp over Libor	Citibank, Chase Manhattan	EuroTel is a jv of SPT and Atlantic West
General Cable	Project loan	£500m	200bp over Libor	CIBC, NatWest Markets, Paribas Toronto Dominion	Proceeds to refinance loans for subsidiaries
Ginger Media Group	Term loan	£42.5m		Banque Paribas	Will be limited syndication 1998
Globtel	Term loan	DM216.5m	90bp over Libor	ING Barings	70% will be funded by EIB and guaranteed by banks
Hermes Europe Railtel	Private placement	US$265m	11.50% coupon	DLJ	Issue was rated B3/B
Hutchison Telecoms (UK)	Project loan	£1.75bn	100bp - 40bp over Libor	Chase, JP Morgan	The deal refinances a £1.2bn 1995 project loan
Ionica	Project loan	£300m	2.5%-2% over Libor	Banque Paribas, SBC Warburg, Societe Generale	£100m underwritten by Nortel
Matav	Equity issue	US£1,040m	US$18.65 per ADR	Merrill Lynch, CSFB	Creditanstalt was lead manager for the retail offering.
MobiFon	Project loan	US$190m	325bp over Libor	EBRD	There are parallel loans from EDC

					and NIB.
Mobilix	Project loan	DKr1.6bn		ABN Amro, Credit Lyonnais, Unibank, Den Danske	Due to launch in 1998
MobilRom	Term loan	US$160m	245bp over Libor	ING Barings, Societe Generale, IFC	This is an IFC B loan
NTL	Project loan	£875m	275bp over Libor	Chase Manhattan	Chase trying to restructure deal
Omnitel Pronto Italia	Project loan	Lit2.8tr	100bp - 30 bp over Libor	BCI, Chase, JP Morgan, UBS	The deal was vastly oversubscribed
PTC	Project loan	DM672m	95bp over Libor	Citibank, ABN-Amro, Dresdner	Citibank Poland led a DM250m domestic tranche
PTK Centertel	Revolving credit & term loan	DM175m & DM200m	20bp over Libor	Société Générale	
RadioMobil	Term loan	DM300m	30bp over Libor	Bayerische Landesbank, Credit Lyonnais	Replaced by DM80m bridge
Vimpelcom	Term loan	US$90m		ING Barings	Takes out commercial risk on Ericsson leases.

6. GLOBAL, SATELLITE, AND SUBMARINE PROJECTS

A. Introduction

~~1997 was an expansive year for commercial satellite financings, with about US$8bn raised.~~ Over the past two years the financial community has changed its approach and become more willing to support satellite projects. Two factors drive the rapid growth of the satellite sector. Firstly, the end of the Cold War left aerospace contractors looking for business opportunities in the private sector. Secondly, new technology offers a cornucopia of advanced telecommunications services using a satellite platform, which the market is eager to exploit. Some new services, such as DBS television, have already won acceptance in several markets. Others, like mobile satellite services (MSS), remain to be proven. Assessment of these and other risk factors will determine the availability of private capital.

B. Full F~~f~~inance for Iridium and Globalstar

The most prominent success story of 1997 was the string of financing arranged for two of the main global MSS projects, Iridium and Globalstar.

In 1997, Iridium, the global wireless telecommunications service originated by Motorola, built on its previous fundraising through a US$240m public share issue, issuing a total of US$1.1bn in bonds, and through a syndicated bank loan which was so heavily oversubscribed that it closed at US$1bn. These activities provided enough funds for Iridium to take the project past the start of commercial operations. By the end of the year Iridium had launched 46 of 66 planned satellites in its Low Earth Orbit (LEO) network to reach world-wide coverage.

The Loral-inspired project Globalstar was also successful in 1997, raising US$1.15bn in total from the bond market, taking total funding past the US$2.6bn project cost. Globalstar now has enough money to introduce its service, which will employ 56 satellites (including 8 spares). It intends to launch the first ~~of its 'birds'~~ of these in 1998.

The financial successes of Iridium and Globalstar compensated widely for the cancellation, by both companies, of planned junk bond issues back in 1995. The companies' achievement (and that of their bankers) in raising such a large amount of capital is impressive since they are not yet achieving revenue.

