

**EUROPEAN
COAL AND STEEL COMMUNITY
THE HIGH AUTHORITY**

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

REPORT ON THE 1963 SURVEY
Position as at January 1, 1963

JULY 1963

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I — GENERAL REMARKS

As in previous years, the High Authority has conducted a survey of past and future investment by Community enterprises as at January 1, 1963, and its foreseeable effects on production potential. The survey covers all but a few very small enterprises, which this year account among them for less than 0·7% of the Community's total coal production and less than 1·8% of its total steel production.

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, 1963, already completed or in progress (Category A), approved (Category B) or merely planned (Category C). The Category C projects dealt with in this Report are those of the extractive industries (coal and iron ore) only.

Annex II contains tables showing for each sector capital expenditure and production potential broken down by producer areas.

a) Capital Expenditure

Capital expenditure entered by Community enterprises on the credit side of their balance-sheets over the nine years 1954-62 totalled 10,800,000 dollar units of account, representing an annual average of 1,200 millions. During this period investment in the coalmining industry crept gradually downward, while that in the iron steel industry rose steadily, particularly striking increases being reported in 1961 and 1962.

TABLE I
General Trend in Investment in Recent Years

| Sector | Projects completed | | | Indices |
|-------------------------------|-------------------------------|------|------|---------|
| | 1954 - 60 (annual average) | 1961 | 1962 | |
| Coalmining industry..... | 100 | 91 | 91 | 92 |
| Iron-ore mines | 100 | 132 | 142 | 119 |
| Iron and steel industry | 100 | 184 | 200 | 236 |
| All E.C.S.C. industries | 100 | 146 | 155 | 174 |

In 1954 the breakdown of Community investment was 48% for the coalmining industry, 49% for the iron and steel industry and 3% for the iron-ore mines : in 1962 the corresponding figures were 24%, 73% and 3%.

TABLE 2
Capital Expenditure in the Community Industries, 1954—1964

| Sector | \$ '000,000 (E.M.A. units of account) | | | | | | | | | | |
|--|---------------------------------------|------|-------|-------|-------|-------|-------|-------|-------|----------------------|--|
| | Actual expenditure | | | | | | | | | | Estimated expenditure (Categories A+B+C) ¹⁾ |
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | |
| Coalmining industry | 445 | 408 | 405 | 471 | 469 | 406 | 371 | 387 | 386 | 390 | 323 |
| Plants producing B.K.B. and low-temperature brown-coal coke .. | 5 | 8 | 4 | 2 | 5 | 5 | 6 | 4 | 6 | 8 | 7 |
| Iron-ore mines | 30 | 31 | 44 | 50 | 41 | 40 | 43 | 52 | 56 | 47 | 28 |
| Iron and steel industry | 453 | 524 | 570 | 708 | 644 | 587 | 775 | 1 123 | 1 218 | 1 435 ⁽¹⁾ | 1 018 ⁽¹⁾ |
| Total | 933 | 971 | 1 023 | 1 231 | 1 159 | 1 038 | 1 195 | 1 566 | 1 666 | 1 880 | 1 376 |

¹⁾ The estimates for the iron and steel industry relate only to expenditure on projects already in progress (A) or approved (B) at January 1, 1963, not those merely planned (C).

The figures for the years 1961 and 1962 differ from those given in last year's Report, inasmuch as, generally speaking,

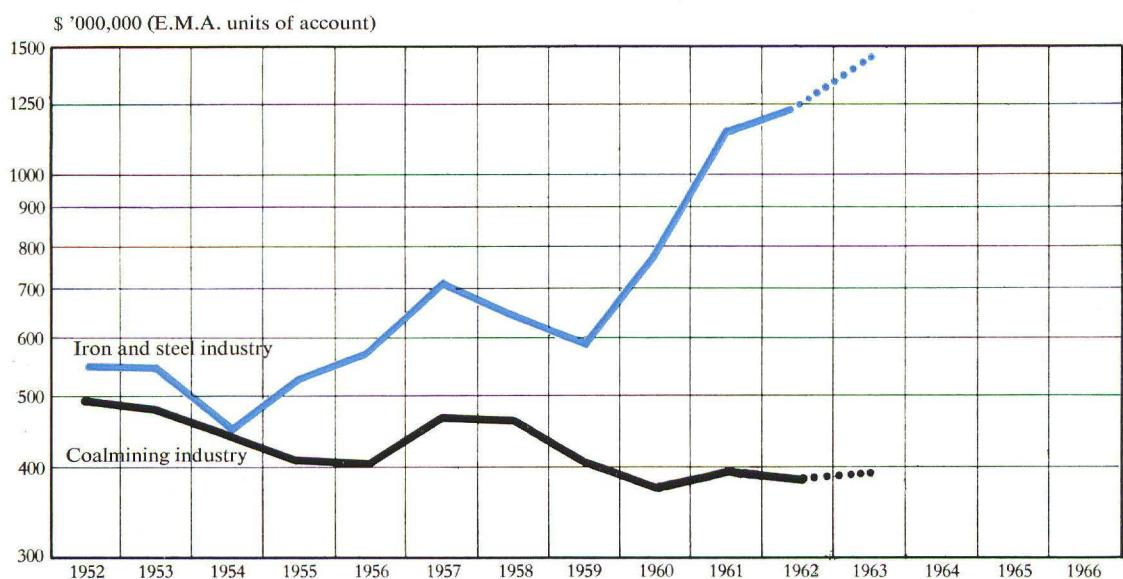
- a) for the past year (1962), actual expenditure falls below the estimates submitted on January 1;
- b) for the previous year (1961), the expenditure figures, returned before the balance-sheets were closed, are corrected when the next survey is drawn up.

The 1962 survey suggested that capital expenditure during the coming year would reach the record total of 2,000 million dollars. Although 1962 proved a poor year for most of the Community industries, the level of expenditure in fact averaged 83% of that estimated (coal-mining industry 88%, iron-ore mines 88%, iron and steel industry 81%). These comparatively high figures are mainly due to the fact that a good deal of the expenditure concerned went on the continuance or completion of projects started at an earlier date, deferment of which would in many cases have been exceedingly costly. For the same reason, investment is likely to continue on a considerable scale in 1963, even if the producers finally decide to scrap some of the projects scheduled. From 1964 onwards, on the other hand, investment in the iron and steel industry seems probable to fall off appreciably, though it is of course difficult to estimate accurately so far ahead.

FIGURE 1

Investment in the Coalmining and Iron and Steel Industries

A — Capital expenditure



B — Actual production and production potential

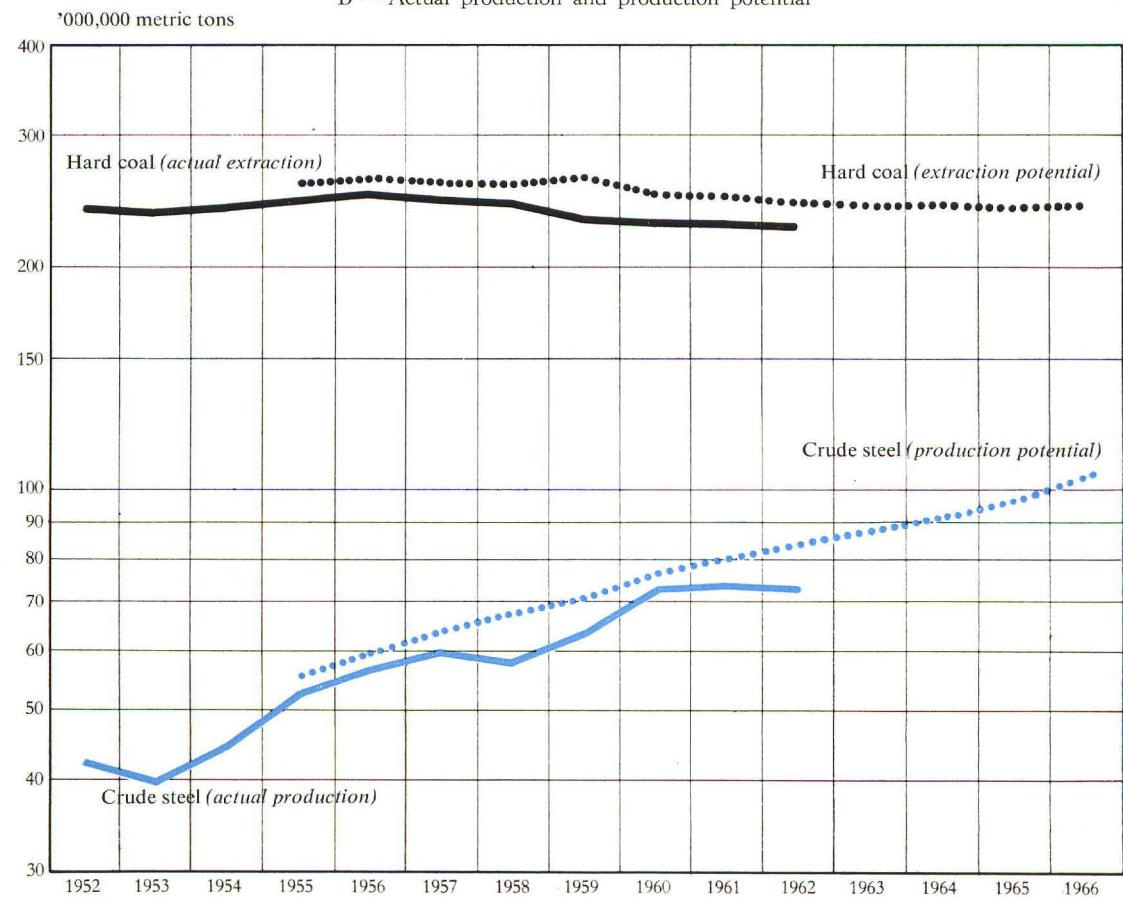
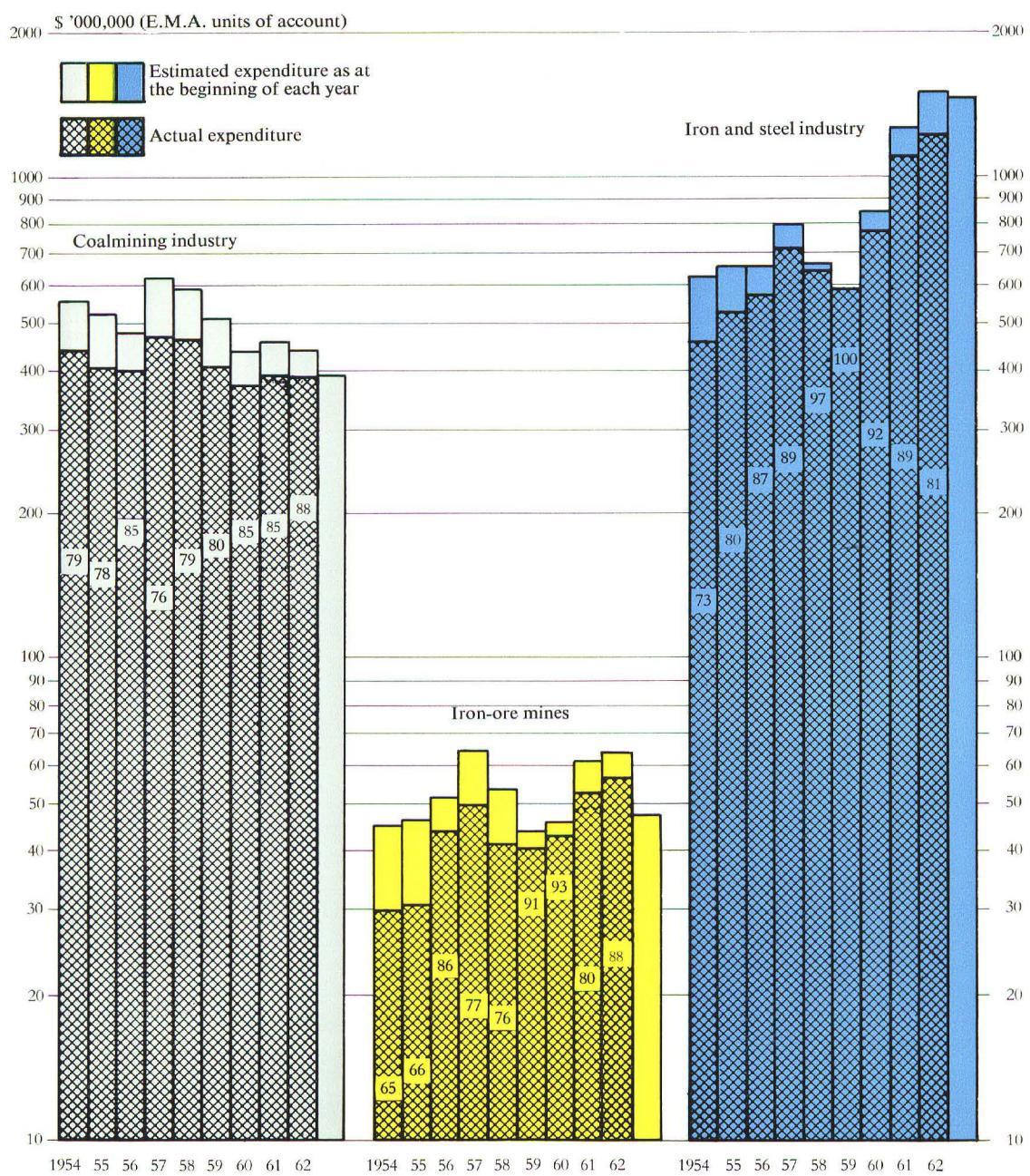


FIGURE 2

Comparison of Actual Capital Expenditure
and Estimated Capital Expenditure as at the Beginning of Each Year
(Out-Turn Percentages)



8b

b) Production Potential

The production potential of the coalmining industry may be expected to contract gradually up to 1966, at about the same rate as its actual production has shrunk since 1952. This is due partly to the smaller number of coal-winning shifts taken as a basis for calculation in certain coalfields, and partly to pit closures.

Extraction of iron ore increased fairly sharply after the establishment of the Community, and it was long hoped in the industry that this trend would continue for some years to come. However, the 1963 survey indicates that the producers have now ceased to have any expectation of this; only in the Lorraine orefield is there still some prospect of expansion.

In the iron and steel industry the expansion made possible by the substantial investment which has been and is being effected should continue at a fair pace, though not so fast as was suggested by earlier surveys.

TABLE 3

Actual Production and Production Potential

| Product | Actual production | | | Production potential | | |
|---|----------------------------|---|----------------------------|----------------------------|---|----------------------------|
| | 1952 ('000,000 m.t.) | Mean annual rate of increase in % | 1962 ('000,000 m.t.) | 1962 ('000,000 m.t.) | Mean annual rate of increase in % | 1966 ('000,000 m.t.) |
| Hard coal ¹⁾ | 237.4 | -0.5 | 226.3 | 246.0 | -0.4 | 241.9 |
| B.K.B. and low-temperature brown-coal coke | 16.5 | -1.3 | 14.5 | 14.3 | -0.2 | 14.2 |
| Iron ore | 65.3 | +3.5 | 92.4 | 105.5 | +0.7 | 108.5 |
| Pig-iron..... | 34.7 | +4.2 | 53.8 | 62.9 | +6.1 | 79.8 |
| Crude steel | 41.8 | +5.7 | 72.7 | 83.4 | +5.2 | 102.1 |

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

In order to interpret the production-potential figures correctly, it must be borne in mind that the sum of the potentials declared by the individual mines and works is bound to be slightly above the maximum production actually achievable in the Community, by reason of unforeseeable incidents or circumstances which, in the course of any one year, may make it impossible for some of these enterprises to attain their maximum.

Thus, even during the best years, actual production has never exceeded 96% 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.

TABLE 4
**Relation between Actual Production
and Potential Production**

| Sector | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | % |
|-------------------|------|------|------|------|------|------|------|------|---|
| Hard coal | 94.9 | 94.6 | 95.1 | 94.8 | 89.3 | 92.6 | 92.7 | 92.0 | |
| Coke | 93.2 | 96.5 | 96.1 | 92.2 | 84.3 | 85.7 | 85.3 | 85.0 | |
| Iron Ore..... | 95.4 | 95.1 | 94.9 | 91.3 | 90.9 | 94.6 | 91.7 | 87.6 | |
| Pig-Iron | 96.3 | 96.0 | 94.7 | 87.9 | 88.3 | 94.3 | 90.9 | 85.5 | |
| Crude Steel | 95.8 | 96.1 | 94.1 | 85.7 | 89.6 | 95.6 | 91.7 | 87.3 | |

II — THE COALMINING INDUSTRY

Capital expenditure in the coalmining industry since 1955 has remained more or less level, apart from one upturn in 1957-58. The actual expenditure recorded in 1962 and the estimates for 1963 are again about the same, working out at 386,400,000 and 389,900,000 dollars respectively. However, this overall stability conceals a certain falling-off in expenditure on the pits since 1959, offset by larger investment in the pithead power-stations since 1957.

TABLE 5
Capital Expenditure in the Coalmining Industry,
1954—1964

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

| Sector | Actual expenditure | | | | | | | | | Estimated expenditure (Categories A+B+C) | |
|---|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---|--------------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Collieries..... | 241.8 | 256.4 | 248.6 | 281.4 | 268.4 | 226.8 | 226.0 | 235.4 | 225.2 | 228.0 | 187.9 |
| Coking-plants, mine-owned .. | 67.9 | 52.2 | 46.2 | 59.5 | 63.4 | 55.8 | 33.7 | 43.1 | 36.1 | 25.9 | 24.8 |
| Coking-plants, independent.. | 19.5 | 12.3 | 11.1 | 8.6 | 8.8 | 4.7 | 1.6 | 1.4 | 4.9 | 6.3 | 6.1 |
| Briquetting-plants | 3.8 | 7.3 | 4.5 | 4.7 | 3.5 | 5.4 | 7.1 | 3.4 | 4.8 | 9.1 | 5.6 |
| Pithead power-stations and other power-generating plant | 111.7 | 79.9 | 94.5 | 117.2 | 125.0 | 113.4 | 102.6 | 104.1 | 115.4 | 120.6 | 99.1 |
| of which: | | | | | | | | | | | |
| — pithead power-stations. | (88.5) | (63.9) | (81.2) | (101.7) | (111.2) | (103.7) | (93.8) | (97.2) | (108.1) | (111.0) | (93.8) |
| — other power-generating plant | (23.2) | (16.0) | (13.3) | (15.5) | (13.8) | (9.7) | (8.8) | (6.9) | (7.3) | (9.5) | (5.3) |
| Total | 444.7 | 408.1 | 404.9 | 471.4 | 469.1 | 406.1 | 371.0 | 387.4 | 386.4 | 389.9 | 323.5 |
| Plants producing B.K.B. and low-temperature brown-coal coke | 5.3 | 8.1 | 4.5 | 2.3 | 5.0 | 4.8 | 6.0 | 3.8 | 5.8 | 7.9 | 7.5 |

Trends in capital expenditure vary from one part of the Community to another. In Germany investment is proceeding comparatively briskly, as it has been doing for some years, since 1957 in the Ruhr and Saar and since 1961 in the Aachen coalfield. The 1962 returns and the

1963 estimates for Dutch Limburg show an increase, and those for Italy (Sulcis) quite a substantial one, representing expenditure on a large power-station now building there. On the other hand, investment has been declining in the various French coalfields since 1959 and in Southern Belgium since 1960, and in 1962 began to fall off in the Campine also.

a) Collieries

The slight contraction in capital expenditure on the pits in recent years has been very little greater than that in production. Expenditure in this sector per metric ton extracted which averaged \$1.05 from 1952 to 1960, worked out in 1961 at \$1.02 and in 1962 at \$1.00. Specific expenditure in 1962 was above the Community average in Germany (especially in the Aachen and Saar coalfields), Lorraine and Dutch Limburg, and below it in Belgium and, still more, in Northern and Central France.

As before, capital expenditure was divided more or less evenly between coal-extraction (including shafts and machines and mechanical equipment below ground) and surface installations (screening, washing, buildings and other installations).

TABLE 6

Capital Expenditure on Collieries, 1954—1962

| Category | \$ '000,000 (E.M.A. units of account) | | | | | | | | |
|--|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 |
| Shafts and underground workings..... | 43.5 | 54.9 | 57.5 | 63.8 | 67.0 | 51.1 | 48.7 | 42.6 | 34.6 |
| Machines and mechanical equipment below ground | 49.0 | 53.8 | 57.7 | 68.2 | 62.9 | 49.3 | 52.7 | 58.3 | 58.5 |
| Haulage and winding equipment | 22.6 | 20.1 | 18.8 | 22.4 | 20.6 | 24.1 | 25.8 | 24.4 | 22.6 |
| Screening and washing | 68.4 | 64.9 | 50.4 | 57.4 | 50.6 | 48.3 | 45.4 | 49.3 | 49.9 |
| Other surface installations | 31.4 | 35.1 | 34.4 | 36.1 | 33.0 | 27.6 | 32.9 | 35.1 | 35.1 |
| Buildings, etc. | 26.9 | 27.6 | 29.8 | 33.5 | 34.3 | 26.4 | 20.5 | 25.7 | 24.5 |
| Total | 241.8 | 256.4 | 248.6 | 281.4 | 268.4 | 226.8 | 226.0 | 235.4 | 225.2 |

All the High Authority's previous surveys have shown the producers, taken as a group, to be expecting some increase in their production potential in the years ahead, although each year's estimates were slightly lower than those of the year before. The 1963 survey for the first time indicates a contraction in aggregate potential between 1962 and 1966.

FIGURE 3
Capital Expenditure in the Coalmining Industry

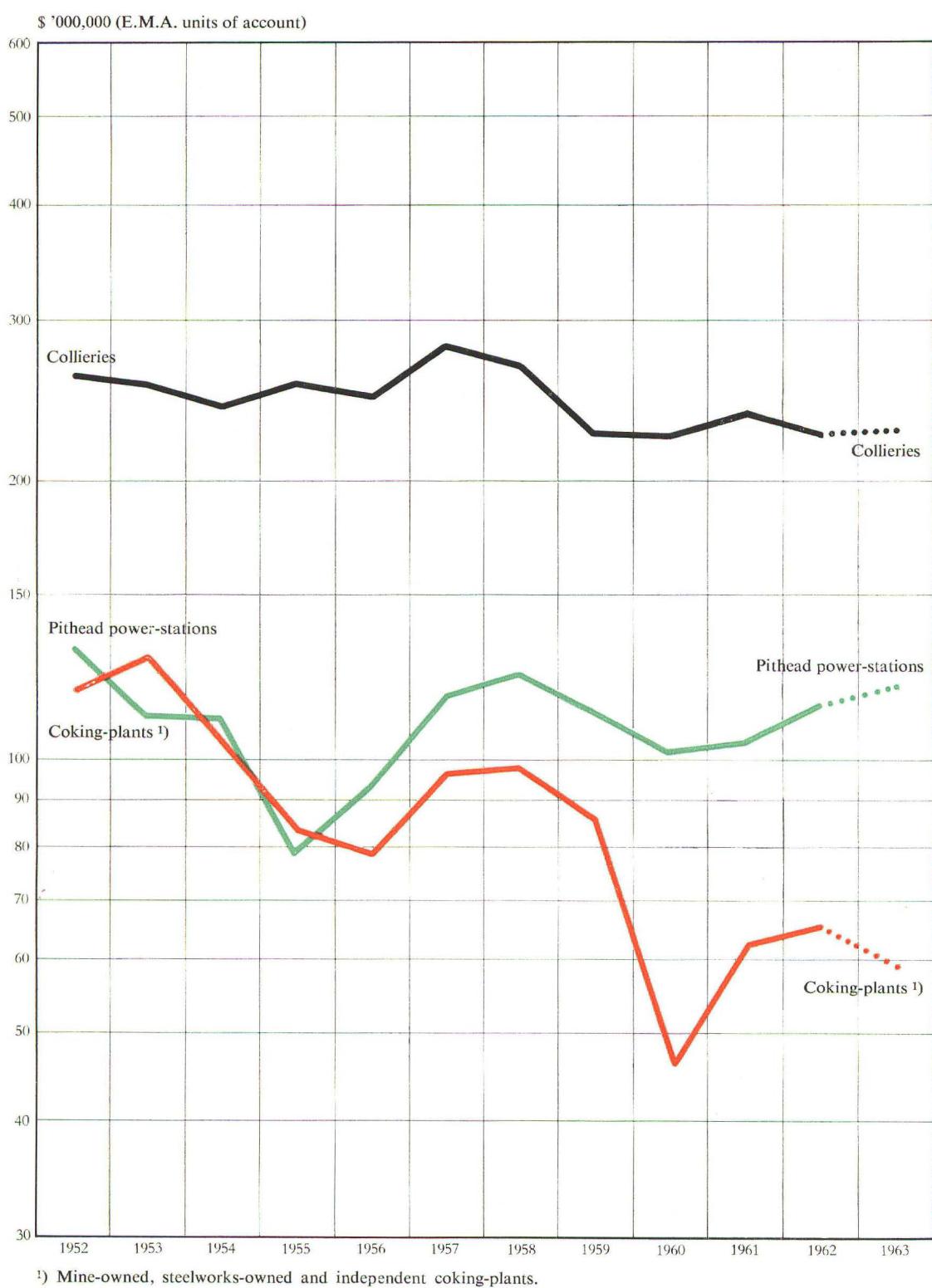


TABLE 7
Development of Hard-Coal Extraction Potential ¹⁾

| | | | | | | | '000,000 metric tons |
|------------|-------|----------------------|-------|-------|-------|-------|----------------------|
| Extraction | | Extraction potential | | | | | |
| 1952 | 1962 | 1962 | 1963 | 1964 | 1965 | 1966 | |
| 237.4 | 226.3 | 246.0 | 243.1 | 243.3 | 242.1 | 241.9 | |

¹⁾ As in previous years, mines producing only small tonnages are excluded: the total production of these small mines in 1962 amounted to approximately 1,300,000 metric tons.

The expected diminution is divided about equally between Germany (2,500,000 tons, including 1,800,000 in the Saar) and France (2,800,000 tons, half in the Nord/Pas-de-Calais and half in the Centre/Midi). For the Campine, on the other hand, an increase of 800,000 tons is estimated.

The extraction potentials indicated for the different coalfields are not altogether inter-comparable, as they are based on different numbers of working days per annum : 287 in France, 260 in Germany (296 in the Saar), 258-260 in the Netherlands and in most of the Belgian collieries.

b) Coking-Plants

Expenditure in 1962 on mine-owned coking-plants was markedly lower than in 1961, indeed almost down to the exceedingly low level touched in 1960, the reason being mainly the recent completion of a large-scale project in Lorraine. Expenditure per metric ton of coke produced worked out at only \$0.79, as against \$0.86 in 1961 and an average of \$1.30 over the years 1952-60. The estimates for 1963 and 1964 suggest further decreases.

Capital expenditure on the independent plants continues being small : the total in 1962 was rather under \$5,000,000, most of it in Italy and the rest in Belgium and the Netherlands.

On the other hand, investment in the steelworks-owned plants (here included to provide a full picture of the carbonization sector) again increased after its earlier heavy slump in 1960. Capacity is being expanded fairly rapidly in Lorraine, and still more so in the coastal regions of Italy, in contrast to Germany, where practically nothing is being undertaken in this respect, even in the Ruhr.

In the following table, two sets of estimates are given for 1963 and 1964, the first covering only projects already approved or in progress (Categories A and B) and the second also including projects only contemplated (Categories A, B and C).

TABLE 8

Capital Expenditure on Steelworks-Owned Coking-Plants, 1954—1964 ¹⁾

| | | | | | | | | | | \$'000,000 (E.M.A. units of account) | | | |
|--------------------|------|------|------|------|------|------|------|------|-------------|--------------------------------------|-------------|---------------|--|
| Actual expenditure | | | | | | | | | | Estimated expenditure | | | |
| 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | | 1964 | | |
| | | | | | | | | | Cat. A+B | Cat. A+B+C | Cat. A+B | Cat. A+B+C | |
| 18.0 | 19.9 | 22.3 | 28.0 | 24.6 | 24.9 | 11.5 | 18.3 | 25.0 | 25.4 | 26.9 | 13.6 | 19.3 | |

¹⁾ Cf. Table 17, under "The Iron and Steel Industry" (1963 and 1964 estimates for Categories A and B only).

As in previous years, just under half of the capital expenditure in the carbonization sector as a whole went on the coke ovens themselves; since 1959, however, investment in new plant has been pretty consistently lower than expenditure on renewals and replacements.

TABLE 9

Capital Expenditure on Mine-Owned, Independent and Steelworks-Owned Coking-Plants, 1954—1962

| Category | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | \$'000,000 (E.M.A. units of account) |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------------------------|
| Coke ovens | 46.5 | 32.2 | 32.3 | 41.8 | 41.7 | 32.7 | 20.7 | 26.6 | 28.8 | |
| of which: | | | | | | | | | | |
| New plants | (31.9) | (19.3) | (17.3) | (24.7) | (21.8) | (14.7) | (9.6) | (13.7) | (14.2) | |
| Renewals and replacements | (14.6) | (12.9) | (15.0) | (17.1) | (19.9) | (18.0) | (11.1) | (12.9) | (14.6) | |
| Gas producers and other gasification plant | 5.7 | 3.4 | 2.0 | 1.3 | 1.3 | 0.9 | 0.9 | 0.6 | 2.0 | |
| Coke-oven gas and by-product plant ... | 27.1 | 28.9 | 25.9 | 34.8 | 29.6 | 28.3 | 13.1 | 18.2 | 18.0 | |
| Miscellaneous..... | 26.0 | 19.9 | 19.4 | 18.1 | 24.2 | 23.5 | 12.1 | 17.4 | 17.1 | |
| Total | 105.3 | 84.4 | 79.6 | 96.0 | 96.8 | 85.4 | 46.8 | 62.8 | 65.9 | |

The estimated expansion in coke production potential from 1962 to 1966 is in the case of the mine-owned and independent plants practically nil; for the steelworks-owned plants, if we include A, B and C projects, a 10% increase may be expected, principally in Italy.

