

**FOREIGN OWNERSHIP IN NORWEGIAN  
ENTERPRISES**



**SAMFUNNSØKONOMISKE STUDIER NR. 14**



**FOREIGN OWNERSHIP IN  
NORWEGIAN ENTERPRISES**

**UTENLANDSKE EIERINTERESSER I  
NORSKE BEDRIFTER**

By/Av

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**STATISTISK SENTRALBYRÅ  
CENTRAL BUREAU OF STATISTICS OF NORWAY  
OSLO 1965**



## Forord

Den avhandlingen som her legges fram som nr. 14 i serien Samfunns-økonomiske studier, er utarbeidd av amerikaneren Arthur Stonehill.

Materialet til avhandlingen samlet han under opphold i Norge i tida 1962 til 1964. Det omfatter resultatene av intervjuer og enquête-undersøkelser som dr. Stonehill selv foretok, opplysninger fra Industri- og håndverksdepartementet og Norges Bank og diverse statistiske oppgaver som er utarbeidd av Statistisk Sentralbyrå. Manuskriptet ble i hovedsak utarbeidd mens dr. Stonehill var tilsatt i Statistisk Sentralbyrå, men fikk sin endelige form etter at han var vendt tilbake til U.S.A. På grunnlag av denne avhandlingen er Arthur Stonehill tildelt graden doctor of philosophy ved University of California, Berkeley.

Det materiale som er samlet og analysert i denne avhandlingen, kaster nytt lys over de utenlandske investeringer i norsk næringsliv.

Avhandlingens første del gir en inngående historisk analyse av norsk kapitalimport og direkte utenlandske investeringer i norske bedrifter og foretak fra 1814 til 1964. Forfatteren analyserer sammenhengen mellom utenlandsk finansiering, betalingsbalansen og den totale investeringsvirksomhet innenfor den industrialiseringsprosess Norge gjennomgikk. Analysen omfatter også en undersøkelse av virkningene av skiftende konjunkturer og norsk lovgivning. De større utenlandsk-finansierte foretakenes oppkomst og betydning følges fra næring til næring gjennom de hovedfaser utviklingen har gjennomløpt i dette tidsrommet.

I annen del av avhandlingen reiser forfatteren spørsmålet om de utenlandske investeringene har vært til fordel eller ulempe for norsk økonomi. Svaret på et slikt spørsmål vil delvis måtte avhenge av de vurderinger som legges til grunn. Men skal vurderingene ha noen mening, må de bygge på det best mulige kjennskap til de konkrete virkninger av disse investeringene.

Forfatteren tar for seg de forskjellige grupper som er velferdsmessig avhengig av de foretakene det gjelder: de ansatte, norske og utenlandske investorer, og det norske samfunn generelt. For å belyse virkningene for disse gruppene undersøker han om det kan påvises ulikheter når bedrifter under varierende grad av utenlandsk kontroll sammenliknes med andre norske bedrifter med omsyn til vekst og stabilitet overfor konjunktursvingninger: i sysselsetting og lønnsutbetalinger, investeringspolitikk, utbytter og skattegrunnlag etc. Denne analysen bygger på materiale for tidsrommet 1952—1962.

I det omfattende statistiske materialet inngår bl. a. en så vidt mulig fullstendig liste over norske foretak med helt eller delvis utenlandsk eierkapital pr. 31/12 1962.

Et sammendrag på norsk er tatt inn bakerst i boken.

Statistisk Sentralbyrå, Oslo, 14. juni 1965.

**Petter Jakob Bjerve.**

## Preface

Number 14 in the series «Samfunnsøkonomiske studier» (Studies in National Economy), which is presented here, is the result of an investigation, which was carried out by the U.S. citizen, Arthur Stonehill.

The basic data for the treatise were compiled during the author's sojourn in Norway in the period 1962 to 1964. They entail the results of interviews and postal enquiries carried out by Dr. Stonehill himself, as well as information supplied by the Department of Industry, the Bank of Norway, and in the form of statistical tabulations, by the Central Bureau of Statistics. Dr. Stonehill completed the first draft of the manuscript during an engagement in the Central Bureau of Statistics, but worked out the final version after his return to the U.S.A. On the basis of this thesis Arthur Stonehill has been awarded the degree of doctor of philosophy at the University of California, Berkeley.

The data and analysis given in this study throw new light upon the role of foreign investments in the Norwegian economy.

Part I contains a thorough historic analysis of Norwegian import of capital and of direct foreign investments in Norwegian establishments and enterprises from 1814 to 1964. The author analyses the relationships between foreign financing, the balance of payments and total investments in the course of the industrialization process which occurred in Norway in this period. The analysis also comprises a study of the effects of changing economic conditions and of Norwegian legislation. The start and importance of all the major companies with foreign capital is traced through the various faces of development in the economy in this period.

In Part II the author raises the question whether the foreign investments have been altogether beneficial for the Norwegian economy or not. The answer to this question will partly depend upon the chosen standards of valuation. But if the valuations are to be meaningful, they must be based on the best possible knowledge of the specific effects of these investments.

The author examines the effects for each of the groups whose welfare depends on the enterprises concerned: the employees, Norwegian and foreign investors and the Norwegian society in general. In order to estimate the welfare effects for these groups, he investigates whether differences appear when establishments under varying degrees of foreign control are compared with other Norwegian establishments. The comparisons are made in terms of growth and stability in relation to trade cycle fluctuations in: employment, wage payments, investment policy, dividends and taxable income etc. This analysis is based on data for the period 1952—1962.

The extensive amount of statistical data also includes a complete list of Norwegian enterprises with total or partly foreign ownership per December 31st 1962.

A summary in Norwegian is given at the end of the publication.

Central Bureau of Statistics, Oslo, 14 June 1965.

**Petter Jakob Bjerve.**

### **Forfatterens merknader**

Forfatteren ber om å få uttrykke sin takk til følgende personer og institusjoner som på forskjellige måter har ytt hjelp i arbeidet: 1. Den oppnevnte bedømmelseskomité ved University of California, Berkeley, med professorene Howard Ellis (formann), K. Roland Artle, Leo Spier og Choh-Ming Li, som gav meg full frihet til å legge opp avhandlingen på min egen måte. 2. The American-Scandinavian Foundation, som tildelte meg Hans Christian Sonne-stipendiet for 1962—1963. 3. The Ford Foundation Doctoral Dissertation Loan Program, som gav ytterligere finansiell støtte i 1962—1964. 4. Sosial-økonomisk institutt ved Universitetet i Oslo, som gav kontorrom, assistent-hjelp og anledning til å følge forelesninger og delta i seminarer gitt av Trygve Haavelmo, Leif Johansen og Erik Brofoss. 5. Erik Brofoss, som fore-slo emnet og stilte verdifullt materiale til disposisjon, samtidig som han ytte hjelp, ikke minst gjennom å gi verdifull kritikk av opplegg og manu-skriptutkast. 6. Reidar Melien og Hans Heli som hjalp til med å stille opp spørreskjema for enquête-undersøkelsen. Tallene i Appendix II ble opprinne-lig samlet for Meliens formål. 7. De bedrifter som gav intervjuer og svarte på postundersøkelsen. 8. Nils Bakke, Sverre Hove, Einar Jensen og Øyvind Sundsbø i Statistisk Sentralbyrå, som hjalp til med å skaffe fram en betydelig del av det statistiske materialet og gav mange verdifulle forslag. 9. Odd Aukrust og Per Sevaldson i Statistisk Sentralbyrå, som har gitt mange verdi-fulle forslag til revisjon av det opprinnelige manuskript. 10. Min hustru, Kari, som utarbeidde mange av tabellene og de grafiske framstillinger. 11. Guri Husby som har gjort et glimrende arbeid med maskinskrivning av manuskriptet.

**Oslo, 14. juni 1965.**

*Arthur Stonehill.*

### Author's note

I would like to thank those who were especially helpful in preparing the paper. 1. Professors Howard Ellis (Chairman), K. Roland Artle, Leo Spier, and Choh-Ming Li who were my PhD dissertation committee in Berkeley and gave me maximum freedom to develop the paper in my own way. 2. The American-Scandinavian Foundation which awarded me the Hans Christian Sonne Fellowship 1962—1963. 3. The Ford Foundation Doctoral Dissertation Loan Program which gave me additional financial support 1962—1964. 4. The Institute of Economics, Oslo, which gave me office space, clerical help and the opportunity to attend lectures and seminars with Trygve Haavelmo, Leif Johansen and Erik Brofoss. 5. Erik Brofoss for suggesting the topic, offering a lot of material help, many helpful criticisms, and reading the manuscript. 6. Reidar Melien and Hans Heli for helping prepare the survey questionnaire. The Appendix II data were collected originally for use by Melien's office. 7. The foreign-owned enterprises which gave me interviews and answered the mail survey. 8. Nils Bakke, Sverre Hove, Einar Jensen and Øyvind Sundsbø of the Central Bureau of Statistics, who were responsible for working out the production, tax, and time series statistics. They also made many valuable suggestions. 9. Odd Aukrust and Per Sevaldson of the Central Bureau of Statistics for the many valuable suggestions in revising the manuscript. 10. My wife, Kari, who helped prepare many of the tables and graphs. 11. Miss Guri Husby for the magnificent typing job.

Oslo, 14 June 1965.

*Arthur Stonehill.*

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## **Introduction**

This book has two main purposes. The object of Part I is to trace the historical development of direct foreign investment in Norway 1814—1964. The object of Part II is to analyse the effect of the foreign-owned enterprises on the economic goals of Norway, the investors, and the local employees during the period 1952—1962.

Three appendices are included as a by-product of the research effort. Appendix I presents detailed production, tax, and ownership data for the years 1952, 1961, and 1962 for the 98 manufacturing and mining enterprises in Norway with at least 20 per cent of the capital stock in foreign ownership. An additional 29 foreign-owned enterprises, engaged in non-manufacturing or mining activities, are described in less detail. Appendix II provides time series data on gross production value, value added, gross investment value, and employment in selected enterprises and industry groups 1952—1961. Appendix III presents the results of a survey of individual foreign-owned enterprises by mail and personal interview.



**Part I.**

**The historical origins  
of foreign-owned enterprises  
in Norway 1814—1964.**



## Chapter I. The historical role of international investment in Norway 1814—1962.

### 1. 1814—1864.

When Norway achieved independence from Denmark in 1814, it was essentially an agrarian economy. As late as 1801, 80.4 % of the resident population was dependent on agriculture and forestry, 5.8 % on manufacturing, mining or construction, and 5.3 % on shipping.<sup>1)</sup> The industrial revolution was already well advanced in Great Britain, the Continental countries and the rest of Scandinavia.

The institutional framework necessary for economic development was untested or non-existent. In particular, the lack of independent Norwegian financial and educational institutions had resulted in the development of an administrative class which was trained abroad, primarily in Denmark. For example, the University of Oslo was not founded until 1811. The School of Mining Engineering at Kongsberg and a few lower technical schools were in existence, but the School of Engineering at Trondheim was not founded until 1914. The Central Bank of Norway was founded in 1816.

Following repeal of the British Navigation Acts in 1850, Norwegian shipping experienced a period of rapid growth based on the overseas carrying trade (primarily timber and grain). Net shipping earnings provided the young nation with its first real source of domestic savings. The operating capital requirements of the shipping sector stimulated the development of Norwegian-owned financial institutions, with a close relationship to the London money market. As a result, the international financiers had a chance to evaluate Norwegian debt repayment and servicing habits, a factor which was important for the later transition to long term loans and direct investment in Norway.

During the period 1814—1864, the groundwork was laid for an industrialization of Norway. In the first half of the period, there was an increased specialization in those products in which Norway enjoyed a comparative advantage vis-a-vis Great Britain, namely, timber, fish, and mineral ores. In the second half of the period, the pace of industrial growth quickened with the establishment of engineering and brick works, and textile factories. By 1865, 15.6 % of the population was dependent on manufacturing, mining, or construction.<sup>2)</sup> It is important to note that foreign capital was not yet a significant industrial growth stimulant, although the London money market was used on occasion by the Norwegian Government.<sup>3)</sup>

<sup>1</sup> Statistisk Sentralbyrå: *Statistiske oversikter 1948*; Oslo, 1949, p. 36.

<sup>2</sup> *ibid.*

<sup>3</sup> Emergency loan of 1857—1858. Source: Rygg, N.: *Norges Banks Historie, Annen Del*, Oslo, 1954, p. 20.

## 2. 1865—1889.

During the period 1865—1889, a general expansion of the overseas carrying trade and railroad building required relatively heavy imports of capital goods; however, net shipping earnings were large enough to offset the added burden of imports.<sup>4</sup>) In fact, there was a net export surplus on trade

Exhibit 1.1. Balance of current transactions with the rest of the world and gross domestic capital formation.

## a. 1865—1900.

Year	Export surplus (deficit —) of goods and services <sup>1</sup>		Gross domestic capital formation. Per cent of gross domestic product
	Kr. 1 million	Per cent of gross domestic product	
1865.....	— 3	— 0.6	12.9
1866.....	— 5	— 1.0	13.4
1867.....	6	1.2	12.9
1868.....	— 3	— 0.6	13.0
1869.....	23	4.3	12.1
1870.....	19	3.5	12.2
1871.....	23	4.1	12.5
1872.....	18	2.8	15.0
1873.....	12	1.6	16.9
1874.....	— 7	— 0.9	18.4
1875.....	— 26	— 3.4	18.2
1876.....	6	0.8	17.0
1877.....	— 28	— 3.5	17.1
1878.....	3	0.4	15.7
1879.....	4	0.6	14.8
1880.....	11	1.5	14.7
1881.....	4	0.6	14.6
1882.....	20	2.6	15.0
1883.....	5	0.7	15.0
1884.....	3	0.4	14.7
1885.....	— 1	— 0.1	14.3
1886.....	6	0.9	13.8
1887.....	12	1.8	14.3
1888.....	13	1.8	14.7
1889.....	7	0.9	16.4
1890.....	— 17	— 2.2	17.8
1891.....	— 40	— 5.0	17.2
1892.....	— 24	— 3.0	16.3
1893.....	— 22	— 2.7	16.3
1894.....	— 28	— 3.4	16.4
1895.....	— 39	— 4.7	16.8
1896.....	— 40	— 4.6	16.4
1897.....	— 38	— 4.1	17.6
1898.....	— 59	— 5.9	18.9
1899.....	— 81	— 7.6	20.6
1900.....	— 59	— 5.4	17.4

Source: Statistisk Sentralbyrå: *Statistiske oversikter 1958*; Oslo, 1959; p. 224—225.

» » Nasjonalregnskap 1865—1960

» » National accounts 1865—1960, Oslo 1965.

<sup>1</sup> Statistics on transfers, interest, and dividends are not available.

<sup>4</sup> The 20 % Norwegian tariff on foreign-built ships was dropped in 1857, resulting in increased imports of faster sailing ships (clipper ships).

## Exhibit 1.1 (continued).

b. 1901—1962.

Year	Surplus (deficit —) on current account			Gross domestic capital formation. Per cent of gross domestic product
	Total Kr. 1 million	Goods and services only		
		Kr. 1 million	Per cent of gross domestic product	
1901.....	— 70	— 55	— 5.1	16.6
1902.....	— 63	— 48	— 4.5	16.1
1903.....	— 58	— 43	— 4.0	15.1
1904.....	— 48	— 30	— 2.8	16.2
1905.....	— 45	— 27	— 2.5	15.4
1906.....	— 41	— 21	— 1.8	17.0
1907.....	— 64	— 44	— 3.5	18.6
1908.....	— 71	— 51	— 3.9	18.5
1909.....	— 56	— 36	— 2.8	17.1
1910.....	— 30	— 20	— 1.4	18.1
1911.....	— 61	— 47	— 3.1	20.6
1912.....	— 52	— 40	— 2.4	21.3
1913.....	— 1	10	0.5	20.6
1914.....	— 32	— 20	— 1.0	20.5
1915.....	129	139	5.4	19.8
1916.....	391	396	10.2	21.0
1917.....	— 86	— 81	— 1.8	24.2
1918.....	142	150	3.0	15.7
1919.....	— 1,069	— 1,061	— 17.1	35.8
1920.....	— 864	— 846	— 11.3	30.6
1921.....	— 541	— 511	— 9.4	23.7
1922.....	— 296	— 256	— 5.1	19.3
1923.....	— 267	— 222	— 4.4	19.2
1924.....	— 197	— 142	— 2.5	18.3
1925.....	— 74	— 19	— 0.4	18.7
1926.....	— 4	36	0.8	17.2
1927.....	— 51	— 1	0.0	16.2
1928.....	— 119	— 69	— 1.6	18.8
1929.....	— 41	14	0.3	19.5
1930.....	— 68	— 8	— 0.2	23.0
1931.....	— 117	— 60	— 1.6	19.3
1932.....	55	128	3.3	16.8
1933.....	86	162	4.2	16.9
1934.....	60	125	3.1	18.9
1935.....	22	87	2.0	21.2
1936.....	90	157	3.3	22.3
1937.....	72	132	2.4	25.3
1938.....	86	139	2.4	25.3
1939.....	— 30	28	0.4	25.6
1946.....	— 529	— 594	— 5.5	31.1
1947.....	— 1,225	— 1,212	— 9.6	37.2
1948.....	— 526	— 694	— 5.0	36.5
1949.....	— 580	— 1,174	— 7.9	37.9
1950.....	293	— 791	— 4.8	35.4
1951.....	571	348	1.7	34.8
1952.....	79	55	0.3	34.7
1953.....	— 839	— 855	— 3.7	35.3
1954.....	— 1,127	— 1,099	— 4.4	36.8
1955.....	— 813	— 728	— 2.8	36.7
1956.....	107	252	0.9	35.9
1957.....	157	317	1.0	36.1
1958.....	— 1,082	— 903	— 2.8	37.7
1959.....	— 491	— 320	— 0.9	35.6
1960.....	— 760	— 632	— 1.7	36.4
1961.....	— 1,315	— 1,140	— 2.9	37.6
1962*.....	— 1,250	— 1,000	— 2.4	36.2

\* provisional.

in goods and services in all but six years. The net trade balances were not large compared to gross domestic product, but were significant if compared to domestic investment, which was comparatively low during this period. Exhibit 1.1 shows these balances and their size in relation to gross domestic product and investment during the period 1865—1962.

Despite a favorable overall balance of trade (1865—1889), the lack of a fully developed Norwegian money market forced Norwegian public institutions to borrow abroad. Relatively low foreign interest rates and the availability of loan funds were the prime motivation, rather than any attempt to supplement domestic savings or investment. Exhibit 1.2 shows that the public debt was growing during this period, although Norway was probably a net creditor vis-a-vis the rest of the world.

Exhibit 1.2. Foreign debt on public account 1874—1900.

Year	Type of debt	Foreign holdings Kr. 1 million	Interest rates	
			Nominal	Effective
1874	Total public debt .....	40	4½ %	5 %
1880	Total public debt .....	120	4½ %	5 %
1890	Norwegian Government bonds .....	115		
	Hypotekbanken <sup>1</sup>			
1900	Norwegian Government bonds .....	219		
	Hypotekbanken's bonds .....	90		
	Municipal bonds .....	52		
	Total in 1900 <sup>2</sup> .....	361	3—4 %	3—4 %

Source: Rygg, N.: *Norges Banks Historie; Annen Del*; Oslo, 1954, pages 158, 236—237 and 323.

<sup>1</sup> Hypotekbanken's (The Mortgage Bank) bonds were 44 % foreign-held, but no absolute figure is available.

<sup>2</sup> In addition to the public debt, Realbanken had placed a Kr. 10 million loan abroad. No other significant private borrowing abroad through the sale of bonds was discovered.

### 3. 1890—1900.

During the 1890's, the Norwegian rate of investment was somewhat higher on the average than in earlier years. The railroad network was expanded; the pace of conversion of the merchant fleet to steam propulsion was intensified; the development of hydroelectric power for industrial use was started; forest products were increasingly processed through the pulp and paper stages; and a number of new home market-oriented manufacturing industries were established following the demise of the customs union with Sweden in 1897.<sup>5</sup>) By 1900, 26 % of the resident population was economically dependent on manufacturing, mining or construction for its living.<sup>6</sup>)

<sup>5</sup> The customs union was established for «land-transported goods» in 1825 and for «sea-transported goods» in 1874. In 1888, Sweden adopted a protectionist tariff policy, and in 1895 cancelled the «mellomrikslov» (as of January 1, 1897). Norway adopted a protectionist tariff of its own at this time.

<sup>6</sup> Statistisk Sentralbyrå: *Statistiske oversikter 1958*; Oslo, 1959, p. 16.

Import surpluses were large both in absolute and relative terms, covering over one-fourth of gross domestic capital formation in seven of the eleven years. By 1900, foreign debt on public account alone had grown to kr. 361 million, and Norway had become a net debtor nation.<sup>7)</sup> Although import of foreign capital was not a stated Government policy, it was not actively opposed. Insofar as this import covered part of Norway's real capital requirements, it was by now a direct stimulus to economic growth rather than just a financial phenomenon.

#### 4. 1901—1913.

During the period 1901—1913, the process of industrialization was further accelerated by an influx of direct foreign investment in manufacturing and mining industries. Industrial uses of hydroelectric power were exploited by a combination of Norwegian entrepreneurs and engineers, and French, Swedish, British, German, and Swiss capital. British investors were also heavily involved in the operation of Norwegian pulp and paper plants. Swedish investors founded the three most important mining companies (iron ore and pyrites), and together with the Norwegian Government financed the completion of the Ofofbanen (railroad) for the transportation of Swedish iron ore through Narvik. These projects provided a basis for expansion in the construction, engineering and electrotechnical industries.

Increased export receipts were not large enough to offset heavy imports of capital equipment and raw materials for industrial use. Exhibit 1.1 shows that there was a net deficit on current account in every year. The import surpluses were an important supplement to domestic resources, covering between 8 % and 31 % of gross domestic capital formation in all the years between 1901 and 1912.

To finance the deficits on current account required a considerable increase in long term debt to the rest of the world. Exhibit 1.3 shows an estimate of total foreign holdings of Norwegian securities as of 1913. Allowing for Norwegian holdings of foreign securities, the net foreign debt on securities account was about kr. 800—850 million.<sup>8)</sup> The increase in Norwegian Government debt to foreigners was mainly used to finance railroad construction. Only kr 15.9 million of Government bonds out of a total of kr. 352.4 million were Norwegian-held as of June 30, 1914.<sup>9)</sup> Despite foreign investment in Norwegian municipal bonds, most of the municipal financing needs were met at home. On the other hand, Hypotekbanken's liabilities were mainly foreign-held. Direct foreign investments were essentially self-financed, through the

<sup>7</sup> Norwegian claims on foreigners are not available, but net deficit on transfer and interest account was kr. 15 million in 1901 (Exhibit 1. 1).

<sup>8</sup> The same sources as Exhibit 1. 3.

<sup>9</sup> *ibid.*

Exhibit 1.3. Foreign holdings of Norwegian securities as of 1913.

Type of security	Foreign holdings (Kr. 1 million)
1. Norwegian Government bonds .....	329.3
2. Municipal bonds .....	75.0
3. Hypotekbanken .....	135.0
4. Arbeiderbruk- og Boligbanken .....	29.0
Total public bonds .....	568.3
5. Foreign capital in Norwegian private enterprises (stocks and long term debt) .....	300.0
Total public and private securities .....	868.3

Source: Rygg, N.: *Norges Banks Historie, Annen Del*; Oslo, 1954, p. 329. The original source was: Statistisk Sentralbyrå: *Finansstatistisk undersøkelse pr. 1. mai 1919*.

purchase of capital stock by the foreign investors and long term foreign loans on Norwegian plant and equipment imports. Nevertheless, the rapid increase in foreign investment in Norwegian industry, from a small amount in 1900 to kr. 300 million in 1913, was not considered entirely desirable from a political or social viewpoint. Parliament passed a series of concession laws, which sought to regulate the conditions under which foreign ownership of Norwegian resources should be permitted.

#### 5. 1914—1918.

During World War I, the terms of trade were comparatively favorable for Norway due to high wartime shipping rates. There were large export surpluses in 1915, 1916, and 1918 (Exhibit 1.1). On the other hand, the

Exhibit 1.4. Price indices for selected components of gross domestic product and the terms of trade 1900—1939 (1938 = 100).

Year	Gross domestic product	Investment	Terms of trade
1900 .....	54	51	123
1914 .....	65	58	111
1916 .....	119	109	172
1918 .....	178	167	129
1920 .....	209	240	120
1922 .....	143	148	103
1929 .....	98	86	101
1935 .....	85	80	94
1939 .....	102	104	98

Source: Statistisk Sentralbyrå: *National Accounts 1900—1929*; Oslo, 1953, p. 127.

domestic economy suffered a violent inflation. Exhibit 1.4 illustrates the extent of price movements during World War I, compared to the period 1900—1939 as a whole.

Although the export surpluses might have reinforced inflationary pressures on domestic production, most of the foreign exchange earnings were used to repatriate a number of direct foreign investments in Norway, and to increase Norwegian holdings of foreign long term securities and property. Norwegian stocks and bonds worth about kr. 285 million at face value were known to have been repurchased from foreigners during World War I.<sup>10</sup>) Of this amount, approximately half was capital stock in Norwegian establishments. The most important transaction was the purchase of the British-owned Kellner-Partington Paper Pulp Company by a newly formed Norwegian-owned holding company, Borregaard A/S. Government policy favored the repatriations as well as further limitations on direct foreign investments. The Concession Law of 1917 was the culmination of Parliamentary legislation to this end. Thus, during World War I, Norway was able to reverse its debtor-creditor position with respect to the rest of the world. Exhibit 1.5 shows that Norway had a positive balance of kr. 1,360 million as of May, 1919.

#### 6. 1919—1939.

In the immediate post-World War I period, pent-up demand, reconversion of production to the peacetime pattern, and war-induced liquidity in the monetary system helped to prolong inflationary conditions in Norway beyond the start of the worldwide deflation of 1920—1921. Although consumption was held in check in 1919 and 1920, gross domestic capital formation increased from 15.7 % of gross domestic product in 1918, to 35.8 % in 1919 and 30.6 % in 1920. During the rest of the interwar period, however, the rate of investment averaged well below the 1919—1920 level, as the volume of world trade decreased and deflation reached Norway.

A combination of the abnormally high rate of investment and a rapid worsening in the terms of trade for Norway caused large deficits on current account during the period 1919—1924.<sup>11</sup>) Exhibit 1.1 shows that these deficits were not only large by absolute standards but also relative to gross domestic product and investment. During the period 1925—1931, however, economic conditions stabilized to the extent that the deficits on current account were relatively small. During the 1930's, a small surplus on current account was maintained with the exception of 1939.

<sup>10</sup> Statistisk Sentralbyrå: *Tilleggshefte til meddelelser fra Det Statistiske Centralbyrå (Finansstatistisk undersøkelse pr. 1. mai 1919)*; Oslo, 1920, p. 18—19.

<sup>11</sup> The terms of trade for the sterling area as a whole worsened with the advent of fluctuating exchange rates, but the shipping sector was particularly affected by the decline in wartime shipping rates to the peacetime level. The pound sterling and Norwegian krone fell well below their pre-war parities until the United Kingdom attempted to return to the gold standard in 1925.

Exhibit 1.5. Debt to foreign countries (kr. 1 million).

Year	Capital stock				Bearer bonds				Total capital stock and bearer bonds <sup>1</sup>	Other debt to foreign countries	Foreign held property in Norway <sup>2</sup>	Total debt to foreign countries	
	Total		Manufacturing and mining		Total		Private						
	Face value	Market value	Face value	Market value	Face value	Market value	Face value	Market value					
1/ 5/1919*	250	400	205	—	470	320	—	30	—	720	300	30	1,050
1/10/1924*	250	220	188	172	1,026	1,355	—	5	5	1,575	1,025	65	2 665
31/12/1925..	—	211	—	164	—	1,189	—	71	71	1,400	780	60	2,240
» 1926..	—	176	—	124	—	989	—	59	59	1,165	777	55	1,997
» 1927..	—	219	—	162	—	1,028	—	152	152	1,247	594	55	1,896
» 1928..	332	306	—	232	—	1,151	—	147	147	1,457	606	55	2,118
» 1929..	356	330	—	250	—	1,131	—	144	144	1,461	660	65	2,186
» 1930..	373	290	303	216	—	1,195	146	143	143	1,485	729	67	2,281
» 1931..	369	225	300	167	—	1,134	184	144	144	1,359	838	71	2,268
» 1932..	355	247	288	192	—	1,284	182	142	142	1,531	762	71	2,364
» 1933..	347	244	285	186	—	1,100	121	105	105	1,344	678	71	2,093
» 1934..	332	212	270	152	—	1,218	142	137	137	1,430	653	71	2,154
» 1935..	323	245	265	180	—	1,261	144	147	147	1,506	651	71	2,228
» 1936..	318	305	261	231	—	1,310	138	141	141	1,615	683	71	2,369
» 1937..	321	284	263	206	—	1,330	143	145	145	1,614	671	71	2,356
» 1938..	318	310	261	233	—	1,283	157	155	155	1,593	684	71	2,348
» 1945..	293	373	239	284	779	—	157	155	155	1,152	906	71	2,129
» 1946..	288	318	235	233	755	—	147	147	147	1,073	1,412	71	2,556
» 1947..	285	339	225	242	799	—	176	173	173	1,138	2,005	71	3,214
» 1948..	285	373	221	263	746	—	162	156	156	1,119	2,393	71	3,583
» 1949..	287	374	223	264	786	—	167	157	157	1,160	3,379	71	4,610
» 1950..	289	419	224	294	697	—	147	142	142	1,116	3,435	71	4,622
» 1951..	293	434	223	298	739	—	140	133	133	1,173	3,508	110	4,791
» 1952..	297	431	226	295	656	—	121	—	—	953	3,357	—	4,310
» 1953..	304	436	228	306	665	—	117	—	—	969	4,003	—	4,972
» 1954..	307	—*	231	—	677	—	109	—	—	984	4,836	—	5,820
» 1955..	310	—*	233	—	829	—	105	—	—	1,139	5,814	—	6,953
» 1956..	353	669	237	385	870	—	109	—	—	1,223	6,134	—	7,357
» 1957..	369	—	240	—	764	—	105	—	—	1,133	6,723	—	7,856
» 1958..	393	—	258	—	911	—	107	—	—	1,304	7,604	—	8,908
» 1959..	455	—	283	—	957	—	210	—	—	1,412	8,562	—	9,974
» 1960..	516	—	322	—	1,192	—	211	—	—	1,708	8,878	—	10,586
» 1961..	560	—	365	—	1,405	—	222	—	—	1,965	10,376	—	12,341
» 1962..	599	—	—	—	1,605	—	220	—	—	2,204	11,284	—	13,488

Source: Statistisk Sentralbyrå: *Statistiske Meldinger 1954*; Oslo 1955, p. 47.

» : » (Meddelelser) 1919, 1925—1953.

» : Kredittmarkedstatistikk 1955—1962; Oslo 1955—1962.

\* estimate.

<sup>1</sup> Capital stock at market value 1919—1951; at face value 1952—1962.

Bearer bonds at market value 1919—1938; at face value 1945—1962.

<sup>2</sup> Branches of foreign registered corporations.

Exhibit 1.5 (continued). Claims on foreign countries  
(kr. 1 million).

Year	Foreign stock and bearer bonds held by Norwegians <sup>1</sup>	Foreign property held by Norwegians	Other claims on foreign countries	Total claims on foreign countries	Net debt (—) or claims (+) on foreign countries
1/ 5/1919* .....	410	?	2,000	2,410	+ 1,360
1/10/1924* .....	245	30	730	1,005	— 1,660
31/12/1925 .....	230	25	580	835	— 1,405
» 1926 .....	260	20	492	772	— 1,225
» 1927 .....	213	20	361	594	— 1,302
» 1928 .....	180	20	420	620	— 1,498
» 1929 .....	183	18	408	609	— 1,577
» 1930 .....	242	20	324	586	— 1,695
» 1931 .....	168	18	346	532	— 1,736
» 1932 .....	168	18	342	528	— 1,836
» 1933 .....	172	18	309	499	— 1,594
» 1934 .....	182	17	368	567	— 1,587
» 1935 .....	171	17	406	594	— 1,634
» 1936 .....	186	17	530	733	— 1,636
» 1937 .....	218	17	618	853	— 1,503
» 1938 .....	225	17	671	913	— 1,435
» 1945 .....	1,041	15	2,212	3,268	+ 1,139
» 1946 .....	401	18	2,798	3,217	+ 661
» 1947 .....	700	25	2,084	2,809	— 405
» 1948 .....	601	31	1,939	2,571	— 1,012
» 1949 .....	762	31	1,903	2,696	— 1,914
» 1950 .....	791	40	2,002	2,833	— 1,789
» 1951 .....	686	42	2,740	3,468	— 1,323
» 1952 .....	278	—	3,525	3,803	— 507
» 1953 .....	347	—	3,577	3,924	— 1,048
» 1954 .....	589	—	3,416	4,005	— 1,815
» 1955 .....	1,121	—	3,191	4,312	— 2,641
» 1956 .....	1,237	—	3,931	5,168	— 2,189
» 1957 .....	1,277	—	4,658	5,935	— 1,921
» 1958 .....	1,446	—	4,803	6,249	— 2,659
» 1959 .....	1,803	—	4,986	6,789	— 3,185
» 1960 .....	1,969	—	5,186	7,155	— 3,431
» 1961 .....	1,976	—	5,645	7,621	— 4,720
» 1962 .....	1,943	—	5,538	7,481	— 6,007

\* estimate.

<sup>1</sup> Capital stock and bearer bonds at market value 1919—1951; at face value 1952—1962.

Norway's brief moment as a creditor nation evaporated with the import surpluses of 1919 and 1920. Exhibit 1.5 shows that between 1919 and 1924, Norway's net debtor-creditor position vis-a-vis the rest of the world was reversed by over kr. 3,000 million. The export surpluses of the 1930's resulted in only a slight improvement prior to World War II.

Although the wartime repatriations of foreign-owned Norwegian companies proved to have lasting value, some of the direct foreign investments by Norwegian-owned companies and individuals had illusory value. Many of the investments had been purchased at inflated wartime values, or were at least

highly speculative. A number of these were repurchased by foreigners at reduced prices. Others went bankrupt or were nationalized.<sup>12)</sup>

Prolonged deflationary conditions caused financial difficulties for a number of important Norwegian companies during the interwar period. Many were reorganized and some sought foreign capital as a means of recapitalization. The importation of this kind of distress capital was not the same kind of growth stimulant as the pre-War foreign investments in new companies. Rather, it was a reaction to the harder competitive conditions and reduced world trade. Government policy was neutral with respect to the source of funds for reorganization, although there was some popular pressure to solve financial problems domestically.<sup>13)</sup>

#### 7. 1945—1964.

When the occupation of Norway ended in 1945 the wartime dislocations did not end. On the contrary, real capital (plant, equipment, housing etc.) had been reduced by nearly one-fifth since 1940. Northern Norway was devastated. The merchant fleet was half destroyed. Inflation threatened because of the reduced capacity to produce, reduced potential for export income, and the huge amount of liquid assets held by the public as a result of the German expenditures from their «Occupation Account» at Norges Bank. On the positive side, shipping earnings and insurance claims from wartime losses had once again made Norway a net creditor nation of kr. 1,139 million by the end of 1945 (Exhibit 1.5). A rise in the cost of living of 55 % compared to 1938 had dissipated part of the excess purchasing power, although at the expense of further social and economic distortions.

The Norwegian Government elected a policy of stabilization in order to restore confidence in the value of the krone, create incentives for wage earners, provide a basis for investment calculations, and yield a competitive cost level for export industries.<sup>14)</sup> As part of the stabilization program, a planned import surplus was used as an instrument for speeding up reconstruction, and as a means of soaking up excess liquidity in the economy. This was, of course, contrary to pre-War policy, which encouraged an export surplus as a means of providing domestic employment. The Government estimated that if reconstruction was to be completed in the period 1945—1950, it would be necessary to utilize an import surplus of about kr. 4,500 million. This was to be financed by new foreign loans worth kr. 2,000 million,

<sup>12</sup> Norwegian losses through nationalization in Russia alone were estimated by various sources at kr. 125—200 million. Source: Rygg, N.: *Norges Banks Historie, Annen Del*; Oslo, 1954, p. 537—538.

<sup>13</sup> The Mowinckel Government fell in 1931 over the issue of Unilever's purchase of controlling interest in Lilleborg Fabrikker, Norway's largest soap manufacturer.

<sup>14</sup> Brofoss, Erik: *Forelesninger i Penge- og Finanspolitikk, Tredje Del*; Norges Bank; Oslo, 1962, p. 707—711.

## Exhibit 1.6. The «real burden» of net foreign debt.

Year	Net foreign debt (kr. 1 million)	Net foreign debt as % of gross domestic product	Net foreign debt as % of export income	Net payments of interest, dividends, etc. (kr. 1 million)	Net payments as % of export income
1900 .....				— 17	4.9
1910 .....				— 19	3.8
1925 .....	— 1,405	24.9	81.5	— 62	3.7
1930 .....	— 1,695	38.4	126.6	— 72	5.4
1932 .....	— 1,836	47.2	172.6	— 86	8.1
1938 .....	— 1,435	24.5	85.3	— 60	3.6
1948 .....	— 1,012	7.3	22.7	— 63	1.4
1953 .....	— 1,048	4.6	12.8	— 73	0.9
1958 .....	— 2,659	8.4	22.3	— 222	1.9
1962 .....	— 6,007	14.3	39.8	— 337	2.2

Source: Statistisk Sentralbyrå: *Statistiske oversikter 1958*; Oslo, 1959, p. 224—229, 194—195.

(Ratios are derived from this source as well as Exhibit 1.5.)

and a reduction of kr 2,500 million in Norway's foreign exchange reserves. Marshall Plan aid became available in 1948 and supplied kr. 2,950 million in grants and drawing rights. This made it possible to carry out the investment program without resort to exceptional foreign loans. From 1952 to the present, Norwegian policy has been to permit a controlled balance of payments deficit. Import of real capital has been given preference as part of an overall emphasis on a high rate of investment.

To finance real capital import, net debt to foreigners rose to an all-time record high of kr. 6,007 million by the end of 1962, or a net reversal of kr. 7,146 million since 1945. Nevertheless, in terms of «real burden», the net foreign debt, and the servicing thereof, were not as great a burden in 1962 as before World War II. Exhibit 1.6 shows that the size of the 1962 net foreign debt relative to gross domestic product or export income was still not as great as certain selected pre-War years. Net payments to foreigners on interest and dividend account as a per cent of export income were also relatively modest in 1962. Finally, a large portion of the debt was self-repaying, to the extent that the funds were used to import ships, which were already guaranteed long term charters, or plant and equipment for hydro-electric power complexes, which were already guaranteed industrial users. Direct foreign investment in new enterprises, which has again become significant since 1958, has also been self-financing.

Exhibit 1.7 illustrates by example the wide variety of financing instruments and sources of funds that have been used during the post-World War II period.

Exhibit 1.7. Selected post-World War II instruments of finance.<sup>1</sup>

Type of instrument	Year of issue	Source of funds	Borrower	Currency	Amount (Kr. 1 million)
<b>A. Long term bonds</b>					
1. ....	1951	London	Norway	£ U.K.	5
2. ....	1954	Sweden	»	Sw. kr.	50
3. ....	1955	New York	»	\$ U.S.	15
4. ....	»	Netherlands	»	Dutch florins	35
5. ....	»	Switzerland	Oslo	Swiss francs	25
6. ....	1956	»	»	»	25
7. ....	»	»	A/S Union	»	15
8. ....	1958	New York	Norway	\$ U.S.	17.5
9. ....	»	»	Oslo	»	8
10. ....	»	»	»	»	3
11. ....	1959	Switzerland	Norsk Hydro A/S	Swiss francs	50
12. ....	»	»	Elektrokemisk A/S	»	15
13. ....	1960	»	Norway	»	50
14. ....	»	New York	Oslo	\$ U.S.	10
15. ....	»	Sweden	Norway	Sw. kr.	62
16. ....	1961	New York	»	\$ U.S.	18
17. ....	»	Switzerland	A/S Union	Swiss francs	8
18. ....	1962	New York	Norway	\$ U.S.	20
19. ....	1963	»	»	»	12
20. ....	»	»	»	»	25
21. ....	»	Sweden	»	Sw. kr.	50
22. ....	»	Switzerland	A/S Union	Swiss francs	8
23. ....	»	»	Saugbruksforeningen	»	9
<b>B. International organizations</b>					
1. 2 loans for ship import	n.a.	I.B.R.D.	Norway	\$ U.S.	50
2. 3 loans for electrical power development ..	»	»	»	»	70
3. Purchase of ships from U.S. reserve fleet ....	1946/47	Export-Import Bank	»	»	50
4. Settlement of inter-European payments ..	n.a.	E.P.U.	»	»	97
<b>C. Medium term loans on ship construction</b>					
.....	»	Foreign shipyards or banks	Norwegian shipowners or banks	Various	n.a.
<b>D. Construction loans with repayment in goods</b>					
1. Aluminium plant at Sunndal .....	1951	U.S. Gov't	Årdal-Sunndal Verk A/S	\$ U.S.	50
2. Magnesium plant ....	n.a.	»	Norsk Hydro A/S	»	n.a.
3. Electrical power line ..	»	Stockholm	Trondheim	Sw. kr.	64

<sup>1</sup> This list is not a complete survey of transactions.

## Exhibit 1.7 (continued).

Type of instrument	Year of issue	Source of funds	Borrower	Currency	Amount (Kr. 1 million)
E. Short term loans					
1. Financial .....	n.a.	Foreign banks	Norwegian banks	Various	n.a.
2. Financial .....	»	"European dollar market"	Norwegian banks	\$ U.S.	»
3. Commercial .....	»	Foreign exporter	Norwegian importer	Various	»
F. Direct foreign investment					
1. a) Capital stock .....	1956—1958	Swiss Aluminium Co.	Mosjøen Aluminium A/S	N. kr.	6
b) Long term loan ..	»	»	»	»	63
2. a) Capital stock .....	1958—1960	Standard Oil Corp. (N.J.)	A/S Esso Raffineriet	»	76
b) Long term loan ..	»	»	»	»	54

Source: Statistisk Sentralbyrå: (special project).

Brofoss, Erik: *Utenlandsk kapital i Norge*; Norges Bank 1961, p. 8—12.  
 Industridepartementet: *St. meld. 21 (1963—64): Om utenlandske eierinteresser i norsk industri*; Oslo, 1963.

## Chapter II. Direct foreign investment 1814—1919.

### 1. Government policy 1814—1919.

Whereas there has been near unanimity of opinion through the years as to the desirability of foreign loan capital, direct foreign investment in Norway has been more controversial. Toward the end of the 1880's, an influx of direct foreign investment in industries based on natural resources alarmed many Norwegians, who feared uncontrolled exploitation of the best resources. This fear was made articulate by Parliament, which passed a series of «concession» laws and regulations designed to control foreign rights to own property, forests, mines and waterfalls.

Although the «concession» laws provided a partial institutional framework for direct foreign investment as early as 1883, those laws which had the most lasting importance were passed from 1909 to 1920. The law of 1909 made it impossible for foreigners to own forests. The laws of 1913, 1914, and 1915 regulated the right to own mountain and meadow land, as well as limestone deposits. The laws of 1920 and 1949 regulated the ownership of agricultural land and quartz deposits. The most important law for industrial and trade establishments was passed December 14, 1917 and amended in 1924.

In general, the «concession» laws were flexible enough to allow a wide variance in interpretation, depending on the Government in power and popular feeling. Prior to the law of 1917, foreign investment was discouraged from undertaking certain types of activities, but there was certainly no overall constraint in practice. Even after 1917, it is difficult to say if the wartime repatriations and decline in the number of new foreign investments were a result of the «concession» laws, or just a general disenchantment with profit possibilities in Norway.

### 2. The Concession Act of December 14, 1917.<sup>1)</sup>

In accordance with the Concession Act of 1917, Norwegian registered companies, in which the capital stock is more than 20 % in foreign hands, or

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<sup>1</sup> This section is mostly quoted or paraphrased from: *U.S. Bureau of Commerce, Establishing a Business in Norway (Part 1, No. 62—47); May, 1962*. Other sources: Trygve Lie: *Investor's Guide to Norway*; Oslo, Nov., 1962. Industridepartementet, *St.meld. nr. 21 (1963—64): Om utenlandske eierinteresser i norsk industri*; Oslo, 29. november 1963, chapter III.

in which all the members of the local board of directors are not Norwegians domiciled in Norway, are obliged to seek a concession if they wish to rent or own real estate. This entails an «ad hoc» agreement between the investor and the Norwegian Government.<sup>2)</sup> Individual foreigners may own property of all kinds, generally under the same provisions of the concession laws as apply to foreign corporations. Rental of real estate not involving mines and waterfalls, and not related to an industrial enterprise, ordinarily does not, however, require a concession agreement. A trading company, for example, is not required to obtain a concession agreement.

The Ministry of Industry has the responsibility for administering the Concession Act of December 14, 1917. In some cases, the approval of Parliament is also required. The Act, itself, contains detailed regulations regarding its application and, in some instances, precise regulations regarding the rights and obligations which may be provided in an agreement. It is supplemented by a few regulations contained in a Royal decree of October 3, 1924.

There are some mandatory requirements under the 1917 act, particularly in the case of waterfalls and mining concessions.<sup>3)</sup> In addition to stipulations which have been required in one or another concession, the mandatory conditions are that:

- (1) The corporation's seat be in Norway.
- (2) A majority of the board of directors be Norwegian citizens.
- (3) A certain part of the capital stock be in the hands of Norwegians.
- (4) Norwegian capital has equal opportunity to share in any extension of a corporation's share capital.
- (5) Fringe benefits be granted to employees, including, if in isolated areas, adequate housing, commissary facilities, and schools.
- (6) Any damage to roads, quays, or other public property be repaired.
- (7) A certain production fee be paid to the Norwegian Government.
- (8) The property not be sold or transferred without permission.
- (9) Preference be given to Norwegian labor and materials.

A foreign corporation wishing to engage in trade or other business activities in Norway may also do so through a registered branch office of the corporation. The branch office must be registered in the Commercial Register. Ordinarily, the branch office must have its own board of directors (separate from the parent company), and the members of the board must be residents of Norway. If the branch office is solely engaged in production, or partly in production and partly in trade, dispensation may be given from the above-mentioned rule so that one or more members of the board may be

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<sup>2</sup> The Royal decree of December 3, 1924 permits rental of real estate without a concession agreement for a period not to exceed 10 years, but this provision does not apply to industrial enterprises. A lessee may not make a 10-year contract which contains a provision to renew.

<sup>3</sup> Fully Norwegian-owned corporations are also subject to the Act of 1917 in connection with the development of waterfalls or mines.

residents of foreign countries. Dispensation is given upon application to the Ministry of Commerce. If the branch is solely engaged in trade, no such dispensation is given. The parent company is responsible with all its capital for liabilities contracted by the Norwegian branch office. It is not possible under Norwegian law to register the branch office of any other kind of business organization than the corporation.

The advantage of a corporation over a branch is that the foreign investor is not legally considered the parent corporation, and, therefore, is not liable with all its capital for liabilities contracted by the Norwegian corporation.

A trading license must be obtained from the police in order to engage in one or more of the following businesses: (1) Trade in goods, wholesale, retail, or on a commission basis (with some exceptions); (2) agency business, excepting insurance agencies; (3) banking business, excluding savings banks, banks established by law, and banks which come under the Joint-Stock Bank Act; (4) book publishing; (5) dealing in securities; and (6) consumer and producer marketing corporatives, with some exceptions.

### 3. The incubation period for direct foreign investment (1814—1895).

It is difficult to find data on the extent of foreign investments prior to 1870, but a few are known to have existed. Exhibit 2.1 shows that in 1870 at least 20 foreign-owned establishments were still operating. This represented an insignificant number compared to the 2 400 industrial establishments in Norway at the time; however, based on later experience, it is likely that the foreign-owned establishments were larger than average. The average Norwegian establishment, of course, was very small, and less than one-third were even organized as corporations.<sup>4</sup>)

The survey of 1879 indicates that foreign investments were heavily concentrated in the wood processing (pulp and paper) sector. Most of these were British-owned. The British mills had adopted the policy of owning at least part of their source of mechanical pulp supply. By owning sources in Canada, Newfoundland, Norway, and Sweden, they were able to exert some influence on the structure of prices and avoid too great a dependence on one political unit. For example, by purchasing the output of their foreign subsidiaries at relatively low prices, the British mills were able to depress quotations from independent suppliers both at home and abroad. The foreign subsidiaries, of course, operated with very low profit margins or at a loss.

In 1889, The Kellner-Partington Paper Pulp Company Ltd. was founded by British capital for the purpose of buying the Borregaard estate at Tune, together with its other property in the Sarpsfoss area. This was the most

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<sup>4</sup> The survey did not include non-industrial establishments.

Exhibit 2.1. Number of foreign-owned industrial establishments 1870—1895.

Year	Foreign-owned industrial establishments			Total number of industrial establishments in Norway
	Industrial sector	Number	Total	
1870	—	—	20	2,400
1875	—	—	18	2,541
1879			19	2,556
	Wood processing .....	9		
	Paper .....	1		
	Food products .....	3		
	Publishing .....	1		
	Chemical .....	2		
	Machinery, equipment, instruments, and transport .....	3		
1885	—	—	12	1,925
1890			16	1,935
	Wood processing and paper .....	6		
	Chemical .....	3		
	Other .....	7		
1895			13	1,910
	Wood processing and paper .....	8		
	Other .....	5		

Source: A. Den Kongelige Toldkommission af 25de august 1879, *Statistikk over Norges Fabriknlæg*; Kristiania (Oslo), 1. november 1879, p. XXIII.

B. Statistisk Sentralbyrå: *Statistikk over Norges Fabriknlæg* (for the years 1885, 1890, and 1895); Kristiania, (1889, 1893, and 1898 respectively).

important of the early foreign investments, since it soon became the largest Norwegian producer of mechanical and chemical pulp.

In 1892, Edward Lloyd Ltd., a large British paper concern with interests in many countries, took over Hønefoss Brug and built it up to a capacity of 50,000 tons of mechanical pulp.<sup>5</sup>) This was the largest capacity in Norway at the time and represented a significant portion of the industry.<sup>6</sup>) The same British concern also bought Vittingfos Brug as a source of mechanical pulp supply.

In addition to investments in the wood processing industry, British capital was important in the preliminary construction of the Ofotbanen. In the 1750's rich iron ore deposits were discovered in Northern Sweden in the remote Kiruna and Malmberg regions. Many attempts were made to utilize the deposits, but all ended in financial failure due to the difficulty of transporting the ore to eventual users. In the 1880's, British investors financed the building of a railroad from Gellivare to Luleå, the Swedish export harbor, as well as a stretch of railroad on the Norwegian side. The British concern

<sup>5</sup> Olsen, Kr. Anker: *Follum gjennom 75 år*; Oslo, 1948, p. 83.

<sup>6</sup> Norway's entire capacity for mechanical pulp was 180,000 tons in 1890 and 360,000 in 1900.

went bankrupt shortly after ore export began in 1888, and the Norwegian and Swedish Governments took over the installations.<sup>7)</sup>

One of the most important Norwegian mining companies, Sulitjelma Aktiegruber, was founded in 1891 by Swedish investors. Its purpose was to mine pyrite deposits at Fauske, near the Swedish border. Nearly all of the important Swedish investments were made during the following fifteen year period, 1891—1905, the last years of the political and economic union under a joint monarch.

#### 4. A large influx of direct foreign investment (1896—1913).

During the period 1896—1913, major technological innovations originating in Europa and America played an important role in accelerating the process of industrialization in Norway. At this time, technical developments in the field of industrial uses for electric power created a demand for low-cost and accessible electrical power. Abundant water resources, located near deep water harbors, provided Norway with a comparative advantage for industries based on inexpensive hydro-electric power and ocean transportation. The electrochemical, electrometallurgical, and wood processing industries were in this category.<sup>8)</sup> Furthermore, growth in world demand for copper, sulphur, and iron created favorable conditions for mining Norway's deposits of pyrites and iron ore. All of these industries were capital intensive and required a relatively sophisticated technology. Foreign investment provided a significant supplement to the existing Norwegian capital and technological resources.

##### A. The position in 1909.

The Census of Industrial Establishments of December 31, 1909 gives a detailed picture of the degree of foreign ownership of Norwegian industry several years before foreign investment reached its peak. Exhibits 2.2, 2.3, and 2.4 summarize these findings.

The Census did not purport to indicate the degree of foreign influence on Norwegian economic activity as a whole. Although foreign-owned establishments employed 13.6 % of all industrial workers, this represented only 2.6 % of the economically active population.<sup>9)</sup> On the other hand, there must have been a significant amount of indirect employment caused by cross deliveries from non-industrial sectors to the industrial sectors and within

<sup>7</sup> Dahlum, K.: «LKAB og dets betydning for Nord-Norge»; published in *Teknisk Ukeblad*; Oslo, June 23, 1960.

<sup>8</sup> Most of the wood processing mills were already located near water resources for the sake of mechanical power, thus easing the transition to hydro-electric power; however, some were hindered by locations too far from ocean transportation.

<sup>9</sup> Based on the number of employed persons 15 years of age or more in 1910. Source: Statistisk Sentralbyrå: *Statistiske oversikter 1958*; Oslo, 1959, p. 18.

the industrial sectors themselves. Foreign investments in the wood processing industry undoubtedly had such multiplier effects. In like manner, foreign ownership of 38.8 % of industrial capital stock was not representative of foreign financial influence on economic activity. At least one-fourth of industrial activity and most non-industrial activity was not organized in corporate form.

Many of the characteristics shown by direct foreign investment in 1909 set the pattern for future years. The foreign establishments were:

(1) *Capital intensive*. The foreign share of capital stock, owner capital, real property, and net worth was considerably larger than its share of employment (Exhibit 2.2).

(2) *Large*. Fully foreign-owned establishments had an average employment of 164 per establishment. Average capital stock was kr. 1,561 thousand per establishment or nearly kr. 10 thousand per employee. In contrast, fully

Exhibit 2.2. Summary of Census of Industrial Establishments as of December 31, 1909.

Type of ownership	Number of workers	Number of work days (in 1000)	Capital stock or owner capital <sup>2</sup> (kr. 1 million)	Property assessment (kr. 1 million)	Net worth (kr. 1 million)	Taxable income (kr. 1 million)
<i>A. Absolute Figures</i>						
1. Single person .....	30,819	8,161.5)	105	58.2	53.6	7.1
2. Partnership .....	7,894	1,995.9)		30.8	21.8	3.0
3. Public .....	not given			19.2	15.6	1.4
4. Corporation .....	66,329	18,788.8	295	242.7	203.8	18.3
a) completely Norwegian ..	47,142	13,230.5	145	134.4	125.1	11.5
b) completely Foreign .....	5,260	1,524.3	50	28.3	22.1	1.8
c) mixed Norwegian-Foreign	13,927	4,034.0	100	80.0	56.6	5.0
1) Norwegian share <sup>1</sup> ...	4,902	1,420.0	35	29.5	20.8	1.9
2) foreign share <sup>1</sup> .....	9,025	2,614.0	65	50.5	35.8	3.1
d) total Norwegian corporate	52,044	14,650.5	180	163.9	145.9	13.4
e) total Foreign corporate ..	14,285	4,138.3	115	78.8	57.9	4.9
5. Total Norwegian .....	90,757	24,807.9	285	272.1	236.9	24.9
6. Total Foreign .....	14,285	4,138.3	115	78.8	57.9	4.9
7. Grand total .....	105,042	28,946.2	400	350.9	294.8	29.8
<i>B. Relative figures (in per cent)</i>						
1. Norwegian share of corporate	78.4	78.0	61.2	67.5	71.6	73.2
2. Foreign share of corporate..	21.6	22.0	38.8	32.5	28.4	26.8
3. Norwegian share of total ..	86.4	85.7	71.2	77.6	80.3	83.5
4. Foreign share of total .....	13.6	14.3	28.8	22.4	19.7	16.5

Source: Statistisk Sentralbyrå: *Fabrikttellingen 1909*; Kristiania, 1911, Vol. I, pages XXXI, XXXII, Vol. VII, pages 15, 23, 30, and 31.

<sup>1</sup> Distributed according to the relative share of capital stock.

<sup>2</sup> Owner capital was based on estimated capital per 1,000 work days. For foreign this was 27,700 kroner, for Norwegian 12,300 kroner and for single person or partnership companies 10,000 kroner.

## Exhibit 2.3. Distribution of Corporations by type of

Industry group	Completely Norwegian corporations		
	Number of establishments	Number of workers	Paid-in capital (Kr.)
1. mining .....	1	22	800,000
2. open pit mining .....	2	132	645,000
3. quarrying .....	102	3,647	11,320,228
4. metal industry .....	36	1,860	3,824,490
5. machinery and transport .....	81	11,918	21,485,131
6. chemical industry .....	26	1,672	5,636,500
7. heating and lighting .....	57	1,014	9,075,925
8. textile industry .....	60	5,048	10,456,338
9. paper, leather, rubber .....	80	6,087	24,421,100
10. wood processing .....	207	6,570	22,793,292
11. food processing .....	384	6,412	28,808,761
12. clothing industry .....	23	1,030	890,500
13. publishing .....	69	1,420	4,725,825
14. other .....	31	310	350,485
Total .....	1,159	47,142	145,233,575

Source: Statistisk Sentralbyrå: *Fabrikttellingen 1909*; Kristiania, 1911, p. 124—125, 152.

<sup>1</sup> Excludes non-corporate industrial establishments.

Norwegian-owned establishments had average employment of 41, and average capital stock of kr. 125 thousand, or kr. 3 thousand per employee. The mixed ownership establishments fell between the two extremes.<sup>10</sup>) In fact, taking into consideration all ownership categories, just eleven corporations accounted for 44 % of the foreign share of employment, and 80 % of the foreign share of capital stock.<sup>11</sup>)

(3) *Concentrated in export industries.* Over 92 % of foreign-held capital stock was located in four export sectors; namely, chemicals, paper (pulp), electricity (supplying power-using export industries), and mining (Exhibit 2.4).

(4) *Productive.* The foreign share of taxable income was larger than its share of employment (Exhibit 2.2).<sup>12</sup>)

## B. Development of hydro-electric power for industrial use.

One of the first important developments of hydro-electric power for

<sup>10</sup> Averages calculated from totals in Exhibit 2.3.

