

Restructuring of the Coal Industry in Australia ¹

Yoshimitsu MIMUROTO, **Deputy General Manager**
Toru KIMURA, **Guest Researcher**
Koichi KOIZUMI, **Senior Engineer**
International Cooperation Department

Introduction

Australia has been leading coal supply in the international markets since 1986. In recent years, coal producing companies in Australia accelerated the consolidation of mines by means of acquisitions and mergers, especially during the period from 1998 to 2000 when export prices of steaming coal remained stagnant, and the movement continues to this date. In particular, it is worthy of note that four international resource companies, the so-called Big Four, which are Anglo American, BHP Billiton, Rio Tinto and Glencore+Xstrata, have been restructured and that, as a result, their production shares concentrated. This report is to examine the background and present status of the restructuring in the Australian coal industry.

1. Changes in Coal Production / Export Companies

Table 1-1 shows changes in top ten coal producing companies in Australia and their coal production for the ten-year period from 1993. The production shown in the table indicates the volume controlled by the companies (total production from mines they are principally operating), but not the production subject to their interests (= production × ratio of interests). In addition, the columns in light blue indicate the Big Four companies, while those in light yellow indicate coal producing companies owned by major international oil companies (oil majors) (Company names remain the same as those in the source materials). Likewise, Table 1-2 indicates the changes in the top ten coal

¹ This report was compiled, by adding the latest data, based on “Chapter 1. Present Status of the Consolidation and Reorganization in the World Coal Markets” of a study report titled “FY2002 Study for Promoting the Development of Overseas Coal (Consolidation/Reorganization by Coal Producing Companies and the Effects),” which the New Energy and Industrial Technology Development Organization (NEDO) entrusted The Institute of Energy Economics, Japan (IEEJ) to prepare. Acknowledgments are due to the NEDO for their kind understanding and permission for this publication.

Table 1-1 Changes in top ten coal producing companies in Australia and their coal production

(Million tons)

	1993				1994				1995				1996				1997			
	Company Name	No. of Mines	Production	Share	Company Name	No. of Mines	Production	Share	Company Name	No. of Mines	Production	Share	Company Name	No. of Mines	Production	Share	Company Name	No. of Mines	Production	Share
1	B P Australia	12	45.46	25.2%	BHP Australia	12	45.02	24.5%	BHP Australia	14	46.74	24.2%	BHP Coal Pty. Ltd.	15	49.23	24.8%	BHP Coal Pty. Ltd.	16	53.27	24.6%
2	CRA Limited	11	33.51	18.6%	CRA Limited	10	31.58	17.2%	CRA Limited	8	30.70	15.9%	RTZ-CRA Ltd. (Rio Tinto)	8	29.41	14.8%	Rio Tinto Ltd.	6	29.49	13.6%
3	Shell Coal Aust.	7	13.75	7.6%	Shell Coal Aust.	7	14.20	7.7%	Shell Coal Aust.	8	15.18	7.9%	Cyprus Australia Coal	10	15.03	7.6%	Shell Coal Australia	8	18.18	8.4%
4	Power Coal	8	9.88	5.5%	Power Coal	8	9.14	5.0%	Cyprus Amax Coals	8	11.74	6.1%	Shell Coal Australia	8	13.66	6.9%	Cyprus Australia Coal	9	14.66	6.8%
5	Okebridge Ltd.	6	9.53	5.3%	MIM Holdings	6	9.11	5.0%	Power Coal	8	9.33	4.8%	MIM Holdings	6	9.48	4.8%	MIM Holdings	6	10.67	4.9%
6	MIM Holdings	6	9.53	5.3%	Cyprus Amax Coals	6	9.01	4.9%	Peabody Resources	3	9.02	4.7%	Peabody Resources	3	9.23	4.6%	Peabody Resources	3	10.04	4.6%
7	Peabody Resources	2	8.66	4.8%	Peabody Resources	3	9.00	4.9%	MIM Holdings	6	8.89	4.6%	Powercoal Pty. Ltd.	8	9.07	4.6%	ARCO Coal Australia	8	8.76	4.0%
8	ARCO Coal	2	7.01	3.9%	ARCO Coal	2	8.64	4.7%	ARCO Coal	2	8.43	4.4%	ARCO Coal Australia	2	8.59	4.3%	Exxon Coal & Minerals	3	7.47	3.4%
9	Exxon Coal	3	6.26	3.5%	Exxon Coal	3	7.29	4.0%	Exxon Coal	3	7.53	3.9%	Exxon Coal & Minerals	3	7.14	3.6%	Idemitsu Kosan	4	5.74	2.6%
10	Oceanic Coal Aust. Ltd.	7	3.99	2.2%	Oceanic Coal Aust. Ltd.	5	4.22	2.3%	Oceanic Coal Aust. Ltd.	5	4.11	2.1%	Idemitsu Kosan	4	5.37	2.7%	C.O.A.L.	4	5.37	2.5%
	Total of 10 Companies	64	147.57	81.9%	Total of 10 Companies	62	147.21	80.1%	Total of 10 Companies	65	151.67	78.7%	Total of 10 Companies	67	156.19	78.6%	Total of 10 Companies	67	163.65	75.5%
	Production by the Big Four	12	78.97	43.9%	Production by the Big Four	12	76.60	41.7%	Production by the Big Four	14	77.43	40.2%	Production by the Big Four	23	78.64	39.6%	Production by the Big Four	22	82.76	38.2%
	Production by Oil Majors	12	27.02	15.0%	Production by Oil Majors	12	30.13	16.4%	Production by Oil Majors	13	31.14	16.2%	Production by Oil Majors	13	29.39	14.8%	Production by Oil Majors	19	34.41	15.9%
	Production in Australia	117	180.08	100.0%	Production in Australia	113	183.81	100.0%	Production in Australia	123	192.80	100.0%	Production in Australia	121	198.73	100.0%	Production in Australia	118	216.88	100.0%

	1998				1999				2000				2001				2002			
	Company Name	No. of Mines	Production	Share	Company Name	No. of Mines	Production	Share	Company Name	No. of Mines	Production	Share	Company Name	No. of Mines	Production	Share	Company Name	No. of Mines	Production	Share
1	Coal Pty. Ltd.	15	47.50	21.6%	BHP Coal Pty. Ltd.	14	48.65	20.4%	BHP Coal Pty. Ltd.	13	48.02	19.6%	BHP Billiton Ltd.	18	58.97	22.2%	BHP Billiton Ltd.	14	63.02	23.0%
2	Rio Tinto Ltd.	6	31.15	14.2%	Rio Tinto Ltd.	6	31.84	13.4%	Rio Tinto Ltd.	6	32.26	13.1%	Rio Tinto Ltd.	10	55.09	20.7%	Rio Tinto Ltd.	7	53.47	19.5%
3	Shell Coal Australia	8	19.80	9.0%	Shell Coal Australia	8	23.41	9.8%	Peabody Resources	5	20.34	8.3%	Enex Resources (Xstrata)	12	27.86	10.5%	Xstrata PLC	14	31.54	11.5%
4	Holdings	7	14.33	6.5%	MIM Holdings	7	17.74	7.4%	Glencore Coal Australia	10	19.75	8.0%	Anglo Coal Australia	7	26.76	10.1%	Anglo Coal Australia	8	27.90	10.2%
5	Cyprus Australia Coal	8	11.57	5.3%	Peabody Resources	5	15.20	6.4%	MIM Holdings	7	17.44	7.1%	MIM Holdings	7	21.27	8.0%	MIM Holdings	7	22.89	8.4%
6	Peabody Resources	3	9.72	4.4%	Cyprus Australia Coal	4	10.15	4.3%	Anglo Coal Australia	8	11.76	4.8%	Wesfarmers Coal Ltd.	2	8.99	3.4%	Wesfarmers Coal Ltd.	2	9.48	3.5%
7	Powercoal Pty. Ltd.	8	9.03	4.1%	Powercoal Pty. Ltd.	8	9.47	4.0%	Shell Coal Australia	8	11.17	4.5%	Idemitsu Kosan	3	8.55	3.2%	Idemitsu Kosan	3	8.30	3.0%
8	Exxon Coal & Minerals	3	8.39	3.8%	Exxon Coal & Minerals	3	8.86	3.7%	Powercoal Pty. Ltd.	8	8.45	3.4%	Powercoal Pty. Ltd.	7	8.55	3.2%	Centennial Coal	13	8.11	3.0%
9	Idemitsu Kosan	3	7.18	3.3%	Glencore Coal Aust. PL.	7	8.66	3.6%	Exxon Coal & Minerals	3	7.87	3.2%	RAG Australia Coal	2	6.09	2.3%	RAG Australia Coal	2	5.38	2.0%
10	C.O.A.L.	4	6.21	2.8%	Idemitsu Kosan	3	6.66	2.8%	Idemitsu Kosan	3	7.78	3.2%	Centennial Coal	6	4.79	1.8%	Powercoal Pty. Ltd.	7	4.89	1.8%
	Total of 10 Companies	65	164.89	75.1%	Total of 10 Companies	65	180.66	75.8%	Total of 10 Companies	71	184.82	75.3%	Total of 10 Companies	74	226.91	85.5%	Total of 10 Companies	77	234.97	85.9%
	Production by the Big Four	21	78.65	35.8%	Production by the Big Four	27	89.16	37.4%	Production by the Big Four	37	111.78	45.5%	Production by the Big Four	47	168.68	63.5%	Production by the Big Four	43	175.92	64.3%
	Production by Oil Majors	11	28.19	12.8%	Production by Oil Majors	11	32.28	13.5%	Production by Oil Majors	11	19.03	7.8%	Production by Oil Majors	0	0.00	0.0%	Production by Oil Majors	0	0.00	0.0%
	Production in Australia	117	219.47	100.0%	Production in Australia	110	238.24	100.0%	Production in Australia	105	245.52	100.0%	Production in Australia	108	265.52	100.0%	Production in Australia	103	273.59	100.0%

(Source) Barlow Jonker; “COAL” 1996–2003 Edition, and Coal Services Pty. Limited, Queensland Department of Natural Resources & Mines, “Australian Black Coal Statistics” 1996–2002 Edition,

Table 1-2 Changes in top ten coal exporting companies in Australia and their coal export volume

(million tons)

