

EUROPEAN  
COAL AND STEEL COMMUNITY

THE HIGH AUTHORITY

**Investment in the Community  
Coalmining and Iron and Steel  
Industries**

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REPORT ON THE 1966 SURVEY

Position as at January 1, 1966

JULY 1966

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## I. GENERAL REMARKS

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

The figures from the previous surveys for the years 1954-64 are recapitulated in a Summary Report issued in conjunction with the present publication. The Summary Report gives an overall picture of actual expenditure and production potential as recorded during those years in the different E.C.S.C. sectors and areas, so that it has been possible to keep the present report on the 1966 survey to manageable proportions by showing in the statistical annexes only the figures from 1964 onwards and in most of the tables in the text giving only the average, and not the annual figures themselves, for the period 1954-59.

**Annex I** following sets forth the **basic definitions** adopted. In particular, it specifies that investment projects have been classified in three categories, according as they were on January 1, 1966, already completed or in progress (Category A), approved (Category B) or merely planned (Category C). Since in the case of the iron and steel industry projects merely "planned" can as a rule be quite easily dropped or deferred if necessary, the Category C projects dealt with in the Reports are those of the extractive industries (coal and iron ore) only.

**Annex II** to the Reports contains tables showing for each sector capital expenditure and its implications for production potential broken down by **producer areas**.

### a) Capital Expenditure

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

Actual expenditure from 1954 to 1965 inclusive totalled 15,400 million dollar units of account, representing an annual average of close on 1,300 million. The twelve years can conveniently be divided into two equal parts. In 1954-59 investment remained pretty steady, the collieries' expenditure ranging from 405 to 471 million dollars a year (average 434 million), the iron-ore mines' from 30 to 50 million (average 39 million), and the iron and steel industry's from 453 to 708 million (average 581 million). The six years from 1960 on were much more unsettled, as can be seen from the movements of the respective investment indices in relation to the 1954-59 averages : the index for the coal industry fell steadily from 100 to 64, that for the iron-ore mines rose to 133 in 1961 but is now down to almost the same level as the coal industry's, while that for the iron and steel industry soared to 255 in 1963 and thereafter went progressively down again to reach 161 in 1965.

TABLE 1

## General Trend in Investment in Recent Years

Indices

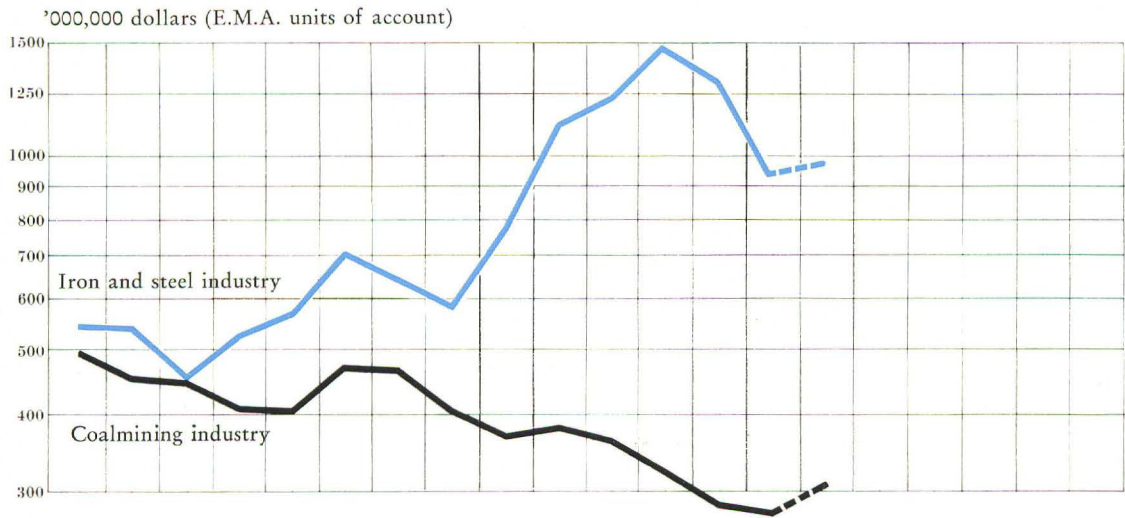
Sector	Projects completed							Projects planned for 1966
	1954/1959 (annual average)	1960	1961	1962	1963	1964	1965	
Coalmining Industry .....	100	85	88	84	75	67	64	71
Iron-ore mines .....	100	110	133	121	72	62	67	62
Iron and steel industry .....	100	133	193	212	255	226	161	168
<b>All E.C.S.C. industries .....</b>	<b>100</b>	<b>113</b>	<b>148</b>	<b>156</b>	<b>174</b>	<b>155</b>	<b>118</b>	<b>124</b>

As a result of these divergent trends, the iron and steel industry's share of total E.C.S.C. capital expenditure has increased from one-half in and immediately after 1954 to over three-quarters from 1963 onwards.

FIGURE 1

Investment in the Coalmining and Iron and Steel Industries

A — Capital expenditure



B — Actual production and production potential

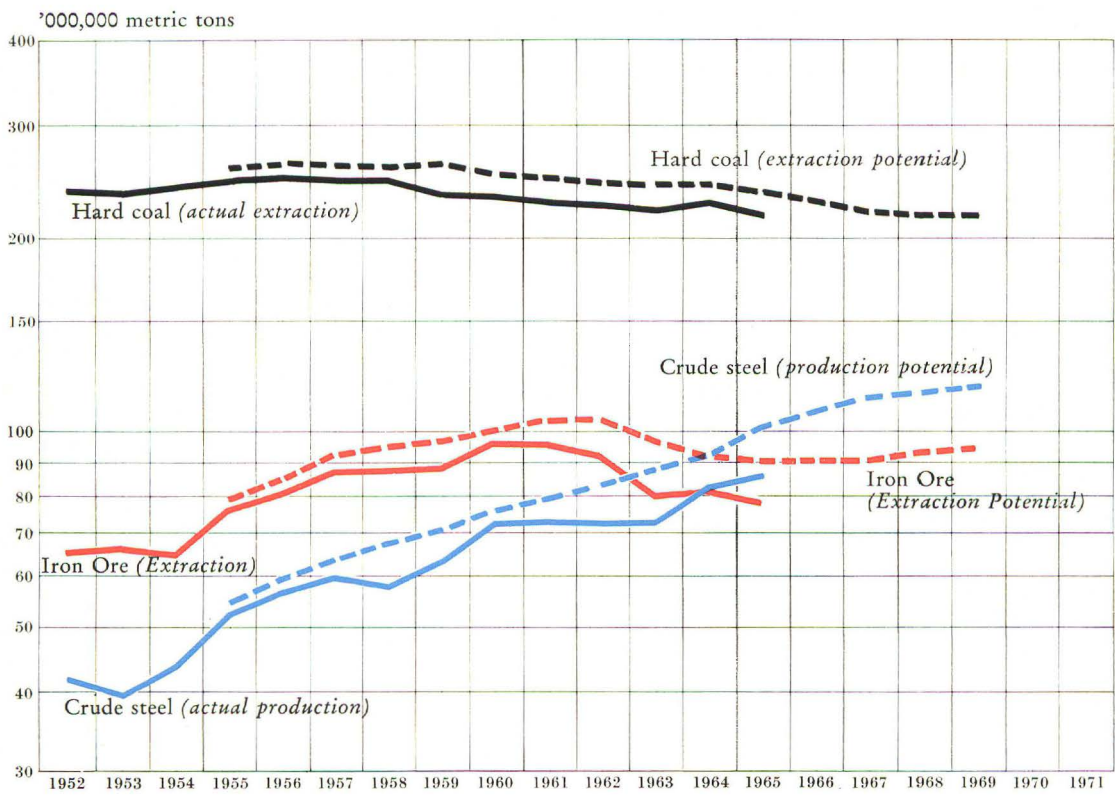


TABLE 2

## Capital Expenditure in the Community Industries, 1954—1967

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

Sector	Actual expenditure								Estimated expenditure (Categories A+B+C) <sup>(1)</sup>
	1954/1959 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967
Coalmining industry .....	434	371	380	366	325	291	279	310	246
Plants producing B.K.B. and low-temperature brown-coal coke .....	5	6	4	6	9	8	7	6	6
Iron-ore mines .....	39	43	52	47	28	24	26	24	18
Iron and steel industry .....	581	775	1 123	1 230	1 480	1 315	935	974 <sup>(1)</sup>	651 <sup>(1)</sup>
<b>Total .....</b>	<b>1 059</b>	<b>1 195</b>	<b>1 559</b>	<b>1 649</b>	<b>1 842</b>	<b>1 638</b>	<b>1 247</b>	<b>1 314</b>	<b>921</b>

<sup>(1)</sup> The estimates for the iron and steel industry relate only to expenditure on projects already in progress (A) or approved (B) at January 1, 1966, not to those merely planned (C).

The figures for the years 1964 and 1965 differ somewhat from those given in last year's Report, inasmuch as it is normally the case that

- for the past year (1965) actual expenditure falls below the estimates submitted on January 1;
- for the previous year (1964) the expenditure figures returned before the balance-sheets were closed are corrected when the next survey is drawn up.

The 1965 survey suggested that capital expenditure for the ensuing year would total 1,377,000,000 dollars: for the two mining industries (coal and iron ore) the estimates proved 81 % correct, and for the iron and steel sector 94 %.

### b) Production Potential

The collieries' forecasts (which may not all have been worked out on the same basis) indicate that **hard-coal** production potential will contract by just under 21 million tons from 1965 to 1969, which would bring it by the latter date to 217 million ton, about the amount actually produced in 1965.

**Iron-ore** production rose from 1952 to 1960 at an average 4.9 % per annum and has since then been falling by an average 4.0 %, which gives a net average increase of 1.4 % per annum over the whole period. The Lorraine producers consider that they are still in a position to expand their production potential, while the shrinkage continues in the other Community orefields.

The iron and steel industry is reckoning on maintaining a fair rate of expansion, though there will be some falling-off from that achieved for pig-iron and crude steel from 1952 to 1965. Crude-steel production potential for the first time passed the 100-million-ton mark in 1965, and should be up by 1969 to somewhere about 118 million tons.

TABLE 3  
Actual Production and Production Potential in the Community Industries

Product	Actual production			Production potential		
	1952 ( <sup>'000,000</sup> m.t.)	Average cumulative annual rate of increase (in %)	1965 ( <sup>'000,000</sup> m.t.)	1965 ( <sup>'000,000</sup> m.t.)	Average cumulative annual rate of increase (in %)	1969 ( <sup>'000,000</sup> m.t.)
Hard coal (1) .....	237.4	-0.7	217.0	238.1	-2.3	217.2
Iron ore .....	65.3	+1.4	78.7	90.5	+1.1	94.7
Pig-iron .....	34.7	+4.7	63.2	75.4	+3.1	85.2
Crude steel .....	42.0	+5.7	86.0	102.0	+3.7	118.0

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

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

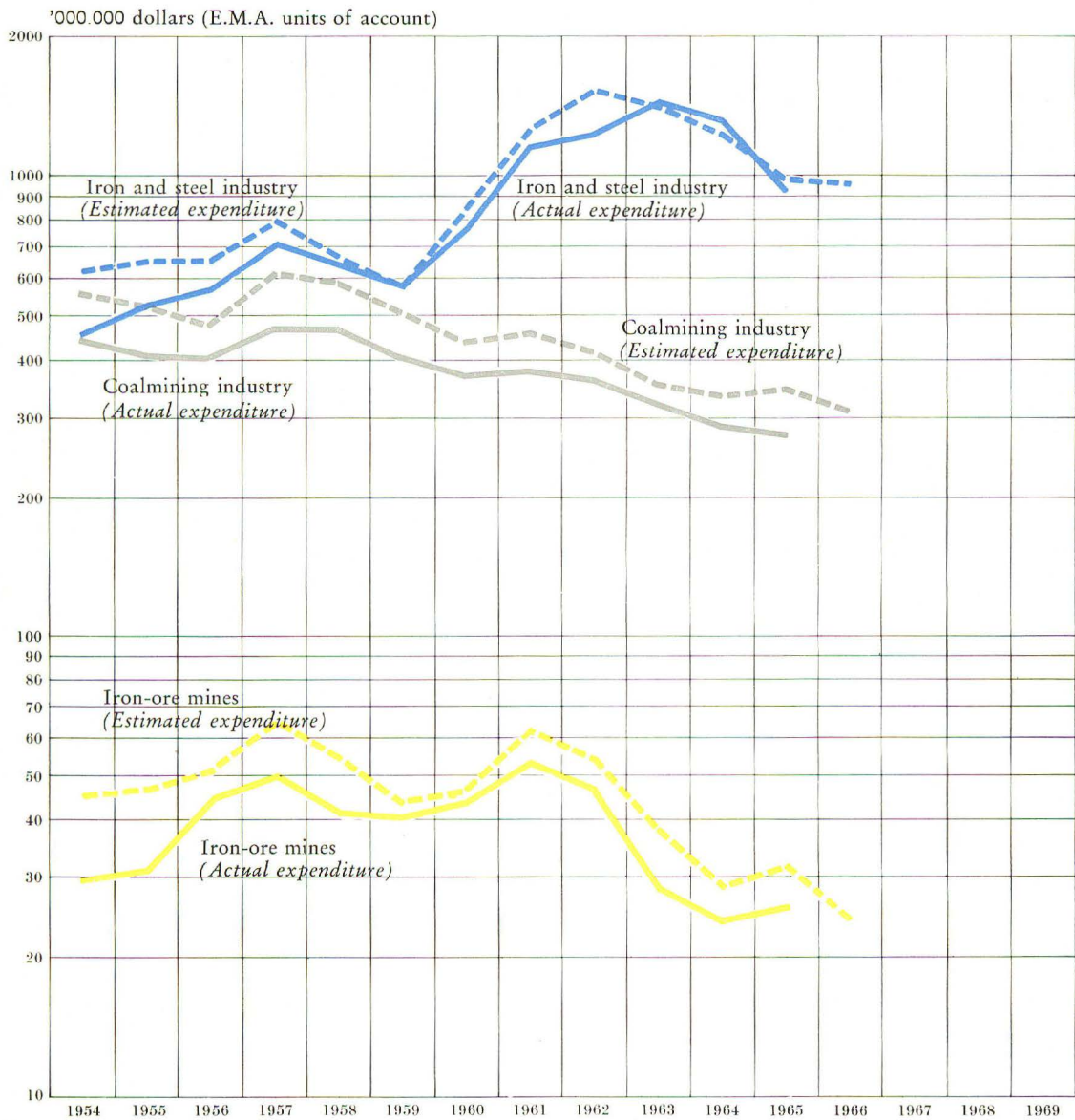
Thus, even during the best years, actual production has never exceeded 96 % or so of the sum of the individual production potentials declared. For practical purposes 96 % may be considered the highest rate of actual production achievable in the Community overall.

TABLE 4  
Community Ratios of Actual Production to Production Potential

Product	%										
	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Hard coal .....	94.9	94.6	95.1	94.8	89.3	92.6	92.7	92.0	91.7	94.0	91.1
Coke .....	93.2	96.5	96.1	92.2	84.3	85.7	85.3	85.0	84.2	90.2	92.7
Iron ore .....	95.4	95.1	94.9	91.3	90.9	94.6	91.7	87.6	81.9	88.3	87.0
Pig-iron .....	96.3	96.0	94.7	87.9	88.3	94.3	90.9	85.5	81.0	88.2	83.8
Crude steel .....	95.8	96.1	94.1	85.7	89.6	95.6	91.7	87.3	83.4	90.0	84.3

FIGURE 2

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





## II. THE COALMINING INDUSTRY

With competition in the energy market keener than ever, the Community coalmining industry was unable to step up investment in 1965, as the German and Belgian collieries in particular had been hoping to do. Instead the decline which has been going on since 1958 continued everywhere at much the same rate as before, and it seems doubtful whether the slight upturn forecast in most of the coalfields for 1966 will in fact materialize.

TABLE 5

### Capital Expenditure in the Coalmining Industry, 1954—1967

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

Sector	Actual expenditure							Estimated expenditure (Categories A+B+C)	
	1954/1959 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967
Collieries .....	253.9	226.0	235.4	220.5	217.5	202.9	191.7	196.5	146.0
Coking-plants, mine-owned .....	57.5	33.7	43.1	35.9	19.0	17.3	15.6	21.0	17.7
Coking-plants, independent <sup>(1)</sup> .....	10.8	1.6	1.4	5.1	3.5	5.9	5.3	5.6	3.1
Briquetting-plants .....	5.0	7.1	3.4	5.1	9.5	9.1	7.6	8.7	6.4
Pithead power-stations and other power-generating plant .....	107.0	102.6	96.9	99.9	75.8	55.5	58.6	78.2	72.8
<b>Total</b> .....	<b>434.2</b>	<b>371.0</b>	<b>380.2</b>	<b>366.5</b>	<b>325.3</b>	<b>290.7</b>	<b>278.8</b>	<b>310.0</b>	<b>246.0</b>
Plants producing B.K.B. and low-tem- perature brown-coal coke .....	5.0	6.0	3.8	6.0	9.0	8.3	7.1	6.1	5.6

<sup>(1)</sup> Less the French nationalized gas industry (Gaz de France) from 1957

## a) Pits

Capital expenditure on the pits showed a drop though a rather smaller one than in the valorization sector. Though their share of the industry's total investment has risen from 58 % in 1954-59 to 69 % in 1965, the sums actually involved have decreased, both absolutely and per ton produced. Specific expenditure per ton produced, which worked out between 1954 and 1959 at approximately 1.05 dollar, has since then gone down and down, in 1964 reaching 0.91 dollar and in 1965 0.80. This is the average for the Community overall : only the Lorraine, Ruhr and Saar coalfields came above it, with 1.03, 1.04 and 0.96 dollar respectively, while the Nord/Pas-de-Calais registered the lowest figure, 0,52 dollar.

As before, just under 60 % of the sums invested went on underground installations, which now account for about 40 % of the industry's total expenditure. Investment has been diminishing for several years, however, in practically all sectors of operations both below and above ground : the one exception is mechanical equipment below ground, expenditure on which remains fairly steady owing to the industry's continuing concentration on mechanization.

TABLE 6

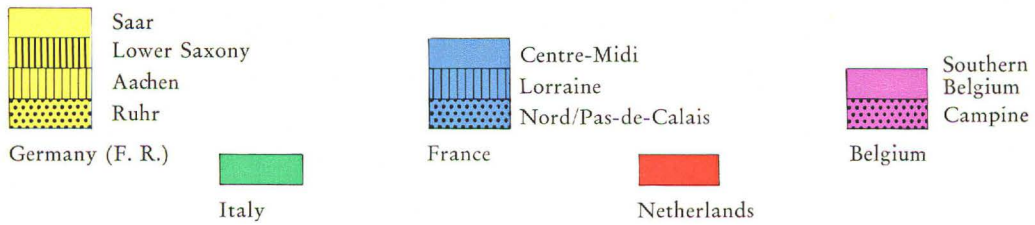
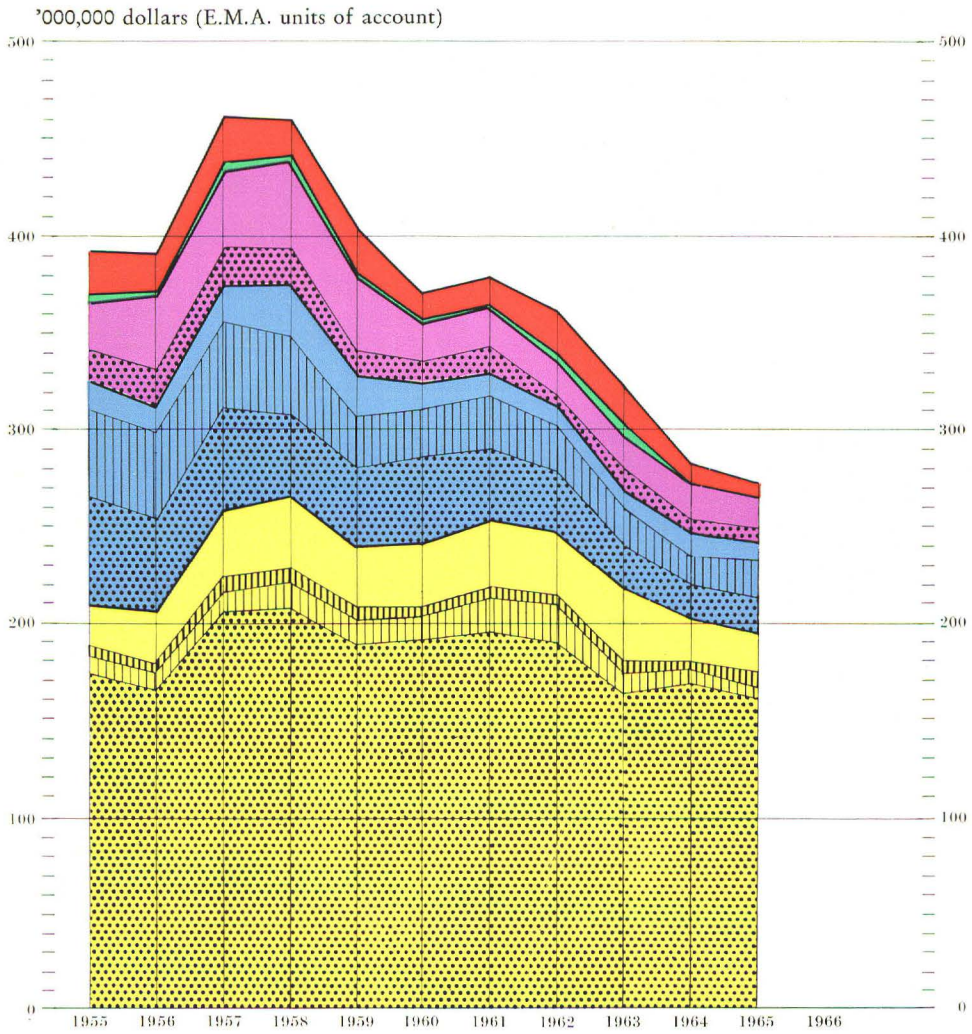
Capital Expenditure on Collieries,  
1954—1965

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

Type of installation	1954/1959 (annual average)	1960	1961	1962	1963	1964	1965
Shafts and underground workings ...	56.3	48.7	42.6	37.0	41.3	38.3	35.8
Mechanical equipment below ground .	56.8	52.7	58.3	56.4	56.5	59.8	56.7
Haulage and winding equipment ...	21.4	25.8	24.4	21.3	16.6	14.7	14.8
<i>Coal extraction</i> .....	<i>134.5</i>	<i>127.2</i>	<i>125.3</i>	<i>114.7</i>	<i>114.4</i>	<i>112.8</i>	<i>107.3</i>
Screening and washing .....	56.7	45.4	49.3	47.3	42.1	37.2	32.2
Other surface installations .....	32.9	32.9	35.1	33.9	35.7	30.2	28.8
Buildings, etc. ....	29.8	20.5	25.7	24.6	25.3	22.7	23.4
<i>Surface installations</i> .....	<i>119.4</i>	<i>98.8</i>	<i>110.1</i>	<i>105.8</i>	<i>103.1</i>	<i>90.1</i>	<i>84.4</i>
<b>Total</b> .....	<b>253.9</b>	<b>226.0</b>	<b>235.4</b>	<b>220.5</b>	<b>217.5</b>	<b>202.9</b>	<b>191.7</b>

FIGURE 3

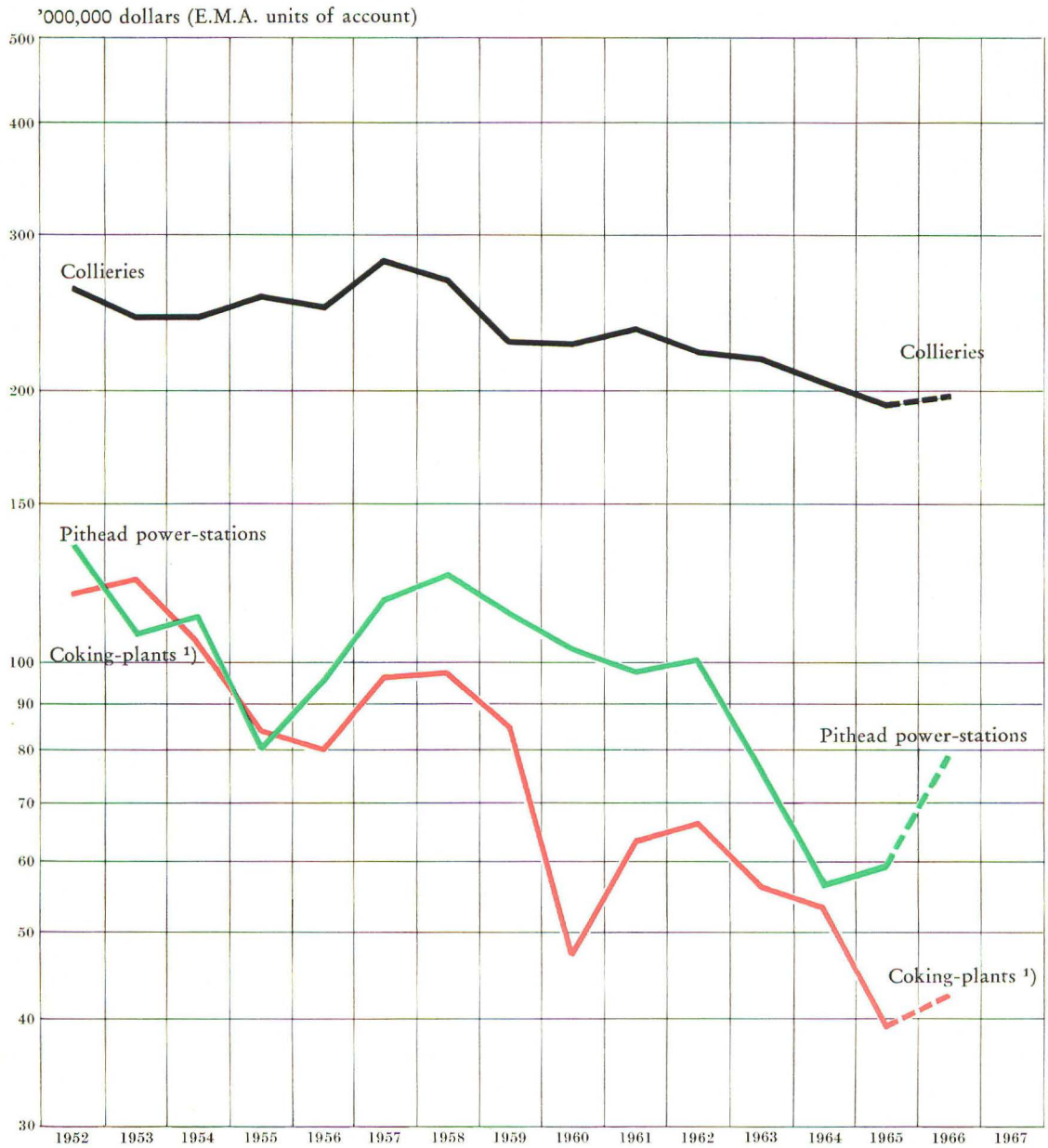
The Capital Expenditure in the Hard-Coal Industry <sup>1)</sup>



<sup>1)</sup> Exclusive of independent coking-plants.

