

SOME REFLECTIONS ON THE INTERSECTORAL TERMS OF TRADE⁽¹⁾ FOR DENMARK IN THE PERIOD 1949 TO 1965

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This article is an extension of an earlier article dealing with gains and losses from changes in the terms of trade. The object of the present article is to show how gains and losses in foreign trade are distributed among the branches of domestic industry. To this end, price changes for gross domestic product at factor cost in each of 28 branches of industry over the period 1949–1965, computed where possible by the double deflation method, are compared with the change over the same period in final demand—i.e., consumption plus gross investment.

INTRODUCTION

In the Danish National Accounts Statistics information is given concerning the contributions of the different industries to gross domestic product at factor cost (at current prices as well as at constant prices). If we take the ratio of gross domestic product at current prices to gross domestic product at constant (1955) prices, we have price indices reflecting the price development for gross domestic product. The indices will generally give the true reflection of the price development for gross domestic product on the assumption that a double deflation has been used in the calculation of the price indices, i.e. output and input have been deflated separately. I shall return to the problem in connection with the concrete calculations. If one compares these price indices with the price index for final demand—i.e. a price index for consumption and gross investment together—one obtains—by using P_D in comparison with the separate price index for the gross domestic product—a measure of changes in the intersectoral terms of trade from an income point of view, which is relevant in connection with terms of trade considerations.

By using the following formula (compare my article in Series 14, number 2)

$$\text{Gain income} = \frac{X'_{va_i}}{P_D}(p_{va_i} - p_D) = \frac{X_{va_i}}{P_D} - X'_{va_i}$$

one can calculate the relative gains or losses for the different industries. X'_{va_i} ² is gross domestic product at constant prices for a special industry, P_{va_i} is the already mentioned derived price index for gross domestic product, and finally P_D is the price index for final demand.³ P_D is used when one looks at the problem

¹This article elaborates on considerations published in *The Review of Income and Wealth* Series 14, No. 2, June, 1968: "Some Reflections on the Terms of Trade".

²The ' indicates that the figures are deflated.

³If one is interested in looking at the gains or losses from a production point of view one should use the following formula:

$$\text{Gain prod} = \frac{X'_{va_i}}{P_{va}}(P_{va_i} - P_{va})$$

Instead of P_D , P_{va} is used; this is the derived price index for gross domestic product of all sectors.

from an income point of view because the development in P_D can be perceived as an expression of the changes in purchasing power—what we can get for our income. The sum of the gain income for all the sectors does not become zero as it does for gain product. It can be shown that the sum

$$\frac{X'_{va}}{P_D}(P_{va} - P_D) = \frac{X_{va}}{P_D} - X'_{va}$$

corresponds to the gain from foreign terms of trade expressed as follows⁴:

$$\frac{1}{P_D}(X_E - X_I) - (X'_E - X'_I)$$

Here X_E and X_I are the export and import values at current prices and $X'_E - X'_I$ the same items at constant prices.

Empirical Findings

Appendix 1 gives empirical findings for the period from 1949 to 1965 about the price indices (P_{va}) for domestic gross product at factor cost for the different Danish industries and the price index for final demand (P_D).

As to the price indices which have been used the following should be stressed. For most of the more significant industries a double deflation has been used or at least a deflation which reflects a double deflation on the assumption that the technical coefficients do not change—a doubtful assumption.

A real double deflation has been made for agriculture, gardening and fruit farming, public utilities, banking and insurance, telephone, post, telegraph, radio, etc. The other deflation, which can be looked upon as a double deflation if the technical coefficients do not change, has been used for the following: manufacturing industries, building and construction, and shipping. For government services a wage index has been used and for the remaining industries output prices have been used as the deflator.

The deflated figures have been given in 1955 prices; but to show the price movement from 1949–1965 the price indices have been converted to 1949 prices. On account of some weighting problems caused by the change of the base year the sum of the intersectoral gains and losses will not exactly match the gains from foreign trade. There will be a difference, but this difference will only be of minor importance compared with the changes in the intersectoral gains or losses. I have therefore considered it permissible to correct the figures in such a way that the sum of the intersectoral gains or losses matches the gains or losses from foreign trade.