	1993			1994			95			1996			1997		
	Company Name	Export	Share	Company Name	Export	Share	Company Name	Export	Share	Company Name	Export	Share	Company Name	Export	Share
1	BHP Australia	40.40	30.7%	BHP Australia	39.09	29.8%	BHP Australia	39.50	28.9%	BHP Coal Pty. Ltd.	42.12	30.0%	BHP Coal Pty. Ltd.	45.21	28.7%
2	CRA Limited	28.82	21.9%	CRA Limited	26.43	20.1%	CRA Limited	24.95	18.3%	RTZ-CRA Ltd. (Rio Tinto)	25.90	18.4%	Rio Tinto Ltd.	23.36	14.8%
3	Oakbridge Ltd.	9.70	7.4%	Cyprus Amax Coals	11.60	8.8%	Cyprus Amax Coals	12.90	9.4%	Cyprus Australia Coal	13.40	9.5%	Cyprus Australia Coal	13.80	8.8%
4	MIM Holdings	9.21	7.0%	MIM Holdings	8.29	6.3%	Shell Coal Aust.	8.35	6.1%	MIM Holdings	8.81	6.3%	Shell Coal Australia	11.12	7.1%
5	Shell Coal Aust.	8.40	6.4%	Shell Coal Aust.	8.17	6.2%	MIM Holdings	8.20	6.0%	Shell Coal Australia	7.54	5.4%	MIM Holdings	9.86	6.3%
6	Exxon Coal & Minerals	7.22	5.5%	Exxon Coal & Minerals	6.55	5.0%	Exxon Coal & Minerals	6.31	4.6%	Exxon Coal & Minerals	6.19	4.4%	Exxon Coal & Minerals	6.62	4.2%
7	ARCO Coal	3.62	2.8%	ARCO Coal	6.10	4.7%	ARCO Coal	6.20	4.5%	ARCO Coal Australia	5.43	3.9%	C.O.A.L.	4.48	2.8%
8	Peabody Resources	2.68	2.0%	Peabody Resources	3.16	2.4%	Idemitsu Kosan	2.93	2.1%	Idemitsu Kosan	4.14	2.9%	Idemitsu Kosan	4.21	2.7%
9	Oceanic Coal Aust. Ltd.	2.42	1.8%	Oceanic Coal Aust. Ltd.	2.97	2.3%	Oceanic Coal Aust. Ltd.	2.81	2.1%	Peabody Resources	3.06	2.2%	QCT Resources	3.97	2.5%
10	South Blackwater	2.35	1.8%	Idemitsu Kosan	2.23	1.7%	Peabody Resources	2.70	2.0%	Oceanic Coal Aust. Ltd.	2.67	1.9%	ARCO Coal Australia	3.93	2.5%
	Total of 10 Companies	114.83	87.2%	Total of 10 Companies	114.58	87.3%	Total of 10 Companies	114.86	84.0%	Total of 10 Companies	119.27	84.9%	Total of 10 Companies	126.54	80.4%
	Exports by the Big Four	69.22	52.5%	Exports by the Big Four	65.52	49.9%	Exports by the Big Four	64.45	47.1%	Exports by the Big Four	68.03	48.4%	Exports by the Big Four	68.56	43.6%
	Exports by Oil Majors	19.25	14.6%	Exports by Oil Majors	20.82	15.9%	Exports by Oil Majors	20.86	15.3%	Exports by Oil Majors	19.16	13.6%	Exports by Oil Majors	21.66	13.8%
	Exports by Australia	131.75	100.0%	Exports by Australia	131.20	100.0%	Exports by Australia	136.70	100.0%	Exports by Australia	140.50	100.0%	Exports by Australia	157.34	100.0%

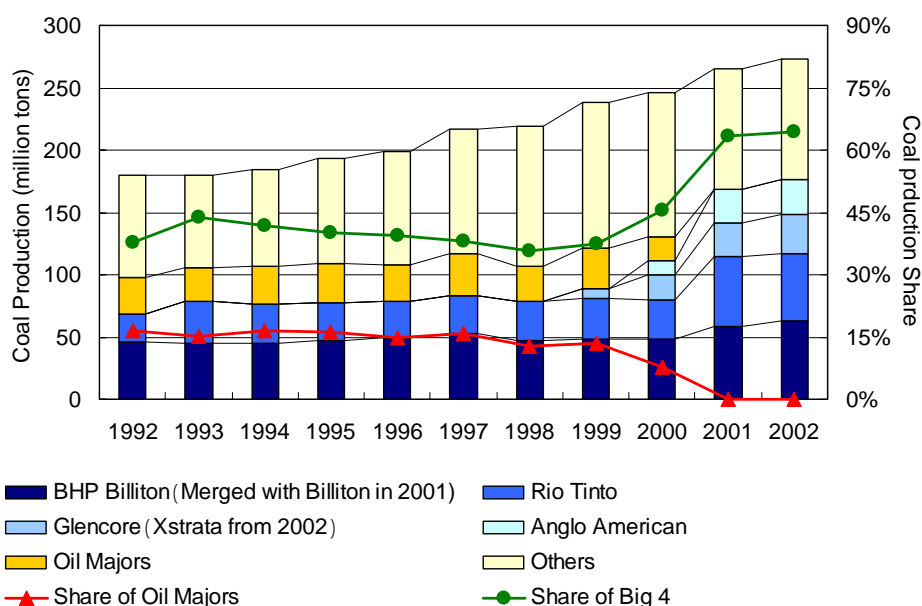
	1998			1999			2000			2001			2002		
	Company Name	Export	Share	Company Name	Export	Share	Company Name	Export	Share	Company Name	Export	Share	Company Name	Export	Share
1	BHP Coal Pty. Ltd.	41.58	25.0%	BHP Coal Pty. Ltd.	39.35	22.9%	BHP Coal Pty. Ltd.	41.18	22.0%	BHP Billiton Ltd.	49.59	25.5%	BHP Billiton Ltd.	51.85	25.4%
2	Rio Tinto Ltd.	25.33	15.2%	Rio Tinto Ltd.	25.28	14.7%	Rio Tinto Ltd.	27.78	14.9%	Rio Tinto Ltd.	42.02	21.6%	Rio Tinto Ltd.	43.66	21.4%
3	MIM Holdings	13.87	8.3%	MIM Holdings	16.25	9.5%	Glencore Coal Aust. PL.	18.19	9.7%	Enex Resources (Xstrata)	22.47	11.6%	Xstrata PLC	24.70	12.1%
4	Shell Coal Australia	11.41	6.9%	Shell Coal Australia	14.02	8.2%	MIM Holdings	17.57	9.4%	MIM Holdings	19.87	10.2%	MIM Holdings	21.84	10.7%
5	Cyprus Australia Coal	10.55	6.3%	Cyprus Australia Coal	9.94	5.8%	Peabody Resources	13.49	7.2%	Anglo Coal Australia	15.76	8.1%	Anglo Coal Australia	16.51	8.1%
6	Exxon Coal & Minerals	8.46	5.1%	Peabody Resources	8.88	5.2%	Anglo Coal Australia	7.56	4.0%	Idemitsu Kosan	6.32	3.2%	Idemitsu Kosan	7.13	3.5%
7	C.O.A.L.	5.59	3.4%	Glencore Coal Aust. PL.	7.80	4.5%	Exxon Coal & Minerals	7.51	4.0%	RAG Australia Coal	6.02	3.1%	RAG Australia Coal	5.24	2.6%
8	Idemitsu Kosan	5.59	3.4%	Exxon Coal & Minerals	7.54	4.4%	Shell Coal Australia	7.18	3.8%	Australian Premium Coals	3.79	2.0%	Excel Mining Ltd.	4.02	2.0%
9	QCT Resources	5.08	3.1%	QCT Resources	5.17	3.0%	Idemitsu Kosan	6.83	3.7%	Jellinbah Resources	3.47	1.8%	Australian Premium Coals	4.00	2.0%
10	Peabody Resources	4.11	2.5%	C.O.A.L.	5.14	3.0%	Billiton Coal Australia	4.85	2.6%	Wesfarmers Coal Ltd.	2.96	1.5%	Wesfarmers Coal Ltd.	3.39	1.7%
	Total of 10 Companies	131.58	79.0%	Total of 10 Companies	139.38	81.2%	Total of 10 Companies	152.12	81.5%	Total of 10 Companies	172.26	88.6%	Total of 10 Companies	182.34	89.3%
	Exports by the Big Four	66.91	40.2%	Exports by the Big Four	72.43	42.2%	Exports by the Big Four	99.54	53.3%	Exports by the Big Four	129.83	66.8%	Exports by the Big Four	136.72	67.0%
	Exports by Oil Majors	19.87	11.9%	Exports by Oil Majors	21.55	12.6%	Exports by Oil Majors	14.69	7.9%	Exports by Oil Majors	0.00	0.0%	Exports by Oil Majors	0.00	0.0%
	Exports by Australia	166.61	100.0%	Exports by Australia	171.63	100.0%	Exports by Australia	186.75	100.0%	Exports by Australia	194.37	100.0%	Exports by Australia	204.15	100.0%

(Source) Barlow Jonker; "COAL" 1996–2003 Edition, and Coal Services Pty. Limited, Queensland Department of Natural Resources & Mines, "Australian Black Coal Statistics" 1996–2002 Edition,

exporting companies in Australia and their coal export volume.

The effects of the restructuring and consolidation of coal producing companies in Australia are clearly shown in Tables 1-1 and 1-2, and Fig. 1-1 is provided to show the changes in coal production of the top ten companies. As is obvious from the tables and figure, the withdrawal of oil majors from coal business in Australia gained momentum starting with ARCO in 1998. Shell and Exxon completely withdrew from coal business in Australia in 2000, which stopped the presence of oil majors in the Australian coal industry. Although not included in the Big Four, Peabody, one of the giant coal companies in the U.S.A., expanded production from 8.66 million tons in 1993 to 20.34 million tons in 2001. However, the company withdrew from coal business in Australia after 2001, having concentrated on coal production projects in the U.S. until August 2002.

Fig. 1-1 Changes in production and market share of mines under control of the Big Four



(Source) Barlow Jonker; “COAL” 1996–2003 Edition, and Coal Services Pty. Limited, Queensland Department of Natural Resources & Mines, “Australian Black Coal Statistics” 1996–2002 Edition,

BHP, based in Australia, produced 45 million tons to 53 million tons annually until up to 2000. In 2001, when merged with Billiton, the company expanded its annual production capacity to over 60 million tons (63.02 million tons). Another Australia-based company, CRA, is continuing coal production there under the corporate name of Rio Tinto after the

merger with RTZ in December 1995. In 1999, Glencore, one of the Big Four and ranked as one of the top ten companies, entered the Australian coal industry, not as a trader, but as a producer or supplier. The last company that has entered the coal business in Australia as one of the Big Four is Anglo American. The expansion of production by the Big Four was achieved largely by acquiring coal interests that oil majors disposed of. The significant growth in production by Rio Tinto in 2001 was attributed to the acquisition of coal interests (Moura Mine and Ravensworth/Narama Mine), which were disposed of by Peabody. Consequently, in 2002, coal production in Australia controlled by the Big Four totaled 175.92 million tons, which accounted for 64.3% or approximately two-thirds of the total in the country.

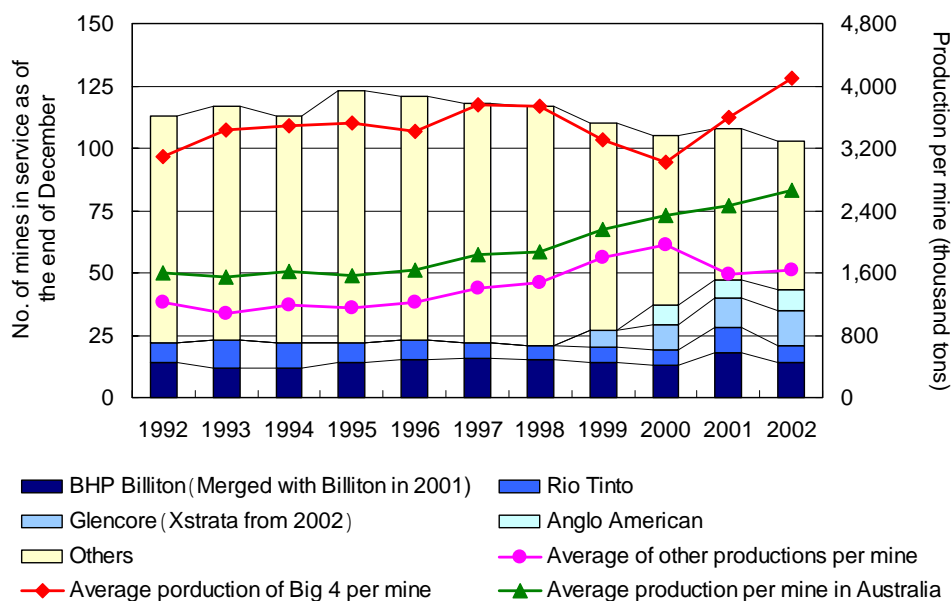
In addition to such developments, in 2001, RAG, which is none of the Big Four despite of its being a global coal producing company, acquired interests in the Burton Mine and North Goonyalla Mine, thus participating in the Australian coal business. Peabody, which had once disposed of all coal interests in Australia as mentioned above, acquired coal interests in Australia again in August 2002.