<sup>11</sup> Based on a list of the largest corporations, which was published as part of the Census of Industrial Establishments of December 31, 1909.

<sup>12</sup> The Census takers explained that the profitability of foreign establishments was understated because of heavy initial write-off on new plant and equipment. Many were just starting at the time of the Census. As mentioned before, transfer pricing policy in the wood processing sector also tended to depress taxable income.

activity and owner as of December 31, 1909.<sup>1</sup>

Completely foreign corporations			Partly Norwegian and partly foreign corporations				
Number of establishments	Number of workers	Paid-in capital (Kr.)	Number of establishments	Number of workers	Total paid-in capital (Kr.)	of which Norwegian (Kr.)	of which foreign (Kr.)
9	827	5,517,600	12	3,236	24,068,340	4,700,360	19,167,780
—	—	—	1	15	90,000	90	89,910
2	100	300,000	7	607	1,208,600	810,900	397,700
1	79	1,840,000	6	371	1,323,590	894,890	428,700
2	217	300,000	9	1,030	2,332,400	1,412,900	919,500
4	975	9,023,235	9	1,024	32,484,220	1,458,640	31,025,580
2	104	2,033,000	10	353	9,719,910	2,030,910	7,689,000
2	154	800,000	11	1,974	3,454,600	3,066,200	388,400
2	2,319	30,093,111	20	3,425	17,855,000	15,877,000	1,978,000
3	52	—	9	389	2,063,400	1,804,490	258,910
5	433	36,400	12	544	2,886,400	1,777,555	1,108,845
—	—	—	2	519	900,000	272,500	627,500
—	—	—	1	19	200,000	1,500	198,500
—	—	—	3	421	1,012,000	955,800	56,200
32	5,260	49,943,346	112	13,927	99,598,460	35,063,735	64,534,725

industrial use occurred at the Sarpsfoss waterfall complex (near Sarpsborg). In 1898, the German Schuckert Company, together with some individual Norwegian participants, constructed an electrical power facility there. Production of carbide was started soon thereafter at Skjeberg under a subsidiary company. The carbide operation was sold in 1904 to a Swiss company, Usines Electrochimiques de Hafslund, which continued the carbide production and started production of ferro-silicon in 1908. In 1909, the carbide and ferro-silicon plants employed 390 persons and had capital stock of kr. 2,250,000, all of which was Swiss-held. The Hafslund electrical power plant continued under German ownership with capital stock of kr. 4,000,000.

During the same period, The Kellner-Partington Paper Pulp Company Ltd. converted its operations to electrical power, using another portion of the Sarpsfoss waterfall. By 1909, it had grown to be Norway's largest industrial employer, with 2,045 employees. Moreover, it had the second largest amount of capital stock, kr. 27,593,111, all of which was in British hands.<sup>13</sup>)

The most important hydro-electric projects during this period were initiated by Sam Eyde, a Norwegian entrepreneur and engineer. He carried

<sup>13</sup> In 1909, foreigners held 44.3 % of the capital stock in the paper and pulp industry. Vittingfos Brug was still in British hands (employment 273; capital stock kr. 2,500,000). A/S Follum Fabrikker, founded 1873, went through a brief period (1906—1909) under the ownership of the British Reed Group, but was repurchased by Norwegians.

Exhibit 24. Distribution of capital stock by type of activity and owner as of December 31, 1909.

Industry group	Absolute figures in Kr.			Relative figures		
	Norwegian capital	Foreign capital	Total capital	Norwegian capital	Foreign capital	Total capital
1. mining .....	6,145,450	24,975,490	31,120,940	19.7	80.3	100.0
2. open pit mining .....						
3. quarrying .....	12,131,128	697,700	12,828,828	94.6	5.4	100.0
4. metal industry .....	4,719,380	2,268,700	6,988,080	67.5	32.5	100.0
5. machinery and transport	22,898,031	1,219,500	24,117,531	94.8	5.2	100.0
6. chemical industry .....	7,095,140	40,048,815	47,143,955	15.0	85.0	100.0
7. heating and lighting ...	11,106,835	9,722,000	20,828,835	53.3	46.7	100.0
8. textile industry .....	13,522,538	1,188,400	14,710,938	91.9	8.1	100.0
9. paper, leather, rubber..	40,298,100	32,071,111	72,369,211	55.7	44.3	100.0
10. wood processing .....	24,597,782	258,910	24,856,692	99.0	1.0	100.0
11. food processing .....	30,586,316	1,145,245	31,731,561	96.4	3.6	100.0
12. clothing industry .....	1,163,000	627,500	1,790,500	65.0	35.0	100.0
13. publishing .....	4,727,325	198,500	4,925,825	96.0	4.0	100.0
14. other .....	1,306,285	56,200	1,362,485	95.9	4.1	100.0
Total .....	180,297,310	114,478,071	294,775,381	61.2	38.8	100.0

Source: Statistisk Sentralbyrå: *Fabriktællingen 1909*; Kristiania, 1911, p. XXXI.

out his activities through ownership and leadership of Elektrokemisk A/S, an engineering and consulting firm founded in 1904 for the express purpose of developing power-using industries in Norway. Since the Norwegian capital market was limited, Eyde was forced to turn to foreign capital markets. Through contacts made during his engineering studies in Stockholm, he managed to interest Marcus Wallenberg, Director of Stockholm's powerful Enskilda Bank, in many Norwegian investments.<sup>14</sup>) Wallenberg's support may have been partially motivated by the possibility of receiving power equipment contracts for Swedish ASEA, one of the many other family interests.

Eyde's most important project was Norsk Hydro A/S, which he helped to incorporate in 1905. Its purpose was to utilize an electrical process for the production of nitrogen. The so-called Birkeland — Eyde process was based on an accidental discovery by Professor Birkeland during one of his University lectures. Eyde saw the industrial potential of the process, and already controlled rights to waterfalls, transport facilities, power plants, patents, and other resources that are necessary to build an integrated electrochemical plant. The Swedish Wallenberg group financed a part of the original capital stock of kr. 7 million and interested the Banque de Paris et des Pays-Bas in

<sup>14</sup> Petersen, Erling: *Elektrokemisk A/S 1904—1954*; Oslo, 1953.

another share. Eyde was managing director from the start. By the time of the 1909 Census 4 years later, the capital stock had quadrupled to kr. 29,639,700, the largest in Norway. Nearly all of the capital stock was foreign-held. Expansion was partly a result of a short-lived co-operation (1907—1911) with the German «Badische Group».<sup>15)</sup> In return for patent rights on a less power-intensive process (based on ammonia), the Germans received a minority ownership position in Norsk Hydro A/S. They gave it up in 1911 after a series of disagreements with Sam Eyde. In 1909, employment at the Notodden plant was 447 persons. This was only 23rd largest in Norway, but represented one-fourth of total employment in the infant chemical industry.

Eyde was also influential in developing a second hydro-electric complex on the south arm of the Hardangerfjord. The power company, A/S Tyssefaldene, was founded at Tyssedal in 1906 with a capital stock of kr. 2,500,000, most of which was foreign-held by 1909. Based on this source of power, a British company, Alby United Carbide Factories Ltd., established a carbide plant at Ullensvang. An associated British company established a cyanamide plant at the same location (A/S North-western Cyanamide Co.). In 1909 combined employment was 422 persons and capital stock kr. 6,245,635. Prior to the end of World War I, these plants were among the world's largest in their field.

Eyde promoted still another hydro-electric development near Arendal in southern Norway. Based on electrical power supplied by Arendal Fossekompagniet (which was owned by Elektrokemisk A/S), the largest French electrometallurgical company, «Pechiney», was offered a site at Eydehavn, to experiment with the promising Serpek process for producing aluminium nitrate.<sup>16)</sup> Det Norske Nitridaktieselskap (DNN) was founded for this purpose in 1912 with capital stock of kr. 10,800,000, of which 77 % was French-held. When the Serpek process proved uneconomical in practice, production of pure aluminium was started.

In 1912, Sam Eyde also succeeded in interesting a German group in buying kr. 410,000 out of kr. 900,000 capital stock for A/S Arendal Smelteverk, which based its production of synthetic corundum and silicon carbide on electrical power from Arendal Fossekompagniet.<sup>17)</sup>

Two other foreign-owned aluminium producers preceded DNN.<sup>18)</sup> A/S Stangfjorden Elektrokemiske Fabriker was originally founded in 1897 by Norwegian capital, but its capital stock of kr. 450,000 was purchased by The British Aluminium Company several years later. Aluminium production was

<sup>15</sup> Olsen, Kr. Anker: *Norsk Hydro gjennom 50 år*; Norsk Hydro A/S, Oslo, 1955.

<sup>16</sup> Det Norske Nitridaktieselskap: *Det Norske Nitridaktieselskap 1912—1962*; Oslo, 1962.

<sup>17</sup> A/S Arendal Smelteverk: *A/S Arendal Smelteverk 1912—1962*; Arendal, 1962, p. 137—142.

<sup>18</sup> Det Norske Nitridaktieselskap: *Det Norske Nitridaktieselskap 1912—1962*; Oslo, 1962.

started in 1906.<sup>19)</sup> A/S Vigelands Brug was originally founded in 1900. It began production of aluminium in 1909. In 1912, The British Aluminium Company bought most of the capital stock of kr. 2,000,000.

### C. Mining.

In 1909, foreign interests, mainly Swedish and British, controlled virtually the entire mining industry in Norway. Out of 22 establishments, only 1 small corporation had 100 % Norwegian capital. Foreigners held 80.3 % of the total capital stock in the mining industry and working control of each of the mixed ownership corporations.<sup>20)</sup>

The three largest foreign investments were concerned with the mining and export of pyrites, which were valuable for their sulphur and copper content. In 1909, Swedish-owned Sulitjelma Aktiegruber, Fauske, employed 1,688 persons.<sup>21)</sup> This made it the second largest corporate employer. Capital stock was kr. 7,021,000. A second pyrite mining company, The Foldal Copper Sulphur Co. Ltd., Lillelvedalen, employed 530 persons, making it the seventeenth largest corporate employer. It began originally as a small copper mine, but went over to pyrite export in 1907. In 1904, British interests had purchased the company and solved the transportation problem by building a conveyor system to the nearest railroad station, Alvdal, which was 34 kilometers away. In 1909, its capital stock was kr. 5,580,000, mostly in British hands. A third pyrite mining company, Orkla-Grube Aktiebolag, Løkken Verk, was founded in 1904 with Swedish capital supplied by the Wallenberg group. In 1909, employment was 285 persons and capital stock kr. 4,500,000, mostly in Swedish hands. Løkken Verk had been in operation since 1654, primarily as a copper mine. From 1855—1890, it had provided small amounts of pyrites for export, but was out of operation from 1890—1904. The Swedish investors financed the building of the Thamshavn Railroad 1904—1910, which made it possible to export pyrites on a commercial scale beginning in 1910.

In addition to the three large pyrite operations, there were nine smaller 100 % foreign-owned mining establishments in 1909. Their combined employment was 827 persons, in units of from 30 to 216 persons. Combined capital stock was kr. 5,517,600. Among these, another pyrite operation, The Bede Metal and Chemical Co. Ltd., with British capital, was one of the most unusual. The British investors actually rented the Killingdal Grubeselskab's mine at Ålen for a 50 year period (1895—1945). Another important British investment was the Dunderland Iron Ore Co. Ltd., which mined iron ore in

<sup>19</sup> Production stopped in 1943, due to a shortage of raw materials, and never started again.

<sup>20</sup> Nearly all mining establishments were organized in corporate form.

<sup>21</sup> The histories of the mining companies are taken from: *Bergverkenes Landsammenslutning: Bergverkenes Landssammenslutning gjennom 50 år (1907—1957)*; Grøndahl & Søn's Boktrykkeri; Oslo, 1957.

the Rana field. Belgian capital had started A/S Stordø Kisgruber (pyrites) at Stord in 1907, but a German paper company purchased two-thirds interest in the next year.

A number of other important foreign mining investments started operation between the time of the 1909 Census and World War I. Norway's largest mining operation today, A/S Sydvaranger (near Kirkenes), commenced full operations in 1910. It was founded in 1906 by a Norwegian, Christian Anker. He was financed by a Swedish consortium, which included the Wallenberg family. The original capital stock was kr. 5 million, of which Anker held 36.4 %. In 1907, however, it was raised to kr. 10 million, and the Swedish group purchased Anker's share. A German banking group made available loan capital in return for an opportunity to purchase kr. 3 million of the new capital stock. The second largest iron ore mining company, Fosdalens Bergverks-A/S, Malm, Nord-Trøndelag, was started in 1912 as a subsidiary of Nordiske Grubekompagni, a Norwegian company owned by Swedish interests. The mine in Malm had been discovered by an employee of the latter company in 1907, and production of limited amounts of high grade ore was carried on until 1913, when it no longer proved economical. A new mine at Nygruva was opened, however, and iron ore was mined despite continuing financial difficulties. Another pyrite mining company, Bjørkaasen Gruber, was founded in 1913 by German capital.<sup>22)</sup> It should also be mentioned that A/S Grong Gruber was founded in 1912 by a partnership of Elektrokemisk, under Sam Eyde's leadership, and French interests. The original concession included the whole Joma field, one of the largest pyrite deposits in Norway. The deposits were very isolated, however, and it took several years before the first mine came into operation at Skorovas.<sup>23)</sup>

#### D. Electrotechnical.

The rapid development of the electrochemical and electrometallurgical industries from 1905—1920 should have provided an excellent basis for the growth of a domestic electrotechnical industry; however, Norway lacked a sufficient number of trained engineers, as well as facilities for carrying out research and development. The foundation of the Engineering School at Trondheim in 1914 helped matters in the long run, but came too late to enable the Norwegian electrotechnical companies to establish themselves before the difficult years between the two World Wars. Instead, Norway imported most of the heavy electrical investment goods that were needed for the new

<sup>22</sup> It went over to Swedish ownership in 1917 but ceased operations in 1964.

<sup>23</sup> In 1918, the State became interested in the whole Joma field and passed the so-called «Grong Law», which gave the State the rights to those deposits that were not yet developed. The capital stock in A/S Grong Gruber was purchased by the State, with Elektrokemisk retaining the mining rights to Skorovas Gruber. At the present time, the Norwegian Government still holds the rights to the rest of the Joma field through its control of A/S Joma Bergverk, capital stock kr. 10.8 million, but the deposits have not been exploited as yet.

installations. This provided an important market for the larger foreign concerns, such as ASEA (Sweden) and Siemens (Germany), and contributed in no small measure to their growth. Installed generator capacity had already reached 250,000 kW by 1910 but the period of greatest growth was still ahead.<sup>24</sup>)

Although most of the electrical equipment needs were imported, Norway did manage to supply a part of the demand by production based on the purchase or lease of foreign patents. Foreign producers were also beginning to show an investment interest in the electrotechnical field in Norway by 1909, but the main influx of foreign capital did not come until later, and then, usually by purchase of existing companies. Brown Boveri & Co., Switzerland, was an exception. It was active in the production of electrical machinery in Norway after 1901, when it formed Brown Boveri A/S, a 50—50 partnership with Norwegian capital to produce the Swiss equipment. In 1908, Brown Boveri A/S merged with Norsk Elektrisk Aktiebolag. The latter had started as a Norwegian-owned producer of agricultural equipment in 1873, but produced Norway's first electrical generator in 1883. It had pioneered development in this field, operating under a working agreement with the Swedish concern, ASEA, and the Norwegian company, Myrens Verksted. The merged companies formed Norsk Elektrisk & Brown Boveri A/S (NEBB), with capital stock of kr. 1,400,000. The Swiss interests held slightly over 50 %.<sup>25</sup>) The census of 1909 showed that NEBB employed 393 persons at Skøyen (formerly NEA) and 88 more at Maridalsveien.

At the time of the 1909 Census, Norwegian-owned A/S Elektrisk Bureau, employment 583 and capital stock kr. 600,000, was the only other sizeable producer in the electrotechnical field. It was not completely competitive with NEBB, however, since it specialized in telecommunication equipment (telephone and telegraph in the early days). It had a working agreement with L. M. Ericsson, Sweden, prior to 1928, when the latter company purchased controlling interest.

There were also several foreign-owned trading companies established in the electrotechnical field prior to 1913. They were primarily concerned with import and servicing of a particular foreign manufacturer's products. Norsk Aksjeselskap Siemens was founded in 1898 by the German Siemens concern. It did engineering and consulting work in connection with imports of Siemens' electrical equipment, particularly for large power installations. The same was true of AEG, which was founded in 1901 to represent the German concern of the same name. C. Brun A/S was founded in 1881 to sell Singer sewing

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<sup>24</sup> Ingvaldsen, Bernt: «Litt om den elektrotekniske industri i Norge», *Elektroteknisk Tidsskrift*, 25. November 1954, p. 459—463.

<sup>25</sup> Fasting, Kåre: *A/S Norsk Elektrisk og Brown Boveri 1908—1958*; Oslo, 1958, p. 121—122. The section on NEBB was also supplemented by an interview at the company in 1963.

machines. Eventually the company became Singer Co. Symaskin, owned by the American Singer Manufacturing Company.

#### E. Trade.

Foreign companies in fields other than the electrotechnical industry also established Norwegian import subsidiaries before World War I. In the petroleum industry, A/S Østlandske Petroleumscompagnie (founded 1898), the Vallø Refinery, and three small regional companies represented Standard Oil interests in Norway. A substantial amount of Norwegian capital was involved in these investments. In 1912, the British Shell Oil group founded A/S Norske Shell. In other fields, a diversified Swedish manufacturer, AGA, founded N. A. Gasaccumulator in 1908. The Norwegian company carried on licensed production of acetylene and oxygen and sold AGA's welding equipment.<sup>26</sup>) Aktieselskapet United Shoe Machinery Company was founded in 1910 by the American company of the same name. In 1907, a Swedish company, Alex Lagerman Jr. A/B, started a branch, Tomten Fabriken, Sandvika, to market and produce washing and cleaning compounds.

#### F. Transport.

In 1898, construction of the partially built Ofofbanen (railroad) was begun again under the auspices of the Norwegian and Swedish Governments. By 1903, the whole railroad was complete, with deep water terminal points at Luleå in Sweden and the specially built ice-free port of Narvik in Norway. In 1907, the private Swedish concern, Grängebergsbolaget, bought one-half of the capital stock of Luossavaara Kiirunavaara A/B (LKAB) from the Swedish Government and took over operation.<sup>27</sup>) The Norwegian operations of LKAB were organized as a branch of the Swedish company. The Norwegian State Railways (Norges Statsbaner) was hired to carry the ore over Ofofbanen to Narvik, with LKAB covering all expenses connected therewith, including the shipping and storage facilities at Narvik. Through the years, LKAB and its satellite operations have provided the economic basis for Narvik and its 13,500 citizens (1960).

### 5. A period of repatriations (1914—1919).

As mentioned in Chapter I, World War I brought inflation to Norway. Rising prices, large export earnings, and direct controls to limit purchase of scarce physical goods created a speculative climate. Many new domestic corporations were established without a firm economic basis, and foreign

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<sup>26</sup> About half of the capital stock in N. A. Gasaccumulator went over to Norwegian hands in 1928, but the two companies remained tied to one another by formal agreements and common interests.

<sup>27</sup> Repurchased by the Swedish Government in 1954 for 900 million Swedish kroner.

exchange earnings were placed in overseas ventures that hardly survived the War period. Nevertheless, at least kr 141.6 million was used to repurchase some of the most successful foreign-owned enterprises in Norway. Exhibit 2.5 shows how these repatriations were distributed.

Exhibit 2.5. Repatriation of foreign-owned enterprises during World War I.

Industry	Repurchased shares at face value (kr. 1 million)
1. Export industry .....	108.4
2. Trade .....	5.3
3. Finance .....	15.0
4. Shipping, whaling, and sealing .....	6.8
5. Other .....	6.1
Total .....	141.6

Source: Statistisk Sentralbyrå: *Statistiske Meddelelser 1925*; Oslo, 1926, p. 139—147.

The most important individual transaction was the purchase of the Kellner-Partington Paper Pulp Company Ltd., together with all of its interests in the Sarpsfoss waterfall area and abroad. Hjalmar Wessel, sponsored by the Norwegian forest owner organizations, Norges Bank, and Creditbanken, arranged with the British owners for a purchase price of £ 6,879,330. Of this amount, 10 % was paid in cash and the rest covered by a loan from Hambros Bank Ltd. in London. The three sponsors arranged for a nationwide subscription to the kr. 50 million in capital stock necessary to form a holding company, Borregaard A/S. By the end of 1917 the sale was consumed. By the end of 1919 the loan from Hambros Bank Ltd. was repaid. The necessary exchange was bought in Norway by Centralbanken at an average exchange rate of 15.87 kroner per pound, resulting in a total purchase price of roughly kr. 100 million.<sup>28</sup>) This was in a period when the rate of exchange of pounds was rising sharply. The rate swung from 12.90 kroner in November, 1917 to 31.75 kroner in October, 1921.<sup>29</sup>) Since its establishment, Borregaard A/S has been Norway's second largest industrial concern in financial terms, but its largest in terms of total employment. It has also been the vehicle for repatriating other prominent British investments, including De-No-Fa og Lilleborg Fabrikker and Follidal Verk.

There were also other important individual transactions. Another British-owned paper company, A/S Vittingfos Brug, was repurchased by a

<sup>28</sup> Rygg, N.: *Norges Banks Historie; Annen del*; Oslo, 1954, p. 536—537.

<sup>29</sup> Brofoss, Erik: *Valutapolitikk, Forelesninger — Vårsemesteret 1964*, U. of Oslo; Norges Bank, Spring, 1964, p. 92.

Norwegian group for about kr. 3.8 million. The German-Swiss Hafslund power and carbide companies were purchased by Norwegian investors for kr. 9 million, thus completing the takeover of the hydro-electric complex in the Sarpsfoss area. A large number of shares in Norsk Hydro went over to Norwegian ownership, albeit not majority control. Finally, Norwegian interests purchased the German-held share of A/S Arendal Smelteverk.

Despite the repatriations, foreign investments continued to take place during World War I, although on a declining scale after the Concession Act of 1917. Hydro-electric projects were still viewed with considerable long range optimism. Norway's largest producer of ferro-alloys, Electric Furnace Products, Sauda, was started in 1914, but did not come into operation until 1923. It was organized as a branch of Union Carbide Ltd., Canada. Increased demand for aluminium provided a basis for an expansion of Det Norske Nitridaktieselskap to Tyssedal in 1916. There, it purchased the defunct works of A/S Hardanger Elektriske Jern- og Staalverk, a company which Sam Eyde had created in order to utilize the power potential of A/S Tyssefaldene.

Expansion of installed generator capacity from 250,000 KW in 1910 to 1,250,000 KW in 1920 provided exceptional opportunities for the electro-technical industry. In 1916, the American Westinghouse Corporation established a production subsidiary, A/S National Industri, in order to compete on large power installations with the earlier arrivals; namely, the Norwegian-Swiss production partnership, NEBB, and the import subsidiaries of the two German concerns, Siemens and AEG. In the same year, and for the same reasons, Swedish ASEA bought controlling interest in A/S Per Kure Norsk Motor- og Dynamofabrikk, Oslo. The latter was formed by a merger of two older companies, one of which dated back to 1897. Another electrotechnical company, Norsk Radioaksjeselskap, was established as a production subsidiary of the German Telefunken concern, and it soon provided competition for A/S Elektrisk Bureau in the field of telecommunications.

In other fields, a Swiss consortium, led by Nestlé interests, purchased A/S De Norske Melkefabrikker, Oslo, together with its production subsidiary at Levanger, in 1916. In the same year, Swedish Atlas Diesel (construction and mining equipment) started an agency in Norway, which eventually became Atlas Copco A/S (1956).

#### 6. The Census of May 1, 1919.

The Census of industrial and non-industrial corporations of May 1, 1919, the results of which are summarized in Exhibit 2.6, shows that the net result of repatriations and new foreign investments was a large increase in the amount of foreign-held stock at face value. In particular, foreign holdings in industrial corporations rose from kr. 115 million in 1909 to kr. 205 million in 1919. Moreover, the Census recorded capital stock in non-industrial corporations for the first time. Foreign holdings were kr. 45 million.

Exhibit 2.6. The Census of May 1, 1919. Ownership of Norwegian corporate capital stock (at face value).<sup>1</sup>

Industry sector	Total capital stock (Kr. 1 million)	Foreign-held capital stock (Kr. 1 million)	Foreign as a % of the total
1. Mining .....	146	65	44.5
2. Manufacturing .....	1,203	140	11.6
3. Water transport .....	1,110	20	1.8
4. Whaling and sealing .....	47	—	—
5. Trade .....	1,058	13	1.2
6. Others .....	162	12	7.4
Total .....	3,726	250	6.7

Source: Det Statistiske Centralbyrå: *Tilleggshäfte til Meddelelser fra Det Statistiske Centralbyrå 1919: Finansstatistisk undersøkelse pr. 1. mai 1919*; Steenske Boktrykkeri, Johannes Bjørnstad, Kristiania, 1920.

<sup>1</sup> Total market value of foreign-held capital stock was estimated to be kr. 400 million.

Despite the absolute growth in foreign holdings, the relative foreign share of the capital stock in all Norwegian industrial corporations fell from 38.8 % in 1909 to 15.2 % in 1919. This decline was a direct result of a fivefold increase in the capital stock of Norwegian industrial corporations as a whole, at least part of which was carried at artificially high face values. The effect of inflation can be seen in the market value of foreign-held capital stock, which was kr. 400 million, compared to its face value, which was only kr. 250 million.

In 1919, foreigners owned 6.7 % of all corporate capital stock in Norway. Again, it must be remembered that a significant portion of economic activity was still not organized in corporate form. This was particularly true of shipping, agriculture, forestry, fishing, and the service trades.

### Chapter III. The interwar period 1920—1939.

#### 1. The financial problem.

As pointed out in Chapter I, the Norwegian economy labored under difficult financial conditions during the interwar period. Many of the more speculative corporations which had been founded during World War I vanished from the scene during the post-War deflation. A number of substantial Norwegian firms also found themselves overextended and overcapitalized for peacetime operations. Some of these were forced to reorganize, write down their capital stock, and reduce their long term debt. Others were forced into bankruptcy, although their productive assets were sometimes taken over by other corporations. Finally, a number of Norwegian-owned companies were sold to foreign investors when the domestic money market proved to be too limited to cope with the situation.

Foreign-owned Norwegian companies also operated under financial constraints, but nearly all of them survived. In most cases, they could rely on financial support from abroad, because the foreign investors were usually interested in maintaining the Norwegian subsidiary as a source of supply of raw materials and semi-manufactures.

Exhibits 3.1 and 3.3 illustrate the effect of the interwar difficulties on foreign-held investments as measured by capital stock values, while Exhibit 3.2 shows the comparable values for all Norwegian capital stock. The effect of write-downs and bankruptcies can readily be seen in the decline of total face value of capital stock in all Norwegian corporations from kr. 3,726 million in 1919 (Exhibit 2.6) to kr. 2,023 million in 1936 (Exhibit 3.2). In contrast, the face value of foreign-held capital stock increased from kr. 250 million in 1919 (Exhibit 2.6) to about kr. 318 million in 1939 (Exhibit 3.1).<sup>1</sup> As a result, the foreign-held share of total Norwegian capital stock increased from 6.7 % in 1919 to 15.7 % in 1936. Moreover, the foreign-held share

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<sup>1</sup> A large part of the increase in foreign holdings was due to purchase of existing Norwegian corporations rather than internal growth. On the other hand, the source of information is the *Finanstelling*, which considers capital stock «Norwegian-held» if it is held by another Norwegian corporation, even if the latter is foreign-owned. Thus, «foreign-held» capital stock understates foreign control of Norwegian corporations.

increased in each type of economic activity, not just in those sectors characterized by speculative activities (Trade and Finance). Despite a favorable record with respect to viability, however, it should be noticed that the market value of foreign-held stock was depressed in relation to its face value throughout the interwar period, an experience shared by nearly all Norwegian corporations.

## 2. Norwegian Government policy.

During the interwar period, the various Norwegian Governments interpreted the existing concession laws in such a manner that foreign takeovers of Norwegian corporations were not considered contrary to the public interest. Such a permissive attitude was necessarily motivated by a desire to counteract production and employment instability in economic sectors connected with external trade. The instability was partially caused by fluctuations in the terms of trade, as well as the trend toward international cartels and other artificial barriers to trade. It was felt that direct foreign investment and participation in the cartels would help to solve the immediate financial problem, and offset the disadvantages of Norway's small size when forced to compete against cartels.

Exhibit 3.1. Foreign-held capital stock in Norwegian corporations in selected years 1920—1939 (kr. 1 million) — by industry.

Industry sector	Oct. 1, 1924		Jan. 1, 1929		Jan. 1, 1934		Jan. 1, 1937		Jan. 1, 1939	
	Face value	Market value								
I. Financial institutions..	Under	II.6	—	8	8.9	8.1	4.5	5.6	5.8	7.2
II. Other domestic sectors	250	220	—	298	338.1	236.2	313.0	299.1	312.1	302.8
1. Mining.....	88	52	—	27	57.2	23.5	51.7	26.4	36.0	17.2
2. Manufacturing <sup>1</sup> ....	100	120	—	205	227.3	162.6	209.2	204.7	224.7	215.3
a) home industry..	—	—	—	23	40.4	19.2	34.2	15.7	33.4	16.3
b) export industry..	—	—	—	182	186.9	143.4	175.0	189.0	191.3	199.0
3. Water transport...	15	20	—	22	18.1	11.8	17.3	20.5	17.1	23.8
4. Whaling and sealing	Under	II.6	—	14	9.1	7.0	5.5	8.4	4.3	5.5
5. Trade .....	»	»	—	29	25.5	30.9	28.2	38.1	29.0	39.8
6. Others .....	47	28	—	1	0.9	0.4	1.1	1.0	1.0	1.2
Total .....	250	220	332	306	347.0	244.3	317.5	304.7	317.9	310.0

Source: Statistisk Sentralbyrå: *Statistiske Meddelelser (Meldinger): Finanstilling*; annual issues 1926—1940; H. Aschehoug & Co., Oslo.

<sup>1</sup> Includes electrical production.

Exhibit 3.2. Total capital stock in Norwegian corporations as of Dec. 31, 1928 and Oct. 9, 1936. Foreign-held share of the total.

Industry sector	Dec. 31, 1928 Face value (Kr. 1 million)	Foreign-held share as % of total <sup>1</sup>	Oct. 9, 1936 Face value (Kr. 1 million)	Foreign-held share as % of total <sup>2</sup>
I. Financial institutions.....	Under	II.5	336	1.5
II. Other domestic sectors.....	3,059	10.9	1,687	18.6
1. Mining .....	113	23.9	70	74.2
2. Manufacturing <sup>3</sup> .....	1,191	17.2	629	22.5
3. Water transport .....	713	3.1	406	5.7
4. Whaling and sealing.....	72	19.4	Under	II.3
5. Trade .....	790	3.7	226	12.4
6. Others .....	180	0.6	56	1.8
Total .....	3,059	10.9	2,023	15.7

Source: Statistisk Sentralbyrå: *Statistiske Meddelelser (Meldinger): Finansstilling*; H. Aschehoug & Co., Oslo, 1929.

Statistisk Sentralbyrå: *Bedriftstelling i Norge. 9. oktober 1936: Første Hefte*; H. Aschehoug & Co., Oslo, 1939.

<sup>1</sup> Foreign-held capital stock at market value as of Jan. 1, 1929 (Exhibit 3.1).

<sup>2</sup> Foreign-held capital stock at face value as of Jan. 1, 1937 (Exhibit 3.1).

<sup>3</sup> Includes electrical production.

Exhibit 3.3. Foreign-held capital stock in Norwegian corporations in selected years 1920—1939. (Kr. 1 million) — by country.

Country	Year		Oct. 1, 1924		Jan. 1, 1929		Jan. 1, 1934		Jan. 1, 1937		Jan. 1, 1939	
	Face value	Market value	Face value	Market value	Face value	Market value	Face value	Market value	Face value	Market value	Face value	Market value
Belgium and Luxembourg	—	—	3.0	5.0	1.5	0.2	3.1	2.3	3.3	4.3		
Canada .....	—	—	5.0	3.0	17.5	15.5	20.7	17.6	23.1	19.9		
Denmark .....	—	15	11.2	15.1	6.1	3.2	5.5	5.4	6.5	7.1		
France.....	—	64	57.9	93.0	100.7	78.3	94.6	106.0	96.5	107.0		
Netherlands .....	—	—	7.7	8.3	7.0	6.3	8.1	8.4	9.7	10.2		
Sweden .....	—	44	69.0	39.6	60.7	33.2	47.1	39.3	34.2	32.3		
Switzerland .....	—	8	11.7	11.0	31.5	28.5	32.3	41.5	32.6	43.7		
U.K. and N.Ireland.....	—	58	57.7	46.9	57.6	34.5	49.7	36.6	59.7	41.5		
United States .....	—	22	48.1	33.8	50.0	36.9	42.0	34.4	43.9	36.7		
West Germany .....	—	—	36.7	40.6	10.3	4.8	9.7	7.9	5.5	4.5		
Others .....	—	9	23.5	10.2	4.1	2.9	4.7	5.3	2.9	2.8		
Total .....	—	220	331.5	306.5	347.0	244.3	317.5	304.7	317.9	310.0		

Source: Statistisk Sentralbyrå: *Statistiske Meddelelser (Meldinger): Finansstilling*; annual issues 1926—1940; H. Aschehoug & Co., Oslo.

In 1927, Parliament passed the so-called «10 % Rule», which was designed to encourage domestic production of certain categories of imports, particularly electrotechnical products and machinery. In the Concession Act of 1917, preference was to be given to Norwegian production for deliveries to projects connected with waterfalls or mines. The «10 % Rule» gave substance to this provision by requiring that 10 % be added to foreign bids before choosing between foreign and domestic suppliers. In addition, there was already a protective tariff on some of the same categories of imports. In practice, some import substitution was achieved; however, in the case of electrotechnical products, increased Norwegian production was achieved partly by foreign companies purchasing or establishing subsidiaries in Norway to produce on license those items that were formerly imported.

### 3. Direct foreign investments in selected sectors.

#### A. Industries based on hydro-electric power.

During the first half of the 1920's and again during the 1930's, Norwegian exports of basic chemicals and metals were hampered by an imbalance in world supply and demand, particularly for carbide products and aluminium. This caused price fluctuations above and beyond those due to exchange rate fluctuations, and forced a number of technically sound Norwegian companies to seek financial help.

Between 1920 and 1924, the Odda hydro-electric complex was threatened with collapse.<sup>2)</sup> Alby United Carbide Factories Ltd., owned by The Sun Gas Co. Ltd., U.K., and A/S North Western Cyanamid Co., its sister company, went bankrupt. This was the one case in which foreign owners abandoned a Norwegian investment and allowed it to go bankrupt. At the same time, Det Norske Nitridaktieselskap was forced to suspend aluminium production at Tyssedal due to lack of export demand. A/S Tyssefaldene itself was forced to close its own ferro-alloy plant, and was thus faced with the loss of all of its main industrial customers. The southern Hardangerfjord region experienced serious unemployment problems over a prolonged period. During the next few years, new foreign capital infused life into the Odda complex again. The French Pechiney group sold one-third ownership in Det Norske Nitridaktieselskap (DNN) to the British Aluminium Co., Ltd. (BACO), and one-third interest to the American ALCOA concern.<sup>3)</sup> Production was resumed in 1924. The defunct works of Alby United Carbide Factories Ltd. were taken over by the Hafslund—Meraker group in 1924 and reorganized as Odda Smelteverk A/S. Production of calcium carbide and calcium cyanamide

<sup>2</sup> A/S Tyssefaldene: *Aktieselskabet Tyssefaldene 1906—1956*; Aktietrykkeriet i Stavanger, 1956.

<sup>3</sup> The American share was taken over by Aluminium Ltd., Canada in 1928, when ALCOA was divested of its foreign subsidiaries. The French retained operating control of DNN until they sold their one-third interest to the other two foreign owners in 1958.

recommenced on a reduced scale, and the company passed over to ownership by The British Oxygen Company Ltd. Finally, the Belgian firm, *Compagnie Royale Asturienne des Mines*, took the initiative to build a plant at Eitheim near Odda for the production of zinc, using an electrolytic process developed by The Anaconda Company, U.S.A. Operation began in 1929.

A number of Norwegian carbide companies outside of Odda also faced financial ruin. Despite a well accepted, high quality, silicon carbide product, *Arendal Smelteverk A/S* was again forced to rely on foreign capital, due to extreme price fluctuations. In 1928, majority ownership went over to The Melltone Corporation, U.S.A.<sup>4</sup>) One of the original Norwegian calcium carbide producers, *A/S Meraker Smelteverk*, which had been started by Norwegian capital in 1898, was sold to Union Carbide Ltd., Canada. Production of ferro-chrome, and later, silicon metal was added to the original line for better diversification. Another producer of calcium carbide, *A/S Bjølvfossen*, which was founded in 1905 by *Elektrokemisk A/S*, also ran into trouble and was faced with the prospect of closing down. In 1928, C. Tennant Sons and Co., Ltd., U.K. purchased a 30 % interest in *A/S Bjølvfossen*. They were agents for the British Sheffield Steel works, and were interested in securing a source of supply of ferro-silicon and ferro-chrome. The Norwegian company was reorganized to meet this demand.

In 1927, *Norsk Hydro A/S* was again offered the German process for producing nitrogen by means of ammonia, a technique which had the advantage of using less electrical power than the Birkeland-Eyde Method. This time *Norsk Hydro A/S* accepted the innovation and introduced it at the Rjukan and Herøya plants. The German I.G. Farben Concern exchanged shares with *Norsk Hydro A/S*, so that kr. 19 million, or 25 % of the total capital stock of *Norsk Hydro A/S*, was in German hands in 1927.<sup>5</sup>) The foreign investment in *Norsk Hydro A/S* represented approximately one-third of all foreign-held Norwegian capital stock from that point until World War II. In 1939, *Norsk Hydro's* capital stock was kr. 104 million. Of this amount, 58.7 % was French-held, 25 % German-Swiss-held, 13.7 % diverse foreign-held, and 2.6 % Norwegian-held.

In the aluminium industry, the one Norwegian-owned company, *A/S Høyangfaldene Norsk Aluminium Company*, founded 1915, was forced to form a 50—50 partnership with ALCOA in 1923 in order to salvage the Norwegian operation.<sup>6</sup>) Its name was changed to *A/S Norsk Aluminium Company (NACO)*, and the remaining Norwegian-held capital stock was assembled and voted by a holding company, *De Norske Naco-Aktier A/S*.<sup>7</sup>) The alumi-

<sup>4</sup> In 1949, The Carborundum Company, U.S.A. took over ownership.

<sup>5</sup> Part of the German holdings went over to a Swiss subsidiary, *Interhandel*, in the following years.

<sup>6</sup> ALCOA's shares were taken over by *Aluminium Ltd.* in 1928.

<sup>7</sup> Name of the holding company changed to *A/S Høyanger* in 1961.

niun production was, and still is, sold to a subsidiary Norwegian company, Nordisk Aluminiumindustri A/S, Norway's main manufacturer of finished and semi-finished aluminium products. The latter company was founded by Norwegian capital in 1917, began operation in 1919, and went over to 50 % foreign ownership as part of the A/S Høyangfaldene Norsk Aluminium Company transaction.<sup>8</sup>) A third aluminium company, A/S Haugvik Smelteverk at Glomfjord, was founded in 1926 by a consortium of five foreign aluminium companies. Original capital stock was kr. 3 million.<sup>9</sup>)

One of the most significant of all foreign investments occurred in 1929, when Falconbridge Nickel Mines Ltd., Canada bought the Norwegian-owned nickel smelting works at Kristiansand. The latter operation was started in 1910 in order to refine nickel matte from Norwegian mines using the Norwegian Hybinette process. Just when the Norwegian deposits were nearly emptied, the Canadian company was searching for a site to refine its nickel matte deposits from the Sudbury district of Ontario. In 1929, the Norwegian smelter was purchased, rebuilt, and expanded to enable it to refine the Canadian nickel matte, while continuing to use the Norwegian process.

In 1925, 2 years after Electric Furnace Products (ferro-alloys) began production, its foreign owner, Union Carbide Ltd., Canada, found it expedient to purchase the electrical power supplier, A/S Saudafaldene, Sauda. The latter had been started with Norwegian capital in 1913, and was one of the largest works in Norway.

In 1931, Orkla-Metal Aktieselskap was founded and financed by the Swedish-owned Norwegian mining corporation, Orkla-Grube A/B. It was located near the latter company's pyrite mines in order to separate the pyrites into their component parts, sulphur and a copper concentrate, by means of an electric smelting process.<sup>10</sup>)

#### B. Electrotechnical industry.

Hard times for the power-using industries, and the weak financial conditions of most of the municipalities, had its effect on the electrotechnical industry. Historically, roughly two-thirds of the sales of the electrotechnical industry fell in the electrical equipment sector, a majority of which went to the power-using industries and the municipalities. From 1920 to 1945, installed generator capacity increased at an average rate of only 41,000 kilowatts per year, compared to 100,000 kilowatts per year during the decade 1911—

<sup>8</sup> Source of information was an interview at Norsk Aluminium Company in 1963.

<sup>9</sup> Production averaged only 4,000 tons of aluminium per year (50 % of capacity) until 1943, when the Government-owned power plant was destroyed by sabotage. In 1947, the company was liquidated and the works sold to Norsk Hydro A/S, which converted them to saltpetre production.

<sup>10</sup> The so-called «Orkla Process» was based on research work by Orkla-Grube A/B. It was utilized until 1964, when the smelting operation became uneconomical.

1920. During the 1930's, the electrotechnical companies offset part of this loss by concentrating on sales of electrical household appliances, which experienced a period of sharp growth.<sup>11)</sup>

While growth in the heavy electrical equipment sector was stunted, the same was not true of the telecommunications sector. As previously mentioned, A/S Elektrisk Bureau had been the early leader in this field, particularly the telephone sector, where it had developed a working agreement with L. M. Ericsson A/B, Sweden. During the 1920's, however, it experienced difficulty in making the transition to the automatic telephone exchange, a product which was complicated, protected by innumerable patents, and expensive to finance. In 1928, following the new regulations giving Norwegian firms a 10 % preference on certain types of deliveries, L. M. Ericsson A/B, Sweden, bought a 40 % interest in A/S Elektrisk Bureau. This was later extended to slightly over 50 % control through a Norwegian holding company.

In 1920, Western Electric Corp. (a part of American Telephone and Telegraph today) established a sales company in Norway as a result of a large order for automatic telephone exchanges for Oslo and Bergen. In the following period, they purchased a small electrical cable factory that had started in 1915. In 1923, Western Electric sold most of its foreign interests to International Tel and Tel, and in 1928—29 the latter company came into possession of the Norwegian plant. Thereby, Standard Telefon og Kabelfabrik A/S was founded. From then on, the operation expanded in size and product line until it eventually became in all respects the largest electrotechnical company in Norway, and the second largest employer (after Norsk Hydro A/S) of all Norwegian enterprises with significant amounts of capital stock in foreign hands.<sup>12)</sup>

In 1928, Svenska Metallverken A/B, which had operated a sales agency in Norway since 1914, established a production subsidiary, Nordisk Metalaktieselskab. Its main product has been aluminium cables for the domestic market. It also has a subsidiary, Stela Fabrikker A/S, Brumunddal, which produces plastic articles and aluminium foil.<sup>13)</sup>

In 1932, Norsk Elektrisk & Brown Boveri A/S (NEBB), Oslo, the Swiss-controlled Norwegian electrotechnical company, purchased Sørlandske Elektriske Apparatfabrikk A/S, a medium-sized Norwegian electrical equipment producer which was under financial press. It was reorganized as A/S NEBB, Skien, and operations were eventually expanded.

### C. Mining.

The Norwegian mining industry labored under the same kind of difficulties as the basic metals industry; namely, unstable prices and overcapacity in

<sup>11</sup> Ingvaldsen, Bernt: «Litt om den elektrotekniske industri i Norge», *Elektroteknisk Tidsskrift*, 25. november, 1954, p. 459—463.

<sup>12</sup> Based on an interview at Standard Telefon- og Kabelfabrik A/S in 1963.

<sup>13</sup> Based on an interview at Nordisk Metalaktieselskab in 1963.

relation to export demand. Bankruptcies and writedowns halved the face value of Norwegian mining shares as a whole between 1919 and 1936. Although the foreign-owned companies did not suffer as large a decline in face value during this period, their total market value was only about half of their total face value during the 1930's (Exhibits 2.6, 3.1, and 3.2).

Sweden continued to be the largest foreign investor in the Norwegian mining industry, and thus bore the brunt of foreign losses in capital stock value during the interwar period (Exhibit 3.3). Swedish-German-owned A/S Sydvaranger, Norway's largest iron ore mining company, had expanded its capital stock to kr. 25 million during World War I, but the post-War deflation and lack of export demand forced it to go through a major reorganization in 1925. Nevertheless, a write-down of capital stock and improved export demand enabled the company to increase production to an all-time peak in 1938. A second large Swedish-owned Norwegian mining company, Sulitjelma Aktiegruber, was sold to Norwegian investors in 1937. On the other hand, one major Swedish acquisition was made in 1930, when A. Johnson and Company purchased A/S Knaben Molybdénguber, Risnes i Fjotland. The Norwegian company had a weak financial position and limited proven reserves of molybdenum, but had strategic importance as the only supplier outside of the U.S.A.<sup>14)</sup>

On August 14, 1925, Norway took over responsibility for Svalbard (Spitsbergen). Nearly the whole economic basis for life on Svalbard had been, and continues to be, coal mining. At the time of the transfer to Norwegian sovereignty, there were 8 active coal companies. The most important was Store Norske Spitsbergen Kulkompani A/S. Its field was first worked in 1906 by Arctic Coal Company Ltd., U.S.A., but Norwegian interests purchased that company's rights in 1916. After the takeover, coal shipments were considerably expanded, despite a temporary setback caused by a mine explosion in 1920. Kings Bay Kullkompani A/S was the next largest coal mining operation on Svalbard. It started in 1917 with Norwegian capital. Of the other 6 companies, 2 were Norwegian-owned, 2 were British-owned, 1 was Dutch-owned, and 1 was Swedish-owned.<sup>15)</sup>

In 1926, French interests founded Bergverk-selskapet Nord-Norge A/S. It received a concession to mine the lead-zinc ore deposits in Mofjellet Gruber. The deposits had been discovered in 1688 and mined intermittently since 1862.<sup>16)</sup>

<sup>14</sup> A/S Knaben Molybdénguber covers about 1% of the West's needs. Its biggest customer is Swedish Avesta Jernverks A/B, which uses molybdenum in the process of making ferromolybdenum for stainless steel. Source of information: *Ansökning om leie av statens bergrettigheter ved Kvina Gruber*, which was made available by A/S Knaben Molybdénguber.

<sup>15</sup> Statistisk Sentralbyrå: *Norges Bergverksdrift 1928*; Oslo, 1929, p. 36—40.

<sup>16</sup> The French operators had little better success than their predecessors, and finally sold their interests in 1953 to a Norwegian-owned holding company, Norske Sink- og Blygruber A/S.

Norway's «ilmenite mining industry» came under foreign control on June 1, 1927, when Parliament approved the purchase of A/S Titania by National Lead Company, U.S.A. The Norwegian company had been founded in 1902, but was eventually taken over by Titan Co. A/S, a Norwegian manufacturer of paints. Titan Co. A/S had been founded in 1916 by Elektrokemisk A/S to produce paints based on an Elektrokemisk process. This process was dropped in favor of one which was owned by Titanium Pigments Company, a subsidiary of National Lead Company. When Titan Co. A/S ran into serious financial problems in 1923—1924, National Lead Company offered to purchase it, together with its mining subsidiary, and to pay off their large bank debts.<sup>17)</sup>

The Foldal Copper Sulphur Co. Ltd., one of the largest mining operations prior to World War I, ran into financial difficulties and dwindling pyrite reserves during the 1930's. It was sold by its British investors in 1938 to Follidal Verk A/S, a Borregaard A/S subsidiary, thus becoming the second major British investment to be repatriated by Borregaard A/S.

#### D. Chemical industry.

In addition to Titan Co. A/S, a number of important Norwegian chemical companies were purchased by foreign investors during the interwar period. In 1927, a Danish company, A/S Jens Villadsens Fabrikker, took over the majority of capital stock in A/S Fjeldhammer Brug. The latter company was founded by Norwegian interests in 1895, and carried on production and export of wool felt and raw felt to the Danish company among others. A/S Fjeldhammer Brug was at that time a small company with sales of less than kr. 5 million and a very weak financial position. After the takeover, production of asphaltic roofing materials was started based on the Danish process.<sup>18)</sup>

The purchase and subsequent merger of Bryn and Halden Tændstikfabrikker A/S and Nitedals Tændstikfabrik in 1927 by International Match Corporation, U.S.A. was a different kind of takeover.<sup>19)</sup> The American corporation was one of Ivar Kreuger's many holdings. At one time, «The Swedish Match King» controlled over 80 % of the world's match production. The predecessor companies of the merged Bryn-Halden and Nitedals Tændstikfabrik A/S had been among the earliest Norwegian manufacturing estab-

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<sup>17</sup> The ore deposits are valuable for their content of titan dioxide and iron. The raw ore, containing 17 %  $TiO_2$  is processed into ilmenite, containing 44 %  $TiO_2$ . Magnetite, containing 60—64 % iron is produced as a by-product. The ilmenite is exported to pigment factories in Germany, England and Italy, principally to subsidiaries of Titan Co. A/S. There, the ilmenite is combined with sulphuric acid to remove the valuable titan dioxide, which is further processed into pigments. The latter are used mainly in paints, but also in linoleum, paper, and diverse other products. Source of information was an interview at Titan Co. A/S in 1963.

<sup>18</sup> Based on an interview at A/S Fjeldhammer Brug in 1964.

<sup>19</sup> Based on an interview at Bryn-Halden and Nitedals Tændstikfabrik A/S in 1963.

lishments, and had relatively prosperous histories. In 1838, the Nitedal line was founded by F. H. Frølich at Kirkegaten 34, Oslo. By 1885, production of matches was carried on at Grønvold Gård, Ø. Aker. The Census of 1885 showed that the Grønvold operation employed 334 persons, which made it the 13th largest manufacturing establishment in Norway at the time.<sup>20</sup>) In addition, the Bryn-Halden line had plants in Bryn (1878) and Halden (1874). Eventually, Kreuger's holding companies collapsed, and Svenska Tändsticks Aktiebolaget, Sweden, purchased Bryn-Halden and Nitedals Tændstikfabrik A/S from the Kreuger estate in 1936. A new concession agreement was arranged with the Norwegian Government.<sup>21</sup>)

Foreign takeovers in the chemical industry reached a climax in 1931, when the Mowinckel Government was replaced because it approved a concession for De Norske Fabrikker (De-No-Fa), Norway's largest whale oil processor, to exchange a part of its stock for 50 % of the stock of Lilleborg Fabrikker, the largest soap manufacturer. De-No-Fa was originally started by mixed Norwegian-German capital in 1912, but Lever Brothers (Unilever) bought out the Germans before World War I, and had working control of the company. Lilleborg Fabrikker was a Norwegian-owned company that had been started in 1897. The concession was allowed to stand by the successor government, however, and the two companies continued to be foreign-owned until they were repurchased by Borregaard A/S in 1958.

#### E. Paper and pulp.

In 1927, A/S Follum Fabrikker, one of Norway's largest paper companies, was taken over for the second time by British investors. Lendrum Ltd., U.K. was able to purchase the company for only 27 % of the face value of Follum's capital stock. The second period under British ownership left no more mark than the first period. In 1931—1932, the world crisis ruined Follum, and the Norwegian bank creditors took over 90 % of its capital stock.

Another major takeover occurred in 1934, when working control in A/S Union was transferred from Centralbanken for Norge to Hambro's Bank Ltd., U.K. A/S Union was founded in 1873 by Norwegian capital and was already the second largest processing (pulp and paper) company by the time of the 1909 Census. The Company ran into financial difficulties in the 1920's and 1930's, however, and in 1934 was finally forced to mortgage all of its assets to Hambro's Bank Ltd., U.K. in order to secure a debenture loan for over kr. 15 million.

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<sup>20</sup> Statistisk Sentralbyrå: *Norges Fabrikanlæg ved udgangen af Aaret 1885*; Kristiania, 1889, p. IX.

<sup>21</sup> At one time there were as many as 30 match companies in Norway, but Bryn-Halden and Nitedals Tændstikfabrik A/S was the only one to survive. A subsidiary, Agnes Fabrikker A/S, Brunlanes, manufactures wood products other than matches.

#### F. Other manufacturing.

One of Norway's three main cement companies, Nordland Portland Cementfabrikk A/S, was founded in 1918, but began operations around 1920. Part of its capital stock was owned by F. L. Smidth and Co. A/S, Denmark. Maximum foreign ownership was fixed by Parliament at 45 %, one of the few cases in which such limitations have been applied to foreign investment.

In 1929, two years prior to the Lilleborg Fabrikker takeover, the Unilever Concern purchased A/S Agra Margarinfabrik, Oslo, one of Norway's main producers of margarine. It had been founded originally by Norwegian capital in 1885.

#### G. Trade.

During the interwar period, a number of international oil companies established import subsidiaries in Norway, nearly to the exclusion of Norwegian capital. British Petroleum Company subscribed to one half of the capital stock in Norsk Brændselolje A/S, which was founded in 1920. Norwegian interests owned the other half. American capital established Mobil Oil Norge A/S (1932) and Norsk Caltex A/S (1930). Belgian investors founded the predecessor to Norske Fina A/S (1931).

In other trade activities, Philips Norsk A/S was founded by the Dutch Philips concern in 1923. It soon became important in sales of electric light bulbs and other household electrical equipment. International Business Machines A/S was started as a sales subsidiary of the American concern in 1935, but eventually began limited production operations (primarily punch cards). There were also numerous smaller sales subsidiaries established, but statistics are not available as to the ownership of their capital stock.

## Chapter IV. A new influx of direct foreign investment 1945—1964.

### 1. Government policy.

In accordance with the policy of favoring a high rate of investment during the post-World War II period, the Norwegian Government showed a genuine, but politically qualified, interest in direct foreign investments. In 1959, a commission was established to coordinate information and contact activity in connection with increasing foreign interest in manufacturing and trading investments in Norway.<sup>1)</sup> Norway's location within the EFTA market, a favorable rate of growth in the domestic market, liberalization of exchange and import regulations, and the availability of low cost hydroelectric power were the main factors attracting direct foreign investments, especially after 1958.

The Government's viewpoint was restated a number of times since 1959. *The Long Term Program of 1962—1965* declared that the Government wishes to encourage direct investments where Norway does not have the possibility to build its own independent production. Investments that contribute new production methods and techniques, or give access to research results, export markets, sources of raw materials, or semimanufactures are particularly desirable.<sup>2)</sup>

In *Stortingsmelding nr. 6 (1962—63)*, the policy of encouragement was reaffirmed in relation to the expansion of electrical power production and electrical power-using industries. It was argued that the heavy import and fixed asset requirements for these sectors make it desirable to have foreign financial participation. Furthermore, since the electrical power-using industries are often dependent on export markets which are dominated by a few worldwide concerns, it was felt that it would be an advantage to have their participation. This would improve the chances for stable access to raw materials and export markets at reasonable prices. It was stated that the most desirable type of participation would be on a loan basis for electrical

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<sup>1</sup> Trygve Lie led the commission and its administrative organ, «Kontor for industrifinansiering», until 1963, when direction was transferred to Erik Brofoss, Director of Norges Bank.

<sup>2</sup> Finans- og Tolldepartementet: *St.meld. nr. 60 (1960—61); Langtidsprogrammet 1962—1965*; Oslo, April 7, 1961, p. 48.

power production, and a partnership basis for the electrical power-using industries. In the latter case, the highest possible degree of processing should be carried out in Norway.<sup>3)</sup>

Finally, in *Stortingsmelding nr. 21 (1963—64)*, The Department of Industry indicated the specific factors that are taken into consideration in evaluating an application for a concession.<sup>4)</sup> These factors are as follows:

1. the income, employment and production effects
2. location of the project with regard to regional planning goals
3. the degree of foreign financing of the project, and to what extent it will burden the domestic capital market
4. the possibility of establishing new types of production activities
5. the possibility of receiving new technical, marketing, and research know-how
6. the desirability of cooperating with international concerns to secure better and more stable prices, as well as guaranteed access to raw materials and export markets
7. the degree to which the domestic sector is already developed and its raw material sources fully utilized
8. the degree of competition on the home market with already established Norwegian companies and the danger of monopoly practices.

## 2. The situation in 1945.

In the immediate post-War reconstruction period, conditions were not ripe for imports of new private capital. Restrictions on capital movements and other exchange controls were the main barriers as seen from the investors' viewpoint. These same controls, however, prevented capital flight from the foreign investments that were already in Norway. A number of the most important of these stood at the crossroads. Norsk Hydro A/S, A/S Sydvaranger, and A/S Knaben Molybdængruber had suffered costly damage during the War. The chance of finding new private capital for reconstruction from the traditional European sources was minimal, since the rest of Europe had the same need for capital, and correspondingly strict controls on capital movements. The fact that the first two had been the most important German investments in Norway created a particularly difficult problem. All German holdings in Norway were taken over by the Norwegian Government as war reparations. The problem was whether the Government should keep these holdings or transfer them to private enterprise. One complication was that other foreign investors still held

<sup>3</sup> Industridepartementet: *St.meld. nr. 6 (1962—63); Om utbygging av vannkraft og kraftkrevende industri*; Oslo, 1962, Chapter VI.

<sup>4</sup> Industridepartementet: *St.meld. nr. 21 (1963—64); Om utenlandske eierinteresser i norsk industri*; Oslo, 29 November 1963, p. 18—19. For the reaction of members of Parliament to this «white paper» see: *Forhandlingene i Stortinget nr. 17—20*; Oslo, Oct. 14—15, 1964.

considerable shares in these ex-German-owned companies. What would be their reaction to the changeover from a privately managed company to a publically managed company? In the end, the Norwegian Government retained part of its holdings and transferred part to private investors, but the companies continued to be organized as private corporations.<sup>5)</sup>

### 3. 1945—1956.

#### A. Introduction.

The net result of the lack of new direct foreign investments, the Norwegian Government's liquidation of German investments, and certain other repatriation transactions was that the face value of total foreign holdings fell from kr. 317.9 million on Jan. 1, 1939 to kr. 287.8 million on Jan. 1, 1947. Actually the drop was much larger if consideration is given to the abnormal expansion of German holdings during the War. Exhibits 4.1 and 4.3 show foreign holdings of Norwegian capital stock in selected post-War years.

