

Information

European
Investment
Bank



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Financing small and medium-sized ventures

1000 credits under EIB global loans scheme

Over 1 000 ventures have been helped under the European Investment Bank global loans scheme which is designed principally to promote the establishment or expansion of small and medium-scale industry in the Community's less-favoured regions.

Via this financing technique, the broadest span of activity has been assisted, ranging from a golf club manufacturer in Scotland and a mushroom packer in Belgium to producers of high-technology medical equipment in Southern Italy. One common denominator is their value in providing jobs in areas with unemployment problems — between them, the number of jobs created or safeguarded is put at roughly 65 000.

Global loans can be described as a partnership, bringing together the EIB's financial resources as an international body with access to the world's capital markets and the operational resources (in terms of manpower and direct contacts) of various finance institutions working at regional or national levels.

The EIB makes available a block sum of finance to an institution which, acting as intermediary, then splits the amount into smaller sub-loans (called "allocations" in the Bank's terminology) for investments chosen from among those submitted by its own clients. The intermediary is responsible for most of the detailed negotiations and appraisals, but the EIB must give its agreement to each sub-loan.

In this way the EIB can provide finance in quite modest amounts — the bottom limit has been cut recently to 25 000 units of account — which would not be a practical, economic proposition for the Bank to handle directly because of the groundwork involved.

Since its introduction in 1968 the global loan scheme has come to represent an important branch of EIB activities. By end-1978 a total of 56 global loans worth almost 600 million u.a. had been made to 25 different financing bodies in seven Community Member Countries. The Bank's firm intent is to see the

scheme develop further in the years ahead.

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The EIB's broad task under the Treaty of Rome is to assist the Community's balanced economic growth and within this role the Bank has always given priority to regional development. These concerns lead directly to an awareness of the importance of small and medium-sized industrial operations.

Balanced economic development depends on both large complexes and smaller-scale units, forming an industrial network made up of production facilities of all sizes and serving different sectors.

Obviously many activities depend upon economy of scale and demand a level of resources — in terms of finance, manpower, technology and research — which only large enterprises can provide.

On the other hand, small and medium-sized units — run principally

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by smaller, independent firms — play a particularly valuable role as they tend to be engaged in more labour-intensive activities (i.e. creating more jobs for a specific capital outlay — most important in the present circumstances of high unemployment), their diversity widens the spread of economic development, and in general they inject vigour into the economy by stimulating competition and opening up new markets (in some cases also playing a role in introducing new technologies).

Statistics showing clearly the number and relative importance of small and medium-sized enterprises are, nonetheless, difficult to verify. Even the definition of «small or medium-sized» differs considerably from one country to another, and also within the same country.

The Community, however, employs a basic yardstick of what constitutes a small or medium-sized firm, setting the top limit at 500 employees; the firm must also be legally and financially independent (shareholdings by larger groups not to exceed one third).

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In its earliest years, the Bank provided loans directly for small and medium-scale industrial ventures but after some time these operations were growing to the point where it would have been difficult to cope with greater numbers in a reasonably economic fashion.

It was principally for this reason that the idea of global loans came about, but also in the belief that working in close cooperation with regional or national financing bodies, with the greater possibilities open to them through local offices, in terms of direct contacts, market knowledge etc., would enable the EIB to reach a much wider spread of investors, which has been the case. From 1968 (the first global loan) to end-1978, the amount of global loans granted — 595.2 million u.a. — accounted for roughly 26% of all EIB lending for production sectors within the Community. This proportion rises to roughly 30% for the period 1973-1978 (i.e. relating to the Community of Nine).

At this point it is necessary to make a distinction between the amount of global loans granted to intermediary bodies and the total sum on-lent by them, at any one time.

After a global loan contract has been signed, time is required to select and appraise ventures and to

disburse funds, although this is kept to a minimum.

As at 30 April 1979 the amount disbursed from global loans came to 447.9 million u.a., for a total of 975 ventures, (end-April is taken for statistical convenience, but further credits have since been provided bringing the total number of ventures assisted to over 1 000 at time of publication, as mentioned in the introduction). A further 56.8 million u.a. was outstanding at 30 April 1979 (much of it already earmarked for ventures under appraisal); also funds amounting to 75.4 million u.a. were cancelled from a few earlier global loans where the intermediaries concerned did not find the demand envisaged, for reasons beyond their control (e.g. sudden exchange rate movements which discouraged potential borrowers from contracting debts in foreign currencies provided by the EIB).

Table 1 shows financing bodies which have received global loans, and the number and amount of allocations up to 30 April 1979.

