Iron Ore

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CANADIAN DEVELOPMENTS

Since the closure in 1998 of the Algoma Iron Ore Division near Wawa, Ontario, nearly all of Canada's iron ore production has been concentrated in the Labrador Trough, a major geological belt extending through northern Quebec and Labrador. Canada's production in this area comes from three mining operations owned by Iron Ore Company of Canada (IOC), Quebec Cartier Mining Company (QCM), and Wabush Mines. The remaining production comes from the by-product recovery of magnetite from two base-metal smelters in British Columbia.

In 2000, on account of strong demand from the steel industry, especially for pellets, Canada's iron ore production reached 35.7 Mt, an increase of 5.1% compared to the previous year. In line with this increase, the value of Canada's production grew by 9.6% to $1.54 billion. However, despite this strong showing, Canada's iron ore exports fell by 0.56% to just over 26.3 Mt because of weakening demand starting in September. The pellet market remained strong with a 9.3% increase in exports, but concentrate exports declined 17.6% over the year. The drastic fall in demand for concentrate was brought about by the hike in the price for natural gas, used for pelletization, and by the onset of an economic slowdown.

In August 2000, Rio Tinto Ltd. completed the acquisition of North Ltd. of Australia and the latter's 56.1% controlling interest in IOC. The remaining ownership is split with Mitsubishi Corp. owning 25% and the Labrador Iron Ore Royalty Income Fund owning 18.9%. Upon completion of the transaction, Rio Tinto sanctioned the refurbishment and reactivation of its pellet plant in Sept-Îles, Quebec, which had been announced earlier in the year by IOC. This plant had been mothballed in 1982 when the Schefferville operation was closed. Commissioning of the $361.5 million project, scheduled for June 2002, will result in the addition of 4.5 Mt/y of capacity to the company's pellet production and will provide 140 permanent jobs.

INTERNATIONAL DEVELOPMENTS

According to the UNCTAD Trust Fund Project for Iron Ore Information, following a slowdown in both 1998 and 1999, world iron ore production increased by 8.0% in 2000 to reach 937.8 Mt,[1] the highest production level ever reached by the industry. Countries registering the highest incremental increases were Ukraine (16.7%), South Africa (14.2%) and Mexico (13.4%).

Likewise, world exports increased 10.7% to 487.8 Mt in 2000 from the 440.6 Mt reached in 1999. Australia maintained its position as the world's number one iron ore exporting country with exports totaling 165.2 Mt in 2000, closely followed, as usual, by Brazil with 160.1 Mt. Countries that benefited the most from this increased trade were Sweden (15.1%), Brazil (14.2%), and Australia and the former Soviet Union (13.0% each).

Variations observed in the import market are even more important than in the export market with total imports reaching 485.3 Mt in 2000, a 12.1% increase from the previous year. The strongest growth in 2000, observed in Asia, indicates that the region's economies appear to have started bouncing back following the financial crisis experienced in the area in the late 1990s. Japan remains the world's largest importer of iron ore (131.7 Mt), followed by China (70.0 Mt), Germany (47.5 Mt) and South Korea (39.0 Mt). However, China, with an increase of 26.6% in 2000 over the previous year, and Germany, with an increase of 22.1% – two countries involved in large infrastructure development programs – appear to be the leading forces of the growth.

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[1] This figure includes the application of a conversion factor to China's low-grade natural iron ore production so that the latter's % Fe content is about equal, on average, to that in the rest of the world.

PRICES

On the strength of market demand for iron ore in the first quarter of the year, when prices are established for the year, iron ore producers negotiated significant price increases that compensated for the price drop incurred in 1999. Prices for Canadian products jumped by 5.15% and 4.34% for concentrate bound for Europe and Japan respectively, and by 7.32% for pellets bound for Europe. Despite lower exports, these price increases helped maintain the value of Canada's exports, which rose by 0.1% to about $1053 million.

OUTLOOK

The consolidation and restructuring of the global iron ore industry witnessed in 2000 should continue during the coming years to enable producers to improve their competitiveness through economies of scale. This will help the iron ore and steel industry preserve its market share as a supplier of low-cost, versatile, high-performance material of choice for use in a variety of applications.

