

Productivity
Commission

Impact of Competition
Policy Reforms on
Rural and Regional
Australia

**Statistical Annex to
Supplement to
Inquiry Report**

Modelling the Regional
Impacts of National
Competition Policy
Reforms

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Contents

Part A Classification, methodology and data used

A.1	Introduction	1
A.2	Industry classification	1
A.3	Data sources and methods	4
	References	9

Tables

A.1	Mining ANZSIC-based industry classification and correspondence to ASIC	3
-----	--	---

Part B Tables

B.1	Gross output at average 1989-90 prices by mining industry, 1968-69 to 1994-95	12
B.2	Input of goods and services at average 1989-90 prices by mining industry, 1968-69 to 1994-95	12
B.3	Persons employed by mining industry, 1968-69 to 1994-95	15
B.4	Indexes of capital capacity at average 1989-90 prices by mining industry, 1968-69 to 1994-95	15
B.5	Share of industry gross output (current prices) in mining sector by mining industry, 1968-69 to 1994-95	18
B.6	Input of goods and services cost shares in gross output (current prices) by mining industry, 1968-69 to 1994-95	18
B.7	Labour cost shares in gross output (current prices) by mining industry, 1968-69 to 1994-95	21
B.8	Capital cost shares in gross output (current prices) by mining industry, 1968-69 to 1994-95	21

B.9	Total factor productivity growth by mining industry, 1968-69 to 1994-95	24
B.10	Indexes of total factor productivity by mining industry, 1968-69 to 1994-95	24
B.11	Index of output prices by mining industry, 1968-69 to 1994-95	27
B.12	Index of material and service input prices by mining industry, 1968-69 to 1994-95	27
B.13	Mining industries' terms of trade, 1968-69 to 1994-95	30

Abbreviations

ABS	Australian Bureau of Statistics
ASIC	Australian Standard Industrial Classification
ANZSIC	Australian and New Zealand Standard Industrial Classification
PIM	Perpetual inventory method

A Classification, methodology and data used

A.1 Introduction

This statistical annex forms part of, and should be read in conjunction with, ‘Modelling the Regional Impacts of National Competition Policy Reforms’ which is a supplement to the Productivity Commission inquiry report ‘Impact of Competition Policy Reforms on Rural and Regional Australia’.

This annex provides detailed statistical information about mining industry total factor productivity and terms of trade used in summary form in chapter four of the supplement and in the main body of the report. This part (part A) presents information about the classification, sources and methods used to compile the estimates, while part B presents the statistical tables showing component time series estimates of mining industry output, inputs, productivity and terms of trade for the period 1968-69 to 1994-95.

A.2 Industry classification

The industry classification adopted is based on the Australian and New Zealand Standard Industry Classification (ANZSIC). For the purpose of this study, the mining industry has been disaggregated into nine industry classes from the coal mining, oil and gas extraction and metal ore mining industry groups of the mining industry division of ANZSIC (table A.1). These industries cover the activities for which there are data on industry outputs, inputs and capital expenditure for the period 1968-69 to 1994-95 from ABS mining industry statistics.

ANZSIC groups not covered in the analysis of mining industry productivity growth include construction material mining, mining nec (including diamond, gypsum and salt mining) and exploration. Data needed to complete productivity estimates on a comparable basis for these industries are not available.

To complete the study, it has been necessary to jointly use data collected according to the 1968 and 1978 Australian Standard Industry Classifications (ASICs). Generally, there is a close theoretical correspondence between the earlier ASIC and ANSZIC industry classes (table A.1). However, in a small number of cases, data on some ANZSICs are not available for the whole of the period for reasons of confidentiality. The approach adopted in this study to operationalise the classifications has been to define an ANZSIC based classification that provides details for as many industry classes as possible over the full period. Nevertheless in some cases, data imputations and simplifying conventions have been adopted to complete the series.

First, where data are not available for some activities for some years, the missing values were imputed to complete the series. The main data imputation made was for bauxite mining for the years 1968-69 to 1977-78. For this sub period, information for bauxite mining was estimated on the basis of trends in a mining-industry statistics composite item inclusive of bauxite mining, and industry share information for the period 1978-79 to 1981-82. Information for other mining activities (including nickel and tin mining) included in the composite was estimated by deducting the estimated values for bauxite from the composite total.

Second, where data are not available for a substantial number of years in the series, ANZSIC industries have been combined to form composite sectors for the purpose of the study. The combinations adopted also are reported in table A.1.

Generally, the same combinations of industries have been adopted throughout the period. However, this has not been possible in all cases due to changes in the aggregation conventions adopted in the basic data series. Separate data for iron ore pelletising activity were not available for the period 1968-69 to 1983-84 . Over this period, iron ore pelletising activity were included in the industry non-ferrous metal ores nec. Subsequently, data for pelletising was published separately or included in iron ore mining industry. For all years, nickel, tin and uranium ore mining have been included in non-ferrous metal mining nec. These aggregation conventions are applied to all items in the analysis.

Table A.1 Mining ANZSIC-based industry classification and correspondence to ASIC

<i>ANZSIC-based classification</i>		<i>Main corresponding 1978 ASIC industry</i>		<i>Main corresponding 1968 ASIC industry</i>	
<i>Mining activities in the productivity study</i>					
1101,2	Black coal mining (including brown coal)	1201	Black coal	1201	Black coal
		1202	Brown coal	1202	Brown coal
1200	Oil and gas extraction	1300	Oil and gas	1300	Crude petroleum (including natural gas)
1311	Iron ore mining	1111	Iron ores	1104	Iron ore
		1112	Iron ore pelletising		
1312	Bauxite mining	1121	Bauxite	1101	Bauxite
1313	Copper ore mining	1122	Copper ores	1102	Copper (including copper-gold)
1314	Gold ore mining	1123	Gold ores	1103	Gold
1315	Mineral sands mining	1124	Mineral sands	1105	Mineral sands
1317	Silver-lead-zinc mining	1126	Silver-lead-zinc ores	1107	Silver-lead-zinc
1316,19	Non-ferrous metal ore mining nec (including nickel ore mining)	1125	Nickel ores	1106	Nickel
		1127	Tin ores	1108	Tin
		1128	Uranium ores	1109	Metallic minerals nec
		1129	Non-ferrous metal ores nec		
<i>Mining activities not in the study</i>					
1410	Construction materials	1410	Sand and gravel	1401	Sand and gravel
		1404	Construction materials nec	1402	Crushed and broken stone
				1403	Dimension stone and other construction materials nec
		1501	Limestone	1501	Limestone
		1502	Clays	1502	Clays
1420	Mining nec	1504	Salt	1503	Non-metallic minerals nec
		1505	Non-metallic minerals nec		
15	Services to mining	16	Services to mining nec	16	Services to mining

Sources: ABS 1994, *Australian and New Zealand Standard Industry Classification* 1993 Edition, Cat. no. 1292.0, ABS, Canberra; ABS various, *Australian Mining Industry*, Cat. no. 8414.0, ABS, Canberra.