Globalstar had its first success in 1997 when it launched US$250m of seven year senior notes with equity warrants in February and was able to increase the issue to US$500m, raising double the amount expected due to a receptive market. Globalstar'~~i~~s financial adviser Lehman Bros was lead bank, with co-managers DLJ,

Bear Stearns, and Unterberg Harris. Globalstar'~~í~~s share price has increased by 250-300% since its i~~I~~nitial p~~P~~ublic o~~O~~ffering (IPO) in early 1995.

Iridium came to market with its own IPO in 1997 and the share issue was oversubscribed. ~~The issue was increased by 2 million shares to 12 million at US$20 per share, raising US$240m.~~ Merrill Lynch, Donaldson Lufkin & Jenrette (DLJ), and Goldman Sachs were the underwriters~~ing banks~~. Most of the shares sold in the US. L~~L~~ead shareholder Motorola saw its stake fall to about 25% after the offering.

C. Orion S~~s~~ets the T~~t~~one

Orion Network System'~~í~~s massive US$710m high yield bond set an auspicious tone for the~~ whole~~ sector~~ right at the beginning of 1997~~ at the beginning of 1997. The Orion issue will remain among the largest ever public market satellite financings~~s~~ and was, at the time, the largest zero coupon issue in more than ~~over~~a year. Buoyed by a strong high-yield bond market, Orion took US$710m, having expected US$325m, fully funding its business plan, including upcoming satellites Orion 3 and Orion 2. Lead bank was Morgan Stanley, with co-manager Merrill Lynch.

~~The bond was in two tranches, both of 10 years. It was sold in units containing warrants to buy 2.62% of Orionís common stock. One tranche was a US$445m overfunded structure yielding 11-1/4%; while a US$265m (proceeds) zero coupon tranche was sold at a discount to yield 12-1/2%, the zero coupon period lasting 5 years.~~ A wide range of some 40 institutions bought into the over-funded tranche and 50 into the zero coupon tranche. Many of these were investors in Morgan Stanley'~~í~~s previous junk bonds for PanAmSat and Impsat.

A key element for investors was the simplification of the company's capital structure. Orion bought out a series of limited partnership interests so that it was left owning 100% of its operating subsidiary. This simplified structure was ~~much~~ appreciated by the market. The deal also showed the change in the market'~~í~~s acceptance of satellite projects over the past two years because, l~~L~~ike Iridium and Globalstar, Orion had had to abort a bond issue in 1995.

D. Too M~~m~~any P~~p~~rojects?

The large number of satellite projects formed in 1997 prompted worrying over excess capacity. A study by SRI Consulting, issued ~~came out~~in October, foresaw future price wars in wireless voice services. The study claimed that, although satellite voice services would initially target successful business professionals, who would be charged between US$1 and US$3 per minute, competition for this relatively small group of customers will quickly drive prices below US$1.

The Odyssey S~~s~~aga

The failed Odyssey project contrasts with Iridium's and Globalstar's success in attracting investors and lenders. Though the project was originated by companies of high reputation (TRW and TeleG~~g~~lobe) additional investors proved impossible to find.~~, and looked good on paper, but investors never materialised. TRW's CEO planned to announce investors for Odyssey in early 1997, but it later became apparent that expected shareholder Satelindo had dropped out~~.

Instead, TRW took a 7% stake in ICO, the London-based global mobile telephone project. This makes TRW one of the largest shareholders in ICO. TRW'~~s~~s stake is valued at US$150m. It appeared that TRW appeared to be getting it for no net cash consideration as legal actions between TRW and ICO would be simultaneously dropped (concerning TRW's claim that ICO's planned system was based on designs patented by TRW for Odyssey).

This peace treaty was seen as a coup for TRW, and a sensible solution for ICO, giving ICO hopes of accessing the US market more rapidly than would otherwise have been possible.

E. ICO B~~b~~uilds P~~p~~artners

ICO spent the year gathering together about 50 investors from around the world, and ended the year with equity contributions of about US$2bn. The company is expected to move on to the arrangement of debt in 1998, employing a combination of bank loans and bonds. Given the involvement of Chase Manhattan, which with Dresdner Kleinwort Benson, is ICO's financial adviser, it will be interesting to see whether ICO's financing model depends heavily on bank debt, as did Iridium's. (Chase Manhattan worked on Iridium's bank debt jointly with Barclays Capital.) ICO says it is aiming at a wider market than is Iridium, and at areas – such as maritime and aviation – in which Globalstar will not compete. ICO's system will be in Medium Earth Orbit (MEO) at about 10,000km; ~~that is~~ higher than LEOs, which orbit at roughly 1000km. ICO needs only 12 satellites in its system because of the broader footprint afforded by higher altitude. Project cost is estimated at US$4.5bn.

