

CONFIDENTIAL FILING

Industrial Production

INDUSTRIAL POLICY

July 1987

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10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

10 August 1987

INDUSTRIAL PRODUCTION

The Prime Minister has seen the detailed analysis of industrial output since 1979 enclosed with your letter of 4 August to David Norgrove here. She was most grateful for an excellent piece of work, and believes that all the information the paper contains will be most useful in the future for briefing purposes generally.

I am copying this letter to Johnathan Taylor (HM Treasury).

(M.E. ADDISON)

Paul Steeples, Esq.,
Department of Trade and Industry.

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cc B9.

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PS/ Secretary of State for Trade and Industry

4 August 1987

David Norgrove Esq
Private Secretary to the
Prime Minister
10 Downing Street
LONDON
SW1A 2AA

Prime Minister ⁽⁴⁾

A full and interesting analysis
of the components of manufacturing
output since 1979. The graphs at
the back set it out clearly.

MBA 4/8

Pear David,

INDUSTRIAL PRODUCTION

Your letter of 14 July recorded the Prime Minister's request for a more detailed analysis of industrial output since 1979.

... The enclosed note sets out the pattern of output growth by individual manufacturing sectors since 1979, examines the main broad explanations of the differences in growth rates between industries and gives a number of examples of companies which have had a significant effect, for better or worse, on their industries.

I am copying this letter, with a copy of the paper to Tony Kuczys (HM Treasury).

Yours

Paul

PAUL STEEPLES
Private Secretary

Please pass on
my grateful thanks
for this most
excellent analysis

with all the fund of information
it yields. not



MANUFACTURING OUTPUT SINCE 1979

Introduction

PS/Prime Minister's letter of 14 July noted the latest encouraging industrial production figures and requested a more detailed analysis of the pattern of industrial growth since 1979. This note describes the performance of the many separate sectors comprising manufacturing industry since the first half of 1979, provides some suggestions as to why sectors have performed differently, and identifies some companies which have had a significant effect on performance.

Manufacturing Output

2 Manufacturing output in total reached a peak in the first half of 1979 - though at a level 4% below the previous 1973 peak - and then declined sharply - by nearly 16% - until the first quarter of 1981. Since then it has recovered strongly though there was a dip in output from 1985Q2 to 1986Q1. In the three months to May 1987 manufacturing output was nearly 17% higher than the 1981Q1 trough level but still 1.4% below the 1979 peak. [See Chart 1].

3 This average manufacturing performance, however, conceals widely different patterns of development within subsectors. For the purposes of this note manufacturing has been subdivided into 41 sectors [See Annex A]. Any level of disaggregation is inevitably fairly arbitrary and it is quite likely that sub-sectors within the 41 selected sectors will have behaved differently from the sector itself. The 41 sector breakdown has been chosen to give a readily comprehensible summary of developments in the main industrial groups.

4 The disaggregated information on output growth for these 41 sectors is set out in Table 1. The first column of Table 1 shows the percentage change in output between the first half of 1979 and the first quarter of 1987 - the latest period for which there are reasonably good estimates at this level of disaggregation. The sectors are ranked in order of output growth which emphasises the wide

Gross Domestic Product (Output Measure)

Index of Production (1980=100)

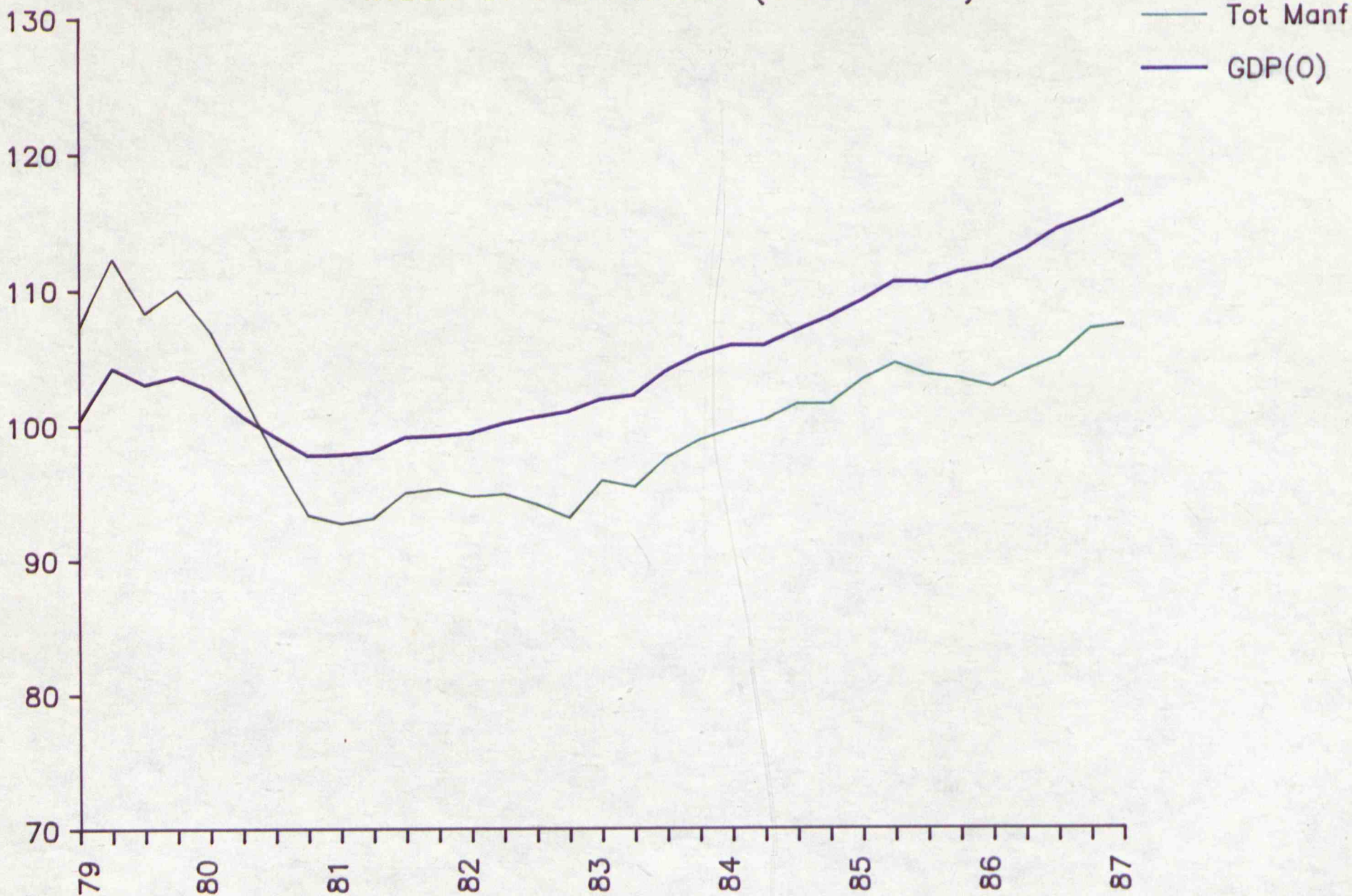


TABLE 1

MANUFACTURING OUTPUT

(Seasonally adjusted/Constant Prices)

	(1987Q1) (1979H1) (% Change)	(1987Q1) (1981Q1) (% Change)	Weight (%)	(1987Q1) (1979H1) Contribution to growth
	Column 1	Column 2	Column 3	Column 4
Computers and other office machinery	228.2	240.8	1.4	2.6
Electronic capital goods] (inc. Telecommunications)]	36.6	28.0	4.2	1.3
Electrical consumer goods	35.9	60.6	2.1	0.8
Pharmaceuticals	33.7	42.0	2.1	0.7
Aerospace	31.1	0.5	2.9	0.7
Plastic products	31.0	57.4	2.3	0.7
Consumer chemicals	24.2	33.1	1.4	0.3
Ordnance and small arms	18.5	23.4	0.6	0.1
Industrial chemicals	11.7	27.9	5.5	0.6
Instrument engineering	11.6	13.5	1.4	0.2
Food	6.8	7.8	9.1	0.6
Printing and publishing	6.3	15.2	6.1	0.4
Drink	4.6	5.0	3.3	0.1
Hand tools and finished metal goods	0.9	23.7	3.3	0.0
Clothing	- 1.3	21.0	2.3	- 0.0
Glass	- 4.0	12.3	0.9	- 0.0
Household textiles and fur	- 4.0	2.9	0.4	- 0.0
Non-Ferrous metals	- 4.0	4.8	1.5	- 0.1
Building materials	- 4.2	8.1	2.6	- 0.1
Extraction of minerals] and metal ores]	- 7.8	17.1	0.7	- 0.1
Heavy industrial plant	- 13.2	- 12.6	2.0	- 0.2
Timber and wooden products	- 14.3	7.6	1.5	- 0.2
Pulp, paper and board	- 15.2	1.9	3.0	- 0.5
Leather and leather goods	- 15.3	24.0	0.3	- 0.1
Ferrous metals	- 16.8	16.5	1.9	- 0.4
Furniture	- 17.1	4.9	1.6	- 0.3
Textiles	- 18.4	12.5	3.3	- 0.7
Mining, construction and] associated equipment]	- 18.9	3.6	1.9	- 0.4
Other machinery	- 19.5	- 0.4	8.5	- 1.7
Footwear	- 19.8	1.5	0.7	- 0.2
Electrical industrial goods	- 21.2	6.9	3.7	- 0.8
Rubber products	- 22.5	1.4	1.5	- 0.3
Tobacco	- 23.7	- 27.4	1.1	- 0.2
Ceramics abrasives and asbestos	- 28.9	- 6.5	1.1	- 0.3
Metal-working machine tools	- 31.5	- 3.0	1.4	- 0.4
Other vehicles	- 31.7	- 26.1	0.8	- 0.2
Motor vehicles and parts	- 31.7	9.5	5.7	- 2.1
Shipbuilding	- 34.2	- 29.1	1.3	- 0.5
Other manufacturing	- 34.7	- 12.0	1.0	- 0.4
Basic metal forming	- 37.9	- 6.0	2.8	- 1.3
Man-made fibres	- 56.8	- 34.1	0.3	- 0.2
Total Manufacturing	- 2.2	+ 15.9	100	- 2.2



range in fortunes experienced between sectors: at the one extreme the output of the computer and the office machinery sector grew by 228% while at the other extreme the output of the man-made fibres industry fell by over 50% between 1979H1 and 1987Q1. As manufacturing output as a whole in 1987Q1, was still 2.2% below the 1979 peak level it is not surprising that in 27 of the 41 sectors output has yet to regain the 1979H1 levels. But in sectors accounting for nearly half of total manufacturing production, output is now above the 1979 peak.

5 Comparing output levels between the first half of 1979 and the first quarter of 1987 gives little impression of how output changed within the period and in particular how output has recovered since the first quarter of 1981 - the trough for manufacturing as a whole. The charts in the Annex B plot the movements in output for each of the sectors using total manufacturing as a reference point. Column 2 in Table 1 presents the growth for each sector between 1981Q1 and 1987Q1. Over this period manufacturing output grew by nearly 16%, though in 10 of the sectors output was still below the 1981Q1 level. For industries where output is now above the 1979 level, there were strong recoveries since 1981Q1 in electrical consumer goods, plastic products, pharmaceuticals, consumer chemicals and hand tools and finished metal goods. Of the industries where output was still below the 1979 peak levels there were strong recoveries in leather goods, clothing, ferrous metals, and the extraction of minerals and metal ores. The really weak industries, those well below 1979 levels and showing little sign of recovery are heavy industrial plant, footwear, electrical industrial goods, rubber products, tobacco, ceramics, other vehicles (eg railways, motor cycles etc), shipbuilding, basic metal forming and man-made fibres.

6 Column 3 and 4 of Table 1 give some idea of what effect the different output changes shown in column 1 had on average manufacturing growth since 1979 by taking account of the relative sizes of the sectors. Column 3 shows the weight of each sector in total manufacturing in 1980 and column 4 uses this information to show how each sector contributed to the change in total manufacturing output.



The sectors contributing most to the growth of output have been computers and other office machinery, electronic capital goods, household electrical goods and plastic products. Those industries having the largest negative influence were motor vehicles, miscellaneous machinery for industry and basic metal forming.

Why has performance differed?

7 Without entering into very detailed analysis of factors underlying the performance of individual sectors (efficiency, design, management, skills, restrictive practices, etc), output in a broad sense will be determined by a combination of demand for the sector's products and its relative competitiveness compared with foreign producers. This note examines the growth in domestic demand for the products of each sector and its trade performance. It also looks at how changes in the structure of UK output compare with the experience of other industrialised countries, to see to what extent performance can be explained by common world-wide factors.

Domestic Demand

8 Although manufacturing industry exports some 30% of its output and imports meet some 35% of the home demand for manufactured goods, differing rates of growth of domestic demand for the products of industrial sectors will have an important influence on changes in their output. Unfortunately statistics directly comparable to the rate of growth of output listed in Table 1 do not exist for demand but it is possible to get a good feel for the importance of demand by looking at the growth of domestic demand at current prices between 1979H1 and 1986Q4. These are presented in column 1 of Table 2 which, for ease of comparison, uses the same ranking as Table 1.

