

Den europæiske Investeringsbank  
Europäische Investitionsbank  
Ευρωπαϊκή Τράπεζα Επενδύσεων  
European Investment Bank  
Banco Europeo de Inversiones  
Banque européenne d'investissement  
Banca europea per gli investimenti  
Europese Investeringsbank  
Banco Europeu de Investimento



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## EIB-Information

### Annual meeting of the Board of Governors

The European Investment Bank's 1985 Annual Report and balance sheet was approved by the Board of Governors at its annual meeting in Luxembourg on 16 June 1986. The meeting was chaired by the Governor for Belgium, Mr Mark Eyskens, Belgian Minister of Finance.

The Annual Report was presented to the Governors by EIB President and Chairman of the Board of Directors, Ernst-Günther Bröder. The Governors congratulated the Board of Directors and the Management Committee for their conduct of Bank activities in support of Community objectives in 1985.

Total lending during 1985 reached 7.2 billion ECUs, of which nearly 6.8 billion supported capital investment projects in the Community of twelve (5.9 billion from the Bank's own resources and 884 million from New Community Instrument<sup>(1)</sup> resources); 160 million was lent in Spain and 100 million in Portugal, now Members of the Community, as part of pre-accession financing arrangements to ease the integration of the two countries into the economy of the EEC.

Lending outside the Community of twelve, under financial cooperation agreements with the EEC in the Mediterranean area and under the Lomé Convention in the African, Caribbean and Pacific countries, totalled 400.2 million ECUs (324.3 million from the Bank's own resources and 75.9 million from Community budgetary funds).

EIB loans are financed essentially out of borrowings on capital markets. In 1985, the EIB borrowed 5.7 billion ECUs, of which US\$ 28.6%, ECU 12.8%, Deutsche Mark 11.8%, Yen 10.9%, Guilder 7.4%, French franc 6.5%, Swiss franc 6.2%, Lira 6%, Sterling 3.8%, and Belgian franc 3%.

Outstanding loans in the EIB balance sheet at end-1985 totalled 30.2 billion ECUs (1984: 27.7 billion); and medium

and long-term borrowings, 26.7 billion ECUs (1984: 25 billion). The capital increase, decided on at the annual meeting of the Board of Governors in June 1985, came into effect on 1 January 1986. Including the contributions of the new Members, Spain and Portugal, the subscribed capital has been effectively doubled to 28.8 billion ECUs, of which 2.6 billion (just over 9%) is paid-in or to be paid-in.

Mr Bröder's address to the Board of Governors when presenting the Annual Report follows:

Mr Chairman, Gentlemen,

I should like first to extend a warm welcome to the Governors for Spain and Portugal who are attending their first meeting of the Bank's Board of Governors. Their presence here today attests to a further landmark in the development of the European Community and the European Investment Bank.

You have before you and awaiting your approval the report from the Board of Directors on the activity of the Bank in 1985: I should like, if I may, to comment briefly on a few of its more salient points.

<sup>(1)</sup> NCI loans are funded from borrowings by the Commission in the name of the EEC and are managed under mandate by the EIB.

### In Brief...

Considering the size of the EIB's borrowings and volume of its lending, which contributed towards the realisation of 25 billion ECUs of new capital investment in the European Community last year, the 1986 Annual Meeting of the Board of Governors might appear a surprisingly low-key event. It took place without the publicity usually associated with annual meetings of other major international financing institutions. The EIB Governors concentrated on a review of the past year's operations and on the orientation for future activities.

The professionalism and technical expertise of its staff drawn from the twelve Member Countries is a basic strength of the Bank, as explained in **EIB's staffing and organisation** (page 4).

That the EIB is viewed as a possible source of funds for major Community infrastructure projects such as the Channel tunnel is understandable in the light of its long history in providing **Loans for financing transport infrastructure** (page 6).

The informal and pragmatic way the Bank handles loan enquiries and the versatile approach it takes in helping potential borrowers identify projects most suitable for EIB financing are outlined in **Loan demands at the EIB** (page 9).

**Combatting desertification** is a major development aid objective, particularly in regions bordering the Sahara. In Tunisia, the EIB is supporting an exemplary project that is giving a new lease of life to the desert (page 11).

The EIB conducted its operations in 1985 against a backdrop of moderate economic growth and continued austerity measures resulting in a further decline in inflation rates and a surplus on most Member States' balance of payments on current account. Less encouraging was the level of unemployment which remained high and productive investment which continued to make a restrained showing despite some growth in the capital goods sector.

The Bank's contribution towards capital investment financing in 1985 totalled close on 7.2 bn ECUs, of which 6.2 bn ECUs was made available from EIB own resources. The corresponding total for 1984 came to just under 6.9 bn ECUs.

**Within the Community of ten**, lending from own resources amounted to 5.6 bn ECUs, or 12.7% more than in 1984, while lending from NCI resources ran to 884 m ECUs, that is to say less than the previous year's performance. Aggregate financing provided by the Bank in the Member States totalled just over 6.5 bn ECUs.

The Bank advanced loans in every Member Country, apart from the Grand Duchy of Luxembourg. More than four fifths of lending was again concentrated in Italy, France and the United Kingdom.

As before, loans in support of the balanced development of the Community and conversion projects in less privileged regions constituted the backbone of the EIB's operations. Funded chiefly from the Bank's own resources, lending under these two headings totalled 3.4 bn ECUs.

Financing in the energy sector came to 2.3 bn ECUs, much the same as in 1984 and virtually all of which was provided from own resources. Bank lending in this sector helped to exploit the Community's indigenous energy resources and to make for efficient use of energy.

Major infrastructure projects of interest to several Member Countries continued to attract increasing support to the extent of 384 m ECUs. Mindful of the guidelines handed down by your board, the Bank also stepped up its financing for projects designed to protect the environment, advancing close on 400 m ECUs for this purpose, more than twice as much as in 1984.

Lending for productive sector investment confirmed the vigorous growth recorded in 1984 and amounted to almost 1.9 bn ECUs. More than 300 m ECUs was given over to projects intended to foster or introduce high technology, particularly in the satellite telecommunications, data-processing, telematics and pharmaceutical products sectors. As in previous years, close on 75% of lending to industry took the form of global loans underpinning capital investment by smaller businesses which received credit from both own and NCI resources. Allocations drawn down from global loans already activated totalled 1.6 bn ECUs funding capital expenditure by nearly 6 000 small firms, 40% of these *situated in assisted areas*.

Permit me to draw a line under our activity in the Community during the past financial year with mention of three key figures: in 1985, the Bank contributed towards financing capital investment in Member States totalling 25 bn ECUs; it also played a direct part in the creation of some 43 000 permanent jobs and helped to generate 33 000 of these in small and medium-sized undertakings.

**Financing outside the Community of ten** topped the 660 m ECUs mark. A sum of 260 m ECUs went for projects in Spain and Portugal, exhausting the balance of pre-accession aid approved for these two countries. In other Mediterranean countries, the Bank mounted operations totalling more than 160 m ECUs. Looking further afield to the ACP States and the OCT, I can report aggregate financing here of 235 m ECUs, a situation which saw almost all of the risk capital provided for under the Second Lomé Convention committed and over 80% of the Convention's package of loans from own resources accounted for.

