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# EIB-Information

## All change on the capital markets

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**October 1988 - October 1987. The space of a year and the dust has settled from the Crash triggered off by the infamous "Black Monday" of 19 October 1987 which brought havoc to the world's stock exchanges.**

**Time flies. It seems barely yesterday. Yet, relatively little mention has been made of this event in the press or on the television. Of course, at the time, it made burning headline news for a number of weeks throughout the media worldwide.**

**Surprising to think how short are the memories of homo economicus and homo sapiens and with what ease each manages to pick himself up off the floor and readjust. Still, unlike the first slump on Wall Street in 1929 to which it has often been compared, the collapse of the markets some six decades later was remarkable for its universality and for the brutality of the shock from which on the same day it left every stock exchange throughout the world reeling to a greater or lesser extent. Whereas it took several years for the Crash of '29 to spread from the United States to Europe before fizzling out, not a single stock exchange was spared the instantaneousness of the direct effects of the 1987 Crash which were however to die down within two or three months.**

Dates like this have a habit of giving pause for thought each time the calendar comes full circle. All the more grounds for reflecting on the implications when one of the parties in the front line is the second largest borrower on the capital markets next to the World Bank, namely the European Investment Bank (EIB): indeed, the EIB is on its way to making calls on the markets this year totalling some 7bn ECUs raised in ten or more currencies.

One question in particular which comes to mind is whether the post-crisis capital market scene, sometimes referred to as the "panorama of change", brought about as much by the many reforms embarked upon prior to and even pursued after October 1987's Black Monday as by the crisis itself, has the makings of a "new-look" market in which investors and borrowers alike will be able to get their act together again and win through without too

much difficulty. And just how far will the markets continue to see the proliferation of hybrid financial instruments that were so much the hallmark of the years leading up to the bursting of the bubble?

Bearing in mind the particularly complicated nature of the topic under consideration, which does not lend itself easily to being circumscribed within a handful of pages because of the range, diversity and complexity of the issues under examination, the present observations are necessarily far from exhaustive.

In the circumstances, the author will simply confine himself to touching on the "day before" scene on the capital markets, attempting to take the measure of the new topography and analysing some of those components which work as much to the markets' advantage as to their disadvantage. This should help, to a certain extent, to throw light on the

## In brief . . .

Since the stock market Crash in October 1987, analysts have pointed to a panorama of change on the capital markets. As the second largest borrower on the capital markets after the World Bank, the European Investment Bank has become very much concerned with the trends on these markets, characterised by a growing degree of internationalisation and interpenetration. The Manager of the EIB's Finance and Treasury Directorate assesses his impressions of the current situation, with an analysis of the main features.

Although its prime task is to help in financing projects promoting balanced development within the Community, the EIB also participates in implementing the EC's development aid policy in Third countries. In the States which have signed the Lomé Conventions it grants loans from its own resources and, acting under mandate, advances **risk capital** funding from EDF resources, a flexible form of aid well suited to meet the needs of these countries (pp. 5 to 7).

Realisation of projects of common interest to Member States and technological innovation constitute two of the EIB's central objectives within the Community. Financing a **new generation of satellites** to be used for international commercial and emergency telecommunications (pp. 7 and 8) provided by INMARSAT for shipping and air traffic serves to meet both these objectives. By facilitating the flow of information, this investment in telecommunications infrastructure also ties in with the spirit of the Single Act.

scale and abruptness of the phenomenon which, in fact, affected the share market far more than the bond market.

## **The changed world of the money and capital markets**

### **A success story turned sour**

- Take most, if not all, of the financial markets in the broadest sense of the term (share, bond, short, medium and long-term markets) and it will be found that they have burgeoned dramatically in recent years while decompartmentalisation has also proceeded apace.

- The dividing line between these different markets has gradually melted away under the momentum of internationalisation aided by the technology of the global village which equips them to operate around the clock, more often than not continuously. The driving force of the system has tended to be a new generation of young dealers meshed into constantly functioning networks providing them with access to the same data, analytical and decision-making bases such that more often than not the system has geared itself up to working in the same bullish direction, thereby dangerously overloading the flow of transactions on these markets.

- In the wake of widespread deregulation, the markets have also enjoyed sustained growth, albeit varying from one country to the next, within a generally propitious climate that has led to some remarkable outturns reflected almost throughout the system by record share index figures. Until, that is to say, a year ago those same boom conditions suffered a sharp reverse sparking off an unforeseen crisis, epoch-making in absolute terms with the figures banded about a few days later putting at \$1 800 bn the total amount estimated to have been wiped off the markets virtually at one fell swoop. Not that this calamity was in any way strictly comparable to the Wall Street Crash of 1929. The markets were just not the same. On the other hand, the whiplash of 1987's crisis struck worldwide inasmuch as virtually every market around the globe flinched simultaneously to a greater or lesser extent under its impact. In contrast, the repercussions of the disaster which sent the North American financial markets toppling in 1929 took two or three years to strike home in Europe.