In appendix 1 the different industries are arranged in the following way:

First, the industries are given where prices for the domestic product have increased less than prices for final demand, i.e. the industries with losses (compare also appendix 3). Next are shown the development for industries where

⁴ $(X_E - X_I)$ is deflated with P_D because we look at the problem from an income point of view, and we want to eliminate the level effect; compare my article in Series 17, number 2.

prices for the domestic product have increased more than prices for final demand and finally are shown industries where prices for final demand has sometimes moved faster than prices for the domestic product and sometimes not so fast. Wholesale and retail trade have been treated separately, because the price movement—on account of the special calculation for domestic product—depends on the price change for the other industries.

If one looks at the price movement in appendix 1, one will find that in the first group it is first and foremost the export industries which show relatively small price rises compared with the changes in the prices for final demand. This is obvious for agriculture, fishing, chemical manufacturing industries, iron and metal manufacturing industries, and transport manufacturing industries. There have also been moderate price rises for such less typical export industries as gardening and fruit farming, food and beverage manufacturing industries, footwear and garment manufacturing industries. For public utilities there is the same development because output prices have not changed very much and input prices have been decreasing.

The gap between the price indices for domestic product and final demand for the different industries for 1956 and 1965 is shown in the following table.

TABLE 1
THE PRICE GAP
Ratio of Price Indexes for Domestic Product
and Final Demand (1949 = 100)

	1956	1965
1. Agriculture	86.3	66.0
2. Gardening, fruit farming	83.9	81.5
3. Fishing	81.7	84.9
4. Peat and lignite production	88.1	68.5
5. Food and beverage manufacturing industries	88.2	85.5
6. Textile manufacturing industries	68.0	63.9
7. Footwear and clothing manufacturing industries	79.4	70.7
8. Chemical manufacturing industries	91.5	81.7
9. Iron and metal manufacturing industries	92.8	73.1
10. Transport manufacturing industries	79.6	73.7
11. Public utilities	68.0	57.1
12. Inland transport, air transport	94.1	96.8

In this connection it may be mentioned that in the industries where there have been moderate price increases there has often been a considerable rise in labour productivity. This has been the case in agriculture,⁵ and we find the same development in some of the manufacturing industries already mentioned.⁶

Looking at the next group of industries, where prices for the domestic product have increased more than prices for final demand, it is obvious that these are primarily home-market industries.

⁵Compare Kjeld Bjerke: The decrease in the Danish agricultural labour force, the increase in real capital and the effects on productivity; United Nations World Population Conference, Beograd 1965.

⁶Compare Kjeld Bjerke: Bruttoestindkomsten i dansk industri 1949-1965; *National-økonomisk Tidsskrift* 1970—Hæfte 3-4.

The price rise for home-market industries has been considerable but at the same time the increase in labour productivity has been moderate. For handicrafts this is presumably the case, and this is also the case for the stone, glassware and pottery manufacturing industries and for the wood and furniture manufacturing industries. Also for paper and paperboard manufacturing industries there has been a moderate rise in labour productivity, but a rapid price increase. For building and construction the price increase has been rather moderate, but we know that there has been a fairly steep increase in labour productivity. Especially for government services where the wage bill is dominant there has been a rapid increase in the "prices" due to the great increase in wages.

In the following table the price gaps for 1956 and 1965 are shown for the industries mentioned.

TABLE 2
THE PRICE GAP
Ratio of Price Indexes for Domestic Product
and Final Demand (1949 = 100)

	1956	1965
Wood and furniture manufacturing industries	108.7	121.3
Paper and paperboard manufacturing industries	109.5	123.1
Stone, glassware and pottery manufacturing industries	110.5	115.2
Other manufacturing industries	102.8	128.9
Handicrafts, building and construction	106.6	119.4
Hotels, restaurants, cinemas and theatres	108.3	128.8
Telephone, post, etc.	105.6	130.7
Professions	110.8	149.5
Government services	110.2	151.7
	100.0	100.0

In the last group, compare appendix 1, the prices of domestic product in some periods have not increased as much as the prices for final demand and vice versa. It is in particular foreign shipping and the use of dwellings which are of interest in this respect.