To finance its lending from own resources the Bank made calls on the capital markets in 1985 for a total of 5.7 bn ECUs. The dollar continued to head the list of currencies borrowed (bringing in the equivalent of 1.6 bn ECUs), followed by the ECU (700 m) and the Deutsche Mark (the equivalent of 600 m ECUs).

The Bank raised funds not only by means of fixed-rate public issues and

private borrowings, but also through floating-rate operations. In broadening its borrowing portfolio in this way, the EIB made use of the scope to diversify its loan formats as countenanced by your recommendations.

At 31 December 1985, the Bank's balance sheet total stood at 35.1 bn ECUs, as against 32.5 bn ECUs at 31 December 1984.

During the first five months of the current financial year, aggregate Bank financing from own resources has run to slightly more than the figure for the corresponding period of last year, although the NCI component has fallen back. Overall activity by the end of May 1986 totalled 1.9 bn ECUs, funded almost entirely from own resources, a performance which bodes well for Bank activity in 1986.

A year ago, on this same occasion I was able to give you some pointers as to the future shape of Bank policy in the medium term. Perhaps I might take this opportunity today to provide you with a somewhat fuller picture of the directions in which we will be steering Bank activity, directions reflecting the nature of our institution and the remits entrusted to it. As a Community institution, the European Investment Bank is, of course, duty bound to keep a close watch on developments or shifts in the economy so that it can adapt to these at all times. Only in this way can we hope to conduct our operations effectively.

The continuing gravity of regional problems fully warrants the priority accorded to projects designed to stimulate growth in underdeveloped areas in Member Countries and to introduce structural changes into those parts of the Community struggling to forge themselves a new economic identity. A priority in every Member State, the cause of regional development is particularly pressing in the case of those projects furthering the integration of Spain and Portugal into the Community economy.

The second key area of Bank activity in terms of sheer volume of financing is the energy sector. Here, the EIB concentrates its lending on projects contributing towards the Community's energy policy objectives. This is an area which has been of particular concern to us in recent months because of the marked drop in

oil prices. After giving the matter close scrutiny in liaison with the leading organisations, we have come to the following conclusions:

— All the competent authorities are unanimous that our cardinal objectives must remain unaltered, namely that it is vital for us to continue to give priority to financing development of alternative forms of energy indigenous to the Community, diversification of supplies and the drive to make more efficient use of our energy. Any sustained relaxation of efforts along these lines could exacerbate anticipated subsequent inflationary

trends. Need I add that the recent accident in the Soviet Union at Chernobyl has re-opened debate about the nuclear branch of the energy sector. The Bank will, of course, keep a close watching brief on developments on this front.

— While it may be true that the current downturn in oil prices undermines the economic case for certain projects in the energy sector and their financial viability, this should give us all the more cause to redouble our efforts and to tighten our criteria in selecting eligible projects, particularly at a time when there is likely to be a decline in capital investment in this

field. At all events, we should not be drawn into completely rethinking our lending policy.

An objective that has become vital for the future of the Community is that of increasing the competitiveness of European industry by developing its high technology potential. It is therefore imperative for the Bank to devote a larger share of its financing to this end in line with the criteria and directives endorsed by you in June 1984. High-technology projects frequently involve certain elements of risk for which it is becoming increasingly difficult to secure adequate guarantee cover, yet the provision of guarantees remains essential. This explains why we are giving considerable thought to devising flexible and efficient remedies for this situation in keeping with our Statute and credit rating.

I should like now to touch briefly on a number of further points both topical and likely to have repercussions for Bank activity:

— A number of major European infrastructure schemes are on the drawing-board, if not about to be launched. They call for complex and large-scale financial packages. Promoters and different banks have already made approaches to the EIB. Each case merits thoroughgoing consideration, but the Bank ought to be in a position to play an appropriate part in schemes such as these.

— Re-organisation at Commission level has highlighted two other important matters affecting the Bank: the first of these concerns coordination of the Community's lending and grant aid operations; the second relates to the formulation and promotion of new financing instruments and techniques tailored to today's problems. By virtue of its experience and the knowhow of its personnel, the Bank is called upon to assist in the study of these matters. Circumspection, technical expertise and pragmatism are qualities, tempered with a measure of flexibility and imagination, which we should hope to bring to bear on both scores. Rest assured that we shall strive also towards rational deployment of the Community's financing facilities in keeping with the common objective and with the specific nature of each facility in close cooperation with the Commission.

— Finally, fresh terms of reference have just been established for Bank operations outside the Community with

## Changes in the EIB's Board of Governors and Board of Directors

### Governors

The EIB's Board of Governors consists of one Minister from each Member State, usually the Finance Minister. The Portuguese Republic has designated as Governor, Mr Miguel José Ribeiro CADILHE, Minister of Finance<sup>(1)</sup>. Since February the Governor for Ireland is Mr John BRUTON, Minister for Finance and since March the Governor for France is Mr Edouard BALLADUR, Minister for Economic and Financial Affairs and for Privatisation; both designations result from the formation of new governments following elections.

The Chairmanship of the Board of Governors runs from one Annual Meeting to the next, and rotates following the alphabetical order of Member States. Governor for Denmark, Mr Palle SIMONSEN, Minister of Finance, took over Chairmanship of the Board, June 17, from Governor for Belgium, Mr Mark EYSKENS, Minister of Finance, who held the position until the end of the day of the Annual Meeting on June 16.

### Directors

The Board of Directors consists of 22 Directors (21 nominated by Member States and 1 nominated by the Commission of the European Communities) and 12 Alternates (11 nominated by Member States and 1 by the Commission). Members of the Board of Directors are appointed by the Board of Governors for a term of 5

years which is renewable. Mr José António GIRÃO, Director-Geral do Tesouro, Ministry of Finance, Lisbon<sup>(1)</sup> was appointed Director, nominated by the Republic of Portugal.

Mr Denis SAMUEL-LAJEUNESSE, Chef du Service des Affaires Internationales, Direction du Trésor, Ministry for Economic and Financial Affairs and for Privatisation, Paris, formerly Alternate Member, has been appointed Director succeeding Mr Jean-Claude TRICHET. Mrs Ariane OBOLENSKY, Sous-Directeur des Affaires Multilatérales, Direction du Trésor, Ministry for Economic and Financial Affairs and for Privatisation succeeds Mr Samuel-Lajeunesse as Alternate.

Mr Dimitri ZACHARIADIS-SOURAS, Adviser to the Minister for National Economy, Ministry for National Economy, Athens, has been appointed Director to replace Mr Gerasimos SAPOUNZOGLU. Mr Alastair CLARK, Senior Manager, Gilt-Edged Division, Bank of England, London has been appointed Alternate in place of Mr Ian PLENDERLEITH.

The Board meeting on 16 June held a minute of silence in honour of EIB Director, Sir Malcolm WILCOX, former Chief General Manager, Midland Bank plc, London, who died on 23 May.

