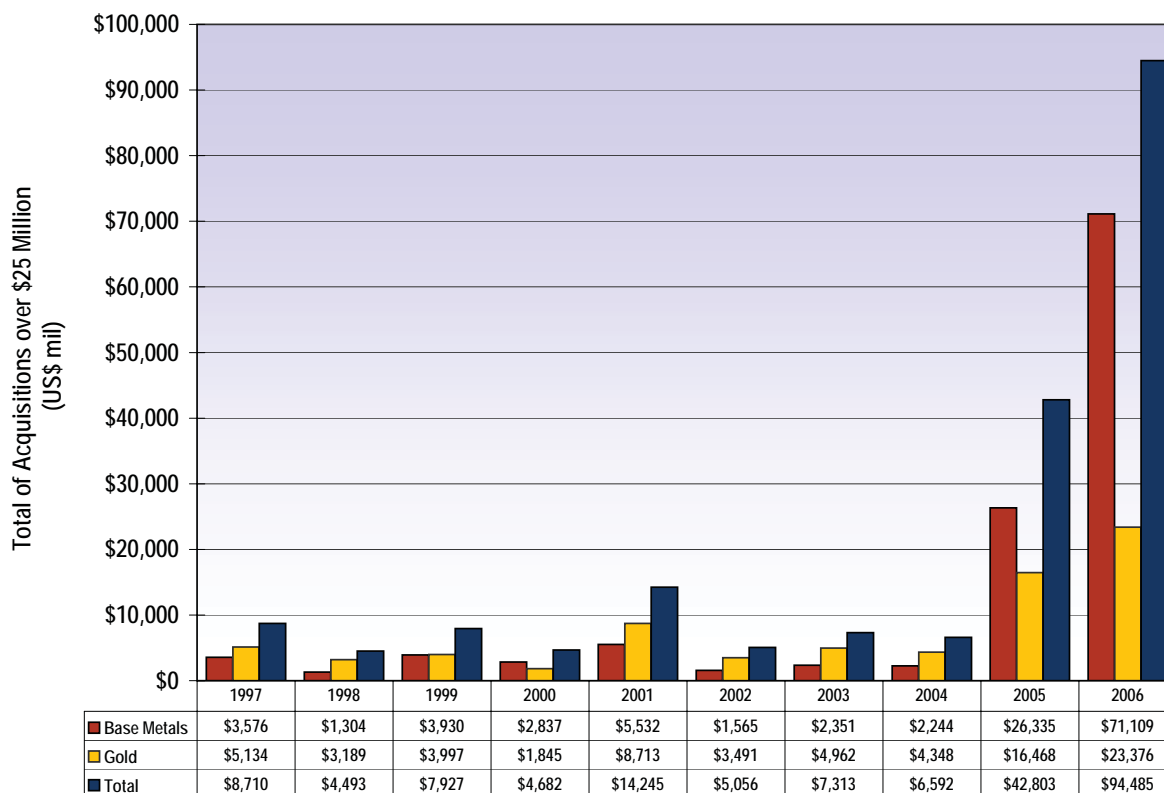


## BASE METALS AND GOLD ACQUISITIONS ACTIVITY, 1997-2006

In 2006, the total dollar volume of large (\$25 million minimum) base metals and gold acquisitions more than doubled to \$94 billion—by far the highest annual value of acquisitions in at least 17 years—from almost \$43 billion in 2005. In the last ten years, the cost of 349 significant transactions totals almost \$197 billion—\$121 billion (62%) in 146 base metals deals and \$76 billion (38%) in 203 gold deals. The base metals acquisitions averaged \$830 million each, compared with an average of \$372 million for each gold deal. In 2006, the total value of base metals acquisitions increased by 170% from 2005 to \$71 billion, and gold acquisitions increased by 42% to \$23 billion.

From 1997 to 2006, the annual average value of significant base metals and gold acquisitions was about \$19.6 billion. Of the 146 base metals deals reported during the period, 79 (54%) of the acquired companies or projects were primarily copper assets, 36 (25%) were primarily nickel, and 31 (21%) were primarily zinc.

Figure 1: Base Metals and Gold Acquisitions Dollar Volume, 1996-2006



Data sources: MEG's Base Metals and Gold Acquisitions services.

Table 1 below compares annual base metals and gold acquisitions activity from 1997 through 2006 for transactions valued at \$25 million or more. This report focuses on 2006 transactions; details on the transactions from 1990 through 2005 are covered in past issues of MEG's *Strategic Report*.

Table 1: Comparison of Base Metals and Gold Acquisitions, 1997-2006

(\$25 million minimum value)

Year	Number of Base Metals Deals	Total Value of Base Metals Deals (US\$ mil)	Average Annual Cu Price (US\$/lb)	Average Annual Ni Price (US\$/lb)	Average Annual Zn Price (US\$/lb)	Number of Gold Deals	Total Value of Gold Deals (US\$ mil)	Average Annual Gold Price (US\$/oz)	Total Deals	Total Value of Deals (US\$ mil)
1997	18	\$3,576	\$1.03	\$3.14	\$0.60	18	\$5,134	\$331	36	\$8,710
1998	13	\$1,304	\$0.75	\$2.10	\$0.46	14	\$3,189	\$294	27	\$4,493
1999	11	\$3,930	\$0.71	\$2.77	\$0.49	17	\$3,997	\$279	28	\$7,927
2000	13	\$2,837	\$0.82	\$3.92	\$0.51	13	\$1,845	\$279	26	\$4,682
2001	11	\$5,532	\$0.72	\$2.70	\$0.40	15	\$8,713	\$271	26	\$14,245
2002	5	\$1,565	\$0.71	\$3.07	\$0.35	14	\$3,491	\$310	19	\$5,056
2003	6	\$2,351	\$0.81	\$4.37	\$0.38	30	\$4,962	\$364	36	\$7,313
2004	16	\$2,244	\$1.30	\$6.27	\$0.48	13	\$4,348	\$409	29	\$6,592
2005	27	\$26,335	\$1.67	\$6.69	\$0.63	29	\$16,468	\$445	56	\$42,803
2006	26	\$71,109	\$3.05	\$11.00	\$1.49	40	\$23,376	\$604	66	\$94,485
<b>Totals</b>	<b>146</b>	<b>\$120,783</b>				<b>203</b>	<b>\$75,523</b>		<b>349</b>	<b>\$196,306</b>
<b>Averages</b>	<b>14.6</b>	<b>\$12,078</b>	<b>\$1.16</b>	<b>\$4.60</b>	<b>\$0.58</b>	<b>20.3</b>	<b>\$7,552</b>	<b>\$359</b>	<b>34.9</b>	<b>\$19,631</b>

Data sources: MEG's Base Metals and Gold Acquisitions services.

