EUROPEAN
COAL AND STEEL COMMUNITY

THE HIGH AUTHORITY

Investment in the Community Coalmining and Iron and Steel Industries

REPORT ON THE 1967 SURVEY

Position as at January 1, 1967

JULY 1967

CONTENTS

ANNEXES

I—GENERAL REMARKS

It is the High Authority's annual practice to conduct a survey of past and future investment by E.C.S.C. enterprises as at January 1 of the year concerned, and its foreseeable effects on production potential. The survey covers all but a few very small enterprises, whose combined share of total production has been dwindling steadily over the years and has in any case never amounted to more than 1% for coal, 0.8% for crude steel and 1.5% for rolled products.

The figures from the previous surveys for the years 1954-64 are recapitulated in a Summary Report issued in August 1966; the statistical annexes to the present publication therefore show only the figures from 1964 onwards.

Annex I to each year's Report sets forth the **basic definitions** adopted. In particular, it specifies that investment projects have been classified in three categories, according as they were on January 1 of that year already completed or in progress (Category A), approved (Category B), or merely planned (Category C). Since in the case of the iron and steel industry projects merely "planned" can as a rule be quite easily dropped or deferred if necessary, the Category C projects dealt with in the Reports are those of the extractive industries (coal and iron ore) only.

Annex II contains tables showing for each sector **capital expenditure** and the consequences thereof on the development of the **production potential** broken down by **producer areas.**

a) Capital Expenditure

Capital expenditure entered by Community enterprises on the credit side of their balance-sheets from January 1, 1954, onwards has been recorded for the purpose of the High Authority's annual surveys in European Monetary Agreement (E.M.A.) units of account, the unit of account being to date equal in value to the United States dollar (see Annex I, 1). It is true that computation in dollars does not entirely accurately reflect changes over a period in the cost of capital goods and in the wage costs involved by their installation ; nevertheless, some general observations hold good.

Actual expenditure from 1954 to 1966 inclusive totalled 16,500 million dollar units of account, representing an annual average of close on 1,300 million. The thirteen years can conveniently be divided into two parts. In 1954-59 investment remained pretty steady, the collieries' expenditure ranging from 405 million dollars to 471 million dollars a year (average 434 million), the iron-ore mines' from 30 million to 50 million (average 39 million), and the iron and steel industry's from 453 million to 708 million (average 581 million). The seven years from 1960 were much unsettled, as can be seen from the movements of the respective investment indices in relation to the 1954-59 averages. The index for the coal industry fell steadily from 100 to 57 ; those for the iron and steel industry and the iron-ore mines first climbed steeply and then dropped again, in the latter case even more steeply, the iron and steel industry's soaring to 255 in 1963 and thereafter progressively declining to 144, while the iron-ore mines', after touching a peak of 133 in 1961, was down by 1966 to a mere 41.

TABLE 1

General Trend in Investment in Recent Years

Indices

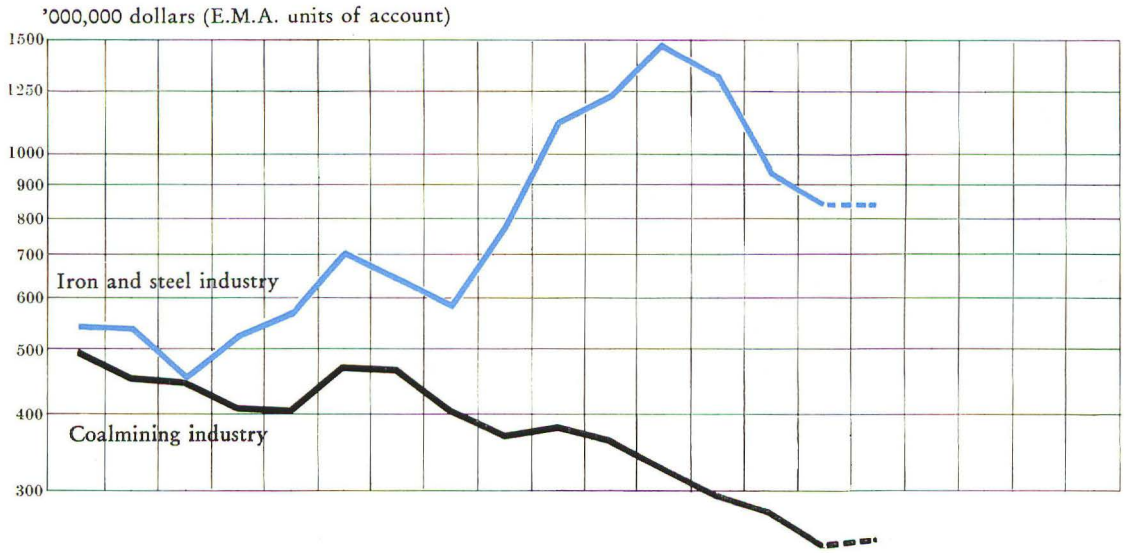
Sector	Projects planned								Projects planned for 1967
	1954-1959 (annual average)	1960	1961	1962	1963	1964	1965	1966	
Coalmining industry	100	85	88	84	75	67	64	57	58
Iron-ore mines	100	110	133	121	72	62	64	41	44
Iron and steel industry	100	133	193	212	255	226	160	144	144
**All E.C.S.C. industries ..... **	**100**	**113**	**148**	**156**	**174**	**155**	**117**	**105**	**105**

As a result of these divergent trends, the iron and steel industry's share of total E.C.S.C. capital expenditure has increased from one-half in and immediately after 1954 to over three-quarters from 1962 onwards.

FIGURE 1

Investment in the Coalmining and Iron and Steel Industries

A — Capital expenditure



B — Actual production and production potential

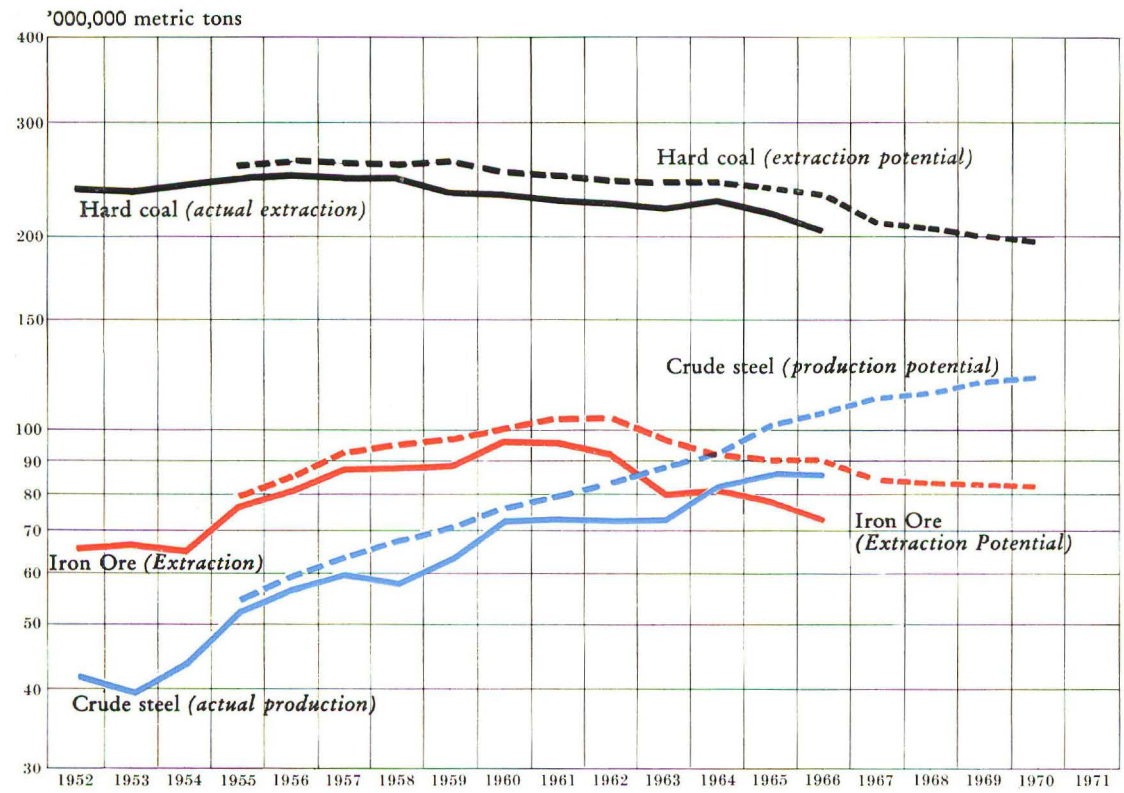


TABLE 2

Capital Expenditure in the Community Industries, 1954—1968

'000,000 *dollars (E.M.A. units of account)*

Sector	Actual expenditure								Estimated expenditure (Categories A+B+C) (1)	
	1954-1959 (annual average)	1960	1961	1962	1693	1964	1965	1966	1967	1968
Coalmining industry	434	371	380	366	325	291	278	245	250	197
Plants producing B.K.B. and low-temperature brown-coal coke	5	6	4	6	9	8	8	4	5	4
Iron-ore mines	39	43	52	47	28	24	25	16	17	16
Iron and steel industry	581	775	1,123	1,230	1,480	1,315	932	837	838	586
Total	**1,059**	**1,195**	**1,559**	**1,649**	**1,842**	**1,638**	**1,243**	**1,102**	**1,110**	**803**

(1) The estimates for the iron and steel industry relate only to expenditure on projects already in grogress (A) or approved (B) at January 1, 1967 not to those merely planned (C).

The figures for the years 1965 and 1966 do not altogether tally with those given in last year's Report, inasmuch as it is normally the case that

a) for the past year (1966) actual expenditure differs to varying extents from the estimates submitted on January 1 ;

b) for the previous year (1965) the expenditure figures returned before the balance-sheets were closed are corrected when the next survey is drawn up.

The 1966 survey had suggested that capital expenditure in that year would total 1,314 million dollars, but the figure was in fact only 1,102 million, the three industries' business and financial troubles causing the estimates to prove a good deal less than fully accurate, no more than 79% for coal, 67% for iron ore and 86% for coal.

b) Production Potential

The collieries' declarations indicate that the **hard-coal** production potential surveyed will contract by over 31 million tons from 1966 to 1970, which would bring it by the latter date to 198 million tons. This is, however, still some way above the foreseeable level of demand.

Iron-ore production, which rose from 1952 to 1960 at an average 4.9% per annum, has since then been falling so fast that the net average rate of increase over the years 1952-66 works out at only 0.8 %. All the Community's producers have now accepted the prospect of a continuing decrease in potential at an average 2.2% per annum between 1966 and 1970.

Despite its current financial difficulties, the **iron and steel** industry is reckoning on maintaining a fair rate of expansion in the next few years, though there will be some falling-off from that observed for pig-iron and crude steel from 1952 to 1966. Crude-steel production potential, which topped 100 million tons in 1965, is expected to be up by 1970 to around 121 million.

TABLE 3

Actual Production and Production Potential in the Community Industries

Product	Actual Production			Production potential		
	1952 ('000,000) metric tons)	Average cumulative annual movement (%)	1966 ('000,000 metric tons)	1966 ('o00,000 metric tons)	Average cumulative annual movement (%)	1970 ('000,000 metric tons)
Hard coal (1)	237·4	—1·1	204·1	229·5	—3·7	198·2
Iron ore	65·3	+0·8	73·0	90·5	—2·2	82·9
Pig-iron	34·7	+4·2	61·8	80·3	+2·6	89·0
Crude steel	41·8	+5·2	85·0	108·0	+3·1	121·7

(1) Exclusive of "small mines" (see Annex I, page 36).

In order to interpret the production-potential figures correctly, it must be borne in mind that the sums of the potentials declared by the individual mines and plants is bound to be slightly above the maximum production actually achievable in the Community, by reason of unforeseeable incidents or circumstances which, in the course of anv one vear, may make it impossible for some of them to attain their maximum, even where their sales position as such is satisfactory.

Thus, even during the best years, actual production has never exceeded 96% or so of the sum of the individual production potentials declared. On the other hand there is nothing to stop it going down in bad years to any level, however low, and in fact in 1966 for the first time the iron and steel plants found themselves operating at below 80% of capacity.

TABLE 4

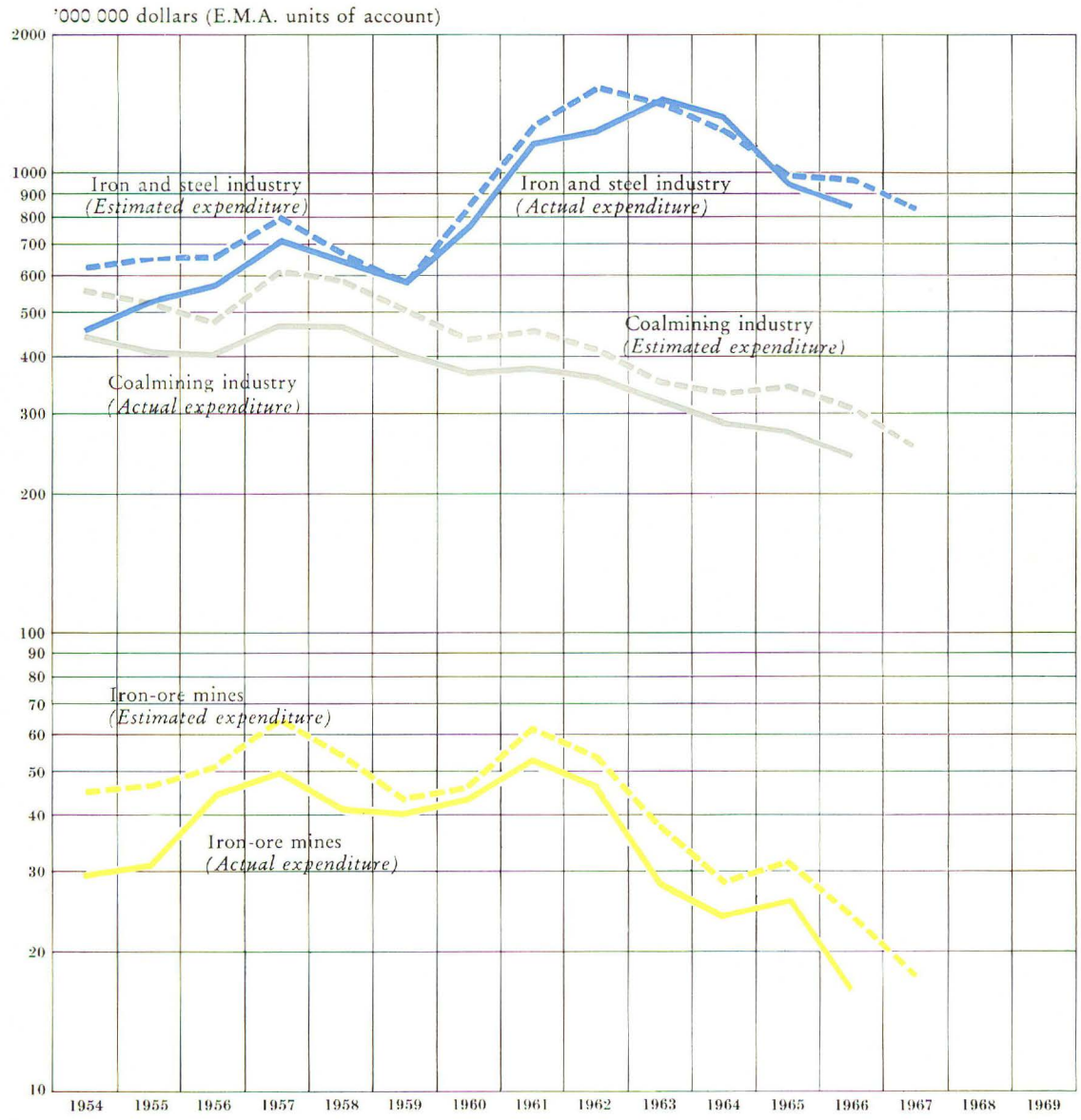
Community Ratios of Actual Production to Production Potential

%

Product	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
Hard coal	94·9	94·6	**95·1**	94·8	89·3	92·6	92·7	92·0	91·7	94·0	91·1	88·9
Coke	93·2	**96·5**	96·1	92·2	84·3	85·7	85·3	85·0	84·2	90·2	92·7	88·9
Iron-ore	**95·4**	95·1	94·9	91·3	90·9	94·6	91·7	87·6	81·9	88·3	87·0	80·7
Pig-iron	**96·3**	96·0	94·7	87·9	88·3	94·3	90·9	85·5	81·0	88·2	83·8	77·0
Crude steel	95·8	**96·1**	94·1	85·7	89·6	95·6	91·7	87·3	83·4	90·0	84·3	78·7

FIGURE 2

Comparison of Actual Capital Expenditure and Estimated Capital Expenditure as at the Beginning of Each Year



II — THE COALMINING INDUSTRY

The Community coal industry was obliged to make fresh cuts in its capital spending in 1966. The downward trend which has been going on since 1958 continued everywhere at much the same rate as before ; even the forecasts are now gloomy, and producers in most coalfields are expecting to have to retrench further in 1967 and 1968.

TABLE 5

Capital Expenditure in the Coalmining Industry, 1954—1968

'000,000 dollar (E.M.A. units of account)

Sector	Actual expenditure								Estimated expenditure (Categories A+B+C)	
	1954-1959 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967	1968
Collieries	253.9	226.0	235.4	220.5	217.5	202.9	190.4	160.7	150.6	110.8
Coking-plants, mine-owned	57.5	33.7	43.1	35.9	19.0	17.3	15.8	13.2	16.0	16.4
Coking-plants independent (1)	10.8	1.6	1.4	5.1	3.5	5.9	5.0	3.8	4.7	0.4
Briquetting-plants	5.0	7.1	3.4	5.1	9.5	9.1	7.5	6.5	5.0	3.0
Pithead power-stations and other power-generating plant	107.0	102.6	96.9	99.9	75.8	55.5	58.9	60.7	73.9	66.9
Total	**434.2**	**371.0**	**380.2**	**366.5**	**325.3**	**290.7**	**277.6**	**244.9**	**250.2**	**197.5**
Plants producing B.K.B. and low-temperature brown-coal coke	5.0	6.0	3.8	6.0	9.0	8.3	7.9	3.8	4.7	4.0

(1) Less the French nationalized gas industry (Gaz de France) from 1957.

a) Pits

Capital expenditure on the pits themselves is now declining just as markedly as that in the valorization sector. Their share of the industry's total investment slipped from 69% in 1965 to 65% in 1966 (in 1954-59 it averaged 58%). Specific expenditure per ton produced, which in 1954-59 worked out at approximately 1.05 dollar, has since then gone down progressively to 0.91 in 1964 and 0.80 in 1965 and 1966. This is the average for the Community overall : only the Ruhr came above it, with 0.95 dollar, while the Aachen coalfield registered the lowest figure, 0.47.

Expenditure is now decreasing rather faster on underground than on surface installations ; at the surface sizeable amounts are still being spent on washing and screening plant.

TABLE 6

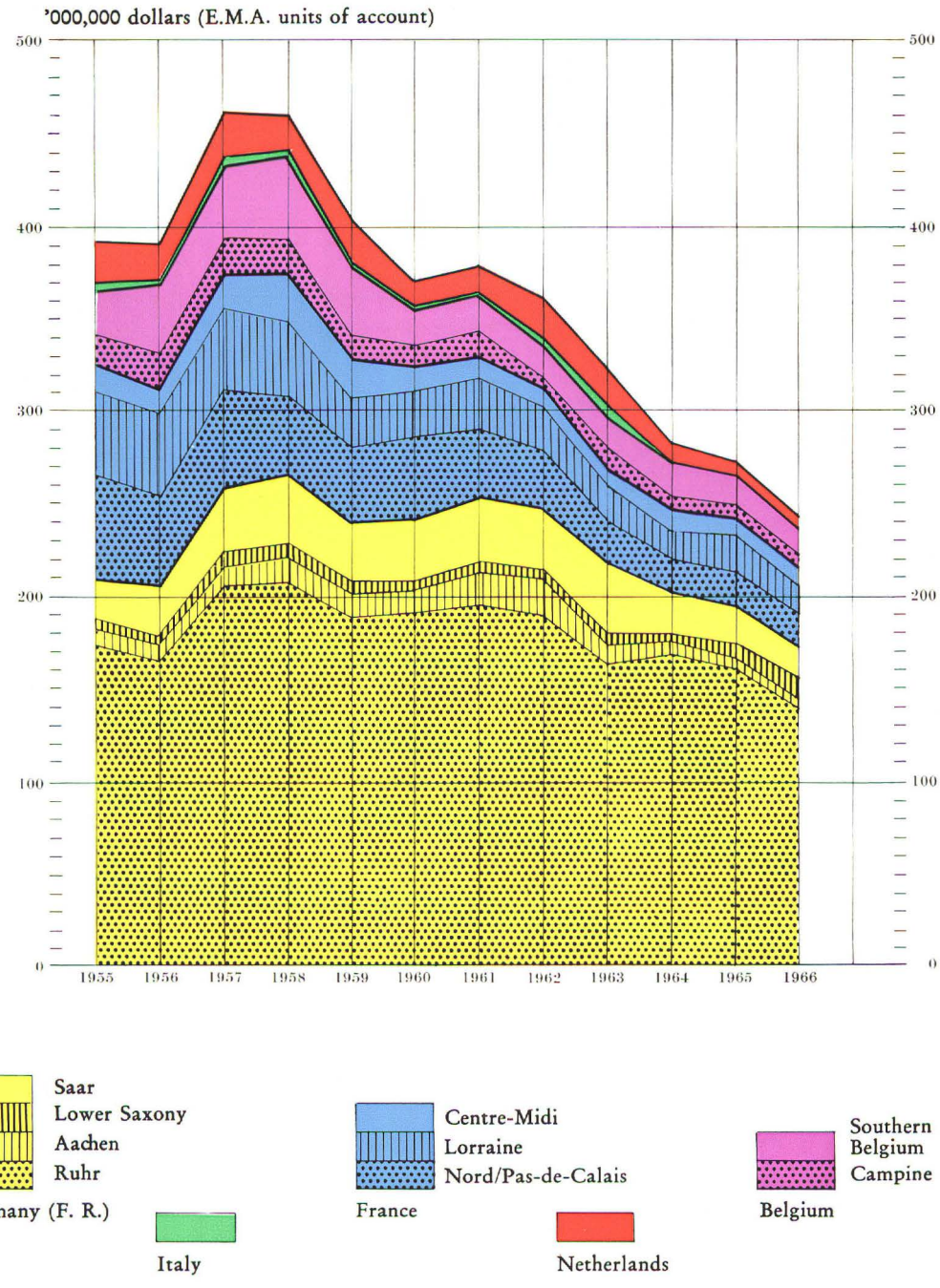
Capital Expenditure on Collieries, 1954—1966