In principle under the ANZSIC, brown coal mining should be included with black coal in a coal mining group. However, because of data limitations, brown coal mining was included with oil and gas extraction for the years 1968-69 to 1981-82 in basic data series. From 1982-83 to 1984-85, separate data on brown coal mining were available and included with the broad industry 'black' coal mining. From 1985-86 to 1994-95, all data needed to complete the analysis including brown coal were not available and the activity was excluded from the analysis. Because of the relatively small size of the iron ore pelletising and brown coal activities, these data conventions should only have a minimal effect on trends in output and input growth underlying the productivity measures.

A.3 Data sources and methods

Information necessary to undertake an analysis of productivity growth of mining industry classes is not available from a single source. Nevertheless, there is a range of sources that individually provide the components necessary to undertake the analysis. This section describes the individual series used in the preparation of total factor productivity and the terms of trade for mining. Because of the focus on industry class, the information used is drawn from data sources different from those used in the economy-wide studies of productivity. The key difference is the adoption of capital capacity measures derived using the Commission's capital capacity estimation method (Appendix C, Gretton and Fisher 1997). Broad sensitivity testing of trends in mining industry sector output, employment and labour inputs shows that estimates derived from this study are similar to trends evident from other industry and economy-wide series.

Due to the long time series adopted for the mining study, that is 1968-69 to 1994-95, there inevitably has been changes in conventions adopted in the compilation and presentation of source data series. A major change was the introduction of the ANZSIC by the ABS in 1992-93. To complete the full series required for the analysis, the ASIC and ANZSIC series have been linked using the industry concordance presented above. In addition to changes in industry classification, some information needed for the study is not directly available from published series and recourse has been made to unpublished data and special computations undertaken for this study. This section describes the assumptions made in linking data from ASIC and ANZSIC series and the use of unpublished data.

Gross output at current prices by mining industry is measured as the value of sales plus increase in stocks of finished goods plus other operating revenue of mining industry production units (or establishments). Gross output is net of the indirect

taxes that are included in measures valued at market prices, and is generally preferred to market price measures for productivity studies. The components of gross output at current prices by mining industry were obtained from ABS mining industry statistics (see ABS Catalogue no. 8414.0 Australian Mining Industry).

Gross output at average 1989-90 prices for each mining industry was provided by the ABS for the years 1985-86 to 1994-95. For 1984-85 and earlier, gross output at 1989-90 reference prices was derived by deflating current price data using industry-specific implicit output-price (current-period weighted) deflator information referenced to 1989-90 and provided by the ABS.

Purchases of material and services at current prices by mining industry were estimated from cost information obtained from the annual mining industry census plus business expenses (including land tax, rates and payroll tax, travelling expenses, accounting and legal expenses, insurance premiums, advertising and bank charges) derived from industry of enterprise statistics (see ABS Catalogue no. 8414.0 Australian Mining Industry). Information on business expenses was available for the years 1990-91 to 1994-95 for the industries black coal mining, oil and gas extraction and metallic mineral mining. The series were completed by allocating the relevant data across establishment industries and across years on the basis of relative wages and salaries.

Purchases of materials and services at average 1989-90 prices were obtained from the ABS for the years 1985-86 to 1994-95. For 1984-85 and earlier years, purchases at 1989-90 reference prices were derived using implicit input-price deflator information provided by the ABS. Separate price information was available for the input categories: purchases of materials, electricity and fuels, and other goods for resale; charges for processing or other commission work, and payments to mining contractors; outward freight and cartage and motor vehicle running expenses; rent, leasing and hiring expenses, and changes in stocks of materials and other supplies. Business expenses information was deflated using the implicit price deflator for gross domestic product.

Employment is used as the measure of labour inputs in the current study.¹ It is measured as the number of working proprietors and employees on the payroll, including those working at separately located administrative offices and ancillary

¹ Labour inputs for productivity studies are conventionally measured by the number of hours worked by persons employed in each industry. For individual mining industries, hours worked information is not available.

units at 30 June. The number of persons employed was obtained from the ABS census of mining (see ABS Catalogue no. 8414.0 Australian Mining Industry).

Capital capacity is estimated using a generalised perpetual inventory method (PIM). The detailed estimation method (ie the generalised logistical method) is described in Gretton and Fisher (1997, Appendix C). To apply the method, investment on new machinery and equipment (including motor vehicles and other plant and machinery) and non-dwelling construction (including buildings, other structures and mine development) by industry was obtained on an annual basis from ABS Catalogue no. 8414.0 Australian Mining Industry. Data on the acquisition of land and second hand assets was also available. However, as it was not possible to divide the category into its components and apply the PIM to estimate capital capacity, investment in land and second hand assets was excluded from the current study. Data on disposals of assets in aggregate were available by industry. However, information on the nature and vintage of capital included in disposals was not available and it was necessary to specify an asset retirement function to account for the exit of investment goods from capital stocks of each industry.

To make the PIM method operational it was necessary to make some assumptions about the average asset lives of each type of capital equipment, capital capacity and the average age of assets at the beginning of the period, and the average value of assets on exit from the industry. The asset lives adopted are the averages for the mining industry sector adopted by the ABS (see Walters and Dipplesman 1985). The asset lives adopted for machinery and equipment and non-dwelling construction were 16 years and 31 years, respectively in the 1980s. These average asset lives were reduced by 5 percent each decade to reflect the possibility that average asset lives decline over time.

The starting year for the PIM was 1967-68. Initial capital stocks for this starting year were imputed on the basis of ABS measures of net capital stock in the mining industry sector. This aggregate was allocated to each industry according to turnover shares in 1968-69. It was assumed that the average age of assets in the starting year was around 5 years and the average value of assets on exit is 7.5 percent of the acquisition value (in average 1989-90 reference prices).

Indexes of capital-good prices, for machinery and equipment and non-dwelling construction, used to convert current price investment to constant 1989-90 prices were obtained from ABS Catalogue no. 5206.0, National Income, Expenditure and Product (as extracted from the dX data base system, November, 1998).