### Eleven 2006 deals were valued at more than \$1 billion; three at more than \$10 billion

Table 2 on the next page lists the 33 transactions during the 1997-2006 period valued at \$1 billion or more. These 33 deals total almost \$139 billion and account for 71% of the ten-year total. The largest was Freeport-McMoRan's \$25.9 billion acquisition of *Phelps Dodge*, completed on March 14, 2007. Freeport paid \$18 billion in cash—about 70% of the total consideration—and issued 137 million shares, giving Phelps Dodge shareholders about 38% of the combined company on a fully diluted basis. Phelps Dodge produced more than 1.2 million mt of copper in 2005, and had total reserves of almost 18 million mt of copper and substantial molybdenum in producing mines and pipeline projects, including the 54%-owned Cerro Verde (Sumitomo 21%, Buenaventura 18%, employees 7%) in Peru, which was in the process of tripling production to 272,000 mt/y of copper by early 2007. The new company has reserves of about 34 million mt of copper and 41 million oz of gold, plus substantial molybdenum and silver, and a copper pipeline expected to add about 454,000 mt/y of copper production by 2010.

Table 2: The Largest Transactions, 1997-2006

Acquisition	Buyer	Seller	Primary Metal	Date	% Acquired	Value of Deal (US\$ mil)
<i>Phelps Dodge</i>	<i>Freeport-McMoRan</i>	<i>Phelps Dodge shareholders</i>	<i>Cu</i>	<i>4Q 2006</i>	<i>100%</i>	<i>\$25,900</i>
<i>Falconbridge</i>	<i>Xstrata</i>	<i>Falconbridge shareholders</i>	<i>Ni</i>	<i>2Q 2006</i>	<i>80%</i>	<i>\$21,200</i>
<i>Inco</i>	<i>CVRD</i>	<i>Inco shareholders</i>	<i>Ni</i>	<i>3Q 2006</i>	<i>100%</i>	<i>\$17,300</i>
Placer Dome	Barrick Gold	Placer Dome shareholders	Au	4Q 2005	100%	\$10,400
<i>Glamis Gold</i>	<i>Goldcorp</i>	<i>Glamis Gold</i>	<i>Au</i>	<i>3Q 2006</i>	<i>100%</i>	<i>\$8,600</i>
WMC Resources	BHP Billiton	WMC shareholders	Ni	1Q 2005	100%	\$7,300
Billiton	BHP Minerals	Billiton shareholders	Cu	1Q 2001	100%	\$3,931
<i>Bema Gold</i>	<i>Kinross Gold</i>	<i>Bema Gold shareholders</i>	<i>Au</i>	<i>4Q 2006</i>	<i>100%</i>	<i>\$3,100</i>
Franco-Nevada	Newmont Mining	Franco-Nevada shareholders	Au	4Q 2001	100%	\$2,800
Falconbridge	Noranda	Falconbridge shareholders	Ni	1Q 2005	100%	\$2,460
Wheaton River	Goldcorp	Wheaton River shareholders	Au	4Q 2004	100%	\$2,400
Homestake	Barrick Gold	Homestake shareholders	Au	2Q 2001	100%	\$2,300
Normandy Mining	Newmont Mining	Normandy Mining shareholders	Au	4Q 2001	100%	\$2,300
Santa Fe Gold	Newmont Mining	Santa Fe shareholders	Au	1Q 1997	100%	\$2,100
<i>Gold Fields</i>	<i>Market investors</i>	<i>Polyus Gold</i>	<i>Au</i>	<i>1Q 2006</i>	<i>20%</i>	<i>\$2,019</i>
Minorco	Anglo American	Minorco shareholders	Cu	4Q 1998	54%	\$1,932
Cyprus Amax	Phelps Dodge	Cyprus Amax shareholders	Cu	3Q 1999	100%	\$1,800
MIM	Xstrata	MIM shareholders	Cu	2Q 2003	100%	\$1,800
Falconbridge	Xstrata	Brascan	Ni	3Q 2005	20%	\$1,710
<i>Lundin Mining</i>	<i>EuroZinc Mining</i>	<i>Lundin Mining</i>	<i>Zn</i>	<i>3Q 2006</i>	<i>100%</i>	<i>\$1,638</i>
<i>South Deep</i>	<i>Gold Fields</i>	<i>Barrick Gold</i>	<i>Au</i>	<i>3Q 2006</i>	<i>50%</i>	<i>\$1,525</i>
Placer Dome	Goldcorp	Barrick Gold	Au	4Q 2005	100%	\$1,485
Ashanti	AngloGold	Ashanti shareholders	Au	4Q 2003	100%	\$1,420
Disputada	Anglo American	ExxonMobil	Cu	2Q 2002	100%	\$1,300
Euro-Nevada	Franco-Nevada	Euro-Nevada shareholders	Au	2Q 1999	100%	\$1,275
<i>Cambior</i>	<i>Iamgold</i>	<i>Cambior shareholders</i>	<i>Au</i>	<i>3Q 2006</i>	<i>100%</i>	<i>\$1,196</i>
Asarco	Grupo Mexico	Asarco shareholders	Cu	3Q 1999	100%	\$1,180
Gold Fields	Norilsk	Anglo American	Au	1Q 2004	20%	\$1,160
Rio Algom	Billiton	Rio Algom shareholders	Cu	2Q 2000	100%	\$1,100
Getchell	Placer Dome	Getchell shareholders	Au	4Q 1998	100%	\$1,085
<i>AngloGold Ashanti</i>	<i>Market investors</i>	<i>Anglo American</i>	<i>Au</i>	<i>2Q 2006</i>	<i>9%</i>	<i>\$1,050</i>
<i>Penasquito</i>	<i>Glamis Gold</i>	<i>Western Silver</i>	<i>Au</i>	<i>1Q 2006</i>	<i>100%</i>	<i>\$1,000</i>
Cominco	Teck	Cominco shareholders	Zn	2Q 2001	50%	\$1,000