FIGURE 4

Capital Expenditure in the Coalmining Industry



<sup>1)</sup> Mine-owned, steelworks-owned and independent coking-plants.

The minor increases here and there in production potential which will result from the projects now completed and in hand will nothing like offset the effects of current plans for the scrapping of capacity. The collieries' own declarations indicate that they envisage Community potential as contracting by slightly over 20 million tons in all between 1965 and 1969, but the resulting 1969 figure of 217 million tons does appear unduly high considering that exactly this tonnage was produced in 1965 and could not all be sold : the target recently set by the Community for 1970 is well below the level mentioned.

TABLE 7

Development of Hard-Coal Production Potential <sup>(1)</sup>

'000,000 metric tons

Production		Production potential				
1952	1965	1965	1966	1967	1968	1969
237.4	217.0	238.1	229.2	220.9	217.2	217.2

<sup>(1)</sup> As in previous years, mines producing only small tonnages are excluded; the total production of these small mines in 1965 amounted to approximately 1,400,000 tons.

Potential is expected to be smaller in 1969 than in 1965 in all the Community coalfields except Aachen and Sulcis. In both of these, and in the Ruhr and the Campine, it will be slightly larger than actual 1965 production.

Absolutely, the biggest decrease over the four years will be in the Ruhr, where a total capacity of 8,300,000 tons is to be scrapped ; then come Dutch Limburg with 2,800,000, the Saar with 2,400,000, Belgium with 2,200,000 in the Southern coalfield and 1,500,000 in the Campine, the Nord/Pas-de-Calais with 2,200,000, the French Centre/Midi with 900,000 and Lower Saxony with 600,000.

The number of working days per annum on which the production potentials indicated are based varies from coalfield to coalfield : 287 in France, 260 in Germany (295 in the Saar), 254 in the Netherlands, and 250 in most of the Belgian collieries.

## b) Coking-Plants

As can be seen from Table 5, capital expenditure on the mine-owned coking-plants has fallen year by year from an average 57,500,000 dollars in 1954-59 to a mere 17,300,000 in 1964 and 15,600,000 in 1965. Much of the 1965 outlay was, as before, in the Ruhr, in connection with the replacement of obsolete installations. Specific expenditure per ton of coke produced decreased from 1.3 dollar in 1954-59 to 0.4 in 1963-64 and barely 0.3 in 1965.

Expenditure on the independent coking-plants, which averaged 10,800,000 dollars a year from 1954 to 1959, suddenly plunged to 1,600,000 in 1960 and 1,400,000 in 1961: the slight revival since then has been due mainly to the expansion of a number of plants on the Italian seaboard, where coke can be made economically from American fines, but the higher expenditure there will not continue for much longer as the projects in question will shortly be completed.

Investment in the steelworks-owned coking-plants (here included to provide a full picture of the carbonization sector) remained substantial up to 1964, also in consequence of installations and extensions at the Italian coastal steelworks. In this case too the phase is nearly over, as may be seen from the following table. Two sets of estimates are given for 1966 and 1967, the first covering only projects already in progress or approved, and the second also including projects merely contemplated: one of the latter, for 1967, is a scheme to construct a steelworks-owned plant on the North Sea coast the coke from which would be used instead of that hitherto supplied by neighbouring mine-owned plants.

TABLE 8

Capital Expenditure on Steelworks-Owned Coking-Plants,  
1954—1967 (1)

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

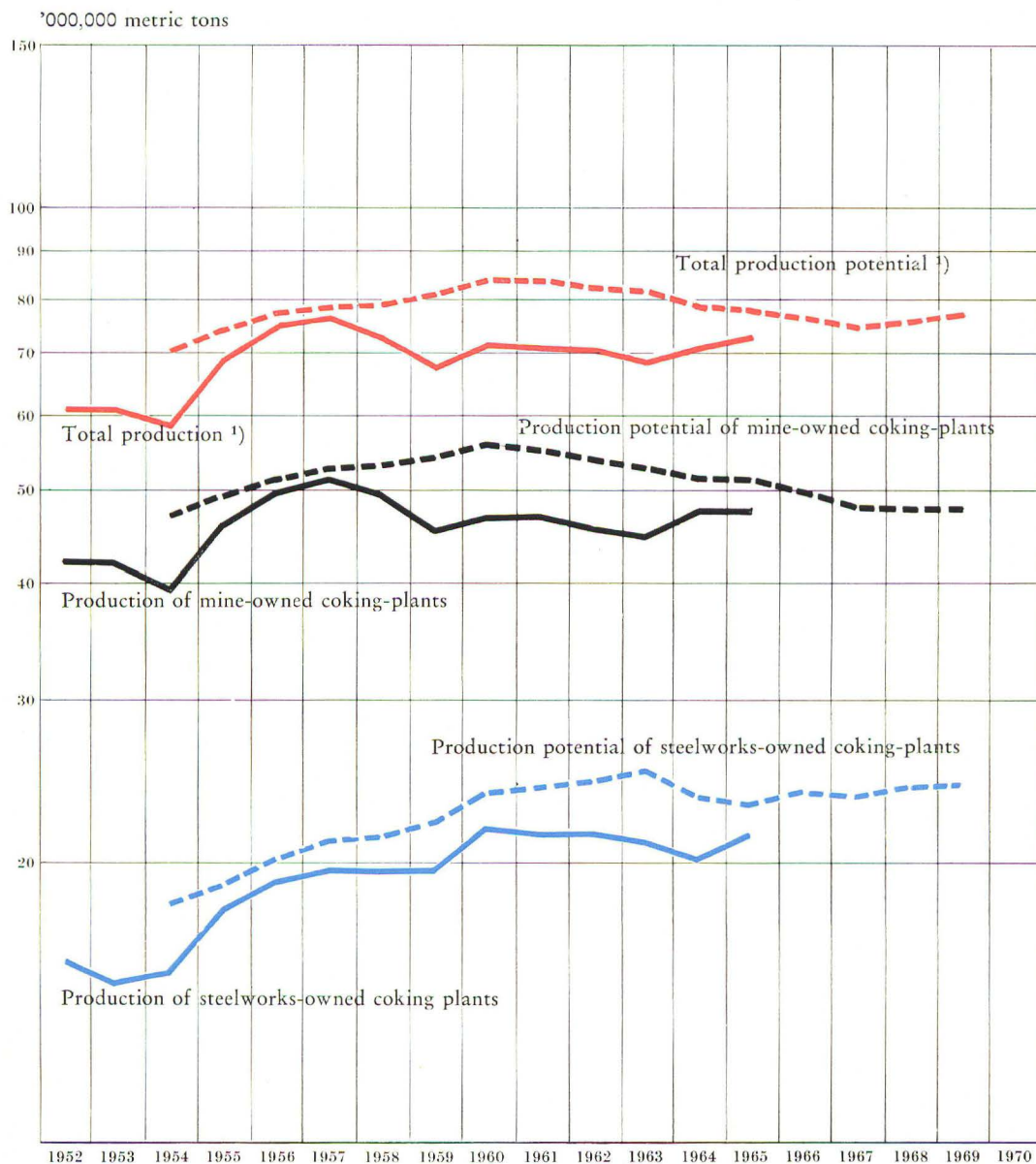
Actual expenditure							Estimated expenditure			
1954/59 annual average	1960	1961	1962	1963	1964	1965	1966		1967	
							Categ. A+B	Categ. A+B+C	Categ. A+B	Categ. A+B+C
22.9	11.5	18.3	25.0	33.8	29.7	17.8	15.0	19.0	11.5	20.3

(1) Cf. Table 16, under "The Iron and Steel Industry" (1966 and 1967 estimates for Categories A and B only).

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

FIGURE 5

Production and Production Potential of Coking-Plants



<sup>1)</sup> Mine-owned, steelworks-owned and independent coking-plants.

TABLE 9

**Capital Expenditure on Mine-Owned, Independent  
and Steelworks-Owned Coking-Plants,  
1954—1967**

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

Type of installation	1954/59 annual average	1960	1961	1962	1963	1964	1965
Coke ovens .....	37.9	20.7	26.6	29.2	28.0	17.6	12.4
<i>of which:</i>							
New plant .....	(21.6)	(9.6)	(13.7)	(14.4)	(21.2)	(12.4)	(5.3)
Renewals and replacements ...	(16.3)	(11.1)	(12.9)	(14.8)	(6.8)	(5.2)	(7.1)
Gas producers .....	2.4	0.9	0.6	2.1	0.7	3.6	1.7
Coke-oven gas and by-product plant	29.1	13.1	18.2	18.1	10.8	11.8	9.6
Miscellaneous .....	21.8	12.1	17.4	16.6	16.8	19.9	15.0
<b>Total .....</b>	<b>91.2</b>	<b>46.8</b>	<b>62.8</b>	<b>66.0</b>	<b>56.3</b>	<b>52.9</b>	<b>38.7</b>

The 1969 production potential of the mine-owned plants is estimated at 3,400,000 tons less than the 1965 figure, and that of the independent and steelworks-owned plants at 400,000 and 1,300,000 tons more respectively. The increases in these two sub-sectors (where a number of new batteries are to be installed to take imported fines) bring the net reduction in coking potential to only 1,700,000 tons, or 2 %.

TABLE 10

**Development of Coke Production Potential**

'000,000 metric tons

Category	Actual production		Actual expenditure				
	1952	1965	1965	1966	1967	1968	1969
Mine-owned plants .....	42.2	47.8	51.4	49.9	48.2	47.7	48.0
Independent plants .....	3.2	3.4	3.8	3.9	3.9	4.2	4.2
Steelworks-owned plants <sup>(1)</sup> .....	15.8	21.4	23.1	23.8	23.6	24.1	24.4
<b>Total .....</b>	<b>61.2</b>	<b>72.6</b>	<b>78.3</b>	<b>77.6</b>	<b>75.7</b>	<b>76.0</b>	<b>76.6</b>

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

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



### c) Briquetting-Plants

Capital expenditure remained lower in this sector than elsewhere, though for the last three years it has been slightly up on the previous level, not because of extensions to existing capacity, but because work is in progress on the construction of desmoking plants. There has been a push of late in the Campine, Nord/Pas-de-Calais and Centre-Midi to expand the production of smokeless ovoids, for use in place of sized anthracite and low-volatile coal; further sizeable sums are to be spent in this connection in the near future in the Centre-Midi and in Southern Belgium.

A certain contraction is, however, expected in French and German briquetting potential overall (smokeless and non-smokeless briquettes together). Aggregate Community potential will decrease by an estimated 2,300,000 tons over the next four years.

### d) Pithead power-stations

Capital expenditure under this head, after averaging over 100 million dollars a year from 1954 to 1962, slipped to 76 million in 1963 and 56 million on 1964, and stood in 1965 at 59 million (see Table 5). Only in the Ruhr, and on a very much smaller scale in Lower Saxony and Southern Belgium, is any fresh expansion planned for the next few years.

Many collieries are seeking to dispose of more of their coal by supplying piped thermal energy, direct or through specialized agencies, towards the provision of heating and refrigeration for urban agglomerations and industry: expenditure specifically for this purpose by Community enterprises amounted both in 1964 and in 1965 to some six million dollars, as compared with under two million in previous years.

TABLE 11

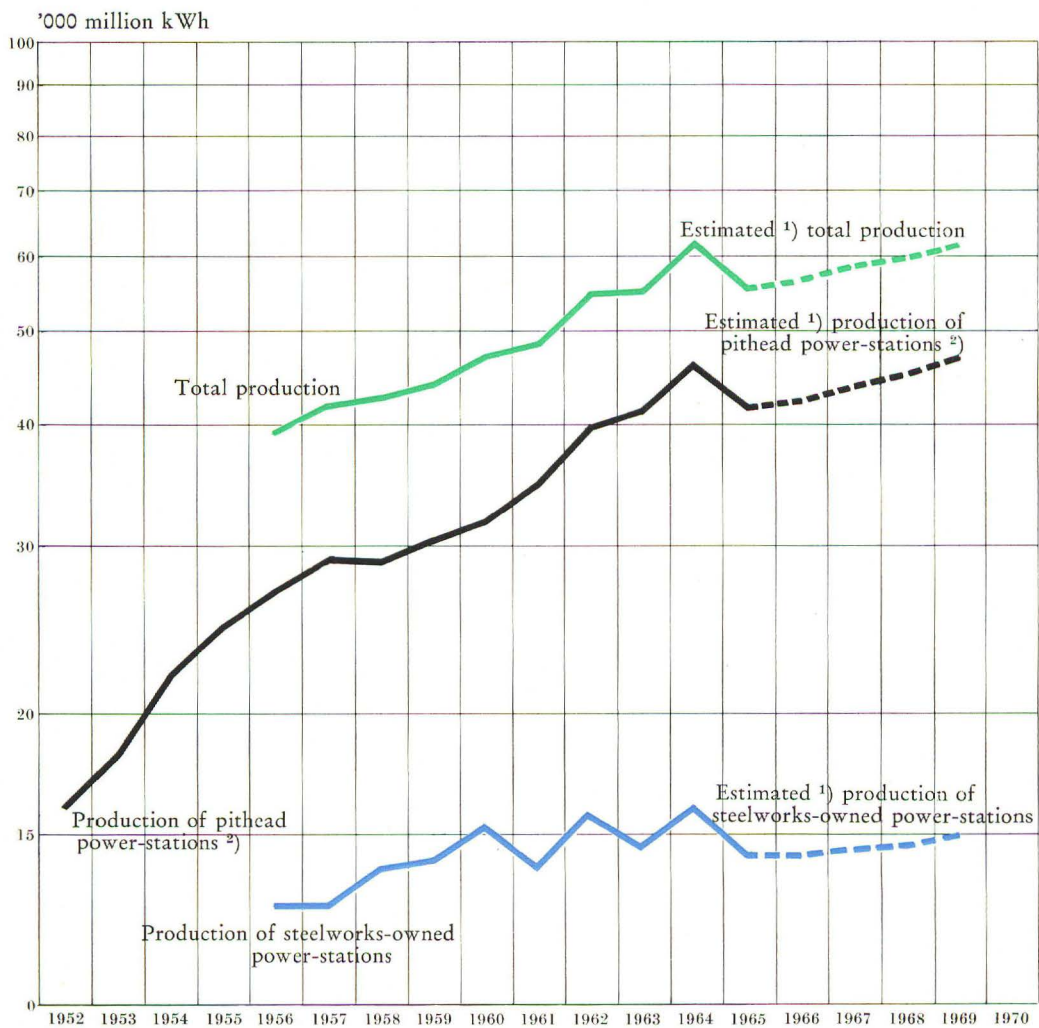
Capital Expenditure on Pithead Power-Stations and Other  
Power-Generating Plant at Mines, by Types of Installations,  
1954—1965

'000,000 dollars (EM A. units of account)

Type of installation	1954/ 1959 (annual average)	1960	1961	1962	1963	1964	1965
Steam-raising plant .....	40.2	36.4	28.2	40.3	25.2	17.2	19.8
Power-generating plant and distribution switchgear .....	33.4	42.5	43.8	34.4	24.1	14.4	13.9
Buildings .....	9.6	7.5	10.1	9.4	11.7	8.8	7.1
Electricity distribution networks	9.8	7.0	5.7	6.0	5.6	3.2	4.2
Compressed-air plant .....	5.3	2.7	1.4	0.3	2.1	2.3	1.1
Miscellaneous .....	8.6	6.5	7.7	9.5	7.1	9.6	12.5
<b>Total .....</b>	<b>106.9</b>	<b>102.6</b>	<b>96.9</b>	<b>99.9</b>	<b>75.8</b>	<b>55.5</b>	<b>58.6</b>

FIGURE 6

Electric Power Production



1) For 1966 and following years energy production figures have been estimated on the basis of the maximum electric capacity as in mid-year assuming the same number of load-hours as in 1965, i.e. 4,282 hours per annum for the pithead power-stations and 4,412 hours per annum for the steelworks-owned power-stations.  
 2) Pithead power-stations proper and other power-stations plant at mines.

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

TABLE 12

## Development of Maximum Electric Capacity

*in MW*

	Beginning of 1965	Beginning of 1966	Beginning of 1967	Beginning of 1968	Beginning of 1969	Beginning of 1970
Pithead power-stations ...	9 733	9 675	10 080	10 356	10 709	11 191
Steelworks-owned power-stations .....	3 222	3 226	3 226	3 286	3 286	3 472

Only a gradual growth can now be expected in the installed capacity of the pithead and steelworks-owned stations. Their rate of operation dropped in 1965 owing to the high water run-off : assuming they continued working at the low rates of 4,282 and 4,412 load-hours respectively, the pithead stations' output of electric current would rise between 1965 and 1969 from 41,600 to 46,900 million kWh and the steelworks-owned stations' from 14,200 to 14,900 million, which would enable them to produce about the same amount of current as they did in 1964 at a higher number of load-hours.

Tables XI annexed give some technical data on the operation of the pithead stations (specific consumption in calories per kWh, consumption of low-grade coal, load-hours per annum). It should be noted that their specific consumption in 1965, as in 1964, averaged less than 3,000 kcal/kWh, although as before the coal used to fuel them consisted 90 % of low-grade matter (reckoned ton for ton).

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

Capital expenditure on the B.K.B. plants remains fairly high, but with the various closures in prospect production potential is nevertheless expected to contract from 12,300,000 to 11,900,000 tons over the next four years.

Production of low-temperature brown-coal coke is to cease altogether by the end of 1967.

### III. THE IRON-ORE MINES

Overall, the slide in capital expenditure on the Community iron-ore mines appears to have reached the point of no return. The 1965 figure was barely half that for 1961 : only in Lorraine, and to a lesser extent the Western French orefield, is further expenditure being planned on any scale to speak of.

TABLE 13

#### Capital Expenditure in the Iron-Ore Industry, 1954—1967

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

Type of installation	Actual expenditure							Estimated expenditure (Categories A+B+C)	
	1954-59 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967
Mining of ore .....	21.3	26.1	30.8	26.1	19.6	18.2	17.6	16.3	14.1
Preparation of ore at mine .....	8.9	7.5	9.6	8.1	3.9	2.3	2.3	3.8	1.8
Various surface installations .....	9.0	9.6	12.0	12.4	4.7	3.4	5.8	3.9	2.5
<b>Total .....</b>	<b>39.2</b>	<b>43.2</b>	<b>52.4</b>	<b>46.6</b>	<b>28.2</b>	<b>23.9</b>	<b>25.7</b>	<b>24.0</b>	<b>18.4</b>

From 1952 to 1960 Community production of crude ore rose progressively from 65,300,000 to 95,900,000 tons, *i.e.* at an average cumulative annual rate of 4.9 % ; for Lorraine the increase was 6.6 %, from 37,700,000 tons to 62,700,000.

Since 1960, as a result of competition from overseas ores, the Community's production has been falling by an average 4 % a year, (Lorraine 2.2 % and the other orefields taken together 7.9 %). A corresponding contraction began in 1963 in production potential, which decreased over the three years 1963-65 by 7,400,000 tons. In most of the orefields it is accepted that there is no possibility of stopping the decline ; the Lorraine producers, however possibly underestimating the difficulties they are up against, hope to go on expanding their capacity appreciably.

TABLE 14

## Development of Crude-Ore Extraction Potential

'000,000 metric tons

Extraction		Extraction potential				
1952	1965	1965	1966	1967	1968	1969
65.3	78.7	90.5	90.6	90.2	92.8	94.7

Lorraine ore accounted for about 65 % of total Community production around 1959-1960 ; in 1965 it accounted for 71 %, and its share in production potential is expected, according to the January 1, 1966 estimates, to reach 74 % in 1969.

#### IV. THE IRON AND STEEL INDUSTRY

From 1955 to 1959 capital expenditure in the Community iron and steel industry rose from 524 to 587 million dollars, touching a peak of 708 million in 1957. This comparatively stable period was followed by three years of rocketing investment, but as the major projects approved in 1960 and 1961 were successively completed the level began to go down again in 1964 and dropped quite markedly in 1965. The 1965 figure of 935 million dollars is, however, still far above the average for the earlier years.

French, German and Luxembourg specific expenditure per ton produced has for several years been comparatively low. The Belgian steelmakers, on the other hand, spent very substantial sums indeed during 1965, and the Dutch industry is planning to spend possibly even more in the near future. Italian investment which in 1963-1964 accounted for more than one-third of the Community total, is now coming down to a level more commensurate with the size of the country's production.

The decrease in expenditure in 1965 was pretty evenly distributed as among pig-iron, steelmaking and rolling capacity and general services, so that the proportions remained about the same as in 1964, at 17 %, 14 %, 45 % and 24 % of the total respectively.