FIGURE 4
Production and Production Potential of Coking-Plants

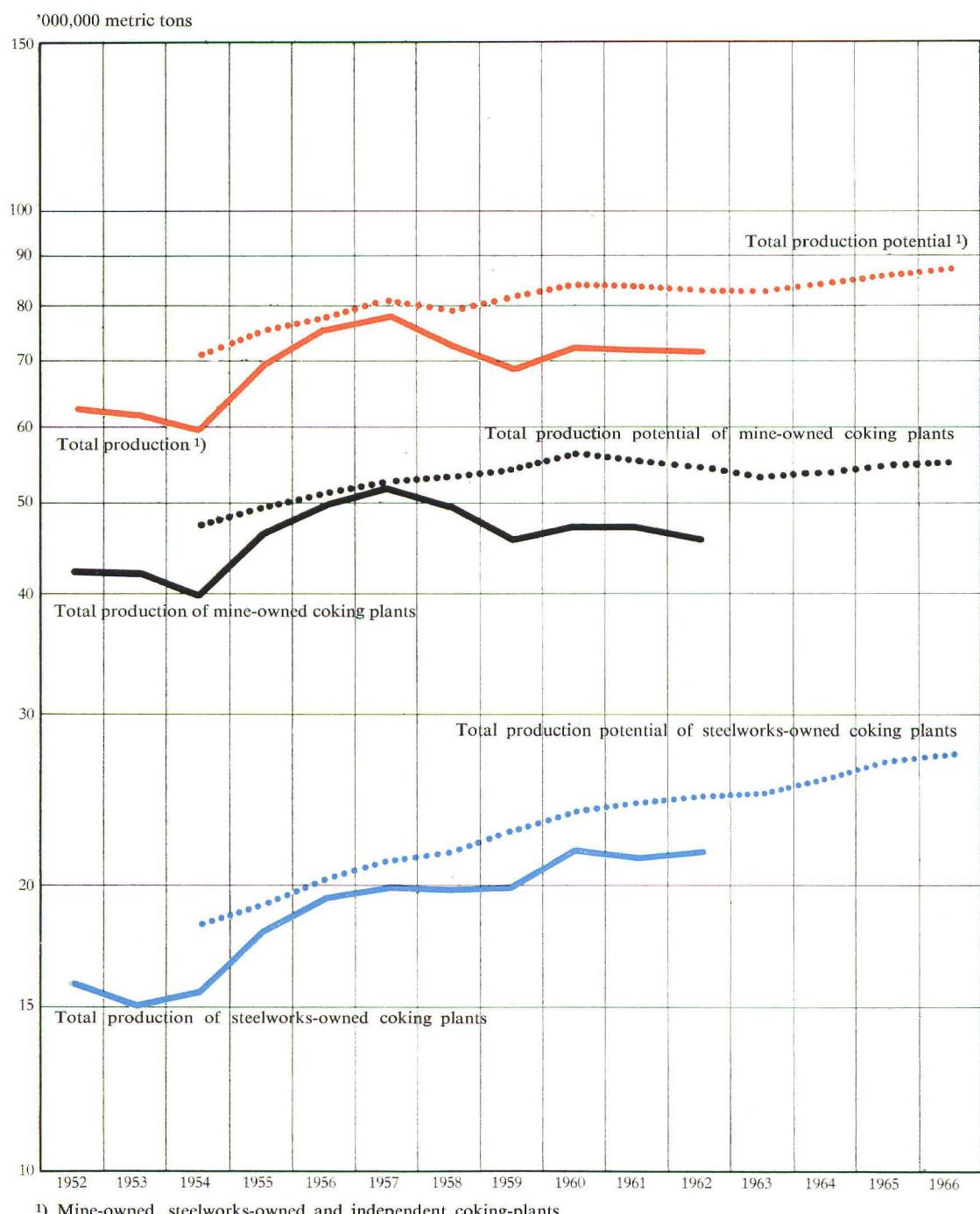


TABLE 10
Development of Coke Production Potential

| Cokeries | Actual production | | Production potential | | | | | '000,000 metric tons |
|---|-------------------|------|----------------------|------|------|------|------|----------------------|
| | 1952 | 1962 | 1962 | 1963 | 1964 | 1965 | 1966 | |
| Mine-Owned plants | 42.2 | 45.6 | 54.0 | 53.1 | 53.7 | 54.5 | 54.8 | |
| Independent plants | 3.2 | 3.5 | 4.1 | 4.0 | 4.1 | 4.2 | 4.3 | |
| Steelworks-owned plants ¹⁾ | 15.8 | 21.6 | 24.5 | 25.2 | 26.1 | 26.7 | 27.1 | |
| Total | 61.2 | 70.7 | 82.6 | 82.3 | 83.9 | 85.4 | 86.2 | |

¹⁾ Cf. Table 18, 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, viz. including all three categories of projects.

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

c) Briquetting-Plants

Capital expenditure is very much lower in this sector than elsewhere. A slight increase is, however, expected in the various French areas as a result of projects designed to enable ordinary briquettes to be processed into smokeless ones.

d) Pithead Power-Stations

Capital expenditure in this sector remains high, as it has been since 1957. By far the greater part continues to go on the big power-stations, while the share of the other generating-plant is gradually dwindling.

As in previous surveys, we have included all expenditure on the so-called "shared" power-stations, i.e. those jointly owned by collieries and other bodies.

TABLE 11

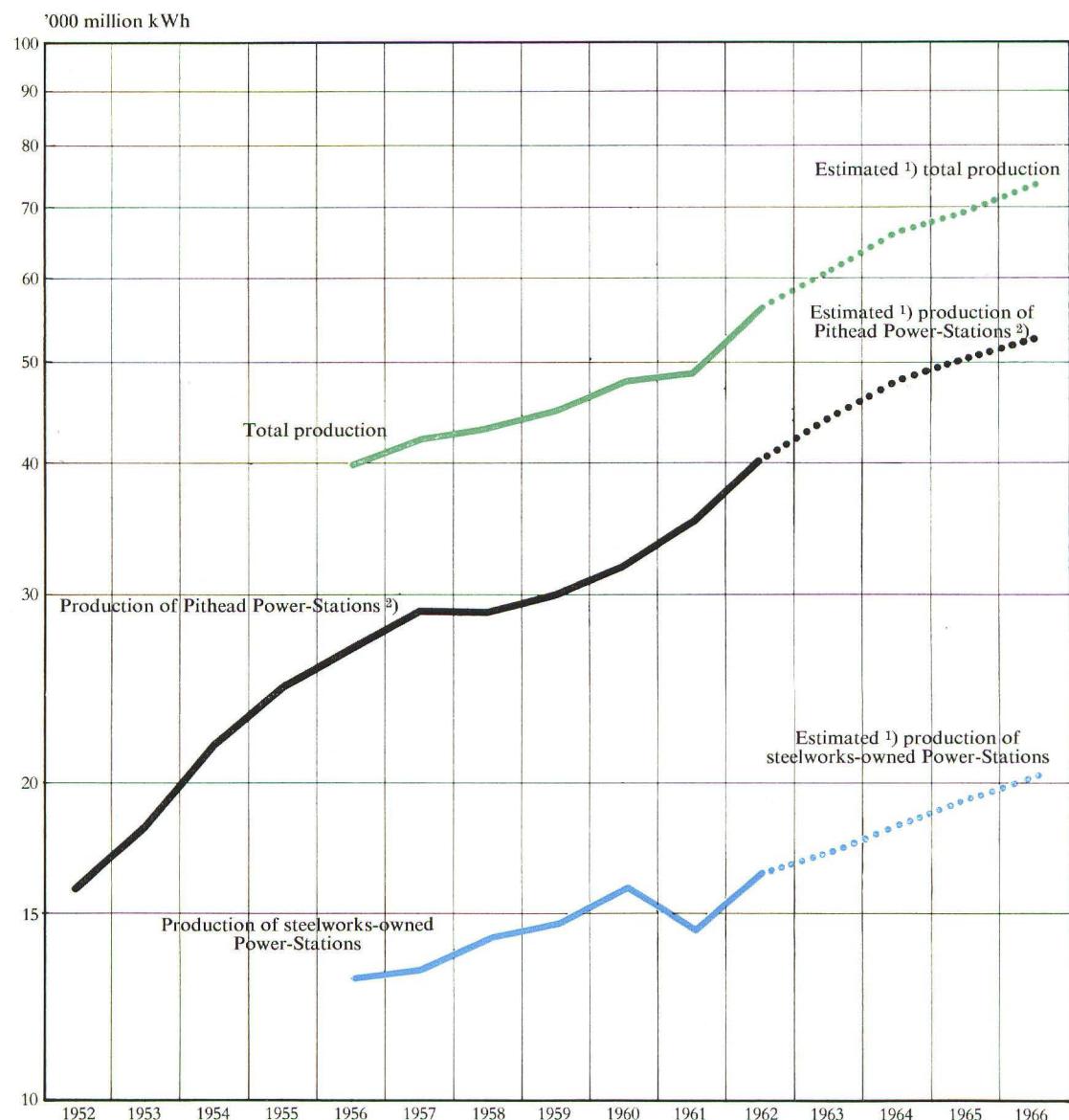
**Capital Expenditure on Pithead Power-Stations and other Power-Generating
Plant at Mines, by Types of Installation, 1954—1962**

| Type of installation | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | \$ '000,000 (E.M.A. units of account) |
|---|-------|------|------|-------|-------|-------|-------|-------|-------|---------------------------------------|
| Pithead power-stations | | | | | | | | | | |
| Steam-raising plant | 41.1 | 26.9 | 26.9 | 36.2 | 42.9 | 46.0 | 34.8 | 31.7 | 36.9 | |
| Power-generating plant and distribution switchgear..... | 26.8 | 21.0 | 28.6 | 34.5 | 35.4 | 35.7 | 40.8 | 44.5 | 42.5 | |
| Buildings | 9.2 | 6.1 | 6.8 | 10.7 | 15.1 | 7.9 | 7.2 | 10.0 | 11.5 | |
| Electricity distribution networks | 6.5 | 4.4 | 12.6 | 9.0 | 6.1 | 4.0 | 5.0 | 3.6 | 8.0 | |
| Miscellaneous..... | 4.9 | 5.5 | 6.3 | 11.3 | 11.7 | 10.1 | 6.0 | 7.4 | 9.2 | |
| Total | 88.5 | 63.9 | 81.2 | 101.7 | 111.2 | 103.7 | 93.8 | 97.2 | 108.1 | |
| Other power-generating plants at mines | | | | | | | | | | |
| Steam-raising plant | 6.1 | 3.3 | 3.6 | 3.6 | 2.9 | 1.7 | 1.6 | 1.0 | 1.5 | |
| Power-generating plant and distribution switchgear..... | 3.5 | 3.3 | 2.4 | 3.8 | 3.2 | 2.4 | 1.7 | 0.8 | 0.8 | |
| Buildings | 0.5 | 0.2 | 0.5 | 0.2 | 0.3 | 0.3 | 0.3 | 0.1 | 0.1 | |
| Electricity distribution networks | 4.6 | 3.5 | 1.9 | 2.6 | 2.3 | 1.3 | 2.0 | 2.4 | 2.6 | |
| Compressed-air plant | 7.6 | 5.5 | 4.8 | 5.2 | 4.9 | 3.7 | 2.7 | 2.3 | 1.8 | |
| Miscellaneous..... | 0.9 | 0.2 | 0.1 | 0.1 | 0.2 | 0.3 | 0.5 | 0.3 | 0.5 | |
| Total | 23.2 | 16.0 | 13.3 | 15.5 | 13.8 | 9.7 | 8.8 | 6.9 | 7.3 | |
| Pithead power-stations + other power-generating plants at mines | 111.7 | 79.9 | 94.5 | 117.2 | 125.0 | 113.4 | 102.6 | 104.1 | 115.4 | |

Investment in this sector has been rather smaller in France since 1960, as the French collieries are already extensively equipped in this respect; in Southern Belgium it has also been declining since the same date, and in 1962 it showed a decrease in the Campine. In Italy, on the other hand, work started recently on a very large power-station in the Sulcis coalfield, on which further substantial sums will be spent in 1963 and 1964; in Germany several major projects are in hand in the Ruhr, and similar developments are taking place, as they have been doing for some years past, in the Saar and to a lesser extent in the Aachen area.

The expected development of the maximum electric capacity of the pithead power plant installed is much the same as that indicated by the 1962 survey. The figures for the steelworks-owned power-stations (here included to provide a full picture of the power generating position in both Community industries) are, however, rather lower than last year's.

FIGURE 5
Electric Power Production



¹⁾ For 1963 and following years energy production figures have been estimated on the basis of the maximum electric capacity as at mid-year assuming the same number of load-hours as in 1962, i.e. 4,518 hours per annum for the pithead power-stations and 4,740 hours per annum for the steelworks-owned power-stations.

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

TABLE 12
Development of Maximum Electric Capacity

| | Beginning of 1962 | Beginning of 1963 | Beginning of 1964 | Beginning of 1965 | Beginning of 1966 | Beginning of 1967 | MW |
|------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----|
| Pithead power-stations | 8 863 | 9 096 | 10 514 | 10 818 | 11 470 | 11 881 | |
| Steelworks-owned power-stations .. | 3 386 | 3 500 | 3 754 | 3 970 | 4 208 | 4 428 | |

The pithead power-stations operated in 1962 at 4,518 load-hours, and the steelworks-owned stations at 4,740 : at these rates, their output of electric current in 1966 would be 52,700 million and 20,500 million kWh respectively.

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). 66% of the current produced by these stations in 1962 was sold to the grids, as compared with 61% in 1961.

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

Capital expenditure in this sector continues small. The production potential for briquettes is slowly decreasing; that for low-temperature coke remains unchanged.

III — THE IRON-ORE MINES

Investment in the Community iron-ore industry has been running at over 40,000,000 dollars a year since 1956, and in 1961 and 1962 rose to over 50,000,000, mostly owing to continuing operations under programmes launched some years earlier. A fairly steep drop is, however, to be expected in the near future — from 1963 in Western France, from 1964 in Lorraine and Lower Saxony — as a number of unproductive mines are scheduled for closure and several development projects have been dropped.

TABLE 13

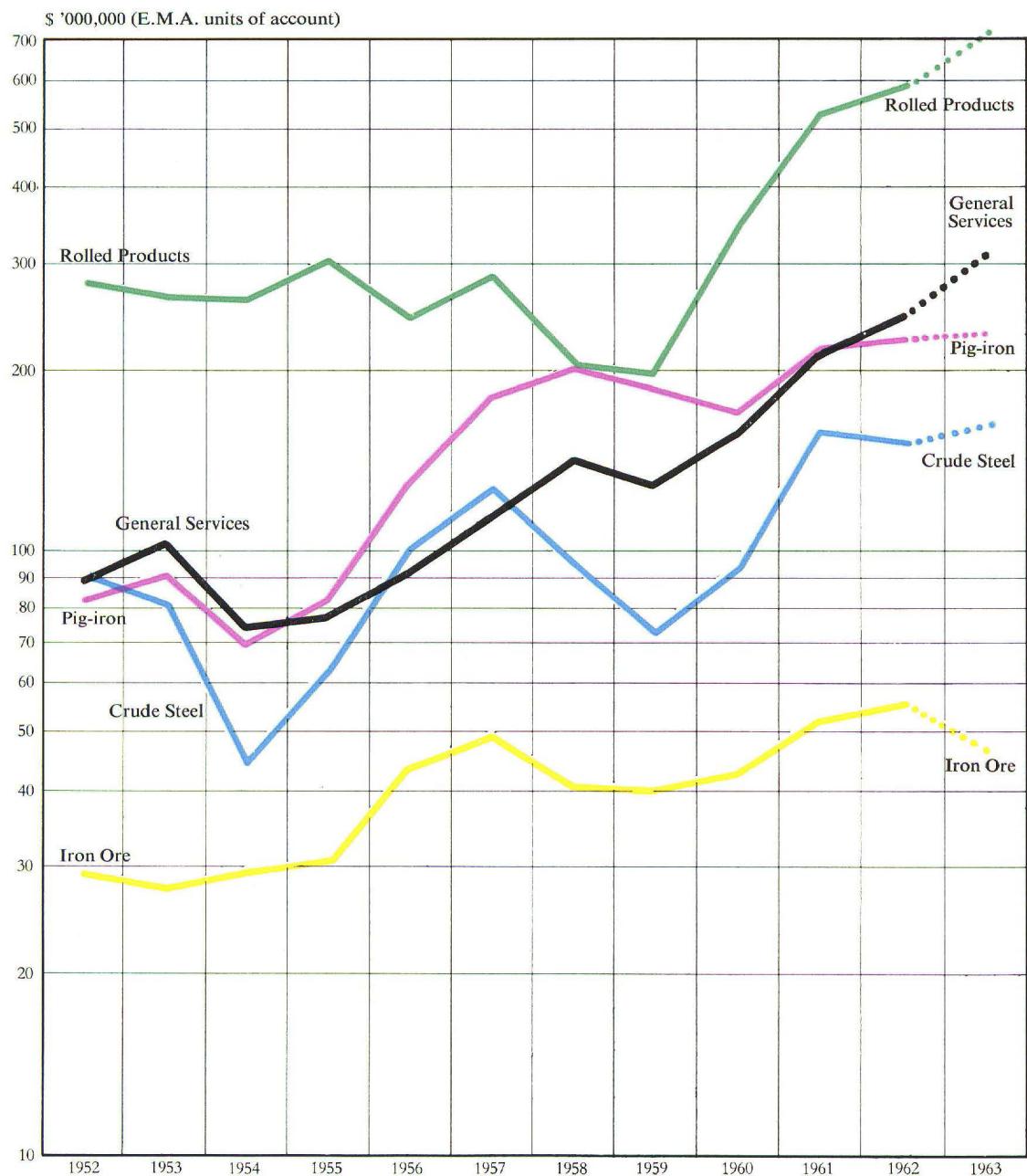
Capital Expenditure in the Iron-Ore Industry, 1954—1964

| Type of installation | \$'000,000 (E.M.A. units of account) | | | | | | | | | | |
|------------------------------------|--------------------------------------|------|------|------|------|------|------|------|------|----------------------------------|------|
| | Actual expenditure | | | | | | | | | Estimated expenditure (A+B+C) | |
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | | |
| Mining of ore | 14.8 | 16.3 | 22.3 | 29.4 | 22.7 | 22.5 | 26.1 | 30.8 | 27.2 | 24.8 | 17.7 |
| Preparation of ore at mine..... | 7.3 | 5.9 | 10.6 | 10.9 | 9.6 | 9.2 | 7.5 | 9.6 | 15.9 | 15.4 | 5.0 |
| Various surface installations | 7.4 | 8.5 | 11.0 | 9.5 | 8.9 | 8.6 | 9.6 | 12.0 | 13.2 | 7.0 | 5.1 |
| Total | 29.5 | 30.7 | 43.9 | 49.8 | 41.2 | 40.3 | 43.2 | 52.4 | 56.3 | 47.2 | 27.8 |

Crude-ore extraction increased from 65,300,000 metric tons in 1952 to 92,400,000 in 1962, i.e. at a cumulative mean annual rate of 3.5%, a peak being reached in 1961 with 95,900,000. The actual and estimated expenditure is not enough to maintain this rate of expansion, since extraction potential is only expected to rise from 105,500,000 metric tons in 1962 to 108,500,000 in 1966, i.e. at an average annual rate of no more than 0.7%. This is well below the rate indicated by the producers a year ago, when they put production potential in 1965 at 115,400,000 tons.

An appreciable expansion in production potential is expected to take place in France between 1962 and 1966 (concentrated primarily in Lorraine, where the increase will amount

FIGURE 6
Capital Expenditure in the Iron-Ore Mines and Iron and Steel Industry



to some 7,000,000 tons); against this must, however, be set reductions in the German (Lower Saxon) and Luxembourg orefields, which will bring the net increase for the Community down to only 3,000,000 tons.

TABLE 14
Development of Crude-Ore Extraction Potential

| Actual extraction | | Extraction potential | | | | | 'ooo,ooo metric tons |
|-------------------|------|----------------------|-------|-------|-------|-------|----------------------|
| 1952 | 1962 | 1962 | 1963 | 1964 | 1965 | 1966 | |
| 65·3 | 92·4 | 105·5 | 105·2 | 105·9 | 108·6 | 108·5 | |

Lorraine ore accounted for about 65% of total extraction from 1959 to 1961; in 1962 it accounted for 70%, and its share in Community production potential is expected to reach 75% in 1966 after the previsions on the 1st of January 1963.

IV — THE IRON AND STEEL INDUSTRY

In 1961 capital expenditure in the iron and steel industry reached the outstandingly high figure of 1,123 million dollar units of account, representing a 45% increase over the record level attained the year before; in 1962 it rose by a further 7% to 1,218 million, and the projects declared to the High Authority for the 1963 survey would, if all implemented in full, bring the 1963 figure 19% higher still, to 1,435 million.

The increases between 1961 and 1962 occurred in Northern Germany, Belgium, Lorraine and, especially, Italy. The estimated increases between 1961-1962 and 1963 relate to the Ruhr, Belgium and Italy (including in particular the Italian coastal works); in Southern Germany, the Saar and Northern and Eastern France investment is to decrease.

The two net year-to-year increases, for 1962 over 1961 and for 1963 over 1962, concern mainly the rolling-mills and the general services, with expenditure on pig-iron and crude-steel production remaining about the same.

TABLE 15
**Capital Expenditure in the Iron and Steel Industry,
 1954—1962**

| Type of installation | Actual expenditure | | | | | | | | | \$'000,000 (E.M.A. units of account) | |
|-------------------------|--------------------|-------|-------|-------|-------|-------|-------|---------|---------|--------------------------------------|---------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Plant for production of | | | | | | | | | | | |
| pig-iron | 69.8 | 82.9 | 130.5 | 183.5 | 206.1 | 186.8 | 172.2 | 218.8 | 225.5 | 228.0 | 175.2 |
| steel | 44.1 | 63.2 | 101.6 | 128.4 | 94.8 | 72.7 | 95.4 | 162.8 | 151.9 | 163.7 | 151.1 |
| rolled products | 265.1 | 301.1 | 244.9 | 282.4 | 207.0 | 198.6 | 350.3 | 532.4 | 595.0 | 735.3 | 485.5 |
| General services | 74.5 | 77.1 | 92.9 | 113.9 | 135.7 | 128.5 | 157.3 | 209.1 | 245.7 | 307.8 | 205.8 |
| Total | 453.5 | 524.3 | 569.9 | 708.2 | 643.6 | 586.6 | 775.2 | 1 123.1 | 1 218.1 | 1 434.8 | 1 017.6 |

Percentage-wise, the breakdown of expenditure among the main sectors of the industry is appreciably different from that of the last few years, more resembling the pattern observed in 1954-55, with a smaller proportion going on pig-iron and crude-steel production and a larger one on rolling and on the general services.

FIGURE 7
Breakdown of Capital Expenditure in the Iron and Steel Industry

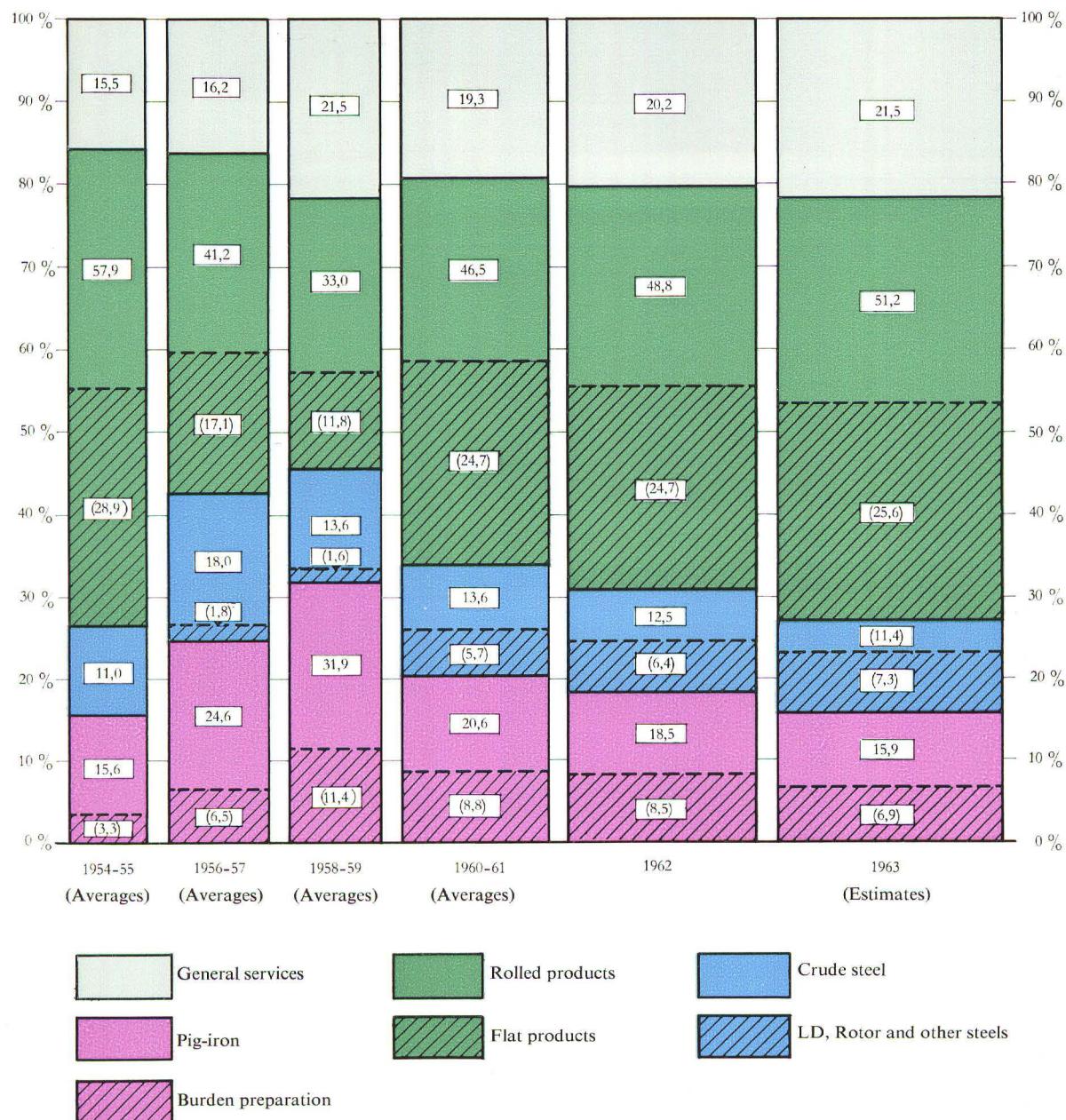


TABLE 16

Trend in Capital Expenditure in the Iron and Steel Industry,
1954—1964

| Type of installation | Average 1954-55 | Average 1956-57 | Average 1958-59 | Average 1960-61 | 1962 | 1963 (estimates) | % |
|--------------------------------|-----------------|-----------------|-----------------|-----------------|-------|------------------|---|
| <i>Plant for production of</i> | | | | | | | |
| pig-iron | 15.6 | 24.6 | 31.9 | 20.6 | 18.5 | 15.9 | |
| crude steel | 11.0 | 18.0 | 13.6 | 13.6 | 12.5 | 11.4 | |
| rolled products | 57.9 | 41.2 | 33.0 | 46.5 | 48.8 | 51.2 | |
| <i>General services.....</i> | 15.5 | 16.2 | 21.5 | 19.3 | 20.2 | 21.5 | |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | |

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 going on pig-iron production, which in 1958-59 amounted to very nearly 32%, has been falling steeply; in 1962 it was 18.5%, and the estimate for 1963 is only 15.9%, very nearly down to the level in 1954-55.

Absolutely, expenditure on pig-iron production remained between 1957 and 1961 in the region of 200,000,000 dollars a year, with the industry tending, as time went on, to spend rather less on its coking plants, but on the other hand more on burden-preparation installations. The expenditure recorded in 1962 and the estimates for 1963 show practically no change from 1961, but there are indications that the producers will become progressively less interested in installing additional burden-preparation plant.