'000,000 dollar (E.M.A. units of account)

Type of installation	1954-1959 (annual average)	1960	1961	1962	1963	1964	1965	1966
Shafts and underground workings	56.3	48.7	42.6	37.0	41.3	38.3	35.3	25.2
Mechanical equipment below ground	56.8	52.7	58.3	56.4	56.5	59.8	56.6	47.7
Haulage and winding equipment	21.4	25.8	24.4	21.3	16.6	14.7	14.8	15.5
Coal extraction.....	*134.5*	*127.2*	*125.3*	*114.7*	*114.4*	*112.8*	*106.7*	*88.4*
Screening and washing	56.7	45.4	49.3	47.3	42.1	37.2	32.3	31.0
Other surface installations	32.9	32.9	35.1	33.9	35.7	30.2	27.8	22.7
Buildings, etc.	29.8	20.5	25.7	24.6	25.3	22.7	23.6	18.6
Surface installations.....	*119.4*	*98.8*	*110.1*	*105.8*	*103.1*	*90.1*	*83.7*	*72.3*
Total	**253.9**	**226.0**	**235.4**	**220.5**	**217.5**	**202.9**	**190.4**	**160.7**

FIGURE 3

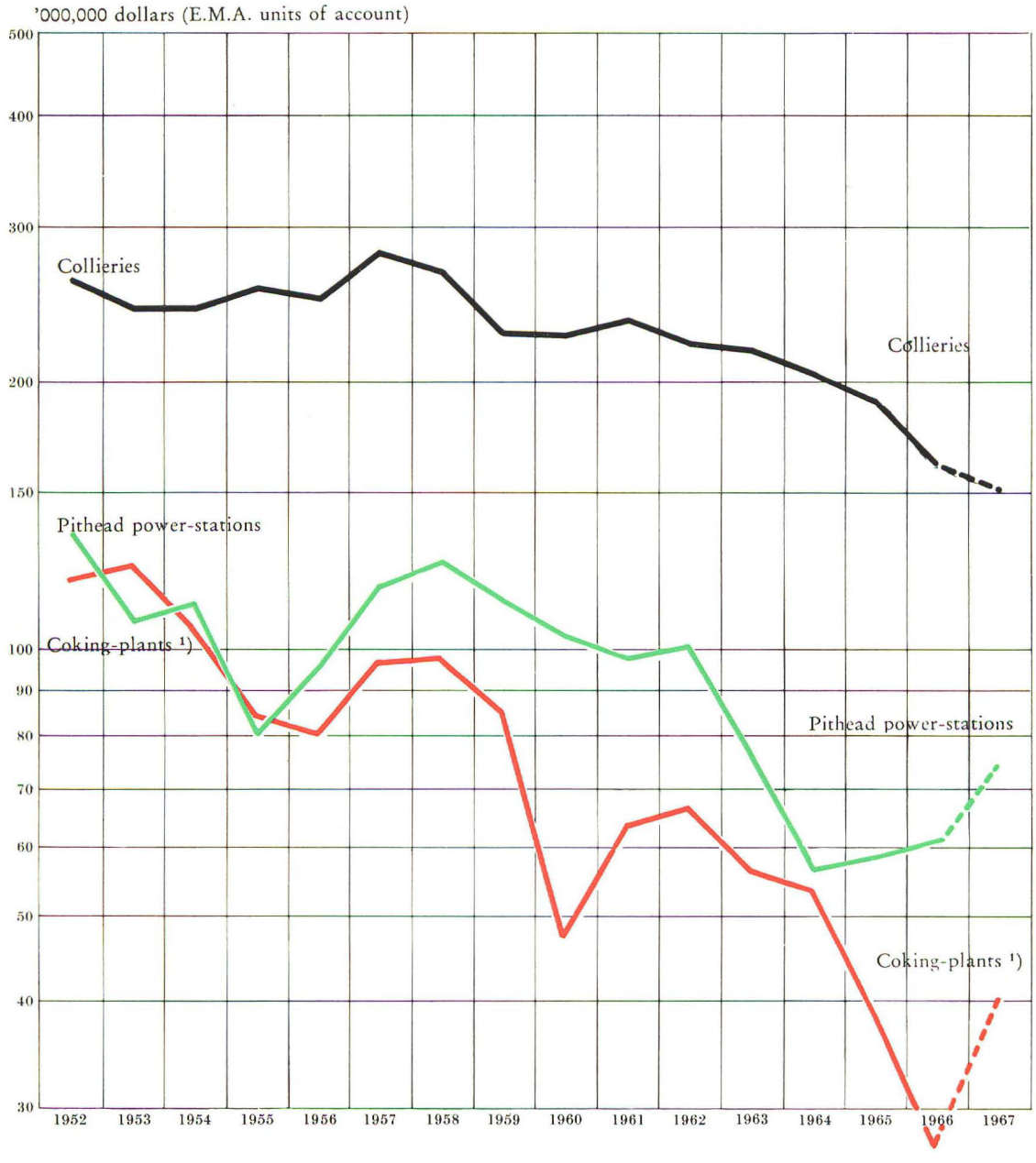
Capital Expenditure in the Hard-Coal Industry [1])



[1]) *Exclusive of independent coking-plants.*

FIGURE 4

Capital Expenditure in the Coalmining Industry



1) Mine-owned, steelworks-owned and independent coking-plants.

The minor increases here and there in production potential which will result from the projects now completed and in hand will nothing like offset the effects of current plans for the scrapping of capacity. The producers' own declarations indicate that they expect Community potential to contract by slightly over 30 million tons in all between 1966 and 1970, but the resulting 1970 figure of 198 million tons does appear unduly high.

TABLE 7

Development of Hard-coal Production Potential (1)

'000,000 metric ton

Production		Production potential				
1952	1966	1966	1967	1968	1969	1970
237·4	204·1(2)	229·6	209·3	202·7	200·3	198·2

(1) As in previous years, mines producing only small tonnages are excluded (cf. Annex I, para. IIa, p. 36).
(2) Exclusive of the production of smaller mines [see (1)] and of collieries, which closed during 1966. This production amounted to approximately 2 m. tons.

Potential is expected to be smaller in 1970 than in 1966 in all the Community coalfields except Lower Saxony and Sulcis. In both of these, and in the Ruhr, Aachen and Southern Belgium it will be about the same as, or slightly larger than, actual 1966 production.

Much the biggest decrease over the four years will be in the Ruhr, where a total capacity of 15 million tons is to be scrapped ; then come the Nord/Pas-de-Calais with 4,700,000 tons, Dutch Limburg with 4 million, the Campine with 3,200,000, the French Centre-Midi with 1,400,000 and the Saar with 1,200,000.

The number of working days per annum on which the production potentials indicated are based varies from coalfield to coalfield : 285 in France, 255 in Germany (295 in the Saar), 254 in the Netherlands, and 250 in most of the Belgian collieries.

b) Coking-Plants

As can be seen from Table 5, capital expenditure on the mine-owned coking-plants has fallen year by year from an average 57,500,000 dollars in 1954-59 to a mere 15,800,000 in 1965 and 13,200,000 in 1966. Only in the Ruhr, and to a very much lesser extent in the Nord/Pas-de-Calais, was there any investment activity to speak of, principally in connection with the replacement of obsolete installations. Specific expenditure per ton of coke produced was down from 1.3 dollar in 1954-59 to 0.4 in 1963-64 and 0.3 in 1965-66.

Expenditure on the independent coking-plants, which averaged 10,800,000 dollars a year from 1954 to 1959, suddenly plunged to 1,600,000 in 1960 and 1,400,000 in 1961 ; the slight revival since then has been due solely to the expansion of a number of plants on the Italian seaboard, where coke can be made economically from American fines.

Investment in the steelworks-owned coking-plants (here included to provide a full picture of the carbonization sector) remained substantial up to 1964, also in consequence of installations and extensions at the Italian coastal steelworks. This phase is now nearly over (see Table XVI a of the Annex), but work is to start in 1967 on the construction of two new plants on the French and Dutch North Sea coasts, to enable the neighbouring integrated steelworks to obtain coke made from the cheap fines on offer in the world market.

TABLE 8

Capital Expenditure on Steelworks-Owned Coking Plants, 1954—1968 (1)

'000,000 dollar (E.M.A. units of account)

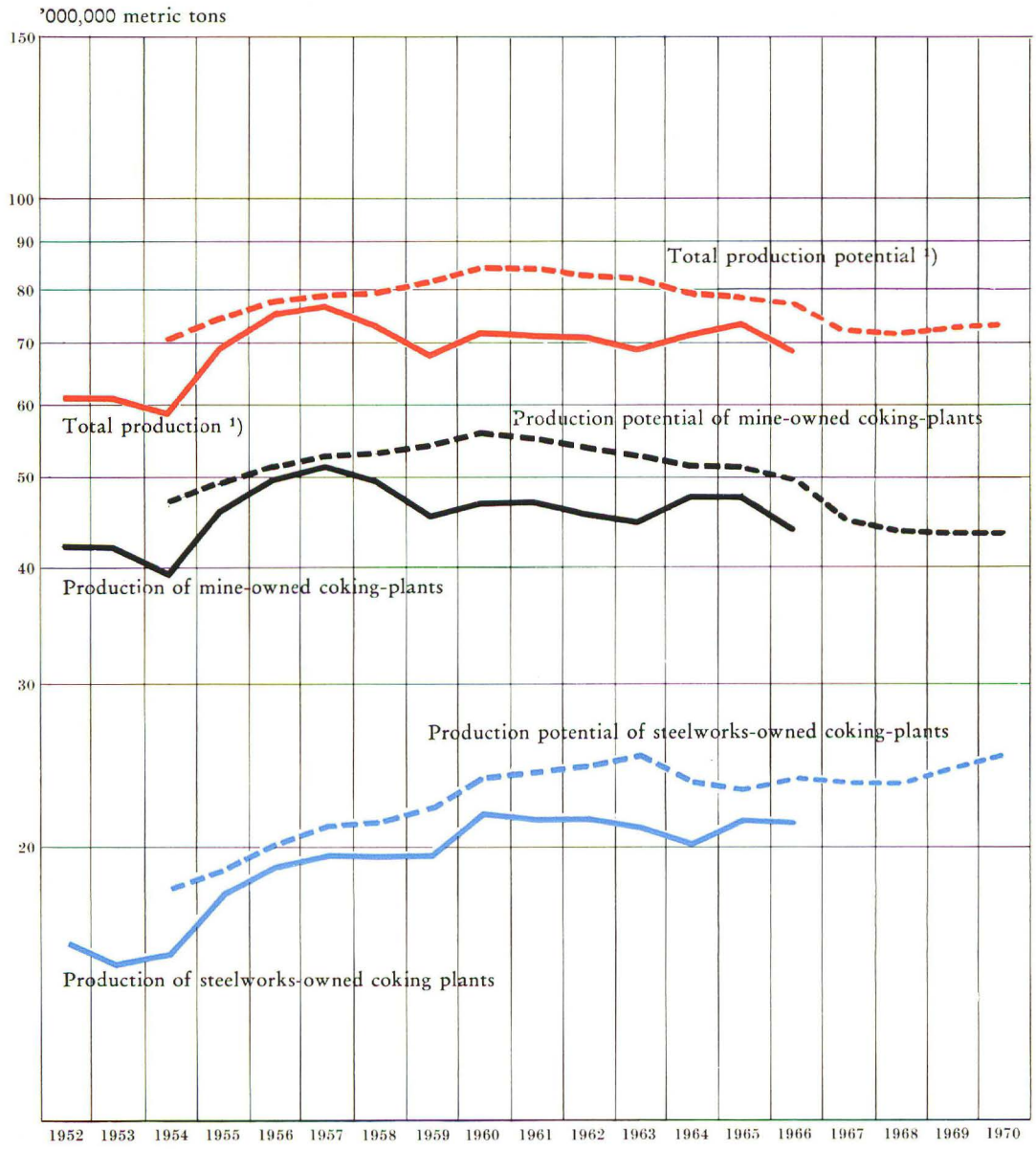
Actual expenditure								Estimated expenditure			
								1967		1968	
1954-59 (annual average)	1960	1961	1962	1963	1964	1965	1966	A+B	A+B+C	A+B	A+B+C
22·9	11·5	18·3	25·0	33·8	29·7	17·2	10·4	19·6	19·6	20·3	24·8

(1) Cf. Table 16, under "The Iron and Steel Industry" (1967 and 1968 estimates for Categories A and B only).

Again only one-third of the capital expenditure on the carbonization sector (mine-owned, independent and steelworks-owned plants together) went on the coke ovens themselves, and less than half of that on the construction of new capacity. Fairly substantial amounts continued to be spent on ancillary installations.

FIGURE 5

Production and Production Potential of Coking-Plants



¹) Mine-owned, steelworks-owned and independent coking-plants.

TABLE 9

Capital Expenditure on Mine-Owned, Independent and Steelworks-Owned Coking-Plants, 1954—1966

'000,000 dollar (E.M.A. units of account)

Type of installation	1954-59 (annual average)	1960	1961	1962	1963	1964	1965	1966
Coke ovens	37.9	20.7	26.6	29.2	28.0	17.6	12.2	9.3
of which:								
New plant	(21.6)	(9.6)	(13.7)	(14.4)	(21.2)	(12.4)	(5.3)	(3.8)
Renewal and replacements	(16.3)	(11.1)	(12.9)	(14.8)	(6.8)	(5.2)	(6.9)	(5.5)
Gas producers	2.4	0.9	0.6	2.1	0.7	3.6	1.7	0.3
Coke-oven gas and by-product plant	29.1	13.1	18.2	18.1	10.8	11.8	9.2	6.5
Miscellaneous	21.8	12.1	17.4	16.6	16.8	19.9	15.0	11.2
Total	**91.2**	**46.8**	**62.8**	**66.0**	**56.3**	**52.9**	**38.1**	**27.3**

With a number of plants scheduled for closure, mostly in the Ruhr, the 1970 production potential on the mine-owned side is estimated at 6,200,000 tons less than the 1966 figure. The potential of the independent and steelworks-owned plants, on the other hand (both of them now increasingly using imported fines), is expected to rise by 300,000 and 1,300,000 tons respectively, which would bring the net reduction in coking potential to only 4,600,000 tons, or 6%.

TABLE 10

Development of Coke Production Potential

'000,000 metric tons

Category	Actual production		Production potential				
	1952	1966	1966	1967	1968	1969	1970
Mine-owned plants	42·2	43·9	49·9	45·0	43·8	43·7	43·7
Independent plants	3·2	3·8	3·9	3·9	4·2	4·2	4·2
Steelworks-owned plants (1)	15·8	21·3	23·8	23·7	23·5	24·4	25·1
Total	**61·2**	**69·0**	**77·6**	**72·6**	**71·5**	**72·3**	**73·0**

(1) Cf. Table 17, under "The Iron and Steel Industry". The production-potential figures above for the steelworks-owned plants are calculated on the same basis as for the other types of plant, i.e. including all three categories of projects (A, B and C).

Table VIII in Annex II contains some technical data on the operation of the coking-plants (coal input, coke output, gas consumed and produced).

c) Briquetting-Plants

Capital spending in this sector has always been comparatively small, but for the last three years it has been rather larger than previously, not because of extensions to existing capacity, but because work is in progress on the construction of desmoking plants. Belgian and French production of smokeless ovoids, for use in place of sized anthracite and low-volatile coal, has lately been increasing, and is likely to go on doing so for some little time.

Community briquetting potential overall, however (smokeless and non-smokeless briquettes together), is expected to contract somewhat, by perhaps 2 million tons in the next four years.

d) Pithead power-stations

Capital expenditure under this head, after averaging over 100 million dollars a year from 1954 to 1962, has since declined to about 60 million, the figure in both 1965 and 1966. Only in the Ruhr and the Nord/Pas-de-Calais is any fresh expansion planned for the next few years ; in the Ruhr, in view of recent legislation to promote the use of coal for generating purposes, schemes are on foot for the majority of the collieries to co-operate in building a number of joint power-stations, which will be run by independent companies and will supply current to the public grid of Land North Rhine/Westphalia.

TABLE 11

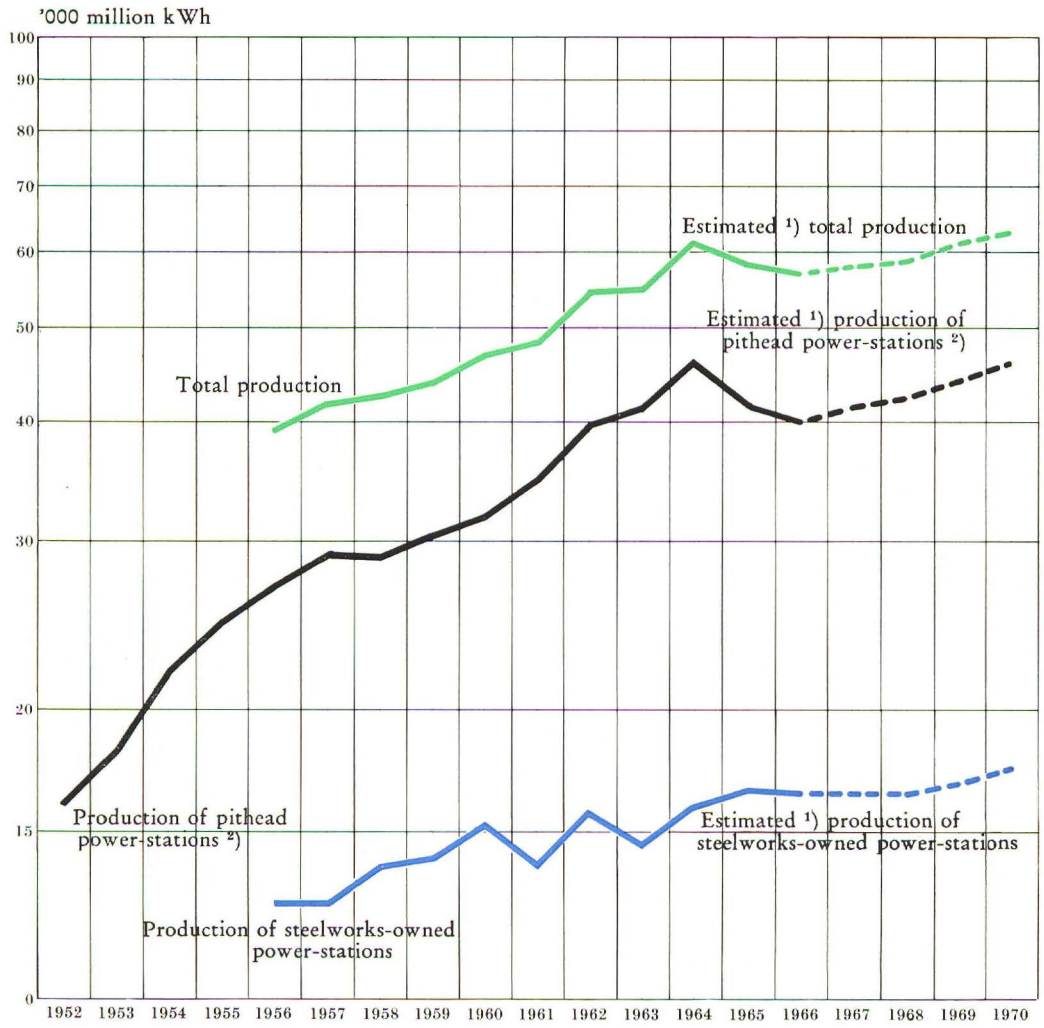
Capital Expenditure on Pithead Power-Stations and Other Power-Generating Plants at Mines, 1954—1966

'000,000 dollar (E.M.A. units of account)

Type of installation	1954-59 (annual average)	1960	1961	1962	1963	1964	1965	1966
Steam-raising plant	40.2	36.4	28.2	40.3	25.2	17.2	20.1	25.4
Power-generating plant and distribution switchgear	33.4	42.5	43.8	34.4	24.1	14.4	14.2	19.2
Buildings	9.6	7.5	10.1	9.4	11.7	8.8	73.2	5.2
Electricity distribution networks	9.8	7.0	5.7	6.0	5.6	3.2	9.9	5.6
Compressed-air plant	5.3	2.7	1.4	0.3	2.1	2.3	1.1	0.5
Miscellaneous	8.6	6.5	7.7	9.5	7.1	9.6	6.4	4.8
Total	**106.9**	**102.6**	**96.9**	**99.9**	**75.8**	**55.5**	**58.9**	**60.7**

FIGURE 6

Electric Power Production



1) For 1967 and following years energy production figures have been estimated on the basis of the maximum electric capacity as in mid-year assuming the same number of load-hours as in 1966, i.e. 4061 hours per annum for the pithead power-stations and 4636 hours per annum for the steelworks-owned power-stations.

2) Pithead power-stations proper and other power-stations plant at mines.

This shrinkage in expenditure on the pithead power-stations proper is leading to a certain slowdown in the expansion of installed capacity. Much the same is happening for the steelworks-owned stations (here mentioned to provide a full picture of the power-generating position in both Community industries) : in their case the main reason is the decrease in the coke rate at the blast-furnaces, and consequently in the production of blast-furnace gas.

TABLE 12

Development of Electricity Production and of Maximum Electric Capacity of the Pithead and Steelworks-Owned Power-Stations

	Production ('000,000,000 kWh)		Maximum electric capacity (MW)					
			Beginning of					
	1956	1966	1966	1967	1968	1969	1970	1971
Pithead stations	26.8	40.0	9,675	10,001	10,395	10,498	11,216	11,450
Steelworks-owned stations	12.6	16.5	3,577(1)	3,555	3,555	3,555	3,728	3,768

(1) Corrected figure.

Only a gradual increase can now be expected in the installed capacity of the pithead and steelworks-owned stations. Assuming they continued working at the low 1966 rates of 4,061 and 4,636 load-hours respectively, the pithead stations' output of electric current would rise between 1966 and 1970 from 40,000 million to 46,000 million kWh and the steelworks-owned stations' from 16,500 million to 17,400 million.

Tables XI in Annex II give some technical data on the operation of the pithead stations (specific consumption in calories per kWh, consumption of low-grade coal, load-hours per annum). It should be noted that their specific consumption is still falling despite the increased use of low-grade coal to fuel them : in 1966 the rate was only 2,897 kcal/kWh, although the coal employed consisted 89% of low-grade matter (reckoned ton for ton).

e) Plants producing B.K.B. and Low-temperature Brown-Coal Coke

Capital expenditure on the brown-coal briquette plants is decreasing, and production potential is expected to contract from 12,300,000 to 9,600,000 tons over the next four years.