The second-largest deal was Xstrata's purchase of the 80.2% of Toronto-based **Falconbridge** that it did not already own. On July 19, 2006, Xstrata increased its all-cash bid to \$55.05 (C\$62.50)/share and offered Falconbridge shareholders a special cash dividend of \$0.66 (C\$0.75)/Falconbridge share, for a

total of C\$63.25/share and a total transaction value of about \$21.2 billion (C\$24.1 billion). The offer, which began in May 2006 as a counteroffer to Inco's bid of \$46 (C\$51.17)/share for Falconbridge, closed on August 14, 2006.

In 2005, Noranda acquired the 41.2% stake of Falconbridge that it did not already own for \$2.46 billion. The new company, continuing under the Falconbridge name, began trading on July 6, 2005, and was bought by Xstrata about a year later. In 2005, Falconbridge's attributable production was 64,002 mt of nickel at cash costs of \$3.49/lb, 410,606 mt of copper at \$0.31/lb, and 433,329 mt of zinc at \$0.41/lb, plus 75,417 mt of lead and 12.5 million oz of silver.

The third-largest 2006 acquisition was CVRD's all-cash hostile takeover bid for Inco. CVRD offered \$76.76 (C\$86)/Inco share for a total transaction value of \$17.3 billion (C\$19.4 billion). CVRD was the third company to make an offer for Inco: Phelps Dodge offered 0.672 Phelps Dodge share plus \$17.92 (C\$20.25) in cash for each Inco share in July 2006, and Teck Cominco's \$16 billion cash offer expired in August 2006. Inco had declared its preference for a deal with Phelps Dodge; however, some of Phelps Dodge's major institutional investors rebelled against the Inco acquisition, and Phelps Dodge withdrew its offer in September. Inco, renamed CVRD Inco, reported 2006 production of more than 227,300 mt of nickel and 242,200 mt of copper.

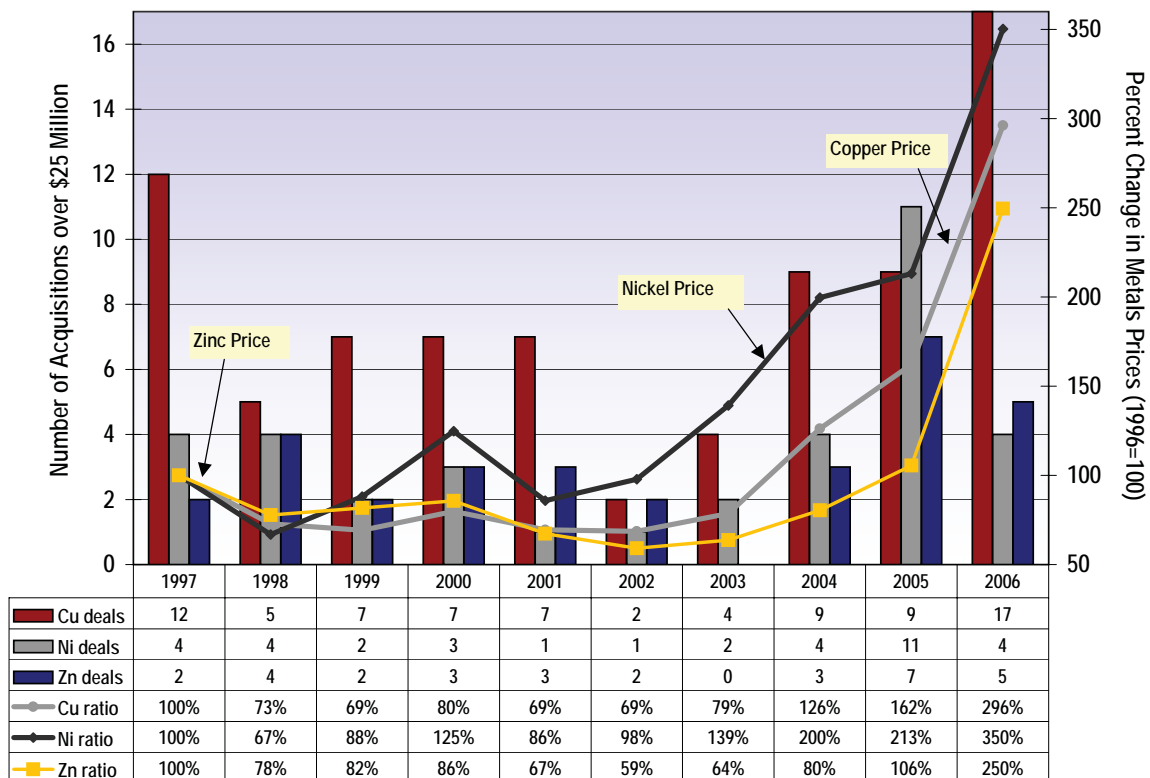
The largest gold acquisition in the past ten years was in October 2005—Barrick Gold's unsolicited \$9.2 billion cash and share offer for *Placer Dome*. The offer represented a premium of 27% over Placer Dome's NYSE average closing price over the ten days prior to the offer. In December 2005, Placer Dome finally agreed to the takeover after Barrick Gold raised its offer to about \$10.4 billion. The combined company, excluding Placer Dome assets acquired by Goldcorp in a related transaction, produced 8.6 million oz of gold and 166,500 mt of copper in 2006.