It will be noted that global loans — ranging from 1 million to 45 million u.a. — have been made to a wide variety of bodies. The EIB accepts as intermediaries banks and credit institutions, principally, but also regional development institutions and public agencies or, indeed, Member States themselves, which has been the case in Denmark and the United Kingdom.

Some of the intermediaries are large, with considerable assets, and work at a national level; others are somewhat more modest with tasks geared to a specific region or sector. In all cases the EIB must be satisfied that the intermediary is not only sound from financial and managerial points of view, but that it also has the capacity to carry out detailed project appraisals.

Eligibility, size of sub-loans

In theory, any form of investment which corresponds to the European Investment Bank's tasks under the Treaty of Rome, i.e. financing:

- regional development;
- industrial modernisation and conversion;
- projects of common interest to several Member States or the Community as a whole;

would be eligible for finance via global loans.

In practice, however, regional development accounts for virtually all

global loan financing (investment coming under the other headings normally involves higher amounts, for which there are direct loans).

Over 95% by value of allocations from global loans has gone to industrial ventures, but under the terms of some global loans it is possible to extend finance to different sectors, such as agriculture, tourism and other services (see Table 2 for regional and sectoral breakdown). The possibility also exists for global loans to be made for financing a series of small infrastructure works carried out by public authorities.

Applications for finance via global loans are made direct to the intermediary body, **not** to the EIB.

The appraisals carried out by the intermediary must satisfy the EIB's normal lending criteria concerning eligibility, markets for the products in question, technical aspects (including environmental safeguards), economic benefits, profitability and the soundness of the overall financing plan.

The delay involved in carrying out these appraisals varies case to case and according to the intermediary institutions concerned; for its part the EIB decides on a credit proposal within 30 days, usually much less, after receipt from the intermediary.

Sub-loans may be made for up to 50% of the fixed investment costs within limits (depending on the conditions of each global loan) of up to 4 million u.a. or down to 25 000 u.a.; the average amount since 1969 has been about 460 000 u.a.

The interest rate charged by the EIB to the intermediary is calculated according to the Bank's non-profit-making statute, but the rate to the final beneficiary (i.e. the interest charged by the intermediary itself) depends on a number of factors:

— the funds are normally on-lent with a margin to compensate the intermediary for its handling costs and the lending risks which it assumes (it should be pointed out here that the intermediaries on-lend at their own risk);

— some intermediaries will cover exchange risks, on-lending to their own borrowers in national currencies, but the interest rate is calculated to compensate them for providing this facility;

— in some countries and in certain cases state subsidies are paid to

bring down interest rates on credit provided by financial institutions; these may equally be applicable to credit provided from EIB global loans.

Global loans are reserved for assisting ventures where the new fixed investment costs for which finance is sought will not exceed 12 million u.a. and where the promoter's total fixed assets do not exceed 30 million u.a.

Within these general conditions, the EIB gives permanent priority to firms employing less than 500 people with no more than one third of the capital held by a larger company (i.e. coming within the Community definition of «small and medium sized», referred to earlier). From 1969 to end-1978 76% of global loan allocations by number and 66% by amount went to firms of this kind; their share has been increasing steadily and in 1978 the figures for that year were 90% and 77%, respectively.

The remainder is accounted for by investments which for one reason or another fall outside the definition (e.g. a modest scale project carried out by a large company or subsidiary). The EIB lends for such investment through global loans because in some regions a structural feature is the lack of small local entrepreneurs; to exclude other projects by too strict an approach would serve no purpose and only reduce the help that the Bank can provide for regional development.

In most cases final beneficiaries of credits from global loans are firms which are already known, with a proven track record, but more than one allocation in five has gone to new enterprises.

One particularly interesting point, which bears out the importance for the EIB of providing finance of this kind, is the cost per job created: taking the period 1973 - end-1978 ventures financed via global loans provided employment at an investment cost of about 30 000 u.a. per job as against 100 000 u.a. per job in larger scale projects assisted by the EIB with direct loans.

Demand for global loans

Given the clear value of this kind of financing in terms of balanced regional development and job creation, why not do more? The question is sometimes put as if it were only a matter of the EIB making available more funds.