F. Inmarsat R~~r~~eform

ICO originated as a spin-off from Inmarsat – the international cooperative that provides worldwide mobile communications for commercial, distress, and safety use. Inmarsat began the year by working with investment bankers and lawyers on a model for commercialising itself ~~itself~~ and attracting the outside capital it needs to carry out its plans. Boosting competitiveness, increasing attractiveness to investors,

fine-tuning governance to allow quicker decisions, and adding value to shareholders were among the goals agreed upon by the Council.

A problem with Inmarsat’~~i~~s present structure is that its 79 signatories are required to invest in new projects in direct proportion to their holdings. For example, the US signatory COMSAT is obliged to find 23% of the cost of new investments. This arrangement has proved problematic in the past. Alternatively, r~~R~~eforms c~~sh~~ould allow the company’s signatories to invest in projects in amounts suited to their level of interest. This would permit share transfer and the participation of non-Inmarsat signatories, including strategic investors. Wholesale restructuring is deemed necessary for Inmarsat to pursue expensive plans such as its US$2bn Horizons project.

Progress toward restructuring gained impetus when, in November 1997, Inmarsat invited several top banks (DLJ, Morgan Stanley, Rothschild, SBC Warburg, and others) to make presentations with a view to being appointed as financial adviser on the restructuring process and on the subsequent IPO. But, many hurdles must be overcome before Inmarsat floats on the stock market, and the Council has deferred a decision on this matter until March 1998.

G. S~~s~~atellite P~~p~~rojects with R~~r~~egional F~~f~~inancing

While global projects and organisations attracted media attention, a regional ~~Middle East~~scheme was quietly but effectively building its capital. Merrill Lynch completed a US$500m private placement of equity for Thuraya, the satellite system that will provide mobile telephone services in the ***Arab*** region, ***Central Asia*** and ***Southern Europe***. Investors are mainly regional telecommunications companies.

Services by Thuraya will come on-stream from mid-2000 via a single geostationary satellite, possibly to be joined by a second if the first is successful.

By the autumn of 1997, Thuraya had 14 shareholders, including Etisalat (35%), Abu Dhabi Investment Co (20%), ArabSat (10%), Q-tel (10%), Dubai Investment Co (5%), and Gulf Investment Co (5%).

Hughes won the satellite supply contract, taking an equity stake of 2% with an option to take a further 3%. Hughes’ contract was valued at US$1.2bn over 12 years.

Earlier in 1997, a US$250m dollar financing for ***Asian*** satellite operator ACeS was notable for ~~attracted attention by~~being raised entirely among ***Indonesian*** banks, led by Danareksa. This was one of the largest ever US dollar-denominated loans to be arranged in ***Indonesia*** by local financial institutions. ~~The loan was for 7.5 years, and was priced at 400bp over 6 month Libor.~~ The facility was structured as a term loan with an option to issue promissory notes. The security package included a charge over all fixed and floating assets, insurance proceeds, and all major project contracts.

ACeS mandated its IPO to DLJ and Merrill Lynch at the end of 1997 and the IPO is expected in the first quarter of 1998. DLJ earlier won the mandate for a junk bond, which has been postponed. ACeS shareholders are PSN, PLDT and Jasmine. The US$700-720m ACeS single-satellite system (Garuda) is to be launched in early 1999. It will use dual-mode handsets, allowing subscribers to use GSM or AMPS networks where available and the satellite service in more remote areas. ACeS shares are expected to trade on NASDAQ and either the ***Hong Kong*** or the ***Singapore*** exchange.

Perhaps the single most important satellite sector event in ***Latin America*** during 1997 was the sale of SatMex, the ***Mexican*** satellite system. Lazard Frères and Invex (the Mexican investment bank) advised the Mexican Government on the sale, which took place during the second half of 1997. Bidders were required to submit the price they would pay for a 60% stake and indicate whether they wished to take up an option to acquire a further 15%. The contest was won by Loral Space & Communications in partnership with Telefonica Autrey. They offered US$692m for 75% of SatMex.