TABLE 2

DOMESTIC DEMAND AND TRADE BALANCES

(all in current prices)

	Domestic Demand 1986Q4/1979H1 (% Change) Column 1	Ratio of Trade Balance*/ Domestic Demand		Changes in Ratio of Trade Balance/Domestic Demand (Columns 3-2) Column 4
		Year to 1979Q2 Column 2	Year to 1987Q1 Column 3	
Computers and other office machinery	257	- 17	- 21	- 4
Electronic capital goods] (inc. telecommunications)]	157	7	4	- 3
Electrical consumer goods	124	- 11	- 31	- 20
Pharmaceuticals	109	28	28	0
Aerospace	134	22	48	+ 26
Plastic Products	114	- 1	- 9	- 8
Consumer chemicals	114	13	3	- 10
Ordnance and small arms	84	32	39	+ 7
Industrial chemicals	53	7	11	+ 4
Instrument engineering	118	- 2	- 15	- 13
Food	67	- 13	- 12	+ 1
Printing and publishing	140	5	2	- 3
Drink	72	12	4	- 8
Hand tools and finished metal goods	74	4	- 5	- 9
Clothing	69	- 11	- 18	- 7
Glass	58	- 2	- 9	- 7
Household textiles and fur	69	- 5	- 11	- 6
Non-ferrous metals	5	- 19	- 22	- 3
Building materials	105	3	2	- 1
Extraction of minerals and] and metal ores]	16	- 57	- 65	- 8
Heavy industrial plant	85	23	8	- 15
Timber and wooden products	54	- 35	- 36	- 1
Pulp, paper and board	83	- 20	- 24	- 4
Leather and leather goods	47	- 14	- 16	- 2
Ferrous metals	- 19	3	1	- 2
Furniture	79	- 2	- 14	- 12
Textiles	48	- 8	- 21	- 13
Mining, construction and] associated equipment]	47	29	20	- 9
Other machinery	60	24	8	- 16
Footwear	73	- 22	- 35	- 13
Electrical industrial goods	71	20	9	- 11
Rubber products	39	9	0	- 9
Tobacco	58	21	22	+ 1
Ceramics, abrasives and asbestos	55	24	14	- 10
Metal working machine tools	49	0	- 9	- 9
Other vehicles	15	6	- 10	- 16
Motor vehicles and parts	80	- 4	- 26	- 22
Shipbuilding	- 14	- 8	- 24	- 16
Other manufacturing	117	1	- 15	+ 16
Basic metal forming	- 3	3	0	- 3
Man-made fibres	6	13	- 1	- 14
Total Manufacturing	69	- 1	- 7	- 6

* Trade Balance = Exports - Imports



9 It is immediately apparent that there is a fairly strong correlation in the ranking between the growth of domestic demand and the growth of output. This is not surprising. It is difficult to imagine a sector growing buoyantly when domestic demand is falling rapidly. The performance of several sectors, especially shipbuilding, ferrous and non-ferrous metals, basic metal forming, man-made fibres and other vehicles, have clearly been affected adversely by structural changes in demand. Similarly some sectors, particularly computers and office machinery, electronic capital goods, electrical consumer goods, aerospace, printing and publishing, and instrument engineering, have clearly benefited from the positive structural changes in demand that have taken place.

Trade Performance

10 But in a world economy characterised by relatively free trade, buoyant domestic demand does not of course guarantee buoyant domestic output. The ability of industry to compete against overseas producers both in the UK and world markets will also be a key factor since domestic demand can be supplied by imports while buoyant exports can offset weak demand in the home market. Annex C presents the growth in exports and imports in volume terms for each of the 41 sectors. It is not easy to draw firm conclusions from these figures because industries which have shown strong export growth have in many cases also seen strong import growth, no doubt reflecting changes in the pattern of demand and the general growth of world and intra-industry trade.

11 A better way of assessing the influence of trade flows on output growth is to look at changes in the trade balances for each sector. Columns 2 and 3 of Table 2 present those trade balances (standardised for purposes of comparison by dividing by domestic demand) for the years ending 1979Q2 and 1986Q4. For output to have grown faster than domestic demand over the past seven years, the



change in the trade balance over the period (column 4 of Table 2) must be positive. Put another way, trade performance will have added to output growth over and above that resulting from domestic demand growth, only in those sectors where the change in the proportionate trade balance is positive.

12 It is clear from Table 2 that trade performance has held back the growth of output over this period in the vast majority of manufacturing industries. Only in five industries, aerospace, ordnance and small arms, industrial chemicals, food and tobacco has trade performance contributed positively to output growth. In most cases the total output of these industries also grew relatively strongly; but in the case of tobacco a strong trade performance was unable to overcome very weak domestic demand. It is interesting to note that in a number of sectors, both at the top and bottom of the output growth league table, trade performance and domestic demand have been pulling in opposite directions. Thus electrical consumer goods output has grown well, despite a very poor trade performance, because of very buoyant domestic demand. Similarly a poor trade performance by motor vehicles and parts has resulted in poor output performance despite above average growth in domestic demand.

13 The general conclusion that trade performance has, on the whole, held back output growth is not surprising in view of the very strong real exchange rate over the early part of this period and the development of the large trade deficit in manufactured goods. With the fall in the oil price, the real exchange rate is now at a level much more conducive to manufacturing industry. If real exchange rates remain around their current levels, it is likely that trade performance in the coming years will contribute much more to output growth.

How do the changes in the structure of UK manufacturing compare with those experienced by other countries?

14 To a considerable extent the changes in the structure of UK manufacturing over the last eight years were not unique to this country.



Other major industrial countries appear to have experienced rather similar patterns of structural change. This suggests that the reason for such changes should be sought in factors such as changing tastes and technologies, changing energy prices, and competition from newly industrialising countries which are not peculiar to the UK but which relate rather to the nature of individual industries.

15 Internationally comparable data are not available at the level of sectoral disaggregation used in this note. Nor are they available on such an up to date basis. However a recent DTI analysis compared the growth rates of 29 individual manufacturing sectors in the UK, USA, Japan, Germany and France, over the period 1979 to 1984, with that of manufacturing as a whole. Individual sectors were compared across the five countries in terms of whether they grew faster or slower than total manufacturing.

16 Compared to manufacturing as a whole, output growth in a number of UK sectors followed a path similar to other OECD countries. Examples of sectors where growth was relatively strong in most countries are electrical machinery (including industrial machinery and domestic appliances), plastic products and other chemicals (including pharmaceuticals). Sectors which tended to be universally weak were usually mature industries. In particular, leather, textiles, footwear and iron and steel declined in importance in all five countries between 1979 and 1984.

17 In some cases output changes in the UK did diverge from trends in other major economies though there are few instances where the UK experience differed radically. UK performance in professional goods (instrument engineering) appears relatively strong compared with that in all the other countries except Japan. Similarly, the UK was unusual in that its food products and industrial chemicals sectors showed output growth well above that for total manufacturing. UK sectors whose relative decline was not reflected to such an extent elsewhere include transport equipment and rubber products. Finally, UK structural change was unusual in that its metal products and



petroleum refineries sectors did not suffer the relative decline apparent in other countries and in the absence of growth in the paper products industry.

Examples of companies which have had a significant effect on changes in output

18 It is not possible to calculate directly the contribution of each company to the change in output of its sector because of the restrictions relating to statistical confidentiality. The examples that follow have been prepared from the DTI's regular contacts with industry and an analysis of company accounts. For the most part the companies identified are among the largest in the sector and so are likely to have had a major impact on the change in that sector's output. However, some sectors, particularly the engineering ones, are groupings of smaller heterogeneous industries where changes in output may be influenced by the performance of relatively small companies.

19 For computer manufacturing generally, there has been significant growth in production but this has mainly been by the big US and Japanese multinationals. In a fast expanding market ICL has not held its own, although recently there has been a marked increase in its profitability. In the microcomputer market Apricot has performed particularly well. Sales increased 10 fold between 1980 and 1984 and nearly doubled the following year.

20 A strong performer in the pharmaceutical sector has been Glaxo. Its sales and profits have increased steadily since 1982.

21 In aerospace the two most important companies are British Aerospace and Rolls Royce. On average their turnover has grown by 17.3% pa and 11.4% pa respectively.



22 While there are a number of successful companies in industrial and consumer chemicals the one which has had most effect on overall performance has been ICI. In 1984 ICI became the first UK company to achieve profits of over £1bn. After a slight set back in 1985 due to increased competitive pressures and a less favourable exchange rate, 1986 saw profits rise by 11% and sales volume by 7%. First quarter results for 1987 gave profits of £334m with improved margins in all sectors.

23 Within instrument engineering a number of relatively small firms have been particularly successful. The largest of these is Oxford Instruments whose products are based on superconducting technology and include superconducting magnets for magnet resonance medical diagnostic imagers. VG Instruments is another successful company which manufactures scientific instruments and equipment for semiconductor manufacturing. Both companies have received Queen's Awards for technology and exports.

24 There are a number of large companies whose poor performance has contributed to the decline of certain sectors. In motor vehicles and parts as well as the decline in production by what is now the Rover Group, production by Ford and Peugeot Talbot also fell. The performance of the merchant shipbuilding sector is dominated by British Shipbuilders and Harland and Wolff. The more than 70% reduction in output since 1979 has been the result of the fall in demand and the intense international competition, particularly from the Far East.

25 In the machinery sector the receivership of Stone Platt and the sale and subsequent break-up of the Bentley Group by Sears Holdings is reflected in the fall by 80% in the output of the textile machinery industry. Similarly in the process plant sector turnover by John Brown Engineering fell from £700m in 1982 to £500m in 1986 and in the furnace industry the largest UK company, Wellman, has seen its profits and turnover fall.



26 However even in the machinery sector there are companies which have bucked the trend. J C Bamford in the construction equipment sector more than doubled its turnover between 1979 and 1986, with profits showing a similar pattern. Other examples would be Crossfield Electronics in the printing equipment sector and APV-Baker in that sector and the food and drink processing equipment industry.

27 Courtaulds and Coats Viyella are the two major textile and clothing companies. After a bad patch in 1981 when profits fell to £5m Courtaulds turned itself round and has seen a rapid increase in profits since then. Coats Viyella is also doing well.

28 An exception to the overall decline in the production of passenger cars is Vauxhall. Its production has increased fairly steadily since 1979 and is now nearly 3 times higher than 8 years ago.

29 Between 1983 and 1985 two overseas companies: the Bridgewater Paper Company and the Shotton Paper Company have established new capacity in the paper and board industry in the UK so that now the UK is capable of producing about 36% of its annual newsprint consumption.

Thank you very much
for this excellent analysis. I am
most grateful to those who spent
so much time and care over it.
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INDUSTRY GROUPINGS USED FOR DISAGGREGATED ANALYSIS

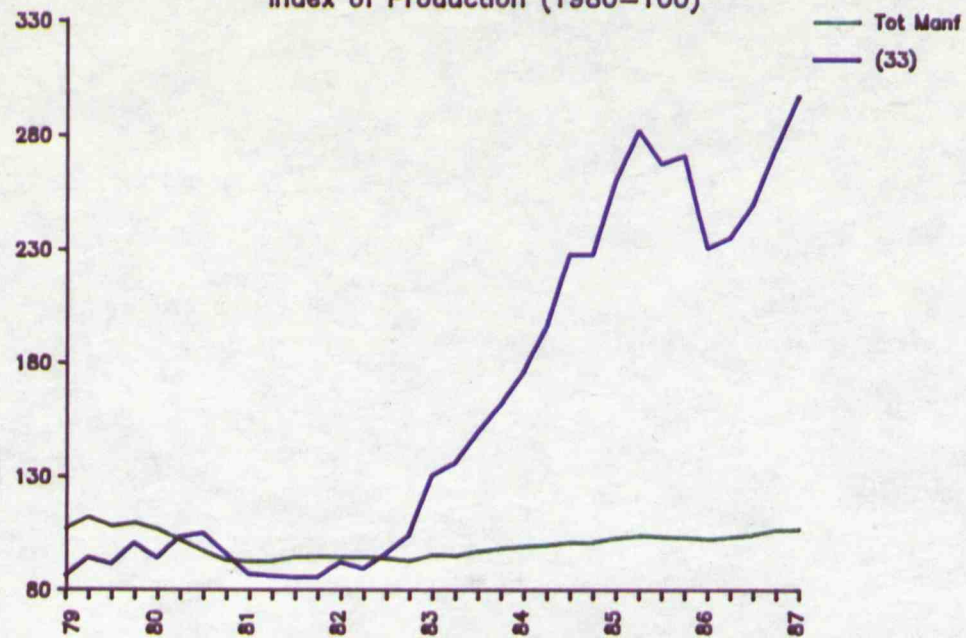
	<u>Industry</u>	<u>SIC Group</u>
1	Extraction of Minerals & Metal Ores	210, 231-239
2	Ferrous Metals	221-223
3	Non-Ferrous Metals	224
4	Building Materials	241-243 and 245
5	Ceramics, Abrasives and Asbestos	244, 246, 248
6	Glass	247
7	Industrial Chemicals	251-256
8	Pharmaceuticals	257
9	Consumer Chemicals	258-259
10	Man-Made Fibres	260
11	Basic Metal Forming	311-313
12	Hand Tools and Finished Metal Goods	314-316
13	Heavy Industrial Plant	320
14	Metal-Working Machine Tools	322
15	Mining, Construction and associated equipment	325
16	Other Machinery	321, 323- 324, 326-328
17	Ordnance and Small Arms	329
18	Computers and other office machinery	330
19	Electrical Industrial Goods	341-343
20	Electronic Capital Goods (inc. Telecommunications)	344
21	Electrical Consumer Goods	345-348
22	Motor Vehicles and Parts	351-353
23	Shipbuilding	361
24	Aerospace	364
25	Other Vehicles	362-363, 365
26	Instrument Engineering	371-374
27	Food	411-423
28	Drink	424-428
29	Tobacco	429
30	Textiles	431-439
31	Leather and Leather Goods	441-442
32	Footwear	451
33	Clothing	453
34	Household Textiles and Fur	455-456
35	Timber and Wooden Products	461-466
36	Furniture	467
37	Pulp, Paper and Board	471-472
38	Printing and Publishing	475
39	Rubber Products	481-482
40	Plastic Products	483
41	Other Manufacturing	491-495

MOVEMENTS IN THE INDEX OF PRODUCTION SINCE 1979

This annex presents charts of movements in the index of production since the beginning of 1979 for each of the 41 sectors identified. A plot of movements in the index of total manufacturing output is included on each chart as a reference point. To aid comparison, the same scale is used for most charts. For sectors where experience differed widely from the average for all manufacturing a different scale is used. The charts are presented in the same order as the listing in Tables 1 and 2 ie in order of output growth.