III—THE IRON-ORE MINES

Capital spending in the Community iron-ore industry has been falling steeply since 1962, and was down by 1966 to barely one-third of the 1961 level. Only in Lorraine is further expenditure being planned on any scale to speak of, and even there the estimates are a good deal smaller than last year.

TABLE 13

Capital Expenditure in the Iron-Ore Industry, 1954—1968

'000,000 dollar (E.M.A. units of account)

Type of installation	Actual expenditure								Estimated expenditure (Categories A+B+C)	
	1954-59 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967	1968
Mining of ore	21.3	26.1	30.8	26.1	19.6	18.2	17.8	11.7	12.6	10.6
Preparation of ore at mine	8.9	7.5	9.6	8.1	3.9	2.3	2.1	2.1	1.5	3.5
Various surface installations	9.0	9.6	12.0	12.4	4.7	3.4	5.7	2.7	3.3	2.3
Total	**39.2**	**43.2**	**52.4**	**46.6**	**28.2**	**23.9**	**25.6**	**16.5**	**17.4**	**16.4**

From 1952 to 1960 Community production of crude ore rose progressively from 65,300,000 to 95,900,000 tons, *i.e.* at an average cumulative annual rate of 4.9% ; for Lorraine the increase was 6.6 %, from 37,700,000 to 62,700,000 tons. Since 1960, as a result of competition from overseas ores, the Community production has been falling by an average 4.7% per annum (Lorraine 3.3% and the other orefields taken together 8.9%).

A corresponding contraction began in 1963 in production potential, which decreased over the four years 1963-66 by 7,400,000 tons. In all the Community orefields it is now expected that there is no possibility of stopping the decline, and a further shrinkage of 7,600,000 tons is expected between 1966 and 1970, one-half of it in Lorraine.

TABLE 14

Development of Crude-Ore Extraction Potential

'000,000 metric tons

Actual extraction		Extraction potential				
1952	1966	1966	1967	1968	1969	1970
65·3	73·0	90.5	84.2	83·9	83·0	82·9

Lorraine ore accounted for about 65% of total Community production around 1959-60, and 76% in 1966. Despite the coming contraction there too, Lorraine's share will continue to increase, and should, according to the January 1, 1967, estimates, amount by 1970 to 79% of the Community's total potential.

IV—THE IRON AND STEEL INDUSTRY

Capital expenditure in the Community iron and steel industry, after running fairly evenly from 1955 to 1959, suddenly rocketed from 587 million dollars in the latter year to 1,480 million in 1963, but as the major projects approved in 1960 and 1961 were successively completed the level began to fall, rather markedly, in 1964. The 1966 figure, 837,500,000 dollars, is, however, still above the average for the whole preceding period 1955-65.

Specific expenditure per ton produced has been going down for some years in France and Germany, and also in Luxembourg, though here a slight upturn was observable in 1966. In Italy it has dropped much more steeply, but from a quite exceptionally high level, since in 1963-64 Italian investment accounted for over one-third of the Community total. The Belgian steelmakers, on the other hand, are continuing to spend substantial amounts, and the Dutch industry is also starting to do so.

The decrease in expenditure in 1966 affected pig-iron and crude-steel capacity and general services about equally, and the rolling side slightly less, with the result that the proportions worked out at 16%, 14% and 22% of the total respectively for the first three categories, and 48 %for the rolling mills.

TABLE 15

Capital Expenditure in the Iron and Steel Industry, 1954—1968

'000,000 dollar (E.M.A. units of account)

Type of installation	Actual expenditure								Estimated expenditure (Categories A+B)	
	1954-59 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967	1968
Plant for production of :										
pig-iron	143.3	172.2	218.8	233.2	258.4	222.7	160.4	132.1	133.2	110.3
crude steel	84.1	95.4	162.8	152.4	175.0	158.3	124.7	120.7	165.7	112.7
rolled products	249.8	350.3	532.4	597.6	726.4	634.3	425.5	400.7	387.8	270.2
General services	103.8	157.3	209.1	247.1	319.7	300.0	221.7	221.7	150.9	92.3
Total	**581.0**	**775.2**	**1,123.1**	**1,230.3**	**1,479.5**	**1,315.3**	**932.3**	**837.5**	**837.6**	**585.5**

FIGURE 7

The Capital Expenditure in the Iron and Steel Industry

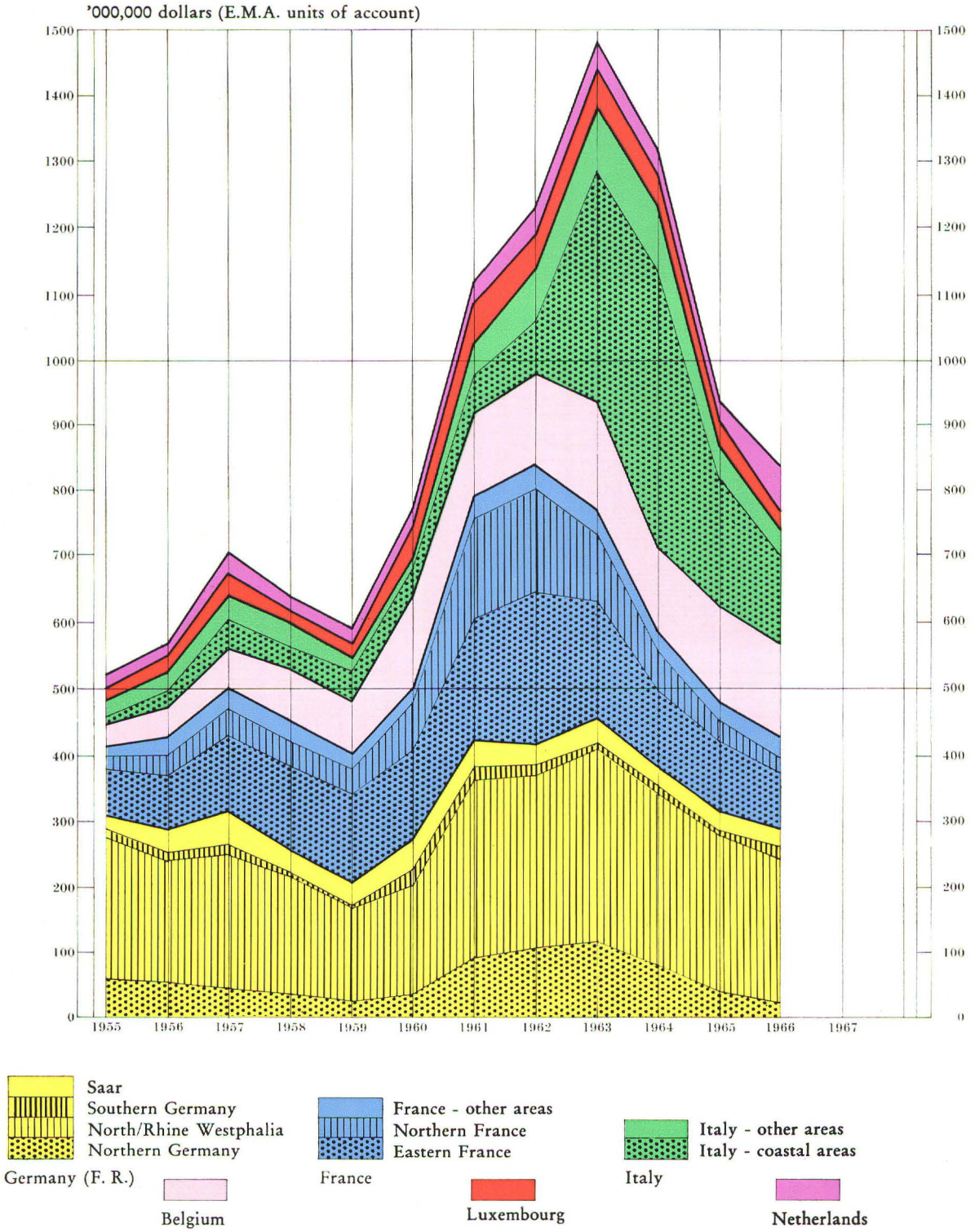
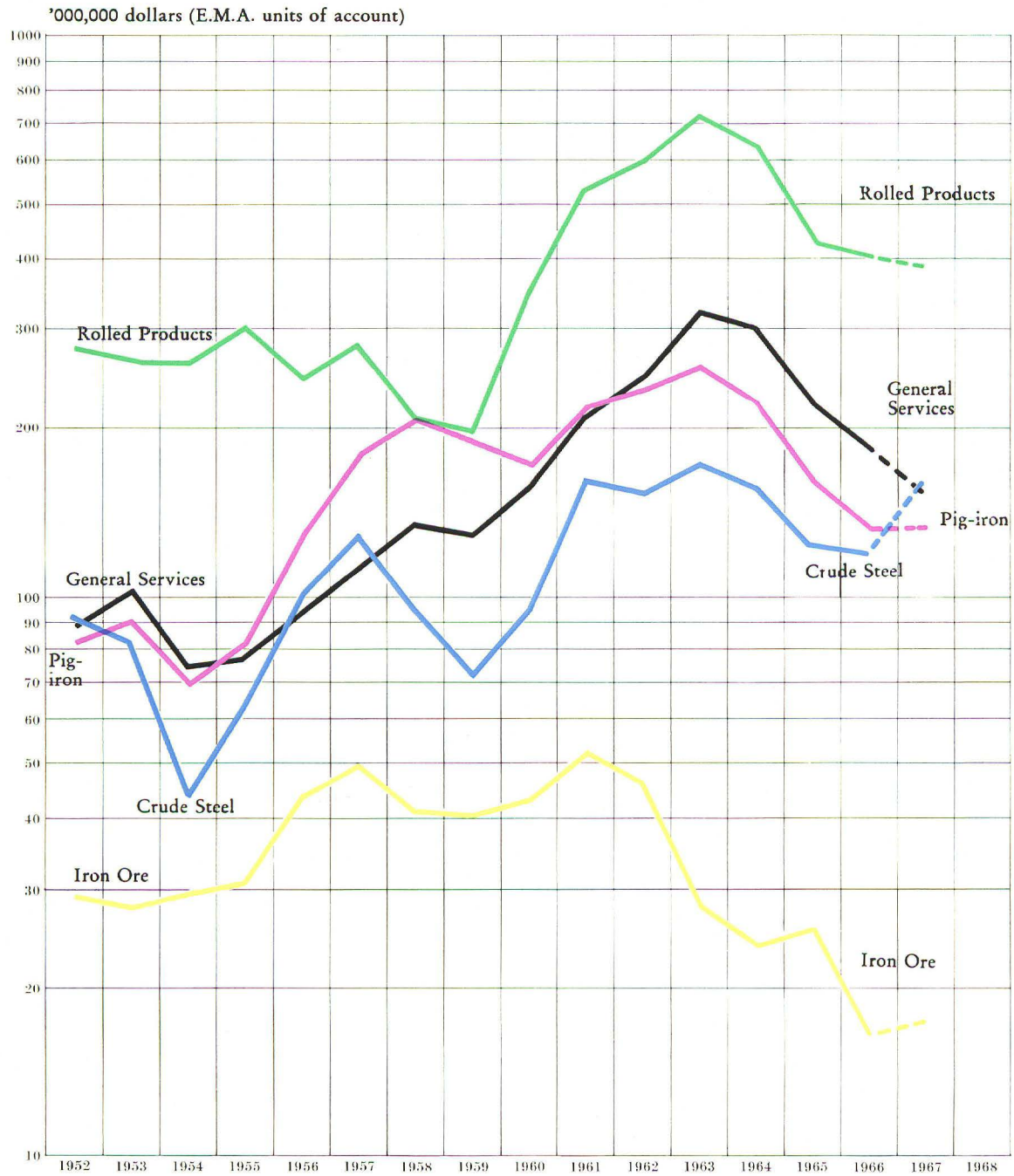


FIGURE 8

Capital Expenditure in the Iron-Ore Mines and Iron and Steel Industry



The following sub-sections examine one by one the four main categories of investment and their effects on production potential.

a) Pig-iron Production

The proportion of total expenditure devoted to pig-iron production plant (steelworks-owned coking-plants, burden-preparation installations and blast-furnaces), which in 1958-59 stood at 32%, has since been gradually declining, and in 1966 was only 16%, smaller than at any time since 1955.

This contraction is due partly to the fact that less and less work is being done on the industry's coking-plants — by now hardly anything—and also on its blast-furnace capacity, apart from reconstruction and enlargement of existing furnaces. The biggest drop, however, is in expenditure on burden preparation: many enterprises by now possess sinter strands and most of them are reluctant to embark on projects for pelletization, while not one has so far begun industrial-scale construction of direct-reduction installations.

TABLE 16

Capital Expenditure on Pig-iron Production Plant, 1954—1968

'000,000 dollar (E.M.A. units of accounts)

Type of installations	Actual expenditure								Estimated expenditure (Categories A+B)	
	1954-1959 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967	1968
Steelworks-owned coking-plants .	22.9	11.5	18.3	25.0	33.8	29.7	17.2	10.4	19.6	20.3
Burden preparation	42.7	73.7	93.3	110.9	123.2	85.0	52.0	45.2	45.7	46.4
Blast-furnaces	77.7	87.0	107.2	97.3	101.4	108.0	91.2	76.5	67.9	43.6
Total	**143.3**	**172.2**	**218.8**	**233.2**	**258.4**	**222.7**	**160.4**	**132.1**	**133.2**	**110.3**

As was noted in Section II (see Table 10), the industry's **coke** production potential is expected to increase by 1,300,000 tons between 1966 and 1970, though of this 700,000 tons is represented by projects still only contemplated. Notwithstanding the new North Sea schemes, expansion in this sector remains inconsiderable, nothing like sufficient to counterbalance the drastic reduction in mine-owned coking potential.

Sinter potential increased more than fourfold between 1952 and 1966, and now, ton for ton, appreciably exceeds the Community's pig-iron capacity. Naturally, the expansion is now bound to level off, though there is still a good deal of leeway to be made up in the areas using low-grade ores.

Pig-iron production potential is expected to increase fairly substantially, by 11% or so, between 1966 and 1970, as a result of action being taken to enlarge the hearth diameter of many blast-furnaces and the fact that it will be possible to use larger amounts of high-grade ore and sinter.

TABLE 17

Development of Pig-Iron Production Potential

'000,000 metric tons

Product	Actual production		Production potential				
	1952	1966	1966	1967	1968	1969	1970
Coke (steelworksowned plant (1))	15.8	21.3	23.8	23.7	23.5	24.1	24.4
Sinter	15.6	70.4	85.7	88.8	91.7	92.6	95.7
Pig-iron	34.7	61.8	80.3	82.8	84.2	87.4	89.0

(1) Cf. Table 10 under "The Coalmining Industry". The production-potential figures above for all three types of plant concerned in the production of pig-iron are based only on investment projects in progress or approved (Categories A and B).

b) Steel Production

Little is being spent on **basic Bessemer** and **open-hearth** steelmaking plant : such investment is almost entirely confined to Lorraine, Luxembourg and the Saar for the former and the Ruhr and Italy for the latter.

Expenditure on **electric-furnace** capacity is also dwindling : in 1966 it amounted to only 10 million dollars, as compared with a steady 20 million from 1961 to 1964. Most of it was effected in Central France and in the Saar; in Northern Italy investment activity in this connection has been latterly at a standstill following the turnround in 1964.

The rapid expansion in **oxygen steelmaking** capacity continues, accounting in 1966 for 76% of the industry's total expenditure on crude-steel production plant, as compared with 70% in the three preceding years. Investment was highest in the Ruhr, Belgium and Luxembourg, and an increase seems to be on the way in Lorraine ; the Italian coastal works, however, are holding back at present, after years of enormous increases.

FIGURE 9

Breakdown of Capital Expenditure in the Iron and Steel Industry

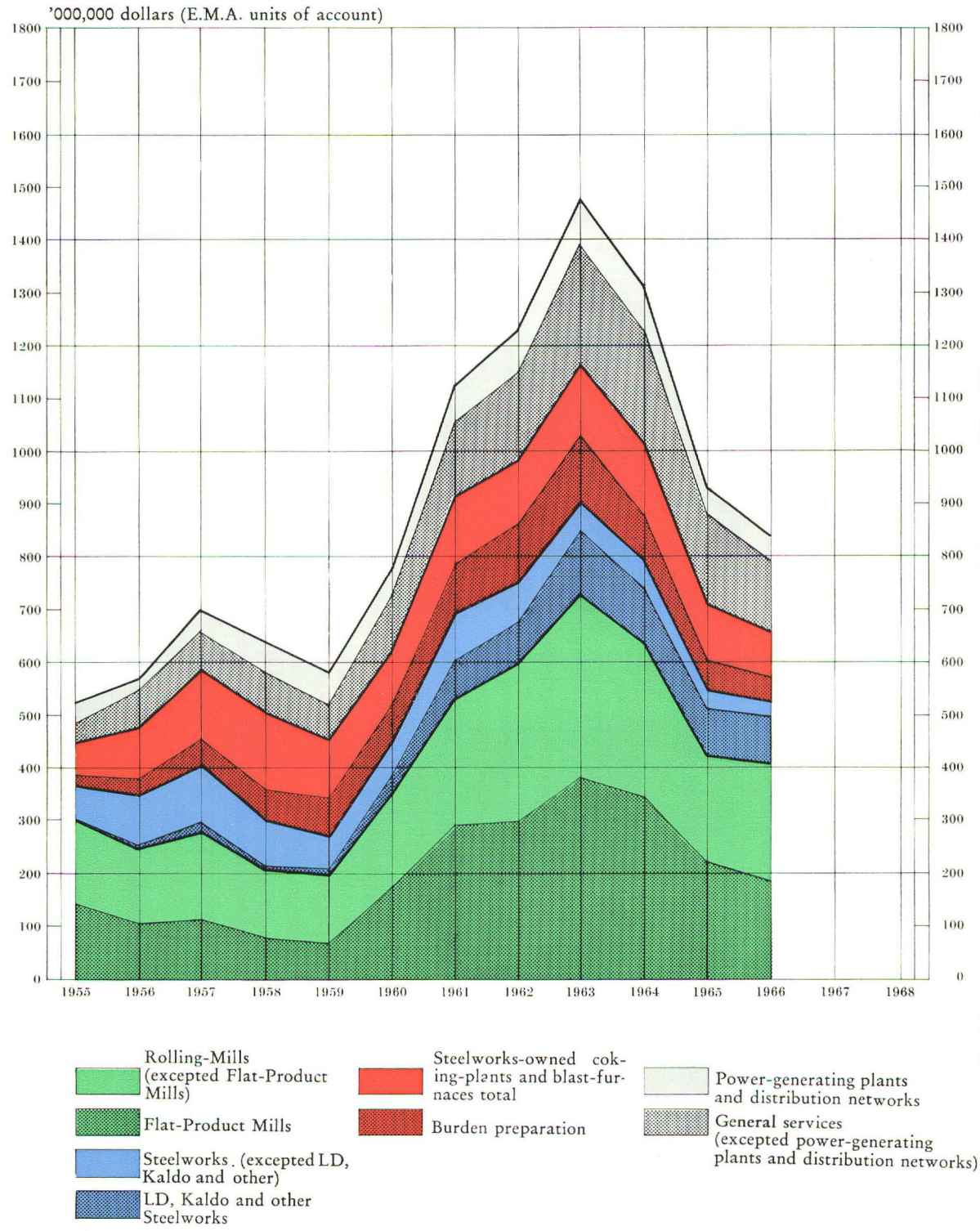


TABLE 18

Capital Expenditure on Steelmaking Plant, 1954—1968

'000,000 dollar (E.M.A.) units of account

Production process	Actual expenditure								Estimated expenditure (Categories A+B)	
	1954-59 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967	1968
Basic Bessemer	30.4	21.2	24.2	23.0	18.4	9.2	10.2	10.2	11.3	3.0
Open-hearth	33.5	29.1	44.8	30.2	18.5	22.7	13.0	8.6	8.4	4.5
Electric-furnace	13.0	11.1	21.8	21.1	18.1	19.9	16.5	10.3	23.1	10.7
L/D, Kaldo, etc.	7.2	34.0	72.0	78.1	120.0	106.5	85.0	91.6	122.9	94.5
Total	**84.1**	**95.4**	**162.8**	**152.4**	**175.0**	**158.3**	**124.7**	**120.7**	**165.7**	**112.7**

Community crude-steel production potential passed the 100 million ton mark in 1965, and reached 108 million tons in 1966. Capacity is in fact increasing so fast—in consequence of advances in technology rendering it necessary to install the most up-to-date plant—as to outpace the growth in demand, with the result that in 1966 the rate of utilization went slightly below 80%, for the first time in the Community's history. The great object from now on will be not to expand capacity but to cut production costs : the latest giant installations can in some cases only be afforded if they are to be operated on behalf of several enterprises jointly.

The estimated increase in steelmaking potential over the next four years works out at 13,700,000 ingot tons—16,900,000 tons for oxygen-blown and 1,800,000 for electric-furnace plant, (18,7 million tons together) minus the bigger and bigger cuts scheduled for basic Bessemer and open-hearth, now put at 2,500,000 tons for each. (5 million tons together)

TABLE 19

Development of Crude-steel Production Potential

'000,000 metric ton

Production process	Actual production		Production potential				
	1952	1966	1966	1967	1968	1969	1970
Basic Bessemer	23·0	30·2	37·0	36·5	35·6	34·9	34·5
Open-hearth	15·2	24·2	32·8	32·3	31·5	30·7	30·3
Electric-furnace	3·3	10·7	13·6	14·1	14·8	14·9	15·4
LD, Kaldo, etc.	0·3	19·9	24·6	29·7	33·9	38·8	41·5
Total	**41·8**	**85·0**	**108·0**	**112·6**	**115·8**	**119·3**	**121·7**

Although the bulk of the industry's expenditure on the crude-steel side is now going on oxygen-blown plant, the estimated incidence varies considerably from one part of the Community to another. In nearly all the coastal and semi-coastal producer areas it is hoped by 1970 to have over half the potential consisting of this type—in the Netherlands 79% (as against 63% of actual production in 1966), in the Italian coastal works 57% (50%), in North Germany 53% (29%), in Belgium 51% (23%), and in Northern France 44% (38%). In the Ruhr and Luxembourg, on the other hand, the proportion at the same date is put at only a third and in the Saar and Lorraine at a sixth, while everywhere else in the Community practically no interest has as yet been shown in oxygen steelmaking at all. Needless to say, this is absolutely no indication as to the relative competitive capacity of the industry in the different areas : each of the production processes has its own particular advantages, according to the characteristics of the ores used and the purposes for which the steel is to be employed.

For the Community taken as a whole, expansion is now confined to the electric-furnace and above all the oxygen steels ; the latter should by 1970 account for over a third of the total-potential.