TABLE 15

Capital Expenditure in the Iron and Steel Industry,  
1954—1967

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

Type of installation	Actual expenditure							Estimated expenditure (Categories A+B)	
	1954-59 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967
<i>Plant for production of:</i>									
pig-iron .....	143.3	172.2	218.8	233.2	258.4	222.7	161.5	157.0	104.1
crude steel .....	84.1	95.4	162.8	152.4	175.0	158.3	128.4	142.4	111.1
rolled products .....	249.8	350.3	532.4	597.6	726.4	634.3	424.8	473.6	311.2
<i>General services .....</i>	103.8	157.3	209.1	247.1	319.7	300.0	220.2	200.9	124.4
<b>Total .....</b>	<b>581.0</b>	<b>775.2</b>	<b>1 123.1</b>	<b>1 230.3</b>	<b>1 479.5</b>	<b>1 315.3</b>	<b>934.9</b>	<b>973.9</b>	<b>650.8</b>

FIGURE 7

The Capital Expenditure in the Iron and Steel Industry

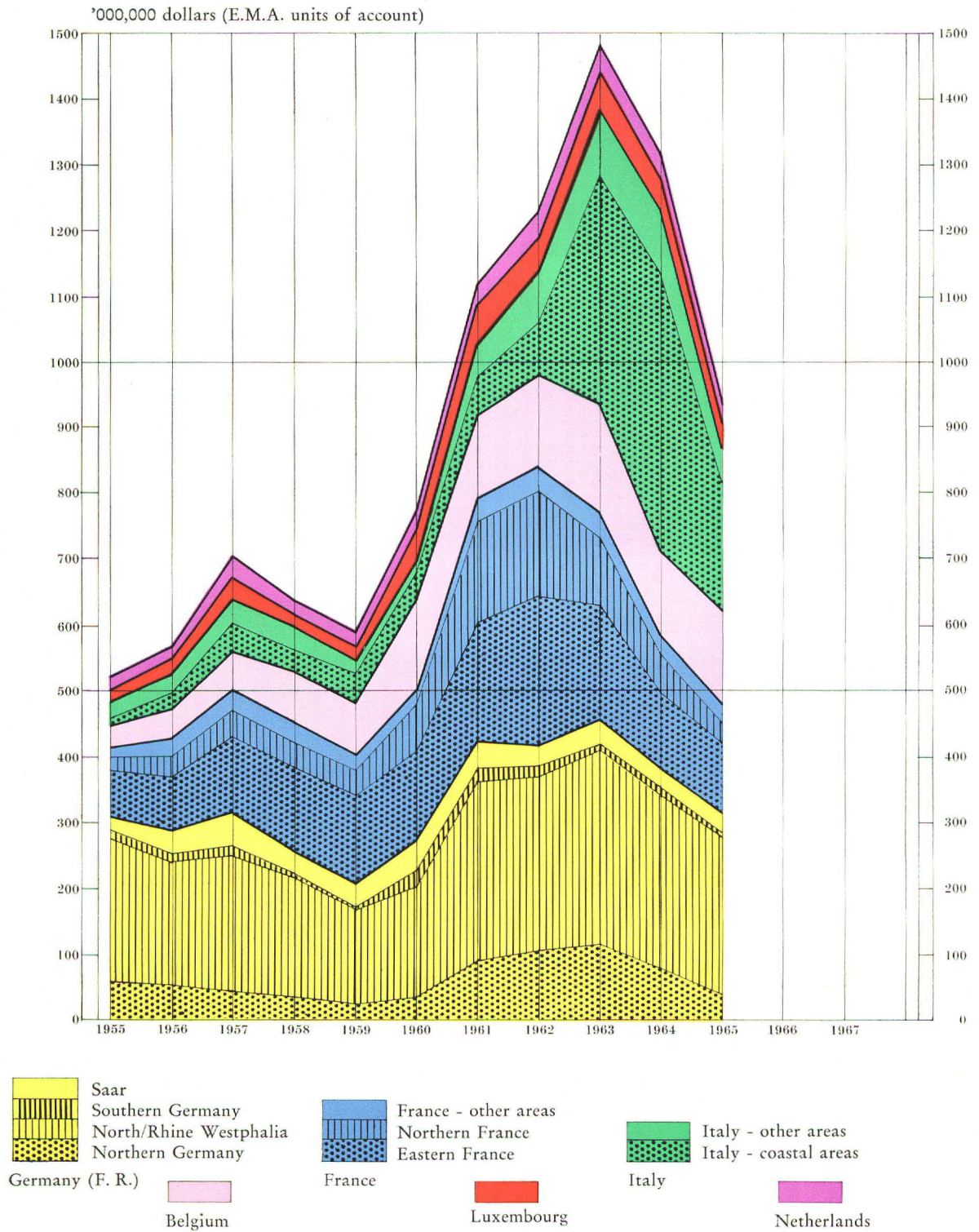
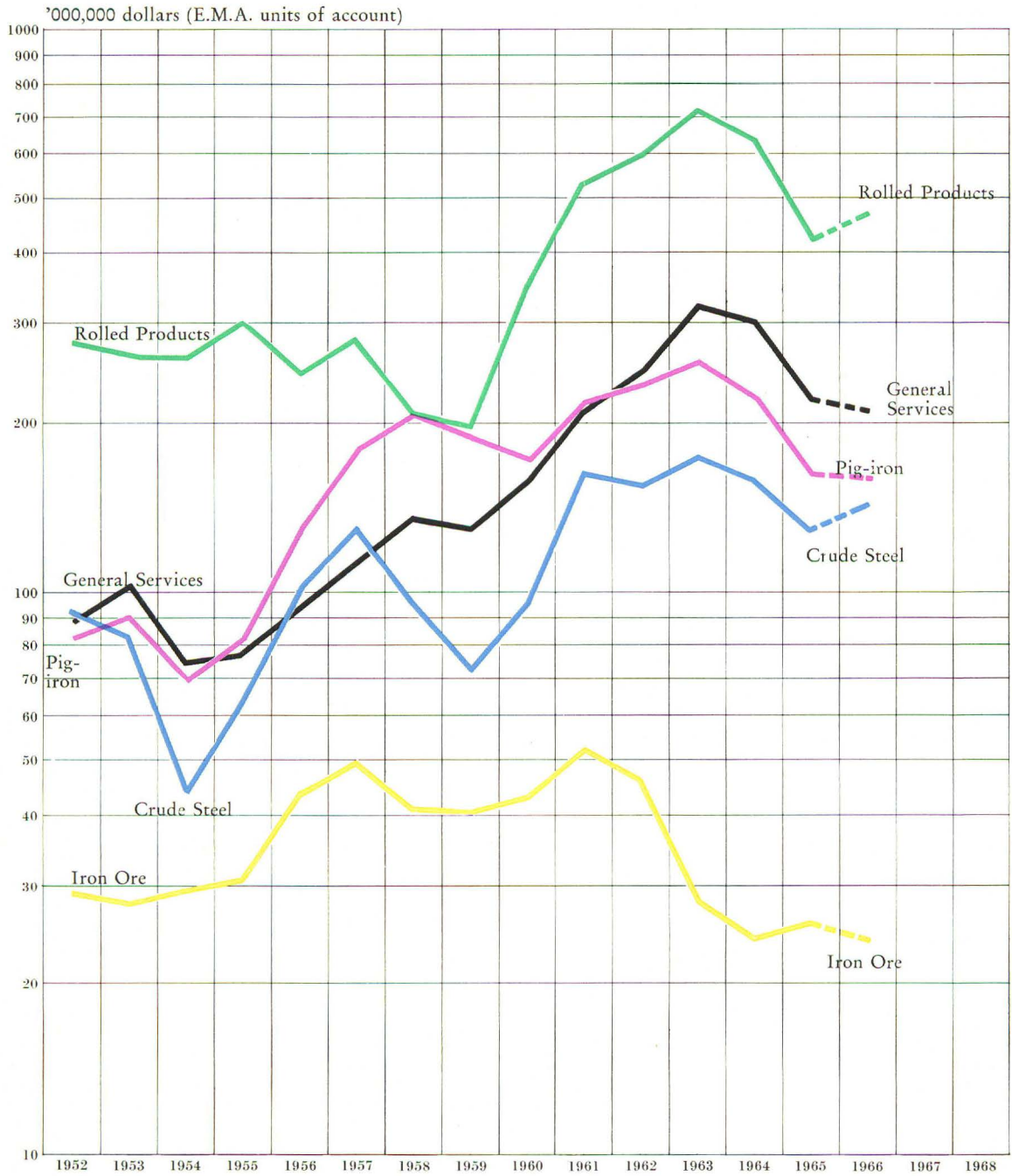


FIGURE 8

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





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

### a) Pig-Iron Production

The proportion of total expenditure devoted to pig-iron production plant (steelworks-owned coking-plants, burden-preparation installations and blast-furnaces), which in 1958-59 stood at 32 %, subsequently declined ; for the last three years it has been down around 17 %, and a further decrease is expected in 1966.

This contraction is due partly to the fact that less work is being done on the industry's coking-plants, and partly to the completion of many new burden-preparation installations in most parts of the Community. As regards the blast-furnaces themselves, attention is being concentrated mainly on the reconstruction and extension of existing plant, which is still costing quite considerable sums of money.

TABLE 16

Capital Expenditure on Pig-Iron Production Plant,  
1954—1967

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

Type of installation	Actual expenditure								Estimated expenditure (Categories A+B)
	1954-1959 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967
Steelworks-owned coking-plants .....	22.9	11.5	18.3	25.0	33.8	29.7	17.8	15.0	11.5
Burden preparation .....	42.7	73.7	93.3	110.9	123.2	85.0	52.6	61.9	41.3
Blast-furnaces .....	77.7	87.0	107.2	97.3	101.4	108.0	91.1	80.1	51.3
<b>Total .....</b>	<b>143.3</b>	<b>172.2</b>	<b>218.8</b>	<b>233.2</b>	<b>258.4</b>	<b>222.7</b>	<b>161.5</b>	<b>157.0</b>	<b>104.1</b>

As was noted in Section II, the industry's **coke** production potential is expected to remain almost the same, rising only from 23,100,000 to 23,700,000 tons between 1965 and 1969. The increase could, however, be larger if a scheme to construct two new coking-plants on the North Sea coast instead of one is finally implemented.

**Sinter** potential increased more than fourfold between 1952 and 1965, and now, ton for ton, appreciably exceeds the Community's pig-iron capacity. Naturally, the expansion is now bound to level off, but there is to be a further increase of at least 18 % by 1969, as a good deal of leeway still remains to be made up in some areas, and more particularly in France.

**Pig-iron** production potential is expected to grow by 13 % between 1965 and 1969, as a result of measures taken or to be taken to enlarge the hearth diameter of many blast-furnaces and the fact that it will be possible to use larger amounts of high-grade ore and sinter.

TABLE 17

**Development of Production Potential of Pig-Iron  
Production Plant**

'000,000 metric tons

Product	Actual production		Production potential				
	1952	1965	1965	1966	1967	1968	1969
Coke (steelworks-owned plants) <sup>(1)</sup>	15.8	21.4	23.1	23.8	23.6	23.8	23.7
Sinter .....	15.6	68.9	79.8	84.5	88.6	91.2	94.0
Pig-iron .....	34.7	63.2	75.4	79.3	82.1	83.7	85.2

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

### b) Steel Production

Little is being spent on **basic Bessemer** and **open-hearth** steelmaking plant : such investment as there was was almost entirely confined to the Ruhr, the Saar and Lorraine, though a certain amount also went in Luxembourg on basic Bessemer and at the Italian coastal works on open-hearth.

Expenditure on **electric-furnace** capacity dropped to just under 17 million dollars in 1965, after remaining around 20 million from 1961 to 1964. Most of it was effected in Central France, and much of the rest in Northern Italy, where, incidentally, the boom seems definitely to have petered out since the turnround in 1964.

The rapid expansion in **oxygen steelmaking** capacity is still much in evidence, accounting in 1965 as in the two previous years for nearly 70 % of the industry's total expenditure on crude-steel production plant.

The Italian coastal works' share of this investment, hitherto preponderant, is now equalled by those of Belgium and the Ruhr ; the other parts of the Community, however, are doing comparatively little in this direction, whether or not they already possess sizeable amounts of oxygen-blown plant.

FIGURE 9

Breakdown of Capital Expenditure in the Iron and Steel Industry

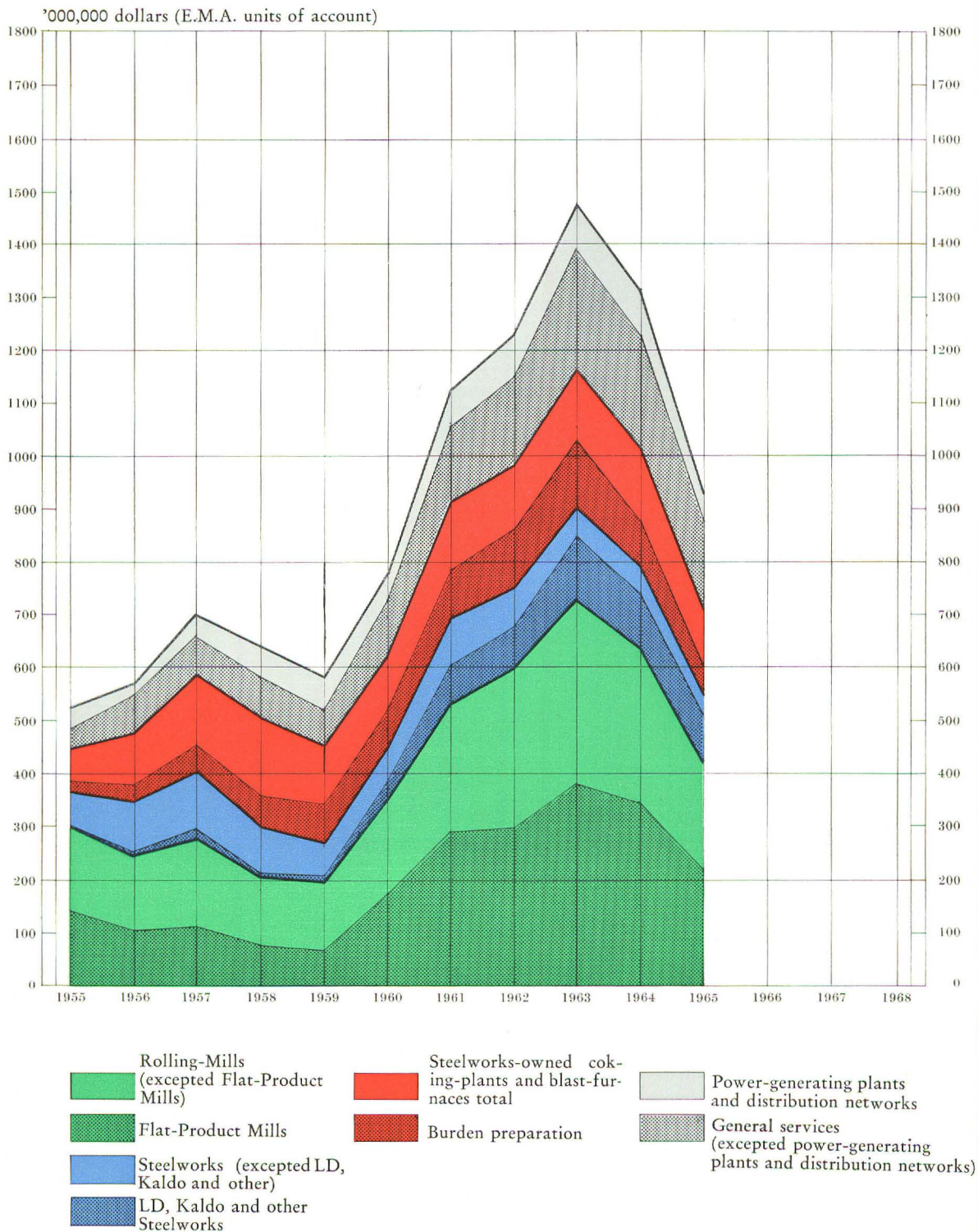


TABLE 18

Capital Expenditure on Steelmaking Plant, by Production Processes,  
1954—1967

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

Production process	Actual expenditure							Estimated expenditure (Categories A+B)	
	1954/59 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967
Basic Bessemer .....	30.4	21.2	24.2	23.0	18.4	9.2	10.7	15.4	8.5
Open-hearth .....	33.5	29.1	44.8	30.2	18.5	22.7	13.5	12.1	8.2
Electric-furnace .....	13.0	11.1	21.8	21.1	18.1	19.9	16.8	12.7	10.7
L/D, Kaldo, etc. ....	7.2	34.0	72.0	78.1	120.0	106.5	87.4	102.2	83.7
<b>Total</b> .....	<b>84.1</b>	<b>95.4</b>	<b>162.8</b>	<b>152.4</b>	<b>175.0</b>	<b>158.3</b>	<b>128.4</b>	<b>142.4</b>	<b>111.1</b>

Community crude-steel production potential in 1965 for the first time topped 100 million tons. The rate of utilization, however, was only 84.3 %, owing to the state of the market. The great object from now on will be not to expand capacity, but to cut production costs.

The estimated increase in steelmaking potential over the next four years works out at 16 million tons net — 17,300,00 tons for oxygen-blown and 1,400,000 for electric-furnace plant, minus reductions of perhaps 2,100,000 for basic Bessemer and 600,000 for open-hearth.

TABLE 19

Development of Crude-Steel Production Potential,  
by Production Processes

'000,000 metric tons

Production process	Actual production		Production potential				
	1952	1965	1965	1966	1967	1968	1969
Basic Bessemer .....	23.0	32.1	37.0	37.0	36.0	35.3	34.9
Open-hearth .....	15.2	26.9	33.0	33.5	33.7	32.1	32.4
Electric-furnace .....	3.3	10.4	12.5	13.2	13.5	13.9	13.9
L/D, Kaldo, etc. ....	0.3	16.6	19.5	25.1	29.8	34.5	36.8
<b>Total</b> .....	<b>41.8</b>	<b>86.0</b>	<b>102.0</b>	<b>108.8</b>	<b>113.0</b>	<b>115.8</b>	<b>118.0</b>

Although the bulk of the industry's expenditure on the crude-steel side is now going on oxygen-blown plant, the estimated incidence varies considerably from one part of the Community to another. The Dutch, North German and coastal Italian producers hope by 1969 to be making half their steel by the LD and LD/AC processes, and their opposite numbers in Northern France and the Ruhr a third ; in the enterprises close to the Lorraine orefield the proportions range down from rather over a quarter in Luxembourg to one-sixth in the Saar and only one-tenth in Lorraine itself, while everywhere else in the Community practically no interest has as yet been shown in oxygen steelmaking at all. Needless to say, this is absolutely no indication as to the relative competition capacity of the industry in the different areas : each of the production processes has its own particular advantages, according to the characteristics of the ores used and the purpose for which the steel is to be used.

Nowhere in the Community is it planned to make any additions to speak of to basic Bessemer capacity, or, except possibly in Northern Italy, to open-hearth. For the Community taken as a whole, expansion is now confined to the electric-furnace and above all the oxygen steels.

TABLE 20

**Shares of the Different Steelmaking Processes  
in 1952, 1965 and 1969**

Production process	Actual production	Production potential	
	1952 Actual share	1965 Actual share	1969 Estimated share
Basic Bessemer .....	55.0	36.3	29.6
Open-hearth .....	36.4	32.4	27.4
Electric-furnace .....	7.9	12.2	11.8
L/D, Kaldo, etc. ....	0.7	19.1	31.2
<b>Total</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

The oxygen steels, then, will in all probability account for a larger proportion of the total than any other from 1969 onwards. Up to 1969, oxygen steelmaking potential may be expected to continue growing by an average of some 17 % a year, and basic Bessemer and open-hearth potential to contract little by little.

FIGURE 10

Actual Production and Production Potential of the Iron and Steel Industry

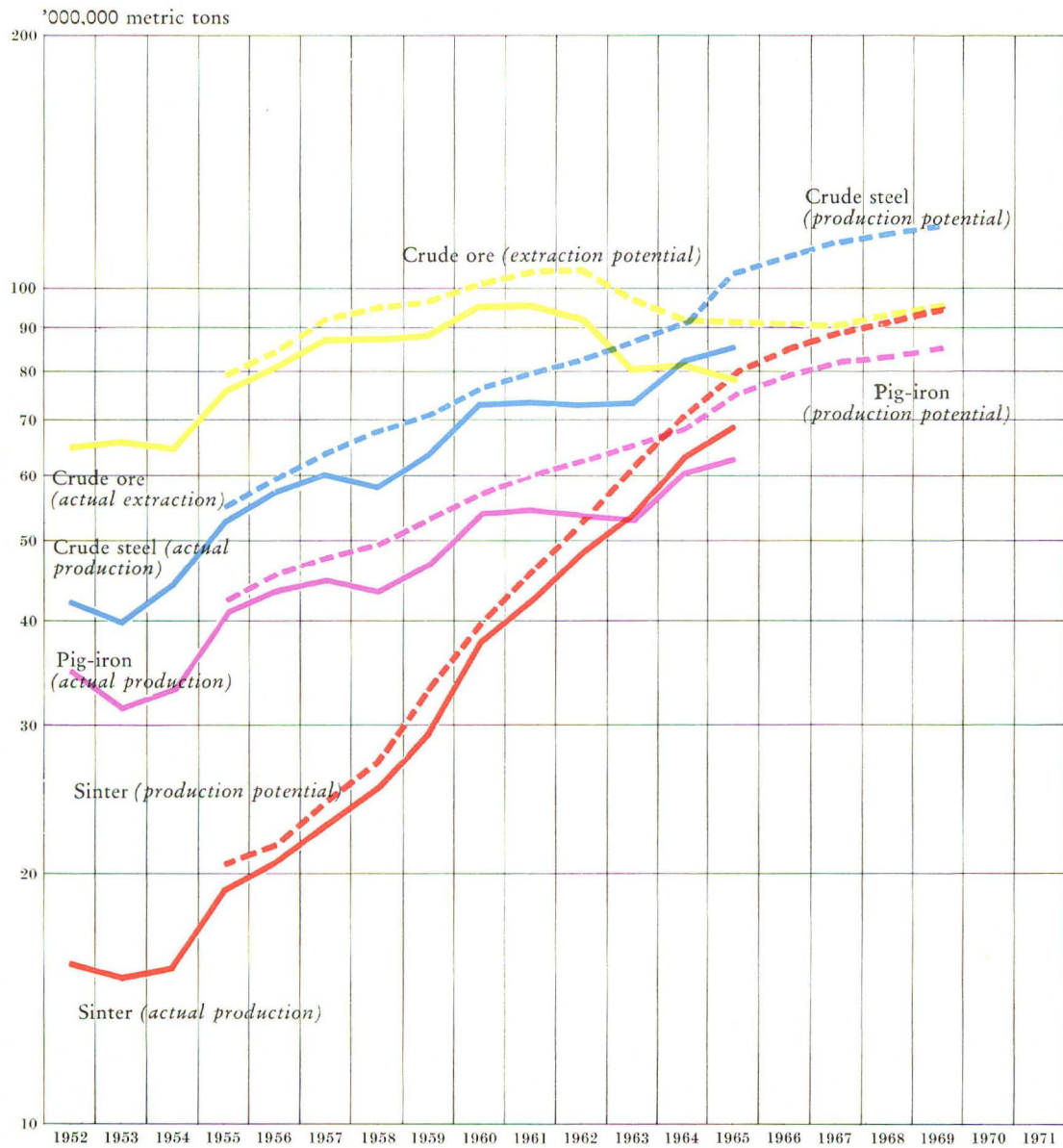


FIGURE 11

Actual Production and Production Potential of Crude Steel by Production Process

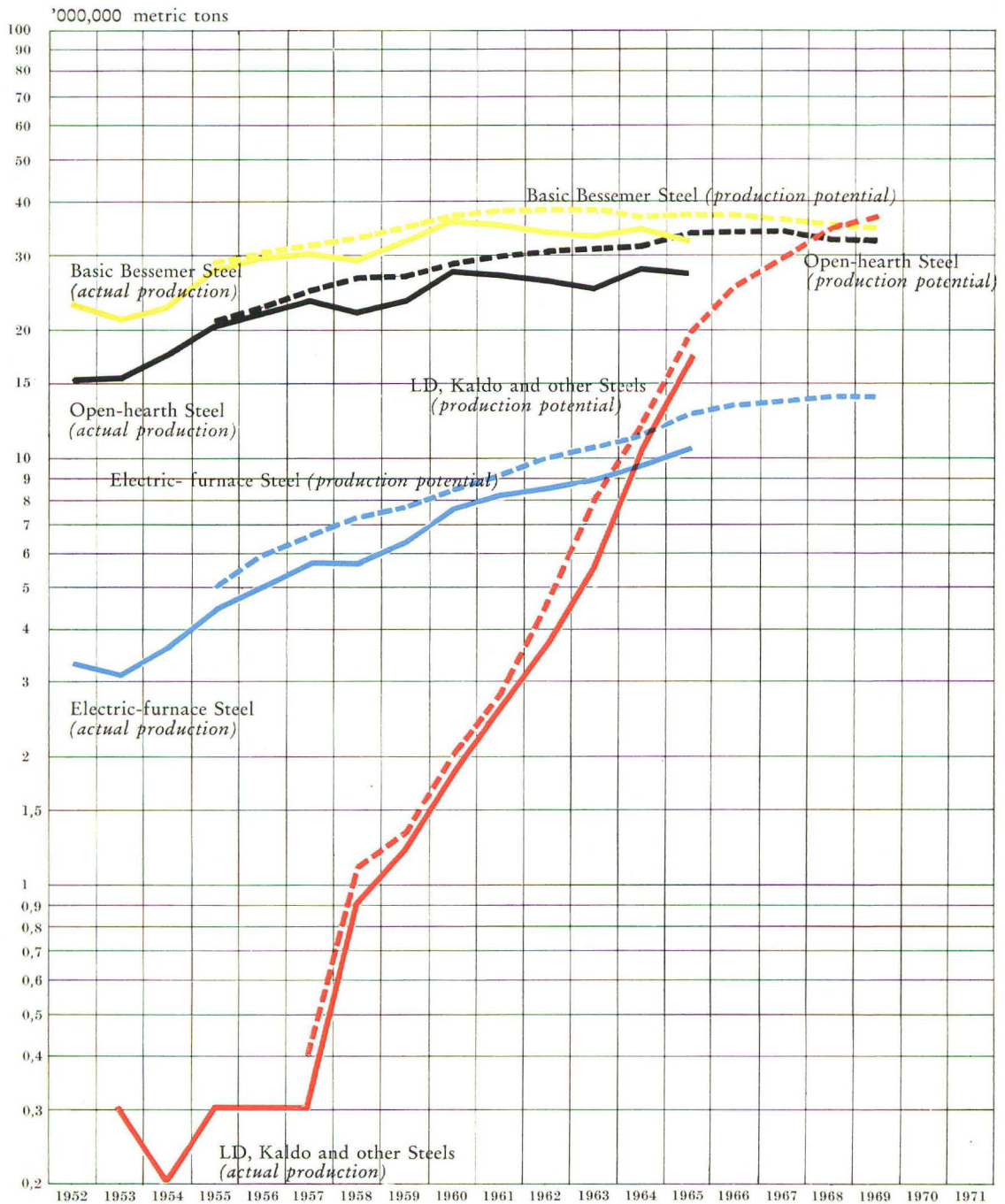


TABLE 21

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

Production process	Average annual rate of increase in actual production 1952-65	Estimated average annual rate of increase in production potential 1965-69
<b>Pig-iron (for comparison)</b>	+ 4.7	+ 3.1
Basic Bessemer .....	+ 2.6	— 1.5
Open-hearth .....	+ 4.5	— 0.5
Electric-furnace .....	+ 9.2	+ 2.7
L/D, Kaldo, etc. ....	+ 36.2	+ 17.2
<b>Total, crude steel</b>	+ 5.7	+ 3.7

## c) Production of Semis and Rolled Products

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

Since 1960 more than twice as much has been spent on the flat-product mills as on the section mills. In the case of flats the producers are concentrating about equally on the hot and the cold wide-strip mills, while for sections rather less is going on the wire mills and rather more in particular, on the small-bar mills.

Special mention should be made of the continuous-casting installations, whose share in the industry's total expenditure in this sector doubled in 1965 from 1 % to 2 %, and is expected to shoot up to over 7 % in 1966 — two-thirds of the estimated share of the blooming and slabbing mills. The projects concerned are practically all in the Ruhr and Saar and in inland Italy.