Table 1: Global loans granted within the Community from 1968 to 30.4.1979
Breakdown by intermediary institution

	Year	Global loans		Allocations	
		Number	Amount (million u.a.)	Number	Amount (million u.a.)
Italy					
Istituto per lo Sviluppo Economico dell'Italia Meridionale (ISVEIMER)	1968-1978	5	79.5	145	75.7
Istituto Mobiliare Italiano (IMI)	1972-1977	3	73.0	101	63.3
Banca Nazionale del Lavoro, 'Sezione Speciale per il Credito Industriale' (BNL)	1974-1977	2	39.8	79	34.8
Credito Industriale Sardo (CIS)	1969-1977	5	34.3	54	25.9
Istituto Regionale per il Finanziamento alle Industrie in Sicilia (IRFIS)	1970-1976	3	25.3	45	24.0
Cassa per il Mezzogiorno	1978	1	14.1	22	5.8
Istituto di Credito per le Imprese di Pubblica Utilità (ICIPU)	1976-1977	2	5.9	10	5.9
Mediocredito per le Piccole e Medie Imprese del Friuli Venezia-Giulia	1976	1	5.2	11	5.0
Total Italy		22	277.1	467	240.4
United Kingdom					
Government (contract of mandate) Industrial and Commercial Finance Corporation Ltd (ICFC)	1977-1978	2	75.6	42	39.5
	1973-1974	2	25.8	26	7.6
Total United Kingdom		4	101.4	68	47.1
Denmark					
Danish Government Finansieringsinstituttet for Industri og Håndværk A/S (FIH)	1975-1978	7	23.9	56	20.3
	1975-1977	3	4.4	6	4.5 (2)
Total Denmark		10	28.3	62	24.8
Ireland					
Industrial Credit Company Ltd (ICC)	1974-1978	3	15.9	85	7.4
Agricultural Credit Corporation Ltd (ACC)	1974-1978	2	8.4	11	3.6
Total Ireland		5	24.2	96	11.0
France					
Crédit National	1973-1974	2	51.3	77	39.7
Caisse Centrale de Crédit Hôtelier, Commercial et Industriel (CCHCI)	1973	1	18.0	56	18.1 (2)
Crédit Naval — CMAF	1974	1	9.0	—	—
Société Lorraine de Développement et d'Expansion (LORDEX)	1972-1975	2	6.3	8	3.7
Société Alsacienne de Développement et d'Expansion (SADE)	1970	1	6.3	24	6.3
Société de Développement Régional de l'Ouest (SODERO)	1971-1974	2	5.6	2	0.8
Société de Développement Régional de la Bretagne (SDR Bretagne)	1974	1	3.6	3	1.7
Total France		10	100.0	170	70.4
Germany					
Industriekreditbank AG (IKB)	1970-1973	2	30.6	79	30.0
Bayerische Vereinsbank	1974	1	9.9	—	—
Landesbank und Girozentrale Schleswig-Holstein	1972	1	5.7	9	6.0 (2)
Total Germany		4	46.3	88	36.0
Belgium					
Société Nationale de Crédit à l'Industrie (SNCI) — Nationale Maatschappij voor Krediet aan de Nijverheid (NMKN)	1976	1	17.9	24	18.2 (2)
GRAND TOTAL		56	595.2 (1)	975	447.9

(1) Of which 75.4 m.u.a. cancelled, 15.1 m.u.a. exchange adjustment and 56.8 m.u.a. awaiting allocation.

(2) Differences between the initial amount of the global loan and total allocations authorised are due to the fact that conversion into units of account was effected on the basis of the rates applicable, in the first instance, when the global loan was signed and, secondly, when allocations were authorised; in some cases the conversion rates changed during the intervening period.

While the EIB wants to see the scheme expand, this all depends upon demand

- a) from firms themselves, and
- b) from the intermediary bodies.

Fluctuations in the amount of global loans granted (e.g. 109.6 million u.a. in 1973, down to 10.2 million u.a. in 1975 and up again to 99.9 million u.a. in 1978) do not reflect changes in EIB policy but the general economic conditions under which the Bank has to work.

Broadly speaking, intermediary institutions only come to the EIB when they have insufficient funds to meet demands made upon them; their approaches will be influenced by a number of factors, such as the general level of industrial investment, the liquidity position on national financial markets, interest rates and also by exchange-rate movements which may be a deterrent in seeking a loan paid at least in part in foreign currencies.

This said, there are ways in which Member States can and do promote EIB global loans. It is hardly a coincidence that the country where the Bank has most easily pushed forward its lending in this sphere is Italy, essentially in the Mezzogiorno, where a range of aids exists such as cover for exchange risks and interest subsidies.

Measures have recently been taken in other countries — Ireland and the United Kingdom, for example — to protect borrowers from possible exchange losses, which have had a marked effect on demand for global loan finance.

Last year credit provided from global loans within the Community rose by 25% compared with 1977 to over 72 million u.a. and went to 155 ventures involving over 5 000 new jobs and some 550 safeguarded.

In only the first four months of this year — i.e. up to 30 April 1979 — 57.9 million u.a. was on-lent for 139 ventures involving over 5 000 new jobs and the safeguarding of 2 000 more.