Fig. 1-2 shows the changes in the number of mines in-service in Australia, the number of mines under the control of the Big Four, and coal production per mine. The production per mine in Australia increased year by year from an average of 1.6 million tons per mine in 1992 to 2.6 million tons in 2002 due to expanded production and decreasing trends in the number of mines. As of the end of December 2002, mines in-service throughout Australia was 103, and those under the control of the Big Four 43 (41.7% of the total). In terms of the scale of mines, the annual average production per mine under the control of the Big Four in 2002 was 4.09 million tons, while the average production of other mines was only 1.63 million tons, which is equivalent to only 39.8% of that of the Big Four.

It is understood that the restructuring and consolidation in the Australian coal industry were triggered and accelerated not by BHP Billiton and Rio Tinto, which are based in Australia, but rather by the entry of Anglo American into Australia. Along with the closures and consolidations of mines and the restructuring of companies, mines whose annual production exceeded 10 million tons were born. As of the year 2000, only the Blair Athol Mine (in QLD) had production exceeding 10 million tons. In 2001, the Goonyella/Riverside Mine (in QLD) of BHP Billiton exceeded annual production of 10 million tons, and Rio Tinto (Coal & Allied) consolidated the Howick and Lemington

mines with the Hunter Valley Mine to establish Hunter Valley Operations as a producing company with annual production exceeding 10 million tons. In 2002, the five mines shown in Table 1-3 recorded production exceeding 10 million tons. Furthermore, Rio Tinto plans to consolidate the Mount Thorley and Warkwoth mines in the Province of New South Wales in 2003; consequently, another mine whose annual production exceeds 10 million tons will be born if the plan materializes. In addition, as part of a large-scale development project for steam coal mines, BHP Billiton will initiate a production plan (for annual production of 12.1 million tons) at the Mt. Arthur North Mine in NSW in the fourth quarter 2003.

Fig. 1-2 Changes in the number of mines under the control of the Big Four and production per mine



(Note) Based on Table 1-1

Consolidation of adjacent mines enables aggregation of ground facilities, including coal cleaning factories, thus enabling cost reductions as a whole by reducing fixed costs from personnel downsizing, streamlining of on-premise transportation, and aggregation of the planning and administrative departments. It is clear from such facts that mine management by the Big Four in Australia is directed to economies of scale. In addition, as an executive officer of Xstrata mentioned, the expanded scale of companies through restructuring and consolidation also brings about improvement in fundraising capability.

Table 1-3 Mines exceeding annual production of 10 million tons

Mine	Operating Company	Production (million tons)		
		2000	2001	2002
Blackwater (QLD, O/C)	BHP Billiton Mitsubishi Alliance (BHPB)	7.419	8.259	12.768
		(8.413 : 88.2 %)	(9.495 : 87.0 %)	(14.243 : 89.6 %)
Hunter Valley Operations (NSW, O/C)	Coal & Allied Industries Ltd. (Rio Tinto)	8.389	12.651	12.242
		(11.488 : 73.0 %)	(17.291 : 73.2 %)	(16.815 : 72.8 %)
Blair Athol (QLD, O/C)	Pacific Coal Pty Ltd. (Rio Tinto)	11.040	10.592	11.809
		(11.040 : 100.0 %)	(10.592 : 100.0 %)	(11.809 : 100.0 %)
Callide & Boundary Hill (QLD, O/C)	Anglo Coal Austrarian Pty Ltd. (Anglo America)	6.993	9.320	10.192
		(6.993 : 100.0 %)	(9.320 : 100.0 %)	(10.689 : 95.3 %)
Goonyella/Riverside (QLD, O/C)	BHP Billiton Mitsubishi Alliance (BHPB)	9.772	11.049	10.135
		(12.873 : 75.9 %)	(16.267 : 67.9 %)	(14.857 : 68.2 %)

(Note) QLD: The Province of Queensland, NSW: The Province of New South Wales, O/C: Open-pit Mining, Production: Upper columns show the volume of salable coal; lower columns show the volume of raw coal production and yield

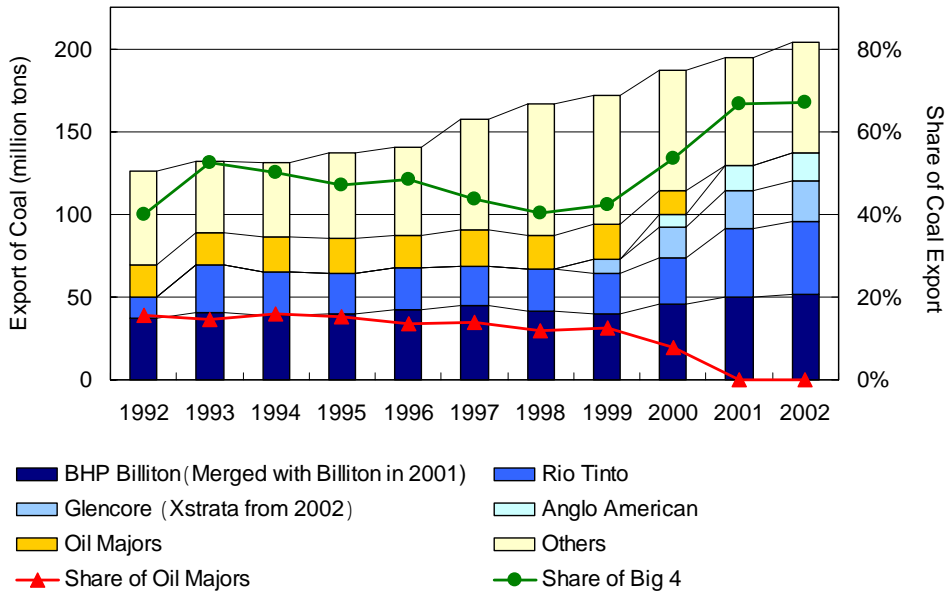
(Source) Coal Services Pty. Limited, Queensland Department of Natural Resources & Mines, "Australian Black Coal Statistics" 1996–2002 Edition,

Regarding coal exports from Australia, the export volume was expanding along with production, as shown in Table 1-2 and Fig. 1-3. As a matter of course, the coal export volume by the Big Four is also increasing in proportion to the expansion of their production, and their market share in 2001 reached as high as 66.8%.

Furthermore, as shown in Fig. 1-4, 70% or more (the average for years 1992–2002: 73.0%) of coal produced in Australia was supplied to global coal markets each year. The ratio of coal exported to the entire volume produced from mines under the control of the Big Four was 82.0% on the average for years from 1992 to 2002; the number exceeds the average of all mines in Australia by about 9%. Meanwhile, the export ratio of mines other than those under the control of the Big Four was 64.8% on the average for the same period, which was less than the average of all mines in Australia.

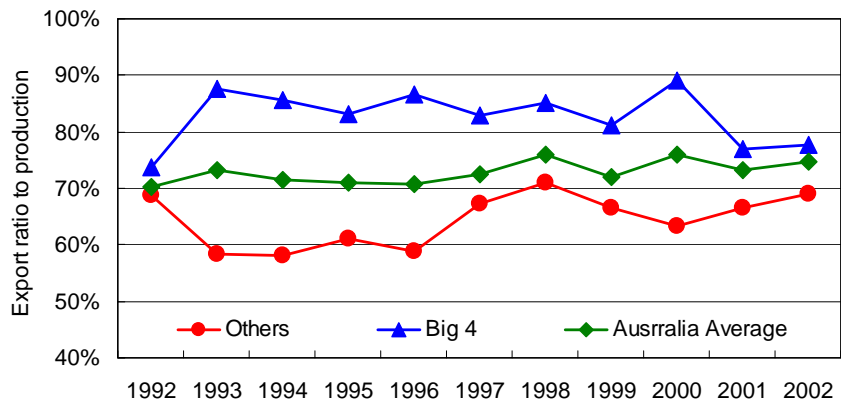
Clearly, from the above-stated data, the Big Four are targeting the global market but not the domestic markets of Australia.

Fig. 1-3 Changes in export volumes of mines under the control of the Big Four and oil majors and their market share



(Note) Based on Table 1-2

Fig. 1-4 Changes in export ratio to production by companies in Australia



(Note) Based on Table 1-1 and 1-2

2. Developments of Restructuring in the Australian Coal Industry

Important movements in the Australian coal industry in 2001 and thereafter will be summarized in the following sections.

2-1 BHP Billiton Mitsubishi Alliance

In June 2001, concurrently with the merger of BHP Limited and Billiton Pcl, the BHP Billiton Mitsubishi Alliance (BMA) was established wherein BHP Billiton and Mitsubishi Development Pty. Ltd. (an Australian company of Mitsubishi Corporation) equally shared the ownership and management of seven mines in the Bowen Basin and the Hay Point Coal Export Terminal in QLD. BMA reported that the integration of production capabilities and market competitiveness of the two companies would create a dynamic and competitive coal business and that BMA would produce more than one-fourth of the annual coal exports in Australia and occupy 25% of the global waterborne trade in terms of coal for coke making.

The main business of BMA consists of Assets, Operations, and Marketing.

(1) Assets

Assets directly owned by BMA include the following seven mines and the Hay Point Coal Export Terminal (Refer to Fig. 2-1). As the result of the restructuring and consolidation, BMA's coal production has expanded to 50 million tons annually. BMA brings global deployment into their future vision in addition to QLD.

- ◆ Goonyella
- ◆ Peak Downs
- ◆ Saraji
- ◆ Norwich Park
- ◆ Gregory
- ◆ Crinum
- ◆ Blackwater (South Blackwater)

(2) Operations

In addition to the above-described mines and the Hay Point Coal Export Terminal, BMA also operates two mines (Riverside and South Walker Creek) located in the Bowen Basin. The two mines are owned by BHP Mitsui Coal Mines (a coal producing company in which BHP Billiton has an 80% interest and Mitsui Corporation has the remaining 20%).