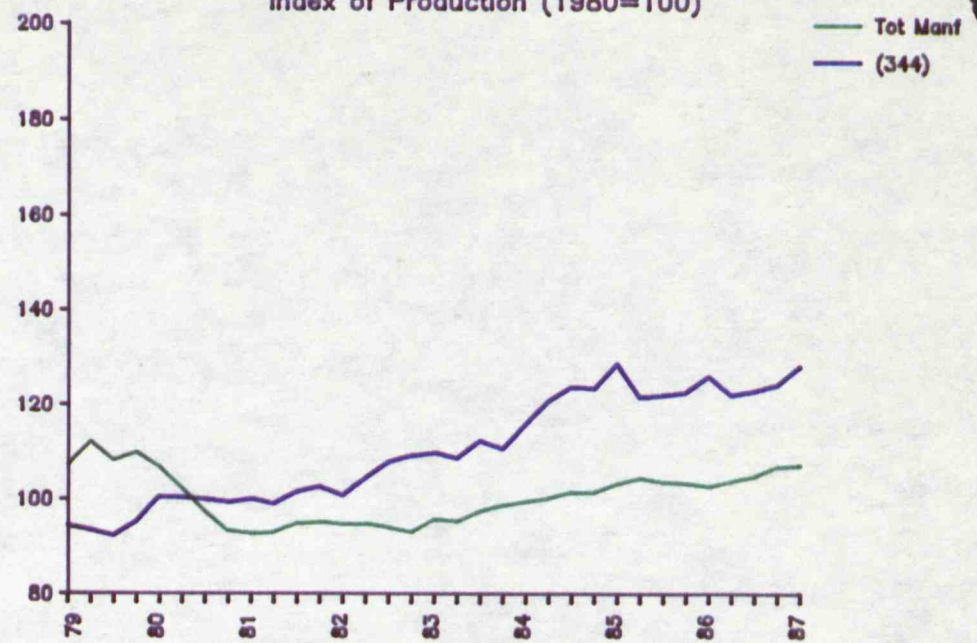
18 Office Mchnry, Computers (33)

Index of Production (1980=100)



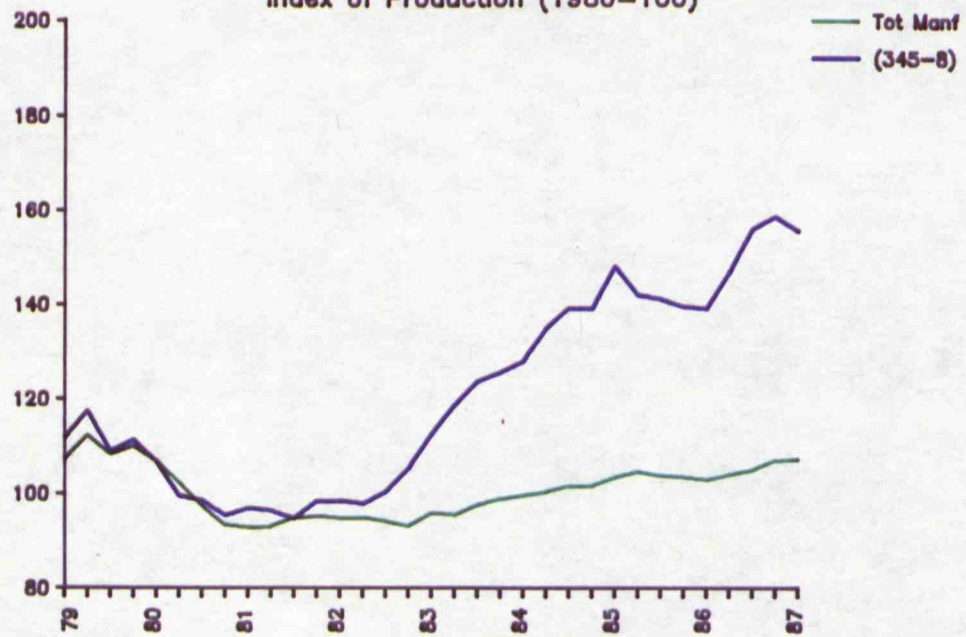
20 Telecomms etc Eqt (344)

Index of Production (1980=100)



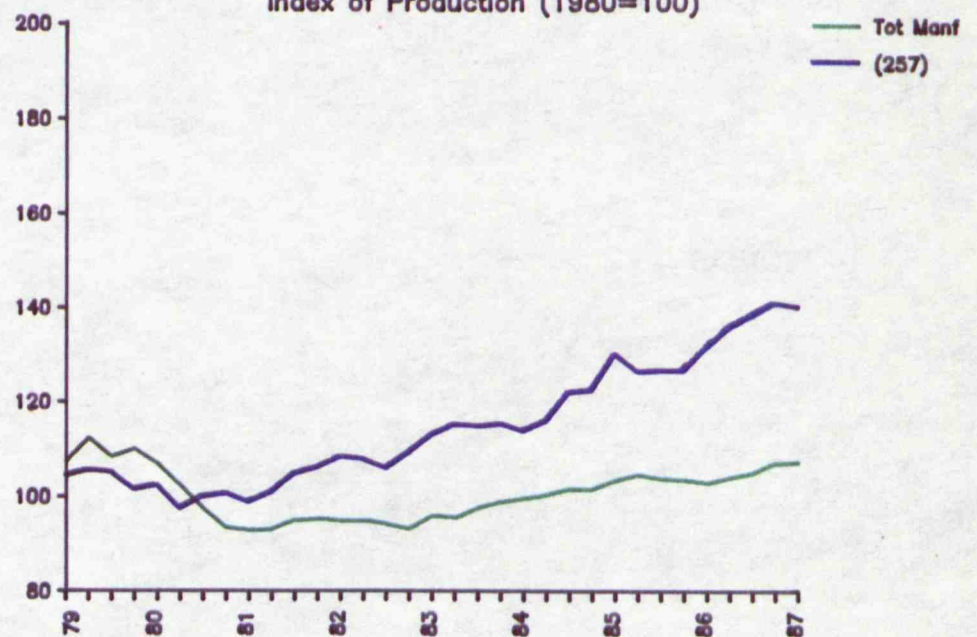
21 Electrical Consumr Gds (345-8)

Index of Production (1980=100)

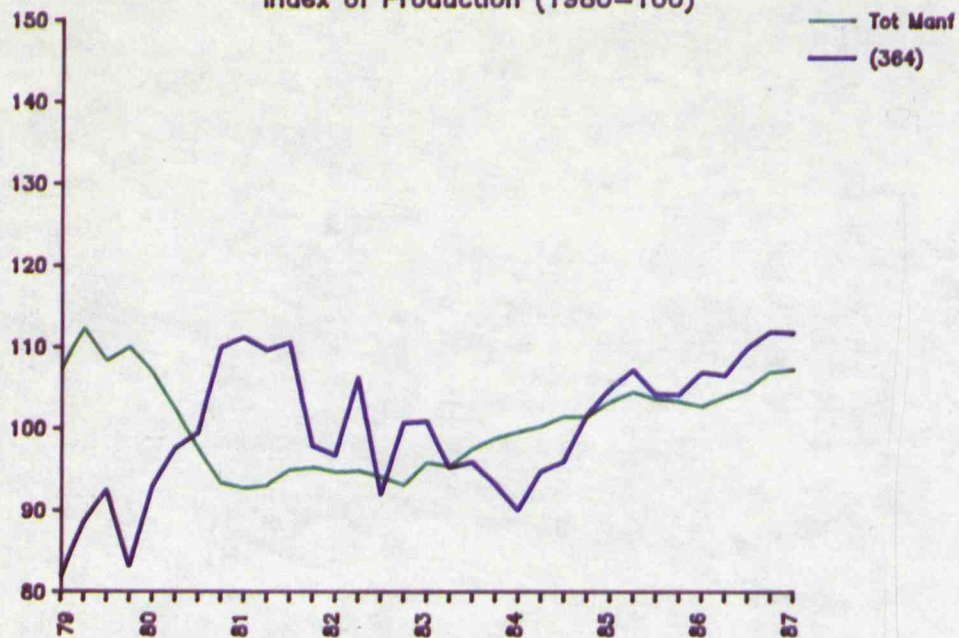


8 Pharmaceuticals (257)

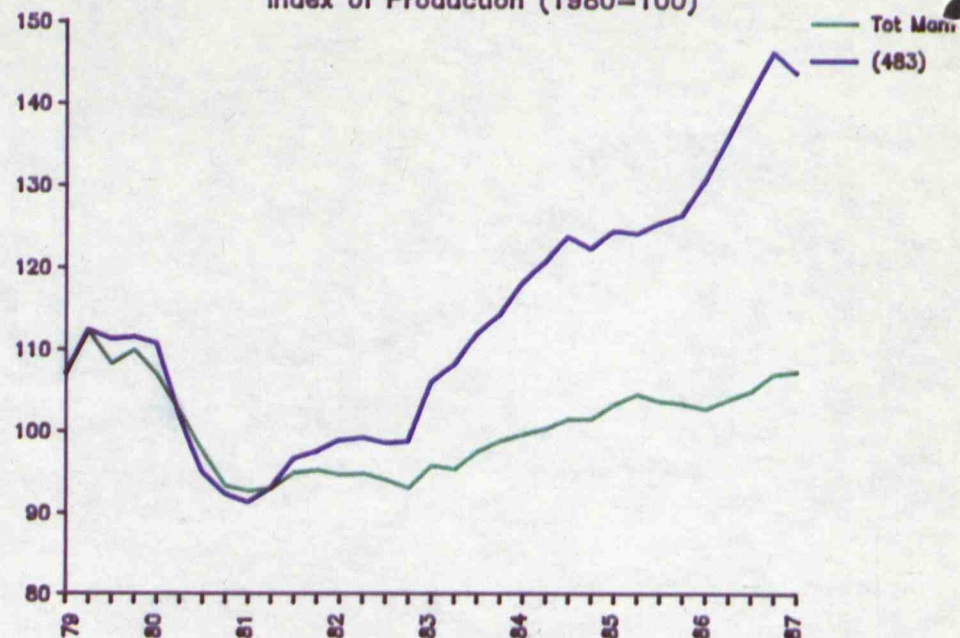
Index of Production (1980=100)



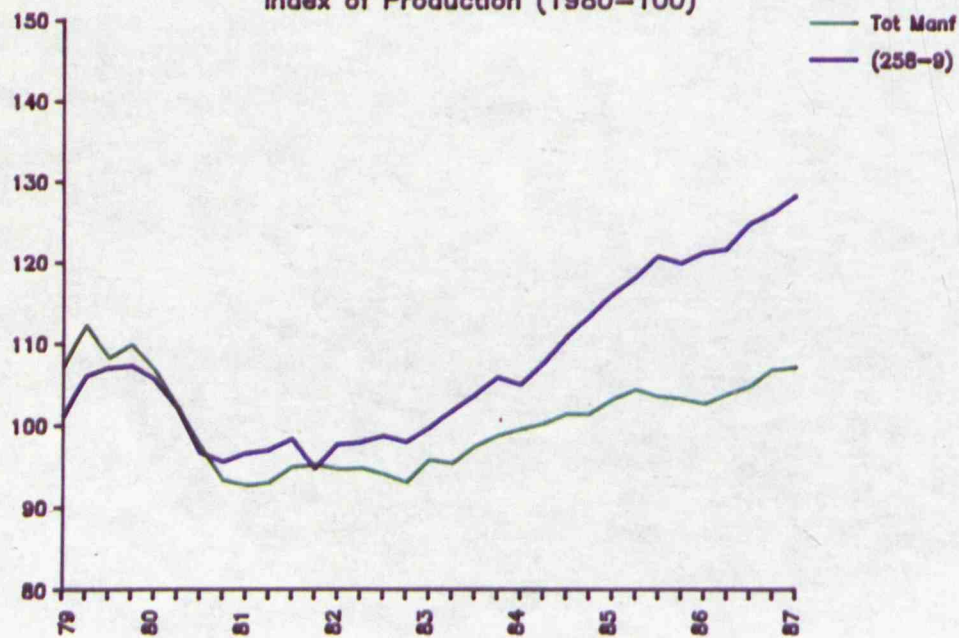
24 Aerospace (364)
Index of Production (1980=100)



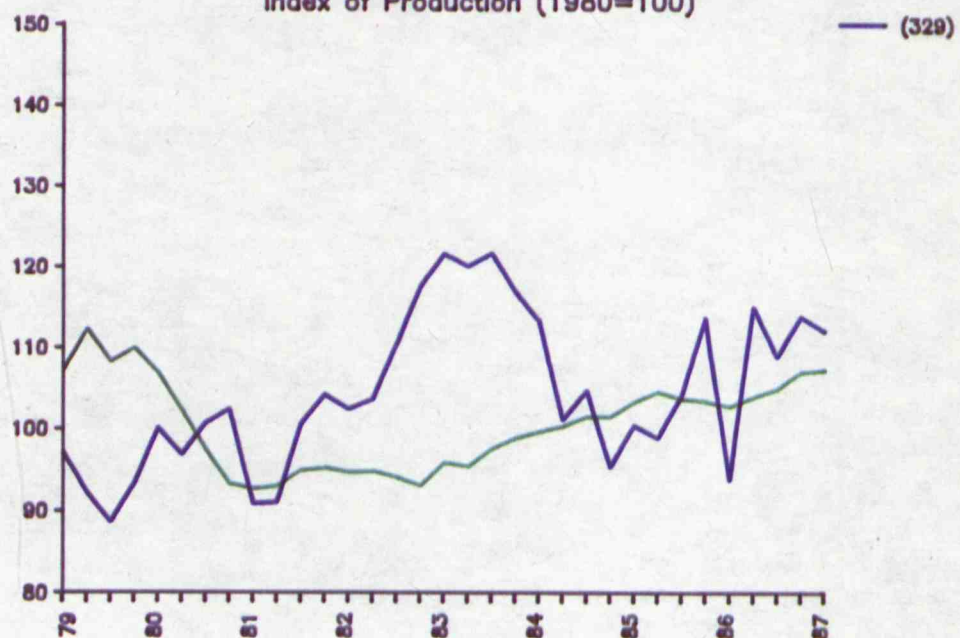
40 Plastic Products (483)
Index of Production (1980=100)