## BASE METALS ACQUISITIONS, 2006

### Acquisitions activity largely reflects trends in metals prices

Figure 2 and Table 3 below illustrate the correlation between base metals acquisitions activity and year-on-year base metals price changes in percentage terms from the average 1997 price. In all cases, we have recorded the acquisitions in the year they were announced. The metals prices shown are the yearly average of the LME average monthly cash prices. In 2006, the average copper price increased from 2005 by 83% to \$3.05/lb, nickel rose 64% to \$11/lb, and zinc rose 137% to \$1.49/lb. There were 27 large base metals transactions in 2005, and 26 deals in 2006 included 17 copper deals with a total value of

Figure 2: Base Metals Acquisitions and Price Trends, 1997-2006



Data sources: MEG's Base Metals Acquisitions Service, Metals Week.

Table 3: Annual Metals Prices

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Copper	\$1.03	\$0.75	\$0.71	\$0.822	\$0.716	\$0.71	\$0.81	\$1.30	\$1.67	\$3.05
Nickel	\$3.14	\$2.10	\$2.77	\$3.918	\$2.697	\$3.07	\$4.37	\$6.27	\$6.69	\$11.00
Zinc	\$0.60	\$0.46	\$0.49	\$0.512	\$0.402	\$0.35	\$0.38	\$0.48	\$0.63	\$1.49

Data source: Metals Week.

\$30.1 billion, four nickel deals worth \$38.8 billion, and five zinc deals worth \$2.2 billion. Throughout this report, projects are categorized by metal using the relative in-situ value of each metal in reserves. No attempt is made to split the acquisition cost for projects that contain more than one metal. Terminated deals are not included.

### Average purchase price for copper was \$0.18/lb, nickel \$0.65/lb, and zinc \$0.06/lb

As summarized in Table 4 below, the average price paid for copper in the 17 significant 2006 transactions was \$0.18/lb—\$0.03/lb for copper in nonproducing projects and \$0.26/lb in producing mines and companies. Much of the difference between the two costs can be accounted for by the capital costs required to build a new mine, which are already included in producing mines. In addition, producing mines and companies are perceived to entail less risk than nonproducing mines, because of tenure security and permitting issues, among other things. There was a similar price spread in the amount paid for zinc deposits and mines—an average of \$0.06/lb, including \$0.03/lb for nonproducing projects and \$0.23/lb for producing mines and companies. For nickel, the difference was even more dramatic—\$0.03/lb for nonproducing projects and \$0.77/lb for producing mines and companies, with an average of \$0.65/lb. Much of the latter difference is accounted for by the “goodwill” or premiums paid by CVRD and Xstrata for Inco and Falconbridge.

Table 4: Acquisitions of Base Metals by Development Status, 2006

Primary Metal	Number	Primary Metal		Price (US\$/lb)	Equiv Acquired (mt)	Equiv Price (US\$/lb)	Value Acquired (US\$ mil)	Price as % of Value
		Price (US\$ Mil)	Acquired (mt)					
Copper Nonprod	9	\$1,618.7	24,549,789	\$0.03	31,895,595	\$0.02	\$87,896	1.84%
Copper Prod	8	\$28,508.8	49,491,098	\$0.26	62,416,160	\$0.21	\$172,002	16.57%
<b>Copper Totals/Averages</b>	<b>17</b>	<b>\$30,127.5</b>	<b>74,040,887</b>	<b>\$0.18</b>	<b>94,311,755</b>	<b>\$0.14</b>	<b>\$259,899</b>	<b>11.59%</b>
Nickel Nonprod	2	\$262.7	4,185,639	\$0.03	4,861,754	\$0.02	\$45,552	0.58%
Nickel Prod	2	\$38,500.0	22,768,520	\$0.77	34,435,958	\$0.51	\$322,649	11.93%
<b>Nickel Totals/Averages</b>	<b>4</b>	<b>\$38,762.7</b>	<b>26,954,159</b>	<b>\$0.65</b>	<b>39,297,712</b>	<b>\$0.45</b>	<b>\$368,202</b>	<b>10.53%</b>
Zinc Nonprod	3	\$517.1	7,525,460	\$0.03	10,191,232	\$0.02	\$12,357	4.18%
Zinc Prod	2	\$1,701.8	8,322,921	\$0.23	10,493,811	\$0.21	\$12,724	13.37%
<b>Zinc Totals/Averages</b>	<b>5</b>	<b>\$2,218.9</b>	<b>15,848,381</b>	<b>\$0.06</b>	<b>20,685,043</b>	<b>\$0.05</b>	<b>\$25,081</b>	<b>8.85%</b>
<b>Grand Totals/Averages</b>	<b>26</b>	<b>\$71,109.1</b>	<b>116,843,427</b>		<b>154,294,510</b>		<b>\$653,182</b>	<b>10.89%</b>

Sources: MEG's Base Metals Acquisitions Service and MineSearch database.

As shown in Table 5 on the next page, looking at the 26 transactions by the location of an acquired project or the most significant assets of an acquired company, Canada was the richest target in 2006, with five transactions totaling almost \$39 billion. The two largest deals were the Inco and Falconbridge nickel companies, plus two copper and two zinc project transactions. As Table 5 includes all three base metals together, prices paid per pound are not comparable. The metric used for comparisons is therefore

“price paid as a percentage of in-situ value”, which averaged 10.9%. Canadian companies and projects were slightly more expensive than average at 11.2%, while U.S. companies (Phelps Dodge) and projects were the most expensive at 17.3%. The least-expensive region for acquisitions in 2006 was Asia, with five projects changing hands; the total in-situ value was \$94.8 billion, and the total price paid was \$1.3 billion, for an average of 1.4% of in-situ value. In addition to perceived political risk factors (in China, Indonesia, Mongolia, Pakistan, Russia), the Asian projects are all at relatively early stages of development.

