EUROPEAN
COAL AND STEEL COMMUNITY

THE HIGH AUTHORITY

Investment in the Community Coalmining and Iron and Steel Industries

—

REPORT ON THE 1961 SURVEY

Position as at January 1, 1961

JULY 1961

CONTENTS

I — GENERAL REMARKS

For the ninth year in succession, the High Authority has conducted a survey of past and future investment by Community enterprises as at January 1, 1961, and its foreseeable effects on production potential. Annex I following lists the basic definitions adopted; Annex II contains a breakdown of the statistical data by coalfields and producer areas.

The figures for 1952 and 1953 are not shown in this Report, as they were less accurately computed.

As in previous years, the survey covers all but a few very small enterprises accounting among them for less than 0.8% of the Community's total coal production and less than 1.8% of its total steel production (see Annex I).

a) Capital Expenditure

Capital expenditure entered by Community enterprises on the credit side of their balance-sheets over the seven years 1954-60 totalled 7,560 million dollar units of account, representing an annual average of 1,080 million (56% in the iron and steel industry, 40% in the coalmines, 4% in the iron-ore mines; the percentages for 1954 alone worked out at 49%, 48% and 3% respectively).

Overall, capital investment in the Community industries in 1960 exceeded that for the record year 1957. But the steep rise in investment activity in the iron and steel industry and in the iron-ore mines masks the decline in the coalmining industry. The forecasts drawn up by the iron and steel industry for 1961 suggest an upsurge of capital expenditure in that industry.

TABLE 1

General Trend in Investment Projects in Recent Years

Indices

Sector	Projects completed		Projects planned for 1961
	1954-1959 (annual average)	1960	
Coalmining industry	100	86	105
Iron-ore mines	100	112	158
Iron and steel industry	100	135	217
All E.C.S.C. industries	**100**	**107**	**158**

Table 2 and Fig. 1 show, in absolute figures, the capital expenditure effected or estimated in each of the main industries from 1954 to 1962.

The figures for the years 1959 and 1960 differ from those given in our previous report, inasmuch as

(a) for the past year (1960), actual expenditure falls below the estimates submitted on January 1;

(b) for the previous year (1959), the expenditure figures, returned before the balance-sheets were closed, are corrected when the next survey is drawn up.

TABLE 2

Capital Expenditure in the Community Industries 1954—1962

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

Sector	Actual expenditure							Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Coalmining industry	445	408	404	471	469	406	374	457	363
Plants producing B.K.B. and low-temperature brown-coal coke	5	8	5	2	5	5	5	7	5
Iron-ore mines	30	31	44	50	41	40	44	62	51
Iron and steel industry	453	524	570	708	644	587	785[1])	1256[1])	1194[1])
Total	**933**	**971**	**1023**	**1231**	**1159**	**1038**	**1208**	**1782**	**1613**

[1]) Expenditure only on projects in progress (A) or approved (B); see Annex I, page 35.

Fig. 2 indicates that actual expenditure in 1960 amounted in the coalmining industry to 86% and in the iron and steel industry and iron-ore mines to 94% of the forecasts made on January 1.

(b) Production Potential

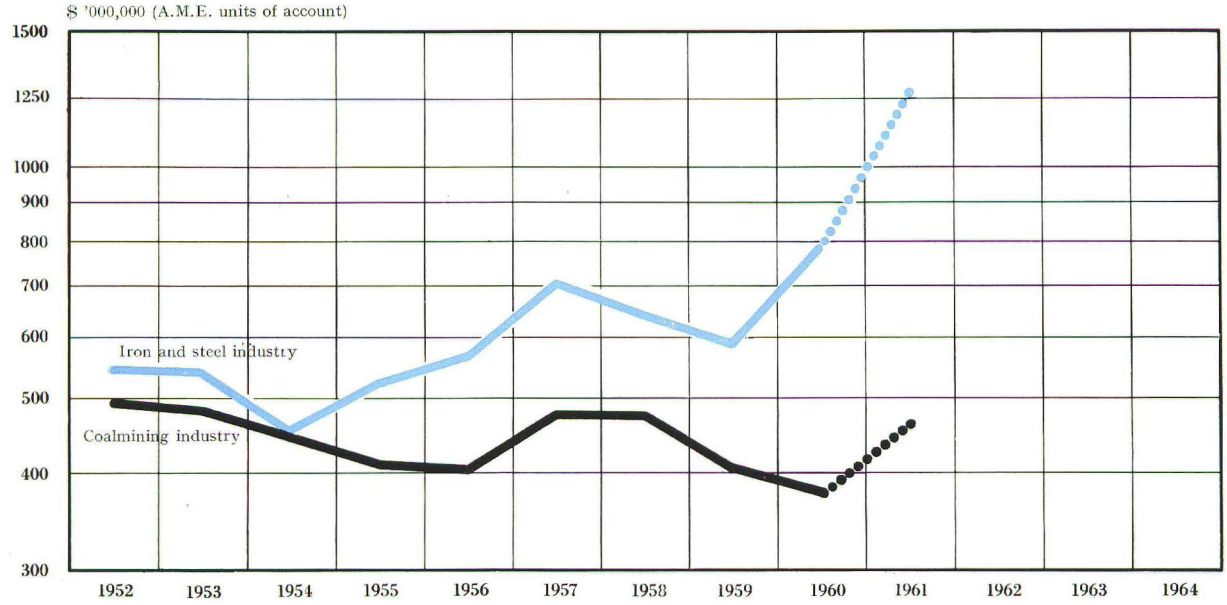
In comparison with the forecasts made previously, the production potential of the coal-mining industry shows a slow but steady decline, attributable partly to the smaller number of coal-winning shifts taken as a basis for calculation in certain coalfields, and partly to the closure of pits.

On the other hand, the rate of expansion made possible by the investment effected is being maintained at a high level for iron ore, pig-iron and crude steel.

FIGURE 1

Investment in the Coalmining and Iron and Steel Industries

A — Capital expenditure



B — Actual production and production potential

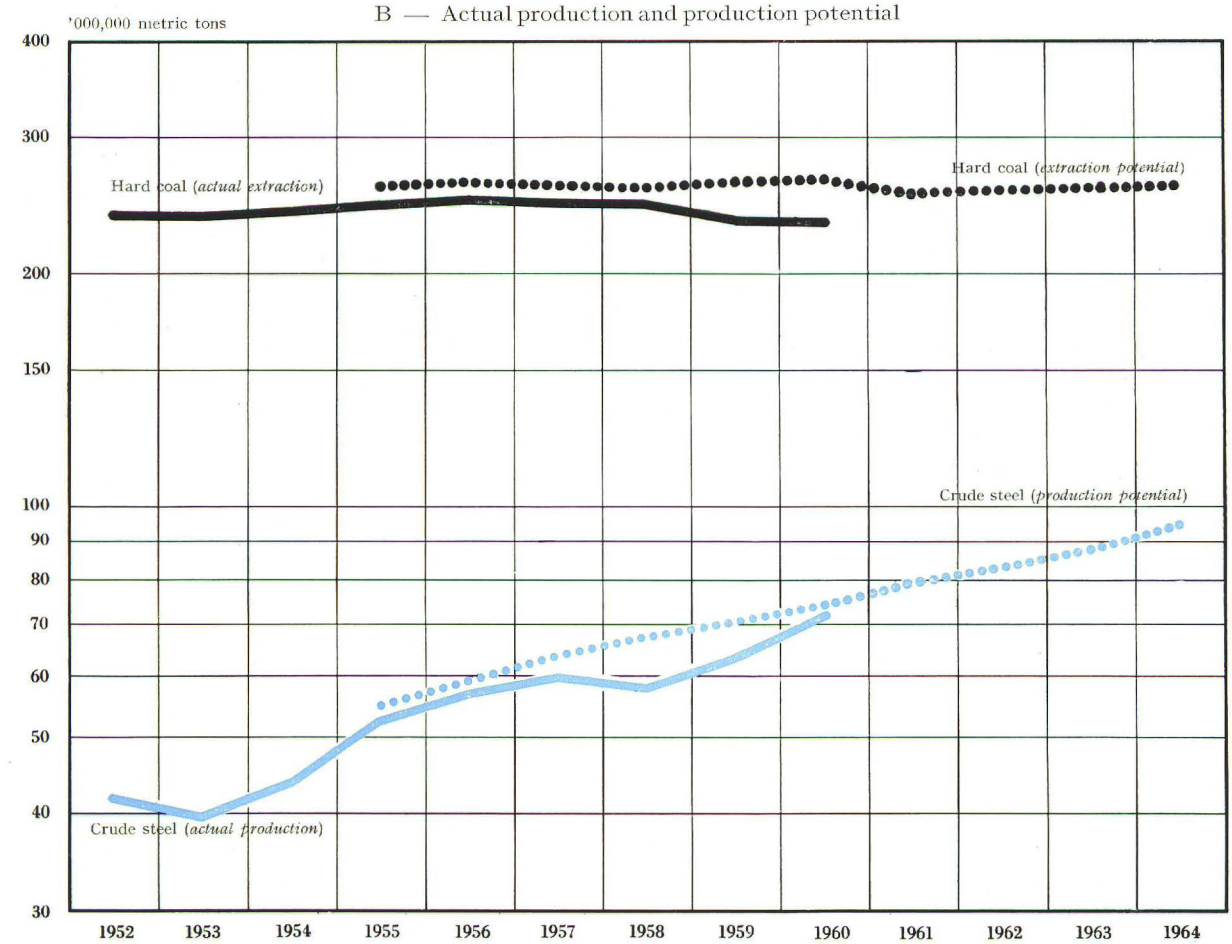


FIGURE 2

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

(Out-Turn Percentages)

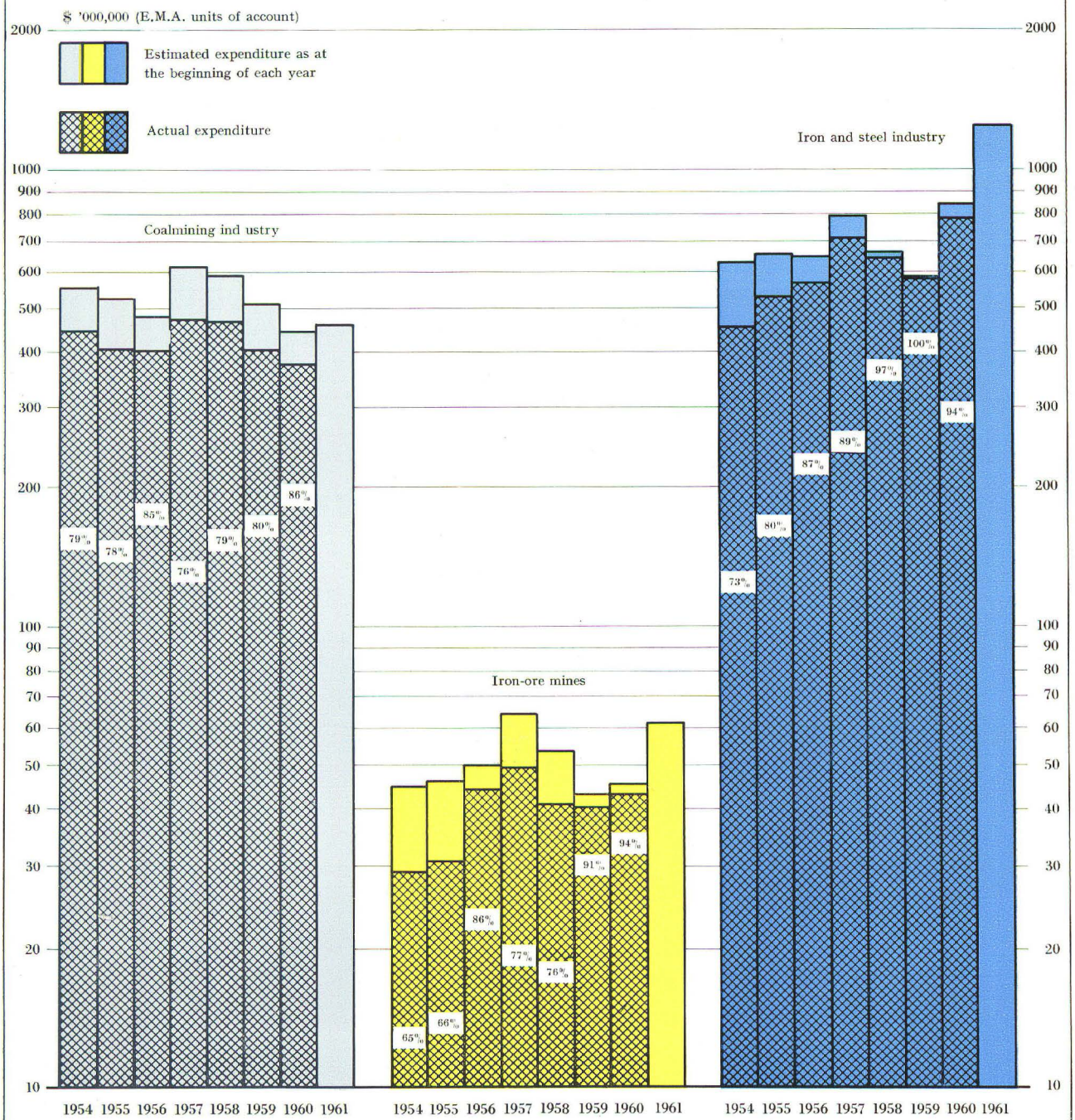


TABLE 3

Actual Production and Production Potential

Product	Actual production			Production potential		
	1952 ('000,000 m.t.)	Mean annual rate of increase in %	1960 ('000,000 m.t.)	1960 ('000,000 m.t.)	Mean annual rate of increase in %	1964 ('000,000 m.t.)
Hard coal[1]	237.4	— *0.2*	232.9	251.5	+ *0.1*	252.5
B.K.B. and low-temperature brown-coal coke	16.5	— *2.4*	13.6	14.8	— *3.6*	12.8
Iron ore	65.3	+ *4.9*	95.9	101.3	+ *4.0*	118.5
Pig-iron	34.7	+ 5.7	54.0	57.3	+ *6.3*	73.3
Crude steel	41.8	+ *7.2*	72.8	76.2	+ *5.8*	95.6

[1]) Exclusive of the "small mines" (see Annex I, page 34).

In order to interpret the production-potential figures correctly, it must be borne in mind that the sum of the potentials declared by each mine or works 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 any one year, may make it impossible for some of these enterprises to attain their maximum.

Thus, even during the best years, actual production never exceeded 96% of the sum of the individual production potentials declared for the purposes of the survey:

TABLE 4

Relation between Actual Production and the Sum of Individual Production Potentials

%

Sector	1955	1956	1957	1958	1959	1960
Hard coal	94.9	94.6	95.1	94.8	89.3	92.6
Coke	93.2	96.5	96.1	92.2	84·3	85.7
Ore	95.4	95.1	94.9	91.3	90.9	94.6
Pig-iron	96.3	96.0	94.7	87.9	88.3	94.3
Crude steel	95.8	96.1	94.1	85.7	89.6	95.6

II — THE COALMINING INDUSTRY

Table 5 shows the figures for the whole coalmining industry, broken down under collieries, coking-plants, briquetting-plants, and power-stations and other generating plant. The figures for the plants producing B.K.B. and low-temperature brown-coal coke are given separateley.

TABLE 5

Capital Expenditure in the Coalmining Industry

1959—1962

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

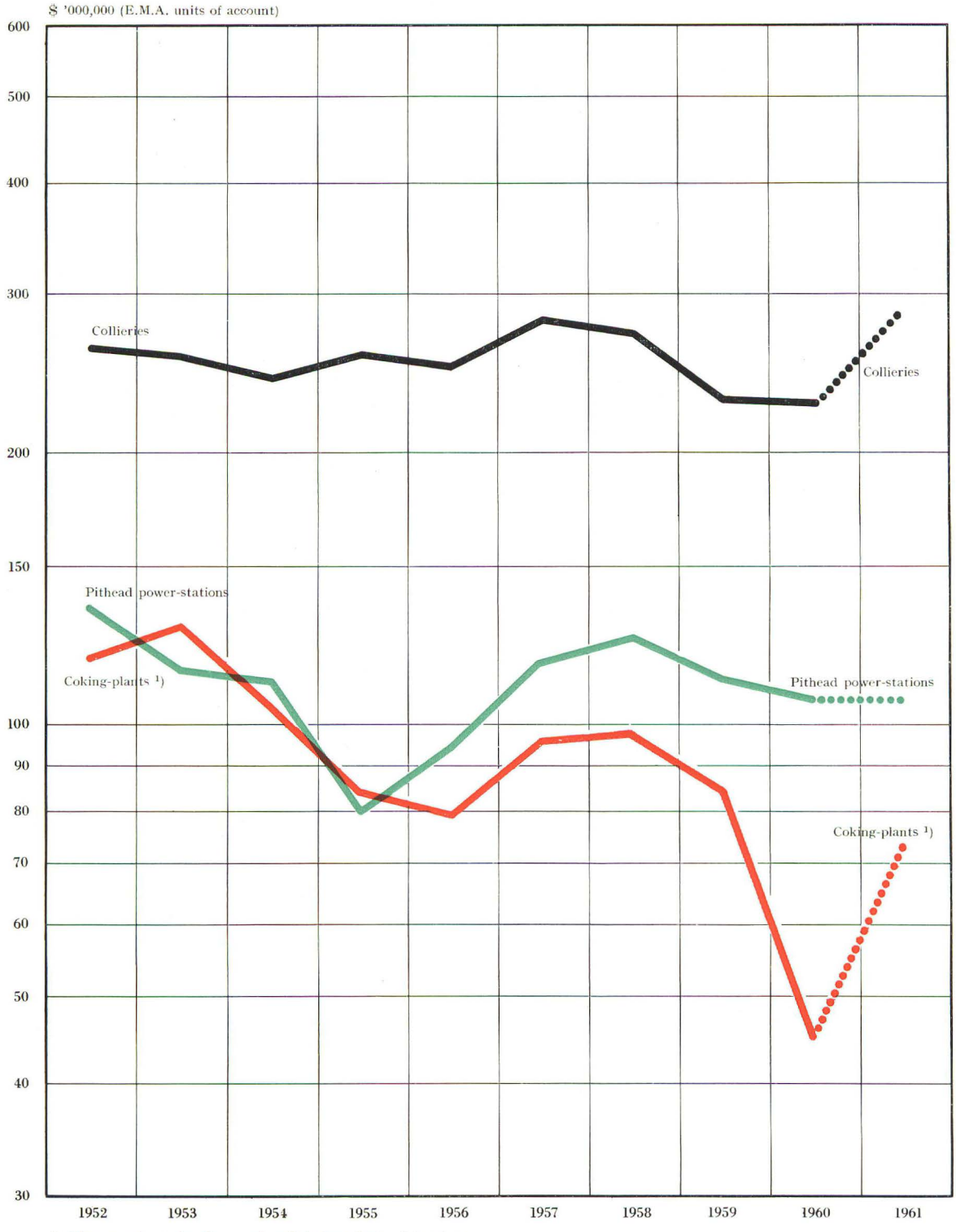
Sector	Actual expenditure		Estimated expenditure	
	1959	1960	1961	1962
Collieries	227	226	290	221
Coking-plants, mine-owned	56	32	51	42
Coking-plants, independent	5	2	4	3
Briquetting-plants	5	7	5	5
Pithead power-stations and other power-generating plant	113	107	107	92
of which:				
Pithead power-stations	(104)	(99)	(94)	(82)
Other power-generating plant	(9)	(8)	(13)	(10)
Total	**406**	**374**	**457**	**363**
Plants producing B.K.B. and low-temperature brown-coal coke	5	5	7	5

(a) Collieries

Capital expenditure on the collieries remains singularly constant, averaging 1.05 units of account per metric ton of coal produced from 1952 to 1959, and 0.97 units per ton in 1960. In absolute figures, the amounts invested have ranged from a maximum of 281 million units of

FIGURE 3

Capital Expenditure in the Coalmining Industry



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

account in 1957 to a minimum of approximately 226 million in 1960. Capital expenditure in the Belgian coalfields in 1959 and 1960 was only about half what it had been in the preceding years. Forecasts for 1961 for all the Community coalfields are, once again, well above the figures actually recorded for the past twelve months.