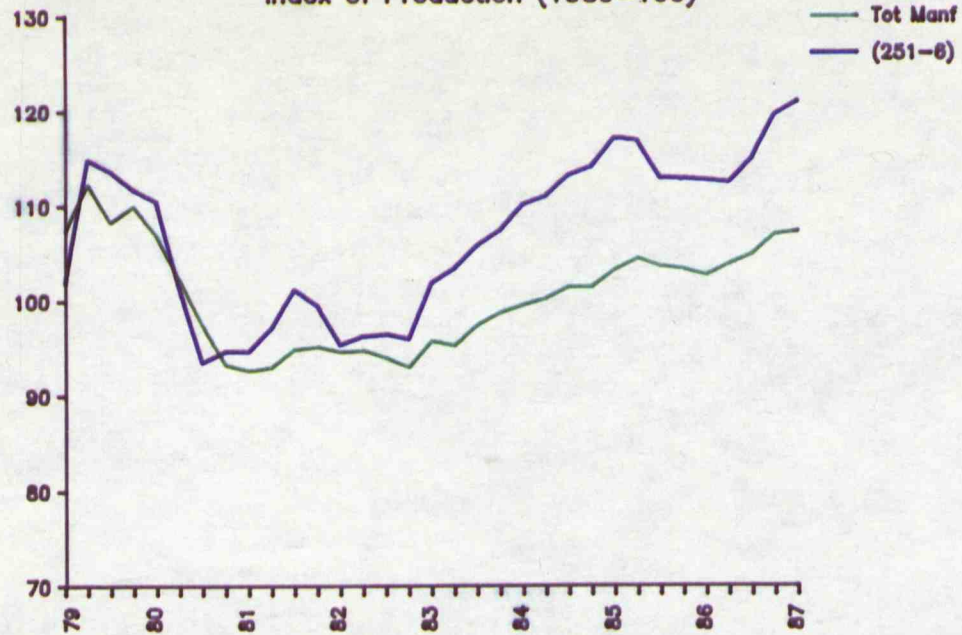
9 Consumer Chemicals (258-9)
Index of Production (1980=100)



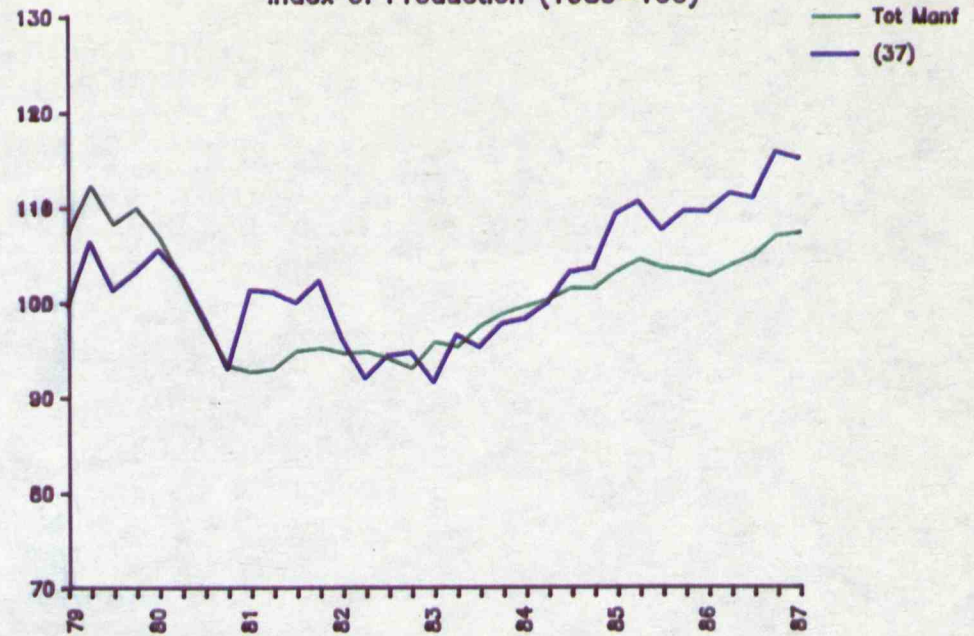
17 Ordnance & Small Arms (329)
Index of Production (1980=100)



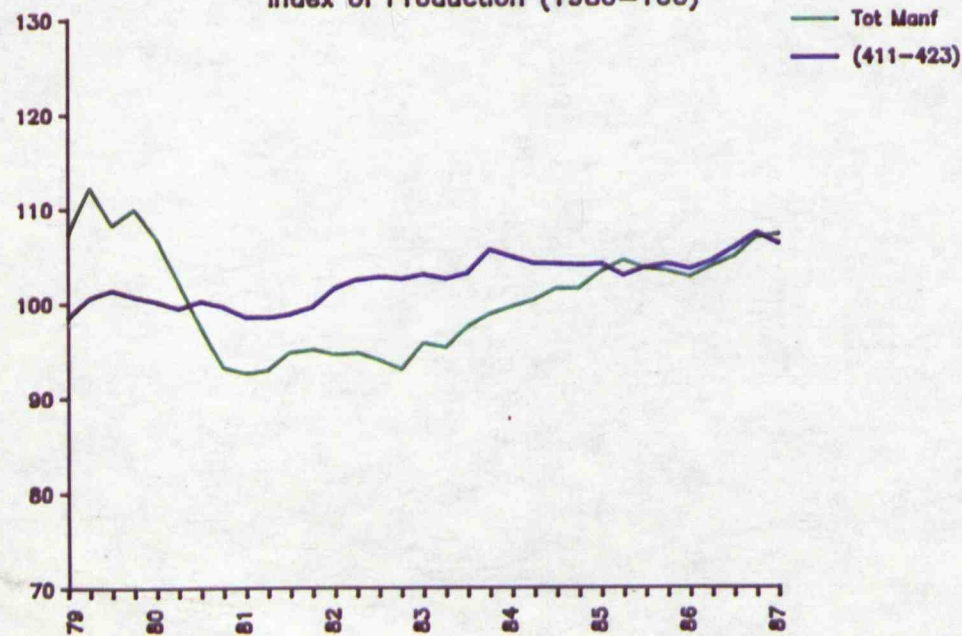
7 Industrial Chemicals (251-6)
Index of Production (1980=100)



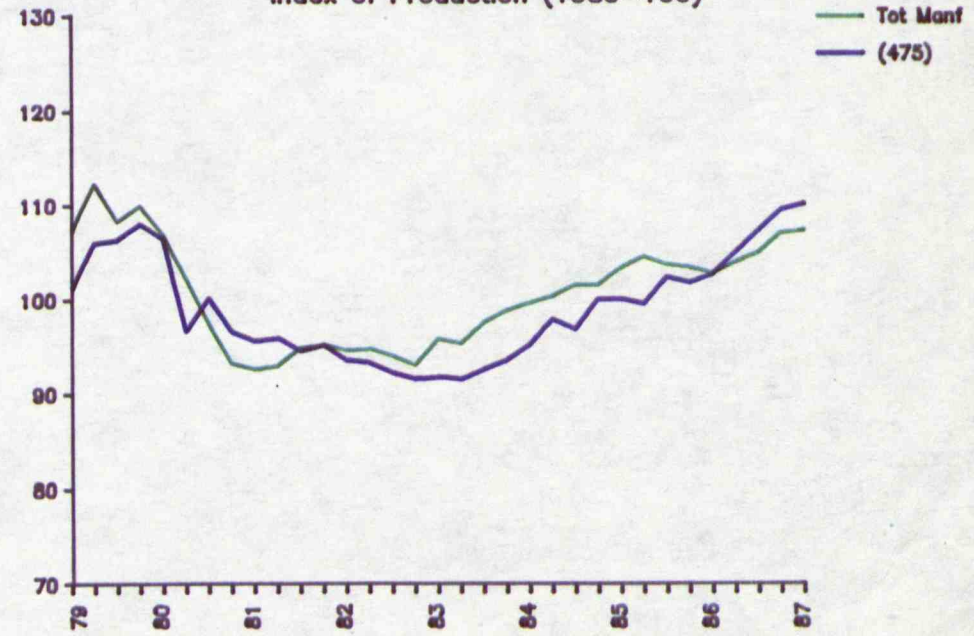
26 Instrument Engineering (37)
Index of Production (1980=100)



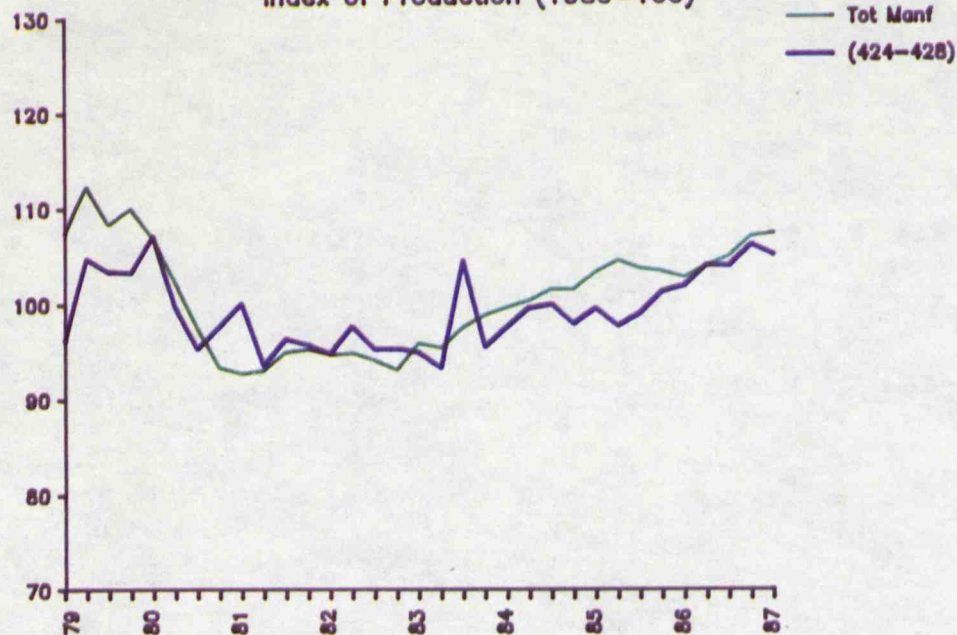
27 Food (411-423)
Index of Production (1980=100)



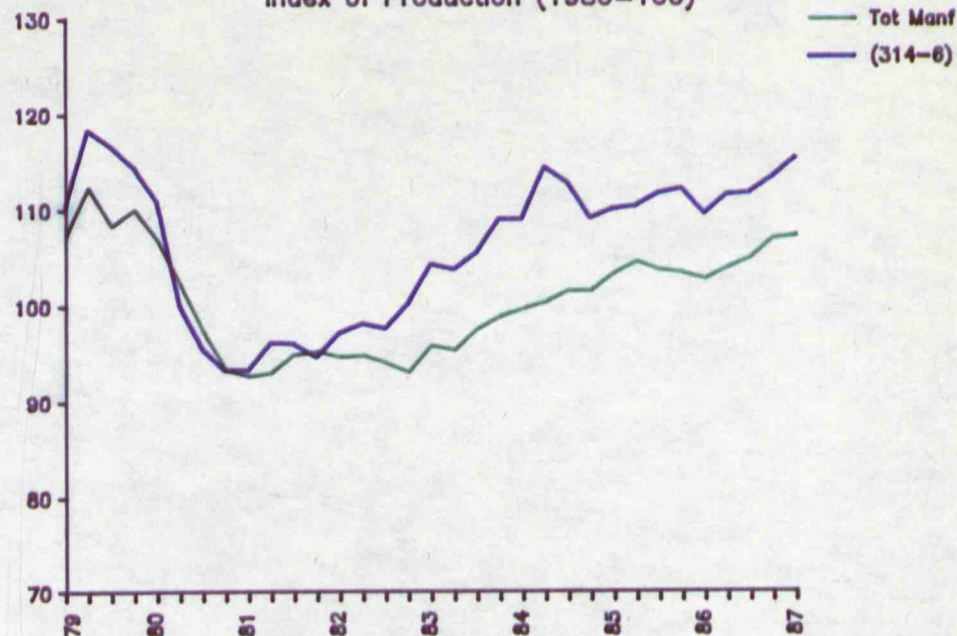
38 Printing & Publishing (475)
Index of Production (1980=100)