### **Why the system ran out of control**

#### *The growth factor*

Expounding the multifarious reasons as to how things came to this pass is no easy matter, especially given the constant undertow of innumerable interacting forces. Nevertheless, at the risk of oversimplification and criticisms of superficiality, this article highlights four determining factors:

- economies were into a growth trend (not always as strong in some cases as in others but positive nonetheless) buoyed along by the wave of progress achieved in the past few decades and boosted by increased purchasing power;

- the "Third-Wave" technological revolution had arrived with a vengeance, taking many people off balance when highly developed computer systems joined forces with the expanding communications and information networks, laying the foundations on which to build a multiplicity of sophisticated products hand-in-hand with a stream of economic and commercial data giving rise to insatiable demand for stocks and shares of every conceivable kind;

- at the same time, the world economy was in a state of extremely serious imbalance, there was the growing North-South divide between the wealthy and the developing nations and there were two thorny problems to which that same imbalance indirectly held the key: on the one hand, the recycling of substantial petrodollar surpluses generated by OPEC during the two successive oil crises, on the other, the enormous debt exposure of the developing countries which by now have run up aggregate deficits in excess of \$1 000 bn which will take years to wipe off the slate;

- the Leviathan factor: internal imbalances in most countries where policies which had grown increasingly interventionist since the Second World War had more or less turned the States concerned into replicas of Hobbes's all-powerful central administration whose subjects had come to expect too much of the State and its many arms, vigorous nationalisation measures often having served to propagate more Hydra-headed autocracy. In order to cater for their mounting financing requirements and to cover the constantly rising public debt, the authorities were obliged to make an increasing number of calls on their money markets and particularly on their capital markets built up for this purpose, as well as on

the international markets. It followed that indebtedness became the order of the day for the State and consumers alike, the man in the street having received encouragement aplenty, in the years preceding the collapse, to spend under the spur of inflation as if there were no tomorrow.

By far the most worrisome of these imbalances was that stemming from the disparity between Japan's and West Germany's trade surpluses and the yawning deficits chalked up by the United States, hitherto the most powerful nation in the world now on the road to becoming the world's most indebted country and, conceivably, shedding some of its super power status in the process. Viewed from either angle, budget deficit or trade deficit, the shortfall of \$160bn is so enormous, notwithstanding the amounts already lopped off, as to concern the entire global community, a point amply illustrated by the recurring spectre of financial crisis.

#### *Deregulation*

Difficult though it is to distinguish between cause and effect, the rapid growth of the capital markets has for a number of years now been accompanied by a move towards deregulation which first saw the light of day in the United States in an altogether different sphere, the air transport sector. Not all the consequences of the sudden free-for-all in this sector were positive following the large-scale reshuffle that took place, with considerations of air safety, for example, by no means necessarily at the forefront.

But in the financial sector, virtually every market has been affected by deregulation to one extent or another, the most prominent being the American, UK ("Big Bang"), French, Japanese, German and Dutch markets.

Deregulation has fairly often gone in tandem with liberalisation and privatisation policies and has had far too many repercussions to allow of thorough consideration within the confines of this article. Suffice it to say that the ripple effects impinge both on conventional market structures and on the rules and regulations governing these markets, notably at the following levels:

- the redistribution of roles allotted to banks which, except in certain cases (such as under the Glass Steagall Act in the United States) have come to see their field of activity widening, particularly as a result of the blurring of the standard distinction between merchant/

investment banks and the major commercial banks. This has led to the birth of the German-style "all-purpose bank" and made it possible for certain types of bank to enter domains hitherto considered out of bounds to them (Japan, for example, has the overseas subsidiaries of long-term lending banks carrying out investment-banking business, while, vice versa, city banks are now competing with long-term lending banks in raising long-dated funds via swap operations);

- the face-lift given to stock exchanges via root-and-branch reorganisation (in London, the Big Bang with its consequences for brokers and jobbers; in Paris, abolition of the brokers' monopoly; in Madrid, reform of the stock exchange; in Amsterdam...);

- the liberalisation of regulations on the Euro-markets (especially with respect to the Yen, but also the French franc, Lira, etc.); relaxation of exchange controls; the increased freedom given to banks to decide their own deposit account rates; the creation of investment funds; the opening of more and more branches...;

- the seemingly bottomless cornucopia of credit, a phenomenon which has flourished in the United States where non-financial domestic indebtedness is put at some \$7 400 bn, i.e. 177% of GNP, as against a steady 140%-145% over the period 1960-1981. Europe has had a similar experience with its ever-increasing number of credit cards, another recent phenomenon on the international scene. As a consequence, some European countries, such as France, are currently facing a number of delicate problems;

- the birth of new instruments and innovative products on both the conventional markets and the new generation of markets which have come to assume considerable importance: the financial futures and options markets in Chicago, London, Amsterdam and Paris (MATIF and OMF 50 index).