Capital expenditure from 1954 to 1960 may be broken down by categories of installation as follows.

TABLE 6

Capital Expenditure on Collieries, 1954—1960

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

Category	1954	1955	1956	1957	1958	1959	1960
Shafts and underground working .	43.5	54.9	57.5	63.8	67.0	51.1	48.3
Machines and mechanical equipment below ground	49.0	53.8	57.7	68.3	62.9	49.3	52.5
Haulage and winding equipment .	22.6	20.1	18.8	22.4	20.6	24.1	25.9
Screening and washing	68.4	64.9	50.4	57.4	50.6	48.3	43.9
Other surface installations	31.4	35.1	34.4	36.1	33.0	27.6	33.1
Buildings, etc.	26.9	27.6	29.8	33.5	34.3	26.4	22.3
Total	**241.8**	**256.4**	**248.6**	**281.5**	**268.4**	**226.8**	**226.0**

As in previous years, expenditure on extraction proper accounts for slightly over 50% of the whole.

The following table shows the expected development of production potential. The forecasts are some 7 million metric tons below last year's, the contraction being concentrated mainly in the Belgian and French coalfields; the collieries of Southern Belgium, however, still represent over 14 million tons out of the total of 252.5 million indicated for 1964. The figures are not fully comparable, as the number of working days which is used as a basis varies from one country and from one coalfield to another: 262 in Germany (296 in the Saar), 266 in the Netherlands, 285 in Belgium, and 287 in France since the extension of the underground shift by 15 minutes in mid-October 1960.

TABLE 7

Development of Hard-Coal Extraction Potential

'000,000 metric tons

Extraction		Extraction potential				
1952	1960	1960	1961	1962	1963	1964
237.4	232.9	251.5	246.8	249.3	251.5	252.5

Tables I and V annexed contain a detailed breakdown of expenditure and of the expected development of extraction potential. As in last year's survey, mines producing only small tonnages are excluded: the total production of these small mines in 1960 amounted to approximately 1.8 million metric tons.

(b) Coking-Plants

Expenditure during 1960 on mine-owned coking-plants was the lowest ever recorded. Extensions of capacity are, however, planned in the Saar/Lorraine and Nord/Pas-de-Calais coalfields.

Specific capital expenditure per metric ton of coke produced in the mine-owned coking-plants amounted to 0.69 units of account as against 1.23 in 1959 and 1.28 in 1958.

As regards the steelworks-owned coking-plants (which we include here in order to provide a full picture of the carbonization sector), expenditure was, as forecast, low in 1960, but the estimates suggest that it will rise again in 1961 and 1962, mainly as a result of Italian coking-plant development projects.

The following table shows the trend in capital expenditure on steelworks-owned coking-plants. The forecasts for 1961 and 1962 have been worked out twice, first as covering only projects already in progress or approved (categories A and B), and secondly as including projects only contemplated (categories A, B, and C). Table 17 incorporates this trend from 1954 onwards, but for 1961 and 1962 indicates only expenditure on categories A and B.

TABLE 8

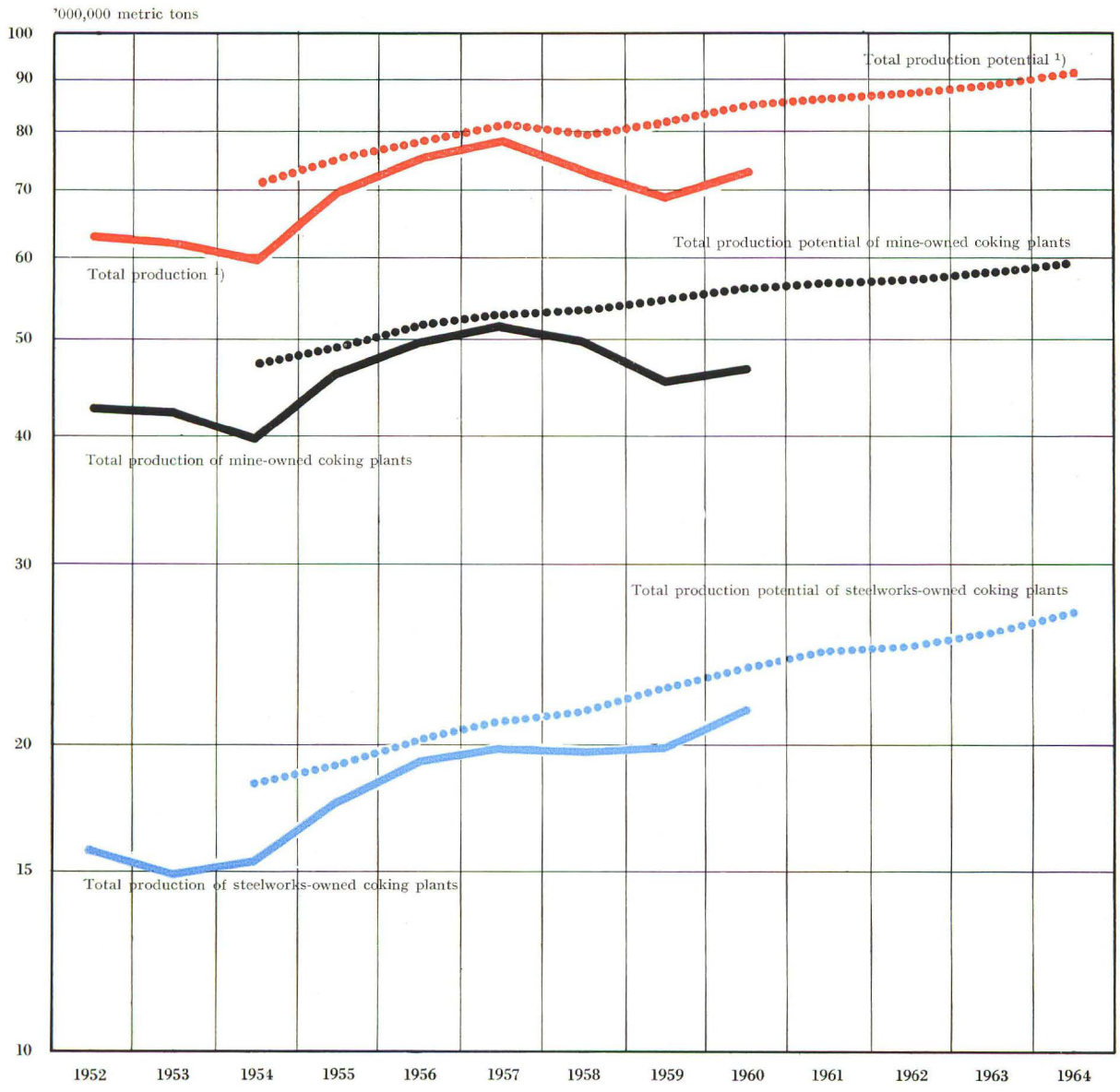
Capital Expenditure on Steelworks-Owned Coking-Plants, 1959—1962

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

1959	1960	Forecasts 1961		Forecasts 1962	
		Categories A + B	Categories A + B + C	Categories A + B	Categories A + B + C
24.9	11.5	19.0	19.0	23.8	27.4

FIGURE 4

Production and Production Potential of Coking-Plants



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

The breakdown of expenditure from 1954 to 1960 by categories of plant is as follows.

TABLE 9

Capital Expenditure on Mine-Owned, Independent and Steelworks-Owned Coking-Plants, 1954—1960

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

Category	1954	1355	1956	1957	1958	1959	1960
Coke ovens	46.5	32.2	32.3	41.8	41.7	32.7	19.6
of which:							
New plant	(31.9)	(19.3)	(17.3)	(24.7)	(21.8)	(14.7)	(8.6)
Repairs and replacements	(14.6)	(12.9)	(15.0)	(17.1)	(19.9)	(18.0)	(11.0)
Gas producers and other gasification plant	5.7	3.4	2.0	1.3	1.3	0.9	0.9
Coke-oven gas and by-product plant	27.1	28.9	25.9	34.8	29.6	28.3	12.9
Miscellaneous	26.0	19.9	19.4	18.1	24.2	23.5	12.1
Total	**105.3**	**84.4**	**79.6**	**96.0**	**96.8**	**85.4**	**45.5**

The expected development of production potential is shown in the table below. While the mine-owned plants show only a small increase, and the independent plants none at all, the production potential of the steelworks-owned plants is expected by 1964 to be appreciably greater than in 1960.

TABLE 10

Development of Coke Production Potential

'000,000 metric tons

Cokeries	Actual production		Production potential				
	1952	1960	1960	1961	1962	1963	1964
Mine-owned plants	42.2	46.8	56.0	56.6	57.0	58.1	59.0
Independent plants	3.2	3.6	4.4	4.4	4.5	4.5	4.5
Steelworks-owned plants[1])	15.8	21.8	23.9	24.6	24.8	25.6	26.9
Total	**61.2**	**72.3**	**84.3**	**85.6**	**86.3**	**88.2**	**90.4**

[1]) Cf. Table 18, page 20. The production-potential figures above for the steelworks-onwed plants are calculated on the same basis as for the other types of plants, *viz.* including not only projects in progress or approved (categories A and B) but also projects only contemplated (category C).

Tables II, IV and XIVa annexed contain a detailed breakdown of expenditure and of the expected development of capacity, together with technical notes as to the operation of the coking-plants from 1954 to 1960.

(c) Briquetting-Plants

Capital expenditure is very much lower in this sector than elsewhere, and is practically nil as regards those plants which are not actually colliery-owned.

Details will be found in Tables III and VII annexed.

(d) Pithead Power-Stations

Both actual and estimated expenditure in this sector continue high in most areas. As in previous surveys, we have included all expenditure on the so-called "shared" power-stations, *i.e.* those jointly owned by collieries and other bodies.

TABLE 11

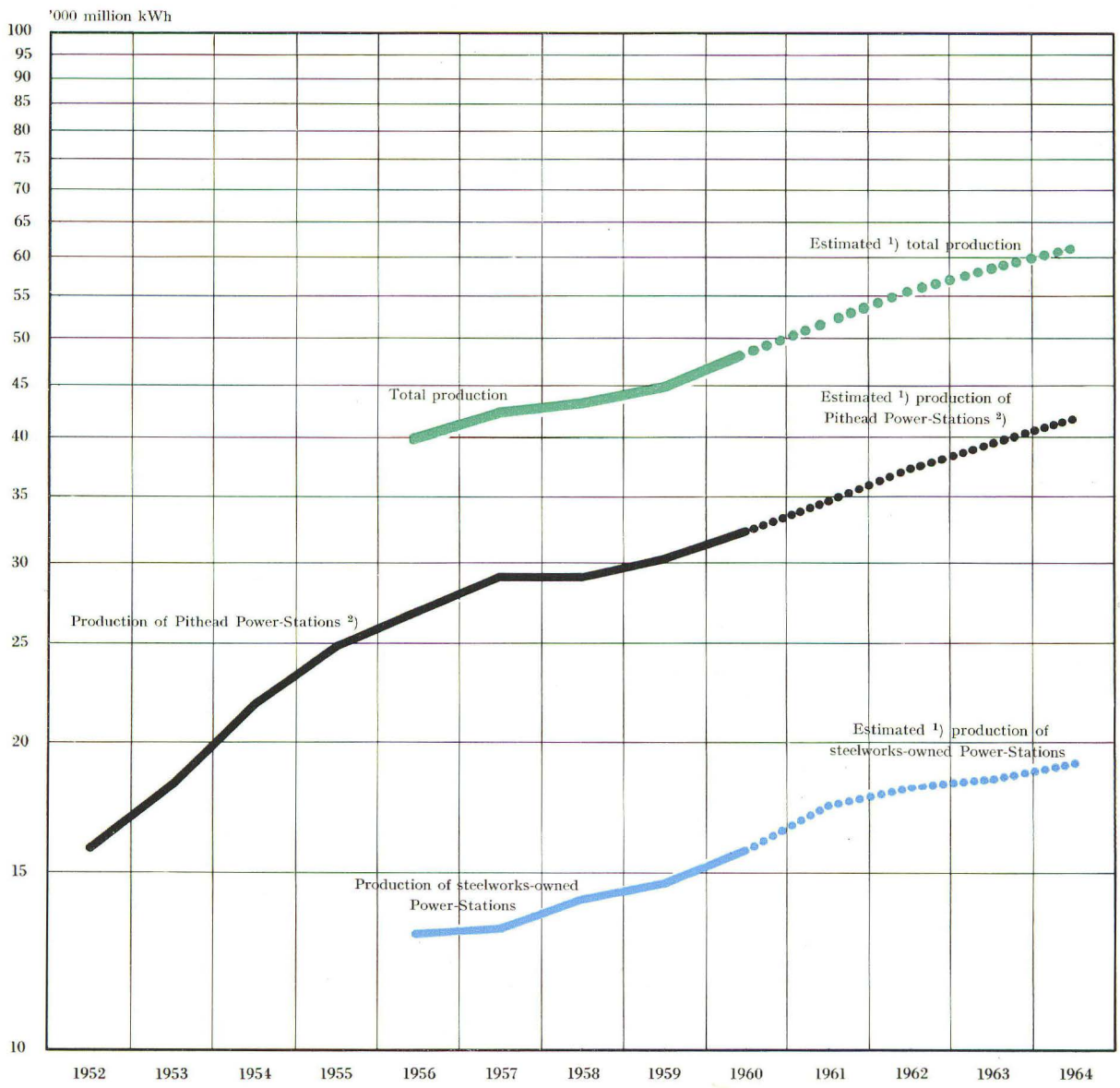
Capital Expenditure on Pithead Power-Stations and other Power-Generating Plant at Mines, by Types of Installation, 1954—1960

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

Type of installation	1954	1955	1956	1957	1958	1959	1960
Pithead power-stations:							
Steam-raising plant	41.1	26.9	26.9	36.2	42.9	46.0	37.3
Power-generating plant and distribution switchgear	26.8	21.0	28.6	34.5	35.4	35.7	42.9
Buildings	9.2	6.1	6.8	10.7	15.1	7.9	7.5
Electricity distribution networks	6.5	4.4	12.6	9.0	6.1	4.0	4.9
Miscellaneous	4.9	5.5	6.3	11.3	11.7	10.1	5.8
Total	**88.5**	**63.9**	**81.2**	**101.7**	**111.2**	**103.7**	**98.4**
Other power-generating plant at mines:							
Steam-raising plant	6.1	3.3	3.6	3.6	2.9	1.7	1.6
Power-generating plant and distribution switchgear	3.5	3.3	2.4	3.8	3.2	2.4	1.8
Buildings	0.5	0.2	0.5	0.2	0.3	0.3	0.1
Electricity distribution networks	4.7	3.5	1.9	2.6	2.3	1.3	2.0
Compressed-air plant	7.6	5.5	4.8	5.2	4.9	3.7	2.8
Miscellaneous	0.9	0.2	0.1	0.1	0.2	0.3	0.1
Total	**23.3**	**16.0**	**13.3**	**15.5**	**13.8**	**9.7**	**8.4**

FIGURE 5

Electric Power Production



1) For 1961 and following years energy production figures have been estimated on the basis of the maximum electric capacity as at mid-year assuming the same number of load-hours as in 1960, i.e. 3,965 hours per annum for the pithead power-stations and 5,000 hours per annum for the steelworks-owned power-stations.

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

The following table shows the expected development of the maximum electric capacity of the power plant installed.

TABLE 12

Development of Maximum Electric Capacity

MW

Beginning of 1960	Beginning of 1961	Beginning of 1962	Beginning of 1963	Beginning of 1964	Beginning of 1965
7,754	8,406	9,184	9,583	10,351	10,705

These figures show little change from those in last year's survey. The proportion of capital expenditure going on generating plant other than pithead power-stations continues to fall, as investment is being concentrated rather on the installation of large generating condensing sets. The number of load-hours (calculated on the basis of the average annual electric capacity), which had been rising steadily (4,761 in 1955, 4,934 in 1956, 5,036 in 1957), went down in 1958 to 4,530, in 1959 to 4,185, and in 1960 to 3,965; at the same time, the number of kilowatt-hours produced by plant consuming over 4,000 calories per kWh fell from 6,100 million to 3,600 million, *i.e.* from 25% of total production to 11.3%.

Even at 3,965 hours, however, the pithead power-stations should by 1964 be producing not less than 42,000 million kWh.

In 1960, 55% of the electric current produced was sold.

Tables IV, VIII and IX annexed contain a detailed breakdown of expenditure and of the development of maximum electric capacity, together with some technical data on the operation of the pithead power-stations, number of load-hours, specific consumption (of calories per kWh), and consumption of low-grade fuels.

The steelworks-owned power-stations (which we include here in order to provide a full picture of the power-generating plants of both the coalmining and the steel industry) are expected to attain the following maximum electric capacities.

MW

Beginning of 1960	Beginning of 1961	Beginning of 1962	Beginning of 1963	Beginning of 1964	Beginning of 1965
3,122	3,274	3,546	3,566	3,693	3,788

In 1960, they produced 15,954 million kWh with an average electric capacity of 3,200 MW and 5,000 load-hours. At this performance rate they should produce approximately 19,000 million kWh in 1964.

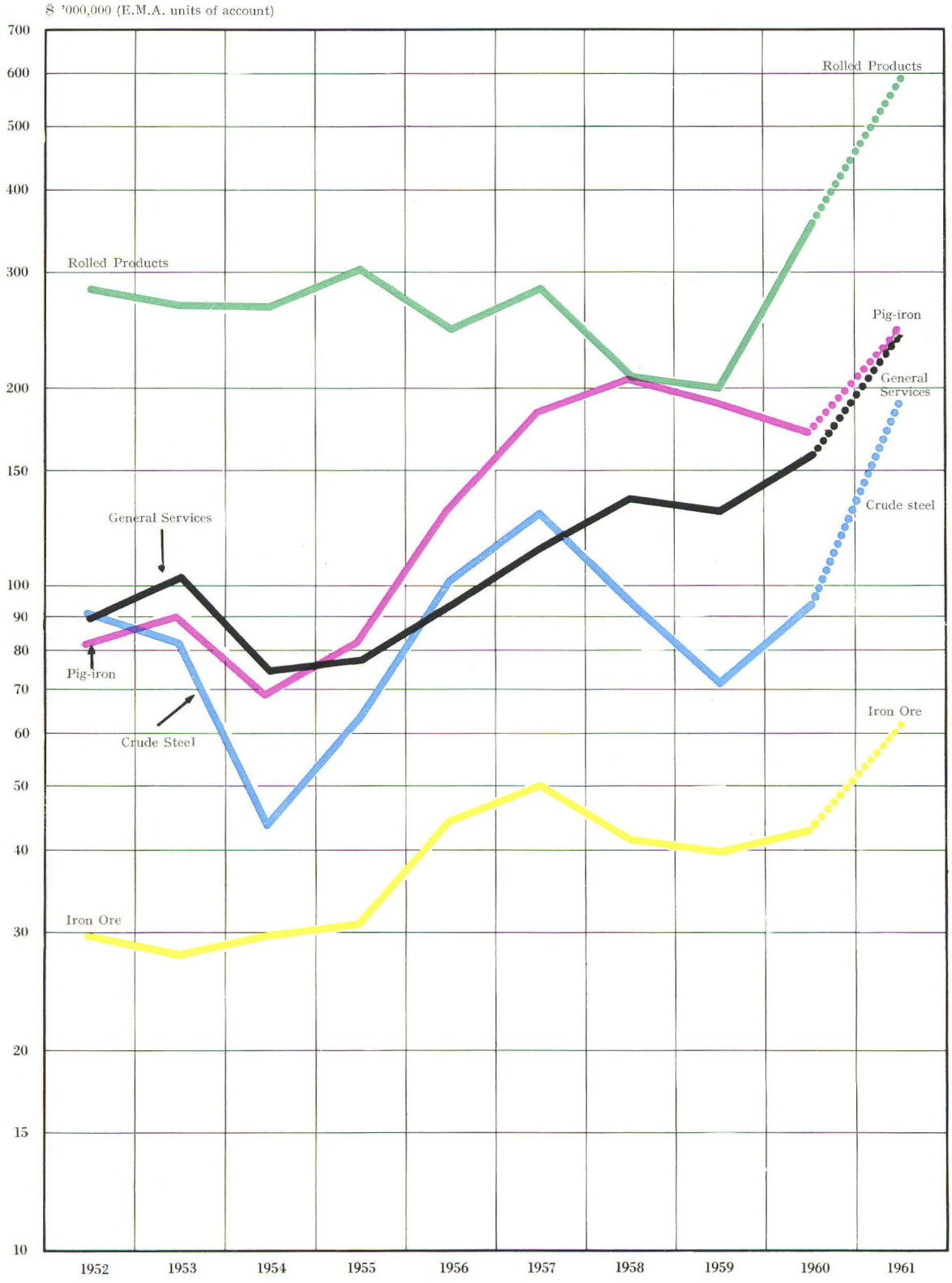
Overall production of electric current by the pithead and steelworks-owned power-stations together is thus likely to reach 42+19 thousand million = 61,000 million kWh in 1964, or 24% of the thermal-current production forecast and 17.5% of the total production of electric current forecast for the Community for 1964, according to the forward estimates issued by the Electricity Committee of O.E.E.C. (February 1961).