Although new direct foreign investment could not be expected, many factors encouraged the existing foreign-owned companies to invest their liquid assets in plant, equipment, and real estate. Government priorities favored a high rate of investment. Exchange controls made it difficult to transfer retained earnings. Real assets were considered a hedge against inflation.<sup>6)</sup> Finally, there was the profit motive. There was a tremendous demand for goods and services of all kinds. What could be produced, could be sold.

As in the case of foreign-owned companies, Norwegian business as a whole recovered rapidly and maintained a high rate of investment during the post-War period. Exhibit 4.2 shows that total capital stock in Norwegian corporations reached kr. 3,047.6 million at face value by the end of 1952, or about 50 % higher than the 1936 level. As a result, the foreign-held share was only 9.6 % in 1952, compared to 15.7 % in 1936.

The market value of foreign holdings made a sharp recovery from the pre-War level during the period 1946—1956. Despite a significant decrease in face value, the market value of total foreign-held capital stock on Jan. 1, 1947 was kr. 8 million higher than on Jan. 1, 1939. By Dec. 31, 1951, market value had increased by another kr. 124.2 million, whereas face value had increased by only kr. 4.6 million. Undoubtedly, wartime inflation, the 1949 devaluation of the krone, the Korean War boom, the rearmament race,

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<sup>5</sup> For example, Norsk Hydro's Board of Directors includes representatives of the Norwegian Government, the French investors, and private Norwegian investors.

<sup>6</sup> In 1945, the cost of living index was 55 % higher than in 1938, and the inheritance of over-liquidity in the monetary system was a constant threat to the strictly controlled and heavily subsidized post-War price level.

Exhibit 4.1. Foreign-held capital stock in Norwegian corporations in selected years 1945—1962. By industry sector. (Kr. 1 million.)

Industry sector	Jan. 1, 1947		Dec. 31, 1951		Dec. 31, 1956		Dec. 31, 1962		Dec. 31, 1962 (revised)	
	Face value	Market value	Face value	Market value	Face value	Market value	Face value	Market value	Face value	Market value
I. Financial institutions..	5.7	7.8	6.8	9.3	10	14	8.8	—	12.5	24.8
II. Other domestic sectors	282.1	310.0	285.6	424.9	343	655	590.0	—	710.5	1,433.4
1. Mining.....	33.7	10.1	15.9	17.8	15	40	12.7	—	16.1	32.2
2. Manufacturing ....	201.4	222.5	207.2	280.1	222	385	363.9	— <sup>2</sup>	448.4	982.0
a) chemical & oil..	—	—	—	—	134	297	209.7	—	246.0	410.8
b) basic metals....	—	—	—	—	71	64	86.1	—	92.3	321.8
c) electrotechnical.	—	—	—	—	4	5 <sup>1</sup>	37.2	—	39.6	152.6
d) paper & pulp ..	—	—	—	—	4	7	8.2	—	5.1	} 51.0
e) fish processing..	—	—	—	—	—	—	1.6	—	21.6	
f) others .....	—	—	—	—	9	12	21.1	—	22.3	
3. Water transport ...	16.9	30.2	18.1	49.0	31	111	30.7	—	37.2	
4. Whaling and sealing	3.0	6.1	2.0	7.9	—	—	—	—	—	—
5. Trade .....	26.8	40.7	41.2	67.7	54	96	163.2	—	175.4	288.4
6. Electricity .....	Under 2	—	Under 2	—	18	19	17.4	—	29.1	50.3
7. Others .....	0.3	0.4	1.2	2.4	3	4	2.1	—	4.3	3.9
Total .....	287.8	317.8	292.4	434.2	353	669	598.8	—	723.0	1,458.2

Source: A. Statistisk Sentralbyrå: *Statistiske meldinger: Finanstelling*; annual issues 1946—1962; H. Aschehoug & Co., Oslo.

B. Statistisk Sentralbyrå: *Kredittmarkedstatistikk*; annual issues 1952—1962; Oslo.

C. Appendices I—B and I—D (for 1962 revised figures).

<sup>1</sup> Of this amount, kr. 18 million represented a transfer of stock in Standard Telefon og Kabel-fabrik A/S from a Norwegian holding company to an American holding company. In both cases, International Telephone and Telegraph Corporation, U.S.A. was the real owner, but the *Finanstelling* did not define the Norwegian holding company to be «foreign».

<sup>2</sup> Includes «portfolio» investment (kr. 21.5 million).

and the stockpiling program, were important external factors causing an improvement in market values prior to 1952. On the other hand, favorable operating results and internal expansion were probably most instrumental in the continued rise in market values through 1956.

#### B. World War II reparations.

The most important post-War liquidation of German holdings was the Norwegian Government's acquisition of the German-Swiss holdings in Norsk Hydro A/S, carried at kr. 81 million at face value. During the War, the Germans had acquired majority control by the simple expedient of «purchasing» kr. 52 million of a forced issue of new capital stock, which increased

Exhibit 4.2. Total capital stock in Norwegian corporations in selected years 1945—1962. Foreign-held share of total capital stock. By industry sector.

Industry sector	Dec. 31, 1952		Dec. 31, 1962		
	Face value (Kr. 1 million)	Foreign-held at face value as % of total	Face value (Kr. 1 million)	Foreign-held at face value as % of total	Foreign-held (revised) at face value as % of total <sup>3</sup>
I. Financial institutions . . . .	419.0	1.7	<sup>1</sup> 674	1.3	1.9
II. Other domestic sectors . . .	2,628.6	10.9	4,328	13.6	16.4
A. Public . . . . . <sup>5</sup>	—	—	541	—	—
1. Mining and manufacturing . . . . .	—	—	532	—	—
B. Private . . . . .	—	—	<sup>2</sup> 3,787	—	18.8
1. Mining . . . . .	69.6	22.9	} 2,003	<sup>4</sup> 14.9	23.2
2. Manufacturing . . . . .	1,471.7	14.1			
3. Water transport . . . . .	} 575.5	3.1	733	4.2	5.1
4. Whaling and sealing . . . . .		13.1	571	28.6	30.7
5. Trade . . . . .		0.5	480	4.0	7.0
6. Electricity . . . . .	} 198.6				
7. Others . . . . .					
Total . . . . .	3,047.6	9.6	5,002	12.0	14.5

Source: A. Statistisk Sentralbyrå, unpublished worksheet recording the results of *Bedriftstelling of April 24, 1953*.

B. Statistisk Sentralbyrå: *Statistiske meldinger (1952—1962 issues)*; Oslo.

C. Statistisk Sentralbyrå: *Kredittmarkedstatistikk 1962*; Oslo, 1964.

<sup>1</sup> Includes kr. 75 million of government-held capital stock (Norges Bank and Statsbanker).

<sup>2</sup> Sub-sectors under «Private» are estimated. New issues of capital stock (1953—1962) have been added to the 1952 figures. No allowance has been made for bankruptcies, write-downs or non-recorded increases in capital stock since 1952. The Government also holds capital stock in the «Private» sector, but does not have majority control of any of these companies.

<sup>3</sup> See Exhibit 4.1.

<sup>4</sup> Foreign-held share of mining and manufacturing in the combined public and private sectors; i.e., a base of kr. 2,535 million instead of kr. 2,003 million.

<sup>5</sup> Not available.

Exhibit 4.3. Foreign-held capital stock in Norwegian corporations in selected years 1945—1962. By country of ownership. (Kr. 1 million.)

Country	Year		Dec. 31, 1951		Dec. 31, 1956		Dec. 31, 1962 <sup>1</sup>	
	Jan. 1, 1947		Face value	Market value	Face value	Market value	Face value	Face value (revised)
Belgium and Luxembourg .....	28.7	30.9	27.8	18.2	29	21	37	32.5
Canada .....	20.2	15.9	26.0	22.6	28	30	59	62.0
Denmark .....	5.9	8.8	6.8	12.4	10	19	12	7.8
France .....	64.7	95.5	72.4	144.1	101	230	88	131.6
Netherlands .....	13.1	17.0	17.1	26.1	15	38	12	10.0
Sweden .....	34.7	31.9	33.4	47.8	39	77	59	54.2
Switzerland .....	15.9	21.2	11.4	17.0	12	21	24	33.8
U.K. and N.Ireland..	52.5	43.7	39.4	53.5	46	72	111	98.6
United States .....	48.8	48.2	50.4	77.1	68	143	181	185.5
West Germany .....	—	—	—	—	1	3	4	6.4
Others .....	3.3	4.7	7.7	15.4	4	13	12	<sup>2</sup> 100.6
Total .....	287.8	317.8	292.4	434.2	353	667	599	723.0

Source: Same as Exhibit 4.1.

<sup>1</sup> Market value for 1962 is not available. See Exhibit 4.1 for face value «revised».

<sup>2</sup> Includes kr. 75.0 million in portfolio investment, and kr. 24.1 million in diverse investments in trade and electricity. Citizens of the countries listed above held almost all of these investments, but it was not possible to assign a proportion to each foreign country due to the wide dispersion of holdings and countries.

Norsk Hydro's total capital stock to kr. 156 million. The proceeds were invested in the ill-fated Nordisk Lettmetall A/S adventure at Herøya. The latter project was designed to produce magnesium, aluminium oxide, aluminium, and other light metals, but it was almost totally destroyed by an Allied bombing attack. In 1946, the Norwegian Government and private Norwegian interests held 54 % of Norsk Hydro's capital stock.<sup>7</sup>) In 1956, the capital stock was expanded by kr. 81 million to nearly kr. 238 million.

In addition to Norsk Hydro, the Norwegian Government took over the rest of the German holdings of Norwegian capital stock, worth about kr. 15 million at face value. In the mining sector, it gained control of all of the important iron ore mining companies. The largest of all mining companies, A/S Sydvaranger, had capital stock worth kr. 10 million at face value, of which the German share was roughly 50 %. In addition, it owned 50 %

<sup>7</sup> Despite litigation by the French investors, the wartime issue of capital stock was allowed to stand. The Swiss holdings of Norsk Hydro were also seized as reparations by the Norwegian Government, but Norsk Hydro's holdings in Interhandel were returned to that company, thus negating the original exchange of shares.

interest in A/S Rana Gruber, which worked half of the Dunderland iron ore field. The Government also acquired the German-owned Fosdalens Bergverk A/S, as well as one of the significant pyrite mining companies, Stordø Kisgruber. In the electrotechnical sector, the Norwegian Government acquired majority interest in Norsk Aksjeselskap Siemens, AEG, Norsk Radioaksjeselskap Telefunken, and Norsk Accumulator Co. A/S, as well as minority interest in Osram-Fabrikken A/S.<sup>8)</sup>

A number of large investment projects begun by the Germans during World War II were also taken over by Norwegian interests and completed. The Norwegian Government acquired the assets of Nordag at Årdal, and in January, 1947 formed a new Government-owned company, A/S Årdal Verk (now A/S Årdal og Sunndal Verk). The aluminium works were completed and production started during 1948. In the following years, the company expanded to Sunndalsøra with the help of a \$ 50 million (kr. 357 million) loan from the U.S. Government, which was repaid by shipments of raw aluminium. Further expansion also took place at Årdal.<sup>9)</sup> A second large German project, Nordisk Lettmetall A/S at Herøya was given to Norsk Hydro A/S as partial compensation for its losses in that project. It was completed as a magnesium plant, the only major one in Europe.

### C. Repatriations.

The most important repatriation during World War II and the early post-War years was the repurchase of the important Norwegian paper company, A/S Union. In 1942, the Norwegian Government in London paid Hambro's Bank Ltd. roughly kr. 7 million for the remainder of that bank's earlier loan to A/S Union (face value kr. 14 million). In 1946, the Government purchased another claim by Hambro's Bank Ltd. for about kr. 13 million (face value kr. 17 million). As part of the agreement, the Norwegian Government received 300,000 B shares (face value kr. 3 million) still held by Hambro's Bank Ltd. This amounted to 30 % of the capital stock, with the rest held by private Norwegian interests.<sup>10)</sup>

In other industries, Norsk Hydro A/S, as mentioned before, purchased the holdings of a consortium of foreign aluminium producers in A/S Haugvik Smelteverk, Glomfjord in 1947, and converted the plant to saltpetre pro-

<sup>8</sup> On Jan. 1, 1947, the Government took over the telephone installations of privately-owned Bergens Telefonkompagni (Bergen Industri-Investering in 1952) for a price of kr. 17 million. Payment was made by transferring ownership of 80 % of the Government's holdings in Norsk Aksjeselskap Siemens, AEG, and Norsk Radioaksjeselskap Telefunken to Bergens Telefonkompagni, which then operated them under the names A/S Proton, EGA, and A/S Nera, respectively. The Government also transferred 44 % of the shares in Norsk Accumulator Co. A/S, but retained the rest.

<sup>9</sup> In 1962, A/S Årdal og Sunndal Verk was far and away the largest aluminium company in Norway and one of the largest in Europe, with a capacity of 150,000 tons of raw aluminium.

<sup>10</sup> Industridepartementet: *St.prp. nr. 115 (1960—61)*; Oslo, 25 April 1961.

duction. The last of the pre-War foreign assets in iron ore mining fell to the Government in 1947, when the Dunderland Iron Ore Co. Ltd. concession was bought and given to Norsk Bergverk A/S. The State also purchased the remaining 50 % interest in A/S Rana Gruber from A/S Sydvaranger in 1951. In 1947, Bergen Industri-Investering A/S added A/S National Industri to its holdings by buying out the Westinghouse Corporation.

#### D. Expansions and new foreign enterprises.

Although new foreign investments were few during the period 1945—1956, expansion and modernization occurred in nearly every existing foreign-owned enterprise. One example was Det Norske Zinkkompani A/S. It greatly expanded its zinc refining capacity during the early post-War period, a fact which was reflected by a notable increase of kr. 25.4 million in Belgian holdings of capital stock (at face value) between 1939 and 1947 (Exhibit 4.3).

Only one sizeable new foreign-owned enterprise was started prior to 1952. A/S Norsk Viftefabrikk began production of ventilation material in 1951. Its owner, Svenska Fläktfabriken, Sweden, had carried on sales activities in Norway before 1951.

In 1954, A/S Norske Esso was founded from four predecessor companies, which had been partly Norwegian and partly American-owned. The largest of these, A/S Østlandske Petroleumscompagnie, had capital stock of over kr. 18 million at the time of the merger, of which over half was owned by Standard Oil of New Jersey (ESSO).

In 1956, two British companies purchased a 35 % interest in Osram-Fabriken A/S, producer of electric lamps. Other foreign-owned Norwegian companies also owned shares in the company, as did the Norwegian Government (former German shares).

## 4. 1957—1962.

### A. Introduction.

During the period 1957—1962, there was a marked increase in foreign investment activity in Norway. Exhibit 4.1 shows that the face value of all foreign-held capital stock as of Dec. 31, 1962 was kr. 598.8 million, a growth of roughly 70 % in six years. As a result, the foreign relative share of all Norwegian capital stock once again increased, rising from 9.6 % in 1952 to 12.0 % in 1962 (Exhibit 4.2).

Almost the entire growth in the foreign relative share occurred in the trade sectors, in which foreign holdings tripled between 1956 and 1962. Foreigners held 28.6 % of the total capital stock in the trade sector in 1962, compared to 13.1 % in 1952; however, the majority of trading companies were still unincorporated, particularly the retail trade and cooperatives. Expansion in the trade sector stemmed in part from the return to convertibility

on current account transactions, and the free listing of most of the remaining import items, notably automobiles. A number of foreign automobile concerns established sales subsidiaries, and the foreign-owned oil companies expanded their operations.

Foreign holdings in manufacturing increased by kr. 141.9 million at face value between 1956 and 1962, but the foreign relative share of manufacturing was nearly the same in 1962 as in 1952 due to equivalent expansion in the rest of Norwegian manufacturing.

#### B. Manufacturing.

Norway's second largest aluminium producer was constructed during the period 1956—1958. It was actually founded in 1956 by Norwegian-owned Elektrokemisk A/S, but one-third of its cost was financed by the Swiss Aluminium Company (AIAG). The total cost was roughly kr. 220 million. The Swiss group purchased kr. 6 million capital stock out of a total of kr. 18 million, and secured a kr. 63 million foreign loan for Mosjøen Aluminium A/S.<sup>11)</sup>

The most important industry project undertaken by foreign interests during the post-War period was the establishment in 1958 of A/S Esso Raffineriet, at a cost estimated to have been roughly kr. 215 million. Of this amount, Standard Oil of New Jersey supplied kr. 76 million in capital stock and kr. 54 million in loan capital, while the Norwegian money market provided another kr. 85 million in loan capital.<sup>12)</sup> Production started in 1961 and was designed to cover Esso's Scandinavian market for most types of oil products. In the future, another Esso refinery project in Denmark will cover that market, while the Norwegian operation will continue to cover a rapidly expanding Norwegian market and part of the Swedish market. The refinery was the subject of considerable negotiations between the Government and Standard Oil of New Jersey, both because of the size of the investment and its nature. It was the largest refinery in Scandinavia at the time of construction, with a capacity to refine 2 million tons of crude oil per year. A/S Norske Esso's sales to the Norwegian market in 1960 corresponded to about 40 % of the refinery capacity. A much smaller Norske Esso refinery at Vallø had been in operation for many years producing lubricating oils, with a capacity of 100,000 tons per year. Otherwise, the new refinery meant the introduction of some new techniques into Norway, and a possible basis for a petrochemical industry. Standard Oil of New Jersey estimated that net foreign ex-

<sup>11</sup> The Swiss interests were purchased by Elektrokemisk A/S in 1963, as a result of AIAG's wish to participate in the A/S Sør-Norge Aluminium project at Husnes. On Jan. 1, 1964, ALCOA, U.S.A. purchased one-half of the Mosjøen operation through a newly-established Norwegian subsidiary, Norsk ALCOA A/S.

<sup>12</sup> Sources for the description of A/S Esso Raffineriet are as follows: a) An interview at A/S Norske Esso in 1963. b) *Industridepartementet: St. Meld. nr. 17 (1957); Om forhandlingene om bygging av et oljeraffineri i Norge*, Oslo, 11 Jan. 1951.

change savings to Norway would be about kr. 78 million per year, after allowing for the cost of importing crude oil and other additives.<sup>13</sup>)

The entry or re-entry of direct foreign investment into industries considered to be the domain of Norwegian capital, was occasionally controversial. In particular, foreign investors made limited post-War inroads into such industries as paper and pulp, fish processing and shipbuilding. The kr. 50 million Sande Paper Mill A/S project was started in 1960 with a capital stock of kr. 10 million. The Reed Paper Group, U.K., Europe's largest paper packaging organization and corrugated case manufacturer, supplied 51 % of the capital stock, and Sande Tresliperi A/S, a major Norwegian mechanical pulp producer, 49 %. Production began in July, 1962 with an initial capacity of 30,000 tons of semi-chemical fluting paper for corrugated case manufacture. Generally speaking, post-War Norwegian policy has been to discourage a re-entrance of foreign capital into the paper and pulp industry, since it is already fully developed and partly dependent on import of timber. In this case, however, the product was a specialty of the Reed Paper Group and was not previously produced in Norway. Furthermore, the process required a type of wood which was underutilized in Norway.

One of the most controversial foreign investments during the last few years was the takeover of the Findus A/S plant at Hammerfest by Findus International S/A, Switzerland. The Hammerfest plant for processing fish was constructed in 1952 on the combined initiative of the Norwegian-Swedish candy companies, A/S Freia and Marabou A/B, in order to take advantage of a favorable European market for ready-to-eat frozen foods.<sup>14</sup>) It was later expanded, with the help of a loan from the Norwegian Government's «Development Fund for Northern Norway», into one of the largest manufacturing establishments in Northern Norway. In 1962, the Freia-Marabou group sold their interests to a new corporation, Findus International S/A, Switzerland, which had a capital stock corresponding to kr. 290 million. Of this amount 20 % was held by Marabou A/B, and the rest by the Swiss Nestlé Concern. The rationale behind the sale was that the Nestlé Concern was better able to exploit the growing European market for frozen foods than the weaker Norwegian-Swedish companies. A new concession was granted to Findus International S/A to own the Hammerfest plant, which was reorganized as Findus A/S, with a capital stock of kr. 20 million.

In 1959, Finnish-owned Huhtamäki Yhtymä OY established Norfinn A/S to process frozen fish at Kristiansund. Capital stock was kr. 2 million, of which the Finnish company provided kr. 1.5 million. Again, the justification

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<sup>13</sup> On Jan. 1, 1963, A/S Esso-Raffineriet was merged into A/S Norske Esso (the marketing unit). The latter company's capital stock was raised to kr. 50.9 million, with an equal amount set aside as required reserves.

<sup>14</sup> Norwegian-owned A/S Freia was also the leading stockholder in Marabou A/B, Sweden.

for such an investment was to secure better export sales coverage for fish products.

The shipbuilding industry in Norway has been traditionally home-owned and accounts for about 10 % of manufacturing employment. The first important foreign investment in this sector occurred in 1959, when Sarpsborg Mekaniske Verksted A/S, a medium size shipyard, was purchased by Cornelius Verolme United Shipyards, Netherlands. The original plan was to expand and rationalize the shipyard, but overcapacity in the shipbuilding industry caused the expansion to be postponed.

In 1957, the Swiss company, Usine Elektro-Met Metior, assumed a minority 40 % interest in the Norwegian ferro-alloy company, Porsgrunn Elektrometallurgiske A/S, Porsgrunn, founded 1913. The total capital stock as of Dec. 31, 1962, was kr. 1 million.

A reverse takeover occurred in 1958 when A/S Borregaard bought back all of the B shares in De Nordiske Fabriker A/S from the Dutch company, «Mavibel», a Unilever subsidiary. The face value of these shares, together with a few B shares in A/S Lilleborg Fabriker, was roughly kr. 10 million, but the price was reputed to have been kr. 90 million. The transaction also resulted in the return to full Norwegian control of A/S Lilleborg Fabriker. De Nordiske fabriker and Unilever combined had owned all the B shares of that company as a result of the aforementioned takeover in 1931 (see Chapter III).

Predominantly high and prosperous activity levels from 1956 to 1962 gave rise to a large number of capital expansions, often based on transfer of accumulated retained earnings to the capital stock account. In the electrical power-using industries, A/S Arendal Smelteverk and A/S Norsk Aluminium Co. expanded their capital stock by over kr. 25 million, corresponding to an increase of kr.19 million in foreign holdings. In the electrotechnical industry, expansions by A/S Per Kure, A/S Elektrisk Bureau, NEBB A/S, Osram-Fabrikken A/S, and Nordisk Metalaktieselskab led to a further increase in foreign holdings of about kr. 11 million. In other manufacturing sectors, expansions in A/S Esab, Firesafe A/S, A/S Norsk Viftfabrik, Electrolux A/S and Norsk Astra Farmasøytisk Kjemisk A/S, led to a kr. 6.5 million increase in foreign holdings.

### C. Trade.

In the trade sector, expansions by existing oil companies played the dominant role. A/S Norske Esso, Norske Shell A/S, Mobil Oil Norge A/S and Norske Fina A/S increased their combined capital stock by over kr. 63 million at face value.

In other activities, General Motors (Norway) A/S, Volvo A/S, Ford Motor (Norge) A/S, Bull Norsk A/S (formerly Sonomab A/S), and Minnesota Mining and Manufacturing A/S accounted for kr. 11.9 million of new

foreign-held capital stock in 1962, although most of these companies had previously operated agencies or branches in Norway. In 1960, Siemens-Halske A/G, Germany, was allowed to repurchase part of its former Norwegian assets (A/S Proton) from Bergen Industri-Investering and the Norwegian Government. A/S Proton (now Siemens Norge A/S) was organized with a capital stock of kr. 4 million, which was later expanded to kr. 6 million.

#### 5. Foreign projects in process.

New direct foreign investment has continued at a high level since 1962. Based on projects in process, a rough estimate of the net increase in foreign-held capital stock during 1963 and the first half of 1964 would be kr. 104 million (at face value).<sup>15)</sup>

Projects in the electrical power-using industries dominate the list of current activities of foreign investors. In particular, four large aluminium projects are in the process of realization. During 1963, Mosjøen Aluminium A/S completed an expansion program which increased its capacity by 20,000 tons to a new capacity of 56,000 tons of aluminium.

Sør-Norge Aluminium A/S was founded in 1962 by a Swiss-French consortium composed of AIAG (Swiss Aluminium Ltd.) and the French-Swiss finance group Compadec. The purpose of the project is to build an aluminium plant at Husnes, Kvinnherad, with an original capacity of 60,000 tons by 1966, and an eventual capacity of 120,000 tons. Total cost of the first stage is estimated to be kr. 360 million. Financing was supposed to be as follows:<sup>16)</sup>

- 1) Capital stock: kr. 100 million.
- 2) Norwegian construction loan: kr. 75 million.
- 3) Foreign equipment and construction loan: kr. 185 million.

The original plan was to have Norwegians purchase one-half of the capital stock. A much-discussed public offering to this effect in 1963 was badly received and only kr. 4 million was subscribed.<sup>17)</sup> This led to a renegotiation of the original agreement, and it now appears that 80 % of the capital stock will be foreign-held.

Another huge aluminium project, Alnor A/S, was founded in 1963 by a partnership of Norsk Hydro A/S and Harvey Aluminium, U.S.A. Its purpose is to build an aluminium plant at Håvik, Karmøy, with an initial capacity of 60,000 tons, and an eventual capacity of 120,000 tons per year. Production of semi-manufactures will also be undertaken in the first stage. The total

<sup>15</sup> This includes a kr. 50.9 million decrease in the combined capital stock of the two Standard Oil subsidiaries after their merger in 1963.

<sup>16</sup> In addition, the foreign group helped to place abroad a Norwegian Government loan of \$ 26 million (kr. 185 million), the proceeds of which were to be used to develop hydro-electric power to supply Sør-Norge Aluminium A/S.

<sup>17</sup> This is discussed in Chapter VII.

cost is estimated at kr. 560 million. Of this amount, capital stock will amount to kr. 80—100 million, and will be held 51 % by Norsk Hydro A/S and 49 % by Harvey Aluminium. The rest of the cost will be covered by foreign loans.

Finally, A/S Norsk Aluminium Company is in the process of expanding its capacity by 12,500 tons to a new capacity of 26,000 tons. Total cost for plant and power construction is expected to reach kr. 90 million. Its subsidiary, A/S Nordisk Aluminiumindustri, is also doubling its capacity to 30,000 tons of semi-finished and finished products at a cost of kr. 32 million.

Two new enterprises for the production of silicon carbide are also in the process of being realized with foreign participation. K.S. Orkla-Exolon was founded in 1961 and is expected to begin operations in 1963—64. Orkla Grube A/B will supply roughly kr. 3.2 million in capital stock, as will the Exolon Company, U.S.A. Norwegian-owned Christiania Spigerverk A/S will provide the remaining kr. 1.1 million of the total capital stock of kr. 7.5 million. The plant is being built at Orkdal, with an original capacity of 4,000 tons, and a planned future capacity of 8,000 tons. Total cost is expected to reach kr. 25 million.<sup>18</sup>) Another silicon-carbide project secured the necessary concession agreements in 1964. Norton Norge A/S is a subsidiary of the Norton Company, U.S.A. It will have a capacity of 8,000 tons and cost roughly kr. 30 million. Capital stock of kr. 10 million, as well as the rest of the investment, is being financed by Norton Company.

At least one other major project in the electrical power-using industries is under construction. The smelting works of Orkla Metal Aktieselskap, Orkanger, are being converted from the refining of pyrites to the production of ferro-silicon. Capacity will be 25,000 tons per year. The cost is estimated to be kr. 15 million. Orkla Grube A/B, the mother company, will bear the whole cost.

A kr. 140 million electrical power project, the planned doubling of the capacity of A/S Tyssefaldene, is being financed in part by a \$ 10 million (kr. 71 million) loan in London. The other half will be financed by three foreign-owned industrial users, who will be able to expand their production considerably. It is not yet clear how the power will be shared, but one proposal is that Det Norske Nitridaktieselskap will be able to expand aluminium production from 18,500 tons to 50,000 tons; Odda Smelteverk A/S will expand raw carbide production from 50,000 tons to 80,000 tons; and Det Norske Zinkkompani A/S will expand zinc production, from 48,000 tons to 64,000 tons.

Luossavaara-Kiirunavaara A/B (LKAB) is in the process of increasing its loading capacity in Narvik from the present capacity of 15 million tons of iron ore per year to 22 million tons per year, at an estimated cost of kr. 30 million. New dock facilities will be able to take ships up to 70,000 tons,

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<sup>18</sup> Industridepartementet: *St. Meld. nr. 6 (1962—63); Om utbygging av vannkraft og kraftkrevende industri*; Oslo, Sept. 28, 1962, p. 46.

almost twice as large as at present. Ofofbanen (railroad) must be strengthened to tolerate increased axle pressure due to heavier loads. This expense will also be paid by LKAB.

In 1964, Titan Co. A/S opened a kr. 20 million plant at Fredrikstad for the production of titan dioxide. It will cover Scandinavian sales and result in considerable foreign exchange savings. A more ambitious plan to concentrate ilmenite ore from its subsidiary, A/S Titania, to a higher degree of titan dioxide, and derive saleable iron as a by-product, has been postponed.

#### 6. Foreign-held capital stock at face value 1962 (revised estimates).

Whereas the *Finanstelling* has been used as a basis for the historical description, it has some disadvantages if it is to be used as basis for more precise analysis of a particular period. The most serious problem is that it considers Norwegian subsidiaries of other Norwegian companies to be Norwegian-owned, even if the mother company is foreign-owned. A second problem is that branches of foreign companies, which are not organized as Norwegian corporations, are not included in the statistics at all.

In order to develop more detailed current statistics on the foreign-owned enterprises and their subsidiaries, and to check the accuracy of the *Finanstelling*, a comprehensive investigation of all known sources of information was undertaken by the author during the period 1962—1964. Appendix I shows the result of this effort. It includes production and employment statistics for 1952, 1961 and 1962, as well as financial statistics for 1961 and 1962.

For analytical purposes, the foreign-held capital stock is divided into three different ownership categories. The first category, hereafter called the «50 % group», includes those Norwegian corporations in which capital stock is at least 50 % foreign-held. The second category, hereafter called the «20 % group», includes those Norwegian corporations in which capital stock is between 20 % and 50 % foreign-held. The third category, hereafter called «portfolio» investment, includes those Norwegian corporations in which capital stock is less than 20 % foreign-held. Subsidiaries of Norwegian corporations are placed in the same ownership group as the mother company. The capital stock of subsidiaries is considered to be foreign-held in the same percentage as the capital stock of the mother company.

Based on Appendix I—B, the revised total of foreign-held capital stock at face value in 1962 was estimated to be kr. 723.0 million, or 20.7 % higher than the *Finanstelling* estimate (Exhibits 4.1, 4.2, and 4.3; revised).<sup>19</sup>) Nearly two-thirds of the difference is accounted for by Norwegian subsidiaries of foreign-owned Norwegian corporations. A time lag of approximately one year in surveying new foreign-owned enterprises accounts for slightly

<sup>19</sup> Both estimates exclude branches of foreign corporations, which, of course, do not have «Norwegian» capital stock.

over one-fourth of the difference. Portfolio investment by foreign-owned Norwegian corporations and unrecorded foreign holdings account for the remaining difference.<sup>20)</sup>

Manufacturing and trade were by far the most important sectors of direct foreign investment, with 62.0 % and 24.3 % of total foreign-held capital stock, respectively (Appendix I—B). Well over half of foreign-held capital stock was located in typical export industries, while another one-fourth was located in typical import industries.<sup>21)</sup> Furthermore, many foreign holdings in the export industries are dependent on large imports of raw materials, such as aluminium oxide, bauxite, nickel-copper matte, zinc ore, manganese ore, chromium ore, crude petroleum, and chemical additives. Even the home market-oriented electrotechnical enterprises are heavy importers of parts, and in some cases, act as sales agents for imported power equipment and household appliances. Foreign concentration in export and import sectors has a bearing on Norway's balance of payments, and quite possibly on the terms of trade, but this is discussed in the following chapters.

American, French, British, Canadian, Swedish, Swiss, and Belgian investors accounted for most of the foreign-held capital stock (Appendix I—B). Within this group, American investment was the largest, and the lead should grow greater when present projects are completed. The main French contribution was Norsk Hydro A/S. British investments were particularly important in the petroleum import sector. Canadian investments were concentrated in the basic metals and electrical power sectors. Although the Swedish share of foreign investment has declined through the years relative to the share of such newcomers as the Americans, Swedish financial influence is still significant in mining (Orkla-Grube A/B) and the electrotechnical industry. If the activities of LKAB (organized as a branch of a Swedish corporation) are considered, Sweden would rank with the largest foreign investors.

It is possible to arrive at a number of expressions for the relative share of Norwegian capital stock (at face value) held by foreigners.<sup>22)</sup> The foreign share of total Norwegian capital stock in 1962 was 14.5 % according to the revised figures, compared to 12.0 % according to the *Finanstelling* figures (Exhibit 4.2); however, Norwegian financial institutions and public enterprises are usually not eligible investment objects for foreign investors.<sup>23)</sup>

<sup>20</sup> A reconciliation of the difference between *Finanstelling* 1962 and Appendix I—B was worked out but is not reproduced here.

<sup>21</sup> Typical export industries are chemicals (electrochemicals and refined petroleum products), basic metals, fish and wood processing, and mining. The foreign holdings in the Trade sector are primarily import companies.

<sup>22</sup> It should be remembered that not all Norwegian enterprises are incorporated, particularly not in trade and shipping. Furthermore, face value of capital stock is a questionable measure of relative share, even in a financial sense.

<sup>23</sup> A/S Norsk Jernverk (iron and steel) and A/S Ardal og Sunndal Verk (aluminium) are the most important public enterprises organized as corporations. Most public activities, such as the postal service and railroads, are unincorporated.

Excluding corporations in these sectors, the foreign share of capital stock (at face value) in private Norwegian corporations in 1962 was 18.8 %. In private mining and manufacturing corporations, the foreign share was 23.2 %.

Another way to look at foreign ownership is by degree of control. Appendix I—C shows foreign ownership by category of control. The 50 % group accounted for about two-thirds of foreign-held capital stock in 1962. The 20 % group represented slightly over one-fifth, and portfolio investment one-tenth, of the foreign total.

Total capital stock of corporations in the 50 % group was roughly 14 % greater than the foreign-held capital stock in this group, when Norwegian holdings are included. Assuming that the foreign investors can control these corporations, foreign-controlled capital stock amounted to 11.2 % of total Norwegian capital stock, or 14.8 % of the capital stock in private, non-financial corporations, in 1962.<sup>24</sup>) If mining and manufacturing are considered alone, foreign investors controlled 16.7 % of the capital stock in private corporations.

The foreign-held share of the 20 % group was 37.8 %, indicating that foreign influence may be more than minimal, but probably not dominant.<sup>25</sup>) Therefore, it might be stated that foreign investors influenced, but did not control, Norwegian corporations which accounted for 11.0 % of the total capital stock in private, non-financial corporations. In mining and manufacturing, foreigners influenced corporations accounting for 20.2 % of the capital stock in private corporations.

In summary, assuming that portfolio investment grants the investor no influence, foreign investors controlled or influenced Norwegian corporations accounting for 19.5 % of total Norwegian capital stock (at face value), and 25.8 % of the capital stock in private, non-financial corporations. In mining and manufacturing, foreign investors controlled or influenced corporations accounting for 29.1 % of total capital stock, and 36.5 % of the capital stock in private corporations. Once again, it should be noted that the comparison is based on face value of capital stock and neglects unincorporated enterprises. Furthermore, Norsk Hydro A/S, which accounts for most of the capital stock in the 20 % group, is a private corporation in which the Norwegian Government owns 48 % of the capital stock, compared to only 38 % in foreign hands.

## 7. Foreign-held capital stock at market value in 1962.

The *Finanstelling 1962* does not survey the market value of capital stock, but it is possible to estimate it by reference to tax statistics. All individuals and organizations in Norway are assessed a wealth tax (formuesskatt) by

<sup>24</sup> Based on the data in Appendix I—C and Exhibit 4.2.

<sup>25</sup> The control assumptions are discussed in more detail in Chapter V.

both the Norwegian Government and the municipalities. In the case of organizations, the assessed value (antatt formue) is supposed to reflect the market value of its net worth.<sup>26)</sup> In practice, it is difficult to set a fair market value on net worth, since there is only a limited auction market for capital stock in Norway. It is generally believed that real assets tend to be under-assessed.<sup>27)</sup>

Appendices I—D and I—E show the net worth for national wealth tax purposes of foreign-held capital stock and branches of foreign corporations as of December 31, 1962.<sup>28)</sup> Assuming that assessed net worth gives a reasonable estimate of market value, foreign-held capital stock in Norwegian corporations was worth roughly kr. 1,458.2 million, or about twice as much as face value.<sup>29)</sup> Including net worth of branches of foreign corporations (kr. 112.8 million), the market value of foreign holdings was approximately kr. 1,571.0 million. Foreign investors controlled Norwegian enterprises which had a total market value of kr. 1,193.2 million (the 50 % group and branches of foreign corporations), and influenced other Norwegian enterprises which had a total market value of kr. 961.4 million (the 20 % group).

Since wealth taxes are assessed on unincorporated and incorporated enterprises alike, the foreign share of assessed net worth might be a better indication of the foreign-owned share of Norwegian industry than the previous comparisons based on the face value of capital stock. Preliminary aggregate tax returns for 1962 indicate that total assessed net worth for all Norwegian economic organizations was kr. 15,424.4 million.<sup>30)</sup> Based on this figure, the foreign-held share of net worth was approximately 10.2 % compared to 14.5 % of the capital stock at face value, and foreign investors controlled or influenced Norwegian enterprises which accounted for 13.9 % of total net worth, compared to 19.5 % of total Norwegian capital stock at face value.<sup>31)</sup>

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<sup>26</sup> Holdings of capital stock in Norwegian subsidiaries are not included in the tax assessment of the mother company. Instead each subsidiary is taxed as a separate entity. Thus, the assessed net worth of a subsidiary should be added to the assessed net worth of its mother company to get a better estimate of net worth for the whole concern.

<sup>27</sup> In a few cases, the assessed value for wealth taxes has been negotiated between an organization and tax authorities.

<sup>28</sup> The net worth of «portfolio» investment, building and construction and «diverse» trade is estimated by using Oslo Stock Exchange indexes. Net worth of each enterprise listed in Appendix I—A is based on the actual national wealth tax assessment.

<sup>29</sup> Market value by industry sector is shown alongside face value in Exhibit 4.1 (1962 revised).

<sup>30</sup> Statistisk Sentralbyrå: *Statistisk ukehefte nr. 1/2—5*; Oslo, January 9, 1964.

<sup>31</sup> Detailed final tax statistics for 1961 for all Norwegian economic organizations (including foreign-owned enterprises) are shown in Appendix I—H, but analysis of these figures is reserved for later chapters.

## 8. What might have been.

As a conclusion to this chapter, it might be of interest to try to combine the historical description with the status of Norwegian capital stock in 1962. One way to do this would be to ask the question, what percentage of total capital stock in 1962 was directly or indirectly attributable to previous foreign investment? This raises a number of questions. For example, would the former foreign-owned enterprises have grown in the same way if they had not been repatriated by Norwegians? If they had continued under foreign ownership, would competing Norwegian-owned companies have been established? There is no «a priori» reason to answer such questions one way or the other. Let us assume that the change of ownership did not affect the growth of individual enterprises or the competitive situation. Furthermore, since nearly all of the repatriated enterprises were fully foreign-owned at the time of repatriation, let us assume that 100 % of their capital stock in 1962 was attributable to former foreign investment. Finally, let us eliminate from consideration enterprises which were foreign-owned only for short periods of time, or were never at least 50 % foreign-owned.

Appendix I—O estimates that Norwegian corporations which had total capital stock of kr. 1,186.9 million at face value in 1962 could attribute their existence to present or past foreign ownership and control. This amounted to about 23.7 % of total Norwegian capital stock at face value in 1962. If mining and manufacturing are considered alone, present or former foreign investments accounted for 35.3 % of total capital stock, or as much as 44.7 % of capital stock in private corporations in 1962.<sup>32</sup>)

Nearly all of the repatriations occurred during or after the two World Wars. In relative terms, most of the repatriated enterprises were at least as large at the time of repatriation as they were in 1962.<sup>33</sup>) This is one reason for making the assumption that the change to Norwegian ownership was not necessarily responsible for their size in 1962.

Aggregate capital stock figures do not really indicate the influence of direct foreign investment on the development of certain important Norwegian industry sectors. The mining, chemical and oil processing, basic metals, and electrotechnical industries have been developed to a significant extent by direct foreign investment. In 1961, these sectors accounted for 26.4 % of the gross production value and 19.7 % of employment in manufacturing and mining. The paper and pulp industry was also pioneered by foreign capital, but developed in the later stages by Norwegian capital. In

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<sup>32</sup> See Exhibit 4.2 for capital stock at face value 1962 in Norwegian corporations.

<sup>33</sup> In particular, A/S Borregaard (The Kellner Partington Paper Pulp Co. Ltd. and De-No-Fa og Lilleborg Fabriker), Norsk Hydro A/S, A/S Sydvaranger, and A/S Hafslund were the largest enterprises in their respective industry sectors at the time of repatriation.

1961, it accounted for 10.4 % of the gross production value and 7.4 % of employment in manufacturing and mining.

Many of the leading Norwegian companies in 1962 resulted from direct foreign investment. There were 74 Norwegian manufacturing and mining establishments which employed more than 500 persons in 1962. Of these, 23 could attribute their existence to present or past direct foreign investment (Appendices I—A and I—O). There were 28 manufacturing and mining stocks quoted on the A List of the Oslo Stock Exchange in 1962. Of these, nine could trace their existence to direct foreign investment, including the two largest; however, only one was still in the 50 % group in 1962. Present or past foreign investment was responsible for a significant number of the largest companies in the following industry sectors:<sup>34</sup>)

1. Mining — seven out of the eight largest companies.
2. Chemical and oil processing — five out of the six largest companies.
3. Basic metals — seven out of the fifteen largest companies.
4. Electrotechnical — seven out of the nine largest companies.
5. Wood processing — the largest company.
6. Trade — five out of the six largest companies.

A lack of detailed historical production and financial data for the foreign-owned enterprises makes it difficult to illustrate their effect on past Norwegian national goals, or on the goals of foreign investors. Using data from the period 1952—1962, the rest of this study is devoted to such an analysis with respect to the post-World War II goals of Norway and the foreign investors.

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<sup>34</sup> Based on employment figures for 1962.

**Part II.**

**The performance record  
of foreign-owned enterprises  
in Norway 1952—1962.**



Introduction: The methodological problem  
of evaluation.

How can the performance of foreign-owned enterprises be evaluated, when there is no composite objective function which covers all enterprises, or even all participants in any one enterprise? Should performance be measured with respect to the goals of the investors, the Norwegian government, the local employees of the enterprise, or some other interest group? Within these groups are there not diverse subgroups with heterogeneous goal structures? How should changes in goals over time be treated? Can the participants be characterized as «maximizers», «satisficers» or some other label from the literature of organization theory? In short, lacking an acceptable conceptual framework, can there be a meaningful analytic approach to the problem?

A case method approach also has limitations if it is to provide an alternative framework for analysis. Rather than attempt to evaluate foreign-owned enterprises as a whole, it describes in detail the operations of a few so-called «typical cases». One aim is to point out characteristics in the sample enterprises which may be applicable to the whole group. Usually, no attempt is made to evaluate these characteristics, since the approach is essentially descriptive rather than prescriptive.

The chapters which follow try to combine some elements of a case method approach with some elements of an analytic approach. Rather than analyse a few typical cases intensively, empirical data are presented in aggregate form for the foreign-owned enterprises as a group, in order to make ordinal comparisons with Norwegian-owned enterprises as a group. In this manner, it may be possible to discern a set of unique characteristics for the foreign-owned enterprises. Nevertheless, lacking a prescriptive model, a «case method silence» on judging such characteristics must be maintained.

Even descriptive ordinal comparisons must be made within some framework of reference, albeit not an analytic one. Such a framework is introduced in Chapter V. A list of goals is assumed for each of the major interest groups concerned with foreign-owned enterprises. This is supplemented by a description of formal and informal methods of control of the enterprises, whereby each interest group attempts to influence decision making in a way favorable to its own goal achievement. In Chapters VI—IX, the results of operations of the foreign-owned enterprises, during the period 1952—1962, are compared to the results of operations of the Norwegian-owned enter-

prises, in order to illustrate their relative effects on goal achievement of each of the major interest groups. Goals of the Norwegian Government are emphasized in the analysis because of the availability of data bearing on the subject, but this does not imply that these are considered to be more important than the goals of other major participants.

Selection of any limited time period for special analysis always implies a certain degree of arbitrariness. Changes that can be registered over such a period are often only a reflection of special features of the terminal years, or of what went before them, or of what is coming after them. Nevertheless, selection of the period 1952—1962 had some advantages. Exceptional events such as the post-World War II reconstruction era, the Korean War, and the devaluation of the krone were past history. Although the period as a whole was one of growth, business cycles of the «normal» variety occurred, thus providing material for an analysis of stability of foreign-owned enterprises, which is presented in Chapter VII. Finally, prior to the writing of this paper, most of the time series data (Appendix II) had been prepared by the Central Bureau of Statistics for use by The Office of Industrial Finance. The data were made available for inclusion in this paper.

## Chapter V. Goals and systems of control.

### 1. The investors.

#### A. Goals.

Investors in the so-called foreign-owned enterprises are by no means a homogenous group. For example, among those who own the enterprises are both foreign and Norwegian corporations, financial institutions, and individual citizens, as well as the Norwegian Government itself (Norsk Hydro A/S). In a number of cases, stockholders are also creditors of the enterprises, thus blurring the distinction between owners and creditors. Nevertheless, since the purpose of this study is to investigate the effects of *foreign ownership* of Norwegian enterprises, the goals of the *foreign stockholders* are considered to represent the goals of the investors as a whole.

What are the goals of the foreign stockholders? As part of a survey of the foreign-owned manufacturing and mining enterprises, the results of which are summarized in Appendix III, the managing directors, or their representatives, were asked to answer the question, «Why was the original investment undertaken in Norway?»<sup>1</sup>)

The answers to this question reveal a considerable diversity in motives. A general goal of reduction in the cost of goods sold by the investing firms covered one-half of the responses. Within this category, raw material supply was the most important motive for investments in the mining, fish processing, and paper and pulp industries. Inexpensive electrical power and raw material supply combined were the main motives for investments in the basic metals industry. License fees and service facilities for exports of the investing firm were important motives for investments in the electrotechnical industry.

Strategic considerations were named in nearly one-fourth of the responses. Within this category, tariff or other import restrictions were additional motives for investments in the electrotechnical industry, particularly after the 10 % rule went into effect in 1927.

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<sup>1</sup> Appendix III, question A. If time had permitted, it might have been preferable to ask the foreign stockholders this question directly, rather than asking the managing directors of the Norwegian enterprises. Furthermore, the question refers to the original goal rather than the present goal.

It is interesting to note that pure profit in the Norwegian enterprise itself was mentioned only in about one-fifth of the cases. This motive was not typical of investments in any particular industry sector, but rather of the 20 % group as a whole. The original foreign investments in such enterprises as Norsk Hydro A/S, Orkla-Grube Aktiebolag, and their subsidiaries were made by individuals and financial institutions, motivated by the prospect of monetary gain through dividends, capital appreciation and the like, rather than any direct interest in production or sales activities.

Although cost of goods sold in the investing firm, strategic considerations, and profit in the Norwegian enterprise are really subsets of an overall goal of profit for the investor, it is still useful to make the distinction. One of the main criticisms of foreign-owned enterprises is that they may be able to avoid paying a «fair share» of Norwegian taxes, by transferring income to the investing firms through unrealistic transfer prices, license fees, etc.<sup>2)</sup> A goal of reducing the cost of goods sold in the investing firm may conflict with a goal of maximizing profit in the Norwegian enterprise.

#### B. Formal systems of investor control.

The formal organization structures of the foreign-owned enterprises are to a large extent determined by the mandatory terms of the Concession Act of 1917, the particular concession agreement in force for each enterprise, and general practice in Norway.<sup>3)</sup>

##### 1) *The corporate form versus the branch form.*

In general, foreign investors have chosen the corporate form of organization for operations in Norway.<sup>4)</sup> Although the Concession Act of 1917 does not specifically require the corporate form, other considerations, such as limited legal responsibility, taxation, and the public image, have apparently made the corporate form desirable. In a number of cases, the original foreign investment was organized as a branch operation, but was converted to the corporate form after growing in size.<sup>5)</sup>

##### 2) *Board of directors.*

The Concession Act of 1917 requires that a majority of the board of directors of foreign enterprises regulated under the Act must be Norwegians,

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<sup>2</sup> Reference can be made to the statements of a number of the members of Parliament as recorded in: *Forhandlinger i Stortinget nr. 18—20*, October 15 and 19, 1964.

<sup>3</sup> See Chapter II, part 1.

<sup>4</sup> See Appendix I—A, which lists nearly all of the larger foreign-owned enterprises. The major branch operations are Luossavaara-Kirunavaara A/B, Electric Furnace Products Co. Ltd., and Tomten Fabriken. There are also a number of small trade companies organized as branches of foreign corporations.

<sup>5</sup> Examples of this are General Motors (Norway) A/S, Ford Motor (Norge) A/S, Norsk Volvo A/S, and Atlas Copco A/S.

with domicile in Norway. In addition, a study of the articles of incorporation of 28 foreign-owned enterprises revealed 3 cases in which all members of the board of directors were required to be Norwegian.<sup>6)</sup>

A sample of 39 foreign-owned manufacturing and mining enterprises indicates that the Concession Act of 1917 is being observed in practice with respect to the composition of the boards of directors. In fact, Exhibit 5.1 shows that all members of the board of directors were Norwegian in nearly half of the sample enterprises in the 50 % group. No cases were discovered in which a Norwegian director had been a direct employee of the investing firm prior to his appointment to the board of directors of the Norwegian enterprise.

Exhibit 5.1. Composition of the boards of directors of foreign-owned manufacturing and mining enterprises. By nationality. As of December 31, 1961.

Category of ownership	Number of enterprises				
	Size of sample	All members Norwegian	Majority Norwegian	One-half Norwegian	Majority foreign
A. 50 % group....	32	14	17	1	—
B. 20 % group....	7	2	5	—	—
Total .....	<sup>1</sup> 39	16	22	1	—

Source: A. Price Directorate (28 enterprises). See note 6 on this page.

B. Annual Statements of individual enterprises (11 enterprises).

<sup>1</sup> Does not include Norwegian subsidiaries of foreign-owned enterprises, of which there were 6 in the sample group.

Control of company policy does not necessarily depend on the number of directors, but rather on the number of voting shares each represents and the distribution of the rest of the shares.

In the case of the 50 % group, it was usually true that formal control was still in foreign hands even though all members of the board of directors may have been Norwegian. In these cases, prominent Norwegians were selected by the investing firms to represent their interests. In two cases, the same Norwegian sat on different boards of directors, as the representative of the same investing firm.<sup>7)</sup> Appendix I—C shows that an overwhelming

<sup>6</sup> The study was undertaken by the author at the Price Directorate (Prisdirektoratet) in 1963. The sample was non-scientific, since it included only the articles of incorporation which were on file at the Price Directorate, and open to public inspection. In general, this meant that only the largest enterprises were included in the sample.

<sup>7</sup> For another point of view on the composition of the boards of directors, see Johansen, Leif: *Utenlandsk kapital i Norge*; Ny Dag, Oslo, 1962. The Central Bureau of Statistics is also in the process of surveying the distribution of all Norwegian capital stock and other questions relating to control.

proportion of the total capital stock in the 50 % group was in foreign hands in 1962. On the other hand, 8 out of the 100 enterprises listed in the 50 % group (Appendix I—A) were 50 % foreign-owned and 50 % Norwegian-owned. Of these, the most important were A/S Norsk Aluminium Co. (including Nordisk Aluminiumindustri A/S) and Norsk Brøndselolje A/S. In both cases, the Norwegian shares were voted as a block.

In the 20 % group, the question of formal control depends on the degree of concentration of the Norwegian-held shares. Norsk Hydro A/S (including Rjukanfos A/S) accounts for about two-thirds of the production activity of the 20 % group. It is clearly Norwegian controlled. In like manner, Mosjøen Aluminium A/S was under the formal control of Elektrokemisk A/S until 1964.<sup>8</sup>) On the other hand, the capital stock of Orkla-Grube Aktiebolag (including Orkla Metal Aktieselskap) and A/S Bjølvfossen, the other large enterprises in the 20 % group, are widely traded.<sup>9</sup>) In the case of Orkla-Grube Aktiebolag, the chairman of the board (1962) and one other director were members of the Wallenberg family. Nevertheless, the foreign-held share of this enterprise has steadily declined through the years, and is primarily a financial investment. In fact, production operations generated less than one-half of the income of Orkla-Grube Aktiebolag in 1961, the rest coming from various portfolio investments.

### 3) *Administrative directors.*

Although overall company policy must be approved by the board of directors, it is usually the operating management which proposes policy, particularly in the case of production and employment matters. In the case of the foreign enterprises, the administrative director has a strong position. He is on the scene, as well as being almost always an active member of the board of directors, whereas the foreign members of the board are often far removed from the scene, and occupied with other foreign investments. Furthermore, the language barrier is usually overcome by the Norwegians being multilingual.

Based on a sample of 54 foreign-owned manufacturing and mining enterprises, Exhibit 5.2 shows that in nearly every case the administrative director was Norwegian.

### C. Informal systems of investor control.

Although it would perhaps be useful to study the organization structures of the foreign investing firms to see how they exercise formal control over their representatives on the Norwegian boards of directors, such an in-

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<sup>8</sup> As of Jan. 1, 1964, ALCOA owns 50 % of the capital stock in Mosjøen Aluminium A/S.

<sup>9</sup> The definition of large enterprises in this case means more than 500 employees in 1962.

Exhibit 5.2. Administrative directors of foreign-owned manufacturing and mining enterprises.  
By nationality. As of December 31, 1961.

Category of ownership	Number of enterprises		
	Size of sample	Norwegian	Foreign
A. 50 % group .....	46	44	2
B. 20 % group .....	8	8	—
Total .....	<sup>1</sup> 54	52	2

Source: A. Price Directorate. See note 6.

B. Annual Statements of individual enterprises.

C. Various trade publications.

<sup>1</sup> Does not include Norwegian subsidiaries of foreign-owned enterprises, of which there were 8 in the sample group.

vestigation was not undertaken. In view of the fact that many of these representatives were not employed by the investing firms prior to representing them as directors, it is doubtful that the investing firms would rely exclusively on direct line of command relationships for purposes of control. On the other hand, it is likely that informal control systems play an important role. Apart from the exercise of moral suasion, supply, sales, and contractual relationships may represent means of informal control or influence over the decision making process in the Norwegian enterprises.

1) *Supply relationships.*

It is possible that the investing firm could maintain factual control over production decisions in the Norwegian enterprise by means of control of its source of supply or transfer pricing policy. Appendix III, Question B, shows the source of supply for a sample of 60 foreign-owned enterprises.

About one-third of the 48 responding enterprises in the 50 % group purchased more than 30 % of their supplies from the investing firms, and one-half received at least 10 % of their supplies from this source. Enterprises in the basic metals industries were particularly dependent on the investing firms for their supplies of mineral ores. Enterprises in the electro-technical industry were partially dependent on the investing firms for specialized parts, but also engaged in direct import and resale of finished goods. Although the trade sector was not included in the survey (Appendix III), nearly all of the foreign-owned enterprises in trade were established as import and distribution subsidiaries of the investing firms.

The 20 % group did not show any particular supply dependency. Only one out of twelve surveyed showed any supply relationship with the investing firm.

### 2) *Sales relationships.*

It would also be possible for the investing firm to maintain factual control over production decisions in a foreign enterprise by control of its sales activities. For example, this could be accomplished by direct purchase of a significant portion of the enterprise's production, by controlling a sales subsidiary which carried out sales on behalf of the production unit, or by transfer pricing policy. Appendix III, Question D, shows the sales relationships with the investing firms for a sample of 60 foreign-owned enterprises.

Once again the 50 % group showed a dependent relationship. One-half of the 48 surveyed enterprises indicated that more than 30 % of their sales were to the investing firm or its subsidiaries. A majority of the enterprises in the basic metals industry were included in this group.

One-third of the twelve enterprises surveyed in the 20 % group sold more than 30 % of their production to the investing firm or its subsidiaries.

### 3) *Contractual relationships.*

Production and sales decisions could also be controlled, or at least influenced, by the terms of licensing, patents, trademarks, royalties, contribution to overhead, or other contractual agreements. Appendix III, Question C, based on a sample of 56 enterprises, shows how many had some kind of contractual arrangement with the investing firm.

Well over one-half of the enterprises surveyed in the 50 % group made contractual payments to the investing firm.<sup>10)</sup> Even in the 20 % group, four out of ten enterprises made payments on this account.

Contractual agreements were particularly important in the electro-technical and consumer chemical industries, and have often been blamed for the lack of a better export showing for these industries. The investigation showed that in nearly all licensing cases, export sales were controlled by tacit or explicit agreement. In three cases, the Norwegian enterprise exported one or more of its specialty products on behalf of, or through, the investing firm. On the other hand, in nearly every case, the license agreement was the reason for any production of the particular product in Norway. Otherwise, even domestic needs would be met by import.

The degree of foreign control over production and sales decisions could be affected by the method of contractual payment. The most common methods were:

- 1) Lump sum payment
- 2) Contribution to overhead
- 3) Per cent of sales
- 4) Per cent of production

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<sup>10</sup> The size of the payments are treated in more detail in Chapter VIII.

The first two types of payment should not affect production decisions, since they do not enter into a calculation of variable costs. The last two types do affect production decisions, since they affect marginal cost and marginal revenue, particularly in cases of a variable percentage scale. In a few cases, payments were only symbolic. The object was to insure proper use of a trademark.