Examples of global loans

● Development of the Irish economy calls for a particular effort in the direction of small and medium-sized ventures, which the EIB is doing much to support. Small undertakings employing less than 100 people account for about 36% of industrial employment in Ireland and 90% of the country's manufacturing firms.

In 1974 the Bank provided a global loan to the Industrial Credit Com-

Table 2: Allocations from global loans within the Community from 1969 to 30.4.1979

Breakdown by region and sector

	Number	Amount of allocations (million u.a.)	%
REGION			
Belgium	24	18.2	4.1
Antwerp	1	0.9	0.2
Hainault	5	3.2	0.7
Liège	7	5.5	1.2
Limbourg	1	0.4	0.1
Namur	1	0.8	0.2
Eastern Flanders	2	3.4	0.8
Western Flanders	7	4.0	0.9
Denmark	62	24.8	5.5
East of the Great Belt (excluding Copenhagen)	5	4.4	1.0
West of the Great Belt	57	20.4	4.5
Germany	88	36.0	8.0
Baden-Württemberg	2	0.5	0.1
Bavaria	16	4.3	1.0
Hessen	15	6.0	1.3
Lower Saxony	19	6.8	1.5
North Rhine Westphalia	18	8.7	1.9
Rhineland Palatinate	8	2.9	0.7
Schleswig-Holstein	10	6.8	1.5
France	170	70.4	15.7
Alsace	27	8.3	1.9
Aquitaine	9	3.8	0.8
Auvergne	4	3.2	0.7
Lower Normandy	2	0.6	0.1
Burgundy	3	2.3	0.5
Brittany	28	11.5	2.6
Centre	2	0.7	0.1
Champagne-Ardennes	2	0.5	0.1
Franche-Comté	2	0.4	0.1
Languedoc-Roussillon	2	0.6	0.1
Limousin	7	2.2	0.5
Lorraine	24	13.3	3.0
Midi-Pyrénées	18	7.9	1.8
Nord	6	2.5	0.6
Pays de la Loire	20	7.4	1.6
Picardy	2	1.1	0.2
Poitou-Charentes	5	1.6	0.4
Rhône-Alpes	7	2.5	0.6
Ireland	96	11.0	2.5
Italy	467	240.4	53.7
Abruzzi	52	27.5	6.1
Basilicata	5	3.2	0.7
Calabria	20	7.2	1.6
Campania	89	47.2	10.5
Friuli-Venezia Giulia	11	5.0	1.1
Latium	91	53.5	12.0
The Marches	14	8.8	2.0
Molise	10	6.5	1.5
Apulia	66	27.7	6.2
Sardinia	57	27.0	6.0
Sicily	49	25.4	5.7
Tuscany	3	1.4	0.3
United Kingdom	68	47.1	10.5
Scotland	18	10.4	2.3
North	23	20.7	4.6
North-West	3	1.9	0.4
Wales	17	8.0	1.8
Northern Ireland	1	0.3	0.1
South-West	4	3.9	0.9
Yorkshire and Humberside	2	1.9	0.4
TOTAL	975	447.9	100.0
SECTOR			
Agriculture	35	9.3	2.0
Fishing	4	2.4	0.5
Mining and quarrying	20	10.4	2.3
Metal production and semi-processing	44	29.9	6.7
Construction materials	70	37.1	8.3
Woodworking	62	19.1	4.3
Glass and ceramics	21	9.7	2.2
Chemicals	53	23.7	5.3
Metalworking and mechanical engineering	194	83.3	18.6
Motor vehicles, transport equipment	27	14.6	3.3
Electrical engineering, electronics	56	27.6	6.2
Foodstuffs	167	74.4	16.6
Textiles and leather	73	33.9	7.6
Paper and pulp	48	28.9	6.4
Rubber and plastics processing	62	28.6	6.4
Other industries	22	8.6	1.9
Building and civil engineering	8	2.8	0.6
Tourism	4	1.8	0.4
Other services	5	1.8	0.4
TOTAL	975	447.9	100.0

pany Ltd — ICC which was unsuccessful principally because of the falling exchange value of the Irish pound which made firms reluctant to contract debts in other currencies. Discussions were held with the Irish Government which last year introduced a new scheme designed to remove this obstacle.

Enterprises with less than 100 employees and fixed assets not exceeding £1r 600 000 (approx. 900 000 u.a.) can obtain cover against fluctuations in exchange rates: in effect, the EIB provides funds to ICC in foreign currencies, but they are on-lent in Irish pounds, minimum amount £1r 17 000 (25 000 u.a.).

The scheme was very quick to take effect: a £1r 2.5 million (3.75 million u.a.) loan was made in June last year, followed by £1r 5 million (7.5 million u.a.) in November, followed again by a further £1r 5 million (7.5 million u.a.) in May this year.