(e) Plants Producing B.K.B. and Low-Temperature Brown-Coal Coke

Table X annexed contains the breakdown of expenditure and expected development of production potential. The latter indicates a gradual decline in briquette production, with production of low-temperature coke expected to remain unchanged.

FIGURE 6

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



III — THE IRON-ORE MINES

Capital expenditure in the Community iron-ore mines has been, since 1956, in the region of 40 million units of account per annum, with a peak of close on 50 million in 1957. The projects declared by the enterprises suggest that the latter figure will be exceeded in 1961 and 1962. In relative value, capital expenditure on iron-ore extraction represents slightly more than 50% of total actual and estimated expenditure.

TABLE 13

Capital Expenditure in the Iron-Ore Industry, 1954 – 1962

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

Type of plant	Actual expenditure							Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Mining of ore	14.8	16.3	22.3	29.4	22.7	22.5	26.3	32.0	27.5
Preparation of ore at mine	7.3	5.9	10.6	10.9	9.6	9.2	7.8	15.4	14.0
Various surface installations	7.4	8.5	11.0	9.5	8.9	8.6	9.5	14.2	9.9
Total	**29.5**	**30.7**	**43.9**	**49.8**	**41.2**	**40.3**	**43.6**	**61.6**	**51.4**

Crude-ore extraction increased from 63.3 million metric tons on 1952 to 95.9 million in 1960, *i.e.* at a cumulative mean annual rate of 4.9%. Actual and estimated expenditure should make it possible to maintain the rate of expansion recorded to date, since extraction potential is expected to rise from 101.3 million metric tons in 1960 to 118.5 million in 1964, *i.e.* at an average annual rate of 4%. This further increase will be largely the result of the substantial capital expenditure to be effected in 1961 and 1962. Our previous report suggested, for the four years 1959 to 1963, a mean annual rate of increase of only 1.9%.

Lorraine ore accounted for 65% of total extraction in 1960, as in 1959. Its share in Community production potential is expected to rise from 62% in 1960 to 65% in 1964.

TABLE 14

Development of Ore-Crude Extraction Potential

'000,000 metric tons

Actual extraction		Extraction potential				
1952	1960	1960	1961	1962	1963	1964
65.3	95.9	101.3	106.1	109.9	114.2	118.5

IV — THE IRON AND STEEL INDUSTRY

Capital expenditure in the Community iron and steel industry in 1960 reached 785 million dollar units of account, representing an increase of 34% over the 1959 figure and of 11% over the previous record established in 1957. Expenditure approved in respect of 1961 totals 1,256 million units of account, representing a further increase of 60% over 1960. Forecasts for 1962 and 1963 are little if at all lower than those for 1961.

Notwithstanding the scale of total expenditure, the proportion invested in pig-iron and steel-production plant remained in 1960 slightly below the levels reached in the three or four previous years, with the exception of 1959 in the case of steelworks. The forecasts for 1961 and 1962, however, surpass all previous records.

TABLE 15

Capital Expenditure in the Iron and Steel Industry, 1954—1962

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

Type of plant	Actual expenditure							Estimated expenditure (projects in progress or approved as at January 1, 1961)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Plant for production of:									
pig-iron	69.8	82.9	130.5	183.5	206.1	186.8	170.6	240.6	235.9
steel	44.1	63.2	101.6	128.6	94.8	72.7	95.3	188.3	185.3
rolled products	263.1	301.1	244.9	282.4	207.0	198.6	359.9	588.1	601.6
General services	74.5	77.1	92.9	113.9	135.7	128.5	159.2	239.2	170.7
Total	**453.5**	**524.3**	**569.9**	**708.2**	**643.6**	**568.6**	**785.0**	**1256.2**	**1195.3**

FIGURE 7

Breakdown of Capital Expenditure in the Iron and Steel Industry

The trend in capital expenditure in the main sectors of the industry is indicated in Table 16 and Fig. 7. Both the projects completed in 1960 and the forecasts for 1961 and 1962 show that capital expenditure in respect of production plant for rolled products now accounts for almost half of the total expenditure, as against one-third in 1958 and 1959.

TABLE 16

Trend in Capital Expenditure in the Iron and Steel Industry

1954—1962

%

Type of plant	Actual expenditure				Estimated expenditure (projects in progress or approvede as at January 1, 1961)
	Average 1954-1955	Arerage 1956-1957	Average 1958-1959	1960	Average 1961-1962
Plants for production of:					
pig-iron	15.6	24.6	31.9	21.7	19.5
steel	11.0	18.0	13.6	12.1	15.2
rolled products	57.9	41.2	33.0	45.9	48.6
General services	15.5	16.2	21.5	20.3	16.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

In the following subsections of this report we examine one by one the four main categories of investment and their effects on production potential.

(a) Pig-Iron Production

As was forecast in the replies to the questionnaire sent out in connection with our previous investment survey, capital expenditure on pig-iron production plant has undergone a certain shrinkage in relation to previous years. From 32% of total expenditure in 1958 and 1959, its share dropped to approximately 20% in 1960, and a similar percentage is forecast for 1961 and 1962.

The decline is particularly marked in the steelworks-owned coking-plant sector. Expenditure on burden-preparation plant and on blast-furnaces, on the other hand, remains at much the same levels as in 1959 and should rise to something like 40% of total investment in 1961.

TABLE 17

Capital Expenditure on Pig-Iron Production Plant, by Types of Installation, 1954—1962

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

Type of installation	Actual expenditure							Estimated expenditure (projects in progress or approved as at January 1, 1961)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Steelworks-owned coking-plants	18.0	19.9	22.3	28.0	24.6	24.9	11.5	19.0	23.8
Burden preparation	11.6	21.1	31.5	51.5	66.7	73.5	72.1	97.7	109.7
Blast-furnaces	40.2	41.9	76.7	104.0	114.8	88.4	87.0	123.9	102.4
Total	**69.8**	**82.9**	**130.5**	**183.5**	**206.1**	**186.8**	**170.6**	**240.6**	**235.9**

In view of the modest scale of investment in steelworks-owned coking-plants, the overall increase in coke production potential from 1960 to 1964 can hardly be estimated at more than 11%. The production potential for sinter is, on the contrary, likely to double over the same period, thanks to the large amounts regularly invested in this sector since 1956-57. The increase in availabilities of sintered ore will to a great extent account for the 28% rise forecast for pig-iron production potential: the mean annual rate of increase in this sector will work out at 6.5% between now and 1964, *i.e.* at a level above the rate of 5.7% recorded for actual pig-iron production between 1952 and 1960.

TABLE 18

Development of Production Potential of Pig-Iron Production Plant

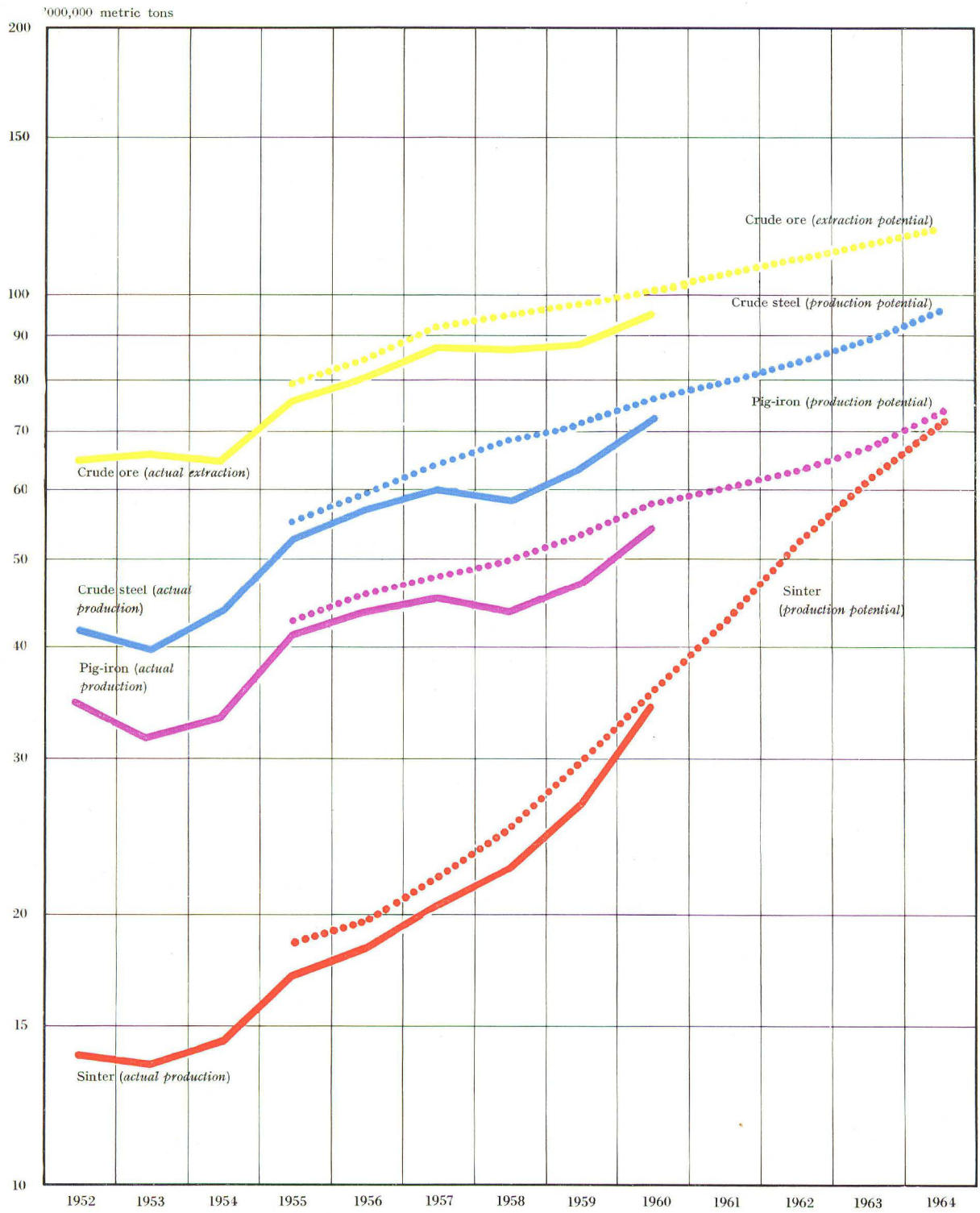
'000,000 metric ton

Product	Actual production		Production potential				
	1952	1960	1960	1961	1962	1963	1964
Coke (steelworks-owned coking-plants) [1]	15.8	21.8	23.9	24.6	24.8	25.4	26.6
Sinter	14.0	34.4	36.3	43.4	52.4	62.8	72.7
Pig-iron	34.7	54.0	57.3	60.2	63.0	67.8	73.3

[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).

FIGURE 8

Actual Production and Production Potential of the Iron and Steel Industry



(b) Steel Production

As regards the traditional steel-production processes (basic Bessemer, open-hearth and electric-furnace), capital expenditure in 1960 was, overall, much the same as in 1959: at 62.4 million dollar units of account, as against 59.9 million in 1959, it was markedly lower than in 1956, 1957 and 1958, more particularly in respect of basic Bessemer steelworks. Forecasts for 1961 and 1962 indicate a certain upturn as regards electric-furnace steelworks and even for open-hearth steelworks, whereas basic Bessemer steelworks would seem to be left out of account for good.

Capital expenditure on oxygen-steelmaking plant, on the contrary, shows a substantial upturn: both the expenditure effected in 1960 and that forecast for 1961 yield an index of 260 in relation to investment completed in 1959.

TABLE 19

Capital Expenditure on Steelmaking Plant, by Production Processes, 1954—1961

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

Production process	Actual expenditure							Estimated expenditure (projects in progress or approved as at January 1, 1961)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Basic Bessemer	13.9	17.2	22.4	45.1	49.7	33.8	23.2	31.3	21.3
Open-hearth	20.1	30.7	53.9	51.6	27.4	17.6	29.4	47.3	27.9
Electric-furnace	10.1	15.3	17.2	16.4	10.6	8.5	9.8	22.4	17.4
L/D, Rotor and others			8,1	15.3	7.1	12.8	32.9	87.3	118.7
Total	**44.1**	**63.2**	**101.6**	**128.6**	**94.8**	**72.7**	**95.3**	**188.3**	**185.3**

Projects approved by the heads of Community enterprises as at January 1, 1961, should increase crude-steel production potential from 76.2 million metric tons in 1960 to 95.6 million in 1964. Projects planned but not yet approved and projects the effects of which will not be felt until after 1964 are on a scale sufficient to bring production potential up to more than 100 million tons by 1965.

A small proportion of the 19.4-million-ton increase planned over the next four years will be accounted for by the traditional steelmaking processes. Expenditure on basic Bessemer steelworks will not suffice to maintain the production potential for this quality of steel at its present level: a slight drop is forecast for 1964 and is likely to become more marked in the course of the following years. A similar decline is forecast for open-hearth steel, but this would not seem likely to assume any appreciable proportions after 1964. The production potential for electric-furnace steel should increase by 1.5 million metric tons over the next four years, while that for oxygen-blown steel should go up, over the same period, by 16.9 million metric tons, *i.e.* by more than four-fifths of the total increase expected between now and 1964: this upward surge is not likely to come to a sudden halt at that date.

TABLE 20

Development of Crude-Steel Production Potential, by Production Processes

'000,000 metric tons

Production process	Actual production		Production potential				
	1952	1960	1960	1961	1962	1963	1964
Basic Bessemer	23.0	35,9	37.2	37.9	38.7	38.3	36.4
Open-hearth	15.2	27.5	28.6	29.6	30.6	31.1	30.4
Electric-furnace	3.3	7.6	8.4	8.7	9.2	9.8	9.9
L/D, Rotor and others	0.3	1.8	2.0	3.2	4.9	9.3	18.9
Total, crude steel	**41.8**	**72.8**	**76.2**	**79.4**	**83.4**	**88.5**	**95.6**

From 1960 to 1964 the mean annual rate of increase is thus expected to rise to 5.8%, notwithstanding the slackening of investment activity in respect of the traditional steelmaking processes, as a result of the exceptionally high rate of growth expected in the case of L/D and other steels.

Though fairly high, this rate of 5.8% remains below that for actual production from 1952-to 1960 and that forecast for pig-iron production potential from 1960 to 1964. A slight improvement in the ratio of pig-iron to steel production potential may thus be forecast, notwithstanding the modest expenditure on blast-furnaces on the one hand and the large amounts invested in oxygen-steelmaking plant on the other.

FIGURE 9

Pig-iron - Steel Ratio

(kg of pig-iron per ton of crude steel)

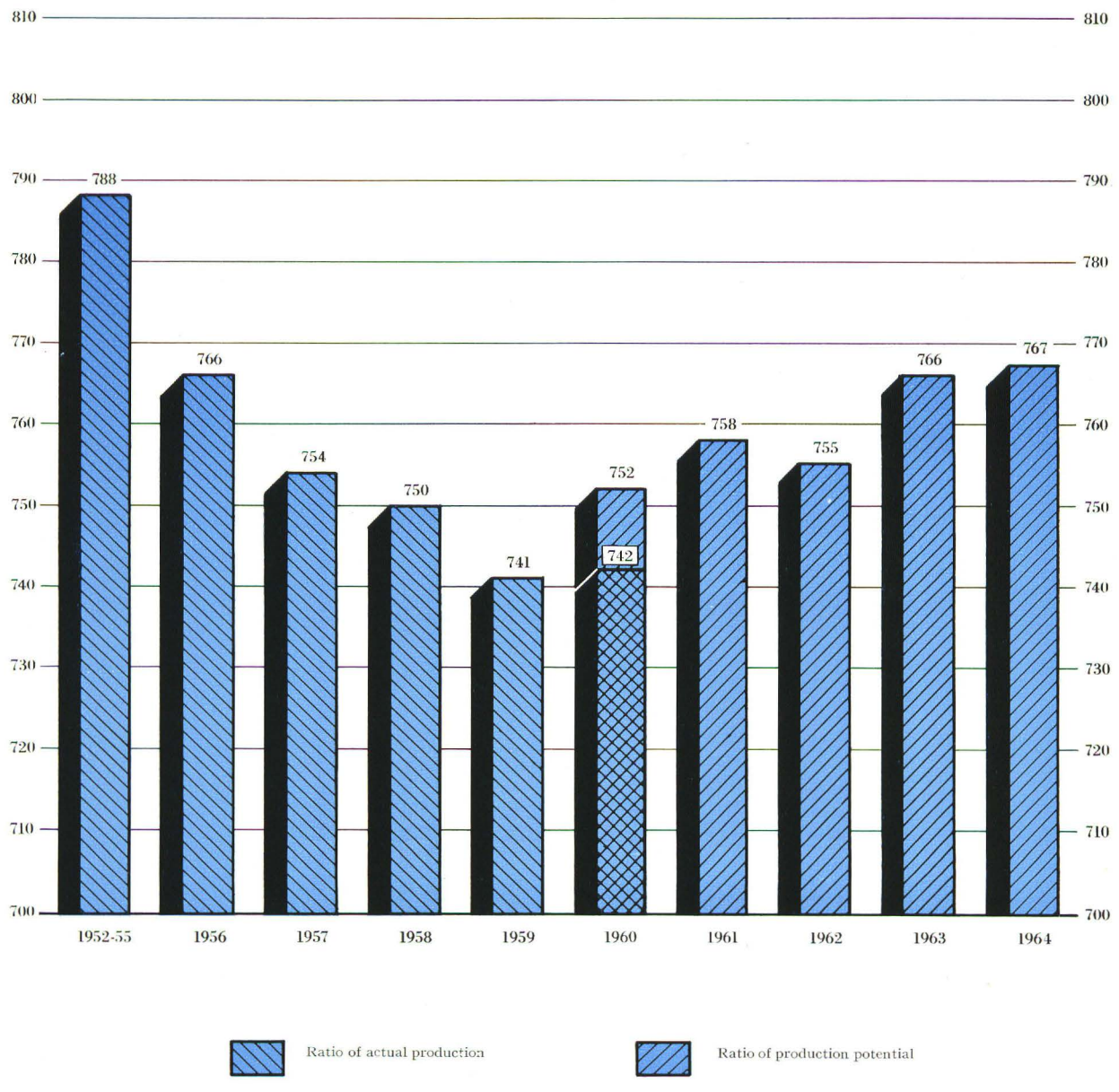


FIGURE 10

Actual Production and Production Potential of Crude Steel by Production Processes