<sup>(1)</sup> Details of Spanish participation in the Bank's decision-making bodies were given in EIB-Information No. 48, February 1986.

recent entry into force of the Third Lomé Convention, while further terms are being hammered out for the third generation of Mediterranean protocols. In view of a combination of extremely delicate political and economic circumstances, the continuance of operations in these areas will call for added effort and means on our part. It will be necessary for us to tailor aid evenly to essential requirements, to growth, rehabilitation and stabilisation targets, while remaining constantly alert to risk factors, such that the Bank's credit rating suffers no impairment.

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After these few words about what challenges the future holds in store for us, perhaps I may revert to the present. This year marks two milestones for our Bank: the first, enlargement of the Community on 1 January 1986, the second, the in-

crease in the capital of the EIB entering into effect on that same date.

The capital increase paves the way for further advances in Bank financing operations for the development and structural adaptation of Member States' economies; not only does it provide us with more scope but it gives us increased responsibility from the point of view of maximising the effectiveness of our activity.

By the same token, the accession of new Member States adds to our tasks, but it also brings us fresh opportunities and calls for a number of operational adjustments.

The Bank's statutory bodies have gained new members from Spain and Portugal. They bring with them much valuable experience from which we are already benefiting. At the same time, measures

have been adopted to see that colleagues from the new Member Countries are able to join our organisation on the basis of a steady, balanced intake. The Bank's establishment structure and its individual departments have been reorganised without any marked increase in staff strength. This has been achieved in response to a twofold need: to cater for Community enlargement and to ensure that the Bank is well placed to continue to fulfil and build on the tasks entrusted to it.

Mr Chairman, Gentlemen,

Permit me, in conclusion, to express my own gratitude and that of my colleagues on the Management Committee for your continuing patronage, especially that evidenced recently which we appreciate as an unequivocal and magnanimous token of your esteem for our institution.

## The EIB's staffing and organisation

To put a computer to its optimum use, it is essential that the hardware is complemented by appropriate software. One could call the financial structure of the European Investment Bank its "hardware": it provides a sound foundation for the EIB to pursue the tasks ascribed to it by the Treaty of Rome and its key element is the subscribed capital of 28.8 billion ECUs, of which 2.6 billion (some 9%) is paid-in or to be paid-in. An essential part in the configuration is the Bank's solid AAA standing on the world's capital markets, enabling it to borrow substantial amounts at the best possible terms. Human resources are the EIB's "software" — an indispensable asset without which the Bank could not fulfill its tasks. The staff's expertise is basic in making it possible to build on the financial foundations and to put the strength of these to the best use.

The EIB's lending volume has shown steady growth with an especially marked increase in the last ten years. The staff has also increased, although not at the same rate as the Bank's lending.

### Human resources

One of the EIB's strengths lies in the benefit it derives from bringing together professional experience drawn from the twelve Member Countries.

At the end of 1985, the EIB's staff totalled 673 employees, working in eight major organisational units (7 Directorates plus the Technical Advisory Service). All members of the Bank's personnel — who, incidental-

ly, do not have civil servant status but are employees engaged by the Bank on the basis of an open contract — are nationals of the Member Countries. They are recruited from a wide range of backgrounds, including the commercial banking sector, central banks, long-term credit institutions, national and international aid agencies, the industrial sector, engineering firms and government departments.

There is no job quota as such for each Member State, but the Bank's Statute requires that "in the selection of staff, account shall be taken not only of personal ability and qualifications but also of an equitable representation of nationals of Member States". So, with regard to the most recent Members to

join the European Community and the EIB, the Bank devotes special attention to the recruitment of qualified men and women of Spanish and Portuguese nationalities.

The level of staff expertise is reinforced through training activities. Training covers such areas as new office techniques, languages, management and a number of specialized professional programmes. Not only do these keep the staff acquainted with the latest developments in their field, they also encourage an active interest in adapting the Bank's working methods to its changing environment.

The creation of equal opportunities for men and women is an important concern. In 1985, a consultative group was established with the aim of promoting opportunities for female staff in the fields of professional training and career development. To facilitate access to higher functions in the Bank, specialized training has been introduced for staff in the lower grades, the majority of whom are female. Last year, there were 34 women in executive positions compared with 16 three years before.



Danish, Dutch, English, French, German, Greek, Irish, Italian, Portuguese and Spanish, plus, of course, Lëtzebuergesch, the language of the Bank's host country, are heard at the EIB's headquarters. For reasons of efficiency, however, the everyday working languages of the Bank are English and French. In practice, members of the EIB's staff have, as a minimum, an active knowledge of either English or French and a passive knowledge of the other language. The use of French is widespread in Community institutions and dates back to the era of the original Community of Six. Being the language of international banking, English was already in use at the Bank prior to the accession of the United Kingdom to the European Community in 1973. In order to reach the widest possible audience, the EIB's annual report, for example, has been published in English since 1958. The Bank's publications are printed in the nine operating languages of the Community.

### Organisational structure

From the start the Bank's activities have been organised along the pattern of a project financing institution and handled in specialized Directorates, the responsibilities of which have been defined as follows:

**General Administration** is concerned with the internal administration of the Bank and all questions related to personnel matters. This Directorate also provides central management services such as electronic data processing and is responsible for the Secretariat of the Bank's governing bodies, external relations and public information. The Manager of the General Administration Directorate also holds the position of Secretary-General;

**Operations in the Community** is responsible for all aspects of lending in the Member States. The recent increase in their number has necessitated an organisational rearrangement (details of the reorganisation are given below);

**Operations outside the Community** is responsible for all aspects of lending outside the European Community. As the European Community has increasingly called on the EIB to put its

project financing expertise at the service of the EEC's development policy, this Directorate today covers lending activities in twelve Mediterranean countries with which the Community has concluded financial co-operation agreements and in the 66 African, Caribbean and Pacific Countries which are signatories to the Lomé Convention as well as in the Overseas Countries and Territories having historical ties with EC Member States;

**Finance and Treasury** handles the Bank's borrowing operations on world capital markets and is responsible for the Bank's liquidity management and its accounting;

**Research** studies economic and financial developments to assess the economic justification of individual lending operations, monitors conditions in the financial markets in which the Bank borrows and provides advice on the Bank's borrowing and lending policy;

**Legal Affairs** provides legal counsel and is responsible for the finance contracts committing the Bank;

**The Technical Advisory Service** is composed of specialists who evaluate investment projects, particularly as regards their technical soundness and long-term viability.