The first two of these loans have already been used or earmarked for over 120 ventures, belonging to a wide variety of industrial sectors and expected to create close on 1 300 jobs.

● Almost half the total amount of global loans granted within the Community concerns **Italy**, essentially the Mezzogiorno, a reflection on the one hand of the extensive regional development problems in the South of Italy, where the EIB has always been very active, and on the other of the impact of state incentives (e.g. exchange risk cover, interest subsidies) which help to promote the success of EIB global loans.

An example was a global loan for Lit 16 000 million (19.6 million u.a.) made in 1974 to the Sezione Speciale per il Credito alle Piccole e Medie Industrie (commonly known as BNL Mediocredito) of the Banca Nazionale del Lavoro. The funds were to be used for financing small and medium-scale ventures in all parts of the Mezzogiorno and in fact went to a total of 39 involving new fixed investment of around Lit 37 000 million (about 43 million u.a. at the time) and some 2 400 new jobs.

The funds benefited ventures in most regions of the Mezzogiorno, but with a fairly heavy concentration in Latium, Apulia, Calabria, Campania and Abruzzi. Main sectors were foodstuffs, beverages, and tobacco; metalworking and mechanical engineering; woodworking; rubber processing.

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Outside the Community

Global loans have also come to represent an important sector of the EIB's development finance operations in countries which have signed association or cooperation agreements with the Community. Up to end-May 1979 the Bank had granted from its own resources 165.7 million u.a. in global loans to development banks in Greece, Portugal, Turkey, Jordan and Tunisia and in a number of the African, Caribbean and Pacific (ACP) countries which have signed the Lomé Convention: Kenya, Liberia, Malawi, Mauritius, Nigeria, Tanzania, Trinidad & Tobago, and Zambia as well as to a regional bank covering the Member Countries of the Caribbean Community.

In addition, acting as agent for the Member States and the Community, using certain budgetary funds, the EIB has provided various forms of finance on specially soft conditions (total 23.5 million u.a. at end-May 1979) to support the work of development banks in Turkey, Jordan, the Caribbean region, Liberia, Seychelles, Tanzania, Zaïre and Zambia.

In many of these countries the development of small and medium-scale enterprises is particularly important, not only because of relatively small markets and special needs, but also because they provide scope for development of skilled manpower and local entrepreneurial talent, the base for future growth.

The rationale behind global loans within the Community applies even more strongly to operations in distant countries. Locally established development finance agencies are the most in tune with market conditions and customs and also able quickly to appreciate the prospects of suitable investments likely to meet the Bank's criteria. One other important point: in providing funds to these development finance agencies the EIB is helping to reinforce the financial/banking sectors in the countries concerned, which is of central importance to their economic development.

When the earthquakes hit the Friuli region of Northern Italy in May and September 1976, one need was finance to help put small and medium-sized ventures back onto their feet again.

A number of firms, particularly in the industrial areas of Osoppo and Gemona, were seriously damaged and after the September quakes up to 6 000 people were jobless.

Lit 5 000 million (5 million u.a. at the time) was lent to Mediocredito per le Piccole e Medie Imprese del Friuli - Venezia Giulia which used the funds to cover repairs and also minor extensions in 11 ventures, safeguarding over 820 jobs which existed before the tremors and creating a further 65.

Most of the firms were family businesses. Metalworking and mechanical engineering accounted for about two-thirds of the funds.

● Despite being a highly developed and industrialised country, **Belgium** still has to cope with imbalances at regional level made much worse by structural problems.

Provinces the most affected at present are Liège and Hainault, where restructuring of the Walloon iron and steel industry has led to substantial unemployment, and Eastern

and Western Flanders, which depend to an appreciable extent on the textiles and clothing sectors, now facing difficult market conditions.

At the end of 1976 the EIB provided a Bfrs 750 million (17.9 million u.a.) global loan to the Société Nationale de Crédit à l'Industrie (SNCI) — Nationale Maatschappij voor Krediet aan de Nijverheid (NMKN) for small and medium-scale ventures in less favoured areas.

The funds were drawn down to finance a total of 24 ventures expected to give rise to 520 new jobs and safeguard a further 1 100 (19 of the ventures were in West Flanders, Liège and Hainault) in a wide variety of industries, ranging from lemonade production to control mechanisms for transformers.

● The relatively low investment cost per job, which generally speaking is a feature of small and medium-sized ventures, counts for a lot in trying to combat severe unemployment in many regions of the **United Kingdom**.