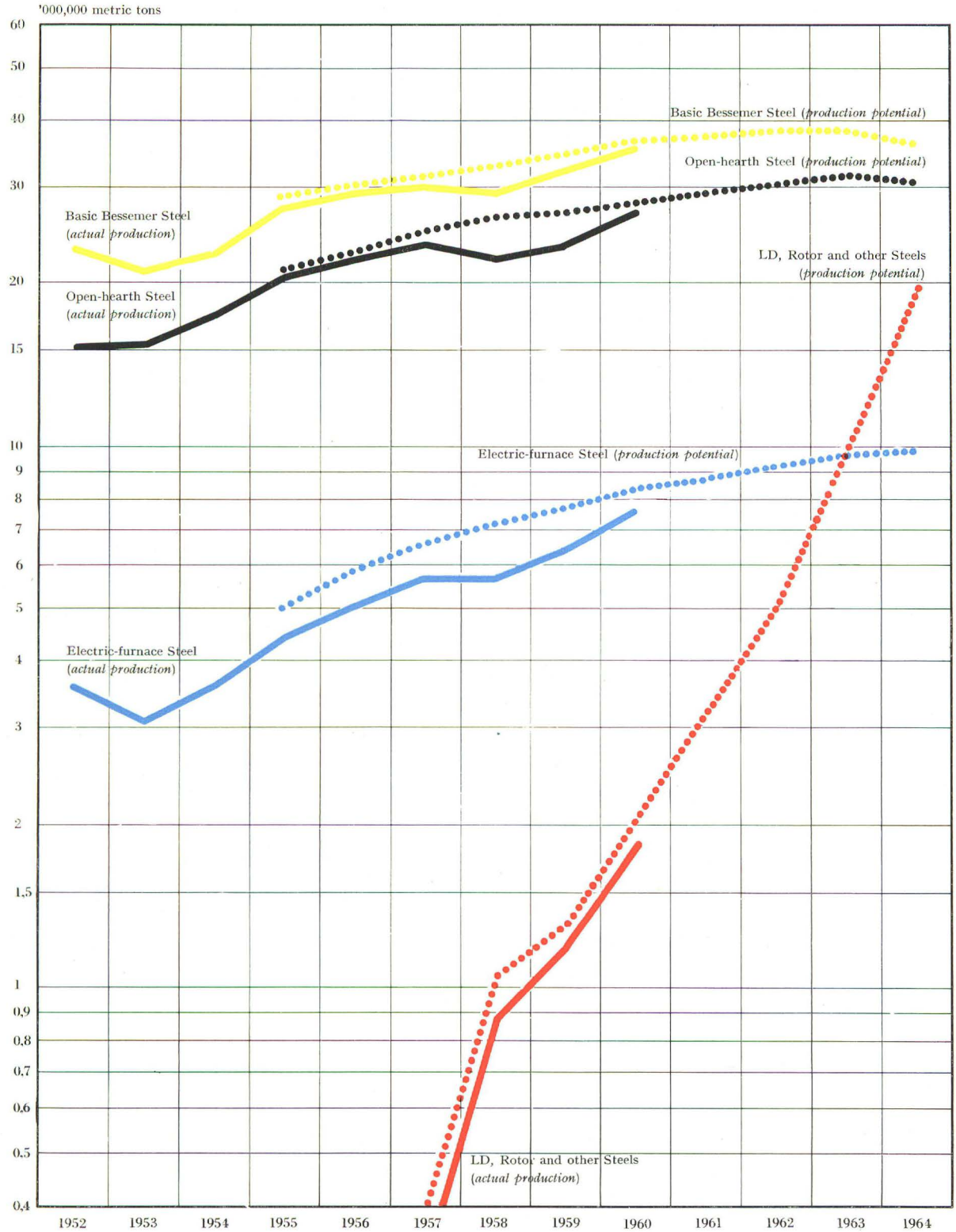


TABLE 21

Mean Annual Rate of Development of Crude-Steel Production, by Production Processes

%

Production process	Mean annual rate of increase in actual production 1952-1960	Mean annual rate of increase in production potential 1960-1964
Pig-iron (for comparison)	**5.7**	**6.3**
Basic Bessemer	5.7	—0.5
Open-hearth	7.7	0.8
Electric-furnace	11.0	2.1
L/D, Rotor and others	25.1	32.4
Total, crude steel	**7.2**	**5.8**

This being so, the share of basic Bessemer and open-hearth steels in the production potential may be expected to diminish rapidly, yielding ground to the L/D and other processes.

TABLE 22

Share of the Different Steel Production Processes in Total Production Potential, 1960—1964

%

Production process	Actual share in 1960	Estimated share in 1964
Basic Bessemer	48.8	38.1
Open-hearth	37.6	31.8
Electric-furnace	11.0	10.3
L/D, Rotor and others	2.6	19.8
Total	**100.0**	**100.0**

(c) Production of Rolled Products

Capital expenditure on rolling-mills and ancillary plant accounted for approximately 58% of total investment in the iron and steel industry in 1954 and 1955, 41% in 1956 and 1957, and 33% in 1958 and 1959. The figures for 1960 show a sharp reversal of the trend, with the percentage up again to 46%. Forecasts for 1961 and 1962 suggest a further rise to an average of approximately 49%, which would not seem to be an excessive estimate (see Table 16).

TABLE 23

Capital Expenditure on Rolling-Mills, 1954–1962

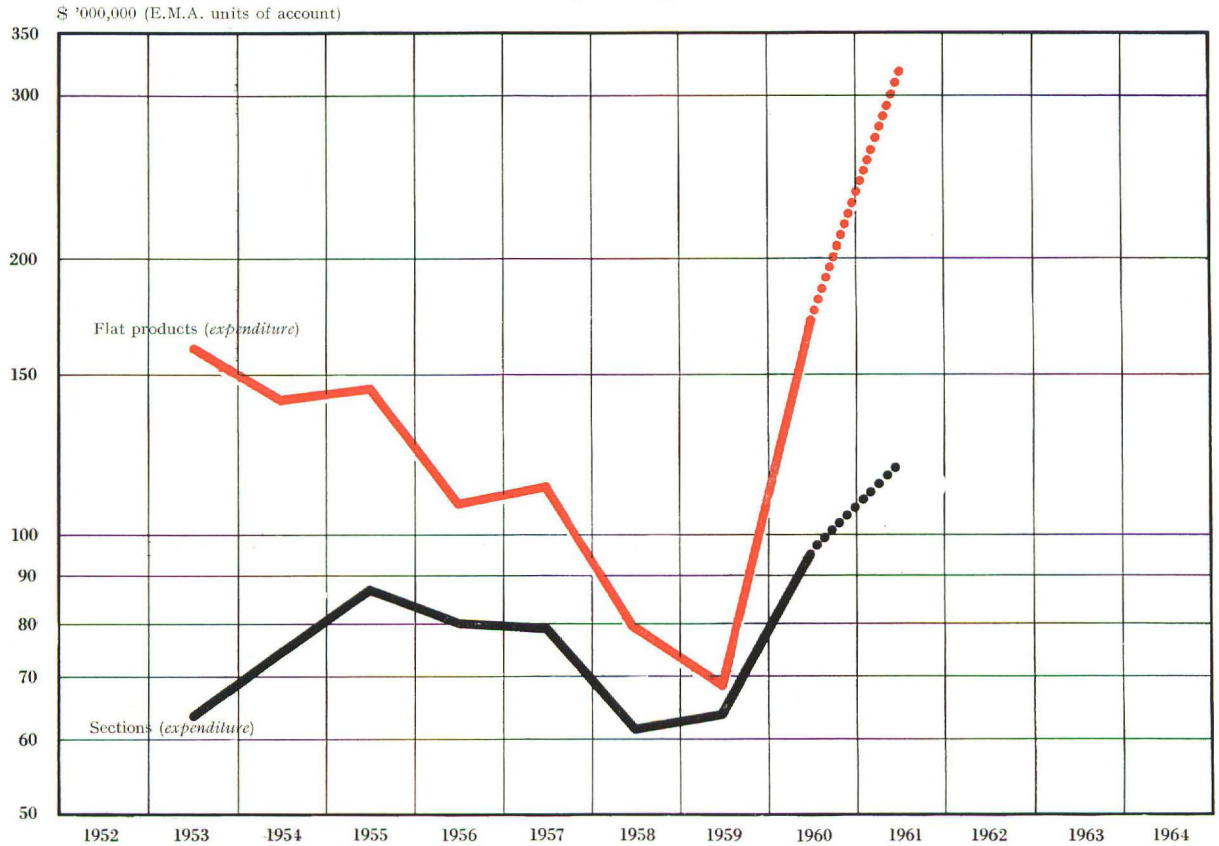
$ '000,000 (E.M.A. units of account)

Type of mill	Actual expenditure							Estimated expenditure (projects in progress or approved as at January 1, 1961)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Heavy and medium-section mills	29.1	35.8	28.6	32.5	30.1	44.7	64.8	63.8	63.1
Small-bar mills	29.8	38.7	37.7	32.4	25.7	15.2	17.2	26.1	37.5
Wire mills	15.5	12.4	14.0	14.3	5.6	4.4	15.8	35.1	55.7
Total, section mills	*74.4*	*86.9*	*80.3*	*79.2*	*61.4*	*64.3*	*97.8*	*125.0*	*156.3*
Hoop and strip mills	13.6	12.5	5.6	12.5	5.7	2.8	7.1	13.7	16.2
Plate and universal mills	41.3	36.3	24.2	36.5	20.6	15.3	24.8	45.5	54.0
Hot sheet mills	4.3	3.6	1.8	2.0	2.3	3.2	4.1	5.9	0.5
Cold sheet mills	3.6	2.8	0.7	0.1	0.7	0.5	0.6	0.6	—
Hot wide-strip mills	31.6	35.8	30.3	31.9	16.2	16.0	21.1	70.3	105.6
Cold wide-strip mills	45.2	52.6	44.4	28.5	32.4	29.8	114.1	183.7	126.2
Total, flat-product mills	*139.6*	*143.6*	*107.0*	*111.5*	*77.9*	*67.6*	*171.8*	*319.7*	*302.5*
Blooming and slabbing mills	23.1	41.3	31.2	45.1	31.6	40.4	47.3	80.1	92.9
Miscellaneous	28.0	29.3	26.4	46.6	36.1	26.3	43.0	63.3	49.9
Total	**265.1**	**301.1**	**244.9**	**282.4**	**207.0**	**198.6**	**359.9**	**588.1**	**601.6**

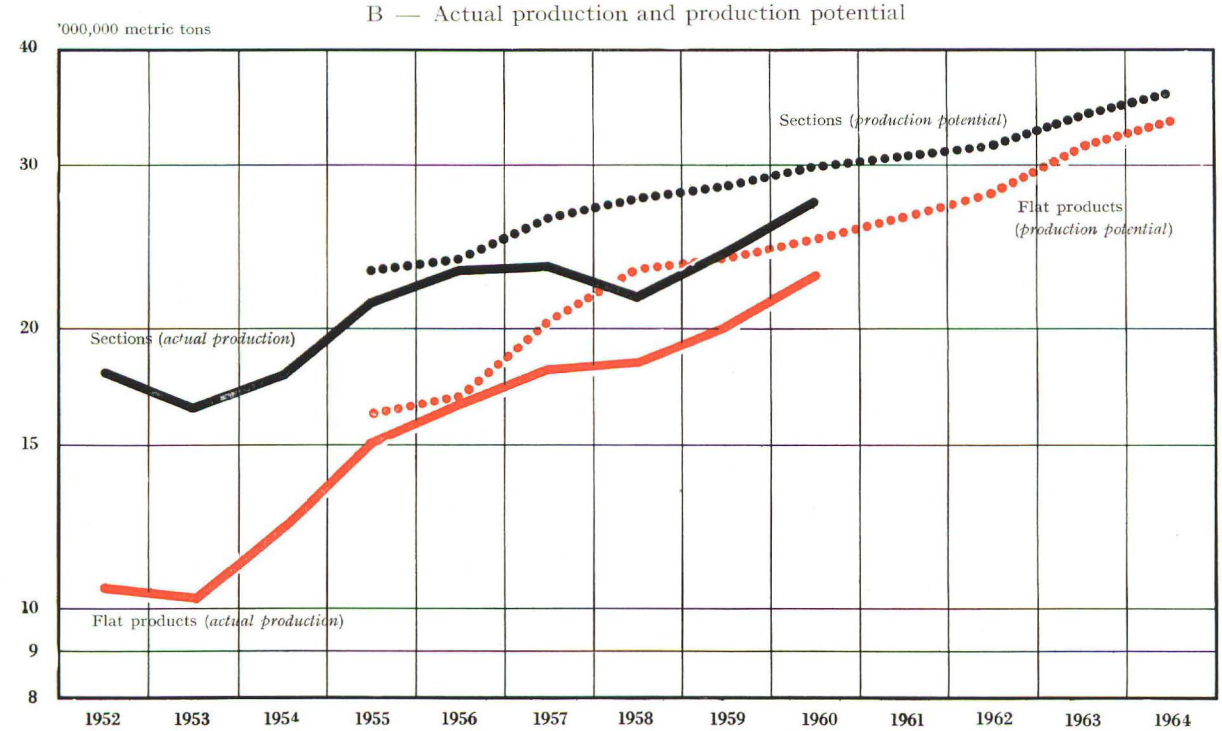
FIGURE 11

Sections and Flat Products

A — Capital expenditure



B — Actual production and production potential



From 1955 to 1959 capital expenditure on all types of rolling-mill declined fairly steadily, with the sole exception of the year 1957. The recovery which set in 1960 affected all the major sectors, except perhaps the small-bar mills. It was especially marked in the case of wide-strip mills: capital expenditure on these (both hot and cold) rose from 23% of total expenditure on all types of mill and ancillary plant in 1969 to 37% in 1960 and is expected to go up to an average of 41% over the two years 1961-62.

TABLE 24

Share of Different Types of Rolling-Mill in Capital Expenditure, 1954—1962

%

Type of mill	Average share 1954—1958	1959	1960	Estimated average share 1961 - 1962
Section mills	29	33	27	24
Flat-product mills	45	34	48	52
(of which: wide-strip mills)	(27)	(23)	(37)	(41)
Blooming and slabbing mills	13	20	13	15
Miscellaneous	13	13	12	9
Total	**100**	**100**	**100**	**100**

While actual production of sections and flat products increased from 1952 to 1960 at a cumulative mean annual rate of 5.3 and 10.2% respectively, the production potentials of these two sectors will continue to rise up to 1964 at a rate of only 4.5 and 6.6% respectively. The falling-off in the rate of increase will affect all types of finished rolled product, and more particularly plate, hoop and strip und tube strip. Cold-rolled sheet and wire-rod will maintain an average rate of approximately 14.8 and 8.2% respectively.

From 1960 to 1964, the production potential for flat products will go up from 45.7 to something like 47.7% of the total production potential for finished rolled products; in 1952, it accounted for no more than 37% of the total. Over the same four years, the proportion of steel to be rolled in continuous and semi-continuous rolling-mills will rise from 48.9 to 58.1%: in 1960, actual production from this type of mill for the first time accounted for slightly more than 50% of total rolling-mill production.

TABLE 25

Mean Annual Rate of Development of Production of Rolling-Mills, by Types of Finished Products

Product	Actual production			Production potential		
	1952 ('000,000 m.t.)	Cumulative mean annual rate of increase in %	1960 ('000,000 m.t.)	1960 ('000,000 m.t.)	Cumulative mean annual rate of increase in %	1964 ('000,000 m.t.)
Heavy and light sections, incl. tube rounds and squares	15.2	+ 4.7	21.9	24.5	+ 3.6	28.2
Wire-rod	2.8	+ 8.6	5.4	5.9	+ 8.2	8.1
Total, sections	*18.0*	*+ 5.3*	*27.3*	*30.4*	*+ 4.5*	*36.3*
Hoop and strip and tube strip	2.3	+ 9.0	4.7	5.4	+ 2.2	5.9
Plate of 3 mm. and over	4.3	+ 7.7	7.8	9.3	+ 3.3	10.6
Hot-rolled sheet of under 3 mm.	3.1	— 0.8	3.0	3.2	—	3.2
Cold-rolled sheet of under 3 mm.	0.8	+32.1	7.4	7.7	+ 14.8	13.4
Total, flat products	*10.5*	*+10.2*	*22.9*	*25.6*	*+ 6.6*	*33,1*
Total, rolled products	**28.5**	**+ 7.3**	**50.2**	**56.0**	**+ 5.6**	**69.4**
(of which: products rolled in continuous and semi-continuous mills)	(.)	(.)	(25.1)	(27.4)	(+ 9.8)	(39.9)

Among the semi-finished products special mention must be made of those produced on hot wide-strip mills (in coils or flat). The production potential of these mills increased from 2.8 million metric tons in 1954 to 11 million in 1960. According to producers' forecasts it is expected to be as high as 18.5 million tons in 1964 and to exceed 21 million in 1965.

(d) General services

Capital expenditure on power-generating plant and other general services has been increasing fairly steadily since 1954.

The 159.2 million dollar units of account invested in 1960 represent more than twice the expenditure for 1954. According to producers' forecasts even this high 1960 figure will be exceeded by more than 50% in 1961.