~~***Latin American DTH provider Innova successfully issued a US$375m bond in the spring. (The bond was issued at 99.311 and bore a coupon of 12.875%, yielding 13%. The bond is redeemable after 2002 at 106.4375, after 2003 at 103.29875, and at par after 2004. There is a 39 month equity call for 35% of the issue at 112.875). There was a US$118m overallotment for the offering which is held in escrow to cover three year interest costs. Morgan Stanley was lead manager, with Merrill Lynch co-lead. Innovaís shareholders are Televisa (60%), Rupert Murdochís News Corp (30%), and TCI (10%). Innova offers 72 video and 30 audio channels, and the company says it will break even upon reaching between 700,000 and 800,000 subscribers, which it hopes to do in three years.***~~

H. Lending to L~~l~~aunch S~~s~~ervice P~~p~~roviders

One of the most successful deals of 1997 was a US$400m loan facility for Arianespace, the satellite launch service provider. Arrangers were Credit Lyonnais (documentation, syndication, and facility agent), Société Générale, KfW, and ING Barings.

The arrangement included ~~deal~~banks lending to Luxembourg-based Arianespace Finance, a 100% subsidiary of Arianespace. That company then offered credit to customers of Arianespace under a full guarantee pre-launch. If~~,~~ at a pre-determined date about three months before satellite launch, the customer performs in accordance with a detailed market study, then the initial credit is replaced by a medium term project loan. Bank lenders are therefore fully guaranteed until launch and will advance longer term funds only if the customer satisfies pre-set criteria. This~~e~~ facility was made available as 12 year loans for six to eight launches. The structure of the facility, though common in the world of equipment finance, is believed to be a first in the satellite sector. Arianespace went into the deal to gain a competitive advantage in the increasingly tough launch services market.

The challenge in putting together the Arianespace financing was ~~lay in the fact~~ that it was ~~to be~~ offered to potential launch customers at the contract negotiation stage, before project risks were~~are~~ well defined and manageable. Normally commercial banks and ECAs would not be willing to offer financing at this stage. Satellite operators are usually forced to look to shareholder equity, vendor support, or the public markets.

Within the terms of the facility, customers are ranked in three categories reflecting their credit standing: Category 1 are operating companies, including rated investment grade and Standard & Poors BB rated entities. Category 2 includes companies that have entered into long term transponder leases or similar usage arrangements where the main risk is project or performance risk. Category 3, at which the bulk of the US$400m facility is expected to be aimed, typically includes start-ups with the additional factor of market risk. Category 3 customers would have the most difficulty in raising finance elsewhere.

The facility was put into action with a US$105m 18 month credit facility to CD Radio for launch services. The financing was priced at Libor plus 3%. Two CD Radio satellites, currently under construction at Space Systems/Loral, are scheduled for Arianespace launches in 1999. CD Radio is developing a satellite-to-car 50 channel radio service for the broadcast of music and other programmes to motorists throughout the US.

I. Market I~~i~~nfluence

Towards the end of ~~the~~ 1997, ~~year~~ the worldwide stock market turbulence ~~which also~~ affected the satellite sector, obliging a number of issuers to reduce or rethink their offerings. For example, CD Radio saw a Merrill Lynch-led common stock issue reduced from an expected 3.5m shares to 2.8m. Market conditions also obliged the NASDAQ-listed direct broadcast company EchoStar to reduce ~~slim~~ a common stock offering from 5m to 3.1m shares. However the full US$100m expected of EchoStar preferred stock was sold (DLJ was lead manager on both issues). Israeli-based VSAT satellite earth station manufacturer Gilat reduced its equity offering, both in terms of size and price. ~~2.5m shares were issued, after earlier expectations.8m. The offering price was US$8.50, at the lower end of indications. CIBC Oppenheimer was a~~Canadian direct broadcast satellite company Star Choice Communications abandoned one planned bond issue~~, then bounced back~~ with a different lead bank (NatWest Capital Markets), successfully issuing a US$150m bond.