TABLE 17

Capital Expenditure on Pig-Iron Production Plant,
by Types of Installation, 1954—1964

| Type of installation | Actual expenditure | | | | | | | | | | Estimated expenditure (A+B) |
|--------------------------------------|--------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | |
| Steelworks-owned coking-plants | 18.0 | 19.9 | 22.3 | 28.0 | 24.6 | 24.9 | 11.5 | 18.3 | 25.0 | 25.4 | 13.6 |
| Burden preparation | 11.6 | 21.1 | 31.5 | 51.5 | 66.7 | 73.5 | 73.7 | 93.3 | 103.2 | 99.6 | 75.4 |
| Blast-furnaces | 40.2 | 41.9 | 76.7 | 104.0 | 114.8 | 88.4 | 87.0 | 107.2 | 97.3 | 103.0 | 86.2 |
| Total | 69.8 | 82.9 | 130.5 | 183.5 | 206.1 | 186.8 | 172.2 | 218.8 | 225.5 | 228.0 | 175.2 |

In view of the modest scale of investment in steelworks-owned coking-plants, the increase in coke production potential from 1962 to 1966 can hardly be estimated at more than 5% (projects already in progress or approved at January 1, 1963). The production potential for sinter is expected to expand during this period by 54% (somewhat more slowly than the average for the first ten years of the Common Market); the resulting increase in availabilities of sintered ore will to a great extent account for the estimated 26% rise in pig-iron production potential between 1962 and 1966.

TABLE 18

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

'000,000 metric tons

| Product | Actual production | | Production potential | | | | |
|--|-------------------|------|----------------------|------|------|------|------|
| | 1952 | 1962 | 1962 | 1963 | 1964 | 1965 | 1966 |
| Coke (steelworks-owned plants) ¹⁾ | 15.8 | 21.6 | 24.5 | 24.7 | 25.0 | 25.5 | 25.7 |
| Sinter..... | 14.0 | 45.7 | 49.8 | 58.4 | 67.0 | 73.5 | 76.6 |
| Pig-iron..... | 34.7 | 53.8 | 62.9 | 66.2 | 71.0 | 75.9 | 79.8 |

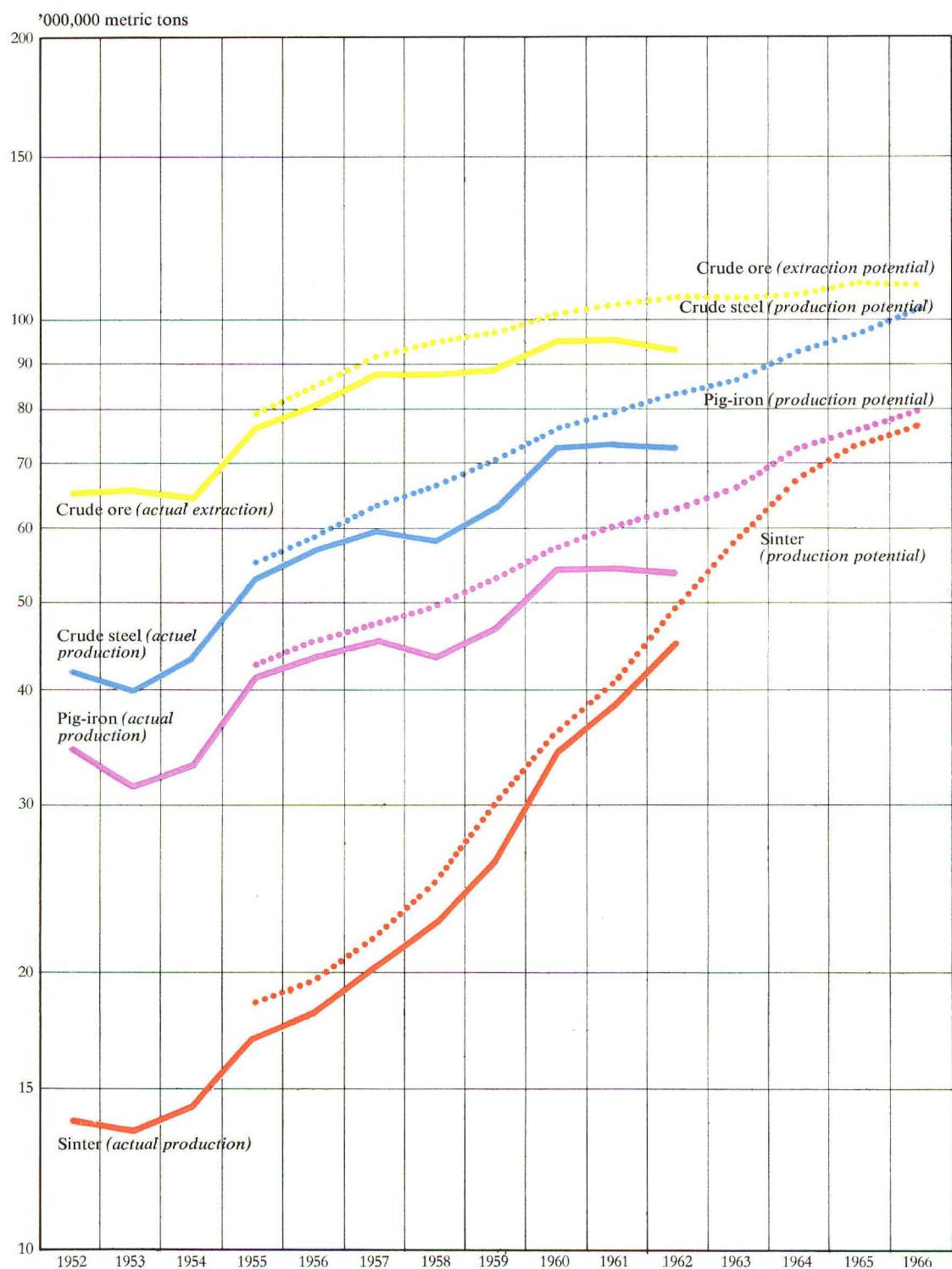
¹⁾ Cf. Table 10, under "The Coalmining Industry". The production potential figures above for all three types of plant concerned in the production of pig-iron are based only on investment projects in progress or approved (Categories A and B).

The present estimates of production potential in 1965 show a net decrease from last year's by 1,100,000 metric tons for coke (steelworks-owned plants), 3,700,000 tons for sinter and 2,200,000 for pig-iron. The drop for the two latter is particularly noticeable in the case of Lorraine (sinter-3,300,000 tons, pig-iron-700,000) and of the Italian coastal works (sinter -1,200,000 tons, pig-iron -1,000,000).

b) Steel production

The industry has been investing less and less in basic Bessemer steelmaking plant since 1958, and in open-hearth since 1961; expenditure on electric-furnace plant, on the other hand, continues at about the same fairly high level reached in 1961, and in the case of the oxygen steelworks it is rising steadily. However, it should be noted that the 1962 estimates for this sector were only 83% fulfilled (just about 83% for the oxygen steelworks, rather more for electric-furnace; and rather less for basic Bessemer and open-hearth).

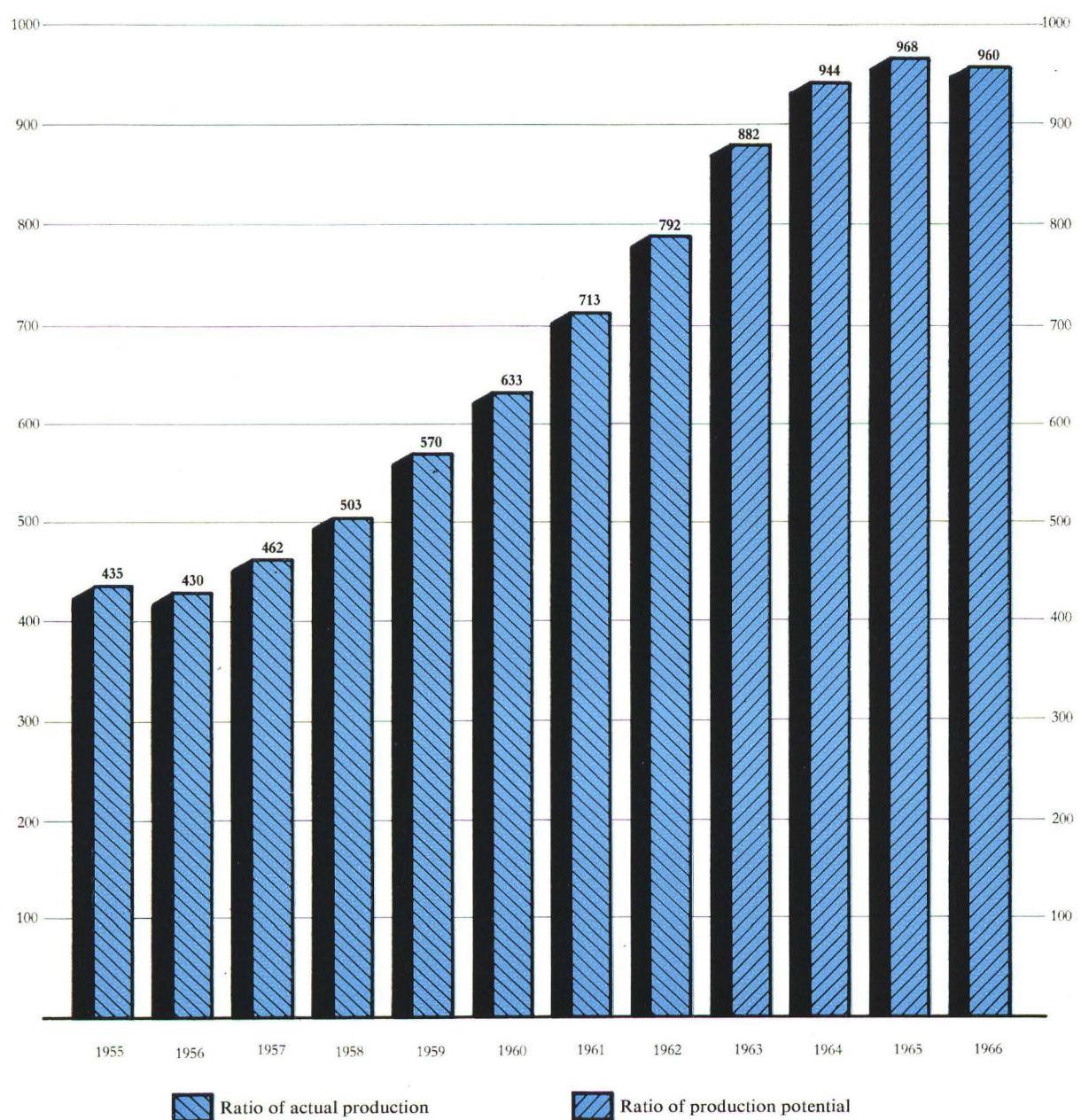
FIGURE 8
Actual Production and Production Potential of the Iron and Steel Industry



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FIGURE 9

Sinter - Pig-iron Ratio
(kg of sinter per metric ton of pig-iron)



Although actual expenditure in 1962 thus fell as far short of the estimates for the oxygen steelworks as for the crude-steel sector as a whole, the share of the oxygen-blown steels in the total expenditure on the sector nevertheless continues to expand rapidly from 18% in 1959, it increased to 36% in 1960, 44% in 1961 and 51% in 1962, and according to this year's estimates should reach 64% in 1963.

TABLE 19

**Capital Expenditure on Steelmaking Plant, by Production Processes,
1954—1964**

| Production process | Actual expenditure | | | | | | | | | \$'000,000 (E.M.A. units of account) | |
|------------------------|--------------------|------|-------|-------|------|------|------|-------|-------|--------------------------------------|-------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Basic Bessemer | 13.9 | 17.2 | 22.4 | 45.1 | 49.7 | 33.8 | 21.2 | 24.2 | 23.0 | 21.6 | 9.5 |
| Open-hearth..... | 20.1 | 30.7 | 53.9 | 51.6 | 27.4 | 17.6 | 29.1 | 44.8 | 29.6 | 18.5 | 9.3 |
| Electric-furnace | 10.1 | 15.3 | 17.2 | 16.4 | 10.6 | 8.5 | 11.1 | 21.8 | 21.3 | 18.9 | 11.8 |
| L/D, Rotor, etc. | | | 8.1 | 15.3 | 7.1 | 12.8 | 34.0 | 72.0 | 78.0 | 104.7 | 120.5 |
| Total | 44.1 | 63.2 | 101.6 | 128.4 | 94.8 | 72.7 | 95.4 | 162.8 | 151.9 | 163.7 | 151.1 |

Community crude-steel production potential in 1962 totalled 83,400,000 metric tons. Projects approved by heads of enterprises as at January 1, 1963, should increase this to 102,100,000 tons in 1966, a rise of 22%. The estimate for 1965 is, however, now only 96,400,000, as compared with last year's figure for the same year of 98,900,000 : thus the progressive scaling-down of intended investment activity since the 1962 estimates were made means that production potential in 1965 will be 2½ million tons less than was originally expected.

The estimated net increase of 18,700,000 metric tons in production potential between 1962 and 1966 represents the sum of increases of 19,900,000 tons for oxygen-blown steels, 1,600,000 for electric-furnace and 600,000 for open-hearth, less a decrease of 3,400,000 for basic Bessemer.

Oxygen steelmaking capacity is thus expected to increase rapidly. Comparison with last year's estimates suggests, however, that it will not do so quite as rapidly as was earlier supposed : oxygen steelmaking potential in 1965 is now rated four million tons lower than before, at 17,600,000 instead of 21,600,000, while the estimates for basic Bessemer and open-hearth work out rather higher, some enterprises having decided after all not to replace plant of these types by oxygen converters.

TABLE 20

**Development of Crude-Steel Production Potential,
by Production Processes**

| Production process | Actual production | | Production potential | | | | |
|------------------------|-------------------|------|----------------------|------|------|------|-------|
| | 1952 | 1962 | 1962 | 1963 | 1964 | 1965 | 1966 |
| Basic Bessemer | 23·0 | 34·1 | 38·3 | 38·3 | 37·0 | 36·2 | 34·9 |
| Open-hearth..... | 15·2 | 26·4 | 30·6 | 30·8 | 30·9 | 31·3 | 31·2 |
| Electric-furnace | 3·3 | 8·5 | 10·0 | 10·2 | 11·1 | 11·3 | 11·6 |
| L/D, Rotor, etc. | 0·3 | 3·7 | 4·5 | 7·9 | 13·3 | 17·6 | 24·4 |
| Total | 41·8 | 72·7 | 83·4 | 87·2 | 92·3 | 96·4 | 102·1 |

'000,000 metric tons

The difference of 2,500,000 tons for crude steel overall and 4 million for oxygen-blown steels between this year's and last year's estimates for 1965 mainly affects the Ruhr (crude steel -1,800,000, oxygen-blown steels -3,000,000) and the Italian coastal works (crude steel -700,000, oxygen-blown steels -1,200,000).

Aggregate Community crude-steel production potential is now expected to grow from 1962 to 1966 at 5·2% per annum, the lower rate for the traditional types of plant being offset by vigorous expansion in oxygen steelmaking capacity. This is slightly below last year's estimate of 5·5%, and also below the annual average increase of 5·7% recorded in actual production from 1952 to 1962.

FIGURE 10
Actual Production and Production Potential of Crude Steel by Production Process

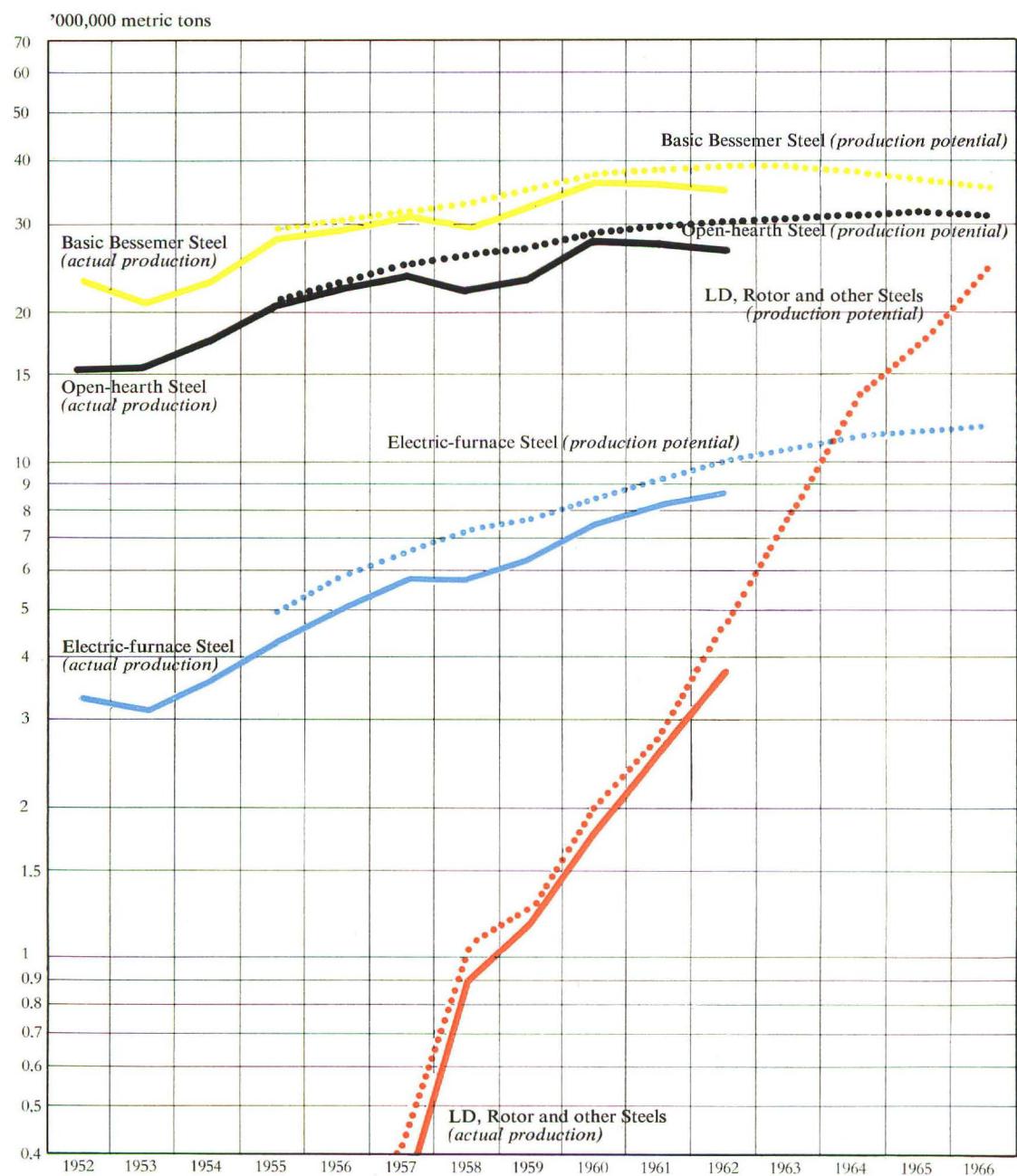


TABLE 21

**Mean Annual Rate of Development in the Crude Steel Sector,
by Production Processes**

| Production process | Mean annual rate of increase in actual production 1952-62 | Mean annual rate of increase in production potential 1962-66 | % |
|---------------------------|--|---|---|
| | | | |
| Pig-iron (for comparison) | 4·2 | 6·1 | |
| Basic Bessemer | 4·0 | 2·2 | |
| Open-hearth..... | 5·7 | 0·3 | |
| Electric-furnace | 10·0 | 3·8 | |
| L/D, Rotor, etc. | 28·5 | 52·2 | |
| Total | 5·7 | 5·2 | |

Thus the share of basic Bessemer and to a lesser extent of open-hearth steels must be expected to decrease steadily, losing ground to the oxygen-blown processes.

TABLE 22

**Shares of the Different Steel Production Processes,
in 1952, 1962 and 1966**

| Production process | Actual Production | Production potential | | % |
|------------------------|-------------------|----------------------|-------------------|---|
| | | 1952 Share | 1962 Actual share | |
| Basic Bessemer | 55·0 | 45·9 | 34·2 | |
| Open-hearth..... | 36·4 | 36·7 | 30·6 | |
| Electric-furnace | 7·9 | 12·0 | 11·4 | |
| L/D, Rotor, etc. | 0·7 | 5·4 | 23·8 | |
| Total | 100·0 | 100·0 | 100·0 | |

c) Production of Rolled Products

Capital expenditure on rolling-mills and ancillary plant accounted for 58% of total investment in the iron and steel industry in 1954-55, but for only 33% in 1958-59 : in 1962, however, the proportion was up again to 49%, and the 1963 estimates indicate that this year it will be about 51% (see Table 16).

Absolutely, substantial increase have occurred or are planned in the Ruhr and Lorraine, and still larger ones are expected to be made this year in Belgium and in the Italian coastal regions, (since 1963) as they have already been elsewhere in Italy (since 1962).

TABLE 23

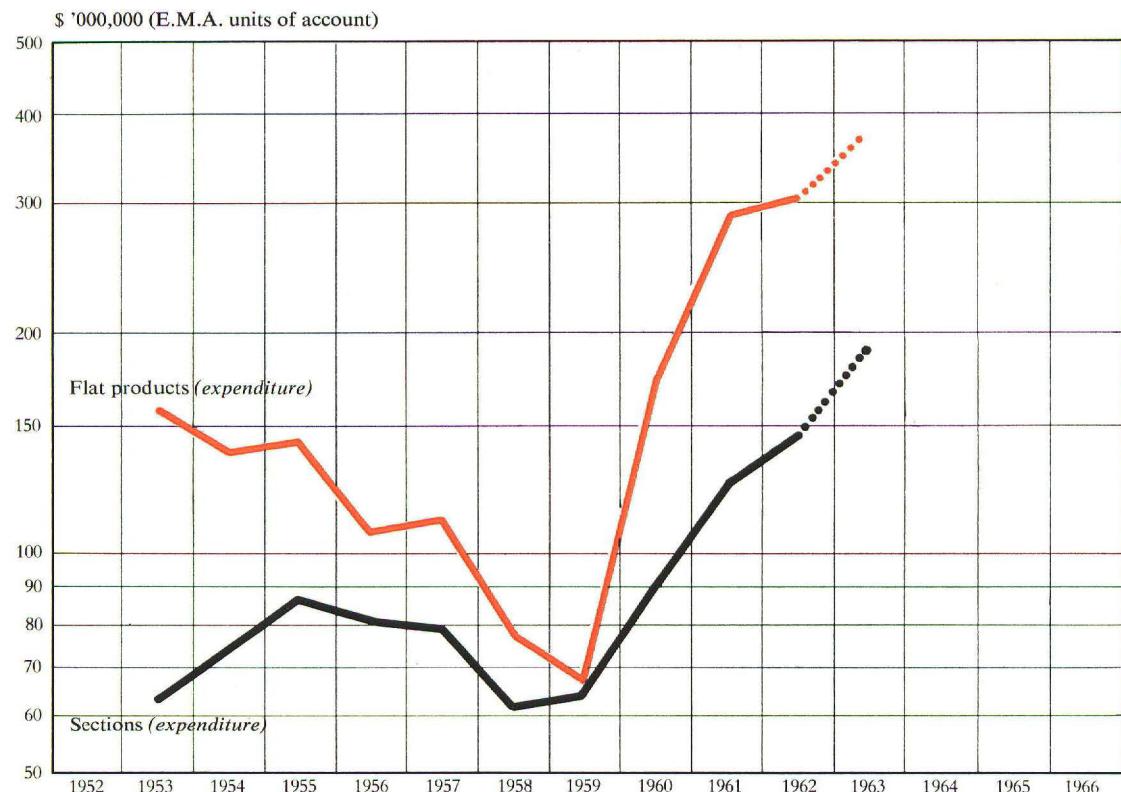
Capital Expenditure on Rolling-Mills, 1954—1964

| Type of mill | Actual expenditure | | | | | | | | | | Estimated expenditure (A+B) | |
|----------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------------|--|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | | |
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 | |
| Heavy and medium section mills | 29.1 | 35.8 | 28.6 | 32.5 | 30.1 | 44.7 | 55.0 | 66.4 | 65.5 | 76.4 | 56.9 | |
| Small-bar mills | 29.8 | 38.7 | 37.7 | 32.4 | 25.7 | 15.2 | 19.2 | 26.2 | 27.0 | 69.0 | 57.9 | |
| Wire mills | 15.5 | 12.4 | 14.0 | 14.3 | 5.6 | 4.4 | 16.2 | 28.4 | 51.2 | 47.9 | 14.8 | |
| Total, section mills | 74.4 | 86.9 | 80.3 | 79.2 | 61.4 | 64.3 | 90.4 | 121.0 | 143.7 | 193.3 | 129.6 | |
| Hoop and strip mills | 13.6 | 12.5 | 5.6 | 12.5 | 5.7 | 2.8 | 4.3 | 5.5 | 9.5 | 19.9 | 37.8 | |
| Plate and universal mills | 41.3 | 36.3 | 24.2 | 36.5 | 20.6 | 15.3 | 24.8 | 35.4 | 46.2 | 53.6 | 29.8 | |
| Hot sheet mills | 4.3 | 3.6 | 1.8 | 2.0 | 2.3 | 3.2 | 3.7 | 6.0 | 2.1 | 1.5 | 0.1 | |
| Cold sheet mills | 3.6 | 2.8 | 0.7 | 0.1 | 0.7 | 0.5 | 0.4 | 0.7 | 0.4 | 0.1 | — | |
| Hot wide-strip mills | 31.6 | 35.8 | 30.3 | 31.9 | 16.2 | 16.0 | 27.5 | 67.0 | 65.1 | 121.2 | 61.4 | |
| Cold wide-strip mills | 45.2 | 52.6 | 44.4 | 28.5 | 32.4 | 29.8 | 114.8 | 178.6 | 177.6 | 170.5 | 106.2 | |
| Total, flat-product mills | 139.6 | 143.6 | 107.0 | 111.5 | 77.9 | 67.6 | 175.5 | 293.2 | 300.9 | 366.8 | 235.3 | |
| Blooming and slabbing mills | 23.1 | 41.3 | 31.2 | 45.1 | 31.6 | 40.4 | 43.6 | 74.8 | 92.2 | 104.0 | 86.1 | |
| Miscellaneous..... | 28.0 | 29.3 | 26.4 | 46.6 | 36.1 | 26.3 | 40.8 | 43.4 | 58.2 | 71.2 | 34.5 | |
| Total | 265.1 | 301.1 | 244.9 | 282.4 | 207.0 | 198.6 | 350.3 | 532.4 | 595.0 | 735.3 | 485.5 | |

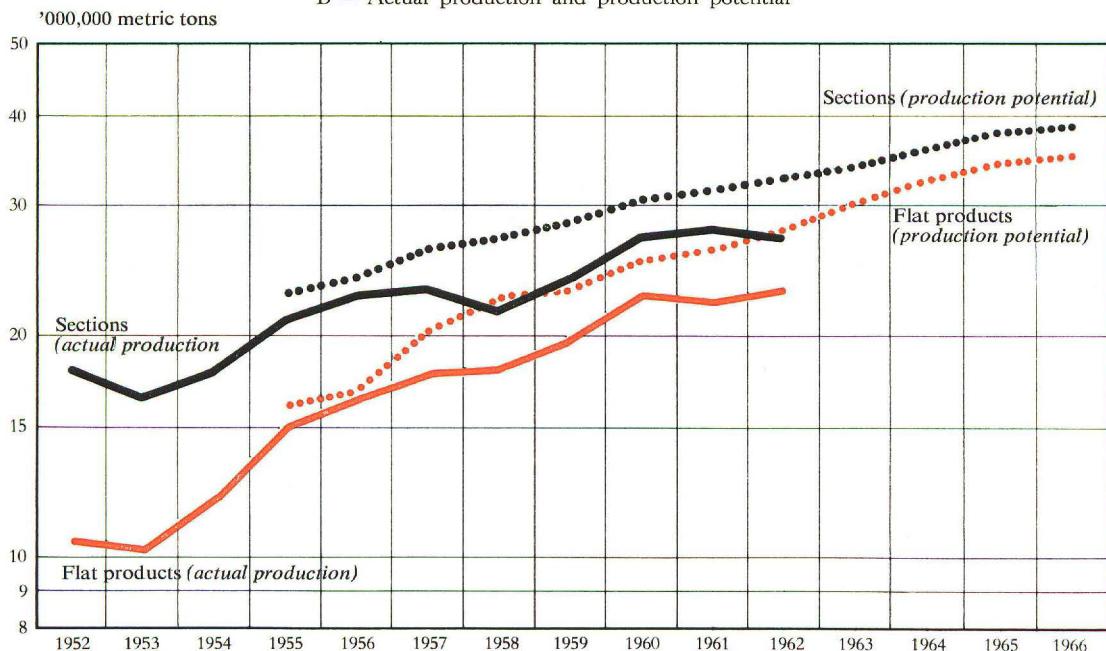
FIGURE 11

Sections and Flat Products

A — Capital expenditure



B — Actual production and production potential



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The rise in capital expenditure began in 1960 with the cold wide-strip mills and in 1961 spread to include the roughing and hot wide-strip mills; in 1962 spending also increased on the wire mills and, rather less markedly, on the plate mills, and in 1963 the same is expected to happen for the small-bar and hoop and strip mills. Thus, following the initial stepping-up of investment in wide-strip capacity, more is now being spent on pretty well all the main types of plant, with the natural result that the percentage distribution recorded in 1962 and expected for 1963 is closer to that for the years prior to 1960.