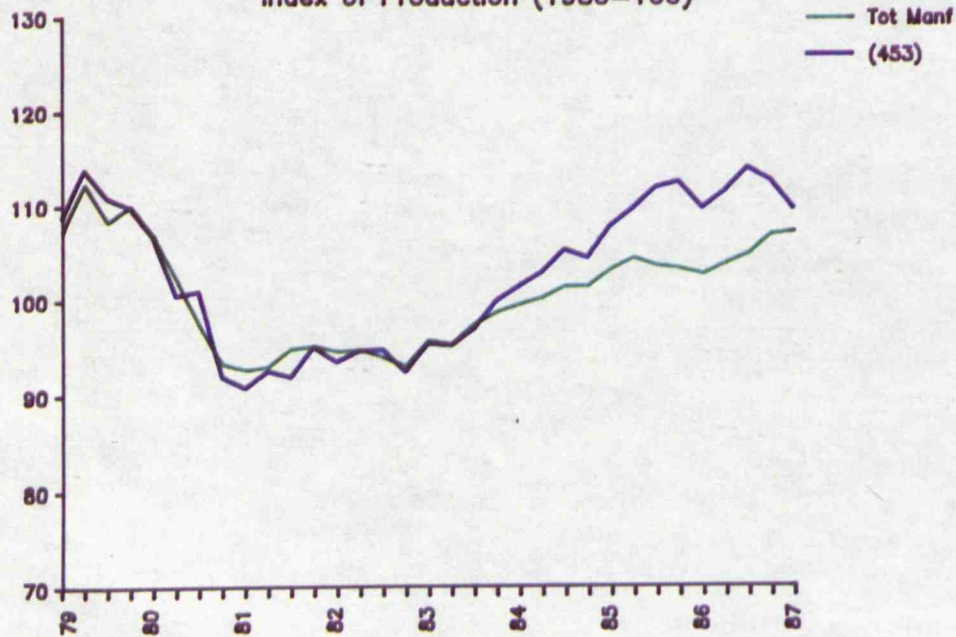
28 Drink (424-428)
Index of Production (1980=100)



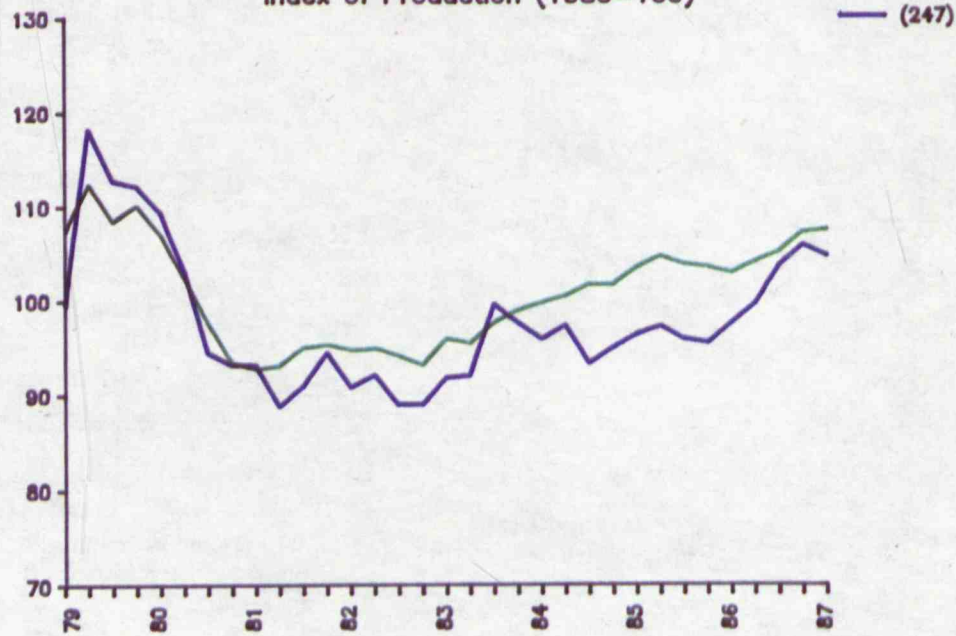
12 Hand Tools, Metal Goods (314-6)
Index of Production (1980=100)



33 Clothing (453)
Index of Production (1980=100)

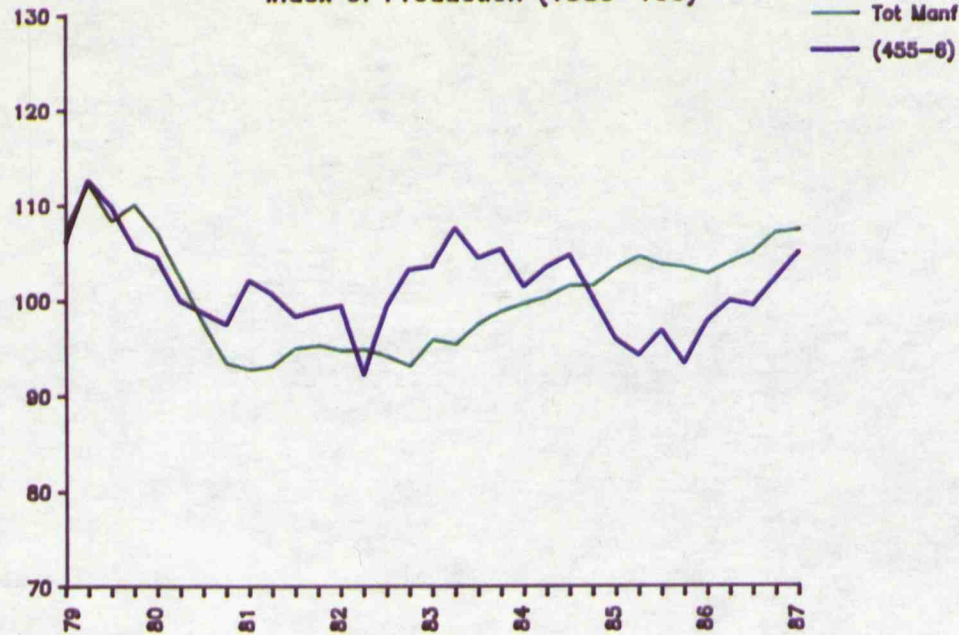


6 Glass (247)
Index of Production (1980=100)



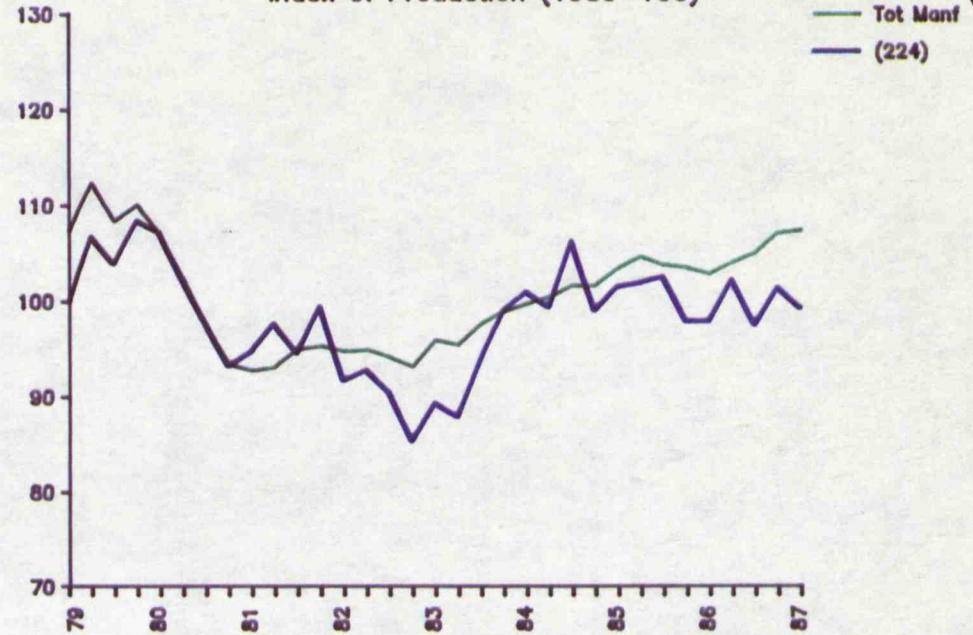
34 Hsehd Txtls & Fur (455-6)

Index of Production (1980=100)



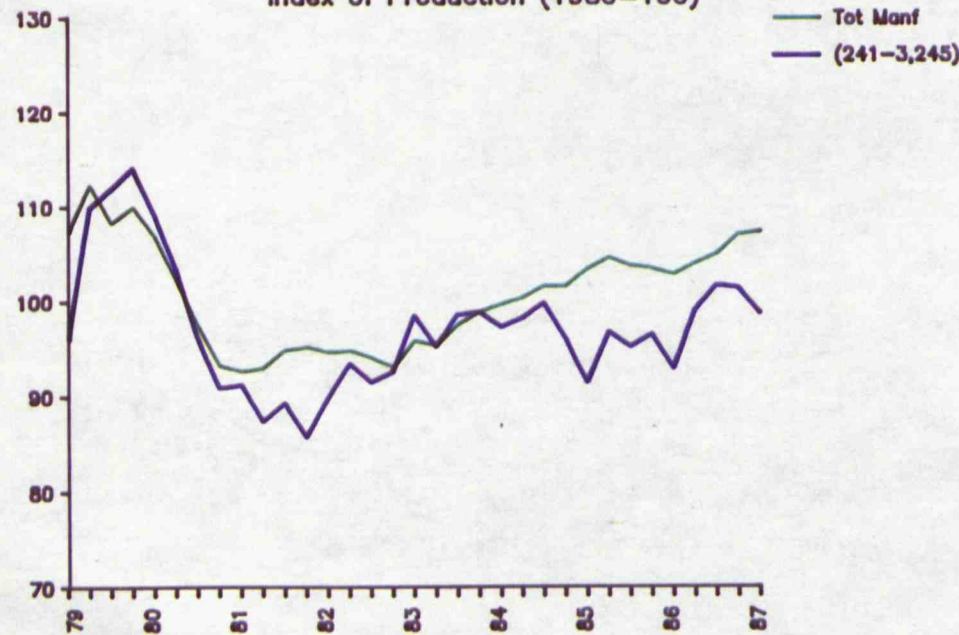
3 Non-Ferrous Metals (224)

Index of Production (1980=100)



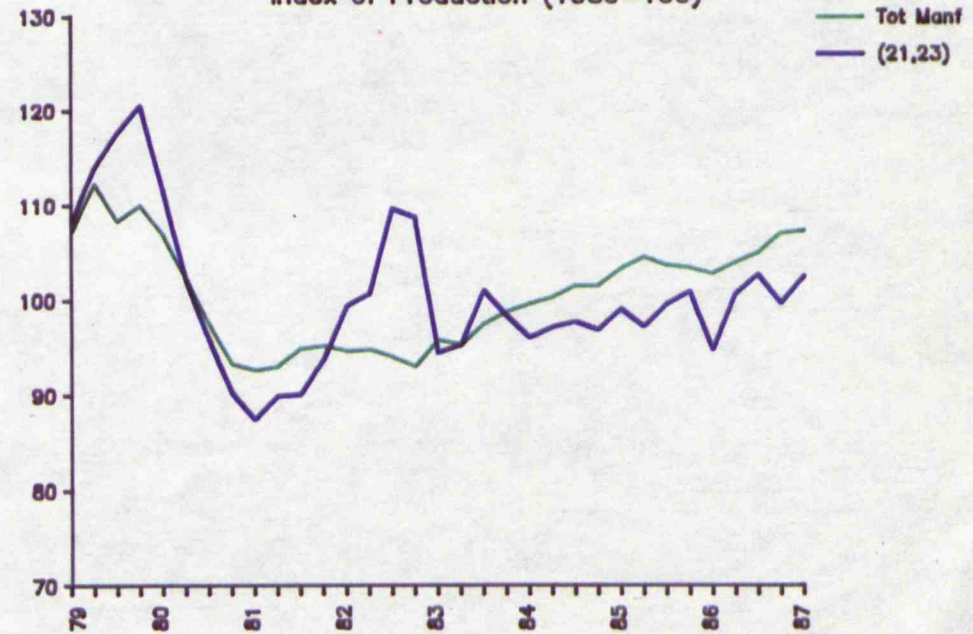
4 Building Materials (241-3,245)

Index of Production (1980=100)



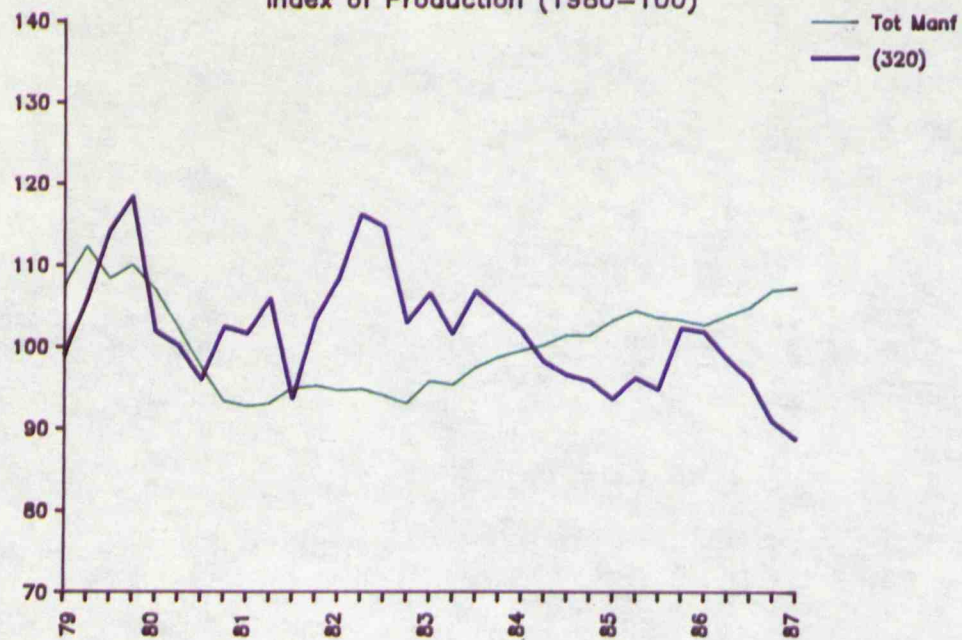
1 Minerals, Metal Ore Ext'n (21,23)

Index of Production (1980=100)