Separate measures of capital capacity of equipment and construction were estimated. These estimates were weighted together to form a composite measure of capital capacity for each industry using average relative rental prices, where the rental price is defined, without time or industry subscripts, as:

$$p = q(r + \delta) - \dot{q} \quad (\text{A1})$$

where p is the rental price of capital, q is the expected price of a unit of capital, r is the nominal rate of return, δ is the rate of depreciation and \dot{q} is the expected change in the price of the capital good over the period. In this framework, the expected rental price of a unit of capital for production in a period is equal to the depreciation in the value of the asset over the period due to its use in production, returns to management net of depreciation, less any revaluation of the nominal value of the asset due to inflation or other price changes.

The expected value is first approximated by reference to actual flows in any one year (ie the ex post rental price). To avoid negative average relative rental price weights due to large annual fluctuations in the fortunes of mining industries, the rental price values were averaged over the period 1968-69 to 1994-95. This longer-term averaging in turn, avoids measuring capital as a negative input to production when period-specific rental prices are negative.

Material and service and labour and capital input shares by mining industry are used to weight material and service, labour and capital inputs together for the calculation of total factor productivity. The individual shares are estimated by dividing the relevant current price series by the level of gross output at current prices. Purchases at current prices were estimated according to the method described above. The cost of labour was estimated as wages and salaries from the industry census plus superannuation and workers compensation payments by industry of enterprise. Information on superannuation payments was available for the years 1990-91 to 1994-95 for the industries black coal mining, oil and gas extraction and metallic mineral mining. The series were completed by allocating the relevant data across establishment industries and across years on the basis of relative wages and salaries. Payments to capital including depreciation (ie gross operating surplus) were estimated by deducting purchases of materials and services and payments to labour from gross output at current prices.

Total factor productivity was estimated using the aggregate production function of the form:

$$Y = Af(M, K, L) \quad (\text{A2})$$

where Y is the measure of gross output, M is a measure of materials and services used in production, K and L are measures of labour and capital inputs, f is a constant returns to scale production function of factor inputs M , K and L that defines the expected level of output in year t , given the technology and conditions in the base period, and A is a productivity shift term reflecting influences such as technical change, unmeasured changes in the quality of inputs and outputs and the intensity with which inputs are used.

For any industry, (A2) can be written in percentage changes as:

$$y = a + s_m m + s_k k + s_l l \quad (\text{A3})$$

where y , a , m , k and l are the percentage changes in Y , A , M , K , and L , respectively, and each s is the elasticity of Y with respect to M , K and L , respectively. Assuming:

- constant returns to scale, so that $\sum_i^3 s_i$ sum to one; and
- material and service inputs, capital and labour are paid according to their marginal products;

the respective elasticities are estimated as the material and service, labour and capital input shares in output as described above.

Mining industry terms of trade is the ratio of an implicit index of prices received by miners in Australian dollars to an implicit index of prices paid for material and service inputs by miners. The implicit index of mining industry output prices is:

$$IPD_{Y_t} = \frac{\sum_j Y_{jt}}{\sum_j \bar{Y}_{jt}} \quad (\text{A4})$$

where Y_{jt} is output of industry j at current prices in period t and \bar{Y}_{jt} is output at average 1989-90 reference prices for the same year. A similar formulation provides an implicit price deflator for mining industry inputs of materials and services. The terms of trade for each mining industry and mining in total, ignoring industry subscripts, then can be expressed as:

$$ToT_t = \frac{IPD_{Y_t}}{IPD_{M\&S_t}} \quad (\text{A5})$$

References

ABS (various), *Australian Mining Industry*, Catalogue no. 8414.0, ABS, Canberra.

ABS (various), *Australian National Accounts: National Income, Expenditure and Product* (December 1998 issue), Catalogue no. 5206.0, ABS, Canberra.

Gretton, P. and Fisher, B. 1997, *Productivity Growth and Australian Manufacturing Industry*, Industry Commission Staff Research Paper, AGPS, Canberra.

Walters, R. and Dippelsman, R. 1985, *Estimates of Depreciation and Capital Stock Australia*, Australian Bureau of Statistics Occasional Paper No. 1985/3, ABS, Canberra.

B Tables

Table B.1 **Gross output at average 1989-90 prices by mining industry,^a 1968-69 to 1994-95 (\$million)**

<i>Industry</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1973-74</i>	<i>1974-75</i>	<i>1975-76</i>
Black coal mining	1893	2284	2535	2493	2803	2825	3247	2959
Oil and gas mining	719	1327	2490	3266	3613	4097	4260	4717
Iron ore mining	568	793	1022	1119	1330	1567	1734	1662
Bauxite ore mining	96	150	205	195	213	256	281	255
Copper ore mining	334	457	510	540	592	693	666	688
Gold ore mining	403	346	302	331	252	213	200	129
Mineral sands mining	499	610	844	631	562	640	675	644
Silver lead zinc ore	927	1125	1001	1078	1029	1002	1017	962
Non-ferrous metal mining nec	373	586	808	940	1058	1269	1221	1333
Total non-ferrous metal mining	2631	3273	3668	3714	3706	4073	4060	4011
Mining	5811	7677	9715	10592	11452	12562	13301	13350

a For details of industry sectors, see text.

Sources: ABS Australian Mining Industry, Cat. No. 8414.0; unpublished data provided by the ABS; PC estimates

.../continued

Table B.2 **Input of goods and services at average 1989-90 prices by mining industry,^a 1968-69 to 1994-95 (\$million)**

<i>Industry</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1973-74</i>	<i>1974-75</i>	<i>1975-76</i>
Black coal mining	1160	1312	1345	1355	1406	1477	1758	1774
Oil and gas mining	197	224	269	314	306	294	374	349
Iron ore mining	423	556	739	908	892	1137	1346	1295
Bauxite ore mining	33	45	59	69	68	93	114	129
Copper ore mining	304	282	334	374	373	436	463	376
Gold ore mining	93	80	68	71	81	87	82	54
Mineral sands mining	157	172	236	204	174	190	228	267
Silver lead zinc ore	459	453	423	426	404	383	420	387
Non-ferrous metal mining nec	163	215	292	334	318	447	472	601
Total non-ferrous metal mining	1210	1247	1411	1477	1419	1636	1778	1814
Mining	2990	3339	3763	4055	4023	4544	5257	5232

a For details of industry sectors, see text.

Sources: ABS Australian Mining Industry, Cat. No. 8414.0; unpublished data provided by the ABS; PC estimates.