### Still walking on eggs

Although even after a full year it is still hard, despite the shattering force of the blow at the time, to hazard a guess as to the full ramifications, both direct and indirect, of that Black Monday in October 1987 still relatively fresh in the memory, it cannot, on reflection, be said that the crisis was entirely unforeseeable.

The fact is that growth cannot continue indefinitely and that no market can be constantly bullish, particularly when the impetus is increasingly imparted by artificial elements out of touch with the real world. This is what happens when certain instruments originally designed to dilute and hedge against risks are misappropriated to speculative ends. It is mainly the options and futures markets which have fallen prey to these abuses, given that they are based on a fabric of essentially notional elements with the result that barely 10% of the enormous volume of overall deals struck has come to be thought to represent real transactions.

An additional parallel factor has its origins in the increasing and excessive use made by the corporate sector of these and more conventional instruments, such as investment funds, unit trusts and liquid placements. Businesses came to the mistaken conclusion that liquidity management as such ought to earn them greater returns in less time than their commercial operating margins, despite the fact that the latter were part and parcel of their *raison d'être*. This misplaced emphasis, which owed nothing to "Zaitech" (the Japanese business

world's answer to "high-tech" in the form of corporate self-sufficiency independent of the banking sector and sustained by the sharpest brains in corporate management) had already resulted in serious setbacks and losses for a number of firms, including Volkswagen, before the markets fell apart on that Monday in October 1987.

Then again, the fierce competition spawned by the amoeba-like growth of the capital markets and which was partly responsible for this growth manifested itself on two fronts:

On the one hand, it gave rise to skirmishes for business between the conventional banking system and those newcomers which, for want of a better word, have come to be known by the Lewis Carroll-type tag of "non-banks" called upon to play an ever larger role in what they considered to be an extremely attractive segment of the market. These new arrivals on the scene were themselves part of large groups which initially existed to conduct different activities in the worlds of commerce (Sears, Roebuck in the United States) or consumer finance (American Express, Visa, etc.). The fact that these intruders were elbowing their way into a blossoming market also

### Currencies raised by the EIB (after swaps)

	1988: first 10 months		1987		1986	
	m ECUs	%	m ECUs	%	m ECUs	%
DM	1 208	20.4	1 153	20.6	879	13.0
ECUs	858	14.5	807	14.4	897	13.2
Ffrs	712	12.0	464	8.3	413	6.1
Lit	574	9.7	639	11.4	594	8.7
Sfrs	556	9.4	370	6.6	510	7.5
£	446	7.6	142	2.5	304	4.5
Fl	436	7.4	338	6.0	515	7.6
Bfrs	379	6.4	302	5.4	263	3.9
US\$	307	5.2	722	12.9	1 760	25.9
Yen	222	3.8	517	9.2	514	7.6
Ptas	146	2.5	—	—	—	—
Lfrs	72	1.2	79	1.4	81	1.2
Sch	—	—	21	0.4	54	0.8
Dkr	—	—	38	0.7	—	—

The borrowings raised in 1988 attest to a distinct increase compared with previous years. With its percentage share on a progressively mounting course, the ECU has come to rank for the fourth year in a row as the second largest source of funds standing above all but one of the currencies in which the EIB has tapped its borrowings. The current financial year is also noteworthy for the Bank's first ever issue denominated in pesetas which was launched in October 1988 for an amount of Ptas 20bn (145.9m ECUs). Similarly scheduled for floating before the end of this year is the EIB's maiden escudo issue.

served, by extension, to aggravate considerable competition between banks. With no holds barred in seeking out clientele, one of the first stratagems was to develop networks by setting up a series of branches and ploughing capital into grandiose office buildings, often designed for the next millennium, in many city centres throughout Europe, North America and Japan with a view to accommodating whole brigades of the requisite freshly recruited executives on whom ever more sophisticated amenities came to be lavished. In certain financial centres such as London, these new "front-room" men included their fair share of young lions or golden boys too young to have known any period other than the halcyon days of continually prospering markets. The undisputed whizzkids of highly advanced techniques such as swap operations, which they are continuing to refine to this day, these star performers were, unfortunately, not always kept sufficiently in line by their superiors. Up until the recent crisis at least, they were fiercely headhunted by firms, in London in particular in the wake of the Big Bang, willing to pay their weight in gold and to award them salaries indexed partly to results such that they were able to live the life of kings. But even before the warning bells sounded, in some quarters the trend had been reversed and a large number of big, mainly British and American, firms (such as Shearson Lehman, Salomon Brothers, Goldman Sachs and Chase) had begun to make staff cutbacks, some on a quite drastic scale, in recognition of over-ambitious forecasting. Indeed, some even pulled entire teams out of certain segments of the market, turning their backs on the earlier philosophy of all or nothing.