Shipping depends very much on the economic development of the rest of the world, which manifests itself in the price movement. For use of dwellings there is a shift from 1957 to 1958. At the beginning of the period rents were closely controlled and did not increase very much. Later on there has been a tendency to liberalization of control and rents have increased more rapidly. The average rent depends also on the building of new flats with high rents; because of an increase in building activity during the period this effect has also increased the level of rents.

We have now looked at the price movements, but in the formula for the gains and losses from the intersectoral changes in terms of trade

$$\frac{1}{P_D} X'_{va_i} (P_{va_i} - P_D)$$

it is also necessary to look at X'_{va} because the gains and losses also depend on the movements in X'_{va} . Appendix 2 therefore gives information for the period 1949 to 1965 concerning X'_{va} for the different industries. For 1956 and 1965 the following table shows indices with 1949 = 100. If we look at the indices there

TABLE 3
INDEX OF GROSS DOMESTIC PRODUCT AT FACTOR COST
1949 = 100

	1956	1965
Agriculture	123	138
Gardening, fruit farming	97	127
Fisheries	102	215
Peat and lignite production	82	55
Food manufacturing industries	117	197
Textile manufacturing industries	99	155
Footwear and clothing manufacturing industries	107	171
Chemical manufacturing industries	129	256
Iron and metal manufacturing industries	148	355
Transport equipment manufacturing industries	148	211
Public utilities	190	346
Domestic transport and air services	129	194
Wood and furniture manufacturing industries	117	227
Paper and graphical manufacturing industries	123	192
Stone, clay and glass manufacturing industries	109	203
Other manufacturing industries	100	171
Handicrafts, building and construction	113	185
Hotels, restaurants and cinemas, etc.	90	121
Telephone, post, telegraph, etc.	130	205
Professions	119	148
Government services	134	204
Forestry	87	90
Fur farming	153	389
Banking, insurance, finance	126	223
Foreign shipping	151	211
Domestic services	84	56
Use of dwellings	123	173
Trade	118	208
All industries	122	190
Indirect taxes less subsidies	122	201
Total	122	191

have been very great differences in the development of domestic product during the period. For all industries there has been an increase from 1949 to 1965 in the domestic product of nearly one hundred per cent. For agriculture there is only an increase of 38 per cent in the domestic product and for gardening and fruit farming 27 per cent; by contrast iron and metal manufacturing industries show an increase of 255 per cent. Also for chemical manufacturing industries the increase is considerable and for public utilities the increase is nearly the same as

for iron and metal manufacturing industries. For such a large industry as handicraft, building and construction the increase in the domestic product from 1949 to 1965 has been 85 per cent.

Comparing the price indices for 1965 with the indices for domestic product in 1965, there does not seem to be any correlation between the movements in the prices and the domestic product. Look for instance at agriculture and the iron and metal industries or public utilities and government services.

It has been mentioned that the total gains or losses from the intersectoral changes in the terms of trade correspond to the gains from foreign trade. In this connection it must, however, be remembered that because the prices for the different industries are given at factor cost, it has been necessary to introduce a correction for indirect taxes which have been treated as an industry.

With the necessary reservation as to the effect of the changes in the price base the results of the calculations concerning gains and losses are given in appendix 3.

In accordance with what has been said concerning developments in the prices there are, e.g., for the export industries very considerable and increasing losses. In comparison with gross domestic product at factor cost the losses are also relatively considerable as shown in the following table for 1956 and 1965.

TABLE 4
LOSSES FROM CHANGES IN INTERSECTORAL TERMS OF TRADE,
1956 AND 1965 RELATIVE TO 1949

	1956		1965	
	Absolute Figures (mill. kr.)	Percent of Gross Domestic Product in 1949 Prices	Absolute Figures (mill. kr.)	Percent of Gross Domestic Product in 1949 Prices
Agriculture	-563	13.2	-1,606	33.5
Gardening, etc.	-37	16.0	-56	18.5
Fisheries	-24	18.3	-42	15.2
Peat and lignite production	-8	12.5	-14	32.6
Food manufacturing industries	-86	11.7	-178	14.4
Textile manufacturing industries	-113	31.9	-200	36.0
Footwear and clothing manufacturing industries	-65	20.6	-150	29.8
Chemical manufacturing industries	-35	8.5	-149	18.3
Iron and metal manufacturing industries	-81	6.6	-791	26.9
Transport equipment manufacturing industries	-79	20.4	-145	26.3
Public utilities	-182	31.0	-460	42.9
Domestic transport	-74	5.8	-62	3.2

The very heavy absolute losses fall in 1965—as we may expect—on agriculture, iron and metal manufacturing industries and public utilities. The losses are also heavy in comparison with domestic product—especially for public utilities. For several other industries there are heavy relative losses.