TABLE 24

**Shares of the Different Types of Mill in Capital Expenditure in the Rolling Sector,
1954—1963**

| Type of mill | Average share 1954—1959 | Share 1960 | Share 1961 | Share 1962 | 1963 Estimated share | % |
|-----------------------------------|----------------------------|---------------|---------------|---------------|----------------------------|---|
| Section mills | 30 | 26 | 23 | 24 | 26 | |
| Flat-product mills..... | 43 | 50 | 55 | 51 | 50 | |
| (of which: wide-strip mills)..... | (26) | (40) | (46) | (41) | (40) | |
| Blooming and slabbing mills | 14 | 12 | 14 | 15 | 14 | |
| Miscellaneous..... | 13 | 12 | 8 | 10 | 10 | |
| Total | 100 | 100 | 100 | 100 | 100 | |

Between 1952 and 1962, actual production of rolled products increased at a mean annual rate of 5·8% overall, 4·2% for sections (wire-rod 6·2%) and 8·1% for flats (cold-reduced sheet 27·1%). The estimated rate of increase in production potential for 1962-66 is up for sections to 4·6% (wire-rod 8·1%) and down for flats to 5·6% (cold-reduced sheet 10·4%): thus although capacity on the flat-products side is still expanding faster than on the sections side, the respective rates of growth are gradually converging.

TABLE 25

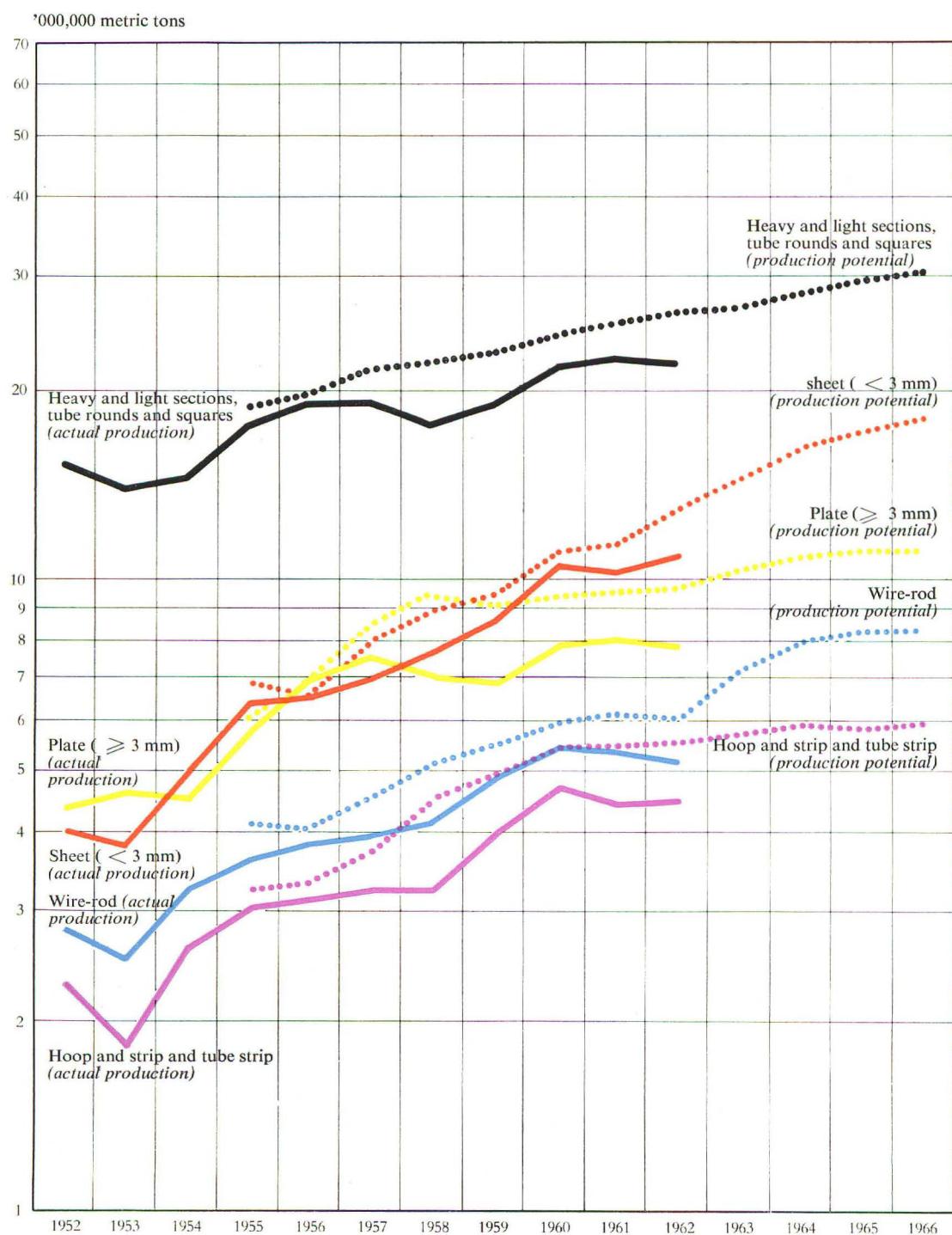
**Mean Annual Rate of Development in the Rolling Sector,
by Types of Finished Product**

| Product | Actual production | | | Production potential | | |
|--|----------------------------|---|----------------------------|----------------------------|---|----------------------------|
| | 1952 ('000,000 m.t.) | Cumula- tive mean annual rate of increase in % | 1962 ('000,000 m.t.) | 1962 ('000,000 m.t.) | Cumula- tive mean annual rate of increase in % | 1966 ('000,000 m.t.) |
| Heavy and light sections incl. tube rounds and squares | 15.2 | + 3.8 | 22.0 | 26.4 | + 3.8 | 30.6 |
| Wire-rod | 2.8 | + 6.2 | 5.1 | 6.0 | + 8.1 | 8.2 |
| <i>Total, sections</i> | 18.0 | + 4.2 | 27.1 | 32.4 | + 4.6 | 38.8 |
| Hoop and strip and tube strip | 2.3 | + 6.9 | 4.5 | 5.5 | + 1.8 | 5.9 |
| Plate of 3 mm and over | 4.3 | + 6.1 | 7.8 | 9.6 | + 3.5 | 11.0 |
| Hot-rolled sheet under 3 mm | 3.1 | - 5.0 | 1.9 | 2.6 | - | 2.6 |
| Cold-reduced sheet under 3 mm. | 0.8 | +27.1 | 8.8 | 10.3 | +10.4 | 15.3 |
| <i>Total, flat products</i> | 10.5 | + 8.1 | 23.0 | 28.0 | + 5.6 | 34.8 |
| Total rolled products | 28.5 | + 5.8 | 50.1 | 60.4 | + 5.1 | 73.6 |
| (of which: products rolled in continuous and semi-continuous mills) | (.) | () | (27.0) | (32.1) | (+ 8.2) | (44.0) |

Production potential for flats in 1952 accounted for 37% of the total potential for finished rolled products; from 1962 to 1966 the proportion will rise from 46.3% to 47.3%, or close on one-half. Over the same period the proportion of steel to be rolled in continuous and semi-continuous mills in the Community is expected to increase from 53.1% to 59.8%.

Among the semi-finished products, special mention must be made of those produced in coils in hot wide-strip mills. The potential of these mills increased from 8,000,000 metric tons in 1955 to 12,700,000 in 1962; the producers' present estimates indicate that it will reach 19,200,000 in 1965 and 21,500,000 in 1966 (though it should be noted that the 1962 estimates suggested 21,100,000 for 1965). This substantial increase in the production potential for coils — mostly for cold rerolling in continuous mills — represents additions to capacity in North Germany, the Ruhr, Belgium, Northern France and the Italian coastal plants.

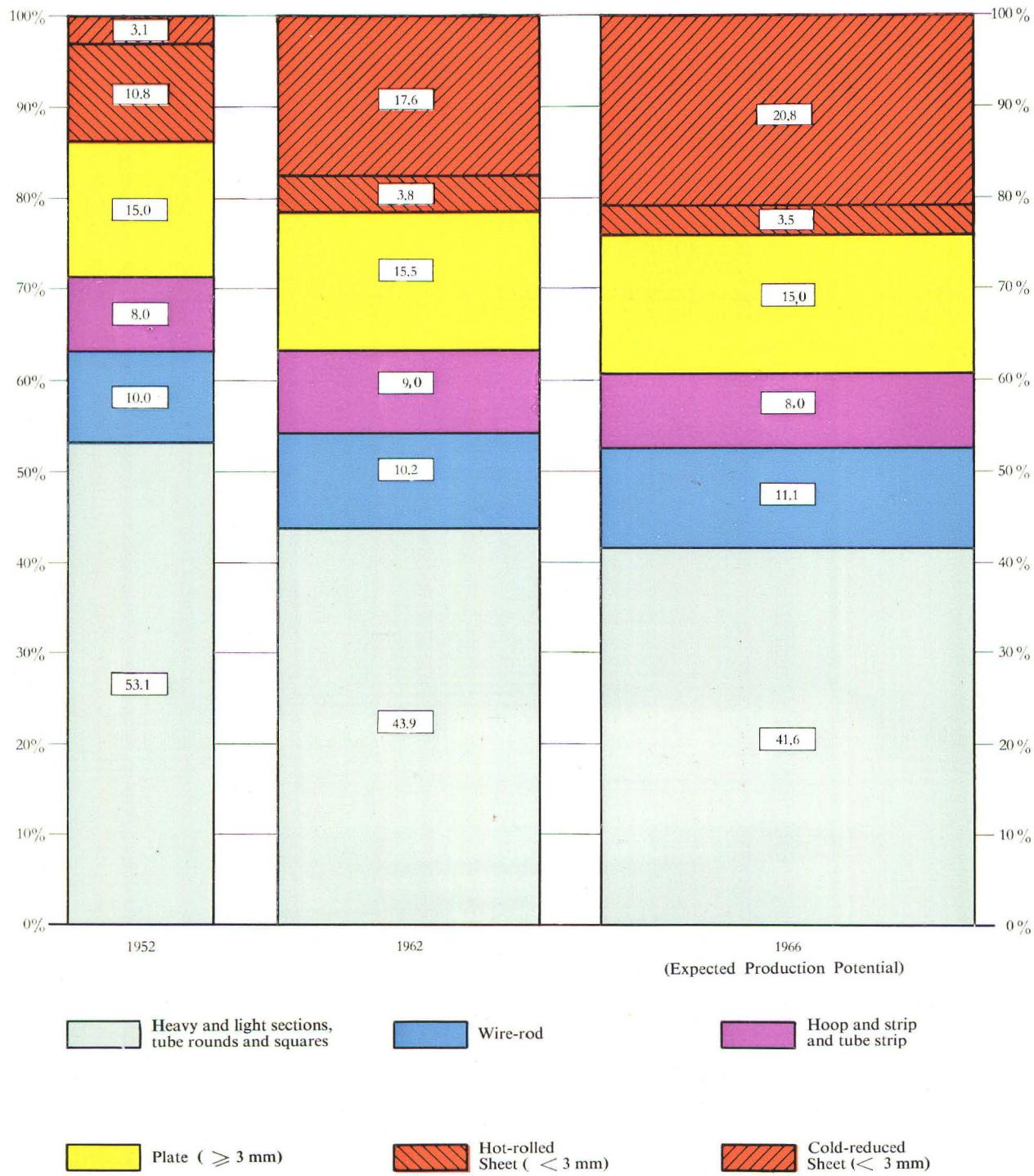
FIGURE 12
Actual Production and Production Potential for the Various Categories
of Finished Rolled Product



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FIGURE 13

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



d) General Services

Capital expenditure on power-generating plant in the iron and steel industry doubled between 1954 and 1962. Expenditure on other general services, and more especially on civil-engineering operations, increased fivefold over the same period, rising particularly steeply in and after 1960-61, in connection, chiefly, with projects for the construction or extension of a number of integrated plants in coastal areas.

TABLE 26

**Capital Expenditure on the General Services
of the Iron and Steel Industry, 1954—1964**

| Type of installation | Actual expenditure | | | | | | | | | Estimated expenditure (A+B) | |
|--|--------------------|------|------|-------|-------|-------|-------|-------|-------|-----------------------------|-------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Power-generating plant and distribution networks ... | 43.0 | 39.3 | 32.0 | 43.2 | 56.8 | 58.8 | 60.7 | 71.7 | 83.6 | 99.4 | 47.2 |
| Miscellaneous..... | 31.5 | 37.8 | 60.9 | 70.7 | 78.9 | 69.7 | 96.6 | 137.4 | 162.1 | 208.4 | 158.6 |
| Total | 74.5 | 77.1 | 92.9 | 113.9 | 135.7 | 128.5 | 157.3 | 209.1 | 245.7 | 307.8 | 205.8 |

The effects of this investment in power-generating plant on the production potential for electric current were examined earlier in this Report in connection with the expected development of pithead power-stations (cf. Section II, d).

V — CONCLUSIONS

The 1963 survey for the first time indicates a coming contraction in Community production potential for **hard coal**. The 1957 survey suggested a maximum of 283 million metric tons for 1961 : since then, each successive survey has given a slower rate of expansion, until this year when the forward estimate is of an actual reduction, from 246 million tons in 1962 to 242 million in 1966.

The latter figure may however be set, on the one hand, against the 1962 consumption of 257,500,000 tons, and on the other, against the Community's expected requirements of hard coal of all sources in 1970, which were put at 234-244 million in the *Study on the LongTerm Energy Outlook* drawn up in December 1962 by the Executives of the three European Communities.

Having regard to the reduction in the specific consumption of the blast-furnaces and the decline in demand outside the iron and steel industry, the Community **coke** producers consider present production potential to be sufficient, overall, to meet foreseeable demand in the next few years, so that the only projected increases of any size are for the Italian steelworks-owned coking-plants. Given 96% utilization, the maximum production possible in 1966 should work out at 83 million metric tons (a mere 3,500,000 more than in 1962), representing an input of about 100 million tons of coking coal.

The rapid expansion in the **thermal power-station** sector will continue, the combined maximum electric capacity of the pithead and steelworks-owned stations alone rising from an average 12,400 MW in 1962 to an average 15,900 in 1966. At the present operating rates, their combined electricity output may be expected to increase from 56,500 million kWh to 73,000 million; of this almost 53,000 million kWh would be supplied by the pithead stations, which, assuming a specific consumption of about 0·4% kg/kWh, would burn 21 million metric tons of coal, mainly in the form of low-grade products.

Capital expenditure in the Community **iron-ore** industry had up to recently been running at a fairly high level, but this is no longer so : only the producers in Lorraine, and to a lesser extent those in Western France, are still thinking in terms of expanding their production potential in the years ahead, and even their estimates are lower than last year's. The proportion of imported high-grade ores in the Community iron and steel industry's total flow of supplies will continue to rise.

The turnaround is less marked in the **iron and steel** industry, where, mainly owing to the continuance of operations begun earlier, investment reached record levels in 1961 and 1962,

and will remain high in 1963 because enterprises will in most cases be unable to defer more than a fraction of the expenditure they were rating as indispensable at the beginning of the year. Production thus remains burdened by very high capital costs, hard to defray at a time when selling prices are falling all round : in 1962 capital expenditure per metric ton of crude steel produced (to give one example) amounted to something like \$17, as compared with \$9 in 1959 and similar figures in the preceding years. Not surprisingly, therefore, a number of enterprises have recently decided to postpone or to scrap various new projects, which will be missed later, in 1964 and still more in 1965. The result will be to retard the industry's growth in the next few years, especially in the sectors where techniques are changing the fastest.

The projects completed in hand and approved at January 1 of last year in the **pig-iron** sector indicated for 1965, given 96% utilization of potential, a maximum production of around 74 million metric tons of sintered ore and 75 million of pig-iron : this year's estimates, however, are for only 71 million and 73 million respectively. The deceleration is thus greater for sinter than for pig-iron, despite the big advantage of further stepping up the proportion of sinter in the blast-furnace burden.

For **crude steel**, the present estimates indicate, assuming 96% utilization, a maximum 1965 production of 92 million metric tons, including 16 million tons of oxygen-blown-steels, as compared with last year's estimates of 95 million and 21 million respectively. Some enterprises are not only braking their expansion, but are postponing the installation of oxygen steelworks in place of obsolescent basic Bessemer and open-hearth plant, notwithstanding the recognized advantages of the more modern process. Oxygen-blown steels are expected to account for rather under 24% of total steelmaking potential in 1966, and in 1965 (for which the General Objectives of April 5, 1962, suggested 26%) for no more than 18%.

Investment in the **rolling mill** sector, which in and after 1960 was concentrated more particularly on the hot and cold wide-strip mills, is now more evenly divided between flats and sections, though even so the production potential for the former will work out in 1966 at nearly half the total for finished products overall, as compared with only 37% in 1962. It should be noted that several projects for yet more hot wide-strip mills have now been dropped. According to the 1962 survey the aggregate rated capacity of the mills then in operation and planned, discounting any bottlenecks at the roughing or finishing stages, would by 1965 have amounted to something like 36 million metric tons, although in point of fact with the tonnages of metal which would actually have been available they could not possibly have turned out more than 22 million; this year's survey, however, puts capacity in 1965, more reasonably, at 28 million tons.

To sum up, the slackening in investment activity which will soon succeed the vigorous expansion of the last few years will be reflected on the one hand in a possible drop in the iron and steel industry's rate of growth, and the postponement or scrapping of some very valuable projects in the earlier production stages, but also, on the other hand, in more satisfactory tailoring of rolling capacity to the amounts of steel which will be available to be rolled. While recent and foreseeable demand is undeniably disappointing, the Community iron and steel enterprises have certainly reacted very promptly, making substantial cuts in their new expansion and modernization programmes. The question is whether some of the pruning done may not have the effect, in the near future, of impairing the industry's competitive capacity, out of possibly excessive sensitivity to market fluctuations.

ANNEXES

I — Basic Definitions

II — Statistical Tables

I — BASIC DEFINITIONS

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

I — INVESTMENT

(a) Capital expenditure

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

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

(b) Classification of investment projects

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

- A — *Projects completed or in progress before January 1, 1963;*
- B — *Projects approved but not yet in progress on January 1, 1963;*
- C — *Other projects planned to be started between January 1, 1963 and December 31, 1965.*

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

(c) Unit of account

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

| Country | Currency | Up to and including 1956 | 1957 | 1958 | 1959 and 1960 | 1961 | 1962 and onwards |
|----------------------------|--------------------|--------------------------|--------------------|------|----------------------|----------------------|----------------------|
| Germany (Fed. Rep.) | DM. | 4.20 | 4.20 | 4.20 | 4.20 | 4.03 ⁽⁴⁾ | 4.00 |
| Belgium/Luxembourg | Bfr./Lfr. | 50 | 50 | 50 | 50 | 50 | 50 |
| France ¹⁾ | Ffr. ²⁾ | 350 | 377 ⁽³⁾ | 420 | 4.937 ⁽³⁾ | 4.937 ⁽³⁾ | 4.937 ⁽³⁾ |
| Italy | Lit. | 625 | 625 | 625 | 625 | 625 | 625 |
| Netherlands | Hfl. | 3.80 | 3.80 | 3.80 | 3.80 | 3.65 ⁽⁵⁾ | 3.62 |

¹⁾ And Saar up to July 5, 1959.

²⁾ N.F. as from January 1, 1959.

³⁾ Mean between official rate of exchange in force from January 1 to August 11, 1957 (350) and that in force from August 12 to December 31, 1957. (420).

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

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

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 1962 of only about 1.3 million metric tons (of which 0.8 million not shown in any official statistics), out of 226.3 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

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

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

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

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

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

(d) Iron ore

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

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

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

"Maximum possible production is the maximum production which it is possible to attain during the year under normal working conditions, with due regard for repairs, main-

tenance 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 1962. The production potentials mentioned in this report therefore exceed those actually declared by a certain percentage which varies from sector to sector but is in no case greater than 1.8%.

As the production potential of the *rolling-mills* is governed by the shape (section), thickness and width of the material fed into the mill (metal input) and the products to be obtained, we have proceeded on the assumption that, should no forecast be possible as to future steel-rolling conditions, it will be necessary to base estimates on the conditions obtained in 1962. 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.

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HARD COAL INDUSTRY

Total investment

TABLE I
Capital Expenditure by Coalfields

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

| Coalfield | Actual expenditure | | | | | | | | | Estimated expenditure | |
|--|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------------|--------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Ruhr | 174.98 | 175.46 | 166.80 | 207.44 | 209.51 | 191.01 | 192.57 | 200.69 | 191.54 | 186.18 | 145.32 |
| Aachen | 11.16 | 9.77 | 9.64 | 12.49 | 14.27 | 12.46 | 13.33 | 18.09 | 19.02 | 10.76 | 4.78 |
| Lower Saxony | 9.82 | 3.71 | 3.74 | 6.51 | 6.23 | 6.47 | 4.19 | 5.06 | 4.99 | 5.81 | 7.12 |
| Saar | 19.36 | 18.96 | 26.30 | 32.95 | 36.15 | 29.05 | 31.46 | 33.82 | 33.63 | 35.42 | 30.80 |
| GERMANY (F.R.) | 215.32 | 207.90 | 206.48 | 259.39 | 266.16 | 238.99 | 241.55 | 257.66 | 249.18 | 238.17 | 188.02 |
| Campine ¹⁾ | 16.89 | 15.76 | 20.42 | 20.95 | 20.01 | 12.96 | 10.98 | 14.04 | 7.64 | 13.19 | 8.40 |
| Southern Belgium ¹⁾ | 30.07 | 25.27 | 37.56 | 41.08 | 45.71 | 38.83 | 20.16 | 19.48 | 19.60 | 17.45 | 12.28 |
| Dutch Limburg ¹⁾ | 15.41 | 19.67 | 16.63 | 18.56 | 14.52 | 19.14 | 11.11 | 15.07 | 24.10 | 19.16 | 19.90 |
| BELGIUM and NETHERLANDS | 74.09 | 66.00 | 79.84 | 85.89 | 88.86 | 77.97 | 44.40 | 49.75 | 53.18 | 50.83 | 40.64 |
| Nord/Pas-de-Calais | 55.18 | 57.14 | 48.76 | 54.25 | 44.43 | 41.81 | 44.41 | 38.24 | 34.38 | 29.78 | 27.75 |
| Lorraine | 52.83 | 45.55 | 45.47 | 43.68 | 38.98 | 25.85 | 24.95 | 28.29 | 22.02 | 20.38 | 27.25 |
| Centre-Midi | 24.14 | 14.99 | 13.39 | 18.48 | 25.00 | 19.55 | 13.89 | 9.52 | 7.55 | 9.21 | 7.75 |
| Independent plants ²⁾ | 16.46 | 11.08 | 7.24 | 1.04 | 0.41 | 0.21 | 0.16 | 0.28 | 0.10 | 1.72 | 0.20 |
| FRANCE | 148.61 | 128.76 | 114.86 | 117.45 | 108.82 | 87.42 | 83.41 | 76.33 | 64.05 | 61.09 | 62.95 |
| ITALY | 6.69 | 5.53 | 3.72 | 8.64 | 5.27 | 1.70 | 1.61 | 3.67 | 19.99 | 39.82 | 31.97 |
| Total..... | 444.71 | 408.19 | 404.90 | 471.37 | 469.11 | 406.08 | 370.97 | 387.41 | 386.40 | 389.91 | 323.58 |

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

²⁾ Up to 1957, coking and briquetting plants; after 1957, briquetting plants only.

HARD-COAL COLLIERIES

Investment

TABLE II

Capital Expenditure by Coalfields

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

| Coalfield | Actual expenditure | | | | | | | | | Estimated expenditure | |
|------------------------------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------------|--------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Ruhr | 83.23 | 103.14 | 97.76 | 121.51 | 122.05 | 100.66 | 107.94 | 124.51 | 118.13 | 119.80 | 89.99 |
| Aachen | 9.07 | 8.61 | 7.62 | 7.37 | 12.54 | 10.78 | 8.51 | 10.36 | 10.31 | 8.46 | 4.14 |
| Lower Saxony | 4.09 | 2.60 | 3.39 | 5.41 | 5.34 | 6.03 | 4.01 | 4.42 | 3.86 | 5.16 | 4.10 |
| Saar | 15.16 | 11.97 | 16.21 | 19.80 | 18.76 | 15.39 | 19.55 | 24.03 | 19.67 | 17.97 | 13.42 |
| GERMANY (F.R.) | 111.55 | 126.32 | 124.98 | 154.09 | 158.69 | 132.86 | 140.01 | 163.32 | 151.97 | 151.39 | 111.65 |
| Campine | 13.45 | 12.89 | 17.20 | 18.33 | 17.01 | 9.52 | 6.95 | 6.48 | 7.08 | 12.40 | 8.05 |
| Southern Belgium | 24.58 | 22.87 | 25.19 | 27.22 | 21.46 | 13.81 | 9.54 | 8.92 | 9.18 | 11.88 | 9.63 |
| BELGIUM | 38.03 | 35.76 | 42.39 | 45.55 | 38.47 | 23.33 | 16.49 | 15.40 | 16.26 | 24.28 | 17.68 |
| NETHERLANDS (Limburg) | 11.60 | 16.87 | 12.96 | 12.55 | 12.63 | 18.63 | 9.57 | 12.05 | 17.17 | 12.48 | 12.36 |
| Nord/Pas-de-Calais | 38.42 | 36.86 | 30.69 | 29.63 | 24.94 | 25.27 | 31.57 | 22.15 | 15.77 | 15.10 | 17.22 |
| Lorraine | 28.07 | 27.84 | 27.16 | 26.73 | 21.43 | 16.40 | 18.83 | 14.34 | 17.25 | 17.49 | 21.26 |
| Centre/Midi | 12.84 | 10.35 | 10.21 | 11.30 | 11.14 | 9.78 | 8.52 | 7.47 | 5.66 | 5.87 | 6.08 |
| FRANCE | 79.33 | 75.05 | 68.06 | 67.66 | 57.51 | 51.45 | 58.92 | 43.96 | 38.68 | 38.46 | 44.56 |
| ITALY (Sulcis and La Thuile) | 1.28 | 2.40 | 0.17 | 1.60 | 1.12 | 0.55 | 1.00 | 0.61 | 1.12 | 1.35 | 1.73 |
| Total | 241.79 | 256.40 | 248.56 | 281.45 | 268.42 | 226.82 | 225.99 | 235.34 | 225.20 | 227.96 | 187.98 |

**MINE-OWNED AND
INDEPENDENT
COKING-PLANTS¹⁾**

Investment

TABLE III

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure | |
|--|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------|-------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| <i>Mine-owned coking-plants</i> | | | | | | | | | | | |
| Ruhr | 32.55 | 24.83 | 22.00 | 29.91 | 34.78 | 32.92 | 19.62 | 18.60 | 17.03 | 13.19 | 10.08 |
| Aachen | 1.43 | 0.34 | 1.37 | 4.65 | 1.18 | 0.55 | 0.31 | 1.12 | 0.51 | 0.47 | 0.24 |
| Lower Saxony | 0.01 | 0.05 | 0.06 | — | — | — | — | — | — | — | — |
| Saar | 2.31 | 2.03 | 3.73 | 5.60 | 11.39 | 7.98 | 2.26 | 1.18 | 5.64 | 4.12 | 2.85 |
| GERMANY (F.R.) | 36.30 | 27.25 | 27.16 | 40.16 | 47.35 | 41.45 | 22.19 | 20.90 | 23.18 | 17.78 | 13.17 |
| <i>BELGIUM and the NETHERLANDS</i> | 9.70 | 4.85 | 4.18 | 3.34 | 3.05 | 3.49 | 1.08 | 1.87 | 2.89 | 1.54 | 1.79 |
| Nord/Pas-de-Calais | 7.29 | 7.61 | 5.40 | 8.17 | 8.00 | 6.78 | 5.02 | 6.47 | 4.57 | 4.02 | 4.48 |
| Lorraine | 13.55 | 12.01 | 8.81 | 5.69 | 2.07 | 1.64 | 4.15 | 12.65 | 4.25 | 1.40 | 4.85 |
| Centre/Midi | 1.01 | 0.50 | 0.68 | 2.12 | 2.93 | 2.44 | 1.25 | 1.21 | 1.18 | 1.18 | 0.50 |
| FRANCE | 21.85 | 20.12 | 14.89 | 15.98 | 13.00 | 10.86 | 10.42 | 20.33 | 10.00 | 6.60 | 9.83 |
| Total..... | 67.85 | 52.22 | 46.23 | 59.48 | 63.40 | 55.80 | 33.69 | 43.10 | 36.07 | 25.92 | 24.79 |
| <i>Independent coking-plants</i> | | | | | | | | | | | |
| <i>BELGIUM and the NETHERLANDS</i> | 2.02 | 0.45 | 1.05 | 1.96 | 5.57 | 3.55 | 1.07 | 1.16 | 1.84 | 1.03 | 0.06 |
| FRANCE ²⁾ | 15.47 | 10.31 | 6.63 | — | — | — | — | — | — | — | — |
| ITALY | 2.00 | 1.56 | 3.39 | 6.59 | 3.27 | 1.10 | 0.58 | 0.28 | 3.05 | 5.29 | 6.04 |
| Total..... | 19.49 | 12.32 | 11.07 | 8.55 | 8.84 | 4.65 | 1.65 | 1.44 | 4.89 | 6.32 | 6.10 |
| Grand Total | 87.34 | 64.54 | 57.30 | 68.03 | 72.24 | 60.45 | 35.34 | 44.54 | 40.96 | 32.24 | 30.89 |

¹⁾ Including low and medium-temperature coking-plants.

²⁾ Exclusive of Gaz de France from 1957.