It was precisely this climate of unbridled competition which led bankers to draw on inspiring powers of inventiveness and to demonstrate a gift for ingenuity all the more dynamic when it is borne in mind that, unlike industrial products, the offspring of their "creative thinking" carries no patent. The upshot was that any promising product launched by one banking establishment was indirectly snapped up by another which often personalised it with its own special stamp and crafted it into a variety of instruments, resulting on occasions in innovatory products so complex that investors failed to grasp each and every subtlety. Hence, passing whims gave birth to a series of

new-fangled instruments, some of which turned out to be more or less nine-day-wonders. Gimmicks of this kind helped to develop and decompartmentalise the fixed-rate securities and stock markets, opening the doors to a spate of floating-rate instruments (commercial paper, certificates of deposit, FRNs) deep-discount bonds, zero-coupon bonds and perpetuals, plus a whole array of note issuance and underwriting facilities, including MOFs, NIFs, RUFs and TRUFs, as well as bonds with warrants attached, dual and multiple-currency issues, bonds indexed to currencies, gold or stocks, interest-rate or currency swaps and so on.

At the same time, outside Europe a financial crisis of a different order was assuming worsening proportions with Third World countries having rung up debts totalling more than \$1 000 bn. Seeing these nations with their backs to the wall most of them hard put to meet their obligations, the international banking system embarked upon lengthy rescheduling negotiations, tightened its belt at the prospect of certain unilaterally agreed moratoria and decided to set aside specific provisions for Third World debt risks. The latter was a particularly important safeguard to which American banks began having serious recourse during 1987. Almost in tandem with these developments, the finishing touches were being put to a new form of credit-raising that was to gain general favour in the banking sector, a technique dubbed "securitisation". A formula enabling banks to convert part of their otherwise non-marketable debt in the form of syndicated and other bank loans or credit facilities into bonds negotiable on the markets or into shareholdings in companies in debtor countries, securitisation was not exempt from loss factors although these varied according to the country. It was a technique conferring a new guarantee of sorts on the debts so converted. It also helped to speed up a development which in recent years has accelerated the growth of the market in FRNs and "straights" (fixed-rate issues) to the detriment of the market in syndicated credits.

As if by way of polarisation, another development was making ground at the same time in the opposite direction, the move towards "disintermediation" which effectively cut out bankers as the middlemen in the credit-raising process. In the developed countries, firms were gradually shying away from the banking sector for some of

their transactions and transferring their allegiance to the new commercial paper markets where they were raising not inconsiderable amounts ranging, for example, from \$300bn or so in the United States to Ffrs 50bn in France. This direct recourse to the markets increasingly found favour over the more conventional reflex of turning to the banks for overdraft and loan facilities, and a few cracks began to appear in traditional relations between banks and their clientele.

A further factor, the import of which was not entirely grasped at the time but which apparently played an appreciable part in precipitating the Crash, would seem to be related to the massive computerisation of certain markets. Because of the disproportionate leverage which screen trading was exerting on prices, on more than one occasion it proved necessary to suspend trading programmes in New York. Besides logging transactions automatically, these also realise certain deals at the touch of a button. In the aftermath of the plunge into 1987's bear market, surveys carried out in the United States in particular led to the introduction of far tighter operating rules. These provide for the possibility of interrupting quotations on the futures and options markets in the event of serious price fluctuations, a safety precaution, as it happens, not new to a number of the more traditional stock exchanges.

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As explained at the outset, these few observations have to a certain extent only dealt with the tip of the iceberg in terms of the changed topography of the entire panorama of capital markets in the period leading up to and immediately following last year's Crash. Ever since the end of World War II, the story has, in fact, been one of unabated and astounding growth with capital markets in different countries on the road, if not in step, towards increased liberalisation and interpenetration to the point where today, in one way or another, no market in the developed countries is immune from the influence of transactions orchestrated on the international stage under the batons of two protagonists, the United States, en route to becoming the world's most indebted country, and Japan, now on the rostrum as the world's wealthiest nation.