Gains are shown in a similar table, compare also appendix 3.

TABLE 5
GAINS FROM CHANGES IN INTERSECTORAL TERMS OF TRADE,
1956 AND 1965 RELATIVE TO 1949

	1956		1965	
	Absolute Figures (mill. kr.)	Percent of Gross Domestic Product in 1949 Prices	Absolute Figures (mill. kr.)	Percent of Gross Domestic Product in 1949 Prices
Wood and furniture manufacturing industries	15	8.6	69	20.3
Paper and graphical manufacturing industries	36	9.5	136	23.1
Stone, clay and glass manufacturing industries	25	10.7	66	15.3
Other manufacturing industries	4	3.1	63	28.8
Handicraft, building and construction	226	6.9	1,034	19.4
Hotels, restaurants, and cinemas and theatres	25	8.5	113	28.8
Telephone, post, etc.	20	5.7	171	30.8
Professions	50	10.9	284	49.6
Government services	203	10.8	1,480	51.7

The very great absolute gains occur in handicraft, building and construction and government services, which is not surprising in view of the price movement. The gains compared with the domestic product are also very considerable especially for government services and professions. But for many of the other industries the relative gains are also rather substantial.

For the third group we have looked at especially foreign shipping and the use of dwellings, compare appendix 3. The development which can be seen from the figures has already been commented upon in connection with the development in prices.

Gross domestic product consists of two elements, namely entrepreneurial income (gross) and the wage bill. The wage bill is a cost the employers must pay; which means that besides considering the gains or losses in connection with gross domestic product at constant prices these gains or losses may be considered in relation to entrepreneurial income because it is the employers who must take the risk.

Entrepreneurial income is given in current prices.

It must therefore be appropriate to change the formula for gains or losses in constant prices

$$\frac{X'_{va_i}}{P_D} (P_{va_i} - P_D)$$

to the following:

$$X_{va_i} - X'_{va_i} P_D \quad \text{or} \quad X'_{va_i} (P_{va_i} - P_D)$$

In Table 6 the gains or losses calculated for the different industries by the formula $X'_{va_i}(P_{va_i} - P_D)$ are compared with the entrepreneurial income for 1956 and 1965.

TABLE 6
GAINS OR LOSSES IN RELATION TO ENTREPRENEURAL INCOME 1956 AND 1965
(1949 = 100)

	1956		1965		1965	
	Gains (mill. kr.)	Entre- preneurial Income (gross) (mill. kr.)	Gains as Percent of Entre- preneurial Income (mill. kr.)	Gains (mill. kr.)	Entre- preneurial Income (gross) (mill. kr.)	Gains as Percent of Entre- preneurial Income
Agriculture	-813	3,831	-21	-3,212	5,096	-63
Gardening, fruit farming	-52	177	-29	-111	336	-33
Fisheries	-33	87	-38	-82	309	-27
Peat and lignite production	-10	39	-26	-27	32	-84
Food and beverages manufacturing industries	-120	398	-30	-352	909	-39
Textile manufacturing industries	-156	111	-141	-395	285	-139
Footwear and clothing manufacturing industries	-90	101	-89	-295	192	-154
Chemical manufacturing industries	-48	247	-19	-293	647	-45
Iron and metal manufacturing industries	-121	616	-20	-1,559	1,584	-98
Transport equipment manufacturing industries	-109	80	-136	-285	70	-407
Public utilities	-260	391	-66	-906	862	-105
Inland transport and air transport	-104	829	-13	-121	1,816	-7
Wood and furniture manufacturing industries	21	80	26	142	270	53
Paper and paperboard manufacturing industries	50	226	22	268	546	49
Stone, clay and glass manufacturing industries	34	147	23	130	430	30
Other manufacturing industries	5	65	8	125	223	56
Handicrafts, building and construction	296	2,471	12	2,034	6,539	31
Hotels, restaurants, and cinemas, theatres, etc.	34	191	18	223	396	56
Telephone, post, telegraph, etc.	27	193	14	336	578	58
Professions	69	256	27	559	587	95
Forestry	12	45	27	-16	52	-31
Fur farming, etc.	-6	60	-10	-70	161	-43
Banking and insurance	21	377	6	32	904	4
Foreign shipping	203	741	27	-174	945	-18
Domestic services	-8	—	—	163	—	—
Use of dwellings	-62	1,439	-4	284	3,270	9
Wholesale and retail trade	-332	2,757	-12	-1,696	5,765	-29