### New organisational structure for lending within the Community

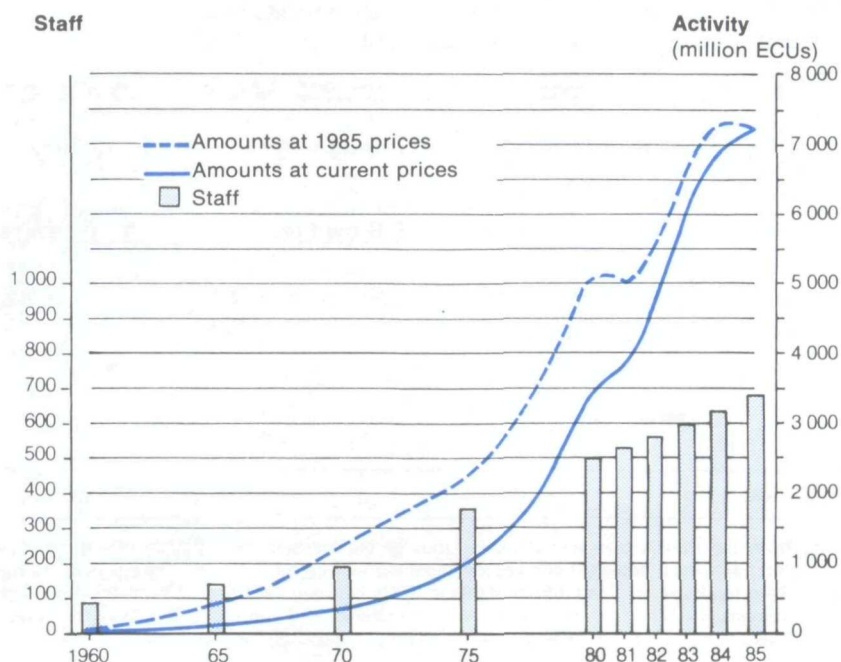
Following the accession of Spain and Portugal, a change in the organisational structure has been effected. The EIB's Directorate for Operations in the Community, with a combined lending volume in the twelve Member Countries reaching some 7 billion ECUs in 1985, was divided into two Directorates with roughly equal lending volumes.

Directorate 1 covers lending in Italy, Denmark, Germany and Spain. Directorate 2 covers lending operations in Belgium, Greece, France, Ireland, Luxembourg, the Netherlands, Portugal and the United Kingdom. A Co-ordination Group for the lending activities of the two Directorates is chaired by Mr Eugenio GREPPI, Manager of the first mentioned Directorate.

### Senior staff appointments

The EIB Management Committee appointed Mr Pit TREUMANN Manager of Operations in the Community, Directorate 2, from 1st May. Mr Treumann studied mathematical economics and econometrics at the University of Amsterdam where, following his graduation in 1970, he

Staff complement related to total Bank activity (1960-1985)



taught economics and finance. In 1975 he became Alderman of the City of Amsterdam. He joined AMRO Bank in 1979 where his tasks included project finance, corporate credit and export finance, his last position being Director of the International Operations Department.

Mr Herbert CHRISTIE takes over as Manager of the Bank's Research Directorate from 1st July. He succeeds Mr Henri LEROUX who retired at end-June after 23 years of distinguished service with the Bank. Mr Christie joined the EIB in October 1983 as Co-Manager of the Research Directorate. He graduated in economics and philosophy at St Andrew's University, Scotland in 1957, and was Senior Economics Adviser in UK Government Ministries between 1971 and 1976. After serving as Economic Adviser at the Commission of the European

Communities, Brussels, in the Directorate-General for Economic and Financial Affairs (1976-1978), he became Under-Secretary (Economics) at H.M. Treasury, London, in 1978 before joining the EIB.

Mr Ulrich DAMM has been appointed Deputy Manager of the Finance and Treasury Directorate from 1st July. He will take over the Issues Department in the Directorate from the beginning of 1987, which is currently headed by Wolfgang THILL, Associate Manager of the Directorate. Mr Thill will retire at the end of 1986 after 26 years of outstanding service at the EIB. Mr Damm holds degrees in economics, law and languages from universities in Germany and Geneva. He has been working in the banking sector since 1963, joining Commerzbank Frankfurt in 1968 and has been Managing Director at Commerzbank International in

Luxembourg since its establishment in 1969.

Mr Ronald STURGES has been appointed Head of Personnel, General Administration Directorate from 1st July. He succeeds Mr Hans HITZLBERGER who was also Co-Manager of the General Administration Directorate and who will serve as Special Adviser to the Management Committee until the end of the year when he will retire after more than 17 years of dedicated service at the Bank. Mr Sturges joined the Home Civil Service in the UK in 1954, where he held various positions including Principal, Department of Health and Social Security. He then served with the European Free Trade Association, Geneva, as Chief of Personnel and Deputy Head of Administration from 1969 to 1974, when he joined the EIB as Recruitment and Training Officer.

## The Era of the Eurotunnel

# Loans for Financing Transport Infrastructure

The announcement in January 1986 of the Franco-British agreement on the provision of a fixed cross-Channel link in the form of a double rail tunnel has focused attention on the financing of major transport infrastructure in the Community and the way it improves the flow of goods and people between Member Countries in the interests of progress towards the achievement of a unified market within the Community. That the media should cite the Bank as a prospective source of funds for the scheme, and that in economic and decision-making circles there are similar expectations is hardly surprising – the EIB has lent nearly 3.5 billion ECUs for transport infrastructure since 1981<sup>(1)</sup> and 1.1 billion in 1985 alone – but it would be premature at this stage to say whether there will be Bank involvement, or for what amount.

The Bank's task, as defined in the Treaty of Rome, is to contribute to the balanced and steady development of the common market, and to this end it may finance infrastructure wherever it makes a contribution, whether direct or indirect, to the improvement of economic productivity in general, that helps to foster regional development or offers benefits to the Community at large, for instance by improving communications between the Member Countries.

## Lending in the Community for transport infrastructure from 1981 to 1985 (million ECUs)

	EIB own resources	NCI resources
Railways	355.6	141.9
Roads, bridges and tunnels	2 183.0	242.4
Shipping	134.5	—
Airlines	410.9	—
Intermodal transport	8.7	—
	3 092.7	384.3
<b>Grand total</b>		<b>3 477.0</b>

Lending from the Bank's own resources includes global loans made available for smaller-scale infrastructural schemes, notably 1 466 improvement works within the Community's secondary road system, where the Bank provided a total of 389 m ECUs between 1981 and 1985, mainly for French roads. Sub-loans for other infrastructural works numbered 28 (worth 21.2 m ECUs) for harbour facilities, 7 (8.2 m ECUs) for the railway network and 4 (2.6 m ECUs) for provincial airports.

## Regional development

Much transport infrastructure lies in the less-developed regions of the Community, where works qualify for regional development aid from State funds, or it may be located outside the assisted areas but still serve them directly. A case in point is Exeter Airport, which received a loan in 1979, and which is helping to improve links with the United Kingdom's

<sup>(1)</sup> Including 73.2 m ECUs in 1985 and 384.3 m ECUs between 1981 and 1985 from the resources of the New Community Instrument (NCI). NCI funding is now however being channelled into investments by small and medium-sized enterprises outside assisted areas.



West Country. In 1985, EIB lending for regional transport infrastructure topped 880 million ECUs, while the total since 1981 comes to over 2 800 million ECUs.

The largest amounts have gone into road schemes, with the EIB advancing 1.75 billion ECUs for new roads, improvement and widening works and realignment of national and regional trunk roads and local routes between 1981 and 1985 in France, Ireland, Greece and, in particular, Italy. Via ANAS – Azienda Nazionale Autonoma delle Strade – it has advanced credit for schemes in Abruzzi, Basilicata, Calabria, Latium, Apulia and Sicily. A special case has been loans for reconstruction and reinstatement works on roads damaged in the 1980 earthquakes in Campania and Basilicata, as part of the Community aid programme for the disaster area<sup>(1)</sup>.