(3) Marketing

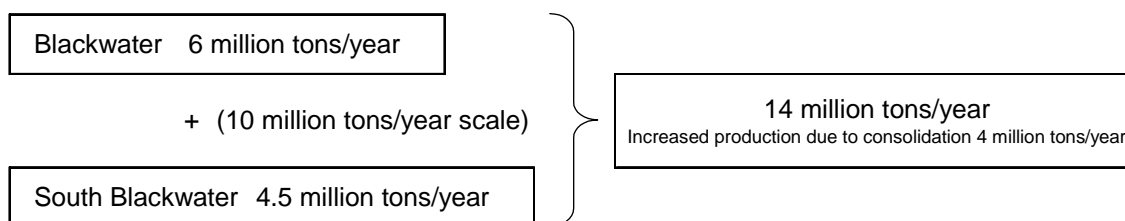
BMA conducts the marketing activities for coal produced at the two mines of the BHP Mitsui Coal Mines and the five mines of the BHP Billiton Illawarra Mine (Southern Coal Field in NSW), whose operations (production) are entrusted to BMA (Mines are producing steam coal, including those under planning), in addition to the seven mines owned by BMA. BMA also sells high quality heavy and weakly coking coals, PCI coal, and steam coal to more than 60 customers in 24 countries.

Fig. 2-1 Coal-related assets of BMA in QLD



(Source) BMA corporate brochure

The movement for the restructuring and consolidation of BMA can be traced back to November 2000 when the company was not yet established. In November 2000, BHP Limited and Mitsubishi Development Pty. Ltd. (Mitsubishi Corporation) acquired the South Blackwater Mine from QTC Resources Limited, and then consolidated the mine with Blackwater. As a result of this consolidation, total production capacity was expanded, from that at the time when the two mines had been independently operated, to reach the largest-class capacity in the world, which is 14 million tons a year.



Since the seven mines owned by BMA are located widely throughout QLD, it is difficult to integrate and operate them in the same way as three adjacent mines of Hunter Valley Operations, which were integrated and managed by Rio Tinto (Coal & Allied) in NSW. The seven mines are not managed and operated in a unified manner, although BMA has such departments as planning and environmental protection at each mine. However, BMA has taken advantage of the consolidation through streamlining management, first, by integrating the material procurement department of respective mines at Moranbah, which is located on the Bowen Basin, to provide an office at the mine to set up bulk purchases; and second, by establishing the head office (functions) in Brisbane to manage and control railway and sea transportation.

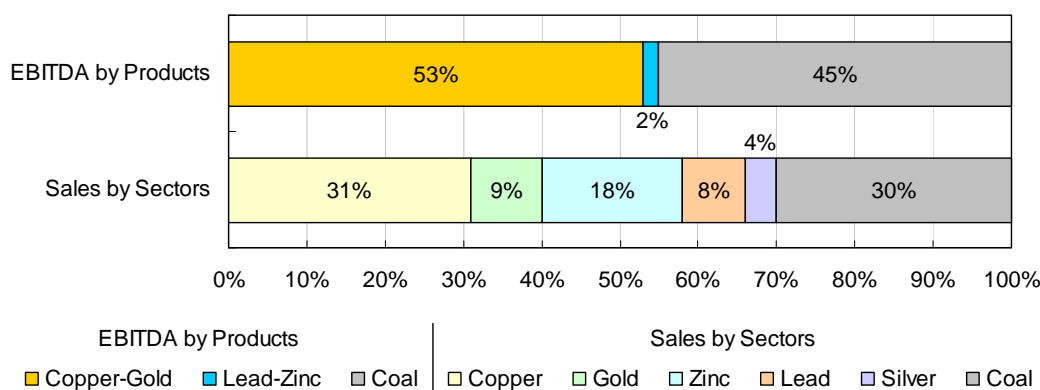
2-2 Acquisition of M.I.M Holdings by Xstrata

In November 2002, it was publicly reported that Xstrata planned a takeover bid (TOB) of M.I.M Holdings Limited (MIM).

MIM is a global mineral resource company based in Australia, producing mainly copper, coal, lead, zinc, silver, and gold. MIM operates in QLD and the Northern Territory of Australia, as well as in the United Kingdom, Argentina, and Germany. Fig. 2-2 shows the company's total amount of sales by department, as well as earnings before interest, taxes, depreciation, and amortization (EBITDA) by product. These figures show that coal production is its core business.

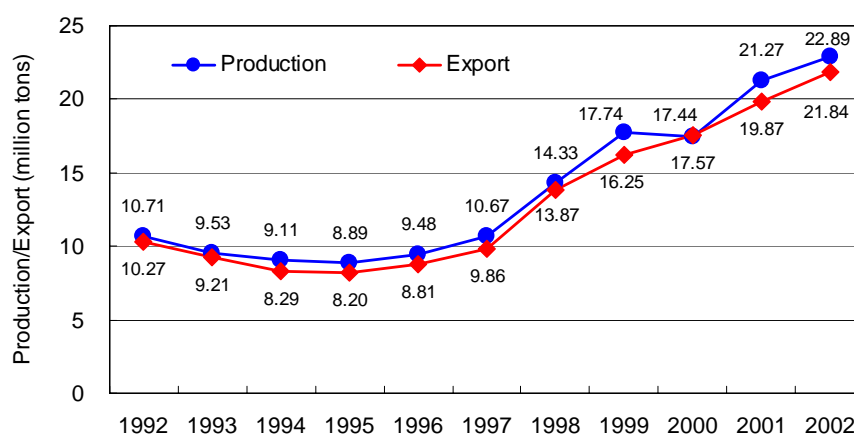
Changes in the top ten coal producing companies in Australia, their coal production, and their coal export volumes are already shown in Tables 1-1 and 1-2. Additionally, Fig. 2-3 has been prepared to show the trends of MIM’s coal production and exports that are included in the tables. Since the company produces mainly coking coal, its operations are export-oriented; approximately 95% of their production was exported on the average for 11 years from 1992 to 2002.

Fig. 2-2 Changes in total sales by business sector as well as earnings before interest, taxes, depreciation, and amortization (EBITDA) by product of M.I.M Holdings Limited



(Source) Information on the MIM Web site.

Fig. 2-3 Changes in coal production and exports from mines under the control of M.I.M Holdings Limited



(Note) Based on Table 1-1 and 1-2

Xstrata officially announced that it completed the acquisition of MIM on June 24, 2003. Consequently, such mines as Collinsville (MIM 75%; Itochu Corporation 25%), Newlands (MIM 75%; Itochu Corporation 25%), and Oaky Creek (MIM 75%; Sumitomo Corporation 15%; Itochu Corporation 10%), in which MIM has interests as shown in parentheses, were placed under the control of Xstrata. If we simply add production from these mines to that produced at mines under the control of Xstrata as of 2002, its production is calculated to be 54.43 million tons (Xstrata 31.54 million tons; MIM 22,89 million tons), which overtakes that of Rio Tinto (53.47 million tons) and follows BHP Billiton (63.02 million tons). Using the above production figures, the market share of the Big Four in Australian coal production reaches 72.7%, surpassing 64.3% shown in Table 1-1 and Fig. 1-1.

In Australia, Xstrata (Glencore) has specialized in producing steam coal to date and has never shown any interest in producing coking coal, while the coal assets of MIM are weighted more heavily in coking coal than in steam coal. It is very interesting how they maintain their sales channels for steam coal.

On September 17, 2003, Sumitomo Corporation and Itochu Corporation officially announced the acquisition (additional one) of coal interests owned by Xstrata in QLD in Australia. Reportedly, the interests acquired (refer to Table 2-1 below) were those that had been originally owned by MIM and acquired by Xstrata in June 2003. The acquisition is to increase the total percentage of interests held by the two Japanese companies in existing two mines to 45%. Additionally, each of the two companies is to acquire 12.5% of new interests in untapped mine sites, including the Rolleston Mine Project (open-pit mining, steam coal) that is currently under study for development.

The coal assets in QLD are closely located to the Asian markets where a high rate of increase in demand is anticipated in the future, and have such advantages as excellent quality and long-term competitiveness in supply cost. Accordingly, they are thought to be very important for Sumitomo and Itochu to be successful in expanding their resource and energy businesses.

Table 2-1 Coal interests acquired by Sumitomo Corporation and Itochu Corporation from Xstrata

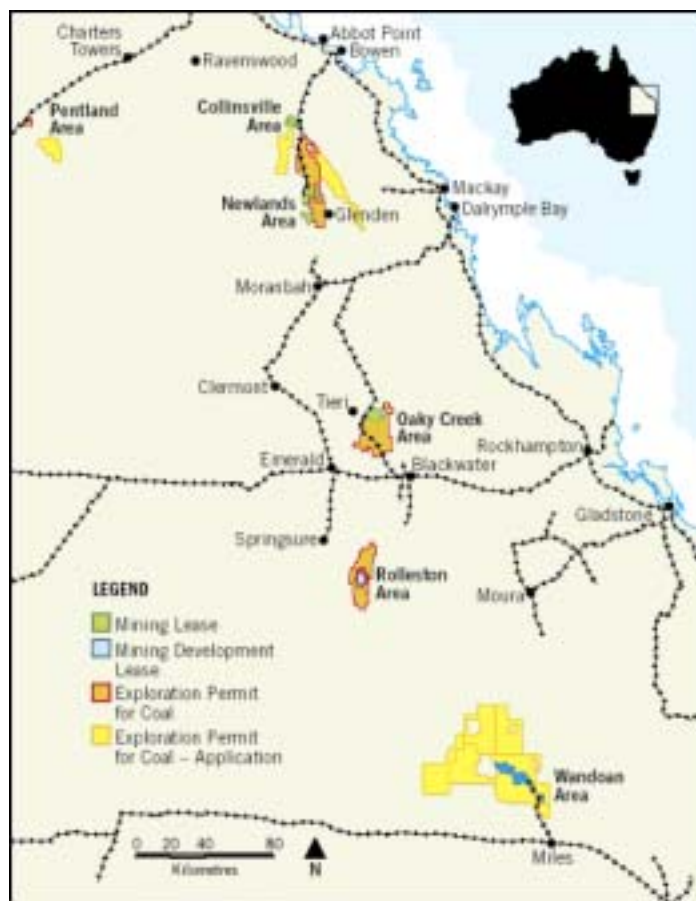
		Interests Acquired	Interests	
			After Acquisition	Before Acquisition
1 . Oaky Creek Mine ² (Coking coal; approx. 10 million tons/year)	Sumitomo Corp.	10%	25%	15%
	ITOCHU Corp.	10%	20%	10%
	Xstrata	20%	55%	75%
2 . NCA ³ (Coking coal; approx. 10 million tons/year)	Sumitomo Corp.	10%	10%	0%
	ITOCHU Corp.	10%	35%	25%
	Xstrata	20%	55%	75%
3 . Newly Developed Mines (Mining Sites) Rolleston Mine ⁴ (Planned; coking coal; approx. 6-8 million tons/year) Wandoan ⁵ 、 Red Rock ⁶ 、 Pentland ⁷	Sumitomo Corp.	12.5%	12.5%	0%
	ITOCHU Corp.	12.5%	12.5%	0%
	Xstrata	25%	75%	100%

(Note) Interests are acquired on the equal conditions for ratios and prices (A\$277.5 million per each company) by the two companies. Annual production from the interests acquired is 3.5 million tons, for each company (after the Rolleston Project starts production).