It will be seen that for 1965 the ratio of losses to entrepreneurial income is very great for the following industries: textile manufacturing industries, footwear and garments manufacturing industries, iron and metal manufacturing industries, public utilities and especially for transport manufacturing industries.

There are great relative gains for government services. The relative gains are also great for the professions.

In the article where I have shown the development for the period 1949 to 1965 in entrepreneurial income (gross profit) for the main branches of manufacturing

industries, it was obvious that for instance in the export manufacturing industries there was a tendency to a relative decrease in entrepreneurial income due to a rather moderate price increase for gross domestic product and vice versa for the home market manufacturing industries. The same development can be seen in the gains and losses. Here it is also the development in prices for gross domestic product which determine if there will be gains or losses.

APPENDIX I
PRICE DEVELOPMENT IN GROSS DOMESTIC PRODUCT AND FINAL DEMAND, 1949 TO 1965
1949 = 100

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Agriculture	103.6	110.1	118.7	112.8	112.1	113.9	119.3	105.5	105.4	116.5	110.7	110.8	113.2	126.6	135.7	129.9
Gardening, fruit farming	98.1	101.8	104.0	106.0	114.5	136.9	116.0	121.5	118.0	132.1	126.1	150.0	162.0	160.0	148.5	160.4
Fisheries	81.9	79.4	80.6	95.0	105.9	112.7	113.0	112.4	122.2	122.5	117.9	115.0	119.7	115.7	133.7	167.2
Peat and lignite production	92.2	104.0	107.9	109.5	110.3	117.4	121.9	120.8	120.6	115.9	103.6	108.0	120.5	120.5	130.8	134.9
Food manufacturing industries	110.6	113.6	111.7	120.5	122.6	123.5	122.0	132.8	134.2	134.4	137.9	134.9	153.8	151.0	161.5	168.4
Textile manufacturing industries	106.4	101.3	96.7	99.0	97.0	95.7	94.1	101.1	107.8	107.8	111.9	117.6	119.9	120.1	119.2	125.9
Footwear and clothing manufacturing industries	103.3	102.5	101.9	106.4	105.1	107.1	109.8	113.1	114.6	118.5	123.0	128.5	133.3	138.3	133.9	139.3
Chemical manufacturing industries	95.1	107.0	155.5	128.2	122.9	123.4	126.6	135.2	138.1	143.4	149.5	157.8	165.5	155.5	159.2	160.8
Iron and metal manufacturing industries	105.4	109.2	123.7	123.2	123.4	121.6	128.4	128.5	129.7	125.0	124.4	129.5	136.3	138.9	138.1	143.9
Transport equipment industries	102.1	99.3	100.0	112.9	109.6	115.0	110.1	123.2	118.1	127.3	134.6	129.1	131.9	152.2	151.7	145.2
Public utilities	100.6	98.0	98.5	103.1	97.5	90.3	94.0	109.7	122.3	103.9	104.2	107.1	100.7	97.0	101.9	112.5