## 2. The Norwegian public.

The Norwegian public is no more of a homogenous interest group than the investors. With respect to foreign-owned enterprises, the Norwegian public represents customers, suppliers, a labor market, or more generally, the environment in which the enterprise operates. For lack of a better formulation, post-World War II national goals, as expressed in Government publications or by officials responsible for creating policy, are assumed to approximate the wishes of the Norwegian public at large.<sup>11)</sup>

### A. Economic goals and instruments of control.

#### 1) *Full employment.*

The most important post-World-War II economic goal has been the maintenance of full employment. Full employment is defined as «high and stable employment». The acceptable level of unemployment in Norway is far below that which is accepted in the United States and the United Kingdom. Unemployment because of lack of demand has not been a problem, but seasonal and structural unemployment have been bothersome, particularly in certain districts and in certain branches of activity.

The main instruments of control have been monetary and fiscal policy to regulate demand, regional development subsidies, and creation of Government industries to combat seasonal and structural unemployment. Aggregate unemployment has averaged less than 3 % of the work force during the entire post-World War II period.

#### 2) *Economic growth.*

In the early post-World War II years, reconstruction was given top priority as a national goal. After 1950, economic growth and development has replaced reconstruction, but is usually subordinated to full employment as the most important goal. A high rate of investment has often been stated as a national goal in itself, but it might be more appropriate to think of it as

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<sup>11</sup> Good summaries of post-World War II national goals and instruments of policy can be found in the following publications: a) B j e r v e , P. J. : *Planning in Norway 1947—1956*; North-Holland Publishing Company, Amsterdam, Holland, 1959. Chapters 1 and 2. b) B r o f o s s , E r i k : *Forelesninger i Penge- og Finanspolitikk*; Norges Bank, Oslo, July, 1962, Chapter LXIII. c) B r o f o s s , E r i k : *Survey of Economic Developments and of Economic Policies in Norway since World War II*; The International Summer School, University of Oslo, July, 1963.

a part of the economic growth goal. It is really both a means to growth and a result of growth.

No single instrument of control has been relied on to influence growth. Rather, there has been a coordinated approach to the problem, based on stated long term plans and annual budget forecasts. The main weapons have been monetary and fiscal policy, licensing of construction, imports of foreign capital, and direct Government investments.

3) *A fair and equal distribution of income.*

It has been considered a national goal to equalize incomes irrespective of skill, education, branch of activity, or geographical location. Families with children have been given some preference with respect to income distribution.

Progressive taxation, subsidies on consumption goods, regional development subsidies, and creation of Government industries have been used as instruments to secure this objective. Furthermore, the Government has followed an active wage and income policy, partly through decisions in «Lønnsnemnda», and partly through price and subsidy policies tied to the wage agreements in industry. Although personal incomes are probably more bunched around the mean income in Norway than in most other European countries, there is still a significant variance, particularly if manufacturing and shipping are compared to other sectors.

4) *Stable price level.*

Prevention of inflation has always been stated as a national goal, but is often subordinated to other economic goals in practice. It is also assumed that severe deflation should be avoided.

The main instruments of control have been direct price controls and subsidies. The post-war record of inflation in Norway has been roughly comparable to the experience in the rest of Europe. «Creeping inflation» has been the rule, but there have also been two periods of sharp increases in the general price level, in 1950—1952, following the devaluation of the krone and the Korean War, and again during the Suez crisis 1956—1957.

5) *Long term balance in the external economy.*

Long term balance in the external economy has also been stated as a national goal, but here again, it could also be considered a constraint on other national goals rather than a goal in itself. At any rate, long term balance has not been interpreted to exclude planned balance of payments deficits in the short run. As stated before, imports of self-repaying instruments of production have been encouraged as long as they can be financed abroad.

The principal instruments of control which have been used to influence the balance of payments are licensing of imports, restricting uses of foreign exchange, and placement of Government and private loans abroad.

#### B. Non-economic goals and instruments of control.

##### 1) «*The basic freedoms*».

«All political parties excepting the Communists have repeatedly declared that economic goals, regardless of their importance, must be subordinated to non-economic values, as for instance, freedom of speech, freedom of the press, and freedom of religion. Furthermore, freedom of occupational choice has been strongly emphasized. However, the Labor Party has not considered certain other economic liberties, in particular freedom of entrepreneurship and freedom of consumers' choice, as being of equally great importance, and these have been subordinated to some extent to the goals discussed in paragraphs 1—5 [the economic goals]». <sup>12)</sup>

##### 2) *Regional development*.

In recent years, regional development has come to the forefront as a major goal in its own right, rather than just an instrument of policy designed to achieve certain economic goals. It has been claimed that depopulation of the regions with a weak economic basis has led to a proportional increase in the population concentration in the Oslo area. Furthermore, social overhead expense in the Oslo area has grown disproportionately, while the depopulated regions have lost the economic basis for their own social overhead investment. <sup>13)</sup>

A number of instruments of control have been used to achieve regional development, but most of them have been characterized by a «pin-point» approach. Northern Norway has been favored by reconstruction priorities, direct Government loans, Government industries, and preferential tax treatment. Other weak regions have been favored by subsidies on their main products, favorable loan and tax treatment, construction of Government industries, and perhaps most important, a rapid development of electrical power resources. The latter policy has provided the basis for an import of foreign capital, both to finance the power projects, and to develop power-using industries in precisely those regions which have the weakest economic foundation.

##### 3) *Political goals*.

It goes without saying that Norway desires to protect its political and territorial sovereignty. This is complicated by the length of the national

<sup>12</sup> Bjerve, P. J.: *Planning in Norway 1947—1956*; North-Holland Publishing Company, Amsterdam, Holland, 1959, p. 6—7.

<sup>13</sup> See for example: Brofoss, Erik: *Vekst- og strukturproblemer i norsk økonomi; annen del*; Norges Bank, Oslo, 1963, p. 156—159.

boundaries and lack of population compared to more powerful neighbors. Historically, Norway followed a policy of neutrality, but this could not avert occupation by Germany. Since World War II the principal instrument of defense policy has been faithful adherence to NATO.

A desire for home ownership of natural resources and the means of production is also related to the goal of political and territorial sovereignty. Controlled foreign investment, regulated under the concession acts, has not been considered a violation of this principle. If the foreign share of the economy should reach too large a proportion, however, there might be a reaction, based on national political goals.

### 3. Local management and employees.

#### A. Goals.

The goals of local management and employees of the foreign-owned enterprises are assumed to be the same as the goals of management and employees in other Norwegian enterprises.<sup>14</sup>) For example, some such goals might be:

- 1) Maximum economic benefits.
- 2) Job security and stability of employment.
- 3) An opportunity for promotion.
- 4) Psychological and social rewards.

#### B. Systems of control.

##### 1) *Management-employee relationships.*

In Appendix III, Questions E and G, were an attempt to derive empirical data bearing on the subject of management-employee relationships. The answers were not precise enough to quantify. In general terms, most of the larger enterprises indicated that they had some kind of production committee for exchanging ideas, and that they used the N.A.F. — L.O. nationwide agreement as a minimum basis for their own pay scales. Some of the smaller enterprises felt that the production committees were not necessary, and even if they had them, made little use of such contacts. In general, the smaller enterprises, whether or not they were directly covered by the N.A.F. — L.O. agreement, used it as a guideline for their own pay scales.

It was hoped that question G (on personnel turnover) would provide new data bearing on the general level of employee satisfaction, but the response was not very specific. Most answers indicated that turnover was comparable to the experience of other enterprises in the same geographical area, i.e. higher in the urban areas than in the rural areas.

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<sup>14</sup> Nearly all of the Norwegian-based management and employees are Norwegians. There is no reason to believe that they represent a different type of Norwegian than the average.

2) *Management-investor relationships.*

In Appendix III, Question F was an attempt to discover whether or not local management in the foreign-owned enterprises was mobile with respect to movement within the investing firms, particularly in view of the multinational character of many of the firms. With a few exceptions, such did not appear to be the case. This might lead to the inference that the personal goals of local management would best be served by profitable and expanding operations within the Norwegian enterprises, rather than achievement of the investing firms' goals, at least in cases when the two sets of goals conflict.

4. Problems of foreign ownership and control.

Even without extending the analysis to other interest groups, it is apparent that there may be cases of goal conflict between interest groups, and even within the individual interest groups. Such conflicts are also present in Norwegian-owned enterprises. The question is, what specific types of goal conflict are more difficult to deal with under foreign ownership than under Norwegian ownership? Furthermore, since ownership does not necessarily mean control of decision making, are there types of goal conflict which can be handled more easily under conditions of foreign ownership participation but not control? The following chapters take up these questions, mainly by providing data with which to compare operating results achieved under the three types of ownership; i.e., the 50 % group, the 20 % group, and Norwegian-owned enterprises. Particular emphasis is placed on the following areas of potential goal conflict:

A. Growth and employment.

- 1) Do foreign-owned enterprises grow more slowly than comparable Norwegian-owned enterprises, because of a potential conflict in interest with the investing firms over export markets?
- 2) Do foreign-owned enterprises merely replace Norwegian-owned enterprises, thus not adding to overall Norwegian economic growth, and reducing opportunities for Norwegian nationals?
- 3) Are foreign-owned enterprises comparatively destabilizing in the short run, because their supplies and sales often depend on the investing firms, which schedule production in accordance with business cycles in their own countries rather than in Norway?

B. Income distribution.

- 1) Are foreign-owned enterprises more likely to escape Norwegian taxation than Norwegian-owned enterprises, because of their ability to «hide income» in the form of contractual payments and unrealistic transfer prices?

- 2) Are foreign-owned enterprises more likely to impose unfavorable working conditions on local employees, because of their relative size, and monopolist position in certain geographical areas?

C. Other goals.

- 1) Are transfer prices between the investing firms and their Norwegian enterprises less favorable with respect to Norway's terms of trade than the free market prices used by Norwegian-owned enterprises.
- 2) Does the acquisition of Norwegian real assets by foreigners create a potentially dangerous contingent liability for Norway's long term international liquidity?
- 3) Does foreign ownership of Norwegian enterprises compromise the pursuit of an independent Norwegian foreign policy?

## Chapter VI. Economic growth and employment 1952—1962.

### 1. Introduction.

What has been the effect of foreign-owned enterprises on the Norwegian goals of rapid economic growth and full employment? One possible hypothesis is that the foreign-owned enterprises grow more slowly than comparable Norwegian-owned enterprises. For example, the foreign investing firms may wish to protect their own export markets by restricting the sales of their Norwegian subsidiaries to certain types of products or certain geographical markets. A second possible hypothesis is that even if foreign-owned enterprises maintain the overall growth rate of the Norwegian economy, they may merely replace Norwegian-owned enterprises.

There are a number of definitional problems involved in any analysis which attempts to test these hypotheses. Are we interested in growth in production, employment, value added, personal income or some other variable? Should we measure production in physical or monetary terms, per person or per manhour? Should we measure employment by number of persons employed, aggregate wages and salaries, wages and salaries per person or per manhour, etc.? Gross production value, value added at market prices and number of persons employed are the variables chosen for further analysis in this chapter, but there are numerous other possibilities.

Before proceeding with the comparisons, a few words of warning are in order. International macroeconomic comparisons are sometimes misleading because definitional and structural differences are lost in the aggregation. In this analysis, however, we are mainly interested in inter-industry and intra-industry comparisons within the same country. Nevertheless, in Norway's case, there is also a danger of using figures that are too disaggregated. The absolute size of gross production value in manufacturing and mining in 1962 was roughly kr. 25,381 million (\$ 3,621 million), or less than several of the largest American corporations. One or two large new firms or investments in an industry can create striking discontinuities in the statistics for that industry, and for that matter, for the whole economy. On the other hand, the small size of Norway also makes it possible to identify the causal factors. Since the foreign-owned enterprises represent a small sample of a small statistical population, it is necessary in the analysis which follows, to supplement the statistical tables with verbal explanations when discontinuities appear.

## 2. Growth in production 1952—1962.

### A. Gross production value in current prices.

During the period 1952—1962, the foreign-owned enterprises barely maintained their market share of the manufacturing and mining sectors as a whole, but not their share of each of the individual subsectors of foreign concentration. Exhibit 6.1 shows that the combined 50 % and 20 % group accounted for 13.3 % of gross production value (unadjusted for price changes) in 1962, compared to 13.6 % in 1952; however, the foreign share of the mining and basic metals industries dropped sharply during the same period. This was offset in part by an increase in the foreign share of the chemical and oil processing industry.<sup>1)</sup>

### B. Gross production value in constant prices.

A comparison of growth based only on unadjusted gross production value is somewhat misleading, since the industries of foreign concentration were faced by an unfavorable price trend compared to the industries of Norwegian concentration. The Central Bureau of Statistics estimates the physical growth in production by constructing a production index, which deflates monetary gross production value in each industry by a price index representing its main products. Selected «implicit price deflators» used in calculating this index are shown in Exhibit 6.2. Although total manufacturing and mining received 16 % higher prices on the average in 1962 than in 1952, three of the four industries of foreign concentration faced an actual price decline.<sup>2)</sup>

It follows from the analysis of price trends that if market shares were compared in physical terms, the foreign market share of total manufacturing and mining would have been somewhat larger in 1962 than in 1952, rather than approximately the same; however, it is questionable if a physical measure of growth is preferable to a monetary measure in this particular case. The three industries of foreign concentration which suffered price declines are primarily export industries. A decline in export prices may have an adverse effect on the terms of trade and thus on «real» national product and income. For example, if prices for a given quantity of exports fall, (or

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<sup>1</sup> Decline in the foreign share of the mining industry was due mainly to two companies. Orkla Grube A/B (20 % group) was faced by a decline in the price paid for pyrite exports and depletion of proven reserves. A/S Sydvaranger (non-foreign) renewed operations in 1952 and expanded operations significantly by 1962. The foreign share of the basic metals industry was diluted by construction of government-owned facilities in steel and aluminium (Norsk Jernverk A/S and A/S Årdal og Sunndal Verk). Construction of A/S Esso Raffineriet (50 % group) and expansion by Norsk Hydro A/S (20 % group) were the main reasons for an increase in the foreign share of the chemical and oil processing industry.

<sup>2</sup> The four selected industries in Exhibit 6.2 accounted for 86.8 % of the gross production value of the combined 50 % and 20 % group in 1962, but only 26.5 % of the gross production value of total Norwegian manufacturing and mining (Appendix I—M).

Exhibit 6.1. Percentage share of selected economic variables accounted for by foreign-owned enterprises in 1952 and 1962.<sup>1</sup>

Group number	Industry group	Number of establishments		Gross production value		Value added market prices		Employment	
		1952	1962	1952	1962	1952	1962	1952	1962
A. 50 % group (incl. branches)									
11—19	1. Mining	6.1	2.8	9.9	10.5	10.0	10.6	10.9	11.0
20—39	2. Manufacturing	0.9	0.5	8.7	8.7	7.1	6.6	5.5	5.4
31—32	a) chemical and oil	4.3	4.4	6.1	19.9	9.5	12.6	8.2	10.6
34	b) basic metals	8.9	7.1	53.9	32.9	45.0	18.3	38.4	22.5
37	c) electrotechnical	6.2	3.2	47.9	45.0	46.6	46.0	44.1	43.6
	d) others	0.4	0.3	1.1	1.7	0.9	1.8	0.9	1.5
	Total mining and manufacturing	1.0	0.6	8.7	8.7	7.2	6.8	5.7	5.5
B. 20 % group									
11—19	1. Mining	2.7	1.3	20.7	10.0	22.2	10.7	12.4	11.0
20—39	2. Manufacturing	0.3	0.2	4.6	4.5	5.2	5.7	3.0	3.3
31—32	a) chemical and oil	2.5	1.9	23.2	26.0	43.8	36.6	31.8	33.1
34	b) basic metals	3.5	3.6	9.8	10.8	8.0	13.7	7.3	9.8
37	c) electrotechnical	—	—	—	—	—	—	—	—
	d) others	0.1	0.1	0.9	0.7	0.8	0.5	0.4	0.5
	Total mining and manufacturing	0.4	0.2	4.9	4.6	6.0	5.8	3.3	3.5
C. Combined 50 % and 20 % group									
11—19	1. Mining	8.8	4.1	30.6	20.5	32.2	21.3	23.3	22.0
20—39	2. Manufacturing	1.2	0.7	13.3	13.2	12.3	12.3	8.5	8.7
31—32	a) chemical and oil	6.8	6.3	29.3	45.9	53.3	49.2	40.0	43.7
34	b) basic metals	12.4	10.7	63.8	43.7	53.0	32.0	45.7	32.3
37	c) electrotechnical	6.2	3.2	47.9	45.0	46.6	46.0	44.1	43.6
	d) others	0.5	0.4	2.0	2.4	1.7	2.3	1.3	2.0
	Total mining and manufacturing	1.4	0.8	13.6	13.3	13.2	12.6	9.0	9.0

Source: Appendix I—M, N.

<sup>1</sup> The percentages refer to the share of each industry group total.

for a given quantity of imports rise), under *ceteris paribus* conditions, there would be less goods and services available for domestic consumption and investment, despite the fact that the same amount and mix of the domestic factors of production were used. It has been estimated that the yearly rate of growth in Norwegian gross domestic product during the period 1955—1962 was 4.0 % in 1955 prices, but only 3.6 % if corrected for changes in the terms of trade.<sup>3)</sup>

It should also be noted that changes in tariff barriers may have a bearing on «real» economic growth for the same reasons as changes in the terms of

<sup>3</sup> Brofoss, Erik: *Vekst og strukturproblemer i Norsk økonomi; Første del*; Norges Bank, Oslo, 1963, p. 8. The data for Brofoss' figures came from Statistisk Sentralbyrå: *Økonomisk utsyn 1962*, and *Statistisk månedshefte nr. 6, 1963*.

Exhibit 6.2. Selected indices of industrial production  
(1952 = 100).

Group number	Industry group	Gross production value 1962 as per cent of 1952		
		(1) Current prices	(2) Constant prices (1952 = 100) <sup>1</sup>	(3) Implicit price deflator $\frac{(1)}{(2)}$
11—19	1. Mining and quarrying .....	145	159	91
31—32	2. Chemicals and oil processing ....	186	210	89
34	3. Basic metals .....	207	230	90
37	4. Electrotechnical <sup>2</sup> .....	212	205	103
11—39	5. Total manufacturing and mining	207	179	116

Source: A. Statistisk Sentralbyrå: *Statistisk månedshfte. Nr. 12, 1963*; Oslo, p. 13. (Index of industrial production at constant prices.)

B. Statistisk Sentralbyrå: *Industristatistikk 1961*, Oslo, 1963. (Index of industrial production at constant prices.)

C. Appendix I—M, N. (Gross production value at current prices.)

<sup>1</sup> Since the index of industrial production in Sources A and B used 1955 as the base year, the 1962 index value was divided by the 1952 index value in order to make 1952 the base year. The 1962 data was preliminary.

<sup>2</sup> 1961 data was used because the index of industrial production for 1962 was not yet available.

trade.<sup>4</sup>) It is a complicated task, however, to figure out who really bears the cost. In any case, there is no indication that foreign-owned enterprises have been affected by tariffs more than Norwegian-owned enterprises operating in the same industries.

#### C. International comparisons.

The fact that the foreign-owned enterprises maintained their share of manufacturing and mining production should also be viewed in the light of Norway's rapid expansion during the period 1952—1962. Exhibit 6.3 compares growth in industrial production of selected O.E.C.D. countries during this period, using 1953 as the base year. The 1962 index value of Norway (169) was considerably higher than Sweden (154), the U.K. (131), the U.S.A. (129), E.F.T.A. (139), and Denmark (157 in 1961). In fact, among its seven principal trading partners, only Germany (199) had a larger increase in industrial production. Since about 40 % of Norway's national product is based on exports, it is impressive that production in Norway was able to expand at a faster rate than that of its main trading partners.

<sup>4</sup> Tariffs do not usually enter into the calculation of the terms of trade.

Exhibit 6.3. General indices of industrial production in selected O. E. C. D. countries 1952—1962. (1953=100.)

Country	1952	1962
1. Austria .....	98	192
2. Belgium .....	100	143
3. Canada .....	94	144
4. Denmark .....	96	157 (1961)
5. E.E.C. ....	95	193
6. E.F.T.A. ....	95	139
7. France .....	99	193
8. Germany (excluding Saar) .....	91	199
9. Italy .....	91	222
10. Netherlands .....	91	165
11. Norway .....	94	169
12. Sweden .....	98	154
13. U.K. ....	95	131
14. U.S.A. ....	92	129

Source: O.E.C.D.: *General Statistics, November, 1964*, p. 2.

### 3. Growth in value added (market prices) 1952—1962.<sup>5</sup>)

#### A. Percentage share of foreign-owned enterprises.

Exhibit 6.1 shows that neither the 50 % group nor the 20 % group were able to maintain their share of value added if 1962 is compared to 1952. The foreign share of value added in the mining and basic metals industries dropped sharply, corresponding to the decline in the foreign share of gross production value in these industries. Furthermore, the foreign share of value added in the chemical and oil processing industry actually fell from 53.3 % in 1952 to 49.2 % in 1962, despite a large increase in the foreign share of gross production value.

The use of value added as a measure of economic growth is a useful supplement to gross production value, but has definite limitations. Changes in operating margins, the technical coefficients of production, product mix, and productivity are all important factors in determining the size of value added. The reduced foreign share of value added could have been caused by changes in any one of these factors, or a combination of several.

#### B. Operatings margins.

A rising level of domestic costs, coupled with an unfavorable price trend for output, reduced operating margins in the industries of foreign concentration during the period 1952—1962. For example, the electrometallurgical and electrochemical industries faced a rise in the wholesale price index

<sup>5</sup> Value added at market prices is found by subtracting interindustry payments from gross production value. These payments include the cost of raw materials, fuels, electricity, auxiliary materials, packaging materials, and contract work. To find value added at factor prices, indirect taxes and subsidies must be removed. Both concepts of value added are used in the national income accounts.

of electricity to 119 in 1962 (1952 = 100).<sup>6</sup>) Very significant expansions in production facilities were accomplished despite the increasing cost of building materials, which showed an index value of 124 in 1962.

In addition to changes in domestic costs, changes in the cost of raw material imports could have had a bearing on operating margins. In the basic metals industry, excluding iron and steel, a large percentage of the raw materials must be imported. The price of metallic ores can vary quite substantially, depending on such factors as quality, discoveries of new deposits, depletion of old deposits, ease of processing, transportation costs, stockpiling, psychological factors, and, of course, demand. Although refined metal prices tend to vary with ore prices, wide fluctuations make it difficult to establish fair or realistic cost or sales prices, particularly if the investing firms supply ores or purchase refined metals from their Norwegian subsidiaries.<sup>7</sup>) A similar set of problems exists in the oil refining industry (A/S Esso Raffineriet).

Even if operating margins were held constant in percentage terms, severe price fluctuations would cause operating margins to vary in absolute terms, depending on absolute prices and the level of production. Although increased production might offset part of the reduction in percentage operating margins, there are limitations to expansion, particularly in the electrical power-using industries and oil refining. In the former case, expansion depends on the availability of an adequate electrical power supply, which in many cases is operated by the Government or a municipality. They may or may not be in a position to provide additional power. In both cases, expansion beyond existing capacity would require large, non-divisible capital investments, and possibly even new concession agreements.

C. The technical coefficients of production, product mix, and productivity.

A change in the technical coefficients of production, the product mix, or productivity could cause a change in value added which was not in proportion to changes in gross production value and employment. The relationship between value added and gross production value depends primarily on the degree of processing carried out within the enterprise. If a large degree of processing is carried out within the enterprise, such as in the mining industry, value added would be a large percentage of gross production value. Even if the degree of processing is low, however, the degree of capital intensity might be high. In that case, value added might not be high relative to gross production value, but high relative to employment, since it includes the factor returns to both labor and capital. An example of this is the oil

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<sup>6</sup> The wholesale price index is published by Statistisk Sentralbyrå in *Statistisk månedshäfte*; Oslo, monthly. In the case of industrial users of electricity, a number of the companies have long term electricity contracts or own their own power facilities, thus reducing the value of the wholesale price index as an indicator of costs.

<sup>7</sup> Other problems of transfer pricing are treated in the following chapters.

refining industry. Finally, value added might be high relative to both gross production value and employment because of a high level of productivity of both labor and capital.

It is too difficult estimate the relative effect on value added of changes in each of these production factors, particularly since price changes must first be isolated. Based on the historical analysis, it is apparent that the more recent foreign investments have been more capital intensive, and the product mix has changed significantly with the construction of the ESSO oil refinery. Nevertheless, the same generalizations hold true for Norwegian manufacturing and mining as a whole.

#### 4. Growth in employment 1952—1962.

The combined 50 % and 20 % group's share of manufacturing and mining employment was 9.0 % in 1962, which was exactly the same as in 1952. This represented a 30 % increase in employment, which corresponded roughly to the increase in the number of available workers during the period. Nearly all employees in the foreign-owned enterprises were Norwegian nationals.<sup>8)</sup>

Within the individual industries, the foreign share of mining dropped only slightly, despite a sharp drop in its share of gross production value and value added. The divergence was partly due to the unfavorable price trend for pyrites (Orkla-Grube A/B). In the chemical and oil processing industry, both the 50 % and 20 % group increased their share of employment, but not by as much as their share of gross production value. This was due mainly to the trend toward more capital intensive operations in the industry.

#### 5. The role played by new establishments.

A significant share of the economic growth was generated by new establishments constructed during the period 1952—1962. Exhibit 6.4 shows

Exhibit 6.4. Gross production value and employment in foreign-owned enterprises constructed during the period 1952—1962.

Group	1962		
	Number of establishments	Gross production value (Kr. 1 million)	Employment
1. 50 % group .....	21	493.7	1,690
2. 20 % group .....	6	110.8	740
3. Combined 50 % and 20 % group..	27	604.5	2,430

Source: Same as Appendix I—I.

<sup>8</sup> Norway has not followed an active policy of importing foreign labor to supplement the domestic supply. In 1962, there were only 4,709 foreign workers in all Norwegian manufacturing and mining companies (Source: Statistisk Sentralbyrå: *Statistisk årbok for Norge 1962*; Oslo, 1962, p. 44).

that there were 27 new foreign-owned establishments constructed during this period.<sup>9</sup>) In 1962, these new establishments accounted for 20.0 % of the gross production value of the combined 50 % and 20 % group, and 35.8 % of its growth in gross production value since 1952.<sup>10</sup>) They also accounted for 2.4 % of total Norwegian gross production value in 1962, which gives some idea of the effect of the post-World War II policy of encouraging direct foreign investment in Norway.

The new foreign-owned establishments accounted for only 7.6 % of total employment in the combined 50 % and 20 % group in 1962. This was considerably less than their share of gross production value, an indication of the trend toward more capital intensive operations. Nevertheless, employment in the new establishments represented 32.7 % of the growth in employment in the combined 50 % and 20 % group between 1952 and 1962.

There are no corresponding figures for new Norwegian-owned establishments constructed during the period 1952—1962. According to Appendix I—M, N, the total number of Norwegian establishments expanded at a faster rate than did the number of foreign-owned establishments; however, there is not necessarily any correlation between the number of establishments and production. The statistical basis for the survey of industrial establishments was expanded in 1961 to include, as a general rule, those establishments in which five persons were employed, whereas in 1952, the survey included only those establishments which carried out 12,000 hours of work. The small establishments account for a much less than proportionate share of production.

## 6. External economies and diseconomies.

The effect of foreign-owned enterprises on a national goal of economic growth does not just depend on the growth of the individual foreign-owned enterprises, but also on their interaction with each other, and with the Norwegian-owned enterprises. Foreign ownership introduces a strong element of competition into the Norwegian economy, both with respect to share of market and factors of production. This is bound to upset the status quo, but whether it stimulates growth and lowers real costs, or merely replaces dome-

<sup>9</sup> Findus A/S and Nordnorsk Durox A/S were constructed while they were Norwegian-owned, but went over to foreign ownership during the period 1952—1962. The other establishments were all constructed while they were foreign-owned or partly foreign-owned.

<sup>10</sup> Sources: Exhibit 6.4, Appendix I—M, N. Apart from the construction of new establishments a small part of the growth in gross production value is due to the classification system used by the Central Bureau of Statistics. New establishments can be «created» on paper by separating an operation into several divisions. This is sometimes done if the coefficients of production are sufficiently different. In one case, the production of aluminium oxide was separated from the production of aluminium, although both operations are carried on at the same plant. Both of the new establishments show gross production value, whereas previously, the aluminium oxide operation was recorded as raw material expense only.

stic industry, is a difficult question to answer. In the case of Findus A/S, the foreign takeover was clearly at the expense of Norwegian-owned production. On the other hand, many of the other foreign takeovers were in lieu of bankruptcy or major reorganization. In the case of new construction, it is unlikely that there was a domestic substitute for the Esso oil refinery. On the other hand, new foreign investments in the electrical power-using industries have been matched by new Norwegian investments in the same industries, such as in aluminium.<sup>11)</sup>

There are a number of more readily definable external economies and diseconomies which might or might not be ascribed to the operation of foreign-owned enterprises in Norway. They are discussed in more detail in the following chapters. Among the potential external economies and diseconomies are the following:

#### A. Economies.

- 1) Organization and technique in the foreign-owned enterprises might spread to the Norwegian-owned enterprises through such means as the transfer of key personnel; by successful copying of foreign products, production and sales methods; by more exacting requirements for interindustry deliveries to the foreign-owned enterprises, and by licensed production.
- 2) The foreign-owned electrical power-using enterprises are nearly always located in rural areas. This leads to the creation of an industrial milieu and social overhead facilities, usually financed in part by the investors. Moreover, these enterprises provide the economic basis for regional development of water resources, power facilities, roads, and deep water harbor facilities.
- 3) Participation of local capital in the relatively large and productive foreign-owned enterprises may be a way of increasing the productivity and profitability of domestic investment.
- 4) In the game of tariff politics, it may be an advantage to have the large, multi-national concerns committed to production operations in Norway. They form a powerful pressure group for lowering national tariffs on the raw materials and semi-manufactures which they import from their Norwegian subsidiaries.

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<sup>11</sup> One compelling reason for allowing foreign investment to compete with Norwegian investment in this industry is the possibility that Norway's lead in low cost hydro-electric power may be challenged in the future by development of hydro-electric power in other parts of the world, and by reduction in the cost of thermal and nuclear power. Therefore, it has been argued, it may be an advantage to accelerate development of Norway's latent hydro-electric resources, to permit recapture of the investment through depreciation before competing power sources become available.

**B. Diseconomies.**

- 5) The multi-national concerns may have a vested interest in preventing their Norwegian subsidiaries from exporting finished products to third markets. This is often expressed in contracts covering the terms of licensed production in Norway.
- 6) Reliance on imported foreign technique by the foreign-owned enterprises may discourage them from undertaking independent research and development activities in Norway.
- 7) If the investing firm has a direct sales or supply relationship with its Norwegian subsidiary, production and employment in Norway may be dependent on the business cycle in another country. This could be destabilizing with respect to the business cycle in Norway.

**7. Summary.**

One can draw opposing conclusions about comparative rates of economic growth. One possibility is that the foreign-owned enterprises were able to maintain their percentage share of production and employment in a rapidly expanding Norwegian economy despite relatively unfavorable price trends. They achieved this partly by expanding physical production at a faster rate than the average for manufacturing and mining, and partly by constructing new foreign-owned establishments. A contrasting possibility is that the foreign-owned enterprises caused a worsening in the terms of trade by increasing the volume of their exports without a corresponding increase in their income. This reduced the growth in «real» national income. Furthermore, growth by the foreign-owned enterprises was partly at the expense of Norwegian-owned enterprises, either because of outright take-over, or because of increased competition in sectors in which both operate.

## Chapter VII. Stability of production, employment and prices during the period 1952—1961.

### 1. Introduction.

The purpose of this chapter is to investigate the stability characteristics of the 50 % group during the period 1952—1961. Fluctuations in production levels could cause unemployment problems, economic waste, and unstable prices. Moreover, it might weaken the effectiveness of Norwegian planning. Four hypotheses which might be proposed, are investigated.

First, it has been claimed that foreign-owned enterprises behave as if they are not dependent on the Norwegian business cycle, but rather on the business cycles of the home countries of the investing firms. The argument is that the foreign-owned enterprises in the mining, electrochemical and basic metals industries are supplying industrial raw materials or semi-manufactures to their investing firms.<sup>1)</sup> The investing firms often have their own domestic production of the same products. During periods of reduced demand, production in foreign-owned enterprises in Norway may be reduced to protect domestic and export sales of similar products by the investing firms. On the other hand, when high levels of demand exist, and anti-inflation controls are introduced in the home countries, the investing firms may compensate for this by increasing production abroad.

Second, even if the investing firms do not directly control their subsidiaries, they may provide the financing which makes it possible for the foreign-owned enterprises to operate independently of Norwegian monetary and credit policy.

Third, foreign (and Norwegian) investment in highly specialized industries could be risky from a national viewpoint. In a country where real resources are limited, too much investment in projects which are specialized by product and process, and have heavy fixed costs, may create ruinous conditions in times of international recession.

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<sup>1</sup> Some of the foreign-owned enterprises are really entrepôt operations, carrying out one or two processing stages on raw materials imported from the investing firm, and then exporting the finished products to industrial customers in third markets for further processing. Examples of entrepôt operations in Norway are the production of nickel (copper as a by-product), zinc, aluminium, and to some extent ferro-alloys.

Exhibit 7.1. Production index for industry, electricity, and gas supply, and the total wholesale price index. 1952—1961.

Year	Production index (1955 = 100)	Total wholesale price index (1952 = 100)
1952	81	100
1953	86	99
1954	93	101
1955	100	103
1956	105	108
1957	110	112
1958	110	110
1959	117	110
1960	129	111
1961	138	112

Source: A. Statistisk Sentralbyrå: *Statistisk månedshefte*, Oslo, monthly issues.

B. Statistisk Sentralbyrå: *Industristatistikk 1961*, Oslo, 1963.

Fourth, foreign-owned enterprises may have an unfavorable effect on prices by being in a position to administer them.

Appendix II presents data for testing the first and second hypotheses. It shows gross production value, value added, gross investment value, and employment in foreign and Norwegian-owned enterprises in the same industry groups during the period 1952—1961. Exhibits 7.2 through 7.8 are graphical presentations of the index numbers from Appendix II.

The test criterion is to compare year to year fluctuations in the indexes to see if the foreign-owned enterprises had wider or more untimely fluctuations than Norwegian-owned enterprises. Particular emphasis is placed on relative reactions to the boom and recession period 1955—1959. Exhibit 7.1 shows the production and wholesale price indexes for the whole period 1952—1961.

The third hypothesis is tested by means of reference to the historical analysis. Exhibit 7.9 summarizes some important examples of conversion of electrical power-using projects to new uses.

The fourth hypothesis is merely discussed in terms of the Government's ability to counteract monopolistic influences in the economy.

## 2. Fluctuations in production, employment and investment.

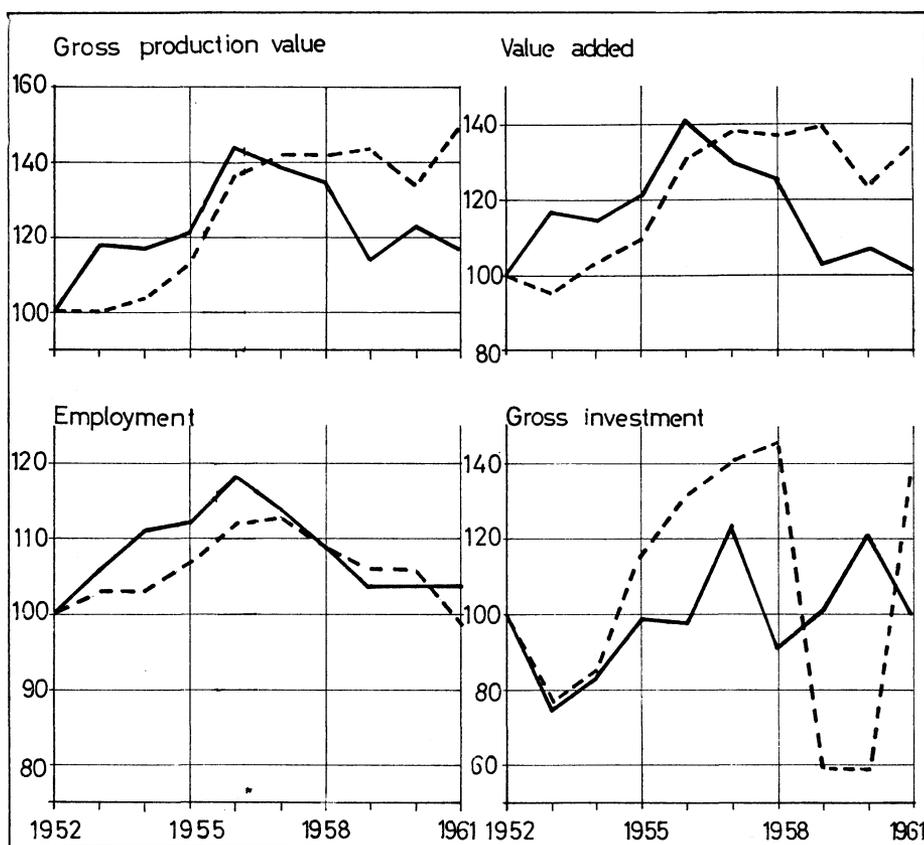
### A. Mining and quarrying.

The graph of employment in mining and quarrying, presented in Exhibit 7.2, shows that both the foreign and Norwegian-owned companies seemed to be operating on the same business cycle, whatever that may have been.

The divergences in gross production value and value added trends after 1956 were probably due to relative changes in export prices. The graphs also show that the foreign-owned enterprises had less variation from year to year in production and employment than the Norwegian-owned enterprises.<sup>2)</sup>

The effect of investment expenditures on the business cycle is unclear since construction of the projects spanned several years. It seems as if investments in mining by both the foreign and Norwegian-owned enterprises were destabilizing, insofar as they expanded during a period of rising prices

Exhibit 7.2. Mining and quarrying. Selected economic variables 1952—1961 as a per cent of 1952.  
1952 = 100.



Key: — Norwegian.  
----- Foreign.

Source: Appendix II, Mining and quarrying.

<sup>2</sup> No trend lines have been fitted to the data for any of the industries because of the small size of the samples and resultant discontinuities.

and contracted during a period of recession, but the data only show when the projects were actually carried out, not when they were planned. It was generally true in all types of industries that the planning and approval period often stretched out well past the desired time of construction. At times, building delays and import controls caused further delays. In short, the timing of investments in mining, as well as other industries, was partly dependent on public authorities and partly on private management.

#### B. Electrochemical industry.

Exhibit 7.3 shows that during most of the period 1952—1961 the foreign and Norwegian indexes of gross production value, value added, and employment followed almost the same pattern of movement.<sup>3</sup>) The lack of sharp year to year fluctuations, and the fact that both the foreign and Norwegian-owned enterprises weathered the recession of 1958 without any apparent effect on production or employment, must be considered favorable for stabilization; however, an increase in investment activity in the foreign-owned enterprises during the 1955—1957 period was probably destabilizing.

#### C. Other chemicals (excluding oil refining).<sup>4</sup>)

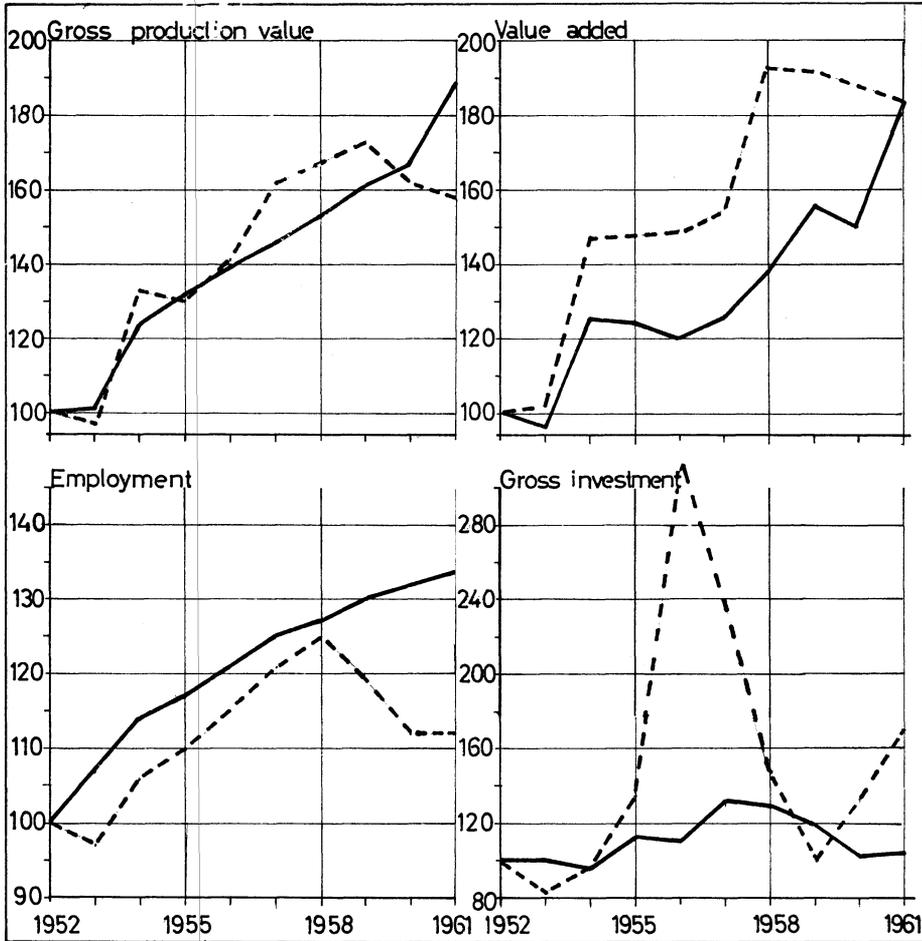
Exhibit 7.4 shows that both the foreign and Norwegian-owned enterprises had favorable stability characteristics with respect to gross production value and value added. Deviations from hypothetical trend lines were minimal, except in 1960 for the Norwegian-owned enterprises. With respect to employment, however, the foreign-owned enterprises showed better stability characteristics. For example, between 1952 and 1958, foreign employment did not deviate from the 1952 level by more than 5 index points. Employment in the Norwegian-owned enterprises peaked at 117 in 1956, a year of rapid industrial growth, and declined to 105 in 1958, a recession year. On the other hand, it should be noted that foreign gross production value was nearly stagnant, while Norwegian gross production value showed a sharp increase during the period.

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<sup>3</sup> An international imbalance in supply and demand for carbide products developed in 1959. The foreign-owned enterprises were engaged in carbide production to a relatively greater extent than the Norwegian-owned enterprises (essentially Norsk Hydro A/S), a fact which may explain the divergence in levels of production and employment 1959—1961.

<sup>4</sup> This comparison may be misleading. Until 1958, the manufacture of soap accounted for most of the Norwegian totals. The largest manufacturer in this group was Lilleborg Fabriker, which was foreign-controlled until 1958, but was included in the Norwegian-owned group. The manufacture of matches and asphaltic roofing materials accounted for most of the foreign totals. In 1959, a new industry group was added to the analysis, which also caused the comparison to be somewhat distorted.

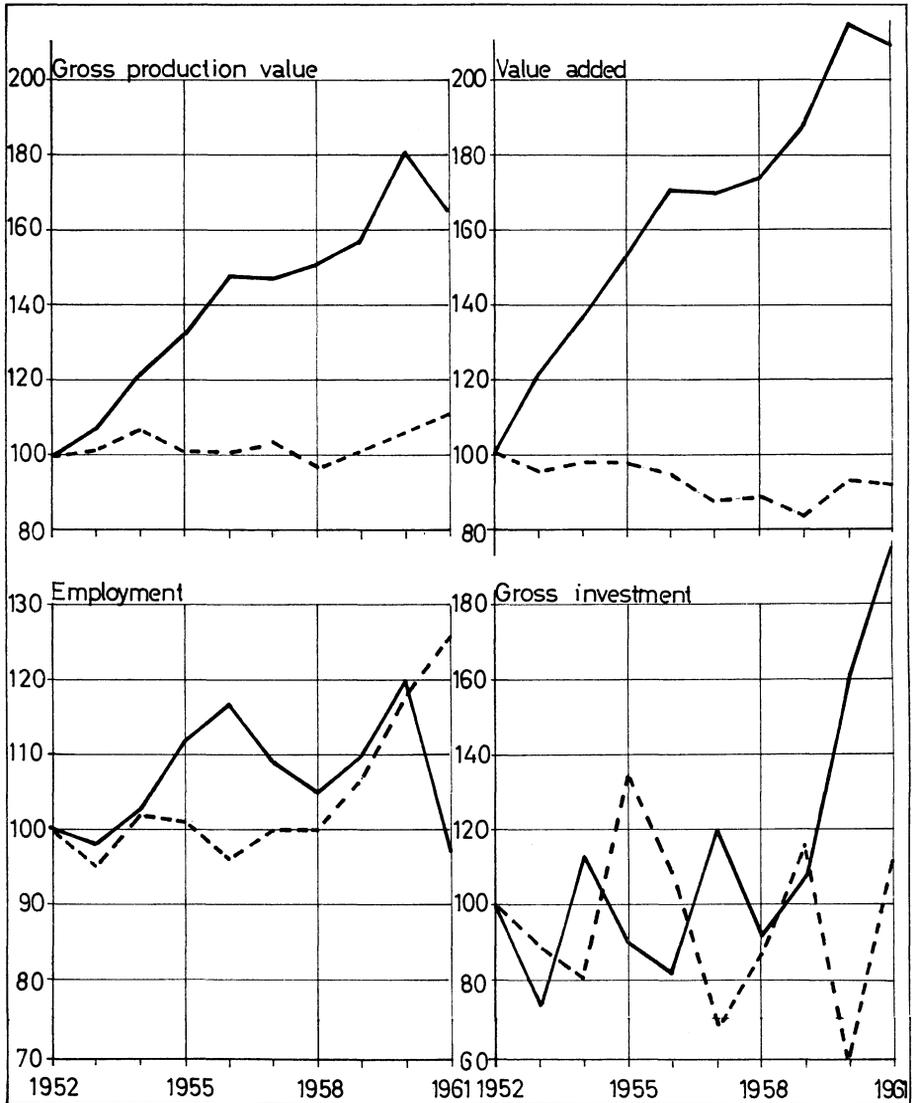
Exhibit 7.3. Electrochemical industry. Selected economic variables 1952—1961 as a per cent of 1952.  
1952 = 100.



Key: — Norwegian.  
- - - Foreign.

Source: Appendix II, Electrochemical industry.

Exhibit 7.4. Other chemicals (excluding oil refining).  
 Selected economic variables 1952—1961 as a percent  
 of 1952.  
 1952 = 100.



Key: — Norwegian.  
 - - - Foreign.

Source: Appendix II, Other chemicals (excluding oil refining).

D. Basic metals (excluding iron and steel).<sup>5)</sup>1) *Introduction.*

The basic metals industry deserves special attention, partly because it created roughly one-half of the 50 % group's gross production value during the period 1952—1961, and partly because it is typified by entrepôt type operations in both the foreign and Norwegian-owned enterprises.<sup>6)</sup>

Exhibit 7.5 shows that the Norwegian-owned enterprises had a smoother year to year transition in levels of production and employment than the foreign-owned enterprises, and reacted more favorably to the recession of 1958. The faster rate of growth in the Norwegian-owned enterprises stemmed from the construction of new aluminium plants (Sunndal Verk and Mosjøen Aluminium), expansion of magnesium production by Norsk Hydro A/S, and a favorable trend of prices for aluminium and magnesium.<sup>7)</sup> The investment index shows that the new aluminium projects stretched over several years, which included both inflationary and deflationary periods. Since these projects were part of the long term plan for expansion in the electrical power-using industries, and were generally under Government control, it would be fruitless to draw any conclusions as to their overall effects on stability.

Of particular interest might be the reaction of production and employment in the basic metals industry in Norway during the boom and recession cycle from 1955 to 1959, compared to the reaction in the home countries of the investing firms.

If the hypothesis that the investing firms favor their own domestic production during times of recession is correct, one would expect production of basic metals in Norway to exhibit worse stability characteristics than production of the same products in the home countries of the investing firms. The Supplement to Appendix II presents indexes of production, imports and prices of selected basic metals in the home countries of the investing firms, as well as in the countries which are Norway's main customers. The index numbers are shown in graphical form in Exhibits 7.6 and 7.7.

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<sup>5</sup> Includes mainly aluminium, aluminium products, nickel, zinc, copper, magnesium, and ferro-alloys.

<sup>6</sup> The main Norwegian-owned enterprises included in this grouping are A/S Ardal og Sunndal Verk (aluminium), Mosjøen Aluminium A/S (aluminium), Norsk Hydro A/S (magnesium), and several producers of ferro-alloys. With the exception of Norsk Hydro A/S, all of the enterprises are partially dependent on imports for a supply of raw materials, and all export most of their output to large industrial users. In many cases, both their suppliers and customers are the same firms as supply and purchase from the foreign-owned enterprises.

<sup>7</sup> Aluminium production accounted for over one-half of the gross production value of Norwegian-owned enterprises in basic metals, but accounted for only about one-fourth of gross production value in the 50 % group.

Exhibit 7.5. Basic metals (excluding iron and steel).  
 Selected economic variables 1952—1961 as a per cent  
 of 1952.  
 1952 = 100.<sup>1</sup>



Key: — Norwegian.  
 - - - Foreign.

Source: Appendix II, Basic metals (excluding iron and steel).

<sup>1</sup> A smaller vertical scale is used here than for the other industries.

## 2) *Aluminium.*

The foreign investors in aluminium enterprises in the 50 % group were aluminium concerns in Canada, U.K. and France (until 1958 when P echiney sold its interests). Norway's main raw material suppliers (bauxite and aluminium oxide) and customers, besides these three, were other aluminium concerns in the U.S.A., West Germany, and Sweden.

Exhibit 7.6 shows that production of aluminium in Norway grew at a faster rate, and exhibited better stability characteristics, than production in the home countries of its main customers and investing firms. Only in 1957 was there a deviation from the Norwegian trend line, but this was not harmful in a year of boom conditions and peak aluminium prices. During the recession of 1958, production in Norway continued to grow at the rapid earlier pace, but production by its main customers declined. For example, despite a 5 point decrease in home production, imports into the U.S.A. increased by 14 points.<sup>8</sup>) The 1958 aluminium statistics certainly do not support a hypothesis that home production is favored during times of recession. On the contrary, Norway's increased exports would support a hypothesis that at least some foreign aluminium firms were motivated by comparative cost considerations.

## 3) *Nickel and copper.*

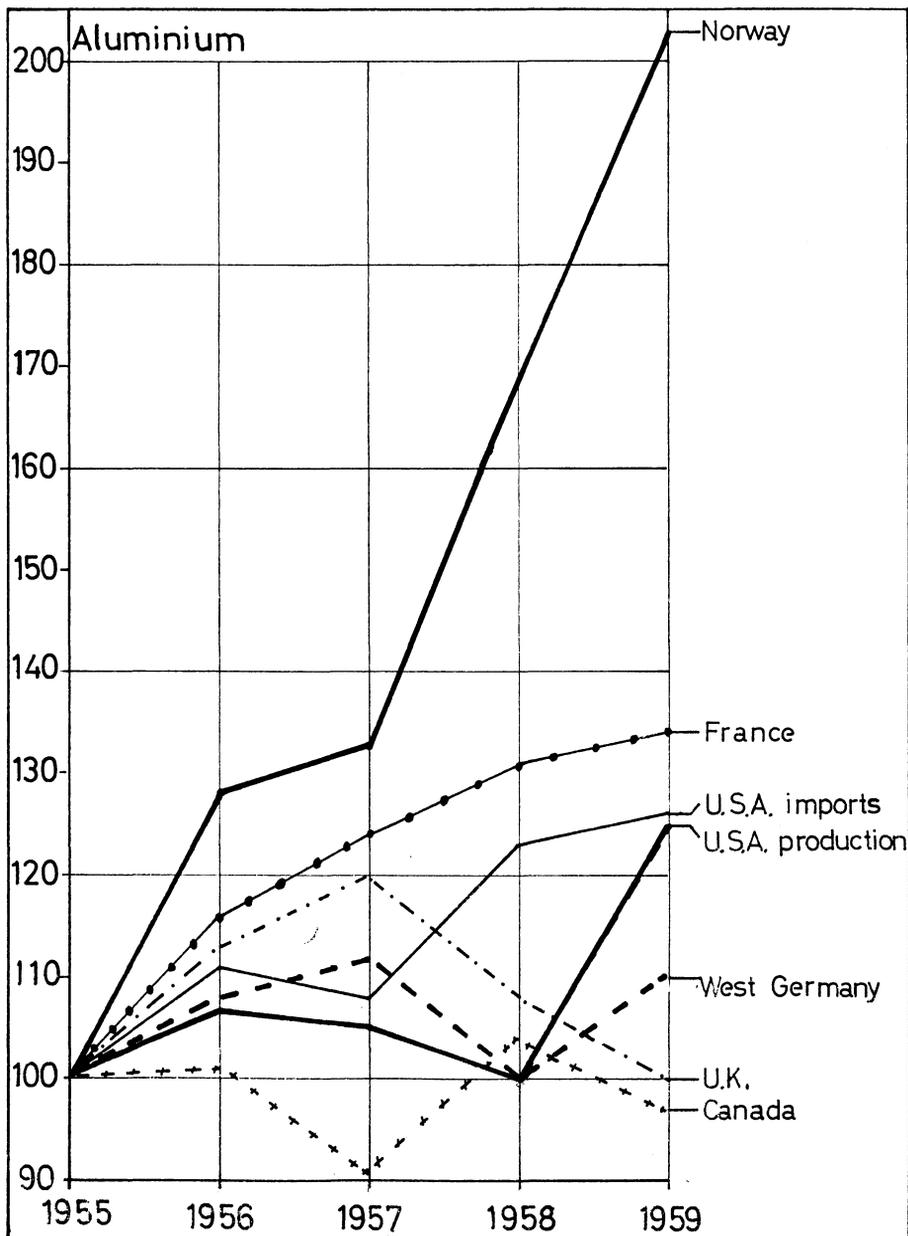
Canadian-owned Falconbridge Nikkelverk A/S was the only nickel refiner in Norway during the period 1955—1959. It was also the main copper refiner as a result of the content of the nickel ore. This enterprise alone accounted for about one-fourth of all gross production value in the 50 % group, and about one-half of the gross production value of the 50 % group in the basic metals industry. Canada and Norway together produced or refined about one-third of the world's supply of nickel. The U.S.A. consumed about the same share. The Canadian-refined nickel was sold primarily to the U.S.A., but the Norwegian-refined nickel (from Canadian ores) was sold mainly to European steel companies. The world's known nickel deposits are controlled by only a few companies, of which International Nickel Company, Ltd. of Canada is the largest.

Exhibit 7.6 shows that Norwegian nickel and copper refining developed in an extremely favorable manner compared to Canadian refining, which was caught by stagnation in the U.S. steel industry. Norwegian production increased 41 index points between 1955 and 1959. The price of nickel also increased by 15 points during the period, which had a favorable effect on

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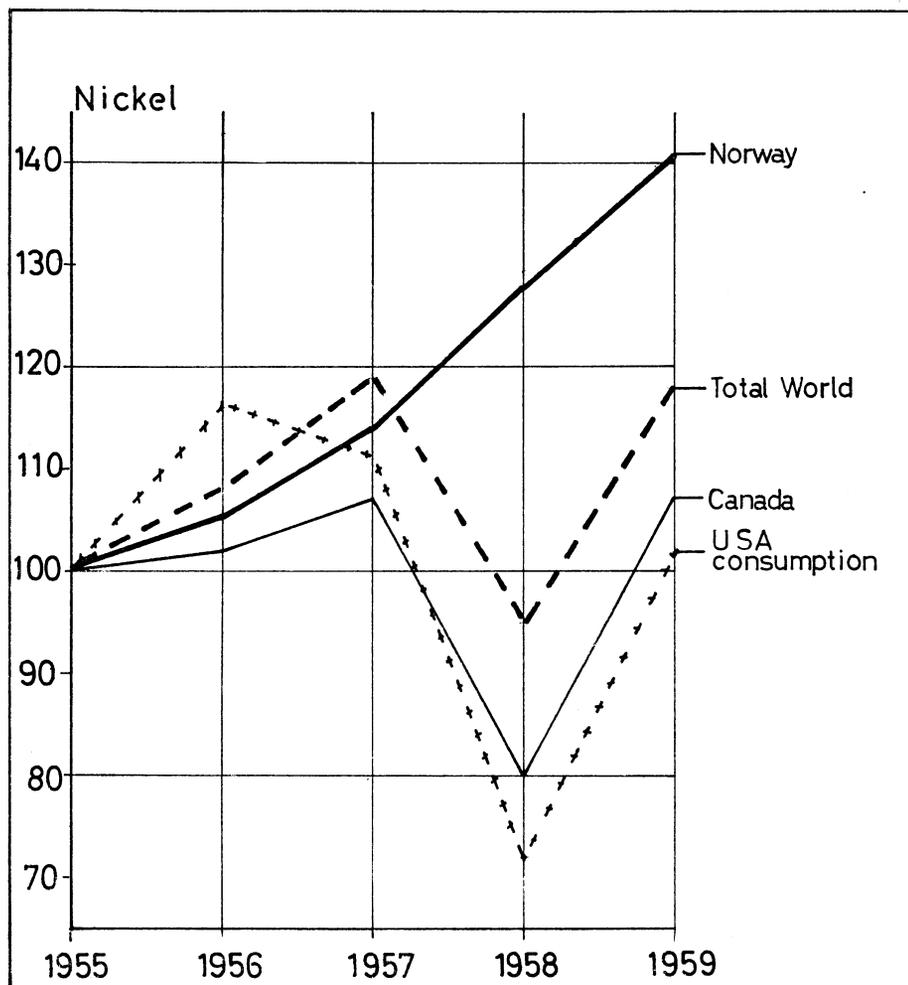
<sup>8</sup> The U.S.A. produced over one-half of the non-communist world's supply of aluminium, but still imported 8—10 % of its needs. A/S  rdal og Sunndal Verk was protected by a long-term supply and purchase contract with the U.S. Government during this period.

Exhibit 7.6. Indexes of production and imports of selected basic metals 1955—1959. By Country. 1955 = 100.