Finance for railways also helps regional development: the Bank has granted loans for electrification, improved signalling and installations (new lines and stations) and the procurement of high-performance rolling stock, in the United Kingdom, Italy, France and Denmark, including the acquisition of high-speed trains for the North-South link on existing British Rail lines and for the "trains à grande vitesse" system in France. The latter features new technology and requires special track. Financing is currently being provided for the "TGV Atlantique", which will provide a much-improved service to Western and South-West France and beyond, to the new Member Countries, Spain and Portugal.

Air traffic too has been helped by EIB credit, for projects to improve services linking less-favoured regions.

During the period in question, the Bank has financed various investments in the shipping sector, for the most part harbour works in Greece (Volos, Kavala, Rhodes, Kos, Karpathos, Corfu, Syros, Souda and Rethymnon), France (La Rochelle-Pallice, Sète and Nantes-St. Nazaire), the United Kingdom (Workington in Cumbria) and Denmark (Tejn on Bornholm Island, Jakobshavn in Greenland, Aabenraa and Aalborg in North Jutland).

In addition to the individual loans granted for these larger projects, the Bank has advanced more than 400 million ECUs in the form of global loans (lines of credit), for small and medium-scale infrastructure schemes, always in support of re-

gional development: 421 million ECUs in France, via the Caisse d'Aide à l'Équipement des Collectivités Locales (CAECL), and 4.2 million in Greece, via the Deposit and Loans Fund (Tameio Parakatathikon kai Daneion). CAECL has mobilised funds for almost 1 700 projects, mostly on the roads maintained by the "départements" of Midi-Pyrénées, Auvergne, Bretagne, Aquitaine, Languedoc-Roussillon, Nord-Pas-de-Calais and Pays de la Loire, with smaller amounts going for railway projects (Midi-Pyrénées), harbour works (Calais, Boulogne, Dieppe and Corsica) and airports (Vendée and Aquitaine).

### Community infrastructure

Community links, unlike regional infrastructure, may attract loans regardless of their location, although most but not all overland communications works are located in frontier areas. The diversity of the projects financed is again considerable, with roads featuring most prominently, in particular motorways directly connecting one Member Country with another. These include the Paris-Saarbrücken and Paris-Brussels links, the motorway connections between France and Spain and the Roquebrune-Menton section of the Marseilles-Genoa motorway a few years ago. More recently,

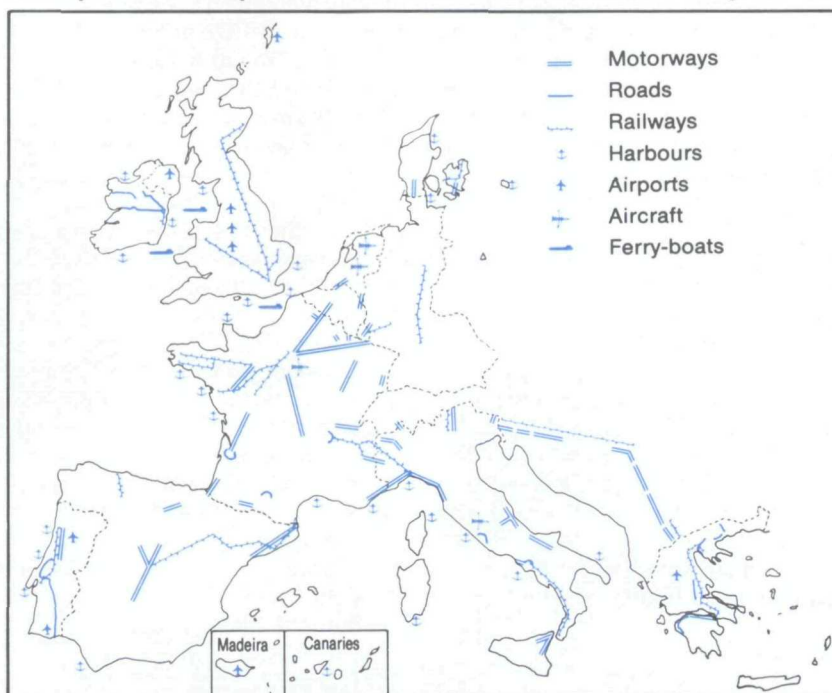
funds have gone into the Friuli motorway, which is improving traffic movements between Italy and Germany via Austria, and the Luxembourg-Trier motorway. The various transalpine routes between France and Italy have also received credit, in particular the Fréjus road tunnel (see box).

Other sections of road and motorway have been financed as Community infrastructure, even though not crossing frontiers, as extensions to trans-Community motorways or schemes to eliminate bottlenecks. Cases in point are the Thionville by-pass near the France-Luxembourg border, the Lorraine-Burgundy motorway, the Dartford Tunnel under the Thames and the Farø bridges over the Storstrømmen strait in Denmark, carrying that country's southern motorway, which forms a vital link between Scandinavia and the rest of Western Europe.

Railway projects offering benefits to the Community at large have also been financed with EIB backing: electrification of the Lyons-Chambéry line in France and of the Elsinore-Korsør line in Denmark. One of the first loans granted by the Bank, indeed, was for rail links bet-

<sup>(1)</sup> The scheme provided for 1 billion ECUs of loans from EIB or NCI resources attracting an interest subsidy of 3% charged to the Community budget.

### Examples of transport infrastructure schemes financed by the EIB



ween the ports of North Germany (with their Scandinavian connections) and the South of that country, reaching beyond to South-Eastern France and Italy. Funds also went into the Koblenz-Völklingen line, with its connections to Luxembourg and France. In 1982, looking forward to Spain's accession to the Community, the Bank provided part of the funds for an 87-kilometre improvement scheme on the Mediterranean coastal line from France to Valencia by-passing Barcelona.

Financed for similar reasons were port infrastructure works in Genoa, Rouen, Marseilles, Felixstowe, Ramsgate and Harwich, some for improving freight traffic (e.g. container facilities) and others for expediting the movement of coal (terminals and handling installations). There was also a loan to the British and Irish Steam Packet Company for the purchase of a roll on/roll off Irish Sea ferry (1 500 passengers and 340 vehicles).

Air traffic has attracted 410 million ECUs of EIB loans since 1981, mainly for services between Community capitals and other principal cities, with funds channelled into airport enlargement and modernisation projects (Birmingham, Manchester and Leeds-Bradford), air-traffic control equipment in Greece and the purchase of aircraft: Airbus for Alitalia and KLM, short-haul airliners for NetherLines and medium-haul airliners for Air France. In 1979, a loan went towards the improvement of safety features at Madeira airport, as part of the pre-accession financial package for Portugal, and in 1983 redevelopment work was funded at Oporto and Faro airports.

In 1985, funds were advanced towards the construction at Verona in Veneto of a road/rail transfer terminal for freight, complete with handling installations and allied services: customs facilities, distribution premises, etc. This will help to ex-

pedite cargo traffic between Italy and the rest of the Community.

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### Other Community objectives

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The infrastructure financed by the Bank often not only serves to increase the accessibility of less prosperous backwaters but also to improve links within the Community at large, and this serves both the abovementioned objectives at one and the same time. Other aims, too, may be served by infrastructure financing: port installations like coal terminals, for instance, not only improve the amenity itself but also further the pursuit of EEC energy priorities. The same goes for railway electrification in France and Denmark, allowing diesel locomotives to be phased out. Similarly, the various bypass schemes not only ease local traffic but are often an environmental improvement, reducing exhaust emissions in heavily built-up areas.