Any change in the economic situation in Asia is expected to have a marked impact on steel markets and, consequently, on iron ore use. China, one of the fastest-growing economies in the world, is expected to continue to look to foreign suppliers to satisfy a large part of its iron ore requirements. Chinese imports of iron ore rose from 14.3 Mt in 1990 to over 70 Mt in 2000, representing an annual growth rate of over 17%. The development of a more modern market economy in China and the demand for higher-quality products are expected to lead that country to maintain or increase its present level of imports.

The reduction in iron ore shipments from Canada in the second half of 2000, on a year-to-year basis, indicates a slowdown in the industry that may result in Canadian shipments of iron ore dropping significantly in 2001, possibly to around 30 Mt.

Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 65. (2) Information in this review was current as of January 1, 2001. (3) This and other reviews, including previous editions, are available on the Internet at http://www.nrcan.gc.ca/mms/ cmy/index_e.html.

NOTE TO READERS

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TABLE 1. CANADA, IRON ORE PRODUCTION AND TRADE, 1999 AND 2000

Item No.		1999		2000p	
		(tonnes)[1]	($000)	(tonnes)[1]	($000)
PRODUCTION (mine shipments)					
	By province				
	Newfoundland	18 943 897	863 111	21 091 517	976 432
	Quebec	14 962 334	x	14 516 000	x
	British Columbia	83 749	x	99 072	x
	Total[2]	33 989 980	1 406 296	35 706 589	1 540 837
IMPORTS					
2601.11	Iron ore concentrates, non-agglomerated				
	United States	33 059	886	55 738	1 410
	United Kingdom	–	–	15 440	386
	Canada	5	. . .	155	5
	Germany	16	. . .	141	4
	Mexico	. .	. . .	103	4
	France	–	–	60	2
	South Africa	2	. . .	34	1
	China	. .	. . .	14	1
	Tanzania	14	. . .	4	. . .
	Guinea	–	–	2	. . .
	India	4	. . .	2	. . .
	Spain	–	–	3	. . .
	Turkey	–	–	8	. . .
	Uganda	–	–	1	. . .
	Gabon	–	–	1	. . .
	Hong Kong	–	–	2	. . .
	Indonesia	–	–	2	. . .
	Japan	–	–	9	. . .
	Sweden	3	. . .	–	–
	Russia	1	. . .	–	–
	Brazil	469	19	–	–
	Nicaragua	1	. . .	–	–
	Total	33 574	905	71 719	1 813
2601.12	Iron ore, agglomerated				
	United States	6 679 241	342 850	6 344 821	347 946
	Brazil	135 472	4 852	86 693	6 654
	Venezuela	55 523	3 403	62 726	3 255
	United Kingdom	–	–	71	4
	Taiwan	–	–	24	1
	Chile	3	. . .	–	–
	Australia	16	1	–	–
	Total	6 870 255	351 106	6 494 335	357 860
EXPORTS					
2601.11	Iron ore concentrates, non-agglomerated				
	Germany	2 493 340	65 830	2 539 276	68 301
	United Kingdom	2 137 941	54 860	1 711 708	40 913
	France	1 859 653	41 731	1 106 050	26 008
	Netherlands	1 171 019	33 691	691 443	19 535
	Japan	811 817	19 813	685 376	17 902
	United States	623 245	18 501	485 902	14 236
	South Korea	465 824	11 666	372 999	9 215
	China	146 600	3 669	235 197	6 401
	Philippines	–	–	168 293	4 499
	Total	9 709 439	249 761	7 996 244	207 010
2601.12	Iron ore, agglomerated				
	United States	6 240 221	287 908	7 504 883	340 019
	Germany	1 221 678	54 619	2 557 430	122 014
	Italy	1 990 667	99 174	2 149 678	102 031
	United Kingdom	2 290 053	111 758	1 665 538	76 717
	Netherlands	1 551 615	79 794	1 053 277	51 595
	Australia	674 609	35 717	736 003	35 340
	Belgium	1 031 039	50 184	563 296	26 889
	China	422 569	21 800	448 015	21 567
	France	733 678	32 587	464 548	21 159
	Turkey	–	–	299 030	11 326
	Taiwan	480 410	22 574	248 963	10 820
	Portugal	130 854	6 318	151 622	7 241
	Japan	–	–	149 135	7 204
	Philippines	–	–	164 591	4 510
	Malaysia	–	–	99 985	4 147
	South Korea	–	–	75 001	3 701
	Total	16 767 393	802 433	18 330 995	846 280