**HARD-COAL
BRIQUETTING-PLANTS**

Investment

TABLE IV

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure | |
|----------------------------|--------------------|------|------|------|------|------|------|------|------|-----------------------|------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Ruhr | 0.85 | 2.42 | 0.96 | 0.91 | 0.50 | 1.05 | 0.22 | 0.12 | 0.82 | 1.64 | 0.70 |
| Aachen | — | 0.09 | 0.07 | 0.16 | — | 0.14 | — | 0.17 | 0.51 | 0.36 | 0.04 |
| Lower Saxony | 0.05 | 0.08 | 0.01 | 0.01 | 0.03 | 0.12 | 0.11 | 0.46 | 0.56 | 0.27 | — |
| GERMANY (F.R.) | 0.90 | 2.59 | 1.04 | 1.08 | 0.53 | 1.31 | 0.33 | 0.75 | 1.89 | 2.27 | 0.74 |
| BELGIUM (Southern Belgium) | 0.49 | 0.81 | 0.72 | 0.96 | 0.85 | 0.61 | 0.59 | 0.56 | 1.27 | 1.98 | 1.93 |
| NETHERLANDS (Limburg). | 0.24 | 0.27 | 0.36 | 0.02 | 0.06 | 0.05 | 1.26 | 0.38 | 0.90 | 0.26 | 0.36 |
| Nord/Pas-de-Calais | 0.57 | 1.95 | 0.86 | 1.38 | 0.98 | 2.31 | 3.46 | 1.27 | 0.33 | 1.34 | 1.60 |
| Centre/Midi | 0.66 | 0.93 | 0.92 | 0.26 | 0.63 | 0.89 | 1.28 | 0.19 | 0.37 | 1.58 | 0.76 |
| Independent plants | 0.99 | 0.77 | 0.61 | 1.04 | 0.41 | 0.21 | 0.16 | 0.28 | 0.10 | 1.72 | 0.20 |
| FRANCE | 2.22 | 3.65 | 2.39 | 2.68 | 2.02 | 3.41 | 4.90 | 1.74 | 0.80 | 4.64 | 2.56 |
| Total..... | 3.85 | 7.32 | 4.51 | 4.74 | 3.46 | 5.38 | 7.08 | 3.43 | 4.86 | 9.15 | 5.59 |

**PITHEAD
POWER-STATIONS¹⁾**

Investment

TABLE V

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure | |
|---|--------------------|-------|-------|--------|--------|--------|--------|--------|--------|-----------------------|-------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Ruhr | 58.35 | 45.07 | 46.08 | 55.11 | 52.18 | 56.38 | 64.79 | 57.46 | 55.56 | 51.55 | 44.55 |
| Aachen | 0.66 | 0.73 | 0.58 | 0.31 | 0.55 | 0.99 | 4.51 | 6.44 | 7.69 | 1.47 | 0.36 |
| Lower Saxony | 5.67 | 0.98 | 0.28 | 1.09 | 0.86 | 0.32 | 0.07 | 0.18 | 0.57 | 0.38 | 3.02 |
| Saar | 1.89 | 4.96 | 6.36 | 7.55 | 6.00 | 5.68 | 9.65 | 8.61 | 8.32 | 13.33 | 14.53 |
| GERMANY (F.R.) | 66.57 | 51.74 | 53.30 | 64.06 | 59.59 | 63.37 | 79.02 | 72.69 | 72.14 | 66.73 | 62.46 |
| Campine | 3.44 | 2.87 | 3.22 | 2.62 | 3.00 | 3.44 | 4.03 | 7.58 | 0.56 | 0.79 | 0.35 |
| Southern Belgium | 5.00 | 1.59 | 11.65 | 12.90 | 23.40 | 24.41 | 10.03 | 9.00 | 7.08 | 3.11 | 0.42 |
| BELGIUM | 8.44 | 4.46 | 14.87 | 15.52 | 26.40 | 27.85 | 14.06 | 16.58 | 7.64 | 3.90 | 0.77 |
| NETHERLANDS (Limburg). . | 3.57 | 2.53 | 3.31 | 5.99 | 1.83 | 0.46 | 0.28 | 1.77 | 5.21 | 5.36 | 5.69 |
| Nord/Pas-de-Calais | 8.90 | 10.72 | 11.81 | 15.07 | 10.51 | 7.45 | 4.36 | 8.35 | 13.71 | 9.32 | 4.45 |
| Lorraine | 11.21 | 5.70 | 9.50 | 11.26 | 15.48 | 7.81 | 1.97 | 1.30 | 0.52 | 1.49 | 1.14 |
| Centre/Midi | 9.63 | 3.21 | 1.58 | 4.80 | 10.30 | 6.44 | 2.84 | 0.65 | 0.34 | 0.58 | 0.41 |
| FRANCE | 29.74 | 19.63 | 22.89 | 31.13 | 36.29 | 21.70 | 9.17 | 10.30 | 14.57 | 11.39 | 6.00 |
| ITALY (Sulcis and La Thuile) | 3.41 | 1.57 | 0.16 | 0.45 | 0.88 | 0.05 | 0.03 | 2.78 | 15.82 | 33.18 | 24.20 |
| Total..... | 111.73 | 79.93 | 94.53 | 117.15 | 124.99 | 113.43 | 102.56 | 104.12 | 115.38 | 120.56 | 99.12 |
| of which | | | | | | | | | | | |
| for pithead power-stations.. | 88.47 | 63.91 | 81.19 | 101.66 | 111.21 | 103.75 | 93.74 | 97.22 | 108.13 | 111.02 | 93.86 |
| for power-generating plant at mines | 23.26 | 16.02 | 13.34 | 15.49 | 13.78 | 9.68 | 8.82 | 6.90 | 7.25 | 9.54 | 5.26 |

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

HARD COAL

Extraction

TABLE VI

Extraction and Extraction Potential by Coalfields

'000,000 metric tons net

| Coalfield | Actual extraction potential | | | Actual extraction 1962 | Expected extraction potential | | | |
|------------------------------------|-----------------------------|--------------|--------------|---------------------------|-------------------------------|--------------|--------------|--------------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Ruhr | 127.7 | 125.1 | 125.2 | 115.5 | 123.7 | 123.9 | 124.5 | 124.5 |
| Aachen | 7.5 | 8.2 | 8.3 | 8.1 | 7.7 | 7.9 | 8.0 | 8.0 |
| Lower Saxony | 2.7 | 2.0 | 2.1 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 |
| Saar | 17.6 | 16.2 | 16.7 | 14.9 | 16.8 | 16.6 | 15.0 | 14.9 |
| GERMANY (F.R.) | 155.5 | 151.5 | 152.3 | 140.7 | 150.4 | 150.6 | 149.8 | 149.7 |
| Campine | 10.5 | 11.6 | 11.7 | 9.8 | 11.8 | 12.0 | 12.1 | 12.5 |
| Southern Belgium | 21.9 | 14.0 | 13.0 | 11.3 | 12.6 | 12.7 | 12.8 | 13.1 |
| BELGIUM | 32.4 | 25.6 | 24.7 | 21.1 | 24.4 | 24.7 | 24.9 | 25.6 |
| NETHERLANDS (Limburg) | 13.0 | 12.4 | 12.8 | 11.6 | 12.7 | 12.7 | 12.7 | 12.7 |
| Nord/Pas-de-Calais | 29.4 | 29.0 | 28.4 | 27.1 | 28.2 | 28.0 | 28.0 | 27.0 |
| Lorraine | 13.6 | 15.5 | 15.0 | 14.3 | 15.0 | 15.0 | 15.0 | 15.0 |
| Centre/Midi | 13.0 | 12.0 | 12.0 | 10.8 | 11.6 | 11.4 | 10.6 | 10.6 |
| FRANCE | 56.0 | 56.5 | 55.4 | 52.2 | 54.8 | 54.4 | 53.6 | 52.6 |
| ITALY (Sulcis and La Thuile) | 1.4 | 0.8 | 0.8 | 0.7 | 0.8 | 0.9 | 1.1 | 1.3 |
| Total..... | 258.3 | 246.8 | 246.0 | 226.3 | 243.1 | 243.3 | 242.1 | 241.9 |

N.B. The above table does not take into account the extraction of some mines of small capacity (1.3 million metric tons in 1962 of which 0.8 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 Capacity by Areas

'000,000 metric tons

| Area | Actual capacity | | | | Actual production 1962 ¹⁾ | Expected production | | | |
|---------------------------------------|-----------------|----------------|----------------|----------------|--------------------------------------|---------------------|----------------|----------------|----------------|
| | Beginning 1955 | Beginning 1961 | Beginning 1962 | Beginning 1963 | | Beginning 1964 | Beginning 1965 | Beginning 1966 | Beginning 1967 |
| <i>Mine-owned coking-plants</i> | | | | | | | | | |
| Ruhr | 36.1 | 40.9 | 39.3 | 36.9 | 30.7 | 36.5 | 37.3 | 37.5 | 37.5 |
| Aachen ²⁾ | 1.3 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 |
| Lower Saxony | 0.3 | — | — | — | — | — | — | — | — |
| Saar | 0.9 | 1.6 | 1.5 | 1.4 | 1.4 | 1.5 | 1.7 | 1.7 | 1.7 |
| GERMANY (F.R.) | 38.6 | 44.4 | 42.7 | 40.2 | 34.0 | 39.8 | 40.9 | 41.1 | 41.1 |
| BELGIUM and the NETHERLANDS | 4.4 | 4.5 | 4.3 | 4.4 | 3.8 | 4.4 | 4.4 | 4.4 | 4.4 |
| Nord/Pas-de-Calais | 3.7 | 4.9 | 5.0 | 5.0 | 4.7 | 5.3 | 5.5 | 5.6 | 5.6 |
| Lorraine | 0.6 | 1.9 | 1.9 | 2.6 | 2.3 | 2.6 | 2.6 | 2.6 | 3.0 |
| Centre/Midi | 0.6 | 0.8 | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| FRANCE | 4.9 | 7.6 | 7.8 | 8.5 | 7.8 | 8.8 | 9.0 | 9.1 | 9.5 |
| Total..... | 47.9 | 56.5 | 54.8 | 53.2 | 45.6 | 53.0 | 54.3 | 54.6 | 55.0 |
| <i>Independent coking-plants</i> | | | | | | | | | |
| BELGIUM and the NETHERLANDS | 1.8 | 1.9 | 1.6 | 1.6 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 |
| FRANCE ³⁾ | 1.8 | — | — | — | — | — | — | — | — |
| ITALY | 1.8 | 2.5 | 2.5 | 2.5 | 2.0 | 2.3 | 2.7 | 2.6 | 2.7 |
| Total..... | 5.4 | 4.4 | 4.1 | 4.1 | 3.5 | 3.9 | 4.3 | 4.2 | 4.3 |
| <i>Steelworks-owned coking-plants</i> | | | | | | | | | |
| GERMANY (F.R.) | 8.2 | 11.2 | 10.9 | 11.2 | 9.0 | 10.9 | 11.1 | 11.1 | 11.2 |
| BELGIUM and the NETHERLANDS | 5.1 | 6.3 | 6.4 | 6.4 | 6.0 | 7.2 | 7.2 | 7.3 | 7.3 |
| FRANCE | 4.1 | 4.7 | 4.6 | 4.7 | 4.4 | 4.8 | 4.7 | 4.7 | 4.8 |
| ITALY | 1.4 | 2.2 | 2.4 | 2.5 | 2.2 | 2.7 | 3.6 | 3.7 | 4.1 |
| Total..... | 18.8 | 24.4 | 24.3 | 24.8 | 21.6 | 25.6 | 26.6 | 26.8 | 27.4 |
| Grand Total | 72.1 | 85.3 | 83.2 | 82.1 | 70.7 | 82.5 | 85.2 | 85.6 | 86.7 |

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

²⁾ Including electrode coke (123.000 metric tons produced in 1962).

³⁾ Exclusive of Gaz de France after the beginning of 1955.

LOW- AND MEDIUM-TEMPERATURE COKE

Production

TABLE VII b

Production and Production Capacity

'000 metric tons

TABLE VIII

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

| |
|----------------|
| COKING-PLANTS |
| Technical Data |

| Type of coal | 1955 | | 1960 | | 1961 | | 1962 | |
|---|------------------|---------------------------|------------------|---------------------------|------------------|---------------------------|------------------|---------------------------|
| | '000 metric tons | % |
| Group V ¹⁾ | 70 770 | 77.9 | 70 900 | 73.7 | 71 978 | 75.0 | 70 672 | 75.0 |
| Group VI ¹⁾ | 14 541 | 16.0 | 19 496 | 20.3 | 18 285 | 19.1 | 18 202 | 19.3 |
| Other groups | 5 215 | 5.7 | 4 985 | 5.2 | 4 915 | 5.1 | 4 621 | 4.9 |
| Coke breeze and low-temperature coke breeze. | 366 | 0.4 | 788 | 0.8 | 727 | 0.8 | 781 | 0.8 |
| Total..... | 90 892 | 100.0 | 96 169 | 100.0 | 95 905 | 100.0 | 94 276 | 100.0 |
| | '000 metric tons | output kg/t ²⁾ |
| Coke production | 68 850 | 757.5 | 72 176 | 750.5 | 71 746 | 748.1 | 70 645 | 749.3 |
| | metric tons | % of total input |
| Oil input | 43 900 | 0.047 | 59 099 | 0.061 | 59 083 | 0.062 | 60 272 | 0.064 |

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

²⁾ Output of coke (ton for ton) for coal input (also ton for ton). The figure is of practical value; considerable variations may, however, arise as a result of variations in the moisture content of the coal input and the coke produced.

| | | 1955 | 1960 | 1961 | 1962 |
|---|--|-------------------|-------------------|-------------------|-------------------|
| a) Coke-oven gas delivered | '000,000 stand. cub. metres | | | | |
| b) Gas output | stand. cub. metres per ton of wet-charged coal | | | | |
| c) Coke-oven gas delivered to outside enterprises or for consumption other than d) .. | '000,000 stand. cub. m. % of a) | | | | |
| d) Consumption for heating oven: | | | | | |
| 1) Coke-oven gas | '000,000 stand. cub. m. % of 4) | 9 625 (68.0) | 9 632 (67.4) | 9 871 (68.6) | 9 679 (68.1) |
| 2) Producer gas | '000,000 stand. cub. m. % of 4) | 1 119 (7.9) | 1 179 (8.2) | 1 094 (7.6) | 1 351 (9.5) |
| 3) Blast-furnace and other gases | '000,000 stand. cub. m. % of 4) | 3 408 (24.1) | 3 489 (24.4) | 3 434 (23.8) | 3 177 (22.4) |
| 4) Total consumption of gas for heating ovens | '000,000 stand. cub. m. | 14 152 (100.0) | 14 300 (100.0) | 14 399 (100.0) | 14 207 (100.0) |
| e) Specific consumption in kcal/kg. of dry-charged coal (assuming an average moisture content of 8 %) | | 728 | 695 | 702 | 704 |

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

HARD-COAL BRIQUETTES

Production

TABLE IX

Production and Production Potential by Areas

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|----------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Ruhr | 7.5 | 5.3 | 5.0 | 4.4 | 4.6 | 4.7 | 5.1 | 5.5 |
| Aachen | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Lower Saxony | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| GERMANY (F.R.) | 8.5 | 6.5 | 6.2 | 5.7 | 5.9 | 6.0 | 6.4 | 6.8 |
| BELGIUM (Southern Belgium) | 2.3 | 2.1 | 2.4 | 1.5 | 2.5 | 2.6 | 2.6 | 2.8 |
| NETHERLANDS (Limburg) | 1.3 | 1.3 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 |
| Nord/Pas-de-Calais | 4.6 | 4.1 | 4.2 | 3.5 | 4.0 | 3.9 | 3.9 | 4.0 |
| Centre/Midi | 2.2 | 1.9 | 1.9 | 2.0 | 1.9 | 1.9 | 1.8 | 1.7 |
| Independent plants | 2.2 | 1.6 | 1.2 | 0.6 | 1.5 | 1.5 | 1.5 | 1.5 |
| FRANCE | 9.0 | 7.6 | 7.3 | 6.1 | 7.4 | 7.3 | 7.2 | 7.2 |
| Total..... | 21.1 | 17.5 | 17.3 | 14.7 | 17.3 | 17.4 | 17.7 | 18.3 |

| |
|------------------|
| ELECTRIC CURRENT |
|------------------|

| |
|--------|
| Output |
|--------|

TABLE X

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

| Area | Actual electric capacity MW | | | | Actual output 000,000 kWh 1962 | Expected electric capacity MW | | | |
|---|-----------------------------|------------------------|------------------------|------------------------|---|-------------------------------|------------------------|------------------------|------------------------|
| | Begin- ning 1955 | Begin- ning 1961 | Begin- ning 1962 | Begin- ning 1963 | | Begin- ning 1964 | Begin- ning 1965 | Begin- ning 1966 | Begin- ning 1967 |
| Ruhr | 1 727 | 3 513 | 4 000 | 4 323 | 18 660 | 4 467 | 4 562 | 4 873 | 5 378 |
| Aachen | 116 | 120 | 122 | 145 | 649 | 295 | 295 | 295 | 295 |
| Lower Saxony | 113 | 94 | 92 | 92 | 435 | 92 | 92 | 242 | 242 |
| Saar | 298 | 463 | 462 | 491 | 1 682 | 767 | 767 | 905 | 905 |
| GERMANY (F.R.) | 2 254 | 4 190 | 4 676 | 5 051 | 21 426 | 5 621 | 5 716 | 6 315 | 6 820 |
| Campine | 253 | 419 | 407 | 407 | 1 407 | 407 | 387 | 387 | 387 |
| Southern Belgium | 388 | 810 | 793 | 768 | 4 173 | 888 | 888 | 888 | 888 |
| BELGIUM | 641 | 1 229 | 1 200 | 1 175 | 5 580 | 1 295 | 1 275 | 1 275 | 1 275 |
| NETHERLANDS (Limburg) .. | 283 | 351 | 351 | 351 | 1 553 | 416 | 416 | 476 | 476 |
| Nord/Pas-de-Calais | 856 | 1 321 | 1 321 | 1 193 | 5 614 | 1 376 | 1 376 | 1 376 | 1 282 |
| Lorraine | 475 | 686 | 686 | 698 | 3 303 | 698 | 687 | 687 | 687 |
| Centre/Midi | 459 | 565 | 565 | 564 | 2 356 | 564 | 564 | 557 | 557 |
| FRANCE | 1 790 | 2 572 | 2 572 | 2 445 | 11 273 | 2 638 | 2 627 | 2 620 | 2 526 |
| ITALY (Sulcis and La Thuille) | — | 64 | 64 | 64 | 236 | 544 | 784 | 784 | 784 |
| Total | 4 968 | 8 406 | 8 863 | 9 096 | 40 068 | 10 514 | 10 818 | 11 470 | 11 881 |
| of which: | | | | | | | | | |
| pithead power-stations proper | — | 7 777 | 8 312 | 8 568 | 38 142 | 10 002 | 10 341 | 11 013 | 11 429 |
| other power-generating plant at mines | — | 629 | 551 | 528 | 1 926 | 512 | 477 | 457 | 452 |

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

PITHEAD
POWER-STATIONS ¹⁾

Technical Data

TABLE XI a

Specific Consumption of Coal 1962 ²⁾

C = Output of electric current in '000,000 kWh

P = Maximum electric capacity in '000 MW (average at beginning 1962 - beginning 1963)

H = Load-hours per annum (1962)

} by type of
specific
consumption

| Specific consumption | < 3000 kcal/kWh | | | 3000-3499 kcal/kWh | | | 3500-3999 kcal/kWh | | | 4000-4999 kcal/kWh | | | ≥ 5000 kcal/kWh | | | Total | | | Average consumption kcal/kWh |
|---------------------------|-----------------|-------|-------|--------------------|-------|-------|--------------------|-------|-------|--------------------|-----|-------|-----------------|-----|-------|--------|-------|-------|------------------------------|
| | C | P | H | C | P | H | C | P | H | C | P | H | C | P | H | C | P | H | |
| Country/Coalfield | C | P | H | C | P | H | C | P | H | C | P | H | C | P | H | C | P | H | |
| Ruhr | 10 101 | 2 150 | 4 698 | 4 082 | 881 | 4 633 | 2 617 | 590 | 4 436 | 1 272 | 283 | 4 495 | 588 | 156 | 3 769 | 18 660 | 4 060 | 4 596 | 3 055 |
| Aachen | 489 | 78 | 6 269 | 112 | 26 | 4 308 | — | — | — | — | — | — | 48 | 17 | 2 824 | 649 | 121 | 5 364 | 3 189 |
| Lower Saxony | — | — | — | 435 | 92 | 4 728 | — | — | — | — | — | — | — | — | — | 435 | 92 | 4 728 | 3 293 |
| Saar | 730 | 238 | 3 067 | 608 | 145 | 4 193 | — | — | — | 344 | 94 | 3 660 | — | — | — | 1 682 | 477 | 3 526 | 3 214 |
| GERMANY (F.R.) | 11 320 | 2 466 | 4 590 | 5 237 | 1 144 | 4 578 | 2 617 | 590 | 4 436 | 1 616 | 377 | 4 286 | 636 | 173 | 3 676 | 21 426 | 4 750 | 4 511 | 3 077 |
| Campine | 738 | 170 | 4 341 | 507 | 166 | 3 054 | — | — | — | 162 | 71 | 2 282 | — | — | — | 1 407 | 407 | 3 457 | 2 974 |
| Southern coalfields | 3 776 | 627 | 6 022 | 218 | 50 | 4 360 | 86 | 35 | 2 457 | 93 | 68 | 1 368 | — | — | — | 4 173 | 780 | 5 350 | 2 606 |
| BELGIUM | 4 514 | 797 | 5 664 | 725 | 216 | 3 356 | 86 | 35 | 2 457 | 255 | 139 | 1 835 | — | — | — | 5 580 | 1 187 | 4 701 | 2 699 |
| Nord/Pas-de-Calais | 3 864 | 643 | 6 009 | 1 381 | 395 | 3 496 | 89 | 75 | 1 187 | 280 | 146 | 1 918 | — | — | — | 5 614 | 1 259 | 4 459 | 2 880 |
| Lorraine | 3 238 | 637 | 5 083 | — | — | — | — | — | — | — | — | — | 65 | 55 | 1 182 | 3 303 | 692 | 4 773 | 2 825 |
| Centre/Midi | 434 | 78 | 4 564 | 885 | 195 | 4 538 | 604 | 153 | 3 948 | 353 | 110 | 3 209 | 80 | 31 | 2 581 | 2 356 | 567 | 4 155 | 3 411 |
| FRANCE | 7 536 | 1 358 | 5 549 | 2 266 | 590 | 3 841 | 693 | 228 | 3 039 | 633 | 256 | 2 473 | 145 | 86 | 1 686 | 11 273 | 2 518 | 4 477 | 2 974 |
| ITALY | — | — | — | — | — | — | 236 | 64 | 3 688 | — | — | — | — | — | — | 236 | 64 | 3 688 | 3 511 |
| NETHERLANDS | — | — | — | 688 | 120 | 5 733 | 523 | 105 | 4 981 | 323 | 116 | 2 784 | 19 | 9 | 2 111 | 1 553 | 350 | 4 437 | 3 518 |
| Total | 23 370 | 4 621 | 5 057 | 8 916 | 2 070 | 4 307 | 4 155 | 1 022 | 4 066 | 2 827 | 888 | 3 184 | 800 | 268 | 2 985 | 40 068 | 8 869 | 4 518 | 3 014 |

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

²⁾ This table covers only power-stations proper and other power-generating plant which actually produced electric current from coal before January 1, 1963. 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 1962 and 1963).

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, 1962.

**PITHEAD
POWER-STATIONS¹⁾**

Technical Data

TABLE XI b

Specific Consumption of Coal, 1955-1962

| | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 |
|---|----------------------|-------|-------|-------|-------|-------|-------|----------------------|
| Average specific consumption in kcal/kWh | 3 703 ⁽²⁾ | 3 649 | 3 556 | 3 492 | 3 337 | 3 227 | 3 113 | 3 014 ⁽³⁾ |
| Consumption of secondary products in % of consumption of coal (ton for ton) | 88% | 88% | 88% | 87% | 87% | 92% | 92% | 89% |
| Load-hours per annum | 4 761 | 4 934 | 5 036 | 4 530 | 4 185 | 3 965 | 4 020 | 4 518 ⁽³⁾ |

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

²⁾ Approximate figures.

³⁾ See Table IXa for breakdown by coalfields.

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

| | |
|-------------------|-------|
| Beginning of 1954 | 83.5% |
| do. 1955 | 84.5% |
| do. 1956 | 87.9% |
| do. 1957 | 87.9% |
| do. 1958 | 88.8% |
| do. 1959 | 88.8% |
| do. 1960 | 89.4% |
| do. 1961 | 89.3% |
| do. 1962 | 89.2% |
| do. 1963 | 90.4% |
| ... | |

Forecast for beginning of 1966 92.3%

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

Investment and Production

TABLE XII a

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

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

| | Actual expenditure | | | | | | | | | Estimated expenditure | |
|-------------------------------------|--------------------|------|------|------|------|------|------|------|------|-----------------------|------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | | |
| Briquetting-plants | 5.10 | 7.87 | 4.07 | 1.76 | 4.45 | 4.34 | 5.63 | 3.36 | 5.40 | 7.58 | 7.50 |
| Low-temperature coking-plants | 0.24 | 0.27 | 0.45 | 0.55 | 0.60 | 0.50 | 0.36 | 0.47 | 0.40 | 0.29 | — |
| Total | 5.34 | 8.14 | 4.52 | 2.31 | 5.05 | 4.84 | 5.99 | 3.83 | 5.80 | 7.87 | 7.50 |

TABLE XII b

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

'000,000 metric tons

| | Production potential | | | Produc-tion 1962 | Expected production potential | | | |
|------------------------|----------------------|-------|-------|------------------|-------------------------------|-------|-------|-------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| B.K.B. | 16.78 | 13.83 | 13.73 | 13.87 | 13.51 | 13.57 | 13.40 | 13.60 |
| Low-temperature coke . | 0.62 | 0.59 | 0.59 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |

IRON-ORE INDUSTRY

Investment

TABLE XIII

Capital Expenditure by Orefields

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

| Orefield | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|-------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Salzgitter, Ilsede, Harzvorland | 2.21 | 4.73 | 4.90 | 3.54 | 5.78 | 6.53 | 5.29 | 9.43 | 6.64 | 7.25 | 4.45 |
| Osnabrück, Weser-Wiehengebirge | 1.15 | 0.70 | 0.39 | 0.75 | 0.52 | 0.52 | 0.64 | 0.75 | 0.62 | 0.23 | — |
| Siegerland-Wied | 2.20 | 1.30 | 2.25 | 2.18 | 0.99 | 0.85 | 0.48 | 1.37 | 1.16 | 0.48 | 0.33 |
| Central and Southern Germany ¹⁾ | 0.83 | 0.77 | 0.54 | 0.53 | 0.86 | 0.83 | 0.93 | 0.54 | 0.20 | 0.06 | — |
| Other German fields ²⁾ | 0.73 | 1.25 | 1.17 | 1.36 | 1.58 | 1.58 | 1.22 | 1.70 | 1.45 | 1.02 | 1.21 |
| GERMANY | 7.12 | 8.75 | 9.25 | 8.36 | 9.73 | 10.31 | 8.56 | 13.79 | 10.07 | 9.04 | 5.99 |
| BELGIUM | — | — | — | 0.04 | 0.08 | 0.02 | 0.04 | 0.11 | 0.01 | — | — |
| Eastern France | 16.43 | 16.62 | 25.86 | 33.73 | 25.80 | 24.40 | 28.92 | 30.60 | 32.79 | 29.86 | 17.63 |
| Western France | 1.26 | 1.83 | 3.03 | 2.94 | 2.87 | 2.87 | 2.93 | 4.86 | 8.04 | 3.69 | 1.32 |
| French - Centre/Midi | 0.19 | 0.15 | 0.29 | 0.22 | 0.25 | 0.28 | 0.41 | 0.15 | 0.10 | 0.19 | 0.31 |
| FRANCE | 17.88 | 18.60 | 29.18 | 36.89 | 28.92 | 27.55 | 32.26 | 35.61 | 40.93 | 33.74 | 19.26 |
| ITALY | 4.09 | 2.47 | 3.98 | 2.87 | 1.77 | 1.07 | 1.41 | 1.71 | 3.04 | 3.07 | 1.44 |
| LUXEMBOURG | 0.37 | 0.88 | 1.45 | 1.64 | 0.68 | 1.32 | 0.94 | 1.22 | 2.29 | 1.35 | 1.10 |
| Total..... | 29.46 | 30.70 | 43.86 | 49.80 | 41.18 | 40.27 | 43.21 | 52.44 | 56.34 | 47.20 | 27.79 |

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

IRON-ORE INDUSTRY

Extraction

TABLE XIV

Extraction and Extraction Potential by Orefields

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

| Orefield | Extraction potential | | | Actual extraction 1962 | Expected extraction potential | | | |
|--|----------------------|-------|-------|---------------------------|-------------------------------|-------|-------|-------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Salzgitter, Ilsede, Harzvorland | 9.5 | 12.8 | 12.5 | 9.9 | 10.8 | 10.1 | 10.3 | 10.2 |
| Osnabrück, Weser-Wiehengebirge | 1.8 | 2.4 | 2.4 | 1.8 | 2.1 | 2.1 | 2.1 | 2.1 |
| Siegerland-Wied | 1.4 | 1.4 | 1.2 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 |
| Central and Southern Germany ¹⁾ ... | 1.7 | 1.9 | 1.7 | 1.6 | 1.3 | 1.2 | 1.3 | 1.3 |
| Other German fields ²⁾ | 2.2 | 2.9 | 2.9 | 2.5 | 3.0 | 3.0 | 3.0 | 3.0 |
| GERMANY | 16.6 | 21.4 | 20.7 | 16.7 | 18.0 | 17.2 | 17.5 | 17.4 |
| BELGIUM | 0.1 | 0.3 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 |
| Eastern France | 48.3 | 65.8 | 67.7 | 62.4 | 70.9 | 72.0 | 74.3 | 74.9 |
| Western-France..... | 4.1 | 6.0 | 6.0 | 4.4 | 6.8 | 6.9 | 6.9 | 6.9 |
| French-Centre/Midi | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| FRANCE | 52.8 | 72.2 | 74.0 | 67.1 | 78.0 | 79.2 | 81.5 | 82.1 |
| ITALY | 2.7 | 2.4 | 2.2 | 2.0 | 2.1 | 2.2 | 2.2 | 2.2 |
| LUXEMBOURG | 7.6 | 8.4 | 8.3 | 6.5 | 6.9 | 7.1 | 7.2 | 6.6 |
| Total..... | 79.8 | 104.7 | 105.5 | 92.4 | 105.2 | 105.9 | 108.6 | 108.5 |

¹⁾ Sauerland-Waldeck, Lahn-Dill, Taunus-Hunsrück, Oberhessen.