J. The N~~n~~ext G~~g~~eneration of S~~s~~atellite C~~c~~ommunication P~~p~~rojects

The first revenue figures for Iridium should be reported by the end of 1998. The commercial success, or otherwise, of Iridium and Globalstar will have an important impact on the ease with which the next generation of satellite projects can raise funding.

The most widely discussed of these next generation projects are the global broadband ventures SkyBridge, Teledesic, and Celestri. SkyBridge was initiated by Alcatel, Teledesic by Bill Gates and Craig McCaw, and Celestri by Motorola. The combined project cost of all three is US$25.4bn (about the same as it cost the US to put a man on the moon). During 1997, representatives of the three projects were in confidential negotiations with potential suppliers and investors. O~~O~~nly after equity partners are established will the projects turn to bank debt and financial markets to reduce the gaps~~scale the heights~~ in their huge funding goals.

During 1997 SkyBridge secured the participation of an impressive array of investors. Alcatel, Loral, Toshiba, Mitsubishi Electric Corp, Sharp Corp of Japan, SPAR Aerospace, Aerospatiale, and the Société Régionale d’~~'~~Investissements de Wallonie have made equity commitments. So far most of the partners come from the supplier side of the industry, but SkyBridge plans to involve partners from among operators during 1998. Sixty-four ~~64~~LEO satellites are planned, to begin operations in 2001. With a project cost of US$3.5bn, SkyBridge is regarded by bankers a cost-effective solution.

Given the successful bank loan work done for Motorola’~~'~~s Iridium by Barclays Capital, the latter may play a role in the financing for Celestri, Motorola’~~'~~s next generation satellite project. Lessons Motorola learned~~learnt~~ from Iridium will be applied to the Celestri project, and this is likely to generate confidence on the technical front. Motorola may prefer a smaller circle of investors for this project in light of Iridium’s experience with the possible disadvantages of maintaining a large group. At present Celestri is simply a project name within Motorola, and will probably not be registered as a company until later in 1998. Total project cost is US$12.9bn, with operations scheduled to begin in 2003.

The amount of equity Matra Marconi Space has agreed to contribute to its US$1bn order for 70 LEO satellites and one GEO satellite is not known. However these satellites will not complete the constellation, so more orders are due to be placed.

Teledesic secured the support of Boeing, which is to take a 5% stake and the role of chief supplier. Teledesic plans to circle the globe with some 300 satellites, as opposed to the 840 previously planned.

K. Initial Proposal for Funding the Africa ONE Project

There are two basic elements to the Africa ONE financing strategy. The first is to maximise the carriers’ initial acquisition of capacity in Africa ONE and to provide aid, concessions, or other financing for carriers who do not have the economic resources to pay for or finance their capacity purchases. The second is to obtain additional sources of capital to fund Network costs, particularly in the form of equity

investments, in the event that initial capacity purchases are insufficient to pay for the costs of the network.

Upon executing its Capacity Purchase Agreement, each carrier will be required to make a 5% downpayment on the total amount of its capacity purchase requirement. Carriers who elect to prepay additional amounts will be given a purchase price discount calculated to reflect the Company’s lower financing cost.

Because the payments for capacity purchase commitments (other than down payments) are due at the Ready for Service (RFS) date, there is a need for construction phase financing. Construction financing will be provided by commercial lending institutions and will be supported by purchase commitments for term financing referred to below.

The developer is soliciting global providers of aid and concessionary financing to enable certain African countries to participate in Africa ONE and reduce the cost of their participation. Aid contributions will support the private/public sector initiatives that are essential to the future economic and social development in Africa.

To the extent that the total cost of the Network exceeds the aggregate amount of funds to be derived from carrier purchase commitments, the Company will likely seek support form non-carrier investors. Such investors will be entitled to certain investment protections, which may include the prior right to receive proceeds from the sale of capacity or restoration or other services, and to place restrictions on the Company’s ability to market and price capacity, issue debt, declare and distribute dividends, and other significant Company actions.

African and other international carriers will be the primary owners of Africa ONE. If the project cost of US$1.6bn is met by the carriers initial current purchases, Africa ONE will be fully owned by the carriers. If not, the remainder will be financed by the long-term equity investors as necessary.