TABLE 20

Shares of the Different Steelmaking Processes in 1952, 1966 and 1970

%

Production process	Actual production		Production potential	
	1952	1966	1966 (actual share)	1970 (estimated share
Basic Bessemer	55·0	35·4	34·2	28·3
Open-hearth	36·4	28·6	30·4	24·9
Electric-furnace	7·9	12·5	12·6	12·7
LD, kaldo, etc.	0·7	23·5	22·8	34·1
Total	**100·0**	**100·0**	**100·0**	**100·0**

This makes a cumulative average annual increase of 14% for the oxygen steels and decrease of 2% for basic Bessemer and open-hearth from 1966 to 1970.

FIGURE 10

Actual Production and Production Potential of the Iron and Steel Industry

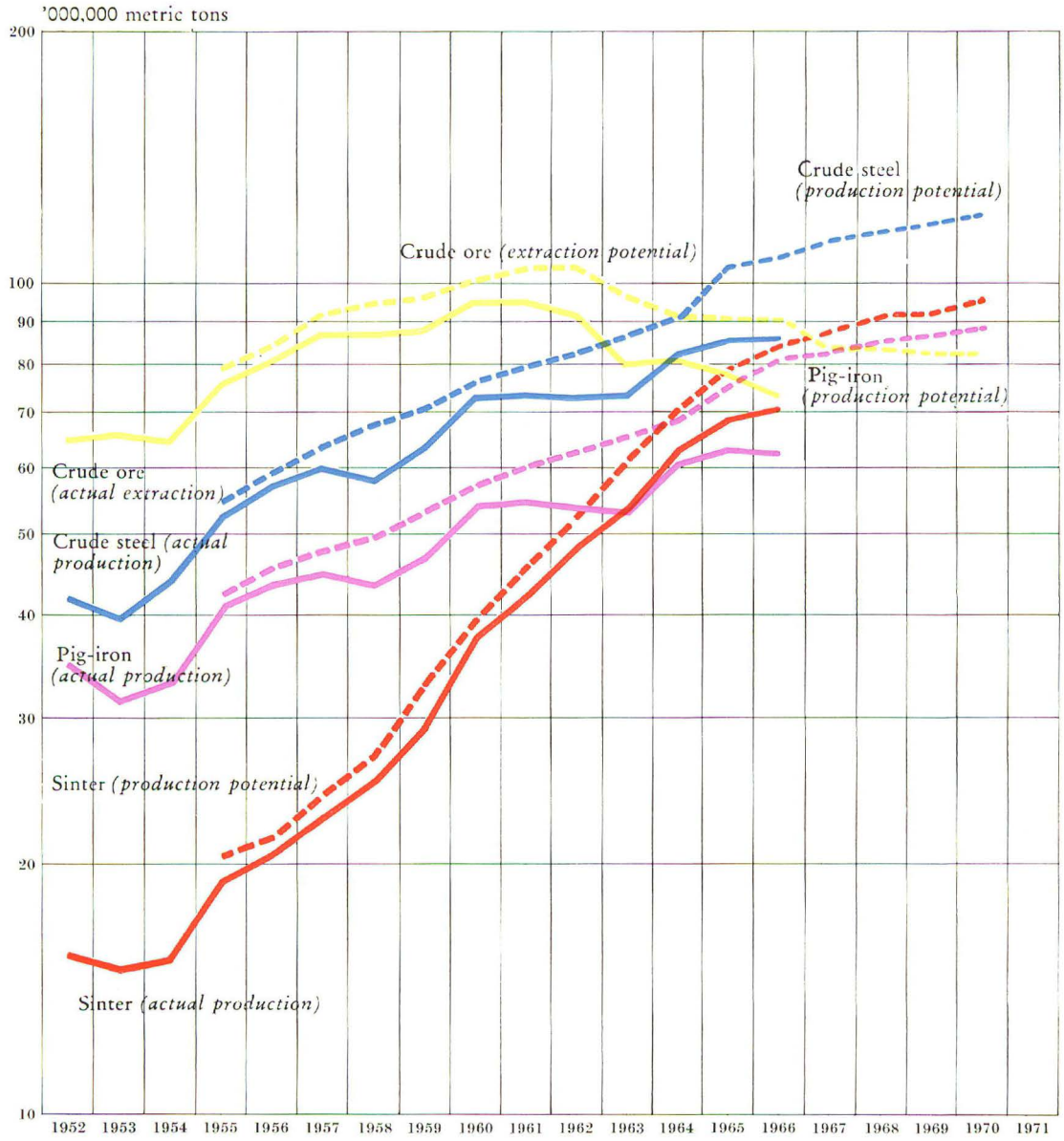
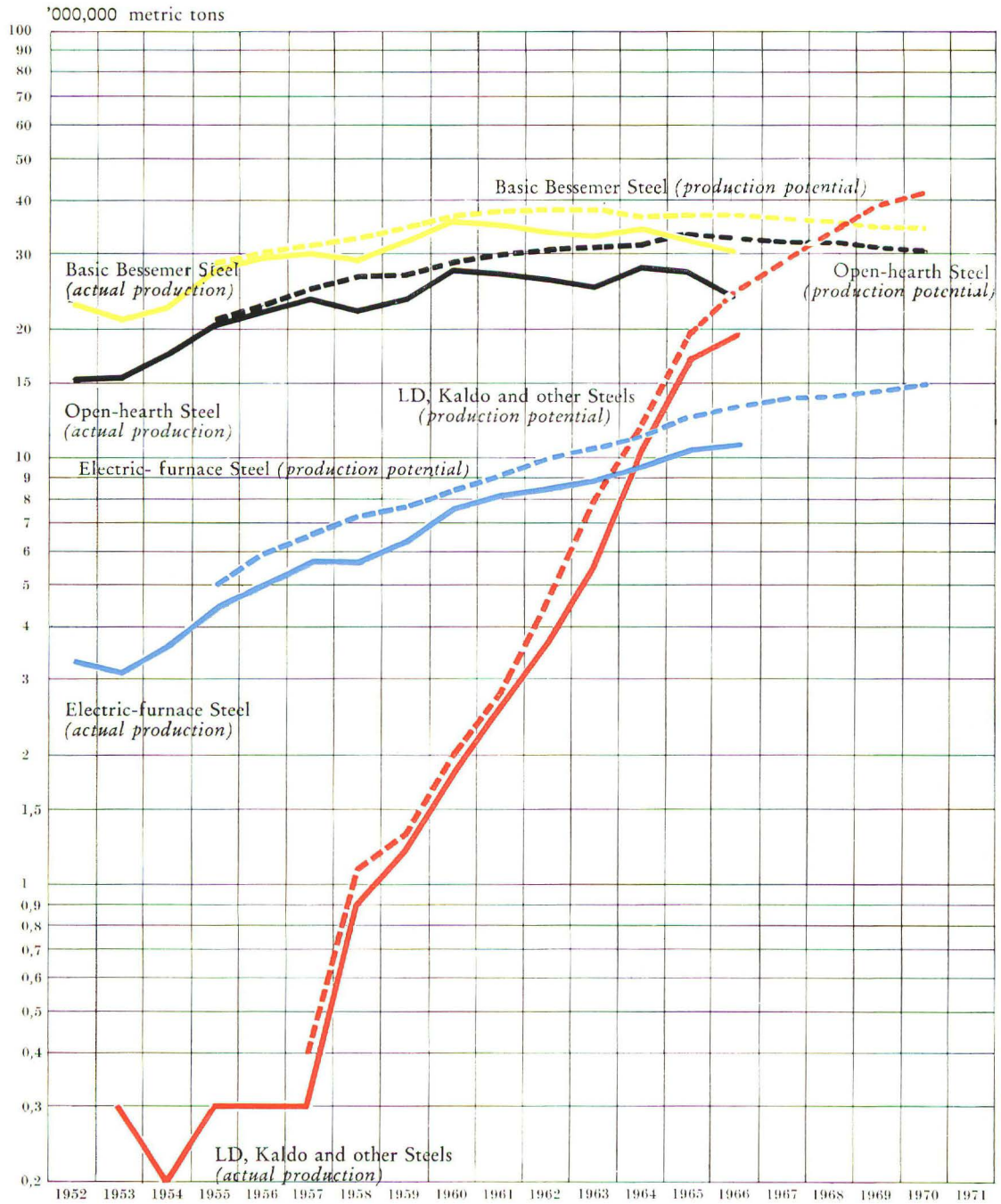


FIGURE 11

Actual Production and Production Potential of Crude Steel by Production Process



TABEL 21

Average Annual Rate of Development in the Crude-Steel Sector, by ProductionProcesses

%

Production process	Average annual movement in actual production, 1952-66	Estimated average annual movement in production potential 1966-70
Pig-iron (for comparison)	**+ 4·2**	**+ 2·6**
Basic Bessemer	+ 2·0	— 1·8
Open-hearth	+ 3·4	— 2·0
Electric-furnace	+ 8·8	+ 3·2
LD, Kaldo, etc.	+ 35·0	+ 14·0
Total, crude steel	**+ 5·2**	**+ 3·1**

c) Production of Semis and Rolled Products

Capital expenditure on continuous-casting installations, rolling-mills and ancillary plant, which in 1958-59 accounted for only 33% of the total, began after that to rise more steeply than investment elsewhere in the industry, and has since 1963 been moving between 45% and 49% ; its share in 1966 was 48%.

From 1960 to 1965 about twice as much was spent on the flat-products mills as on the section mills, but the disproportion is no longer quite so marked, there having been a slight increase in the share, mainly, of the heavy and medium section mills and the small-bar mills.

Special mention should be made of the continuous-casting installations, whose share in the industry's total expenditure in this sector has risen steadily from 1% in 1964 to 2% in 1965 and 3% in 1966, and is expected to jump to 10% in 1967. The projects concerned are practically all in the Ruhr and Saar and in inland Italy.

TABLE 22

Capital expenditure on Production Capacity for Semis and Rolled Products

'000,000 dollar (E.M.A. units of account)

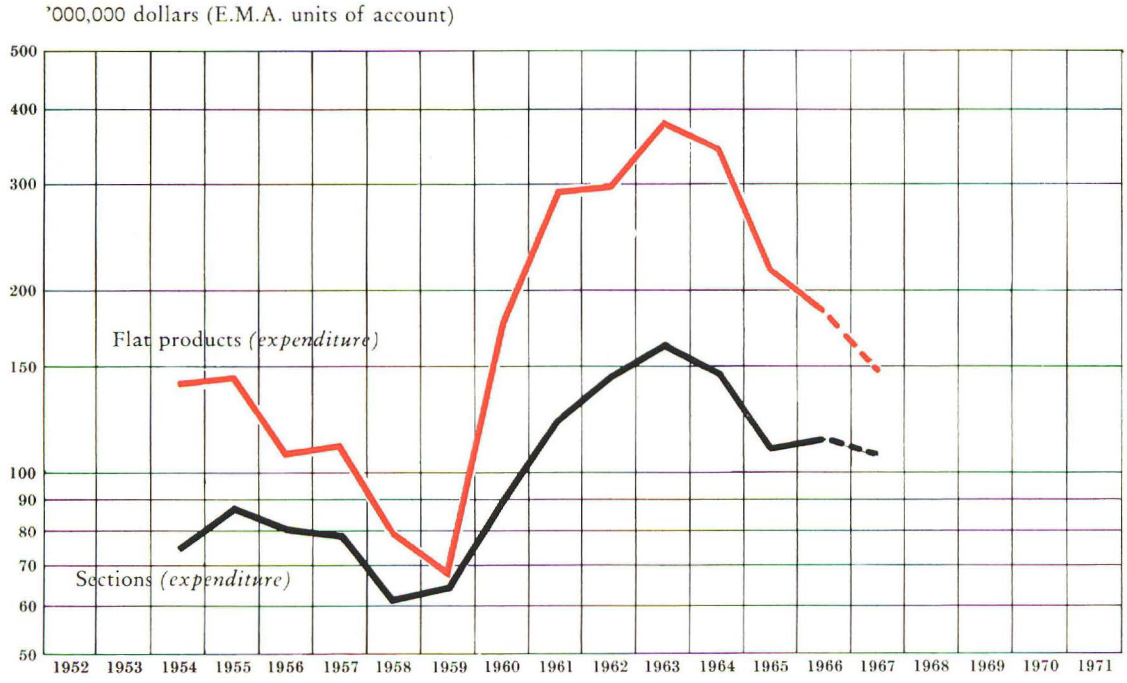
Type of mill	Actual expenditure								Estimated expenditure (Categories A+B)	
	1954-59 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967	1968
Heavy and medium section mills .	33.5	55.0	66.4	66.0	74.6	54.9	52.4	51.9	58.5	44.0
Small-bar mills	29.9	19.2	26.2	27.5	48.8	67.3	44.3	46.9	29.3	9.5
Wire mills	11.0	16.2	28.4	51.0	40.0	24.1	12.8	13.3	21.5	17.5
Total, section mills	*74.4*	*90.4*	*121.0*	*144.5*	*163.4*	*146.3*	*109.5*	*112.1*	*109.3*	*71.0*
Hoop and strip mills	8.8	4.3	5.5	8.6	8.2	4.8	10.0	13.5	15.7	8.8
Plate and universal mills	29.0	24.8	35.4	46.2	64.0	32.2	23.1	33.2	28.0	19.1
Hot sheet mills	2.9	3.7	6.0	2.1	2.3	0.8	1.2	0.8	0.5	0.1
Cold sheet mills	1.4	0.4	0.7	0.4	0.1	0.4	0,5	0.1	4.2	4.1
Hot wide-strip mills	27.0	27.5	67.0	65.5	158.7	147.0	86.6	78.3	57.4	52.5
Cold wide-strip mills	38.8	114.8	178.6	175.9	147.1	159.3	97.6	60.5	43.4	27.1
Total, flat-products mills	*107.9*	*175.5*	*293.2*	*298.7*	*380.4*	*344.5*	*219.0*	*186.4*	*149.2*	*111.7*
Blooming and slabbing mills	*35.5*	*43.6*	*74.8*	*91.3*	*108.7*	*78.6*	*44.1*	*41.7*	*60.0*	*56.2*
Continuous-casting installations ..	.	.	.	*2.3*	*4.1*	*5.6*	*10.0*	*13.1*	*37.3*	*11.0*
Miscellaneous	*32.1*	*40.8*	*43.4*	*60.8*	*69.8*	*59.3*	*42.9*	*47.4*	*32.0*	*20.3*
Total	**249.9**	**350.3**	**532.4**	**597.6**	**726.4**	**634.3**	**425.5**	**400.7**	**387.8**	**270.2**

Since the Community's inception, actual production of finished rolled products has increased at an average 5.2% per annum, 3.6% for sections and 7.4% for flats. The estimated rates for the coming years are very much lower, and pretty nearly the same for both categories, 2.6% and 2.7% respectively.

FIGURE 12

Sections and Flat Products

A – Capital expenditure



B – Actual production and production potential

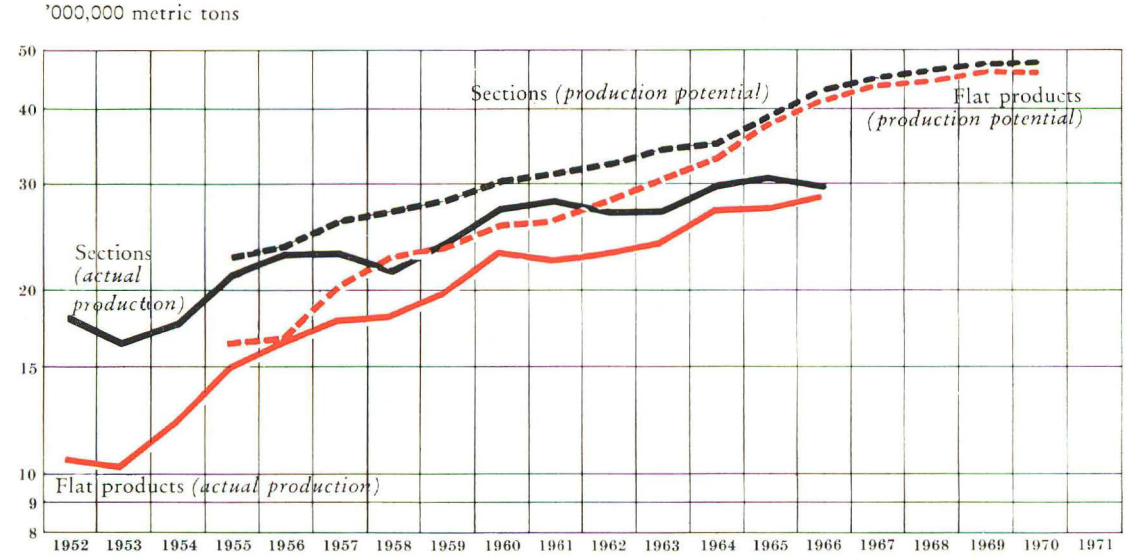


FIGURE 13

Actual Production and Production Potential for the Various Categories of Finished Rolled Product

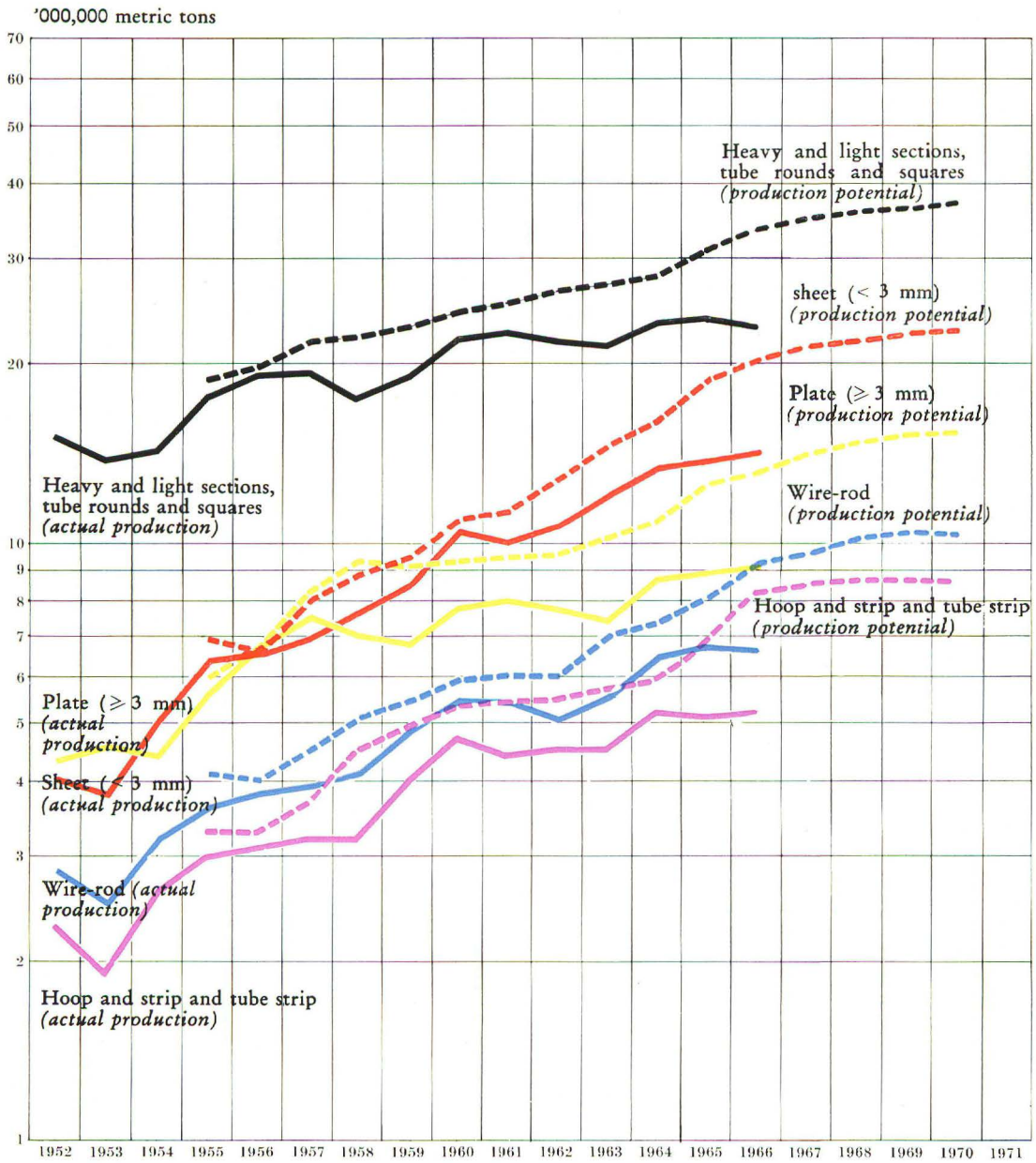


TABLE 23

Average Annual Rate of Development in the Rolling Sector, by Types of Finished Product

Product	Actual production			Product potential		
	1952 ('000,000 tons)	Average cumulative annual movement (%)	1966 ('000,000 tons)	1966 ('000,000 tons)	Average cumulative annual movement (%)	1970 ('000,000 tons)
Heavy and light sections, incl. tube rounds and squares	15·2	+ 3·0	23·1	33·6	+ 2·5	37·1
Wire-rod	2·8	+ 6·3	6·6	9·2	+ 3·1	10·4
Total, sections	*18·0*	*+ 3·6*	*29·7*	*42·8*	*+ 2·6*	*47·5*
Hoop and strip and tube strip	2·3	+ 6·1	5·3	8·2	+ 0·9	8·5
Plate of 3mm. and over (1)	4·3	+ 5·5	9·1	13·0	+ 4·0	15·2
Hot-rolled sheet under 3mm. (1) ..	3·1	— 7·7	1·1	1·8	— 4·7	1·5
Cold-reduced sheet under 3mm. ..	0·8	+ 22·1	13·1	18·0	+ 3·3	20·5
Total, flats	*10·5*	*+ 7·4*	*28·6*	*41·0*	*+ 2·7*	*45·6*
Total, rolled products	**28·5**	**+ 5·2**	**58·3**	**83·8**	**+ 2·6**	**93·1**
(*of which:* products rolled in continuous and semi-continuous mills)	(.)	(.)	(36·9)	(52·6)	(+ 3·7)	(60·9)

(1) Exclusive of coils rating as end products.

The share of flats in total rolling potential, which stood in 1952 at 37%, had increased by 1966 to 49%, where it is expected to remain at any rate until 1970.

The proportion of steel to be rolled in continuous and semi-continuous mills, which in 1960 worked out at just one-half, is now 62%, and should rise by 1970 to nearly 65%.