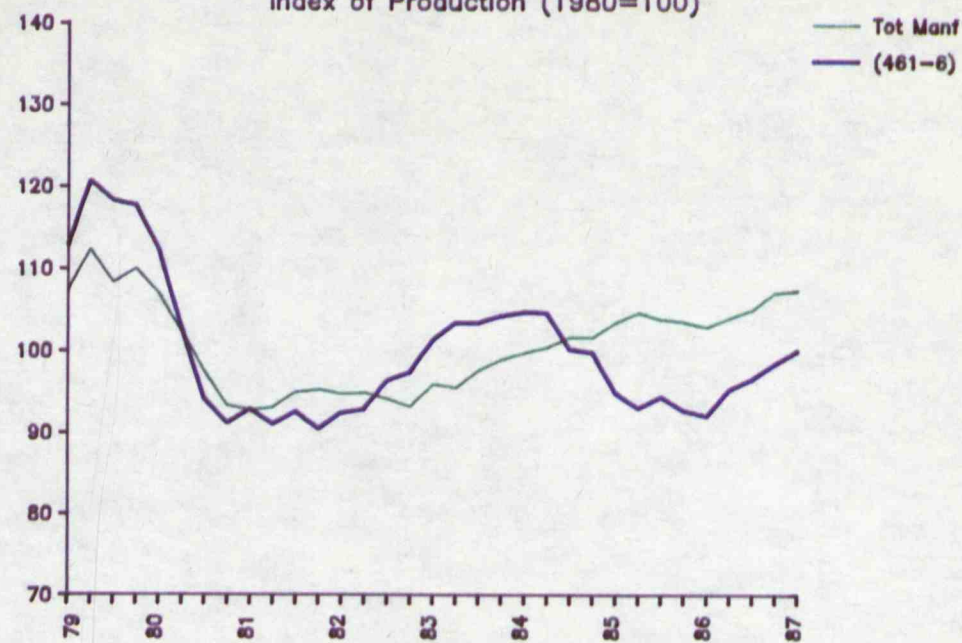
13 Heavy Industrial Plant (320)

Index of Production (1980=100)



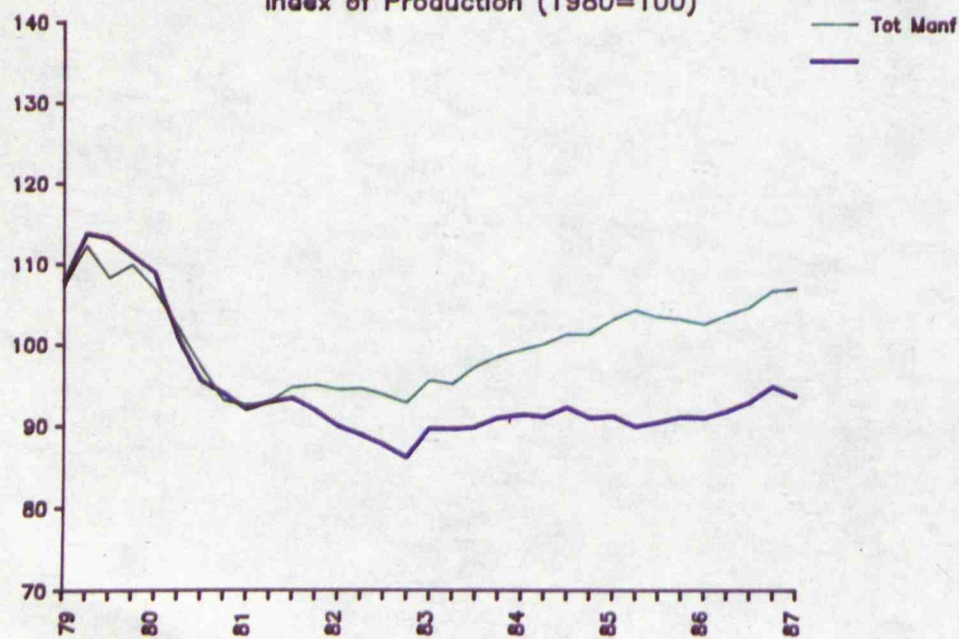
35 Timber & Wooden Prods (461-6)

Index of Production (1980=100)



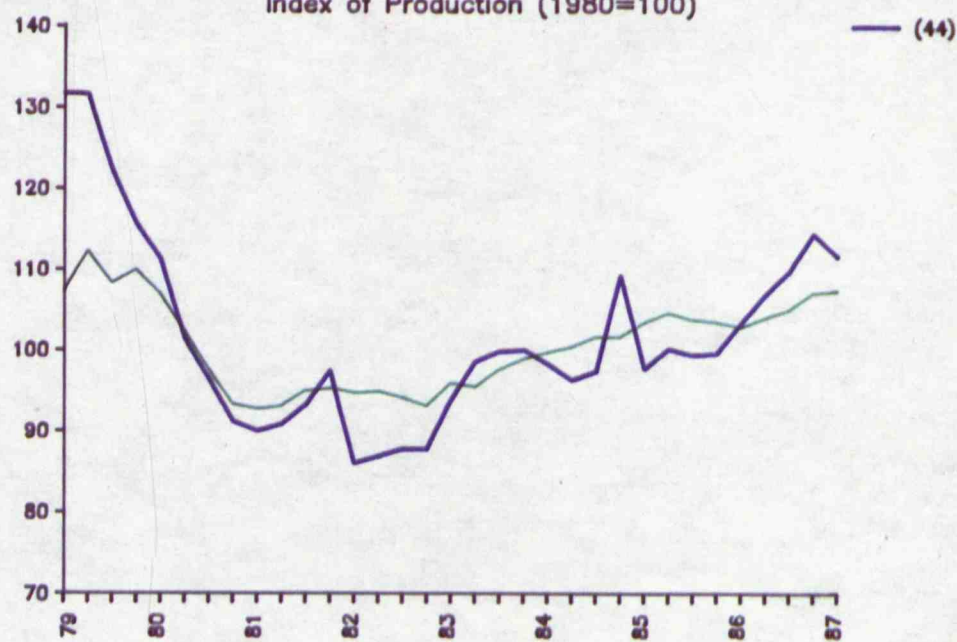
37 Pulp, Paper & Board (471-2)

Index of Production (1980=100)

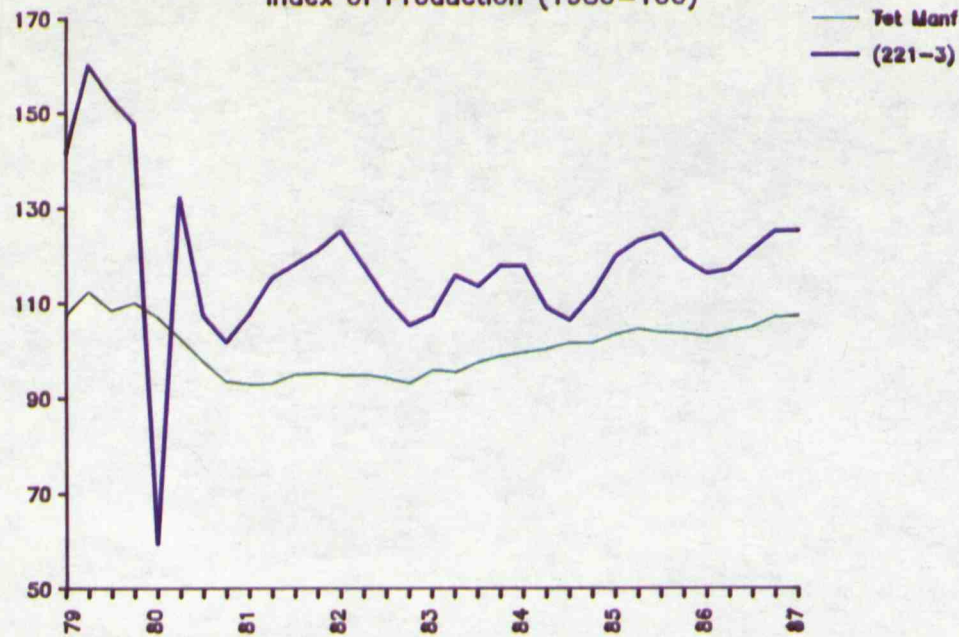


31 Leather & Lthr Gds (44)

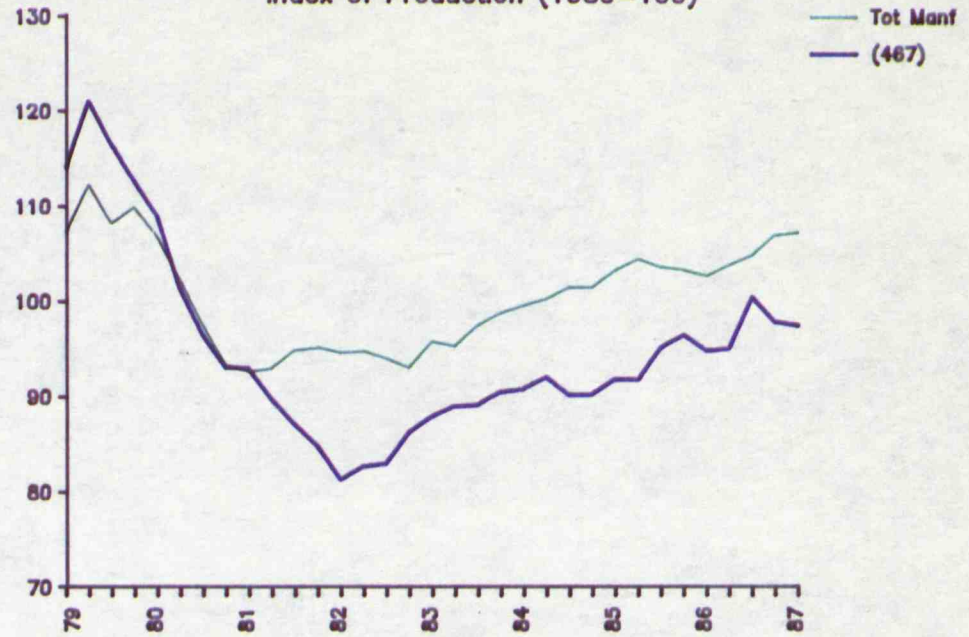
Index of Production (1980=100)



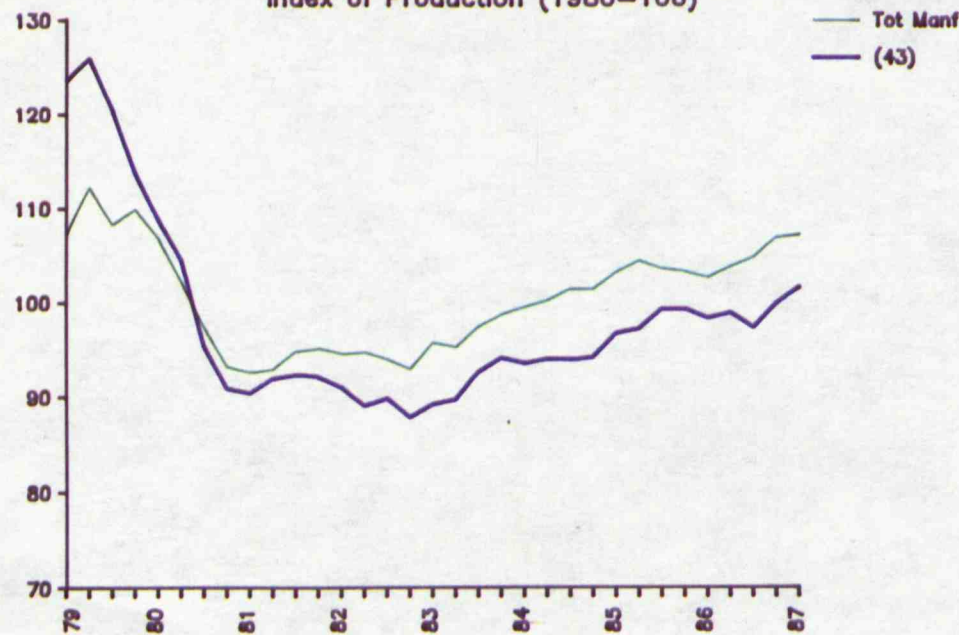
2 Ferrous Metals (221-3)
Index of Production (1980=100)



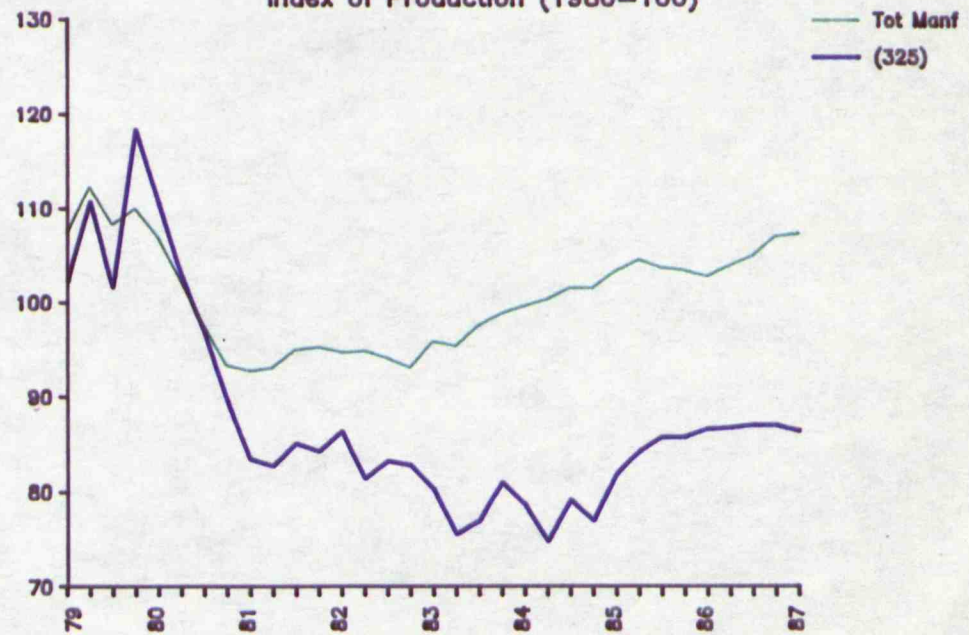
36 Furniture (467)
Index of Production (1980=100)