TABLE 22

## Capital Expenditure on Production Capacity for Semis and Rolled Products 1954—1967

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

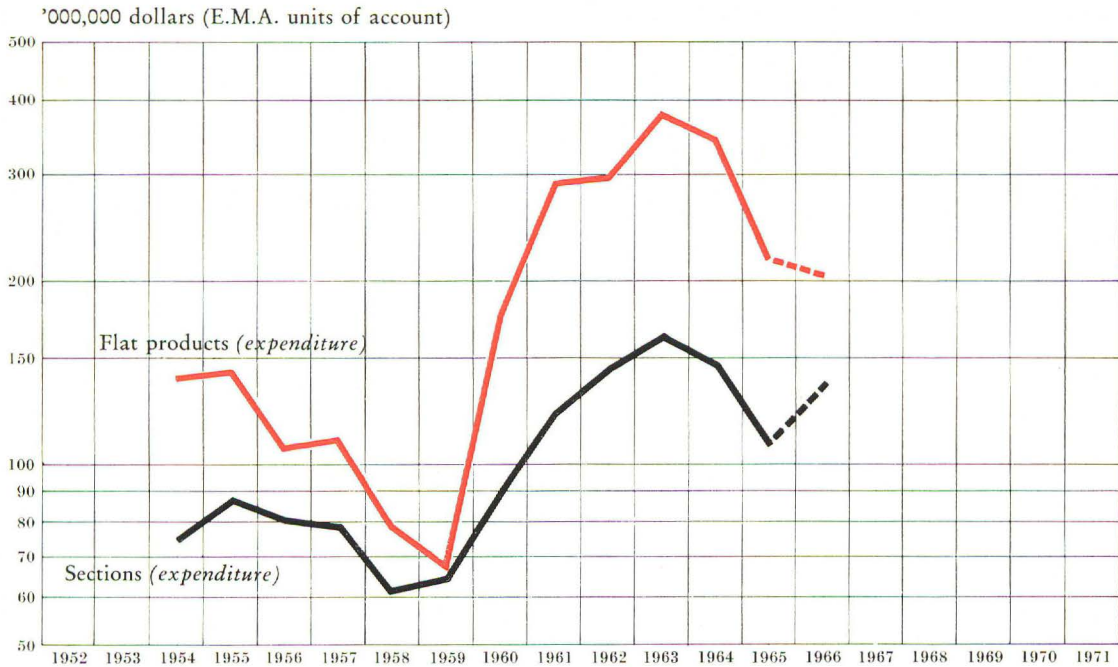
Type of mill	Actual expenditure							Estimated expenditure (Categories A+B)	
	1954/59 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967
Heavy and medium section mills . . . . .	33.5	55.0	66.4	66.0	74.6	54.9	43.8	62.5	42.4
Small-bar mills . . . . .	29.9	19.2	26.2	27.5	48.8	67.3	50.6	49.9	17.3
Wire mills . . . . .	11.0	16.2	28.4	51.0	40.0	24.1	13.7	22.2	15.8
<i>Total section mills</i>	<i>74.4</i>	<i>90.4</i>	<i>121.0</i>	<i>144.5</i>	<i>163.4</i>	<i>146.3</i>	<i>108.1</i>	<i>134.6</i>	<i>75.5</i>
Hoop and strip mills . . . . .	8.8	4.3	5.5	8.6	8.2	4.8	10.0	11.9	8.4
Plate and universal mills . . . . .	29.0	24.8	35.4	46.2	64.0	32.2	22.6	29.0	17.5
Hot sheet mills . . . . .	2.9	3.7	6.0	2.1	2.3	0.8	1.1	0.5	0.2
Cold sheet mills . . . . .	1.4	0.4	0.7	0.4	0.1	0.4	0.5	0.3	0.1
Hot wide-strip mills . . . . .	27.0	27.5	67.0	65.5	158.7	147.0	90.2	98.0	59.8
Cold wide-strip mills . . . . .	38.8	114.8	178.6	175.9	147.1	159.3	94.2	65.6	41.8
<i>Total, flat-product mills</i>	<i>107.9</i>	<i>175.5</i>	<i>293.2</i>	<i>298.7</i>	<i>330.4</i>	<i>344.5</i>	<i>218.6</i>	<i>205.3</i>	<i>127.8</i>
<i>Blooming and slabbing mills</i> . . . . .	<i>35.5</i>	<i>43.6</i>	<i>74.8</i>	<i>91.3</i>	<i>108.7</i>	<i>78.6</i>	<i>45.1</i>	<i>51.2</i>	<i>47.7</i>
<i>Continuous-casting installations</i> . . . . .				<i>2.3</i>	<i>4.1</i>	<i>5.6</i>	<i>10.1</i>	<i>34.5</i>	<i>34.9</i>
<i>Miscellaneous</i> . . . . .	<i>32.1</i>	<i>40.8</i>	<i>43.4</i>	<i>60.8</i>	<i>69.8</i>	<i>59.3</i>	<i>42.9</i>	<i>48.0</i>	<i>25.3</i>
<b>Total</b> . . . . .	<b>249.9</b>	<b>350.3</b>	<b>532.4</b>	<b>597.6</b>	<b>726.4</b>	<b>634.3</b>	<b>424.8</b>	<b>473.6</b>	<b>311.2</b>

Since the Community's inception, actual production of finished rolled products has increased at an average 5.6 % a year, 4.2 % for sections and 7.7 % for flats. Despite the very large amounts which have been or are to be spent on wide-strip capacity, the rate of growth in production potential for flats is now expected to work out lower than that for sections, at 3.0 % as against 3.9 %.

FIGURE 12

Sections and Flat Products

A - Capital expenditure



B - Actual production and production potential

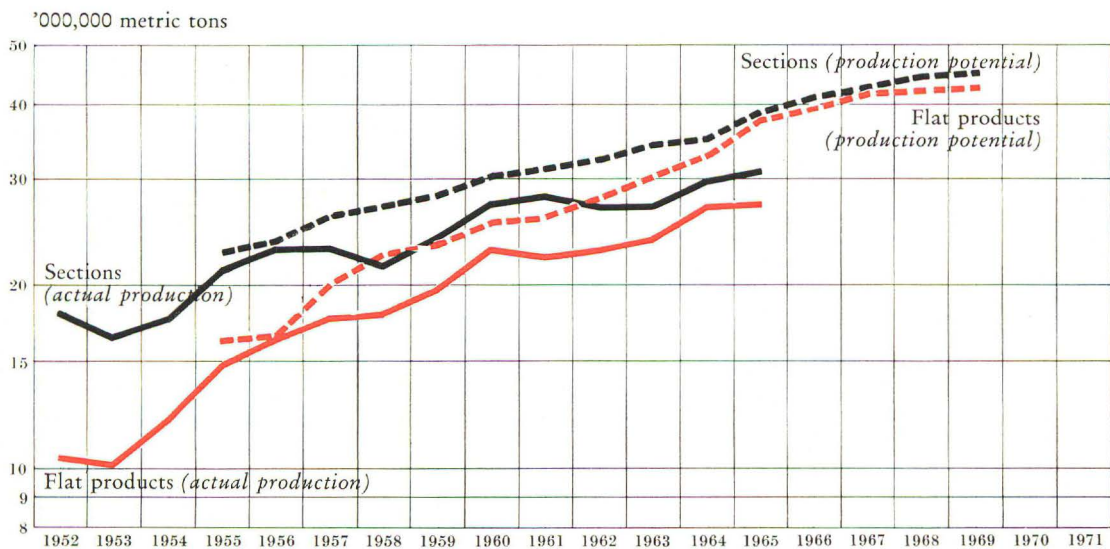


FIGURE 13

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

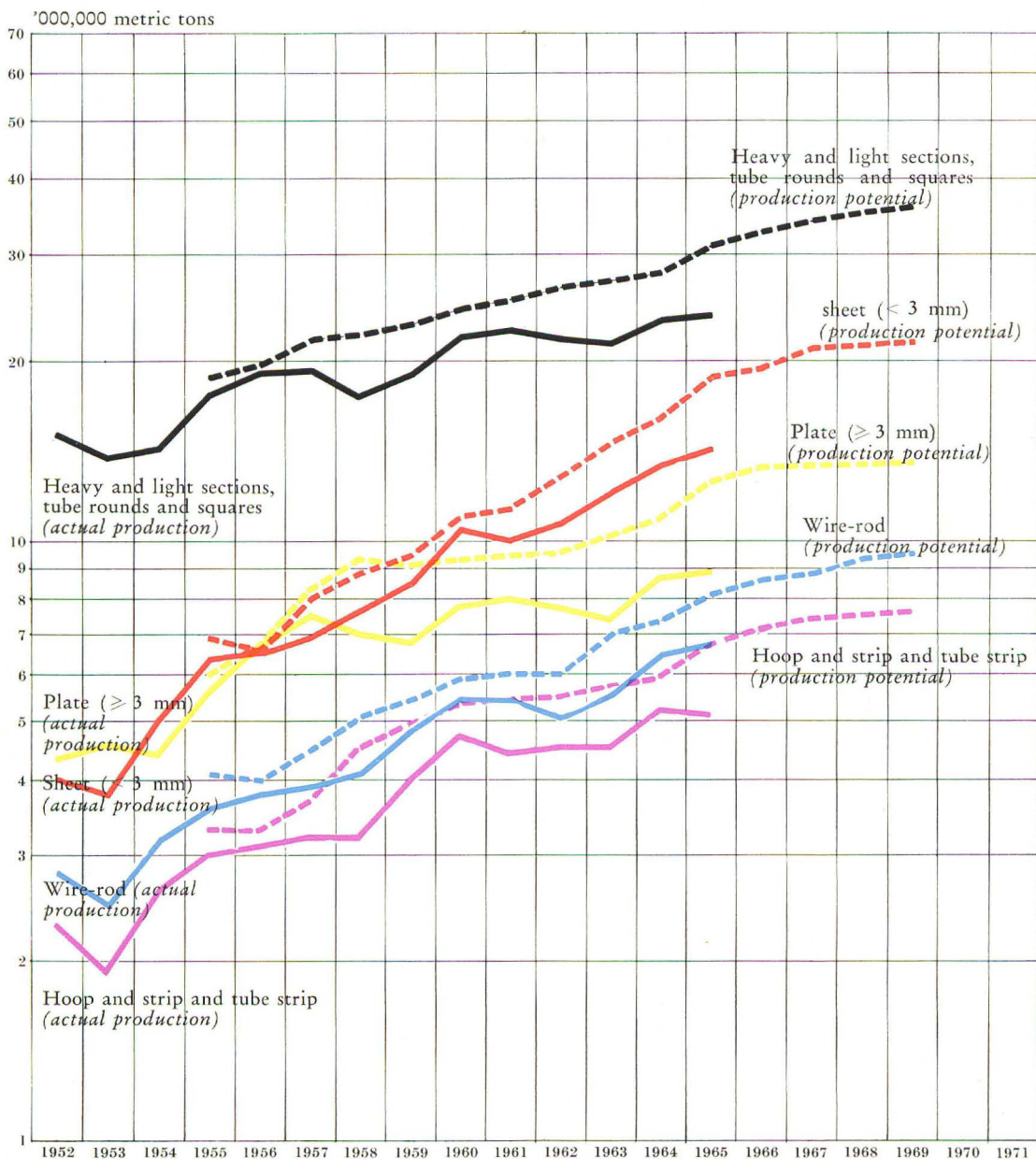


TABLE 23

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

Product	Actual production			Production potential		
	1952 ( <sup>'000,000</sup> m.t.)	Average cumulative annual rate of increase (in %)	1965 ( <sup>'000,000</sup> m.t.)	1965 ( <sup>'000,000</sup> m.t.)	Average cumulative annual of rate increase (in %)	1969 ( <sup>'000,000</sup> m.t.)
Heavy and light sections, incl. tube rounds and squares .....	15.2	+ 3.5	23.9	30.8	+ 3.9	35.9
Wire-rod .....	2.8	+ 6.9	6.7	8.1	+ 4.1	9.5
<i>Total, sections</i>	<i>18.0</i>	<i>+ 4.2</i>	<i>30.6</i>	<i>38.9</i>	<i>+ 3.9</i>	<i>45.4</i>
Hoop and strip and tube strip ...	2.3	+ 6.3	5.1	6.7	+ 2.9	7.5
Plate of 3 mm and over .....	4.3	+ 5.8	8.9	12.3	+ 2.2	13.4
Hot-rolled sheet under 3 mm .....	3.1	— 6.3	1.4	2.5	— 4.5	2.1
Cold-reduced sheet under 3 mm ..	0.8	+ 23.3	12.2	16.2	+ 4.6	19.4
<i>Total, flat products</i>	<i>10.5</i>	<i>+ 7.7</i>	<i>27.6</i>	<i>37.7</i>	<i>+ 3.0</i>	<i>42.4</i>
<b>Total, rolled products</b> .....	<b>28.5</b>	<b>+ 5.6</b>	<b>58.2</b>	<b>76.6</b>	<b>+ 3.5</b>	<b>87.8</b>
(of which: products rolled in con- tinuous and semi-continuous mills) .....	(.)	(.)	(35.5)	(46.4)	(+ 4.2)	(54.7)

These figures are for finished products only. Mention should, however, also be made of the position with regard to one important type of semi-finished product, coils. Production of these averaged a steady expansion of 14.7 % a year from 1955 to 1965, but the rate of growth in potential from 1965 to 1969 works out at only 4.9 % a year. At the same time, there is good reason to think that a number of enterprises left undeclared at the date of the 1966 survey extensions which they were pretty definitely thinking of approving shortly afterwards.

Production potential for flat products, which in 1952 accounted for 37 % of the total potential for rolled products, by 1965 accounted for about 49 % ; with sections now expected to grow rather faster, however, the share of flats in 1969 is estimated at only just 48 %.

The proportion of steel to be rolled in continuous and semi-continuous mills — first recorded in 1960, when it stood at 50 % — was 61 % in 1965, and will probably creep up to 62 % by 1969.

### d) General Services

All the investment surveys to date have shown particularly marked increases in the proportion of expenditure going on general services, which was up in 1964 to 23 % and in 1965 to 24 %.

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

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

TABLE 24

Capital Expenditure on the General Services of the Iron and Steel Industry, 1954—1967

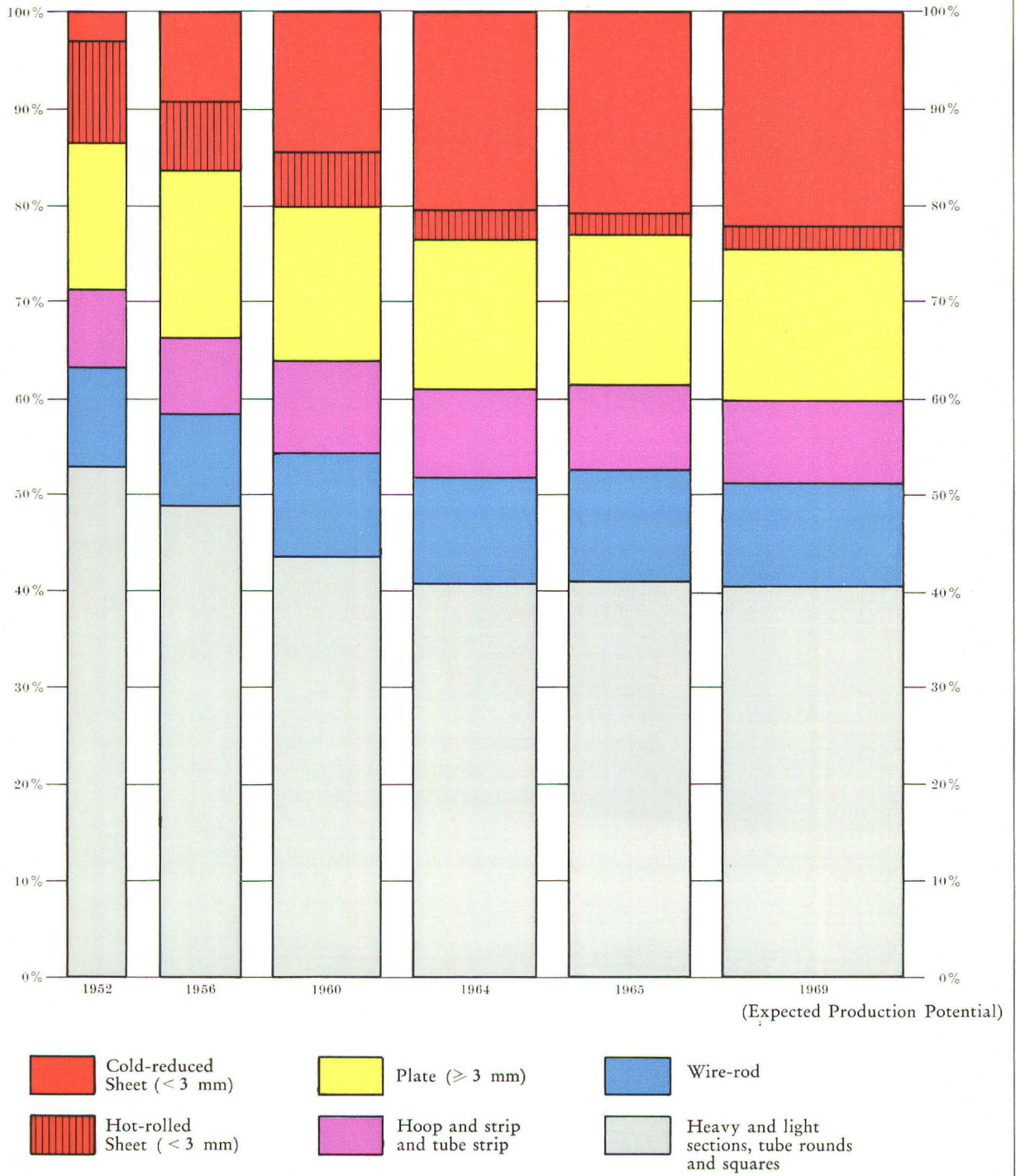
'000,000 dollars (E.M.U. units of account)

Type of installation	Actual expenditure							Estimated expenditure (Categories A+B)	
	1954/ 1959 (annual average)	1960	1961	1962	1963	1964	1965	1966	1967
Power-generating plant and distribution networks .....	45.5	60.7	71.7	84.2	93.6	86.3 <sup>(1)</sup>	55.0	50.1	28.9
Miscellaneous .....	58.3	96.6	137.4	162.9	226.1	213.7	165.2	150.8	95.5
<b>Total .....</b>	<b>103.8</b>	<b>157.3</b>	<b>209.1</b>	<b>247.1</b>	<b>319.7</b>	<b>300.0</b>	<b>220.2</b>	<b>200.9</b>	<b>124.4</b>

(1) Corrected figures.

FIGURE 14

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



## V. CONCLUSIONS

Each successive investment survey since 1963 has indicated a rather faster contraction than before in the production potential of the Community **coalmining industry**, and the forecasts at January 1, 1966, suggest the largest reduction yet, involving the scrapping of some 21 million tons' capacity over the next four years. Even so, the resulting estimate of a total potential of 217 million tons in 1969 is decidedly on the high side, since the High Authority's view, embodied in its memorandum of March 9, 1966, on the coal production target for 1970, is that the industry should work for a production of only 190 million tons in that year — no less than 27 million tons below the declared potential for 1969. The figures currently mentioned by some colliery companies are hardly reconcilable with the level the High Authority has in mind; it would appear, however, to judge by recent statements from responsible sources, that this is now coming to be realized in the countries concerned.

Community coal will doubtless continue to be sold mainly to the thermal power-stations and to the iron and steel industry. The Community collieries envisage a slight reduction in their **coking** potential between 1965 and 1969 in consequence of the expected stagnation in coke requirements — due principally to the fall in specific consumption at the blast-furnaces — but it may be that they will continue to take the same amounts of indigenous coking coal as before, thanks to the introduction of a system of special aids in token of Community solidarity.

The fuel requirements of the **power-stations** will continue to mount steeply. Although the mine-owned and steelworks-owned stations are planning an aggregate increase of only about 13 % in their installed capacity by 1969, this largely reflects their fear of a persisting price disparity per calorie between Community coal and the alternative fuels. The High Authority is studying various possible means for surmounting these obstacles to the sale of Community coal to the thermal power-stations.

\*

Capital expenditure in the Community **iron-ore** industry in 1965, as in 1964, worked out at barely half the annual average between 1956 and 1962. The level is not expected to rise in the near future ; only in one orefield, Lorraine, is much now being done in this direction, investment there accounting for nearly 80 % of the total forecast for 1967.

Actual production decreased at an average 4.0 % per annum from 1960 to 1965 in the Community as a whole (2.2 % in Lorraine and 7.9 % in the other orefields taken together). Despite

the movement in demand in the last few years, the Lorraine producers are thinking in terms of an annual expansion of 2.7 % in their potential up to 1969 ; this feat, if achieved, would more or less offset the 2.9 % contraction expected in the other orefields.

\*

The General Objectives for steel published in the Official Gazette of the European Communities on April 5, 1962, put production potential in 1965 at 99 million tons and actual production, given an average level of business activity, at 89 million. In fact, the figures recorded were 102 million and 86 million respectively, capacity having grown rather faster and sales rather more slowly than had been expected.

The new set of General Objectives for 1970 which the High Authority is planning to offer for the industries' guidance envisage requirements of around 95 million ingot tons. The producers for their part estimate that projects now in hand or definitely decided upon will bring their total potential up by 1969 to something like 118 million. Consequently, under-utilization of capacity is likely to become rather more marked in the years ahead ; on the other hand, it must be borne in mind that the intended expansion is in many cases the inevitable concomitant of any action to modernize the older plants or replace obsolete machinery by equipment more in line with the needs of up-to-date technology, whether on the blast-furnace, the steelworks or the rolling-mill side.

Expenditure on **pig-iron** production has dropped in the last year or two, with the slackening-off in the drive to install coking, and even sintering, capacity ; most parts of the Community are by now pretty well equipped in the latter respect. Expenditure on the blast-furnaces themselves, however, remains fairly high, mainly in connection with reconstructions and enlargements of existing plants. The various operations in hand and approved are expected to give an annual rate of growth of 3.1 % in potential from 1965 to 1969, as compared with 4.7 % in actual production from 1952 to 1965.

A pig-iron potential of 85 million tons in 1969 would tally very well with the estimated **crude-steel** potential of 118 million tons. The respective shares in this total of the four production processes — oxygen-blown, basic Bessemer, open-hearth and electric-furnace — are expected to be 31 %, 30 %, 27 % and 12 %, with the oxygen steels now coming up into first place at the expense of open-hearth and, particularly, basic Bessemer. The installation of large-capacity L/D and other oxygen converters in place of the older types of steelmaking furnace, and the vigorous drive in progress to build new plants working entirely with these, are pretty well bound to involve an increase in the potential of the enterprises concerned, though occasionally there may at the same time be cutbacks at other plants belonging to the same combine but less advantageously located.

The expansion in oxygen steelmaking capacity is contrastingly distributed in different parts of the Community : by 1969 over half the North Sea and Mediterranean plant's potential and nearly a third of the Ruhr's will be oxygen-blown, whereas in Luxembourg the proportion will be only a quarter, in the Saar a sixth and in Lorraine a tenth. However, this is of course not an accurate reflection of comparative competitive capacities, since the production process employed depends to a great extent on the raw-material situation and the type of manufacture for which the steel is to be used.



Modernization in the **rolling-mill** sector is also obliging enterprises more and more to install large-capacity plant, especially for flat products. Large amounts are still being spent on the hot and cold wide-strip mills, though here the rate of expansion may be expected to ease off somewhat. In addition, intensive efforts are being made to modernize the rolling of long products as the Community industry has been highly successful for a number of years in selling large tonnages of these in the international market, and is anxious to go doing so.

Expenditure on the production both of semis and finished products is concentrated mainly on continuously-operating installations. Thus the proportion going on continuous-casting plant, which has already risen from 1 % in 1964 to 2 % in 1965, is expected to reach 7 % 1966, while it is estimated that 62 % of the Community's steel will be rolled in continuous or semi-continuous mills by 1969, as against 50 % in 1960.

## **ANNEXES**

I — Basic Definitions

II — Statistical Tables

## I — BASIC DEFINITIONS

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

### I — INVESTMENT

#### (a) Capital expenditure

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

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

#### (b) Classification of investment projects

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

A — *Projects completed or in progress before January 1, 1966 ;*

B — *Projects approved but not yet in progress on January 1, 1966 ;*

C — *Other projects planned to be started between January 1, 1966 and December 31, 1968.*

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

#### (c) Unit of account

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

Country	Currency	Up to and including 1956	1957	1958	1959 and 1960	1961	1962 and onwards
Germany (Fed. Rep.) . . . . .	DM	4.20	4.20	4.20	4.20	4.03 <sup>(4)</sup>	4.00
Belgium/Luxembourg . . . . .	Frb.-Frl.	50	50	50	50	50	50
France <sup>(1)</sup> . . . . .	Fr. <sup>(2)</sup>	350	377 <sup>(3)</sup>	420	4.937 <sup>(2)</sup>	4.937	4.937
Italy . . . . .	Lit.	625	625	625	625	625	625
Netherlands . . . . .	Fl.	3.80	3.80	3.80	3.80	3.65 <sup>(5)</sup>	3.62

<sup>(1)</sup> And Saar up to July 5, 1959.

<sup>(2)</sup> N.F. as from January 1, 1959.

<sup>(3)</sup> 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)

<sup>(4)</sup> Mean between official rate of exchange in force from January 1 to March 3, 1961 (4.20), and that in force from March 4 to December 31, 1961 (4.00).

<sup>(5)</sup> Mean between official rate of exchange in force from January 1 to March 3, 1961 (3.80), and that in force from March 4 to December 31, 1961 (3.62).