.../continued

Table 1 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
3226	3671	3766	3862	4532	4754	5437	5773	6489	7140	6548	7030
4512	4732	4914	4958	4781	4724	4165	4544	5163	6369	5709	5951
1708	1879	1877	1601	1951	1543	1471	1488	1809	1900	1723	2004
458	356	373	444	394	378	364	292	483	391	414	483
525	533	569	560	534	538	569	524	662	605	650	535
302	332	329	316	254	346	495	625	813	1091	1637	2342
652	558	687	713	676	589	536	516	563	632	631	680
1069	1088	1129	1056	997	1128	1295	1356	1320	1408	1355	1361
1205	1008	813	1276	1255	1495	1569	1693	1242	1196	1089	1067
4211	3875	3900	4366	4110	4474	4828	5005	5084	5323	5776	6468
13657	14156	14457	14787	15373	15496	15901	16810	18545	20732	19756	21453

.../continued

Table 2 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
1970	2064	2115	2375	2686	2947	3301	3470	3927	4544	4114	3800
415	365	435	488	854	693	382	459	546	763	593	571
1243	1689	1607	1212	1644	1322	1216	1098	1467	1495	1547	1343
152	107	124	136	150	164	145	153	194	187	163	172
307	280	269	277	314	315	210	252	237	233	220	302
87	98	109	147	201	250	288	384	472	568	876	1358
275	193	198	207	203	181	146	142	165	182	193	198
427	419	449	482	550	572	506	611	573	597	551	633
731	546	504	1054	719	758	722	678	493	479	404	336
1979	1642	1653	2302	2136	2240	2016	2221	2133	2246	2408	2999
5608	5761	5809	6378	7320	7202	6916	7248	8073	9049	8661	8712

.../continued

Table 1 Continued

1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
6917	7666	7898	8610	8864	9043	9201
5571	5636	6596	6641	6620	6535	7158
1854	2517	2126	2286	2128	2224	2616
518	478	531	669	605	535	575
639	851	900	769	1076	1175	980
3024	4047	4650	4746	4853	5013	4682
722	746	645	707	823	832	909
1389	1515	1559	1657	1624	1767	1569
1234	1042	1293	1131	962	1099	1460
7526	8679	9578	9679	9943	10421	10175
21868	24498	26198	27216	27555	28223	29150

Table 2 Continued

1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
3546	3834	4173	4423	4421	4497	4405
582	639	725	831	866	776	843
992	1054	1137	1181	1150	1122	1213
135	171	185	265	274	297	319
289	390	325	274	342	397	395
1785	2192	2138	2069	2079	2195	2177
233	296	277	310	310	286	333
566	579	713	643	612	632	534
351	528	562	431	392	428	469
3358	4156	4199	3990	4009	4234	4228
8478	9682	10234	10425	10446	10630	10688

Table B.3 Persons employed by mining industry,^a 1968-69 to 1994-95

<i>Industry</i>	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Black coal mining	16860	17526	18784	19169	19025	19412	21720	22619
Oil and gas mining	2973	3231	3176	3707	3402	2776	2956	2938
Iron ore mining	3344	3494	5034	4755	6112	6567	7668	7921
Bauxite ore mining	769	1065	1246	1385	1416	1511	1696	1767
Copper ore mining	6065	6805	6924	6820	6478	7230	6811	5322
Gold ore mining	3229	2447	2279	2281	2241	2178	2186	1284
Mineral sands mining	2744	2934	3019	2729	2655	2902	3342	3367
Silver lead zinc ore	7650	7954	7981	7864	7467	6748	6858	6504
Non-ferrous metal mining nec	2870	3974	4629	5194	5273	5552	6511	6466
Total non-ferrous metal mining	23327	25179	26078	26273	25530	26121	27404	24710
Mining	46504	49430	53072	53904	54069	54876	59748	58188

a For details of industry sectors, see text.

Sources: ABS Australian Mining Industry, Cat. No. 8414.0; unpublished data provided by the ABS; PC estimates.

.../continued

Table B.4 Indexes of capital capacity at average 1989-90 prices by mining industry,^{ab} 1968-69 to 1994-95
(1989-90=100)

<i>Industry</i>	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Black coal mining	14	16	18	22	25	26	28	31
Oil and gas mining	8	12	15	16	16	17	18	20
Iron ore mining	64	70	94	112	114	116	118	120
Bauxite ore mining	27	41	60	78	86	98	104	111
Copper ore mining	63	74	86	103	118	125	131	131
Gold ore mining	4	4	4	4	4	4	5	5
Mineral sands mining	46	50	54	57	59	67	82	93
Silver lead zinc ore	45	48	55	58	62	61	62	61
Non-ferrous metal mining nec	7	15	26	35	41	48	58	64

a For discussion of industry sectors, see text.

b For a discussion of the concepts of capital capacity and net value of capital, see Chapter 5 and Appendix C of Gretton and Fisher (1997).

Source: PC estimates.

.../continued

Table 3 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
23454	23638	24713	27361	30478	32256	34183	34160	34073	35310	35113	31102
3178	3138	3460	3525	4294	5023	3460	3777	4293	4726	4711	4943
8020	8563	7192	8021	9576	8531	7939	7526	8047	8232	8003	7316
1955	1960	1818	2039	2078	2123	2071	2206	2298	2029	2152	2040
4628	4246	4087	4271	4499	4010	3432	3144	2813	2712	2460	3030
1376	1264	1513	2256	3036	2614	3457	4058	4375	5117	6582	8175
3006	2083	2040	2099	1880	1529	1244	1364	1419	1531	1815	1941
6515	6589	6910	7043	7309	7023	7295	7225	6758	5917	5100	5237
6929	5943	6084	7940	7245	7299	5959	5560	5148	4453	3516	3747
24409	22085	22452	25648	26047	24598	23458	23557	22811	21759	21625	24170
59061	57424	57817	64555	70395	70408	69040	69020	69224	70027	69452	67531

.../continued

Table 4 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
33	35	41	45	53	67	84	91	94	97	101	102
21	22	23	24	30	38	50	59	63	68	74	83
120	133	148	145	142	135	131	124	118	112	106	102
113	120	128	131	131	134	133	128	124	121	119	111
128	124	119	114	115	106	103	100	97	94	91	97
6	6	7	8	10	12	15	20	28	38	49	67
94	95	92	89	85	79	76	73	71	69	67	65
60	65	70	71	75	83	86	86	87	89	91	92
68	76	81	96	112	118	118	118	116	113	110	105

.../continued

Table 3 Continued

1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
28208	28982	28846	26990	26771	26381	25295
4724	5064	5265	5046	4841	4444	4207
7619	8845	9121	8392	7001	6336	6090
1936	2125	2109	2153	1917	1749	1713
2878	3407	2409	2351	2512	2674	2236
9410	9734	7878	7665	7588	8003	8098
2009	2369	2106	1833	1862	1770	1888
5434	4943	4742	4386	3480	2975	3275
3267	3565	3300	2532	2015	2133	2212
24934	26143	22544	20920	19374	19304	19422
65485	69034	65776	61348	57987	56465	55014