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## Alpine Crossings

Transport infrastructure projects in the Alps financed by the Bank include a major international road tunnel – the Fréjus Alpine crossing from the Rochemolles Valley near Bardonecchia in Piedmont, Italy, to the Arc Valley in Savoie, France, which has been funded on both the Italian and the French side.

In France, the borrower was Société Française du Tunnel Routier du Fréjus (SFTRF), which in 1974 and 1978 received two loans, together amounting to 21.4 million ECUs. On the Italian side, four loans in all were granted, between 1975 and 1982, for a total of 55.5 million ECUs. The funds went to Società Italiana Traforo Autostradale del Fréjus (SITAF). Two loans, together amounting to 16 million ECUs, were for construction work on the tunnel itself, while two others, totalling 39.5 million, went for investment in modifying and completing the system of tunnel approach roads, to ensure ease of traffic flow on this new trunk route.

The Fréjus Tunnel is the centrepiece of a new, all-weather 13-km link capable of carrying 7 300 vehicles a day in either direction. Shorter and faster than the Col du Mont-Cenis route, it is also intended to relieve the pressure of traffic using the Mont-Blanc Tunnel.

The EIB has been involved in works on other Alpine crossings, such as the Friuli motorway from Italy to Austria and Southern Germany and the Esterel – Côte d'Azur motorway in France which did much to ease traffic between Menton and the frontier and, on a wider scale, to enhance communications between Marseilles and the Rhône Valley in France and the Autostrada dei Fiori and Central and Northern Italy. Loans were also granted for the Brenner motorway in Veneto and Trentino – Alto Adige, again linking Italy to Germany and Northern Europe via Austria. EIB financing also went in support of works in Italy on various access roads to eight Alpine crossings: the Fréjus Tunnel, the Montgenèvre and Mont-Cenis passes, the Mont-Blanc and Grand St. Bernard tunnels and the Petit St. Bernard, Simplon and Ponte Ribella passes.

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### Borrowers

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Those borrowing funds from the Bank for investment in infrastructure can range from Government to regional or local authorities (sometimes in association), chambers of commerce (in France), utilities, port authorities and public and private companies. The latter include airlines and railway authorities, which actually run the services in question, and in some cases these may be allied within "economic interest groups", e.g. for the purchase of aircraft for operation by the airlines concerned. The EIB has, in the pursuit of flexibility and operational efficiency, worked assiduously on putting together often quite complex financing packages for material of this kind, where large volumes of capital are deployed and international co-financing is sometimes sought. Equally, projects of this kind may on occasion call for a novel legal format which, if it holds better promise for the success of the venture, the Bank may well endorse, whether it is a matter of complex legal structures as such or of one-off financing arrangements. Similarly, the Bank has no objection in principle to financing leasing operations, provided again that they involve investment consistent with its lending criteria.

Transport infrastructure is financed on the Bank's customary conditions: long-



term loans, most frequently of 12 to 15 years' duration, although occasionally with a term of as much as 20 years, possibly with a grace period of 2 to 5 years. EIB loans may be used to cover up to 50% of the cost. The rate of interest applied<sup>(1)</sup> will depend on the market rates for the currencies actually received, EIB loans being disbursed for the most part in a mix of currencies chosen by the borrower according to what the Bank can offer (chiefly US\$, ECUs, DM, Sfrs, £, Fl, Ffrs or Yen). The possibility does remain however of loans in a single currency, whether Community or non-Community, or in ECUs. The borrower's status does not affect the rate of interest.

Loans are for the most part granted at a fixed rate of interest, although variable-rate loans have lately been gaining some ground. Service payments, of both principal and interest, are made on an equal six-monthly or annual basis, although in

certain cases the Bank may also grant loans for repayment in toto at term, depending on the borrower's needs, the nature of the investment and what is available in the markets.

Disbursement of credit may take place under one or more contracts, in line with the borrower's preference. The EIB does not charge any commitment fee if disbursement takes place during the six weeks following contract signature. In practice, with major projects, this flexible approach can better serve the borrower's needs, for instance by enabling the funds to be disbursed in line with progress in construction work. The loan is always disbursed at par.

### Economic impact

The impact of this kind of project on the economic development of the regions,

on European integration and possibly on environmental protection and the pursuit of the Community's energy objectives speaks for itself. Importance is also attached to the number of temporary jobs generated, the supply of equipment and/or structural works. Data compiled in the course of appraisal work on applications for loans indicate that in 1985 the total temporary employment created by infrastructure projects was something of the order of 190 000 man-years. Transport infrastructure featured prominently in that total. The significance of these figures is quite considerable under prevailing economic conditions, bearing in mind especially the protracted slump affecting the building and civil engineering industry in the Community.

<sup>(1)</sup> For further details, see EIB Information No. 47 (January 1986) on the subject of the Bank's lending rates

## Loan demands at the EIB

**The European Investment Bank is frequently asked about the procedures a project promoter has to follow to introduce a loan demand. Sometimes the Bank receives requests for application forms. It therefore often comes as a surprise to those approaching the EIB for the first time that there are no formalities to be followed or applications to be filled in when making contact with the Bank to explore the possibility of a loan.**

**This article broadly covers loan enquiries for projects located within the European Community. For projects outside the Community, while the handling of loan requests is similar, EIB financing falls under protocols and agreements negotiated between the Community and countries in the Mediterranean region, as well as under the Lomé Convention with the African, Caribbean and Pacific countries. Loan demands under these agreements are made by the promoter with the consent of the governments of the countries concerned or by the governments themselves.**

In the Community, a promoter may get in touch with the EIB in the same informal manner as with any other partner for his projet. The EIB handles financing enquiries in a versatile and pragmatic way and first contacts may be simply a phone call or letter.

The EIB is an institution created by the Treaty of Rome with the task of promoting the balanced and steady development of the Community. It has no other means to fulfil the mission entrusted to it by the Treaty than those of a bank, raising the bulk of its funds on capital markets and onlending the proceeds towards

capital investment projects meeting certain Community economic policy objectives.

Working on a non-profit-making basis, the Bank finances projects in industry, energy and infrastructure which further:

- the economic development of the Community's less prosperous regions;
- the attainment of the Community's energy policy objectives (development of indigenous resources, energy saving, import diversification);

- modernisation or conversion of undertakings, development or introduction of advanced technology to improve the competitiveness of Community industry, fostering of cooperation between undertakings in different Member Countries; and
- improvement of communications between Member Countries (transport and telecommunications) and other Community objectives, such as protection of the environment.

Entrusted with this mission, the immediate response of the EIB to all contacts concerning loan enquiries is to clarify whether the project meets one or more of the above eligibility criteria.

From the start, discussion between the EIB and a potential borrower will also cover whether the project meets the Bank's lending criteria as broadly established by the Bank's Statute, which is a protocol to, and as such forms an integral part of, the Treaty of Rome. The Bank is directed under Article 20 "to ensure that its funds are employed as rationally as possible in the interests of the Community" and that projects it supports contribute "to an increase in economic productivity in general and promote the attainment of the common market".

