



# Western world copper industry: Ownership and control 1992

By Andreas Tegen

The tables on the following pages are excerpts from *Raw Materials Data*, the database on ownership and production in the world's mineral industries. *Raw Materials Data* is compiled by the Raw Materials Group and is the only database of its kind covering more than 7 000 mining, refining and exploration companies active in more than 30 minerals. Readers of *Raw Materials Report* will regularly get exclusive excerpts from *Raw Materials Data*.

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In the following tables, two concepts are of basic importance, **ownership** and **control**. Ownership refers to holding of shares in a company and is easy to define and to measure. In principle the ownership figures are to be found in the share register. The concept of control is much more difficult to define and even more difficult to measure accurately. The following definition is used:

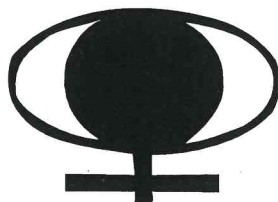
To be in control is to have a possibility to act decisively on strategically important issues rather than to have day-to-day influence over a company. Such issues include the broad policies of a company, decisions on large investments, buying or selling of subsidiaries and authority to appoint or dismiss top management.

Control can be exercised by many means of which ownership is the most common and important one. Other ways of exercising control are for example through administrative and technical management, interlocking directorates, long term contracts, market knowledge, proprietary technology, financing and vertical integration. The importance of these different ways of exercising control varies considerably from one branch of industry to another and from time to time within the same branch. Ownership plays a basic role in the whole market economic system and is of absolutely crucial importance in determining who is in control over a specific company and its mineral production. Consequently

in the empirical studies of the Raw Materials Group ownership and management have been used as the two criteria of control. A large amount of empirical data has been derived mainly from corporate sources such as annual reports and used for calculations of control by *Raw Materials Data*.

The – sometimes complex – ownership patterns, forming hierarchies from producers to controlling companies, have been quantified. On the basis of a model developed by the Raw Materials Group, all producers of copper have been classified as independent or controlled by one or more parent companies. If a producer is considered fully controlled, **all** of its production is attributed to the controlling company. If a producer is partially controlled, only **a part** of its production is attributed to the controlling company. Most often, the controlled part is equal to the equity share of capital. But the controlled share is in some cases considered to be larger than the ownership share, as production theoretically controlled by small shareholders through dispersed ownership is always distributed to the large owners. Thus, all production of a specific producer is allocated to controlling companies at the top of the ownership hierarchies. The operating mining companies' production have been systematically attributed to the controlling company or companies.

CODELCO CHILE



RTZ

ASARCO

phelps  
dodge  
Corporation

**Table1**  
**Corporate control in copper mining in 1992**

Controlling company/state, ranked by size of production (% control) controlled producers	Country of incorp. or production	Producer's total prod. kt	Controlled share kt	% of West world production
<b>1. State of Chile</b>	<b>Chile</b>	–	<b>1 159.5</b>	<b>15.5</b>
100% Codelco	Chile	1 159.5	1 159.5	15.5
<b>2. Phelps Dodge Corp</b>	<b>USA</b>	–	<b>581.5</b>	<b>7.8</b>
100% Morenci Copper Mine	USA	353.2	353.2	4.7
67% Chino Mines Co	USA	138.1	92.1	1.2
100% Tyrone Copper Mine	USA	71.4	71.4	1.0
16% Cuajone Copper Mine (SPCC)	Peru	141.2	22.9	0.3
100% Cia Minera Ojos de Salado	Chile	22.1	22.1	0.3
16% Toquepala Copper Mine (SPCC)	Peru	101.9	16.6	0.2
47% Black Mountain Mine	South Africa	4.0	1.9	0.0
100% Bisbee Operation	USA	1.3	1.3	0.0
<b>3. RTZ Corporation PLC</b>	<b>UK</b>	–	<b>570.4</b>	<b>7.6</b>
100% Bingham Canyon Copper Mine	USA	288.7	288.7	3.8
31% Escondida Copper Mine	Chile	336.6	103.6	1.4
58% Palabora Mining Co Ltd	South Africa	128.8	74.2	1.0
49% Sdade Mineira de Neves Corvo	Portugal	148.6	72.8	1.0
100% Cobar Mines Ltd	Australia	30.1	30.1	0.4
61% Pasmenco Ltd	Australia	1.7	1.0	0.0
<b>4. Asarco Inc</b>	<b>USA</b>	–	<b>479.1</b>	<b>6.4</b>
100% Ray Copper Mine	USA	149.8	149.8	2.0
100% Mission Complex (4 mines)	USA	93.6	93.6	1.2
52% Cuajone Copper Mine (SPCC)	Peru	141.2	73.9	1.0
52% Toquepala Copper Mine (SPCC)	Peru	101.9	53.3	0.7
31% Mexicana de Cobre SA	Mexico	151.2	47.2	0.6
50% Continental Copper Mine	USA	47.5	23.7	0.3
24% Cia Minera de Cananea SA	Mexico	67.2	16.4	0.2
100% Troy Silver Mine	USA	11.9	11.9	0.2
31% Medeimsa	Mexico	17.7	5.5	0.1
100% Silver Bell Copper Mine	USA	3.0	3.0	0.0
100% Corp Minera Nor Peru SA	Peru	0.7	0.7	0.0
38% Galena Silver Mine	USA	0.5	0.2	0.0
<b>5. Anglo American Corp of SA</b>	<b>South Africa</b>	–	<b>356.4e</b>	<b>4.8</b>
31% Zambia Cons Copper Mines	Zambia	432.6	134.8	1.8
100% Empr Minera de Mantos Blancos	Chile	69.4	69.4	0.9
42% Palabora Mining Co Ltd	South Africa	128.8	54.6	0.7
100% Hudson Bay Mining & Smelting	Canada	48.0e	48.0e	0.6