(Source) Information on the Web sites of Sumitomo Corporation and Itochu Corporation

-
- ² Oaky Creek This project is producing high-quality hard coking coal from two underground mines (Oaky No.1 and Oaky North) and a single open-pit mine. Sumitomo and Itochu had acquired the interests of 15% and 10%, respectively, from MIM to establish a joint venture in 1998.
- ³ NCA This project includes the mines of Collinsville (coking coal / steam coal) and Newlands (steam coal), and Abbot Point coal terminal. Itochu had acquired interests (25%) to establish a joint venture in 1996.
- ⁴ Rolleston An open-pit mining site featuring vast coal reserves and low-cost production. It is very likely that the site offers high economic efficiency, and the decision on earlier development is scheduled. Operations on a production scale of 6 to 8 million tons a year is possible.
- ⁵ Wandoan This is a steam coal mining site, where vast coal reserves are anticipated, with operations in the open-pit mining style. A full-scale feasibility study (F/S) is to be conducted.
- ⁶ Pentland A mining site likely to be a steam coal mine of the open-pit mining style. A feasibility study is to be conducted continuously.
- ⁷ Red Rock A mining site adjacent to Oaky Creek. A feasibility study is to be conducted.

Fig. 2-4 Locations of coal interests acquired by Sumitomo Corporation and Itochu Corporation from Xstrata



(Source) Information on the Web sites of Sumitomo Corporation and Itochu Corporation

2-3 Acquisition of Powercoal by Centennial Coal Company Limited ⁸

Centennial Coal Company Limited was established in 1989 and was listed on the Australian Stock Exchange in 1994. The company, which is predominantly a steam coal producer, has grown through internal development and acquisition to a market capitalization of approximately A\$300 million.

Centennial supplies coal for both the domestic and export markets. Main customers in the domestic market are electric power plants owned by the NSW state government. Additionally, it deals with sales for various domestic industries including the cement

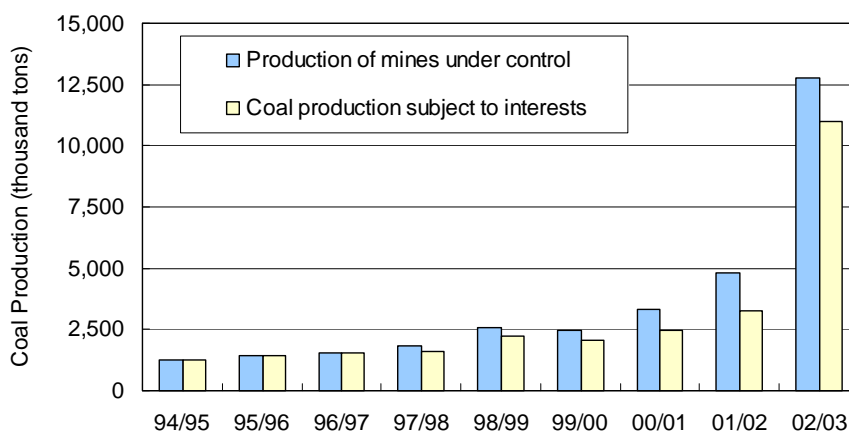
⁸ Centennial Coal Company Limited, "A Powerful New Future," annual report 2002

manufacturing industry. Customers overseas include power plants and steel mills in Japan, Korea, India and Taiwan. As of June 30, 2002, the company operated seven coal mines in NSW and a mine in QLD, exporting coal through ports at Newcastle and Port Kembla in NSW, as well as the QLD port of Gladstone.

On August 6, 2002, Centennial completed the acquisition of the assets of Powercoal (the largest single supplier of steam coal to power stations in NSW under long-term, indexed-price contracts). All of Powercoal assets are located in NSW, including seven underground coal mines and two promising newly developed mines. The acquisition of Powercoal has solidified the positioning of Centennial as a major supplier of coal to power stations in NSW (with Centennial fuelling approximately 30% of electric power demand in NSW). It also means that over 70% of Centennial coal sales will be under long-term, Australian dollar, indexed-price contracts. Importantly, Powercoal’s two promising newly developed mines will provide Centennial with long-term growth opportunities.

Fig. 2-5 shows changes in mine production under the control of Centennial and coal production that is subject to their interests (coal reserve under interests) in coking coal equivalent. As shown in the figure, due to the acquisition of Powercoal, mine production under the control of Centennial expanded 2.7 times, and coal production subject to their interests expanded 3.4 times.

Fig. 2-5 Changes in production of mines under the control of Centennial Coal Company Limited



(Source) Centennial, Annual Report 2002, “A Powerful New Future” and Annual Report 2003 (both of which appear on the Centennial Web site)

As shown in this case, the restructuring and consolidation of the coal industry by Australian companies is still actively continued.

3. Entry of Japanese Enterprises into the Australian Coal Industry and the Alliance with the Big Four

In the following sections, an overview of the coal strategies of Mitsubishi Corporation and Mitsui Corporation, which are integrated trading companies representing Japan, and of the status of the acquisition of coal interests by the companies will be provided.

3-1 Mitsubishi Corporation

On March 28, 2001, Mitsubishi Corporation officially announced the acquisition of the coal assets of BHP Ltd. (before the merger with Billiton Plc) and the strengthening of the strategic alliance with BHP in the coal business.

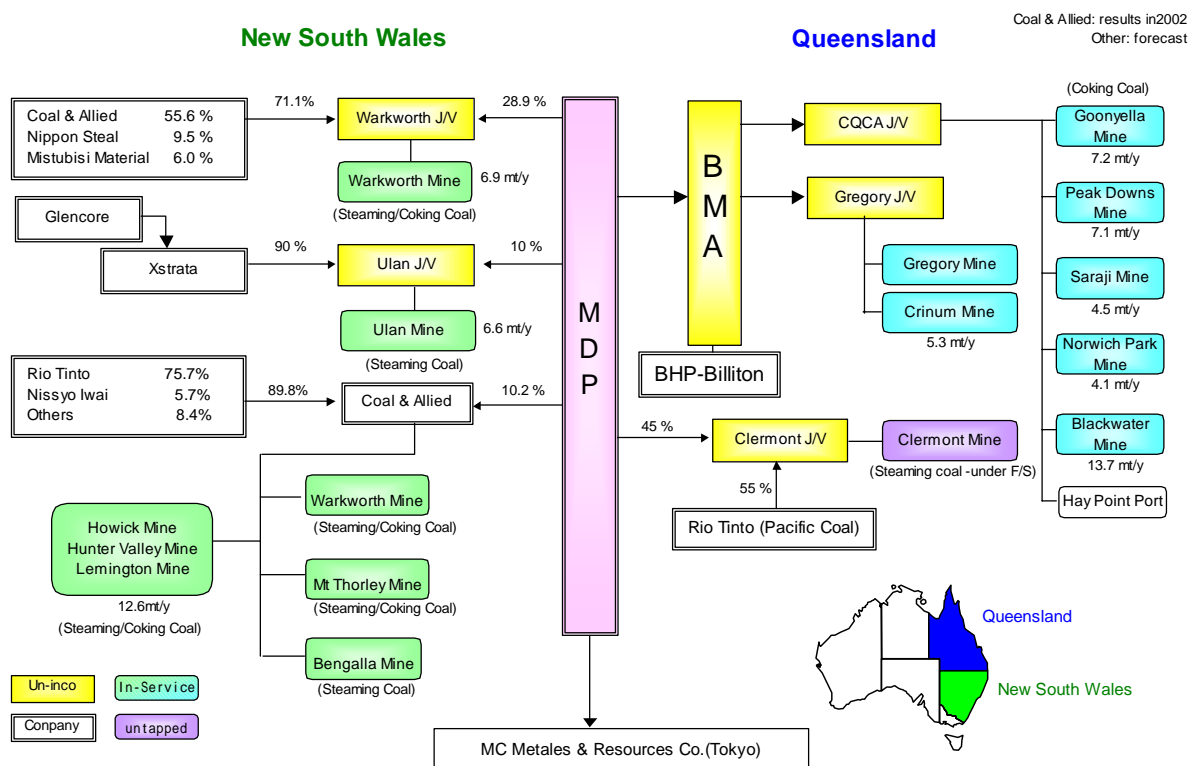
Mitsubishi Development Pty. Ltd. (MDP, a totally-owned subsidiary of Mitsubishi Corporation and the largest Japanese coal production company in Australia) agreed to acquire an 18.285% interest in BHP-owned CQCA J/V⁹ (the largest coal export business unit in the world) on the Bowen Basin in QLD and a 30.325% interest in Gregory J/V at an aggregate amount of about A \$1 billion (approx. 65 billion yen). As a result of the agreement, MDP and BHP became equal partners with 50% interests in each other, thus acquiring the coking coal production capability of about 20 million tons (as MDP interests) and establishing the position as a full-fledged mega-producer, conducting mine operations, for the first time as a Japanese company. In addition, in October 2000, MDP successfully acquired QCT, which had interests in CQCA J/V.

The MDP and BHP coking coal business in the Bowen district is positioned as one of the core businesses of the two companies, whose objective is to further promote the competitive strength and growth of their operations throughout the 21st century as a major player in the coking coal industry. The overall affiliation between the two

⁹ The official name is Central Queensland Coal Associates Joint Venture. Initially, the company was a joint venture with a percentage configuration of BHP (52.10%), MDP (15.53%), and QCT (32.37%). However, due to the acquisition of QCT by BHP and MDP in 2000, the percentage configuration of BHP and MDP was 50 percent, respectively, at the time of the announcement.

companies basically aims to build a management structure for the following: (1) Equalize the holding ratio of interests of the two companies to 50 to 50; and (2) integrate the marketing power which is the strength of MDP and the operational/technical capabilities that are the advantages of BHP. At a later date, the overall affiliation of MDP and BHP is supposed to bear fruit in the form of the establishment of BHP Billiton Mitsubishi Alliance (BMA) which occurred concurrently with the merger of BHP Limited and Billiton Plc. in June 2001.

Fig. 3-1 Coal interests owned by Mitsubishi Corporation in Australia



(Source) Courtesy of Mitsubishi Corporation

Mitsubishi Corporation stated that their growth strategy comprises the “Portfolio Strategy,” the “Dot Commerce Strategy,” and the “R&D Strategy,” and the current investment in the coking coal business is a selective and intensive business investment to strengthen the energy resource fields according to the Portfolio Strategy. More specifically, the major objectives consist of the following: (1) Increase the percentage interests of CQCAJ/V and Gregory J/V, which are the global primary assets of coking coal to increase investment return; and (2) deepen the strategic alliances with BHP (present BHP Billiton) to promote a more effective coal resource management strategy.

Mitsubishi Corporation has not been holding to a simple coal import business but has been deeply involved in production and development projects in major overseas mines. Mitsubishi reports their intention to continually position coal as strategic merchandise in the future and comprehensively deal with the coal businesses by focusing on the two areas of trading and investment.