All these figures are for finished products only. A point to note, however, is that a growing proportion of the production of coils is being taken, by both the industry's Community and foreign customers, in the semi-finished state, in place of medium plate or, more usually, of sheet. It is something of an artificial exercice to try to compute the potential for "end-product" coils, as this is not really a technical concept at all but a purely business one : however, for what it is worth, we may mention that, according to the particulars supplied by the enterprises for

the survey, the maximum possible production of "end-product" coils seems likely to increase between 1966 and 1970 from 3 million tons to 3,900,000. Reckoned in with the finished-products total in Table 23, this would bring the share of flats in rolling potential overall in the years ahead about 51% instead of 49%, while the rise in the proportion of steel for rolling in continuous and semi-continuous mills would be from 64% in 1966 to over 66% in 1970, instead of from 62% to 65%.

d) General Services

All the previous investment surveys showed particularly marked increases in the proportion of expenditure going on general services, which in 1965 reached 24% ; in 1966, however, it dropped to 22%.

For years over half the expenditure under this head was on power-generating plant, but of late there has been a progressive slowdown here owing to the smaller amounts of blast-furnace gas being produced in consequence of the reduction in the coke rate. The resulting stagnation in the steelworks-owned power-stations' potential is noted in Section II, *d* in connection with the pithead power-stations (see Table 12).

Expenditure on other general services, however, remains high, especially with regard to civil-engineering operations and to buildings, workshops and laboratories.

TABLE 24

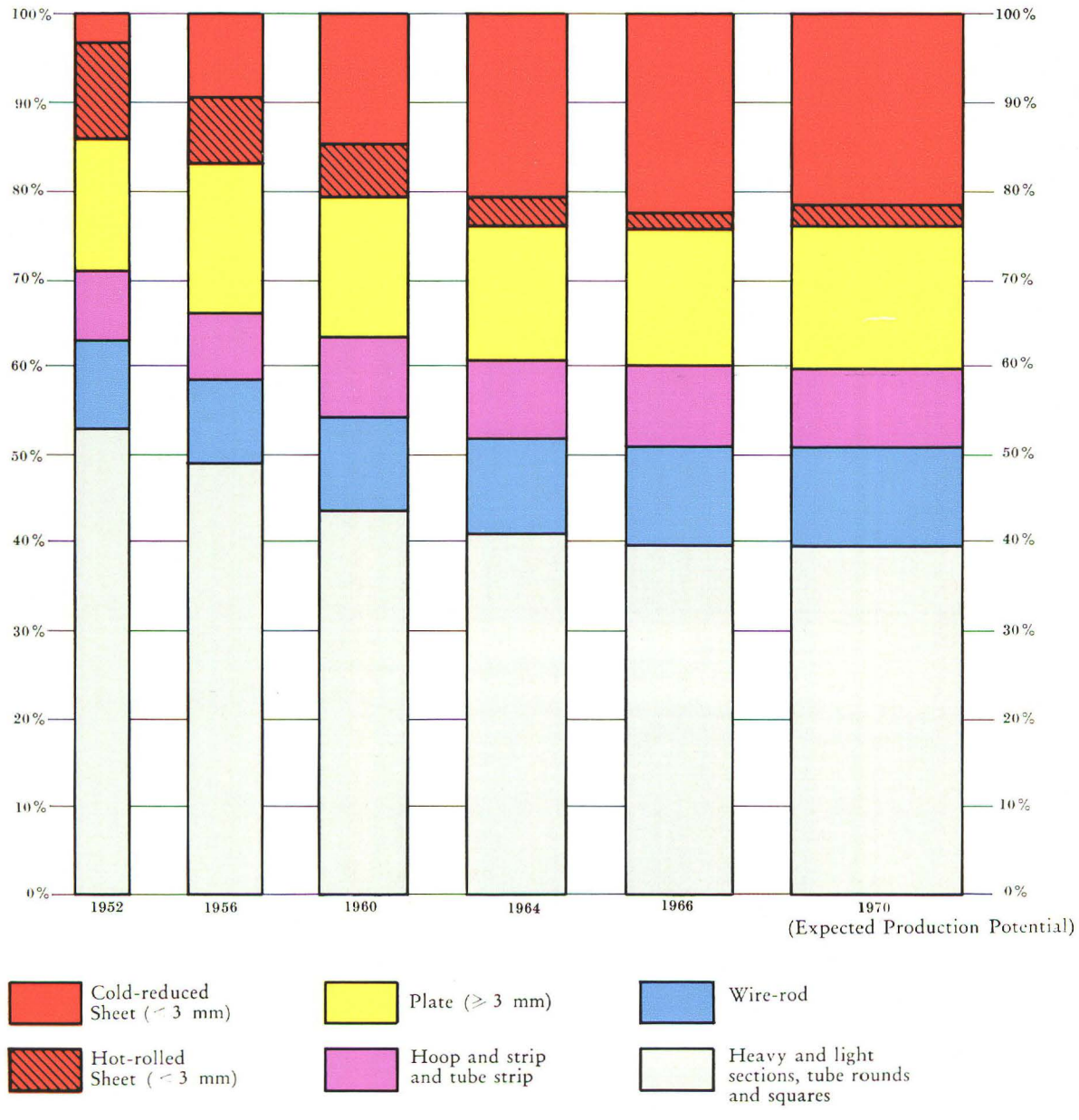
Capital expenditure on the General Services of the Iron and Steel Industry, 1954—1968

'000,000 dollar (E.M.A. units of account)

Type of installation	Actual expenditure								Estimated expenditure (Categories A+B)	
	1954-59 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967	1968
Power-generating plant and distribution networks	45.5	60.7	71.7	84.2	93.6	86.3	55.7	42.6	35.0	23.3
Miscellaneous	58.3	96.6	137.4	162.9	226.1	213.7	166.0	141.4	115.9	69.0
Total	**103.8**	**157.3**	**209.1**	**247.1**	**319.7**	**300.0**	**221.7**	**184.0**	**150.9**	**92.3**

FIGURE 14

Breakdown of Total Production of Finished Rolled Products by Types of Products



V — CONCLUSIONS

Each successive investment survey since 1963 has indicated a rather faster contraction than before in the production potential of the Community **coalmining industry** : the forecasts at January 1, 1967, suggest easily the largest reduction yet, involving the scrapping of no less than 31 million tons capacity over the next four years, as compared with the already very drastic cut of 21 million declared the previous January 1 for the period 1965-69. Even so, the resulting estimate, from the survey's figures, of a total potential of 198 million tons in 1970 will certainly have to be scaled down still further. The High Authority's view embodied in its Memorandum of March 9, 1966, on the coal production target for 1970, was that it will be difficult to keep production viable by 1970 at a level of over 190 million tons ; since then the position has continued to deteriorate (see the more recent report : La Conjoncture Energétique dans la Communauté : January 1967).

Community coal will continue to be sold mainly to the iron and steel industry and the thermal power-stations. The collieries are actually planning substantial reductions in their **coking** potential between 1966 and 1970 in view of the expected stagnation, if not decline, in coke requirements—due principally to the fall in specific consumption at the blast-furnaces—but it may be that, overall, the Community mine-owned and steelworks-owned coking-plants will continue to take the same amounts of indigenous coking coal as before, thanks to the system of special aids recently introduced by the High Authority with the approval of the Council of Ministers. The fuel requirements of the **power-stations** will continue to climb : the pithead stations' aggregate installed capacity is to be increased by about 18% between early 1966 and early 1971, as it is anticipated, particularly in Germany, that the recent legislation for the benefit of the coal industry will have the effect of ironing out the price disparities per calorie between Community coal and the alternative fuels.

*

Capital expenditure in the Community iron-ore industry slumped further in 1966, to only one-third of the 1961-62 and two-thirds of the 1963-65 level. Nor is it expected to rise in the years ahead : only in Lorraine, and to a lesser extent Western France, is there now any investment activity worth mentioning at all.

Actual production decreased at an average 4.7% per annum in the Community as a whole (3.3% in Lorraine and 8.9% in the other orefields taken together), and potential is expected

to contract over the next four years at 2.2% (1.4% in Lorraine and 4.5% elsewhere). Aggregate Community potential, in 1962 over 105 million tons, will be down in 1970 to just under 83 million.

*

The latest set of General Objectives for Steel, published in the Official Gazette of the European Communities on December 30, 1966, urges the **Community iron and steel industry** to concentrate its investment in future primarily on plant rationalization and modernization, so as to equip itself to stand up to outside competition.

Tonnage-wise, Community production potential is already outpacing the forecast growth in demand. The Memorandum calculates internal requirements as likely to rise from 72 million ingot tons in 1965 to 85-86 million in 1970 and perhaps 100 million in 1975, and total requirements *i.e.* including exports, from 86 million in 1965 to approximately 95 million in 1970 and 110 million in 1975 : in face of this the 1967 survey again points to a substantial overcapacity, since the projects now in hand and approved would mean, given 96% utilization of the potential by then existing, a production of something like 116 million tons. The utilization rate is therefore liable to fall still further in the future.

Priority must accordingly be given, from now on, to concentrating on increasing plant modernization. The trouble is that the replacement of obsolete equipment by machinery embodying the latest technological improvements necessarily entails big expansions in capacity which are not at all calculated to help tailor production to the foreseeable movement of demand. Overcapacity can in many cases be avoided only if enterprises are prepared to plan their investment activity jointly : a number of such arangements have recently been entered into, several of them with the High Authority's explicit blessing.

In the **pig-iron** sector, the effect of the projects currently in hand and approved would be to bring production by 1970, at 96% utilization, to some 85 million tons, whereas the estimated demand for that date is less than 70 million. Reasonably enough, therefore, the enterprises have been spending rather less in this direction in the last year or two ; all the same, it must be borne in mind that too many of the blast-furnaces still in service are small and far from up-to-date, while in addition there is still plenty of scope for improvements in burden preparation, with pelletization in some cases superseding sintering.

Though badly out of line with expected requirements, a pig-iron potential of 85 million tons in 1970 would tally very well with the announced **crude-steel** potential of 116 million tons. The respective shares in this total of the four production processes—oxygen-blown, basic Bessemer, open-hearth and electric-furnace—would be 34%, 28%, 25% and 13%. The installation of large-capacity LD and other oxygen converters in place of the older types of steelmaking furnace, and the vigorous drive in progress to build new plants working entirely with these, are pretty well bound to involve an increase in the potential of the enterprises concerned, so that the latter should where possible cut back production at other plants of theirs which are less efficient or less advantageously located. In this connection the High Authority has imposed new obligations concerning the particulars to be furnished by enterprises concerning their invest-

ment activities : Decision No. 22/66, of November 16, 1966, requires them to declare in advance not only their capital projects but their plans for scrapping existing capacity.

The expansion in oxygen steelmaking capacity is contrastingly distributed in the different parts of the Community: by 1970 over half of the coastal and near-coastal plants' potential and a third of the Ruhr's and Luxembourg's will be oxygen-blown, whereas in the Saar and Lorraine the proportion will be only a sixth, and elsewhere nil or practically nil. However, this is of course not an accurate reflection of comparative competitive capacities, since the production process employed depends to a great extent on the raw-material situation and the type of manufacture for which the steel is to be used.

Modernization in the **rolling-mill** sector is also obliging enterprises more and more to install large-capacity continuously-operating plant. Substantial amounts are still being spent on the hot and cold wide-strip mills, though it looks as if there were now rather less immediacy about bringing them into full production. Meantime intensive efforts are being made to modernize the rolling of long products, as the Community industry has been highly successful for a good many years in selling large tonnages of these in the international market, and is anxious to go on doing so.

Much the same problems are thus in evidence at all stages of the production cycle. With technology advancing and outside competition stiffening all the time, the iron and steel industry is striving to catch up by scrapping old plant and installing new, and often very much larger, capacity instead. It is essential that the resulting increase in overall potential should be geared as far as possible to the trend in demand both grade- and tonnage-wise.

ANNEXES

I — Basic Definitions

II — Statistical Tables

I — BASIC DEFINITIONS

To ensure that the figures obtained shall be comparable, the High Authority has adopted the following definitions.

I — INVESTMENT

(a) Capital expenditure

Capital expenditure means all expenditure shown or to be shown on the credit side of the balance-sheet as fixed assets in the year under review, except in respect of the collieries and pithead power-stations where the expenditure to be shown is that which would have been, or would be, entered on the credit side of the balance-sheet in accordance with Document AM 43 (*Directives relatives au calcul de l'amortissement des biens investis dans l'industrie charbonnière de la C.E.C.A.*), drawn up by the study committee of the coal producers of Western Europe (CEPCEO).

The term does not, however, cover the financing of workers' housing schemes, financial participation and all investment not directly connected with Treaty products (chemical and synthetic products other than the conventional by-products of coking-plants, castings, tubes, etc.).

(b) Classification of investment projects

As regards the trend in capital expenditure and related production potential, the same breakdown of capital schemes as that used in the questionnaires submitted to the enterprises has been adopted, *viz.*

A — *Projects completed or in progress before January 1, 1967 ;*

B — *Projects approved but not yet in progress on January 1, 1967 ;*

C — *Other projects planned to be started between January 1, 1967 and December 31, 1969.*

In the case of the iron and steel industry except for the capacity of the power-stations the figures in respect of category C projects have been disregarded.

(c) Unit of account

The unit adopted is the *dollar* unit of account of the European Payment Union (E.P.U.) and subsequently that of the *European Monetary Agreement* (E.M.A.) Their equivalents in national currencies are given in the following table :

Country	Currency	Up to and including 1956	1957	1958	1959 and 1960	1961	1962 and onwards
Germany (Fed. Rep.)	DM	4.20	4.20	4.20	4.20	4.03 (4)	4,00
Belgium/Luxembourg	BF-LF	50	50	50	50	50	50
France (1)	FF (2)	350	377 (3)	420	4.937 (2)	4.937	4.937
Italy	Lire	625	625	625	625	625	625
Netherlands	Fl	3.80	3.80	3.80	3.80	3.65 (5)	3.62

(1) And Saar up to July 5, 1959.
(2) N.F. as from January 1, 1959.
(3) Mean between official rate of exchange in force from January 1 to August 11, 1957 (350) and that in force from August 12 to December 31, 1957 (420).
(4) Mean between official rate of exchange in force from January 1 to March 3, 1961 (4.20) and that in force from March 4 to December 31, 1961 (4.00).
(5) Mean between official rate of exchange in force from January 1 to March 3, 1961 (3.80), and that in force from March 4 to December 31, 1961 (3.62).

(d) Capital goods price indices

The statistics for the annual investment surveys are compiled from the enterprises' declarations at the ruling prices for the year concerned, the figures being converted into dollar units of account at the official rates shown above.

Although it is extremely difficult to work out capital goods price indices applying to all the Community industries and countries, the High Authority's publication of 1963, *La C.E.C.A. 1952-1962 ; Résultats, Limites, Perspectives*, suggests (p. 104) the following basis 1961 = 100, and brought up to date for the succeeding years :

1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
81.6	80.5	79.9	82.1	85.4	89.9	92.9	94.9	97.2	100.0	104.8	109.7	115.9	118.0

The figures in this report can thus be converted to 1961 prices by applying the index for the year concerned to the annual expenditures recorded.

II — MINING INDUSTRIES

(a) Coal

Extraction potential. — The figures shown represent the net maximum output technically achievable, allowing for the performance capacity of the different installations at the collieries (underground, surface, washeries), and assuming that is not impeded by marketing difficulties, strikes or manpower shortages.

A number of mines with a low output, including the German "small mines", have not been included as regards either capital expenditure or production potential. They accounted for a production in 1966 of only about 2.0 million metric tons (of which 0.3 million not shown in any official statistics), out of 204.1 million, *i.e.* less than 1.0 %.

(b) Coke

Production potential. — The figures shown represent the maximum annual coke production achievable with the plant in operation at a given date, taking into account the minimum coking time technically allowable for the normal composition of the coking blend, with due regard to the state of the ovens and the performance capacity of the ancillary and auxiliary installations. It is assumed that a ready market and unlimited raw material supplies are assured.

(c) Pithead power-stations

Maximum electric capacity of a power-station means the maximum electric power that could be produced throughout several hours of continuous operation with all plant in full working order and with adequate fuel stocks of normal quality, and assuming that there exist no restrictive external factors (fuel of inferior quality, shortage of cooling water, inadequacy of the network receiving the power produced, etc.), but taking full account of all plant limitations that may arise out of the maximum electric capacity of each component of the main plant and auxiliaries of the station.

The net output represents the maximum power that can be supplied, measured at the station bus-bars after deducting the electric power taken by the station auxiliaries and the losses in the station transformers, if any.

Current produced means the net production of electric current measured at the station bus-bars after deducting the electric current taken by the station auxiliaries and the losses in the station transformers, if any.

(d) Iron ore

Extraction potential. — The figures shown represent the maximum continuous output which can be achieved by each mine, allowing for the performance capacity of the different installations (underground, surface, ore-preparation plant where the ore is sold only after treatment) and for estimated manpower availabilities during the year under consideration.

(e) Geographical brakdown

In the tables, the orefields other than those mentioned by name are

Central and Southern Germany:	Sauerland-Waldeck, Lahn-Dill, Taunus-Hunsrück, Upper Hesse ;
Other German fields :	Dogger orefield, Kreide orefield.

III — IRON AND STEEL INDUSTRY

(a) Production potential

Sinter, pig-iron, crude-steel and rolled-products production potential means the maximum production which can effectively be achieved by all the different sections of the plant together allowing for possible bottlenecks in one section holding up all the others. This maximum possible production is defined as follows:

"Maximum possible production is the maximum production which it is possible to attain during the year under normal working conditions, with due regard for repairs, maintenance and the usual holidays, employing the plant available at the beginning of the year but also taking into account both additional production from any new plant installed and any existing plant to be finally taken off production in the course of the year. Production estimates must be based on the probable composition ratios of the charge in each plant concerned, on the assumption that the raw materials will be available."

In the case of steels produced mainly from pig-iron, the production potential is estimated in respect of the blast-furnaces and steelworks as a whole and not each steelworks individually.

The capital expenditure of a number of very small iron and steel works has not been included in this survey. It was assumed that the production potential of these enterprises would over the next few years remain at the level of actual production for 1966. The production potentials mentioned in this report therefore exceed those actually declared by a certain percentage which varies from sector to sector but does generally not exceed 0.6% for crude steel and 1.2% for finished rolled-products.

As the production potential of the *rolling-mills* is governed by the shape (section), thickness and width of the material fed into the mill (metal input) and the products to be obtained, we have proceeded on the assumption that, should no forecast be possible as to future steel-rolling conditions, it will be necessary to base estimates on the conditions obtained in 1966. The same applies to the apportionment of steel availabilities among the different types of mill.

(b) Steelworks-owned power-stations

See "Mining Industries," Section II, c, for definitions of maximum capacity and electric current.

(c) Geographical breakdown

In the tables, the producer regions other than those mentioned by name are

Nothern Germany :	Länder Schleswig-Holstein, Lower Saxony, Hamburg, Bremen ;
Southern Germany :	Länder Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria ;
Eastern France :	Departments of Ardennes, Aube, Doubs, Haute-Marne, Meurthe-et-Moselle, Meuse, Vosges, Territoire de Belfort, Haute-Saône, Moselle, Bas-Rhin, Haut-Rhin ;
Northern France :	Departments of Aisne, Nord, Oise, Pas-de-Calais, Seine, Seine-et-Oise, Seine-et-Marne, Somme ;
France - other areas :	all other Departments.

II — STATISTICAL TABLES

COAL

IRON ORE

STEEL

HARD-COAL INDUSTRY

Total investment

TABLE I

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure		
			on Jan. 1, 66 for	on Jan. 1, 67 for	
	1965	1966	1966	1967	1968
Ruhr	162.89	141.29	184.38	145.27	117.90
Aachen	6.05	4.93	6.27	1.72	3.68
Lower Saxony	8.15	11.71	10.58	6.32	1.03
Saar	19.94	17.35	18.81	14.80	9.14
Germany (F.R.)	*197.03*	*175.28*	*220.04*	*168.11*	*131.75*
Campine (1)	7.09	6.02	11.69	10.03	9.30
Southern Belgium (1)	14.12	12.76	17.90	18.44	6.29
Dutch Limburg (1)	10.70	5.11	6.76	3.34	1.88
Belgium and the *Netherlands*	*32.18*	*24.13*	*36.93*	*31.03*	*17.61*
Nord/Pas-de-Calais	17.22	18.70	19.71	23.80	29.11
Lorraine	18.14	13.41	17.45	15.18	13.79
Centre-Midi	7.52	9.20	9.67	7.10	4.77
Independent plants (2)	0.64	0.60	0.99	0.25	—
France	*43.52*	*41.91*	*47.82*	*46.33*	*47.67*
Italy	*4.89*	*3.57*	*5.14*	*4.70*	*0.45*
Total	**277.62**	**244.89**	**309.93**	**250.17**	**197.48**

(1) Exclusive of mine-owned and independent coking-plants, which are, however, included in the total for Belgium and the Netherlands.
(2) Briquetting plants only.

HARD-COAL COLLIERIES

Investment

TABLE II

Capital Expenditure by Coalfields

'000,000 dollars (E.M.A. units of account)

Coalfield	Actual expenditure		Estimated expenditure		
			on Jan. 1, 66 for	on Jan. 1, 67 for	
	1965	1966	1966	1967	1968
Ruhr	114.38	98.22	120.02	84.86	57.13
Aachen	5.27	3.52	3.88	1.22	2.08
Lower Saxony	2.66	1.59	2.42	1.03	0.93
Saar	13.62	8.29	8.36	8.09	6.26
Germany (F.R.)	*135.93*	*111.62*	*134.68*	*95.20*	*66.40*
Campine	4.51	5.07	10.75	9.99	9.28
Southern Belgium	7.55	5.15	8.17	9.27	5.29
Belgium	*12.06*	*10.22*	*18.92*	*19.26*	*14.57*
Netherlands (Limburg)	*7.04*	*3.68*	*5.18*	*1.68*	*1.67*
Nord/Pas-de-Calais	13.33	16.12	16.22	14.51	11.34
Lorraine	16.03	12.38	14.92	14.35	12.97
Centre-Midi	5.97	6.65	6.57	5.57	3.85
France	*35.33*	*35.15*	*37.71*	*34.43*	*28.16*
Italy	—	—	—	—	—
Total	**190.36**	**160.67**	**196.49**	**150.57**	**110.80**

MINE-OWNED AND INDEPENDENT COKING-PLANTS (1)

Investment

TABLE III

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure		
			on Jan. 1, 66 for	on Jan. 1, 67 for	
	1965	1966	1966	1967	1968
Mine-owned coking-plants					
Ruhr	12.18	10.31	16.77	11.27	10.25
Aachen	0.06	0.16	0.18	0.29	1.60
Lower Saxony	—	—	—	—	—
Saar	0.99	0.22	0.42	0.31	0.26
Germany (F.R.)	*13.23*	*10.69*	*17.37*	*11.87*	*12.11*
Belgium and the *Netherlands*	*0.11*	*0.01*	*0.12*	*0.18*	*0.14*
Nord/Pas-de-Calais	1.10	1.31	1.50	3.03	3.21
Lorraine	1.02	0.81	1.53	0.59	0.59
Centre/Midi	0.34	0.34	0.44	0.30	0.30
France	*2.46*	*2.46*	*3.47*	*3.92*	*4.10*
Total	**15.80**	**13.16**	**20.96**	**15.97**	**16.35**
Independent coking-plants					
Belgium and the *Netherlands*	*0.16*	*0.23*	*0.46*	*0.04*	—
France (2)	—	—	—	—	—
Italy	*4.89*	*3.57*	*5.14*	*4.70*	*0.45*
Total	**5.05**	**3.80**	**5.60**	**4.74**	**0.45**
Grand Total	**20.85**	**16.96**	**26.56**	**20.71**	**16.80**

(1) Including low and medium-temperature coking-plants.
(2) Exclusive of Gaz de France.