#### (d) Capital-goods price indices

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

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

1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
81.6	80.5	79.9	82.1	85.4	89.9	92.9	94.9	97.2	100.0	104.8	109.7	116.3

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

## II — MINING INDUSTRIES

### (a) Coal

*Extraction potential.* — The figures shown represent the net maximum output technically achievable, allowing for the performance capacity of the different installations at the collieries (underground, surface, washeries), and assuming that 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 1965 of only about 1.4 million metric tons (of which 0.4 million not shown in any official statistics), out of 217.0 million, *i.e.* less than 0.7 %.

**(b) Coke**

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

**(c) Pithead power-stations**

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

The net output represents the maximum power that can be supplied, measured at the station 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.

*Geographical breakdown : —*

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

Central and Southern Germany: Sauerland-Waldeck, Lahn-Dill, Taunus-Hunsrück,  
Upper Hesse ;

Other German fields : Dogger orefield, Kreide orefield.

**III — IRON AND STEEL INDUSTRY****(a) Production potential**

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

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

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

The capital expenditure of a number of very small iron and steel works has not been included in this survey. It was assumed that the production potential of these enterprises would over the next few years remain at the level of actual production for 1965. The production potentials mentioned in this report therefore exceed those actually declared by a certain percentage which varies from sector to sector but does generally not exceed 0.8 % for crude steel and 1.4 % for finished rolled products.

As the production potential of the *rolling-mills* is governed by the shape (section), thickness and width of the material fed into the mill (metal input) and the products to be obtained, we have proceeded on the assumption that, should no forecast be possible as to future steel-rolling conditions, it will be necessary to base estimates on the conditions obtained in 1965. The same applies to the apportionment of steel availabilities among the different types of mill.

#### (b) Steelworks-owned power-stations

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

#### (c) Geographical breakdown

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

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

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<b>HARD-COAL INDUSTRY</b>
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**Total investment**

**TABLE I**  
**Capital Expenditure by Coalfields**

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

Coalfield	Actual expenditure		Estimated expenditure		
			on Jan. 1, 65 for	on Jan. 1, 66 for	
	1964	1965	1965	1966	1967
Ruhr .....	168.50	161.95	202.36	184.38	140.56
Aachen .....	6.93	6.03	7.90	6.27	5.88
Lower Saxony .....	4.64	8.13	8.83	10.58	8.05
Saar .....	21.29	19.96	24.36	18.81	16.20
<i>Germany (F.R.)</i> .....	<i>201.36</i>	<i>196.07</i>	<i>243.45</i>	<i>220.04</i>	<i>170.69</i>
Campine <sup>(1)</sup> .....	7.66	7.09	10.34	11.69	8.51
Southern Belgium <sup>(1)</sup> .....	15.66	14.53	20.17	17.90	12.97
Dutch Limburg <sup>(1)</sup> .....	13.22	10.92	13.16	6.76	3.34
<i>Belgium and Netherlands</i> .....	<i>38.53</i>	<i>33.07</i>	<i>44.28</i>	<i>36.93</i>	<i>25.47</i>
Nord/Pas-de-Calais .....	17.38	17.07	18.45	19.71	20.03
Lorraine .....	17.64	19.00	21.45	17.45	19.69
Centre-Midi .....	9.62	8.04	9.06	9.67	6.96
Independent plants <sup>(2)</sup> .....	1.64	0.64	0.66	0.99	—
<i>France</i> .....	<i>46.28</i>	<i>44.75</i>	<i>49.62</i>	<i>47.82</i>	<i>46.63</i>
<i>Italy</i> .....	<i>4.53</i>	<i>4.89</i>	<i>8.74</i>	<i>5.14</i>	<i>3.11</i>
<b>Total</b> .....	<b>290.70</b>	<b>278.78</b>	<b>346.09</b>	<b>309.93</b>	<b>245.95</b>

<sup>(1)</sup> Exclusive of mine-owned and independent coking-plants, which are, however, included in the total for Belgium and the Netherlands.

<sup>(2)</sup> Briquetting plants only.



<b>HARD-COAL COLLIERIES</b>
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## Investment

**TABLE II**  
**Capital Expenditure by Coalfields**

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

Coalfield	Actual expenditure		Estimated expenditure		
	1964	1965	on Jan. 1, 65 for	on Jan. 1, 66 for	
			1965	1966	1967
Ruhr .....	115.88	113.80	141.44	120.02	76.10
Aachen .....	5.73	5.27	5.32	3.88	4.38
Lower Saxony .....	3.90	2.65	3.45	2.42	2.11
Saar .....	15.53	13.62	14.72	8.36	9.89
<i>Germany (F.R.)</i> .....	<i>141.04</i>	<i>135.34</i>	<i>164.93</i>	<i>134.68</i>	<i>92.48</i>
Campine .....	6.35	4.51	7.14	10.75	8.44
Southern Belgium .....	10.67	7.88	10.81	8.17	5.82
<i>Belgium</i> .....	<i>17.02</i>	<i>12.39</i>	<i>17.95</i>	<i>18.92</i>	<i>14.26</i>
<i>Netherlands (Limburg)</i> .....	<i>9.92</i>	<i>7.20</i>	<i>9.02</i>	<i>5.18</i>	<i>2.79</i>
Nord/Pas-de-Calais .....	11.15	13.27	13.76	16.22	14.21
Lorraine .....	15.97	16.93	18.69	14.92	17.30
Centre-Midi .....	7.78	6.53	6.87	6.57	4.93
<i>France</i> .....	<i>34.90</i>	<i>36.73</i>	<i>39.32</i>	<i>37.71</i>	<i>36.44</i>
<i>Italy (Sulcis and la Thuile)</i> .....	.	.	0.84	.	.
<b>Total</b> .....	<b>202.88</b>	<b>191.66</b>	<b>232.06</b>	<b>196.49</b>	<b>145.97</b>

<b>MINE-OWNED AND INDEPENDENT COKING-PLANTS <sup>(1)</sup></b>
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**Investment**

**TABLE III**  
**Capital Expenditure by Areas**

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

Area	Actual expenditure		Estimated expenditure		
			on Jan. 1, 65 for 1965	on Jan. 1, 66 for	
	1964	1965	1965	1966	1967
<b>Mine-owned coking-plants</b>					
Ruhr .....	12.89	12.24	15.68	16.77	12.49
Aachen .....	0.35	0.06	0.27	0.18	0.29
Lower Saxony .....	—	—	—	—	—
Saar .....	0.92	0.99	1.19	0.42	0.25
<i>Germany (F.R.)</i> .....	<i>14.16</i>	<i>13.29</i>	<i>17.14</i>	<i>17.37</i>	<i>13.03</i>
<i>Belgium and the Netherlands</i> .....	<i>0.61</i>	<i>0.16</i>	<i>0.51</i>	<i>0.12</i>	<i>0.65</i>
Nord/Pas-de-Calais .....	1.34	0.95	1.18	1.50	2.00
Lorraine .....	0.60	0.93	1.20	1.53	1.53
Centre/Midi .....	0.57	0.30	0.30	0.44	0.44
<i>France</i> .....	<i>2.51</i>	<i>2.18</i>	<i>2.68</i>	<i>3.47</i>	<i>3.97</i>
<b>Total</b> .....	<b>17.28</b>	<b>15.63</b>	<b>20.33</b>	<b>20.96</b>	<b>17.65</b>
<b>Independent coking-plants</b>					
<i>Belgium and the Netherlands</i> .....	<i>1.38</i>	<i>0.37</i>	<i>0.10</i>	<i>0.46</i>	—
<i>France</i> <sup>(2)</sup> .....	—	—	—	—	—
<i>Italy</i> .....	<i>4.53</i>	<i>4.89</i>	<i>7.90</i>	<i>5.14</i>	<i>3.11</i>
<b>Total</b> .....	<b>5.91</b>	<b>5.26</b>	<b>8.00</b>	<b>5.60</b>	<b>3.11</b>
<b>Grand Total</b> .....	<b>23.19</b>	<b>20.89</b>	<b>28.33</b>	<b>26.56</b>	<b>20.76</b>

<sup>(1)</sup> Including low and medium-temperature coking-plants.

<sup>(2)</sup> Exclusive of Gaz de France.

<b>HARD-COAL BRIQUETTING-PLANTS</b>
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Investment

*TABLE IV*  
Capital Expenditure by Areas

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

Area	Actual expenditure		Estimated expenditure		
			on Jan. 1, 65 for	on Jan. 1, 66 for	
	1964	1965	1965	1966	1967
Ruhr .....	06.5	1.13	1.42	1.02	0.42
Aachen .....	0.21	0.04	1.04	1.40	0.50
Lower Saxony .....	0.11	0.02	0.06	0.08	0.09
<i>Germany (F.R.)</i> .....	<i>0.97</i>	<i>1.19</i>	<i>2.52</i>	<i>2.50</i>	<i>1.01</i>
Campine .....	1.02	2.46	3.03	0.90	—
Southern Belgium .....	2.35	0.57	0.62	0.60	1.38
<i>Belgium</i> .....	<i>3.37</i>	<i>3.03</i>	<i>3.65</i>	<i>1.50</i>	<i>1.38</i>
<i>Netherlands (Limburg)</i> .....	<i>0.14</i>	<i>0.37</i>	<i>0.34</i>	<i>0.63</i>	<i>0.22</i>
Nord/Pas-de-Calais .....	2.79	1.71	2.15	1.13	2.96
Centre/Midi .....	0.18	0.63	0.95	1.91	0.84
Independent plants .....	1.64	0.64	0.66	0.99	—
<i>France</i> .....	<i>4.61</i>	<i>2.98</i>	<i>3.76</i>	<i>4.03</i>	<i>3.80</i>
<b>Total</b> .....	<b>9.09</b>	<b>7.57</b>	<b>10.27</b>	<b>8.66</b>	<b>6.41</b>

<b>PITHEAD POWER-STATIONS <sup>(1)</sup></b>
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**Investment**

**TABLE V**  
**Capital Expenditure by Areas**

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

Area	Actual expenditure		Estimated expenditure		
			on Jan. 1, 65 for	on Jan. 1, 66 for	
	1965	1965	1965	1966	1967
Ruhr .....	39.08	34.78	43.82	46.57	51.55
Aachen .....	6.11	11.47	15.04	18.92	12.62
Lower Saxony .....					
Saar .....					
<i>Germany (F.R.)</i> .....	45.19	46.25	58.86	65.49	64.17
Campine .....	0.29	0.12	0.17	0.04	0.07
Southern Belgium .....	2.64	6.08	8.74	9.13	5.77
<i>Belgium</i> .....	2.93	6.20	8.91	9.17	5.84
<i>Netherlands (Limburg)</i> .....	3.16	3.35	3.80	0.95	0.33
Nord/Pas-de-Calais .....	2.10	1.14	1.36	0.86	0.86
Lorraine .....	1.07	1.14	1.56	1.00	0.86
Centre-Midi .....	1.09	0.58	0.94	0.75	0.75
<i>France</i> .....	4.26	2.86	3.86	2.61	2.47
<i>Italy (Sulcis and la Thuile)</i> .....	—	—	—	—	—
<b>Total</b> .....	<b>55.54</b>	<b>58.66</b>	<b>75.43</b>	<b>78.22</b>	<b>72.81</b>

<sup>(1)</sup> Pithead power-stations proper and other power-generating plant at mines

<b>HARD COAL</b>
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**Extraction**

TABLE VI

## Extraction and Extraction Potential by Coalfields

'000.000 metric tons

Coalfield	Actual extraction	Actual extraction potential	Expected extraction potential			
	1965	1965	1966	1967	1968	1969
Ruhr .....	110.7	123.3	121.7	116.6	114.4	115.0
Aachen .....	7.8	8.2	8.4	8.5	8.5	8.5
Lower Saxony .....	2.2	2.4	1.9	1.8	1.8	1.8
Saar .....	14.2	16.3	14.3	14.1	13.9	13.9
<i>Germany (F.R.)</i> .....	<i>134.9</i>	<i>150.2</i>	<i>146.3</i>	<i>141.0</i>	<i>138.6</i>	<i>139.2</i>
Campine .....	9.2	11.1	10.0	9.2	9.2	9.6
Southern Belgium .....	9.9	11.7	10.0	9.3	9.3	9.5
<i>Belgium</i> .....	<i>19.1</i>	<i>22.8</i>	<i>20.0</i>	<i>18.5</i>	<i>18.5</i>	<i>19.1</i>
<i>Netherlands (Limburg)</i> .....	<i>11.4</i>	<i>12.3</i>	<i>11.4</i>	<i>10.5</i>	<i>10.0</i>	<i>9.5</i>
Nord/Pas-de-Calais .....	25.5	26.2	25.7	25.2	24.6	24.0
Lorraine .....	15.5	15.5	15.2	15.2	15.2	15.2
Centre/Midi .....	10.2	10.4	9.9	9.8	9.6	9.5
<i>France</i> .....	<i>51.2</i>	<i>52.1</i>	<i>50.8</i>	<i>50.2</i>	<i>49.4</i>	<i>48.7</i>
<i>Italy (Sulcis and La Thuile)</i> .....	<i>0.4</i>	<i>0.7</i>	<i>0.7</i>	<i>0.7</i>	<i>0.7</i>	<i>0.7</i>
<b>Total</b> .....	<b>217.0</b>	<b>238.1</b>	<b>229.2</b>	<b>220.9</b>	<b>217.2</b>	<b>217.2</b>

N.B. The above table does not take into account the extraction of some mines of small capacity (1.4 million metric tons in 1965 of which 0.4 million metric tons from the "small" German mines, which do not figure in the official production statistics).

## COKE

## Production

TABLE VII a  
Production and Production Potential by Areas

'000.000 metric tons

Area	Actual production <sup>(1)</sup> 1965	Production potential 1965	Expected production potential			
			1966	1967	1968	1969
<b>Mine-owned coking-plants</b>						
Ruhr .....	32.5	34.9	34.4	33.4	33.0	33.3
Aachen <sup>(2)</sup> .....	2.0	1.9	1.9	1.8	1.9	1.9
Lower Saxony .....	—	—	—	—	—	—
Saar .....	1.2	1.3	1.3	1.3	1.3	1.3
<i>Germany (F.R.)</i> .....	<i>35.7</i>	<i>38.1</i>	<i>37.6</i>	<i>36.5</i>	<i>36.2</i>	<i>36.5</i>
<i>Belgium and the Netherlands</i> .....	<i>3.7</i>	<i>4.4</i>	<i>3.4</i>	<i>2.8</i>	<i>2.6</i>	<i>2.6</i>
Nord/Pas-de-Calais .....	4.9	5.2	5.2	5.2	5.2	5.2
Lorraine .....	2.6	2.8	2.8	2.8	2.8	2.8
Centre/Midi .....	0.9	0.9	0.9	0.9	0.9	0.9
<i>France</i> .....	<i>8.4</i>	<i>8.9</i>	<i>8.9</i>	<i>8.9</i>	<i>8.9</i>	<i>8.9</i>
<b>Total</b> .....	<b>47.8</b>	<b>51.4</b>	<b>49.9</b>	<b>48.2</b>	<b>47.7</b>	<b>48.0</b>
<b>Independent coking-plants</b>						
<i>Belgium and the Netherlands</i> .....	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>
<i>France</i> .....	—	—	—	—	—	—
<i>Italy</i> .....	<i>2.0</i>	<i>2.4</i>	<i>2.5</i>	<i>2.5</i>	<i>2.8</i>	<i>2.8</i>
<b>Total</b> .....	<b>3.4</b>	<b>3.8</b>	<b>3.9</b>	<b>3.9</b>	<b>4.2</b>	<b>4.2</b>
<b>Steelworks-owned coking-plants</b>						
<i>Germany (F.R.)</i> .....	<i>7.4</i>	<i>8.5</i>	<i>8.4</i>	<i>8.2</i>	<i>8.5</i>	<i>8.5</i>
<i>Belgium and the Netherlands</i> .....	<i>6.2</i>	<i>6.5</i>	<i>6.6</i>	<i>6.7</i>	<i>6.9</i>	<i>7.0</i>
<i>France</i> .....	<i>4.2</i>	<i>4.4</i>	<i>4.5</i>	<i>4.4</i>	<i>4.4</i>	<i>4.5</i>
<i>Italy</i> .....	<i>3.6</i>	<i>3.7</i>	<i>4.3</i>	<i>4.3</i>	<i>4.3</i>	<i>4.4</i>
<b>Total</b> .....	<b>21.4</b>	<b>23.1</b>	<b>23.8</b>	<b>23.6</b>	<b>24.1</b>	<b>24.4</b>
<b>Grand Total</b> .....	<b>72.6</b>	<b>78.3</b>	<b>77.6</b>	<b>75.7</b>	<b>76.0</b>	<b>76.6</b>

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

(<sup>2</sup>) Including electrode coke (120,000 metric tons produced in 1965).



<b>COKING-PLANTS</b>
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**Technical Data**

**TABLE VIII**

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

Type of coal	1964		1965	
	'000 metric tons	%	'000 metric tons	%
Group V <sup>(1)</sup> .....	73 157	76.5	72 947	75.7
Group VI <sup>(1)</sup> .....	17 782	18.6	18 202	18.9
Other groups .....	3 896	4.1	4 408	4.6
Coke breeze and low-temperature coke breeze ...	793	0.8	733	0.8
<b>Total</b> .....	<b>95 628</b>	<b>100.0</b>	<b>96 290</b>	<b>100.0</b>
	'000 metric tons	output kg/t <sup>(2)</sup>	'000 metric tons	output kg/t <sup>(2)</sup>
Coke production .....	71 449	747.2	72 684	754.8
	metric tons	% of total input	metric tons	% of total input
Oil input .....	50 375	0.053	44 887	0.047

<sup>(1)</sup> The breakdown between Groups V and VI is only approximate.

<sup>(2)</sup> 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.

	1964	1965
a) Coke-oven gas delivered .....	32 638	32 791
b) Gas output .....	341	341
c) Coke-oven gas delivered to outside enterprises or for consumption other than d) .....	22 277 (68,3)	21 839 (66,3)
d) Consumption for heating oven:		
1. Coke-oven gas .....	10 361 (71,8)	11 046 (72,5)
2. Producer gas .....	676 (4,7)	763 (5,0)
4. Blast-furnace and other gases ..	3 387 (23,5)	3 434 (22,5)
4. Total consumption of gas for heating ovens .....	14 424 (100,0)	15 243 (100,0)
e) Specific consumption in kcal/kg. of dry-charged coal (assuming an average moisture content of 8 %) .....	705	740

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



<b>HARD-COAL BRIQUETTES</b>
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**Production**

TABLE IX

**Production and Production Potential by Areas**

'000.000 metric tons

Area	Actual pro- duction  1965	Pro- duction poten- tial  1965	Expected production potential			
			1966	1967	1968	1969
Ruhr .....	3.4	5.1	4.6	4.4	4.3	3.9
Aachen .....	0.7	0.9	0.8	0.8	0.8	0.8
Lower Saxony .....	0.4	0.6	0.6	0.6	0.6	0.6
<i>Germany (F.R.)</i> .....	<i>4.5</i>	<i>6.6</i>	<i>6.0</i>	<i>5.8</i>	<i>5.7</i>	<i>5.3</i>
Campine .....	0.0	0.1	0.2	0.2	0.4	0.4
Southern Belgium .....	1.1	2.7	2.3	2.2	2.2	2.2
<i>Belgium</i> .....	<i>1.1</i>	<i>2.8</i>	<i>2.5</i>	<i>2.4</i>	<i>2.6</i>	<i>2.6</i>
<i>Netherlands (Limburg)</i> .....	<i>1.3</i>	<i>1.8</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>
Nord/Pas-de-Calais .....	3.0	4.3	4.1	4.1	4.1	3.8
Centre/Midi .....	1.5	2.0	2.0	2.0	1.8	1.8
Independent plants .....	0.5	1.5	1.5	1.5	1.5	1.5
<i>France</i> .....	<i>5.0</i>	<i>7.8</i>	<i>7.6</i>	<i>7.6</i>	<i>7.4</i>	<i>7.1</i>
<b>Total</b> .....	<b>11.9</b>	<b>19.0</b>	<b>17.8</b>	<b>17.5</b>	<b>17.4</b>	<b>16.7</b>

## ELECTRIC CURRENT

## Output

TABLE X

Output of Electric Current and Electric Capacity of Pithead Power-Stations <sup>(1)</sup> by areas

Area	Actual output 000,000 kWh 1965	Actual electric capacity MW		Expected electric capacity MW			
		Begin- ning 1965	Begin- ning 1966	Begin- ning 1967	Begin- ning 1968	Begin- ning 1969	Begin- ning 1970
Ruhr .....	18 609	4 271	4 153	4 443	4 460	4 918	5 400
Aachen .....	4 028	1 097	1 091	1 226	1 364	1 259	1 259
Lower Saxony .....							
Saar .....							
<i>Germany (F.R.)</i> .....	22 637	5 368	5 244	5 669	5 824	6 177	6 659
Campine .....	1 218	409	409	389	389	389	389
Southern Belgium .....	4 810	868	866	866	987	987	987
<i>Belgium</i> .....	6 028	1 277	1 275	1 255	1 376	1 376	1 376
<i>Netherlands (Limburg)</i> .....	1 793	405	470	470	470	470	470
Nord/Pas-de-Calais .....	6 115	1 406	1 406	1 406	1 406	1 406	1 406
Lorraine .....	2 992	713	723	723	723	723	723
Centre-Midi .....	1 989	564	557	557	557	557	557
<i>France</i> .....	11 096	2 683	2 686	2 686	2 686	2 686	2 686
<i>Italy (Sulcis and La Thuille)</i> .....	—	—	—	—	—	—	—
<b>Total</b> .....	<b>41 554</b>	<b>9 733</b>	<b>9 675</b>	<b>10 080</b>	<b>10 356</b>	<b>10 709</b>	<b>11 191</b>

<sup>(1)</sup> Pithead power-stations proper and other power-generating plant at mines.

TABLE XI a  
Specific Consumption of Coal 1965 <sup>(2)</sup>

PITHEAD  
POWER-STATIONS <sup>(1)</sup>

Technical Data

C = Output of electric current in '000,000 kWh  
P = Maximum electric capacity in '000 MW (average at beginning 1965 - beginning 1966)  
H = Load-hours per annum (1965) } by type of specific consumption

Specific consumption Country/ Coalfield	< 3000 kcal/kWh			3000-3499 kcal/kWh			3500-3999 kcal/kWh			4000-4999 kcal/kWh			≥ 5000 kcal/kWh			Total			Average consumption kcal/kWh
	C	P	H	C	P	H	C	P	H	C	P	H	C	P	H	C	P	H	
Ruhr .....	10 940	2 354	4 647	3 698	812	4 554	2 546	582	4 375	912	239	3 816	513	166	3 090	18 609	4 153	4 481	3 044
Aachen .....	3 549	1 002	3 542	466	83	5 614	—	—	—	—	—	—	13	6	2 167	4 028	1 091	3 692	2 903
Lower Saxony .....																			
Saar .....																			
<i>Germany (F.R.)</i> .....	<i>14 489</i>	<i>3 356</i>	<i>4 317</i>	<i>4 164</i>	<i>895</i>	<i>4 653</i>	<i>2 546</i>	<i>582</i>	<i>4 375</i>	<i>912</i>	<i>239</i>	<i>3 816</i>	<i>526</i>	<i>172</i>	<i>3 058</i>	<i>22 637</i>	<i>5 244</i>	<i>4 317</i>	<i>3 019</i>
Campine .....	655	115	5 696	200	72	2 778	233	91	2 560	130	131	992	—	—	—	1 218	409	2 978	2 955
Southern coalfields .....	4 503	753	5 980	197	48	4 104	80	25	3 200	26	7	3 714	4	28	143	4 810	861	5 587	2 528
<i>Belgium</i> .....	<i>5 158</i>	<i>868</i>	<i>5 942</i>	<i>397</i>	<i>120</i>	<i>3 308</i>	<i>313</i>	<i>116</i>	<i>2 698</i>	<i>156</i>	<i>138</i>	<i>1 130</i>	<i>4</i>	<i>28</i>	<i>143</i>	<i>6 028</i>	<i>1 270</i>	<i>4 746</i>	<i>2 615</i>
Nord/Pas-de-Calais .....	5 167	825	6 263	721	258	2 795	156	118	1 322	65	157	414	6	48	125	6 115	1 406	4 349	2 662
Lorraine .....	2 949	674	4 375	—	—	—	—	—	—	—	—	—	43	49	878	2 992	723	4 138	2 935
Centre/Midi .....	393	80	4 913	1 022	272	3 757	227	75	3 027	287	95	3 021	60	35	1 714	1 989	557	3 571	3 440
<i>France</i> .....	<i>8 509</i>	<i>1 579</i>	<i>5 389</i>	<i>1 743</i>	<i>530</i>	<i>3 289</i>	<i>383</i>	<i>193</i>	<i>1 984</i>	<i>352</i>	<i>252</i>	<i>1 397</i>	<i>109</i>	<i>132</i>	<i>826</i>	<i>11 096</i>	<i>2 686</i>	<i>4 131</i>	<i>2 875</i>
<i>Netherlands</i> .....	<i>27</i>	<i>32</i>	<i>844</i>	<i>1 214</i>	<i>271</i>	<i>4 480</i>	<i>532</i>	<i>125</i>	<i>4 256</i>	—	—	—	<i>20</i>	<i>9</i>	<i>2 222</i>	<i>1 793</i>	<i>437</i>	<i>4 103</i>	<i>3 316</i>
<b>Total</b> .....	<b>28 183</b>	<b>5 835</b>	<b>4 830</b>	<b>7 518</b>	<b>1 816</b>	<b>4 140</b>	<b>3 774</b>	<b>1 016</b>	<b>3 715</b>	<b>1 420</b>	<b>629</b>	<b>2 258</b>	<b>659</b>	<b>341</b>	<b>1 933</b>	<b>41 554</b>	<b>9 637</b>	<b>4 312</b>	<b>2 934</b>

<sup>(1)</sup> Pithead power-stations proper and other power-generating plant at mines.