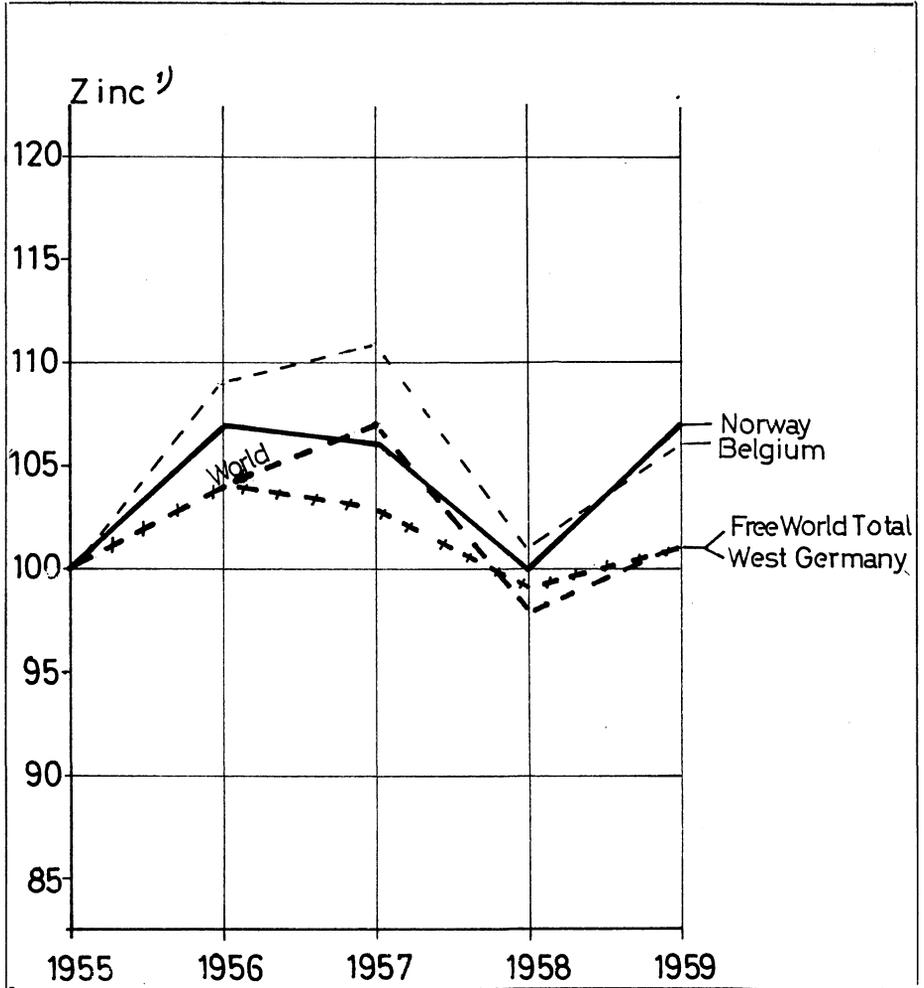
Source: Supplement to Appendix II.

Exhibit 7.6 (cont.). Indexes of production and imports of selected basic metals 1955—1959. By Country. 1955=100.



Source: Supplement to Appendix II.

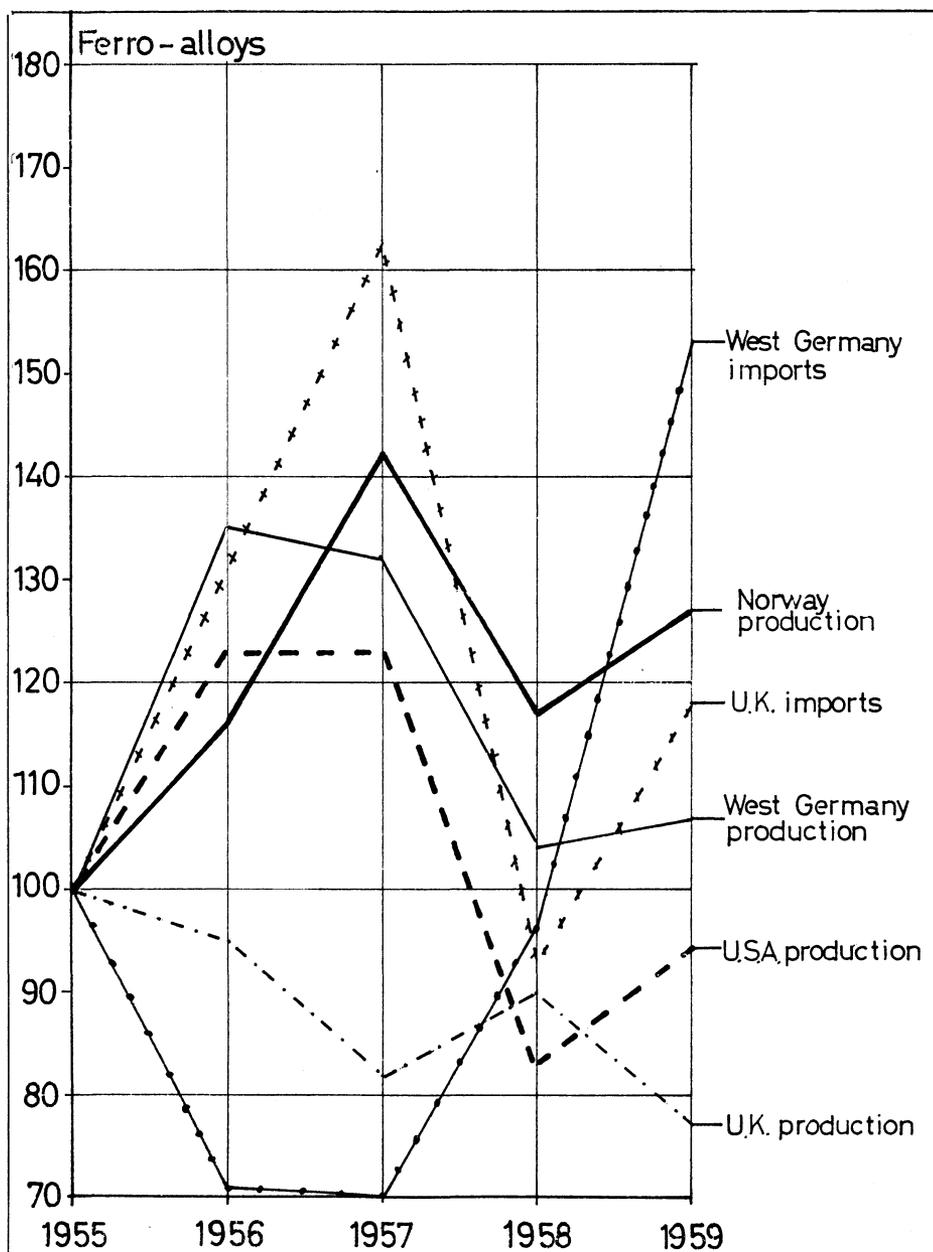
Exhibit 7.6 (cont.). Indexes of production and imports of selected basic metals 1955—1959. By Country. 1955=100.



Source: Supplement to Appendix II.

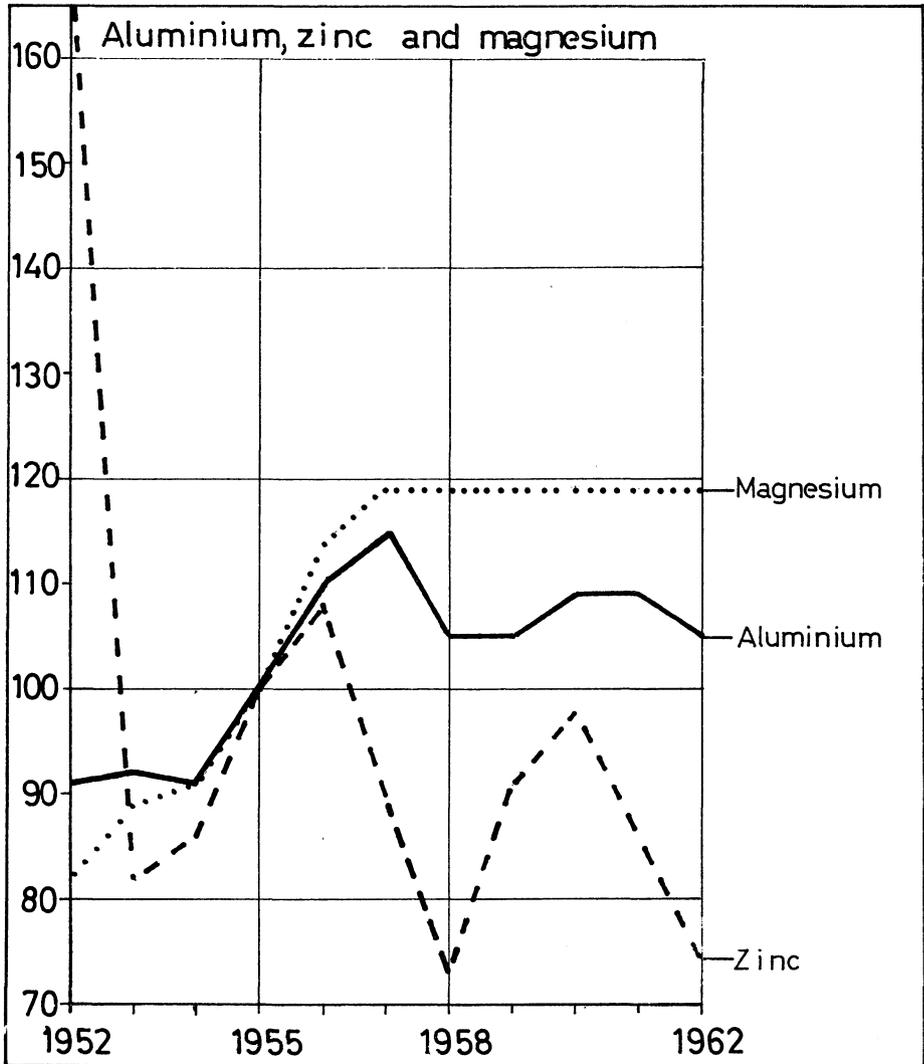
<sup>1</sup> A bigger vertical scale is used here than for the figure for nickel.

Exhibit 7.6 (cont.). Indexes of production and imports of selected basic metals 1955—1959. By Country.  
1955=100.



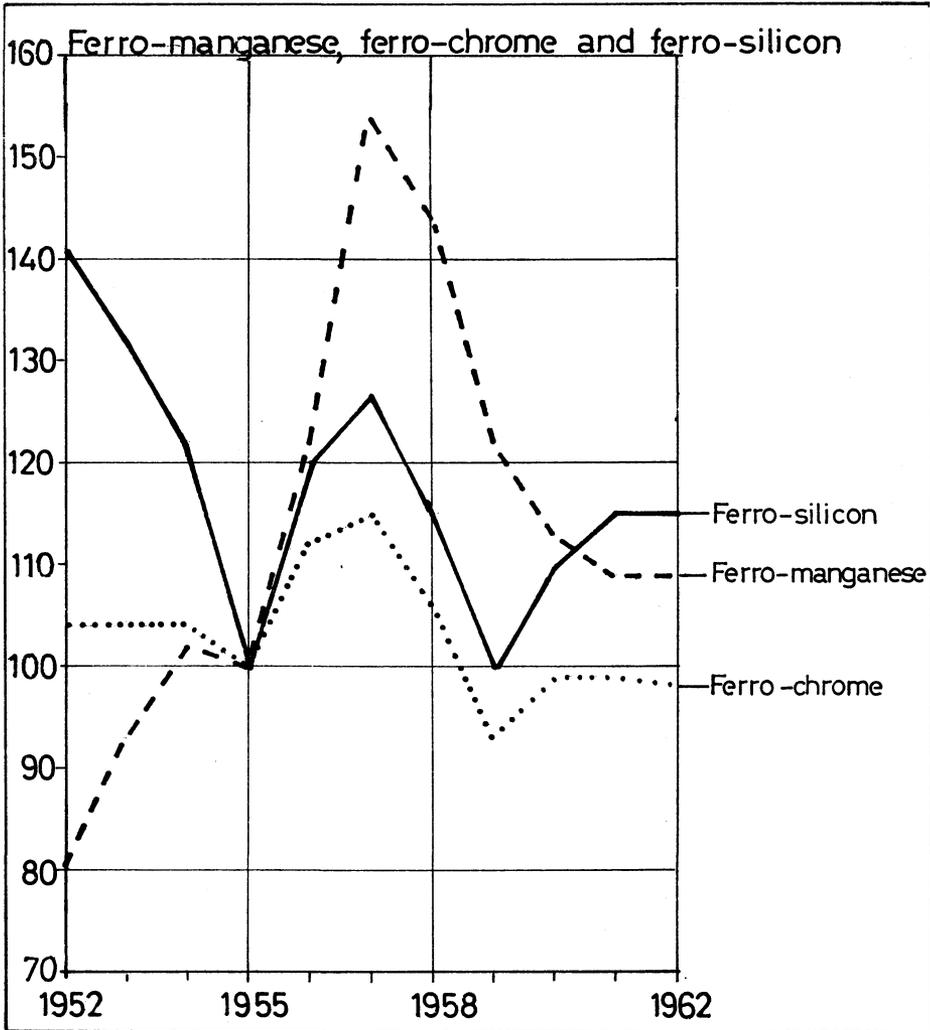
Source: Supplement to Appendix II.

Exhibit 7.7. Indexes of prices of selected basic metals  
1952—1962.  
1955 = 100.



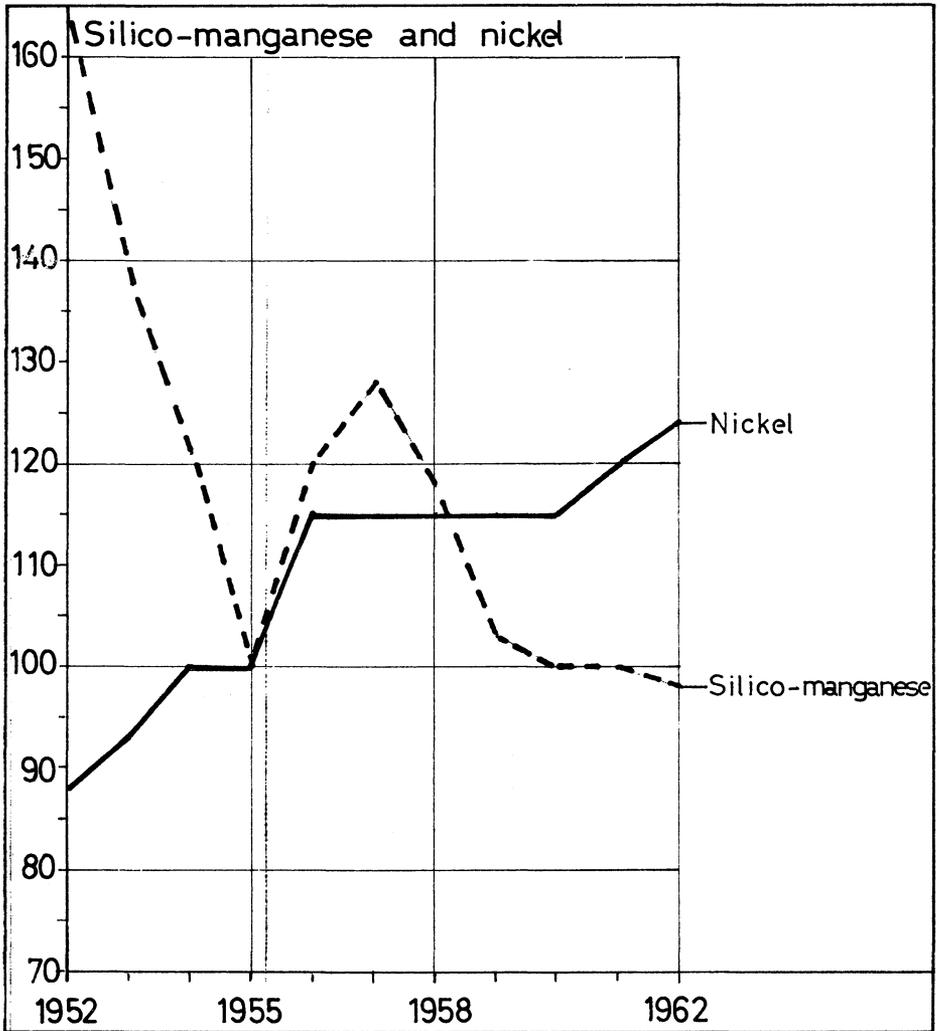
Source: Supplement to Appendix II.

Exhibit 7.7 (cont.). Indexes of prices of selected basic metals 1952—1962.  
1955=100.



Source: Supplement to Appendix II.

Exhibit 7.7 (cont.). Indexes of prices of selected basic metals 1952—1962.  
1955=100.



Source: Supplement to Appendix II.

gross production value.<sup>9)</sup> With respect to stability behavior, Norwegian production showed a smooth upward sloping trend line unbroken by sharp deviations. In 1958, Norwegian output increased by 14 points despite the recession. In fact, Canadian refining bore the full brunt of decreased world demand for nickel during that year. Again, home production was not protected at the expense of a foreign subsidiary.

#### 4) *Zinc.*

Belgian-owned Det Norske Zinkkompani A/S was the only zinc refiner in Norway during the period 1955—1959. Its main suppliers of zinc ore were Belgium and Sweden. Its main customers were West Germany, Sweden, Denmark and Belgium. Since Sweden and Denmark had little, if any, zinc refining themselves, they were omitted from the analysis.

Exhibit 7.6 shows that zinc refining in Norway, Belgium, West Germany, and the non-communist countries as a whole followed almost exactly the same pattern. There was virtually no growth or fluctuation in production. On the other hand, zinc prices fluctuated widely, which caused «instability» if measured in terms of gross production value.<sup>10)</sup>

#### 5) *Magnesium.*

Norsk Hydro A/S was Norway's only producer of magnesium during the period 1955—1959, and, in fact, one of the few producers in the world. The Dow Chemical Corp., U.S.A. produced almost all of the American supply and roughly one-half of the world supply. The U.S.S.R. was the other major producer. Almost the entire Norwegian production was sold to Volkswagenwerk AG, which used magnesium in its engine block.

The supplement to Appendix II shows that Norwegian production of magnesium registered a 42 point increase during the five year period, while production in the U.S.A. was nearly halved, and world production dropped 21 points.<sup>11)</sup> The price of magnesium also developed favorably, rising 19 % between 1955 and 1959. The cyclical swings in worldwide production from 1955—1959 did not affect Volkswagenwerk AG, which had a backlog of unfilled orders throughout the period. As a consequence, Norwegian magnesium production showed a favorable growth and stability pattern.

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<sup>9</sup> Refining of copper followed the same output pattern as nickel, since these two metals are the main contents of the ore from Falconbrigde Nickel Mines Ltd., Ontario. Copper production has not been shown graphically, because its output is assumed to be dependent on supply and demand for nickel. The copper content accounted for about one-fifth of the gross production value of the refined ore. The price of copper fell 34 points between 1955 and 1959, which offset part of the favorable effect of an increased price for nickel.

<sup>10</sup> Since Norway, Belgium, West Germany, Sweden, and Denmark combined only accounted for 20 % of the zinc supply in the non-communist world, they probably had limited influence on price developments.

<sup>11</sup> Not shown in Exhibit 7.6.

### 6) *Ferro-alloys.*

There were thirteen ferro-alloy producers in operation in Norway during the period 1955—1959. Of these, two were in the 50 % group.<sup>12)</sup> They were owned by the American-Canadian Union Carbide Corporation. Two others were in the 20 % group, with British and Swiss investors. The main customers were the steel companies in the U.K., West Germany, Belgium—Luxembourg, and to a lesser extent, the U.S.A. Only one steel company customer had a more or less indirect investment interest in Norwegian ferro-alloy enterprises. Supplies of manganese and chrome ores were imported, but most of the other raw materials could be found in Norway. The main competitors were also the same steel companies, since ferro-alloys can be made by a blast furnace method, as well as by the Norwegian electric furnace method.

Production of ferro-alloys was actually more stable in Norway than in most of the countries which supplied ores or purchased ferro-alloys from Norway, although in absolute terms, it was a destabilizing factor in the Norwegian economy.<sup>13)</sup> During the boom period of 1955—1957, Norwegian production of ferro-alloys rose at an exceptionally fast rate, namely 42 index points in two years. As can be seen in the graph of ferro-alloys, this growth corresponded to increased British import requirements, which rose 63 points during the same period. Meanwhile, British production fell by 18 points.

Exhibit 7.7 shows that ferro-alloy prices also rose at a startling rate, particularly for ferro-manganese, which climbed 54 points between 1955 and 1957. Silico-manganese and ferro-silicon also showed wide price fluctuations. The effect of price fluctuations was to exaggerate variations in production, when measured in terms of gross production value.

During the 1958 recession, production of ferro-alloys in the U.S.A. dropped 40 index points in one year. West-German ferro-alloy production dropped 28 points. Quite contrary to the general trend, British production of ferro-alloys actually increased 8 points during 1958, with resultant effects on Norway, its main supplier. British imports of ferro-alloys dropped 70 points. Coupled with a 5—10 % decrease in all ferro-alloy prices, this was a heavy blow for Norwegian exporters. Imports into Belgium—Luxembourg, which produced few ferro-alloys itself, also fell 51 index points. The U.S.A., which imported only about 1 % of its needs, but the largest total in absolute terms, reduced its imports by 239 points (not shown on the graph).

Ferro-manganese was the chief victim of the decline in world imports. In particular, imports of ferro-manganese by the U.K. declined by 64,000 tons, of which 19,000 tons were lost by Norwegian exporters. On the other

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<sup>12</sup> Roughly two-fifths of the Norwegian production of ferro-alloys was accounted for by the 50 % group. This represented about one-sixth of the 50 % group's total gross production value in the basic metals industry.

<sup>13</sup> The U.K.'s production was most stable of all, but in a downward direction.

hand, Norwegian exports of ferro-manganese to West Germany in 1958 increased by 9,000 tons, despite a decrease in German production of 78,000 tons. Since neither British nor German investors actually controlled any of the Norwegian ferro-alloy enterprises, there is no reason to believe that the opposite reaction of British and German imports and production was any more than a reflection of economic factors. Perhaps the wide fluctuations in ferro-manganese prices encouraged import substitution in the U.K. but not in West Germany.

7) *Summary of the basic metals industry.*

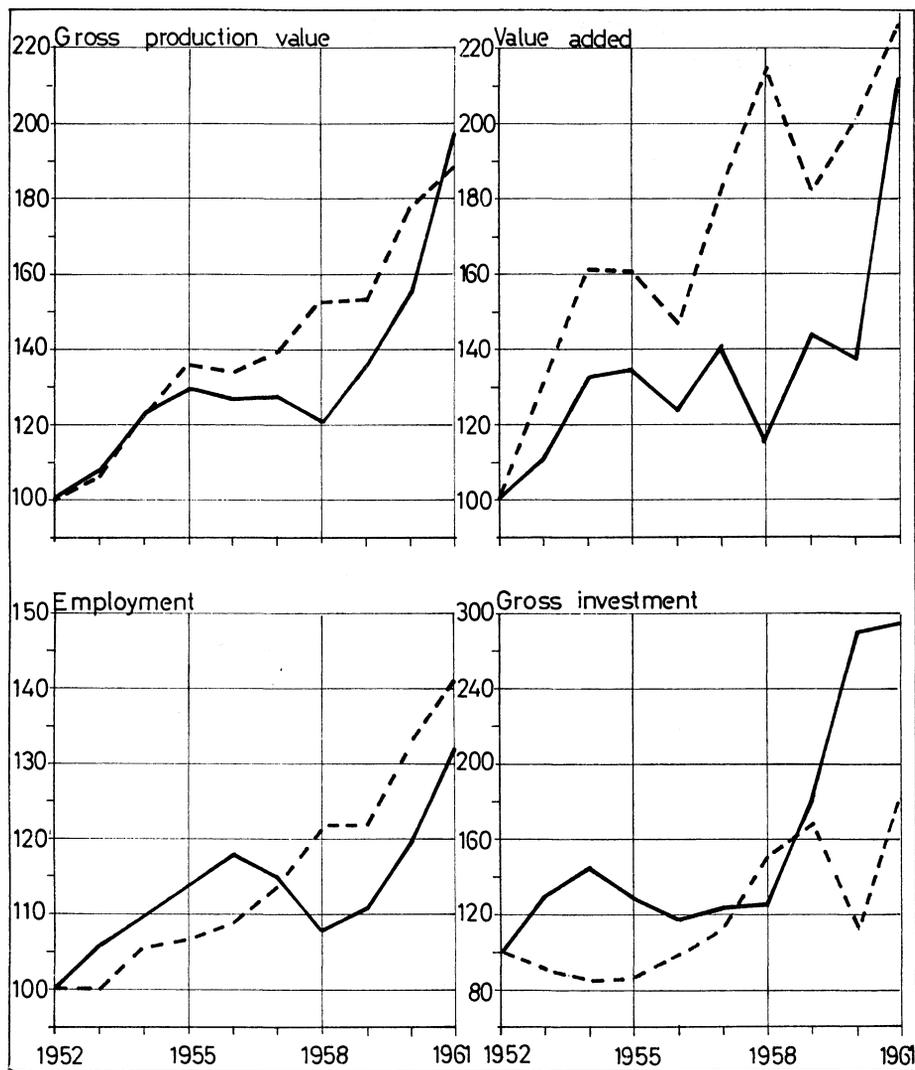
During the period 1955—1959, there was no evidence to indicate that the foreign-owned basic metals enterprises were sacrificed to protect the domestic production of the investing firms, or their exports to customers abroad. On the contrary, the Norwegian subsidiaries exhibited better growth and stability characteristics than their foreign investing firms. Aluminium, nickel, and magnesium showed the best growth and stability records, both in absolute terms and compared to their foreign connections. Zinc output was stagnant but stable, and in accord with developments in Norway's foreign connections. Variations in the world price of zinc and copper caused gross production value to vary independently of physical production, particularly in 1958, a factor which hurt the 50 % group's showing in that year. Most of the instability during the period, however, was caused by wide fluctuations in output and prices of ferro-alloys. This affected both Norwegian and foreign-owned enterprises. Although the ferro-alloys record was destabilizing for Norway in absolute terms, it was still favorable relative to developments in Norway's foreign connections.

E. *Electrotechnical industry (excluding electronics).*

All of the foreign-owned enterprises in the electrotechnical industry sold primarily to the Norwegian market. Although the terms of licensing agreements may have limited exports, and Norway was a net importer of electrotechnical products, growth of Norwegian production in the electrotechnical industry was well above average for manufacturing industries (Chapter VI).

Exhibit 7.8 shows that the overall growth trend of the foreign and Norwegian-owned enterprises was about the same during the period 1952—1961, but the stability behavior of the foreign-owned enterprises was perhaps more favorable. The 50 % group showed milder year to year fluctuations in gross production value and employment. Moreover, during the 1958 recession, production and employment declined in the Norwegian-owned enterprises, but increased significantly in the foreign-owned enterprises. Sharp variations in value added were probably a result of fluctuations in the prices of basic metals, which are an important cost element.

Exhibit 7.8. Electrotechnical industry (excluding electronics). Selected economic variables 1952—1961 as a per cent of 1952.  
1952 = 100.



Key: — Norwegian.  
- - - Foreign.

Source: Appendix II, Electrotechnical industry (excluding electronics).

F. Summary of the empirical evidence on the timing of production and investment.

The empirical evidence from the period 1952—1961 does not support a hypothesis that the investing firms favor production in their domestic plants over production in Norwegian subsidiaries. On the contrary, during the 1958 recession, the stability characteristics of the 50 % group were quite favorable, both in comparison to Norwegian-owned enterprises in the same industries, and in the case of basic metals, to developments in the home countries of the investing firms and main customers of Norway. Furthermore, with the exception of ferro-alloys, there is no evidence to show that the levels of production in the 50 % group were raised significantly over their long term growth trends during the inflationary period 1955—1957. Since investment projects usually covered both ups and downs in the business cycle, and were subject to direct Government controls, the effect of their timing on stability has not been determined.

3. The risk of product and process specialization.

The Norwegian experience with the power-using industries does not substantiate a hypothesis of extraordinary national risk in specialization. With reference to the historical analysis in Part I, a number of cases were cited in which power-using enterprises were able to make the transition to new products when the market disappeared for the original product. Exhibit 7.9 lists some examples of this.

Exhibit 7.9. Conversion to new products in the electrical power-using industries.

Enterprise	Original products	Converted to:
1. A/S Bjølvefossen .....	carbide	ferro-silicon and ferro-chrome
2. A/S Hafslund .....	carbide	diversified into ferro-silicon
3. A/S Odda og Lilleby Smelteverker .....	carbide	first to zinc refining but later to ferro-alloys
4. A/S Meraker Smelteverk .....	carbide	diversified into silicon metal and ferro-chrome
5. Alby United Carbide Factories Ltd. (works taken over by Odda Smelteverk A/S) .....	carbide and cyanamide	carbide
6. Tinfos Jernverk A/S .....	pig iron	ferro-alloys
7. Det Norske Nitridaktieselskap .....	aluminium-nitrate	aluminium
8. A/S Haugvik Smelteverk (works taken over by Norsk Hydro A/S) .....	aluminium	liquid ammonia
9. Nordisk Lettmetall A/S (works taken over by Norsk Hydro A/S) .....	aluminium and other light metals	magnesium

Although in almost every case of conversion the original investors lost their money, most of the physical and human resources were not wasted. In order to start a power-using project the following inputs are required:

- 1) Water resources must be regulated and compensation paid to the injured parties. Electrical power works must be constructed and power transmission lines stretched to the plant site.
- 2) Land for the plant site must be available, or bought, and the plant itself constructed. Docking facilities, roads, and social overhead facilities must be built.
- 3) Labor must be recruited, often from the agricultural or fishing trades, and trained to work in an industrial milieu.
- 4) Equipment and a starting inventory of supplies must be purchased.
- 5) The particular production technique must be learned, tested, and perfected.

If the original product loses its market, steps 1—3 provide a basis for the production of other products which require cheap power. Steps 4 and 5 lose their value. Step 1 is generally provided by the Government. Step 2 is mainly provided by the investor, in accordance with the Concession Act of 1917. Steps 3—5 are provided entirely by the investor. Thus, as long as production is converted to a new product, none of the Government's investment is lost. The investor has a sunk cost in steps 2 and 3 which might still be of use, and an outright loss only in steps 4 and 5. If the investor is financially strong, the loss can be written off and the transition made to a new product under the same management. This has generally been the case with the foreign investments. If the investor is financially weak, the transition may require either a paper bankruptcy or the infusion of new capital. This has been the reason for a number of foreign takeovers.

The human investment in step 3 is also not wasted, nor is it subject to greater risks than other employment. The fact that the power-using industries are capital intensive provides a «cash flow roof» over wages and salaries. Value added per employee is considerably higher in the capital intensive industries than in the average industry, and certainly a good deal higher than value added per person in agriculture or fishing.<sup>14</sup>) Payment of direct operating costs must be made before any payments or write-offs can be made on behalf of invested capital. Even if the operation is unprofitable, it can continue to operate almost indefinitely as long as it meets its variable costs. In case the operation is so unprofitable that it does not even meet variable

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<sup>14</sup> See Exhibit 8.3 in Chapter VIII.

costs, it may be necessary to give up plans for conversion to other power-using industry as well. Nevertheless, the transfer from an agricultural or fishing milieu to an industrial milieu has been made and social overhead built. The lack of such an environment is a hindrance to decentralization of other types of industry, some of which may fall in the «foot-loose» category. Even if local economic conditions are so unfavorable that no industry can survive, the workers have been trained in the ways of industry. In the long run, they can usually move to the labor-short urban areas. At least they have a wider range of skills and mental attitudes than if they never worked in industry.

#### 4. Administered prices.

There is no accurate way to measure the effect of the foreign-owned enterprises on the overall stability of prices in Norway. As mentioned previously, the timing of production and investment decisions would obviously have an effect. Transfer pricing is important in determining import and export prices. In a more limited sense, the foreign-owned enterprises may affect prices of specific products through a monopoly position, or as members of a cartel.

In accordance with the Price Control Act of 1953, the Directorate of Prices has set maximum prices on a restricted range of products, as well as annulled cartel arrangements deemed to be undesirable restraints on competition. Although price regulations have affected the trading enterprises, as well as the domestic market-oriented manufacturing enterprises, the export-oriented manufacturing and mining enterprises have not as a rule been affected. Nevertheless, «if enterprises are exporting at high prices, or making excessive profits based on low-priced Norwegian raw materials, hydroelectric power, or subsidized commodities», the Directorate of Prices can force the exporter to sell in the domestic market at a price below the export price, or pay levies to the price stabilization fund. In 1959, Odda Smelteverk A/S lost a test case against the Government, in which it contested the right of the Government to force it to sell cyanamide to Norwegian agriculture at a price 10 % below the export level. In the Esso Refinery Concession, however, the Government relinquished the right to require a lower price for domestic sales than for export sales.

From the interviews it appears that management in the foreign-owned enterprises felt that direct price control was particularly undesirable. They argued that direct controls, even if used in a reasonable manner, injected an element of uncertainty into planning for future production and investment. Moreover, the need to submit price changes to the Directorate of Prices for approval caused unnecessary delay at a time when faster reaction to market pressures was required. Finally, they argued that the Norwegian

price level showed very little flexibility downward, because companies were afraid to lower prices during times of weak demand, there being no guarantee that they would be allowed to raise them during times of strong demand.

There is no indication that enforcement of price regulation discriminates against foreign-owned enterprises. Nevertheless, because of their size and exclusive production rights to patented or licensed products, they often find themselves in a «monopoly position» within an «industry», depending on the definition of «industry», and thus subject to controls.

## **Chapter VIII. Distribution of income.**

### **1. Introduction.**

The manner in which income is distributed to the various participants in any enterprise is obviously an area of potential goal conflict, whether the enterprise is foreign or Norwegian-owned. The question is, are foreign-owned enterprises more, or less, likely to resolve this problem in a way acceptable to all participants?

One often-heard hypothesis is that foreign-owned enterprises may be able to escape paying a full share of Norwegian taxes because they can hide income in the form of contractual payments and unrealistic transfer prices to the investing firms.

A second possible hypothesis is that foreign-owned enterprises may be able to pay lower wages than average. For example, they may have a monopsonist position in certain geographical areas or in the market for certain factors of production.

Exhibit 8.1 presents evidence to test these hypotheses, using the 1961 data from Appendix I. It shows that in 1961, the combined 50 % and 20 % group accounted for a larger share of operating income (14.1 %) than of gross production value (12.8 %), a larger share of wages and salaries (10.2 %) than of employment (8.6 %), and a larger share of net income (35.7 %) and taxes (32.4 %) than of net worth (27.7 %). In other words, each of the main interest groups (the investors, the employees and the Government) received a higher monetary return from the foreign-owned enterprises than from the average Norwegian enterprise in manufacturing and mining. Thus, at least the aggregate results do not support the low tax or wage hypotheses. The rest of this chapter analyses these operating results in more detail to see if there may be some reasons for the apparent differences in profitability.

### **2. Labor's share — wages and salaries.**

Wage and salary comparisons for 1961, presented in Exhibit 8.2, indicate that the average yearly wage and average yearly salary in the combined 50 % and 20 % group were 10 % and 14 % higher, respectively, than the corresponding averages in mining and manufacturing as a whole. Furthermore, based on the percentages in Exhibit 8.1, the combined 50 % and 20 % group's share of total wage and salary payments was 19 % higher than its share of employment.

There are a number of factors which could cause interindustry wage and salary differentials, despite an overall national goal of equalizing incomes. Among these factors are size, location and type of industry. In general, it is thought that larger enterprises tend to pay more than smaller enterprises; enterprises in urban locations pay better than those in rural locations; and enterprises in industries which require advanced skills pay better than those in less complicated industries.<sup>1)</sup>

Exhibit 8.1. The foreign relative share of selected economic variables in 1961. Per cent of total Norwegian. By industry group and category of ownership.

Industry group	Em- p- loy- ment	Gross pro- duc- tion value	Value added (fac- tor prices)	Wages and salar- ies	Oper- ating in- come	As- sessed in- come	Direct taxes	Net in- come	As- sessed net worth	Cap- ital stock (face value)
<b>A. 50 % group</b>										
1. Mining.....	10.9	11.9	11.9	10.7	13.0	4.8	4.2	5.9	1.6	} 12.5
2. Manufacturing ....	5.1	8.4	6.4	6.2	6.6	21.9	20.5	24.0	13.1	
a) chemical and oil.	10.1	16.8	12.2	10.5	13.2	15.9	14.4	18.0	8.7	—
b) basic metals....	23.6	37.5	22.0	24.6	20.1	44.6	43.4	46.2	34.2	—
c) electrotechnical .	42.9	42.5	43.5	45.7	40.7	78.5	77.8	79.3	69.9	—
d) other .....	1.2	1.3	1.2	1.4	1.0	1.9	1.8	2.0	1.8	—
Total mining and manu- facturing .....	5.2	8.5	6.5	6.3	6.8	21.3	19.9	23.4	12.5	12.5
<b>B. 20 % group</b>										
1. mining.....	10.0	8.7	9.3	10.4	8.3	12.8	11.1	15.8	21.0	} 17.2
2. Manufacturing ....	3.2	4.2	5.4	3.7	7.2	12.4	12.6	12.1	14.9	
a) chemical and oil.	32.1	23.8	32.9	32.8	33.0	55.2	55.1	55.5	62.3	—
b) basic metals....	9.8	10.9	15.1	9.5	19.2	5.6	5.8	5.4	6.7	—
c) electrotechnical .	—	—	—	—	—	—	—	—	—	—
d) other .....	0.5	0.7	0.6	0.6	0.5	0.1	0.2	0.1	0.2	—
Total mining and manu- facturing .....	3.4	4.3	5.6	3.9	7.3	12.4	12.5	12.3	15.2	17.2
<b>C. Combined 50 % and 20 % group</b>										
1. Mining.....	20.9	20.6	21.2	21.1	21.3	17.6	15.3	21.7	22.6	} 29.7
2. Manufacturing ....	8.3	12.6	11.8	9.9	13.8	34.3	33.1	36.1	28.0	
a) chemical and oil.	42.2	40.6	45.1	43.3	46.2	71.1	69.5	73.5	71.0	—
b) basic metals....	33.4	48.4	37.1	34.1	39.3	50.2	49.2	51.6	40.9	—
c) electrotechnical .	42.9	42.5	43.5	45.7	40.7	78.5	77.8	79.3	69.9	—
d) other .....	1.7	2.0	1.8	2.0	1.5	2.0	2.0	2.1	2.0	—
Total mining and manu- facturing .....	8.6	12.8	12.1	10.2	14.1	33.7	32.4	35.7	27.7	29.7

Source : Appendix I—F, H, I, J.

<sup>1</sup> The Norwegian practice of industry-wide bargaining tends to put a ceiling on wage and salary differentials due to size and location, but not due to type of industry.

Exhibit 8.2. Salary and wage statistics in 1961.  
By category of ownership and industry group.

Industry group	Average yearly salary (Kr. 1,000)	Foreign average salary as per cent of total industry group average	Average yearly wage (Kr. 1,000)	Foreign average wage as per cent of total industry group average
<b>A. 50 % group</b>				
1. Mining.....	21.6	98	13.6	93
2. Manufacturing .....	22.1	116	14.9	112
a) chemical and oil .....	22.8	111	14.1	101
b) basic metals.....	21.9	104	16.3	103
c) electrotechnical .....	22.6	107	14.4	101
d) other .....	20.2	110	14.0	108
Total mining and manu- facturing .....	22.0	115	14.8	110
<b>B. 20 % group</b>				
1. Mining.....	22.6	102	14.8	101
2. Manufacturing .....	21.1	111	14.3	108
a) chemical and oil .....	20.8	101	14.1	101
b) basic metals.....	21.7	103	15.1	96
c) electrotechnical .....	—	—	—	—
d) other .....	21.9	119	14.1	108
Total mining and manu- facturing .....	21.1	110	14.4	107
<b>C. Combined 50 % and 20 % group</b>				
1. Mining.....	22.0	100	14.2	97
2. Manufacturing .....	21.7	114	14.7	111
a) chemical and oil .....	21.3	103	14.1	101
b) basic metals.....	21.8	103	15.9	101
c) electrotechnical .....	22.6	107	14.4	101
d) other .....	20.8	113	14.1	108
Total mining and manu- facturing .....	21.7	114	14.7	110
<b>D. Total Norwegian</b>				
1. Mining.....	22.1	100	14.7	100
2. Manufacturing .....	19.0	100	13.3	100
a) chemical and oil .....	20.6	100	13.9	100
b) basic metals.....	21.1	100	15.8	100
c) electrotechnical .....	21.2	100	14.2	100
d) other .....	18.4	100	13.0	100
Total mining and manu- facturing .....	19.1	100	13.4	100

Source: Appendix I—J.

The foreign-owned enterprises typically fall into the high pay categories with respect to size and type of industry, but not necessarily location. The fact that the foreign-owned enterprises are organized in relatively large units from a financial viewpoint was discussed in Part I. The fact that they are also organized in large units from a production viewpoint is discussed in the next section. The location of foreign-owned enterprises is discussed in Chapter IX. As a preview of that analysis, however, it should be pointed out that a larger per cent of production and employment in the foreign-owned enterprises is located in rural areas than the average for mining and manufacturing as a whole. Thus, it is not likely that locational factors explain the relatively higher wage and salary payments in foreign-owned enterprises.

There is some evidence in Exhibit 8.2 to indicate that type of industry may be an important factor in explaining higher foreign payments. In the four industries of foreign concentration (mining, chemical and oil, basic metals, and electrotechnical), neither the average yearly wage, nor the average yearly salary, in the foreign-owned enterprises, was significantly different from the Norwegian average for those industries. The average yearly wage in the combined 50 % and 20 % group ranged from a low of 3 % below the Norwegian average in mining to 1 % over the Norwegian average in the other three industries of foreign concentration. Likewise, the average yearly salary ranged from the exact Norwegian average in mining to 7 % over the average in the electrotechnical industry. On the other hand, the Norwegian average yearly wage and salary in all four of these industries was considerably higher than the average in mining and manufacturing as a whole. For example, the Norwegian average yearly wage in the basic metals industry was kr. 15.8 thousand, compared to kr. 13.4 thousand in mining and manufacturing as a whole. Furthermore, the combined four industries had a higher than average percentage of salaried personnel.<sup>2)</sup> Although salaried personnel and working owners accounted for only 21 % of total employment in total mining and manufacturing in 1961, they accounted for 25 % of employment in these four industries, and 26 % of total employment in the combined 50 % and 20 % group.<sup>3)</sup>

### 3. Operating income.

#### A. Introduction.

The Norwegian concept of operating income is perhaps the best available measure of funds generated by production operations after payment of

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<sup>2</sup> One possible explanation of these differentials is that the industries of foreign concentration are technologically complicated compared to the average industry in Norway. Thus, they may require a higher proportion of engineers, technicians and other skilled workers.

<sup>3</sup> Sources: A. Statistisk Sentralbyrå: *Industristatistikk 1961*; Oslo, 1963, p. 52—57.

B. Appendix I—J.

variable costs. It corresponds in a rough way to the American concept of contribution to overhead, profit and taxes, but cannot be compared directly to financial variables because it does not include non-production costs and revenues.<sup>4)</sup>

The combined 50 % and 20 % group's share of operating income was larger than its share of other production and employment variables, both in the aggregate and within each industry of foreign concentration. As in the case of wage and salary differentials, type of industry helps to explain the aggregate part of this result, but there are reasons for believing that other factors such as size, technique, specialization, financial resources, and access to export markets play a role in determining the intra-industry result.

According to economic theory, the marginal cost of a product usually declines as the scale of a firm's operations expands, until the point at which internal diseconomies offset internal economies of scale. The marginal cost curve can be shifted downward by an improvement in technique. Because of Norway's small size, the best technique from a theoretical standpoint often requires production units to be larger, more specialized and more expensive than would be necessary to supply the needs of the domestic market. Therefore, whether or not it is desirable to use the most advanced technique often depends on access to relatively large financial resources and export markets.

#### B. Type of industry.

Since operating income is found by subtracting wage and salary payments from value added, factors which cause an industry to have a high value added per employee would also cause it to have a high operating income relative to employment. As pointed out in Chapter VI, value added depends on such factors as prices, operating margins, the level of operations, the degree of processing, productivity, and the degree of capital intensity. Based on 1961 data, presented in Exhibit 8.3, all four industries of foreign concentration had a relatively high value added per employee. For example, value added per employee in the chemical and oil industry was kr. 42.9 thousand compared to kr. 26.9 thousand in mining and manufacturing as a whole. The mining and basic metals industries also had a significantly higher value added per person. The 20 % group had a particularly high value added per person due to the capital intensive chemical and magnesium metal operations of Norsk Hydro A/S. The Esso oil refinery caused a similar result in the 50 % group. Although comparisons based on 1961 data only may not hold true from year to year due to price variations, it is assumed that at least the structural changes occur over a longer period of time.

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<sup>4</sup> As a rule, semi-variable costs associated with production operations are included in variable costs; however, office supplies expense, contractual payments (license fees, etc.), marketing and financial expenses, and other non-production costs are not. Income from non-production sources is not included in gross production value, and therefore also not in operating income.

## C. Size.

One of the most important characteristics of the foreign-owned enterprises is their large size relative to the average enterprise in Norway. This is generally true of all types of direct foreign investment in Norway, and pertains to the size of production establishment as well as to financial size.<sup>5)</sup>

Exhibit 8.3. Value added per employee and as a per cent of gross production value in 1961. By industry group and category of ownership.

Industry group	Value added (factor prices) per employee (Kr. 1,000)	Value added (factor prices) as per cent of gross production value
<i>A. 50 % group</i>		
1. Mining .....	36.1	82.3
2. Manufacturing .....	33.6	29.2
a) chemical and oil .....	51.7	27.9
b) basic metals .....	37.1	21.3
c) electrotechnical .....	28.7	46.5
d) other .....	24.6	34.8
Total mining and manufacturing .....	33.7	30.3
<i>B. 20 % group</i>		
1. Mining .....	30.8	87.8
2. Manufacturing .....	45.7	50.0
a) chemical and oil .....	43.9	53.1
b) basic metals .....	61.6	50.3
c) electrotechnical .....	—	—
d) other .....	28.9	33.3
Total mining and manufacturing .....	44.6	51.2
<i>C. Combined 50 % and 20 % group</i>		
1. Mining .....	33.6	84.6
2. Manufacturing .....	38.3	36.2
a) chemical and oil .....	45.8	42.7
b) basic metals .....	44.3	27.9
c) electrotechnical .....	28.7	46.5
d) other .....	25.8	34.3
Total mining and manufacturing .....	38.0	37.3
<i>D. Total Norwegian</i>		
1. Mining .....	33.0	82.0
2. Manufacturing .....	26.8	38.8
a) chemical and oil .....	42.9	38.5
b) basic metals .....	39.9	36.3
c) electrotechnical .....	28.3	45.5
d) other .....	24.3	38.8
Total mining and manufacturing .....	26.9	39.4

Source: Appendix I—I, J.

<sup>5</sup> See Chapter IV for a discussion of the size of capital stock in individual foreign-owned enterprises.

Exhibit 8.4. The foreign share of selected economic variables in 1961. Per cent of total Norwegian. By size of establishment and category of ownership.

Size of establishment by number of employees	Number of establish- ments	Value added (market prices)	Employ- ment	Gross investment value
<b>A. 50 % group</b>				
Under 20 .....	0.2	0.9	0.5	<sup>1</sup> 10.4
20—99 .....	1.4	2.3	1.7	2.3
100—199 .....	5.6	5.4	5.5	8.5
200 and over .....	7.8	11.7	11.2	9.5
Total .....	0.5	6.6	5.2	7.9
<b>B. 20 % group</b>				
Under 20 .....	0.0	0.1	0.1	0.2
20—99 .....	0.3	0.4	0.3	0.1
100—199 .....	1.5	2.0	1.5	4.6
200 and over .....	5.9	11.2	8.8	12.2
Total .....	0.2	5.3	3.4	7.2
<b>C. Combined 50 % and 20 % group</b>				
Under 20 .....	0.2	1.0	0.6	10.6
20—99 .....	1.7	2.7	2.0	2.4
100—199 .....	7.1	7.4	7.0	13.1
200 and over .....	13.7	22.9	20.0	21.7
Total .....	0.7	11.9	8.6	15.1

Source: Appendix I—K.

<sup>1</sup> The Sande Paper Mill A/S project was under construction.

Based on 1961 data in Appendix I—K, production units which employed 200 or more persons accounted for 84.4 % of value added and 80.6 % of employment in the combined 50 % and 20 % group, compared to 43.7 % and 34.5 %, respectively, in mining and manufacturing as a whole. Exhibit 8.4 shows the foreign share of selected economic variables by size of establishment. The combined 50 % and 20 % group accounted for 22.9 % of value added and 20.0 % of employment in production establishments employing 200 or more persons. This was roughly twice as large as its share of total value added and employment in all size establishments. The same size characteristics were shown by the 50 % group and 20 % group individually.

The large size of foreign-owned establishments relative to the average in mining and manufacturing does not necessarily imply that they are larger than Norwegian-owned enterprises within the same industry. Indeed, the industries of foreign concentration are characterized by large, capital intensive operations due to the nature of their technology. The Government-controlled enterprises, in particular, are comparable to the foreign-owned

enterprises in terms of both financial and production size. Nevertheless, there are also numerous smaller Norwegian-owned enterprises within these industries, which may or may not be of adequate size to benefit from substantial internal economies of scale.

#### D. Technique.

One of the most important reasons for encouraging direct foreign investment, instead of just foreign loans, is to import technology. In some cases, the imported techniques do not compete with Norwegian techniques, but rather permit production of new products. The ESSO Refinery might be an example of this. In other cases, the foreign techniques may compete with Norwegian techniques, such as happens in the electrotechnical industry. Under *ceteris paribus* conditions, competitive differences in technique might well account for some of the differences in comparative operating incomes.

Although there is no agreement on how to measure technique, there is a concensus of opinion that research and development activities play an important role. As a rule, each enterprise must devote part of its own resources to this function; have access to joint industry-wide, Government, or University resources; or pay foreigners for their know-how.

Comprehensive data on total Norwegian research and development expenditures is lacking, but Exhibit 8.5 presents data on Norwegian payments to foreigners for license fees and similar charges for technical services. Total payments on this account increased from kr. 38.1 million in 1959 to kr. 54.6 million in 1962.<sup>6</sup>) The U.S.A., Switzerland and Sweden received well over half the payments during this period.

Detailed data on individual payments of over kr. 100,000 in 1962 suggests that the foreign-owned enterprises are responsible for most of the monetary value of payments to foreigners. They accounted for 60 % of the monetary value of large payments by Norwegian manufacturing enterprises, and 73 % of large payments by non-manufacturing enterprises. Individual payments of over kr. 100,000 by the foreign-owned enterprises in the electrotechnical industry alone accounted for nearly one-fourth of the monetary value of total Norwegian payments to foreigners for license fees, etc., in 1962. Altogether there were 46 Norwegian enterprises which made large payments in 1962, of which 15 were in the 50 % group and 1 in the 20 % group.

It was not possible to develop detailed statistics on smaller payments, which accounted for the remaining 44 % of the Norwegian total. In addition to the 16 foreign-owned enterprises which made large payments, another 13 responded to the survey of individual enterprises (Appendix III, Question C)

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<sup>6</sup> Norwegians received kr. 21.7 million from foreigners in 1962 for similar type services, indicating that some Norwegian techniques are also marketable.

Exhibit 8.5. Payments to foreigners for licensed production, royalties, patents, trademarks, contribution to overhead and similar expense.

A. Total payments (per cent of total).

To	1959	1960	1961	1962
1. Denmark .....	13	12	10	8
2. Netherlands .....	9	7	7	9
3. Sweden .....	21	18	21	15
4. Switzerland .....	10	12	12	14
5. U.K. ....	7	11	8	4
6. U.S.A. ....	29	28	27	37
7. Others .....	11	12	15	13
Total .....	100	100	100	100

Source: Norges Bank; unpublished.

B. Total payments to foreigners (kr. 1 million).

	1959	1960	1961	1962
	38.1	45.5	48.5	54.6

Source: Norges Bank; unpublished.

C. Individual payments of over kr. 100,000 in 1962.

Industry group	Combined 50 % and 20 % group		Total Norwegian		Foreign as per cent of Norwegian
	Kr. 1 million	Per cent	Kr. 1 million	Per cent	
1. Manufacturing .....	16.2	85	26.9	88	60
a) basic metals .....	1.2	6	2.4	8	52
b) electrotechnical ....	13.3	70	14.8	48	90
c) others .....	1.7	9	9.7	32	17
2. Non-manufacturing ....	2.8	15	3.8	12	73
Total .....	19.0	100	30.7	100	62

Source: Norges Bank; unpublished.

D. Individual payments of over kr. 100,000 by foreign-owned manufacturing enterprises as a per cent of gross production value in the same enterprises in 1962.

Industry group	Number of enterprises <sup>1</sup>	Gross production value (Kr. 1 million)	Large payments as per cent of gross production value
1. Basic metals .....	—	125.1	1.0
2. Electrotechnical .....	—	428.2	3.1
3. Others .....	—	76.4	2.2
Total .....	12	629.7	2.6

Source: Norges Bank; unpublished.

Appendix I—I, Source B.

<sup>1</sup> The number of enterprises in each industry group is not published because of the confidential nature of the data. Eleven of the 12 enterprises were in the 50 % group.

that they made formal payments to the investing firm for know-how in 1962. Thus, over half of the survey sample of 56 enterprises made such payments.

Formal payments are only a general indication of the value of know-how which is made available by the investing firms. At least 10 of the foreign-owned enterprises in the survey sample indicated that they had immediate access to the research and development results of their investing firm. Exchange of personnel might also be a way to spread technology, but was apparently not too significant in the case of Norway (Appendix III, Question F).

From the standpoint of the foreign-owned enterprises, the main advantage of licensing type payments is that it gives them relatively inexpensive and exclusive access to advanced research and development activities, the likes of which could hardly be financed in a small country such as Norway. On the other hand, critics have claimed that most of this foreign research and development has little application for Norway. For example, research in such areas as defence, space, petrochemicals, automobiles, aircraft, etc., has little value for a Norwegian manufacturer. Yet, some of the largest payments by foreign-owned enterprises are actually assessments designed to cover the general research and development budgets of diversified multi-national investing firms. Part of these budgets is spent on such projects.

From the standpoint of the investing firms, license fees and similar assessments are a means of spreading the costs of research and development work over a larger base, thus reducing unit costs of this type of expense. Again, critics have claimed that such payments are a hidden means of transferring profits or «milking» the foreign subsidiary to avoid foreign taxes. This may or may not be a justified complaint. In the case of monopolized technical knowledge, it will have a market value. The investing firm may take more than, the same as, or less than this in payment from its Norwegian enterprise. In the first case, it is a way of transferring profits free of Norwegian taxation. In the second case, it makes no difference whether the buyer is foreign or Norwegian-owned. In the last case, income in the form of license fees and other such payments is foregone in exchange for higher profits in the Norwegian enterprise. If this broadens the Norwegian tax base, it must be considered beneficial. Possible Norwegian shareholders are affected in much the same way as the tax interests.<sup>7)</sup>

Because of the trade liberalization agreements in the O.E.C.D. and G.A.T.T., Norway is obliged to permit the transfer of license fees and other such payments. Its main recourse is to the concession laws, under which the size and nature of payments can be negotiated. The real problem is to find

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<sup>7</sup> The discussion of tax effects was a contribution of Per Sevaldson, Statistisk Sentralbyrå.

an objective basis for judging the value of know-how.<sup>8)</sup> The data on large payments in Exhibit 8.5. D indicate that 12 foreign-owned enterprises in manufacturing paid an average of 2.6 % of gross production value to foreigners for know-how. Was this too high, too low, or just right? Norsk Hydro A/S, for example, spent roughly 1 % of its gross production value in 1961—1962 for research and development in its own Norwegian facilities, according to its yearbook.

Does access to foreign technology discourage the development of research and development capabilities in Norway?<sup>9)</sup> This question, and other questions relating to the impact of importing technology on national goals, are left unanswered. The impact on intra-industry competition, however, may be more concrete. It should be an advantage to be able to purchase the results of foreign research and development, and still be able to draw on the results of Government and industry-wide Norwegian research and development. From the standpoint of the foreign-owned enterprise, even if the cost of utilizing the foreign results is too high, i. e. incorporating a degree of monopoly profits, it may still be worthwhile to use them if it offers competitive advantages vis-a-vis Norwegian-owned enterprises in the same industry.

#### E. Specialization.

Since Norway is a relatively small country, with limited natural resources and a limited home market, production of certain products in Norway depends on a high degree of international cooperation and specialization. Products such as nickel, zinc, copper, aluminium, certain ferro-alloys, and petroleum, fall into this category, and have been discussed from the standpoint of production stability characteristics. Nearly all of these entrepôt type operations are relatively specialized with respect to product and process. As a result, they have very different processing requirements from each other, and from enterprises in other industries. For example, Exhibit 8.3 shows that value added as a per cent of gross production value in the basic metals industry was only 21.3 % in the 50 % group, compared to 50.3 % in the 20 % group and 36.3 % in the whole industry. A similar situation existed in the chemical and oil processing industry. On the other hand, in the industries which are not necessarily characterized by international specialization, the degree of processing in the 50 % group was roughly consistent with industry averages.

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<sup>8</sup> The so-called «Husnes-affair» was a good example of this problem. An important dispute between the Swiss investors and Norway was over the size of payments to the Swiss for technical and marketing services, as well as the manner in which such payments were originally determined.

<sup>9</sup> Although data on total research and development expenditures in Norway is lacking, it is probably true that most of the research and development work in Norway is financed by the Government or an entire industry. This has the advantage of pooling talent and distributing costs over a wider base.

The low degree of processing in the specialized foreign-owned enterprises has been criticized from the standpoint of national growth. At least it hinders a vertical expansion of industry. On the other hand, the Norwegian establishments are very likely to be productive and efficient from an international standpoint. The investing firms have presumably chosen to locate a processing stage in Norway after an appraisal of comparative advantage. Just how much of this international efficiency will be reflected in operating income in the Norwegian establishments is another question. As mentioned before, transfer pricing will undoubtedly be a major determinant. In the case of Norwegian-owned *entrepôt* operations, such as A/S Årdal og Sunndal Verk, operating income will depend in large measure on their bargaining power in international markets.