Domestic transport and air services	105.0	110.5	115.1	117.7	120.8	125.9	130.2	132.6	135.0	140.0	145.7	154.3	162.0	171.2	179.5	190.6
Price index for final demand	108.4	121.1	125.2	125.6	127.5	132.7	138.3	141.7	144.1	146.3	149.8	158.1	166.4	178.3	183.5	196.9
Wood and furniture manufacturing industries	104.8	114.4	123.3	144.0	138.9	141.4	150.3	154.3	155.8	176.3	193.1	206.3	221.4	230.5	229.4	238.8
Paper and graphical manufacturing industries	109.5	134.5	123.1	136.0	133.9	140.9	151.5	155.5	161.2	176.6	184.4	189.8	206.3	211.4	223.7	242.4
Stone, clay and glass manufacturing industries	103.0	110.7	129.2	137.1	140.9	140.4	152.8	160.9	178.1	180.7	185.5	206.4	216.9	218.1	224.3	226.9
Other manufacturing industries	97.2	114.1	129.1	136.0	141.7	141.6	142.2	157.5	164.1	184.8	200.0	229.1	234.7	242.2	239.0	253.9
Handicrafts, building and construction	108.7	120.0	131.0	131.2	135.1	140.2	147.4	153.5	156.6	162.8	170.0	184.1	197.1	205.4	217.3	235.1
Hotels, restaurants, cinemas, etc.	105.6	122.0	134.6	134.9	137.6	144.6	149.8	157.3	162.9	168.0	175.2	189.3	207.8	219.2	231.6	253.7
Telephone, post, telegraph, etc.	106.0	111.3	123.9	129.7	133.3	140.1	146.0	152.2	155.7	159.4	165.8	173.3	189.8	203.5	222.6	257.4
Professions	102.8	110.0	117.9	124.9	130.7	144.0	153.3	161.3	167.2	177.9	187.5	210.8	226.9	239.5	257.3	294.4
Government services	107.3	117.2	127.3	130.0	137.9	142.9	152.4	158.0	171.1	174.1	178.8	210.3	226.6	239.9	259.5	298.6
Price index for final demand	108.4	121.1	125.2	125.6	127.5	132.7	138.3	141.7	144.1	146.3	149.8	158.1	166.4	178.3	183.5	196.9
Forestry	101.5	122.8	121.0	128.8	140.4	159.3	160.0	160.3	160.0	161.1	159.3	163.5	175.9	166.7	163.0	168.4
Fur farming	129.7	125.6	122.7	134.1	143.2	143.6	127.6	150.9	153.9	157.8	122.5	131.9	133.3	151.9	145.7	149.3
Banking, insurance, finance	109.7	123.7	126.0	124.6	126.9	135.3	142.2	143.1	143.9	146.8	149.6	156.0	166.6	176.9	185.3	200.3
Foreign shipping	105.7	161.7	154.8	125.5	143.7	142.4	173.5	190.9	151.6	156.3	151.2	147.1	150.6	159.5	167.3	175.3
Domestic services	105.6	106.8	112.6	115.6	123.2	128.1	134.9	137.5	141.3	149.8	161.8	181.2	210.5	245.6	270.6	304.0
Use of dwellings	108.3	107.6	112.3	115.9	120.7	126.6	132.8	140.8	147.0	153.5	163.3	172.8	182.3	191.9	200.5	215.0
Wholesale and retail trade, etc.	111.2	118.8	120.5	119.7	119.2	123.1	128.4	128.5	129.6	132.2	133.8	138.7	147.4	152.4	158.8	168.1
Price index for final demand	108.4	121.1	125.2	125.6	127.5	132.7	138.3	141.7	144.1	146.3	149.8	158.1	166.4	178.3	183.5	196.9

APPENDIX 2
GROSS FACTOR INCOME IN CONSTANT PRICES

(millions of 1949 kroner)