<sup>(2)</sup> This table covers only power-stations proper and other power-generating plant which actually produced electric current from coal before January 1, 1966. Their load-hours per annum were calculated by dividing the annual output by the average maximum electric capacity (arithmetical mean between the electric capacity at the beginning of 1965 and 1966).

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, 1965.

<b>PITHEAD POWER-STATIONS <sup>(1)</sup></b>
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**Technical Data**

*TABLE XI b*

**Specific Consumption of Coal, 1964-1965**

	1964	1965	1970 (Forecast)
Average specific consumption in kcal/kWh .....	2 986	2 934 <sup>(2)</sup>	.
Consumption of secondary products in % of consumption of coal (ton for ton) .....	91 %	93 %	.
Load-hours per annum .....	4 768	4 312 <sup>(2)</sup>	.
Ratio (at the beginning of the year) of maximum electric capacity to nominal installed capacity .....	89.1 %	89.0 %	90.6 %

<sup>(1)</sup> Pithead power-stations proper and other power-generating plant at mines.

<sup>(2)</sup> See Table XI for breakdown by coalfields.

<b>B.K.B. AND LOW- TEMPERATURE BROWN-COAL COKE</b>
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**Investment and Production**

*TABLE XII a*

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

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

	Actual expenditure		Estimated expenditure		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Briquetting-plants .....	8.19	7.03	7.62	6.07	5.55
Low-temperature coking-plants ....	0.14	0.02	0.07	0.04	—
<b>Total</b> .....	<b>8.33</b>	<b>7.05</b>	<b>7.69</b>	<b>6.11</b>	<b>5.55</b>

*TABLE XII b*

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

*'000.000 metric tons*

	Produc- tion	Pro- duction poten- tial	Expected production potential			
			1965	1965	1966	1967
B.K.B. ....	11.3	12.3	12.0	12.0	11.9	11.9
Low-temperature-coke .....	0.6	0.6	0.6	0.1	—	—

<b>IRON-ORE INDUSTRY</b>
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**Investment**

*TABLE XIII*

**Capital Expenditure by Orefields**

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

Orefield	Actual expenditure		Estimated expenditure		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Salzgitter, Ilsede, Harzvorland . . . . .	3.82	4.03	5.15	1.09	0.13
Osnabrück, Weser-Wiehengebirge . . .	0.27	0.11	0.32	0.24	—
Siegerland-Wied . . . . .	0.14	0.16	0.07	0.06	—
Central and Southern Germany . . . . .	0.86	1.50	1.10	0.89	0.94
Other German fields . . . . .	<i>5.09</i>	<i>5.80</i>	<i>6.64</i>	<i>2.28</i>	<i>1.07</i>
<i>Germany (F.R.)</i> . . . . .	—	—	—	—	—
<i>Belgium</i> . . . . .	15.11	16.05	19.91	17.01	14.41
Eastern France . . . . .	1.91	2.04	2.64	2.30	1.48
Western France . . . . .	0.09	0.11	0.11	0.04	0.05
French - Centre-Midi . . . . .	<i>17.11</i>	<i>18.20</i>	<i>22.66</i>	<i>19.35</i>	<i>15.94</i>
<i>France</i> . . . . .	<i>0.92</i>	<i>0.68</i>	<i>0.93</i>	<i>1.11</i>	<i>0.86</i>
<i>Italy</i> . . . . .	<i>0.80</i>	<i>0.97</i>	<i>1.21</i>	<i>1.26</i>	<i>0.53</i>
<i>Luxembourg</i> . . . . .	<b>23.92</b>	<b>25.65</b>	<b>31.44</b>	<b>24.00</b>	<b>18.40</b>
<b>Total</b> . . . . .					

<b>IRON-ORE INDUSTRY</b>
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**Extraction**

TABLE XIV

**Extraction and Extraction Potential by Orefields**

*'000.000, metric tons*

Orefield	Actual extrac- tion	Ex- traction potential	Expected extraction potential			
	1965	1965	1966	1967	1968	1969
Salzgitter, Ilsede, Harzvorland .....	6.8	7.6	7.6	7.6	7.9	7.8
Osnabrück, Weser-Wiehengebirge .....	1.1	1.5	1.5	0.8	0.8	0.8
Siegerland-Wied .....	1.1	1.1	0.8	0.4	0.4	0.4
Central and Southern Germany .....						
Other German fields .....	1.8	2.0	2.0	2.0	2.0	2.0
<i>Germany (F.R.)</i> .....	<i>10.8</i>	<i>12.2</i>	<i>11.9</i>	<i>10.8</i>	<i>11.1</i>	<i>11.0</i>
<i>Belgium</i> .....	<i>0.1</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>
Eastern France .....	56.1	63.0	65.6	66.0	68.4	70.2
Western France .....	3.9	5.3	5.3	5.3	5.2	5.5
French - Centre - Midi .....	0.1	0.2	0.2	0.2	0.2	0.2
<i>France</i> .....	<i>60.1</i>	<i>68.5</i>	<i>71.1</i>	<i>71.5</i>	<i>73.8</i>	<i>75.9</i>
<i>Italy</i> .....	<i>1.4</i>	<i>1.5</i>	<i>1.0</i>	<i>0.9</i>	<i>1.0</i>	<i>1.0</i>
<i>Luxembourg</i> .....	<i>6.3</i>	<i>8.1</i>	<i>6.4</i>	<i>6.8</i>	<i>6.7</i>	<i>6.6</i>
<b>Total</b> .....	<b>78.7</b>	<b>90.5</b>	<b>90.6</b>	<b>90.2</b>	<b>92.8</b>	<b>94.7</b>

<b>IRON AND STEEL INDUSTRY</b>
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**Total Investment**

*TABLE XV*  
**Capital Expenditure by Areas**

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	75.53	35.60	40.40	33.92	18.19
North Rhine/Westphalia .....	262.69	237.91	253.89	246.53	126.40
Southern Germany .....	10.79	8.88	12.16	17.96	6.19
Saar .....	30.31	30.29	42.49	50.09	55.06
<i>Germany (F.R.)</i> .....	<i>379.32</i>	<i>312.68</i>	<i>348.74</i>	<i>348.50</i>	<i>205.84</i>
<i>Belgium</i> .....	<i>126.76</i>	<i>142.34</i>	<i>120.76</i>	<i>155.04</i>	<i>83.45</i>
Eastern France .....	118.72	110.65	152.18	117.64	121.98
Northern France .....	59.46	30.94	35.24	20.97	10.43
France - other areas .....	28.50	27.97	32.02	26.45	19.29
<i>France</i> .....	<i>206.68</i>	<i>169.56</i>	<i>219.44</i>	<i>165.06</i>	<i>151.70</i>
Italy - costal areas .....	421.60	194.84	185.00	151.83	64.04
Italy - other areas .....	97.52	52.93	51.25	47.39	44.13
<i>Italy</i> .....	<i>519.12</i>	<i>247.77</i>	<i>236.25</i>	<i>199.22</i>	<i>108.17</i>
<i>Luxembourg</i> .....	<i>35.87</i>	<i>25.83</i>	<i>26.21</i>	<i>25.60</i>	<i>11.30</i>
<i>Netherlands</i> .....	<i>47.54</i>	<i>36.68</i>	<i>40.51</i>	<i>80.46</i>	<i>90.31</i>
<b>Total</b> .....	<b>1 315.29</b>	<b>934.86</b>	<b>991.91</b>	<b>973.88</b>	<b>650.77</b>



<b>STEELWORKS-OWNED COKING-PLANTS</b>
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Investment

TABLE XVI a

Capital Expenditure by Areas

'000.000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	0.22	0.26	0.19	0.04	—
North Rhine/Westphalia .....	0.25	0.10	0.30	0.68	0.30
Southern Germany .....	0.03	0.03	0.03	0.01	0.01
Saar .....	0.87	0.67	0.99	0.61	0.25
<i>Germany (F.R.)</i> .....	<i>1.37</i>	<i>1.06</i>	<i>1.51</i>	<i>1.34</i>	<i>0.56</i>
<i>Belgium</i> .....	<i>1.11</i>	<i>1.91</i>	<i>1.96</i>	<i>2.33</i>	<i>0.90</i>
Eastern France .....	0.44	0.21	0.64	0.43	0.14
Northern France .....	0.23	0.45	0.52	—	0.60
France - other areas .....	0.15	0.10	0.20	0.15	0.15
<i>France</i> .....	<i>0.82</i>	<i>0.76</i>	<i>1.36</i>	<i>0.58</i>	<i>0.89</i>
Italy - coastal areas .....	25.30	12.49	10.98	6.77	1.87
Italy - other areas .....	—	—	—	—	—
<i>Italy</i> .....	<i>25.30</i>	<i>12.49</i>	<i>10.98</i>	<i>6.77</i>	<i>1.87</i>
<i>Luxembourg</i> .....	—	—	—	—	—
<i>Netherlands</i> .....	<i>1.07</i>	<i>1.61</i>	<i>1.75</i>	<i>3.95</i>	<i>7.30</i>
<b>Total</b> .....	<b>29.67</b>	<b>17.83</b>	<b>17.56</b>	<b>14.97</b>	<b>11.52</b>

<b>BURDEN-PREPARATION</b>
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Investment

*TABLE XVI b*  
**Capital Expenditure by Areas**

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	en Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	1.74	1.16	1.45	0.65	0.10
North Rhine/Westphalia .....	9.73	3.16	2.28	2.71	1.46
Southern Germany .....	0.07	0.24	0.24	0.05	—
Saar .....	3.46	1.74	5.40	11.89	9.50
<i>Germany (F.R.)</i> .....	<i>15.00</i>	<i>6.30</i>	<i>9.37</i>	<i>15.30</i>	<i>11.06</i>
<i>Belgium</i> .....	<i>7.09</i>	<i>5.11</i>	<i>5.80</i>	<i>12.84</i>	<i>5.35</i>
Eastern France .....	13.74	13.51	17.26	14.70	11.95
Northern France .....	2.60	5.00	5.20	5.80	3.60
France - other areas .....	1.55	1.04	0.37	0.30	0.15
<i>France</i> .....	<i>17.89</i>	<i>19.55</i>	<i>22.83</i>	<i>20.80</i>	<i>15.70</i>
Italy - coastal areas .....	42.20	19.91	23.42	9.34	3.42
Italy - other areas .....	0.13	0.05	0.08	0.50	0.63
<i>Italy</i> .....	<i>42.33</i>	<i>19.96</i>	<i>23.50</i>	<i>9.84</i>	<i>4.05</i>
<i>Luxembourg</i> .....	<i>0.40</i>	<i>0.62</i>	<i>1.14</i>	<i>0.30</i>	<i>0.10</i>
<i>Netherlands</i> .....	<i>2.25</i>	<i>1.08</i>	<i>1.20</i>	<i>2.79</i>	<i>5.06</i>
<b>Total</b> .....	<b>84.96</b>	<b>52.62</b>	<b>63.84</b>	<b>61.87</b>	<b>41.32</b>

<b>BLAST-FURNACES</b>
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**Investment**

*TABLE XVI c*  
**Capital Expenditure by Areas**

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
	1964	1965	on Jan. 1, 1965 for	on Jan. 1, 1966 for	
			1965	1966	1967
Northern Germany .....	3.49	7.73	11.68	4.75	3.05
North Rhine/Westphalia .....	20.67	28.63	23.39	18.53	13.03
Southern Germany .....	1.21	0.59	0.97	0.59	0.13
Saar .....	3.80	4.47	5.71	1.90	1.24
<i>Germany (F.R.)</i> .....	<i>29.17</i>	<i>41.42</i>	<i>41.75</i>	<i>25.77</i>	<i>17.45</i>
<i>Belgium</i> .....	<i>11.60</i>	<i>11.25</i>	<i>8.52</i>	<i>13.83</i>	<i>11.08</i>
Eastern France .....	17.30	9.86	11.46	10.16	4.42
Northern France .....	6.69	2.31	1.96	1.48	0.32
France - other areas .....	0.73	0.29	0.53	0.35	0.42
<i>France</i> .....	<i>24.72</i>	<i>12.46</i>	<i>13.95</i>	<i>11.99</i>	<i>5.16</i>
Italy - coastal areas .....	29.25	18.14	16.43	13.26	8.11
Italy - other areas .....	0.29	0.25	0.03	0.06	0.04
<i>Italy</i> .....	<i>29.54</i>	<i>18.39</i>	<i>16.46</i>	<i>13.32</i>	<i>8.15</i>
<i>Luxembourg</i> .....	<i>11.34</i>	<i>4.27</i>	<i>3.79</i>	<i>3.55</i>	<i>2.23</i>
<i>Netherlands</i> .....	<i>1.68</i>	<i>3.29</i>	<i>1.33</i>	<i>11.67</i>	<i>7.21</i>
<b>Total</b> .....	<b>108.05</b>	<b>91.08</b>	<b>85.80</b>	<b>80.13</b>	<b>51.28</b>

<b>STEELWORKS-OWNED COKING-PLANTS, BURDEN PREPARATION AND BLAST- FURNACES-TOTAL</b>
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## Investment

*TABLE XVI d*  
Capital Expenditure by Areas

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	5.45	9.15	13.32	5.44	3.15
North Rhine/Westphalia .....	30.65	31.89	25.97	21.92	14.79
Southern Germany .....	1.31	0.86	1.24	0.65	0.14
Saar .....	8.13	6.88	12.10	14.40	10.99
<i>Germany (F.R.)</i> .....	<i>45.55</i>	<i>48.78</i>	<i>52.63</i>	<i>42.41</i>	<i>29.07</i>
<i>Belgium</i> .....	<i>19.80</i>	<i>18.27</i>	<i>16.28</i>	<i>29.00</i>	<i>17.33</i>
Eastern France .....	31.48	23.58	29.36	25.29	16.51
Northern France .....	9.52	7.76	7.68	7.28	4.52
France - other areas .....	2.43	1.43	1.10	0.80	0.72
<i>France</i> .....	<i>43.43</i>	<i>32.77</i>	<i>38.14</i>	<i>33.37</i>	<i>21.75</i>
Italy - coastal areas .....	96.75	50.54	50.83	29.37	13.40
Italy - other areas .....	0.42	0.30	0.11	0.56	0.67
<i>Italy</i> .....	<i>97.17</i>	<i>50.84</i>	<i>50.94</i>	<i>29.93</i>	<i>14.07</i>
<i>Luxembourg</i> .....	<i>11.74</i>	<i>4.89</i>	<i>4.93</i>	<i>3.85</i>	<i>2.33</i>
<i>Netherlands</i> .....	<i>5.00</i>	<i>5.98</i>	<i>4.28</i>	<i>18.41</i>	<i>19.57</i>
<b>Total</b> .....	<b>222.68</b>	<b>161.53</b>	<b>167.20</b>	<b>156.97</b>	<b>104.12</b>

<b>BASIC BESSEMER STEELWORKS</b>
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## Investment

*TABLE XVII a*  
**Capital Expenditure by Areas**

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	0.54	0.60	0.16	0.65	—
North Rhine/Westphalia .....	1.82	1.32	1.81	4.98	4.57
Southern Germany .....	0.22	0.52	0.40	0.36	—
Saar .....	2.03	2.10	2.21	1.83	—
<i>Germany (F.R.)</i> .....	<i>4.61</i>	<i>4.54</i>	<i>4.58</i>	<i>7.82</i>	<i>4.57</i>
<i>Belgium</i> .....	<i>2.23</i>	<i>2.37</i>	<i>1.58</i>	<i>1.49</i>	<i>0.52</i>
Eastern France .....	1.30	2.33	3.44	3.56	2.37
Northern France .....	0.30	0.20	0.30	—	—
France - other areas .....	0.17	0.11	0.15	0.10	0.15
<i>France</i> .....	<i>1.77</i>	<i>2.64</i>	<i>3.89</i>	<i>3.66</i>	<i>2.52</i>
Italy - coastal areas .....	—	—	—	—	—
Italy - other areas .....	—	—	—	—	—
<i>Italy</i> .....	—	—	—	—	—
<i>Luxembourg</i> .....	<i>0.63</i>	<i>1.11</i>	<i>0.71</i>	<i>2.41</i>	<i>0.91</i>
<i>Netherlands</i> .....	—	—	—	—	—
<b>Total</b> .....	<b>9.24</b>	<b>10.66</b>	<b>10.76</b>	<b>15.38</b>	<b>8.52</b>

<b>OPEN-HEARTH STEELWORKS</b>
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## Investment

*TABLE XVII b*  
**Capital Expenditure by Areas**

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	2.53	2.19	1.23	0.37	0.04
North Rhine/Westphalia .....	8.16	4.80	8.33	4.26	1.39
Southern Germany .....	0.21	0.35	0.05	1.05	0.30
Saar .....	1.26	0.91	1.20	0.80	—
<i>Germany (F.R.)</i> .....	<i>12.16</i>	<i>8.25</i>	<i>10.81</i>	<i>6.48</i>	<i>1.73</i>
<i>Belgium</i> .....	<i>0.19</i>	<i>0.21</i>	<i>0.17</i>	<i>0.18</i>	<i>0.04</i>
Eastern France .....	1.09	1.00	1.35	1.55	3.41
Northern France .....	0.15	0.23	0.18	0.38	—
France - other areas .....	0.05	0.07	0.13	0.25	0.05
<i>France</i> .....	<i>1.29</i>	<i>1.30</i>	<i>1.66</i>	<i>2.18</i>	<i>3.46</i>
Italy - coastal areas .....	7.73	2.32	2.24	1.64	2.15
Italy - other areas .....	0.96	0.90	0.40	1.41	0.76
<i>Italy</i> .....	<i>8.69</i>	<i>3.22</i>	<i>2.64</i>	<i>3.05</i>	<i>2.91</i>
<i>Luxembourg</i> .....	—	—	—	—	—
<i>Netherlands</i> .....	<i>0.37</i>	<i>0.52</i>	<i>0.36</i>	<i>0.22</i>	<i>0.07</i>
<b>Total</b> .....	<b>22.70</b>	<b>13.50</b>	<b>15.64</b>	<b>12.11</b>	<b>8.21</b>

<b>ELECTRIC-FURNACE STEELWORKS</b>
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## Investment

TABLE XVII c

## Capital Expenditure by Areas

'000.000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	0.01	0.04	0.11	—	0.07
North Rhine/Westphalia .....	2.67	2.51	2.68	1.64	0.23
Southern Germany .....	1.08	0.48	0.27	0.01	0.21
Saar .....	—	—	2.07	3.75	3.25
<i>Germany (F.R.)</i> .....	<i>3.76</i>	<i>3.03</i>	<i>5.13</i>	<i>5.40</i>	<i>3.76</i>
<i>Belgium</i> .....	<i>0.17</i>	<i>0.34</i>	<i>0.28</i>	<i>0.10</i>	<i>0.02</i>
Eastern France .....	2.62	0.79	1.03	—	—
Northern France .....	0.33	0.31	0.52	1.08	2.98
France - other areas .....	3.02	6.49	5.72	1.90	0.70
<i>France</i> .....	<i>5.97</i>	<i>7.59</i>	<i>7.27</i>	<i>2.98</i>	<i>3.68</i>
Italy - coastal areas .....	2.81	1.41	1.14	0.61	—
Italy - other areas .....	6.29	3.48	3.13	3.54	3.26
<i>Italy</i> .....	<i>9.10</i>	<i>5.25</i>	<i>4.27</i>	<i>4.15</i>	<i>3.26</i>
<i>Luxembourg</i> .....	<i>0.21</i>	<i>0.01</i>	<i>0.30</i>	<i>0.01</i>	—
<i>Netherlands</i> .....	<i>0.67</i>	<i>0.57</i>	<i>0.56</i>	<i>0.04</i>	—
<b>Total</b> .....	<b>19.88</b>	<b>16.79</b>	<b>17.81</b>	<b>12.68</b>	<b>10.72</b>

<b>LD, KALDO AND OTHER STEELWORKS</b>
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**Investment**

*TABLE XVII d*  
**Capital Expenditure by Areas**

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
	1964	1965	on Jan. 1, 1965 for	on Jan. 1, 1966 for	
			1965	1966	1967
Northern Germany .....	6.83	0.63	0.45	5.55	7.03
North Rhine/Westphalia .....	12.50	23.58	20.94	22.58	3.82
Southern Germany .....	—	—	—	—	—
Saar .....	0.09	0.36	2.11	3.58	12.62
<i>Germany (F.R.)</i> .....	<i>19.42</i>	<i>24.57</i>	<i>23.50</i>	<i>31.71</i>	<i>23.47</i>
<i>Belgium</i> .....	<i>21.44</i>	<i>25.85</i>	<i>20.46</i>	<i>26.00</i>	<i>15.84</i>
Eastern France .....	3.67	2.51	7.35	7.65	20.95
Northern France .....	4.50	2.40	2.65	1.00	—
France - other areas .....	—	0.15	—	1.60	2.00
<i>France</i> .....	<i>8.17</i>	<i>5.06</i>	<i>10.00</i>	<i>10.25</i>	<i>22.95</i>
Italy - coastal areas .....	49.55	20.52	18.54	16.58	4.71
Italy - other areas .....	—	—	0.88	—	—
<i>Italy</i> .....	<i>49.55</i>	<i>20.52</i>	<i>19.42</i>	<i>16.58</i>	<i>4.71</i>
<i>Luxembourg</i> .....	<i>6.15</i>	<i>9.79</i>	<i>8.72</i>	<i>10.73</i>	<i>5.33</i>
<i>Netherlands</i> .....	<i>1.74</i>	<i>1.59</i>	<i>1.55</i>	<i>6.96</i>	<i>11.36</i>
<b>Total</b> .....	<b>106.47</b>	<b>87.38</b>	<b>88.65</b>	<b>102.23</b>	<b>88.66</b>



<b>STEELWORKS-TOTAL</b>
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## Investment

TABLE XVII e  
Capital Expenditure by Areas

'000.000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1. 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	9.91	3.46	1.95	6.57	7.14
North Rhine/Westphalia .....	25.15	32.21	33.76	33.46	10.01
Southern Germany .....	1.51	1.35	0.72	1.42	0.51
Saar .....	3.38	3.37	7.59	9.96	15.87
<i>Germany (F.R.)</i> .....	<i>39.95</i>	<i>40.39</i>	<i>44.02</i>	<i>51.41</i>	<i>33.53</i>
<i>Belgium</i> .....	<i>24.03</i>	<i>28.77</i>	<i>22.49</i>	<i>27.77</i>	<i>16.42</i>
Eastern France .....	8.68	6.63	13.17	12.76	26.73
Northern France .....	5.28	3.14	3.65	2.46	2.98
France - other areas .....	3.24	6.82	6.00	3.85	2.90
<i>France</i> .....	<i>17.20</i>	<i>16.59</i>	<i>22.82</i>	<i>19.07</i>	<i>32.61</i>
Italy - coastal areas .....	60.09	24.25	21.92	18.83	6.86
Italy - other areas .....	7.25	4.74	4.41	4.95	4.02
<i>Italy</i> .....	<i>67.34</i>	<i>28.99</i>	<i>26.33</i>	<i>23.78</i>	<i>10.88</i>
<i>Luxembourg</i> .....	<i>6.99</i>	<i>10.91</i>	<i>9.73</i>	<i>13.15</i>	<i>6.24</i>
<i>Netherlands</i> .....	<i>2.78</i>	<i>2.68</i>	<i>2.47</i>	<i>7.22</i>	<i>11.43</i>
<b>Total</b> .....	<b>158.29</b>	<b>128.33</b>	<b>127.86</b>	<b>142.40</b>	<b>111.11</b>

<b>BLOOMING AND SLABBING MILLS</b>
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## Investment

*TABLE XVIII a*  
**Capital Expenditure by Areas**

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	13.67	1.53	1.37	2.22	0.71
North Rhine/Westphalia .....	9.88	6.56	7.91	12.11	7.23
Southern Germany .....	0.32	0.57	1.03	2.27	0.07
Saar .....	3.54	4.14	3.05	1.25	0.58
<i>Germany (F.R.)</i> .....	<i>27.41</i>	<i>12.80</i>	<i>13.36</i>	<i>17.85</i>	<i>8.59</i>
<i>Belgium</i> .....	<i>7.00</i>	<i>10.82</i>	<i>9.29</i>	<i>11.08</i>	<i>6.23</i>
Eastern France .....	2.51	2.64	15.30	5.80	20.88
Northern France .....	4.10	1.80	3.40	0.80	—
France - other areas .....	0.06	0.25	0.49	0.41	0.18
<i>France</i> .....	<i>6.67</i>	<i>4.69</i>	<i>19.19</i>	<i>7.01</i>	<i>21.06</i>
Italy - costal areas .....	23.23	8.96	11.50	7.55	2.56
Italy - other areas .....	8.42	3.51	2.95	1.43	0.26
<i>Italy</i> .....	<i>31.65</i>	<i>12.47</i>	<i>14.45</i>	<i>8.98</i>	<i>2.82</i>
<i>Luxembourg</i> .....	<i>2.25</i>	<i>1.06</i>	<i>1.27</i>	<i>0.56</i>	<i>0.45</i>
<i>Netherlands</i> .....	<i>3.50</i>	<i>3.22</i>	<i>3.95</i>	<i>5.74</i>	<i>8.60</i>
<b>Total</b> .....	<b>78.58</b>	<b>45.06</b>	<b>61.51</b>	<b>51.22</b>	<b>47.75</b>

