

# Introduction

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This outlook for the major nonferrous metals was prepared by staff of the International and Domestic Market Policy Division in November 2002 and reflects the market conditions and expectations at that time.

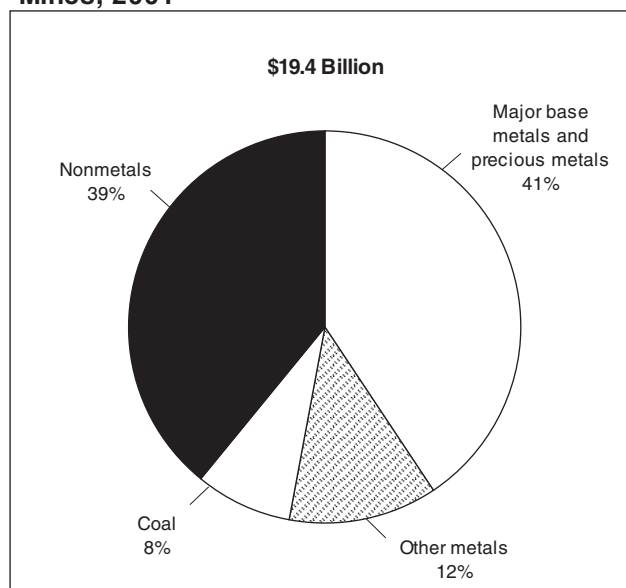
Canada's economy again registered strong growth in 2001 and is expected to continue to show modest growth over the near-term forecast period. Overall real Gross Domestic Product (GDP) increased by 1.5% in 2001. The total value of all mineral commodities produced from domestic sources in Canada, including metals, nonmetals and mineral fuels, declined fractionally from \$83.9 billion in 2000 to an estimated \$83.8 billion in 2001. This second consecutive high level in the value of mineral production was again primarily due to another strong performance by the fuels sector, especially natural gas shipments. The value of metals and nonmetals from domestic sources declined, with a decrease in the metals sector more than offsetting a slight increase in the value of nonmetals. The value of metals produced from Canadian mines fell by 6.8% in 2001 to \$10.2 billion. Significant declines in the value for nickel, copper, zinc, iron ore and cobalt contributed to the 2001 decrease. The value of zinc production was down by 9.6% to \$1.4 billion despite a rise in the volume produced.

Exports of crude minerals (excluding petroleum and natural gas), coal, smelted and refined outputs, and mineral products contributed \$47.4 billion to the value of Canada's domestic exports in 2001, a 4.3% decline compared with 2000. This represented 12.7% of Canada's total domestic exports of \$373.4 billion. Metallic mineral and mineral product domestic exports accounted for 76.2% (\$36.1 billion) of the total non-fuel (including coal) value, nonmetal domestic exports (including structural materials) accounted for 19.6% (\$9.3 billion), and coal accounted for 4.2% (\$2.0 billion). The United States remains Canada's principal trading partner with domestic exports of non-fuel minerals and mineral products, including coal, to that country valued at \$36.2 billion. Exports to the European Union

totalled \$4.6 billion while exports to Japan totalled \$1.7 billion and exports to Mexico totalled \$0.2 billion. Canadian imports of non-fuel minerals and mineral products, including coal, decreased by 9.0% to \$46.6 billion, resulting in a merchandise trade surplus (total mineral exports minus total mineral imports) of \$2.2 billion in 2001, compared with a 2000 deficit of \$0.3 billion. The value of both total exports and total imports declined in 2001 compared with 2000, although the drop in imports was greater.

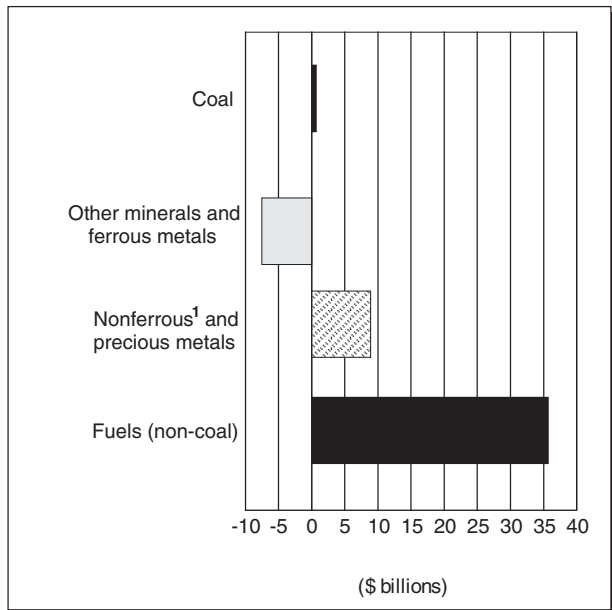
The Canadian economy registered strong growth in the first half of 2002 with a real annualized GDP gain of 5.2%. Most of this growth was posted in the early part of the year with indications towards the end of this period for more modest gains in the third and fourth quarters. Domestic demand remains strong led by consumer spending on services and a pick-up in business investment in machinery and equipment. Strength was seen in a broad range of industries with construction and the automotive

**Figure 1**  
**Value of Mineral Production From Canadian Mines, 2001**



Source: Natural Resources Canada.