Table 4 Continued

1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
103	100	102	100	101	101	102
92	100	104	110	115	119	121
103	100	103	106	114	125	129
103	100	116	113	113	113	112
98	100	104	106	113	113	110
87	100	108	114	120	128	142
72	100	148	152	147	144	142
96	100	110	113	111	107	104
102	100	98	95	95	100	118

Table B.5 **Share of industry gross output (current prices) in mining sector by mining industry,^a 1968-69 to 1994-95**

<i>Industry</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1973-74</i>	<i>1974-75</i>	<i>1975-76</i>
Black coal mining	0.26	0.23	0.22	0.23	0.24	0.22	0.31	0.35
Oil and gas mining	0.09	0.12	0.16	0.18	0.18	0.18	0.15	0.15
Iron ore mining	0.24	0.25	0.26	0.25	0.25	0.21	0.21	0.20
Bauxite ore mining	0.02	0.03	0.03	0.03	0.03	0.04	0.03	0.04
Copper ore mining	0.12	0.12	0.09	0.07	0.09	0.11	0.06	0.05
Gold ore mining	0.03	0.02	0.01	0.02	0.02	0.01	0.01	0.01
Mineral sands mining	0.05	0.05	0.05	0.04	0.03	0.03	0.04	0.04
Silver lead zinc ore	0.13	0.12	0.09	0.09	0.08	0.10	0.09	0.07
Non-ferrous metal mining nec	0.06	0.07	0.08	0.09	0.08	0.09	0.08	0.09
Total non-ferrous metal mining	0.42	0.40	0.35	0.34	0.33	0.39	0.32	0.30
Mining	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

a For details of industry sectors, see text.

Source: PC estimates.

.../continued

Table B.6 **Input of goods and services cost shares in gross output (current prices) by mining industry,^a 1968-69 to 1994-95**

<i>Industry</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1973-74</i>	<i>1974-75</i>	<i>1975-76</i>
Black coal mining	0.55	0.52	0.51	0.51	0.47	0.48	0.41	0.40
Oil and gas mining	0.38	0.24	0.17	0.16	0.16	0.15	0.16	0.14
Iron ore mining	0.41	0.39	0.36	0.39	0.39	0.47	0.50	0.49
Bauxite ore mining	0.25	0.21	0.21	0.23	0.21	0.24	0.27	0.30
Copper ore mining	0.43	0.30	0.42	0.52	0.42	0.34	0.62	0.56
Gold ore mining	0.52	0.53	0.51	0.44	0.41	0.50	0.44	0.46
Mineral sands mining	0.52	0.47	0.51	0.53	0.52	0.49	0.41	0.53
Silver lead zinc ore	0.51	0.42	0.49	0.49	0.50	0.34	0.38	0.41
Non-ferrous metal mining nec	0.45	0.38	0.38	0.41	0.37	0.44	0.49	0.54
Total non-ferrous metal mining	0.46	0.37	0.42	0.45	0.42	0.37	0.45	0.48
Mining	0.47	0.39	0.38	0.40	0.38	0.38	0.40	0.40

a For details of industry sectors, see text.

Source: PC estimates.

.../continued

Table 5 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
0.36	0.37	0.34	0.30	0.32	0.37	0.41	0.39	0.39	0.39	0.40	0.33
0.13	0.15	0.18	0.20	0.22	0.22	0.19	0.23	0.26	0.27	0.22	0.23
0.20	0.22	0.20	0.14	0.18	0.15	0.15	0.13	0.13	0.13	0.13	0.11
0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03
0.04	0.03	0.04	0.05	0.04	0.02	0.03	0.02	0.02	0.02	0.02	0.03
0.01	0.02	0.02	0.03	0.03	0.02	0.04	0.04	0.04	0.05	0.10	0.14
0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.02
0.08	0.07	0.09	0.12	0.07	0.06	0.06	0.06	0.05	0.04	0.04	0.05
0.11	0.09	0.07	0.11	0.09	0.10	0.09	0.08	0.05	0.05	0.05	0.05
0.31	0.26	0.28	0.36	0.28	0.26	0.25	0.24	0.21	0.20	0.26	0.33
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

.../continued

Table 6 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
0.40	0.40	0.40	0.46	0.48	0.48	0.47	0.51	0.50	0.52	0.50	0.54
0.17	0.14	0.13	0.14	0.20	0.17	0.11	0.10	0.10	0.12	0.13	0.12
0.48	0.57	0.59	0.53	0.60	0.62	0.54	0.49	0.55	0.49	0.56	0.55
0.25	0.25	0.31	0.24	0.28	0.33	0.32	0.42	0.28	0.29	0.27	0.26
0.54	0.66	0.43	0.39	0.52	0.79	0.48	0.67	0.49	0.56	0.46	0.51
0.52	0.40	0.37	0.34	0.49	0.66	0.48	0.55	0.55	0.48	0.43	0.47
0.63	0.62	0.59	0.56	0.58	0.60	0.59	0.62	0.58	0.54	0.46	0.38
0.38	0.38	0.32	0.24	0.44	0.53	0.44	0.52	0.63	0.67	0.62	0.60
0.50	0.44	0.49	0.62	0.47	0.47	0.46	0.44	0.44	0.46	0.42	0.30
0.46	0.44	0.40	0.40	0.46	0.53	0.45	0.51	0.49	0.50	0.45	0.44
0.40	0.41	0.39	0.39	0.43	0.45	0.40	0.41	0.40	0.40	0.41	0.41

.../continued

Table 5 Continued

1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
0.30	0.31	0.29	0.31	0.32	0.33	0.31
0.25	0.23	0.30	0.28	0.29	0.27	0.27
0.10	0.10	0.11	0.12	0.11	0.11	0.11
0.02	0.02	0.02	0.03	0.03	0.03	0.03
0.04	0.03	0.03	0.02	0.03	0.03	0.04
0.15	0.17	0.15	0.14	0.14	0.15	0.15
0.03	0.03	0.02	0.02	0.02	0.02	0.02
0.06	0.06	0.04	0.04	0.03	0.03	0.04
0.06	0.04	0.04	0.04	0.03	0.03	0.04
0.36	0.35	0.31	0.28	0.27	0.29	0.31
1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table 6 Continued