Unfortunately, in the process of growth, liberalisation and interpenetration the markets have also had to pay the price of a delicate

balancing act. In leading to the creation of a vast virtually all-embracing market, this has resulted in a colossus with feet of clay and with a capacity for teetering on the brink of shattering, a predicament all the more alarming in that its wobblings are uncontrolled. A variety of causes lie at the root of the Crash which brought the colossus tumbling down a year ago: the institutionalisation of the markets at the expense of the private marketmakers whose different ways of reading and reacting to developments helped to create a genuine market in a sense that no longer holds true of today's traders, dealers and portfolio managers locked implacably into the system around the clock; the sophisticated financial engineering techniques involved in transactions such as swaps - an extremely precarious sector, given the difficulty of anticipating the ultimate risk factor for all

the parties involved - and; the considerable ratchet effect exercised by all too frequent speculative abuse of futures and options. Without laying claim to clairvoyance, the author nevertheless trusts that the Crash, with its in some cases dramatic repercussions for numerous institutions and savers both large and small, will serve to awaken the many players in this most serious of games to the essential salutary virtues of wisdom and circumspection. A number of recent initiatives can be seen as firm steps in the right direction towards reducing potential risks. Some vital common fronts have been formed between various associations of top-flight bankers in their approach to certain segments of the bond market, with the intention, for example, of establishing rules of good conduct in the matter of loan issues. The tutelary authorities have also contributed in their

own way, particularly the central banks anxious to lay down stricter and more prudential rules governing every off-balance-sheet operation whether in the form of swaps or as part of the alphabetical soup of note facilities. Substantial progress has been achieved within a relatively short time under the agreements reached recently between the central banks on the findings of the Cooke Committee. This succeeded in drafting a number of new judicious rules on the establishment of a series of ratios to be imposed upon every bank, irrespective of its provenance. Essential initiatives such as these demonstrate the truism that on the heels of any period allowing too free a rein to liberalisation inevitably comes another ushering in a minimum of regulatory and supervisory checks and balances indispensable from the point of view of ensuring that the system does not overreach itself.

## The Lomé Conventions :

# Providing flexible and targeted risk capital aid

**Under the Third Lomé Convention, the European Investment Bank is being called upon to deploy a total of 1.7 billion ECUs to be made available in two forms: firstly, 1.1 billion ECUs in loans from the Bank's own resources (essentially the proceeds of its borrowings on the capital markets) with an interest subsidy generally of 3%, financed from European Development Fund grant aid and arranged so that the rate after the subsidy to be borne by the beneficiary is no less than 5% and no higher than 8%; and secondly, 600 million ECUs for risk capital operations, also financed from European Development Fund resources which are fed by budgetary contributions from the Member States.**

Whilst the loans from own resources are earmarked for investment projects which look economically and financially viable, the risk capital resources offer the EIB scope to exercise much greater flexibility in its financing operations and to lend on softer conditions. This type of financing complements the loans from own resources, which are sometimes advanced in tandem with a risk capital operation so as to construct a financing package with terms and conditions better suited for investment projects in an ACP environment.

Proposed and developed by the EIB at the time of the Second Yaoundé Convention in 1969, this financing instrument really came to feature in the Bank's operational practices as from the First Lomé Convention (1975), after an initial running-in

period when the amounts available meant that it could only figure on the sidelines.

Set up to start with on an experimental basis for a period of two years with 40 million ECUs available, risk capital proved particularly appropriate to meet the needs of the ACP States, especially the less prosperous ones. It is no surprise therefore that this type of assistance has gone from strength to strength, the amounts set aside for such operations being built up and the terms and conditions developed and fine-tuned, at the request of the ACP States themselves. During the five years covered by the First Lomé Convention, 97 million ECUs were deployed. The amount was virtually tripled for the Second Lomé Convention (284 million ECUs) and again doubled for Lomé III

when a total of 600 million ECUs was agreed. In fact, the amounts provided for under the First and Second Lomé Conventions were allocated in full within the period these Conventions ran for and under Lomé III 366 million ECUs had already been committed and contracts for 312 million had been signed at 30 September 1988, indicating just how well matched this type of assistance is to the needs of the ACP States.

### A wider variety of conditions on offer

Drawn from budgetary resources, risk capital can be awarded on concessionary conditions not linked to those applying on loans from the EIB's own resources which are raised on the international capital markets; budgetary resources are managed by the Bank in the name, for the account and at the risk of the Community. They provide an opportunity to fund operations which it would be impossible or unwise to finance from borrowed funds (e.g. equity participations, feasibility studies, technical assistance).