FIGURE 12

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

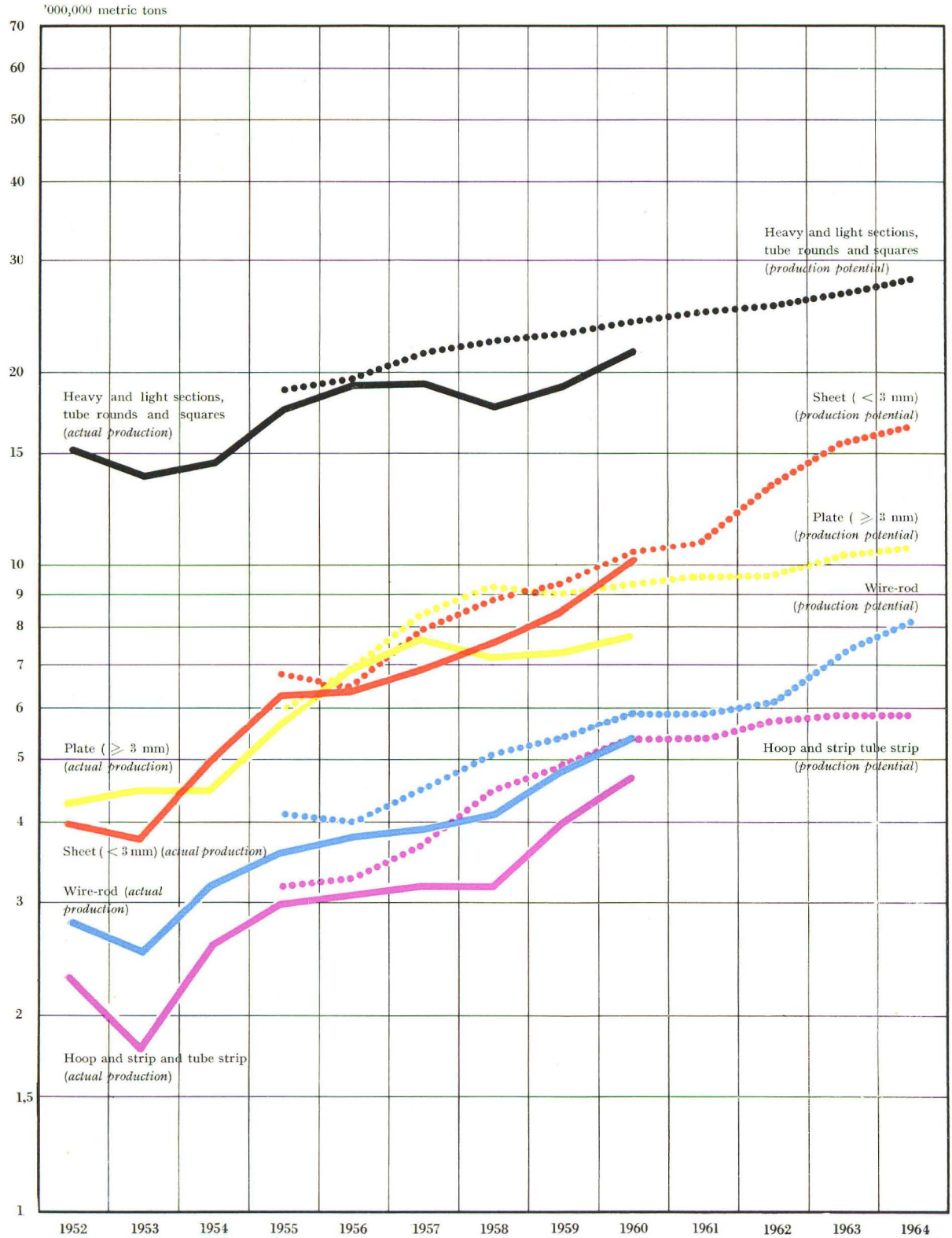


FIGURE 13

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

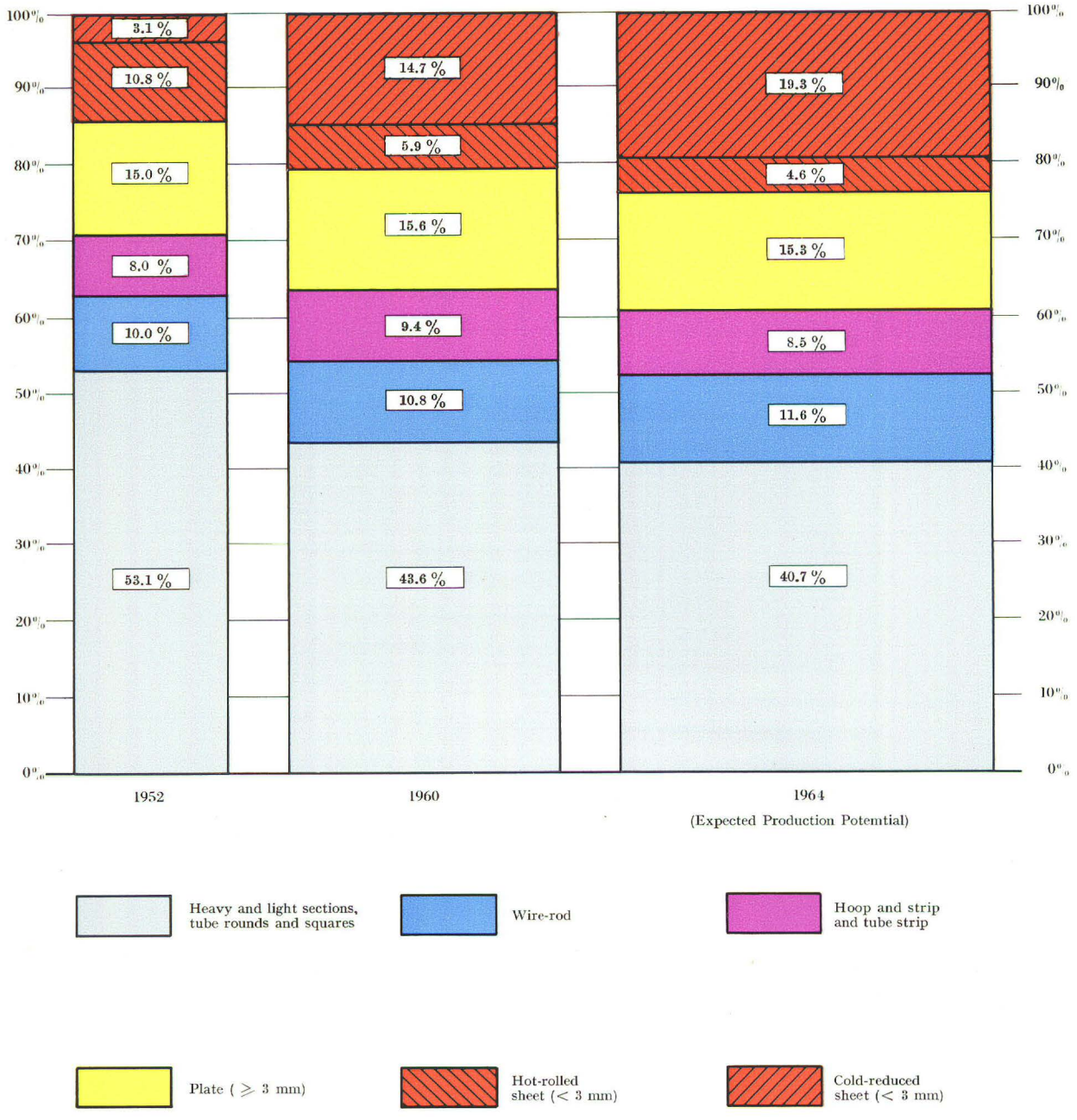


TABLE 26

Capital Expenditure on the General Services of the Iron and Steel Industry, 1954—1962

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

Type of installation	Actual expenditure							Estimated expenditure (projects in progress or approved as at January 1, 1961)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Power-generating plant and distribution networks	43.0	39.3	32.0	43.2	56.8	58.8	61.2	87.7	53.3
Miscellaneous	31.5	37.8	60.9	70.7	78.9	69.7	98.0	151.5	117.4
Total	**74.5**	**77.1**	**92.9**	**113.9**	**135.7**	**128.5**	**159.2**	**239.2**	**170.7**

The increase in capital expenditure is particularly marked in the case of the general services and that of civil-engineering operations in connection with the extension of existing works and the construction of new integrated works in coastal areas.

The effects of this capital expenditure on power-generating plant on the production potential for electric current were examined earlier in this report in connection with the expectep evelopment of pithead power-stations (cf. Section II and Fig. 5).

V — CONCLUSIONS

The current forecasts for *hard-coal* production potential in the years ahead are lower than those given in the 1960 survey, which in their turn were lower than the 1959 and 1958 figures.

A further drop is possible, but the 252 million metric tons indicated for 1964 may be set against the Community's 1960 consumption of 250 million, of which 98 million was accounted for by the coking-plants and 43 million by the power-stations. The sales outlets for coal are becoming more and more concentrated on electricity production and the iron and steel industry.

If coal's share in the production of thermal *current* still stands at 62% in 1964, with that production increased to 251,000 million kWh and specific consumption reduced to 0.4 kg/kWh, consumption by the Community power-stations should reach a total of approximately 63 million metric tons.

The maximum production of the *coking-plants* in 1964, given 96% utilization of their aggregate production potential, may be expected to work out at about 87 million metric tons. This would represent an input of about 113 million metric tons of coking coal.

It is unlikely that demand from coke consumers outside the iron and steel industry will remain at its 1959 and 1960 level of approximately 25 million metric tons. This would mean that at least 62-63 million metric tons were available for the iron and steel industry, which would cover the maximum requirements now indicated for the blast-furnaces and sintering-plants.

Although the level of capital expenditure on the *iron-ore mines* remains high, the rate of growth of the Community's ore availabilities will still be somewhat lower than that of blast-furnace requirements. There will be a continuing large absolute and small relative increase in imports.

As a result of the capital schemes effected and planned in the *pig-iron* sector, 1964 should, given 96% utilization of production potential, see a maximum production of about 70 million metric tons of sintered ore and 70 million metric tons of pig-iron. Assuming specific-consumption rates of 825 kg. per metric ton of pig-iron (as against 883 kg. in 1960) and 70 kg. per metric ton of sinter, we may expect the corresponding coke requirements to come to just about the 63 million metric tons referred to above.

Investment in the *steelworks* suggests a maximum crude-steel production in 1964 of 91.5 million metric tons (given 96% utilization of potential). Availabilities of pig-iron for this purpose would amout to some 66 million metric tons, the remaining 4 million going to the foundries.The ratio of 720 kg. pig-iron per metric ton of steel would appear compatible with the indicated breakdown of maximum steel production, *viz.* 35 million metric tons basic Bessemer, 29 million open-hearth, 9.5 million electric-furnace and 18 million oxygen-blown. This last figure is indicative of the very rapid and sustained increase in the share of the new steelmaking processes.

While the production-potential figures indicated for the various stages in the iron and steel industry seem to dovetail satisfactorily with one another, it is less certain that they are properly in line with the probable outlets. Pending the publication of the new General Objectives of the Community at the end of this year, we may compare the mean annual increase of 7.2% in actual crude-steel production from 1952 to 1960 with the lower rate of 5.8% which will be required to bring production from 72.8 million metric tons in 1960 to the 91.5 million indicated by the declarations for 1964. However even given this drop in momentum, the tonnages declared remain high.

The *rolling-mill* sector accounts for close on half the capital expenditure of the Community iron and steel industry. It is at least as important that the capacities of the various types of mill should be tailored to the various demands for rolled products as that the steelworks should be brought into line with overall crude-steel requirements. The forthcoming General Objectives will detail how far these various equilibria are likely to be attained.

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.

The term does not, however, cover the financing of workers' housing schemes, financial participations 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, 1961;*

B — *Projects approved but not yet in progress on January 1, 1961;*

C — *Other projects planned to be started between January 1, 1961, and December 31, 1963.*

In the case of the iron and steel industry 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 onwards
Germany (Fed. Rep.)	DM.	4.20	4.20	4.20	4.20[4]
Belgium/Luxembourg	Bfr./Lfr.	50	50	50	50
France[1]	Ffr.[2]	350	377[3]	420	4.93[2]
Italy	Lit.	625	625	625	625
Netherlands	Hfl.	3.80	3.80	3.80	3.80[4]

[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]) The revaluation of the German and Dutch currencies took place in March 1961, *i.e.* after the completion of this survey, which shows the position as at January 1, 1961; hence no account has been taken of the new exchange rates of these two currencies.

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 it 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 1960 of only about 1.8 million metric tons (of which 0.8 million not shown in any official statistics), out of 232.9 million, *i.e.* less than 0.8 %.

(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

A distinction has been drawn between *power-stations proper* and *power-generating plant at the mines*. The following definitions have been adopted.

Power-stations proper means all power-stations with a maximum electric capacity exceeding or likely to exceed 25,000 kW after completion of development projects of all types (A + B + C).

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 busbars 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 busbars 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.

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 of 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 1960. The production potentials mentioned in this report therefore exceed those actually declared by a certain percentage which varies from sector to sector but is in no case greater than 1.8 %.

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 1960. 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.

II — STATISTICAL TABLES

COAL

IRON ORE

STEEL

HARD-COAL COLLIERIES

Investment

TABLE I

Capital Expenditure by Coalfields

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

Coalfield	Actual Expenditure							Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Ruhr	83.23	103.14	97.76	121.51	122.05	100.66	107.20	160.39	109.71
Aachen	9.07	8.61	7.62	7.37	12.54	10.78	8.47	9.58	6.30
Lower Saxony	4.09	2.60	3.39	5.41	5.34	6.03	4.01	5.83	2.38
Saar	15.16	11.97	16.21	19.80	18.76	15.39	20.33	28.76	25.43
Campine	13.45	12.89	17.20	18.33	17.01	9.52	6.63	11.52	9.88
Southern Belgium	24.58	22.87	25.19	27.22	21.46	13.81	9.56	13.51	11.05
Nord/Pas-de-Calais	38.42	36.86	30.69	29.63	24.94	25.27	30.22	24.32	21.76
Lorraine	28.07	27.84	27.16	26.73	21.43	16.40	19.79	14.56	14.67
Centre/Midi	12.84	10.35	10.21	11.30	11.14	9.78	8.71	7.87	7.43
Sulcis and La Thuile	1.28	2.40	0.17	1.60	1.12	0.55	0.92	0.52	0.51
Limburg	11.60	16.87	12.96	12.55	12.63	18.63	10.15	13.08	12.15
Total	**241.79**	**256.40**	**248.56**	**281.45**	**268.42**	**226.82**	**225.99**	**289.94**	**221.27**

MINE-OWNED AND INDEPEDENT COKING-PLANTS [1])

Investment

TABLE II

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Mine-owned coking-plants									
Ruhr	32.55	24.83	22.00	29.91	34.78	32.92	19.41	23.58	16.86
Aachen	1.43	0.34	1.37	4.65	1.18	0.55	0.31	1.48	1.03
Lower Saxony	0.01	0.05	0.06	—	—	—	—	—	—
Saar	2.31	2.03	3.73	5.60	11.39	7.98	2.40	3.29	5.21
Belgium and the Netherlands	9.70	4.85	4.18	3.34	3.05	3.49	0.97	2.73	2.46
Nord/Pas-de-Calais	7.29	7.61	5.40	8.17	8.00	6.78	5.25	8.00	5.50
Lorraine	13.55	12.01	8.81	5.69	2.07	1.64	2.94	9.02	10.27
Centre-Midi	1.01	0.50	0.68	2.12	2.93	2.44	1.12	2.36	0.50
Total	*67.85*	*52.22*	*46.23*	*59.48*	*63.40*	*55.80*	*32.40*	*50.46*	*41.83*
Independent coking-plants									
Belgium and the Netherlands	2.02	0.45	1.05	1.96	5.57	3.55	1.07	0.86	—
France [2])	15.47	10.31	6.63	—	—	—	—	—	—
Italy	2.00	1.56	3.39	6.59	3.27	1.10	0.58	2.82	3.06
Total	*19.49*	*12.32*	*11.07*	*8.55*	*8.84*	*4.65*	*1.65*	*3.68*	*3.06*
Grand Total	**87.34**	**64.54**	**57.30**	**68.03**	**72.24**	**60.45**	**34.05**	**54.14**	**44.89**

[1]) Including low- and medium-temperature coking-plants.
[2]) Exclusive of Gaz de France from 1957.

HARD-COAL BRIQUETTING-PLANTS

Investment

TABLE III

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Ruhr	0.85	2.42	0.96	0.91	0.50	1.05	0.22	0.84	1.88
Aachen	—	0.09	0.07	0.16	—	0.14	—	0.14	0.14
Lower Saxony	0.05	0.08	0.01	0.01	0.03	0.12	0.11	0.48	0.02
Southern Belgium	0.49	0.81	0.72	0.96	0.85	0.61	0.60	0.72	0.99
Nord/Pas-de-Calais	0.57	1.95	0.86	1.38	0.98	2.31	3.47	1.48	0.14
Centre/Midi	0.66	0.93	0.92	0.26	0.63	0.89	1.38	1.11	1.13
France (independent plants)	0.99	0.77	0.61	1.04	0.41	0.21	0.20	0.21	0.11
Limburg	0.24	0.27	0.36	0.02	0.06	0.05	1.12	0.55	0.52
Total	**3.85**	**7.32**	**4.51**	**4.74**	**3.46**	**5.38**	**7.10**	**5.53**	**4.93**

PITHEAD POWER-STATIONS [1]

Investment

TABLE IV

Capital Expenditure by Areas

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

Area	Actual Expenditure							Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Ruhr	58.35	45.07	46.08	55.11	52.18	56.38	65.01	60.69	52.65
Aachen	0.66	0.73	0.58	0.31	0.55	0.99	4.50	9.82	5.36
Lower Saxony	5.67	0.98	0.28	1.09	0.86	0.32	0.07	2.56	5.95
Saar	1.89	4.96	6.36	7.55	6.00	5.68	9.76	10.00	9.22
Campine	3.44	2.87	3.22	2.62	3.00	3.44	8.74	2.48	2.62
Southern Belgium	5.00	1.59	11.65	12.90	23.40	24.41	10.03	9.36	4.20
Nord/Pas-de-Calais	8.90	10.72	11.81	15.07	10.51	7.45	3.67	8.27	7.76
Lorraine	11.21	5.70	9.50	11.26	15.48	7.81	2.18	1.76	0.69
Centre/Midi	9.63	3.21	1.58	4.80	10.30	6.44	2.48	1.40	0.46
Sulcis and La Thuile	3.41	1.57	0.16	0.45	0.88	0.05	0.03	—	—
Limburg	3.57	2.53	3.31	5.99	1.83	0.46	0.31	0.99	2.86
Total	**111.73**	**79.93**	**94.53**	**117.15**	**124.99**	**113.43**	**106.78**	**107.33**	**91.77**
of which									
for pithead power-stations	88.47	63.91	81.19	101.66	111.21	103.75	98.41	93.77	82.25
for power-generating plant at mines	23.26	16.02	13.34	15.49	13.78	9.68	8.37	13.56	9.52

[1] Pithead power-stations proper and other power-generating plant at mines.

HARD COAL

Extraction

TABLE V

Extraction and Extraction Potential by Coalfields

'000,000 metric tons net

Coalfield	Actual extraction potential			Actual extraction 1960	Expected extraction potential			
	1954	1955	1960		1961	1962	1963	1964
Ruhr	124.32	127.68	125.56	114.92	125.05	126.97	128.84	129.89
Aachen	7.26	7.55	8.04	8.19	8.21	8.21	8.31	8.41
Lower Saxony	2.50	2.66	2.25	2.39	2.02	2.05	2.07	2.08
Saar	17.12	17.65	16.54	16.23	16.21	16.55	16.71	16.71
Campine	10.26	10.46	11.32	9.39	11.63	12.04	12.09	12.11
Southern Belgium	21.20	21.93	15.87	12.89	14.01	14.02	14.19	14.56
Nord/Pas-de-Calais	29.37	29.37	30.00	28.94	29.00	29.00	29.00	29.00
Lorraine	13.60	13.60	15.70	14.70	15.50	15.00	15.00	14.50
Centre/Midi	13.03	13.03	13.07	12.09	11.97	11.95	11.70	11.60
Sulcis and La Thuile	1.35	1.35	0.80	0.69	0.83	0.89	1.00	1.00
Limburg	12.98	12.98	12.31	12.50	12.38	12.62	12.62	12.62
Total	**252.99**	**258.26**	**251.46**	**232.93**	**246.81**	**249.30**	**251.53**	**252.48**

N.B. The above table does not take into account the extraction of some mines of small capacity 1.8 million metric tons in 1960 of which 0.8 million metric tons from the "small" German mines, which do not figutre in the official production statistics.)

COKE

Production

TABLE VI a

Production and Production Capacity by Areas

'000,000 metric tons

Area	Actual capacity				Actual production 1960 [1]	Expected production			
	Beginning 1954	Beginning 1955	Beginning 1960	Beginning 1961		Beginning 1962	Beginning 1963	Beginning 1964	Beginning 1965
Mine-owned coking-plants									
Ruhr	35.50	36.13	39.68	40.89	31.72	40.33	39.66	40.43	40.65
Aachen [2]	1.07	1.30	1.93	1.94	1.93	1.97	1.97	1.97	1.97
Lower Saxony	0.27	0.27	0.15	—	0.07	—	—	—	—
Saar	0.76	0.88	1.63	1.55	1.46	1.62	1.89	2.25	2.25
Belgium and the Netherlands	3.57	4.43	4.51	4.51	4.29	4.69	4.72	4.72	4.72
Nord/Pas-de-Calais	3.76	3.70	4.89	4.91	4.80	4.91	5.51	5.50	5.50
Lorraine	0.67	0.66	1.94	1.87	1.87	2.27	2.67	3.08	3.08
Centre/Midi	0.59	0.57	0.76	0.83	0.71	0.83	0.94	0.94	0.94
Total	*46.19*	*47.94*	*55.49*	*56.50*	*46.85*	*56.62*	*57.36*	*58.89*	*59.11*
Independent coking-plants									
Belgium and the Netherlands	1.62	1.81	1.92	1.92	1.78	1.92	1.92	1.92	1.92
France [3]	1.68	1.85	—	—	—	—	—	—	—
Italy	1.74	1.77	2.36	2.52	1.79	2.52	2.61	2.46	2.61
Total	*5.04*	*5.43*	*4.28*	*4.44*	*3.57*	*4.44*	*4.53*	*4.38*	*4.53*
Steelworks-owned coking-plants									
Germany	4.62	5.06	7.23	11.12	9.50	11.12	10.86	11.19	11.19
Saar	3.09	3.10	3.67						
Belgium and the Netherlands	5.02	5.11	5.78	6.29	5.95	6.40	6.49	6.49	6.49
France	3.53	4.12	4.57	4.70	4.41	4.62	4.70	4.77	4.77
Italy	1.36	1.36	2.18	2.23	1.89	2.67	2.67	3.99	5.04
Total	*17.62*	*18.75*	*23.43*	*24.34*	*21.75*	*24.81*	*24.72*	*26.44*	*27.49*
Grand Total	**68.85**	**72.12**	**83.20**	**85.28**	**72.17**	**85.87**	**86.61**	**89.71**	**91.13**

[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 (140,000 metric tons produced in 1960).