Table 5: Base Metals Acquisitions by Location, 2006

Region	Number	Price (US\$ mil)	Primary Metal		In-Situ Value Acquired (US\$ mil)	Price As % of Value
			Acquired (mt)	Equiv Acquired (mt)		
Africa	3	\$369.3	1,934,310	3,072,731	\$8,468	4.36%
Asia	5	\$1,327.2	21,219,592	25,364,695	\$94,821	1.40%
Australia	2	\$86.7	222,331	234,913	\$1,037	8.36%
Canada	5	\$38,700.9	29,915,020	44,812,331	\$345,893	11.19%
Europe	3	\$2,844.0	13,547,157	17,040,399	\$31,078	9.15%
Latin America	5	\$1,739.3	7,850,920	9,172,154	\$21,743	8.00%
United States	3	\$26,041.7	42,154,097	54,597,287	\$150,143	17.34%
Totals/Average	26	\$71,109.1	116,843,427	154,294,510	\$653,183	10.89%

Of the 26 base metals acquisitions in 2006, nine cost more than \$400 million each

Table 6 on the next page lists the 26 base metals acquisitions in 2006, each with a price tag of \$25 million or more. The largest, other than the three discussed previously, was the merger of **EuroZinc Mining** and **Lundin Mining** on August 21, 2006, in a transaction valued at \$1.6 billion. Under the terms of the transaction, Lundin shareholders received one EuroZinc share for every 0.952 Lundin share held. The resulting company, named Lundin Mining, is owned 56.7% by EuroZinc shareholders and 43.3% by the original Lundin shareholders. The combined company is trading on the Toronto and Stockholm stock exchanges.

The new company is expected to produce 204,000 mt/y of zinc and 90,700 mt/y of copper from Lundin’s Zinkgruvan and Storliden zinc operations in Sweden and its Galmoy mine in Ireland, and from EuroZinc’s Neves Corvo copper mine in Portugal. Lundin also has a 19.9% interest in Union Resources, which owns 50% of the feasibility-stage Mehdiabad zinc-lead project in Iran, and has signed a letter of intent to acquire a 49% interest in the Ozernoye zinc-lead deposit in the Republic of Buryatia, in the Russian Federation, for \$408 million. EuroZinc owns the preproduction-stage Aljustrel zinc project in Portugal. Lundin has a total of 27.5 million mt of zinc in reserves and resources. Eurozinc has a total of 5.3 million mt of zinc and 2.5 million mt of copper in reserves and resources.

Table 6: Worldwide Base Metals Acquisitions Highlights, 2006  
(Listed by purchase price)

Project or Company Acquired	Primary Metal	Location of Project or Company HQ	Stage of Dev	Date of Sale	% Acquired	Buyer	Seller	Purchase Price or Value (US\$ mil)
Phelps Dodge	Cu	United States	PRD	4Q 2006	100%	Freeport-McMoRan	Phelps shareholders	\$25,900.0
Falconbridge	Ni	Canada	PRD	2Q 2006	80.2%	Xstrata	Falconbridge shareholders	\$21,200.0
Inco	Ni	Canada	PRD	3Q 2006	100%	CVRD	Inco shareholders	\$17,300.0
Lundin Mining	Zn	Canada	PRD	3Q 2006	100%	EuroZinc Mining	Lundin shareholders	\$1,638.0
Anglo American	Cu	United Kingdom	PRD	4Q 2006	1.1%	China Vision	Oppenheimer family	\$806.0
Tintaya	Cu	Peru	PRD	2Q 2006	100%	Xstrata	BHP Billiton	\$750.0
Oyu Tolgoi	Cu	Mongolia	PRE	4Q 2006	19.9%	Rio Tinto	Ivanhoe Mines	\$691.0
El Tesoro	Cu	Chile	PRD	3Q 2006	39%	Antofagasta Minerals	Equatorial Mining	\$401.0
Bor Basin	Cu	Serbia	PRD	4Q 2006	100%	Cuprom	Gov't of Serbia	\$400.0
San Cristobal	Zn	Bolivia	PRE	3Q 2006	35%	Sumitomo Group	Apex Silver Mines	\$348.3
Adastra Minerals	Cu	United Kingdom	FEA	1Q 2006	100%	First Quantum Minerals	Adastra shareholders	\$248.3
Halmahera	Ni	Indonesia	RD	1Q 2006	100%	Eramet	Weda Bay Minerals	\$233.8
Reko Diq	Cu	Pakistan	RD	1Q 2006	75%	Antofagasta, Barrick	Tethyan, BHP Billiton	\$224.4
Regalito	Cu	Chile	RD	1Q 2006	100%	Pan Pacific Copper	Regalito Copper	\$137.0
Ozernoye	Zn	Russia	FEA	2Q 2006	49%	Lundin Mining	East Siberian Metals	\$125.0
Red Chris	Cu	Canada	FEA	4Q 2006	75%	Jiangxi Copper	bcMetals	\$105.0
Andacollo	Cu	Chile	PRD	4Q 2006	27%	Aur Resources	Minera del Pacifico	\$103.0
Ongopolo Mining	Cu	Namibia	PRD	2Q 2006	97%	Weatherly International	Ongopolo shareholders	\$91.0
Pebble	Cu	United States	FEA	2Q 2006	9.9%	Kennecott Exploration	Northern Dynasty	\$77.9
Tennessee Division	Zn	United States	PRD	2Q 2006	100%	Glencore International	Grupo Mexico	\$63.8
Tritton	Cu	Australia	PRD	2Q 2006	41.4%	Straits Resources	Tritton shareholders	\$57.8
Xietongmen	Cu	China	RD	2Q 2006	50%	Continental Minerals	Great China Mining	\$53.0
Red Chris	Cu	Canada	FEA	4Q 2006	95%	Taseko Mines	bcMetals	\$52.1
Izok Lake	Zn	Canada	FEA	1Q 2006	100%	Wolfden Resources	Inmet Mining	\$43.8
Lumwana	Cu	Zambia	FEA	1Q 2006	6%	ZCCM	Equinox Minerals	\$30.0
Titan Resources	Ni	Australia	RD	1Q 2006	80.1%	Consolidated Minerals	Titan shareholders	\$28.9
Total								\$71,109.1