#### F. Financial resources and access to export markets.

In order to take advantage of economies of scale, advanced technique, and international specialization, it is necessary to possess sufficient financial resources, be willing to invest them, and be assured of an export market for the output if the domestic market is too small.

It is obvious that many of the foreign-owned enterprises possess, or have access to, greater financial resources than all but a few of the privately-owned Norwegian enterprises and the Norwegian Government-owned enterprises. Not only do the foreign-owned enterprises account for a disproportionately large share of private net worth in Norway, but in many cases they have access to the financial resources of some of the world's largest corporations.

The foreign-owned enterprises have also shown a willingness to invest, although perhaps not in direct proportion to their share of net worth. Based on the data in Appendix I—I, M, N, the combined 50 % and 20 % group accounted for 18.3 % of gross investment value in 1952, 15.1 % in 1961, and 18.4 % in 1962. It is not safe, however, to generalize about rates of investment based only on data from three random years, since investment varies from year to year in discontinuous fashion (Chapter VII).

Access to export markets is really a national problem, which is discussed under balance of payments in Chapter IX. For the moment, it should be pointed out that at least the internationally specialized foreign-owned enterprises are usually assured of an export market for their outputs before they are located in Norway, although the physical quantity of their output and degree of profitability would vary in response to world demand and supply conditions (Chapter VII).

#### 4. Assessed income before taxes.

##### A. Introduction.

Exhibit 8.1 shows that the foreign relative share of assessed income before taxes in 1961 was well over twice as large as its corresponding share of operating income, and also larger than its share of net worth or capital stock. The 50 % group in particular accounted for 21.3 % of total assessed income in mining and manufacturing as a whole, although it accounted for only 6.8 % of operating income and 12.5 % of net worth.<sup>10</sup>) Not only did the foreign-owned enterprises earn a disproportionate share of aggregate income, but also of income in most of the individual industry groups. For example, the 50 % group alone was responsible for 78.5 % of total assessed income in the electrotechnical industry. The combined 50 % and 20 % group accounted for 71.1 % of assessed income in the chemical and oil processing industry.<sup>11</sup>)

A high assessed income was not necessarily ideal from the standpoint of the foreign-owned enterprises, since it meant high income taxes. Nevertheless, it provided the accounting surplus which was necessary under Norwegian law for payment of cash or stock dividends, and gave support to the market price of the capital stock in certain cases.<sup>12</sup>)

From the standpoint of the Norwegian Government, of course, a high assessed income (and net worth) meant a broader tax base. At least judging from the 1961 share of assessed income, there does not seem to be evidence to support the often-heard criticism that foreign-owned enterprises are worse tax objects than Norwegian-owned enterprises.<sup>13</sup>) Naturally, there is no guarantee that income might not have been even higher in the foreign-owned enterprises if transfer prices had been more favorable, license fees lower, etc.

##### B. Assessed income versus operating income.

There are a number of factors which could account for the difference between the foreign share of total assessed income and total operating income. Among these are marketing and financial income or expense, tax-free investment funds, and depreciation.

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<sup>10</sup> This does not include assessed income in sales subsidiaries which are separate corporations.

<sup>11</sup> The foreign share of assessed income in the chemical and oil processing industry may be somewhat misleading. A/S Esso-Raffineriet had no assessed income in 1961 because of start-up expenses and heavy initial write-offs. Norsk Hydro A/S had exceptional write-offs to tax-free investment funds. The 20 % group's low share of assessed income in the basic metals industry was due to the inclusion of Norsk Hydro's magnesium metal operation, together with its other operations, under the chemical and oil processing industry.

<sup>12</sup> The capital stock of most of the enterprises in the 50 % group is not traded at all.

<sup>13</sup> The 1962 income data, presented in Appendix I—E, indicates that the distribution of assessed income in 1962 was roughly the same as in 1961.

1) *Marketing.*

Operation income does not account for the marketing function. Although all of the enterprises classified by The Central Bureau of Statistics as «manufacturing» or «mining» enterprises derive most of their operating income from these activities, assessed income depends in part on the income and expense of sales and service activities.<sup>14)</sup>

The foreign-owned enterprises have a number of big advantages when it comes to the effectiveness of their distribution systems. In the case of those which are producing for the domestic market, the principal advantages are financial strength and size. This enables them to utilize mass media advertising and attractive packaging techniques to create a brand preference for their products. It also enables them to maintain relatively large inventories, and, if necessary, a direct retail distribution system. To the extent that they are producing a well known foreign product on license, they also receive the benefit of its «good will» and brand acceptance.

On the other hand, foreign-owned enterprises which are selling primarily to the export market are often able to utilize a relatively effective and inexpensive distribution system compared to their Norwegian counterparts. Based on survey results covering 60 foreign-owned enterprises (Appendix II, Question D), nearly half of them sold more than 30 % of their output to their investing firm or its subsidiaries. In many such cases, all other export sales were also handled by the investing firm. In this manner, the foreign-owned enterprises in Norway are often not burdened directly with a large sales overhead, although the cost of distribution is probably reflected in transfer prices, i. e. gross production value. As in the case of research and development, the sales function is carried out by relatively large, efficient, and specialized international marketing divisions, thus allowing the foreign-owned enterprise in Norway to devote more attention to the technical problems of production.

The best example of the advantages of utilizing the distribution system of an investing firm was the takeover of the Norwegian Findus operation by Nestlé in 1962. In the 2 years following the transfer, sales of Findus International increased by 120 % and employment by 42 %; however, this required

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<sup>14</sup> If such activities are substantial, The Central Bureau of Statistics accounts for them under the «trade» or «service» sectors, and operating data on them is not collected for *Industristatistikk*. In most such cases, however, these activities are organized as separate corporations. This means that their assessed income would not be included in the assessed income of the mother companies, thus cancelling out their influence on a comparison of operating and assessed incomes. Minor sales or service income is usually assigned to the manufacturing or mining establishment, but not as an inclusion in operating income. In 1961, such income amount to kr. 2.6 million net for the combined 50 % and 20 % group, and kr. 100.6 million net for manufacturing and mining as a whole. Office supplies expense was not deducted from operating income. *Industristatistikk 1961* estimated this to be equal to 4.3 % of interindustry purchases.

an investment of kr. 80 million. The original Norwegian-Swedish owners foresaw the possibilities, but could not finance the required investment, which would in any case, have been considerably larger without access to Nestlé's established distribution channels. At the time the concession was granted, Norwegians expressed fears that Nestlé's control of the Hammerfest freezing plant would enable it to dictate low prices for fish supplied by the Norwegian fishermen. After 2 years of operation no such effects have been demonstrated.

Even in cases in which all sales and service activities are handled by the foreign-owned enterprises themselves, they can take advantage of the trading contacts of the investing firms, and draw on their marketing know-how in the same manner as for production know-how.

2) *Financial income or expense.*

Income or expense caused by interest, license fees and similar financial arrangements, transfer of property, inventory adjustments, and other book adjustments, affect assessed income but not operating income. There are no data available to analyse the foreign share of such financial transactions.

3) *Allocations to tax-free investment funds.*

The North Norway Law of June 28, 1952, and to a lesser extent the Law of June 9, 1961, permits tax-free allocations to funds for later investment in North Norway or other areas with employment problems and a low income level. Norsk Hydro A/S alone accounted for roughly one-third of allocations by manufacturing and mining companies during the period 1952—1961.<sup>15</sup>) In 1961, it allocated kr. 36.0 million to tax-free investment funds. Norwegian-owned enterprises (Elektrokemisk A/S and A/S Sydvaranger) accounted for most of the remaining portion of allocations to tax-free investment funds by manufacturing and mining enterprises during the period 1952—1961. Thus, the 50 % group did not avail itself of this opportunity to reduce its assessed income for tax purposes.

4) *Depreciation.*

In addition to normal depreciation there are various tax regulations allowing accelerated depreciation on new investments. For example, Norsk Hydro A/S alone had kr. 38.9 million in accelerated depreciation in its accounting year ending June 1, 1961. There are no data available on the total amount of normal and accelerated depreciation allowed foreign or Norwegian-owned enterprises, but this would obviously have an important bearing on assessed income.

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<sup>15</sup> Most of the funds were used to construct Norsk Hydro's plant at Glomfjord.

C. Assessed income in foreign-owned enterprises in sectors other than manufacturing and mining.

In addition to income earned in manufacturing and mining activities, foreign-owned enterprises earned a significant share of income in other sectors in which foreigners were allowed to acquire control of economic organizations (i. e., excluding shipping, finance and real estate). Based on the list of enterprises in Appendix I, and taking all sectors of activity into consideration, the combined 50 % and 20 % group had total assessed income of kr. 244.5 million in 1961.<sup>16)</sup> Of this amount, 80 % was earned by the 50 %

Exhibit 8.6. The foreign relative share of assessed income, direct taxes, net income and net worth in 1961. Per cent of total Norwegian. By activity sector and category of ownership.

Industry sector	Assessed income	Direct taxes	Net income	Net worth Dec. 31, 1961
<i>A. 50 % group (incl. branches)</i>				
1. Mining and quarrying ...	4.8	4.2	5.9	1.6
2. Manufacturing .....	21.9	20.5	24.0	13.1
3. Electricity <sup>1</sup> .....	11.3	3.5	—	27.3
4. Trade .....	17.7	17.5	17.8	15.8
5. Other transport <sup>1</sup> .....	91.6	91.3	91.9	58.6
6. Other sectors .....	—	—	—	—
Total .....	15.9	15.3	16.7	7.4
<i>B. 20 % group</i>				
1. Mining and quarrying ...	12.8	11.1	15.8	21.0
2. Manufacturing .....	12.4	12.6	12.1	14.9
3. Electricity <sup>1</sup> .....	1.7	0.4	—	3.5
4. Trade .....	0.4	0.4	0.4	0.4
5. Other transport <sup>1</sup> .....	—	—	—	—
6. Other sectors .....	—	—	—	—
Total .....	4.6	4.9	4.2	5.6
<i>C. Combined 50 % and 20 % group</i>				
1. Mining and quarrying ...	17.6	15.3	21.7	22.6
2. Manufacturing .....	34.3	33.1	36.1	28.0
3. Electricity <sup>1</sup> .....	13.0	3.9	—	30.8
4. Trade .....	18.1	17.9	18.2	16.2
5. Other transport <sup>1</sup> .....	91.6	91.3	91.9	58.6
6. Other sectors .....	—	—	—	—
Total .....	20.5	20.2	20.9	13.0

Source: Appendix I—H.

<sup>1</sup> The foreign share of electricity and other transport is misleading, since most of the enterprises in these sectors are owned by the Government or municipalities and are not taxed as private corporations. (See notes to Appendix I—H.)

<sup>16</sup> The list of foreign-owned enterprises in sectors other than manufacturing and mining is incomplete (see Appendix I, note 24). The 1961 income and net worth data for all sectors of activity is presented in Appendix I—H.

group. Exhibit 8.6 shows the foreign relative share of assessed income and net worth in each sector of activity in 1961.

The combined 50 % and 20 % group earned 20.5 % of total assessed income in all Norwegian economic organizations, corporate and non-corporate, and 33.0 % of combined assessed income in mining, manufacturing, trade, electricity and other transport. As in the case of manufacturing and mining, the foreign share of total assessed income was larger than its share of net worth, thus pointing to above average profitability in an accounting sense, and a relatively favorable tax base for the Norwegian Government and municipalities. It is worth noting that the Norwegian operations of Luossavaara-Kiirunavaara A/B alone had a larger assessed income than the whole 20 % group, and accounted for 4.6 % of total assessed income in all Norwegian economic organizations.<sup>17)</sup>

Preliminary tax statistics for 1962, presented in Appendix I—E, indicate that 1961 was not just an exceptional year. The combined 50 % and 20 % group had an assessed income of kr. 212.7 million, which still represented 20 % of total assessed income in all Norwegian economic organizations.

##### 5. The Norwegian Government's share — direct taxes.

The combined 50 % and 20 % group's share of total direct taxes paid by all Norwegian economic organizations was 20.2 %, much larger than their 13.0 % share of net worth, but slightly smaller than their share of assessed income. This was not due to any special tax rates granted to foreign-owned enterprises, but rather to their geographical location, and to the fact that even enterprises which made no profits in 1961 still contributed to the wealth tax.<sup>18)</sup> In 1961, the municipal corporate income tax could vary from 14 % to 18 % of taxable income. A number of the most profitable foreign-owned enterprises were located in municipalities with income tax rates on the low end of the scale. The wealth tax rate also varied according to municipality. All enterprises paid the same national income tax of 30 % of taxable income.

Another way to look at the distribution of the tax burden is to compare it to the utilization of factors of production which are relatively scarce in Norway, namely labor and real domestic capital. The combined 50 % and

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<sup>17</sup> See Appendix I—H, Other transport, which is entirely Luossavaara-Kiirunavaara A/B.

<sup>18</sup> The wealth taxes paid to the Government and municipalities by enterprises with no assessed income caused the overall burden of direct taxes to appear larger than it actually was for the profitable enterprises alone. Wealth taxes accounted for roughly one-seventh of total direct taxes paid by enterprises in the manufacturing and mining sectors. (Source: Statistisk Sentralbyrå: *Skattestatistikk 1961*; Oslo, 1963, p. 54—55). Direct taxes amounted to 60.1 % of assessed income for manufacturing and mining as a whole, but only 57.8 % for the combined 50 % and 20 % group.

**Exhibit 8.7. Net long term claims on the foreign-owned enterprises as of December 31, 1961.**

Ownership category	(1) (2) Net long term loans		(3) (4) Bearer bonds in circulation		(5) (6) Assessed net worth		(7) Total (1+3+5)	(8) Total (2+4+6)	(9)	(10)
	owed to foreigners (Kr. 1 million)	owed to Norwegians (Kr. 1 million)	held by foreigners (Kr. 1 million)	held by Norwegians (Kr. 1 million)	held by foreigners (Kr. 1 million)	held by Norwegians (Kr. 1 million)	held by foreigners (Kr. 1 million)	held by Norwegians (Kr. 1 million)	Total (7+8)	Foreign-held as per cent of total (7/9)
50 % group ...	198	not avail <sup>1</sup>	—	114	623	96	821	210	1,031	80
20 % group ...	56	»	161	127	320	552	537	679	1,216	44
Combined 50 % and 20 % group	254	»	161	241	943	648	1,358	889	2,247	60

Source: Statistisk Sentralbyrå: *Finanstelling 1961* (unpublished).

<sup>1</sup> Long term loans do not include bearer bonds, which are treated separately here, nor mortgage loans. Although detailed figures are not available, a study of the balance sheets of 11 of the large foreign-owned enterprises revealed less than kr. 10 million of what might be considered long term, Norwegian-held, «investment loans»; however, several had mortgage loans on property.

20 % group's share of direct taxes in the manufacturing and mining sectors was nearly four times as large as its share of employment. Exhibit 8.7 presents 1961 data on the sources of long term capital committed to the foreign-owned enterprises. The combined 50 % and 20 % group utilized kr. 889 million of long term Norwegian capital, but paid kr. 136 million in direct taxes to Norway, a tax return of 15.3 % on invested long term Norwegian capital. The 50 % group alone utilized kr. 210 million of long term Norwegian capital, but paid kr. 103 million in direct taxes, a tax return of 49.5 % on invested long term Norwegian capital. Of course, this is an oversimplified comparison, but it illustrates the leverage that can be gained for a scarce resource by importing foreign capital.

## 6. The investor's share.

### A. Net income.

Since the combined 50 % and 20 % group's share of net income was larger than its share of net worth or capital stock, its accounting rate of return was higher than average. Exhibit 8.8 shows that net income as a per cent of net worth in 1961 was 5.3 % in the combined 50 % and 20 % group compared to 3.3 % in total Norwegian economic organizations. The total difference was somewhat exaggerated because of the large assessed income in Loussavaara-Kiirunavaara A/B, but even within the individual industry sectors, return on net worth was generally higher in the foreign-owned enterprises. If only Norwegian registered corporations are compared, how-

Exhibit 8.8. Net income in 1961 as a per cent of assessed net worth and capital stock at face value as of December 31, 1961.

Industry sector	Net income as a per cent of net worth		Net income in corporations as a per cent of capital stock at face value <sup>1</sup>	
	Combined 50 % and 20 % group	Total Norwegian	Combined 50 % and 20 % group	Total Norwegian
1. Mining .....	1.8	1.9	4.4	n.a.
2. Manufacturing .....	3.9	3.1	8.7	»
a) chemical and oil .....	2.9	2.8	5.3	»
b) basic metals .....	4.2	3.4	12.7	»
c) electrotechnical .....	8.0	7.0	33.9	»
d) other .....	2.7	2.7	4.2	»
Total mining and manufacturing .....	3.9	3.0	8.5	»
3. Electricity .....	0.6	— 7.9	1.2	»
4. Trade .....	7.0	6.2	11.3	»
5. Other transport .....	27.0	17.2	—	»
6. Other sectors .....	n.a.	2.8	n.a.	»
Total all sectors .....	5.3	3.3	8.8	8.5

Source: Appendix I—H (net worth, net income).

Appendix I—F (capital stock at face value in the combined 50 % and 20 % group).

Statistisk Sentralbyrå: *Kredittmarkedstatistikk 1961*; Oslo, 1963, p. 33. (Total Norwegian capital stock at face value.)

<sup>1</sup> Excluding branches of foreign corporations (L.K.A.B., Electric Furnace Products, and Tomten Fabriken) and Norwegian economic organizations which are not organized as corporations.

ever, net income as a per cent of capital stock at face value was between 8 % and 9 % in both the foreign and Norwegian-owned corporations.<sup>19)</sup>

Accounting rates of return are not a particularly good measure of the investor's share. The possibility for accelerated depreciation and write-offs to tax-free investment funds could cause assessed income to vary quite arbitrarily from year to year. On the other hand, operating income is not comprehensive enough for a flow of funds analysis. Assessed net worth is supposed to reflect the market value of an enterprise, but this, in turn, is affected by assessed income. On the other hand, capital stock at face value is even less realistic. It doesn't reflect accurately past investment, due to the practice of issuing capital stock below face value, or even free, to the stock-

<sup>19</sup> In many of the non-corporate economic organizations, what might ordinarily be considered assessed income in a corporation is paid to the owners in salary and taxed as personal income.

holders of record. A comparison of the two methods of valuation shows that in 1961, net worth was 2.11 times as large as capital stock at face value in the combined 50 % and 20 % group, and 1.99 times as large in total Norwegian corporations.<sup>20)</sup>

#### B. Dividends.

The foreign share of total dividend payments in 1961 was somewhat below its share of total net income, net worth, or capital stock at face value. Foreign holders of Norwegian capital stock were paid kr. 30 million in cash dividends, which accounted for 8.5 % of total cash dividends paid by Norwegian corporations.<sup>21)</sup> In addition to cash dividends, foreign stockholders received approximately kr. 34.3 million in «free» capital stock in 1961.<sup>22)</sup> No figures are available on the total issue of «free» capital stock by Norwegian corporations.

There are a number of institutional factors which have a bearing on dividend policy in Norway. One of these is the Government's right to limit the payout of dividends. During the period 1946—1958, the payout rate was established at 5 % of face value of authorized capital stock. During the period May, 1958 — June, 1960, the rate was 6 %. Nevertheless, exemptions were freely granted to small size companies, as well as large ones which were undertaking investments of high priority or unusual risk. An amendment to the Price Control Act in June, 1960 eliminated maximum rates. The Companies Act of July 6, 1957, however, stipulates that if dividends paid in a certain year exceed 5 % of a company's authorized capital stock plus the reserve fund at the beginning of the year, an amount corresponding to the dividend payment over and above 5 % must be added to the company's reserve fund.

In practice, it is not clear just how much effect Government regulation of dividends has had on dividend policy in private corporations. Exhibit 8.9 shows that even during the period of regulation, the dividend ratio was considerably above the maximum allowable rate, at least for the sample group. The dividend payout percentages in the foreign-owned enterprises during the period 1958—1962 are shown in Appendix III, Question H. Based on a sample of 75 foreign-owned enterprises, 24 % had dividend ratios which were greater than 6 % for the period as a whole; 41 % averaged 5 % or more; and the remaining 59 % paid no dividends. There is no evidence

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<sup>20</sup> These calculations were based on data from the same sources as Exhibit 8.8.

<sup>21</sup> Statistisk Sentralbyrå: *Kredittmarkedstatistikk 1962*; Oslo, 1964, p. 167. The original source was Norges Bank.

<sup>22</sup> Statistisk Sentralbyrå: *Skattestatistikk 1961*; Oslo, 1963, p. 56—57. Over 90 % of the «free» capital stock was issued by A/S Arendal Smelteverk and Standard Telefon- og Kabelfabrik A/S (transfer of capital stock to International Telephone and Telegraph Corporation).

Exhibit 8.9. Dividends as a per cent of capital stock at face value and required reserves.

Selected industry sectors	Year					
	1959		1960		1961	
	Number of enterprises	Dividend per cent	Number of enterprises	Dividend per cent	Number of enterprises	Dividend per cent
Mining .....	5	7.2	5	7.2	5	7.2
Manufacturing ...	114	8.8	113	10.1	111	10.6
All sectors <sup>1</sup> .....	482	8.6	474	9.4	470	9.4

Source: Statistisk Sentralbyrå: *Kredittmarkedstatistikk 1961*; Oslo, 1963, p. 170.

<sup>1</sup> Includes financial institutions, whaling, transportation, and other sectors.

available to indicate what dividend policy might have been without any Government regulation, but based on the interviews described in Appendix III, management in several foreign-owned enterprises expressed the opinion that a more liberal dividend policy would have been followed. They argued that capital stock at face value was an arbitrary base to select for calculation purposes.

Although Government regulation of dividend ratios affects foreign and Norwegian stockholders alike, certain tax considerations could lead to different net returns to each. According to Norwegian tax law, cash dividends, or an increase in the amount or face value of capital stock without corresponding payment into the corporation, are treated as fully taxable income for the stockholders with respect to the national income tax (effective rate 30—35 %). For example, a 2 — for — 1 stock split is treated as income to the stockholder, rather than just a paper transaction which should not affect the total monetary value of his holdings. On the other hand, capital gains, or the sale of subscription rights to new capital stock issued below market price, are not taxable at all.<sup>23</sup>) Thus, the Norwegian stockholder saves taxes if he takes his profit as capital gains or sale of subscription rights, rather than dividends, although it must be recognized that dividends are an important psychological factor in determining market value and thus capital gains.

Foreign stockholders are taxed on cash dividends and «free» stock in accordance with tax treaties with each individual country. The maximum rate is 25 %, but in the case of most of the treaties, the actual rate is usually below the maximum. Based on 1961 tax statistics, foreign investors paid only kr. 5.6 million in taxes to Norway on an assessed income from

<sup>23</sup> S. B. Skottum: *Aksjeselskapet. Beskatning av aksjeselskaper og aksjonærer*; Norsk Skattebetalerforening, Oslo, 1959, p. 126—136.

cash dividends and «free» capital stock of kr. 64.5 million.<sup>24</sup>) Thus, the effective tax rate was 8.7 %. This was considerably lower than the rate paid by Norwegian stockholders, but should be qualified by the treatment the transferred dividends received from foreign tax authorities. Stock splits, at least, are not usually taxed as income outside of Norway. Thus, the tax penalty which foreign stockholders must pay to receive larger dividend payments (i. e., by increasing the face value or amount of capital stock) is not usually as great as that paid by Norwegian stockholders.

C. Other forms of income transfer.

Too much emphasis should not be placed on dividend policy, since there are many other ways to transfer income. License payments by foreign-owned enterprises to foreigners were probably nearly as high as dividend payments (see Exhibit 8.5). From the standpoint of the foreign-owned enterprise in Norway, these are legitimate expenses, often covering all research and development costs. On the other hand, from the standpoint of the foreign investing firm, license payments are a form of income, or contribution to overhead, even if not considered net income in an accounting sense.

Whether or not transfer prices include an element of income for the investing firms is nearly impossible to establish. In view of the fact that a source of raw material supply for the investing firm was stated as the goal for investment in Norway by over one-fifth of a sample of 74 foreign-owned enterprises, one would expect transfer prices to play an important role.<sup>25</sup>) Yet, operating income comparisons for 1961 did not provide evidence which indicated that the foreign-owned enterprises were being «milked» through transfer prices.

Finally, interest and loan amortization payments are another means of transferring income, or at least recapturing original investment. There are no indications that foreign-owned enterprises pay higher interest rates than Norwegian-owned enterprises, the rates usually depending on the money market in which the loans are made. On the contrary, a rapid rate of amortization of loans by the investing firm is usually preferred, particularly if there are other projects available which have higher expected returns on equity than the interest rate paid by the Norwegian enterprise.

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<sup>24</sup> Statistisk Sentralbyrå: *Skattestatistikk 1961*; Oslo, 1963, p. 56.

<sup>25</sup> Appendix III, Question A.

## Chapter IX. Balance in the external economy, regional development, and non-economic goals.

### 1. Balance in the external economy.

#### A. Net foreign exchange contribution.

Post-World War II Norwegian policy has been to require that new direct foreign investments be self-financed in terms of the foreign exchange required for construction and servicing the enterprise. Since the foreign-owned enterprises are mainly engaged in industries considered to be export-oriented, or at least import-saving, it is possible that they make a net foreign exchange contribution to Norway. Even with the aid of input-output analysis, however, it is difficult to determine the net foreign exchange effect of individual enterprises. It has been claimed that the electrical power-using enterprises «create a net foreign exchange surplus» because their export sales are greater than their import requirements. Likewise, the electrotechnical enterprises «save foreign exchange» by eliminating the need for certain imports. Nevertheless, the same could be said of other Norwegian industries which fulfill a real need. The net contribution becomes even less clear if consideration is given to foreign loan repayments, interest, dividends, license payments, and other cash transfers to foreigners.

Theoretically, perhaps, it would be better to analyse investment projects in terms of their expected increment to value added versus their use of real resources. On the other hand, given Norway's immediate post-World War II shortage of foreign exchange, which was needed for high-priority reconstruction projects, it is understandable that the foreign exchange effects of individual investments was considered important.

#### B. The debtor-creditor relationship to foreigners.

While direct foreign investment has been a significant supplement to domestic capital formation, the foreign-owned enterprises, once established, represent a growing contingent liability on Norway's foreign exchange reserves. Exhibit 9.1 illustrates this point. It shows the total claims and net claims of foreigners on the combined 50 % and 20 % group, compared to total claims and net claims by foreigners on Norway as a whole as of December 31, 1961. The combined 50 % and 20 % group accounted for 26.4 % of net foreign claims on Norway. Excluding shipping, however, it was responsible for about two-thirds of net foreign claims on Norway.<sup>1)</sup>

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<sup>1</sup> If capital stock had been calculated at market value, and branches of foreign corporations included, the combined 50 % and 20 % group's share of net claims on Norway would have been even larger.

Exhibit 9.1. Total claims on foreigners by Norway and on Norway by foreigners as of December 31, 1961. By category of ownership and industry sector.

Industry sector	Total claims on foreigners by Norway	Claims on Norway by foreigners					Total claims	Net claims on Norway by foreigners
		Short and long term loans	Bearer bonds at face value	Foreign-held <sup>1</sup> capital stock at face value	Other claims			
<b>1. Absolute figures (kr. 1 million)</b>								
<b>A. Combined 50 % and 20 % group</b>								
1. Manufacturing and mining .....	205	355	161	410	77	1,003	798	
2. Trade and electricity..	16	128	—	193	177	498	482	
3. Total sectors 1 and 2..	221	483	161	603	254	1,501	1,280	
a) 50 % group .....	86	413	—	450	238	1,101	1,015	
b) 20 % group .....	135	70	161	153	16	400	265	
<b>B. Total Norwegian</b>								
1. Manufacturing and mining .....	851	615	222	436	509	1,782	931	
2. Trade and electricity..	164	203	96	194	604	1,097	933	
3. Total sectors 1 and 2..	1,015	818	318	630	1,113	2,879	1,864	
4. Total private, non-financial .....	3,030	5,261	318	672	1,542	7,793	4,763	
5. Total all sectors .....	7,621	7,392	1,405	686	2,984	12,467	4,846	
<b>2. Relative figures (foreign as a per cent of Norwegian sector totals)</b>								
<b>A. Combined 50 % and 20 % group</b>								
1. Manufacturing and mining .....	24.1	57.7	72.5	94.0	15.1	56.3	85.7	
2. Trade and electricity..	9.8	63.1	—	99.5	29.3	45.4	51.7	
3. Total sectors 1 and 2..	21.8	59.0	50.6	95.7	22.8	52.1	68.7	
a) 50 % group .....	8.5	50.5	—	71.4	21.4	38.2	54.5	
b) 20 % group .....	13.3	8.5	50.6	24.3	1.4	13.9	14.2	
4. Total private, non-financial .....	7.3	9.2	50.6	89.7	16.5	19.3	26.9	
5. Total all sectors .....	2.9	6.5	11.5	87.9	8.5	12.0	26.4	

Source: Statistisk Sentralbyrå: *Finanstelling 1961*; «Total Norwegian» is published in *Kredittmarkedstatistikk 1961*; Oslo, 1963, p. 150—151. Statistics on the combined 50 % and 20 % group have been assembled from the original work sheets.

<sup>1</sup> «Revised figures» from Appendix I—F. The difference between «combined 50 % and 20 % group» and «Total Norwegian» is essentially portfolio investment by foreigners. Branches of foreign corporations are not included in the statistics.

## 2. Regional development.

Although the overall rate of employment has been satisfactory during the post-World War II period, seasonal and structural unemployment, or underemployment, has been a problem in certain districts. Government policy has been to encourage the establishment of manufacturing and service industries in regions with an otherwise weak economic base. In the coastal areas, electrical power-using industries have provided a partial solution, but the far northern coastal regions have been less attractive due to their distance from eventual markets and their thin population concentration. Furthermore, experience in Årdal, Sunndal, Mosjøen, Høyanger, Ålvik, Mo i Rana and other isolated areas shows that the electrical power-using industries do not automatically form the basis for balanced industrial growth centers. Their very size creates problems for potential local entrepreneurs who might otherwise do sub-contract work. It is difficult for the smaller firms to expand to the size necessary to supply the electrical power-using establishments. Local expansion is also hampered by the need to pay higher wages and compete for a limited supply of local labor. Light industry with heavy female employment, such as textiles, has shown some promise in this connection, since it is not directly competitive in the labor market. In the inland areas, particularly Hedmark and Oppland, there is very little basis for either electrical power-using industries or market-oriented industries. Nevertheless, there have been some successful attempts to decentralize part of the production of firms located in the largest cities, particularly if the cost of transportation is not too heavy.

The main foreign contribution to regional development has been the location of the electrical power-using industries. Exhibit 9.2 shows the geographical distribution of value added, employment, and wages and salaries in the combined 50 % and 20 % group compared to manufacturing and mining as a whole in 1961. Mostly because of the electrical power-using industries, the counties of Telemark, Aust-Agder, Vest-Agder, Rogaland, Hordaland, Sogn og Fjordane, and Møre og Romsdal accounted for 51.1 % of employment in the combined 50 % and 20 % group, compared to only 30.5 % of total Norwegian employment in manufacturing and mining.<sup>2)</sup> As a result, the foreign share of employment in these essentially rural counties was 14.4 %, compared to its 8.6 % share of total Norwegian employment in manufacturing and mining.

The 20 % group was particularly important in the three counties of northern Norway, where special efforts have been made to attract industry.<sup>3)</sup> The tax incentives for investment in northern Norway are designed for enterprises already operating in Norway, and therefore are not as attractive to

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<sup>2</sup> The large foreign share of manufacturing and mining in Telemark is due almost entirely to Norsk Hydro A/S.

<sup>3</sup> Mainly Norsk Hydro A/S at Glomfjord, Mosjøen Aluminium A/S, and Nordland Portland Cementfabrik A/S.

Exhibit 9.2. Geographical distribution of value added, employment and wages and salaries in 1961. By category of ownership and county. Figures in per cent of foreign total, Norwegian total, and county totals.<sup>1</sup>

County (fylke)	Value added (market prices)			Employment			Wages and salaries <sup>2</sup>		
	Per cent of foreign total	Per cent of Norwegian total	Foreign as per cent of county total	Per cent of foreign total	Per cent of Norwegian total	Foreign as per cent of county total	Per cent of foreign total	Per cent of Norwegian total	Foreign as per cent of county total
1. Østfold .....	1.6	9.0	2.1	3.8	9.9	3.3	3.5	10.0	3.6
2. Vestfold .....	7.4	6.5	13.6	5.8	6.0	8.2	6.1	6.5	9.8
3. Akershus .....	2.1	4.7	5.2	1.7	4.3	3.3	1.5	4.4	3.8
4. Oslo and Bergen ..	19.9	29.1	8.1	24.8	24.1	8.9	26.6	26.9	10.4
5. Hedmark, Oppland and Buskerud ....	1.5	11.2	1.6	2.0	12.9	1.3	1.8	12.4	1.5
6. Telemark .....	31.0	7.2	51.3	27.0	5.6	41.4	26.1	6.0	45.7
7. Aust-Agder and Vest-Agder .....	7.9	4.7	19.7	8.8	4.9	15.5	8.7	4.7	19.4
8. Rogaland, Hordaland, Sogn og Fjordane and Møre og Romsdal .....	16.4	16.8	11.6	15.3	20.0	6.6	15.5	17.6	9.3
9. Sør-Trøndelag and Nord-Trøndelag ...	3.4	5.1	8.0	4.7	6.2	6.4	4.3	5.6	8.1
10. Nordland, Troms, and Finnmark ....	8.8	5.5	18.9	6.1	5.9	8.7	5.9	5.6	11.2
11. Svalbard .....	—	0.2	—	—	0.2	—	—	0.3	—
Total .....	100.0	100.0	11.9	100.0	100.0	8.6	100.0	100.0	10.5

Source: Appendix I—L.

<sup>1</sup> «Foreign» is the combined 50 % and 20 % group.

<sup>2</sup> Includes only establishments with 5 or more persons employed. If all establishments were included, the foreign share of total Norwegian wages and salaries would have been 10.2 % instead of 10.5 %.

new foreign investors. On the other hand, new foreign investors have purchased shares in existing enterprises in northern Norway.<sup>4</sup>)

In counties which have neither a strong basis for electrical power-using industries, nor a favorable location with respect to the domestic market, foreign interest has been minimal. Only 2.0 % of foreign employment was located in the inland counties of Hedmark, Oppland and Buskerud, compared to 12.9 % of total Norwegian employment in manufacturing and mining. The Drammen area of Buskerud accounted for most of the foreign total

<sup>4</sup> Examples are Findus A/S and Mosjøen Aluminium A/S.

because of its proximity to Oslo. Oppland had no foreign employment. The two counties of Trøndelag accounted for only 4.7 % of foreign employment, compared to 6.2 % for Norwegian manufacturing and mining as a whole. The Trondheim area had surprisingly little foreign employment.

36.1 % of foreign employment was located in areas with an otherwise strong industrial concentration, namely, Østfold, Vestfold, Akershus, Oslo, and Bergen. On the other hand, these same counties accounted for 44.3 % of total employment in Norwegian manufacturing and mining. Only in Oslo was the foreign share of employment as high as its share of employment in manufacturing and mining as a whole. Bergen had only one foreign-owned enterprise.

Foreign-owned enterprises in the electrotechnical industry were the least favorably located from the standpoint of regional development, being situated almost entirely in the Oslo area. This was due mainly to historical factors which date back to the turn of the century. At that time, Oslo was the home of most of the trained engineers. It was also one of the few towns with a large enough population concentration to support manufacturing activities. The early electrical power-using industrial customers (The Kellner Partington Paper Pulp Company, Hafslund A/S, and Norsk Hydro A/S), as well as the main municipal customer (Oslo), were located in eastern Norway. The foreign firms usually started with sales representation in Oslo, which formed a natural basis for expansion into manufacturing at a later date. From 1914—1920, the original locational factors favoring Oslo were weakened by the development of electrical power-using industries in other parts of Norway and the establishment of the engineering school at Trondheim. Nevertheless, the difficult market conditions for the electrical power-using industries in the 1920's and 1930's, as well as the development of a market for home appliances in Oslo, prevented what might otherwise have been a period of decentralization of the electrotechnical industry. In the post-World War II period, the electrotechnical industry underwent a rapid expansion. Nevertheless, despite a labor shortage in Oslo, and the availability of a supply of engineering talent in Trondheim, production remained concentrated in the Oslo area.<sup>5</sup>)

Wage and salary payments by the combined 50 % and 20 % group were distributed rather favorably with respect to the national goal of a fair and equal distribution of income by geographical area. Exhibit 9.3 shows the average assessed income per resident personal taxpayer in 1961 according to the municipal tax assessment. The average for the whole country was kr. 12.1 thousand, but there was a considerable difference between the rural districts' average of kr. 10.7 thousand and the towns' average of kr. 14.5

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<sup>5</sup> There are several recent examples of production operations being sub-contracted to areas of stable labor supply and low real estate values, a trend which should help regional development in the future.

Exhibit 9.3. Average assessed income per resident personal taxpayer in 1961 according to the municipal income tax assessment.

Counties	(Kr. 1,000)
1. Østfold .....	12.6
2. Vestfold .....	12.9
3. Akershus .....	13.8
4. Oslo .....	16.0
Bergen .....	13.0
5. Hedmark .....	10.6
Oppland .....	10.0
Buskerud .....	12.0
6. Telemark .....	11.9
7. Aust-Agder .....	10.2
Vest-Agder .....	11.6
8. Rogaland .....	11.7
Hordaland .....	10.8
Sogn og Fjordane .....	8.8
Møre og Romsdal .....	9.7
9. Sør-Trøndelag .....	11.1
Nord-Trøndelag .....	9.6
10 Nordland .....	10.2
Troms .....	9.4
Finnmark .....	10.0
<i>The whole country</i>	
1. Total .....	12.1
2. Rural districts .....	10.7
3. Towns .....	14.5

Source: Statistisk Sentralbyrå: *Skattestatistikk 1961*; Oslo, 1963, p. 28—30.

thousand. In part, this reflects the difference between returns to manufacturing and service industry employment on the one hand, and returns to agriculture, forestry and fishing on the other.

The mere fact that foreign-owned enterprises established manufacturing and mining activities in districts which had lower than average personal incomes was bound to result in a «transfer profit», as labor moved from low-paying primary industries into higher-paying secondary industries. Moreover, Exhibit 9.2 shows that the foreign share of total wages and salaries was greater than its share of employment in manufacturing and mining in each and every county, and particularly so in those with relatively low average personal incomes. For example, in northern Norway the foreign share of wages and salaries was 11.2 %, compared to 8.7 % of employment; in southern Norway it was 19.4 % of wages and salaries, compared to 15.5 % of employment; and in western Norway, excluding Bergen, it was 9.3 % of wages and salaries, compared to 6.6 % of employment.

### 3. Non-economic goals.

The effect of the foreign-owned enterprises on non-economic national goals was not subjected to empirical investigation. Yet, its importance should not be underestimated. The main opposition to direct foreign investment in Norway does not rest on economic arguments but rather on political and sociological ones.<sup>6</sup>)

Does foreign ownership of Norwegian enterprises pose a threat to Norway's political and territorial integrity? Opponents of foreign investment have cited several possible examples of this. During World War I, attempts by foreign-owned enterprises to maintain normal business relationships with their foreign investors and customers threatened to compromise the official policy of neutrality. In both World Wars, the transit of Swedish iron ore through Norway was of prime concern to the belligerent powers, and Narvik was the scene of bitter fighting in 1940 for this reason. During the World War II occupation, Norwegian factories and mines which were supposed to supply the German steel industry (iron ore, molybdenum, and ferro-alloys), as well as the electrical power-using industries (especially Norsk Hydro), were military targets. Finally, during the recent debate concerning Norwegian membership in the E.E.C., most of the foreign-owned enterprises in the export industries were in favor of membership. The same was true of Norwegian-owned enterprises in the export industries. Opponents to membership argued that the foreign investors were interested in membership based on tariff considerations alone, rather than considering the political and social consequences for Norway.<sup>7</sup>)

The history of outside interference in Norway may also cause some Norwegians to view foreign ownership of Norwegian enterprises with suspicion. Norway achieved political independence as recently as 1814 after four centuries of Danish hegemony, and did not achieve full economic and political independence from Sweden until 1905. The concession laws were partly a reflection of an intense desire to remain politically and economically independent.

Finally, the large size and non-resident ownership of foreign-owned enterprises runs contrary to the Norwegian tradition of small, independent, self-owned enterprises, such as in farming, fishing and shipping. Although Government and private manufacturing enterprises, as well as shipping com-

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<sup>6</sup> See Leif Johansen: *Utenlandsk kapital i Norge*; Ny Dag, Oslo, 1962, for a critique of foreign investments based on political arguments.

<sup>7</sup> *ibid.* See also: Leif Johansen: *Norge og Fellesmarkedet, en kritisk oversikt og et standpunkt*; Oslo, 1961. For another critical point of view on membership see: Ragnar Frisch: *Hva saken gjelder*; Oslo, 1963. The main argument against membership was the fear that it would be impossible for Norway to continue to develop along socialist lines without the use of certain policy instruments, primarily direct controls, which were inconsistent with the spirit of the E.E.C.

panies, are generally becoming larger, and the corporate form of organization more prevalent, many Norwegians still regard the independent operator in a somewhat romantic light, whether he is a businessman, farmer, fisherman, sportsman, or explorer.

#### 4. Conclusions about the period 1952—1962.

##### A. Norwegian economic goals.

During the period 1952—1962, the foreign-owned enterprises had a relatively favorable effect on the major Norwegian economic goals.

##### 1) *Economic growth and employment in manufacturing and mining.*

If 1962 is compared to 1952, the foreign-owned enterprises maintained their share of employment and gross production value (expressed in monetary terms), but expanded physical production at a faster rate than average. Measured in terms of value added, their growth was slightly below average due to a worsening in the terms of trade for ferro-alloys, zinc, and copper. Part of the growth was due to construction of important new enterprises and takeovers of Norwegian-owned enterprises. It is virtually impossible to tell if foreign-owned enterprises contributed directly to economic growth or merely replaced potential Norwegian-owned enterprises; however, overall growth was probably aided indirectly through external economies, such as the spread of foreign techniques and know-how from the foreign-owned enterprises to the rest of the economy.

##### 2) *Stability of production, employment and prices.*

Based on a sample of 35 enterprises from the 50 % group, production and employment in the foreign-owned enterprises seemed to vary in much the same manner as production and employment in Norwegian-owned enterprises in the same industries, at least during the period 1952—1961. The reaction of foreign-owned enterprises to the recession of 1958 did not support a hypothesis that foreign subsidiaries are sacrificed in favor of production in the home plants of the investing firms during periods of weak demand.

Product and process specialization in the electrical power-using industries has not been riskier from a national viewpoint than other types of production. Although the private investors have sometimes lost their equity, most of the real resources have been converted to other uses.

The effect of foreign-owned enterprises on the level of prices was indeterminate. Variables which were partly under foreign control were transfer pricing, the timing of production and investment decisions, and, in some cases, a dominant market position in specific products. These were balanced by such Government instruments as tax regulation (auditing of transfer prices and license fees), building and import controls, and direct control of cartel agreements and the prices of certain products.

### 3) *Distribution of income.*

In 1961, the combined 50 % and 20 % group accounted for a larger share of operating income than of gross production value, a larger share of wages and salaries than of employment, and a larger share of direct taxes and net income than of net worth. Thus, each of the main interest groups (labor, the Government, and the investors) received a higher monetary return from the foreign-owned enterprises than from the average Norwegian enterprise in manufacturing and mining. These results do not support a hypothesis that foreign-owned enterprises are poor tax objects because of their ability to «hide» income. Some factors which may have contributed to the profitability of the foreign-owned enterprises were their size, type of industry, financial strength, import of technical and marketing know-how, and degree of international specialization.

### 4) *Balance in the external economy.*

It is difficult to determine the net foreign exchange effect of the foreign-owned enterprises. Although the foreign exchange costs of construction were usually covered by the foreign investors, and most of the enterprises are producing for export, or at least import substitution, the foreign exchange effect of loan repayments, interest, dividends, license fees, and other forms of cash transfer must be considered. Moreover, once established, the foreign-owned enterprises have a high rate of internal capital accumulation and a continuing financial debtor relationship to foreigners. Thus, they may represent a growing contingent liability on Norway's foreign exchange reserves.

### 5) *Regional development.*

The geographical distribution of production and employment in the foreign-owned enterprises in the electrical power-using industries favored the counties with an otherwise weak industrial base and below average per capita income. The foreign-owned enterprises in the electrotechnical industry, however, were still located mainly in Oslo.

### 6) *Non-economic goals.*

An analysis of the effect of the foreign-owned enterprises on Norway's non-economic goals, and vice versa, was not subjected to empirical investigation in this study, but its importance should not be underestimated. The main opposition to foreign investment in Norway rests on political rather than economic grounds.

## B. Effect of Norwegian operations on the goals of the foreign investors.

It is impossible to measure the net effect of Norwegian operations on the goals of the foreign investors, since their motives for investment in Norway were diverse, and no analysis was made of their operations and

opportunities elsewhere in the world. The accounting net return on equity in the foreign-owned enterprises was slightly higher than average for Norway, but dividend payments were subject to some measure of control throughout most of the period 1952—1962. On the other hand, reduction in the cost of production in the investing firms was a more important motive for foreign investment in Norway than pure profit in the Norwegian subsidiaries. Therefore, transfer prices, license fees and other forms of contribution to overhead in the investing firms should be taken into consideration when analysing the overall profitability of direct foreign investment in Norway from the viewpoint of the foreign investor.

## **Appendices**

**Appendix I. Enterprises in Norway with foreign**  
**A. Revised list of foreign-owned enter-**

Industry group number <sup>1</sup>	Name of enterprise, main products, and size of employment <sup>2</sup>	Location of head office. Factory location in parenthesis
1	2	3
1. Norwegian mining and manufacturing enterprises		
11, 12, 14, 15, 19	<i>I. Mining and quarrying</i>	
1220	1. A/S BJØRKAASEN GRUBER <sup>3</sup> ..... mining of pyrites (C)	Ballangen
1290	2. A/S KNABEN MOLYBDÆNGRUBER ..... mining of molybdenum (C)	Fjotland
1410	3. A/S NORSKE GRANITINDUSTRIER ..... labrador quarrying (D)	Larvik
1590	4. A/S SKALAND GRAFITVERK ..... grafite products (D)	Oslo (Senja)
1210	5. A/S TITANIA ..... mining of ilmenite and by-products (B)	Sokndal (Hauge i Dalane)
	Total mining and quarrying .....	.....
20—39	<i>II. Manufacturing</i>	
31, 32	<i>A. Chemical industry and products of coal and oil</i>	
311	<i>a. electrochemical</i>	
3119	1. A/S ARENDAL SMELTEVERK ..... silicon carbide (B)	Moland
3111	2. ODDA SMELTEVERK A/S ..... calcium carbide and calcium cyanamide (A)	Odda
31 (less 311)	<i>b. other chemicals</i>	
3199	3. ALGEA PRODUKTER A/S ..... products from seaweed (D)	Kristiansund
3199	4. BRYN-HALDEN AND NITEDALS TÆNDSTIKFABRIK A/S..... production of matches (B)	Oslo (Stavern)
3193	5. COSPRO A/S ..... cosmetics and toilet preparations (D)	Oslo
3199	6. HERNIA NORSK A/S ..... glue (D)	Oslo
3193	7. LEPSØE TEKN. KJEM. FABRIKK A/S ..... cosmetics and toilet preparations (D)	Oslo
3193	8. NORANO A/S ..... cosmetics and toilet preparations (D)	Oslo
3199	9. A/S NORCASCO ..... chemical products (D)	Oslo
3191	10. NORSK ÅSTRA FARMASØYTISK KJEMISK A/S pharmaceutical preparations (D)	Oslo

Sources of Appendix I—A, see page 190.

<sup>1</sup> According to the Norwegian standard industrial classification system as defined by Statistisk Sentralbyrå in *Bedriftsregisteret* (unpublished).

## ownership capital as of December 31, 1962.

prises in Norway as of December 31, 1962.

Year of establishment. Year of foreign ownership in parenthesis	Capital stock at face value (kr. 1,000)	Foreign holdings (kr. 1,000) Per cent foreign-held in parenthesis	Foreign owners and country of origin
4	5	6	7

in which capital stock is at least 50 % foreign-held.

1913	2,000	1,997 (100%)	AKTIEBOLAGET FÖR SVAFVELKIS-FÖRÄDLING, Sweden
1918 (1930)	1,363	1,349 (99%)	A. JOHNSON AND COMPANY, Sweden
1940 (1958)	10	10 (100%)	SVENSKA GRANITINDUSTRI A/B, and FERNSTRØMS GRANIT-INDUSTRIER, Sweden
1917 (1931)	350	295 (84%)	EVER READY CO., LTD., U.K.
1902 (1927)	3,000	3,000 (100%)	TITAN CO. A/S (NATIONAL LEAD COMPANY, U.S.A.)
.....	6,723	6,651	
1912	18,240	17,249 (95%)	THE CARBORUNDUM COMPANY, U.S.A.
1924	8,000	8,000 (100%)	THE BRITISH OXYGEN COMPANY, U.K.
1939	208	141 (68%)	Citizen of The Netherlands
1838 (1927)	3,000	3,000 (100%)	SVENSKA TÄNDSTICKS AKTIEBOLAGET, Sweden
1958	650	450 200 (100%)	Denmark Belgium
1953	100	50 (50%)	HERNIA LIMFIRMA A/B, Sweden
1960	200	200 (100%)	UNIVEST AG, SWITZERLAND which is owned by WELLA AG, W. Germany
1946 (1954)	50	30 19 (99%)	SALES AFFILIATES LTD., U.K. MARINELLO, Denmark
1935 (1940)	240	238 (99%)	A/B CASCO, Sweden
1940	1,700	1,700 (100%)	A/B ASTRA, Sweden

<sup>2</sup> Employment code: A = over 500 employees  
 B = 200—500 »  
 C = 100—200 »  
 D = less than 100 employees

<sup>3</sup> Ceased mining operations in 1964.

**Appendix I (cont.). Enterprises in Norway with  
A. Revised list of foreign-owned enter-**

Industry group number	Name of enterprise, main products, and size of employment	Location of head office. Factory location in parenthesis
1	2	3
3130	11. SADOLIN AND HOLMBLAD A/S ..... paints (D)	Oslo
3130	12. TITAN CO. A/S ..... paints (C)	Fredrikstad
3192	13. TOMTEN FABRIKEN ..... chemical and technical household articles and food products (D)	Bærum
3199	14. WALLCO KJEMISK INDUSTRI A/S ..... chemical products (D)	Oslo
32.	<i>c. products of coal and oil</i>	
3290	15. A/S ESSO RAFFINERIET <sup>4</sup> ..... refining of oil-capacity of 2 million tons crude oil (B)	Sem (Slagen)
3210	16. A/S FJELDHAMMER BRUG ..... wool and raw felt, roofing felt, asphaltic road materials, paper, plastic products, container board (A)	Oslo
	Total chemical and oil .....	.....
34.	<i>B. Basic metals industries</i>	
3420	1. DET NORSKE NITRIDAKSJESELSKAP <sup>5</sup> ..... aluminium (A)	Oslo (Tyssedal, Eydehavn)
3430	2. DET NORSKE ZINKKOMPANI A/S ..... zinc (A)	Odda
3411	3. ELECTRIC FURNACE PRODUCTS CO. LTD. ... ferro-chrome, ferro-manganese, silicomanganese and other ferro-alloys (A)	Sauda
3430	4. FALCONBRIDGE NIKKELVERK A/S ..... nickel, copper, and by-products (A)	Kristiansand
3411	5. A/S MERAKER SMELTEVERK ..... ferro-chrome, calcium carbide and silicon metal (B)	Meråker (Nustadfos, Kopperå)
3491	6. NORDISK ALUMINIUMINDUSTRI A/S..... semi-manufactures and manufactures of aluminium (A)	Oslo (Holmestrand)
3420	7. A/S NORSK ALUMINIUM CO. .... aluminium (A)	Oslo (Høyanger)
3492	8. A/S VIGELANDS BRUG ..... super-refined aluminium (C)	Vennesla (Vikeland)
	Total basic metals .....	.....
37.	<i>C. Electrotechnical industry</i>	
3720	1. DAVID-ANDERSEN RADIO A/S ..... electronic equipment (D)	Oslo
3720	2. A/S ELEKTRISK BUREAU ..... electrical and electronic equipment, telephones, power installations (A)	Oslo

<sup>4</sup> Merged with A/S NORSKE ESSO on Jan. 1, 1963.

foreign ownership capital as of December 31, 1962.  
prises in Norway as of December 31, 1962.

Year of establishment. Year of foreign ownership in parenthesis	Capital stock at face value (kr. 1,000)	Foreign holdings (kr. 1,000) Per cent foreign-held in parenthesis	Foreign owners and country of origin
4	5	6	7
1961	300	300 (100 %)	SADOLIN AND HOLMBLAD LTD., Denmark
1916 (1927) 1906	7,000	7,000 (100 %)	NATIONAL LEAD COMPANY, U.S.A.  Branch of BARNÄNGEN-KONSERNET, Sweden
1960	500	250 250 (100 %)	A/B WALLCO, Sweden NORSK ASTRA A/S (A/B ASTRA, Sweden)
1958	76,000	76,000 (100 %)	STANDARD OIL COMPANY OF NEW JERSEY, U.S.A.
1895 (1927)	1,800	980  773 (97 %)	A/S JENS VILLADSENS FABRIKKER, Denmark SVENSKA ISOPALFABRIKKEN, Sweden
	117,988	116,830	
.....			
1913	15,000	7,500 7,500 (100 %)	BRITISH ALUMINIUM CO., U.K. ALUMINIUM LTD., Canada
1924	25,000	25,000 (100 %)	CIE. ROYALE ASTURIENNE DES MINES, Belgium
1914			Branch of ELECTRIC FURNACE PRODUCTS LTD., Canada, which is owned by UNION CARBIDE CORP., U.S.A.
1910 (1929)	14,000	14,000 (100 %)	FALCONBRIDGE NICKEL MINES LTD., Canada
1898 (1929)	4,000	4,000 (100 %)	UNION CARBIDE LTD., Canada
1917 (1923)	13,000	6,500 (50 %)	ALUMINIUM LTD., Canada
1915 (1923)	26,000	13,000 (50 %)	ALUMINIUM LTD., Canada
1900 (1912)	2,000	2,000 (100 %)	BRITISH ALUMINIUM CO. LTD., U.K.
	99,000	79,500	
.....			
1945	650	530 (82 %)	AGA, Sweden
1882 (1928)	6,000	3,018 (50.3 %)	L. M. ERICSSON, Sweden

<sup>5</sup> Includes a real estate subsidiary.

**Appendix I (cont.). Enterprises in Norway with**  
**A. Revised list of foreign-owned enter-**

Industry group number	Name of enterprise, main products, and size of employment	Location of head office. Factory location in parenthesis
1	2	3
3719	3. A/S NEBB, SKIEN ..... electrical distribution equipment (B)	Skien
3712	4. NORDISK METALAKTIESELSKAB ..... aluminium cables (D)	Oslo (Horten)
3713	5. NORSK ELEKTRISK AND BROWN BOVERI A/S (NEBB, Oslo) .....	Oslo
3711	power installations, generators, motors, engines for locomotives, streetcars, and ships (A)	
3711	6. NORSK JUNGNERAKKUMULATOR- FABRIK A/S .....	Oslo
3712	batteries, searchlights, boatlights (D)	Drammen
3791	7. NORSK KABELFABRIKK A/S ..... electric wires and cables (C)	Drammen
3791	8. OSRAM-FABRIKKEN A/S ..... light bulbs, fluorescent tubes (C)	Oslo (Drammen)
3713	9. A/S PER KURE NORSK MOTOR OG DYNAMO- FABRIKK .....	Oslo
3712	transformers, generators, motors, smelting ovens, household electrical equipment (A)	
3712	10. STANDARD TELEFON- OG KABELFABRIK A/S cables, wires, automatic telephone switchboards, radio, TV, rectifiers, freezers (A)	Oslo
2525	Total electrotechnical .....	.....
2525	<i>D. Other manufacturing industries</i>	
2091	1. AGNES FABRIKKER A/S ..... chipboard and wood products (D)	Brunlanes (Stavern)
2812	2. A/S AGRA MARGARINFABRIK ..... margarine (C)	Oslo
3394	3. ALLERS FAMILIE JOURNAL ..... publishing (C)	Oslo
2829	4. DEN ANKERSKE MARMORFORRETNING A/S manufacture of cut stones and stone products (D)	Oslo (Fauske)
2022	5. CHROMTRYKK A/S ..... printing (D)	Oslo
3691	6. A/S DE NORSKE MELKEFABRIKKER <sup>12</sup> ..... condensed milk, nescafe (B)	Oslo (Hamar, Levanger)
3511	7. ELECTROLUX A/S ..... vacuum cleaners, refrigerators and other house- hold equipment (C)	Oslo
3511	8. A/S ESAB ..... welding products (C)	Oslo (Larvik)

<sup>6</sup> NEBB A/S is 52 % foreign-held.

<sup>7</sup> Capital stock raised to kr. 12 million in 1963. The Swiss share is now over 52 %.

<sup>8</sup> A/S ELEKTRISK BUREAU is 50.3 % foreign-held. Total capital stock in NORSK KABELFABRIKK A/S was raised to kr. 2.4 million in 1963.

## foreign ownership capital as of December 31, 1962.

prises in Norway as of December 31, 1962.