[3] Exclusive of Gaz de France after the beginning of 1955.

LOW- AND MEDIUM-TEMPERATURE COKE

Production

TABLE VI b

Production and Production Capacity

ooo' metric tons

	Actual capacity				Actual production 1960	Expected capacity			
	Beginning 1954	Beginning 1955	Beginning 1960	Beginning 1961		Beginning 1962	Beginning 1963	Beginning 1964	Beginning 1965
Mine-owned plants	413	569	452	412	399	447	447	447	447
Steelworks-owned plants	—	—	—	—	—	—	—	—	

COKING-PLANTS

Technical Data

TABLE VI c

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

Type of coal	1954		1955		1958		1959		1960	
	'000 metric tons	%	'000 metric tons	%	'000 metric tons	%	'000 metric tons	%	'000 metric tons	%
Group V [1]	62 341	*78.9*	70 770	*77.9*	72 061	*75.1*	68 590	*75.7*	70 900	*73.7*
Group VI [1]	11 795	*14.9*	14 541	*16.0*	18 566	*19.4*	16 958	*18.7*	19 496	*20.3*
Other groups	4 680	*5.9*	5 215	*5.7*	4 735	*4.9*	4 470	*4.9*	4 985	*5.2*
Coke breeze and low-temperature coke breeze	228	*0.3*	366	*0.4*	576	*0.6*	636	*0.7*	788	*0.8*
Total	**79 044**	**100.0**	**90 892**	**100.0**	**95 938**	**100.0**	**90 654**	**100.0**	**96 169**	**100.0**
	'000 metric tons	output kg/t [2]	'000 metric tons	output kg/t [2]	'000 metric tons	output kg/t [2]	'000 metric tons	output kg/t [2]	'000 metric tons	output kg/t [2]
Coke production .	59 585	753.8	68 850	757.5	72 799	758.8	68 394	754.5	72 176	750.5
	metric tons	% of total input	metric tons	% of total input	metric tons	% of total input	metric tons	% of total input	metric tons	% of total input
Oil input	.	.	43 900	0.047	39 808	0.041	45 527	0.050	59 099	0.061

[1] The breakdown between Groups V and VI is only approximate.

[2] 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.

		1954	1955	1958	1959	1960
a) Coke-oven gas delivered.....	'000,000 stand. cub. metres	25 560	29 960	31 945	30 310	32 297
b) Gas output	stand. cub. metres per ton of wet-charged coal	323	330	333	334	336
c) Coke-oven gas delivered to outside enterprises or for consumption other than *d)*	'000,000 stand. cub. m.	17 749	20 335	21 484	21 117	22 665
	% of *a)*	(69.4)	(67.9)	(67.3)	(69.7)	(70.2)
d) Consumption for heating oven:						
1) Coke-oven gas	'000,000 stand. cub. m.	7 911	9 625	10 461	9 193	9 632
	% of 4)		(68.0)	(71.5)	(67.1)	(67.4)
2) Producer gas	'000,000 stand. cub. m.	1 534	1 119	815	1 165	1 179
	% of 4)		(7.9)	(5.6)	(8.5)	(8.2)
3) Blast-furnace and other gases	'000,000 stand. cub. m.	.	3 408	3 351	3 349	3 489
	% of 4)		(24.1)	(22.9)	(24.4)	(24.4)
4) Total consumption of gas for heating ovens	'000,000 stand. cub. m.	.	14 152	14 627	13 707	14 300
			(100.0)	(100.0)	(100.0)	(100.0)
e) Specific consumption in kcal/kg. of dry-charged coal (assuming an average moisture content of 8 %)		.	728	713	707	659

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 VII

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Ruhr [1]	6.21	7.51	5.97	3.96	5.29	5.56	5.55	5.68
Aachen	0.52	0.54	0.66	0.66	0.72	0.72	0.72	0.72
Lower Saxony	0.41	0.51	0.47	0.59	0.50	0.50	0.50	0.50
Southern Belgium	2.51	2.24	2.36	1.03	2.12	2.13	2.29	2.29
Nord/Pas-de-Calais	5.00	4.57	3.94	3.06	4.05	4.16	4.16	4.16
Lorraine	—	—	—	—	—	—	—	—
Centre/Midi	2.16	2.19	2.08	1.80	1.86	1.84	1.83	1.79
Independent French plants	1.32	2.24	1.80	0.54	1.59	1.60	1.60	1.60
Limburg	1.29	1.33	1.16	1.14	1.33	1.39	1.39	1.39
Total	**19.42**	**21.13**	**18.44**	**12.78**	**17.46**	**17.90**	**18.04**	**18.13**

ELECTRIC CURRENT [1]

Output

TABLE VIII

Output of Electric Current and Electric Capacity of Pithead Power-Stations[1])

Area	Actual electric capacity MW				Actual output 000,000 kWh 1960	Expected electric capacity MW			
	Beginning 1954	Beginning 1955	Beginning 1960	Beginning 1961		Beginning 1962	Beginning 1963	Beginning 1964	Beginning 1965
Ruhr	1 524	1 727	3 113	3 513	15 013	4 163	4 454	4 771	4 972
Aachen	116	116	120	120	593	270	270	270	270
Lower Saxony	63	113	94	94	491	80	80	210	210
Saar	243	298	499	463	1 728	465	603	740	740
Campine	233	253	299	419	1 039	407	407	407	512
Southern Belgium	376	388	594	810	3 008	812	937	937	937
Nord/Pas-de-Calais	856	856	1 321	1 321	4 728	1 321	1 166	1 281	1 329
Lorraine	375	475	686	686	2 189	686	686	700	700
Centre/Midi	377	459	565	565	1 386	565	565	559	559
Sulcis and La Thuile	—	—	64	64	174	64	64	64	64
Limburg	285	283	399	351	1 674	351	351	412	412
Total	**4 448**	**4 968**	**7 754**	**8 406**	**32 023**	**9 184**	**9 583**	**10 351**	**10 705**
of which									
pithead power-stations proper	.	.	7 127	7 777	29 624	8 574	8 985	9 778	10 152
other power-generating plant at mines	.	.	627	629	2 399	610	598	573	553

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

TABLE IX a

Specific Consumption of Coal 1960

C = Output of electric current in '000,000 kWh
O = Maximum electric capacity in '000 MW (average at beginning 1960 beginning 1961)
H = Load-hours per annum (1960) [2]

} by type of specific consumption

PITHEAD POWER-STATIONS [1]

Technical Data

Specific consumption	< 3000 kcal/kWh			3000-3499 kcal/KWh			3500-3999 kcal/kWh			4000-4999 kcal/kWh			⩾ 5000 kcal/kWh			Total			Average consumption kcal/kWh
Country/Coalfield	C	O	H	C	O	H	C	O	H	C	O	H	C	O	H	C	O	H	
Germany (Fed. Rep.)																			
Ruhr	6 549	1 494	4 384	4 788	1 040	4 604	1 517	295	5 142	1 433	313	4 578	726	166	4 373	15 013	3 314	4 530	3 266
Aachen	—	—	—	539	103	5 233	—	—	—	27	7	3 857	27	10	2 700	593	120	4 942	3 291
Lower Saxony	—	—	—	431	80	5 388	—	—	—	60	14	4 286	—	—	—	491	94	5 223	3 379
Saar	803	239	3 360	585	146	4 007	—	—	—	340	95	3 579	—	—	—	1 728	480	3 600	3 307
Total	*7 352*	*1 733*	*4 242*	*6 343*	*1 369*	*4 633*	*1 517*	*295*	*5 142*	*1 860*	*429*	*4 336*	*753*	*176*	*4 278*	*17 825*	*4 008*	*4 447*	*3 274*
Belgium																			
Campine	141	57	2 474	608	195	3 118	131	36	3 639	159	71	2 239	—	—	—	1 039	359	2 894	3 365
Southern coalfields	1 912	419	4 563	697	119	5 857	209	71	2 944	176	84	2 095	15	6	2 500	3 009	699	4 305	2 943
Total	*2 053*	*476*	*4 313*	*1 305*	*314*	*4 156*	*340*	*107*	*3 178*	*335*	155	*2 161*	*15*	*6*	*2 500*	*4 048*	*1 058*	*3 826*	*3 064*
France																			
Nord/Pas-de-Calais	3 059	648	4 721	750	261	2 847	486	226	2 150	341	161	2 079	92	25	3 680	4 728	1 321	3 579	2 979
Lorraine	747	200	3 735	1 404	430	3 265	11	45	244	—	—	—	27	11	2 455	2 189	686	3 191	3 197
Centre-Midi	—	—	—	255	103	2 476	1 050	415	2 530	31	14	2 214	50	33	1 515	1 386	565	2 453	3 650
Total	*3 806*	*848*	*4 488*	*2 409*	*794*	*3 034*	*1 547*	*686*	*2 255*	*372*	*175*	*2 126*	*169*	*69*	*2 449*	*8 303*	*2 572*	*3 228*	*3 148*
Italy	—	—	—	174	64	2 351										174	64	2 351	3 449
Netherlands	798	120	6 650	—	—	—	752	225	3 342	122	29	4 207	—	—	—	1 674	375	4 464	3 443
Grand Total	**14 009**	**3 177**	**4 410**	**10 231**	**2 541**	**4 026**	**4 156**	**1 313**	**3 165**	**2 689**	**788**	**3 412**	**937**	**251**	**3 733**	**32 024**	**8 077**	**3 965**	**3 227**

[1] Pithead power-stations proper and other power-generating plant at mines.

[2] The number of load-hours is calculated by dividing annual output by the average maximum electric capacity (*i.e.* the arithmetic mean between the electric capacity at the beginning of 1960 and 1961). 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, 1960. The number of load-hours represents an artificial index, based on the assumption that the stations were operating continuously under full load.

PITHEAD POWER-STATIONS [1]

Technical Data

TABLE IX b

Specific Consumption of Coal, 1954-1960

	1954	1955	1956	1957	1958	1959	1960
Average specific consumption in kcal/kWh	3 780[2]	3 703[2]	3 649	3 556	3 492	3 337	3 227[3]
Consumption of secondary products in % of consumption of coal (ton for ton)	..	88 %	88 %	88 %	87 %	87 %	92 %
Load-hours per annum	4 642	4 761	4 934	5 036	4 530	4 185	3 965[3]

[1] Pithead power-stations proper and other power-generating plant at mines.
[2] Approximate figures.
[3] See Table IXa for breakdown by coalfields.

The ratio of maximum electric capacity to nominal installed capacity varies as follows:

Beginning of	1954	*83.5* %
do.	1955	*84.5* %
do.	1956	*87.9* %
do.	1957	*87.9* %
do.	1958	*88.8* %
do.	1959	*88.8* %
do.	1960	*89.4* %
do.	1961	*89.3* %
	....	
Forecast for beginning of	1964	*91.6* %

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

Investment and Production

TABLE X a

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

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

	Actual expenditure							Estimated expenditure	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Briquetting - plants	5.10	7.87	4.07	1.76	4.45	4.34	4.74	6.13	4.67
Low-temperature coking-plants ..	0.24	0.27	0.45	0.55	0.60	0.50	0.36	0.50	0.15
Total	**5.34**	**8.14**	**4.52**	**2.31**	**5.05**	**4.84**	**5.10**	**6.63**	**4.82**

TABEL X b

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

'000,000 metric tons

	Production potential		Production 1960	Expected production potential			
	1955	1960		1961	1962	1963	1964
B.K.B.	16.78	14.24	13.64	13.33	13.15	13.16	12.81
Low-temperature coke	0.62	0.59	0.60	0.59	0.59	0.59	0.59

IRON-ORE INDUSTRY

Investment

TABLE XI

Capital Expenditure by Orefields

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

Orefield	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Salzgitter, Ilsede, Harzvorland	2.21	4.73	4.90	3.54	5.78	6.53	5.29	5.26	6.31
Osnabrück, Weser-Wiehengebirge	1.15	0.70	0.39	0.75	0.52	0.52	0.64	0.96	0.26
Siegerland-Wied	2.20	1.30	2.25	2.18	0.99	0.85	0.48	1.29	1.34
Central and Southern Germany [1]	0.83	0.77	0.54	0.53	0.86	0.83	0.93	0.57	0.20
Other German fields [2]	0.73	1.25	1.17	1.36	1.58	1.58	1.35	1.99	1.01
Belgium	—	—	—	0.04	0.08	0.02	0.04	0.14	—
Eastern France	16.43	16.62	25.86	33.73	25.80	24.40	29.26	39.60	35.41
Western France	1.26	1.83	3.03	2.94	2.87	2.87	2.93	6.66	4.85
French-Centre/Midi	0.19	0.15	0.29	0.22	0.25	0.28	0.39	0.74	0.19
Italy	4.09	2.47	3.98	2.87	1.77	1.07	1.38	3.12	1.25
Luxembourg	0.37	0.88	1.45	1.64	0.68	1.32	0.92	1.22	0.62
Total	**29.46**	**30.70**	**43.86**	**49.80**	**41.18**	**40.27**	**43.61**	**61.55**	**51.44**

[1] Sauerland-Waldeck, Lahn-Dill, Taunus-Hunsrück, Oberhessen.
[2] Doggererzgebiet, Kreideerzgebiet.

IRON-ORE INDUSTRY

Extraction

TABLE XII

Extraction and Extraction Potential by Orefields

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

Orefield	Extraction potential			Actual Extraction 1960	Expected Extraction potential			
	1954	1955	1960		1961	1962	1963	1964
Salzgitter, Ilsede, Harzvorland	.	9.51	12.70	11.32	13.18	13.41	13.63	13.76
Osnabrück, Weser-Wiehengebirge	.	1.77	2.30	2.14	2.30	2.30	2.30	2.30
Siegerland-Wied	.	1.37	1.35	1.29	1.36	1.36	1.36	1.36
Central and Southern Germany [1]	.	1.71	1.37	1.18	1.34	1.34	1.36	1.31
Other German fields [2]	.	2.24	3.40	2.93	3.38	3.43	3.53	3.63
Belgium	.	0.11	0.27	0.16	0.23	0.23	0.23	0.23
Eastern France	.	48.34	63.13	62.79	67.44	69.78	73.87	77.46
Western France	.	4.13	5.98	4.60	6.14	6.41	7.12	7.44
French-Centre/Midi	.	0.35	0.34	0.33	0.31	0.30	0.31	0.31
Italy	.	2.66	2.32	2.14	2.51	2·54	2.61	2.74
Luxembourg	.	7.58	8.14	6.98	7.88	7.89	7.91	7.91
Total	.	**79.77**	**101.30**	**95.86**	**106.07**	**108.99**	**114.23**	**118.45**

[1] Sauerland-Waldeck, Lahn-Dill, Taunus-Hunsrück, Oberhessen.
[2] Doggererzgebiet, Kreideerzgebiet,

IRON AND STEEL INDUSTRY

Total Investment

TABLE XIII

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	210.22	60.88	56.43	46.70	35.86	25.71	35.95	94.58	122.98
North Rhine/Westphalia		216.31	183.24	205.81	182.30	140.96	161.59	263.18	229.29
Southern Germany [2]		12.00	11.28	15.61	8.50	2.33	26.70	20.88	9.04
Saar	15.61	19.41	34.96	46.17	27.93	37.23	38.23	43.97	36.77
Belgium	32.92	33.14	45.52	60.08	77.92	81.76	140.94	152.57	98.62
Lorraine	125.86	71.40	83.72	116.58	130.41	132.75	136.65	230.00	157.82
Northern France		22.54	33.63	42.89	37.70	35.79	83.70	139.97	120.24
France-other areas		14.27	23.88	30.29	32.84	21.77	24.06	41.77	27.69
Italy-coastal areas	35.85	10.35	23.48	43.24	33.07	46.01	44.74	91.16	229.46
Italy-other areas		25.56	28.48	35.91	36.45	18.14	18.97	82.43	69.47
Luxembourg	25.08	22.13	19.11	30.93	21.55	23.48	28.72	33.75	24.58
Netherlands	7.94	16.34	26.16	33.96	19.04	20.66	44.71	61.91	67.61
Total	**453.48**	**524.33**	**569.89**	**708.17**	**643.57**	**586.59**	**784.96**	**1256.17**	**1193.57**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

STEELWORKS-OWNED COKING-PLANTS

Investment

TABLE XIV a

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	5.23	0.10	1.00	0.34	0.49	0.65	0.22	0.09	0.04
North Rhine/Westphalia		1.53	2.40	4.81	9.24	11.13	1.09	0.61	0.30
Southern Germany [2]		0.14	2.08	3.13	0.41	—	—	—	—
Saar		4.05	5.60	9.05	3.14	3.73	1.43	0.92	—
Belgium	1.39	2.82	3.75	3.95	2.44	1.00	2.96	2.65	0.94
Lorraine	9.29	5.10	5.94	3.85	2.73	2.11	3.75	6.07	5.15
Northern France		—	0.07	—	0.12	0.14	0.30	0.40	—
France-other areas		0.81	0.73	0.37	0.66	0.38	0.23	0.49	0.40
Italy-coastal areas	—	—	0.13	2.11	4.34	2.76	1.04	6.46	15.77
Italy-other areas	—	—	—	—	—	0.65	0.14	0.70	—
Luxembourg	—	—	—	—	—	—	—	—	—
Netherlands	2.08	5.39	0.63	0.35	0.98	2.38	0.28	0.63	1.17
Total	**17.99**	**19.94**	**22.33**	**27.96**	**24.55**	**24.93**	**11.44**	**19.02**	**23.77**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

BURDEN PREPARATION

Investment

TABLE XIV b

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	3.08	2.69	5.47	1.46	3.57	2.89	0.95	2.16	2.42
North Rhine/Westphalia		8.43	3.60	9.79	26.44	24.38	16.77	13.47	6.52
Southern Germany [2]		0.04	0.16	0.45	0.22	—	—	—	—
Saar	0.12	0.03	0.35	1.41	0.94	2.98	9.61	2.07	1.91
Belgium	0.10	0.27	3.60	8.47	8.32	16.25	19.29	14.62	9.76
Lorraine	0.57	1.48	7.71	16.51	15.66	16.89	11.40	35.68	34.91
Northern France		0.15	1.62	2.80	1.50	2.70	6.60	9.50	6.30
France-other areas		0.01	0.78	3.27	2.57	0.49	0.18	2.11	2.60
Italy-coastal areas	0.61	0.84	2.06	2.56	2.36	2.70	0.40	6.53	29.84
Italy-other areas		0.17	0.15	0.32	0.15	0.02	0.03	0.74	0.04
Luxembourg	7.11	6.13	3.25	3.61	4.54	2.96	2.97	9.70	12.54
Netherlands	—	0.90	2.77	0.88	0.46	1.26	3.92	1.12	2.92
Total	**11.59**	**21.14**	**31.52**	**51.53**	**66.73**	**73.52**	**72.12**	**97.70**	**109.76**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