	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Agriculture	3,472	3,925	3,832	4,091	4,452	4,122	4,125	4,278	4,634	4,486	4,272	4,547	4,728	4,750	4,392	4,642	4,794
Gardening, fruit farming	238	264	220	224	233	227	198	231	260	261	243	256	244	242	272	295	303
Fisheries	129	116	131	133	119	119	126	131	153	167	191	196	227	249	262	279	277
Peat and lignite production	78	51	99	89	42	39	46	64	77	63	63	55	50	44	44	39	43
Food manufacturing industries	628	678	678	650	664	685	714	735	771	813	885	955	1,012	1,070	1,120	1,199	1,235
Textile manufacturing industries	358	435	392	361	386	372	351	354	382	358	397	405	420	457	482	531	556
Footwear and clothing manufacturing industries	294	335	316	323	330	335	316	316	335	335	367	378	414	439	436	478	504
Chemical manufacturing industries	318	370	374	342	362	393	397	410	421	441	489	513	545	612	649	749	813
Iron and metal manufacturing industries	828	948	1,032	960	983	1,140	1,200	1,223	1,307	1,416	1,715	2,042	2,165	2,400	2,391	2,718	2,941
Transport equipment manufacturing industries	261	279	294	317	317	376	372	337	443	458	469	491	491	532	487	528	551
Public utilities	310	335	358	397	425	483	555	588	558	538	668	697	714	823	945	1,013	1,073
Domestic transport and air services	992	1,023	1,067	1,107	1,152	1,217	1,243	1,280	1,327	1,367	1,423	1,509	1,587	1,685	1,746	1,836	1,920
Wood and furniture manufacturing industries	150	168	167	159	168	175	181	175	190	197	207	232	240	257	262	306	340
Paper and graphical manufacturing industries	307	325	322	299	325	359	379	379	393	405	420	455	482	509	535	562	589
Stone, clay and glass manufacturing industries	213	233	243	240	245	257	245	233	235	228	274	296	313	338	331	400	432
Other manufacturing industries	128	145	128	110	114	120	125	128	134	145	151	161	165	176	180	205	219
Handicrafts, building and construction	2,882	3,035	3,007	3,012	3,275	3,363	3,264	3,254	3,326	3,427	3,776	3,940	4,208	4,472	4,451	5,034	5,324
Hotels, restaurants and cinemas etc.	325	321	304	289	295	303	296	293	295	299	316	326	337	360	359	377	393
Telephone, post, telegraph, etc.	271	284	292	301	317	330	339	352	366	386	406	427	456	481	509	531	556
Professions	386	394	399	408	421	436	445	458	476	488	503	521	535	546	554	562	573
Government services	1,404	1,471	1,550	1,596	1,725	1,781	1,831	1,888	1,932	1,956	2,054	2,135	2,294	2,535	2,561	2,744	2,862

APPENDIX 2 (continued)

GROSS FACTOR INCOME IN CONSTANT PRICES

(millions of 1949 kroner)

	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Forestry	63	65	57	62	59	52	54	55	58	55	54	54	52	54	51	54	57
Fur Farming	38	37	39	44	44	44	55	58	57	63	71	80	91	99	106	127	148
Banking, insurance, finance	422	442	460	461	497	550	530	531	582	585	637	686	815	788	822	897	942
Foreign shipping	382	401	452	469	491	442	540	577	639	640	659	685	704	712	718	765	805
Domestic services	272	272	266	263	256	246	242	229	224	218	213	199	191	190	180	170	152
Use of dwellings	909	920	943	970	1,005	1,046	1,085	1,120	1,155	1,194	1,229	1,271	1,322	1,379	1,439	1,499	1,571
Trade	2,837	3,107	3,025	3,045	3,250	3,404	3,379	3,354	3,608	3,883	4,241	4,578	4,830	5,090	5,118	5,606	5,890
All industries	18,895	20,379	20,447	20,722	21,952	22,416	22,633	23,081	24,338	24,872	26,393	28,090	29,632	31,289	31,402	34,146	35,863
Indirect taxes less subsidies	1,306	1,514	1,416	1,430	1,508	1,614	1,556	1,598	1,624	1,733	1,913	2,002	2,191	2,291	2,321	2,560	2,620
Total	20,201	21,893	21,863	22,152	23,460	24,030	24,189	24,679	25,962	26,605	28,306	30,092	31,823	33,580	33,723	36,706	38,483

APPENDIX 3

GAINS OR LOSSES CAUSED BY CHANGES IN INTERSECTORAL TERMS OF TRADE

(millions of kroner)