3-2 Mitsui Corporation

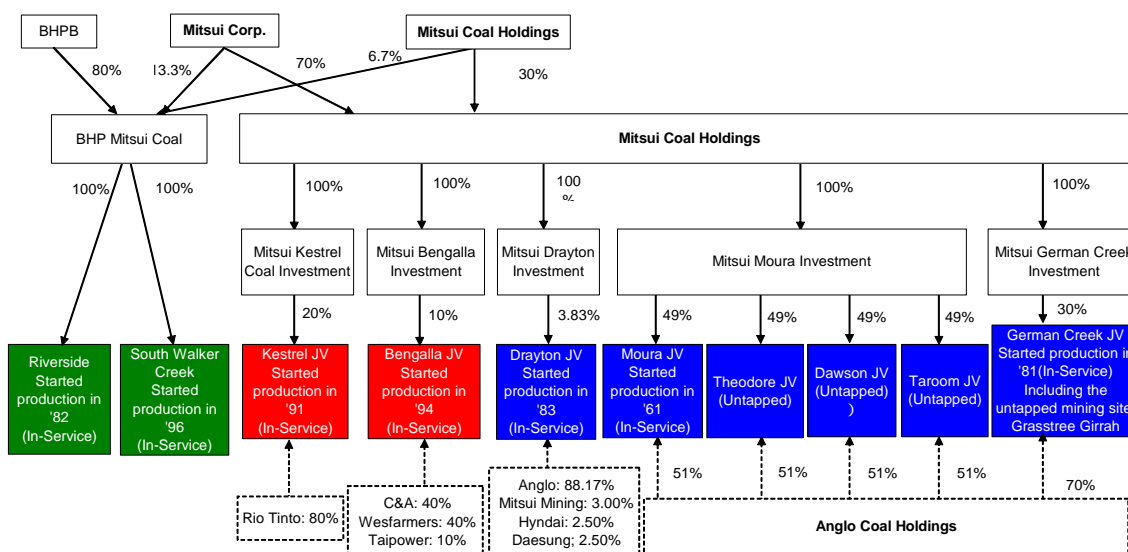
On April 12, 2002, Mitsui Corporation officially announced an agreement (signed on April 11, 2002) with Anglo Coal Australia Pty. Ltd., an Australian subsidiary of Anglo American Plc. to promote strategic joint management for further expansion and development of the Australian coal businesses of the two companies.

As a result of this agreement, Mitsui Corporation purchased a 49% interest in three untapped mining sites, Theodore, Dawson, and Taroom, owned by Anglo American in QLD. Mitsui Corporation transferred a 51% interest in the Moura Mine to Anglo American. Such joint ventures are anticipated to produce annually 22 million tons of coal for export in the future. Furthermore, Mitsui Corporation was to acquire a 30% interest in the German Creek Mine (in QLD) from Anglo American.

Mitsui Corporation (through Mitsui Coal Holdings Pty. Limited) had once owned the 45% interests of Mourra, and Rio Tinto (through Coal & Allied) 55%; as a result of the above agreement, the interests that Mitsui Corporation acquired from Rio Tinto were transferred to Anglo American, thus forming a joint venture in which the interest of Mitsui Corporation was 49% and that of Anglo American was 51%. Although the three untapped mining sites — Theodore and Dawson, both of which are adjacent in this order to Moura located at its south side (on the Bowen Basin), and Taroom (on the Surat Basin), which is located 70 km south of Moura — are currently owned by Anglo, they are said to be restructured into a joint venture with Mitsui Corporation holding a 49% interest and Anglo American 51%, similar to that for Maurra. Each of these three untapped mining sites has abundant, quality steam coal reserves. Earlier development is scheduled for Theodore, and synergistic effects with Moura are expected through the utilization of the existing infrastructure for both of development and operations (the distance between Moura and the coal terminal Gladstone Port is approximately 177 km and connected by rail). Meanwhile, sales of about 12 million tons a year are predicted for both Moura and Theodore, and plans are to develop Dawson and Taroom step by step,

aiming for annual production of about 5 million tons in the future. Anglo American is to be responsible for the operation of these mines, and Mitsui Corporation is to have the exclusive sales representation in Japan for coal to be produced at the Moura, Theodore, Dawson, and Taroom mining sites. In addition, German Creek (on the Bowen Basin) is also to be restructured into a joint venture with Mitsui Corporation holding a 30% interest and Anglo American 70%.

Fig. 3-2 Coal interests owned by Mitsui Corporation in Australia



(Source) Courtesy of Mitsui Corporation

On January 25, 2003, Mitsui Corporation officially announced that it agreed (signed on January 24, 2003) to acquire a 30% interest in the Girrah coal mining site in QLD in Australia from Wesfarmers Limited. The Girrah mining site is an untapped site that is located adjacent to and southeast of German Creek in the middle of the Bowen Basin. According to the “Queensland Coals, 13th Edition” of the Queensland Department of Natural Resources & Mines (QDNRM), it has the proved reserves of 49 million tons of coking coal and also the proved reserves of 70 million tons of steam coal, thus totaling 119 million tons of coal assets. Synergistic effects created by integrated operations with the adjacent German Creek (the proved coal reserves of 221 million tons) are expected.

While strengthening the affiliation with Anglo American, Mitsui Corporation is also affiliated with BHP Billiton. BHP Mitsui Coal Pty. Ltd. (controlling shares: BHP Billiton 80% and Mitsui Corporation 20%) manages two mines, Riverside and South

Walker Creek, which are located to the north of the Bowen Basin in QLD in Australia. BHP Mitsui Coal owns many untapped mining sites (including Bee Creek and Moranbah) in QLD, in addition to mines currently in service.

Furthermore, Mitsui Corporation shares coal interests, including the Kestrel Mine in QLD (controlling shares: Rio Tinto 80% and Mitsui Corporation 20%), in Australia with Rio Tinto.

In addition to what were already mentioned on Mitsubishi Corporation, the company has participated in coal projects (Moules Creek Development Project and the Ulan Mine), in which Rio Tinto and Glencore — both are members of the Big Four — play major roles, while, as described above, Mitsui has affiliated with Anglo American, BHP Billiton, and Rio Tinto. As mentioned earlier, the coal interests of the Big Four are expanding in Australia, where Japanese companies have secured coal interests mainly in steam coal by affiliating with the Big Four. This fact indicates that coal projects in Australia are assumed to be profitable. Since the vast sum of capital is required to develop a new mine, even the Big Four are thought to seek, in addition to its own mine management capabilities (on technologies and operation management), not only the marketing power of Japanese companies, but also their financial power.

4. Background of the Restructuring of the Coal Industry by the Big Four

4-1 Objectives of Mergers and Acquisitions

Major players in restructuring the Australian coal industry are four groups (the Big Four) — BHP Billiton, Rio Tinto, Anglo American, and Glencore + Xstrata — which are common in the fact that their main business lies in producing and supplying mineral resources including coal. Although the movements of these companies toward mergers and acquisitions in Australia have their respective backgrounds, their main objectives can be divided into the following two categories.

The first is to pursue the streamlining of management, including cost reductions, in their coal department. The second is, as a mineral resource company, to further ensure its stable growth through concentrating (or de-concentrating) its businesses and operation areas by restructuring the corporate organization, or through strengthening the

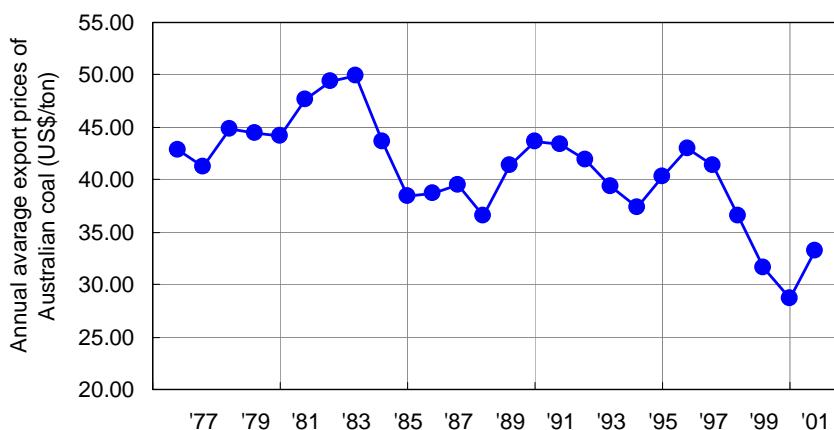
fundraising capabilities by relocating headquarters and implementing other related measures.

4-2 Streamlining of Management and Cost Reductions in the Coal Department

The slump in coal prices due to intensified competition in the global coal markets and the subsequent deterioration in profitability in the coal business are factors that promoted the mergers and acquisitions of coal producing companies. “Supply side consolidation was triggered by cost reductions required to maintain the viability of mining industry in face of a succession of price cuts - - - .¹⁰”

During the more than twenty-year period of the 80s, 90s, and 2000 and thereafter, the global coal markets experienced price fluctuations presenting three cycles of peaks and bottoms. Taking a look at Australian coal, we observe price peaks in 1982 ~ 83, 1990, and 1996 (Fig. 4-1). Focusing the analysis on the latter two peaks, price declines from 1990 to 1994 and, more recently, from 1996 to 2000 were both brought about by excessive supply capacity.

**Fig. 4-1 Prices of Australian Coal Exported to Japan
(FOB prices on annual average)**



(Source) Database of the Energy Data & Modeling Center, IEEJ (Prepared from National Coal Association, “International Coal”)

¹⁰ Tucker, J. & Janis, M. (Australian Coal Association), “Consolidation in the Coal Industry,” November 2002, which was prepared for our study team.

Regarding these recent price declines, factors to be noted in particular include the fact that, on demand side, power companies seek less expensive fuels than before due to the deregulations and privatization in the power industries in Asian countries. On supply side, coal exports by emerging export countries, such as China and Indonesia, were sharply expanded in recent years. What enabled these countries to take such actions was the change of coal traded in the world market from brand coal to generic coal. The change was made possible due to the factors including improved coal processing technologies at power stations¹¹ and the dissemination of e-commerce¹².

Some conditions that enabled coal production companies to weather the slump in coal prices for a certain period of time need to be pointed out. One such condition was the decline in the value of the currencies of coal-producing countries (particularly, Australian Dollar and South African Rand) against U.S. dollars. This enabled coal production companies to reduce their coal export prices in U.S. dollars to a certain degree.

In order to deal with the price declines, coal production companies tried to reduce their coal production costs (improvement in productivity) through actions including mergers and acquisitions. Companies started to aim for such effect in South Africa in the first half of the 1990s, while many examples appeared in the second half of the decade in Australia.

¹¹ In general, a boiler can achieve the highest efficiency if it is designed for a specific coal and the coal satisfying its specifications is used. Widening of the scope of usable coal will result in increased facility construction costs. Therefore, in a simple way, a one-to-one solution is recommended — a certain coal for a specific boiler. Actually, however, the issue will be treated using coal-mixing technologies. For example, Shenhua Coal in China contains calcium ingredients, which cause slugging in boilers. In Korea, thermal power plants using only this coal were constructed, but some of power plants concurrently utilize the advanced coal-mixing technologies. Furthermore, Indonesian sub-bituminous coal with low sulfur content is mostly used at power stations in Korea, Taiwan, and the U.S.A., most of which do not have any de-sulphurization facilities. In this case, the disadvantage is that the coal is likely to ignite spontaneously due to the properties of sub-bituminous coal, but coal-storing management technology and coal-mixing technology can prevent the problem.

¹² Recently (in 2002), Electric Power Development Co., Ltd. (now J Power Corp.) is reported to start spot trading of coal on the e-commerce market, globalCOAL. The company is importing around 14 million tons of coal annually and is about to use globalCOAL under the assumption that the trend in recent spot prices would fall below the annual contracted price. The company has been one of the investors with BHP Billiton, Rio Tinto, Anglo American, and Glencore in globalCOAL, but has never been making transactions through the market.