The first loan granted by the EIB in the UK after the country's accession to the European Community in 1973 was a global loan for £3.5 million (7.1 million u.a. at the time)

to Industrial and Commercial Finance Corporation Ltd — ICFC. The funds were drawn down to finance 24 ventures involving new fixed investment of around 21 million u.a., about 2 260 new jobs and the safeguarding of over 400 more. Some 50% of the funds went to Scotland, about 30% to Northern England, but sub-loans were also made in South Wales and Northern Ireland.

The EIB provided a further global loan for £10 million (18.7 million u.a. at the time), but most of this credit was unallocated and cancelled because of the sudden downward movement of sterling's exchange value and reluctance among prospective borrowers to take on debts in foreign currencies; at the

same time there was a temporary slackening in domestic interest rates which further reduced the advantage of seeking EIB funds.

After discussion with the EIB, the UK Government introduced a new scheme in 1977 which has greatly promoted the scope for Bank activity by covering exchange risks.

Legally, this is not a global loan but an agency agreement, although the basic aim and end results are the same: the Department of Industry in England, the Scottish Economic Planning Department, the Welsh Office Industry Department and the Northern Ireland Department of Commerce act as agents of the EIB in providing loans in the

areas for which they are responsible.

The Government not only bears the exchange risks, but also provides the EIB with the necessary security on the loans, in the form of a guarantee.

In December 1977 £20 million (30.6 million u.a. at the time) was made available for financing under this scheme, then a further £30 million (45 million u.a.) in December last year.

By end-April 1979 £26.55 million (39.5 million u.a.) had already been used for 42 sub-loans involving new fixed investment of around £62.5 million (approx. 93 million u.a.), about 4 350 new jobs and 1 415 safeguarded.

EIB expanding finance for energy development ...

Harnessing geothermal energy

Since it began operations in 1958 the European Investment Bank had lent over 2 850 million units of account by the end of last year for investment in various forms of energy production and transmission in the European Community, half of this sum in the last three years and more than 720 million in 1978 alone. Financing in the energy sector has come to

represent about 35% of the Bank's total operations within the Community since 1973.

Corresponding to the main roles given to the EIB under the Treaty of Rome, these loans have been made for investment furthering regional development or serving the common interest of several Member States or the Community as a whole.

Under the first heading the Bank has helped to finance a number of projects where improved energy supplies were essential as part of the infrastructure support needed to encourage economic growth in areas of the Community with development problems (e.g. gas and electricity supply schemes in parts of Southern Italy, Scotland, Brittany, Berlin).

Most of the finance, however, for a total of some 2 400 million u.a., has been provided either wholly or in part under the second heading (1) where «common interest» is seen in terms of investment helping

- to reduce the Community's dependence upon oil imports by developing European energy resources;
- to save energy (e.g. industrial applications of energy-saving processes, production of insulation materials);
- to diversify the sources and nature of the Community's energy imports to «spread» the dependence and so achieve better supply security.

Main branches for EIB lending have been gas and oil field development in the British and Danish sectors of the North Sea, the Adriatic and Ionian Seas and on the Italian main-

land; exploiting hydroelectric potential and expanding nuclear capacity.

The Bank has also financed development of coal mines in the United Kingdom, the opening up of peat bogs in Ireland (25% of the country's electricity comes from burning peat) and a uranium mine in Northern Italy.

At the same time, to help push the Community's import dependence away from oil, the Bank has lent substantial sums for construction of trans-European gaslines carrying Dutch natural gas to other Member Countries in the Community, gaslines across Germany and Austria bringing supplies of Russian gas to the Community, part of the Algeria-Italy gasline and also for development of the United Kingdom transmission system to exploit the discoveries of North Sea gas. Loans have also been made for development of gas and oil resources in the Norwegian sector of the North Sea, again with the aim of achieving a wider spread in the Community's imports.

It has been estimated that, when all completed, the various projects should provide the Community with extra domestic energy production

capacity equivalent to some 55-60 million tons of oil per annum; in addition projects aimed at diversifying energy consumption away from oil, should replace 50 million tons p.a.

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One of the more recent projects financed by the EIB concerned development of geothermal energy. A loan of Lit 31 500 million (29.1 million u.a.) was granted to the Italian electricity authority ENEL — Ente Nazionale per l'Energia Elettrica, to cover half the cost of building five geothermal power stations in Tuscany which will run on steam brought up through well holes drilled to depths down to 2½ km below the earth's surface; they are designed for a net capacity increase of 45 MW, modest enough but equivalent nonetheless to an annual fuel saving of around 65 000 tons of oil.

The electricity will be generated at a cost cheaper than that of conventional thermal power stations and there are no adverse effects on the environment as geothermal energy is non-polluting.