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Controlling company/state, ranked by size of production (% control) controlled producers	Country of incorp. or production	Producer's total prod. kt	Controlled share kt	% of West world production
...continued				
44% Tsumeb Corp Ltd	Namibia	34.6	15.1	0.2
44% O'Okiep Copper Co Ltd	South Africa	23.3	10.2	0.1
50% BCL Ltd (Bamangwato)	Botswana	18.6s	9.2s	0.1
100% Rustenburg Platinum Holdings	South Africa	6.0e	6.0e	0.1
44% Trout Lake Copper Mine	Canada	12.1	5.3	0.1
60% Namew Lake Copper Nickel Mine	Canada	3.0	1.8	0.0
100% Bindura Nickel Corp Ltd	Zimbabwe	1.1	1.1	0.0
24% Black Mountain Mine	South Africa	4.0	1.0	0.0
<b>6. Broken Hill Pty Co Ltd</b>	<b>Australia</b>	<b>-</b>	<b>303.4</b>	<b>4.0</b>
59% Escondida Copper Mine	Chile	336.6	198.5	2.6
30% Ok Tedi Copper/Gold Mine	Papua New Guinea	193.4	58.0	0.8
100% Island Copper Mine	Canada	45.0	45.0	0.6
62% Telfer Gold Mine	Australia	2.3	1.5	0.0
12% Boddington Gold Mine	Australia	3.4	0.4	0.0
<b>7. Cyprus Minerals Co</b>	<b>USA</b>	<b>-</b>	<b>300.5e</b>	<b>4.0</b>
100% Sierrita Copper Mine	USA	130.9	130.9	1.7
100% Bagdad Copper Mine	USA	99.6	99.6	1.3
100% Miami Copper Mines	USA	57.1	57.1	0.8
67% Selwyn (Starra) Mine	Australia	12.0e	8.0e	0.1
100% Pinos Altos Copper Mine	USA	3.1	3.1	0.0
100% Mineral Park Copper Mine	USA	1.8	1.8	0.0
<b>8. State of Zambia (Zimco)</b>	<b>Zambia</b>	<b>-</b>	<b>297.8</b>	<b>4.0</b>
69% Zambia Cons Copper Mines	Zambia	432.6	297.8	4.0
<b>9. Freeport McMoran Inc</b>	<b>USA</b>	<b>-</b>	<b>280.8</b>	<b>3.7</b>
100% PT Freeport Indonesia Co	Indonesia	280.8	280.8	3.7
<b>10. Magma Copper Co</b>	<b>USA</b>	<b>-</b>	<b>257.8</b>	<b>3.4</b>
100% San Manuel Copper Mine	USA	153.0	153.0	2.0
100% Pinto Valley Copper Mine	USA	93.3	93.3	1.2
100% Superior Copper Mine	USA	11.5	11.5	0.2
<b>10 largest, controlled share of copper production</b>			<b>4 587.2</b>	<b>61.2</b>
<b>15 largest, controlled share of copper production</b>			<b>5 381.2</b>	<b>71.8</b>
<b>20 largest, controlled share of copper production</b>			<b>5 958.7</b>	<b>79.4</b>
<b>Total, Western world</b>			<b>7 500.2</b>	<b>100.0</b>
<b>Total, World</b>			<b>9 100.0</b>	<b>..</b>

Notes: e = estimated, s = sales.