1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
0.54	0.50	0.52	0.53	0.52	0.52	0.54
0.11	0.11	0.09	0.11	0.11	0.11	0.12
0.48	0.42	0.39	0.37	0.38	0.39	0.44
0.30	0.36	0.29	0.37	0.39	0.41	0.40
0.34	0.46	0.40	0.45	0.39	0.46	0.42
0.53	0.54	0.51	0.54	0.57	0.56	0.57
0.35	0.40	0.47	0.60	0.68	0.61	0.58
0.47	0.38	0.58	0.61	0.74	0.74	0.57
0.28	0.51	0.50	0.46	0.53	0.66	0.48
0.43	0.48	0.49	0.52	0.55	0.57	0.53
0.39	0.40	0.37	0.39	0.39	0.41	0.41

Table B.7 **Labour cost shares in gross output (current prices) by mining industry,^a 1968-69 to 1994-95**

<i>Industry</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1973-74</i>	<i>1974-75</i>	<i>1975-76</i>
Black coal mining	0.35	0.31	0.31	0.31	0.30	0.30	0.24	0.22
Oil and gas mining	0.16	0.09	0.07	0.07	0.06	0.06	0.06	0.06
Iron ore mining	0.06	0.06	0.07	0.07	0.08	0.10	0.11	0.12
Bauxite ore mining	0.15	0.14	0.14	0.16	0.15	0.15	0.17	0.14
Copper ore mining	0.25	0.22	0.30	0.34	0.27	0.21	0.38	0.35
Gold ore mining	0.45	0.46	0.45	0.37	0.32	0.38	0.33	0.44
Mineral sands mining	0.22	0.20	0.19	0.23	0.23	0.24	0.19	0.23
Silver lead zinc ore	0.30	0.27	0.34	0.34	0.34	0.21	0.24	0.28
Non-ferrous metal mining nec	0.19	0.18	0.17	0.20	0.20	0.18	0.21	0.19
Total non-ferrous metal mining	0.26	0.23	0.26	0.27	0.25	0.21	0.25	0.25
Mining	0.23	0.19	0.19	0.20	0.19	0.18	0.19	0.19

a For details of industry sectors, see text.

Source: PC estimates.

.../continued

Table B.8 **Capital cost shares in gross output (current prices) by mining industry,^a 1968-69 to 1994-95**

<i>Industry</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1973-74</i>	<i>1974-75</i>	<i>1975-76</i>
Black coal mining	0.11	0.17	0.18	0.18	0.23	0.21	0.35	0.38
Oil and gas mining	0.46	0.67	0.77	0.77	0.78	0.79	0.78	0.80
Iron ore mining	0.53	0.55	0.57	0.53	0.53	0.43	0.38	0.38
Bauxite ore mining	0.61	0.65	0.65	0.62	0.63	0.61	0.57	0.55
Copper ore mining	0.32	0.48	0.28	0.15	0.31	0.45	0.00	0.09
Gold ore mining	0.03	0.01	0.03	0.19	0.26	0.12	0.23	0.11
Mineral sands mining	0.26	0.33	0.30	0.24	0.25	0.27	0.40	0.24
Silver lead zinc ore	0.19	0.30	0.17	0.17	0.16	0.45	0.38	0.31
Non-ferrous metal mining nec	0.36	0.44	0.45	0.40	0.43	0.38	0.30	0.27
Total non-ferrous metal mining	0.28	0.40	0.32	0.28	0.33	0.42	0.30	0.28
Mining	0.31	0.42	0.43	0.41	0.44	0.44	0.41	0.41

a For details of industry sectors, see text.

Source: PC estimates.

.../continued

Table 7 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
0.24	0.23	0.25	0.26	0.27	0.26	0.25	0.24	0.21	0.19	0.22	0.23
0.07	0.06	0.05	0.05	0.05	0.06	0.04	0.04	0.03	0.04	0.05	0.05
0.13	0.13	0.13	0.15	0.14	0.16	0.13	0.13	0.13	0.12	0.13	0.14
0.14	0.17	0.14	0.13	0.15	0.17	0.18	0.22	0.14	0.14	0.13	0.12
0.35	0.39	0.24	0.21	0.27	0.42	0.28	0.33	0.26	0.29	0.22	0.21
0.30	0.19	0.17	0.15	0.25	0.26	0.18	0.20	0.19	0.16	0.12	0.10
0.27	0.26	0.22	0.19	0.20	0.20	0.19	0.20	0.18	0.15	0.13	0.12
0.25	0.27	0.21	0.15	0.22	0.26	0.27	0.24	0.29	0.30	0.26	0.23
0.17	0.20	0.21	0.18	0.16	0.19	0.17	0.15	0.17	0.18	0.16	0.15
0.23	0.24	0.20	0.17	0.20	0.23	0.21	0.21	0.20	0.20	0.16	0.14
0.19	0.18	0.18	0.17	0.18	0.19	0.18	0.17	0.15	0.14	0.15	0.15

.../continued

Table 8 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
0.36	0.38	0.35	0.28	0.25	0.26	0.28	0.25	0.29	0.29	0.29	0.22
0.76	0.80	0.81	0.81	0.75	0.77	0.86	0.86	0.86	0.84	0.82	0.83
0.39	0.30	0.27	0.32	0.26	0.22	0.33	0.38	0.32	0.39	0.31	0.31
0.61	0.58	0.55	0.63	0.56	0.50	0.50	0.37	0.58	0.57	0.60	0.62
0.11	-0.05	0.34	0.40	0.21	-0.21	0.23	0.00	0.25	0.15	0.32	0.28
0.18	0.41	0.45	0.52	0.26	0.07	0.34	0.25	0.26	0.35	0.45	0.43
0.10	0.12	0.19	0.25	0.22	0.19	0.23	0.18	0.24	0.31	0.41	0.50
0.36	0.36	0.47	0.61	0.34	0.21	0.29	0.23	0.07	0.02	0.12	0.17
0.33	0.36	0.30	0.20	0.37	0.34	0.37	0.41	0.39	0.36	0.42	0.55
0.31	0.32	0.40	0.44	0.34	0.24	0.34	0.28	0.30	0.30	0.39	0.42
0.41	0.41	0.43	0.45	0.39	0.36	0.41	0.42	0.44	0.46	0.43	0.44

.../continued

Table 7 Continued

1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
0.22	0.22	0.22	0.21	0.21	0.23	0.23
0.05	0.05	0.04	0.05	0.04	0.04	0.04
0.15	0.16	0.16	0.15	0.14	0.13	0.14
0.18	0.18	0.15	0.14	0.12	0.11	0.11
0.15	0.19	0.15	0.19	0.15	0.18	0.14
0.12	0.10	0.10	0.09	0.09	0.09	0.10
0.10	0.11	0.14	0.15	0.15	0.16	0.14
0.21	0.16	0.23	0.20	0.23	0.20	0.19
0.11	0.14	0.14	0.15	0.14	0.15	0.12
0.13	0.13	0.13	0.13	0.13	0.12	0.12
0.14	0.14	0.13	0.13	0.13	0.14	0.14