In most cases risk capital is advanced in the form of conditional

loans, i.e. on which the term, rate of interest and repayment schedule, or even the very principle of repaying the loan, depend on and may change in line with conditions agreed during negotiation of the contracts devised to ensure that the project has overcome the risks inherent in the starting-up period or that it has reached a stage where it can generate a satisfactory return. Other forms of quasi-capital assistance are possible by means of subordinated loans - a technique where - by the loan is repaid only after other bank loans have been settled. Risk capital assistance may also be provided by acquiring equity participations in enterprises either directly by the Bank in the name of the Community or indirectly by advancing the funds to the State or a development bank to finance all or part of its subscription to the capital of an industrial enterprise or financial institution.

In practice, these various types of financing assistance can be granted jointly and possibly with a loan from the EIB's own resources attracting an interest subsidy. Combining these different funding instruments makes it easier to construct the most appropriate package in the light of the specific situation and the problems of the countries and sectors in question. Despite the difficulties and technical complexities involved in arranging this type of financing, it has enjoyed such success amongst the ACP States that the decision was taken, at the time of the Second Lomé Convention, not only to increase the volume of funds provided for but also to broaden the scope of the scheme. Originally, only projects to carry out industrial investment were eligible, but this has since been widened to include, under certain conditions, energy production, transport, telecommunications, bankable service industries, studies and investment in preparation for implementing projects. Risk capital can also be deployed through global loans advanced to development banks, enabling them in turn to fund a whole range of appropriate schemes in support of small and medium-sized enterprises, such as studies, equity participations and conditional loans.

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### **Infrastructure and rehabilitation**

The variety of uses to which risk capital could be put was added to again when the Third Lomé Convention was drafted. First of all, the special conditions applying to the provision of such aid for projects in

energy production, transport and telecommunications related to industry, agricultural processing, tourism and mining were lifted. Furthermore, financing was henceforth allowed not only to assist enterprises during their start-up period but also for the purposes of rehabilitation. Lastly, and this was a major innovation introduced at the Bank's request, the possibility was opened up of granting assistance to promoters from EEC countries, with a view to boosting their own funds, so as to facilitate, with the agreement of the ACP State concerned, implementation of joint ventures with ACP partners.

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### **A diverse range of projects**

In common with the preceding Conventions, under Lomé III the risk capital resources have been deployed rapidly, emphasising the point that this type of assistance is particularly suitable for countries with a limited borrowing capacity and answers their needs as regards long-term capital funding in an economic environment marked by greater nervousness on the financial markets. The 366 million ECUs of funding already signed or approved at the end of September 1988 went to 42 different countries, of which 31 ranking as least developed attracted 209 million ECUs. A total of 38.7 million ECUs was channelled to regional projects such as telecommunications by satellite and microwave links in West Africa, funding for small business through assistance to the Banque Ouest-Africaine de Développement and the Central African States Development Bank and air traffic control equipment in West Africa, Central Africa and Madagascar. These regional projects concerned 17 ACP States, more than half of which count amongst the least developed.

About half the funding went towards productive infrastructure, i.e. installations which are prerequisites for the development of industrial enterprises, and the other 50 % directly to the industrial sector. This sectoral pattern is ascribable to the substantial volume of work to be done on rehabilitating and extending basic infrastructure, in particular power generation and distribution and water treatment and supply, in the least developed countries.

Demand for financing for industrial projects has been held back as a result of the economic situation worldwide and underutilisation of

existing potential in most of the ACP States, which makes investment in new production capacity less appealing. Moreover, a substantial proportion of the financing for industry has gone to small and medium-sized enterprises channelled via local or regional development banks. The EIB had concluded, again as at 30 September 1988, about thirty financing operations with development banks in the form of global loans or equity participations or a combination of both these devices. Such operations accounted in all for some 60 million ECUs, about 20 % of total risk capital financing already deployed.

Looking at the 56 smaller enterprises which at the half-way stage of Lomé III had received a total of 10.5 million ECUs under these operations, virtually all were in the private sector and most frequently concerned local ventures. By way of comparison, of the 166 global loan allocations approved under Lomé II, for a total of 53.7 million ECUs, 129 (73 % of the total financing) went to private-sector SMEs. Funding for projects of this type is therefore on a rising trend, benefiting a broad spectrum of productive activities, with the agricultural processing sector at the forefront.

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### **More finely tailored financing packages**

Looking at the various types of financing instrument employed, the operations mounted are also very diverse in nature: equity participations in development banks to bolster their financial base and enable them to continue their activities on a more solid footing, indirect participations in a company acquired by either the ACP State concerned, a development bank or another local enterprise, various types of assistance in the form of own funds or quasi-capital, in some cases carrying an option for conversion into shares, subordinated or conditional loans or a mixture of the two, sometimes advanced as global loans to development banks, funding for feasibility studies. Equity or quasi-equity capital funding amounts to 182 million ECUs in all, 56 % of the total financing granted half way through the term of the Third Lomé Convention.