The same article of the Statute lays down that projects in the productive sector have to be technically and commercially viable, and that the borrower is able to meet interest and amortisation payments from operating profits. In the case of infrastructure projects, as well as being technically viable, such investment has to show an indirect economic return. The EIB does not finance economically unjustified prestige projects. To fulfil its mission as a project financing bank the EIB has to assure itself of the lasting effectiveness of projects it helps to finance through detailed appraisals. The assessment of a proposed capital investment is carried out by inter-disciplinary expert groups of the Bank's staff.

However, for practical operational reasons the EIB does not handle directly large numbers of small and medium-sized projects. Instead, the Bank reaches smaller ventures in cooperation with intermediary financing institutions under its global loan schemes – lines of credit made available to a bank or other financial institution for on-lending in smaller amounts. The intermediaries carry out

project assessments in close consultation with the EIB according to the Bank's eligibility and lending criteria.

The EIB is under no constraint in terms of volume or quotas for its lending operations, either on a country basis or according to economic sectors. However, while it takes a strict approach when it comes to assessing a project's viability, it is ready to advise and help a potential borrower to structure his project or identify those elements most suitable for EIB financing.

The EIB's Statute (Article 21) identifies three ways for making loan applications. These may be introduced either through the Commission of the European Communities or through the Member State in whose territory the project will be carried out or, as is in fact the general practice, directly to the Bank.

The introduction of a loan request in a formal sense only follows once the EIB has clarified that a proposed project meets its terms of reference concerning its eligibility and lending criteria, and the

potential borrower has clarified that the Bank's financing conditions are appropriate to his needs. In line with the requirements of the Bank's Statute, the promoter makes a written loan request, which is normally a brief letter to the EIB identifying the project and the amount of finance being asked for.

As loan demands are made directly to the EIB (except of course demands for finance under global loan schemes which are handled directly by the relevant intermediary institution), the Bank asks for an opinion on each application from the Member State in whose territory the proposed project is located and from the Commission (according to Article 21 of the Statute). The opinions of the Member State and the Commission cover whether the proposed project meets with national economic policies and with the economic priority objectives of the Community and not its viability. Detailed information provided by a project promoter in the course of project appraisal and discussions with the EIB is kept confidential.

Decisions on a loan request are taken by the EIB's Board of Directors, which meets about every six weeks and acts on proposals from the Management Committee, the Bank's full-time operational body directing its current activities. The Bank's staff, in direct contact with project promoters, carries out project appraisals reporting to the Management Committee. On the basis of such reporting the Management Committee decides on recommending projects to the Board of Directors. The Management Committee then ensures that decisions of the Board of Directors are carried out.

The time taken up between the first approach to the Bank in Luxembourg (or one of its offices in Rome, Brussels, Athens, London and soon in Lisbon) and a decision from the Board of Directors varies considerably according to the complexity of a project and how well-known the promoter is to the Bank. The EIB makes every effort to ensure that the timing of its decision-making processes meets with the needs of the promoter. A relatively straight-forward project could be dealt with in about two months between initial approach and approval.

After approval by the EIB's Board of Directors, the Bank takes a flexible approach on the timing of a loan drawdown, and there is no binding commitment for a potential borrower until loan contract signature, which generally takes place

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## Guest Lectures at the EIB.

Two distinguished economists were recently invited by the Management Committee to present lectures at the European Investment Bank: on 22 May 1986, Dr Lawrence KLEIN, Nobel prize winner for Economics in 1980 and currently Professor of Economics at the University of Pennsylvania and, on 6 June 1986, Dr Albert ANDO, Professor of Economics at the University of Philadelphia.

After a short introduction by Dr Ernst-Günther Bröder, President of the EIB, Dr Klein addressed an audience which included the Prime Minister of Luxembourg, Mr Jacques Santer, the U.S. Ambassador to Luxembourg, Mrs Jean Gerard, and members of the Luxembourg banking community, on "Sensitivity of the US Current Account to Dollar Depreciation". The analysis concentrated on examining evidence on the macro-economy and dollar fluctuations so as to forecast whether the recent decline in the dollar would lead to a reduction in the current account deficit and restore some degree of balance of payments equilibrium for the United States and the other major industrial countries. Working on the basis of simulations carried out on the LINK model, Dr Klein elaborated a "soft landing" hypothesis to restore US current account equilibrium through the gradual bringing down of interest rates combined with the implementation of tighter fiscal and looser monetary policy.

To an audience largely made up of professional economists, Dr Ando spoke on "Price-Wage Behaviour, External Shocks and Rational Expectations" and, within the framework of rational expectations theory, presented an economic model to forecast changes in macroeconomic trends, taking wages, the price index, exchange rates and unemployment rates as the main variables. A characteristic of Dr Ando's model, which has been tested successfully both against retrospective data and against other known models, is that it makes a clear distinction between value added inflation and raw material inflation. As a result, Prof. Ando claims that the Phillips curve trade-off between inflation and unemployment is more stable than a first reading of the empirical evidence would suggest.

shortly before disbursement. The total amount approved by the Board of Directors may be utilised in instalments as separate loan contracts to fit in with the promoter's financing needs as his project progresses. Interest rates on loans are those applicable at the time of contract signature and reflect developments on capital markets. (For an explanation of how the EIB sets interest rates, see EIB Information No. 47, January 1986).

Loans are disbursed at par and there are no arrangement fees or extra costs involved, or commitment fees if a loan is drawn down within 60 days of contract signature.

A question also sometimes asked about the EIB is: What is the percentage of loan requests turned down by the Bank? This cannot be answered with a simple number. Because of the EIB's practical and informal approach, as explained in this article, statistics are not kept of the many

preliminary enquiries about financing possibilities the Bank receives daily.

At the same time, it is rare that a loan application in a formal sense, as outlined, does not result in a loan approval. A decision is taken by the Board of Directors on a recommendation from the Management Committee outlined in the project report. A project may be discussed in considerable detail, and the Board may ask for further information and clarification before making a decision.

## Combating desertification: EIB support for exemplary project in Tunisia

**The battle against desertification represents one of the major priorities of development aid, particularly in regions bordering the Sahara. Desertification in various parts of the world is thought to have deprived agriculture of over 200 000 sq. km of land, an area equivalent to that of Senegal<sup>(1)</sup>. There is often both a dearth of resources and, occasionally, a lack of technical means to combat this scourge which is posing a direct threat to a number of African countries. Agencies and specialists have joined in promoting the establishment of plantations to stabilise the dunes and to prevent the sands from advancing. The problem is exacerbated, however, by farming methods, these being either too intensive or geared little towards protecting vegetation. Moreover, emphasis has also often been placed on the role played by herds of livestock in aggravating the problem.**

An investment programme implemented in central Tunisia has produced encouraging results and certain aspects could be transported to other "pre-Saharan" regions. The scheme, financed by the EIB in 1981 under the first EEC-Tunisia Financial Protocol<sup>(2)</sup>, centred on improving conditions for rearing cattle and sheep at six farms with a view to reducing the country's production shortfall in meat and dairy products. In accordance with one of the objectives spelt out in the Financial Protocol, a loan for the scheme for 5 million ECUs was made available for 20 years by the Bank to the State with a 2% interest subsidy funded from grant aid provided for under the Protocol and drawn from the European Community budget.