Table 8 Continued

1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
0.24	0.28	0.26	0.26	0.27	0.25	0.23
0.85	0.84	0.88	0.84	0.85	0.85	0.84
0.37	0.42	0.46	0.49	0.47	0.48	0.42
0.52	0.47	0.56	0.49	0.50	0.48	0.48
0.50	0.35	0.45	0.36	0.46	0.36	0.44
0.36	0.36	0.39	0.36	0.34	0.35	0.33
0.55	0.49	0.38	0.25	0.17	0.23	0.28
0.33	0.46	0.19	0.19	0.03	0.06	0.24
0.61	0.35	0.36	0.40	0.33	0.19	0.40
0.44	0.39	0.38	0.35	0.32	0.31	0.35
0.47	0.46	0.50	0.48	0.48	0.46	0.45

Table B.9 Total factor productivity growth by mining industry,^a 1968-69 to 1994-95 (per cent)

Industry	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Black coal mining	na	9.33	4.18	-5.99	8.00	-3.51	1.28	-14.00
Oil and gas mining	na	34.69	45.21	19.14	7.66	11.05	-6.51	6.12
Iron ore mining	na	17.18	-4.36	-7.79	14.78	4.52	-0.16	-3.30
Bauxite ore mining	na	6.87	-2.28	-26.05	2.90	1.99	-1.07	-17.95
Copper ore mining	na	24.88	-1.36	-2.82	7.69	5.05	-6.34	24.56
Gold ore mining	na	5.06	-2.17	7.58	-31.82	-20.00	-5.57	-5.27
Mineral sands mining	na	11.99	13.86	-21.15	-3.54	3.44	-12.74	-16.40
Silver lead zinc ore	na	17.14	-11.70	6.50	-1.23	2.69	-2.39	-0.80
Non-ferrous metal mining nec	na	-1.39	-6.11	-4.56	6.92	-3.02	-15.95	-6.27
Total non-ferrous metal mining^b	na	14.39	-3.43	-5.01	1.73	0.96	-7.79	-1.89
Mining^b	na	15.96	4.98	-1.79	7.52	2.55	-3.52	-4.97

na not applicable.

a For details of industry sectors, see text.

b Estimated by aggregating the output weighted measures of productivity growth by industry. Average relative output weights are adopted.

Source: PC estimates.

.../continued

Table B.10 Indexes of total factor productivity growth by mining industry,^a 1968-69 to 1994-95 (1989-90=100)

Industry	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Black coal mining	84	92	96	90	98	94	95	83
Oil and gas mining	107	151	238	288	311	347	325	346
Iron ore mining	45	53	51	47	55	57	57	55
Bauxite ore mining	84	90	88	67	69	71	70	59
Copper ore mining	36	46	45	44	48	50	47	60
Gold ore mining	118	124	122	131	95	78	74	70
Mineral sands mining	104	118	135	110	106	109	96	82
Silver lead zinc ore	71	85	75	80	79	82	80	79
Non-ferrous metal mining nec	171	169	159	152	163	158	135	126
Total non-ferrous metal mining^b	81	94	91	86	88	88	82	80
Mining^b	88	103	109	107	115	118	114	108

a For details of industry sectors, see text.

b Estimated by aggregating the output weighted measures of productivity growth by industry. Average relative output weights are adopted.

Source: PC estimates.

.../continued

Table 9 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
0.75	8.33	-4.55	-8.33	3.11	-7.02	0.46	1.28	4.75	0.40	-4.64	13.73
-12.15	2.70	-3.01	-4.94	-30.68	-15.76	-25.44	-7.81	4.83	10.56	-14.49	-4.96
4.35	-10.87	2.14	-1.09	0.61	-7.27	1.96	9.05	5.30	5.54	-9.36	25.45
51.56	-19.52	-2.33	12.08	-14.96	-8.30	0.99	-23.74	42.98	-16.93	9.99	18.84
-10.82	10.43	10.52	-2.33	-11.93	4.37	37.13	-15.93	30.82	-6.56	13.10	-41.13
56.57	4.36	-10.47	-29.27	-51.84	19.85	16.81	-2.77	4.87	8.00	6.77	-0.54
2.41	16.11	20.26	1.29	-1.09	-1.58	8.77	-3.61	0.00	5.26	-4.80	7.34
6.96	-0.35	-2.74	-9.78	-13.95	8.85	17.66	-4.20	2.61	7.76	5.29	-8.76
-23.21	-5.02	-20.45	-5.42	16.33	13.28	10.75	11.32	-14.72	0.92	3.18	5.80
1.24	-1.20	-4.73	-5.85	-6.64	8.18	14.51	-1.54	5.50	0.76	5.89	-1.72
-0.21	0.77	-2.94	-5.67	-7.56	-4.92	-1.05	-0.24	4.98	3.86	-5.27	6.51

.../continued

Table 10 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
84	91	87	80	82	77	77	78	82	82	79	90
306	315	305	291	214	183	142	131	137	153	132	126
58	52	53	52	53	49	50	55	58	61	56	72
98	81	79	89	77	71	71	56	86	73	81	97
54	60	67	65	58	60	87	75	102	95	108	72
123	129	116	87	52	63	74	72	76	82	88	88
84	98	120	122	121	119	130	125	125	132	126	135
85	84	82	75	65	71	85	81	83	90	95	87
100	95	78	74	87	99	110	123	106	107	111	118
81	80	77	72	68	73	85	84	88	89	94	93
108	109	106	100	93	88	87	87	91	95	90	96

.../continued

Table 9 Continued

1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
4.15	6.31	-1.68	7.50	2.65	1.44	3.76
-15.48	-7.41	10.96	-5.09	-4.48	-2.69	6.72
6.57	26.84	-21.67	5.72	-7.24	2.51	12.00
18.87	-16.09	0.45	12.32	-10.24	-14.10	4.71
20.28	12.81	17.91	-8.88	20.50	1.22	-14.18
0.38	12.82	14.51	1.86	0.25	-2.56	-9.95
-5.69	-24.51	-27.40	4.39	15.47	7.75	-1.00
6.08	8.06	-9.45	13.38	6.54	9.56	-2.39
17.03	-33.20	20.29	4.35	-8.08	5.82	17.76
6.85	0.70	7.64	3.90	2.11	-0.43	-4.62
0.70	3.09	2.64	2.57	-0.72	-0.13	2.97