The diversity of risk capital funding techniques and the scope for using a combination of them for a single project has enabled the EIB to fur-

nish financing on the best conditions in very varied and often difficult situations. Drawing on its experience gained in financing and monitoring projects, in studying the most appropriate financing pack-

ages under changing circumstances and on frequently volatile markets, the EIB is seeking to put its know-how to good use to foster development in the ACP States. It will be looking to adapt and fine-

tune this know-how, where necessary, putting the accent, pragmatically and effectively, on financing the private sector under the next ACP/EEC Convention, now under negotiation.

## New powerful Satellites for Telecommunications and Sea and Air Traffic

**International commercial and emergency telecommunications provided by INMARSAT<sup>(1)</sup> for ships and aircraft, are to be expanded and improved with a new programme to place more powerful second generation satellites into orbit in the early 1990s. Financing arrangements for the lease of the first three satellites have been concluded between INMARSAT, the European Investment Bank, together with members of the Club of Long-Term Credit Institutions in the EEC (the ISCLT Club) and North Sea Maritime Leasing Co.**

**Under the financing arrangement, the EIB and five members of the ISCLT Club — Kreditanstalt für Wiederaufbau (Germany), Crédit National (France), Istituto Mobiliare Italiano (Italy), Société Nationale de Crédit à l'Industrie (Belgium) and the Hellenic Industrial Development Bank (Greece) — provide Letters of Credit totalling £206 million (equivalent to 306.6 million ECUs) to guarantee INMARSAT's leasing obligations. The ISCLT Club was set up in 1973 to co-finance projects of European significance<sup>(2)</sup>. It consists of 12 institutions specialising in long-term credit, one from each of the EEC Member States.**

The EIB is lead manager and agent for the credit facilities, under which the Letters of Credit are being provided in two tranches of £171 million (14 years) and £35 million (17 years). The EIB is also arranging currency swap facilities to allow INMARSAT, whose revenues are in US dollars, to hedge against exchange risk.

INMARSAT currently leases capacity on eight satellites, covering the Atlantic, Indian and Pacific oceans, which will reach the end of their operational life in the 1990s. The second generation programme involves at least four new satellites coming into service from 1990 onwards to provide additional capacity to meet increased demand, being nearly three-times as powerful as the first generation satellites. A systems control centre is to be installed in London, and three additional tracking stations in the global control network.

INMARSAT, whose headquarters are in London, is owned by 54 national telecommunications authorities, with EEC Members accounting for 31% of the shares. It was set up in 1979 under the auspices of the United Nations and began ope-

rations in 1982 to provide global commercial satellite coverage to improve communications in emergencies, and for navigation and efficient ship management. Its services were extended to aircraft in 1987. INMARSAT is leasing the satellites from North Sea Maritime Leasing Company, a partnership between leasing subsidiaries of four UK clearing banks — National Westminster, Barclays, Midland and Lloyds. Lombard North Central plc, a member of the National Westminster Bank Group, is acting as manager for the leasing facilities.

Construction of the satellites is being carried out by a manufacturing consortium led by British Aerospace, that includes French, German and Italian companies, in association with Hughes Aircraft Company of the United States. The satellites will be launched by Ariane, the European Space Agency's launch vehicle and Delta II rocket of the United States. As well as promoting the development of new services in information and telecommunications, the project reinforces the competitiveness of the Community's industry by an increase in the use of advanced technology.

European Community trade will benefit from the improved communications, particularly in the Atlantic area. Some 95% of all trade between the Community and

the rest of the world and 35% of intra-Community trade is transported by ship. About 8 000 ships are currently using INMARSAT for direct-dial telephone, data, facsimile and telex communications.

A range of land applications are also under development to provide long-distance road transport, railways, bus lines and international travellers with two-way text communications, position and status reporting and, further into the 1990s, personal telephone services anywhere in the world. A third generation satellite system, which should begin operations at the end of the 1990s, is already being planned.

As the satellites will be located outside the territories of the Community's Member States, special authorisation to consider the proposed investment was granted by the Bank's Board of Governors, which consists of a Minister from each of the EEC Member States, usually the Minister of Finance.

### Satellite telecommunications

In addition to the INMARSAT arrangement, the EIB has lent over 430 million ECUs in the past 10 years for investment in satellite telecommunications.

Some 175 million ECUs has gone to EUTELSAT<sup>(3)</sup> for the acquisition of four satellites to meet European requirements in international telecommunications services. The satellites will provide high-capacity digital transmission and further integrate space telecommunications into the European networks, as well as develop services such as distribution of new programmes to TV cable networks, and business communications.