The next-largest deal was the \$806 million sale of a third of the Oppenheimer family's *Anglo American* holdings (1.13% of Anglo American shares) to China's Larry Yung. While we don't normally report such small interests in our acquisition statistics, this one seemed to be important enough to include. The deal is another in a series of acquisitions by Chinese companies of mining resources around the world to help fill its internal supply deficit. On November 12, 2006, *Online Business Report* reported that according to Nicky Oppenheimer, the great-grandson of Anglo's founder, the 1.13% stake was purchased by China Vision Resources, a company controlled by Chinese billionaire Larry Yung. Yung is chairman

of Citic Pacific, a Chinese state-backed investment company. The Oppenheimers will retain 2% of Anglo American and their 40% stake in De Beers. As early as August, rumors were spreading that Anglo American might be a takeover or breakup target; Xstrata, Rio Tinto, CVRD, and BHP Billiton have been mentioned as possible buyers. The Oppenheimer sell-off has probably fueled that speculation.

The next-largest deal was Xstrata's May purchase of the *Tintaya* copper mine in Peru from BHP Billiton for \$750 million. The sale also includes the nearby undeveloped deposits of Antapaccay and Corocchohuayco. Xstrata agreed to pay BHP Billiton \$634 million and assume \$116 million in debt. The transaction includes deferred payments of about \$60 million, plus a payment of \$25 million if the copper price reaches specified levels between July 2008 and June 2009, or if the development of Antapaccay or Corocchohuayco proceeds before 2020.

Tintaya is Peru's third-largest copper mine, and in 2005 produced 107,155 mt of copper in cathode and concentrate, with minor gold and silver credits. The project has about ten years of delineated reserves near the existing open pit. BHP Billiton has been drilling at Tintaya and at the nearby Corocchohuayco and Antapaccay copper targets, and had been planning to increase Tintaya cathode output from 36,000 mt/y to 39,000 mt/y by 2007. Tintaya contains proven and probable reserves of 92 million mt grading 1.42% Cu and 0.11 g/mt Au, plus inferred resources containing 300,000 mt of copper.

The next-largest transaction is also a copper deal, with potential gold byproduct. On October 18, 2006, London-based Rio Tinto agreed to acquire a 19.9% interest in Vancouver-based *Ivanhoe Mines* in order to jointly develop and operate Ivanhoe's preproduction-stage Oyu Tolgoi copper-gold project in Mongolia's South Gobi region. The first 9.95% shareholding, valued at \$303 million, will be taken up immediately, with the second 9.95% holding, valued at \$388 million, to be taken up once a long-term investment agreement is concluded with the Mongolian government. In addition, Rio Tinto has nontransferable warrants to increase its interest in Ivanhoe to 33.35%, which, if exercised, will have a total value of \$1.5 billion. Rio Tinto also has the right during the first five years to acquire up to an additional 6.65% stake in Ivanhoe through open-market transactions, which would take its maximum holding in Ivanhoe to 40%.

A joint Ivanhoe-Rio Tinto technical committee will engineer, construct, and operate Oyu Tolgoi, which Ivanhoe plans to develop in two phases. The open pit first phase will have a throughput rate of 70,000 mt/d. In year three of phase one, Ivanhoe will proceed with a second-phase expansion when underground ore becomes available, allowing throughput to rise to 140,000 mt/d. Production is expected to be more than 450,000 mt/y of copper and 330,000 oz/y of gold over a 40-year mine life. Commercial production is expected to begin in mid-2008. Oyu Tolgoi contains proven and probable reserves of 930 million mt grading 0.5% Cu and 0.36 g/mt Au, plus inferred resources of 1.3 billion mt grading 1.04% Cu and 0.24 g/mt Au.

As part of the deal, Ivanhoe transferred its 50% interest in the Monywa copper project in Burma to a third-party trust pending its sale. Ivanhoe reported a loss of \$198.7 million (or \$0.59/share) in 2006, compared with an \$89 million loss, (or \$0.29/share) in 2005.