This operation enabled the EIB to contribute towards a programme for improving over 10 000 hectares of impoverished grazing land implemented by the Office des Terres Domaniales (OTD) and comprising buildings, provisional prevention of grazing on 7 400 ha of improved land, establishment of 2 940 ha of fodder reserves with trees and fodder plants such as *Acacia cyanophylla*, *Atriplex numularia* and spineless cacti, together with the purchase of 20 000 sheep. The

project, completed in 1985 at an investment cost of 605 ECUs per ha in real terms, will outstrip initial production targets and has illustrated that rehabilitation of grazing land, embarked upon before the situation has deteriorated too sharply and backed up by use of irrigated areas, can be financed on a viable basis – a consideration which enables the EIB to grant loans from its own resources, the bulk of which consists of the proceeds of its borrowings on the capital markets.

### The natural environment

The 10 000 ha of land selected for the project financed by the Bank were divided between 6 holdings with rainfall of 200-400 mm per annum. Only areas still offering sufficient scope for agricultural production were considered. In certain zones, vegetation consisted of *Atriplex* (*halimus*, *malvana*), *tamarix*, *Cynodon dactylon*, several types of grass and a surprising number of leguminous plants, including *Medicago* sp., suggesting considerable potential as grazing land. Initial fodder production is estimated at 60-200 fodder units per ha. The soil at one of the

holdings, accounting for 35% of the total area, was salty and the ground covered with *Chenopodiaceae*.

The official programme for combating desertification in Tunisia currently focuses chiefly on "pre-Saharan" areas where annual rainfall is less than 150 mm. The project is located to the north of these areas and, despite the marginal agricultural potential of the plains concerned and the gradual decline in scope for using them as pasture land because of overgrazing (itself a consequence of population growth and the quest for higher living standards through ill-considered increases in livestock herds), the land selected could not qualify for direct Government aid.

However, several on-farm experiments conducted by OTD confirmed, to varying extents, scope for significantly improving the grazing land at a time when techniques for rehabilitating heavily eroded soil were still being studied and involved a degree of uncertainty. It was these considerations which lay at the root of OTD's determined approach and the EIB's decision to assist with rapid implementation of the project. The OTD was able to draw considerable benefit from areas equipped with irrigation facilities mainly with an eye to providing feed for dairy cows. Before the scheme was implemented and cattle were introduced,

<sup>(1)</sup> Figure given at the United Nations Conference on Desertification held in Nairobi in 1977.

<sup>(2)</sup> For details of this Protocol and the general background to Bank activity in Mediterranean Countries which are not members of the EEC, see EIB-Information No. 32 of November 1982.



the irrigated areas enabled OTD to keep around 8 000-10 000 sheep, despite the fact that fodder from the ordinary grazing land was sufficient only for 2 500 animals. Had the project not been carried out, the flock would have needed to be reduced or to continue being fed from irrigated areas at the expense of cattle breeding which offers a greater return on irrigation investment. Nonetheless, some use of these areas by sheep is necessary for rational exploitation of the grazing land which must still be regularly protected from grazing as part of a carefully planned rotation programme.

### The project

The project drawn up by OTD with the assistance of EIB technical advisers comprised:

- 220 km of tracks and fencing;
- 350 km of windbreak;
- some ten water supply points and basic sheep-folds;
- creation of nearly 2 940 ha of fodder reserves planted mainly with *Acacia cyanophylla* or spineless cacti on light soil and *Atriplex numularia* on heavy or salty soils, following deep ploughing in lines 4 to 5 metres apart and shallow cross-ploughing. The plants receive an initial dose of manure (2-4 tonnes per ha) and are watered during the first summer (2 000-3 000 m<sup>3</sup> per ha). These areas are initially protected from grazing for three years. The space between the rows can be sown (mixture of barley, vetch, bersim, etc.), although, in most cases, the protection afforded by vegetation in the rows and prevention of grazing leads to spectacular natural growth of various varieties of *Medicago* and several types of indigenous annual grass;
- prevention of grazing for one or two years on 7 400 ha of natural grazing land;
- a temporary input of fodder from irrigated areas with a view to speeding up the natural growth of vegetation on the grazing land;
- purchase of 20 000 sheep, mainly long-tailed Barbary;
- the services of several veterinary surgeons. From the outset, OTD was able to draw on the support of foreign pastoralists and stock-farming specialists, although the main contributors to the initial phase of implementation were OTD's operating managers as well as its central office.

### Operation

Only OTD's own flocks enjoy access to the grazing land, with a normal flock, under the control of a shepherd, comprising 250-300 animals. Ten flocks are grouped together under a "chief shepherd", the size of flocks having been determined, after a series of experiments, on the basis of optimum profitability criteria. The rotation programme for the grazing land is monitored in accordance with strict instructions: January to March/April: use of the grazing land per se; May to July/August: use of fodder reserves (cutting or pruning of acacias and spineless cacti; direct grazing for *Atriplex*). The grazing land and fodder reserves are then protected from grazing and feed is provided mainly from irrigated areas: stubble pasture (July to September) or green barley before stem elongation (October to December). Ewes in lamb or having lambed receive concentrates produced by OTD from raw materials also provided from irrigated areas.

Annual usable fodder production (allowing for rotation) is put at 600 fodder units per ha for improved grazing land and 1 000 fodder units per ha for fodder reserves. The spectacular growth of vegetation between the rows in well managed reserves testifies to the fact that output could exceed 1 500 forage units per ha. Sheep feed requirements (750 forage units per annum) are covered by grazing land and fodder reserves (50%), concentrates (20% - at time of birth and when suckling) and irrigated areas (30%).

The internal rate of return is estimated at between 15% and 30%, depending on the zone concerned; three of the six holdings, which had previously recorded chronic deficits, are now showing a profit. The project has increased the number of sheep in a given area by 200-250%, while reversing the trend towards deterioration of grazing land. Where the soil is suitable mainly for grazing and deterioration is not too advanced, and provided the system of land tenure and the availability of additional feed allow regular prevention of grazing of rehabilitated grazing land, a project of this kind not only serves to restore the natural environment but may also prove very profitable. The reappearance of flora and fauna is such an impressive sight in certain areas that private shepherds have declared that this project "gave a new lease of life" to the desert, despite the greater number of animals; certain shep-

herds, moreover, have sought OTD assistance in implementing similar schemes on their own land. In addition, the Ministry of Agriculture has decided to exploit, on a larger scale, the method used, drawing on support not only from the EIB but also from other lenders.

## ECU

Below are the ECU's values in national currencies, as at 30 June 1986; these rates are applied to the present quarter in preparing financial statements and operational statistics of the Bank:

DM	2.14788	Bfrs	43.9198
£	0.637486	Lfrs	43.9198
Ffrs	6.85490	Dkr	7.96958
Lit	1 475.89	Dr	137.479
Fl	2.41963	IRE	0.710660
Ptas	137.245	Esc	146.342
		US\$	0.978223

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