Table 10 Continued

1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
94	100	98	106	109	110	115
108	100	112	106	101	99	106
76	100	81	85	79	81	92
117	100	100	114	103	89	93
88	100	120	109	134	136	118
88	100	116	118	118	115	104
128	100	76	79	93	100	99
92	100	91	104	111	122	119
139	100	123	128	118	125	149
99	100	108	112	115	114	109
97	100	103	105	105	104	108

Table B.11 Index of output prices by mining industry,^a 1968-69 to 1994-95 (1989-90=100)

<i>Industry</i>	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Black coal mining	14	14	14	17	17	20	33	48
Oil and gas mining	12	12	11	10	10	11	12	13
Iron ore mining	42	42	41	40	37	34	42	48
Bauxite ore mining	26	26	26	31	32	35	38	58
Copper ore mining	35	35	27	25	30	41	31	31
Gold ore mining	7	7	7	8	14	16	25	28
Mineral sands mining	10	10	9	11	12	13	22	25
Silver lead zinc ore	15	15	14	15	15	26	30	29
Non-ferrous metal mining nec	17	17	17	17	16	18	23	27
Total non-ferrous metal mining	16	17	16	17	18	24	27	30
Mining	17	18	17	17	18	20	26	30

a For details of industry sectors, see text.

Source: PC estimates.

.../continued

Table B.12 Index of material and service input prices by mining industry,^a 1968-69 to 1994-95 (1989-90=100)

<i>Industry</i>	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Black coal mining	12	12	14	16	17	18	25	32
Oil and gas mining	17	17	16	16	19	22	22	25
Iron ore mining	23	23	20	20	22	22	27	31
Bauxite ore mining	18	18	19	20	21	23	25	34
Copper ore mining	17	17	17	19	20	22	27	32
Gold ore mining	15	15	16	17	18	20	27	31
Mineral sands mining	17	17	16	19	19	21	27	31
Silver lead zinc ore	15	15	16	18	19	23	28	30
Non-ferrous metal mining nec	17	18	18	19	20	22	29	32
Total non-ferrous metal mining	16	16	17	19	20	22	28	32
Mining	16	16	16	18	19	21	26	31

a For details of industry sectors, see text.

Source: PC estimates.

.../continued

Table 11 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
52	54	54	57	61	75	85	84	91	100	108	89
14	17	22	29	41	44	52	64	75	78	67	72
56	62	63	67	81	92	114	113	109	127	133	108
41	47	54	60	72	78	85	90	107	132	124	124
38	31	46	61	60	44	51	51	54	54	63	100
19	28	36	68	88	65	81	78	77	87	107	112
23	20	19	23	26	28	29	29	36	41	56	68
34	36	49	87	62	53	53	57	52	50	55	70
42	45	52	63	65	63	64	61	66	69	75	93
35	36	43	62	59	55	59	60	63	67	79	95
35	38	41	50	57	62	71	74	81	87	90	88

.../continued

Table 12 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
34	38	39	43	49	59	65	72	76	81	85	90
25	31	33	41	46	50	60	64	73	79	83	89
37	39	44	47	57	66	74	75	74	79	83	89
31	39	51	47	54	60	68	72	75	80	85	91
35	39	42	48	53	60	67	71	74	79	84	90
34	38	41	49	55	60	67	70	73	81	86	90
34	36	38	44	49	55	62	66	71	77	84	89
32	35	39	45	50	56	59	66	75	79	84	90
34	37	41	48	53	59	64	68	73	80	84	90
34	37	41	47	52	58	64	68	74	80	85	90
34	38	40	45	51	59	66	71	75	80	84	90

.../continued

Table 11 Continued

	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
	90	100	106	103	104	103	97
	91	100	130	122	128	119	108
	107	100	144	149	153	144	117
	83	100	125	113	128	149	152
	125	100	95	84	87	80	105
	106	100	94	85	82	85	90
	87	100	95	78	60	61	68
	83	100	82	68	55	53	66
	98	100	92	88	83	65	74
	98	100	94	84	79	78	87
	95	100	111	105	105	101	98

Table 12 Continued

	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
	95	100	105	106	108	109	109
	95	100	104	106	109	110	111
	95	100	105	106	108	110	111
	95	100	105	107	109	110	111
	95	100	105	106	108	109	111
	95	100	105	106	108	109	110
	94	100	105	106	108	108	109
	95	100	104	106	109	110	109
	95	100	105	106	109	109	111
	95	100	105	106	108	109	110
	95	100	105	106	108	109	110

Table B.13 Mining industries' terms of trade,^a 1968-69 to 1994-95 (1989-90=100)

<i>Industry</i>	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Black coal mining	89	111	103	107	106	108	131	150
Oil and gas mining	72	71	65	60	54	49	55	51
Iron ore mining	182	181	203	206	173	156	154	158
Bauxite ore mining	141	139	137	157	149	153	153	169
Copper ore mining	213	209	157	134	149	184	111	98
Gold ore mining	44	43	44	49	77	82	93	91
Mineral sands mining	61	60	55	61	60	60	82	78
Silver lead zinc ore	97	95	87	81	79	113	109	98
Non-ferrous metal mining nec	97	96	96	87	81	80	79	84
Total non-ferrous metal mining	99	102	91	88	92	108	98	95
Mining	111	111	101	96	93	96	98	97

a For details of industry sectors, see text.

Source: PC estimates.

.../continued

Table 13 Continued

1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
152	141	139	133	123	128	130	118	120	123	127	99
55	55	66	71	89	88	87	99	103	98	81	81
153	158	144	142	141	138	153	149	146	160	160	121
131	122	106	128	134	130	126	125	142	164	146	137
108	80	111	128	113	74	76	71	73	68	74	112
56	74	89	138	162	109	121	112	105	108	125	124
67	56	49	52	52	51	46	44	50	54	67	77
104	102	126	194	126	96	89	86	69	63	66	78
121	123	128	133	123	107	100	90	90	86	88	104
102	97	106	133	114	95	93	87	85	84	94	106
102	100	103	112	110	104	108	104	108	108	106	98

.../continued

Table 13 Continued

<i>1988-89</i>	<i>1989-90</i>	<i>1990-91</i>	<i>1991-92</i>	<i>1992-93</i>	<i>1993-94</i>	<i>1994-95</i>
95	100	101	97	96	95	89
96	100	125	115	118	108	97
113	100	138	140	141	131	105
87	100	119	106	118	136	137
132	100	91	79	81	73	95
112	100	90	80	76	78	82
92	100	90	73	55	56	63
87	100	78	64	51	48	60
103	100	88	83	77	59	67
104	100	90	79	73	72	79
100	100	106	98	97	92	89