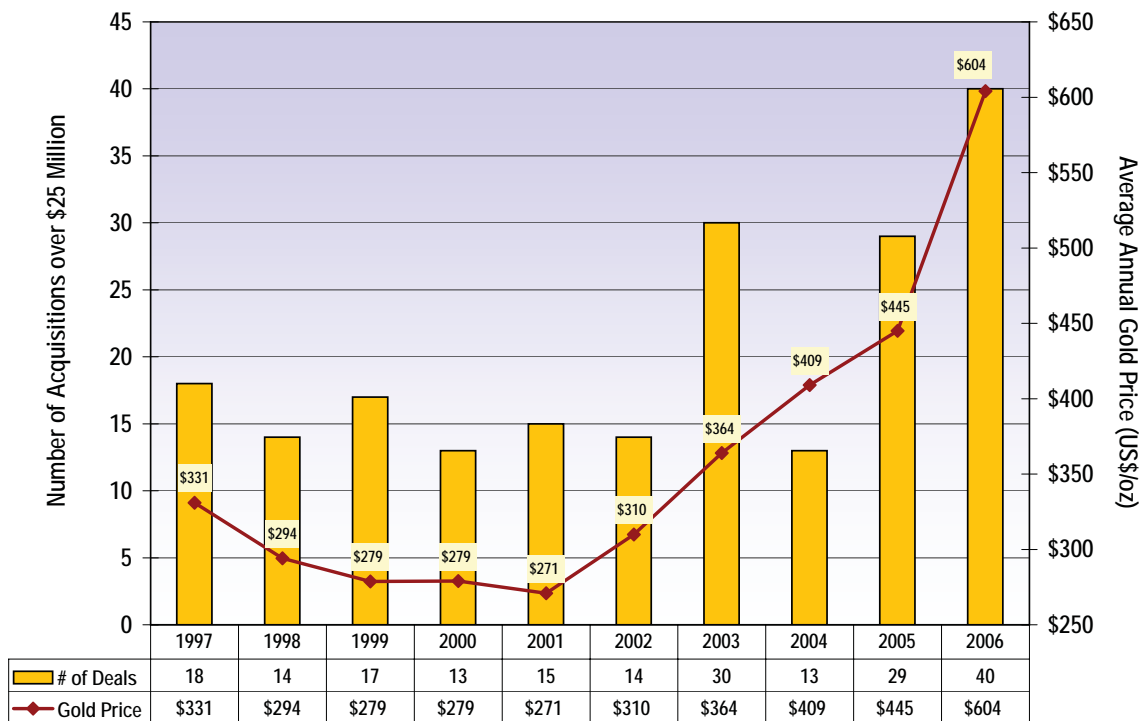
Two other copper projects were each bought for \$400 million or more—El Tesoro in Chile and Bor Basin in Serbia. On August 24, 2006, London-based Antofagasta offered to acquire Sydney-based Equatorial Mining's 39% interest in the **El Tesoro** copper mine by purchasing a 100% interest in Equatorial for \$401 million (A\$527 million). Antofagasta's offer represented a 21% premium to Quadra Mining's July bid and a 60% premium to Equatorial's closing price on the ASX on July 19, 2006. Antofagasta owns the remaining 61% of El Tesoro, and has operated and managed the mine since development began in 1999. In 2006, El Tesoro produced 94,000 mt of copper at cash costs of \$0.79/lb. Since February 2006, a \$20 million expansion of plant capacity from 9.7 million mt/y to 10.5 million mt/y has been under way. El Tesoro hosts proven and probable reserves of 123 million mt grading 0.79% Cu, plus measured, indicated, and inferred resources totaling 56.4 million mt grading 0.6% Cu.

On December 29, 2006, the Serbian privatization committee selected Romanian copper firm, Cuprom, as the winner in the tender for RTB Bor and its **Bor Basin** copper mining complex in Serbia, with a bid of \$400 million and a pledge to invest an additional \$200 million. Cuprom completed its purchase after agreeing to invest \$180 million in modernizing the Majdanpek and Veliki Krivelj open pit mines and the Jama underground mine. Cuprom hired Merrill Lynch and Deutsche Bank to raise \$600 million (€450 million) to finance the acquisition of the assets and licenses from RTB Bor. Cuprom owns two facilities in Baia Mare and Zalau, Romania, and now intends to expand to Serbia. At the time of the deal, RTB Bor was losing about \$45 million (€36 million) a year. Reserves and resources at Bor Basin total 1.5 billion mt grading 0.337% Cu, 0.14 g/mt Au, and 0.96 g/mt Ag.

## GOLD ACQUISITIONS, 2006

As illustrated in Figure 3 below, in 2006 there were 40 gold transactions (each valued at \$25 million or more), compared with 29 in 2005, as the annual average gold price increased by 36% to \$604/oz. In U.S. dollar terms, the value of 2006's gold-related transactions was \$23.4 billion, compared with \$16.5 billion in 2005.

Figure 3: Gold Acquisitions and Price Trends, 1997-2006



Data sources: MEG's Gold Acquisitions Service, Metals Week.

### The average purchase price of gold in resources was \$80/oz

As summarized in Table 7 on the next page, the average price paid for gold in the 40 significant transactions of 2006 was \$80/oz—\$43/oz in nonproducing projects and \$92/oz for producing gold mines and companies. The most expensive acquisitions were large, producing companies, which include corporate headquarters, exploration and sales departments, transportation contracts, and so on, in addition to the actual mines.

Table 7: Gold Acquisitions by Development Status, 2006

Dev Status	Number	Price (US\$ Mil)	Gold Acquired (oz)	Price (US\$/oz)	Gold Equiv Acquired (oz)	Gold Equiv Price (US\$/oz)	In-Situ Value Acquired (US\$ mil)	Price as % of Value
Gold Nonprod	18	\$3,058	70,666,802	\$43.28	176,885,347	\$17.29	\$28,973	10.56%
Gold Prod	22	\$20,317	219,974,122	\$92.36	309,415,658	\$65.66	\$90,189	22.53%
Totals/Averages	40	\$23,376	290,640,924	\$80.43	486,301,005	\$48.07	\$119,162	19.62%

As shown in Table 8 below, looking at the 40 gold transactions by the location of the main projects or mines, nine transactions (the highest number of deals) totaling \$4.9 billion were in Canada, while the most money was spent on Latin American gold projects—\$10.8 billion for eight acquisitions at an average price of \$149/oz of gold. The largest deal was Goldcorp's purchase of Glamis Gold, which also had mines in the United States. Because Glamis's Penasquito project in Mexico contains so much zinc, when the transactions are converted to gold equivalents, the average price paid for Latin American gold projects comes down to \$60.76/oz.

On the basis of "price paid as a percentage of in-situ value" for the regions, the average for all 40 deals was 19.6%, and the most expensive was Latin America at 36%. The least-expensive location for acquiring gold in the ground was Asia (including Russia), which had eight transactions at an average cost of \$24/oz—\$749 million bought 31.2 million oz of gold. Canadian companies and projects were slightly more expensive than the average at \$83/oz, or 20% of in-situ value.