Year of establishment. Year of foreign ownership in parenthesis	Capital stock at face value (kr. 1,000)	Foreign holdings (kr. 1,000) Per cent foreign-held in parenthesis	Foreign owners and country of origin
4	5	6	7
1915 (1932)	1,000	520 (52 %)	All 1,000 owned by NEBB A/S, Oslo Switzerland
1914 (1928)	1,750	1,750 (100 %)	SVENSKA METALLVERKEN A/B, Sweden
1873 (1908)	9,600	4,990 (52 %)	BROWN BOVERI AND CIE., Switzerland
1918	500	500 (100 %)	SVENSKA ACKUMULATOR-A/B JUNGNER, Sweden
1913 (1928)	800	400 (50.3 %)	All 800 owned by A/S ELEKTRISK BUREAU, Sweden
1920 (1956)	1,500	886 (59 %)	1. GENERAL ELECTRIC CO. LTD., U.K. 2. BRITISH THOMSON-HOUSTON EXPORT CO. LTD., U.K. 3. NEBB A/S, PER KURE A/S, SIEMENS NORGE A/S
1897 (1916)	9,000	8,981 (99.8 %)	ALLMÄNNA SVENSKA ELEKTRISKA A/B (ASEA)
1915 (1929)	24,000	18,000 (75 %)	INTERNATIONAL STANDARD ELECTRIC CORP., U.S.A., which is owned by INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION, U.S.A.
.....	54,800	39,575	
11 1877 (1927)	1,000	1,000 (100 %)	SVENSKA TÄNDSTICKS A/B, Sweden
1885 (1925)	1,000	500 (50 %)	UNILEVER, Netherlands
unknown	1,300	1,000 (100 %)	Denmark Sweden
1885	450	450 (100 %)	Denmark
1942	245	221 (90 %)	Sweden
1876 (1915)	4,000	3,988 (99.7 %)	AFIB, ITAG, NESTLÉ S.A., Switzerland
1920	900	900 (100 %)	ELECTROLUX A/B, Sweden
1938 (1959)	3,000	2,998 (99.9 %)	ELEKTRISKA SVETSNING A/B, Sweden

<sup>9</sup> The British Companies hold 35 % between them and the Norwegian companies hold 8 % apiece.

<sup>10</sup> Capital stock raised to kr. 28 million in 1963.

<sup>11</sup> Prior to 1960, AGNES FABRIKKER A/S was a part of BRYN-HALDEN & NITEDALS TÆNDSTIKFABRIK A/S.

<sup>12</sup> Includes LEVANGER MELKEFABRIK A/S.

**Appendix I (cont.). Enterprises in Norway with  
A. Revised list of foreign-owned enter-**

Industry group number	Name of enterprise, main products, and size of employment	Location of head office. Factory location in parenthesis
1	2	3
2051	9. FINDUS A/S ..... frozen fish products (A)	Hammerfest
3512	10. FREDRIKSTAD JERN- OG METALL- INDUSTRI A/S ..... metal welding constructions (C)	Fredrikstad
3699	11. B. M. HEEDE A/S ..... oilburners, heaters (D)	Oslo
3512	12. HEEDE PLASTIC A/S ..... plastic products (D)	Son
2812	13. HJEMMET A/S ..... publishing (C)	Oslo
3699	14. KENMORE INC. A/S ..... dry elements for refrigerators (D)	Nes (Årnes)
2434	15. KONFEKSJONS A/S FRØJA ..... corsets (C)	Moss
2910	16. KRISTIANSANDS SKINNGARVERI A/S ..... tannery (D)	Oddernes
3699	17. LECAB AKTIEBOLAG NORSK A/S ..... internal transport systems (D)	Oslo
3999	18. MILLER PEN CO. A/S ..... pens (D)	Oslo
2434	19. A/S MORESCO ..... manufacture of women's clothing (D)	Oslo
2441	20. MORESCO PELS A/S ..... manufacture of fur goods (D)	Oslo
3399	21. NORDNORSK DUROX A/S <sup>14</sup> ..... light concrete building material (D)	Ankenes
2051	22. NORFINN A/S ..... frozen fish products (C)	Kristiansund
3530	23. NORSK ELFA INDUSTRI ..... manufacture of metal household articles (D)	Drammen
2051	24. NORSK FELIX A/S ..... frozen fish products (C)	Brønnøysund
2099	25. NORSK A/S NAARDEN ..... manufacture of food preparations (D)	Oslo
3699	26. A/S NORSK VIFTEFABRIKK ..... ventilation material (C)	Oslo
2529	27. OSLO FINERFABRIKK A/S ..... building materials of wood (D)	Oslo
2730	28. SANDE PAPER MILL A/S ..... semi-chemical fluting paper for corrugated cases (D)	Oslo (Sande)
3811	29. SARPSBORG MEK. VERKSTED A/S ..... shipyard (A)	Tune
2321	30. SCANDINAVIAN KLINGER A/S ..... hosiery (D)	Oslo

<sup>13</sup> A/B MARABOU is partly Norwegian-owned.

<sup>14</sup> Ceased production in 1964.

## foreign ownership capital as of December 31, 1962.

prises in Norway as of December 31, 1962.

Year of establishment. Year of foreign ownership in parenthesis	Capital stock at face value (kr. 1,000)	Foreign holdings (kr. 1,000) Per cent foreign-held in parenthesis	Foreign owners and country of origin
4	5	6	7
1952 (1962)	20,000	16,000 4,000 (100 %)	NESTLÉ S.A., SWITZERLAND, A/B MARABOU, Sweden <sup>13</sup>
1924 (1958)	—	—	Majority held by NEBB A/S, Oslo Switzerland
1934	500	443 (89 %)	B. M. HEEDE, U.S.A.
1961	—	—	B. M. HEEDE, U.S.A.
1911	600	600 (100 %)	E. H. PETERSENS FOND, Denmark
1960	500	250 30 (59 %)	KENMORE MACHINE PRODUCTS CO., U.S.A. Citizens of U.K.
1948	100	100 (100 %)	Sweden
1936 (1948)	35	35 (100 %)	A/B GLACELÄDERFABRIKEN, Sweden
1956	3	2 (80 %)	LECAB A/B, Sweden
1953	6	5 (90 %)	FIRMA PALLE IVERSEN, Denmark
1897 (1909)	500	500 (100 %)	A/S J. MORESCO, Denmark
1961	100	98 (98 %)	A/S J. MORESCO, Denmark
1956 (1959)	1,100	550 (50 %)	SKØVDE GASBETONG A/B, Sweden
1959	2,000	1,500 (75 %)	HUHTAMÄKI YHTYMA OY, Finland
1955	partnership		3 citizens of Sweden
1961	200	102 (51 %)	A/B FELIX, Sweden
1955	25	25 (100 %)	NV CHEMISCHE FABRIEK "NAARDEN", Netherlands
1912 (1951)	3,000	3,000 (100 %)	A/B SVENSKA FLÄKTFABRIKEN, Sweden
1957	250	250 (100 %)	Citizens of Sweden
1960	10,000	5,100 (51 %)	THE REED PAPER GROUP, U.K.
1919 (1959)	1,000	1,000 (100 %)	CORNELIUS VEROLME, UNITED SHIPYARDS, Netherlands
1960	100	65 (65 %)	THE KLINGER MANUFACTURING CO. LTD., U.K.

**Appendix I (cont.). Enterprises in Norway with**  
**A. Revised list of foreign-owned enter-**

Industry group number	Name of enterprise, main products, and size of employment	Location of head office. Factory location in parenthesis
1	2	3
3821	31. SKABO A/S ..... manufacture of railroad rolling stock (D)	Oslo
2410	32. A/S SPORTSINDUSTRI ..... sports footwear (D)	Moss
3994	33. STELA FABRIKKER A/S ..... plastic products and aluminium foil (D)	Furnes (Brumunddal)
2093	34. A/S VARANGERFRYS ..... processing of fish for livestock feeds (D)	Vardø
2392	35. A/S VICTORIA LINOLEUMFABRIK ..... linoleum products (D)	Bærum
2099	36. ØTKER A/S ..... manufacture of food preparations (D)	Oslo
	Total other manufacturing .....	
	Total mining and manufacturing 50 % group .....	

2. Norwegian mining and manufacturing enterprises

11, 12, 14, 15, 19 1220	<i>I. Mining and quarrying</i> 1. ORKLA-GRUBE AKTIEBOLAG ..... mining of copper pyrites (A)	Meldal (Løkken Verk)
1220	2. A/S VIGSNES KØBBERVERK ..... mining of copper ore (C)	Avaldsnes (Karmøy)
1410	3. A/S NORSK LABRADOR AND GRANIT- INDUSTRI ..... quarry, sale, and export of building stone and tombstone (D)	Oslo (Tjølling) (Støren)
	Total mining and quarrying .....	
20—39	<i>II. Manufacturing</i>	
31	<i>A. Chemical industry and products of coal and oil</i>	
311	<i>a. electrochemical</i>	
3112	1. NORSK HYDRO-ELEKTRISK KVÆLSTOF- AKTIESELSKAB (NORSK HYDRO A/S) ..... nitrogen products and other fertilizers, poly- vinylchloride (base for plastics), other chem- ical products, magnesium metal (A)	Oslo (Notodden, Rjukan, Herøya, Glomfjord)
3112	2. RJUKANFOS A/S ..... (see NORSK HYDRO) (A)	(Same as NORSK HYDRO)

<sup>15</sup> NEBB A/S is 52 % foreign-held.

<sup>16</sup> NORDISK METALLAKTIESELSKAB is 100 % foreign-held.

## foreign ownership capital as of December 31, 1962.

prises in Norway as of December 31, 1962.

Year of establishment. Year of foreign ownership in parenthesis	Capital stock at face value (kr. 1,000)	Foreign holdings (kr. 1,000) Per cent foreign-held in parenthesis	Foreign owners and country of origin
4	5	6	7
1864 (1961)	2,730	<sup>15</sup> 860	About 1,720 owned by NEBB A/S, Oslo Switzerland
1960	30	30 (100 %)	A citizen of Sweden
unknown	100	<sup>16</sup> 100 (100 %)	NORDISK METALLAKTIESELSKAB, Oslo. Sweden
1959	20	10 (50 %)	A citizen of Sweden
1898	750	375 (50 %)	LINOLEUMS-A/B FORSHAGA, Sweden, which is owned by CONTINENTAL LINOLEUM UNION, Switzerland
1957	500	500 (100 %)	Citizens of Switzerland
.....	56,044	46,887	
.....	334,555	289,443	

in which capital stock is between 20 % and 49 % foreign-held.

1904	20,000	ca. 8,000 (40 %)	Widely held but mostly by Swedish interests
1880 (1962)	250	83 (33 %)	NORD-DEUTSCHE AFFINERIE W. Germany
1911 (1955)	100	34 (34 %)	A citizen of U.S.A.
.....	20,350	8,117	
1905	237,700	ca. 90,326 (38 %)	Widely held but mostly by French interests. Foreign interests represented by BANQUE DE PARIS ET DES PAYS-BAS, France
1903 (1905)	100,000	ca. 38,000 (38 %)	NORSK HYDRO A/S. France

**Appendix I (cont.). Enterprises in Norway with  
A. Revised list of foreign-owned enter-**

Industry group number	Name of enterprise, main products, and size of employment	Location of head office. Factory location in parenthesis
1	2	3
	<i>b. other chemicals</i>	
3199	3. GALVAXO A/S ..... galvanic salts (D)	Oslo
3130	4. INTERNATIONAL FARVEFABRIK A/S ..... paints (C)	Bergen
3129	5. NORSK FETT OG LIMINDUSTRI A/S ..... animal oil refining (D)	Onsøy
	Total chemical and oil .....	.....
34	<i>B. Basic metals industries</i>	
3411	1. A/S BJØLVEFOSSEN ..... ferro-silicon, ferro-chrome (A)	Oslo (Ålvik)
3420	2. MOSJØEN ALUMINIUM A/S ..... aluminium (A)	Vefsn (Mosjøen)
3430	3. ORKLA METAL AKTIESELSKAP ..... smelting of copper pyrites (in 1964 converted to production of ferro-silicon) (B)	Meldal (Løkken Verk)
3411	4. PORSGRUNN ELEKTROMETALLURGISKE A/S ..... ferro-silicon, ferro-manganese, silico-manganese (B)	Porsgrunn
	Total basic metals .....	.....
	<i>C. Other manufacturing industries</i>	
2529	1. FIRESAFE A/S ..... fireproof building materials (D)	Elverum
3812	2. A/S FJORD PLAST ..... boat building (D)	Arendal
3599	3. JYDEN RAMMEFABRIKKEN A/S ..... manufacture of metal frames (D)	Tune
2599	4. JYDEN RAMMEFABRIKKEN A/S <sup>20</sup> ..... manufacture of moulding (D)	Drammen
2899	5. MATHERSON-SELIG EUROPEAN A/S ..... colored charts (D)	Borge (Sundløkken)
3340	6. NORDLAND PORTLAND CEMENTFABRIK A/S cement	Tysfjord (Kjøpsvik)
2591	7. A/S NORRØNA ISOLASJONSFABRIKKER .... cork insulation material (D)	Rygge
3999	8. NORSKOT A/S ..... carbon paper (D)	Oslo
2710	9. RISØR TRÆMASSEFABRIKKER ..... mechanical pulp (B)	Risør
2759	10. SCAN-INDUSTRI A/S ..... paper products (D)	Lyngdal
2040	11. A/S SUNNAN ..... shrimp cannery (D)	Egersund
	Total other manufacturing .....	.....
	Total mining and manufacturing 20 % group .....	.....
	Total mining and manufacturing .....	.....

<sup>17</sup> On Jan. 1, 1964, ALCOA, U.S.A., via a holding company (NORSK ALCOA A/S), took over 50 % of the shares. ALAG sold its shares to ELEKTROKEMISK A/S in 1963.

<sup>18</sup> ORKLA-GRUBE A/B is 40 % foreign-held.

## foreign ownership capital as of December 31, 1962.

prises in Norway as of December 31, 1962.

Year of establishment. Year of foreign ownership in parenthesis	Capital stock at face value (kr. 1,000)	Foreign holdings (kr. 1,000) Per cent foreign-held in parenthesis	Foreign owners and country of origin
4	5	6	7
1952	5	2 (40 %)	2 citizens of Sweden
1906	1,800	810 (45 %)	INTERNATIONAL PAINTS LTD., U.K. and U.S.A.
1952	40	10 (25 %)	A citizen of Denmark
.....	339,545	129,148	
1905 (1928)	18,000	5,600 (31 %)	Mostly held by C. TENNANT SONS AND CO. LTD., U.K.
1956	18,000	6,000 (33 %)	THE SWISS ALUMINIUM COMPANY (AIAG), Switzerland <sup>17</sup>
1931	2,000	800 (40 %)	2,000 held by ORKLA GRUBE A/B, Sweden
1913 (1957)	1,000	400 (40 %)	USINE ELECTRO-MET METIOR, Switzerland
.....	39,000	12,800	
1959	800	304 (38 %)	B. M. HEEDE A/S
1960	800	200 (25 %)	GLIDDEN INTERNATIONAL, U.S.A.
1946 (1958)	10	4 (40 %)	RAMMEFABRIKKEN JYDEN, Denmark
1961	—	—	JYDEN RAMMEFABRIKKEN A/S, Tune
1960	315	100	MATHERSON-SELIG INTERNATIONAL, U.S.A.
1918 (1921)	2,880	1,330 (45 %)	F. L. SMIDTH AND CO. A/S, Denmark
1929 (1954)	200	98 (49 %)	WICANDERS KORKFABRIKKER, Sweden
1931 (1948)	30	18 (47 %)	FARQUHARSON BROS. LTD., U.K.
1923	150	30 (20 %)	BOWATER PAPER CO. LTD., U.K.
1961	200	70 (35 %)	A citizen of Sweden
1957	5	1 (20 %)	A citizen of Sweden
.....	5,400	2,155	
.....	404,295	152,220	
.....	738,850	441,663	

<sup>19</sup> B. M. HEEDE A/S is 89 % American-held.<sup>20</sup> Formerly DRAMMENS GULLLISTEFABRIKKER A/S.<sup>21</sup> Organized as a limited partnership.

**Appendix I (cont.). Enterprises in Norway with  
A. Revised list of foreign-owned enter-**

Industry group number	Name of enterprise, main products, and size of employment	Location of head office. Factory location in parenthesis
1	2	3
3. Other Norwegian enterprises in which		
511	<i>III. Electricity</i>	
5100	1. THE JØSSINGFJORD MANUFACTURING COMPANY .....	Sokndal
	electricity production in Hauge i Dalane	
5100	2. A/S KINSERVIK .....	Oslo
	electricity production in Hardanger	(Kinsarvik)
5100	3. A/S SAUDEFALDENE .....	Sauda
	electricity production in Sauda	
5100	4. A/S SVÆLGFOS .....	Oslo
	electricity production for NORSK HYDRO A/S	
5100	5. A/S TYSSEFALDENE .....	Odda
	electricity production in Hardanger	
	Total electricity 50 % group .....	
	Total electricity 20 % group .....	
	Total electricity .....	
61—66	<i>IV. Trade<sup>24</sup></i>	
6352	1. ATLAS COPCO A/S .....	Oslo
	machines, mining equipment (C)	
6359	2. BERKEL A/S .....	Oslo
	industrial scales and kitchen equipment (D)	
6356	3. BULL NORSK A/S .....	Oslo
	data processing and office equipment,	
	punch cards (C)	
6333	4. DAHL BRØDRENE A/S .....	Oslo
	pipes (C)	
6341	5. FORD MOTOR (NORGE) A/S .....	Oslo
	Automobiles, trucks (C)	
6341	6. GENERAL MOTORS (NORWAY) A/S .....	Oslo
	Automobiles, trucks	
6356	7. INTERNATIONAL BUSINESS MACHINES A/S (IBM), also IBM WORLD TRADE CORP. A/S..	Oslo
	data processing and office equipment,	
	punch cards (C)	
6271	8. MINNESOTA MINING AND MANU- FACTURING A/S .....	Oslo
	diverse products of MM and M.	

<sup>22</sup> A/S TITANIA is 100 % American-held through TITAN Co. A/S.

<sup>23</sup> NORSK HYDRO A/S is 38 % foreign-held (mostly French).

## foreign ownership capital as of December 31, 1962.

prises in Norway as of December 31, 1962.

Year of establishment. Year of foreign ownership in parenthesis	Capital stock at face value (kr. 1,000)	Foreign holdings (kr. 1,000) Per cent foreign-held in parenthesis	Foreign owners and country of origin
4	5	6	7

capital stock is at least 20 % foreign-owned.

1927	800	<sup>22</sup> 800 (100 %)	A/S TITANIA. U.S.A.
1907	5,000	5,000 (100 %)	ALUMINIUM LTD., Canada
1913 (1925)	12,000	12,000 (100 %)	UNION CARBIDE LTD., Canada
-	800	<sup>23</sup> 304 (38 %)	NORSK HYDRO A/S. France
1906 (1907)	9,970	9,970 (100 %)	DET NORSKE NITRIDAKSJESELSKAP, DET NORSKE ZINKKOMPANI, ODDA SMELTEVERK, CIE ROYALE ASTURRI- ENNE DES MINES (Belgium)
.....	27,770	27,770	
.....	800	304	
.....	28,570	28,074	
1916	3,000	3,000 (100 %)	Sweden
1910 (1951)	300	300 (100 %)	Netherlands
1958	1,500	1,500 (100 %)	France
1917	1,500	1,500 (100 %)	Denmark
1960	4,000	4,000 (100 %)	U.S.A.
1961	4,000	4,000 (100 %)	U.S.A.
1935	7,700	7,700 (100 %)	U.S.A.
1962	1,400	1,400 (100 %)	U.S.A.

<sup>24</sup> Includes only those enterprises in which foreign-held capital stock was at least kr. 1 million, as well as the few smaller enterprises that were included in: Industridepartementet, *St. meld. nr. 21 (1963-64)*; *Om utenlandske eierinteresser i norsk industri*; Oslo, Nov. 29, 1963, Vedlegg 2.

**Appendix I (cont.). Enterprises in Norway with  
A. Revised list of foreign-owned enter-**

Industry group number	Name of enterprise, main products, and size of employment	Location of head office. Factory location in parenthesis
1	2	3
6372	9. MOBIL OIL NORGE A/S ..... petroleum products (B)	Oslo
6352	10. N.A. GASACCUMULATOR ..... welding equipment, production of oxygen and acetylen (B)	Oslo
6372	11. NORSK BRÆNDELSELOLJE A/S ..... petroleum products (A)	Oslo
6372	12. NORSK CALTEX OIL A/S ..... petroleum products (C)	Oslo
6341	13. NORSK VOLVO A/S ..... automobiles and trucks	Oslo
6372	14. A/S NORSKE ESSO ..... refining and sale of petroleum products (A)	Oslo
6372	15. NORSKE FINA A/S ..... petroleum products	Fredrikstad
6372	16. NORSKE SHELL A/S ..... petroleum products (A)	Oslo
6314	17. PHILIPS NORSK A/S ..... electrical products (B)	Oslo
6356	18. REMINGTON RAND A/S ..... office machines (C)	Oslo
6351	19. SIEMENS NORGE A/S ..... electrical and electronic equipment, power installations (A)	Oslo (Trondheim)
6515	20. SINGER CO., SYMASKIN A/S ..... sewing machines (C)	Oslo
6352	21. UNITED SHOE MACHINERY CO. A/S ..... shoe machinery	Oslo
	Total trade 50 % group .....	.....
	Total trade 20 % group .....	.....
	Total trade .....	.....
74—78	V. <i>Other transportation</i>	
7410	1. CHR. SALVESON OG CHR. THAMS COMMUNICATIONS AKTIESELSKAB ..... operation of power station and an electric railroad between Thamshavn and Løkken Verk (ORKLA GRUBE A/B)	Thamshavn
7410	2. LUOSSAVAARA KIIRUNAVAARA A/B ..... transport and export of 13—15 million tons of Swedish iron ore through Narvik	Narvik
7410	3. NORSK TRANSPORTAKTIESELSKAB ..... transport connected with NORSK HYDRO at Notodden	
	Total other transportation 20 % group .....	.....
	Total other transportation all groups .....	.....
4.	Total all sectors 50 % group .....	.....
5.	Total all sectors 20 % group .....	.....
6.	Grand total all sectors .....	.....

<sup>25</sup> After the merger with A/S ESSO RAFFINERIJET (Jan. 1, 1963) the new capital stock is kr. 50,900.

**foreign ownership capital as of December 31, 1962.**  
**prises in Norway as of December 31, 1962.**

Year of establish- ment. Year of foreign ownership in parenthesis	Capital stock at face value (kr. 1,000)	Foreign holdings (kr. 1,000) Per cent foreign-held in parenthesis	Foreign owners and country of origin
4	5	6	7
1932	15,250	15,250	U.S.A.
1908	4,050	1,968 (49 %)	Sweden
1920	50,000	25,000 (50 %)	U. K.
1930	1,000	1,000 (100 %)	U.S.A.
1962	1,000	1,000 (100 %)	Sweden
1892 <sup>25</sup> (1954)	25,630	25,500 (99 %)	U.S.A.
1931 (1959)	7,300	7,300 (100 %)	Belgium
1912	44,000	44,000 (100 %)	U. K.
1923	8,000	8,000 (100 %)	Netherlands
1911	320	320 (100 %)	U.S.A.
1898 and 1960	6,000	6,000 (100 %)	W. Germany
1901	1,000	1,000 (100 %)	U.S.A.
1910	1,543	1,543 (100 %)	U.S.A.
.....	184,443	159,313	
.....	4,050	1,968	
.....	188,493	161,281	
1898 (1904)	2,000	<sup>26</sup> ca. 800	ORKLA GRUBE A/B owns all the shares, Sweden
1898			A branch of LUOSSAVAARA KIIRUNA- VAARA A/B (LKAB), Sweden
1908	4,000	<sup>27</sup> ca. 1,520	NORSK HYDRO A/S owns all the shares, France
.....	6,000	2,320	
.....	6,000	2,320	
.....	546,768	476,526	
.....	415,145	156,812	
.....	961,913	633,338	

<sup>26</sup> ORKLA GRUBE A/B is 40 % foreign-held.

<sup>27</sup> NORSK HYDRO A/S is 38 % foreign-held.

**Appendix I (cont.). Enterprises in Norway with  
B. Foreign-held capital stock at face value in Norway  
By creditor country and**

Debtor industry group	Creditor country	Belgium Lux.	Denmark	France	Neth.	U.K. and N. Ire- land	Switz.
A. Financial institutions <sup>3</sup> .....	-	-	-	-	-	-	-
B. Other domestic sectors .....	-	-	-	-	-	-	-
1. Mining and quarrying .....	-	-	-	-	-	295	-
2. Manufacturing .....	25,200	5,746	128,326	1,666	29,303	33,753	-
a) chemical and oil .....	200	1,759	128,326	141	8,435	-	-
b) basic metals .....	25,000	-	-	-	15,100	6,400	-
c) electrotechnical .....	-	-	-	-	525	5,630	-
d) other .....	-	3,987	-	1,525	5,243	21,723	-
3. Building and construction .....	-	598	-	-	-	-	-
4. Electricity, gas and water .....	-	-	304	-	-	-	-
5. Trade .....	7,300	1,500	1,500	8,300	69,000	-	-
6. Water transport <sup>3</sup> .....	-	-	-	-	-	-	-
7. Other transport, comm. ....	-	-	1,520	-	-	-	-
8. Other industries .....	-	-	-	-	-	-	-
<b>Total .....</b>	<b>32,500</b>	<b>7,844</b>	<b>131,650</b>	<b>9,966</b>	<b>98,598</b>	<b>33,753</b>	<b>4.7</b>
Per cent of total foreign-held .....	4.5	1.1	18.2	1.4	13.6	-	-

<sup>1</sup> With the exception of «portfolio», «diverse trade» and «building and construction», the figures in the matrix are simply the sum of the foreign-held capital stock listed in Appendix I—A.

<sup>2</sup> «Portfolio» investment includes: (a) all foreign-held capital stock that is not listed in Appendix I—A, but is registered in *Finanstelling 1962*; (unpublished) (kr. 55.9 million); (b) minority holdings of Norwegian capital stock by Norwegian corporations which are foreign-owned (kr. 19.1 million — mainly held by Norsk Hydro A/S and Orkla-Grube A/B).

## foreign ownership capital as of December 31, 1962.

gian corporations on December 31, 1962. (Kr. 1,000).  
debtor industry group.<sup>1</sup>

Sweden	West Germ.	Canada	U.S.A.	Finland	Diverse	Total	Portfolio <sup>2</sup>	Total capital stock	Per cent of total foreign- held
-	-	-	-	-	-	-	12,500	12,500	1.7
-	-	-	-	-	-	-	-	-	-
11,356	83	-	3,034	-	-	14,768	1,300	16,068	2.2
36,130	320	45,000	119,951	1,500	-	426,895	<sup>4</sup> 21,500	<sup>5</sup> 448,395	<sup>5</sup> 62.0
6,263	200	-	100,654	-	-	245,978	-	<sup>6</sup> 245,978	<sup>6</sup> 34.0
800	-	45,000	-	-	-	92,300	-	<sup>6</sup> 92,300	<sup>6</sup> 12.8
15,300	120	-	18,000	-	-	39,575	-	<sup>6</sup> 39,575	<sup>6</sup> 5.5
13,767	-	-	1,297	1,500	-	49,042	-	<sup>6</sup> 49,042	<sup>6</sup> 6.8
-	-	-	-	-	-	598	200	798	0.1
-	-	17,000	800	-	9,970	28,074	1,000	29,074	4.0
5,968	6,000	-	61,713	-	<sup>7</sup> 14,100	175,381	-	175,381	24.3
-	-	-	-	-	-	-	37,200	37,200	5.2
800	-	-	-	-	-	2,320	200	2,520	0.3
-	-	-	-	-	-	-	1,100	1,100	0.2
54,254	6,403	62,000	185,498	1,500	24,070	648,036	75,000	723,036	100.0
7.5	0.9	8.6	25.6	0.2	3.3	89.6	10.4	100.0	

<sup>3</sup> «Financial institutions» and «water transport» are considered «portfolio» although some companies may actually be more than 20 % foreign-held.

<sup>4</sup> A breakdown by manufacturing sub-sectors is not available.

<sup>5</sup> Including portfolio.

<sup>6</sup> Excluding portfolio.

<sup>7</sup> Foreign holdings in trade enterprises which were too small to be listed in Appendix I—A.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

C. The distribution of capital stock at face value in Norwegian corporations in the 50 % and 20 % groups on December 31, 1962. (Kr. 1 million.)<sup>1</sup>

Industry sector	50 % group		20 % group		Combined 50 % and 20 % group	
	Total capital stock	Foreign-held capital stock	Total capital stock	Foreign-held capital stock	Total capital stock	Foreign-held capital stock
A. Financial institutions.....	—	—	—	—	—	—
B. Other domestic sectors .....	561.4	491.2	415.3	156.8	976.7	648.0
1. Mining and quarrying .....	6.7	6.6	20.4	8.1	27.1	14.7
2. Manufacturing .....	327.8	282.8	384.0	144.1	711.8	426.9
a) chemical and oil .....	118.0	116.8	339.6	129.1	457.6	245.9
b) basic metals.....	99.0	79.5	39.0	12.8	138.0	92.3
c) electrotechnical.....	54.8	39.6	—	—	54.8	39.6
d) other .....	56.0	46.9	5.4	2.2	61.4	49.1
3. Building and construction ..	0.6	0.6	—	—	0.6	0.6
4. Electricity .....	27.8	27.8	0.8	0.3	28.6	28.1
5. Trade <sup>2</sup> .....	198.5	173.4	4.1	2.0	202.6	175.4
6. Water transport .....	—	—	—	—	—	—
7. Other transport .....	—	—	6.0	2.3	6.0	2.3
8. Other industries .....	—	—	—	—	—	—
Total	561.4	491.2	415.3	156.8	976.7	648.0

Source: Derived from Appendix I—A, B.

<sup>1</sup> Does not include «portfolio» investment.

<sup>2</sup> «Diverse» trade (kr. 14.1 million) is included in the 50 % group as if the whole amount were invested in 100 % foreign-held enterprises.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

**D. Net worth of foreign-held capital stock and branches of foreign corporations on December 31, 1962.  
(Kr. 1 million.) By industry sector.<sup>1</sup>**

Industry sector	(1) Net worth of foreign-held capital stock in Appendix I—A <sup>2</sup>	(2) Net worth of branches of foreign corporations	(3) Net worth of «portfolio» investment <sup>3</sup>	(4) Total net worth of foreign holdings (1)+(2)+(3)
I. Financial institutions.....	—	—	24.8	24.8
II. Other domestic sectors .....	1,303.9	112.8	129.5	1,546.2
1. Mining and quarrying ...	29.4	—	2.8	32.2
2. Manufacturing .....	936.2	28.1	45.8	1,010.1
a) chemical and oil.....	410.8	2.1	—	412.9
b) basic metals.....	321.8	26.0	—	347.8
c) electrotechnical .....	152.6	—	—	152.6
d) others .....	51.0	—	—	51.0
3. Building and construction	1.3	—	0.4	1.7
4. Electricity .....	48.6	—	1.7	50.3
5. Trade .....	288.4	—	—	288.4
6. Water transport .....	—	—	76.6	76.6
7. Other transport .....	—	84.7	—	84.7
8. Other industries .....	—	—	2.2	2.2
<b>Total</b>	<b>1,303.9</b>	<b>112.8</b>	<b>154.3</b>	<b>1,571.0</b>

Source: A. Statistisk Sentralbyrå, unpublished tax lists from the municipal tax offices. (The lists are returned to the originating offices after preparation of *Skattestatistikk*. Tax statistics for corporations with head offices in Oslo are published in *Ligningsboka*.)

B. Statistisk Sentralbyrå: *Statistisk månedshäfte*; Oslo, monthly. (Source of Oslo Stock Exchange indexes.)

<sup>1</sup> Net worth is defined as net worth for national wealth tax purposes (antatt formue — statsskattelikning). It is generally believed that real property is undervalued in wealth tax assessments.

<sup>2</sup> Calculated as follows: (net worth for tax purposes) x (per cent of capital stock foreign-held). Calculated separately for each enterprise.

<sup>3</sup> Calculated as follows: (face value of capital stock) x (Oslo Stock Exchange index of market value). Calculated separately for each industry sector.

<sup>4</sup> Including net worth of «portfolio» investment.

<sup>5</sup> Excluding net worth of «portfolio» investment.

<sup>6</sup> Includes net worth of «diverse» trade (kr. 23.1 million).

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

E. Tax statistics for Norwegian corporations in the 50 % and 20 % groups and branches of foreign corporations for the year 1962. By category of ownership and industry sector.<sup>1</sup>

Industry sector	Net worth Dec. 31, 1962 (kr. 1 million) <sup>2</sup>			Assessed income before taxes (kr. 1,000) <sup>3</sup>		
	50 % group (including branches)	20 % group	Combined 50 % and 20 % group	50 % group (including branches)	20 % group	Combined 50 % and 20 % group
I. Financial institutions.....	-	-	-	-	-	-
II. Other domestic sectors.....	1,193.2	961.4	2,154.6	159,153	53,514	212,667
1. Mining and quarrying .....	6.1	59.4	65.5	698	1,826	2,524
2. Manufacturing .....	734.6	888.6	1,623.2	69,574	50,090	119,664
a) chemical and oil .....	111.5	799.8	911.3	-	-	-
b) basic metals.....	350.8	82.2	433.0	-	-	-
c) electrotechnical.....	215.4	-	215.4	-	-	-
d) other .....	56.9	6.6	63.5	-	-	-
3. Building and construction ..	1.3	-	1.3	-	-	-
4. Electricity .....	46.3	5.7	52.0	1,063	294	1,357
5. Trade <sup>4</sup> .....	320.2	7.7	327.9	44,741	1,304	46,045
6. Water transport .....	-	-	-	-	-	-
7. Other transport .....	84.7	-	84.7	43,077	-	43,077
8. Other industries .....	-	-	-	-	-	-
Total	1,193.2	961.4	2,154.6	159,153	53,514	212,667

Source: Appendix I—D, Source A.

<sup>1</sup> The tax statistics refer to the whole enterprise and not just to the foreign-held capital stock.

<sup>2</sup> See Appendix I—D, note 1.

<sup>3</sup> «Antatt inntekt — statsskattelikning».

<sup>4</sup> «Diverse» trade is included (50 % group) for net worth purposes only.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

F. Foreign-held capital stock at face value in Norwegian corporations on December 31, 1961. Total capital stock in Norwegian corporations in the 50 % and 20 % groups. (Kr. 1 million.) By category of ownership and industry sector.<sup>1</sup>

Industry sector	50 % group Total capital stock	20 % group Total capital stock	Combined 50 % and 20 % group		«Portfolio» invest- ment	Total foreign- held capital stock
			Total capital stock	Foreign- held capital stock		
A. Financial institutions.....	-	-	-	-	13.4	13.4
B. Other domestic sectors.....	510.0	413.6	923.6	605.8	66.3	672.1
1. Mining and quarrying.....	6.7	20.1	26.8	14.0	2.0	16.0
2. Manufacturing.....	286.3	384.0	670.3	396.0	23.5	419.5
a) chemical and oil.....	116.8	339.6	456.4	244.8	-	244.8
b) basic metals.....	87.0	39.0	126.0	86.3	-	86.3
c) electrotechnical.....	49.1	-	49.1	36.4	-	36.4
d) other.....	33.4	5.4	38.8	28.5	-	28.5
3. Building and construction..	0.6	-	0.6	0.6	0.2	0.8
4. Electricity.....	27.8	0.8	28.6	28.1	1.0	29.1
5. Trade <sup>2</sup> .....	188.6	2.7	191.3	164.8	-	164.8
6. Water transport.....	-	-	-	-	38.0	38.0
7. Other transport.....	-	6.0	6.0	2.3	0.2	2.5
8. Other industries.....	-	-	-	-	1.4	1.4
Total	510.0	413.6	923.6	605.8	79.7	685.5

S o u r c e : Derived from Appendix I—A, B by eliminating changes in foreign holdings which occurred during 1962.

<sup>1</sup> Does not include branches of foreign corporations.

<sup>2</sup> «Diverse» trade (kr. 12.4 million) is included in the 50 % group as if the whole amount were invested in 100 % foreign-held enterprises.

<sup>3</sup> A breakdown of «portfolio» investment by manufacturing sub-sectors is not available.

<sup>4</sup> Including «portfolio» investment.

<sup>5</sup> Excluding «portfolio» investment.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

G. Net worth of foreign-held capital stock and branches of foreign corporations on December 31, 1961.  
(Kr. 1 million.) By industry sector.<sup>1</sup>

Industry sector	(1) Net worth of foreign-held capital stock in Appendix I—A	(2) Net worth of branches of foreign corporations	(3) Net worth of «portfolio» investment	(4) Total net worth of foreign holdings (1)+(2)+(3)
I. Financial institutions.....	—	—	29.2	29.2
II. Other domestic sectors .....	1,238.3	121.0	178.9	1,538.2
1. Mining and quarrying ...	27.8	—	5.4	33.2
2. Manufacturing .....	887.3	28.0	63.7	979.0
a) chemical and oil.....	378.7	2.0	—	380.7
b) basic metals.....	317.2	26.0	—	343.2
c) electrotechnical.....	146.9	—	—	146.9
d) others .....	44.5	—	—	44.5
3. Building and construction	1.7	—	0.5	2.2
4. Electricity .....	49.0	—	1.7	50.7
5. Trade <sup>4</sup> .....	272.5	—	—	272.5
6. Water transport .....	—	—	104.5	104.5
7. Other transport .....	—	93.0	—	93.0
8. Other industries .....	—	—	3.1	3.1
Total	1,238.3	121.0	208.1	1 567.4

Source: Same sources as Appendix I—D.

<sup>1</sup> See Appendix I—D, notes 1—3.

<sup>2</sup> Includes net worth of «portfolio» investment

<sup>3</sup> Excludes net worth of «portfolio» investment.

<sup>4</sup> Includes net worth of «diverse» trade (kr. 20.5 million).

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

H. Tax statistics for all Norwegian economic organizations for the year 1961. By category of ownership and industry sector.<sup>1</sup>

Industry sector	Net worth Dec. 31, 1961 <sup>2</sup> (Kr. 1 mill.)	Assessed income before taxes <sup>3</sup> (Kr. 1,000)	Direct taxes <sup>4</sup> (Kr. 1,000)	Net income after taxes (Kr. 1,000)
<b>A. 50 % group (including branches)</b>				
1. Mining .....	4.4	698	381	317
2. Manufacturing .....	714.6	91,243	51,276	39,967
a) chemical and oil .....	102.8	13,360	7,409	5,951
b) basic metals .....	349.1	37,398	21,561	15,837
c) electrotechnical .....	208.9	36,700	20,065	16,635
d) other .....	53.8	3,785	2,241	1,544
Total mining and manufacturing ..	719.0	91,941	51,657	40,284
3. Electricity .....	46.6	1,070	790	280
4. Trade <sup>5</sup> .....	303.6	42,347	21,174	21,173
5. Other transport .....	93.0	54,619	29,504	25,115
Total <sup>6</sup>	1,162.2	189,977	103,125	86,852
<b>B. 20 % group</b>				
1. Mining .....	59.6	1,875	1,021	854
2. Manufacturing .....	812.7	51,581	31,328	20,253
a) chemical and oil .....	737.7	46,532	28,226	18,306
b) basic metals .....	68.4	4,744	2,873	1,871
c) electrotechnical .....	—	—	—	—
d) other .....	6.6	305	229	76
Total mining and manufacturing ..	872.3	53,456	32,349	21,107
3. Electricity .....	5.9	155	100	55
4. Trade .....	6.8	954	477	477
5. Other transport .....	—	—	—	—
Total	885.0	54,565	32,926	21,639

Source: A. Appendix I—D, Source A.

B. Statistisk Sentralbyrå: *Skattestatistikk 1961*; Oslo, 1963, p. 54—57.

<sup>1</sup> The tax statistics refer to the whole enterprise and not just to the foreign-held capital stock.

<sup>2</sup> «Antatt formue — Statsskattelikning».

<sup>3</sup> «Antatt inntekt — Statsskattelikning».

<sup>4</sup> Includes both national and municipal income taxes, wealth (property) taxes, and surtaxes on higher incomes.

<sup>5</sup> «Diverse» trade (50 % group) is included for net worth purposes only. Direct taxes for trade are calculated, based on a rate of 50 % (the average for all trade).

<sup>6</sup> Excluding building and construction.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital as of December 31, 1962.**

H. (cont.) Tax statistics for all Norwegian economic organizations for the year 1961. By category of ownership and industry sector.

Industry sector	Net worth Dec. 31, 1961 (Kr. 1 mill.)	Assessed income before taxes (Kr. 1,000)	Direct taxes (Kr. 1,000)	Net income after taxes (Kr. 1,000)
<b>C. Combined 50 % and 20 % group</b>				
1. Mining.....	64.0	2,573	1,402	1,171
2. Manufacturing .....	1,527.3	142,824	82,604	60,220
a) chemical and oil .....	840.5	59,892	35,635	24,257
b) basic metals.....	417.5	42,142	24,434	17,708
c) electrotechnical .....	208.9	36,700	20,065	16,635
d) other .....	60.4	4,090	2,470	1,620
Total mining and manufacturing .	1,591.3	145,397	84,006	61,391
3. Electricity .....	52.5	1,225	890	335
4. Trade .....	310.4	43,301	21,651	21,650
5. Other transport .....	93.0	54,619	29,504	25,115
<b>Total</b>	<b>2,047.2</b>	<b>244,542</b>	<b>136,051</b>	<b>108,491</b>
<b>D. Total Norwegian organizations<sup>7</sup></b>				
1. Mining.....	283.7	14,585	9,190	5,395
2. Manufacturing .....	5,455.0	416,689	249,869	166,820
a) chemical and oil .....	1,184.6	84,235	51,257	32,978
b) basic metals.....	1,020.7	83,941	49,641	34,300
c) electrotechnical .....	298.9	46,777	25,790	20,987
d) other .....	2,950.8	201,736	123,181	78,555
Total mining and manufacturing .	5,738.7	431,274	259,059	172,215
3. Electricity .....	170.6	9,443	22,951	-(13,508)
4. Trade .....	1,925.9	239,853	120,715	119,138
5. Other transport .....	158.6	59,637	32,323	27,314
6. Other sectors <sup>8</sup> .....	7,698.5	452,260	237,438	214,822
<b>Total Norwegian organizations .....</b>	<b>15,692.3</b>	<b>1,192,467</b>	<b>672,486</b>	<b>519,981</b>
(of which corporate organizations .	9,270.2	907,249	512,132	395,117)

<sup>7</sup> Includes all corporate and unincorporated tax-paying organizations (etterskottsppliktige skattytere).

<sup>8</sup> Mostly water transport, financial institutions, and real estate companies.

<sup>9</sup> Assessed income for municipal taxes was kr. 61,711 thousand instead of kr. 9,443 thousand, and net worth for municipal taxes was kr. 1,623.9 million instead of kr. 170.6 million. Roughly three-quarters of the electrical production is in publically-owned enterprises, which are generally exempt from direct taxes to the national government.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

I. Production statistics in Norwegian mining and  
manufacturing establishments in 1961. By category  
of ownership and industry group.<sup>1</sup>

Group number	Industry group	Number of establishments	Gross production value (Kr.1,000)	Value added market prices (Kr.1,000)	Value added factor prices (Kr.1,000)	Operating income (Kr.1,000)	Gross investment <sup>2</sup> (Kr.1,000)
<b>A. 50 % group<sup>3</sup></b>							
11—19	1. Mining	14	41,911	34,527	34,496	20,226	10,302
20—39	2. Manufacturing . . . .	93	1,987,597	611,564	580,804	291,581	156,753
31—32	a) chemical and oil.	23	426,940	120,847	118,990	80,959	29,943
34	b) basic metals . . . .	10	939,821	201,153	200,583	106,630	43,779
37	c) electrotechnical ..	11	384,222	206,114	178,846	72,947	35,211
	d) others . . . . .	49	236,614	83,450	82,385	31,045	47,820
	<b>Total mining and manufacturing</b>	<b>107</b>	<b>2,029,508</b>	<b>646,091</b>	<b>615,300</b>	<b>311,807</b>	<b>167,055</b>
<b>B. 20 % group</b>							
11—19	1. Mining . . . . .	5	30,611	26,882	26,882	12,948	5,342
20—39	2. Manufacturing . . . .	28	992,393	491,468	496,511	321,039	145,924
31—32	a) chemical and oil.	9	604,335	315,591	320,958	202,669	87,672
34	b) basic metals . . . .	5	273,283	137,385	137,385	101,319	40,994
37	c) electrotechnical ..	—	—	—	—	—	—
	d) others . . . . .	14	114,775	38,492	38,168	17,051	17,258
	<b>Total mining and manufacturing</b>	<b>33</b>	<b>1,023,004</b>	<b>518,350</b>	<b>523,393</b>	<b>333,987</b>	<b>151,266</b>
<b>C. Combined 50 % and 20 % group</b>							
11—19	1. Mining . . . . .	19	72,522	61,409	61,378	33,174	15,644
20—39	2. Manufacturing . . . .	121	2,979,990	1,103,032	1,077,315	612,620	302,677
31—32	a) chemical and oil.	32	1,031,275	436,438	439,948	283,628	117,615
34	b) basic metals . . . .	15	1,213,104	338,538	337,968	207,949	84,773
37	c) electrotechnical ..	11	384,222	206,114	178,846	72,947	35,211
	d) others . . . . .	63	351,389	121,942	120,553	48,096	65,078
	<b>Total mining and manufacturing</b>	<b>140</b>	<b>3,052,512</b>	<b>1,164,441</b>	<b>1,138,693</b>	<b>645,794</b>	<b>318,321</b>
<b>D. Total Norwegian<sup>4</sup></b>							
11—19	1. Mining . . . . .	453	352,712	291,466	289,273	155,381	99,969
20—39	2. Manufacturing . . . .	19,229	23,564,145	9,513,319	9,139,266	4,442,510	2,001,870
31—32	a) chemical and oil .	507	2,535,890	991,730	975,356	614,062	226,499
34	b) basic metals . . . .	162	2,506,306	915,240	910,375	529,383	330,756
37	c) electrotechnical ..	350	903,702	465,497	410,786	179,126	62,019
	d) others . . . . .	18,210	17,618,247	7,140,852	6,842,749	3,119,939	1,382,596
	<b>Total mining and manufacturing</b>	<b>19,682</b>	<b>23,916,857</b>	<b>9,804,785</b>	<b>9,428,539</b>	<b>4,597,891</b>	<b>2,101,839</b>

Source: A. Statistisk Sentralbyrå: *Industristatistikk 1961*; Oslo, 1963, p. 18, 20—21, 29, 33.

B. Statistisk Sentralbyrå, unpublished compilation of production statistics for the 50 % and 20 % groups based on the list of foreign-owned enterprises in Appendix I—A. The basic data was the same as that used in *Industristatistikk 1961*.

<sup>1</sup> Gross production value less (cost of raw materials, fuels, electricity, auxiliary materials, packaging materials and contract work) equals value added at market prices; less indirect taxes plus subsidies equals value added at factor prices; less salaries and wages equals operating income.

<sup>2</sup> Includes only establishments with 5 or more employees.

<sup>3</sup> Includes branches of foreign corporations.

<sup>4</sup> Includes the 50 % and 20 % groups.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

J. Employment, salary and wage statistics in Norwegian mining and manufacturing establishments in 1961. By category of ownership and industry group.

Group number	Industry group	Salaries (Kr.1,000)	Number of salaried em- ployees	Wages (Kr.1,000)	Number of wage earners	Total salaries and wages (Kr.1,000)	Total employ- ment
<b>A. 50 % group<sup>1</sup></b>							
11—19	1. Mining.....	3,495	162	10,775	793	14,270	955
20—39	2. Manufacturing .....	97,065	4,401	192,158	12,883	289,223	17,289
31—32	a) chemical and oil .	14,677	644	23,354	1,658	38,031	2,302
34	b) basic metals ....	23,836	1,090	70,117	4,310	93,953	5,402
37	c) electrotechnical ..	44,380	1,967	61,519	4,269	105,899	6,236
	d) others .....	14,172	700	37,168	2,646	51,340	3,349
Total mining and manufacturing		100,560	4,563	202,933	13,676	303,493	18,244
<b>B. 20 % group</b>							
11—19	1. Mining.....	3,029	134	10,905	739	13,934	873
20—39	2. Manufacturing .....	62,209	2,954	113,263	7,903	175,472	10,857
31—32	a) chemical and oil .	47,372	2,274	70,917	5,032	118,289	7,306
34	b) basic metals ....	7,826	360	28,240	1,871	36,066	2,231
37	c) electrotechnical ..	—	—	—	—	—	—
	d) others .....	7,011	320	14,106	1,000	21,117	1,320
Total mining and manufacturing		65,238	3,088	124,168	8,642	189,406	11,730
<b>C. Combined 50 % and 20 % group</b>							
11—19	1. Mining.....	6,524	296	21,680	1,532	28,204	1,828
20—39	2. Manufacturing .....	159,274	7,355	305,421	20,786	464,695	28,146
31—32	a) chemical and oil .	62,049	2,918	94,271	6,690	156,320	9,608
34	b) basic metals ....	31,662	1,450	98,357	6,181	130,019	7,633
37	c) electrotechnical ..	44,380	1,967	61,519	4,269	105,899	6,236
	d) others .....	21,183	1,020	51,274	3,646	72,457	4,669
Total mining and manufacturing		165,798	7,651	327,101	22,318	492,899	29,974
<b>D. Total Norwegian<sup>2</sup></b>							
11—19	1. Mining.....	26,229	1,188	107,663	7,311	133,892	8,768
20—39	2. Manufacturing .....	1,123,372	59,084	3,573,384	267,970	4,696,756	341,215
31—32	a) chemical and oil .	143,054	6,934	218,240	15,683	361,294	22,758
34	b) basic metals ....	86,038	4,082	294,954	18,639	380,992	22,832
37	c) electrotechnical ..	85,070	4,005	146,590	10,293	231,660	14,539
	d) others .....	809,210	44,063	2,913,600	223,355	3,722,810	281,086
Total mining and manufacturing		1,149,601	60,272	3,681,047	275,281	4,830,648	349,983

Source: Same as Appendix I—I.

<sup>1</sup> Includes branches of foreign corporations.

<sup>2</sup> Includes the 50 % and 20 % groups.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

K. Principal figures in Norwegian mining and manufacturing establishments in 1961. By category of ownership and size of establishment.

Size groups by number of persons employed	Number of establish- ments	Gross production value (Kr. 1,000)	Value added market prices (Kr. 1,000)	Employ- ment	Gross invest- ment <sup>1</sup> (Kr. 1,000)
<b>A. 50 % group<sup>2</sup></b>					
Under 20.....	34	33,367	16,085	465	26,274
20— 99.....	34	134,697	56,858	1,645	9,783
100—199.....	19	166,610	72,765	2,577	24,977
200 and over.....	20	1,694,834	500,383	13,557	106,021
<b>Total</b>	<b>107</b>	<b>2,029,508</b>	<b>646,091</b>	<b>18,244</b>	<b>167,055</b>
<b>B. 20 % group</b>					
Under 20.....	5	2,760	1,450	77	520
20— 99.....	8	15,698	8,342	335	526
100—199.....	5	61,230	26,544	717	13,572
200 and over.....	15	943,316	482,014	10,601	136,648
<b>Total</b>	<b>33</b>	<b>1,023,004</b>	<b>518,350</b>	<b>11,730</b>	<b>151,266</b>
<b>C. Combined 50 % and 20 % group</b>					
Under 20.....	39	36,127	17,535	542	26,794
20— 99.....	42	150,395	65,200	1,980	10,309
100—199.....	24	227,840	99,309	3,294	38,549
200 and over.....	35	2,638,150	982,397	24,158	242,669
<b>Total</b>	<b>140</b>	<b>3,052,512</b>	<b>1,164,441</b>	<b>29,974</b>	<b>318,321</b>
<b>D. Total Norwegian<sup>3</sup></b>					
Under 20.....	16,704	not available	1,716,393	84,533	253,660
20— 99.....	2,384	» »	2,447,612	98,036	436,102
100—199.....	339	» »	1,352,320	46,727	293,854
200 and over.....	255	» »	4,288,460	120,687	1,118,223
<b>Total</b>	<b>19,682</b>	<b>not available</b>	<b>9,804,785</b>	<b>349,983</b>	<b>2,101,839</b>

Source: Same as Appendix I—I.

<sup>1</sup> Includes only establishments with 5 or more employees.

<sup>2</sup> Includes branches of foreign corporations.

<sup>3</sup> Includes the 50 % and 20 % groups.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

L. Geographical distribution of value added, employment and salaries and wages in 1961. By category of ownership and county.

County (Fylke)	Number of establishments	Value added market prices (Kr. 1,000)	Employment	Salaries and wages <sup>3</sup> (Kr. 1,000)
<b>A. Combined 50 % and 20 % group<sup>1</sup></b>				
1. Østfold .....	12	18,396	1,141	17,046
2. Vestfold .....	15	86,593	1,731	29,965
3. Akershus .....	12	24,001	498	7,720
4. Oslo and Bergen .....	33	231,896	7,448	130,928
5. Hedmark, Oppland, and Buskerud	9	17,935	591	8,759
6. Telemark .....	13	361,356	8,102	128,897
7. Aust-Agder and Vest-Agder.....	8	91,695	2,644	42,910
8. Rogaland, Hordaland, Sogn og Fjordane, and Møre og Romsdal	19	190,757	4,599	76,454
9. Sør-Trøndelag and Nord-Trøndelag	8	39,516	1,406	21,215
10. Nordland, Troms, and Finnmark	11	102,296	1,814	29,040
11. Svalbard .....	-	-	-	-
Total	140	1,164,441	29,974	492,934
<b>B. Total Norwegian<sup>2</sup></b>				
1. Østfold .....	-	882,117	34,528	469,151
2. Vestfold .....	-	638,375	21,093	305,731
3. Akershus .....	-	458,778	15,200	203,854
4. Oslo and Bergen .....	-	2,857,872	83,998	1,259,393
5. Hedmark, Oppland, and Buskerud	-	1,101,734	45,021	580,721
6. Telemark .....	-	704,208	19,558	282,228
7. Aust-Agder and Vest-Agder .....	-	464,847	17,104	220,727
8. Rogaland, Hordaland, Sogn og Fjordane, and Møre og Romsdal	-	1,641,192	70,065	821,822
9. Sør-Trøndelag and Nord-Trøndelag	-	494,609	21,804	261,433
10. Nordland, Troms, and Finnmark ...	-	542,221	20,962	260,185
11. Svalbard .....	-	18,832	650	15,163
Total	-	9,804,785	349,983	4,680,408

Source: Same as Appendix I—I.

<sup>1</sup> Includes branches of foreign corporations.

<sup>2</sup> Includes the 50 % and 20 % groups.

<sup>3</sup> Includes only establishments with 5 or more employees.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

M. Principal figures in Norwegian mining and manufacturing establishments in 1962. By category of ownership and industry group.

Group number	Industry group	Number of establishments	Gross production value (Kr. 1,000)	Value added market prices (Kr. 1,000)	Employment	Gross investment <sup>1</sup> (Kr. 1,000)
<b>A. 50 % group<sup>2</sup></b>						
11—19	1. Mining.....	13	40,461	33,406	946	6,041
20—39	2. Manufacturing .....	98	2,167,698	685,013	18,666	195,205
31—32	a) chemical and oil ..	23	556,042	144,503	2,438	36,492
34	b) basic metals .....	10	828,580	168,158	5,241	52,298
37	c) electrotechnical ...	14	460,271	234,847	6,694	56,424
	d) others .....	51	322,805	137,505	4,293	49,991
Total mining and manufacturing		111	2,208,159	718,419	19,612	201,246
<b>B. 20 % group</b>						
11—19	1. Mining.....	6	38,201	33,525	946	6,667
20—39	2. Manufacturing .....	29	1,121,349	589,308	11,275	186,358
31—32	a) chemical and oil ..	10	728,109	419,087	7,606	98,196
34	b) basic metals.....	5	271,933	126,627	2,293	66,471
37	c) electrotechnical ...	—	—	—	—	—
	d) others .....	14	121,307	43,594	1,376	21,691
Total mining and manufacturing		35	1,159,550	622,833	12,221	193,025
<b>C. Combined 50 % and 20 % group</b>						
11—19	1. Mining.....	19	78,662	66,931	1,892	12,708
20—39	2. Manufacturing .....	127	3,289,047	1,274,321	29,941	381,563
31—32	a) chemical and oil ..	33	1,284,151	563,590	10,044	134,688
34	b) basic metals.....	15	1,100,513	294,785	7,534	118,769
37	c) electrotechnical ...	14	460,271	234,847	6,694	56,424
	d) others .....	65	444,112	181,099	5,669	71,682
Total mining and manufacturing		146	3,367,709	1,341,252	31,833	394,271
<b>D. Total Norwegian<sup>3</sup></b>						
11—19	1. Mining.....	464	383,400	314,200	8,612	not available
20—39	2. Manufacturing .....	18,890	24,997,700	10,362,500	345,297	» »
31—32	a) chemical and oil ..	521	2,799,700	1,145,000	22,990	» »
34	b) basic metals.....	140	2,516,700	922,500	23,292	» »
37	c) electrotechnical ...	435	1,022,800	510,000	15,347	» »
	d) others .....	17,794	18,658,500	7,785,000	283,668	» »
Total mining and manufacturing		19,354	25,381,100	10,676,700	353,909	2,146,300

Source: Same as Appendix I—I.

<sup>1</sup> Includes only establishments with 5 or more employees.

<sup>2</sup> Includes branches of foreign corporations.