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Agriculture	-163	-339	-200	-436	-478	-562	-563	-1,154	-1,205	-828	-1,131	-1,346	-1,429	-1,172	-1,103	-1,606
Gardening, fruit farming	-25	-35	-38	-36	-23	5	-37	-37	-47	-24	-41	-13	-7	-28	-57	-56
Fisheries	-28	-45	-47	-29	-20	-19	-24	-32	25	-31	-42	-62	-70	-92	-76	-42
Peat and lignite production	-7	-14	-12	-5	-5	-5	-8	-11	10	-13	-17	-16	-12	-15	-11	-14
Food manufacturing industries	14	-42	-70	-27	-26	-50	-86	-48	-56	-72	-77	-92	-82	-172	-146	-178
Textile manufacturing industries	-7	-64	-82	-82	-84	-98	-113	-110	-90	-104	-103	-108	-128	-157	-187	-206
Footwear and clothing manufacturing industries	-16	-48	-60	-50	-59	-61	-65	-67	-68	-70	-68	-78	-88	-98	-130	-150
Chemical manufacturing industries	-45	-44	-26	7	-17	-28	-35	-19	-18	-10	-2	-1	-4	-84	-101	-149
Iron and metal manufacturing industries	-25	-100	-11	-18	-35	-94	-81	-112	-142	-238	-336	-378	-419	-508	-646	-791
Transport equipment manufacturing industries	-16	-53	-64	-32	-53	-50	-79	-58	-83	-61	-50	-90	-110	-72	-92	-145
Public utilities	-22	-66	-83	-73	-110	-173	-182	-119	-81	-184	-204	-218	-312	-413	-432	-460
Domestic transport and air services	-32	-93	-89	-72	-64	-64	-74	-85	-86	-61	-43	-39	-46	-70	-44	-62
Wood and furniture manufacturing industries	-6	-9	-2	7	16	12	15	18	16	43	67	73	84	77	76	69
Paper and graphical manufacturing industries	6	36	5	27	18	23	36	38	48	87	104	96	122	99	162	130

APPENDIX 3 (continued)

GAINS OR LOSSES CAUSED BY CHANGES IN INTERSECTORAL TERMS OF TRADE

(millions of kroner)

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
Stone, clay and glass manufacturing industries	-16	-21	8	23	27	14	25	32	54	64	70	95	102	73	88	66
Other manufacturing industries	-15	-7	3	9	13	8	4	15	20	40	54	74	72	64	61	63
Handicraft, building and construction	14	-22	146	152	211	193	226	293	296	437	542	709	843	702	930	1,034
Hotels, restaurants and cinemas etc.	-8	2	20	22	24	26	25	22	39	47	55	66	82	82	97	113
Telephone, post, telegraph, etc.	-6	-24	3	10	15	19	20	27	31	36	45	43	67	72	112	171
Professions	-20	-36	-24	-2	11	38	50	66	78	109	130	178	198	189	225	284
Government services	-12	-47	30	65	152	150	203	220	366	408	426	774	934	908	1,135	1,480
Forestry	-4	1	-2	2	5	11	9	8	6	5	3	2	3	-3	-6	-8
Fur farming	7	1	-1	3	5	4	-4	4	4	6	-15	-15	-20	-16	-26	-36
Banking, insurance, finance	6	10	3	-4	-2	10	15	6	-1	2	-2	-12	0	-7	7	13
Foreign shipping	-10	152	111	0	56	39	147	222	33	45	6	-48	-68	-76	-68	-78
Domestic services	-4	-32	-26	-20	-8	-8	-6	-7	-4	5	49	28	50	68	80	82
Use of dwellings	-52	-105	-100	-77	-56	-50	-44	-7	24	60	113	122	131	109	136	145
Trade	84	-53	-109	-146	-211	-236	-227	-322	-391	-390	-475	-571	-559	-711	-731	-862
All industries	-408	-1,097	-717	-782	-703	-946	-853	-1,218	-1,222	-682	-942	-827	-661	-1,251	-729	-1,181
Indirect taxes less subsidies	-117	-56	-68	96	169	375	398	406	466	578	603	337	662	878	1,043	1,329
Total	-525	1,153	-785	-686	-534	-571	-455	-812	-756	-104	-339	-490	1	-373	314	148
Gains or losses from foreign trade	-525	1,153	-785	-686	-534	-571	-455	-812	-756	-104	-339	-490	1	-373	314	148