CONTINUOUS CASTING PLANTS
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## Investment

TABLE XVIII b

## Capital Expenditure by Areas

'000.000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
	1964	1965	on Jan. 1, 1965 for	on Jan. 1, 1966 for	
			1965	1966	1967
Northern Germany .....	—	—	—	0.57	1.76
North Rhine/Westphalia .....	3.88	9.55	12.21	25.13	19.99
Southern Germany .....	—	—	—	—	—
Saar .....	1.45	0.15	2.76	4.31	8.87
<i>Germany (F.R.)</i> .....	<i>5.33</i>	<i>9.70</i>	<i>14.97</i>	<i>30.01</i>	<i>30.62</i>
<i>Belgium</i> .....	—	—	—	—	—
Eastern France .....	—	0.04	—	0.03	—
Northern France .....	—	—	—	—	—
France - other areas .....	—	0.06	—	—	—
<i>France</i> .....	—	<i>0.10</i>	—	<i>0.03</i>	—
Italy - coastal areas .....	—	—	—	—	—
Italy - other areas .....	0.25	0.26	0.26	4.49	4.25
<i>Italy</i> .....	<i>0.25</i>	<i>0.26</i>	<i>0.26</i>	<i>4.49</i>	<i>4.25</i>
<i>Luxembourg</i> .....	—	—	—	—	—
<i>Netherlands</i> .....	—	—	—	—	—
<b>Total</b> .....	<b>5.58</b>	<b>10.06</b>	<b>15.23</b>	<b>34.53</b>	<b>34.87</b>

## SECTION MILLS

## Investment

TABLE XVIII c

## Capital Expenditure by Areas

'000.000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	5.88	4.18	3.76	2.83	0.31
North Rhine/Westphalia .....	29.91	22.45	23.79	23.21	11.98
Southern Germany .....	0.17	1.00	1.51	1.18	0.16
Saar .....	1.01	1.41	3.38	6.16	13.63
<i>Germany (F.R.)</i> .....	<i>36.97</i>	<i>29.04</i>	<i>32.44</i>	<i>33.38</i>	<i>26.08</i>
<i>Belgium</i> .....	<i>5.24</i>	<i>5.05</i>	<i>5.15</i>	<i>2.09</i>	<i>0.78</i>
Eastern France .....	30.35	25.96	38.54	41.38	29.05
Northern France .....	2.35	1.33	1.26	1.28	0.10
France - other areas .....	9.36	8.25	8.80	5.91	3.32
<i>France</i> .....	<i>42.06</i>	<i>35.54</i>	<i>48.60</i>	<i>48.57</i>	<i>32.47</i>
Italy - coastal areas .....	17.95	19.86	28.59	30.94	8.80
Italy - other areas .....	8.24	5.67	8.78	9.89	6.57
<i>Italy</i> .....	<i>26.19</i>	<i>25.53</i>	<i>37.37</i>	<i>40.83</i>	<i>15.37</i>
<i>Luxembourg</i> .....	<i>12.27</i>	<i>5.42</i>	<i>5.07</i>	<i>1.92</i>	<i>0.02</i>
<i>Netherlands</i> .....	<i>23.54</i>	<i>7.56</i>	<i>6.99</i>	<i>7.78</i>	<i>0.83</i>
<b>Total</b> .....	<b>146.27</b>	<b>108.14</b>	<b>185.62</b>	<b>184.57</b>	<b>75.55</b>

<b>FLAT-PRODUCT MILLS</b>
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**Investment**

*TABLE XVIII d*  
**Capital Expenditure by Areas**

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	27.28	6.62	9.39	8.69	2.72
North Rhine/Westphalia .....	104.48	77.40	91.97	89.04	31.38
Southern Germany .....	3.27	2.40	2.53	3.02	1.05
Saar .....	0.59	0.48	0.56	0.29	—
<i>Germany (F.R.)</i> .....	<i>135.62</i>	<i>86.90</i>	<i>104.44</i>	<i>101.04</i>	<i>35.15</i>
<i>Belgium</i> .....	<i>44.47</i>	<i>51.92</i>	<i>42.25</i>	<i>47.25</i>	<i>27.37</i>
Eastern France .....	14.73	13.81	12.99	5.80	2.73
Northern France .....	26.68	10.70	10.32	4.84	1.10
France - other areas .....	5.61	6.05	7.88	5.29	3.25
<i>France</i> .....	<i>47.02</i>	<i>30.56</i>	<i>31.19</i>	<i>15.93</i>	<i>7.08</i>
Italy - coastal areas .....	52.26	10.66	12.08	3.88	3.35
Italy - other areas .....	61.51	29.99	26.01	16.90	23.63
<i>Italy</i> .....	<i>113.77</i>	<i>40.65</i>	<i>38.09</i>	<i>20.78</i>	<i>26.98</i>
<i>Luxembourg</i> .....	<i>0.31</i>	<i>1.56</i>	<i>1.72</i>	<i>2.94</i>	<i>1.00</i>
<i>Netherlands</i> .....	<i>3.36</i>	<i>7.03</i>	<i>7.74</i>	<i>17.32</i>	<i>30.11</i>
<b>Total</b> .....	<b>344.55</b>	<b>218.62</b>	<b>225.43</b>	<b>205.26</b>	<b>127.69</b>

<b>ROLLING-MILLS-TOTAL <sup>(1)</sup></b>
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**Investment**

*TABLE XVIII e*

**Capital Expenditure by Area**

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	46.93	12.64	14.74	14.54	5.82
North Rhine/Westphalia .....	165.31	132.52	160.24	160.74	76.32
Southern Germany .....	4.28	4.38	6.29	13.31	4.66
Saar .....	9.02	8.67	15.32	14.21	23.08
<i>Germany (F.R.)</i> .....	<i>225.54</i>	<i>158.21</i>	<i>196.59</i>	<i>202.80</i>	<i>109.88</i>
<i>Belgium</i> .....	<i>62.72</i>	<i>71.75</i>	<i>63.08</i>	<i>63.54</i>	<i>34.98</i>
Eastern France .....	51.47	47.95	71.95	57.71	53.87
Northern France .....	35.60	15.17	16.56	8.22	1.80
France - other areas .....	18.85	17.03	21.54	17.77	12.52
<i>France</i> .....	<i>105.92</i>	<i>80.15</i>	<i>110.05</i>	<i>83.70</i>	<i>68.19</i>
Italy - costal areas .....	113.36	45.90	59.85	45.77	17.49
Italy - other areas .....	80.97	41.31	38.94	35.72	36.45
<i>Italy</i> .....	<i>194.33</i>	<i>87.21</i>	<i>98.79</i>	<i>81.49</i>	<i>53.94</i>
<i>Luxembourg</i> .....	<i>14.96</i>	<i>8.27</i>	<i>9.70</i>	<i>5.97</i>	<i>1.83</i>
<i>Netherlands</i> .....	<i>30.81</i>	<i>19.22</i>	<i>18.75</i>	<i>36.12</i>	<i>42.36</i>
<b>Total</b> .....	<b>634.28</b>	<b>424.81</b>	<b>496.96</b>	<b>473.62</b>	<b>311.18</b>

<sup>(1)</sup> Including ancillary and auxiliary plants.

**STEELWORKS-OWNED  
POWER-GENERATING  
PLANTS AND DISTRIBUTION NETWORKS**

**Investment**

*TABLE XIX a*

**Capital Expenditure by Areas**

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
	1964	1965	on Jan. 1, 1965 for	on Jan. 1, 1966 for	
			1965	1966	1967
Northern Germany .....	6.59	3.55	3.86	3.06	0.30
North Rhine/Westphalia .....	16.73	10.10	11.73	8.91	10.68
Southern Germany .....	2.13	1.09	1.84	0.81	0.34
Saar .....	3.81	1.40	1.62	0.87	0.15
<i>Germany (R.R.)</i> .....	<i>29.26</i>	<i>16.14</i>	<i>19.05</i>	<i>13.65</i>	<i>11.47</i>
<i>Belgium</i> .....	<i>5.12</i>	<i>13.59</i>	<i>9.80</i>	<i>17.45</i>	<i>5.00</i>
Eastern France .....	5.37	2.49	5.58	1.65	1.18
Northern France .....	2.08	1.48	1.05	0.39	0.03
France - other areas .....	1.00	0.65	0.67	0.72	0.55
<i>France</i> .....	<i>8.45</i>	<i>4.62</i>	<i>7.30</i>	<i>2.76</i>	<i>1.76</i>
Italy - costal areas .....	38.45	16.65	17.44	8.87	4.79
Italy - other areas .....	2.07	1.28	1.23	1.14	0.61
<i>Italy</i> .....	<i>40.52</i>	<i>17.93</i>	<i>18.67</i>	<i>10.01</i>	<i>5.40</i>
<i>Luxembourg</i> .....	<i>0.82</i>	<i>0.50</i>	<i>0.09</i>	<i>1.00</i>	<i>0.23</i>
<i>Netherlands</i> .....	<i>2.17</i>	<i>2.18</i>	<i>3.00</i>	<i>5.18</i>	<i>5.03</i>
<b>Total</b> .....	<b>86.34</b>	<b>54.96</b>	<b>57.91</b>	<b>50.05</b>	<b>28.89</b>

<b>MISCELLANEOUS (IRON AND STEEL WORKS)</b>
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Investment

TABLE XIX b

Capital Expenditure by Areas

'000.000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	6.65	0.80	6.53	4.31	1.78
North Rhine/Westphalia .....	24.85	31.19	22.19	21.50	14.60
Southern Germany .....	1.56	1.20	2.07	1.77	0.54
Saar .....	5.97	9.97	5.66	10.65	4.97
<i>Germany (F.R.)</i> .....	<i>39.03</i>	<i>49.16</i>	<i>36.45</i>	<i>38.23</i>	<i>21.89</i>
<i>Belgium</i> .....	<i>15.09</i>	<i>9.96</i>	<i>9.11</i>	<i>17.28</i>	<i>9.72</i>
Eastern France .....	21.72	30.00	32.12	20.23	23.69
Northern France .....	6.98	3.39	6.30	2.62	1.10
France - other areas .....	2.98	2.04	2.71	3.31	2.60
<i>France</i> .....	<i>31.68</i>	<i>35.43</i>	<i>41.13</i>	<i>26.16</i>	<i>27.39</i>
Italy - coastal areas .....	112.95	57.50	34.96	48.99	21.50
Italy - other areas .....	6.81	5.30	6.56	5.02	2.38
<i>Italy</i> .....	<i>119.76</i>	<i>62.80</i>	<i>41.52</i>	<i>54.01</i>	<i>23.88</i>
<i>Luxembourg</i> .....	<i>1.36</i>	<i>1.26</i>	<i>1.76</i>	<i>1.63</i>	<i>0.67</i>
<i>Netherlands</i> .....	<i>6.78</i>	<i>6.62</i>	<i>12.01</i>	<i>13.53</i>	<i>11.92</i>
<b>Total</b> .....	<b>213.70</b>	<b>165.23</b>	<b>141.98</b>	<b>150.84</b>	<b>95.47</b>



<b>GENERAL SERVICES (IRON AND STEEL WORKS) TOTAL</b>
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## Investment

TABLE XIX c

## Capital Expenditure by Areas

'000.000 dollars (E.M.A. units of account)

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
			on Jan. 1, 1965 for	on Jan. 1, 1966 for	
	1964	1965	1965	1966	1967
Northern Germany .....	13.24	10.35	10.39	7.37	2.08
North Rhine/Westphalia .....	41.58	41.29	33.92	30.41	25.28
Southern Germany .....	3.69	2.29	3.91	2.58	0.88
Saar .....	9.78	11.37	7.28	11.52	5.12
<i>Germany (F.R.)</i> .....	<i>68.29</i>	<i>65.30</i>	<i>55.50</i>	<i>51.88</i>	<i>33.36</i>
<i>Belgium</i> .....	<i>20.21</i>	<i>23.55</i>	<i>18.91</i>	<i>34.73</i>	<i>14.72</i>
Eastern France .....	27.09	32.49	37.70	21.88	24.87
Northern France .....	9.06	4.87	7.35	3.01	1.13
France - other areas .....	3.98	2.69	3.38	4.03	3.15
<i>France</i> .....	<i>40.13</i>	<i>40.05</i>	<i>48.43</i>	<i>28.92</i>	<i>29.15</i>
Italy - coastal areas .....	151.40	74.15	52.40	57.86	26.29
Italy - other areas .....	8.88	6.58	7.79	6.16	2.99
<i>Italy</i> .....	<i>160.28</i>	<i>80.73</i>	<i>60.19</i>	<i>64.02</i>	<i>29.28</i>
<i>Luxembourg</i> .....	<i>2.18</i>	<i>1.76</i>	<i>1.85</i>	<i>2.63</i>	<i>0.90</i>
<i>Netherlands</i> .....	<i>8.95</i>	<i>8.80</i>	<i>15.01</i>	<i>18.71</i>	<i>16.95</i>
<b>Total</b> .....	<b>300.04</b>	<b>220.19</b>	<b>199.89</b>	<b>200.89</b>	<b>124.36</b>

## SINTER

## Production

TABLE XX

## Production and Production Potential by Areas

'000.000 metric tons

Area	Actual production 1965	Production potential 1965	Expected production potential			
			1966	1967	1968	1969
Northern Germany .....	5.8	7.9	7.9	7.9	7.9	7.9
North Rhine/Westphalia .....	18.7	20.8	21.0	21.0	22.0	22.0
Southern Germany .....	0.3	0.4	0.4	0.4	0.4	0.4
Saar .....	5.0	6.0	6.0	6.0	6.5	6.5
<i>Germany (F.R.)</i> .....	<i>29.8</i>	<i>35.1</i>	<i>35.3</i>	<i>35.3</i>	<i>36.8</i>	<i>36.8</i>
<i>Belgium</i> .....	<i>7.2</i>	<i>9.0</i>	<i>9.4</i>	<i>10.1</i>	<i>10.7</i>	<i>10.8</i>
Eastern France .....	14.8	16.3	17.7	19.2	19.2	20.9
Northern France .....	2.7	3.0	3.7	4.2	4.6	4.8
France - other areas .....	1.0	1.3	1.3	1.3	1.3	1.3
<i>France</i> .....	<i>18.5</i>	<i>20.6</i>	<i>22.7</i>	<i>24.7</i>	<i>25.1</i>	<i>27.0</i>
Italy - coastal areas .....	5.1	5.8	7.8	9.2	9.3	9.3
Italy - other areas .....	0.4	0.5	0.5	0.5	0.5	0.5
<i>Italy</i> .....	<i>5.5</i>	<i>6.3</i>	<i>8.3</i>	<i>9.7</i>	<i>9.8</i>	<i>9.8</i>
<i>Luxembourg</i> .....	<i>4.7</i>	<i>5.6</i>	<i>5.6</i>	<i>5.6</i>	<i>5.6</i>	<i>5.6</i>
<i>Netherlands</i> .....	<i>3.2</i>	<i>3.2</i>	<i>3.2</i>	<i>3.2</i>	<i>3.2</i>	<i>4.0</i>
<b>Total</b> .....	<b>68.9</b>	<b>79.8</b>	<b>84.5</b>	<b>88.6</b>	<b>91.2</b>	<b>94.0</b>

<b>Total</b> .....	<b>32.1</b>	<b>37.0</b>	<b>37.0</b>	<b>36.0</b>	<b>35.3</b>	<b>34.9</b>
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<b>PIG-IRON</b>
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**Production**

**TABLE XXI**

**Production and Production Potential by Areas**

*'000.000 metric tons*

Area	Actual pro- duction	Pro- duction potential	Expected production potential			
	1965	1965	1966	1967	1968	1969
Northern Germany .....	3.6	4.2	4.6	4.9	5.4	5.4
North Rhine/Westphalia .....	18.5	23.1	23.6	23.7	23.8	24.1
Southern Germany (F.R.) .....	1.2	1.7	1.8	1.8	1.8	1.8
Saar .....	3.7	4.6	5.0	5.0	5.2	5.2
<i>Germany</i> .....	<i>27.0</i>	<i>33.6</i>	<i>35.0</i>	<i>35.4</i>	<i>36.2</i>	<i>36.5</i>
<i>Belgium</i> .....	<i>8.4</i>	<i>9.6</i>	<i>10.1</i>	<i>10.8</i>	<i>11.1</i>	<i>11.4</i>
Eastern France .....	11.2	13.6	14.0	14.2	14.2	14.7
Northern France .....	3.5	4.0	4.0	4.3	4.4	4.4
France - other areas .....	1.1	1.2	1.2	1.2	1.2	1.2
<i>France</i> .....	<i>15.8</i>	<i>18.8</i>	<i>19.2</i>	<i>19.7</i>	<i>19.8</i>	<i>20.3</i>
Italy - coastal areas .....	5.1	5.9	7.3	8.3	8.3	8.7
Italy - other areas .....	0.4	0.5	0.5	0.5	0.5	0.5
<i>Italy</i> .....	<i>5.5</i>	<i>6.4</i>	<i>7.8</i>	<i>8.8</i>	<i>8.8</i>	<i>9.2</i>
<i>Luxembourg</i> .....	<i>4.1</i>	<i>4.6</i>	<i>4.8</i>	<i>4.9</i>	<i>4.9</i>	<i>4.9</i>
<i>Netherlands</i> .....	<i>2.4</i>	<i>2.4</i>	<i>2.4</i>	<i>2.5</i>	<i>2.9</i>	<i>2.9</i>
<b>Total</b> .....	<b>63.2</b>	<b>75.4</b>	<b>79.3</b>	<b>82.1</b>	<b>83.7</b>	<b>85.2</b>

<b>BASIC BESSEMER STEEL</b>
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Production

TABLE XXII a

Production and Production Potential by Areas

*'000.000 metric tons*

Area	Actual pro- duction	Pro- duction potential	Expected production potential			
	1965	1965	1966	1967	1968	1969
Northern Germany .....	0.9	1.2	1.2	1.3	1.3	1.3
North Rhine/Westphalia .....	6.4	7.6	7.4	6.7	6.7	6.7
Southern Germany .....	0.6	0.9	1.0	1.0	1.0	1.0
Saar .....	2.9	3.8	3.8	3.8	3.6	3.6
<i>Germany (F.R.)</i> .....	<i>10.8</i>	<i>13.5</i>	<i>13.4</i>	<i>12.8</i>	<i>12.6</i>	<i>12.6</i>
<i>Belgium</i> .....	<i>6.9</i>	<i>7.4</i>	<i>7.1</i>	<i>7.1</i>	<i>6.6</i>	<i>6.2</i>
Eastern France .....	8.7	9.9	10.2	10.4	10.4	10.5
Northern France .....	1.2	1.4	1.4	1.4	1.4	1.4
France - other areas .....	0.5	0.6	0.6	0.5	0.5	0.4
<i>France</i> .....	<i>10.4</i>	<i>11.9</i>	<i>12.2</i>	<i>12.3</i>	<i>12.3</i>	<i>12.3</i>
Italy - coastal areas .....	—	—	—	—	—	—
Italy - other areas .....	—	—	—	—	—	—
<i>Italy</i> .....	—	—	—	—	—	—
<i>Luxembourg</i> .....	<i>4.0</i>	<i>4.2</i>	<i>4.3</i>	<i>3.8</i>	<i>3.8</i>	<i>3.8</i>
<i>Netherlands</i> .....	—	—	—	—	—	—
<b>Total</b> .....	<b>32.1</b>	<b>37.0</b>	<b>37.0</b>	<b>36.0</b>	<b>35.3</b>	<b>34.9</b>

<b>OPEN-HEARTH STEEL</b>
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**Production**

TABLE XXII b

**Production and Production Potential by Areas**

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1965	1965	1966	1967	1968	1969
Northern Germany .....	2.5	3.2	3.4	3.7	2.0	2.0
North Rhine/Westphalia .....	11.8	14.7	14.5	14.1	13.9	13.9
Southern Germany .....	0.6	0.8	0.8	0.8	0.8	0.8
Saar .....	0.9	1.0	1.1	1.1	1.1	1.1
<i>Germany (F.R.)</i> .....	<i>15.8</i>	<i>19.7</i>	<i>19.8</i>	<i>19.7</i>	<i>17.8</i>	<i>17.8</i>
<i>Belgium</i> .....	<i>0.4</i>	<i>0.7</i>	<i>0.5</i>	<i>0.5</i>	<i>0.5</i>	<i>0.5</i>
Eastern France .....	2.3	2.7	2.8	2.8	3.0	3.0
Northern France .....	2.0	2.3	2.4	2.4	2.4	2.4
France - other areas .....	0.5	0.6	0.6	0.6	0.6	0.6
<i>France</i> .....	<i>4.8</i>	<i>5.6</i>	<i>5.8</i>	<i>5.8</i>	<i>6.0</i>	<i>6.0</i>
Italy - coastal areas .....	3.3	3.5	3.7	4.0	4.1	4.4
Italy - other areas .....	1.8	2.4	2.5	2.5	2.5	2.5
<i>Italy</i> .....	<i>5.1</i>	<i>5.9</i>	<i>6.2</i>	<i>6.5</i>	<i>6.6</i>	<i>6.9</i>
<i>Luxembourg</i> .....	—	—	—	—	—	—
	<i>0.8</i>	<i>1.1</i>	<i>1.2</i>	<i>1.2</i>	<i>1.2</i>	<i>1.2</i>
<b>Total</b> .....	<b>26.9</b>	<b>33.0</b>	<b>33.5</b>	<b>33.7</b>	<b>32.1</b>	<b>32.4</b>

<b>ELECTRIC-FURNACE STEEL</b>
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**Production**

TABLE XXII c

**Production and Production Potential by Areas**

*'000.000 metric tons*

Area	Actual pro- duction	Pro- duction potential	Expected production potential			
	1965	1965	1966	1967	1968	1969
Northern Germany .....	0.2	0.3	0.3	0.3	0.3	0.3
North Rhine/Westphalia .....	2.5	2.9	3.0	3.0	3.0	3.0
Southern Germany .....	0.2	0.2	0.2	0.2	0.2	0.2
Saar .....	0.2	0.2	0.2	0.4	0.4	0.4
<i>Germany (F.R.)</i> .....	<i>3.1</i>	<i>3.6</i>	<i>3.7</i>	<i>3.9</i>	<i>3.9</i>	<i>3.9</i>
<i>Belgium</i> .....	<i>0.4</i>	<i>0.6</i>	<i>0.6</i>	<i>0.6</i>	<i>0.6</i>	<i>0.6</i>
Eastern France .....	0.5	0.6	0.6	0.6	0.6	0.6
Northern France .....	0.3	0.3	0.3	0.3	0.4	0.4
France - other areas .....	1.0	1.4	1.5	1.5	1.5	1.5
<i>France</i> .....	<i>1.8</i>	<i>2.3</i>	<i>2.4</i>	<i>2.4</i>	<i>2.5</i>	<i>2.5</i>
Italy - coastal areas .....	0.5	0.6	0.6	0.6	0.6	0.6
Italy - other areas .....	4.3	5.1	5.5	5.6	5.9	5.9
<i>Italy</i> .....	<i>4.8</i>	<i>5.7</i>	<i>6.1</i>	<i>6.2</i>	<i>6.5</i>	<i>6.5</i>
<i>Luxembourg</i> .....	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>
<i>Netherlands</i> .....	<i>0.2</i>	<i>0.2</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>
<b>Total</b> .....	<b>10.4</b>	<b>12.5</b>	<b>13.2</b>	<b>13.5</b>	<b>13.9</b>	<b>13.9</b>

<b>LD, KALDO AND OTHER STEELS</b>
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**Production**

*TABLE XXII d*

**Production and Production Potential by Areas**

*'000,000 metric tons*

Area	Actual pro- duction	Pro- duction potential	Expected production potential			
	1965	1965	1966	1967	1968	1969
Northern Germany .....	1.3	1.7	1.8	1.8	3.7	3.7
North Rhine/Westphalia .....	5.4	6.7	9.0	10.9	11.0	11.0
Southern Germany .....	0.0	0.0	0.0	0.0	0.0	0.0
Saar .....	0.3	0.3	0.3	0.3	1.0	1.0
<i>Germany (F.R.)</i> .....	<i>7.0</i>	<i>8.7</i>	<i>11.1</i>	<i>13.0</i>	<i>15.7</i>	<i>15.7</i>
<i>Belgium</i> .....	<i>1.5</i>	<i>1.8</i>	<i>2.9</i>	<i>3.7</i>	<i>5.3</i>	<i>6.0</i>
Eastern France .....	0.9	1.0	1.1	1.1	1.1	1.7
Northern France .....	1.7	1.9	2.1	2.3	2.3	2.4
France - other areas .....	0.0	0.0	0.0	0.1	0.1	0.2
<i>France</i> .....	<i>2.6</i>	<i>2.9</i>	<i>3.2</i>	<i>3.5</i>	<i>3.5</i>	<i>4.3</i>
Italy - coastal areas .....	2.8	3.3	4.9	5.9	5.9	6.5
Italy - other areas .....	0.0	0.0	—	—	—	—
<i>Italy</i> .....	<i>2.8</i>	<i>3.3</i>	<i>4.9</i>	<i>5.9</i>	<i>5.9</i>	<i>6.5</i>
<i>Luxembourg</i> .....	<i>0.5</i>	<i>0.6</i>	<i>0.8</i>	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>
<i>Netherlands</i> .....	<i>2.2</i>	<i>2.2</i>	<i>2.2</i>	<i>2.2</i>	<i>2.6</i>	<i>2.8</i>
<b>Total</b> .....	<b>16.6</b>	<b>19.5</b>	<b>25.1</b>	<b>29.8</b>	<b>34.5</b>	<b>36.8</b>