<sup>3</sup> Includes the 50 % and 20 % groups.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital  
as of December 31, 1962.**

N. Principal figures in Norwegian mining and manufacturing establishments in 1952. By category of ownership and industry group.<sup>1</sup>

Group number	Industry group	Number of establishments	Gross production value (Kr. 1,000)	Value added market prices (Kr. 1,000)	Employment	Gross investment <sup>2</sup> (Kr. 1,000)
<b>A. 50 % group<sup>3</sup></b>						
11—19	1. Mining.....	11	26,244	23,900	899	7,535
20—39	2. Manufacturing .....	54	1,048,186	372,718	14,573	99,340
31—32	a) chemical and oil ..	12	92,657	45,164	1,539	11,054
34	b) basic metals.....	10	655,441	195,355	6,021	65,146
37	c) electrotechnical ...	10	204,553	93,442	4,869	18,719
	d) others .....	22	95,535	38,757	2,144	4,421
	<b>Total mining and manufacturing</b>	<b>65</b>	<b>1,074,430</b>	<b>396,618</b>	<b>15,472</b>	<b>106,875</b>
<b>B. 20 % group</b>						
11—19	1. Mining.....	5	54,564	53,212	1,023	6,366
20—39	2. Manufacturing .....	19	549,542	274,095	7,910	112,177
31—32	a) chemical and oil ..	7	348,159	208,809	5,962	93,215
34	b) basic metals.....	4	119,501	34,625	1,147	10,556
37	c) electrotechnical ....	—	—	—	—	—
	d) others .....	8	81,882	30,661	801	8,406
	<b>Total mining and manufacturing</b>	<b>24</b>	<b>604,106</b>	<b>327,307</b>	<b>8,933</b>	<b>118,543</b>
<b>C. Combined 50 % and 20 % group</b>						
11—19	1. Mining.....	16	80,808	77,112	1,922	13,901
20—39	2. Manufacturing .....	73	1,597,728	646,813	22,483	211,517
31—32	a) chemical and oil ..	19	440,816	253,973	7,501	104,269
34	b) basic metals.....	14	774,942	229,980	7,168	75,702
37	c) electrotechnical ....	10	204,553	93,442	4,869	18,719
	d) others .....	30	177,417	69,418	2,945	12,827
	<b>Total mining and manufacturing</b>	<b>89</b>	<b>1,678,536</b>	<b>723,925</b>	<b>24,405</b>	<b>225,418</b>
<b>D. Total Norwegian<sup>4</sup></b>						
11—19	1. Mining.....	181	264,002	239,472	8,233	81,751
20—39	2. Manufacturing .....	6,183	12,022,737	5,264,458	264,026	1,153,407
31—32	a) chemical and oil ..	281	1,503,068	476,056	18,744	210,167
34	b) basic metals.....	113	1,215,236	434,157	15,669	211,237
37	c) electrotechnical ...	161	427,100	200,644	11,030	28,388
	d) others .....	5,628	8,877,333	4,153,601	218,583	703,615
	<b>Total mining and manufacturing</b>	<b>6,364</b>	<b>12,286,739</b>	<b>5,503,930</b>	<b>272,259</b>	<b>1,235,158</b>

Source: Same as Appendix I—I.

<sup>1</sup> The 50 % and 20 % groups include Norwegian-owned enterprises which went over to foreign ownership during the period 1952—1962, but exclude foreign-owned enterprises which went over to Norwegian ownership during the same period.

<sup>2</sup> Includes only establishments which carried out 12,000 hours of work during 1952.

<sup>3</sup> Includes branches of foreign corporations.

<sup>4</sup> Includes the 50 % and 20 % groups.

**Appendix I (cont.). Enterprises in Norway with foreign ownership capital as of December 31, 1962.**

O. An estimate of total capital stock in 1962 in those Norwegian enterprises which can attribute their existence to present or past foreign ownership.<sup>1</sup>

Enterprise	Total capital stock at face value in 1962 (Kr. 1 million)
<b>A. The 50 % group 1962 (Appendix I—C):</b>	
1) Mining.....	6.7
2) Manufacturing .....	327.8
3) Other.....	226.9
<b>B. Former foreign-owned mining companies:</b>	
1) Orkla-Grube A/B .....	20.0
2) A/S Sulitjelma Gruber .....	5.5
3) Foldal Verk A/S.....	1.1
4) Stordø Kisgruber A/S .....	3.0
5) A/S Sydvaranger .....	22.5
6) Fosdalens Bergverks-aktieselskab .....	3.0
<b>C. Former foreign-owned manufacturing companies:</b>	
1) A/S Borregaard (Kellner-Partington) .....	135.0
2) A/S Vittingfos .....	1.3
3) Norsk Hydro A/S .....	237.7
a) Rjukanfos A/S .....	100.0
4) A/S Electro Union (Siemens) .....	4.0
5) Norsk Akkumulator Co. A/S .....	1.5
6) A/S Nera .....	2.0
7) A/S De-No-Fa og Lilleborg Fabriker .....	17.9
8) A/S National Industri .....	5.2
9) Orkla Metal A/S (Orkla-Grube A/B) .....	2.0
<b>D. Other former foreign-owned companies:</b>	
1) A/S Hafslund .....	35.0
2) Hafslund subsidiaries.....	14.0
3) N. A. Gasaccumulator .....	4.0
4) Electro-Generator A/S (EG&A) .....	4.0
5) A/S Svælgfos (Norsk Hydro A/S) .....	0.8
6) Chr. Salveson og Chr. Thams Comm. A/S (Orkla-Grube A/B) .....	2.0
7) Norsk Transportaktieselskab .....	4.0
Total all industry sectors ....	1,186.9
Total mining .....	61.8
Total manufacturing ...	834.4
Total other .....	290.7

Source: A. Chapters I—IV.

B. Kierulf, Carl & Co. A/S: *Håndbok over Norske Obligasjoner og Aksjer (1963 utgave)*. Mariendals Boktrykkeri A/S, Gjøvik, October, 1963.

<sup>1</sup> The following companies have also been over 50 % foreign-owned for short periods, but would probably have existed in 1962 without the foreign investment:

Continued next page

## Sources of Appendix I—A

1. Annual statements for various enterprises where available.
2. Brofoss, Erik, *Utenlandsk kapital i Norge; Forelesninger ved Islands Universitet, September, 1961*; Norges Bank; Oslo, September, 1961.
3. Diesen, Emil, *Jern- og metallindustri; 1963—64*; Oslo, July 1, 1963.
4. Diesen, Emil, *Norske Papir-, Cellulose-, Tremasse-, Wallboard- og Sponplatefabrikker m. v., 1962—63*; Oslo, July, 1962.
5. Industridepartementet, *St. meld. nr. 21 (1963—64); Om utenlandske eierinteresser i norsk industri*; Oslo, November 29, 1963.
6. Interviews with 14 enterprises.
7. Kierulf, Carl & Co. A/S, *Håndbok over norske obligasjoner og aksjer (1963-utgave)*; Mariendals Boktrykkeri A/S, Gjøvik, October, 1963.
8. Kontor for industrifinansiering, *Oversikt over utenlandske eierinteresser m. v. i norske industri-, bergverk- og kraftselskap*; Oslo, June, 1963.
9. *Morgenbladet*, various articles in the series entitled, «Norsk næringsliv».
10. Municipal tax offices for each enterprise.
11. Norges Industriforbund, *Norges Industri med Industrikalender*; Oslo, various issues.
12. *Norsk Lysingsblad* (the official register of announcements), various issues.
13. The Norwegian Metallurgical Society, *The Metallurgical Industries of Norway*; Kirstes Boktrykkeri, Oslo, February, 1961.
14. Prisdirektoratet, *Oversikt Nr. 3 over registret for konkurransereguleringer og storbedrifter pr. 1. juli 1962*; Grøndahl & Sønns Boktrykkeri, Oslo, June, 1963.
15. Statistisk Sentralbyrå, *Bedriftsregisteret*; unpublished.
16. Statistisk Sentralbyrå, *Norges Bergverksdrift 1961*; Oslo, 1963.

## Appendix 1. Note (cont.)

Enterprise	Total capital stock at face value in 1962 (Kr. 1 million)
<b>A. Mining:</b>	
1) Skorovas Gruber.....	—
2) Store Norske Spitsbergen Kulkompani A/S .....	9.6
3) Rana Gruber A/S.....	2.0
4) Bergverkselskapet Nord-Norge A/S .....	—
<b>B. Manufacturing:</b>	
1) A/S Follum Fabrikker .....	19.0
2) A/S Union .....	10.0
<b>Total mining and manufacturing</b>	<b>40.6</b>
Total mining .....	11.6
Total manufacturing ...	29.0

**Appendix II. Principal figures in selected mining and manufacturing industry groups during the period 1952—1961. Establishments in the 50 % group compared to other Norwegian establishments.**

Introduction.

A. Source of time series data.

- 1) Data under the heading «Foreign» refers to the 50 % group only. It was compiled by the Central Bureau of Statistics from the original data sheets for *Industristatistikk* (1954—1963 editions). The investigation was undertaken at the request of The Office for Industrial Finance (Kontor for industrifinansiering).
- 2) Data under the heading «Norwegian» refers to Norwegian-owned establishments, defined to include the 20 % group. It was derived by subtracting the 50 % group figures from the total figures for the selected industry groups. The latter are published in *Industristatistikk* (1954—1963 editions).

B. Notes.

- 1) The minimum reporting limit for *Industristatistikk* was changed in 1955 from 12,000 manhours of work to 6 employed. In 1961, it was changed to 5 employed, with some exceptions.
- 2) In the «other chemicals» industry, the aggregation of industry group numbers was changed in 1959 to accommodate the creation of a new foreign establishment by Tomten Fabriken. For the years 1959—1961, the index base figures for 1952 were recalculated to reflect the values for the new industry group aggregation in 1952. In the other four industries, changes in industry group numbers did not change the industry group definitions.
- 3) Not all of the establishments in the 50 % group which existed in 1952 were covered by the five selected industry group aggregations. Moreover, foreign-owned enterprises which were founded after 1952 were not included in the time series.
- 4) Several foreign-owned enterprises are composed of more than one establishment. Thus, they appear under more than one industry group aggregation.
- 5) The four-digit industry group aggregations in Appendix II do not correspond exactly to the two-digit industry group aggregations used elsewhere in this paper. For example, the so-called «basic metals» industry in Appendix II is not the same as industry group number 34, because it does not include the four-digit industry groups which cover iron and steel. Likewise, the «electro-technical industry» in Appendix II does not include the electronics industry, which is a part of industry group number 37 in the two-digit aggregation.

## 1. Mining and quarrying.

## A. Absolute figures

Year	Number of establishments		Gross production value		Value added market prices		Employment		Gross investment value	
			(Kr. 1 million)		(Kr. 1 million)				(Kr. 1 million)	
	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.
1952	6	59	25.5	192.8	23.3	172.9	855	5,496	7.5	67.0
1953	6	62	25.5	226.6	22.1	201.5	877	5,801	5.8	50.1
1954	6	62	26.5	225.3	23.9	198.4	876	6,074	6.4	55.6
1955	6	64	28.8	233.8	25.6	209.7	912	6,146	8.6	66.6
1956	6	47	34.7	262.3	30.4	235.1	955	5,991	9.9	64.4
1957	6	47	36.1	254.0	32.0	216.2	969	5,816	10.6	81.4
1958	6	45	36.3	245.6	31.9	207.4	933	5,563	11.0	59.9
1959	6	42	36.8	208.5	32.5	171.8	907	5,283	4.4	65.9
1960	6	44	34.1	224.3	28.7	178.4	904	5,316	4.4	79.2
1961	7	45	38.4	213.7	31.3	168.8	849	5,276	10.2	65.7

## B. Index values. 1952 = 100

1952		100	100	100	100	100	100	100	100
1953		100	118	95	117	103	106	77	75
1954		104	117	103	115	103	111	85	83
1955		113	121	110	121	107	112	115	99
1956		136	144	131	141	112	118	132	98
1957		142	139	138	130	113	114	141	124
1958		142	135	137	125	109	109	146	91
1959		144	114	140	103	106	104	59	101
1960		134	123	124	107	106	104	59	121
1961		150	117	135	101	99	104	136	100

## Notes

<sup>1</sup> Industry group numbers are as follows:

Year	Industry group numbers
1952	1210, 1221, 1229, 1901, 3393
1953—1955	1210, 1220, 1290, 1510, 3393
1956—1961	1210, 1220, 1290, 1510, 1590

<sup>2</sup> The following foreign-owned establishments are included: A/S Titania (2 establishments), A/S Bjørkaasen Gruber, A/S Knaben Molybdéngruber, Electric Furnace Products Co., Odda Smelteverk A/S, and Skaland Grafitverk A/S.

## 2. Electrochemical.

## A. Absolute figures

Year	Number of establishments		Gross production value (Kr. 1 million)		Value added market prices (Kr. 1 million)		Employment		Gross investment value (Kr. 1 million)	
	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.
1952	5	58	57.4	486.6	24.7	260.9	1,026	8,001	8.9	114.1
1953	5	60	55.7	491.2	25.1	249.7	998	8,667	7.4	116.0
1954	5	61	76.4	602.0	36.4	329.0	1,087	9,098	8.6	109.4
1955	5	70	74.3	640.0	36.5	326.8	1,129	9,345	12.0	129.4
1956	5	67	80.7	632.4	36.7	312.0	1,176	9,653	27.7	126.4
1957	5	75	92.9	709.0	38.2	329.8	1,242	10,007	20.9	150.7
1958	5	76	95.5	744.4	47.6	359.9	1,283	10,138	13.1	146.8
1959	5	75	99.3	782.7	47.5	407.3	1,217	10,425	9.0	135.7
1960	6	77	93.0	810.9	46.4	380.0	1,148	10,565	11.8	117.0
1961	6	96	90.8	921.3	45.5	473.1	1,146	10,683	15.1	119.1

## B. Index values. 1952 = 100

1952	100	100	100	100	100	100	100	100	100
1953	97	101	102	96	97	107	83	100	100
1954	133	124	147	126	106	114	97	96	96
1955	130	132	148	125	110	117	135	113	113
1956	141	140	149	120	115	121	313	111	111
1957	162	146	155	126	121	125	235	132	132
1958	167	153	193	138	125	127	148	129	129
1959	173	161	192	156	119	130	101	119	119
1960	162	167	188	150	112	132	133	103	103
1961	158	189	184	181	112	134	170	104	104

## Notes

<sup>1</sup> Industry group numbers are as follows:

Year	Industry group numbers
1952—1958	3111, 3112, 3119, 3195
1959—1961	3111, 3112, 3119, 3130

<sup>2</sup> The following foreign-owned establishments are included: Meraker Smelteverk A/S, Odda Smelteverk A/S, Det Norske Zinkkompani A/S, A/S Arendal Smelteverk, and Titan Co. A/S (2 establishments).

## 3. Other chemicals (excluding oil refining).

## A. Absolute figures

Year	Number of establishments		Gross production value (Kr. 1 million)		Value added market prices (Kr. 1 million)		Employment		Gross investment value (Kr. 1 million)	
	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.
1952	5	53	33.2	90.4	19.4	38.0	480	1,492	2.1	6.6
1953	5	51	33.5	96.7	18.5	46.4	456	1,462	1.8	4.8
1954	5	51	35.6	109.8	19.0	52.0	487	1,533	1.7	7.4
1955	5	65	33.7	119.3	19.0	58.1	486	1,663	2.8	5.9
1956	5	68	33.4	133.1	18.5	64.8	461	1,741	2.2	5.4
1957	5	60	34.4	133.4	17.2	64.6	482	1,630	1.4	7.9
1958	5	54	32.2	136.2	17.3	66.1	479	1,565	1.8	6.0
1959	6	85	33.5	201.8	16.2	96.9	513	2,527	2.4	9.0
1960	6	91	35.6	232.0	18.1	111.2	567	2,755	1.2	13.3
1961	6	92	36.7	212.4	17.9	107.8	603	2,235	2.3	16.3

## B. Index values. 1952 = 100

1952	100	100	100	100	100	100	100	100	100
1953	101	107	95	122	95	98	89	89	73
1954	107	121	98	137	102	103	81	113	113
1955	101	132	98	153	101	112	135	90	90
1956	101	148	95	171	96	117	108	82	82
1957	104	147	88	170	100	109	69	120	120
1958	97	151	89	174	100	105	87	91	91
1959	101	157	84	188	107	110	116	108	108
1960	107	181	93	215	118	120	60	161	161
1961	111	166	92	209	126	97	113	197	197

## Notes

<sup>1</sup> Industry group numbers are as follows:

Year	Industrygroup numbers
1952	3192, 3199, 3201
1953—1958	3192, 3199, 3210
1959—1961	2039, 3192, 3199, 3210

<sup>2</sup> The following foreign-owned establishments are included: Tomten Fabriken (2 establishments), Bryn-Halden & Nitedals Tændstikfabrik A/S (2 establishments), A/S Norcasco, and A/S Fjeldhammer Brug.

## 4. Basic metals (excluding iron and steel).

## A. Absolute figures

Year	Number of establishments		Gross production value (Kr. 1 million)		Value added market prices (Kr. 1 million)		Employment		Gross investment value (Kr. 1 million)	
	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.
1952	10	46	655.4	380.4	195.4	128.0	6,021	5,071	65.1	63.2
1953	10	47	622.4	380.5	205.8	153.8	6,331	5,020	58.0	150.5
1954	10	52	597.3	387.7	162.5	132.4	6,259	5,555	63.4	116.7
1955	10	55	705.8	487.0	168.9	177.9	6,291	6,367	64.8	61.8
1956	10	56	873.9	617.5	223.3	268.3	6,609	6,690	73.9	120.4
1957	10	53	994.1	640.7	225.9	263.8	6,607	6,760	93.2	184.9
1958	11	51	821.0	657.8	199.3	285.2	6,242	7,055	67.1	240.3
1959	11	56	867.5	778.0	200.6	315.9	6,029	8,019	47.6	103.8
1960	11	64	965.1	905.7	231.3	387.7	6,238	8,282	54.6	102.9
1961	11	67	989.3	944.7	213.1	399.7	6,119	8,371	45.6	181.3

## B. Index values. 1952 = 100

1952	100	100	100	100	100	100	100	100	100
1953	95	100	105	120	105	99	89	238	
1954	91	102	83	104	104	110	97	185	
1955	108	128	87	140	105	126	100	98	
1956	133	160	114	210	110	132	113	191	
1957	152	168	116	206	110	133	143	293	
1958	125	173	102	223	104	139	103	380	
1959	132	205	103	247	100	158	73	164	
1960	147	238	118	303	104	163	84	163	
1961	151	248	109	312	102	165	70	288	

## Notes

<sup>1</sup> Industry group numbers are as follows:

Year	Industry group numbers
1952	3411, 3421, 3422, 3423, 3424, 3530
1953—1961	3411, 3420, 3430, 3491, 3492, 3530

<sup>2</sup> The following foreign-owned establishments are included: Electric Furnace Products Co. Ltd., Meraker Smelteverk A/S (2 establishments), Det Norske Nitridaksjeselskap (2 establishments), A/S Norsk Aluminium Company, Det Norske Zinkkompani A/S, Falconbridge Nikkelverk A/S, Nordisk Aluminiumindustri A/S (2 establishments), and A/S Vigelands Brug.

## 5. Electrotechnical (excluding electronics).

## A. Absolute figures

Year	Number of establishments		Gross production value (Kr. 1 million)		Value added market prices (Kr. 1 million)		Employment		Gross investment value (Kr. 1 million)	
	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.	Foreign	Norw.
1952	4	9	155.3	55.0	65.4	25.3	3,001	1,145	14.6	4.2
1953	4	10	165.2	59.4	85.7	28.5	3,012	1,208	13.4	5.5
1954	5	10	191.6	67.5	105.8	33.7	3,183	1,257	12.4	6.1
1955	5	11	210.7	71.4	105.3	34.1	3,221	1,303	12.6	5.5
1956	5	13	207.9	69.9	96.4	31.3	3,269	1,351	14.4	5.0
1957	5	13	217.5	70.2	119.5	35.6	3,434	1,320	16.6	5.2
1958	5	12	238.0	66.6	140.8	29.3	3,660	1,239	21.9	5.3
1959	5	13	239.5	75.0	119.3	36.5	3,649	1,274	24.5	7.6
1960	5	15	276.7	85.6	131.7	35.0	3,986	1,369	16.3	11.4
1961	5	18	293.5	108.6	146.8	53.7	4,227	1,519	26.5	11.6

## B. Index values. 1952 = 100

1952	100	100	100	100	100	100	100	100	100
1953	106	108	131	112	100	106	92	130	
1954	123	123	162	133	106	110	85	145	
1955	136	130	161	135	107	114	86	129	
1956	134	127	147	124	109	118	99	118	
1957	140	128	183	141	114	115	113	123	
1958	153	121	215	116	122	108	150	125	
1959	154	136	182	144	122	111	168	181	
1960	178	156	201	138	133	120	112	270	
1961	189	197	226	212	141	133	181	274	

## Notes

<sup>1</sup> Industry group numbers are as follows:

Year	Industry group numbers
1952	3705, 3708
1953—1961	3712, 3713

<sup>2</sup> The following foreign-owned establishments are included: Nordisk Metalaktieselskab (2 establishments), Standard Telefon og Kabelfabrik A/S, A/S Per Kure Norsk Motor- og Dynamofabrikk, and Norsk Elektrisk & Brown Boveri A/S.

Supplement to Appendix II: Indexes of production, imports, and prices of selected basic metals 1955—1959. By home countries of the main customers and firms investing in Norway. 1955=100.

## A. Production and imports. Index of volume

	1955	1956	1957	1958	1959
<i>Aluminium</i>					
1. U.S.A. ....	100	107	105	100	125
2. Canada .....	100	101	91	104	97
3. U.K. ....	100	113	120	108	100
4. France .....	100	116	124	131	134
5. West Germany .....	100	108	112	100	110
6. Norway .....	100	128	133	169	203
7. Free World Total.....	100	108	106	108	125
8. U.S.A. Imports .....	100	111	108	123	126
<i>Ferro-alloys</i>					
1. U.S.A. production .....	100	123	123	83	94
2. West Germany » .....	100	135	132	104	107
3. U.K. » .....	100	95	82	90	77
4. Norway » .....	100	116	142	117	127
5. Belgium-Lux imports .....	100	121	131	80	97
6. U.S.A. » .....	100	175	322	83	169
7. West Germany » .....	100	71	70	96	153
8. U.K. » .....	100	131	163	93	118
<i>Nickel</i>					
1. Canada .....	100	102	107	80	107
2. Norway .....	100	105	114	128	141
3. Total World .....	100	108	119	95	118
4. U.S.A. consumption .....	100	116	111	72	102
<i>Zinc</i>					
1. West Germany .....	100	104	103	99	101
2. Belgium .....	100	109	111	101	106
3. Norway .....	100	107	106	100	107
4. Free World Total.....	100	104	107	98	101
<i>Magnesium</i>					
1. U.S.A. ....	100	112	133	49	51
2. Norway .....	100	110	128	136	142
3. World Total .....	100	110	124	75	79
<i>Copper</i>					
1. Norway .....	100	108	115	124	141

Source: A. American Bureau of Metal Statistics: *Yearbook (annual issues 1952—1962)*; New York.

B. Metal Information Bureau, Ltd.: *Quins Metal Handbook (annual issues 1952—1962)*; London.

Supplement to Appendix II (cont.): Indexes of production, imports, and prices of selected basic metals 1955—1959. By home countries of the main customers and firms investing in Norway. 1955=100.

## B. Prices

	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
1. Aluminium .....	91	92	91	100	110	115	105	105	109	109	105
2. Ferro-alloys											
a) Ferro-manganese .....	80	93	102	100	122	154	144	122	113	109	109
b) Ferro-chrome .....	104	104	104	100	112	115	106	93	99	99	98
c) Ferro-silicon .....	141	132	122	100	120	127	115	100	110	115	115
d) Silico-manganese .....	164	138	121	100	120	128	118	103	100	100	98
3. Nickel .....	88	93	100	100	115	115	115	115	115	120	124
4. Zinc .....	165	82	86	100	108	90	73	91	98	86	74
5. Magnesium .....	82	89	91	100	114	119	119	119	119	119	119
6. Copper .....	74	73	71	100	93	62	56	67	70	65	66

Source: Same as for A above.

### Appendix III. A survey of individual foreign-owned enterprises.

#### 1. Introduction.

In order to supplement the basic historical and statistical data, a survey of the foreign-owned enterprises in the manufacturing and mining sectors was undertaken by the author during 1963. A questionnaire was prepared and mailed to the resident managing directors of 76 foreign-owned enterprises.<sup>1)</sup> A personal interview was requested of 13 other foreign-owned enterprises in order to ask the same questions orally.

The response to these survey requests covered 52 enterprises (subsidiaries included), or roughly one-half of the 98 enterprises listed under «Manufacturing» and «Mining» in Appendix I, and 3 enterprises listed under «Trade», which were included because they carried on substantial manufacturing activity in Norway. Of the 52 enterprises, 41 were in the 50 % group and 11 in the 20 % group. The survey results were collected as follows:

Method of contact	Number of enterprises
A. Mail questionnaires	
1) sent out .....	76
2) returned .....	46
a) refused to answer .....	8
b) not foreign-owned .....	8
c) incomplete .....	2
3) net usable questionnaires .....	28
4) subsidiaries covered .....	4
5) total enterprises covered by mail questionnaires .....	32
B. Personal interviews	
1) requested .....	13
2) granted .....	11
3) subsidiaries covered .....	9
4) total enterprises covered by personal interviews .....	20
C. Total number of enterprises covered by survey .....	52

<sup>1</sup> The questionnaire was in Norwegian. Dosent Hans Heli, University of Oslo, helped in its preparation.

On individual survey questions, the size of the sample was increased by including published information about some of the enterprises which did not respond to the survey.

2. The survey questions and a summary of the answers.<sup>2)</sup>

A. *Question:* Why was the original investment undertaken in Norway? For example, was it undertaken for pure profit, supply of raw materials, technical necessity, protect a market, tariff barriers, etc.

*Answer:*

Motive	Number of enterprises	Per cent of total
1) Expectation of a profit in the Norwegian enterprise itself	16	21.6
2) Reduction in cost of goods sold by the investing firm ...	37	50.0
a) raw material supply .....	16	21.6
b) license fees .....	8	10.8
c) electrical power supply .....	5	6.8
d) service facility for exports of the investing firm ....	5	6.8
e) transportation costs .....	3	4.0
3) Strategic considerations .....	18	24.4
a) tariff or other import restrictions .....	11	14.9
b) increase influence on the world market .....	5	6.8
c) spread risk .....	2	2.7
4) Personal reasons .....	3	4.0
Total <sup>3</sup>	74	100.0

B. *Question:* What share of purchased materials comes from other Norwegian companies?

*Answer:*

Industry sector	Per cent of supplies purchased from the investing firm or its subsidiaries. <sup>4</sup> (number of enterprises)		
	More than 30 %	10 % to 30 %	Less than 10 %
1) 50 % group .....	17	7	24
a) basic metals .....	6	-	-
b) electrotechnical .....	-	5	1
c) other .....	11	2	23
2) 20 % group .....	-	1	11
Total <sup>5</sup>	17	8	35

<sup>2</sup> Since the survey was confidential, the answers are aggregated in such a way as not to reveal information about individual enterprises.

<sup>3</sup> The data actually covers only 58 enterprises; however, some gave several equal motives for the investment. Subsidiaries are included only if the motive for investment differed from the motive for investment in the mother company.

<sup>4</sup> The question was interpreted and answered in this manner.

<sup>5</sup> The sample size was 60 enterprises.

- C. *Question:* How much and how soon can the Norwegian company utilize research which takes place in the foreign company? Vice versa? Are any technical processes or trademarks used by the Norwegian company which are dependent on contractual or other types of agreement with the foreign investors?

*Answer:*

Type of access to research	Number of enterprises
1) Make formal payments to the investing firm for licenses, patents, trademarks, royalties, contributions to overhead or other contractual agreements .....	<sup>6</sup> 29
2) Make no payments but have immediate two-way access to research and development results.....	<sup>7</sup> 10
3) Use the investing firm's research laboratory for special problems .....	1
4) The investing firm does no research itself .....	4
5) The investors are individuals .....	5
6) No answer given .....	7
Total size of sample	56

(of which; 50 % group: 46, 20 % group: 10)

- D. *Question:* What per cent of Norwegian production is for export? Of this, how much is sold to the foreign investors? In other words, what share of sales income is dependent on the foreign connection? Does the Norwegian company have its own sales organization to cover the export market?

*Answer:*

Industry sector	Per cent of production sold to the investing firm or its subsidiaries. <sup>8</sup> (number of enterprises)		
	More than 30 %	10 % to 30 %	Less than 10 %
1) 50 % group .....	24	2	22
2) 20 % group .....	4	-	8
Total <sup>9</sup>	<sup>10</sup> 28	2	30

<sup>6</sup> 4 of these enterprises were in the 20 % group.

<sup>7</sup> 2 of these enterprises indicated that they would have to pay compensation for the actual use of research and development results.

<sup>8</sup> The question was interpreted and answered in this manner.

<sup>9</sup> The sample size was 60 enterprises.

<sup>10</sup> Enterprises in the basic metals industry account for about one-fourth of the total. Norwegian subsidiaries of foreign-owned Norwegian enterprises account for another one-third of the total.

- E. *Question:* Do you have a «production committee» and what type of problems does it handle? Do you use the national wage agreement (N.A.F.—L.O.) as a framework for your own wages or do you give other advantages in addition to it?

*Answer:*

The answers to this question were phrased in general terms. It was not possible to quantify them in a meaningful way.

- F. *Question:* Do you have a regular program for exchanging personnel between the Norwegian and foreign companies? Is there an opportunity for Norwegian employees to transfer to the foreign company? Do they have the same chance of advancement there as nationals of the investing company?

*Answer:*

Type of exchange program	Number of enterprises
1) Regular program of exchange between the Norwegian enterprise and the foreign investing firm .....	1
2) Received specially trained foreign personnel on an irregular basis .....	4
3) Foreign investing firm recruited employees from the Norwegian enterprise .....	2
4) No exchange of personnel .....	45
Total size of sample	52

- G. *Question:* How large a per cent of the wage earners leave the company every year to take other jobs? How large a per cent of the staff take other positions?

*Answer:*

The answers to this question were phrased in general terms. It was not possible to quantify them in a meaningful way.

- H. *Question:* How many years have you paid dividends and what is the average level? Have you received dispensation any years to pay a higher dividend?

*Answer:*

Dividends as a per cent of capital stock at face value (average 1958—1962).<sup>11)</sup>

<sup>11)</sup> If an enterprise was established after 1958, dividends were averaged for subsequent years only.

Industry sector	Number of enterprises in each dividend category							Total
	0 % <sup>12</sup>	1-4%	5 %	6 %	7 %	8-10%	Over 10%	
1) Combined 50 % and 20 % group								
a) Mining .....	4	-	-	-	-	-	1	5
b) Manufacturing .....	33	-	3	7	2	6	5	56
c) Trade and electri- city .....	7	-	-	3	1	2	1	14
Total	44	-	3	10	3	8	7	<sup>13</sup> 75
of which:								
2) 50 % group .....	33	-	3	7	2	6	5	56
3) 20 % group .....	11	-	-	3	1	2	2	19

I. *Question:* Can you name any special service you have performed for the local municipality?

*Answer:*

The answers to this question were phrased in general terms. It was not possible to quantify them in a meaningful way.

<sup>12</sup> Where dividend information was lacking, enterprises which had no assessed income were assumed to have paid no dividends, in accordance with Norwegian corporate law.

<sup>13</sup> The size of the sample was expanded to 75 enterprises by including the «Trade» and «Electricity» sectors, and by referring to the following additional sources of information:

- a) Kierulf, Carl & Co. A/S: *Håndbok over Norske Obligasjoner og Aksjer*; Mariendals Boktrykkeri A/S, Gjøvik, 1959—1963 editions.
- b) Annual statements for individual enterprises.
- c) Municipal tax office lists.

## Sammendrag.

### Innledning.

Denne undersøkelsen har to hovedformål. Det ene er å klarlegge den historiske utvikling av direkte utenlandske kapitalanbringelser i Norge i tidsrommet 1814 til 1964. (Del I.) Det annet hovedformål er å analysere de virkninger som driften av de utenlandskeide foretak har hatt for norsk økonomi. Denne del av analysen bygger på data for perioden 1952—1962. (Del II.)

### DEL I.

#### *Kapittel I.*

I perioden 1814—1889 var det norske kapitalmarked svakt utviklet, rentenivået var høyt, og det var knapt om lånekapital. Dette tvang i stor utstrekning offentlige norske institusjoner til å låne i utlandet. Tabell 1.2 viser at den offentlige gjeld til utlandet steg fra 40 millioner kroner i 1874 til 115 millioner kroner i 1890. Låneopptakene i utlandet fant sted trass i at Norge hadde et eksportoverskott i de fleste år fra 1865 til 1869 (tabell 1.1).

I ti-årsperioden 1890—1900 førte store norske investeringer i skipsfart, jernbaneutbygging og industri til stigende importbehov. I sju av elleve år dekket importoverskottet over en fjerdepart av bruttoinvesteringene. Ved utgangen av 1900 var den offentlige gjeld til utlandet vokst til 361 millioner kroner. I denne perioden kan en således si at låneopptak utenlands hadde begynt å bli et middel til økonomisk vekst, og ikke bare et middel for det offentlige til å reise penger.

I perioden 1901—1913 ble den norske industrialiseringsprosessen påskyndet gjennom en strøm av direkte utenlandske investeringer i bergverk og industri. Industriell utnytting av vannkraften ble mulig gjort ved en kombinasjon av norsk, svensk, fransk, tysk og sveitsisk kapital og teknisk innsikt. Store britiske investeringer fant sted i treforedlingsindustrien. Svensk kapital finansierte de tre største norske bergverksbedrifter. Ofotbanen ble fullført som et felles norsk-svensk prosjekt etter at britiske kapitalinteresser hadde gjort et første forsøk på å bygge banen. Tabell 1.3 viser at norske verdipapirer i utenlandsk eie i 1913 var kommet opp i 868 millioner kroner. Av dette var 300 millioner kroner midler som var plassert i private norske foretak.

Store eksportoverskott under den første verdenskrig førte til at Norge gikk over fra å være en netto debitor til å bli en netto kreditor overfor resten av verden. Flere viktige utenlandskeide foretak ble kjøpt hjem til Norge i denne perioden.

Ønsket om å bevare en del av de norske naturressurser for norske eiere førte til at Stortinget vedtok en serie konsesjonslover. Konsesjonsloven av 1917 med senere endringer danner fremdeles lovrammen for regulering av de direkte utenlandske investeringer i Norge.

Tabell 1.5 viser at Norge i perioden 1919—1939 på nytt ble en debitor-nasjon overfor resten av verden. Årsaker som førte til denne utvikling var den norske pari-politikken, de svingende valutakurser i 1920-årene og den reduserte verdenshandel i 1930-årene. Mange store norske selskaper kom i økonomiske vanskeligheter og måtte reorganiseres. Et alternativ var å søke refinansiering i utlandet. Men denne import av kapital for å komme over øyeblikkelige økonomiske vanskeligheter gav ikke norsk næringsliv den samme stimulansen for vekst som de direkte utenlandske investeringer i norsk næringsliv i tiden før den første verdenskrig hadde gjort. Ved flere høve fikk utenlandske overtakelser av norske selskaper politiske følger. Således måtte Mowinckels regjering gå av i 1931 som følge av en konsesjon den hadde gitt.

Etter den annen verdenskrig ble et planlagt importoverskott nyttet som middel til å påskynde gjenreisningen og til å suge opp overskottslikviditeten i økonomien. Marshall-planen gjorde det mulig å gjennomføre investeringsprogrammet uten alt for store låneopptak i utlandet.

Etter 1952 har norsk politikk tatt sikte på å tillate et kontrollert underskott i utenriksregnskapet. Formålet med kapitalimporten har vært å kunne holde et høyt investeringsnivå. Som en følge av dette nådde utenlandsgjelden ved utgangen av 1962 et rekordnivå på 6 000 millioner kroner. På tross av dette var avdrag og renter på utenlandsgjelden sett i forhold til nasjonalproduktet mindre i 1962 enn i mellomkrigstiden (tabell 1.6). Et vidt spektrum av låneformer og lånekilder har vært brukt i etterkrigsperioden (tabell 1.7).

## *Kapittel II.*

Mens det foregående kapittel behandlet kapitalimporten i sin alminnelighet, innleder kapittel II den spesielle diskusjon av de direkte utenlandske investeringer i norske foretak. Kapitlet inneholder en diskusjon av myndighetenes holdning overfor utenlandske eierinteresser og en omtale av den lov-messige ramme som konsesjonsloven av 1917 setter.

Direkte utenlandske investeringer spilte bare liten rolle i den norske økonomi før 1895, men mange viktige nøkkelbedrifter ble grunnlagt. Blant

disse var The Kellner-Partington Paper Pulp Company Ltd. (britisk) og Sulitjelma Aktiegruber (svensk).

I perioden 1896—1913 fant det sted en stor innstrømming av risikovillig utenlandsk kapital. Tabellene 2.2, 2.3 og 2.4 gjengir noen hovedresultater fra industritellingen i 1909. Tellingen viser blant annet at utlendinger dette år eide 38,8 prosent av aksjekapitalen i norske industriselskaper. Den utenlandske andel av sysselsettingen, beregnet etter den relative andel av aksjekapitalen, var 13,6 prosent.<sup>1)</sup>

Mange av de trekk som var karakteristiske for utenlandske foretak i Norge i 1909 har vært framtreddende også i senere år. Det var relativt store og kapitalintensive foretak, særlig konsentrert i eksportindustrien.

Det var den industrielle utnytting av vannkraften som særlig øvde sterk tiltrekning på utenlandske kapitaleiere. Norsk Hydro A/S, Hafslund A/S, A/S Tyssefaldene, Alby United Carbide Factories Ltd. (Odda Smelteverk A/S), Arendal Fossekompagniet, Det Norske Nitridaktieselskap, A/S Arendal Smelteverk, Electric Furnace Products Co. Ltd., A/S Saundefaldene og A/S Vigelands Brug var de viktigste kraftslukende selskaper som ble grunnlagt med utenlandsk kapital i denne periode. Nordmannen Sam Eyde, støttet av sitt ingeniørfirma Elektrokemisk A/S, spilte en sentral rolle når det gjaldt å skaffe til veie initiativ, tekniske kunnskaper og norsk kapital for mange av disse tiltak.

Utenlandske interesser — særlig svenske og britiske — kontrollerte nesten all gruvedrift i Norge i 1909. Sulitjelma Aktiegruber, Orkla-Grube A/B, A/S Sydvaranger og The Foldal Copper Sulphur Co. Ltd. var de utenlandske nøkkelforetak i denne næringen. Fullføringen av Ofotbanen som en felles norsk-svensk oppgave, åpnet en vei ut til havet for de store jernmalforekomster i Nord-Sverige.

Utenlandske interesser var dominerende i den elektrotekniske industri, i hvert fall ved utgangen av den første verdenskrig. Norsk Elektrisk og Brown Boveri A/S, A/S National Industri, Norsk Aksjeselskap Siemens, A.E.G., A/S Per Kure Norsk Motor- og Dynamofabrikk og Norsk Radioaksjeselskap ble alle drevet som datterselskaper av utenlandske selskaper.

Under den første verdenskrig ble det kjøpt hjem utenlandske aksjeposter i norske selskaper til en pålydende verdi av 141,6 millioner kroner. Blant de selskaper som kom på norske hender var The Kellner-Partington Paper Pulp Company Ltd. (Borregaard A/S) og Hafslund A/S. I 1919 var den utenlandske andel av aksjene i norske selskaper redusert til bare 6,7 prosent etter pålydende verdi.

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<sup>1</sup> Ved vurdering av dette tallet bør det tas i betraktning at verken var sysselsettingen i industrien så omfattende eller aksjeselskapsformen så sterkt utbredt i Norge i 1909 som senere.

*Kapittel III.*

I mellomkrigstiden tok de direkte utenlandske investeringer i Norge først og fremst form av overtakelse av eksisterende norske foretak. Finansielle vanskeligheter førte til at utlendinger overtok aksjer i A/S Norsk Aluminium Company, Nordisk Aluminiumindustri A/S, A/S Meråker Smelteverk, A/S Bjølvefossen, A/S Elektrisk Bureau, A/S Fjeldhammer Brug, Brynhalden og Nitedals Tændstikfabrik A/S, Titan Co. A/S, A/S Titania, Lilleborg Fabriker, A/S Union, A/S Agra Margarinfabrik og et stort antall mindre selskaper. I tillegg til dette ble to av Norges største foretak, Falconbridge Nikkelverk A/S og Standard Telefon og Kabelfabrik A/S, grunnlagt gjennom oppkjøp av verdiene i mindre norske selskaper. I 1936 var den utenlandske andel av aksjekapitalen i norske selskaper steget til 15,7 prosent målt til pålydende verdi.<sup>1)</sup>

*Kapittel IV.*

Under gjenreisingsperioden like etter den annen verdenskrig fant det ikke sted betydningsfulle direkte utenlandske nyinvesteringer i Norge, og den norske regjering overtok etter krigen alle tidligere tyskeide selskaper som krigsskadeerstatninger. Følgen var at den utenlandske andel av aksjekapitalen i norske selskaper på nytt gikk ned, nemlig til 9,6 prosent i 1952 målt til pålydende verdi (tabellene 4.1 og 4.2).

I perioden 1957—1962 var det en markant øking i de direkte utenlandske investeringer i Norge. Friere internasjonale betalingsvilkår, liberalisering av utenrikshandelen og et ekspansivt hjemmemarked var faktorer som bidrog til dette. A/S Esso Raffineriet, Mosjøen Aluminium A/S, Sande Paper Mill A/S og Findus A/S var blant de viktigste utenlandske investeringer. I 1962 hadde den utenlandske andel av aksjekapitalen i norske selskaper steget til 14,5 prosent målt til pålydende verdi.<sup>2)</sup>

Fremdeles (1964) pågår det utbygging av flere viktige prosjekter basert på vannkraft og delvis finansiert ved utenlandsk kapital. Utenlandske selskaper utvider også raskt antallet og størrelsen av sine salgsorganer i Norge.

Beregninger viser at selskaper med 23,7 prosent av den totale aksjekapital i Norge (pålydende verdi) i 1962 kan føre sin eksistens tilbake til tidligere eller nåværende utenlandsk eiendomsforhold (Appendix I—O). I gruvedrift og industri alene representerer foretak som nå eller tidligere har hatt utenlandske eiere, hele 35,3 prosent av den totale aksjekapital, og så mye som 44,7 prosent av aksjekapitalen i private selskaper.

<sup>1</sup> Den totale verdi av utenlandskeide aksjer hadde ikke steget meget, men økonomiske vanskeligheter hadde redusert aksjekapitalen (gjennom nedskrivninger og konkurser) i mange norske spekulative foretak som hadde vært startet under inflasjonsårene under og like etter den første verdenskrig.

<sup>2</sup> Beregnet på grunnlag av opplysninger i Appendix I.

## DEL II.

Del II inneholder en analyse av de økonomiske virkninger som utenlandske kapitalanbringelser i norske bedrifter har hatt for sysselsettingen, for den norske økonomi for øvrig og for de utenlandske kapitaleiere. Det finnes ingen alminnelig akseptert målestokk for hvordan ønskeligheten av utenlandske eiendomsforhold til norske bedrifter skal vurderes, og noen slik vurdering er ikke forsøkt.

*Kapittel V.*

I dette kapittel diskuteres opplegget av analysen. Det forutsettes at hver av hovedinteressentgruppene forfølger et gitt sett av målsettinger. I tillegg diskuteres de metoder — formelle og uformelle — som hver interessentgruppe bruker i sine forsøk på å gjøre utviklingen mest mulig gunstig for seg.

En undersøkelse omfattende 58 utenlandskeide foretak viste at det viktigste mål som utenlandske selskaper håpet å nå ved investeringer i Norge, ikke først og fremst var å oppnå fortjeneste i det norske datterselskap, men å redusere framstillingskostnadene for selskapets produkter (Appendix III, spørsmål A). Særlig viktige mål for kapitalanbringelsene var å oppnå sikker tilførsel av råvarer, billig elektrisk kraft eller lisensinntekter.

Utenlandske kapitaleiere bruker ikke nødvendigvis formelle kontrollsystemer for å innvirke på driften av de norske foretak. En undersøkelse av 39 utenlandskeide selskaper viste at 16 av dem hadde bare norske statsborgere som medlemmer av styret (tabell 5.1). I mange tilfelle var dette naturligvis framstående nordmenn som var valgt av det utenlandske moderselskap til å representere dettes interesser. Et utvalg av 54 utenlandskeide selskaper viste at bare 2 hadde utlendinger som administrerende direktør (tabell 5.2).

Totalinntrykket er at uformelle kontrollmetoder er minst like viktige som mer formelle metoder. Uformell kontroll kan utøves ved kjøp og salg av råvarer og ferdigvarer mellom moderselskap og norsk datterselskap, eller innenfor andre kontraktsmessige forhold. Forhold av denne typen forekommer i svært mange tilfelle (Appendix III, spørsmål B, C og D).

Undersøkelsen innfører et skille mellom norske selskaper hvor eiendomsretten for minst 50 prosents vedkommende er på utenlandske hender («50-prosent gruppen») og selskaper hvor 20—49 prosent av kapitalen eies av utlendinger («20-prosent gruppen»). I det siste tilfelle utøver de utenlandske kapitaleiere ikke fullstendig kontroll, og ofte er de bare å oppfatte som finansierende grupper. Bare sjelden har de kjøps- og salgsinteresser eller kontraktsmessige interesser i de norske selskaper.

Målsettingen for norsk økonomisk politikk antas å være full sysselsetting, rask økonomisk vekst, jamn inntektsfordeling, stabile priser, balanse i utenriksøkonomien på langt sikt, utbygging av de tilbakeleggende distrikter

og — selvsagt — den politiske og sosiale målsetting som kommer til uttrykk i Grunnloven.

Målsettingen for de sysselsatte i utenlandskeide selskaper antas å være den samme som målsettingen for sysselsatte i andre norske selskaper.

### *Kapittel VI.*

Hva har de utenlandske eierinteresser i norske bedrifter hatt å si for oppnåelsen av målene rask økonomisk vekst og full sysselsetting? En mulig hypotese er at utenlandskeide bedrifter vokser langsommere enn tilsvarende norskeide bedrifter, blant annet fordi det kan tenkes at de utenlandske moderselskaper kan ønske å beskytte sine egne eksportmarkeder ved at salget fra de norske datterselskaper begrenses til visse produkttyper eller visse geografiske områder. En annen mulig hypotese er at ekspansjon i utenlandskeide bedrifter skjer til fortrengsel for ekspansjon i norskeide bedrifter.

Tabellene 6.1 og 6.3 tar sikte på å undersøke den første av disse hypoteser (langsom vekst) for gruvedrift og industri. Tabellene viser at de utenlandskeide selskaper mellom 1952 og 1962 opprettholdt sin andel av sysselsettingen (om lag 9 prosent) og produksjonsverdien (om lag 13 prosent), men økte produksjonen målt i mengde noe raskere enn gjennomsnittet.<sup>1</sup>) I denne perioden var den økonomiske veksten i Norge raskere enn i de fleste andre OECD-land. Tabell 6.4 viser at om lag en tredjepart av veksten i utenlandskeide selskaper skyldtes nye bedrifter opprettet i perioden 1952—1962. Tilsvarende tall er ikke tilgjengelige for norskeide selskaper. Alt i alt er det lite som støtter hypotesen om at veksten i utenlandske selskaper har vært langsom.

Den annen hypotese (fortrengsel av norske selskaper) lar seg verken bekrefte eller avkrefte. Eksistensen av utenlandske selskaper i Norge fører til sterk konkurranse både om markedsandeler og om produksjonsressurser. Dette kan tenkes å føre til raskere vekst gjennom økt produktivitet, men det kan også tenkes å føre til at norske selskaper får mindre ekspansjonsmuligheter. Utenlandske kapitalinteressers overtakelse av Findus A/S skjedde tydelig på bekostning av norskeid virksomhet. På den annen side er det klart at mange utenlandske overtakelser av norske selskaper for selskapene var et alternativ til konkurs og likvidasjon. Når det gjelder oppretting av nye selskaper, er det usannsynlig at en bedrift tilsvarende Esso-raffineriet kunne ha vært reist ved innenlandske midler, men mye av de utenlandske investeringer i kraftslukende industri kunne nok ha vært gjennomført ved norske investeringer i stedet.

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<sup>1</sup> Den utenlandske andel av bearbeidelsesverdien falt svakt fra 13,2 prosent i 1952 til 12,6 prosent i 1962. Forklaringen kan være forandringer i fortjenestemarginer, tekniske produksjonskoeffisienter, produktsammensetninger eller produktivitet.

### *Kapittel VII.*

Dette kapittel tar opp spørsmålet om hvor stabil virksomheten har vært i «50-prosent gruppen» i perioden 1952—1961. Variasjoner i produksjonsnivået kunne skape sysselsettingsproblemer, sløsing med ressurser og ustabile priser. De kunne også tenkes å gjøre norsk offentlig planlegging mindre effektive. Fire hypoteser blir undersøkt.

En hypotese er at utenlandskeide bedrifter i sin atferd ikke influeres av konjunkturutviklingen i Norge, men av konjunktursituasjonen i moderselskapenes hjemland. Motivet for dette kan være at de utenlandskeide foretak i gruvedrift, elektrokjemisk industri og primær jern- og metallindustri først og fremst har til oppgave å forsyne sine moderselskaper med råmaterialer og halvfabrikata. Moderselskapene har ofte sin egen produksjon av de samme produkter. I perioder med synkende etterspørsel kan det tenkes at produksjonen i utenlandskeide selskaper i Norge blir skåret ned for å beskytte produksjonen og salget av tilsvarende produkter fra moderselskapene. Omvendt kan det tenkes at moderselskapene øker sin produksjon i Norge i perioder da etterspørselen i hjemlandet er høy, særlig hvis deres produksjonsøking i hjemlandet hemmes av motkonjunkturiltak.

En annen hypotese er at utenlandskeide selskaper i Norge blir finansiert utenfra på en måte som gjør at disse selskaper kan operere uavhengig av norsk kredittpolitikk.

En tredje hypotese er at store utenlandske (og norske) investeringer i bestemte industrigrupper byr på betydelig nasjonal risiko. For store investeringer i sterkt spesialiserte produksjonsprosesser, med store faste kostnader, kan i et lite land tenkes å skape store økonomiske vanskeligheter under en internasjonal nedgangskonjunktur.

En fjerde hypotese er at utenlandskeide foretak kan ha en lite heldig virkning på de eksportpriser som Norge oppnår ved at de kunstig holder prisene nede.

Appendix II gir data for testing av den første og den andre av disse hypotesene. Det viser bruttoproduksjonsverdi, bearbeidelsesverdi, bruttoinvesteringer og sysselsetting særskilt i utenlandske og norskeide selskaper i ulike industrigrupper for perioden 1952—1961. En del av indekstallene i Appendix II er vist grafisk i diagrammene 7.2 til 7.8.

Den analysemetode som er brukt, er å sammenlikne variasjonene fra år til år i indeksene for å se om tallene for de utenlandskeide foretak har fluktuert sterkere, eller på en mer uheldig måte, enn tallene for norskeide bedrifter. Særlig vekt er lagt på hvordan de to grupper av bedrifter reagerte under oppgangskonjunkturen og den påfølgende nedgangskonjunktur i perioden 1955—1959. Diagram 7.1 viser produksjonsindeksen og engrosprisindeksen for hele perioden 1952—1961.

Det viser seg at konjunkturvariasjonene var omtrent de samme for utenlandskeide og norskeide foretak i gruvedrift, elektrokjemisk industri,

annen kjemisk industri og elektroteknisk industri. Innenfor primær metallindustri viste derimot utenlandskeide foretak mindre stabilitet enn norskeide (vesentlig offentlige) foretak. Forklaringen kan ha vært ulikheter i utviklingen på verdensmarkedet for de metaller som produseres i Norge.<sup>1</sup>) Selv om de utenlandskeide foretak i primær jern- og metallindustri viste betydelige fluktuasjoner etter norske forhold, var de ganske stabile målt med internasjonale mål. Produksjonen av metaller i moderselskapenes hjemland fluktuerte kraftigere gjennom konjunkturperioden 1955—1959 enn produksjonen av de samme metaller ved utenlandskeide foretak i Norge. Alt i alt er det liten støtte å finne for hypotesen om at produksjonen i utenlandsk-eide foretak svingte sterkere og mer uheldig enn produksjonen i norskeide foretak med samme produkter. Heller ikke synes det som om produksjonen ved utenlandskeide bedrifter i Norge ble satt ned for at produksjonen ved moderselskapene skulle kunne holdes oppe.

Den tredje hypotese (risiko for for sterk spesialisering) er testet ved hjelp av en historisk analyse. Tabell 7.9 gir ni eksempler på at kraftslukende bedrifter med hell har kunnet legge om til ny produksjon. Selv om eierne ofte mistet sin kapital, gikk storparten av de reelle ressurser ikke tapt fra et nasjonaløkonomisk synspunkt.

Den fjerde hypotese (pris påvirkning) er ikke testet, men blir diskutert i forhold til myndighetenes muligheter for å motvirke monopolistiske innflytelser i økonomien. Myndighetenes hovedvåpen er direkte kontroll med kartell-dannelse, i visse tilfelle direkte kontroll over prisene, skattemyndighetenes tilsyn med innkjøps- og salgspriser samt lisensavgifter og kontroll med investeringene gjennom byggeløyver og importrestriksjoner.

### *Kapittel VIII.*

Hvilken innflytelse har norske selskaper med utenlandsk eierkapital hatt på oppfyllingen av målet en rimelig inntektsfordeling? En ofte framsatt hypotese er at utenlandske selskaper er i stand til å unndra seg norsk beskatning ved å skjule inntekt i form av kontraktsmessige betalinger til moderselskapet eller i form av fiktive innkjøps- og salgspriser.

En annen mulig hypotese er at utenlandske selskaper er i stand til å betale lavere lønninger enn gjennomsnittet, fordi de ofte inntar en monopolistisk stilling i visse geografiske områder eller som kjøpere av visse produksjonsfaktorer.

Tabell 8.1 inneholder opplysninger som belyser disse hypotesene. For 1961 viser tabellen at «50-prosent gruppen» og «20-prosent gruppen» til sam-

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<sup>1</sup> Sink, nikkel og kopper produseres bare i utenlandskeide selskaper, mens hovedproduktene for norskeide selskaper er aluminium og magnesium. Ferrolegeringer blir produsert av begge grupper, men veier tyngst i tallene for den utenlandske gruppe.

men hadde en større del av selskapsinntekten (14,1 prosent) enn av brutto-produksjonsverdien (12,8 prosent), en større andel av lønningene (10,2 prosent) enn av sysselsettingen (8,6 prosent), og en større andel av nettoinntekten (35,7 prosent) og skatter (32,4 prosent) enn av egenkapitalen (27,7 prosent). Den slutning en må trekke er at alle interessentgrupper — kapital-eierne, de sysselsatte og myndighetene — hadde større inntekter av de utenlandskeide selskaper enn gjennomsnittlig for norske foretak i gruvedrift og industri. Faktorer som kan ha bidratt til den forholdsvis høye rentabilitet og de høye lønninger i de utenlandskeide selskaper, er typen av industri (tabellene 8.2 og 8.3), størrelsen av bedriftene (tabell 8.4), import av teknisk og markedsmessig fagkunnskap (tabell 8.5), internasjonal spesialisering (tabell 8.3), lett adgang til finansiering og salg i utlandet. Materialet støtter ikke hypotesen om at de utenlandske selskaper betaler mindre skatt eller lavere lønninger enn norske selskaper.

Det lar seg ikke gjøre å fastslå i hvilken utstrekning norsk politikk har påvirket de utenlandske kapitaleieres muligheter for å nå sine mål. Motivene for investeringer i Norge har vært mange, og det er ikke gjort noe forsøk på å analysere hvilke muligheter som kan ha foreligget for investeringer andre steder i verden. Den regnskapsmessige avkastning av den innskutte kapital i de utenlandskeide selskaper i 1961 var noe høyere enn gjennomsnittlig for Norge (tabell 8.8), men utbyttebetalingene var noe under gjennomsnittet. I en analyse av lønnsomheten av utenlandskeide selskaper sett fra kapitaleiernes synspunkt, må en imidlertid også trekke inn skattefrie avsetninger, og overskott tatt hjem i form av lisensavgifter, fiktive kjøps- og salgspriser o. l. Dette har det ikke vært mulig å gjøre her.

### *Kapittel IX.*

Hvilken virkning har eksistensen av utenlandskeide selskaper hatt for utenriksregnskapet på lengre sikt? En mulig hypotese er at utenlandskeide selskaper skaper et valutaoverskott for Norge.

Det er vanskelig å teste denne hypotese empirisk. I de fleste tilfelle har det nok vært slik at valutautlegg i anleggsperioden har vært dekket av de utenlandske kapitaleiere. Det er videre slik at de utenlandskeide selskaper i de fleste tilfelle produserer varer for eksport eller varer som substituerer import. Men en må også ta i betraktning valutautleggene til tilbakebetaling av lån og til betaling av renter, utbytter, lisensavgifter o. l. Videre har de utenlandskeide selskaper hatt en høy sparerate med en tilsvarende øking i de utenlandske kapitaleieres investerte midler i selskapene, midler som i mange tilfelle representerer et latent krav på Norges valutareserver (tabell 9.1).

Hvilken virkning har de utenlandske selskaper hatt for distriktsutbyggingen i Norge? Innenfor kraftslukende industri finner vi de utenlandskeide selskaper stort sett i fylker som ellers har et svakt industrigrunnlag og lav

gjennomsnittsinntekt (tabellene 9.2 og 9.3). Innenfor den elektrotekniske industri derimot er de fleste utenlandskeide selskaper lokalisert i Oslo.

Fra et økonomisk synspunkt alene ser det ikke ut til at de utenlandsk-eide selskaper motvirket målene for norsk økonomisk politikk i perioden 1952—1962. Sammenliknet med norskeide selskaper i de samme industri-grupper hevdet de utenlandskeide selskaper seg godt både med hensyn til veksttakt, konjunktur stabilitet, inntektsfordeling, lokalisering og virkninger for betalingsbalansen. Det er i denne undersøkelsen ikke gjort noe forsøk på å analysere virkningene av de utenlandskeide selskaper for de ikke-økonomiske mål i norsk politikk. Det kan sikkert ligge viktige problemer her. Kan det tenkes at utenlandske eierinteresser i norske selskaper kan gjøre det vanskelig å føre en uavhengig norsk utenrikspolitikk? I hvilken utstrekning er eksistensen av store selskaper eid av utlendinger forenlig med den norske tradisjon av små, uavhengige selveierforetak? Det kan bare slås fast at for en fullstendig vurdering av de utenlandske eierinteresser i norske foretak vil det være nødvendig med videre sosial- og statsvitenskapelige studier.

#### *Appendix I.*

Appendix I gir en liste over 98 foretak med utenlandske eierinteresser i bergverk og industri og 29 i andre næringer. For disse foretakene gis det også tall for produksjon, skatter osv.

#### *Appendix II.*

Appendix II gir tidsserier for bruttoproduksjonsverdi, bearbeidingsverdi, bruttoinvesteringer og sysselsetting i norske og utenlandskeide foretak i viktige industrigrupper for perioden 1952—1961.

#### *Appendix III.*

Appendix III gir resultatene av en spesiell statistisk undersøkelse gjennom post og personlige intervjuer av foretak med utenlandske eierinteresser.