Benefits of partial ownership:

- Participation in management of the project
- Shared ownership of Africa ONE’s unsold excess capacity
- Control of the pricing of excess capacity
- Share of other revenues generated by Africa ONE system.
- Restoration revenues
- Part-time service revenues

The Africa ONE Financing Team projects the following scenario:

Ownership of Africa ONE

	CIRCUIT	INVESTMENT IN

	PURCHASES	UNSOLD CIRCUITS AND SYSTEM REVENUES
SELF-FINANCING INTERNATIONAL CARRIERS	$600M	–
SELF-FINANCING AFRICAN CARRIERS	$260M	–
AFRICAN CARRIERS REQUIRING CREDIT SUPPORT	$340M	–
LONG-TERM INVESTORS	–	$400M
	$1200M	**$400M**

There are multiple options for self-financing carriers:

A. Internal Options

Retained Earnings

B. External Options

- Accessing capital markets
- Capital leases
- Bank loans

C. Other financing

The options for carriers requiring financing are to obtain financial support via loans and grants for African carriers from:

- World Bank group
- Bilateral agencies
- Multilateral agencies

L. Nnew Pproject Ffinance Aapproach for Ssubmarine Ccable Pprojects

The financing of submarine cable projects has been moving away from the traditional model of (‘clubs’ (made up of large numbers of PTTs taking a small stake

each) toward project finance deals with only a small number of sponsors. Pioneering this movement was the FLAG project sponsored by Nynex and Marubeni. Earlier in 1997, ~~began with~~ further evidence of the trend was~~,~~ the successful closure of a US$320m syndicated loan for Gemini Submarine Systems, the transatlantic SDH cable joint venture of MFS (now part of WorldCom) and Cable & Wireless. Goldman Sachs and BZW were co-lead arrangers. ~~The loan had two tranches: the larger US$200m tranche was priced at a margin of 112.5 bp over Libor. The second tranche, comprising a US$120m term loan facility, was at Libor plus 62.5 bp.~~

The financing of SEA ME WE 3, on the other hand, was on the traditional ‘club’ basis. The largest shareholders are Deutsche Telecom (4.40%/US$60.2m), British Telecom (4.38%/US$60m), KDD (4.38%/US$60m), Singapore Telecom (3.73%/US$51m), Telekom Malaysia (3.65%/US$50m), Telstra (3.55%/US$48.6m), Indosat (3.51%/US$48m), France Telecom (3.51%/US$48m), VSNL (3.51%/US$48m), and China Telecom (2.63%/US$36m). Another 80 telecommunications~~telcos~~ companies participated for smaller amounts.

During the summer, CIBC and Deutsche Morgan Grenfell arranged a syndicated 5.5-year loan of US$410m for Global TeleSystems, sponsor of Atlantic Crossing 1, the 14,000km submarine cable to run between the US and Europe. ~~The loan was arranged as a single tranche, and priced at 250bp above Libor.~~

M. Oxygen

The visionary 275,000km ‘~~ì~~Super-Internet’~~î~~ project, Oxygen, comes with a ~~at a project cost of~~ US$14bn cost, and which require careful presentation to the private financing community. The economics of the project depend on high growth forecasts for global telecommunications traffic. The project scenario sees telecommunications company~~í~~ investments insufficient to meet demand and considers their present use of capacity with point-to-point cables as inefficient. The sponsors, CTR Group of New Jersey, USA do not intend to compete with point-to-point cables. Instead the ~~Their~~project ~~project Oxygen~~ aims to offer access to a network ~~instead~~ enabling operators to direct traffic to any destination.

By the end of August 1997, bids were in from suppliers for a US$1.6bn cableship project element involving the establishment of a construction and maintenance company, CTR Cableships Ltd. This offshore company has exclusive rights to maintain Project Oxygen for its 25 year lifetime. CTR Cableships will operate 15 cableships, making it one of the largest such ~~cableship~~operations in the world. In an astute move given pressures on traditional C&MA agreements in the submarine cable sector, the company is seeking work servicing other cable projects as well as possible employment outside the cable sector. Many existing cableship operations are high cost and subjected to unfavourable agreements. Over the next few years CTR Cableships could find many willing buyers for its services.

N. FLAG: R~~r~~efinancing Its S~~s~~hift from C~~c~~onstruction to O~~o~~perating C~~c~~ompany

Barclays Capital arranged the syndication for a US$490m refinancing package for FLAG at the end of 1997.