TABLE 1 (cont'd)

Item No.	1999		2000p	
	(tonnes)1	($000)	(tonnes)1	($000)
EXPORTS (cont'd)				
Total exports, all classes				
United States	6 863 466	306 409	7 990 785	354 255
Germany	3 715 018	120 449	5 096 706	190 315
United Kingdom	4 427 994	166 618	3 377 246	117 630
Italy	1 990 667	99 174	2 149 678	102 031
Netherlands	2 722 634	113 485	1 744 720	71 130
France	2 593 331	74 318	1 570 598	47 167
Australia	674 609	35 717	736 003	35 340
China	569 169	25 469	683 212	27 968
Belgium	1 031 039	50 184	563 296	26 889
Japan	811 817	19 813	834 511	25 106
South Korea	465 824	11 666	448 000	12 916
Turkey	–	–	299 030	11 326
Taiwan	480 410	22 574	248 963	10 820
Philippines	–	–	332 884	9 009
Portugal	130 854	6 318	151 622	7 241
Malaysia	–	–	99 985	4 147
Total	26 476 832	1 052 194	26 327 239	1 053 290

Sources: Natural Resources Canada; Statistics Canada; American Iron Ore Institute.
– Nil; . . Not available; . . . Amount too small to be expressed; p Preliminary; r Revised; x Confidential.
1 Dry tonnes for production (shipments) by province or territory; natural weight for imports and exports. 2 Total iron ore shipments include shipments of by-product iron ore.

TABLE 2. CANADA, IRON ORE SHIPMENTS, 1995-2000

Company and Location	Ore Mined	Product Shipped	1995	1996	1997	1998	1999	2000p
			(000 tonnes, natural or wet)					
Algoma Ore Division Algoma Steel Inc. Wawa, Ontario	Siderite	Sinter1	997	733	795	651	–	–
Iron Ore Company of Canada Schefferville, Quebec	Hematite, goethite and limonite	Direct shipping	–	–	–	–	–	–
Carol Lake, Labrador	Specular hematite and magnetite	Concentrate	4 634	4 038	4 678	5 172	3 983	3 955
		Acid pellets	3 121	2 430	. .	. .	2 408	. .
		Fluxed pellets	7 084	8 075	11 372	12 248	3 190	11 466
		Limestone pellets	. .	. .	. .	. .	3 870	. .
		Direct reduced pellets	. .	. .	. .	. .	211	. .
		Chips	188	169	. .	. .	. .	. .
Loadstone Limited Newfoundland	Magnetite	Concentrate	–	300	100	–	–	–
Quebec Cartier Mining Company Mount Wright, Quebec	Specular hematite	Concentrate	7 759	7 264	7 159	6 757r	6 304	6 163
		Acid pellets	4 884	2 521	3 795	3 577r	2 820	. .
		Self-fluxed pellets	3 449	5 481	4 324	2 824r	3 036	8 234
		Low-Si pellets	–	51	225	1 638r	1 591	. .
		Low-Si self-fluxed pellets	–	–	–	103	1 045	. .
Wabush Mines Wabush, Labrador and Pointe-Noire, Quebec	Specular hematite and magnetite	Acid pellets	3 322	3 155	3 440r	3 127r	3 445	6 014
		Fluxed pellets	1 866	2 158	2 257r	2 518r	2 046	. .
		Concentrate	135	–	. .	. .	. .	. .
		Chips	105	24	. .	. .	. .	. .
British Columbia producers	Magnetite	Concentrate	83	88	100	102	92r	102
Total			37 627	36 486	38 245	38 717	34 041r	35 934

Source: Natural Resources Canada.
– Nil; . . Not available; p Preliminary; r Revised.
1 Includes about 400 000 t of iron-bearing material not from the mine.