<b>STEEL-TOTAL</b>
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<b>Production</b>
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TABLE XXII e

## Production and Production Potential by Areas

'000.000 metric tons

Area	Actual pro- duction	Pro- duction potential	Expected production potential			
	1965	1965	1966	1967	1968	1969
Northern Germany .....	4.9	6.4	6.7	7.1	7.3	7.3
North Rhine/Westphalia .....	26.1	31.9	33.9	34.7	34.6	34.6
Southern Germany .....	1.4	1.9	2.0	2.0	2.0	2.0
Saar .....	4.3	5.3	5.4	5.6	6.1	6.1
<i>Germany (F.R.)</i> .....	<i>36.7</i>	<i>45.5</i>	<i>48.0</i>	<i>49.4</i>	<i>50.0</i>	<i>50.0</i>
<i>Belgium</i> .....	<i>9.2</i>	<i>10.5</i>	<i>11.1</i>	<i>11.9</i>	<i>13.0</i>	<i>13.3</i>
Eastern France .....	12.4	14.2	14.7	14.9	15.1	15.8
Northern France .....	5.2	5.9	6.2	6.4	6.5	6.6
France - other areas .....	2.0	2.6	2.7	2.7	2.7	2.7
<i>France</i> .....	<i>19.6</i>	<i>22.7</i>	<i>23.6</i>	<i>24.0</i>	<i>24.3</i>	<i>25.1</i>
Italy - coastal areas .....	6.6	7.4	9.2	10.5	10.6	11.5
Italy - other areas .....	6.1	7.5	8.0	8.1	8.4	8.4
<i>Italy</i> .....	<i>12.7</i>	<i>14.9</i>	<i>17.2</i>	<i>18.6</i>	<i>19.0</i>	<i>19.9</i>
<i>Luxembourg</i> .....	<i>4.6</i>	<i>4.9</i>	<i>5.2</i>	<i>5.4</i>	<i>5.4</i>	<i>5.4</i>
	3.2	3.5	3.7	3.7	4.1	4.3
<b>Total</b> .....	<b>86.0</b>	<b>102.0</b>	<b>108.8</b>	<b>118.0</b>	<b>115.8</b>	<b>118.0</b>



SECTIONS
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## Production

TABLE XXIII a

## Production and Production Potential by Areas

'000.000 metric tons

Area	Actual production 1965	Pro- duction potential 1965	Expected production potential			
			1966	1967	1968	1969
Northern Germany .....	1.5	2.3	2.3	2.7	2.7	2.7
North Rhine/Westphalia .....	8.3	11.5	11.8	11.9	12.5	12.8
Southern Germany .....	0.5	0.8	0.9	0.9	0.9	0.9
Saar .....	2.2	3.0	3.3	3.5	3.7	3.8
<i>Germany (F.R.)</i> .....	<i>12.5</i>	<i>17.6</i>	<i>18.3</i>	<i>19.0</i>	<i>19.8</i>	<i>20.2</i>
<i>Belgium</i> .....	<i>3.5</i>	<i>4.4</i>	<i>4.7</i>	<i>4.7</i>	<i>4.8</i>	<i>4.9</i>
Eastern France .....	5.1	5.8	6.0	6.2	6.6	7.0
Northern France .....	1.5	1.7	1.8	1.8	1.8	1.8
France - other areas .....	0.9	1.2	1.2	1.2	1.2	1.2
<i>France</i> .....	<i>7.5</i>	<i>8.7</i>	<i>9.0</i>	<i>9.2</i>	<i>9.6</i>	<i>10.0</i>
Italy - coastal areas .....	1.2	1.4	1.5	1.9	1.9	2.0
Italy - other areas .....	3.5	4.1	4.6	4.8	5.0	5.0
<i>Italy</i> .....	<i>4.7</i>	<i>5.5</i>	<i>6.1</i>	<i>6.7</i>	<i>6.9</i>	<i>7.0</i>
<i>Luxembourg</i> .....	<i>2.1</i>	<i>2.3</i>	<i>2.4</i>	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>
<i>Netherlands</i> .....	<i>0.3</i>	<i>0.4</i>	<i>0.5</i>	<i>0.6</i>	<i>0.7</i>	<i>0.7</i>
<b>Total</b> .....	<b>30.6</b>	<b>38.9</b>	<b>41.0</b>	<b>42.8</b>	<b>44.4</b>	<b>45.4</b>

<b>FLAT PRODUCTS <sup>(1)</sup></b>
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**Production**

TABLE XXIII b

## Production and Production Potential by Areas

'000.000 metric ton

Area	Actual production	Production potential	Expected production potential			
	1965	1965	1966	1967	1968	1969
Northern Germany .....	1.7	2.5	2.7	3.0	3.0	3.0
North Rhine/Westphalia .....	7.6	12.0	13.0	13.4	13.4	13.4
Southern Germany .....	1.1	1.7	1.8	1.9	1.9	1.9
Saar .....	0.7	1.2	1.2	1.2	1.2	1.2
<i>Germany (F.R.)</i> .....	<i>11.1</i>	<i>17.4</i>	<i>18.7</i>	<i>19.5</i>	<i>19.5</i>	<i>19.5</i>
<i>Belgium</i> .....	<i>3.0</i>	<i>3.9</i>	<i>4.1</i>	<i>4.5</i>	<i>4.6</i>	<i>4.7</i>
Eastern France .....	4.1	4.9	5.0	5.1	5.1	5.1
Northern France .....	2.2	2.8	2.9	3.0	3.0	3.0
France - other areas .....	0.4	0.6	0.6	0.6	0.6	0.7
<i>France</i> .....	<i>6.7</i>	<i>8.3</i>	<i>8.5</i>	<i>8.7</i>	<i>8.7</i>	<i>8.8</i>
Italy - coastal areas .....	2.0	2.2	2.2	2.7	2.8	2.9
Italy - other areas .....	2.1	2.9	2.9	3.0	3.3	3.3
<i>Italy</i> .....	<i>4.1</i>	<i>5.1</i>	<i>5.1</i>	<i>5.7</i>	<i>6.1</i>	<i>6.2</i>
<i>Luxembourg</i> .....	<i>1.2</i>	<i>1.2</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>
<i>Netherlands</i> .....	<i>1.5</i>	<i>1.8</i>	<i>1.8</i>	<i>1.8</i>	<i>1.8</i>	<i>1.8</i>
<b>Total</b> .....	<b>27.6</b>	<b>37.7</b>	<b>39.6</b>	<b>41.6</b>	<b>42.1</b>	<b>42.4</b>

(1) Excepted Coils (finished products)

<b>FINISHED ROLLED PRODUCTS-TOTAL <sup>(1)</sup></b>
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**Production**

TABLE XXIII c

**Production and Production Potential by Areas**

<sup>1</sup>000.000 metric tons

Area	Actual production 1965	Production potential 1965	Expected production potential			
			1966	1967	1968	1969
Northern Germany .....	3.2	4.8	5.0	5.7	5.7	5.7
North Rhine/Westphalia .....	15.9	23.5	24.8	25.3	25.9	26.2
Southern Germany .....	1.6	2.5	2.7	2.8	2.8	2.8
Saar .....	2.9	4.2	4.5	4.7	4.9	5.0
<i>Germany (F.R.)</i> .....	<b>23.6</b>	<b>35.0</b>	<b>37.0</b>	<b>38.5</b>	<b>39.3</b>	<b>39.7</b>
<i>Belgium</i> .....	6.5	8.3	8.8	9.2	9.4	9.6
Eastern France .....	9.2	10.7	11.0	11.3	11.7	12.1
Northern France .....	3.7	4.5	4.7	4.8	4.8	4.8
France - other areas .....	1.3	1.8	1.8	1.8	1.8	1.9
<i>France</i> .....	<b>14.2</b>	<b>17.0</b>	<b>17.5</b>	<b>17.9</b>	<b>18.3</b>	<b>18.8</b>
Italy - coastal areas .....	3.2	3.6	3.7	4.6	4.7	4.9
Italy - other areas .....	5.6	7.0	7.5	7.8	8.3	8.3
<i>Italy</i> .....	<b>8.8</b>	<b>10.6</b>	<b>11.2</b>	<b>12.4</b>	<b>13.0</b>	<b>13.2</b>
<i>Luxembourg</i> .....	3.3	3.5	3.8	4.0	4.0	4.0
<i>Netherlands</i> .....	1.8	2.2	2.3	2.4	2.5	2.5
<b>Total</b> .....	<b>58.2</b>	<b>76.6</b>	<b>80.6</b>	<b>84.4</b>	<b>86.5</b>	<b>87.8</b>

<sup>(1)</sup> Excepted Coils (finished products).

<b>HEAVY AND LIGHT SECTIONS (INCLUDING TUBE ROUNDS AND SQUARES)</b>
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**Production**

TABLE XXIV a

**Production and Production Potential by Areas**

'000.000 metric tons

Area	Actual pro- duction	Pro- duction potential	Expected production potential			
	1965	1965	1966	1967	1968	1969
Northern Germany .....	1.3	2.1	2.1	2.5	2.5	2.5
North Rhine/Westphalia .....	6.1	8.9	9.1	9.2	9.5	9.6
Southern Germany .....	0.5	0.7	0.8	0.8	0.8	0.8
Saar .....	1.8	2.5	2.8	3.0	3.2	3.3
<i>Germany (F.R.)</i> .....	<i>9.7</i>	<i>14.2</i>	<i>14.8</i>	<i>15.5</i>	<i>16.0</i>	<i>16.2</i>
<i>Belgium</i> .....	<i>2.6</i>	<i>3.2</i>	<i>3.5</i>	<i>3.5</i>	<i>3.6</i>	<i>3.7</i>
Eastern France .....	3.6	4.2	4.2	4.4	4.7	5.1
Northern France .....	1.3	1.5	1.5	1.5	1.5	1.5
France - other areas .....	0.7	0.9	0.9	0.9	0.9	0.9
<i>France</i> .....	<i>5.6</i>	<i>6.6</i>	<i>6.6</i>	<i>6.8</i>	<i>7.1</i>	<i>7.5</i>
Italy - coastal areas .....	1.0	1.2	1.3	1.7	1.6	1.7
Italy - other areas .....	3.0	3.4	3.8	3.9	4.1	4.1
<i>Italy</i> .....	<i>4.0</i>	<i>4.6</i>	<i>5.1</i>	<i>5.6</i>	<i>5.7</i>	<i>5.8</i>
<i>Luxembourg</i> .....	<i>1.9</i>	<i>2.0</i>	<i>2.1</i>	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>
<i>Netherlands</i> .....	<i>0.1</i>	<i>0.2</i>	<i>0.3</i>	<i>0.3</i>	<i>0.4</i>	<i>0.4</i>
<b>Total</b> .....	<b>23.9</b>	<b>30.8</b>	<b>32.4</b>	<b>34.0</b>	<b>35.1</b>	<b>35.9</b>

<b>WIRE-ROD</b>
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**Production**

TABLE XXIV b

## Production and Production Potential by Areas

'000.000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1965	1965	1966	1967	1968	1969
Northern Germany .....	0.2	0.2	0.2	0.2	0.2	0.2
North Rhine/Westphalia .....	2.2	2.6	2.7	2.7	3.0	3.2
Southern Germany .....	0.0	0.1	0.1	0.1	0.1	0.1
Saar .....	0.4	0.5	0.5	0.5	0.5	0.5
<i>Germany (F.R.)</i> .....	<i>2.8</i>	<i>3.4</i>	<i>3.5</i>	<i>3.5</i>	<i>3.8</i>	<i>4.0</i>
<i>Belgium</i> .....	<i>0.9</i>	<i>1.2</i>	<i>1.2</i>	<i>1.2</i>	<i>1.2</i>	<i>1.2</i>
Eastern France .....	1.5	1.6	1.8	1.8	1.9	1.9
Northern France .....	0.2	0.2	0.3	0.3	0.3	0.3
France - other areas .....	0.2	0.3	0.3	0.3	0.3	0.3
<i>France</i> .....	<i>1.9</i>	<i>2.1</i>	<i>2.4</i>	<i>2.4</i>	<i>2.5</i>	<i>2.5</i>
Italy - coastal areas .....	0.2	0.2	0.2	0.2	0.3	0.3
Italy - other areas .....	0.5	0.7	0.8	0.9	0.9	0.9
<i>Italy</i> .....	<i>0.7</i>	<i>0.9</i>	<i>1.0</i>	<i>1.1</i>	<i>1.2</i>	<i>1.2</i>
<i>Luxembourg</i> .....	<i>0.2</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>
<i>Netherlands</i> .....	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>
<b>Total</b> .....	<b>6.7</b>	<b>8.1</b>	<b>8.6</b>	<b>8.8</b>	<b>9.3</b>	<b>9.5</b>

<b>HOOP AND STRIP AND TUBE STRIP</b>
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**Production**

*TABLE XXIV c*

**Production and Production Potential by Areas**

*'000.000 metric tons*

Area	Actual production 1965	Production potential 1965	Expected production potential			
			1966	1967	1968	1969
Northern Germany .....	0.0	0.0	—	—	—	—
North Rhine/Westphalia .....	2.0	3.0	3.3	3.3	3.3	3.3
Southern Germany .....	0.0	0.0	0.0	0.0	0.0	0.0
Saar .....	0.2	0.3	0.3	0.3	0.3	0.3
<i>Germany (F.R.)</i> .....	<i>2.2</i>	<i>3.3</i>	<i>3.6</i>	<i>3.6</i>	<i>3.6</i>	<i>3.6</i>
<i>Belgium</i> .....	<i>0.4</i>	<i>0.5</i>	<i>0.6</i>	<i>0.6</i>	<i>0.6</i>	<i>0.6</i>
Eastern France .....	1.0	1.1	1.1	1.2	1.2	1.2
Northern France .....	0.0	0.0	0.0	0.0	0.0	0.0
France - other areas .....	0.0	0.0	0.0	0.0	0.0	0.0
<i>France</i> .....	<i>1.1</i>	<i>1.1</i>	<i>1.1</i>	<i>1.2</i>	<i>1.2</i>	<i>1.2</i>
Italy - coastal areas .....	0.4	0.5	0.5	0.7	0.7	0.7
Italy - other areas .....	0.3	0.5	0.4	0.4	0.5	0.5
<i>Italy</i> .....	<i>0.7</i>	<i>1.0</i>	<i>0.9</i>	<i>1.1</i>	<i>1.2</i>	<i>1.2</i>
<i>Luxembourg</i> .....	<i>0.7</i>	<i>0.7</i>	<i>0.8</i>	<i>0.8</i>	<i>0.8</i>	<i>0.8</i>
<i>Netherlands</i> .....	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>
<b>Total</b> .....	<b>5.1</b>	<b>6.7</b>	<b>7.1</b>	<b>7.4</b>	<b>7.5</b>	<b>7.5</b>

<b>PLATE <math>\geq</math> 3 mm (INCLUDING WIDE FLAT STEEL)</b>
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**Production**

*TABLE XXIV d*

**Production and Production Potential by Areas**

'000,000 metric tons

Area	Actual production	Production potential	Expected production potential			
	1965	1965	1965	1967	1968	1969
Northern Germany .....	0.8	1.2	1.3	1.3	1.3	1.3
North Rhine/Westphalia .....	3.3	4.9	5.3	5.3	5.3	5.3
Southern Germany .....	0.0	0.1	0.1	0.1	0.1	0.1
Saar .....	0.5	0.9	0.9	0.9	0.9	0.9
<i>Germany (F.R.)</i> .....	<i>4.6</i>	<i>7.1</i>	<i>7.6</i>	<i>7.6</i>	<i>7.6</i>	<i>7.6</i>
<i>Belgium</i> .....	<i>1.0</i>	<i>1.2</i>	<i>1.2</i>	<i>1.3</i>	<i>1.3</i>	<i>1.3</i>
Eastern France .....	0.9	1.1	1.1	1.1	1.1	1.1
Northern France .....	0.6	0.7	0.7	0.7	0.7	0.7
France - other areas .....	0.1	0.2	0.2	0.2	0.2	0.2
<i>France</i> .....	<i>1.6</i>	<i>2.0</i>	<i>2.0</i>	<i>2.0</i>	<i>2.0</i>	<i>2.0</i>
Italy - coastal areas .....	0.8	0.8	0.9	1.0	1.1	1.2
Italy - other areas .....	0.3	0.6	0.6	0.6	0.6	0.6
<i>Italy</i> .....	<i>1.1</i>	<i>1.4</i>	<i>1.5</i>	<i>1.6</i>	<i>1.7</i>	<i>1.8</i>
<i>Luxembourg</i> .....	<i>0.2</i>	<i>0.2</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>
<i>Netherlands</i> .....	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>
<b>Total</b> .....	<b>8.9</b>	<b>12.3</b>	<b>13.0</b>	<b>13.2</b>	<b>13.3</b>	<b>13.4</b>

<b>HOT-ROLLED SHEET &lt; 3 mm.</b>
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**Production**

TABLE XXIV e

**Production and Production Potential by Areas**

'000.000 metric tons

Area	Actual pro- duction	Pro- duction potential	Expected production potential			
	1965	1965	1966	1967	1968	1969
Northern Germany .....	0.0	0.0	0.0	0.0	0.0	0.0
North Rhine/Westphalia .....	0.4	1.0	0.8	0.7	0.7	0.7
Southern Germany .....	0.2	0.2	0.2	0.2	0.2	0.2
Saar .....	0.0	0.0	0.0	—	—	—
<i>Germany (F.R.)</i> .....	<i>0.6</i>	<i>1.2</i>	<i>1.0</i>	<i>0.9</i>	<i>0.9</i>	<i>0.9</i>
<i>Belgium</i> .....	<i>0.2</i>	<i>0.4</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>
Eastern France .....	0.3	0.4	0.4	0.4	0.4	0.4
Northern France .....	0.1	0.2	0.2	0.2	0.2	0.2
France - other areas .....	0.1	0.1	0.1	0.1	0.1	0.1
<i>France</i> .....	<i>0.5</i>	<i>0.7</i>	<i>0.7</i>	<i>0.7</i>	<i>0.7</i>	<i>0.7</i>
Italy - coastal areas .....	0.1	0.1	0.1	0.2	0.2	0.2
Italy - other areas .....	0.0	0.1	0.1	0.1	0.0	0.0
<i>Italy</i> .....	<i>0.1</i>	<i>0.2</i>	<i>0.2</i>	<i>0.3</i>	<i>0.2</i>	<i>0.2</i>
<i>Luxembourg</i> .....	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
<i>Netherlands</i> .....	<i>0.0</i>	<i>0.0</i>	—	—	—	—
<b>Total</b> .....	<b>1.4</b>	<b>2.5</b>	<b>2.2</b>	<b>2.2</b>	<b>2.1</b>	<b>2.1</b>



<b>COLD-REDUCED SHEET</b> <b>&lt; 3 mm.</b>
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**Production**

*TABLE XXIV f*

**Production and Production by Areas**

*'000,000 metric tons*

Area	Actual pro- duction	Pro- duction potential	Expected production potential			
	1965	1965	1966	1967	1968	1969
Northern Germany .....	0.9	1.3	1.4	1.7	1.7	1.7
North Rhine/Westphalia .....	1.9	3.1	3.6	4.1	4.1	4.1
Southern Germany .....	0.9	1.4	1.5	1.6	1.6	1.6
Saar .....	—	—	—	—	—	—
<i>Germany (F.R.)</i> .....	<i>3.7</i>	<i>5.8</i>	<i>6.5</i>	<i>7.4</i>	<i>7.4</i>	<i>7.4</i>
<i>Belgium</i> .....	<i>1.4</i>	<i>1.8</i>	<i>2.0</i>	<i>2.3</i>	<i>2.4</i>	<i>2.5</i>
Eastern France .....	1.0	2.3	2.4	2.4	2.4	2.4
Northern France .....	1.5	1.9	2.0	2.1	2.1	2.1
France - other areas .....	0.2	0.3	0.3	0.3	0.3	0.4
<i>France</i> .....	<i>3.6</i>	<i>4.5</i>	<i>4.7</i>	<i>4.8</i>	<i>4.8</i>	<i>4.9</i>
Italy - coastal areas .....	0.7	0.8	0.7	0.8	0.8	0.8
Italy - other areas .....	1.5	1.7	1.8	1.9	2.2	2.2
<i>Italy</i> .....	<i>2.2</i>	<i>2.5</i>	<i>2.5</i>	<i>2.7</i>	<i>3.0</i>	<i>3.0</i>
<i>Luxembourg</i> .....	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>
<i>Netherlands</i> .....	<i>1.0</i>	<i>1.3</i>	<i>1.3</i>	<i>1.3</i>	<i>1.3</i>	<i>1.3</i>
<b>Total</b> .....	<b>12.2</b>	<b>16.2</b>	<b>17.3</b>	<b>18.8</b>	<b>19.2</b>	<b>19.4</b>

<b>HOT WIDE-STRIP MILLS</b>
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**Investment**  
(already included in the  
capital expenditure for the flat-  
product mills; Table XVIII d)

TABLE XXV a

## Capital Expenditure by Areas

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

Area	Actual expenditure		Estimated expenditure (projects in progress, or approved)		
	1964	1965	on Jan. 1, 1965 for	on Jan. 1, 1966 for	
			1965	1966	1967
Northern Germany .....	20.55	2.81	2.10	2.53	0.01
North Rhine/Westphalia .....	47.90	33.56	34.20	44.89	10.49
Southern Germany .....	—	—	—	—	—
Saar .....	—	—	—	—	—
<i>Germany (F.R.)</i> .....	<i>68.45</i>	<i>36.37</i>	<i>36.30</i>	<i>47.42</i>	<i>10.50</i>
<i>Belgium</i> .....	<i>8.83</i>	<i>22.90</i>	<i>17.00</i>	<i>26.04</i>	<i>14.98</i>
Eastern France .....	0.65	3.43	3.20	1.74	0.76
Northern France .....	11.62	4.52	4.20	1.00	0.50
France - other areas .....	0.05	0.06	0.20	0.01	—
<i>France</i> .....	<i>12.32</i>	<i>8.01</i>	<i>7.60</i>	<i>2.75</i>	<i>1.26</i>
Italy - coastal areas .....	34.87	6.70	4.80	0.32	1.50
Italy - other areas .....	22.06	14.53	12.70	6.49	3.80
<i>Italy</i> .....	<i>56.93</i>	<i>21.23</i>	<i>17.50</i>	<i>6.81</i>	<i>5.30</i>
<i>Luxembourg</i> .....	—	<i>0.55</i>	<i>0.00</i>	<i>1.19</i>	<i>0.84</i>
<i>Netherlands</i> .....	<i>0.44</i>	<i>1.15</i>	<i>0.10</i>	<i>13.78</i>	<i>26.87</i>
<b>Total</b> .....	<b>146.97</b>	<b>90.21</b>	<b>78.50</b>	<b>97.99</b>	<b>59.75</b>

COILS <sup>(1)</sup>

## Production

TABLE XXV b

## Production and Production Potential by Areas

'000.000 metric tons

Area	Actual production		Pro- duction potential	Expected production potential			
	Total	of which: Coils (finished products)		1966	1967	1968	1969
	1965		1965				
Northern Germany .....	1.4	0.2	2.1	2.8	2.9	2.9	2.9
North Rhine/Westphalia .....	4.4	0.6	5.8	5.8	6.1	6.1	6.1
Southern Germany .....	—	—	—	—	—	—	—
Saar .....	—	—	—	—	—	—	—
<i>Germany (F.R.)</i> .....	<i>5.8</i>	<i>0.8</i>	<i>7.9</i>	<i>8.6</i>	<i>9.0</i>	<i>9.0</i>	<i>9.0</i>
<i>Belgium</i> .....	<i>2.2</i>	<i>0.2</i>	<i>2.5</i>	<i>3.0</i>	<i>3.8</i>	<i>4.0</i>	<i>4.1</i>
Eastern France .....	2.4	0.1	2.5	2.6	2.6	2.6	2.6
Northern France .....	2.3	0.2	2.5	2.8	2.8	2.8	2.8
France - other areas .....	0.0	0.0	0.0	0.0	0.0	0.1	0.1
<i>France</i> .....	<i>4.7</i>	<i>0.3</i>	<i>5.0</i>	<i>5.4</i>	<i>5.4</i>	<i>5.5</i>	<i>5.5</i>
Italy - coastal areas .....	2.6	0.2	3.0	3.4	3.6	3.6	3.6
Italy - other areas .....	0.5	0.0	0.6	0.8	1.1	1.1	1.1
<i>Italy</i> .....	<i>3.1</i>	<i>0.2</i>	<i>3.6</i>	<i>4.2</i>	<i>4.7</i>	<i>4.7</i>	<i>4.7</i>
<i>Luxembourg</i> .....	<i>0.4</i>	<i>0.1</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>
<i>Netherlands</i> .....	<i>1.6</i>	<i>0.3</i>	<i>1.6</i>	<i>1.6</i>	<i>1.6</i>	<i>1.6</i>	<i>1.7</i>
<b>Total</b> .....	<b>17.8</b>	<b>1.9</b>	<b>21.0</b>	<b>23.2</b>	<b>24.9</b>	<b>25.2</b>	<b>25.4</b>

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