~~The multi-tranche offer comprised a US$120m 6 month receivables-backed loan at 100bp over Libor, a US$50m 7 year loan available for 6 years priced at 190bp over Libor, and a US$320m 7 year loan also priced at 190bp over Libor. Combined with a US$430m high yield bond arranged by Salomon and Barclays the new financings were set to take out all US$950m of FLAGís existing debt.~~ Apart from the earlier US$500m project financing via Barclays and CIBC, this included a US$450m loan arranged by shareholder Marubeni Corp.~~ The take out of Marubeniís tranche was required in order for the trading company to relinquish its security interest~~ FLAG had drawn US$650m under its existing loans.

The new deal had a higher margin than the earlier loan (190bp versus 150bp), but offered savings and flexibility that are attractive to FLAG and its shareholders. The arrangement~~deal~~ no longer carried expensive political risk insurance. It removed contingent equity, in the form of preferred stock, from the balance sheet of shareholders, principally Bell Atlantic. Finally, the flexible structure was better suited to FLAG in its new role as an operating, rather than a construction company. For example, the US$50m loan worked as a revolving credit to fund operating shortfalls, although FLAG should build up reserves to be used first.

Banks were not asked to take any construction risk as the cable was built by Tyco Submarine Systems and KDD SCS. The Ready for Provisional Acceptance (RFPA) date was~~ 8 ~~ October 1997 and the first traffic was carried on the network in ~~on~~ November 22. Invoices for cable projects are being mailed to pre-sales customers now that the cable has switched on. They are obliged to pay in 35 days. FLAG expects to receive about US$400m from this source.

Given that US$120m of the new facility was receivables-backed, the main risk to banks was repayment of US$320m over seven years. With increasing capacity (FLAG, SEA ME WE 3) on the Europe/Asia route, price competition was considered a risk. However sharply rising demand, based on the capacity-demanding~~hungry~~ Internet and other uses, are likely to absorb existing and forecast capacity more than adequately.

O. Conclusions

Satellites and submarine cables compete in providing intercontinental transmission services. Both are experiencing a revolution in financing techniques, with the private sector assuming an increasing burden by providing both equity and debt support. These trends stem from the withdrawal of direct state support from much of the satellite business, from privatisation of state operators, and cash constraints on telecommunication operators facing competition in core markets (such as the US RBOCS and long distance operators). In addition, satellites offer a wealth of new

services. Banks are becoming comfortable with lending to this sector, where technology and market risk are paramount, but much remains to be learned.

Table.-.Key of Recent Satellite Deals

Borrower	Deal Type	Amount	Terms	Arranger	Comment
Satelindo	Loan	US$135m, 5 yr	Libor+125bp	Credit Lyonnais DMG.	Strong support from German banks.
"	"	US$25m, 9 yr	Libor+140bp	"	"
Orion Network	Bond	US$445m, 10 yr	Yield 11.25%	Morgan Stanley	More than doubled in size.
"	"	US$265m, 10 yr	Yield 12.5%	Morgan Stanley	"
Gemini	Loan	US$200m, 5 yr	Libor+112.5bp	Goldman Sachs	US$400m could have been raised.
"	"	US$120m, 5 yr	Libor+ 62.5bp	Barclays Capital	"
Globalstar	Bond	US$500m, 7 yr	Coupon 11.38%	Lehman Bros	Doubled in size.
TCI Sat Ent	Bond	US$200m, 10 yr	Coupon 10.875%	DLJ and Merryl Lynch	Rated B3 by Moody's.
TCI Sat Ent	Bond	US$152m, 10 yr	Yield 12.25%	"	"
ACeS	Loan	US$250m, 7.5 yr	Libor+400bp	Danareksa	Dollar loan raised among Indonesian banks.
Innova	Bond	US$375m, 10 yr	Coupon 12.875%, yield 13%	Morgan Stanley	US$118m overallotment.
CD Radio	Bond	US$135m, 3 yr	Coupon 5%, convertible	Libra Investments	Fees US$10m.
APT Satellite	Loan	US$50m, 1.5 yr	Libor+45bp	NatWest Markets	Fees 20bp.
GTS	Loan	US$410m, 5.5 yr	Libor+250bp	CIBC and DMG	Commitment fee 50bp.