BLAST-FURNACES

Investment

TABLE XIV c

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	16.74	0.26	3.02	9.76	8.13	4.14	3.91	8.34	7.96
North Rhine/Westphalia		16.16	25.61	29.17	32.56	25.96	20.52	28.77	20.27
Southern Germany [2]		2.53	2.94	2.08	1.48	0.47	0.62	0.60	0.49
Saar	1.92	1.56	2.46	3.50	4.72	5.52	3.24	4.09	2.14
Belgium	7.34	5.83	10.37	8.57	11.06	8.77	8.16	14.14	11.02
Lorraine	11.14	9.43	20.20	25.66	29.90	26.40	27.34	31.23	25.93
Northern France		1.10	4.05	7.55	9.48	6.05	8.28	15.44	10.81
France-other areas		0.71	1.15	3.90	4.62	1.68	1.38	1.04	0.56
Italy-coastal areas	0.59	1.68	0.20	1.39	6.00	4.99	4.20	8.31	18.00
Italy-other areas		0.08	0.61	1.25	1.42	0.68	0.34	0.80	0.50
Luxembourg	2.01	2.33	3.67	3.64	2.98	2.60	4.57	5.04	1.31
Netherlands	0.44	0.18	2.40	7.57	2.42	1.11	4.46	6.04	3.42
Total	**40.18**	**41.85**	**76.68**	**104.04**	**114.77**	**88.37**	**87.02**	**123.84**	**102.41**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

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

Investment

TABLE XIV d

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	24.00	3.05	9.49	11.56	12.19	7.68	5.08	10.59	10.42
North Rhine/Westphalia		26.12	31.61	43.77	68.24	61.47	38.38	42.85	27.09
Southern Germany [2]		2.71	5.18	5.66	2.11	0.47	0.62	0.60	0.49
Saar	3.09	5.64	8.41	13.96	8.80	12.23	14.28	7.08	4.05
Belgium	8.83	8.92	17.72	20.99	21.82	26.02	30.41	31.41	21.72
Lorraine	21.00	16.01	33.85	46.02	48.29	45.40	42.49	72.98	65.99
Northern France		1.25	5.74	10.35	11.45	8.89	15.18	25.34	17.11
France-other areas		1.53	2.66	7.54	7.50	2.55	1.79	3.64	3.56
Italy-coastal areas	1.20	2.52	2.39	6.06	12.70	10.45	5.64	21.30	63.61
Italy-other areas		0.25	0.76	1.57	1.57	1.35	0.51	2.24	0.54
Luxembourg	9.12	8.46	6.92	7.25	7.52	5.56	7.54	14.74	13.85
Netherlands	2.52	6.47	5.80	8.80	3.86	4.75	8.66	7.79	7.51
Total	**69.76**	**82.93**	**130.53**	**183.53**	**206.05**	**186.82**	**170.58**	**240.56**	**235.94**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

BASIC BESSEMER STEELWORKS

Investment

TABLE XV a

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]		2.99	1.74	2.02	0.83	0.32	0.34	0.02	—
North Rhine/Westphalia	3.24	4.05	3.09	8.22	17.10	11.74	5.28	9.77	9.24
Southern Germany [2]		0.24	0.25	0.74	0.62	0.11	0.02	0.04	—
Saar	0.40	1.36	3.87	6.01	5.53	3.90	3.18	2.59	1.18
Belgium	1.75	2.57	3.25	10.95	14.32	7.49	7.03	7.98	4.62
Lorraine		3.54	3.98	5.84	3.80	4.76	5.21	7.95	3.25
Northern France	5.72	0.15	0.50	—	1.45	1.00	0.90	0.20	0.55
France-other areas		0.20	0.50	1.00	0.60	0.52	0.30	0.95	1.00
Italy-coastal areas	0.16	0.05	0.25	0.28	0.64	0.40	0.55	0.62	0.96
Italy-other areas		—	—	—	—	0.07	—	—	—
Luxembourg	2.64	2.10	5.00	10.05	4.80	3.50	0.40	1.16	0.49
Netherlands	—	—	—	—	—	—	—	—	—
Total	**13.91**	**17.25**	**22.43**	**45.11**	**49.69**	**33.81**	**23.21**	**31.28**	**21.29**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

OPEN-HEARTH STEELWORKS

Investment

TABLE XV b

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	12.33	2.92	7.87	6.18	0.98	0.84	4.09	9.55	10.93
North Rhine/Westphalia		15.62	25.05	26.78	14.03	9.26	14.29	20.18	9.83
Southern Germany [2]		0.30	0.14	1.52	0.02	—	0.91	0.05	—
Saar	0.47	0.08	1.46	0.32	0.78	0.35	0.50	0.09	—
Belgium	0.30	0.05	0.24	0.53	0.60	0.19	0.26	0.78	0.60
Lorraine	5.43	3.78	2.77	2.79	2.89	2.57	4.05	4.69	2.16
Northern France		3.52	3.69	4.09	2.28	0.93	0.45	1.81	0.50
France-other areas		0.21	2.05	0.40	0.21	0.11	0.72	1.06	—
Italy-coastal areas	1.38	1.62	4.52	5.68	2.97	0.89	2.08	4.90	1.58
Italy-other areas		0.82	1.37	1.41	1.49	0.80	0.95	2.91	1.39
Luxembourg	—	—	—	—	—	—	—	—	—
Netherlands	0.21	1.73	4.76	1.91	1.13	1.62	1.12	1.27	0.90
Total	**20.12**	**30.65**	**53.92**	**51.61**	**27.38**	**17.56**	**29.42**	**47.29**	**27.89**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

ELECTRIC-FURNACE STEELWORKS

Investment

TABLE XV c

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954[1])	1955[1])	1956	1957	1958	1959	1960	1961	1962
Northern Germany [2])	5.42	0.05	0.61	—	—	0.38	0.74	0.41	—
North Rhine/Westphalia		9.76	8.47	8.30	2.57	1.02	1.72	6.53	5.02
Southern Germany [3])		—	—	0.13	—	—	—	—	—
Saar	—	0.02	—	—	—	—	—	—	0.40
Belgium	1.60	1.41	1.22	0.37	0.14	0.44	0.32	0.59	0.08
Lorraine	1.14	—	0.18	0.04	1.48	1.34	0.75	1.11	0.02
Northern France		1.22	0.07	—	—	—	0.71	1.38	—
France-other areas		0.94	2.41	4.31	3.29	1.60	2.55	5.87	5.14
Italy-coastal areas	1.75	—	—	—	—	0.03	0.68	0.34	—
Italy-other areas		1.46	3.63	2.91	3.08	3.64	2.16	6.16	5.21
Luxembourg	—	0.04	0.02	0.02	0.01	0.01	0.07	0.06	0.09
Netherlands	0.15	0.17	0.56	0.34	0.02	—	0.04	—	1.50
Total	**10.06**	**15.07**	**17.17**	**16.42**	**10.59**	**8.46**	**9.74**	**22.45**	**17.46**

[1]) For the years 1954-1955 including "other steelworks".
[2]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

LD, ROTOR AND OTHER STEELWORKS

Investment

TABLE XV d

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955 [1]	1956	1957	1958	1959	1960	1961	1962
Northern Germany [2]	—	—	—	0.03	1.89	1.93	4.25	10.96	9.72
North Rhine/Westphalia	—	0.15	5.67	9.73	3.00	1.71	5.24	31.33	34.67
Southern Germany [3]	—	—	—	—	—	—	—	0.04	—
Saar	—	—	—	—	—	0.83	1.74	5.16	5.00
Belgium	—	—	—	—	—	—	4.36	13.34	11.16
Lorraine	—	0.06	0.02	—	0.51	5.83	4.71	3.98	11.89
Northern France	—	—	—	—	—	—	5.00	8.60	6.15
France-other areas	—	—	0.16	—	—	—	—	0.85	1.55
Italy-coastal areas	—	—	—	—	—	—	—	4.32	32.16
Italy-other areas	—	—	—	—	—	—	—	—	—
Luxembourg	—	—	—	—	—	0.49	2.25	3.40	3.10
Netherlands	—	—	2.23	5.47	1.70	2.02	5.35	5.33	3.27
Total	—	**0.21**	**8.08**	**15.23**	**7.10**	**12.81**	**32.90**	**87.31**	**118.67**

[1] For 1955, LD, Rotor and similar works only.
[2] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

STEELWORKS-TOTAL

Investment

TABLE XV e

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	20.99	5.96	10.22	8.23	3.70	3.47	9.42	20.94	20.65
North Rhine/Westphalia		29.58	42.28	53.03	36.70	23.73	26.53	67.81	58.76
Southern Germany [2]		0.54	0.39	2.39	0.64	0.11	0.93	0.13	—
Saar	0.87	1.46	5.33	6.33	6.31	5.08	5.42	7.84	6.58
Belgium	3.65	4.03	4.71	11.85	15.06	8.12	11.97	22.69	16.46
Lorraine	12.29	7.38	6.95	8.67	8.68	14.50	14.72	17.73	17.32
Northern France		4.89	4.26	4.09	3.73	1.93	7.06	11.99	7.20
France-other areas		1.35	5.12	5.71	4.10	2.23	3.57	8.73	7.69
Italy-coastal areas	3.29	1.67	4.77	5.96	3.61	1.32	3.31	10.18	34.70
Italy-other areas		2.28	5.00	4.32	4.57	4.51	3.11	9.07	6.60
Luxembourg	2.64	2.14	5.02	10.07	4.81	4.00	2.72	4.62	3.68
Netherlands	0.36	1.90	7.55	7.72	2.85	3.64	6.51	6.60	5.67
Total	**44.09**	**63.18**	**101.60**	**128.37**	**94.76**	**72.64**	**95.27**	**188.33**	**185.31**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

BLOOMING AND SLABBING MILLS

Investment

TABLE XVI a

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	.	9.42	0.31	0.19	0.86	1.46	0.63	5.00	5.57
North Rhine/Westphalia	.	20.84	17.12	19.66	11.35	6.17	10.39	16.35	16.70
Southern Germany [2]	.	0.53	0.01	—	—	—	—	0.03	—
Saar	.	0.04	—	1.99	1.63	6.86	5.36	7.23	13.82
Belgium	.	1.11	1.75	6.43	4.08	4.14	12.31	10.28	11.20
Lorraine	.	3.21	4.03	3.98	3.40	3.58	6.21	14.94	9.69
Northern France	.	—	1.48	7.00	2.85	1.89	4.84	11.30	8.40
France-other areas	.	0.17	2.43	1.62	0.41	0.64	0.93	0.94	—
Italy-coastal areas	.	0.18	0.77	0.45	4.38	13.06	3.24	4.06	13.41
Italy-other areas	.	1.99	0.77	2.43	1.78	0.69	1.19	5.36	4.84
Luxembourg	.	2.76	0.54	0.51	0.18	0.25	0.37	0.12	—
Netherlands	.	1.09	1.95	0.83	0.67	1.63	1.78	4.53	9.32
Total	**23.10**	**41.34**	**31.16**	**45.09**	**31.59**	**40.37**	**47.25**	**80.14**	**92.95**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

SECTION MILLS

Investment

TABLE XVI b

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	.	12.02	8.42	0.89	0.29	1.11	2.31	8.18	12.82
North Rhine/Westphalia	.	38.20	21.71	17.93	9.12	10.85	15.20	22.87	38.72
Southern Germany [2]	.	2.85	0.82	0.65	0.61	0.22	0.37	0.43	0.48
Saar	.	8.12	15.63	12.25	2.95	6.39	7.15	15.35	9.75
Belgium	.	2.63	2.75	2.62	8.39	15.77	27.07	17.92	8.54
Lorraine	.	8.76	12.03	12.92	9.93	9.31	11.45	15.88	25.83
Northern France	.	1.61	2.31	3.60	3.51	3.78	9.76	11.41	15.88
France-other areas	.	3.85	5.75	8.96	7.77	2.54	2.88	4.72	3.08
Italy-coastal areas	.	0.32	0.22	0.32	0.36	0.80	4.57	7.53	19.90
Italy-other areas	.	8.29	10.30	13.70	14.93	5.10	2.36	5.93	5.02
Luxembourg	.	0.23	0.33	5.35	3.43	8.43	13.95	7.44	4.42
Netherlands	.	—	—	0.01	0.07	0.03	0.77	7.33	11.85
Total	**74.40**	**86.88**	**80.27**	**79.20**	**61.36**	**64.33**	**97.84**	**124.99**	**156.29**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

FLAT-PRODUCT MILLS

Investment

TABLE XVI c

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	.	23.26	19.74	17.01	11.00	7.41	12.85	34.24	65.72
North Rhine/Westphalia	.	67.33	38.07	35.90	22.04	12.55	33.43	56.25	57.73
Southern Germany [2]	.	1.98	0.46	1.21	1.02	0.12	22.06	16.19	6.72
Saar	.	0.44	1.10	5.75	0.40	0.36	0.27	0.17	—
Belgium	.	7.59	7.33	3.35	11.74	12.48	33.02	42.16	27.62
Lorraine	.	11.49	5.82	12.66	12.86	9.38	16.32	36.68	13.56
Northern France	.	11.33	12.12	7.97	3.70	5.32	23.80	47.63	39.36
France-other areas	.	3.86	3.51	2.15	3.01	3.74	5.58	9.60	3.56
Italy-coastal areas	.	1.77	8.43	16.72	3.19	8.38	3.38	10.67	29.22
Italy-other areas	.	7.09	6.07	3.54	4.71	2.87	5.53	51.28	49.79
Luxembourg	.	4.42	0.38	0.29	0.31	0.07	1.01	1.09	0.70
Netherlands	.	3.03	4.08	4.89	3.93	4.91	14.59	13.69	8.51
Total	**139.60**	**143.59**	**107.11**	**111.44**	**77.91**	**67.59**	**171.84**	**319.65**	**302.49**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

ROLLING-MILLS - TOTAL [1]

Investment

TABLE XVI d

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [2]	138.03	45.52	29.30	19.14	13.01	10.61	15.87	47.89	84.25
North Rhine/Westphalia		136.30	83.15	78.10	48.67	34.09	65.24	105.00	117.70
Southern Germany [3]		6.75	2.32	3.43	3.35	0.45	23.93	18.70	8.13
Saar	8.00	9.80	17.78	20.54	5.79	13.74	13.07	23.96	24.03
Belgium	15.57	13.80	16.63	16.05	27.22	34.26	80.83	79.07	52.84
Lorraine	64.00	29.63	23.97	36.71	33.91	26.26	38.84	80.26	53.66
Northern France		13.52	17.55	24.50	14.36	13.67	40.99	77.19	72.64
France-other areas		9.23	12.24	13.56	14.03	12.11	13.51	20.46	9.19
Italy-coastal areas	25.39	4.52	13.97	25.06	11.26	26.39	20.92	29.65	75.64
Italy-other areas		18.69	17.80	24.47	23.32	9.23	9.90	64.66	59.67
Luxembourg	11.21	8.40	3.27	9.30	5.23	10.52	16.03	10.55	5.42
Netherlands	2.95	4.92	6.91	11.48	6.90	7.31	20.80	30.66	38.45
Total	**265.15**	**301.08**	**244.89**	**282.34**	**207.05**	**198.64**	**359.93**	**588.05**	**601.62**

[1] Including ancillary and auxiliary plants.
[2] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

STEELWORKS-OWNED POWER-GENERATING PLANTS AND DISTRIBUTION NETWORKS

Investment

TABLE XVII a

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]		4.07	1.99	2.10	1.83	1.88	2.13	6.30	7.07
North Rhine/Westphalia	14.83	12.19	8.91	9.27	9.56	6.01	11.67	15.80	6.67
Southern Germany [2]		1.24	2.62	2.85	1.40	0.40	0.80	0.27	—
Saar	0.88	0.57	1.02	2.29	2.61	0.68	1.43	1.44	1.93
Belgium	2.35	2.86	1.59	4.48	7.06	7.26	9.36	6.99	2.38
Lorraine		12.45	9.02	14.17	22.87	30.36	23.01	31.46	9.91
Northern France	21.15	0.67	0.60	0.39	0.53	0.81	3.18	4.18	1.04
France-other areas		0.79	1.28	1.60	2.14	2.26	1.79	3.65	3.01
Italy-coastal areas	1.20	0.38	0.72	1.08	3.57	5.70	5.04	9.29	12.19
Italy-other areas		1.10	0.53	1.28	1.27	0.76	0.53	0.41	0.19
Luxembourg	1.32	2.30	2.51	2.21	1.74	0.88	0.41	1.21	1.30
Netherlands	1.25	0.69	1.18	1.48	2.24	1.80	1.85	6.70	7.58
Total	**42.98**	**39.31**	**31.97**	**48.20**	**56.82**	**58.80**	**61.20**	**87.70**	**53.27**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

MISCELLANEOUS (IRON AND STEEL WORKS)

Investment

TABLE XVII b

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	12.37	2.28	5.43	5.67	5.13	2.07	3.45	8.86	0.59
North Rhine/Westphalia		12.12	17.29	21.64	19.13	15.66	19.77	31.72	19.07
Southern Germany [2]		0.76	0.77	1.28	1.00	0.90	0.42	1.18	0.42
Saar	2.77	1.94	2.42	3.05	4.42	5.50	4.03	3.65	0.18
Belgium	2.52	3.53	4.87	6.71	6.76	6.10	8.37	12.41	5.22
Lorraine	7.42	5.93	9.93	11.01	16.66	16.23	17.59	27.57	10.94
Northern France		2.21	5.48	3.56	7.98	10.49	17.29	21.27	22.25
France-other areas		1.37	2.58	1.88	4.72	2.62	3.40	5.29	4.24
Italy-coastal areas	4.77	1.26	1.63	5.08	1.93	2.15	9.83	20.74	43.32
Italy-other areas		3.24	4.39	4.27	5.72	2.29	4.92	6.05	2.47
Luxembourg	0.79	0.83	1.39	2.10	2.25	2.52	2.02	2.63	0.33
Netherlands	0.86	2.36	4.72	4.48	3.19	3.16	6.89	10.16	8.40
Total	**31.50**	**37.83**	**60.90**	**70.73**	**78.89**	**69.69**	**97.98**	**151.53**	**117.43**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

GENERAL SERVICES TOTAL (IRON AND STEEL WORKS)

Investment

TABLE XVII c

Capital Expenditure by Areas

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

Area	Actual expenditure							Estimated expenditure (projects in progress or approved)	
	1954	1955	1956	1957	1958	1959	1960	1961	1962
Northern Germany [1]	27.20	6.35	7.42	7.77	6.96	3.95	5.58	15.16	7.66
North Rhine/Westphalia		24.31	26.20	30.91	28.69	21.67	31.44	47.52	25.74
Southern Germany [2]		2.00	3.39	4.13	2.40	1.30	1.22	1.45	0.42
Saar	3.65	2.51	3.44	5.34	7.03	6.18	5.46	5.09	2.11
Belgium	4.87	6.39	6.46	11.19	13.82	13.36	17.73	19.40	7.60
Lorraine	28.57	18.38	18.95	25.18	39.53	46.59	40.60	59.03	20.85
Northern France		2.88	6.08	3.95	8.51	11.30	20.47	25.45	23.29
France-other areas		2.16	3.86	3.48	6.86	4.88	5.19	8.94	7.25
Italy-coastal areas	5.97	1.64	2.35	6.16	5.50	7.85	14.87	30.03	55.51
Italy-other areas		4.34	4.92	5.55	6.99	3.05	5.45	6.46	2.66
Luxembourg	2.11	3.13	3.90	4.31	3.99	3.40	2.43	3.84	1.63
Netherlands	2.11	3.05	5.90	5.96	5.43	4.96	8.74	16.86	15.98
Total	**74.48**	**77.14**	**92.87**	**113.93**	**135.71**	**128.49**	**159.18**	**239.23**	**170.70**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