Furthermore, regulations and institutions related to coal production (particularly, for industrial relations) were revised in coal producing countries (particularly in Australia), having helped coal companies get advantageous conditions for the consolidation through the reform of work practices, for instance. “Companies have also been more able to extract gains from labor reform leading to higher productivity.¹³”

4-3 Restructuring and Diversification / Expansion of Business by the Big Four

The restructuring and diversification/expansion of business by resource companies, which the Big Four are representing, have been implemented in the trends of globalization, as is the case with many companies in other industries. For example, to cope with globalization, which is defined as “a global-scale search for improved efficiency made by various economic actors” (a report prepared by ex-Economic Planning Agency in 1997), resource companies implemented the restructuring and diversification/expansion of their business in seeking stabilized management and growth potential.

Here, the “restructuring” implies that some businesses, which have been managed by a single company, in substance, through shareholding relationships, are consolidated into one company in terms of the organization in order to promote efficiency in management. Accordingly, in this case, the market share of coal (or other mineral resources) that has been maintained in effect by the company heretofore may not change in most cases. The objective of the restructuring is, in general, to secure and enhance the stability and growth potential of the company by clearly defining core businesses, strengthening the corporate structure, and disposing of non-core businesses.

On the other hand, the “diversification and expansion” of business implies the act of complementing and reinforcing effects obtained through the restructuring by (1) diversifying resources and production sites targeted by the business, or (2) expanding certain departments under control of the company.

In the following sections, such movements by the Big Four will be traced, their business objectives will be referred to, and then the methods and measures to achieve the objectives will be clarified.

¹³ The same as note 10.

4-3-1 BHP Billiton Group

BHP Billiton Group was formed through the merger of BHP Ltd. (now BHP Billiton Ltd.) and Billiton Plc. (now BHP Billiton Plc.) in the Dual Listed Company (DLC) structure in June 2001. BHP Billiton Ltd. and BHP Billiton Plc continued to exist as separate companies, but operate on a combined basis as BHP Billiton. The headquarters of BHP Billiton Ltd., and the global headquarters of the combined BHP Billiton Group, are located in Melbourne, Australia. BHP Billiton Plc is located in London, the United Kingdom. Both companies have identical Boards of Directors and are run by a unified management team. The DLC structure maintains pre-existing primary listings on the Australian Stock Exchange (through BHP Billiton Ltd.) and London Stock Exchange (through BHP Billiton Plc), along with a secondary listing on the Johannesburg Stock Exchange (through BHP Billiton Plc) ¹⁴.

The DLC structure is explained to be a kind of business partnership agreement, having the following advantages: (1) Each company can exist as a corporation based in the country concerned and can be listed on the respective stock markets; and (2) management of the two companies is executed by a single management, which can be optimized by skillfully combining the economic climates and systems of the two countries. It can also be referred to as a structure for diversifying business risks and optimizing profits. From the viewpoint of shareholders, the advantages are that the stock markets in which their investments are handled remain unchanged from those before the merger, and the institution contributes to the saving of tax-related costs (capital gains tax, share transfer fees, etc.) ¹⁵.

What should be noted here is that all businesses (including the coal sector to which Ingwe belongs) except gold and platinum had been already transferred to Billiton Plc. from its parent company Gencor during the period from 1997 to 1998, and at the same time, Billiton Plc. had been listed on the London Stock Exchange. Gencor disclosed its acknowledgment that metal mining businesses were becoming more and more global, and that procuring funds at the most favorable conditions required the company to have more competitive strength. Since the Johannesburg Stock Exchange is situated in Africa, there exist such risks as those not found in other capital markets to make international fund procurements disadvantageous, with the “African Premium” being applied for the

¹⁴ BHP Billiton Web site, “Our Structure”

¹⁵ Metal Mining Agency of Japan, “KARENTO TOPIKKUSU (Current Topics),” December 2002

procurements there. It was interpreted that Gencor, a South African company, was required to “transform” itself to Billiton, a British company¹⁶.

As can be seen above, for Billiton (or Gencor), the merger with BHP meant the diversification and expansion of all the businesses after completing their restructurings. For BHP, on the other hand, it meant the diversification and expansion of their businesses. The major businesses of BHP as of 2000 included iron ore, oil/gas, and diamonds, in addition to such mineral resources as nonferrous metals and coal. Among the mineral resources, lead (No. 2 producer in the world in 2000), copper (No. 5), and coal (51 million tons of production per annum) occupied higher positions in the world. For Billiton, manganese (No. 2), chrome (No. 3), nickel (No. 5), and aluminum (No. 6) were major materials in addition to coal (71 million tons). Furthermore, the geographical distribution of their interests was mutually complementary. Taking copper as an example, BHP had interests in Peru, Chile, Papua New Guinea, and the U.S.A., and Billiton in Canada; regarding lead and zinc, BHP had interests in Australia, and Billiton in Canada and South Africa.

After completing the merger, BHP Billiton has grouped major operating assets into the following six Customer Sector Groups ("CSGs"). These comprise:

- ◆ Aluminium
- ◆ Base Metals (Copper, Silver, Zinc, Lead)
- ◆ Carbon Steel Materials (Coking Coal, Iron Ore, Manganese)
- ◆ Stainless Steel Materials (Chrome, Nickel)
- ◆ Steam (Thermal) Coal
- ◆ Petroleum (Oil, Gas, LNG)

The management goal of BHP Billiton was to “earn superior returns for shareholders.” Explaining capabilities to achieve this goal, B. Gilbertson, who held the position of CEO of the Group until January 2003, gave a presentation in October 2002¹⁷. It should be noted that, in addition to those given in the presentation, BHP Billiton also mentioned another capability, which is “outstanding access to major capital markets¹⁸ .

¹⁶ “The Age,” March 23, 2001

¹⁷ B. Gilbertson; “An investment equation,” October 3, 2002

¹⁸ BHP Billiton’s Annual Report and others

Furthermore, BHP Billiton advocated the specific objective of “Return on capital — greater than 15% by 2006 ¹⁹.”

- As a result of the mergers and consolidations, “the resource industry is today a much more robust industry than it was 10 years ago.” “The merger created not only the industry leader, but one unlike any other than our industry has seen.”
- This has been achieved because BHP Billiton has the ability to deliver the “stability” and “growth” of its investment equation (stability + growth = shareholder value) resting on the following “6 key features which distinguish us from our competitors”:
 - (1) Outstanding Assets;
 - (2) The Portfolio Effect;
 - (3) Customer-Centric Marketing (See CSGs above);
 - (4) Deep Inventory of Projects;
 - (5) Petroleum; and
 - (6) Innovation.

Feature (1) implies that around eight outstanding assets have reserves which can keep production for 20 years or longer and that “over three-quarters of our operating asset EBIT (earnings before interest and tax) comes from assets in the first quartile of cash operating margins.” The assets, including coal resources owned by BMA in Australia and Ingwe in South Africa, “give us substantial protection from the worst ravages of cyclical (price) downturns” that resource companies cannot avoid facing.

Feature (2) implies that “BHP Billiton has outstanding diversification – by geology, by commodity, by market and even by shareholder base.” The stock prices of diversified companies such as BHP Billiton, Rio Tinto, and Anglo American maintain higher prices than un-diversified companies focusing on aluminum, copper, or nickel ²⁰.

These two features are factors that bring “stability” to management. Feature (3) contributes to both the “stability” and “growth,” and (4), (5), and (6) are conditions that enable “growth,” respectively.

¹⁹ BHP Billiton, “Strategic Framework,” April 2002

²⁰ A presentation by C. Goodyear, CDO of BHP Billiton (September 2002)

Feature (4) implies that the company has “a remarkable pipeline of growth projects, potentially involving capital expenditure of US\$ 10 billion over a 5 year period.” It is reported that the definite weak point of Rio Tinto, second to BHP Billiton, leading company in the resource industry, lies in the fact that the former has less than half a pipeline of projects the latter has got²¹.

In (5), the roles of the oil/gas sectors are particularly highlighted. According to B. Gilbertson, the profit per barrel of oil for BHP Billiton was ranked in the top three in the industry for the past three years. Reflecting that fact, BHP Billiton was ranked eighth in terms of the market values (capitalization) in the oil industry as at August 2002, despite being ranked 18th in terms of petroleum production in fiscal year 2001 (for BHP Billiton) and calendar year 2001 (for others) (ExxonMobil is ranked first in both categories)²².

The innovation cited by B. Gilbertson in (6) actually implies mergers and acquisitions. More specifically, he refers to the fact that “if we are to outperform our rivals, — management should today be seeking opportunities outside of the existing asset base,” and that “the world seems to have entered a period of falling asset prices.” It is reported that Gilbertson’s resignation at the beginning of January 2003 as CEO of BHP Billiton after assuming the position only for six or seven months was due to differences in opinions with other top management caused by his positive attitude toward mergers and acquisitions.

4-3-2 Rio Tinto Group

Rio Tinto Group was formed through the merger of the RZT Corp. Plc. and CRA Ltd. in the DLC structure in December 1995, as was the case with BHP Billiton Group. In June 1999, the companies’ names were changed to Rio Tinto Plc. and Rio Tinto Ltd., respectively.

Rio Tinto Plc. was established as the Rio Tinto-Zinc Corp. in 1962 through the merger of two British companies, the Rio Tinto Co. and the Consolidated Zinc Corp.. At the same time, Rio Tinto Ltd. was established as Conzinc Riotinto of Australia (CRA) through merging the Australian interests of the two British companies.

²¹ “International Herald Tribune,” January 31 and February 24, 2003

²² A presentation by C. Lynch, CFO of BHP Billiton (September 30, 2002)

The group explained that principal objectives of the 1995 merger are “to create a structure to capitalize on future global opportunities, to maximise competitive advantage, and to benefit all shareholders of both companies.” Rio Tinto’s management structure is based on following six global product groups, which are supported by global Exploration and Technology groups:²³

- ◆ Aluminum
- ◆ Energy (Coal and Uranium)
- ◆ Industrial minerals and Iron Ore
- ◆ Copper
- ◆ Diamonds / Gold

Restructuring of the businesses of the group was initiated earlier than other companies. Following the 1962 merger, RTZ Corp. developed a number of major projects including those for copper in South Africa, uranium in Namibia, and copper and tin in Portugal, while it grew through acquisitions. Between 1968 and 1985 significant interests in cement, oil and gas, and manufactured products for the construction and automobile industries were also developed.

However, a major review of corporate strategy between 1987 and 1988 led to a series of disposals and acquisitions, which focused the company on mining and related activities. As a result, between 1988 and 1994 non mining businesses were sold as going concern, and interests in mining acquired. These include the 1989 acquisition of the major part of British Petroleum’s international minerals businesses, and the 1993 acquisition of coal mining businesses in the U.S.

For CRA, which had been involved mainly in the development of several mineral discoveries including Blair Athol and Tarong coal, growth also came from acquisitions, including the Australian coal assets of BP Amoco in 1989 and a 70.7 % interest in Coal & Allied Industries’s New South Wales operations²⁴.

4-3-3 Anglo American Group

In October 1998, Anglo American Corporation of South Africa Ltd. (AAC) and Minorco announced that they had agreed to combine their businesses to establish Anglo

²³ “2001 Rio Tinto Data book”

²⁴ “Rio Tinto – Company history”

American Plc.(AA Plc), a United Kingdom company²⁵. A complex series of transactions culminated in AA Plc's primary listing on the London Stock Exchange in May 1999²⁶.