					Front end fees 100bp.
Iridium	IPO	US$240m equity	US$20 per share	Merrill Lynch	Increased by 2m shares.
Globalstar	Bond	US$325m, 7 yr	Coupon 11.25%	Bear Stearns	No equity kicker.
Iridium	Bond	US$500m, 8 yr	Coupon 13%, yield 14%	Chase Manhattan	US$300m tranche has equity warrants.
"	"	US$300m, 8 yr	Coupon 13%, yield 13.5%	"	"
Thuraya	Equity	US$500m equity		Merrill Lynch	Supplier Hughes takes 2%.
Media Citra Ind	Bond	US$260m, 8 yr	Yield 12.75%	DLJ, Merrill Lynch	No equity content.
Shinawatra	Club loan	US$39m, 3 yr	Libor+55bp	Bank of America	Up front fees 35bp.
CD Radio	Loan	US$105m, 1.5 yr	Libor+300bp	Arianespace Fin	For Arianespace launch.
Iridium	Bond	US$300m, 8 yr	Coupon 11.25%	Merrill Lynch Chase Manhattan	Cheaply priced.
Iridium	Loan	US$1bn, 1 yr	Libor+275bp	Barclays Capital Chase Manhattan	Increased from US$750m.
Globalstar	Bond	US$325m, 7 yr	Coupon 11.25%, yield 12.25%	Bear Stearns	Rated B3 by Moody's.
EchoStar	Pref shares	US$200m, 7 yr	Dividend 12.125%	DLJ and Lehman Bros.	Dividends may pay in kind.
NSAB	Club loan	SKr 770m(US$96m)		ABN AMRO	For Sirius 3.
CD Radio	Equity	US$50m, 2.8m shares	US$18 per share	Merrill Lynch	Reduced from 3.5m shares.
CD Radio	Bond	US$125m, 10 yr	Yield 15%	Merrill Lynch	Co-managers Lehman Bros., Libra.
EchoStar	Equity	US$60.5m, 3.1m shares	US$19.5 per share	DLJ	Reduced from 5m shares.

EchoStar	Pref shares	US$100m, 2m pref	Dividend 6.75%	DLJ	Full amount raised.
Gilat	Equity	US$21m, 2.5m shares	US$8.5 per share	CIBC Oppenheimer	Reduced from 2.8m shares.
Star Choice	Bond	US$150m	Yield 13%	NatWest	After pulling earlier attempt.

Annex 1

INTEGRATED LIST OF DOCUMENTS

A) Summary Report Telecommunication Trade and Finance Colloquia
PART I "Financing Telecommunication in the Developing World"
PART II "Conclusions and Recommendations to the World Telecommunication Development Conference (WTDC)" 1996 - 1998

B) Resource Mobilisation: Financing and Investment in Telecommunications World-Wide

C) Financial Institutions Offering Resources for Telecommunication Projects and Technical Assistance in Developing Countries

D) 1) Report of the Director of the Telecommunication Development Bureau (BDT) from the World Telecommunication Policy Forum (WTPF) to the World Telecommunication Development Conference (WTDC)

2) Country Case Studies: Summaries of the Evolving International Telecommunications Environment - List Countries: Bahamas, Colombia, India, Lesotho, Mauritania, Samoa, Senegal and Sri Lanka.

E) The Changing International Telecommunications Environment: Country Case Studies (Chapters 1 - 3)

F) Africa Telecommunications Finance Colloquium
Final report Vol I - Vol II

G) Arab States Telecommunications Finance Colloquium
Final report Vol I - Vol II

H) Latin America and Caribbean Telecommunication Trade and Finan ce
Colloquium - Final report Vol I - Vol II

I) Asia and Pacific Telecommunication Trade and Finance Colloquium
Final report Vol I - Vol II

J) Telecommunication Trade and Finance Colloquium for Europe
Final report Vol I - Vol II

K) Telecommunication Trade and Finance Colloquium for CIS
Final report Vol I - Vol II

WWW site:

Conclusions and Recommendations from all Colloquia

http://www.itu.int/ITU-D/Finance/Conclusions/Conclusions.htm

Financial Institutions

http://www.itu.int/ITU-D/Finance/Financial-Institutions.htm

World Telecommunication Development Conference (WTDC) Malta, March-April 1998

http://www.itu.int/itudoc/itu-d/wtdc.htm

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