SINTER

Production

TABLE XVIII a

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	0.70	2.07	1.94	2.23	2.29	2.33	3.47
North Rhine/Westphalia	.	8.74	14.21	13.92	15.58	17.19	17.55	17.67
Southern Germany [2]	.	0.13	0.31	0.25	0.31	0.31	0.31	0.31
Saar	.	3.19	3.77	3.69	4.78	5.18	5.60	5.60
Belgium	.	0.74	2.57	2.23	4.55	6.01	8.01	8.33
Lorraine	.	1.75	5.37	5.20	6.30	10.51	13.59	18.20
Northern France	.	0.13	0.58	0.54	1.25	1.91	2.75	3.05
France - other areas	.	0.04	0.69	0.62	0.71	0.71	0.71	1.26
Italy - coastal areas	.	1.37	2.08	1.70	2.10	2.10	3.71	5.76
Italy - other areas	.	0.47	0.65	0.43	0.65	0.65	0.65	0.67
Luxembourg	.	1.22	2.99	2.93	3.03	3.48	5.10	5.46
Netherlands	.	—	1.00	0.97	1.95	2.10	2.45	2.90
Total	.	**18.48**	**36.29**	**34.42**	**43.44**	**52.44**	**62.76**	**72.68**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

PIG-IRON

Production

TABLE XVIII b

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	2.14	3.38	3.22	3.61	3.72	4.20	4.43
North Rhine/Westphalia	.	13.81	18.92	18.00	19.59	20.72	21.66	22.31
Southern Germany [2]	.	1.12	1.31	1.21	1.36	1.37	1.37	1.37
Saar	.	2.99	3.51	3.31	3.75	3.79	3.94	3.94
Belgium	.	5.52	7.21	6.52	7.49	7.70	8.76	9.31
Lorraine	.	8.44	11.14	10.53	11.66	12.27	12.90	14.28
Northern France	.	2.02	2.43	2.26	2.67	2.90	3.73	3.98
France - other areas	.	0.92	1.24	1.21	1.32	1.33	1.33	1.40
Italy - coastal areas	.	1.35	2.33	2.27	2.72	2.90	3.25	5.29
Italy - other areas	.	0.42	0.60	0.44	0.64	0.64	0.64	0.66
Luxembourg	.	3.11	3.89	3.71	3.90	3.97	4.02	4.22
Netherlands	.	0.67	1.35	1.35	1.47	1.70	2.00	2.15
Total	.	**42.51**	**57.31**	**54.03**	**60.18**	**63.01**	**67.80**	**73.34**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

BASIC BESSEMER STEEL

Production

TABLE XIX a

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	0.99	1.73	1.74	1.81	1.81	1.81	1.30
North Rhine/Westphalia	.	8.01	10.14	9.85	10.06	9.79	8.66	7.53
Southern Germany [2]	.	0.43	0.56	0.51	0.60	0.57	0.57	0.57
Saar	.	2.51	2.90	2.81	2.93	2.93	3.08	3.08
Belgium	.	5.18	6.60	6.11	6.75	7.07	7.36	7.32
Lorraine	.	6.67	8.69	8.54	9.07	9.63	9.83	9.95
Northern France	.	1.12	1.48	1.48	1.50	1.54	1.52	1.53
France - other areas	.	0.34	0.44	0.43	0.46	0.46	0.46	0.22
Italy - coastal areas	.	0.36	0.59	0.45	0.69	0.70	0.66	0.60
Italy - other areas	—	—	—	—	—	—	—	—
Luxembourg	.	3.20	4.05	4.00	4.07	4.24	4.33	4.31
Netherlands	—	—	—	—	—	—	—	—
Total	.	**28.81**	**37.18**	**35.92**	**37.94**	**38.74**	**38.28**	**36.41**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

OPEN-HEARTH STEEL

Production

TABLE XIX b

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	1.32	2.15	2.06	2.28	2.60	2.99	2.71
North Rhine/Westphalia	.	9.24	12.52	12.21	12.88	13.05	13.08	12.33
Southern Germany [2]	.	0.91	1.04	0.95	1.05	1.05	1.05	1.05
Saar	.	0.72	0.88	0.86	0.91	0.93	0.94	0.99
Belgium	.	0.72	0.82	0.62	0.82	0.82	0.84	0.84
Lorraine	.	1.82	2.33	2.31	2.41	2.50	2.54	2.56
Northern France	.	1.49	2.36	2.28	2.32	2.38	2.45	2.46
France - other areas	.	0.94	0.64	0.54	0.57	0.58	0.58	0.54
Italy - coastal areas	.	1.44	2.62	2.60	2.86	3.06	3.12	3.27
Italy - other areas	.	1.74	2.09	2.01	2.27	2.44	2.33	2.38
Luxembourg	—	—	—	—	—	—	—	—
Netherlands	.	0.87	1.21	1.11	1.21	1.22	1.23	1.23
Total	.	**21.21**	**28.66**	**27.55**	**29.58**	**30.63**	**31.15**	**30.36**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

ELECTRIC-FURNACE STEEL

Production

TABLE XIX c

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955[1]	1960		1961	1962	1963	1964
Northern Germany [2]	.	0.09	0.16	0.15	0.20	0.20	0.20	0.20
North Rhine/Westphalia	.	0.86	1.96	1.82	1.97	2.19	2.34	2.39
Southern Germany [3]	.	0.13	0.14	0.13	0.14	0.14	0.14	0.14
Saar	.	0.07	0.09	0.08	0.09	0.09	0.09	0.09
Belgium	.	0.41	0.62	0.44	0.63	0.64	0.64	0.64
Lorraine	.	0.29	0.40	0.37	0.45	0.46	0.46	0.49
Northern France	.	0.16	0.19	0.18	0.24	0.25	0.25	0.25
France - other areas	.	0.62	1.10	0.96	1.14	1.22	1.27	1.32
Italy - coastal areas	.	0.21	0.33	0.31	0.37	0.33	0.33	0.33
Italy - other areas	.	1.92	3.10	2.87	3.21	3.31	3.67	3.67
Luxembourg	.	0.07	0.09	0.08	0.09	0.09	0.09	0.09
Netherlands	.	0.14	0.22	0.20	0.22	0.23	0.29	0.29
Total	.	**4.97**	**8.40**	**7.59**	**8.75**	**9.15**	**9.77**	**9.90**

[1] For 1955, including "other steels".
[2] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[3] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

LD, ROTOR AND OTHER STEELS

Production

TABLE XIX d

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	—	—	0.10	0.08	0.25	0.37	0.49	2.01
North Rhine/Westphalia	—	—	0.95	0.81	1.19	2.20	4.08	6.70
Southern Germany [2]	—	—	0.01	0.01	0.01	0.04	0.04	0.04
Saar	—	—	0.05	0.03	0.12	0.16	0.18	0.18
Belgium	—	—	0.01	0.01	0.07	0.07	0.66	1.58
Lorraine	—	—	0.14	0.12	0.51	0.56	0.57	2.00
Northern France	—	—	0.04	0.04	0.19	0.54	1.43	1.74
France - other areas	—	—	0.05	0.05	0.05	0.05	0.05	0.41
Italy - coastal areas	—	—	—	—	—	—	0.65	2.68
Italy - other areas	—	—	—	—	—	—	—	—
Luxembourg	—	—	—	—	—	0.02	0.07	0.15
Netherlands	—	—	0.65	0.64	0.73	0.90	1.10	1.40
Total	—	—	**2.00**	**1.79**	**3.12**	**4.91**	**9.32**	**18.89**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

STEEL - TOTAL

Production

TABLE XIX e

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	2.40	4.14	4.03	4.54	4.98	5.49	6.22
North Rhine/Westphalia	.	18.11	25.57	24.69	26.10	27.23	28.16	28.95
Southern Germany [2]	.	1.47	1.75	1.60	1.80	1.80	1.80	1.80
Saar	.	3.30	3.92	3.78	4.05	4.11	4.29	4.34
Belgium	.	6.31	8.05	7.18	8.27	8.60	9.50	10.38
Lorraine	.	8.76	11.56	11.34	12.44	13.15	13.40	15.00
Northern France	.	2.77	4.07	3.98	4.25	4.71	5.65	5.98
France - other areas	.	1.90	2.23	1.98	2.22	2.31	2.36	2.49
Italy - coastal areas	.	2.01	3.54	3.36	3.92	4.09	4.76	6.88
Italy - other areas	.	3.66	5.19	4.88	5.48	5.75	6.00	6.05
Luxembourg	.	3.27	4.14	4.08	4.16	4.35	4.49	4.55
Netherlands	.	1.01	2.08	1.95	2.16	2.35	2.62	2.92
Total	.	**54.97**	**76.24**	**72.85**	**79.39**	**83.43**	**88.52**	**95.56**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

SECTIONS

Production

TABLE XX a

Production and Production Potential by Areas

'000,000 *metric tons*

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	1.00	1.37	1.37	1.42	1.42	1.65	1.96
North Rhine/Westphalia	.	6.41	8.94	8.29	9.20	9.34	9.71	10.34
Southern Germany [2]	.	0.56	0.73	0.54	0.74	0.74	0.74	0.76
Saar	.	1.55	1.99	1.89	2.09	2.21	2.71	2.71
Belgium	.	2.95	3.50	2.70	3.64	3.84	4.09	4.18
Lorraine	.	3.95	5.03	4.70	5.19	5.36	5.51	5.92
Northern France	.	1.14	1.17	1.11	1.27	1.36	1.68	1.68
France - other areas	.	0.87	1.11	0.96	1.16	1.19	1.23	1.31
Italy - coastal areas	.	0.76	0.97	0.84	0.95	1.02	1.16	1.30
Italy - other areas	.	1.69	3.25	2.65	3.29	3.33	3.42	3.47
Luxembourg	.	1.78	2.10	2.02	2.10	2.13	2.16	2.18
Netherlands	.	0.16	0.23	0.20	0.20	0.23	0.35	0.52
Total	.	**22.82**	**30.39**	**27.27**	**31.25**	**32.17**	**34.41**	**36.33**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

FLAT PRODUCTS

Production

TABLE XX b

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	0.40	1.05	0.99	1.13	1.46	1.95	2.21
North Rhine/Westphalia	.	5.36	8.59	7.45	8.69	9.19	9.56	9.84
Southern Germany [2]	.	0.67	0.93	0.81	0.96	1.09	1.26	1.26
Saar	.	0.73	0.86	0.79	0.88	0.90	0.95	0.95
Belgium	.	1.90	2.51	2.12	2.48	2.66	3.15	3.24
Lorraine	.	2.22	3.99	3.80	4.29	4.47	4.74	4.86
Northern France	.	1.04	1.94	1.78	2.02	2.26	2.63	2.85
France - other areas	.	0.71	0.49	0.44	0.48	0.51	0.52	0.54
Italy - coastal areas	.	0.65	1.50	1.40	1.70	1.86	2.02	2.22
Italy - other areas	.	0.90	1.56	1.24	1.56	1.69	2.25	2.34
Luxembourg	.	0.71	0.99	0.93	0.97	1.06	1.10	1.10
Netherlands	.	0.71	1.15	1.12	1.25	1.52	1.63	1.65
Total	.	**16.00**	**25.56**	**22.87**	**26.41**	**28.67**	**31.76**	**33.06**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

FINISHED ROLLED PRODUCTS

Production

TABLE XX c

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	1.40	2.42	2.36	2.55	2.88	3.60	4.17
North Rhine/Westphalia	.	11.77	17.53	15.74	17.89	18.53	19.27	20.18
Southern Germany [2]	.	1.23	1.66	1.35	1.70	1.83	2.00	2.02
Saar	.	2.28	2.85	2.68	2.97	3.11	3.66	3.66
Belgium	.	4.85	6.01	4.82	6.12	6.50	7.24	7.42
Lorraine	.	6.16	9.02	8.50	9.48	9.83	10.25	10.78
Northern France	.	2.18	3.11	2.89	3.29	3.62	4.31	4.53
France - other areas	.	1.58	1.60	1.40	1.64	1.70	1.75	1.85
Italy - coastal areas	.	1.42	2.47	2.24	2.65	2.88	3.18	3.52
Italy - other areas	.	2.60	4.81	3.89	4.85	5.02	5.67	5.81
Luxembourg	.	2.48	3.09	2.95	3.07	3.19	3.26	3.28
Netherlands	.	0.87	1.38	1.32	1.45	1.75	1.98	2.17
Total	.	**38.82**	**55.95**	**50.14**	**57.66**	**60.84**	**66.17**	**69.39**

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

HEAVY AND LIGHT SECTIONS (INCLUDING TUBE SEMIS)

Production

TABLE XXI a

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	1.00	1.37	1.37	1.42	1.42	1.55	1.66
North Rhine/Westphalia	.	5.07	6.93	6.46	7.18	7.29	7.30	7.86
Southern Germany [2]	.	0.56	0.70	0.51	0.74	0.74	0.74	0.76
Saar	.	1.29	1.64	1.58	1.74	1.86	2.26	2.26
Belgium	.	2.42	2.82	2.06	2.93	3.11	3.16	3.17
Lorraine	.	3.45	3.53	3.35	3.69	3.82	3.94	4.04
Northern France	.	0.87	1.17	1.11	1.27	1.36	1.38	1.38
France - other areas	.	0.56	0.90	0.76	0.94	0.97	1.01	0.99
Italy - coastal areas	.	0.71	0.85	0.74	0.83	0.89	1.03	1.18
Italy - other areas	.	1.24	2.63	2.13	2.65	2.68	2.78	2.83
Luxembourg	.	1.52	1.85	1.78	1.85	1.87	1.88	1.85
Netherlands	.	0.06	0.08	0.05	0.08	0.11	0.11	0.27
Total	.	**18.75**	**24.47**	**21.90**	**25.32**	**26.12**	**27.14**	**28.25**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

WIRE-ROD

Production

TABLE XXI b

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	—	—	—	—	—	0.10	0.30
North Rhine/Westphalia	.	1.34	2.01	1.83	2.02	2.05	2.41	2.48
Southern Germany [2]	.	—	0.03	0.03	—	—	—	—
Saar	.	0.25	0.35	0.31	0.35	0.35	0.45	0.45
Belgium	.	0.54	0.68	0.64	0.71	0.73	0.93	1.01
Lorraine	.	0.90	1.50	1.35	1.50	1.54	1.57	1.88
Northern France	.	—	—	—	—	—	0.30	0.30
France - other areas	.	0.18	0.21	0.20	0.22	0.22	0.22	0.32
Italy - coastal areas	.	0.05	0.12	0.10	0.12	0.13	0.13	0.12
Italy - other areas	.	0.45	0.62	0.52	0.64	0.65	0.64	0.64
Luxembourg	.	0.26	0.25	0.24	0.25	0.26	0.28	0.33
Netherlands	.	0.10	0.15	0.15	0.12	0.12	0.24	0.25
Total	.	**4.07**	**5.92**	**5.37**	**5.93**	**6.05**	**7.27**	**8.08**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

HOOP AND STRIP AND TUBE STRIP

Production

TABLE XXI c

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	—	—	—	—	—	—	—
North Rhine/Westphalia	.	1.45	2.51	2.12	2.43	2.58	2.58	2.58
Southern Germany [2]	.	0.02	0.03	0.03	0.03	0.03	0.03	0.03
Saar	.	0.19	0.28	0.24	0.29	0.31	0.33	0.33
Belgium	.	0.31	0.37	0.30	0.37	0.37	0.37	0.37
Lorraine	.	0.62	0.95	0.91	1.05	1.12	1.13	1.13
Northern France	.	—	0.02	0.02	—	—	—	—
France - other areas	.	0.01	0.01	0.01	—	—	—	—
Italy - coastal areas	.	0.08	0.23	0.19	0.22	0.26	0.34	0.33
Italy - other areas	.	0.12	0.34	0.26	0.36	0.40	0.41	0.40
Luxembourg	.	0.36	0.54	0.52	0.52	0.61	0.65	0.65
Netherlands	.	0.06	0.08	0.07	0.08	0.08	0.10	0.10
Total	.	**3.22**	**5.36**	**4.67**	**5.35**	**5.76**	**5.94**	**5.92**

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

PLATE ⩾ 3 mm.

Production

TABLE XXI d

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	0.40	0.82	0.77	0.84	0.84	0.84	0.84
North Rhine/Westphalia	.	2.37	3.74	3.12	3.76	3.79	4.00	4.07
Southern Germany [2]	.	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Saar	.	0.35	0.53	0.51	0.53	0.53	0.56	0.56
Belgium	.	0.72	0.85	0.62	0.83	0.83	1.03	1.12
Lorraine	.	0.56	1.01	0.87	1.09	1.11	1.15	1.17
Northern France	.	0.36	0.47	0.41	0.45	0.50	0.63	0.65
France - other areas	.	0.19	0.10	0.09	0.11	0.11	0.12	0.12
Italy - coastal areas	.	0.26	0.48	0.43	0.60	0.63	0.64	0.82
Italy - other areas	.	0.37	0.65	0.43	0.61	0.56	0.58	0.58
Luxembourg	.	0.11	0.16	0.12	0.16	0.16	0.16	0.16
Netherlands	.	0.29	0.45	0.44	0.47	0.43	0.44	0.46
Total	.	**6.00**	**9.28**	**7.83**	**9.47**	**9.51**	**10.17**	**10.57**

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

HOT-ROLLED SHEET
< 3 mm.

Production

TABLE XXI e

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	—	0.02	0.01	0.02	0.02	0.02	0.02
North Rhine/Westphalia	.	1.05	1.00	0.94	1.03	1.01	1.01	0.99
Southern Germany [2]	.	0.42	0.43	0.40	0.39	0.34	0.34	0.34
Saar	.	0.11	0.05	0.04	0.06	0.06	0.06	0.06
Belgium	.	0.50	0.44	0.35	0.42	0.42	0.35	0.35
Lorraine	.	0.16	0.50	0.49	0.47	0.47	0.49	0.50
Northern France	.	0.27	0.37	0.34	0.39	0.41	0.47	0.47
France - other areas	.	0.61	0.18	0.18	0.17	0.18	0.18	0.18
Italy - coastal areas	.	0.09	0.09	0.09	0.11	0.11	0.13	0.16
Italy - other areas	.	0.19	0.12	0.12	0.11	0.10	0.10	0.10
Luxembourg	.	—	—	—	—	—	—	—
Netherlands	.	0.03	0.02	0.02	0.03	0.03	0.03	0.03
Total	.	**3.43**	**3.22**	**2.98**	**3.20**	**3.15**	**3.18**	**3.20**

[1] Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2] Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

COLD-REDUCED SHEET
< 3 mm.

Production

TABLE XXI f

Production and Production Potential by Areas

'000,000 metric tons

Area	Production potential			Actual production 1960	Expected production potential			
	1954	1955	1960		1961	1962	1963	1964
Northern Germany [1]	.	—	0.21	0.21	0.27	0.60	1.09	1.35
North Rhine/Westphalia	.	0.49	1.34	1.27	1.47	1.81	1.97	2.20
Southern Germany [2]	.	0.21	0.45	0.36	0.52	0.70	0.87	0.87
Saar	.	0.09	—	—	—	—	—	—
Belgium	.	0.37	0.85	0.85	0.86	1.04	1.40	1.40
Lorraine	.	0.60	1.53	1.53	1.68	1.77	1.97	2.06
Northern France	.	0.03	1.08	1.01	1.18	1.35	1.53	1.73
France - other areas	.	0.55	0.20	0.16	0.20	0.22	0.22	0.24
Italy - coastal areas	.	0.23	0.70	0.69	0.77	0.86	0.91	0.91
Italy - other areas	.	0.22	0.45	0.43	0.48	0.63	1.16	1.26
Luxembourg	.	0.23	0.29	0.29	0.29	0.29	0.29	0.29
Netherlands	.	0.34	0.60	0.59	0.67	0.98	1.06	1.06
Total	.	**3.36**	**7.70**	**7.39**	**8.39**	**10.25**	**12.47**	**13.37**

[1]) Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.
[2]) Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.