Geothermal energy is one of the oldest sources of primary energy

(1) Many energy projects financed by the EIB are eligible on both regional development and common interest grounds.

known to man. The growing shortage of fossil fuels, coupled with the scarcity of untapped hydroelectric potential and uranium have focused renewed attention on this and other alternative energy sources.

Although the earth's geothermal energy resources are very substantial, they are readily accessible at relatively few places on the earth's surface — generally, at dislocations of the earth's crust and deep-sea trenches. Thermal energy is released in the form of hot or molten lava, hot gases of which the composition varies, and hot water or steam. The amount of potential energy varies greatly according to local conditions, as does the scope for tapping it: although volcanic magma sources have yet to be exploited, the harnessing of hot water or sources of steam is within present technological capacities. Current uses of geothermal energy range from hot water supply and central heating to electricity generation using natural steam.

The increase in temperature between the surface and the centre of the earth, referred to as the geothermal gradient, averages 8 - 12° C per 100 m, but at sites where geothermal energy is released, this gradient may be many times greater. Whereas in the past, development of this form of energy was incidental to mining activities, interest today focuses entirely on harnessing geothermal energy itself.

Particularly active geothermal areas are known in:

Europe	Iceland, Italy, France
America	California, Mexico
Australasia	New Zealand
Asia	Japan, USSR

Progress on tapping resources has so far varied widely, although utilisation will doubtless be stepped up in the future. To date, only limited use has been made of geothermal energy for electricity generation purposes: world-wide installed capacity of geothermal power stations totals only 1 200 MW, equivalent to the capacity of a modern nuclear power station. Italy boasts over one third of this.

Geothermal sites in Italy are located south of Florence, in Tuscany, and have made a major contribution towards technical progress in generating electricity from natural steam over the past 60 years.

Geothermal resources in Tuscany

The two most important sites are at Larderello (36 km south-west of

Sienna) and Monte Amiata (50 km south-east of Sienna); both are located in hilly countryside rising to heights up to 1 700 m. The sites are characterised by the presence of natural steam at temperatures of up to 260° C and a maximum pressure of 60 bar.

In 1818, when mining of boron began in the Larderello area (†) no use was made of the natural steam released from the earth. After 1903, there was an initial series of modest attempts to harness steam to generate electricity and, in 1913, this led to the construction and commissioning of the first 0.25 MW turbine set. This was a milestone in converting geothermal energy into electricity; next, the corrosive and abrasive effects of the sand in the steam were overcome; this was followed by further development of the two sites by drilling deep into the earth and, finally, the power stations were substantially updated.

Over the years, and particularly after the creation of ENEL in 1962, various types of geothermal power stations were designed, constructed, examined and compared, and from these a power station suitable for use under widely differing conditions was developed.

Whereas early geothermal power stations were built as near as possible to the site of the natural steam emission, it has become current practice to develop geothermal sites systematically, drilling down to 2 500 m (one test programme provides for depths of 5 000 m). After inserting a steel casing, cementing it in place and attaching a slide valve, an overland, heat-insulated steam conduit is connected to the drill-hole and transmits steam to the power plant.

More recent power stations under construction have installed capacities of 8 - 15 MW and are chiefly of the condensing type (as are the five financed by the EIB) which operate as follows:

Incoming natural steam (210° C, 8 - 10 bar) passes through a 2-stage steam turbine and is condensed in a jet condenser; the condensate, at around 42° C, is pumped to a cooling tower, where the temperature falls to around 30° C, then returned to the condenser. Hence, a special feature of the system is a cooling circuit *without* recourse to external cooling water, allowing around 20% of the volume of water drawn from underground as steam to be returned directly to the earth's surface. The remainder escapes into

the atmosphere from the cooling tower.

A synchronous generator coupled to the turbine produces electricity. Where there are large quantities of non-condensable gases (5 - 20%) in the steam, these gases (CO₂, H₂, CH₄, etc.) can be separated and used for specific purposes. Power stations of this type are very often remote-controlled and conform increasingly to a standard design; they can be transferred at acceptable cost to another site where this is necessary to ensure uninterrupted supply of steam.

In assessing the viability of geothermal power stations, it is not sufficient simply to compare generating costs using natural steam available «free» and conventional fuels: account needs to be taken of the cost of ongoing exploration at the geothermal site concerned and of the overland steam transmission network.

However, a comparison between geothermal electricity production costs for the plants in Tuscany and the costs for a power station using fossil fuels shows clear advantages in favour of geothermal plant in view of today's fuel prices.

Further development of geothermal energy will depend on:

- tapping resources at greater depths (up to 5 000 m), using conventional deep drilling techniques;
- greater return or reinjection of water at the geothermal sites;
- wider use of residual heat for central and green-house heating and hot water supply;
- the introduction of new development techniques such as the creation of artificial underground caverns which could serve as heat exchangers, transferring heat to water pumped through them (hot dry rock process).