HARD-COAL BRIQUETTING-PLANTS

Investment

TABLE IV

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure		
			on Jan. 1, 66 for	on Jan. 1, 67 for	
	1965	1966	1966	1967	1968
Ruhr	1.19	0.78	1.02	0.35	0.20
Aachen	0.04	0.90	1.40	0.09	—
Lower Saxony	0.02	0.05	0.08	0.01	0.01
Germany (F.R.)	*1.25*	*1.73*	*2.50*	*0.45*	*0.21*
Campine	2.46	0.94	0.90	—	—
Southern Belgium	0.54	0.16	0.60	1.56	0.73
Belgium	*3.00*	*1.10*	*1.50*	*1.56*	*0.73*
Netherlands (Limburg)	*0.35*	*0.70*	*0.63*	*0.31*	*0.15*
Nord/Pas-de-Calais	1.64	0.72	1.13	1.61	1.71
Centre/Midi	0.63	1.68	1.91	0.83	0.22
Independent plants	0.64	0.60	0.99	0.25	—
France	*2.91*	*3.00*	*4.03*	*2.69*	*1.93*
Total	**7.51**	**6.53**	**8.66**	**5.01**	**3.02**

PITHEAD POWER-STATIONS (1)

Investment

TABLE V

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure		
			on Jan. 1, 66 for	on Jan. 1, 67 for	
	1965	1966	1966	1967	1968
Ruhr	35.14	31.98	46.57	48.79	50.32
Aachen Lower Saxony Saar	11.48	19.26	18.92	11.80	2.71
Germany (F.R.)	*46.62*	*51.24*	*65.49*	*60.59*	*53.03*
Campine	0.12	0.01	0.04	0.04	0.02
Southern Belgium	6.03	7.45	9.13	7.61	0.27
Belgium	*6.15*	*7.46*	*9.17*	*7.65*	*0.29*
Netherlands (Limburg)	*3.31*	*0.73*	*0.95*	*0.35*	*0.06*
Nord/Pas-de-Calais	1.15	0.55	0.86	4.65	12.85
Lorraine	1.09	0.22	1.00	0.24	0.23
Centre-Midi	0.58	0.53	0.75	0.40	0.40
France	*2.82*	*1.30*	*2.61*	*5.29*	*13.48*
Italy	—	—	—	—	—
Total	**58.90**	**60.73**	**78.22**	**73.88**	**66.86**

(1) Pithead power-stations proper and other power-generating plant at mines.

HARD COAL

Extraction

TABLE VI

Extraction and Extraction Potential by Coalfields

'000,000 metric tons

Coalfield	Actual extraction 1966	Actual extraction potential 1966	Expected extraction potential 1967	1968	1969	1970
Ruhr	102.8	121.7	108.8	105.6	105.8	106.7
Aachen	7.5	8.4	8.4	8.4	8.4	7.5
Lower Saxony	2.0	2.0	2.0	2.0	2.0	2.0
Saar	13.7	14.3	13.9	13.4	13.1	13.1
Germany (F.R.)	*126.0*	*146.4*	*133.1*	*129.4*	*129.3*	*129.3*
Campine	8.5	10.0	8.1	7.1	6.8	6.8
Southern Belgium	9.0	10.0	9.4	9.4	9.4	9.8
Belgium	*17.5*	*20.0*	*17.5*	*16.5*	*16.2*	*16.6*
Netherlands (Limburg)	*10.0*	*11.4*	*9.3*	*9.0*	*8.4*	*7.4*
Nord/Pas-de-Calais	25.3	25.7	24.1	22.9	21.9	21.0
Lorraine	15.5	15.5	15.2	15.2	15.0	14.7
Centre/Midi	9.4	9.9	9.4	9.0	8.8	8.5
France	*50.2*	*51.1*	*48.7*	*47.1*	*45.7*	*44.2*
Italy	*0.4*	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*
Total	**204.1**	**229.6**	**209.3**	**202.7**	**200.3**	**198.2**

N.B. The above table does not take into account the extraction of some mines of small capacity (2,0 million metric tons in 1966 of which 0,3 million metric tons from the "small" German mines, which do not figure in the official production statistics).

COKE

Production

TABLE VII a

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production (1) 1966	Production potential 1966	Expected production potential 1967	1968	1969	1970
Mine-owned coking-plants						
Ruhr	29.8	34.4	30.5	29.4	29.2	29.2
Aachen (2)	1.9	1.9	1.9	1.9	2.0	2.0
Lower Saxony	—	—	—	—	—	—
Saar	1.1	1.3	1.3	1.3	1.3	1.3
Germany (F.R.)	*32.8*	*37.6*	*33.7*	*32.6*	*32.5*	*32.5*
Belgium and the *Netherlands*	*2.9*	*3.4*	*2.4*	*2.3*	*2.3*	*2.3*
Nord/Pas-de-Calais	4.8	5.2	5.2	5.2	5.2	5.2
Lorraine	2.5	2.8	2.8	2.8	2.8	2.8
Centre/Midi	0.9	0.9	0.9	0.9	0.9	0.9
France	*8.2*	*8.9*	*8.9*	*8.9*	*8.9*	*8.9*
Total	**43.9**	**49.9**	**45.0**	**43.8**	**43.7**	**43.7**
Independent coking-plants						
Belgium and the *Netherlands*	*1.4*	*1.4*	*1.4*	*1.4*	*1.4*	*1.4*
France	—	—	—	—	—	—
Italy	*2.4*	*2.5*	*2.5*	*2.8*	*2.8*	*2.8*
Total	**3.8**	**3.9**	**3.9**	**4.2**	**4.2**	**4.2**
Steelworks-owned coking-plants						
Germany (F.R.)	*7.0*	*8.4*	*8.1*	*7.9*	*8.5*	*8.5*
Belgium and the *Netherlands*	*6.2*	*6.6*	*6.7*	*6.8*	*6.9*	*6.9*
France	*4.2*	*4.5*	*4.6*	*4.5*	*4.7*	*5.1*
Italy	*3.9*	*4.3*	*4.3*	*4.3*	*4.3*	*4.6*
Total	**21.3**	**23.8**	**23.7**	**23.5**	**24.4**	**25.1**
Grand Total	**69.0**	**77.6**	**72.6**	**71.5**	**72.3**	**73.0**

(1) These figures are not the same as those published in the High Authority's *Bulletin Statistique*, since certain coking-plants have been classified differently.

(2) Including electrode coke (139,000 metric tons produced in 1966).

LOW- AND MEDIUM-TEMPERATURE COKE

Production

TABLE VII b

Production and Production Capacity

'000 metric tons

Owned plants	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Mine-owned plants	278	360	360	360	360	320
Steelworks-owned plants	—	—	—	—	—	—

TABLE VIII

Coal Input and Coke Output (Mine-Owned, Independent and Steelworks-Owned Coking-Plants)

Type of coal	1965		1966 (1)	
	'000 metric tons	%	'000 metric tons	%
Group V (2)	72,947	75.7	65,877	75.7
Group VI (2)	18,202	18.9	16,168	18.5
Other groups	4,408	4.6	4,244	4.9
Coke breeze and low-temperature coke breeze	733	0.8	764	0.9
Total	**96,290**	**100.0**	**87,053**	**100.0**
	'000 metric tons	output kg./t. (3)	'000 metric tons	output kg./t. (3)
Coke production	72,684	754.8	65,630	753.9
	metric tons	% of total input	metric tons	% of total input
Oil input	44,887	0.047	55,204	0.063

(1) The 1966 figures represent only part of the independent coking-plants.

(2) The breakdown between Groups V and VI is only approximate.

(3) Output of coke (ton for ton) for coal input (also ton for ton). The figure is of practical value; considerable variations may, however, arise as a result of variations in the moisture content of the coal input and the coke produced.

		1965	1966
a) Coke-oven gas delivered	'000,000 stand. cub. m.	32,791	29,481
b) Gas output	stand. cub. metres per ton of wet-charged coal	341	339
c) Coke-oven gas delivered to outside enterprises or for consumption other than *d*)	'000,000 stand. cub. m.	21,745	19,925
	% of *a*)	(66.3)	(67.6)
d) Consumption for heating oven :			
1. Coke-oven gas	'000,000 stand. cub. m.	11,046	9,556
	% of 4)	(72.5)	(70.8)
2. Producer gas	'000,000 stand. cub. m.	763	702
	% of 4)	(5.0)	(5.2)
4. Blast-furnace and other gases	'000,000 stand. cub. m.	3,434	3,237
	% of 4)	(22.5)	(24.0)
4. Total consumption of gas for heating ovens	'000,000 stand. cub. m.	15,243 (100.0)	13,495 (100.0)
e) Specific consumption in kcal./kg. of dry-charged coal (assuming an average moisture content of 8%)		740	725

N.B. The gas volumes have been calculated on the basis of a calorific power of 4,300 Kilocalories per standard cubic metre.

HARD-COAL BRIQUETTES

Production

TABLE IX

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production 1966	Production potential 1966	Expected production potential 1967	1968	1969	1970
Ruhr	2.9	4.6	4.4	4.0	4.0	4.0
Aachen	0.7	0.8	0.9	0.9	0.9	0.9
Lower Saxony	0.5	0.6	0.6	0.6	0.6	0.6
Germany (F.R.)	*4.1*	*6.0*	*5.9*	*5.5*	*5.5*	*5.5*
Campine	0.0	0.2	0.2	0.2	0.3	0.3
Southern Belgium	0.7	2.3	1.8	1.8	1.8	1.8
Belgium	*0.7*	*2.5*	*2.0*	*2.0*	*2.1*	*2.1*
Netherlands (Limburg)	*1.2*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
Nord/Pas-de-Calais	2.7	4.1	4.1	3.9	3.4	3.4
Centre/Midi	1.3	2.0	1.9	1.7	1.7	1.7
Independent plants	0.5	1.5	1.5	1.5	1.5	1.5
France	*4.5*	*7.6*	*7.5*	*7.1*	*6.6*	*6.6*
Total	**10.5**	**17.8**	**17.1**	**16.3**	**15.9**	**15.9**

TABLE X

Output of Electric Current and Electric Capacity of Pithead Power-Stations (1) by Areas

Area	Actual output '000,000 kWh. 1966	Actual electric capacity MW.		Expected electric capacity MW.			
		Beginning 1966	Beginning 1967	Beginning 1968	Beginning 1969	Beginning 1970	Beginning 1971
Ruhr	18,309	4,153	4,499	4,496	4,599	5,317	5,545
Aachen Lower Saxony Saar	3,663	1,091	1,088	1,364	1,364	1,364	1,364
Germany (F.R.)	*21,972*	*5,244*	*5,587*	*5,860*	*5,963*	*6,681*	*6,909*
Campine	1,177	409	389	389	389	389	389
Southern Belgium	5,246	866	863	984	984	984	990
Belgium	*6,423*	*1,275*	*1,252*	*1,373*	*1,373*	*1,373*	*1,379*
Netherlands (Limburg)	*2,192*	*470*	*470*	*470*	*470*	*470*	*470*
Nord/Pas-de-Calais	5,283	1,406	1,406	1,406	1,406	1,406	1,641
Lorraine	2,577	723	729	729	729	729	729
Centre-Midi	1,505	557	557	557	557	557	557
France	*9,365*	*2,686*	*2,692*	*2,692*	*2,692*	*2,692*	*2,692*
Italy	—	—	—	—	—	—	—
Total	**39,952**	**9,675**	**10,001**	**10,395**	**10,498**	**11,216**	**11,450**

(1) Pithead power-stations proper and other power-generating plant at mines.

TABLE XI a

Specific Consumption of Coal 1966 (2)

PITHEAD POWER-STATIONS (1)

Technical Data

C = Output of electric current in '000,000 kWh.
P = Maximum electric capacity in '000 MW. (average at beginning 1966 - beginning 1967)
H = Load-hours per annum (1966)
} by type of specific consumption

Specific consumption / Country/Coalfield	< 3000 kcal./kWh.			3000-3499 kcal./kWh.			3500-3999 kcal./kWh.			4000-4999 kcal./kWh.			⩾ 5000 kcal./kWh.			Total			Average consumption kcal./kWh.
	C	P	H	C	P	H	C	P	H	C	P	H	C	P	H	C	P	H	
Ruhr	11,803	2,752	4,289	3,024	745	4,059	2,093	534	3,919	996	243	4,099	393	130	3,023	18,309	4,404	4,157	3,036
Aachen / Lower Saxony / Saar	3,174	1,002	3,168	477	83	5,747	—	—	—	—	—	—	—	—	—	3,651	1,085	3,365	2,791
Germany (F.R.)	*14,977*	*3,754*	*3,990*	*3,501*	*828*	*4,228*	*2,093*	*534*	*3,919*	*996*	*243*	*4,099*	*393*	*130*	*3,023*	*21,960*	*5,489*	*4,001*	*2,995*
Campine	583	115	5,070	229	97	2,361	240	91	2,637	125	96	1,302	—	—	—	1,177	399	2,950	2,985
Southern coalfields	4,981	755	6,597	121	30	4,033	112	43	2,605	30	7	4,286	2	28	71	5,246	863	6,079	2,459
Belgium	*5,564*	*870*	*6,395*	*350*	*127*	*2,756*	*352*	*134*	*2,627*	*155*	*103*	*1,505*	*2*	*28*	*71*	*6,423*	*1,262*	*5,090*	*2,556*
Nord/Pas-de-Calais	4,356	718	6,067	584	214	2,729	320	269	1,190	22	157	140	1	48	21	5,283	1,406	3,757	2,658
Lorraine	2,544	674	3,774	—	—	—	—	—	—	—	—	—	33	55	600	2,577	729	3,535	2,885
Centre-Midi	—	—	—	1,028	302	3,404	216	125	1,728	203	95	2,137	58	35	1,657	1,505	557	2,702	3,509
France	*6,900*	*1,392*	*4,957*	*1,612*	*516*	*3,124*	*536*	*394*	*1,360*	*225*	*252*	*893*	*92*	*138*	*667*	*9,365*	*2,692*	*3,479*	*2,857*
Netherlands	*1,010*	*215*	*4,698*	*685*	*120*	*5,708*	*384*	*105*	*3,657*	*113*	*29*	*3,897*	—	—	—	*2,192*	*469*	*4,674*	*3,088*
Total	**28,451**	**6,231**	**4,566**	**6,148**	**1,591**	**3,864**	**3,365**	**1,077**	**3,124**	**1,489**	**627**	**2,375**	**487**	**296**	**1,645**	**39,940**	**9,912**	**4,029**	**2,897**

(1) Pithead power-stations proper and other power-generating plant at mines.

(2) This table covers only power-stations proper and other power-generating plant which actually produced electric current from coal before January 1, 1967. Their load-hours per annum were calculated by dividing the annual output by the average maximum electric capacity (arithmetical mean between the electric capacity at the beginning of 1966 and 1967). A possible source of error arises where new power-stations had not yet been brought into operation and obsolete plant had not been closed down by July 1, 1966.

PITHEAD POWER-STATIONS (1)

Technical Data

TABLE XI b

Specific Consumption of Coal 1964-1966

	1964	1965	1966	1971 (Forecast)
Average specific consumption in kcal./kWh.	2,986	2,934	2,897 (2)	.
Consumption of secondary products in % of consumption of coal (ton for ton)	91%	93%	89%	.
Load-hours per annum	4,768	4,312	4,029 (2)	.
Ratio (at the beginning of the year) of maximum electric capacity to nominal installed capacity	89.1%	89.0%	89.9%	91.6%

(1) Pithead power-stations proper and other power-generating plant at mines.
(2) See Table XI a for breakdown by coalfields.

B.K.B. AND LOW-TEMPERATURE BROWN-COAL COKE

Investment and Production

TABLE XII a

Capital Expenditure on Plants Producing B.K.B. (Brown-Coal Briquettes) and Low-Temperature Brown-Coal Coke

'000,000 dollars (E.M.A. units of account)

	Actual expenditure		Estimated expenditure		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Briquetting-plants	7.90	3.79	6.07	4.72	4.00
Low-temperature coking-plants	0.02	—	0.04	—	—
Total	**7.92**	**3.79**	**6.11**	**4.72**	**4.00**

TABLE XII b

Production and Production Potential for B.K.B. and Low-Temperature Brown-Coal Coke

'000,000 metric tons

	Production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
B.K.B.	10.3	12.3	9.6	9.6	9.6	9.6
Low-temperature-coke	0.5	0.6	0.3	—	—	—

TABLE XIII

Capital Expenditure by Orefields

'000,000 dollars (E.M.A. units of account)

Orefield	Actual expenditure		Estimated expenditure		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Salzgitter, Ilsede, Harzvorland	4.03	1.09	1.09	0.59	0.13
Osnabrück, Weser-Wiehengebirge ...	0.11	0.17	0.24	0.10	—
Siegerland-Wied	0.16	0.17	0.06	0.04	—
Central and Southern Germany					
Other German fields	1.50	0.72	0.89	1.01	0.93
Germany (F.R.)	*5.80*	*2.15*	*2.28*	*1.74*	*1.06*
Belgium	—	—	—	—	—
Eastern France	16.07	11.60	17.01	12.36	12.65
Western France	1.96	1.12	2.30	1.46	2.21
France - Centre/Midi	0.11	0.03	0.04	0.05	0.03
France	*18.14*	*12.75*	*19.35*	*13.87*	*14.89*
Italy	*0.68*	*0.67*	*1.11*	*1.14*	*0.45*
Luxembourg	*0.97*	*0.91*	*1.26*	*0.73*	*0.03*
Total	**25.59**	**16.48**	**24.00**	**17.48**	**16.43**

IRON-ORE INDUSTRY

Extraction

TABLE XIV

Extraction and Extraction Potential by Orefields

'000,000 metric tons

Orefield	Actual extraction	Extraction potential	Expected extraction potential			
	1966	1966	1967	1968	1969	1970
Salzgitter, Ilsede, Harzvorland	6.1	7.2	6.5	6.8	6.8	6.8
Osnabrück, Weser-Wiehengebirge	0.9	1.4	1.0	0.8	0.8	0.8
Siegerland-Wied Central and Southern Germany	0.6	0.7	0.6	0.3	0.3	0.3
Other German fields	1.9	2.1	2.0	2.0	2.0	2.0
Germany (F.R.)	*9.5*	*11.4*	*10.1*	*9.9*	*9.9*	*9.9*
Belgium	*0.1*	*0.2*	*0.0*	—	—	—
Eastern France	51.7	64.5	61.9	61.9	61.2	61.1
Western France	3.9	4.7	4.6	4.6	4.5	4.5
France - Centre/Midi	0.1	0.2	0.2	0.2	0.2	0.2
France	*55.7*	*69.4*	*66.7*	*66.7*	*65.9*	*65.8*
Italy	*1.2*	*1.5*	*0.9*	*0.9*	*0.9*	*0.9*
Luxembourg	*6.5*	*8.0*	*6.5*	*6.4*	*6.3*	*6.3*
Total	**73.0**	**90.5**	**84.2**	**83.9**	**83.0**	**82.9**

IRON AND STEEL INDUSTRY

Total Investment

TABLE XV

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	35.60	22.21	33.92	33.87	17.33
North Rhine/Westphalia	238.20	219.95	246.53	132.52	66.09
Southern Germany	9.06	22.23	17.96	9.41	3.37
Saar	28.70	27.65	50.09	71.26	36.02
Germany (F.R.)	*311.56*	*292.04*	*348.50*	*247.06*	*122.81*
Belgium	*142.35*	*142.36*	*155.04*	*106.72*	*67.93*
Eastern France	111.45	87.60	117.64	144.20	140.67
Northern France	30.93	22.22	20.97	59.63	61.98
France - other areas	27.53	26.01	26.45	31.41	23.77
France	*169.91*	*135.83*	*165.06*	*235.24*	*226.42*
Italy - coastal areas	193.98	133.41	151.83	88.34	60.41
Italy - other areas	52.29	37.11	47.39	54.31	27.81
Italy	*246.27*	*170.52*	*199.22*	*142.65*	*88.22*
Luxembourg	*24.83*	*28.37*	*25.60*	*19.87*	*3.97*
Netherlands	*37.32*	*68.35*	*80.46*	*86.13*	*76.18*
Total	**932.24**	**837.47**	**973.88**	**837.67**	**585.83**

STEELWORKS-OWNED COKING-PLANTS

Investment

TABLE XVI a

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	0.26	0.10	0.04	0.11	0.03
North Rhine/Westphalia	0.10	0.50	0.68	0.34	0.27
Southern Germany	0.03	0.02	0.01	0.06	0.01
Saar	0.12	0.10	0.61	1.05	0.01
Germany (F.R.)	*0.51*	*0.72*	*1.34*	*1.56*	*0.32*
Belgium	*1.91*	*2.18*	*2.33*	*0.99*	*0.20*
Eastern France	0.17	0.40	0.43	0.34	0.02
Northern France	0.45	0.21	—	7.80	12.00
France - other areas	0.10	0.02	0.15	0.02	0.26
France	*0.72*	*0.63*	*0.58*	*8.16*	*12.28*
Italy - coastal areas	12.49	5.47	6.77	2.80	1.34
Italy - other areas	—	—	—	—	—
Italy	*12.49*	*5.47*	*6.77*	*2.80*	*1.34*
Luxembourg	—	—	—	—	—
Netherlands	*1.61*	*1.37*	*3.95*	*6.09*	*6.17*
Total	**17.24**	**10.37**	**14.97**	**19.60**	**20.31**