²⁾ Doggererzgebiet, Kreideerzgebiet.

IRON AND STEEL INDUSTRY

Total Investment

TABLE XV
Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|--------|--------|--------|--------|--------|--------|---------|---------|---|---------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Norther Germany ¹⁾ | | 60.88 | 56.43 | 46.70 | 35.86 | 25.71 | 35.92 | 90.86 | 103.52 | 93.59 | 40.30 |
| North Rhine/Westphalia | 210.22 | 216.31 | 183.24 | 205.81 | 182.30 | 140.96 | 165.47 | 271.48 | 262.66 | 296.36 | 207.89 |
| Southern Germany ²⁾ | | 12.00 | 11.28 | 15.61 | 8.50 | 2.33 | 27.71 | 17.99 | 19.21 | 8.80 | 5.99 |
| Saar | 15.61 | 19.41 | 34.96 | 46.17 | 27.93 | 37.23 | 40.84 | 41.71 | 30.03 | 26.50 | 15.33 |
| GERMANY | 225.83 | 308.60 | 285.91 | 314.29 | 254.59 | 206.23 | 269.94 | 422.04 | 415.42 | 425.25 | 269.51 |
| BELGIUM | 32.92 | 33.14 | 45.52 | 60.08 | 77.92 | 81.76 | 136.88 | 127.56 | 138.58 | 218.25 | 132.35 |
| Eastern France | | 71.40 | 83.72 | 116.58 | 130.41 | 132.75 | 134.66 | 186.01 | 219.95 | 192.00 | 94.37 |
| Northern France | 125.86 | 22.54 | 33.63 | 42.89 | 37.70 | 35.79 | 74.24 | 152.37 | 159.62 | 109.11 | 38.07 |
| France - other areas | | 14.27 | 23.88 | 30.29 | 32.84 | 21.77 | 23.15 | 34.40 | 33.81 | 39.11 | 25.50 |
| FRANCE | 125.86 | 108.21 | 141.23 | 189.76 | 200.95 | 190.31 | 232.05 | 372.78 | 413.38 | 340.22 | 157.94 |
| Italy - coastal areas | | 10.35 | 23.48 | 43.24 | 33.07 | 46.01 | 43.78 | 54.77 | 77.90 | 245.90 | 349.91 |
| Italy - other areas | 35.85 | 25.56 | 28.48 | 35.91 | 36.45 | 18.14 | 19.40 | 52.09 | 80.89 | 103.33 | 46.09 |
| ITALY | 35.85 | 35.91 | 51.96 | 79.15 | 69.52 | 64.15 | 63.18 | 106.86 | 158.79 | 349.23 | 396.00 |
| LUXEMBOURG | 25.08 | 22.13 | 19.11 | 30.93 | 21.55 | 23.48 | 28.43 | 31.37 | 39.37 | 38.28 | 14.99 |
| NETHERLANDS | 7.94 | 16.34 | 26.16 | 33.96 | 19.04 | 20.66 | 44.71 | 62.43 | 52.53 | 63.53 | 46.79 |
| Total..... | 453.48 | 524.33 | 569.89 | 708.17 | 643.57 | 586.59 | 775.19 | 1123.04 | 1218.07 | 1434.76 | 1017.58 |

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

STEELWORKS-OWNED
COKING-PLANTS

Investment

TABLE XVI a

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|---|-------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | | 0.10 | 1.00 | 0.34 | 0.49 | 0.65 | 0.22 | 0.29 | 0.39 | 1.31 | 0.12 |
| North Rhine/Westphalia | 4.18 | 1.53 | 2.40 | 4.81 | 9.24 | 11.13 | 1.03 | 0.82 | 0.45 | 0.20 | 0.20 |
| Southern Germany ²⁾ | | 0.14 | 2.08 | 3.13 | 0.41 | — | 0.06 | 0.04 | 0.01 | — | — |
| Saar | 1.05 | 4.05 | 5.60 | 9.05 | 3.14 | 3.73 | 1.47 | 1.84 | 1.69 | 0.60 | 0.01 |
| GERMANY | 5.23 | 5.82 | 11.08 | 17.33 | 13.28 | 15.51 | 2.78 | 2.99 | 2.54 | 2.11 | 0.33 |
| BELGIUM | 1.39 | 2.82 | 3.75 | 3.95 | 2.44 | 1.00 | 2.96 | 2.55 | 2.07 | 2.22 | 0.67 |
| Eastern France | | 5.10 | 5.94 | 3.85 | 2.73 | 2.11 | 3.75 | 7.95 | 9.78 | 2.36 | 0.60 |
| Northern France | 9.29 | — | 0.07 | — | 0.12 | 0.14 | 0.30 | 0.47 | 0.12 | 0.10 | — |
| France - other areas | | 0.81 | 0.73 | 0.37 | 0.66 | 0.38 | 0.23 | 0.45 | 0.35 | 0.33 | 0.12 |
| FRANCE | 9.29 | 5.91 | 6.74 | 4.22 | 3.51 | 2.63 | 4.28 | 8.87 | 10.25 | 2.79 | 0.72 |
| Italy - coastal areas | — | — | 0.13 | 2.11 | 4.34 | 2.76 | 1.04 | 3.29 | 8.25 | 17.37 | 11.30 |
| Italy - other areas | — | — | — | — | — | 0.65 | 0.14 | — | — | — | — |
| ITALY | — | — | 0.13 | 2.11 | 4.34 | 3.41 | 1.18 | 3.29 | 8.25 | 17.37 | 11.30 |
| LUXEMBOURG | — | — | — | — | — | — | — | — | — | — | — |
| NETHERLANDS | 2.08 | 5.39 | 0.63 | 0.35 | 0.98 | 2.38 | 0.28 | 0.60 | 1.85 | 0.95 | 0.62 |
| Total..... | 17.99 | 19.94 | 22.33 | 27.96 | 24.55 | 24.93 | 11.48 | 18.30 | 24.96 | 25.44 | 13.64 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

| |
|--------------------|
| BURDEN PREPARATION |
|--------------------|

| |
|------------|
| Investment |
|------------|

TABLE XVI b

Capital Expenditure by Areas.

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|--------|--|-------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | 2.69 | 5.47 | 1.46 | 3.57 | 2.89 | 0.95 | 0.40 | 1.07 | 4.19 | 2.87 | |
| North Rhine/Westphalia | 3.08 | 8.43 | 3.60 | 9.79 | 26.44 | 24.38 | 20.92 | 23.54 | 9.40 | 11.68 | 9.67 |
| Southern Germany ²⁾ | 0.04 | 0.16 | 0.45 | 0.22 | — | 0.04 | 0.02 | 0.03 | — | — | |
| Saar | 0.12 | 0.03 | 0.35 | 1.41 | 0.94 | 2.98 | 9.57 | 3.64 | 1.86 | 1.66 | 3.87 |
| GERMANY | 3.20 | 11.19 | 9.58 | 13.11 | 31.17 | 30.25 | 31.48 | 27.60 | 12.36 | 17.53 | 16.41 |
| BELGIUM | 0.10 | 0.27 | 3.60 | 8.47 | 8.32 | 16.25 | 19.29 | 13.75 | 12.91 | 18.76 | 10.57 |
| Eastern France | | 1.48 | 7.71 | 16.51 | 15.66 | 16.89 | 10.12 | 32.24 | 43.57 | 26.66 | 11.88 |
| Northern France | 0.57 | 0.15 | 1.62 | 2.80 | 1.50 | 2.70 | 5.50 | 6.30 | 13.80 | 2.60 | 1.00 |
| France - other areas | | 0.01 | 0.78 | 3.27 | 2.57 | 0.49 | 0.03 | 2.32 | 3.47 | 3.62 | 1.05 |
| FRANCE | 0.57 | 1.64 | 10.11 | 22.58 | 19.73 | 20.08 | 15.65 | 40.86 | 60.84 | 32.88 | 13.93 |
| Italy - coastal areas | 0.61 | 0.84 | 2.06 | 2.56 | 2.36 | 2.70 | 0.40 | 0.59 | 2.86 | 24.15 | 32.29 |
| Italy - other areas | | 0.17 | 0.15 | 0.32 | 0.15 | 0.02 | 0.03 | 0.46 | 0.05 | 0.05 | — |
| ITALY | 0.61 | 1.01 | 2.21 | 2.88 | 2.51 | 2.72 | 0.43 | 1.05 | 2.91 | 24.20 | 32.29 |
| LUXEMBOURG | 7.11 | 6.13 | 3.25 | 3.61 | 4.54 | 2.96 | 2.92 | 8.28 | 11.48 | 2.97 | 0.13 |
| NETHERLANDS | — | 0.90 | 2.77 | 0.88 | 0.46 | 1.26 | 3.92 | 1.73 | 2.72 | 3.22 | 2.03 |
| Total | 11.59 | 21.14 | 31.52 | 51.53 | 66.73 | 73.52 | 73.69 | 93.27 | 103.22 | 99.56 | 75.36 |

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

BLAST-FURNACES

Investment

TABLE XVI c

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|-------|--------|--------|-------|-------|--------|-------|--|-------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Norther Germany ¹⁾ | | 0.26 | 3.02 | 9.76 | 8.13 | 4.14 | 3.91 | 4.56 | 4.56 | 2.89 | 0.24 |
| North Rhine/Westphalia | 16.74 | 16.16 | 25.61 | 29.17 | 32.56 | 25.96 | 20.18 | 27.28 | 25.23 | 27.92 | 18.51 |
| Southern Germany ²⁾ | | 2.53 | 2.94 | 2.08 | 1.48 | 0.47 | 1.07 | 0.77 | 1.36 | 0.40 | — |
| Saar | 19.2 | 1.56 | 2.46 | 3.50 | 4.72 | 5.52 | 3.33 | 2.11 | 2.91 | 5.13 | 4.22 |
| GERMANY | 18.66 | 20.51 | 34.03 | 44.51 | 46.89 | 36.09 | 28.49 | 34.72 | 34.06 | 36.34 | 22.97 |
| BELGIUM | 7.34 | 5.83 | 10.37 | 8.57 | 11.06 | 8.77 | 7.89 | 14.41 | 14.13 | 15.66 | 12.22 |
| Eastern France | | 9.43 | 20.20 | 25.66 | 29.90 | 26.40 | 27.36 | 23.89 | 23.50 | 25.13 | 15.85 |
| Northern France | 11.14 | 1.10 | 4.05 | 7.55 | 9.48 | 6.05 | 8.79 | 16.26 | 11.35 | 5.76 | 2.52 |
| France - other areas | | 0.71 | 1.15 | 3.90 | 4.62 | 1.68 | 0.92 | 0.73 | 1.00 | 0.80 | 0.17 |
| FRANCE | 11.14 | 11.24 | 25.40 | 37.11 | 44.00 | 34.13 | 37.07 | 40.88 | 35.85 | 31.69 | 18.54 |
| Italy - coastal areas | | 1.68 | 0.20 | 1.39 | 6.00 | 4.99 | 4.20 | 5.78 | 5.97 | 11.70 | 27.03 |
| Italy - other areas | 0.59 | 0.08 | 0.61 | 1.25 | 1.42 | 0.68 | 0.34 | 0.71 | 0.32 | 0.07 | — |
| ITALY | 0.59 | 1.76 | 0.81 | 2.64 | 7.42 | 5.67 | 4.54 | 6.49 | 6.29 | 11.77 | 27.03 |
| LUXEMBOURG | 2.01 | 2.33 | 3.67 | 3.64 | 2.98 | 2.60 | 4.57 | 3.58 | 5.36 | 5.91 | 4.52 |
| NETHERLANDS | 0.44 | 0.18 | 2.40 | 7.57 | 2.42 | 1.11 | 4.46 | 7.17 | 1.66 | 1.68 | 0.89 |
| Total..... | 40.18 | 41.85 | 76.68 | 104.04 | 114.77 | 88.37 | 87.02 | 107.25 | 97.35 | 103.05 | 86.17 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

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

Investment

TABLE XVI d

Capital Expenditure by Areas

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

| Area | Actual Expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|--------|--------|--------|--------|--------|--------|--------|---|--------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | | 3.05 | 9.49 | 11.56 | 12.19 | 7.68 | 5.08 | 5.25 | 6.02 | 8.39 | 3.23 |
| North Rhine/Westphalia | 24.00 | 26.12 | 31.61 | 43.77 | 68.24 | 61.47 | 42.13 | 51.64 | 35.08 | 39.80 | 28.38 |
| Southern Germany ²⁾ | | 2.71 | 5.18 | 5.66 | 2.11 | 0.47 | 1.17 | 0.83 | 1.40 | 0.40 | — |
| Saar | 3.09 | 5.64 | 8.41 | 13.96 | 8.80 | 12.23 | 14.37 | 7.59 | 6.46 | 7.39 | 8.10 |
| GERMANY | 27.09 | 37.52 | 54.69 | 74.95 | 91.34 | 81.75 | 62.75 | 65.31 | 48.96 | 55.98 | 39.71 |
| BELGIUM | 8.83 | 8.92 | 17.72 | 20.99 | 21.82 | 26.02 | 30.14 | 30.71 | 29.11 | 36.64 | 23.46 |
| Eastern France | | 16.01 | 33.85 | 46.02 | 48.29 | 45.40 | 41.23 | 64.08 | 76.85 | 54.15 | 28.33 |
| Northern France | 21.00 | 1.25 | 5.74 | 10.35 | 11.45 | 8.89 | 14.59 | 23.03 | 25.27 | 8.46 | 3.52 |
| France - other areas | | 1.53 | 2.66 | 75.4 | 7.50 | 2.55 | 1.18 | 3.50 | 4.82 | 4.75 | 1.34 |
| FRANCE | 21.00 | 18.79 | 42.25 | 63.91 | 67.24 | 56.84 | 57.00 | 90.61 | 106.94 | 67.36 | 33.19 |
| Italy - coastal areas | | 2.52 | 2.39 | 6.06 | 12.70 | 10.45 | 5.64 | 9.66 | 17.08 | 53.22 | 70.62 |
| Italy - other areas | 1.20 | 0.25 | 0.76 | 1.57 | 15.7 | 1.35 | 0.51 | 1.17 | 0.37 | 0.12 | — |
| ITALY | 1.20 | 2.77 | 3.15 | 7.63 | 14.27 | 11.80 | 6.15 | 10.83 | 17.45 | 53.34 | 70.62 |
| LUXEMBOURG | 9.12 | 8.46 | 6.92 | 7.25 | 7.52 | 5.56 | 7.49 | 11.86 | 16.84 | 8.88 | 4.65 |
| NETHERLANDS | 2.52 | 6.47 | 5.80 | 8.80 | 3.86 | 4.75 | 8.66 | 9.50 | 6.23 | 5.85 | 3.54 |
| Total..... | 69.76 | 82.93 | 130.53 | 183.53 | 206.05 | 186.82 | 172.19 | 218.82 | 225.53 | 228.05 | 175.17 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

BASIC BESSEMER
STEELWORKS

Investment

TABLE XVII a

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|---|------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | | 2.99 | 1.74 | 2.02 | 0.83 | 0.32 | 0.34 | 1.11 | 0.49 | 0.25 | 0.70 |
| North Rhine/Westphalia | 3.24 | 4.05 | 3.09 | 8.22 | 17.10 | 11.74 | 3.73 | 4.16 | 5.87 | 3.82 | 2.02 |
| Southern Germany ²⁾ | | 0.24 | 0.25 | 0.74 | 0.62 | 0.11 | 0.02 | 0.08 | 0.12 | 0.01 | — |
| Saar | 0.40 | 1.36 | 3.87 | 6.01 | 5.53 | 3.90 | 3.20 | 3.07 | 1.57 | 1.18 | — |
| GERMANY | 3.64 | 8.64 | 8.95 | 16.99 | 24.08 | 16.07 | 7.29 | 8.42 | 8.05 | 5.26 | 2.72 |
| BELGIUM | 1.75 | 2.57 | 3.25 | 10.95 | 14.32 | 7.49 | 6.43 | 6.63 | 7.74 | 7.96 | 2.00 |
| Eastern France | | 3.54 | 3.98 | 5.84 | 3.80 | 4.76 | 5.20 | 6.65 | 4.58 | 5.46 | 4.55 |
| Northern France | 5.72 | 0.15 | 0.50 | — | 1.45 | 1.00 | 1.00 | 1.00 | 1.30 | 0.60 | — |
| France - other areas | | 0.20 | 0.50 | 1.00 | 0.60 | 0.52 | 0.30 | 0.64 | 0.60 | 0.55 | 0.10 |
| FRANCE | 5.72 | 3.89 | 4.98 | 6.84 | 5.85 | 6.28 | 6.50 | 8.29 | 6.48 | 6.61 | 4.65 |
| Italy - coastal areas | | 0.05 | 0.25 | 0.28 | 0.64 | 0.40 | 0.55 | 0.17 | — | 0.05 | — |
| Italy - other areas | 0.16 | — | — | — | — | 0.07 | — | — | — | — | — |
| ITALY | 0.16 | 0.05 | 0.25 | 0.28 | 0.64 | 0.47 | 0.55 | 0.17 | — | 0.05 | — |
| LUXEMBOURG | | 2.64 | 2.10 | 5.00 | 10.05 | 4.80 | 3.50 | 0.41 | 0.74 | 0.69 | 1.75 |
| NETHERLANDS | | — | — | — | — | — | — | — | — | — | — |
| Total..... | 13.91 | 17.25 | 22.43 | 45.11 | 49.69 | 33.81 | 21.18 | 24.25 | 22.96 | 21.63 | 9.50 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**OPEN-HEARTH
STEELWORKS**

Investment

TABLE XVII b

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|---|------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | | 2.92 | 7.87 | 6.18 | 0.98 | 0.84 | 4.09 | 9.78 | 6.07 | 3.93 | 2.39 |
| North Rhine/Westphalia | 12.33 | 15.62 | 25.05 | 26.78 | 14.03 | 9.26 | 14.82 | 17.55 | 12.14 | 4.77 | 2.30 |
| Southern Germany ²⁾ | | 0.30 | 0.14 | 1.52 | 0.02 | — | 0.94 | 0.16 | 0.45 | 0.30 | — |
| Saar | 0.47 | 0.08 | 1.46 | 0.32 | 0.78 | 0.35 | 0.33 | 0.23 | 0.12 | 0.01 | — |
| GERMANY | 12.80 | 18.92 | 34.52 | 34.80 | 15.81 | 10.45 | 20.18 | 27.72 | 18.78 | 9.01 | 4.69 |
| BELGIUM | | 0.30 | 0.05 | 0.24 | 0.53 | 0.60 | 0.19 | 0.26 | 0.04 | 0.06 | 0.06 |
| Eastern France | | 3.78 | 2.77 | 2.79 | 2.89 | 2.57 | 4.06 | 3.07 | 2.40 | 3.16 | 1.62 |
| Northern France | 5.43 | 3.52 | 3.69 | 4.09 | 2.28 | 0.93 | 0.45 | 2.01 | 1.08 | 0.93 | 0.83 |
| France - other areas | | 0.21 | 2.05 | 0.40 | 0.21 | 0.11 | 0.72 | 1.16 | 0.22 | 0.13 | — |
| FRANCE | 5.43 | 7.51 | 8.51 | 7.28 | 5.38 | 3.61 | 5.23 | 6.24 | 3.70 | 4.22 | 2.45 |
| Italy - coastal areas | | 1.62 | 4.52 | 5.68 | 2.97 | 0.89 | 1.50 | 5.49 | 4.43 | 3.03 | 0.70 |
| Italy - other areas | 1.38 | 0.82 | 1.37 | 1.41 | 1.49 | 0.80 | 0.83 | 2.92 | 1.21 | 1.20 | 0.53 |
| ITALY | 1.38 | 2.44 | 5.89 | 7.09 | 4.46 | 1.69 | 2.33 | 8.41 | 5.64 | 4.23 | 1.23 |
| LUXEMBOURG | — | — | — | — | — | — | — | — | — | — | — |
| NETHERLANDS | | 0.21 | 1.73 | 4.76 | 1.91 | 1.13 | 1.62 | 1.12 | 2.35 | 1.42 | 1.00 |
| Total | 20.12 | 30.65 | 53.92 | 51.61 | 27.38 | 17.56 | 29.12 | 44.76 | 29.60 | 18.52 | 9.25 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

ELECTRIC-FURNACE
STEELWORKS

Investment

TABLE XVII c

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|---------------------|---------------------|-------|-------|-------|------|-------|-------|-------|---|-------|
| | 1954 ⁽¹⁾ | 1955 ⁽¹⁾ | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ²⁾ | | 0.05 | 0.61 | — | — | 0.38 | 0.74 | 0.35 | 0.02 | 0.08 | — |
| North Rhine/Westphalia | 5.42 | 9.76 | 8.47 | 8.30 | 2.57 | 1.02 | 1.65 | 6.51 | 2.97 | 1.20 | 3.25 |
| Southern Germany ³⁾ | | — | — | 0.13 | — | — | — | 0.03 | 0.35 | 1.03 | 1.15 |
| Saar | — | 0.02 | — | — | — | — | 2.10 | 0.60 | 0.82 | 0.09 | — |
| GERMANY | 5.42 | 9.83 | 9.08 | 8.43 | 2.57 | 1.40 | 4.49 | 7.49 | 4.16 | 2.40 | 4.40 |
| BELGIUM | 1.60 | 1.41 | 1.22 | 0.37 | 0.14 | 0.44 | 0.30 | 0.70 | 0.90 | 0.63 | — |
| Eastern France | | — | 0.18 | 0.04 | 1.48 | 1.34 | 0.75 | 0.73 | 0.60 | 1.44 | 0.70 |
| Northern France | 1.14 | 1.22 | 0.07 | — | — | — | 0.71 | 1.03 | 0.37 | 0.60 | 0.04 |
| France - other areas | | 0.94 | 2.41 | 4.31 | 3.29 | 1.60 | 2.55 | 5.22 | 6.48 | 5.01 | 2.52 |
| FRANCE | 1.14 | 2.16 | 2.66 | 4.35 | 4.77 | 2.94 | 4.01 | 6.98 | 7.45 | 7.05 | 3.26 |
| Italy - coastal areas | | — | — | — | — | 0.03 | 0.35 | 0.60 | 0.61 | 1.05 | 1.00 |
| Italy - other areas | 1.75 | 1.46 | 3.63 | 2.91 | 3.08 | 3.64 | 1.85 | 5.89 | 7.75 | 6.80 | 2.36 |
| ITALY | 1.75 | 1.46 | 3.63 | 2.91 | 3.08 | 3.67 | 2.20 | 6.49 | 8.36 | 7.85 | 3.36 |
| LUXEMBOURG | — | 0.04 | 0.02 | 0.02 | 0.01 | 0.01 | 0.07 | 0.10 | 0.10 | 0.20 | 0.10 |
| NETHERLANDS | 0.15 | 0.17 | 0.56 | 0.34 | 0.02 | — | 0.04 | 0.08 | 0.32 | 1.00 | 0.88 |
| Total | 10.06 | 15.07 | 17.17 | 16.42 | 10.59 | 8.46 | 11.11 | 21.84 | 21.29 | 18.83 | 11.82 |

¹⁾ For the years 1954-1955 including other steelworks except LD, Rotor and similar processes.

²⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

³⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**LD, ROTOR AND
OTHER STEELWORKS**

Investment

TABLE XVII d

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|--------------------|------|-------|------|-------|-------|-------|-------|--|--------|
| | 1954 | 1955 ¹⁾ | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ²⁾ | . | — | — | 0.03 | 1.89 | 1.93 | 4.25 | 7.98 | 10.80 | 6.39 | 2.95 |
| North Rhine Westphalia | . | 0.15 | 5.67 | 9.73 | 3.00 | 1.71 | 6.31 | 34.90 | 36.43 | 30.29 | 25.57 |
| Southern Germany ³⁾ | . | — | — | — | — | — | — | 0.04 | — | — | — |
| Saar | . | — | — | — | — | 0.83 | 1.74 | 1.91 | 0.32 | — | — |
| GERMANY | . | 0.15 | 5.67 | 9.76 | 4.89 | 4.47 | 12.30 | 44.83 | 47.55 | 36.68 | 28.52 |
| BELGIUM | . | — | — | — | — | — | 4.36 | 5.39 | 10.18 | 32.98 | 23.47 |
| Eastern France | . | 0.06 | 0.02 | — | 0.51 | 5.83 | 4.73 | 2.12 | 3.17 | 4.06 | 6.91 |
| Northern France | . | — | — | — | — | — | 5.00 | 9.60 | 9.80 | 7.30 | 2.00 |
| France - other areas | . | — | 0.16 | — | — | — | — | — | — | — | — |
| FRANCE | . | 0.06 | 0.18 | — | 0.51 | 5.83 | 9.73 | 11.72 | 12.97 | 11.36 | 8.91 |
| Italy - coastal areas | . | — | — | — | — | — | — | 0.01 | 1.34 | 17.60 | 57.15 |
| Italy - other areas | . | — | — | — | — | — | — | — | — | — | — |
| ITALY | . | — | — | — | — | — | — | 0.01 | 1.34 | 17.60 | 57.15 |
| LUXEMBOURG | . | — | — | — | — | 0.49 | 2.25 | 3.15 | 4.03 | 3.26 | 1.13 |
| NETHERLANDS | . | — | 2.23 | 5.47 | 1.70 | 2.02 | 5.35 | 6.86 | 1.99 | 2.81 | 1.34 |
| Total..... | . | 0.21 | 8.08 | 15.23 | 7.10 | 12.81 | 33.99 | 71.96 | 78.06 | 104.69 | 120.52 |

¹⁾ For 1955, LD, Rotor and similar works only.

²⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

³⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

STEELWORKS - TOTAL

Investment

TABLE XVII e

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|--------|--------|-------|-------|-------|--------|--------|--|--------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | | |
| Norther Germany ¹⁾ | | 5.96 | 10.22 | 8.23 | 3.70 | 3.47 | 9.42 | 19.22 | 17.38 | 10.65 | 6.04 |
| North Rhine/Westphalia | 20.99 | 29.58 | 42.28 | 53.03 | 36.70 | 23.73 | 26.51 | 63.12 | 57.41 | 40.08 | 33.14 |
| Southern Germany ²⁾ | | 0.54 | 0.39 | 2.39 | 0.64 | 0.11 | 0.96 | 0.31 | 0.92 | 1.34 | 1.15 |
| Saar | 0.87 | 1.46 | 5.33 | 6.33 | 6.31 | 5.08 | 7.37 | 5.81 | 2.83 | 1.28 | — |
| GERMANY | 21.86 | 37.54 | 58.22 | 69.98 | 47.35 | 32.39 | 44.26 | 88.46 | 78.54 | 53.35 | 40.33 |
| BELGIUM | 3.65 | 4.03 | 4.71 | 11.85 | 15.06 | 8.12 | 11.35 | 12.76 | 18.88 | 41.63 | 25.47 |
| Eastern France | | 7.38 | 6.95 | 8.67 | 8.68 | 14.50 | 14.74 | 12.57 | 10.75 | 14.12 | 13.78 |
| Northern France | 12.29 | 4.89 | 4.26 | 4.09 | 3.73 | 1.93 | 7.16 | 13.64 | 12.55 | 9.43 | 2.87 |
| France - other areas | | 1.35 | 5.12 | 5.71 | 4.10 | 2.23 | 3.57 | 7.02 | 7.30 | 5.69 | 2.62 |
| FRANCE | 12.29 | 13.62 | 16.33 | 18.47 | 16.51 | 18.66 | 25.47 | 33.23 | 30.60 | 29.24 | 19.27 |
| Italy - coastal areas | | 1.67 | 4.77 | 5.96 | 3.61 | 1.32 | 2.40 | 6.27 | 6.38 | 21.73 | 58.85 |
| Italy - other areas | 3.29 | 2.28 | 5.00 | 4.32 | 4.57 | 4.51 | 2.68 | 8.81 | 8.96 | 8.00 | 2.89 |
| ITALY | 3.29 | 3.95 | 9.77 | 10.28 | 8.18 | 5.83 | 5.08 | 15.08 | 15.34 | 29.73 | 61.74 |
| LUXEMBOURG | 2.64 | 2.14 | 5.02 | 10.07 | 4.81 | 4.00 | 2.73 | 3.99 | 4.82 | 5.21 | 1.36 |
| NETHERLANDS | 0.36 | 1.90 | 7.55 | 7.72 | 2.85 | 3.64 | 6.51 | 9.29 | 3.73 | 4.51 | 2.92 |
| Total..... | 44.09 | 63.18 | 101.60 | 128.37 | 94.76 | 72.64 | 95.40 | 162.81 | 151.91 | 163.67 | 151.09 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**BLOOMING AND
SLABBING MILLS**

Investment

TABLE XVIII a

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|---|-------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | . | 9.42 | 0.31 | 0.19 | 0.86 | 1.46 | 0.63 | 2.76 | 10.31 | 11.32 | 6.87 |
| North Rhine/Westphalia | . | 20.84 | 17.12 | 19.66 | 11.35 | 6.17 | 12.06 | 20.26 | 21.27 | 21.11 | 10.90 |
| Southern Germany ²⁾ | . | 0.53 | 0.01 | — | — | — | — | — | 0.04 | 0.38 | — |
| Saar | . | 0.04 | — | 1.99 | 1.63 | 6.86 | 5.68 | 2.86 | 2.46 | 2.15 | 4.11 |
| GERMANY | . | 30.83 | 17.44 | 21.84 | 13.84 | 14.49 | 18.37 | 25.88 | 34.08 | 34.96 | 21.88 |
| BELGIUM | . | 1.11 | 1.75 | 6.43 | 4.08 | 4.14 | 8.91 | 6.97 | 14.05 | 30.01 | 15.16 |
| Eastern France | . | 3.21 | 4.03 | 3.98 | 3.40 | 3.58 | 4.97 | 14.25 | 10.08 | 5.03 | 2.39 |
| Northern France | . | — | 1.48 | 7.00 | 2.85 | 1.89 | 3.97 | 16.26 | 10.41 | 2.50 | 1.40 |
| France - other areas | . | 0.17 | 2.43 | 1.62 | 0.41 | 0.64 | 0.93 | 0.89 | 0.32 | 0.38 | — |
| FRANCE | . | 3.38 | 7.94 | 12.60 | 6.66 | 6.11 | 9.87 | 31.40 | 20.81 | 7.91 | 3.79 |
| Italy - coastal areas | . | 0.18 | 0.77 | 0.45 | 4.38 | 13.06 | 3.24 | 2.86 | 4.03 | 11.20 | 33.39 |
| Italy - other areas | . | 1.99 | 0.77 | 2.43 | 1.78 | 0.69 | 1.19 | 2.73 | 5.89 | 6.20 | 3.63 |
| ITALY | . | 2.17 | 1.54 | 2.88 | 6.16 | 13.75 | 4.43 | 5.59 | 9.92 | 17.40 | 37.02 |
| LUXEMBOURG | . | 2.76 | 0.54 | 0.51 | 0.18 | 0.25 | 0.24 | 1.53 | 3.40 | 4.30 | 1.90 |
| NETHERLANDS | . | 1.09 | 1.95 | 0.83 | 0.67 | 1.63 | 1.78 | 3.39 | 9.91 | 9.42 | 6.36 |
| Total..... | 23.10 | 41.34 | 31.16 | 45.09 | 31.59 | 40.37 | 43.60 | 74.76 | 92.17 | 104.00 | 86.11 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

SECTION MILLS

Investment

TABLE XVIII b

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|--------|--------|--|--------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | . | 12.02 | 8.42 | 0.89 | 0.29 | 1.11 | 2.31 | 5.31 | 5.58 | 9.95 | 4.22 |
| North Rhine/Westphalia | . | 38.20 | 21.71 | 17.93 | 9.12 | 10.85 | 15.33 | 25.26 | 35.83 | 58.60 | 37.40 |
| Southern Germany ²⁾ | . | 2.85 | 0.82 | 0.65 | 0.61 | 0.22 | 0.57 | 0.64 | 0.88 | 0.92 | 0.35 |
| Saar | . | 8.12 | 15.63 | 12.25 | 2.95 | 6.39 | 7.30 | 15.15 | 8.69 | 5.88 | 1.02 |
| GERMANY | . | 61.19 | 46.58 | 31.72 | 12.97 | 18.57 | 25.51 | 46.36 | 50.98 | 75.35 | 42.99 |
| BELGIUM | . | 2.63 | 2.75 | 2.62 | 8.39 | 15.77 | 23.91 | 16.75 | 16.04 | 19.25 | 8.25 |
| Eastern France | . | 8.76 | 12.03 | 12.92 | 9.93 | 9.31 | 11.51 | 15.50 | 28.30 | 37.38 | 28.29 |
| Northern France | . | 1.61 | 2.31 | 3.60 | 3.51 | 3.78 | 4.76 | 15.86 | 16.75 | 8.82 | 1.29 |
| France - other areas | . | 3.85 | 5.75 | 8.96 | 7.77 | 2.54 | 2.88 | 4.61 | 4.44 | 8.26 | 8.36 |
| FRANCE | . | 14.22 | 20.09 | 25.48 | 21.21 | 15.63 | 19.15 | 35.97 | 49.49 | 54.46 | 37.94 |
| Italy - coastal areas | . | 0.32 | 0.22 | 0.32 | 0.36 | 0.80 | 4.52 | 5.52 | 3.65 | 8.45 | 14.64 |
| Italy - other areas | . | 8.29 | 10.30 | 13.70 | 14.93 | 5.10 | 2.58 | 4.03 | 4.38 | 6.78 | 3.71 |
| ITALY | . | 8.61 | 10.52 | 14.02 | 15.29 | 5.90 | 7.10 | 9.55 | 8.03 | 15.23 | 18.35 |
| LUXEMBOURG | . | 0.23 | 0.33 | 5.35 | 3.43 | 8.43 | 13.95 | 9.52 | 8.92 | 15.98 | 6.18 |
| NETHERLANDS | . | — | — | 0.01 | 0.07 | 0.03 | 0.77 | 2.85 | 10.28 | 24.04 | 22.32 |
| Total..... | 74.40 | 86.88 | 80.27 | 79.20 | 61.36 | 64.33 | 90.39 | 121.00 | 143.74 | 193.31 | 129.63 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

FLAT-PRODUCT MILLS

Investment

TABLE XVIII c

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|--------|--------|--------|-------|-------|--------|--------|--------|---|--------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | . | 23.26 | 19.74 | 17.01 | 11.00 | 7.41 | 12.85 | 47.57 | 40.15 | 32.72 | 11.65 |
| North Rhine/Westphalia | . | 67.33 | 38.07 | 35.90 | 22.04 | 12.55 | 33.45 | 57.13 | 59.97 | 87.46 | 65.21 |
| Southern Germany ²⁾ | . | 1.98 | 0.46 | 1.21 | 1.02 | 0.12 | 22.06 | 14.33 | 8.04 | 2.27 | 2.39 |
| Saar | . | 0.44 | 1.10 | 5.75 | 0.40 | 0.36 | 0.27 | 0.19 | 1.85 | 1.99 | — |
| GERMANY | . | 93.01 | 59.37 | 59.87 | 34.46 | 20.44 | 68.63 | 119.22 | 110.01 | 124.44 | 79.25 |
| BELGIUM | . | 7.59 | 7.33 | 3.35 | 11.74 | 12.48 | 36.94 | 33.43 | 29.64 | 60.52 | 42.26 |
| Eastern France | . | 11.49 | 5.82 | 12.66 | 12.86 | 9.38 | 16.33 | 34.83 | 37.86 | 19.00 | 2.16 |
| Northern France | . | 11.33 | 12.12 | 7.97 | 3.70 | 5.32 | 23.80 | 48.77 | 59.43 | 40.22 | 18.93 |
| France - other areas | . | 3.86 | 3.51 | 2.15 | 3.01 | 3.74 | 5.30 | 7.26 | 5.47 | 8.05 | 7.29 |
| FRANCE | . | 26.68 | 21.45 | 22.78 | 19.57 | 18.44 | 45.43 | 90.86 | 102.76 | 67.27 | 28.38 |
| Italy - coastal areas | . | 1.77 | 8.43 | 16.72 | 3.19 | 8.38 | 3.37 | 3.73 | 4.41 | 40.67 | 54.88 |
| Italy - other areas | . | 7.09 | 6.07 | 3.54 | 4.71 | 2.87 | 5.50 | 27.60 | 50.57 | 70.55 | 28.99 |
| ITALY | . | 8.86 | 14.50 | 20.26 | 7.90 | 11.25 | 8.87 | 31.33 | 54.98 | 111.22 | 83.87 |
| LUXEMBOURG | . | 4.42 | 0.38 | 0.29 | 0.31 | 0.07 | 1.01 | 1.09 | 0.91 | 0.58 | 0.13 |
| NETHERLANDS | . | 3.03 | 4.08 | 4.89 | 3.93 | 4.91 | 14.59 | 17.29 | 2.57 | 2.73 | 1.37 |
| Total..... | 139.60 | 143.59 | 107.11 | 111.44 | 77.91 | 67.59 | 175.47 | 293.22 | 300.87 | 366.76 | 235.26 |

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

ROLLING-MILLS - TOTAL¹⁾

Investment

TABLE XVIII d

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|---|--------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Norther Germany ²⁾ | | 45.52 | 29.30 | 19.14 | 13.01 | 10.61 | 15.99 | 55.94 | 56.30 | 54.39 | 22.80 |
| North Rhine/Westphalia | 138.03 | 136.30 | 83.15 | 78.10 | 48.67 | 34.09 | 65.27 | 108.73 | 123.05 | 175.75 | 124.40 |
| Southern Germany ³⁾ | | 6.75 | 2.32 | 3.43 | 3.35 | 0.45 | 24.13 | 15.55 | 14.77 | 4.93 | 3.41 |
| Saar..... | 8.00 | 9.80 | 17.78 | 20.54 | 5.79 | 13.74 | 13.56 | 18.69 | 13.48 | 10.81 | 5.88 |
| GERMANY | 146.03 | 198.37 | 132.55 | 121.21 | 70.82 | 58.89 | 118.95 | 198.91 | 207.60 | 245.88 | 156.49 |
| BELGIUM | 15.57 | 13.80 | 16.63 | 16.05 | 27.22 | 34.26 | 77.74 | 68.21 | 72.23 | 115.28 | 62.76 |
| Eastern France | | 29.63 | 23.97 | 36.71 | 33.91 | 26.26 | 37.51 | 70.19 | 88.38 | 78.36 | 37.52 |
| Northern France | 64.00 | 13.52 | 17.55 | 24.50 | 14.36 | 13.67 | 35.26 | 84.68 | 93.73 | 57.90 | 22.87 |
| France - other areas | | 9.23 | 12.24 | 13.56 | 14.03 | 12.11 | 13.07 | 16.48 | 14.16 | 21.44 | 19.25 |
| FRANCE | 64.00 | 52.38 | 53.76 | 74.77 | 62.30 | 52.04 | 85.84 | 171.35 | 196.27 | 157.70 | 79.64 |
| Italy - coastal areas | | 4.52 | 13.97 | 25.06 | 11.26 | 26.39 | 20.86 | 15.58 | 16.17 | 70.18 | 111.03 |
| Italy - other areas | 25.39 | 18.69 | 17.80 | 24.47 | 23.32 | 9.23 | 10.09 | 35.60 | 63.14 | 86.12 | 37.10 |
| ITALY | 25.39 | 23.21 | 31.77 | 49.53 | 34.58 | 35.62 | 30.95 | 51.18 | 79.31 | 156.30 | 148.13 |
| LUXEMBOURG | 11.21 | 8.40 | 3.27 | 9.30 | 5.23 | 10.52 | 16.02 | 12.83 | 13.97 | 21.04 | 8.21 |
| NETHERLANDS | | 2.95 | 4.92 | 6.91 | 11.48 | 6.90 | 7.31 | 20.80 | 29.88 | 25.57 | 39.05 |
| Total..... | 265.15 | 301.08 | 244.89 | 282.34 | 207.05 | 198.64 | 350.30 | 532.36 | 594.95 | 735.25 | 485.54 |

¹⁾ Including ancillary and auxiliary plants.

²⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

³⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

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

Investment

TABLE XIX a

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|---|-------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | | 4.07 | 1.99 | 2.10 | 1.83 | 1.88 | 2.13 | 3.96 | 12.53 | 12.14 | 5.10 |
| North Rhine/Westphalia | 14.83 | 12.19 | 8.91 | 9.27 | 9.56 | 6.01 | 11.70 | 17.44 | 18.37 | 18.60 | 4.47 |
| Southern Germany ²⁾ | | 1.24 | 2.62 | 2.85 | 1.40 | 0.40 | 0.87 | 0.26 | 1.12 | 1.16 | 0.71 |
| Saar | 0.88 | 0.57 | 1.02 | 2.29 | 2.61 | 0.68 | 1.44 | 2.99 | 2.61 | 2.96 | 1.31 |
| GERMANY | 15.71 | 18.07 | 14.54 | 16.51 | 15.40 | 8.97 | 16.14 | 24.65 | 34.63 | 34.86 | 11.59 |
| BELGIUM | 2.35 | 2.86 | 1.59 | 4.48 | 7.06 | 7.26 | 9.08 | 5.87 | 5.93 | 8.84 | 9.07 |
| Eastern France | | 12.45 | 9.02 | 14.17 | 22.87 | 30.36 | 23.33 | 18.80 | 18.42 | 22.87 | 3.72 |
| Northern France | 21.15 | 0.67 | 0.60 | 0.39 | 0.53 | 0.81 | 2.33 | 5.19 | 2.79 | 1.29 | 1.70 |
| France - other areas | | 0.79 | 1.28 | 1.60 | 2.14 | 2.26 | 2.01 | 1.59 | 2.47 | 1.89 | 0.34 |
| FRANCE | 21.15 | 13.91 | 10.90 | 16.16 | 25.54 | 33.43 | 27.67 | 25.58 | 23.68 | 26.05 | 5.76 |
| Italy - coastal areas | | 0.38 | 0.72 | 1.08 | 3.57 | 5.70 | 5.04 | 7.83 | 10.42 | 22.94 | 16.87 |
| Italy - other areas | 1.20 | 1.10 | 0.53 | 1.28 | 1.27 | 0.76 | 0.49 | 0.71 | 0.56 | 1.01 | 0.89 |
| ITALY | 1.20 | 1.48 | 1.25 | 2.36 | 4.84 | 6.46 | 5.53 | 8.54 | 10.98 | 23.95 | 17.76 |
| LUXEMBOURG | | 1.32 | 2.30 | 2.51 | 2.21 | 1.74 | 0.88 | 0.41 | 1.22 | 1.40 | 1.44 |
| NETHERLANDS | | 1.25 | 0.69 | 1.18 | 1.48 | 2.24 | 1.80 | 1.85 | 5.83 | 6.98 | 4.27 |
| Total..... | 42.98 | 39.31 | 31.97 | 43.20 | 56.82 | 58.80 | 60.68 | 71.69 | 83.60 | 99.41 | 47.15 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**MISCELLANEOUS
(IRON AND STEEL WORKS)**

Investment

TABLE XIXb

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|--------|--------|---|--------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | | 2.28 | 5.43 | 5.67 | 5.13 | 2.07 | 3.30 | 6.49 | 11.29 | 8.02 | 3.13 |
| North Rhine/Westphalia | 12.37 | 12.12 | 17.29 | 21.64 | 19.13 | 15.66 | 19.86 | 30.55 | 28.75 | 22.13 | 17.50 |
| Southern Germany ²⁾ | | 0.76 | 0.77 | 1.28 | 1.00 | 0.90 | 0.58 | 1.04 | 1.00 | 0.97 | 0.72 |
| Saar | 2.77 | 1.94 | 2.42 | 3.05 | 4.42 | 5.50 | 4.10 | 6.63 | 4.65 | 4.06 | 0.04 |
| GERMANY | 15.14 | 17.10 | 25.91 | 31.64 | 29.68 | 24.13 | 27.84 | 44.71 | 45.69 | 35.18 | 21.39 |
| BELGIUM | 2.52 | 3.53 | 4.87 | 6.71 | 6.76 | 6.10 | 8.57 | 10.01 | 12.43 | 15.86 | 11.59 |
| Eastern France | | 5.93 | 9.93 | 11.01 | 16.66 | 16.23 | 17.85 | 20.37 | 25.55 | 22.50 | 11.02 |
| Northern France | 7.42 | 2.21 | 5.48 | 3.56 | 7.98 | 10.49 | 14.90 | 25.83 | 25.28 | 32.03 | 7.11 |
| France - other areas | | 1.37 | 2.58 | 1.88 | 4.72 | 2.62 | 3.32 | 5.81 | 5.06 | 5.34 | 1.95 |
| FRANCE | 7.42 | 9.51 | 17.99 | 16.45 | 29.36 | 29.34 | 36.07 | 52.01 | 55.89 | 59.87 | 20.08 |
| Italy - coastal areas | | 1.26 | 1.63 | 5.08 | 1.93 | 2.15 | 9.84 | 15.43 | 27.85 | 77.83 | 92.54 |
| Italy - other areas | 4.77 | 3.24 | 4.39 | 4.27 | 5.72 | 2.29 | 5.63 | 5.80 | 7.86 | 8.08 | 5.21 |
| ITALY | 4.77 | 4.50 | 6.02 | 9.35 | 7.65 | 4.44 | 15.47 | 21.23 | 35.71 | 85.91 | 97.75 |
| LUXEMBOURG | 0.79 | 0.83 | 1.39 | 2.10 | 2.25 | 2.52 | 1.78 | 1.47 | 2.34 | 1.71 | 0.57 |
| NETHERLANDS | 0.86 | 2.36 | 4.72 | 4.48 | 3.19 | 3.16 | 6.89 | 7.93 | 10.02 | 9.85 | 7.25 |
| Total | 31.50 | 37.83 | 60.90 | 70.73 | 78.89 | 69.69 | 96.62 | 137.36 | 162.08 | 208.38 | 158.63 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**GENERAL SERVICES
(IRON AND STEEL
WORKS) TOTAL**

Investment

TABLE XIX c

Capital Expenditure by Areas

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress, approved, or merely planned) | |
|--------------------------------------|--------------------|-------|-------|--------|--------|--------|--------|--------|--------|---|--------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | | 6.35 | 7.42 | 7.77 | 6.96 | 3.95 | 5.43 | 10.45 | 23.82 | 20.16 | 8.23 |
| North Rhine/Westphalia | 27.20 | 24.31 | 26.20 | 30.91 | 28.69 | 21.67 | 31.56 | 47.99 | 47.12 | 40.73 | 21.97 |
| Southern Germany ²⁾ | | 2.00 | 3.39 | 4.13 | 2.40 | 1.30 | 1.45 | 1.30 | 2.12 | 2.13 | 1.43 |
| Saar | 3.65 | 2.51 | 3.44 | 5.34 | 7.03 | 6.18 | 5.54 | 9.62 | 7.26 | 7.02 | 1.35 |
| GERMANY | 30.85 | 35.17 | 40.45 | 48.15 | 45.08 | 33.10 | 43.98 | 69.36 | 80.32 | 70.04 | 32.98 |
| BELGIUM | 4.87 | 6.39 | 6.46 | 11.19 | 13.82 | 13.36 | 17.65 | 15.88 | 18.36 | 24.70 | 20.66 |
| Eastern France | | 18.38 | 18.95 | 25.18 | 39.53 | 46.59 | 41.18 | 38.17 | 43.97 | 45.37 | 14.74 |
| Northern France | 28.57 | 2.88 | 6.08 | 3.95 | 8.51 | 11.30 | 17.23 | 31.02 | 28.07 | 33.32 | 8.81 |
| France - other areas | | 2.16 | 3.86 | 3.48 | 6.86 | 4.88 | 5.33 | 7.40 | 7.53 | 7.23 | 2.29 |
| FRANCE | 28.57 | 23.42 | 28.89 | 32.61 | 54.90 | 62.77 | 63.74 | 77.59 | 79.57 | 85.92 | 25.84 |
| Italy - coastal areas | | 1.64 | 2.35 | 6.16 | 5.50 | 7.85 | 14.88 | 23.26 | 38.27 | 100.77 | 104.91 |
| Italy - other areas | 5.97 | 4.34 | 4.92 | 5.55 | 6.99 | 3.05 | 6.12 | 6.51 | 8.42 | 9.09 | 6.10 |
| ITALY | 5.97 | 5.98 | 7.27 | 11.71 | 12.49 | 10.90 | 21.00 | 29.77 | 46.69 | 109.86 | 115.51 |
| LUXEMBOURG | 2.11 | 3.13 | 3.90 | 4.31 | 3.99 | 3.40 | 2.19 | 2.69 | 3.74 | 3.15 | 0.77 |
| NETHERLANDS | 2.11 | 3.05 | 5.90 | 5.96 | 5.43 | 4.96 | 8.74 | 13.76 | 17.00 | 14.12 | 10.02 |
| Total..... | 74.48 | 77.14 | 92.87 | 113.93 | 135.71 | 128.49 | 157.30 | 209.05 | 245.68 | 307.79 | 205.78 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

SINTER

Production

TABLE XX

Production and Production Potential by Areas

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | 0.7 | 2.1 | 2.3 | 2.1 | 2.1 | 3.0 | 3.0 | 3.0 |
| North Rhine/Westphalia | 8.7 | 15.7 | 17.7 | 16.0 | 17.9 | 18.1 | 19.4 | 20.2 |
| Southern Germany ²⁾ | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Saar | 3.2 | 4.4 | 5.4 | 4.7 | 5.3 | 5.7 | 5.7 | 5.7 |
| GERMANY | 12.7 | 22.5 | 25.7 | 23.1 | 25.6 | 27.1 | 28.4 | 29.2 |
| BELGIUM | 0.7 | 4.3 | 5.5 | 4.9 | 6.6 | 8.5 | 9.4 | 9.4 |
| Eastern France | 1.8 | 6.2 | 8.0 | 7.9 | 12.1 | 14.4 | 16.4 | 17.6 |
| Northern France | 0.1 | 1.2 | 1.5 | 1.4 | 2.9 | 3.2 | 3.1 | 3.1 |
| France - other areas | 0.0 | 0.7 | 0.7 | 0.7 | 0.7 | 1.4 | 1.4 | 1.4 |
| FRANCE | 1.9 | 8.1 | 10.2 | 10.0 | 15.7 | 19.0 | 20.9 | 22.1 |
| Italy - coastal areas | 1.4 | 2.2 | 2.2 | 2.1 | 2.2 | 3.0 | 5.4 | 6.5 |
| Italy - other areas | 0.5 | 0.6 | 0.7 | 0.4 | 0.7 | 0.7 | 0.7 | 0.7 |
| ITALY | 1.9 | 2.8 | 2.9 | 2.5 | 2.9 | 3.7 | 6.1 | 7.2 |
| LUXEMBOURG | 1.2 | 3.1 | 3.4 | 3.2 | 5.1 | 5.5 | 5.5 | 5.5 |
| NETHERLANDS | — | 2.0 | 2.1 | 2.0 | 2.5 | 3.2 | 3.2 | 3.2 |
| Total..... | 18.4 | 42.8 | 49.8 | 45.7 | 58.4 | 67.0 | 73.5 | 76.6 |

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

PIG-IRON

Production

TABLE XXI**Production and Production Potential by Areas**

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | 2.1 | 3.6 | 3.8 | 3.0 | 3.8 | 3.9 | 4.0 | 4.7 |
| North Rhine/Westphalia | 13.8 | 19.5 | 21.0 | 16.7 | 21.6 | 22.7 | 24.0 | 24.5 |
| Southern Germany ²⁾ | 1.1 | 1.4 | 1.4 | 1.1 | 1.5 | 1.5 | 1.5 | 1.5 |
| Saar | 3.0 | 3.7 | 3.6 | 3.4 | 3.7 | 4.0 | 4.0 | 4.0 |
| GERMANY | 20.0 | 28.2 | 29.8 | 24.2 | 30.6 | 32.1 | 33.5 | 34.7 |
| BELGIUM | 5.5 | 7.5 | 7.6 | 6.8 | 8.0 | 8.8 | 9.1 | 10.0 |
| Eastern France | 8.5 | 11.8 | 12.1 | 10.6 | 12.8 | 13.4 | 14.0 | 14.4 |
| Northern France | 2.0 | 2.6 | 2.6 | 2.3 | 3.5 | 4.1 | 4.1 | 4.3 |
| France - other areas | 0.9 | 1.3 | 1.2 | 1.1 | 1.2 | 1.3 | 1.2 | 1.2 |
| FRANCE | 11.4 | 15.7 | 15.9 | 14.0 | 17.5 | 18.8 | 19.3 | 19.9 |
| Italy - coastal areas | 1.4 | 2.7 | 3.3 | 3.2 | 3.6 | 4.1 | 6.3 | 7.5 |
| Italy - other areas | 0.4 | 0.6 | 0.6 | 0.4 | 0.6 | 0.6 | 0.7 | 0.7 |
| ITALY | 1.8 | 3.3 | 3.9 | 3.6 | 4.2 | 4.7 | 7.0 | 8.2 |
| LUXEMBOURG | 3.1 | 3.9 | 4.0 | 3.6 | 4.1 | 4.4 | 4.6 | 4.6 |
| NETHERLANDS | 0.7 | 1.5 | 1.7 | 1.6 | 1.8 | 2.2 | 2.4 | 2.4 |
| Total..... | 42.5 | 60.1 | 62.9 | 53.8 | 66.2 | 71.0 | 75.9 | 79.8 |

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

BASIC BESSEMER STEEL

Production

TABLE XXII a

Production and Production Potential by Areas

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | 1·0 | 1·9 | 1·8 | 1·4 | 1·7 | 1·4 | 1·2 | 1·2 |
| North Rhine/Westphalia | 8·0 | 10·2 | 9·8 | 8·7 | 9·3 | 8·3 | 8·1 | 7·5 |
| Southern Germany ²⁾ | 0·4 | 0·6 | 0·6 | 0·5 | 0·6 | 0·6 | 0·6 | 0·6 |
| Saar | 2·5 | 2·9 | 2·9 | 2·7 | 2·9 | 3·0 | 3·0 | 3·0 |
| GERMANY | 11·9 | 15·6 | 15·1 | 13·3 | 14·5 | 13·3 | 12·9 | 12·3 |
| BELGIUM | 5·2 | 6·8 | 6·9 | 6·4 | 7·2 | 7·1 | 6·8 | 6·3 |
| Eastern France | 6·7 | 8·9 | 9·5 | 8·3 | 9·6 | 9·8 | 10·0 | 10·0 |
| Northern France | 1·1 | 1·5 | 1·5 | 1·3 | 1·6 | 1·6 | 1·6 | 1·6 |
| France - other areas | 0·3 | 0·5 | 0·5 | 0·4 | 0·5 | 0·6 | 0·6 | 0·6 |
| FRANCE | 8·1 | 10·9 | 11·5 | 10·0 | 11·7 | 12·0 | 12·2 | 12·2 |
| Italy - coastal areas | 0·4 | 0·7 | 0·7 | 0·6 | 0·7 | 0·4 | — | — |
| Italy - other areas | — | — | — | — | — | — | — | — |
| ITALY | 0·4 | 0·7 | 0·7 | 0·6 | 0·7 | 0·4 | — | — |
| LUXEMBOURG | 3·2 | 4·1 | 4·1 | 3·8 | 4·2 | 4·2 | 4·3 | 4·1 |
| NETHERLANDS | — | — | — | — | — | — | — | — |
| Total..... | 28·8 | 38·1 | 38·3 | 34·1 | 38·3 | 37·0 | 36·2 | 34·9 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

| |
|-------------------|
| OPEN-HEARTH STEEL |
|-------------------|

| |
|------------|
| Production |
|------------|

TABLE XXII b

Production and Production Potential by Areas

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | 1.3 | 2.4 | 2.5 | 2.2 | 2.8 | 2.8 | 3.0 | 3.1 |
| North Rhine/Westphalia | 9.3 | 13.0 | 13.4 | 11.4 | 13.2 | 13.2 | 13.1 | 13.0 |
| Southern Germany ²⁾ | 0.9 | 1.0 | 0.8 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 |
| Saar | 0.7 | 0.9 | 0.9 | 0.8 | 1.0 | 1.0 | 1.0 | 1.0 |
| GERMANY | 12.2 | 17.3 | 17.6 | 15.0 | 17.7 | 17.7 | 17.8 | 17.8 |
| BELGIUM | 0.7 | 0.8 | 0.7 | 0.5 | 0.6 | 0.6 | 0.6 | 0.5 |
| Eastern France | 1.8 | 2.4 | 2.5 | 2.2 | 2.6 | 2.5 | 2.5 | 2.5 |
| Northern France | 1.5 | 2.3 | 2.4 | 2.2 | 2.4 | 2.5 | 2.5 | 2.5 |
| France - other areas | 0.9 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 |
| FRANCE | 4.2 | 5.3 | 5.5 | 4.9 | 5.6 | 5.6 | 5.6 | 5.6 |
| Italy - coastal areas | 1.4 | 3.1 | 3.3 | 3.2 | 3.4 | 3.5 | 3.8 | 3.8 |
| Italy - other areas | 1.8 | 2.2 | 2.3 | 2.0 | 2.3 | 2.3 | 2.3 | 2.3 |
| ITALY | 3.2 | 5.3 | 5.6 | 5.2 | 5.7 | 5.8 | 6.1 | 6.1 |
| LUXEMBOURG | — | — | — | — | — | — | — | — |
| NETHERLANDS | 0.9 | 1.2 | 1.2 | 0.8 | 1.2 | 1.2 | 1.2 | 1.2 |
| Total..... | 21.2 | 29.9 | 30.6 | 26.4 | 30.8 | 30.9 | 31.3 | 31.2 |

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

ELECTRIC-FURNACE
STEEL

Production

TABLE XXII c

Production and Production Potential by Areas

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|-----------------------------|-------------|-------------|-------------------------------|--------------------------------------|-------------|-------------|-------------|
| | 1955¹⁾ | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ²⁾ | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| North Rhine/Westphalia | 0.9 | 2.1 | 2.5 | 2.1 | 2.5 | 2.5 | 2.6 | 2.6 |
| Southern Germany ³⁾ | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 |
| Saar | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| GERMANY | 1.2 | 2.6 | 3.0 | 2.6 | 3.0 | 3.0 | 3.2 | 3.2 |
| BELGIUM | 0.4 | 0.6 | 0.7 | 0.4 | 0.6 | 0.7 | 0.6 | 0.6 |
| Eastern France | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 |
| Northern France | 0.2 | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 |
| France - other areas | 0.6 | 1.2 | 1.2 | 0.9 | 1.3 | 1.3 | 1.3 | 1.4 |
| FRANCE | 1.1 | 1.8 | 1.9 | 1.5 | 2.0 | 2.2 | 2.2 | 2.3 |
| Italy - coastal areas | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Italy - other areas | 1.9 | 3.5 | 3.7 | 3.3 | 3.9 | 4.4 | 4.5 | 4.7 |
| ITALY | 2.1 | 3.8 | 4.1 | 3.7 | 4.3 | 4.8 | 4.9 | 5.1 |
| LUXEMBOURG | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| NETHERLANDS | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 |
| Total..... | 5.0 | 9.1 | 10.0 | 8.5 | 10.2 | 11.1 | 11.3 | 11.6 |

¹⁾ For 1955, including "other steels".

²⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

³⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**LD, ROTOR AND
OTHER STEELS**

Production

TABLE XXII d
Production and Production Potential by Areas

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | . | 0.2 | 0.4 | 0.3 | 0.5 | 0.9 | 1.5 | 1.7 |
| North Rhine/Westphalia | . | 1.1 | 1.8 | 1.2 | 3.4 | 5.0 | 5.5 | 8.5 |
| Southern Germany ²⁾ | . | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Saar | . | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| GERMANY | . | 1.4 | 2.4 | 1.7 | 4.1 | 6.1 | 7.2 | 10.4 |
| BELGIUM | . | 0.0 | 0.0 | 0.0 | 0.4 | 1.5 | 2.0 | 3.7 |
| Eastern France | . | 0.3 | 0.5 | 0.5 | 0.6 | 0.8 | 0.8 | 0.8 |
| Northern France | . | 0.2 | 0.3 | 0.2 | 1.1 | 1.6 | 1.7 | 1.9 |
| France - other areas | . | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| FRANCE | . | 0.6 | 0.9 | 0.8 | 1.8 | 2.5 | 2.6 | 2.8 |
| Italy - coastal areas | . | — | — | — | — | 1.1 | 3.6 | 5.2 |
| Italy - other areas | . | — | — | — | — | — | — | — |
| ITALY | . | — | — | — | — | 1.1 | 3.6 | 5.2 |
| LUXEMBOURG | . | — | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 0.5 |
| NETHERLANDS | . | 0.8 | 1.1 | 1.1 | 1.5 | 1.8 | 1.8 | 1.8 |
| Total..... | . | 2.8 | 4.5 | 3.7 | 7.9 | 13.3 | 17.6 | 24.4 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

STEEL - TOTAL

Production

TABLE XXIIe

Production and Production Potential by Areas

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|-------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | 2.4 | 4.7 | 4.9 | 4.1 | 5.2 | 5.3 | 5.9 | 6.2 |
| North Rhine/Westphalia | 18.2 | 26.4 | 27.5 | 23.4 | 28.4 | 29.0 | 29.3 | 31.6 |
| Southern Germany ²⁾ | 1.4 | 1.8 | 1.5 | 1.2 | 1.4 | 1.4 | 1.5 | 1.5 |
| Saar | 3.3 | 4.0 | 4.2 | 3.9 | 4.3 | 4.4 | 4.4 | 4.4 |
| GERMANY | 25.3 | 36.9 | 38.1 | 32.6 | 39.3 | 40.1 | 41.1 | 43.7 |
| BELGIUM | 6.3 | 8.2 | 8.3 | 7.3 | 8.8 | 9.9 | 10.0 | 11.1 |
| Eastern France | 8.8 | 12.0 | 12.9 | 11.4 | 13.2 | 13.7 | 13.9 | 13.9 |
| Northern France | 2.8 | 4.2 | 4.5 | 3.9 | 5.4 | 6.0 | 6.1 | 6.3 |
| France - other areas | 1.8 | 2.4 | 2.4 | 1.9 | 2.5 | 2.6 | 2.6 | 2.7 |
| FRANCE | 13.4 | 18.6 | 19.8 | 17.2 | 21.1 | 22.3 | 22.6 | 22.9 |
| Italy - coastal areas | 2.0 | 4.1 | 4.4 | 4.2 | 4.5 | 5.4 | 7.8 | 9.4 |
| Italy - other areas | 3.7 | 5.7 | 6.0 | 5.3 | 6.2 | 6.7 | 6.8 | 7.0 |
| ITALY | 5.7 | 9.8 | 10.4 | 9.5 | 10.7 | 12.1 | 14.6 | 16.4 |
| LUXEMBOURG | 3.3 | 4.2 | 4.3 | 4.0 | 4.4 | 4.6 | 4.8 | 4.7 |
| NETHERLANDS | 1.0 | 2.2 | 2.5 | 2.1 | 2.9 | 3.3 | 3.3 | 3.3 |
| Total..... | 55.0 | 79.9 | 83.4 | 72.7 | 87.2 | 92.3 | 96.4 | 102.1 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

SECTIONS

Production

TABLE XXIII a
Production and Production Potential by Areas

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | 1·0 | 1·4 | 1·5 | 1·2 | 1·6 | 1·8 | 1·9 | 2·0 |
| North Rhine/Westphalia | 6·4 | 9·1 | 9·3 | 7·4 | 9·7 | 9·8 | 10·2 | 10·6 |
| Southern Germany ²⁾ | 0·6 | 0·7 | 0·7 | 0·6 | 0·7 | 0·7 | 0·7 | 0·7 |
| Saar | 1·6 | 2·1 | 2·1 | 1·9 | 2·3 | 2·7 | 2·7 | 2·7 |
| GERMANY | 9·6 | 13·3 | 13·6 | 11·1 | 14·3 | 15·0 | 15·5 | 16·0 |
| BELGIUM | 2·9 | 3·4 | 3·7 | 3·0 | 3·9 | 4·0 | 4·2 | 4·3 |
| Eastern France | 4·0 | 5·5 | 5·4 | 4·7 | 5·5 | 6·0 | 6·1 | 6·0 |
| Northern France | 0·9 | 1·2 | 1·3 | 1·1 | 1·8 | 1·9 | 1·9 | 1·9 |
| France - other areas | 1·1 | 1·1 | 1·2 | 1·0 | 1·2 | 1·3 | 1·4 | 1·4 |
| FRANCE | 6·0 | 7·8 | 7·9 | 6·8 | 8·5 | 9·2 | 9·4 | 9·3 |
| Italy - coastal areas | 0·8 | 1·1 | 1·1 | 1·1 | 1·3 | 1·4 | 1·7 | 2·0 |
| Italy - other areas | 1·6 | 3·4 | 3·7 | 3·1 | 3·8 | 3·9 | 4·0 | 4·0 |
| ITALY | 2·4 | 4·5 | 4·8 | 4·2 | 5·1 | 5·3 | 5·7 | 6·0 |
| LUXEMBOURG | 1·8 | 2·2 | 2·2 | 1·9 | 2·2 | 2·2 | 2·3 | 2·4 |
| NETHERLANDS | 0·2 | 0·2 | 0·2 | 0·1 | 0·2 | 0·3 | 0·7 | 0·8 |
| Total..... | 22·9 | 31·4 | 32·4 | 27·1 | 34·2 | 36·0 | 37·8 | 38·8 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

FLAT PRODUCTS

Production

TABLE XXIII b

Production and Production Potential by Areas

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | 0.4 | 1.1 | 1.3 | 1.2 | 1.6 | 1.8 | 2.0 | 1.9 |
| North Rhine/Westphalia | 5.5 | 8.7 | 9.1 | 7.1 | 9.6 | 9.8 | 10.2 | 10.2 |
| Southern Germany ²⁾ | 0.6 | 0.9 | 1.1 | 0.8 | 1.3 | 1.4 | 1.4 | 1.4 |
| Saar | 0.8 | 0.9 | 0.8 | 0.7 | 0.9 | 1.0 | 1.0 | 1.0 |
| GERMANY | 7.3 | 11.6 | 12.3 | 9.8 | 13.4 | 14.0 | 14.6 | 14.5 |
| BELGIUM | 1.9 | 2.4 | 2.6 | 2.1 | 2.8 | 3.2 | 3.4 | 4.0 |
| Eastern France | 2.0 | 4.3 | 4.6 | 3.8 | 4.7 | 4.7 | 4.7 | 4.7 |
| Northern France | 0.6 | 2.0 | 2.1 | 1.7 | 2.6 | 2.8 | 2.8 | 2.8 |
| France - other areas | 1.4 | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 |
| FRANCE | 4.0 | 6.7 | 7.2 | 5.9 | 7.8 | 8.0 | 8.0 | 8.0 |
| Italy - coastal areas | 0.7 | 1.6 | 1.7 | 1.7 | 1.6 | 2.0 | 2.5 | 2.7 |
| Italy - other areas | 0.8 | 1.6 | 1.6 | 1.2 | 2.0 | 2.6 | 2.7 | 2.7 |
| ITALY | 1.5 | 3.2 | 3.3 | 2.9 | 3.6 | 4.6 | 5.2 | 5.4 |
| LUXEMBOURG | 0.7 | 1.0 | 1.0 | 1.0 | 1.1 | 1.2 | 1.1 | 1.1 |
| NETHERLANDS | 0.8 | 1.2 | 1.6 | 1.3 | 1.6 | 1.8 | 1.8 | 1.8 |
| Total..... | 16.2 | 26.1 | 28.0 | 23.0 | 30.3 | 32.8 | 34.1 | 34.8 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**FINISHED ROLLED
PRODUCTS - TOTAL**

Production

TABLE XXIII c

Production and Production Potential by Areas

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | 1·4 | 2·5 | 2·8 | 2·4 | 3·2 | 3·6 | 3·9 | 3·9 |
| North Rhine/Westphalia | 11·9 | 17·8 | 18·4 | 14·5 | 19·3 | 19·6 | 20·4 | 20·8 |
| Southern Germany ²⁾ | 1·2 | 1·6 | 1·8 | 1·4 | 2·0 | 2·1 | 2·1 | 2·1 |
| Saar | 2·4 | 3·0 | 2·9 | 2·6 | 3·2 | 3·7 | 3·7 | 3·7 |
| GERMANY | 16·9 | 24·9 | 25·9 | 20·9 | 27·7 | 29·0 | 30·1 | 30·5 |
| BELGIUM | 4·8 | 5·8 | 6·3 | 5·1 | 6·7 | 7·2 | 7·6 | 8·3 |
| Eastern France | 6·0 | 9·8 | 10·0 | 8·5 | 10·2 | 10·7 | 10·8 | 10·7 |
| Northern France | 1·5 | 3·2 | 3·4 | 2·8 | 4·4 | 4·7 | 4·7 | 4·7 |
| France - other areas | 2·5 | 1·5 | 1·7 | 1·4 | 1·7 | 1·8 | 1·9 | 1·9 |
| FRANCE | 10·0 | 14·5 | 15·1 | 12·7 | 16·3 | 17·2 | 17·4 | 17·3 |
| Italy - coastal areas | 1·5 | 2·7 | 2·8 | 2·8 | 2·9 | 3·4 | 4·2 | 4·7 |
| Italy - other areas | 2·4 | 5·0 | 5·3 | 4·3 | 5·8 | 6·5 | 6·7 | 6·7 |
| ITALY | 3·9 | 7·7 | 8·1 | 7·1 | 8·7 | 9·9 | 10·9 | 11·4 |
| LUXEMBOURG | 2·5 | 3·2 | 3·2 | 2·9 | 3·3 | 3·4 | 3·4 | 3·5 |
| NETHERLANDS | 1·0 | 1·4 | 1·8 | 1·4 | 1·8 | 2·1 | 2·5 | 2·6 |
| Total..... | 39·1 | 57·5 | 60·4 | 50·1 | 64·5 | 68·8 | 71·9 | 73·6 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

**HEAVY AND LIGHT
SECTIONS (INCLUDING
TUBE ROUNDS AND
SQUARES)**

Production**TABLE XXIV a****Production and Production Potential by Areas**

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | 1.0 | 1.4 | 1.5 | 1.2 | 1.5 | 1.5 | 1.6 | 1.7 |
| North Rhine/Westphalia | 5.1 | 7.1 | 7.2 | 5.7 | 7.3 | 7.4 | 7.7 | 8.1 |
| Southern Germany ²⁾ | 0.6 | 0.7 | 0.7 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 |
| Saar | 1.3 | 1.7 | 1.7 | 1.6 | 1.9 | 2.3 | 2.3 | 2.3 |
| GERMANY | 8.0 | 10.9 | 11.1 | 9.1 | 11.4 | 11.9 | 12.3 | 12.8 |
| BELGIUM | 2.4 | 2.7 | 3.0 | 2.4 | 3.0 | 3.0 | 3.2 | 3.3 |
| Eastern France | 3.4 | 3.9 | 4.0 | 3.4 | 3.9 | 4.0 | 4.1 | 4.1 |
| Northern France | 0.9 | 1.2 | 1.3 | 1.1 | 1.5 | 1.5 | 1.5 | 1.5 |
| France - other areas | 0.6 | 0.9 | 0.9 | 0.7 | 0.9 | 1.0 | 1.1 | 1.1 |
| FRANCE | 4.9 | 6.0 | 6.2 | 5.2 | 6.3 | 6.5 | 6.7 | 6.7 |
| Italy - coastal areas | 0.7 | 1.0 | 1.0 | 1.0 | 1.2 | 1.3 | 1.6 | 1.9 |
| Italy - other areas | 1.2 | 2.8 | 3.1 | 2.6 | 3.2 | 3.3 | 3.4 | 3.4 |
| ITALY | 1.9 | 3.8 | 4.1 | 3.6 | 4.4 | 4.6 | 5.0 | 5.3 |
| LUXEMBOURG | 1.5 | 1.9 | 1.9 | 1.7 | 1.9 | 1.9 | 2.0 | 2.1 |
| NETHERLANDS | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 | 0.4 | 0.4 |
| Total | 18.8 | 25.4 | 26.4 | 22.0 | 27.1 | 28.1 | 29.6 | 30.6 |

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

WIRE-ROD

Production

TABLE XXIV b

Production and Production Potential by Areas

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | — | — | — | — | 0.1 | 0.3 | 0.3 | 0.3 |
| North Rhine/Westphalia | 1.3 | 2.0 | 2.1 | 1.7 | 2.4 | 2.4 | 2.5 | 2.5 |
| Southern Germany ²⁾ | — | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Saar | 0.3 | 0.4 | 0.4 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 |
| GERMANY | 1.6 | 2.4 | 2.5 | 2.0 | 2.9 | 3.1 | 3.2 | 3.2 |
| BELGIUM | 0.5 | 0.7 | 0.7 | 0.6 | 0.9 | 1.0 | 1.0 | 1.0 |
| Eastern France | 0.6 | 1.6 | 1.4 | 1.3 | 1.6 | 2.0 | 2.0 | 1.9 |
| Northern France | — | — | — | — | 0.3 | 0.4 | 0.4 | 0.4 |
| France - other areas | 0.5 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| FRANCE | 1.1 | 1.8 | 1.7 | 1.6 | 2.2 | 2.7 | 2.7 | 2.6 |
| Italy - coastal areas | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Italy - other areas | 0.4 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 |
| ITALY | 0.5 | 0.7 | 0.7 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 |
| LUXEMBOURG | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 |
| NETHERLANDS | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 |
| Total..... | 4.1 | 6.0 | 6.0 | 5.1 | 7.1 | 7.9 | 8.2 | 8.2 |

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

**HOOP AND STRIP
AND TUBE STRIP**

Production**TABLE XXIV c****Production and Production Potential by Areas**

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | — | — | — | — | — | — | — | — |
| North Rhine/Westphalia | 1.5 | 2.4 | 2.5 | 1.9 | 2.6 | 2.6 | 2.6 | 2.6 |
| Southern Germany ²⁾ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Saar | 0.2 | 0.3 | 0.3 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 |
| GERMANY | 1.7 | 2.7 | 2.8 | 2.1 | 2.9 | 3.0 | 3.0 | 3.0 |
| BELGIUM | 0.3 | 0.4 | 0.4 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 |
| Eastern France | 0.6 | 1.0 | 1.1 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 |
| Northern France | — | 0.0 | 0.0 | 0.0 | — | — | — | — |
| France - other areas | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| FRANCE | 0.6 | 1.0 | 1.1 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 |
| Italy - coastal areas | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 |
| Italy - other areas | 0.1 | 0.4 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 |
| ITALY | 0.2 | 0.6 | 0.5 | 0.4 | 0.6 | 0.6 | 0.6 | 0.6 |
| LUXEMBOURG | 0.4 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.6 | 0.6 |
| NETHERLANDS | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Total | 3.3 | 5.4 | 5.5 | 4.5 | 5.7 | 5.9 | 5.8 | 5.9 |

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

**PLATE > 3 mm.
(INCLUDING
WIDE FLAT STEEL)**

Production

TABLE XXIV d

Production and Production Potential by Areas

'000,000 metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | 0.4 | 0.8 | 0.9 | 0.8 | 0.9 | 0.9 | 0.9 | 0.8 |
| North Rhine/Westphalia | 2.4 | 3.8 | 3.8 | 3.0 | 4.0 | 4.1 | 4.0 | 3.9 |
| Southern Germany ²⁾ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Saar | 0.4 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 |
| GERMANY | 3.2 | 5.1 | 5.2 | 4.3 | 5.5 | 5.6 | 5.5 | 5.3 |
| BELGIUM | 0.7 | 0.8 | 0.8 | 0.6 | 0.8 | 1.0 | 1.1 | 1.1 |
| Eastern France | 0.6 | 1.1 | 1.3 | 0.9 | 1.3 | 1.3 | 1.3 | 1.3 |
| Northern France | 0.3 | 0.5 | 0.5 | 0.4 | 0.7 | 0.8 | 0.7 | 0.7 |
| France - other areas | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| FRANCE | 1.1 | 1.7 | 1.9 | 1.4 | 2.1 | 2.2 | 2.1 | 2.1 |
| Italy - coastal areas | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.8 | 1.0 | 1.2 |
| Italy - other areas | 0.3 | 0.6 | 0.6 | 0.4 | 0.6 | 0.6 | 0.7 | 0.7 |
| ITALY | 0.6 | 1.2 | 1.2 | 1.0 | 1.2 | 1.4 | 1.7 | 1.9 |
| LUXEMBOURG | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 |
| NETHERLANDS | 0.3 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Total..... | 6.0 | 9.4 | 9.6 | 7.8 | 10.2 | 10.8 | 11.0 | 11.0 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

HOT-ROLLED SHEET
< 3 mm.

Production

TABLE XXIVe
Production and Production Potential by Areas

'ooo metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | — | 0·0 | 0·0 | 0·0 | 0·0 | 0·0 | 0·0 | 0·0 |
| North Rhine/Westphalia | 1·1 | 1·0 | 1·0 | 0·7 | 1·0 | 1·0 | 0·9 | 0·9 |
| Southern Germany ²⁾ | 0·4 | 0·4 | 0·3 | 0·2 | 0·2 | 0·2 | 0·2 | 0·2 |
| Saar | 0·1 | 0·1 | 0·0 | 0·0 | 0·0 | 0·0 | 0·0 | 0·0 |
| GERMANY | 1·6 | 1·5 | 1·3 | 0·9 | 1·2 | 1·2 | 1·1 | 1·1 |
| BELGIUM | 0·5 | 0·4 | 0·3 | 0·2 | 0·2 | 0·2 | 0·2 | 0·4 |
| Eastern France | 0·2 | 0·6 | 0·4 | 0·3 | 0·3 | 0·3 | 0·3 | 0·3 |
| Northern France | 0·3 | 0·4 | 0·3 | 0·2 | 0·3 | 0·2 | 0·2 | 0·2 |
| France - other areas | 0·6 | 0·1 | 0·1 | 0·1 | 0·1 | 0·1 | 0·1 | 0·1 |
| FRANCE | 1·1 | 1·1 | 0·8 | 0·6 | 0·7 | 0·6 | 0·6 | 0·6 |
| Italy - coastal areas | 0·1 | 0·1 | 0·1 | 0·1 | 0·1 | 0·1 | 0·4 | 0·4 |
| Italy - other areas | 0·2 | 0·1 | 0·1 | 0·1 | 0·1 | 0·1 | 0·1 | 0·1 |
| ITALY | 0·3 | 0·2 | 0·2 | 0·2 | 0·2 | 0·2 | 0·5 | 0·5 |
| LUXEMBOURG | — | — | 0·0 | — | 0·0 | 0·0 | 0·0 | 0·0 |
| NETHERLANDS | 0·0 | 0·0 | 0·0 | 0·0 | 0·0 | — | — | — |
| Total..... | 3·5 | 3·2 | 2·6 | 1·9 | 2·3 | 2·2 | 2·4 | 2·6 |

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

**COLD-REDUCED SHEET
< 3 mm.**

Production

TABLE XXIVf

Production and Production Potential by Areas

*ooo,ooo metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|------------------------|-------------------------------|------|------|------|
| | 1955 | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ¹⁾ | — | 0.3 | 0.4 | 0.4 | 0.7 | 0.9 | 1.1 | 1.1 |
| North Rhine Westphalia | 0.5 | 1.5 | 1.8 | 1.5 | 2.0 | 2.1 | 2.7 | 2.8 |
| Southern Germany ²⁾ | 0.2 | 0.5 | 0.8 | 0.6 | 1.1 | 1.2 | 1.2 | 1.2 |
| Saar | 0.1 | — | — | — | — | — | — | — |
| GERMANY | 0.8 | 2.3 | 3.0 | 2.5 | 3.8 | 4.2 | 5.0 | 5.1 |
| BELGIUM | 0.4 | 0.8 | 1.1 | 1.0 | 1.4 | 1.6 | 1.7 | 2.0 |
| Eastern France | 0.6 | 1.6 | 1.8 | 1.6 | 2.0 | 2.0 | 2.0 | 2.0 |
| Northern France | 0.0 | 1.1 | 1.3 | 1.1 | 1.6 | 1.8 | 1.9 | 1.9 |
| France - other areas | 0.6 | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 |
| FRANCE | 1.2 | 2.9 | 3.4 | 2.9 | 3.9 | 4.1 | 4.2 | 4.2 |
| Italy - coastal areas | 0.2 | 0.7 | 0.8 | 0.8 | 0.6 | 0.8 | 0.8 | 0.8 |
| Italy - other areas | 0.2 | 0.5 | 0.6 | 0.5 | 1.0 | 1.6 | 1.6 | 1.6 |
| ITALY | 0.4 | 1.2 | 1.4 | 1.3 | 1.6 | 2.4 | 2.4 | 2.4 |
| LUXEMBOURG | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| NETHERLANDS | 0.4 | 0.6 | 1.1 | 0.8 | 1.1 | 1.3 | 1.3 | 1.3 |
| Total..... | 3.4 | 8.1 | 10.3 | 8.8 | 12.1 | 13.9 | 14.9 | 15.3 |

¹⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.

²⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.

HOT WIDE-STRIP MILLS

Investment
 (already included in the
 capital expenditure for the flat-
 product mills, Table XVIIIc)

TABLE XXV a**Capital Expenditure by Areas**

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

| Area | Actual expenditure | | | | | | | | | Estimated expenditure (projects in progress or approved) | |
|--------------------------------------|--------------------|------|------|------|------|------|------|------|------|---|------|
| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
| Northern Germany ¹⁾ | . | 14.5 | 12.6 | 9.4 | 5.9 | — | 3.6 | 21.3 | 8.5 | 11.3 | 3.3 |
| North Rhine/Westphalia | . | 12.7 | 9.4 | 15.4 | 3.1 | 3.9 | 7.7 | 13.1 | 13.9 | 29.9 | 13.9 |
| Southern Germany ²⁾ | — | — | — | — | — | — | — | — | — | — | — |
| Saar | — | — | — | — | — | — | — | — | — | — | — |
| GERMANY | . | 27.2 | 22.0 | 24.8 | 9.0 | 3.9 | 11.3 | 34.4 | 22.4 | 41.2 | 17.2 |
| BELGIUM | . | 0.9 | 1.6 | 2.1 | 1.1 | 1.9 | 6.1 | 7.4 | 8.9 | 34.1 | 21.8 |
| Eastern France | . | 1.8 | 0.9 | 1.3 | 2.8 | 2.4 | 2.3 | 2.0 | 1.5 | 1.0 | 0.6 |
| Northern France | : | 1.1 | 1.6 | 0.4 | 0.0 | — | 4.6 | 20.0 | 27.7 | 20.2 | 10.6 |
| France - other areas | . | 0.8 | 1.0 | 0.2 | — | — | — | — | — | — | — |
| FRANCE | . | 3.7 | 3.5 | 1.9 | 2.8 | 2.4 | 6.9 | 22.0 | 29.2 | 21.2 | 11.2 |
| Italy - coastal areas | . | 0.4 | 0.5 | 1.7 | 0.8 | 6.5 | 1.0 | 1.0 | 0.1 | 0.4 | 0.1 |
| Italy - other areas | . | 2.4 | 0.8 | 0.6 | 0.4 | 0.6 | 0.9 | 1.4 | 3.8 | 24.1 | 10.9 |
| ITALY | . | 2.8 | 1.3 | 2.3 | 1.2 | 7.1 | 1.9 | 2.4 | 3.9 | 24.5 | 11.0 |
| LUXEMBOURG | . | 0.2 | 0.1 | 0.2 | 0.3 | 0.1 | 0.6 | 0.0 | 0.0 | 0.1 | 0.0 |
| NETHERLANDS | . | 1.0 | 1.8 | 0.6 | 1.8 | 0.6 | 0.7 | 0.8 | 0.7 | 0.1 | 0.2 |
| Total..... | 31.6 | 35.8 | 30.3 | 31.9 | 16.2 | 16.0 | 27.5 | 67.0 | 65.1 | 121.2 | 61.4 |

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

COILS ¹⁾

Production

TABLE XXVb

Production and Production Potential by Areas

²ooo,ooo metric tons

| Area | Production potential | | | Actual production 1962 | Expected production potential | | | |
|--------------------------------------|----------------------|------|------|---------------------------|-------------------------------|------|------|------|
| | 1955 ²⁾ | 1961 | 1962 | | 1963 | 1964 | 1965 | 1966 |
| Northern Germany ³⁾ | 0.3 | 0.5 | 0.6 | 0.6 | 1.0 | 1.4 | 1.6 | 1.7 |
| North Rhine/Westphalia | 1.7 | 2.9 | 3.3 | 2.8 | 3.5 | 4.1 | 5.1 | 6.4 |
| Southern Germany ⁴⁾ | — | 0.0 | — | — | — | — | — | — |
| Saar | — | — | — | — | — | — | — | — |
| GERMANY | 2.0 | 3.4 | 3.9 | 3.4 | 4.5 | 5.5 | 6.7 | 8.1 |
| BELGIUM | 1.0 | 1.4 | 1.4 | 1.4 | 1.7 | 2.3 | 2.6 | 3.2 |
| Eastern France | 1.5 | 2.1 | 2.3 | 2.1 | 2.3 | 2.3 | 2.3 | 2.3 |
| Northern France | 1.1 | 1.5 | 1.7 | 1.6 | 1.7 | 2.2 | 2.3 | 2.5 |
| France - other areas | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| FRANCE | 2.7 | 3.7 | 4.1 | 3.8 | 4.1 | 4.6 | 4.7 | 4.9 |
| Italy - coastal areas | 0.9 | 1.4 | 1.5 | 1.4 | 1.6 | 1.9 | 2.9 | 3.0 |
| Italy - other areas | 2.0 | 0.3 | 0.1 | 0.1 | 0.2 | 0.4 | 0.5 | 0.5 |
| ITALY | 1.1 | 1.7 | 1.6 | 1.5 | 1.8 | 2.3 | 3.4 | 3.5 |
| LUXEMBOURG | 0.4 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| NETHERLANDS | 0.8 | 1.0 | 1.3 | 1.1 | 1.4 | 1.4 | 1.4 | 1.4 |
| Total | 8.0 | 11.7 | 12.7 | 11.6 | 13.9 | 16.5 | 19.2 | 21.5 |

¹⁾ The products of the Treaty obtained by transformation of hot-rolled coils are included in the tables XXIII b, XXIV c, -d, -e and -f.²⁾ Figures for 1955 are approximations only.³⁾ Schleswig-Holstein, Lower Saxony, Hamburg, Bremen.⁴⁾ Hesse, Rhineland-Palatinate, Baden-Württemberg, Bavaria.