30 Textiles (43)
Index of Production (1980=100)

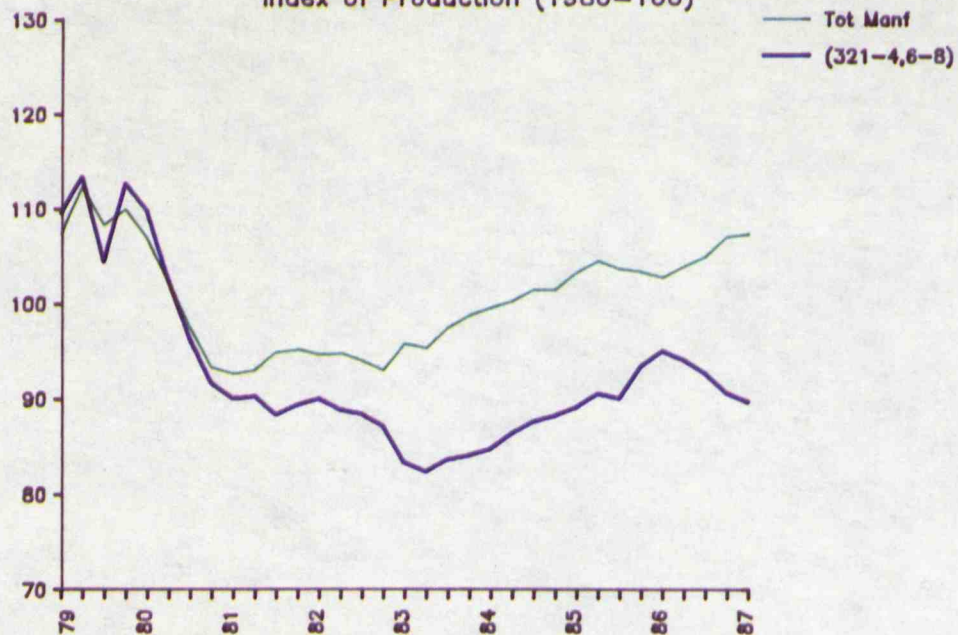


15 Mining & Constrcn Eqt (325)
Index of Production (1980=100)



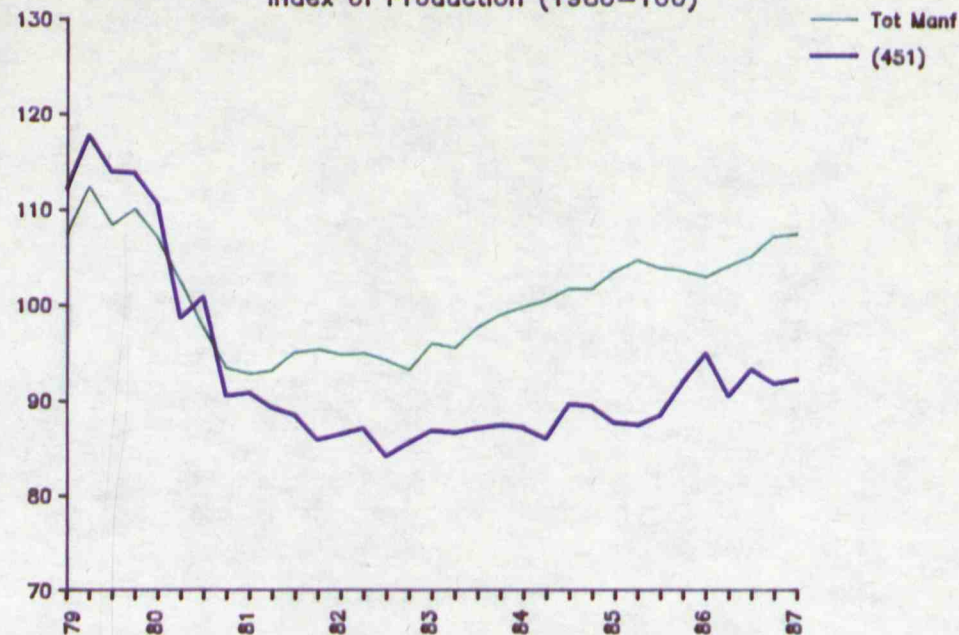
16 Other Machinery (321,3,4,6,7,8)

Index of Production (1980=100)



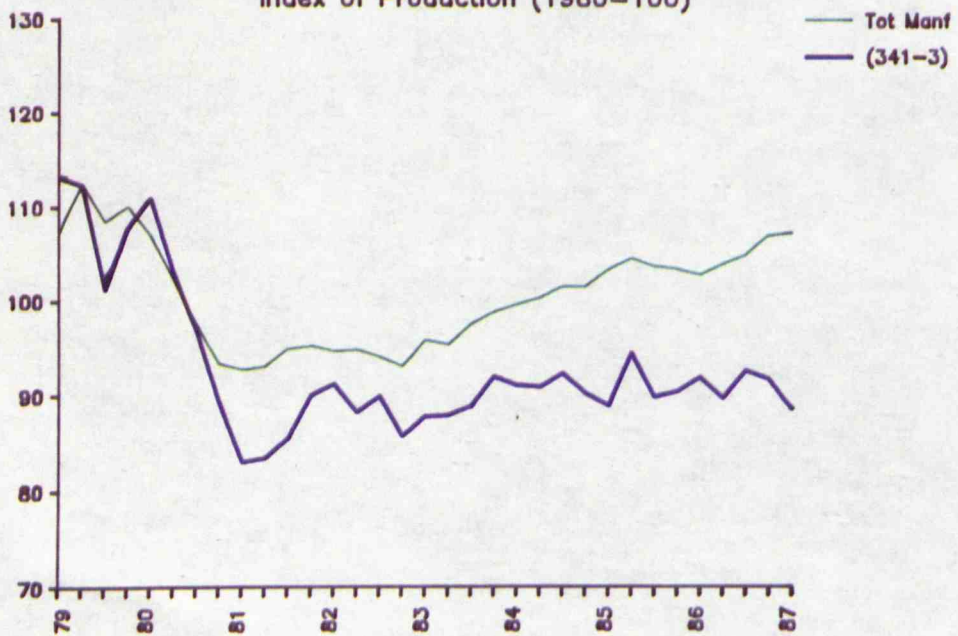
32 Footwear (451)

Index of Production (1980=100)



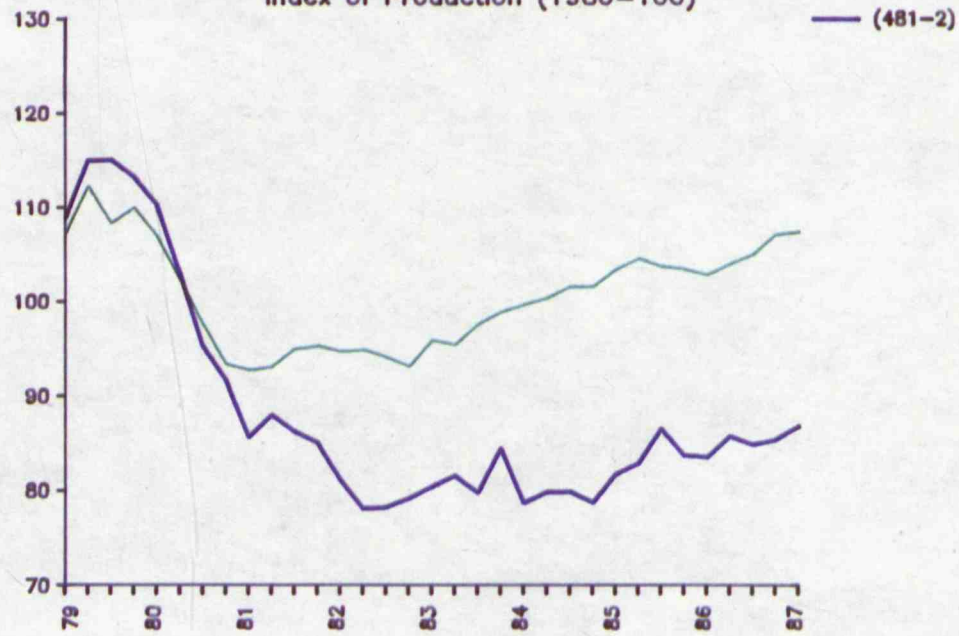
19 Electrical Indstrl Gds (341-3)

Index of Production (1980=100)

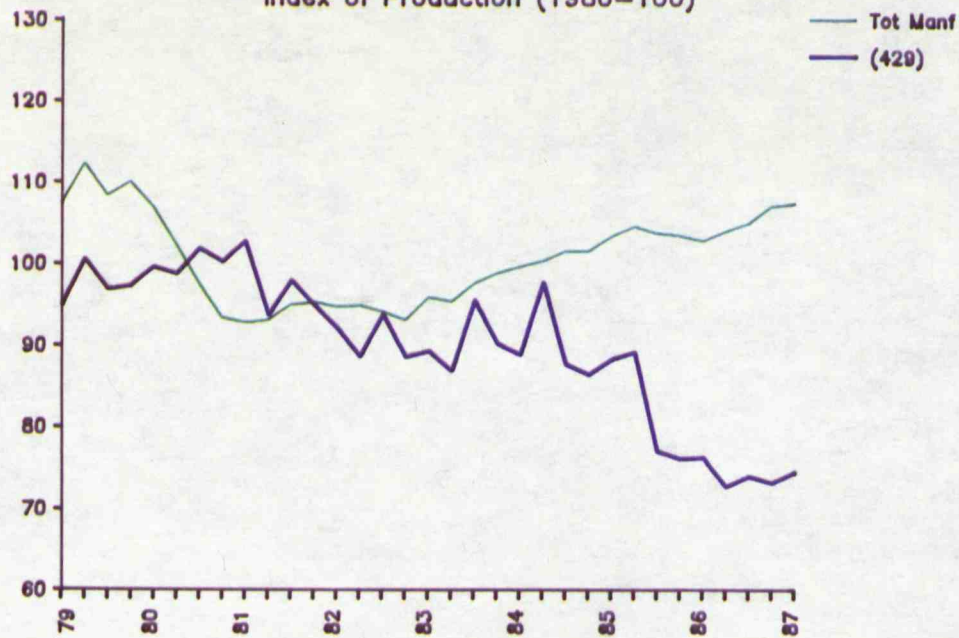


39 Rubber Products (481-2)

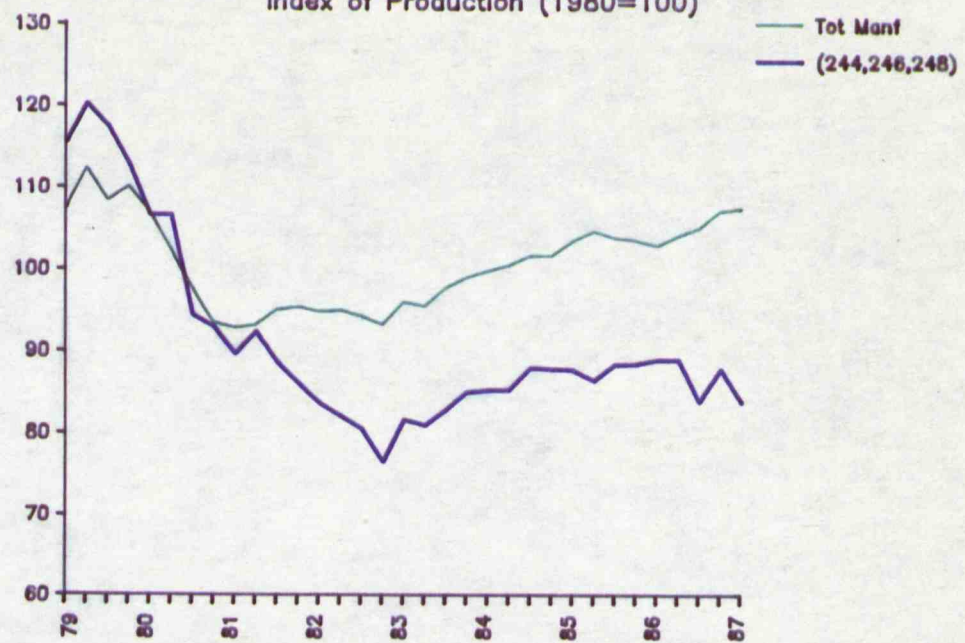
Index of Production (1980=100)



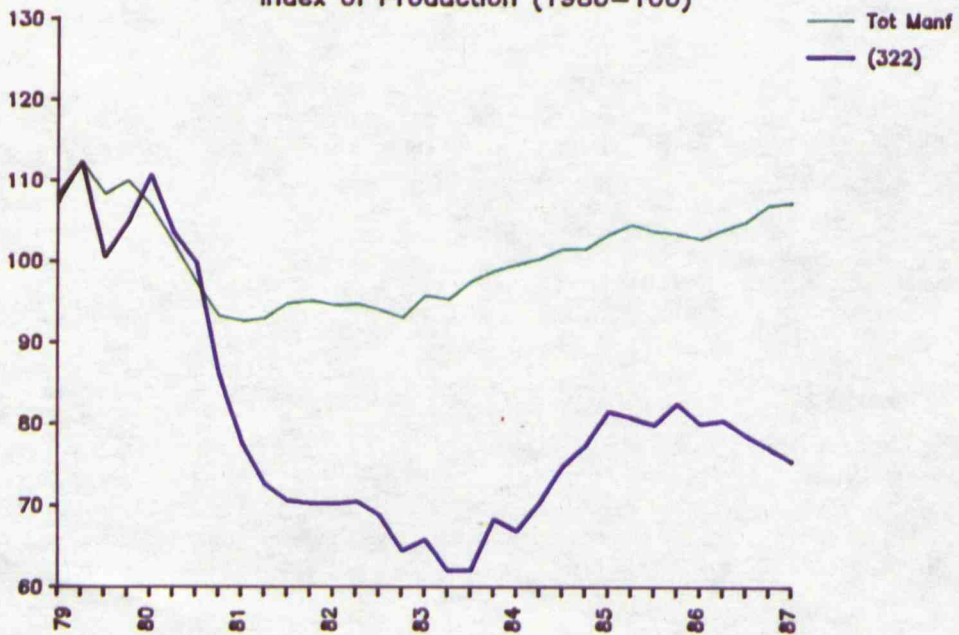
29 Tobacco (429)
Index of Production (1980=100)