**Figure 2**  
**Net Export Earnings, 2001**  
 Mineral Commodities Net = \$30 Billion



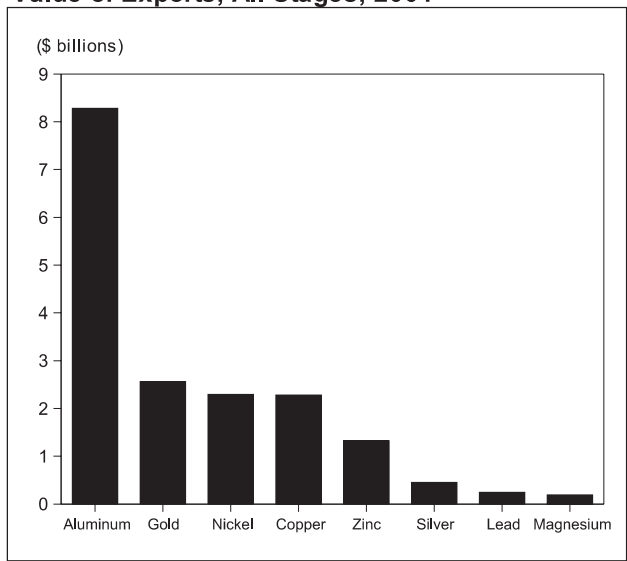
Source: Natural Resources Canada.  
<sup>1</sup> Includes aluminum.

sectors leading the way. Real GDP in Canada is expected to grow by about 3.5% in 2002 and by 3.0-3.5% in 2003.

The mining industry remains a vital contributor to Canada's economy. According to data released by Statistics Canada, employment in the Canadian mining industry recorded a 9.7% decline in 2001, falling to 51 200 from 56 700 in 2000. All of the major components of the industry (metal mining, nonmetal mining and coal mining) experienced declines, most notably the metal mining sector where employment declined by nearly 4000 from 29 500 in 2000 to 25 600 in 2001. The decreases can be attributed to the closure of seven mines and the suspension of work at seven other mining operations while only two new mines opened in 2001.

In 2001, nonferrous metals generated a net trade surplus equivalent to about 25% of that of mineral fuels (excluding coal). Canada's overall merchandise export surplus was due in large part to the net surplus generated by the Canadian mining and metals industry. Non-coal fuel minerals generated a net surplus of \$35.7 billion. The major nonferrous and precious metals (including scrap), with exports of \$18.0 billion and imports of \$9.1 billion, generated a net Canadian trade surplus of \$8.9 billion. Other mineral products generated a combined net trade deficit of \$7.6 billion.

**Figure 3**  
**Value of Exports, All Stages, 2001**



Source: Natural Resources Canada.

Reviews and forecasts for aluminum, copper, gold, lead, magnesium, nickel and zinc are included in the following pages. Trade tables covering 2000, 2001 and the first ten months of 2002 follow these commodity reviews.

We would appreciate your feedback and encourage you to contact the specialists directly with your comments by telephone, facsimile or electronic mail.