TABLE 3. RECEIPTS, USE AND INVENTORIES OF IRON ORE AT CANADIAN IRON AND STEEL PLANTS, 1999 AND 2000

	1999	2000
	(000 tonnes)	
Receipts imported	7 249	6 850
Receipts from domestic sources	7 359	6 468
Total receipts at iron and steel plants	14 608	13 318
Use of iron ore	13 782	14 042
Inventory at docks, plants, mines and furnace yards, December 31	8 353	8 818
Inventory change	1 615	465

Source: American Iron Ore Association.

TABLE 4. WORLD IRON ORE PRODUCTION, 1998-2000

	1998	1999	2000
	(000 tonnes, natural)		
China	97 100	92 200	96 100
Brazil	183 000	188 700	200 400
Australia	161 100	162 700	176 300
Russia	72 300	81 900	87 000
India	71 700	70 200	75 000
United States	62 900	57 800	63 000
Ukraine	51 100	47 100	55 000
Canada	38 700	34 000	35 900
South Africa	33 000	29 500	33 700
Sweden	20 900	18 900	20 600
Venezuela	17 200	17 000	17 400
Mauritania	11 400	10 400	11 500
Kazakhstan	8 700	9 100	15 000
Other countries	49 400	48 900	50 900
Total	878 500	868 400	937 800

Sources: Natural Resources Canada; Interfax; UNCTAD Trust Fund Project on Iron Ore Information.

TABLE 5. SELECTED PRICES OF IRON ORE DESTINED FOR JAPAN AND EUROPE, SELECTED YEARS, 1986-2000

Ore	Market	Source	1986	1988	1990	1992	1994	1996	1998	1999	2000
			(US¢/Fe Unit Dmt, f.o.b.)								
Fines (including concentrate)	Europe	CVRD	26.26	23.50	30.80	33.10	26.47	30.00	31.00	27.59	28.79
		Iscor	22.70	20.55	24.75	. .	20.60	23.10	24.01	22.19	. .
		Kiruna	27.90	26.00	35.70	36.50	28.10	32.70	34.10	29.55	31.83
		Carol Lake	26.50	23.69	31.78	33.15	26.15	30.00	30.90	27.20	28.60
		Mt. Wright	26.50	23.69	31.78	33.15	26.15	30.00	30.90	27.20	28.60
	Japan	CVRD	23.29	20.90	27.38	28.11	22.65	25.89	26.89	23.99	25.01
		Iscor	20.23	17.75	23.62	23.86	19.21	21.55	20.65	19.93	20.80
		Hamersley[2]	25.56	23.31	30.54	31.35	25.26	28.33	29.45	26.21	27.35
		Carol Lake	22.09	19.93	26.11	27.26	21.96	24.63	25.60	22.79	23.78
Lump	Europe	Iscor	26.70	22.34	33.00	32.29	28.00	32.13	32.13	30.50	. .
		Hamersley[1]	36.20	36.00	49.97	48.28	40.28	46.82	47.94	40.75	45.56
	Japan	CVRD	23.29	21.89	29.22	29.00	24.38	27.63	28.44	25.54	27.02
		Iscor	23.53	21.86	30.21	29.79	25.74	30.02	30.91	27.76	29.36
		Hamersley[2]	29.81	27.88	38.53	38.23	32.74	37.09	38.18	34.28	36.26
Pellets	Europe	CVRD	35.60	40.35	51.60	48.47	43.64	52.40	53.56	46.46	49.24
		Kiruna	38.15	46.35	59.00	53.48	45.60	55.80	57.20	48.70	53.00
		Carol Lake	36.50	39.95	52.58	49.35	44.00	53.80	54.88	47.15	50.60
		Mt. Wright	36.50	39.95	52.58	49.35	44.00	53.80	54.88	47.15	50.60
	Japan	CVRD (Nibrasco)	34.73	37.93	48.50	45.57	41.03	49.26	50.34	43.68	46.29
		Savage River	35.45	35.89	45.90	43.12	38.83	46.62	47.65	41.33	43.80

Sources: *The Tex Report; Skillings Mining Review*; UNCTAD.
. . Not available; Dmt Dry metric tonne; f.o.b. Free on board.
[1] c.i.f. Rotterdam; [2] f.o.b. Dampier.
Note: Price is reported in cents, U.S. currency, for each percentage point of iron in a tonne of ore, e.g., at 30¢/Fe unit, ore grading 65% iron would bear a price of 65 x 30¢ = US$19.50/t.