**Table 2**  
**Corporate control in copper refining in 1992.**

Controlling company/state, ranked by size of production (% control) controlled producers	Country of incorp. or production	Producer's total prod. kt	Controlled share kt	% of West world production
<b>1. State of Chile</b>	<b>Chile</b>	–	<b>1 203.6e</b>	<b>13.7</b>
100% Codelco	Chile	990.0e	990.0e	11.2
100% Enami	Chile	213.6	213.6	2.4
<b>2. Phelps Dodge Corp</b>	<b>USA</b>	–	<b>598.2</b>	<b>6.8</b>
100% El Paso Copper Refinery	USA	352.1	352.1	4.0
100% Morenci Copper Mine	USA	147.7	147.7	1.7
100% Tyrone Copper Mine	USA	63.7	63.7	0.7
67% Chino Mines Co	USA	52.0	34.7	0.4
<b>3. Asarco Inc</b>	<b>USA</b>	–	<b>462.1</b>	<b>5.2</b>
100% Amarillo Copper Refinery	USA	423.8	423.8	4.8
100% Ray Copper Mine	USA	38.3	38.3	0.4
<b>4. Brascan/Noranda</b>	<b>Canada</b>	–	<b>401.0</b>	<b>4.5</b>
100% CCR Copper Refinery	Canada	334.0	334.0	3.8
50% Kidd Creek Copper Refinery	Canada	94.7	47.4	0.5
50% Falconbridge Nikkelverk AS	Norway	39.3	19.7	0.2
<b>5. Magma Copper Co</b>	<b>USA</b>	–	<b>345.7</b>	<b>3.9</b>
100% Magma Copper Refinery	USA	278.7	278.7	3.2
100% San Manuel Copper Mine	USA	50.0	50.0	0.6
100% Pinto Valley Copper Mine	USA	17.1	17.1	0.2
<b>6. Nippon Mining Co Ltd</b>	<b>Japan</b>	–	<b>325.6e</b>	<b>3.7</b>
<b>7. State of Zambia (Zimco)</b>	<b>Zambia</b>	–	<b>315.8</b>	<b>3.6</b>
69% Zambia Cons Copper Mines	Zambia	458.8	315.8	3.6
<b>8. MIM Holdings Ltd</b>	<b>Australia</b>	–	<b>305.0e</b>	<b>3.5</b>
100% Townsville Copper Refinery	Australia	200.0e	200.0e	2.3
35% Norddeutsche Affinerie AG	Germany	260.0e	91.0e	1.0
26% Kupfer- und Silberh Brixlegg	Austria	54.7	13.9	0.2
<b>9. Sté Générale de Belgique</b>	<b>Belgium</b>	–	<b>293.0e</b>	<b>3.3</b>
100% Metallurgie Hoboken-Overpelt	Belgium	293.0e	293.0e	3.3

continued...

Controlling company/state, ranked by size of production (% control) controlled producers		Country of incorp. or production	Producer's total prod. kt	Controlled share kt	% of West world production
...continued					
<b>10. Mitsubishi Materials Corp</b>		<b>Japan</b>	–	<b>279.0e</b>	<b>3.2</b>
100%	Mitsubishi Materials Corp	Japan	140.0e	140.0e	1.6
61%	Onahama Smelting Co Ltd	Japan	210.0e	128.6e	1.5
20%	Chino Mines Co	USA	52.0	10.4	0.1
<b>11. State of Peru</b>		<b>Peru</b>	–	<b>250.0e</b>	<b>2.8</b>
100%	Ilo Refinery	Peru	173.0e	173.0e	2.0
100%	Centromin	Peru	58.0e	58.0e	0.7
100%	Cerro Verde Mine/Plant	Peru	19.0e	19.0e	0.2
<b>12. Cyprus Minerals Co</b>		<b>USA</b>	–	<b>247.1e</b>	<b>2.8</b>
100%	Cyprus Minerals Co	USA	190.0e	190.0e	2.2
100%	Miami Copper Mines	USA	57.1	57.1	0.6
<b>13. RTZ Corporation PLC</b>		<b>UK</b>	–	<b>224.2</b>	<b>2.5</b>
100%	Utah Copper Refinery	USA	137.7	137.7	1.6
58%	Palabora Mining Co Ltd	South Africa	104.3	60.1	0.7
60%	Port Kembla Complex	Australia	44.0	26.4	0.3
<b>14. Anglo American Corp of SA</b>		<b>South Africa</b>	–	<b>219.3e</b>	<b>2.5</b>
31%	Zambia Cons Copper Mines	Zambia	458.8	143.0	1.6
42%	Palabora Mining Co Ltd	South Africa	104.3	44.2	0.5
100%	Empr Minera de Mantos Blancos	Chile	25.0e	25.0e	0.3
100%	Rustenburg Platinum Holdings	South Africa	6.0e	6.0e	0.1
100%	Bindura Nickel Corp Ltd	Zimbabwe	1.1	1.1	0.0
<b>15. Korea Mining &amp; Smelting Co</b>		<b>Rep of Korea</b>	–	<b>209.8</b>	<b>2.4</b>
<b>10 largest, controlled share of copper refining</b>			<b>4 527.0</b>	<b>51.4</b>	
<b>15 largest, controlled share of copper refining</b>			<b>5 677.4</b>	<b>64.4</b>	
<b>20 largest, controlled share of copper refining</b>			<b>6 504.7</b>	<b>73.8</b>	
<b>Total, Western world</b>			<b>8 815.8</b>	<b>100.0</b>	
<b>Total, World</b>			<b>11 000.0</b>	<b>..</b>	

Notes: e = estimated, s = sales.