Minorco is an AAC subsidiary established in 1929 (AAC holds 45.6% of the shares of the company, and De Beers has 22.5%) and was based in Luxembourg with six groups for gold, base metals, industrial raw materials, paper and packaging, and an agricultural business (ethanol and fertilizer, etc.). Following the AAC business restructuring of 1993, the company was in charge of regions other than Africa. In addition, at the same time as the merger mentioned above, it was decided that AAC would break up the past cross holding relationship with De Beers (a leading company in diamond production).

The restructuring encompassed eight operating groups comprising seven sectors and De Beers as a subsidiary after non-core businesses were disposed of. The eight groups are as follows:

- ◆ Gold
- ◆ Platinum
- ◆ Diamond
- ◆ Coal
- ◆ Base metals
- ◆ Industrial raw materials
- ◆ Steel and iron
- ◆ Forestry

The intention of the 1998 merger was “to gain access to international capital as cost effectively as our global competitors in order to expand our activities both locally and internationally²⁷.” The key objective of the group was “the achievement of enhanced shareholder value”, and the group reported that “we have made, and continue to make, major progress towards realizing this objective through acquisitions and organic growth, accelerating the disposal of non-core assets - - -²⁸”

Thereafter, a well-balanced coal portfolio in terms of geography and product mix has been produced through the acquisition of coal interests in Australia and Venezuela from Shell Coal Holdings Ltd. (May 2000) as well as the acquisition of coal interests in Columbia from ExxonMobil and others (January 2001 and February 2002).

²⁵ “Anglo American Company history”

²⁶ A. J. Trahar; “Africa – A Continent of Opportunity,” February 14, 2003

²⁷ “Address to Foreign Correspondents Association,” September 27, 2000

²⁸ “Annual Review 2000”

The latter was done as follows. First, the Group acquired interests in Carbones del Cerrejon (CdelC,) owned by Rio Tinto, equally sharing them with Glencore. Then, it invited Billiton to join the interests so that the three companies held one-third each. On the other hand, the Group acquired one-half the interest in Cerrejon Zona Norte, which is located adjacent to CdelC, from the national coal company of Columbia, and then acquired the remaining portion from ExxonMobil.

In such a way the Group came to own coal resources in Australia, Venezuela and Columbia in addition to those in South Africa. As a result, the ratio of the headline earnings from regions other than South Africa to those of the group total expanded to 46% during the period from January to June 2001 from 26% during the same period in 2000²⁹. A. J. Trahar, CEO of Anglo American Plc., proudly stated that the restructuring processes of the company (from a South African company to a global company), which they had been promoted since 1990 (the year when Nelson Mandela was released), have been attained³⁰.

4-3-4 Glencore + Xstrata Group

In February 2002, Glencore disposed of its coal businesses in both Australia and South Africa to Xstrata, although coal interests in Columbia were continuously owned by Glencore. In addition, a marketing agreement was entered into between the two companies to form a relationship in which Glencore markets mineral resources produced by Xstrata. Glencore, established in 1974, became a major shareholder of Xstrata in 1990, and it can be said that the two companies performed one of their restructurings in forming one group of companies at that time. Thus, the restructuring in 2002 was the second for the group as a large scale restructuring with a clear framework.

Xstrata and Glencore were executing acquisitions and disposals since 1992 and 1994, respectively. In this sense, the 2002 restructuring was the final settlement of incremental restructurings that the companies had been implementing as a group in the past. Such restructurings included the acquisition of Duiker by Glencore in February 2000, and opened the way into the Columbian coal resources, which was referred to above.

Glencore and Xstrata are both based in Switzerland. The former was a nonpublic

²⁹ “Interim Report 2002”

³⁰ A. J. Trahar; “Africa – A Continent of Opportunity,” February 14, 2003

company, and the latter had been listed in Switzerland. However, it was decided that Xstrata's primary listing location moved to London while maintaining its Swiss listing. The reason was described as follows:

- (1) London is a "deep and liquid market, particularly for mining stocks. 88% of total volume of equity issued by mining companies over the last five years raised in London."
- (2) "London is world's no.1 mining market. Top mining equity issuance volume of \$5.4 billion since 1990."
- (3) "Global mining investing community" is "based in London. Top 30 peer group investors hold approximately 40% of London-listed mining houses."
- (4) London is the "home of choice for large, liquid and diversified mining houses. On admission, Xstrata's profile will be raised in the equity market and covered by top equity analysts."

The Group comprises the following three major businesses:

- ◆ Coal
- ◆ Zinc
- ◆ Ferroalloys

The Group's additional activities are comprised of the magnesium operation in North American and the forestry operation in Chile. However, the group's heavy dependency on coal has some more difficulties than the above-mentioned three companies in terms of stability. The Group's EBIT from the coal business (mainly of steam coal) in 2001 accounted for 80% of the total, if calculated on the assumption that the disposal occurred on January 1, 2001³¹.

4-4 Globalization

Behind resource companies promoting the restructuring, diversification, and expansion of their businesses, there is the trend toward globalization. The term "globalization" has been defined in various ways, but the following definitions will be informative from the viewpoint of business management, which is one of main subjects of this report:

³¹ Xstrata Plc., "Information on the Group"

Globalization refers to “a global-scale search for improved efficiency made by various economic actors.”

(Source) Planning Bureau, Economic Planning Agency of Japan, “Report of Economic Council 21st Century World Economy Council: Progressing Globalization and Problems for the 21st Economy,” May 1997

Globalization of economy implies that global-scale economic efficiency is sought for by various economic entities with the background of IT development, and economic activities on the earth will be interlocked more closely in any aspects including information, financing, human resources, technologies, trading and investments.

(Source) Ministry of International Trade and Industry, “White Paper on International Trade 2000: Global Economy and the Course to be Taken by Japan,” May 2000

Further, the above-stated report of the former Economic Planning Agency refers to the direct relationship of globalization with business management, and pointed out that American companies in particular, which are highly influential on the policy making and business activities of companies throughout the world, have the following tendencies: “the short-term profitability of a company is more weighted than its growth potential, and shareholders, institutional investors in particular, have had much stronger voices, functioning as strong monitors on business management.” More specifically, in the aspect of financing (fundraising), the report pointed out that they would work, “in principle, toward giving superiority to direct financing and strengthening the rights of shareholders.”

Under such circumstances, there are no national borders for commodities and services, and their markets are integrated on a global scale due to IT development and other factors. As a result, severe competition is introduced and top executives are always subjected to the threat of “the winner takes all.”

On the other hand, regarding the funds — a huge sum of money that has to be prepared for global-scale competition — required for producing commodities at present and in the future, companies must think seriously about their raising while considering the opinions of shareholders in the capital market. And also in the case of depending on indirect financing, the growth potential and stability of the company become much more important than ever in raising necessary funds.

Thus, it is most important for a company to place their operating base (bases) in a country (or countries) suited for procuring funds most quickly and efficiently, and then establish the combinations (portfolio) of commodities and production sites after considering carefully the stability and growth of the company.

Understanding the term globalization in this ways, it becomes clear that the restructuring, diversification, and expansion of operations by mineral resource companies have been executed in order to cope with the trend toward globalization.

In addition, it should be noted that in understanding globalization in the coal industry, the time around 1990 is considered to be an important watershed for the trend due to the following two situations:

First, particularly for companies that had been based in South Africa (Billiton and Anglo American), time around 1990 was a major turning point in the internal politics. In the country, following the apartheid movements in the 1970s and 1980s, the Apartheid Law was abolished in 1991. International economic sanctions had been implemented in response to the apartheid since 1986, but all of them were finalized by 1992. In the meantime, in 1990, Mandela was liberated (the Mandela Administration was born in May 1994), and economic restrictions such as coal export quotas were abolished during the period from the end of the 1980s to 1992.

Around 1990, the former Soviet-bloc was broken up, and market economy systems were introduced in many countries of the bloc, including coal export countries like Russia and Poland, although the speed of the introduction differed from each other. The waves have reached China. The trends of Chinese coal exports in recent years (and in the future) cannot be fully understood without taking into consideration such developments (In the oil market, recent expansion in exports by Russia and the peripheral countries is attracting attention).

As an example of how coal companies understand globalization, we will refer to a presentation made by C. Renwick, CEO of Rio Tinto Iron Ore³². He sees that the international market for steelmaking raw materials is in the process of fundamental change, and mentions that “the continued globalization of basic manufacturing”

³² C. Renwick, “Steelmaking Raw Materials,” October 15, 2002

(steelmaking) is one of the major factors that brought about such changes:

“Since the 1980s basic manufacturing has become increasingly globalised with mature companies searching overseas for incremental productivity and new markets, and with developing companies emerging in the global market as new forces. - - - Companies must provide the same products, the same quality, and the same services in a broad range of locations. And they must be prepared to compete on cost or to differentiate themselves against a constantly changing set of competitors. - - -

The process has intensified pressure on the profitability of traditional manufacturers - - -. A point comes when traditional approaches are no longer effective. Companies and business structures have to change or risk collapse. This applies to the steel industry as it does to other industries. - - -

Early on, the tough demands of a globalised market led to consolidation of the steel industry in the EU. This consolidation has started in the early 1990s - - -. In Japan the continued weak performance of the domestic market contributed to new moves towards consolidation.”

After having described globalization as shown above and explained other factors, he suggested a very interesting viewpoint that, to be prepared for the future, consolidation alone is insufficient, and “cooperation” or “alliances” between sellers and buyers would be required, for example, on steelmaking raw materials between steelmaking companies and steelmaking raw material suppliers.

For responses and solutions to globalization, the aspect of consolidating (or merging and acquiring) tends to attract attention from the viewpoint of the Big Four, which are the “surviving team,” as we have studied above. The consolidation, however, cannot exist without companies or businesses, which are consolidated (or acquired). As we have referred to earlier, some of oil and resource companies (and some of their departments or sectors) fall on those to be consolidated (or acquired). Disposal of coal interests in Columbia by ExxonMobil, those in South Africa and Australia by Shell, and those in South Africa by BP were showing ways for companies to concentrate their management resources on their own core sectors, that is, oil and gas. On the other hand, as seen in Rand Mines or Lonrho Mining in South Africa, there were some resource companies that disposed of coal and other businesses to focus on the core sector, the gold business for instance. Ironically, the reality is that oil companies mentioned above are the “surviving team” in the oil/gas industry, while Rand and Lonrho are the “losing team” in

the mineral resource industry.

Conclusion

Demand trends for coal in the world is expanding with active demand for power in Asia, and the volume of coal transacted in international coal markets expanded at an annual average of 4% to 5% during the past decade. Deregulation and restructuring were promoted under the leadership of the U.K. and the U.S.A. with the background of the Cold War ending and the birth of the EU, which consequently promoted market competition on a global basis. It is possible that the deflation phenomena being accelerated globally have been brought about by global market competition. Coal markets, in particular, that are continually expanding cannot be exceptions to such situations. As a result of global competition, commodification (market-competitive commodities) has been further enhanced, and their prices have been on a gradual downward trend on a long-term basis. The impacts were not limited to commodity prices, but accelerated the aggregation of companies leading the production of coal. It is believed that coal-producing companies represented by the Big Four will be further promoting acquisitions of coal interests with the background of globalization and seeking restructuring and consolidation of companies beyond national borders.

Contact: ieej-info@tky.iej.or.jp