TABLE XVI b

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	en Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	1.16	0.59	0.65	0.27	0.10
North Rhine/Westphalia	3.16	1.95	2.71	3.19	1.34
Southern Germany	0.24	0.06	0.05	0.01	—
Saar	1.56	3.63	11.89	11.73	7.79
Germany (F.R.	*6.12*	*6.23*	*15.30*	*15.20*	*9.23*
Belgium	*5.11*	*11.41*	*12.84*	*6.13*	*5.93*
Eastern France	13.51	11.70	14.70	9.16	15.05
Northern France	5.00	5.20	5.80	6.96	7.14
France - other areas	0.54	0.11	0.30	0.14	0.16
France	*19.05*	*17.01*	*20.80*	*16.26*	*22.35*
Italy - coastal areas	19.91	9.61	9.34	4.64	2.82
Italy - other areas	0.05	0.04	0.50	0.09	0.06
Italy	*19.96*	*9.65*	*9.84*	4.73	*2.88*
Luxembourg	*0.62*	*0.43*	*0.30*	*0.15*	—
Netherlands	*1.08*	*0.49*	*2.79*	*3.26*	*6.01*
Total	**51.94**	**45.22**	**61.87**	**45.73**	**46.40**

BLAST-FURNACES

Investment

TABLE XVI c

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	7.73	4.20	4.75	3.82	3.46
North Rhine/Westphalia	28.63	16.31	18.53	8.50	2.12
Southern Germany	0.59	0.49	0.59	0.14	0:01
Saar	4.34	1.73	1.90	2.37	0.85
Germany (F.R.)	*41.29*	*22.73*	*25.77*	*14.83*	*6.44*
Belgium	*11.26*	*16.22*	*13.83*	*11.20*	*11.61*
Eastern France	9.82	6.77	10.16	8.72	3.81
Northern France	2.31	2.50	1.48	14.31	12.02
France - other areas	0.56	0.45	0.35	0.32	0.65
France	*12.69*	*9.72*	*11.99*	*23.35*	*16.48*
Italy - coastal areas	18.14	12.81	13.26	5.28	4.06
Italy - other areas	0.25	0.25	0.06	0.83	0.02
Italy	*18.39*	*13.06*	*13.32*	*6.11*	*4.08*
Luxembourg	*4.27*	*2.11*	*3.55*	*2.49*	*0.82*
Netherlands	*3.29*	*12.67*	*11.67*	*9.93*	*4.16*
Total	**91.19**	**76.51**	**80.13**	**67.91**	**43.59**

STEELWORKS-OWNED COKING-PLANTS, BURDEN PREPARATION AND BLAST-FURNACES-TOTAL

Investment

TABLE XVI d

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	9.15	4.89	5.44	4.20	3.59
North Rhine/Westphalia	31.89	18.76	21.92	12.03	3.73
Southern Germany	0.86	0.57	0.65	0.21	0.02
Saar	6.02	5.46	14.40	15.15	8.65
Germany (F.R.)	*47.92*	*29.68*	*42.41*	*31.59*	*15.99*
Belgium	*18.28*	*29.81*	*29.00*	*18.32*	*17.74*
Eastern France	23.50	18.87	25.29	18.22	18.88
Northern France	7.76	7.91	7.28	29.07	31.16
France - other areas	1.20	0.58	0.80	0.48	1.07
France	*32.46*	*27.36*	*33.37*	*47.77*	*51.11*
Italy - coastal areas	50.54	27.89	29.37	12.72	8.22
Italy - other areas	0.30	0.29	0.56	0.92	0.08
Italy	*50.84*	*28.18*	*29.93*	*13.64*	*8.30*
Luxembourg	*4.89*	*2.54*	*3.85*	*2.64*	*0.82*
Netherlands	*5.98*	*14.53*	*18.41*	*19.28*	*16.34*
Total	**160.37**	**132.10**	**156.97**	**133.24**	**110.30**

BASIC BESSEMER STEELWORKS

Investment

TABLE XVII a

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	0.60	0.52	0.65	0.05	—
North Rhine/Westphalia	1.32	0.69	4.98	4.43	1.72
Southern Germany	0.52	0.16	0.36	0.31	—
Saar	1.61	1.36	1.83	0.77	0.10
Germany (F.R.)	*4.05*	*2.73*	*7.82*	*5.56*	*1.82*
Belgium	*2.37*	*1.80*	*1.49*	*0.99*	*0.13*
Eastern France	2.32	3.27	3.56	3.42	0.92
Northern France	0.20	0.20	—	—	—
France - other areas	0.11	0.08	0.10	0.03	0.08
France	*2.63*	*3.55*	*3.66*	*3.45*	*1.00*
Italy - coastal areas	—	—	—	—	—
Italy - other areas	—	—	—	—	—
Italy	—	—	—	—	—
Luxembourg	*1.11*	*2.08*	*2.41*	*1.34*	—
Netherlands	—	—	—	—	—
Total	**10.16**	**10.16**	**15.38**	**11.34**	**2.95**

OPEN-HEARTH STEELWORKS

Investment

TABLE XVII b

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	2.19	0.59	0.37	0.26	—
North Rhine/Westphalia	4.80	3.37	4.26	1.87	0.55
Southern Germany	0.35	0.37	1.05	0.15	—
Saar	0.46	0.32	0.80	0.12	—
Germany (F.R.)	*7.80*	*4.65*	*6.48*	*2.40*	*0.55*
Belgium	*0.21*	*0.05*	*0.18*	*0.07*	*0.06*
Eastern France	1.03	0.78	1.55	0.75	0.44
Northern France	0.20	0.67	0.38	0.33	—
France - other areas	0.07	0.03	0.25	0.19	0.01
France	*1.30*	*1.48*	*2.18*	*1.27*	*0.45*
Italy - coastal areas	2.32	0.41	1.64	4.13	3.20
Italy - other areas	0.90	1.37	1.41	0.40	0.24
Italy	*3.22*	*1.78*	*3.05*	*4.53*	*3.44*
Luxembourg	—	—	—	—	—
Netherlands	*0.52*	*0.63*	*0.22*	*0.11*	*0.04*
Total	**13.05**	**8.59**	**12.11**	**8.38**	**4.54**

ELECTRIC-FURNACE STEELWORKS

Investment

TABLE XVII c

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	0.05	—	—	—	0.07
North Rhine/Westphalia	2.51	1.26	1.64	1.90	0.09
Southern Germany	0.51	0.53	0.01	0.51	0.10
Saar	—	1.17	3.75	6.49	0.25
Germany (F.R.)	*3.07*	*2.96*	*5.40*	*8.90*	*0.51*
Belgium	*0.34*	*0.23*	*0.10*	*0.53*	—
Eastern France	0.77	—	—	—	—
Northern France	0.34	0.37	1.08	2.66	4.48
France - other areas	6.30	3.58	1.90	2.98	3.12
France	*7.41*	*3.95*	*2.98*	*5.64*	*7.60*
Italy - coastal areas	1.41	0.85	0.61	0.88	—
Italy - other areas	3.46	2.10	3.54	7.16	2.63
Italy	*4.87*	*2.95*	*4.15*	*8.04*	*2.63*
Luxembourg	*0.01*	*0.01*	*0.01*	—	—
Netherlands	*0.75*	*0.19*	*0.04*	—	—
Total	**16.45**	**10.29**	**12.68**	**23.11**	**10.74**

LD, KALDO AND OTHER STEELWORKS

Investment

TABLE XVII d

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	0.63	0.18	5.55	17.93	8.67
North Rhine/Westphalia	23.58	31.96	22.58	12.05	6.31
Southern Germany	—	—	—	—	—
Saar	0.36	3.26	3.58	11.18	7.65
Germany (F.R.)	*24.57*	*35.40*	*31.71*	*41.16*	*22.63*
Belgium	*25.86*	*21.06*	*26.00*	*25.38*	*11.85*
Eastern France	2.51	2.84	7.65	22.10	36.13
Northern France	2.40	1.20	1.00	3.30	3.00
France - other areas	0.15	1.27	1.60	2.00	0.53
France	*5.06*	*5.31*	*10.25*	*27.40*	*39.66*
Italy - coastal areas	18.16	8.37	16.58	6.82	6.24
Italy - other areas	—	—	—	0.48	1.20
Italy	*18.16*	*8.37*	*16.58*	*7.30*	*7.44*
Luxembourg	*9.79*	*12.59*	*10.73*	*6.70*	—
Netherlands	*1.59*	*8.90*	*6.96*	*14.95*	*12.91*
Total	**85.03**	**91.63**	**102.23**	**122.89**	**94.49**

STEELWORKS TOTAL

Investment

TABLE XVII e

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	3.47	1.29	6.57	18.24	8.74
North Rhine/Westphalia	32.21	37.28	33.46	20.25	8.67
Southern Germany	1.38	1.06	1.42	0.97	0.10
Saar	2.43	6.11	9.96	18.56	8.00
Germany (F.R.)	*39.49*	*45.74*	*51.41*	*58.02*	*25.51*
Belgium	*28.78*	*23.14*	*27.77*	*26.97*	*12.04*
Eastern France	6.63	6.89	12.76	26.27	37.49
Northern France	3.14	2.44	2.46	6.29	7.48
France - other areas	6.63	4.96	3.85	5.20	3.74
France	*16.40*	*14.29*	*19.07*	*37.76*	*48.71*
Italy - coastal areas	21.89	9.63	18.83	11.83	9.44
Italy - other areas	4.36	3.47	4.95	8.04	4.07
Italy	*26.25*	*13.10*	*23.78*	*19.87*	*13.51*
Luxembourg	*10.91*	*14.68*	*13.15*	*8.04*	—
Netherlands	*2.86*	*9.72*	*7.22*	*15.06*	*12.95*
Total	**124.69**	**120.67**	**142.40**	**165.72**	**112.72**

BLOOMING AND SLABBING MILLS

Investment

TABLE XVIII a

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	1.53	1.25	2.22	2.17	0.18
North Rhine/Westphalia	6.59	13.11	12.11	7.24	3.34
Southern Germany	0.56	2.16	2.27	0.35	—
Saar	4.14	0.88	1.25	0.43	0.10
Germany (F.R.)	*12.82*	*17.40*	*17.85*	*10.19*	*3.62*
Belgium	*10.95*	*10.29*	*11.08*	*9.85*	*5.32*
Eastern France	2.57	4.24	5.80	25.19	30.60
Northern France	1.80	0.90	0.80	2.10	4.00
France - other areas	0.25	0.32	0.41	0.48	0.37
France	*4.62*	*5.46*	*7.01*	*27.77*	*34.97*
Italy - coastal areas	8.96	5.33	7.55	4.85	3.26
Italy - other areas	3.51	1.68	1.43	1.63	0.90
Italy	*12.47*	*7.01*	*8.98*	*6.48*	*4.16*
Luxembourg	*0.06*	*0.16*	*0.56*	*0.23*	—
Netherlands	*3.22*	*1.43*	*5.74*	*5.52*	*8.10*
Total	**44.14**	**41.75**	**51.22**	**60.04**	**56.17**

CONTINUOUS CASTING PLANTS

Investment

TABLE XVIII b

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	—	—	0.57	—	—
North Rhine/Westphalia	9.55	9.56	25.13	16.93	3.98
Southern Germany	0.02	0.30	—	0.80	0.23
Saar	0.15	1.71	4.31	10.45	4.86
Germany (F.R.)	*9.72*	*11.57*	*30.01*	*28.18*	*9.07*
Belgium	—	—	—	—	—
Eastern France	0.03	—	0.03	0.10	—
Northern France	—	—	—	0.11	1.32
France - other areas	—	—	—	—	—
France	*0.03*	—	*0.03*	*0.21*	*1.32*
Italy - coastal areas	—	0.41	—	0.02	—
Italy - other areas	0.26	1.08	4.49	8.91	0.59
Italy	*0.26*	*1.49*	*4.49*	*8.93*	*0.59*
Luxembourg	—	—	—	—	—
Netherlands	—	—	—	—	—
Total	**10.01**	**13.06**	**34.53**	**37.32**	**10.98**

SECTION MILLS

Investment

TABLE XVIII c

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	3.79	2.56	2.83	1.00	0.88
North Rhine/Westphalia	22.45	16.13	23.21	13.68	11.00
Southern Germany	0.93	2.89	1.18	0.82	0.50
Saar	1.60	1.79	6.16	13.06	8.96
Germany (F.R.)	*28.77*	*23.37*	*33.38*	*28.56*	*21.34*
Belgium	*4.93*	*3.62*	*2.09*	*1.79*	*2.99*
Eastern France	25.88	35.42	41.38	41.21	28.99
Northern France	1.35	1.42	1.28	3.32	1.60
France - other areas	8.39	6.19	5.91	4.16	3.15
France	*35.62*	*43.03*	*48.57*	*48.69*	*33.74*
Italy - coastal areas	20.57	24.40	30.94	14.66	5.08
Italy - other areas	6.33	9.14	9.89	10.78	7.43
Italy	*26.90*	*33.54*	*40.83*	*25.44*	*12.51*
Luxembourg	*5.42*	*2.58*	*1.92*	*0.74*	*0.04*
Netherlands	*7.83*	*5.97*	*7.78*	*4.04*	*0.33*
Total	**109.47**	**112.11**	**134.57**	**109.26**	**70.95**

FLAT-PRODUCT MILLS

Investment

TABLE XVIII d

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	7.01	5.37	8.69	2.19	0.69
North Rhine/Westphalia	77.51	84.86	89.04	33.06	17.59
Southern Germany	2.40	4.17	3.02	2.04	0.67
Saar	0.48	0.43	0.29	1.97	0.60
Germany (F.R.)	*87.40*	*94.83*	*101.04*	*39.26*	*19.55*
Belgium	*51.87*	*47.86*	*47.25*	*26.90*	*12.39*
Eastern France	13.93	4.43	5.80	9.51	8.47
Northern France	10.68	4.68	4.84	11.86	10.51
France - other areas	6.04	5.41	5.29	11.11	9.02
France	*30.65*	*14.52*	*15.93*	*32.48*	*28.00*
Italy - coastal areas	10.66	2.50	3.88	12.26	11.49
Italy - other areas	29.87	13.23	16.90	14.76	8.83
Italy	*40.53*	*15.73*	*20.78*	*27.02*	*20.32*
Luxembourg	*1.56*	*3.31*	*2.94*	*6.02*	*3.11*
Netherlands	*7.03*	*10.12*	*17.32*	*17.53*	*28.35*
Total	**219.04**	**186.37**	**205.26**	**149.21**	**111.72**

ROLLING-MILLS
TOTAL (1)

Investment

TABLE XVIII e

Capital Expenditure by Area

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	12.64	9.72	14.54	5.74	2.13
North Rhine/Westphalia	132.60	135.09	160.74	77.85	39.81
Southern Germany	4.58	17.82	13.31	5.55	2.09
Saar	8.62	6.20	14.21	26.54	14.63
Germany (F.R.)	*158.44*	*168.83*	*202.80*	*115.68*	*58.66*
Belgium	*71.71*	*64.45*	*63.54*	*43.79*	*25.37*
Eastern France	47.95	47.85	57.71	79.66	69.33
Northern France	15.07	7.29	8.22	17.65	17.56
France - other areas	17.10	16.74	17.77	22.98	17.49
France	*80.12*	*71.88*	*83.70*	*120.29*	*104.38*
Italy - coastal areas	46.61	36.23	45.77	34.83	22.60
Italy - other areas	41.85	26.60	35.72	37.53	19.21
Italy	*88.46*	*62.83*	*81.49*	*72.36*	*41.81*
Luxembourg	*7.27*	*7.92*	*5.97*	*7.58*	*3.15*
Netherlands	*19.49*	*24.83*	*36.12*	*28.10*	*36.84*
Total	**425.49**	**400.74**	**473.62**	**387.80**	**270.21**

(1) Including ancillary and auxiliary plants.

STEELWORKS-OWNED POWER-GENERATING PLANTS AND DISTRIBUTION NETWORKS

Investment

TABLE XIX a

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	3.55	1.95	3.06	1.70	0.69
North Rhine/Westphalia	10.12	6.63	8.91	8.45	5.71
Southern Germany	1.10	0.77	0.81	0.87	0.26
Saar	1.23	0.63	0.87	0.63	0.18
Germany (R.R.)	*16.00*	*9.98*	*13.65*	*11.65*	*6.84*
Belgium	*13.62*	*13.97*	*17.45*	*6.63*	*6.82*
Eastern France	3.26	2.94	1.65	2.68	0.40
Northern France	1.47	0.41	0.39	0.66	0.61
France - other areas	0.65	0.78	0.72	1.26	0.10
France	*5.38*	*4.13*	*2.76*	*4.60*	*1.11*
Italy - coastal areas	16.65	5.20	8.87	3.49	5.75
Italy - other areas	1.37	1.66	1.14	2.22	0.82
Italy	*18.02*	*6.86*	*10.01*	*5.71*	*6.57*
Luxembourg	*0.50*	*1.50*	*1.00*	*0.48*	—
Netherlands	*2.20*	*6.12*	*5.18*	*5.94*	*1.99*
Total	**55.72**	**42.56**	**50.05**	**35.01**	**23.33**

MISCELLANEOUS (IRON AND STEEL WORKS)

Investment

TABLE XIX b

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	6.79	4.36	4.31	3.99	2.18
North Rhine/Westphalia	31.38	22.19	21.50	13.94	8.17
Southern Germany	1.14	2.01	1.77	1.81	0.90
Saar	10.40	9.25	10.65	10.38	4.56
Germany (F.R.)	*49.71*	*37.81*	*38.23*	*30.12*	*15.81*
Belgium	*9.96*	*10.99*	*17.28*	*11.01*	*5.96*
Eastern France	30.11	11.05	20.23	17.37	14.57
Northern France	3.49	4.17	2.62	5.96	5.17
France - other areas	1.95	2.95	3.31	1.49	1.37
France	*35.55*	*18.17*	*26.16*	*24.82*	*21.11*
Italy - coastal areas	58.29	54.46	48.99	25.47	14.40
Italy - other areas	4.41	5.09	5.02	5.60	3.63
Italy	*62.70*	*59.55*	*54.01*	*31.07*	*18.03*
Luxembourg	*1.26*	*1.73*	*1.63*	*1.13*	—
Netherlands	*6.79*	*13.15*	*13.53*	*17.75*	*8.06*
Total	**165.97**	**141.40**	**150.84**	**115.90**	**68.97**

GENERAL SERVICES (IRON AND STEEL WORKS) TOTAL

Investment

TABLE XIX c

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	10.34	6.31	7.37	5.69	2.87
North Rhine/Westphalia	41.50	28.82	30.41	22.39	13.88
Southern Germany	2.24	2.78	2.58	2.68	1.16
Saar	11.63	9.88	11.52	11.01	4.74
Germany (F.R.)	*65.71*	*47.79*	*51.88*	*41.77*	*22.65*
Belgium	*23.58*	*24.96*	*34.73*	*17.64*	*12.78*
Eastern France	33.37	13.99	21.88	20.05	14.97
Northern France	4.96	4.58	3.01	6.62	5.78
France - other areas	2.60	3.73	4.03	2.75	1.47
France	*40.93*	*22.30*	*28.92*	*29.42*	*22.22*
Italy - coastal areas	74.94	59.66	57.86	28.96	20.15
Italy - other areas	5.78	6.75	6.16	7.82	4.45
Italy	*80.72*	*66.41*	*64.02*	*36.78*	*24.60*
Luxembourg	*1.76*	*3.23*	*2.63*	*1.61*	—
Netherlands	*8.99*	*19.27*	*18.71*	*23.69*	*10.05*
Total	**221.69**	**183.96**	**200.89**	**150.91**	**92.30**

SINTER

Production

TABLE XX

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Northern Germany	5.6	7.9	7.9	7.9	7.9	7.9
North Rhine/Westphalia	18.1	21.4	20.9	21.9	21.9	21.9
Southern Germany	0.3	0.4	0.4	0.4	0.4	0.4
Saar	5.1	6.1	6.1	6.5	6.5	6.5
Germany (F.R.)	*29.1*	*35.8*	*35.3*	*36.7*	*36.7*	*36.7*
Belgium	*7.1*	*9.4*	*10.0*	*10.7*	*11.1*	*11.6*
Eastern France	15.3	18.0	19.2	19.4	19.8	21.4
Northern France	3.2	3.7	4.2	4.8	4.9	5.1
France - other areas	0.9	1.4	1.4	1.4	1.4	1.4
France	*19.4*	*23.1*	*24.8*	*25.6*	*26.1*	*27.9*
Italy - coastal areas	6.6	8.0	9.3	9.3	9.3	9.3
Italy - other areas	0.5	0.6	0.6	0.6	0.6	0,6
Italy	*7.1*	*8.6*	*9.9*	*9.9*	*9.9*	*9.9*
Luxembourg	*4.7*	*5.6*	*5.6*	*5.6*	*5.6*	*5.6*
Netherlands	*3.0*	*3.2*	*3.2*	*3.2*	*3.2*	*4.0*
Total	**70.4**	**85.7**	**88.8**	**91.7**	**92.6**	**95.7**

PIG-IRON

Production

TABLE XXI

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production pontential			
	1966	1966	1967	1968	1969	1970
Northern Germany	3.5	5.7	5.9	6.2	6.5	6.5
North Rhine/Westphalia	17.1	23.3	23.2	23.3	23.4	23.8
Southern Germany *(F.R.)*	1.1	1.8	1.6	1.6	1.6	1.6
Saar	3.7	5.0	5.0	5.2	5.2	5.2
Germany	*25.4*	*35.8*	*35.7*	*36.3*	*36.7*	*37.1*
Belgium	*8.3*	*10.2*	*11.3*	*11.7*	*12.3*	*12.6*
Eastern France	11.1	14.1	14.4	14.5	14.8	15.1
Northern France	3.5	4.1	4.3	4.5	5.4	5.5
France - other areas	1.0	1.1	1.0	1.1	1.1	1.1
France	*15.6*	*19.3*	*19.7*	*20.1*	*21.3*	*21.7*
Italy - coastal areas	5.9	7.3	8.1	8.1	8.7	8.7
Italy - other areas	0.4	0.5	0.5	0.5	0.5	0.5
Italy	*6.3*	*7.8*	*8.6*	*8.6*	*9.2*	*9.2*
Luxembourg	*4.0*	*4.8*	*5.1*	*5.1*	*5.1*	*5.1*
Netherlands	*2.2*	*2.4*	*2.4*	*2.4*	*2.8*	*3.3*
Total	**61.8**	**80.3**	**82.8**	**84.2**	**87.4**	**89.0**