* * *

Being totally independent of the need for fuel, the harnessing of geothermal energy makes a valid contribution to reducing Europe's dependence upon oil imports. By the end of the year, the number of stations in operation at the two geothermal sites in Italy should rise to 20, offering a total installed capacity of 465 MW, corresponding to some 1.5% of ENEL's overall installed capacity and saving fuel equivalent to over half a million tons of oil per annum.

(†) The site was named after a French entrepreneur named Larderel, who pioneered the industrial tapping of steam sources.

New Community Instrument

The New Community Borrowing and Lending Instrument (often referred to as NIC or the «Ortoli Facility») is now operational.

On 14 May the Council of the European Communities gave the go-ahead to the Commission to borrow the equivalent of up to 500 million European units of account (E.U.A.) on national and international capital markets in the name of the European Economic Community; it specified that the funds should be used to make loans for priority investments in infrastructure and the energy sector in accordance with Community objectives.

The Council has determined that loans for **infrastructure** should cover, in particular, transport, telecommunications, agricultural improvement schemes, water supplies and environmental protection; **energy** projects should help the Community to attain greater independence, security or diversification of its energy supplies — specific reference is made to energy-saving and development of alternative energy sources.

The proceeds of individual borrowings by the Commission will be transferred to the EIB, which has been given a management mandate to make the loans on the Community's behalf. The Bank has done considerable preparatory work in anticipation of the Council's decision to enable a smooth start to lending operations.

Projects presented to the Bank for financing are subject to a ruling by the Commission on their eligibility. Otherwise, procedures are virtually identical to those for loans from the EIB's own resources. The Bank will apply the same project appraisal criteria as for its ordinary loans; interest rates and currency conditions will also be generally similar.

It is envisaged that projects which would justify exceptional Community support beyond the Bank's own ceiling of 50% of fixed asset costs may be co-financed by both Bank and New Instrument loans, made either at the same time or successively.

* * *

The New Community Borrowing and Lending Instrument was proposed by the Commission in June 1977 and agreed to in principle by the Council of the European Communities in October last year, after deliberations with the European Parliament.

It follows the call made by the European Council at its meeting in March 1977 for greater Community action to tackle unemployment, sluggish investment and insufficient convergence in national economic performances.

The idea is that the European Economic Community raise funds for investment financing additional to those obtained by the European Investment Bank, the European Coal and Steel Community and the European Atomic Energy Community, i.e. increasing the total capacity to foster economic growth.

The Commission has global authorization to raise up to the equivalent of 1 000 million E.U.A. (of which the 500 million for energy and infrastructure is the first tranche); the Council has decided that after two years, or when 800 million E.U.A. has been used, whichever comes earlier, the scheme's future will be examined.

Requests for New Community Instrument loans may be submitted to the EIB directly, which is the usual practice for the Bank's operations, through the Commission or through the Government concerned.

Personalia

Mr Douglas J. FONTEIN has been appointed Manager of the EIB's Legal Department, with effect from 1 May 1979. He succeeds Mr J. Nicolaas van den HOUTEN, with the Bank since 1962, who has now reached retirement age; Mr van den Houten is to serve the Bank temporarily as Special Adviser to the Management Committee.

Aged 56, Mr Fontein was born at Rotterdam, took his law degree at the Rijksuniversiteit, Leiden, and pursued legal and economics studies in the USA at the Fletcher School of Law and Diplomacy, Massachusetts, and the Georgetown University Law School, Washington D.C.

He joined the World Bank in 1949 where he held a number of posts including Attorney in the Legal Department; Chief, Securities Division, Treasurer's Department; Assistant-Director, Europe, Africa and Australasia Department; Assistant-Director, East Asia and Pacific Department; Senior Adviser, Legal Department. In November 1978 Mr Fontein came to the European Investment Bank as Deputy Manager of the Legal Department.

Unit of Account

Below are the values in national currencies of the Unit of Account used by the Bank, as at 30 March 1979; these rates are applied the present quarter in preparing financial statements and operational statistics of the Bank:

DM	2.52529	Bfrs	39.9434
£	0.653132	Lfrs	39.9434
Ffrs	5.80903	Dkr	7.01814
Lit	1 135.45	£ Ir	0.656495
Fl	2.72291	US \$	1.35172

Statistics summarising Bank activities in terms of units of account have been based on several different conversion rates applied since 1958. This, coupled with the effects of price trends, would suggest prudence in interpreting the significance of figures which relate to operations extending over many years.

The composition and hence value of the unit of account now used by the EIB is the same as that of the European Unit of Account.

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