## CANADIAN BASE-METAL PRODUCTION IN 2002 AND 2001

Company	Mine	Copper Production			Zinc Production			Lead Production			Nickel Production		
		2002	2001	Change	2002	2001	Change	2002	2001	Change	2002	2001	Change
		9-Month	9-Month		9-Month	9-Month		9-Month	9-Month		9-Month		
		(t)	(%)	(t)	(%)		(t)	(%)		(t)	(%)		
Agnico Eagle (1,2)	La Ronde	2 297	1 324	73	43 534	49 621	-12						
Aur/Teck/Noranda	Louvicourt	33 141	38 979	-15	15 629	12 214	28						
Boliden (8)	Myra Falls	4 262	11 325	62	33 258	48 046	-31						
Breakwater	Bouchard-Hébert	4 359	5 606	-22	37 736	30 660	23						
Breakwater (10)	Nanisivik				49 514	35 284	40						
Campbell (5)	Joe Mann	175		n.a.									
Falconbridge (8)	Sudbury	23 721	13 912	71						21 200	17 031	24	
Falconbridge	Raglan	4 678	5 158	-9						17 493	18 201	-4	
Falconbridge	Kidd	32 784	28 498	15	79 824	53 976	48						
Highland Valley	HVC	137 100	138 500	-1									
Imperial Metals	Huckelberry	25 391	26 875	-6									
Inco (est. Cu only) (3)	Canada	80 000	85 000	-6									
Inco Ni only (6)	Sudbury									77 111	67 132	15	
Inco Ni only (6)	Thompson									32 659	36 288	10	
Inmet	Troilus	5 500	5 900	-7									
Les Mines Selbaie (2)	Selbaie	7 883	8 700	-9									
Noranda Inc.	Brunswick	6 524	6 514	0.2	206 817	226 046	-9	19 042	20 940	-8			n.a.
Noranda Inc. (4)	Mattagami	5 373	6 530	-18	63 064	66 738	-6						
North American Palladium	Lac des Iles	1 813	862	110							935	454	106
Northgate	Kemess	92 873	93 284	-0.4									
Teck Cominco (9)	Polaris			-13	78 400	89 900	-13	17 500	23 400	-25			
Operations total for 9-month data		467 874	476 967	-2	607 776	612 485	-1	36 542	44 340	-18	149 398	139 106	7

Company	Mine	Copper Production			Zinc Production		
		2002	2001	Change	2002	2001	Change
		6-Month	6-Month		9-Month	9-Month	
		(t)	(%)	(t)	(%)		
HBMS	Flin Flon area	42 700	36 000	19	47 400	33 000	44
Operations total for 6-month data		42 700	36 000	19	47 400	33 000	44
Barrick Gold	Bousquet No 2	data not reported					

**CANADIAN BASE-METAL PRODUCTION IN 2002 AND 2001 (cont'd)**

Company	Smelter/Refinery	Copper Production			Zinc Production			Lead Production			Nickel Production		
		2002	2001	Change	2002	2001	Change	2002	2001	Change	2002	2001	Change
		9-Month	9-Month		9-Month	9-Month		9-Month	9-Month		9-Month	9-Month	
		(t)	(%)	(t)	(%)	(t)	(%)	(t)	(%)	(t)	(%)		
<b>SMELTING/REFINING</b>													
(includes production from secondary sources)													
<b>Smelting</b>													
Noranda Inc.	Gaspé smelter	29 612	82 965	-64									
Noranda Inc.	Horne smelter	116 653	136 957	-15									
Falconbridge	Kidd smelter	108 139	95 734	13									
Falconbridge (8)	Sudbury smelter	14 073	12 119	16						39 749	39 137	2	
Inco (3,6)	Sudbury smelter	80 000	85 000	-6						77 111	67 132	15	
Inco (6)	Thompson smelter									32 659	36 288	-10	
Teck Cominco	Trail smelter							56 000	45 500	23			
Operations total for 9-month data		348 477	412 775	-16				56 000	45 500	23	149 519	142 557	5
HBMS - 6-month total	Flin Flon smelter	42 700		19									
<b>Refining</b>													
Noranda Inc.	CCR refinery	184 640	238 131	-22									
Inco Limited (3,6)	Sudbury refinery	80 000	85 000	-6							77 111	67 132	15
Inco Limited (6)	Thompson refinery										32 659	36 288	-10
Falconbridge	Kidd refinery	110 467	93 000	19	106 717	104 169	2						
Teck Cominco (11)	Trail operations				193 900	106 000	83						
Operations total for 9-month data		375 107	416 131	-10	300 617	210 169	43				109 770	103 420	6

n.a. Not applicable.

(1) Reports in short tons, converted. (2) Payable tonnes, reported -- data shown here are contained metal. (3) Outlook for calendar year refined copper production less outlook for 4th-quarter production; includes some scrap plus only recoverable portion of copper in concentrates. (4) Bell Allard mine. (5) Joe Mann mine did not operate in 2001. (6) Includes 18 100 t imported Ni in concentrates from Australia in 2002; most believed to have gone to Thompson; Ni production reported as finished nickel in Ontario and Manitoba divisions. (7) Myra Falls closed December 2001 to March 2002. (8) Falconbridge Sudbury had a strike from August 2001 to February 2002. (9) Mine shut September 4 after ore exhausted; plant removal and reclamation under way. (10) Nanisivik ceased mining operations September 30, 2002. (11) Trail operations shut August 2002 and from July to September 2001.