BASIC BESSEMER STEEL

Production

TABLE XXII a

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Northern Germany	0.8	1.2	1.2	0.9	0.9	0.9
North Rhine/Westphalia	5.5	7.4	6.9	6.7	6.7	6.7
Southern Germany	0.6	1.0	1.0	1.0	1.0	1.0
Saar	2.9	3.8	3.9	3.9	3.7	3.7
Germany (F.R.)	*9.8*	*13.4*	*13.0*	*12.5*	*12.3*	*12.3*
Belgium	*6.3*	*7.1*	*7.3*	*6.9*	*6.4*	*6.0*
Eastern France	8.7	10.2	10.5	10.5	10.6	10.6
Northern France	1.1	1.4	1.4	1.4	1.4	1.4
France - other areas	0.5	0.6	0.5	0.5	0.4	0.4
France	*10.3*	*12.2*	*12.4*	*12.4*	*12.4*	*12.4*
Italy - coastal areas	—	—	—	—	—	—
Italy - other areas	—	—	—	—	—	—
Italy	—	—	—	—	—	—
Luxembourg	*3.8*	*4.3*	*3.8*	*3.8*	*3.8*	*3.8*
Netherlands	—	—	—	—	—	—
Total	**30.2**	**37.0**	**36.5**	**35.6**	**34.9**	**34.5**

OPEN-HEARTH STEEL

Production

TABLE XXII b

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Northern Germany	2.4	3.4	3.6	3.1	2.5	2.5
North Rhine/Westphalia	9.9	14.2	13.1	12.8	12.9	12.9
Southern Germany	0.5	0.8	0.8	0.8	0.8	0.8
Saar	0.9	1.1	1.1	1.1	1.1	1.1
Germany (F.R.)	*13.7*	*19.5*	*18.6*	*17.8*	*17.3*	*17.3*
Belgium	*0.2*	*0.5*	*0.5*	*0.5*	*0.5*	*0.4*
Eastern France	2.2	2.8	2.8	2.8	2.6	2.6
Northern France	1.8	2.4	2.4	2.4	2.4	2.4
France - other areas	0.5	0.5	0.5	0.5	0.5	0.4
France	*4.5*	*5.7*	*5.7*	*5.7*	*5.5*	*5.4*
Italy - coastal areas	3.2	3.7	4.1	4.1	4.3	4.3
Italy - other areas	1.7	2.4	2.4	2.4	2.4	2.3
Italy	*4.9*	*6.1*	*6.5*	*6.5*	*6.7*	*6.6*
Luxembourg	—	—	—	—	—	—
	0.9	*1.0*	*1.0*	*1.0*	*0.7*	*0.6*
Total	**24.2**	**32.8**	**32.3**	**31.5**	**30.7**	**30.3**

ELECTRIC-FURNACE STEEL

Production

TABLE XXII c

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Northern Germany	0.2	0.3	0.3	0.3	0.3	0.3
North Rhine/Westphalia	2.5	3.1	3.1	3.1	3.1	3.1
Southern Germany	0.2	0.2	0.2	0.3	0.3	0.3
Saar	0.2	0.2	0.3	0.4	0.4	0.4
Germany (F.R.)	*3.1*	*3.8*	*3.9*	*4.1*	*4.1*	*4.1*
Belgium	*0.4*	*0.6*	*0.6*	*0.6*	*0.6*	*0.7*
Eastern France	0.5	0.6	0.6	0.6	0.6	0.6
Northern France	0.3	0.3	0.3	0.4	0.5	0.7
France - other areas	1.1	1.4	1.5	1.5	1.5	1.6
France	*1.9*	*2.3*	*2.4*	*2.5*	*2.6*	*2.9*
Italy - coastal areas	0.5	0.6	0.7	0.7	0.7	0.7
Italy - other areas	4.5	5.9	6.1	6.5	6.5	6.6
Italy	*5.0*	*6.5*	*6.8*	*7.2*	*7.2*	*7.3*
Luxembourg	*0.0*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
Netherlands	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*
Total	**10.7**	**13.6**	**14.1**	**14.8**	**14.9**	**15.4**

LD, KALDO AND OTHER STEELS

Production

TABLE XXII d

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Northern Germany	1.4	1.8	1.9	3.4	4.1	4.1
North Rhine/Westphalia	6.9	8.7	10.4	11.3	11.3	11.3
Southern Germany	0.0	0.0	0.0	0.0	0.0	0.0
Saar	0.3	0.3	0.3	0.6	1.0	1.0
Germany (F.R.)	*8.6*	*10.8*	*12.6*	*15.3*	*16.4*	*16.4*
Belgium	*2.0*	*2.9*	*4.0*	*5.2*	*6.5*	*7.3*
Eastern France	0.9	1.1	1.1	1.1	1.4	2.2
Nothern France	2.0	2.1	2.4	2.4	3.1	3.6
France - other areas	0.0	0.0	0.1	0.1	0.2	0.2
France	*2.9*	*3.2*	*3.6*	*3.6*	*4.7*	*6.0*
Italy - coastal areas	3.7	4.9	5.7	5.9	6.5	6.5
Italy - other areas	0.0	0.0	0.0	0.0	0.2	0.2
Italy	*3.7*	*4.9*	*5.7*	*5.9*	*6.7*	*6.7*
Luxembourg	*0.6*	*0.7*	*1.7*	*1.7*	*1.7*	*1.7*
Netherlands	*2.1*	*2.1*	*2.1*	*2.2*	*2.8*	*3.4*
Total	**19.9**	**24.6**	**29.7**	**33.9**	**38.8**	**41.5**

STEEL-TOTAL

Production

TABLE XXII e

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Northern Germany	4.8	6.7	7.0	7.7	7.8	7.8
North Rhine/Westphalia	24.8	33.4	33.5	33.9	34.0	34.0
Southern Germany	1.3	2.0	2.0	2.1	2.1	2.1
Saar	4.3	5.4	5.6	6.0	6.2	6.2
Germany (F.R.)	*35.2*	*47.5*	*48.1*	*49.7*	*50.1*	*50.1*
Belgium	*8.9*	*11.1*	*12.4*	*13.2*	*14.0*	*14.4*
Eastern France	12.3	14.7	15.0	15.0	15.2	16.0
Northern France	5.2	6.2	6.5	6.6	7.4	8.1
France - other areas	2.1	2.5	2.6	2.6	2.6	2.6
France	*19.6*	*23.4*	*24.1*	*24.2*	*25.2*	*26.7*
Italy - coastal areas	7.4	9.2	10.5	10.7	11.5	11.5
Italy - other areas	6.2	8.3	8.5	8.9	9.1	9.1
Italy	*13.6*	*17.5*	*19.0*	*19.6*	*20.6*	*20.6*
Luxembourg	*4.4*	*5.1*	*5.6*	*5.6*	*5.6*	*5.6*
	3.3	*3.4*	*3.4*	*3.5*	*3.8*	*4.3*
Total	**85.0**	**108.0**	**112.6**	**115.8**	**119.3**	**121.7**

SECTIONS

Production

TABLE XXIII a

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Northern Germany	1.4	2.6	2.8	2.8	2.8	2.8
North Rhine/Westphalia	7.4	12.5	12.5	13.0	13.3	13.3
Southern Germany	0.7	1.0	1.0	1.0	1.0	1.0
Saar	2.3	3.7	3.6	3.8	3.9	3.9
Germany (F.R.)	*11.8*	*19.8*	*19.9*	*20.6*	*21.0*	*21.0*
Belgium	*3.5*	*4.6*	*4.8*	*4.8*	*5.0*	*5.1*
Eastern France	4.9	6.0	6.3	6.6	6.8	6.9
Northern France	1.4	1.8	1.9	1.9	1.9	2.0
France - other areas	0.9	1.2	1.2	1.2	1.2	1.2
France	*7.2*	*9.0*	*9.4*	*9.7*	*9.9*	*10.1*
Italy - coastal areas	1.1	1.5	2.3	2.6	2.6	2.6
Italy - other areas	3.6	4.7	5.0	5.3	5.3	5.3
Italy	*4.7*	*6.2*	*7.3*	*7.9*	*7.9*	*7.9*
Luxembourg	*2.1*	*2.5*	*2.7*	*2.7*	*2.7*	*2.7*
Netherlands	*0.4*	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*
Total	**29.7**	**42.8**	**44.8**	**46.4**	**47.2**	**47.5**

FLAT PRODUCTS (1)

Production

TABLE XXIII b

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production 1966	Production potential 1966	Expected production potential 1967	1968	1969	1970
Northern Germany	1.7	2.7	3.0	3.0	3.0	3.0
North Rhine/Westphalia	7.6	14.2	14.7	14.8	15.0	15.0
Southern Germany	1.1	1.8	1.9	2.0	2.0	2.0
Saar	0.8	1.4	1.5	1.5	1.5	1.5
Germany (F.R.)	*11.2*	*20.1*	*21.1*	*21.3*	*21.5*	*21.5*
Belgium	*3.1*	*4.0*	*4.6*	*4.9*	*5.1*	*5.2*
Eastern France	4.3	5.0	5.0	5.2	5.3	5.3
Northern France	2.1	2.8	2.8	2.9	3.1	3.1
France - other areas	0.5	0.5	0.6	0.6	0 7	0.7
France	*6.9*	*8.2*	*8.3*	*8.6*	*8.9*	*8.9*
Italy - coastal areas	2.1	2.4	2.9	3.0	3.4	3.4
Italy - other areas	2.4	3.0	3.1	3.2	3.2	3.2
Italy	*4.5*	*5.4*	*6.0*	*6.2*	*6.6*	*6.6*
Luxembourg	*1.2*	*1.4*	*1.5*	*1.5*	*1.5*	*1.5*
Netherlands	*1.7*	*1.9*	*1.8*	*1.8*	*1.8*	*1.9*
Total	**28.6**	**41.0**	**43.3**	**44.3**	**45.4**	**45.6**

(1) Excepted Coils (finished products).

FINISHED ROLLED PRODUCTS-TOTAL (1)

Production

TABLE XXIII c

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Northern Germany	3.1	5.3	5.8	5.8	5.8	5.8
North Rhine/Westphalia	15.0	26.7	27.2	27.8	28.3	28.3
Southern Germany	1.8	2.8	2.9	3.0	3.0	3.0
Saar	3.1	5.1	5.1	5.3	5.4	5.4
Germany (F.R.)	*23.0*	*39.9*	*41.0*	*41.9*	*42.5*	*42.5*
Belgium	*6.6*	*8.6*	*9.4*	*9.7*	*10.1*	*10.3*
Eastern France	9.2	11.0	11.3	11.8	12.1	12.2
Northern France	3.5	4.5	4.6	4.7	4.8	4.9
France - other areas	1.4	1.7	1.8	1.8	1.9	1.9
France	*14.1*	*17.2*	*17.7*	*18.3*	*18.8*	*19.0*
Italy - coastal areas	3.2	3.9	5.2	5.6	6.0	6.0
Italy - other areas	6.0	7.7	8.1	8.5	8.5	8.5
Italy	*9.2*	*11.6*	*13.3*	*14.1*	*14.5*	*14.5*
Luxembourg	*3.3*	*3.9*	*4.2*	*4.2*	*4.2*	*4.2*
Netherlands	*2.1*	*2.6*	*2.5*	*2.5*	*2.5*	*2.6*
Total	**58.3**	**83.8**	**88.1**	**90.7**	**92.6**	**93.1**

(1) Excepted Coils (finished products).

HEAVY AND LIGHT SECTIONS (INCLUDING TUBE ROUNDS AND SQUARES)

Production

TABLE XXIV a

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Northern Germany	1.2	2.4	2.6	2.6	2.6	2.6
North Rhine/Westphalia	5.4	9.5	9.5	9.7	9.8	9.8
Southern Germany	0.7	0.9	0.9	0.9	0.9	0.9
Saar	1.8	3.1	3.0	3.1	3.2	3.2
Germany (F.R.)	*9.1*	*15.9*	*16.0*	*16.3*	*16.5*	*16.5*
Belgium	*2.6*	*3.4*	*3.6*	*3.6*	*3.7*	*3.8*
Eastern France	3.4	4.2	4.5	4.8	5.0	5.1
Northern France	1.2	1.5	1.5	1.5	1.5	1.6
France - other areas	0.7	0.9	0.9	0.9	0.9	0.9
France	*5.3*	*6.6*	*6.9*	*7.2*	*7.4*	*7.6*
Italy - coastal areas	1.0	1.3	2.0	2.3	2.3	2.3
Italy - other areas	3.0	3.9	4.0	4.2	4.2	4.2
Italy	*4.0*	*5.2*	*6.0*	*6.5*	*6.5*	*6.5*
Luxembourg	*1.9*	*2.2*	*2.4*	*2.4*	*2.4*	*2.4*
Netherlands	*0.2*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*
Total	**23.1**	**33.6**	**35.2**	**36.3**	**36.8**	**37.1**

WIRE-ROD

Production

TABLE XXIV b

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Northern Germany	0.2	0.2	0.2	0.2	0.2	0.2
North Rhine/Westphalia	2.0	3.0	3.0	3.3	3.5	3.5
Southern Germany	0.0	0.1	0.1	0.1	0.1	0.1
Saar	0.5	0.6	0.6	0.7	0.7	0.7
Germany (F.R.)	*2.7*	*3.9*	*3.9*	*4.3*	*4.5*	*4.5*
Belgium	*0.9*	*1.2*	*1.2*	*1.2*	*1.3*	*1.3*
Eastern France	1.5	1.8	1.8	1.8	1.8	1.8
Northern France	0.2	0.3	0.4	0.4	0.4	0.4
France - other areas	0.2	0.3	0.3	0.3	0.3	0.3
France	*1.9*	*2.4*	*2.5*	*2.5*	*2.5*	*2.5*
Italy - coastal areas	0.1	0.2	0.3	0.3	0.3	0.3
Italy - other areas	0.6	0.8	1.0	1.1	1.1	1.1
Italy	*0.7*	*1.0*	*1.3*	*1.4*	*1.4*	*1.4*
Luxembourg	*0.2*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*
Netherlands	*0.2*	*0.4*	*0.4*	*0.4*	*0.4*	*0.4*
Total	**6.6**	**9.2**	**9.6**	**10.1**	**10.4**	**10.4**

HOOP AND STRIP AND TUBE STRIP

Production

TABLE XXIV c

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production 1966	Production potential 1966	Expected production potential 1967	1968	1969	1970
Northern Germany	0.1	0.1	—	—	—	—
North Rhine/Westphalia	1.9	4.0	4.0	3.9	3.9	3.9
Southern Germany	0.0	0.0	0.0	0.0	0.0	0.0
Saar	0.3	0.4	0.4	0.4	0.4	0.4
Germany (F.R.)	*2.3*	*4.5*	*4.4*	*4.3*	*4.3*	*4.3*
Belgium	*0.4*	*0.6*	*0.6*	*0.7*	*0.7*	*0.6*
Eastern France	1.1	1.2	1.2	1.2	1.2	1.2
Northern France	0.0	0.0	0.0	0.0	0.0	0.0
France - other areas	0.0	0.0	0.0	0.0	0.0	0.0
France	*1.1*	*1.2*	*1.2*	*1.2*	*1.2*	*1.2*
Italy - coastal areas	0.4	0.5	0.7	0.8	0.8	0.8
Italy - other areas	0.3	0.5	0.5	0.6	0.6	0.6
Italy	*0.7*	*1.0*	*1.2*	*1.4*	*1.4*	*1.4*
Luxembourg	*0.7*	*0.8*	*0.9*	*0.9*	*0.9*	*0.9*
Netherlands	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
Total	**5.3**	**8.2**	**8.4**	**8.6**	**8.6**	**8.5**

PLATE ⩾ 3 mm. (INCLUDING WIDE FLAT STEEL) (1)

Production

TABLE XXIV d

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production 1966	Production potential 1966	Expected production potential 1967	1968	1969	1970
Northern Germany	0.8	1.2	1.3	1.3	1.3	1.3
North Rhine/Westphalia	3.2	5.5	6.0	6.2	6.4	6.4
Southern Germany	0.0	0.1	0.1	0.1	0.1	0.1
Saar	0.5	1.0	1.1	1.1	1.1	1.1
Germany (F.R.)	*4.5*	*7.8*	*8.5*	*8.7*	*8.9*	*8.9*
Belgium	*1.0*	*1.2*	*1.3*	*1.3*	*1.4*	*1.5*
Eastern France	0.9	1.0	1.0	1.0	1.0	1.0
Northern France	0.6	0.7	0.7	0.7	0.7	0.7
France - other areas	0.1	0.1	0.2	0.2	0.2	0.2
France	*1.6*	*1.8*	*1.9*	*1.9*	*1.9*	*1.9*
Italy - coastal areas	0.9	0.9	1.2	1.2	1.5	1.5
Italy - other areas	0.4	0.5	0.5	0.6	0.6	0.6
Italy	*1.3*	*1.4*	*1.7*	*1.8*	*2.1*	*2.1*
Luxembourg	*0.2*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*
Netherlands	*0.5*	*0.5*	*0.4*	*0.4*	*0.4*	*0.4*
Total	**9.1**	**13.0**	**14.1**	**14.4**	**15.0**	**15.1**

(1) Excepted coils (finisted products).

HOT-ROLLED SHEET
< 3 mm. (1)

Production

TABLE XXIV e

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1966	1966	1967	1968	1969	1970
Northern Germany	0.0	0.0	0.0	0.0	0.0	0.0
North Rhine/Westphalia	0.3	0.6	0.4	0.4	0.4	0.4
Southern Germany	0.2	0.2	0.2	0.2	0.2	0.2
Saar	0.0	0.0	—	—	—	—
Germany (F.R.)	*0.5*	*0.8*	*0.6*	*0.6*	*0.6*	*0.6*
Belgium	*0.1*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
Eastern France	0.2	0.3	0.3	0.3	0.3	0.3
Northern France	0.1	0.1	0.1	0.1	0.1	0.1
France - other areas	0.1	0.1	0.1	0.1	0.1	0.1
France	*0.4*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*
Italy - coastal areas	0.1	0.2	0.2	0.2	0.2	0.2
Italy - other areas	0.0	0.1	0.1	0.0	0.0	0.0
Italy	*0.1*	*0.3*	*0.3*	*0.2*	*0.2*	*0.2*
Luxembourg	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Netherlands	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Total	**1.1**	**1.8**	**1.6**	**1.5**	**1.5**	**1.5**

(1) Excepdet coils (finished products).

COLD-REDUCED SHEET
< 3 mm.

Production

TABLE XXIV f

Production and Production by Areas

'000,000 metric tons

Area	Actual production 1966	Production potential 1966	Expected production potential 1967	1968	1969	1970
Northern Germany	0.8	1.4	1.7	1.7	1.7	1.7
North Rhine/Westphalia	2.2	4.1	4.3	4.3	4.3	4.3
Southern Germany	0.9	1.5	1.6	1.7	1.7	1.7
Saar	—	—	—	—	—	—
Germany (F.R.)	*3.9*	*7.0*	*7.6*	*7.7*	*7.7*	*7.7*
Belgium	*1.6*	*2.0*	*2.5*	*2.7*	*2.8*	*2.9*
Eastern France	2.1	2.5	2.5	2.7	2.8	2.8
Northern France	1.4	1.9	1.9	2.0	2.1	2.1
France - other areas	0.3	0.3	0.3	0.3	0.4	0.4
France	*3.8*	*4.7*	*4.7*	*5.0*	*5.3*	*5.3*
Italy - coastal areas	0.7	0.8	0.8	0.8	0.9	0.9
Italy - other areas	1.7	1.9	2.0	2.0	2.0	2.0
Italy	*2.4*	*2.7*	*2.8*	*2.8*	*2.9*	*2.9*
Luxembourg	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*
Netherlands	*1.1*	*1.3*	*1.3*	*1.3*	*1.3*	*1.4*
Total	**13.1**	**18.0**	**19.2**	**19.8**	**20.3**	**20.5**

HOT WIDE-STRIP MILLS

Investment
(already included in the capital expenditure for the flat-product mills: Table XVIII d)

TABLE XXV a

Capital Expenditure by Areas

'000,000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1966 for	on Jan. 1, 1967 for	
	1965	1966	1966	1967	1968
Northern Germany	2.62	1.56	2.53	0.20	—
North Rhine/Westphalia	33.56	37.34	44.89	14.82	8.70
Southern Germany	—	—	—	—	—
Saar	—	—	—	—	—
Germany (F.R.)	*36.18*	*38.80*	*47.42*	*15.02*	*8.70*
Belgium	*22.90*	*25.78*	*26.04*	*15.32*	*9.16*
Eastern France	—	—	1.74	—	—
Northern France	4.50	1.70	1.00	7.30	7.00
France - other areas	0.06	—	0.01	—	—
France	*4.56*	*1.70*	*2.75*	*7.30*	*7.00*
Italy - coastal areas	6.70	0.61	0.32	0.89	0.61
Italy - other areas	14.53	4.58	6.49	3.36	0.46
Italy	*21.23*	*5.19*	*6.81*	*4.25*	*1.07*
Luxembourg	*0.55*	*0.50*	*1.19*	*0.61*	*0.30*
Netherlands	*1.15*	*6.31*	*13.78*	*14.90*	*26.29*
Total	**86.57**	**78.28**	**97.99**	**57.40**	**52.52**

COILS (1)

Production

TABLE XXV b

Production and Production Potential by Areas

'000,000 metric tons

Area	Actual production		Production potential	Expected production potential			
	Total	of which: Coils (finished products)					
	1966		1966	1967	1968	1969	1970
Northern Germany	1.6	0.3	2.8	2.9	3.0	3.1	3.1
North Rhine/Westphalia	4.9	0.7	6.3	7.3	8.0	8.0	8.0
Southern Germany	—	—	—	—	—	—	—
Saar	—	—	—	—	—	—	—
Germany (F.R.)	*6.5*	*1.0*	*9.1*	*10.2*	*11.0*	*11.1*	*11.1*
Belgium	*2.4*	*0.2*	*2.8*	*4.0*	*4.2*	*4.5*	*4.7*
Eastern France	2.6	0.1	2.6	2.6	2.9	2.9	2.9
Northern France	2.5	0.3	2.8	2.9	3.0	3.4	3.7
France - other areas	0.0	—	0.1	0.1	0.1	0.1	0.1
France	*5.1*	*0.4*	*5.5*	*5.6*	*6.0*	*6.4*	*6.7*
Italy - coastal areas	2.9	0.5	3.4	4.1	4.1	4.2	4.5
Italy - other areas	0.6	—	0.8	1.1	1.2	1.2	1.2
Italy	*3.5*	*0.5*	*4.2*	*5.2*	*5.3*	*5.4*	*5.7*
Luxembourg	*0.3*	*0.0*	*0.4*	*0.4*	*0.5*	*0.5*	*0.5*
Netherlands	*1.6*	*0.2*	*1.6*	*1.6*	*1.6*	*1.6*	*2.2*
Total	**19.4**	**2.3**	**23.6**	**27.0**	**28.6**	**29.5**	**30.9**

(1) The products of the Treaty obtained by transformation of hot-rolled coils are included in the tables XXIII b and c, XXIV c, d, e and f.