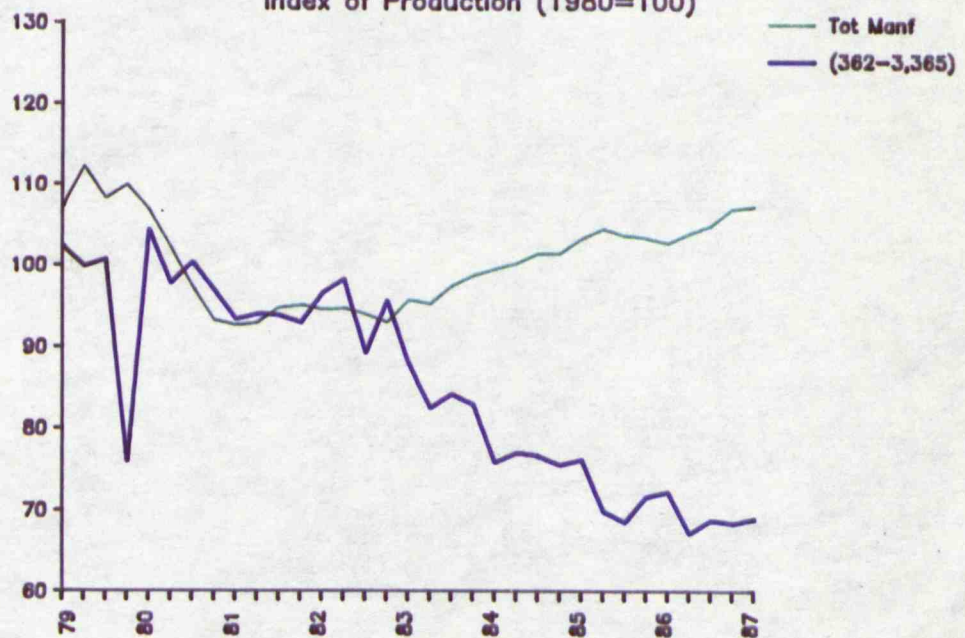
5 Ceramics, Abrasives etc (244,246,248)
Index of Production (1980=100)



14 Metal-Working Machine Tools (322)
Index of Production (1980=100)

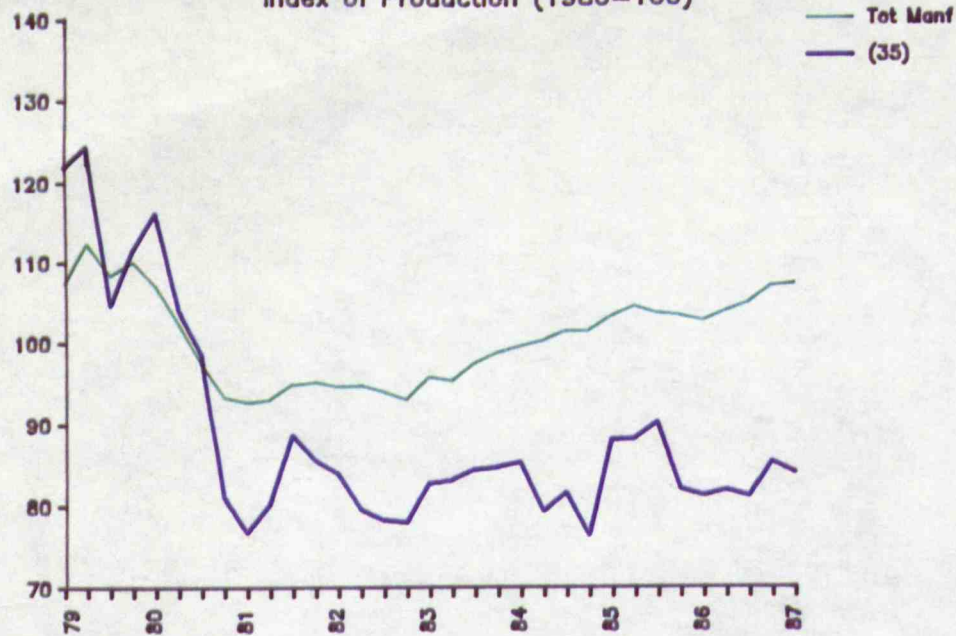


25 Other Vehicles (362-3,365)
Index of Production (1980=100)



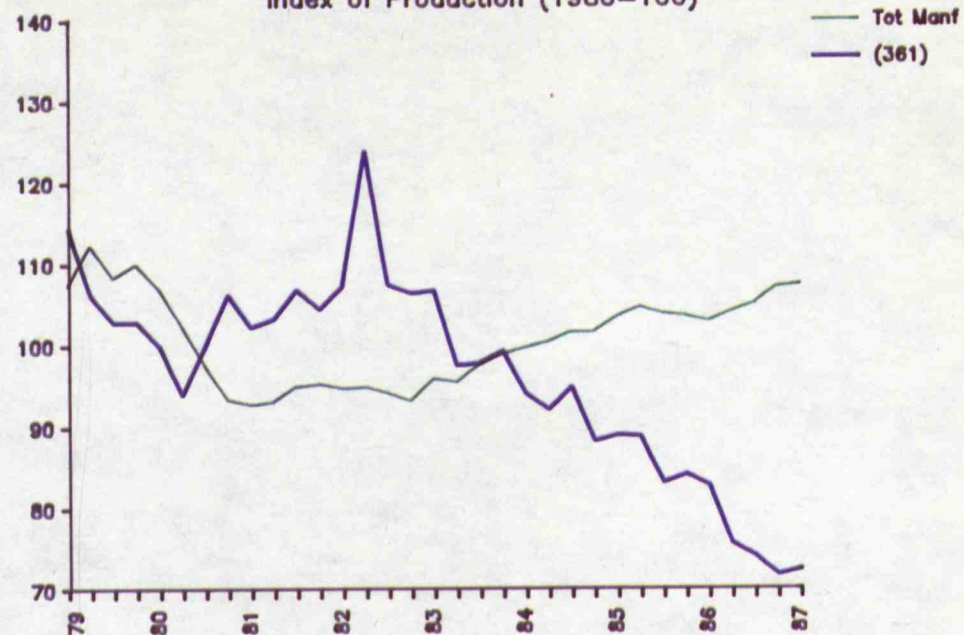
22 Motor Vehicles & Parts (35)

Index of Production (1980=100)



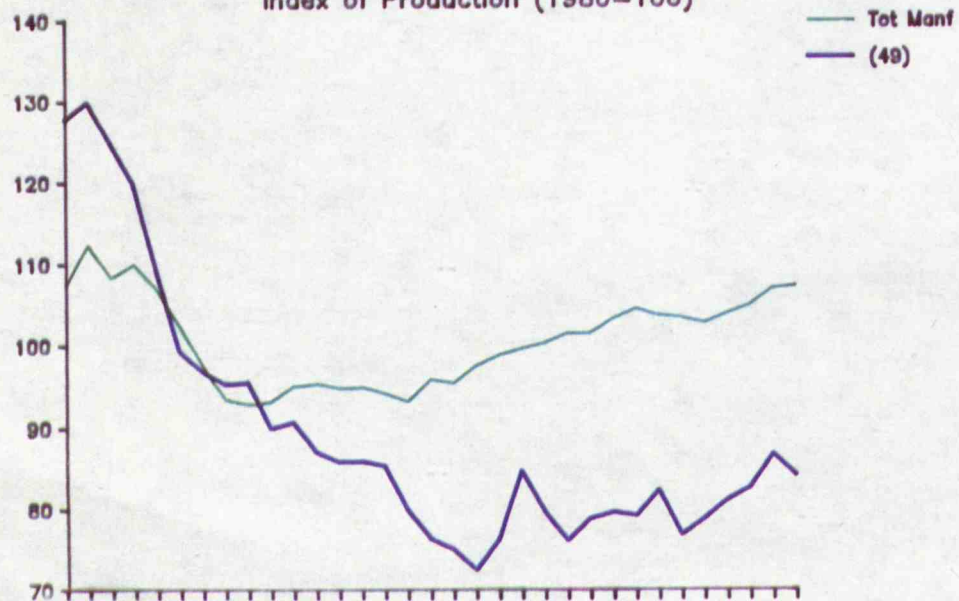
23 Shipbuilding (361)

Index of Production (1980=100)



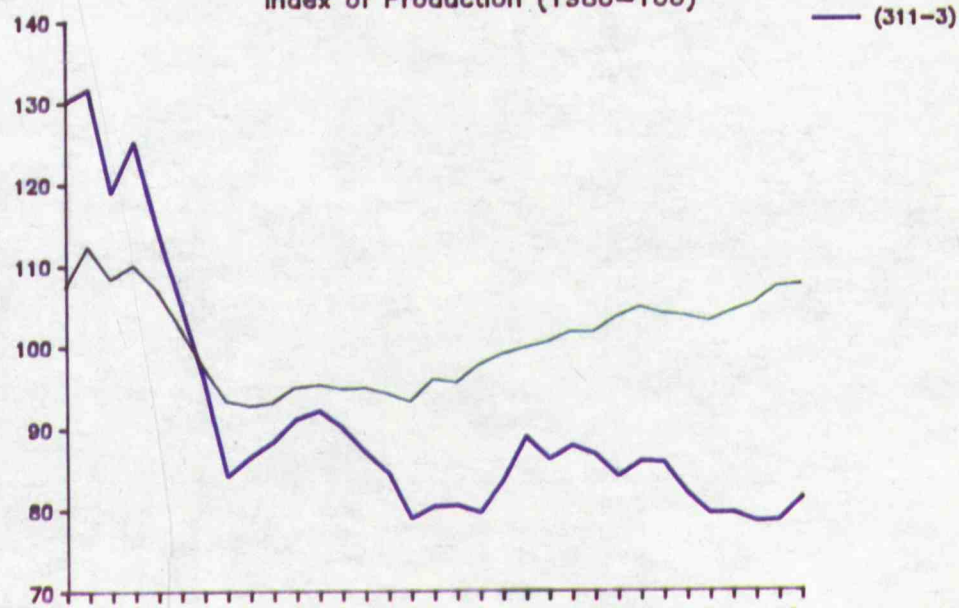
41 Other Manufacturing (49)

Index of Production (1980=100)



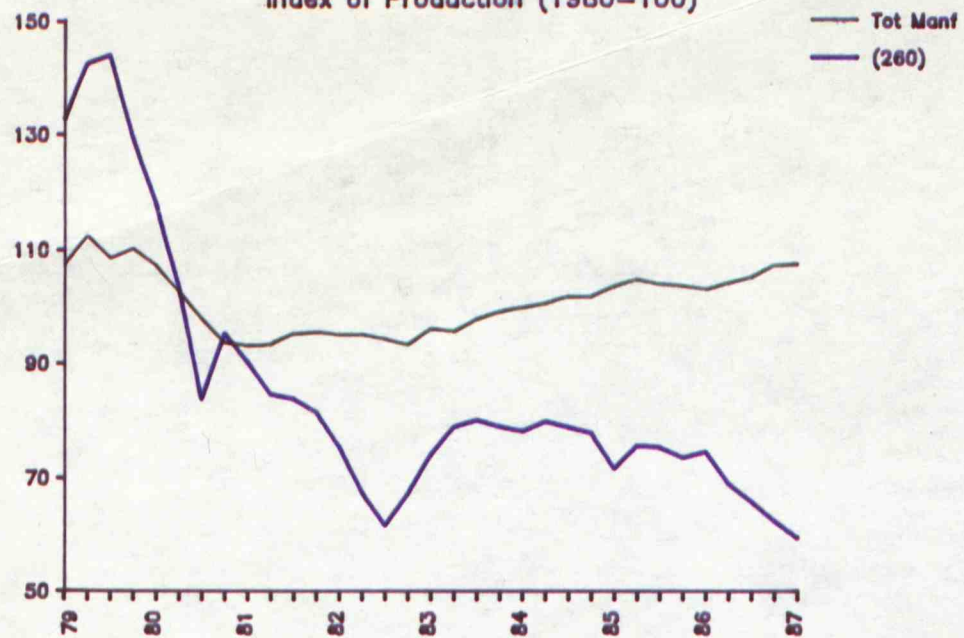
11 Foundries, Forging etc (311-3)

Index of Production (1980=100)



10 Man-Made Fibres (260)

Index of Production (1980=100)





bc: 85

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

14 July 1987

Dear Tim,

INDUSTRIAL PRODUCTION

The Prime Minister has been stimulated by today's industrial production figures to ask for an analysis of the pattern of change by industry since 1979, comparing rates of growth with a brief analysis to suggest reasons for the differences. I suggest that this might be done either by class or at least in a form not as aggregated as in table 2 of the press notice but the analysis need not be elaborate. It would be helpful to have some examples of individual businesses which may have had a significant effect on the change of production in each class, whether by decline or by success.

BF || I should be grateful if you could set this in hand. It would make good holiday reading for the Prime Minister.

I would be happy to discuss if you wish.

I am copying this letter to Tony Kuczys (HM Treasury).

Jan,
David

(DAVID NORGROVE)

Timothy Walker, Esq.,
Department of Trade and Industry.

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