EUTELSAT, an intergovernmental organisation with its headquarters in Paris, has been set up to design, establish and operate the space segment of regional telecommunications satellite systems. The EEC states are among the 26 European countries who are members of the organisation.

(1) INMARSAT: International Maritime Satellite Organisation.

(2) See articles in EIB Information No. 46, October 1985, 'European and Japanese Banks Meet' and No. 50, October 1986, 'A European Financial Engineering Company', on aspects of the ISCLT Club's work.

(3) EUTELSAT: European Telecommunications Satellite Organisation.

The EIB has also financed, with nearly 190 million ECUs, the construction of a **French satellite system** established to handle industrial and commercial data transmissions, and communications with France's Overseas Departments. The scheme involves the building of three satellites, two for geostationary orbit and one for stand-by on earth, as well as related earth stations.

The investment forms part of a wider programme to develop and modernise France's telecommunication's system and represents a step towards the development of a European integrated service data network. Part of the system's capacity is also being used by EUTELSAT.

The construction of an **Ariane** satellite launch vehicle as a back-up launcher on permanent stand-by in the European Space Agency's programme has received EIB finance. The Bank has lent nearly 2 million ECUs for the project, a joint venture involving companies from France, Germany, Belgium, the United Kingdom, Spain, the Netherlands, Italy, Denmark and Ireland in the EEC and Switzerland and Sweden.

In **Italy** the EIB has supported the development of international and national telecommunications services by Telespazio Spa (Società per Azioni per le Comunicazioni Spaziali) with loans totalling 55 million ECUs. The finance has gone for expansion of facilities at the Fucino satellite earth station in Abruzzi, and the construction of new earth stations at Lario in Lombardy and Scanzano in Sicily.

As well as being responsible for handling all satellite telecommunications in Italy, Telespazio provides facilities for both INMARSAT and EUTELSAT services, and for INTELSAT<sup>(4)</sup>. Telespazio is a member of these international satellite communication organisations.

The company is also helping to implement an Italian government scheme to set up a national emergency telecommunications network that has received a 10 million ECUs EIB loan. The investment involves the establishment of a satellite communications system to provide advanced information of natural disasters and assist in organising emergency aid, particularly where land based links have been disrupted.

The network is based on the main satellite earth station at Fucino, connected to a government central control centre in Rome, and

involves monitoring over 100 remote sensors in areas susceptible to earthquakes, volcanic activity, flooding and landslides. The system is backed up by mobile communication units, with satellite capacity leased from EUTELSAT.

### Air traffic control and safety

Development and expansion of international air traffic control, navigation and safety facilities (excluding the INMARSAT operation) have been supported with over 53 million ECUs in the past six years.

In the **United Kingdom**, the Bank has lent nearly 33 million ECUs for schemes to develop safety and efficiency of aircraft navigation, involving the installation of equipment and systems to cope with increased use of the UK's airspace. Works include landing equipment at airports, navigation beacons and establishment of more centralised control facilities. The investment forms part of a larger programme to provide reliable and sophisticated services to assist aircraft routing and operations as well as improve air communications with other European countries.

Similarly in **Greece**, the Bank has financed with over 5 million ECUs investment to enhance the flight control system to meet a rapid growth in air traffic, particularly international flights. Forming part of a wider integrated government scheme, the improvements involve the provision of long-range primary radar and secondary radar cover, an automated information system, extension of ground-to-air communications and navigation aids.

Under the third Lomé Convention the Bank has financed, with 15 million ECUs, the renewal and modernisation of air traffic facilities in 11 African states, members of **ASECNA**<sup>(5)</sup> — the agency for air traffic control in Africa and Madagascar. The investment includes radiotelecommunications, meteorological, radio beacon, energy supply and runway lighting equipment. ASECNA covers 16 member states: 14 in Western and Central Africa, Madagascar and France. Based in Dakar, the agency ensures the regularity and safety of flights in its African members' airspace.

<sup>(4)</sup> INTELSAT: International Satellite Telecommunications Organisation.

<sup>(5)</sup> ASECNA: Agence pour la Sécurité de la Navigation Aérienne en Afrique et à Madagascar.

## Ecu

Below are the ECU's values in national currencies, as at 30 September 1988; these rates are applied to the fourth quarter in preparing financial statements and operational statistics of the Bank:

DM	2.07549	FB	43.4897
£	0.654935	Flux	43.4897
FF	7.06480	DKr	7.96198
Lit	1 545.91	Dr	168.239
Hfl	2.33973	£irl.	0.774456
Ptas	137.089	Esc	170.553
		US\$	1.10422

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