Table 8: Gold Acquisitions by Location, 2006

Region	Number	Price (US\$ mil)	Gold Acquired (oz)	Price (US\$/oz)	Gold Equiv Acquired (oz)	Equiv Price (US\$/oz)	In-Situ Value Acquired (US\$ mil)	Price as % of Value
Africa	8	\$6,101.5	116,816,881	\$52.23	116,841,264	\$52.22	\$47,894.9	12.74%
Asia	8	\$748.6	31,168,149	\$24.02	100,540,455	\$7.45	\$12,778.9	5.86%
Australia	6	\$772.1	10,248,872	\$75.33	11,728,104	\$65.83	\$4,202.0	18.37%
Canada	9	\$4,932.0	59,341,000	\$83.11	78,889,567	\$62.52	\$24,329.8	20.27%
Latin America	8	\$10,791.5	72,373,221	\$149.11	177,608,815	\$60.76	\$29,673.0	36.37%
United States	1	\$30.0	692,800	\$43.30	692,800	\$43.30	\$284.1	10.56%
Totals/Averages	40	\$23,375.7	290,640,923	\$80.43	486,301,005	\$48.07	\$119,162.7	19.62%

### Of the 40 gold acquisitions in 2006, seven cost more than \$1 billion each

Seven of the 40 acquisitions in 2006 were valued at \$1 billion or more. The largest 2006 gold acquisition was Goldcorp's purchase of **Glamis Gold** for \$8.6 billion, which was completed on November 4, 2006. Under the terms of the transaction, Glamis's shareholders received 1.69 Goldcorp shares for each Glamis share held, a value of \$51.49 per Glamis share based on Goldcorp's closing price on August 30, 2006, and a total transaction value of \$8.6 billion. The offer represented a premium of 32.7% to Glamis's closing price on August 30 and 34.8% to the 20-day average price on the TSX up to August 30.

The prize asset acquired from the long-term perspective is Glamis's preproduction-stage Penasquito polymetallic project in Zacatecas, Mexico. Glamis began construction at Penasquito in the June 2006 quarter, after a feasibility study projected production of 387,500 oz/y of gold, 22.8 million oz/y of silver, 137,400 mt/y of zinc, and 71,125 mt/y of lead over a 17-year mine life from proven and probable oxide and sulfide reserves of 564 million mt grading 0.55 g/mt Au, 31.8 g/mt Ag, 0.64% Zn, and 0.3% Pb. Penasquito also hosts measured and indicated resources containing 2.8 million oz of gold, 246 million oz of silver, and 5.4 million mt of lead, plus inferred resources containing 14.3 million oz of gold, 882 million oz of silver, 7.1 million mt of zinc, and 2.4 million mt of lead. Glamis acquired Penasquito in February 2006 through a friendly takeover of Western Silver in a share exchange valued at \$1 billion. Goldcorp also acquired Glamis's wholly-owned 190,000-oz/y El Sauzal mine in Mexico, which started production in 2004 and has 1.7 million oz in reserves; the Marigold mine (Barrick Gold 33%) in Nevada, which produced 205,000 oz of gold in 2005 from reserves of 2 million oz; and the wholly-owned 250,000-oz/y Marlin mine in Guatemala, which began production in late 2005 and has reserves of 2.5 million oz of gold and 40 million oz of silver.

The second-largest gold deal was Kinross Gold's \$3.1 billion takeover of **Bema Gold**, which gave Kinross a further 31 million oz of gold in reserves and resources plus substantial silver and copper, and created exploration and operating synergies in Chile's Maricunga region and Russia's Chukotka region. Bema's 75%-owned preproduction-stage Kupol mine (local interest 25%) in Chukotka is projected to produce 552,000 oz/y of gold and almost 6 million oz/y of silver from reserves and resources containing 11 million oz of gold and 135 million oz of silver. Bema has a 49% interest in the large feasibility-stage Cerro Casale gold-copper project (Arizona Star 51%) in Maricunga, which is projected to produce almost 1 million oz/y of gold and 133,400 mt/y of copper from reserves of 23 million oz of gold and almost 3 million mt of copper. The deal also consolidates Kinross's ownership of the 245,000-oz/y Refugio gold-silver mine in Copiapo, Chile, which restarted production in 2005 after halting in 2001 due to low gold prices and technical difficulties at the mine.

Bema has total proven and probable reserves of about 17.3 million oz of gold, 41 million oz of silver, and 1.3 million mt of copper, plus measured and indicated resources of 8 million oz of gold and 44.8 million oz of silver, and further inferred resources of 6 million oz of gold, 17.7 million oz of silver, and 281,000 mt of copper.

The next-largest gold transaction was a divestiture rather than an acquisition, as Polyus, a wholly-owned subsidiary of Norilsk Nickel, sold its 20% stake in South Africa-based **Gold Fields** to the market (probably institutional investors) for \$2.02 billion, through Goldman Sachs and Citigroup. Polyus sold 98.5 million Gold Fields ordinary shares at \$20.50/share. The deal was initially announced by Reuters on March 3, when the value of the shares was \$2.09 billion, which implies that Polyus sold the shares at a slight discount. Shares in Gold Fields fell 3.33% after the news and closed at \$20.92/share. Polyus acquired the interest in May 2005 from Norilsk Nickel through the acquisition of Norilsk's wholly-owned subsidiary, Jenington Investment, for \$944.94 million. The share of Gold Fields represented about 20.7 million oz of gold.

**Table 9: Worldwide Gold Acquisitions Highlights, 2006**  
(Listed by purchase price)

Project or Company Acquired	Location of Project or Company HQ	Stage of Dev	Date of Sale	% Acquired	Buyer	Seller	Purchase Price or Value (US\$ mil)
Glamis Gold	United States	PRD	3Q 2006	100%	Goldcorp	Glamis shareholders	\$8,600.0
Bema Gold	Canada	PRD	4Q 2006	100%	Kinross Gold	Bema shareholders	\$3,100.0
Gold Fields	South Africa	PRD	1Q 2006	20%	Market investors	Polyus Gold	\$2,018.6
South Deep	South Africa	PRD	3Q 2006	50%	Gold Fields	Barrick Gold	\$1,525.0
Cambior	Canada	PRD	3Q 2006	100%	IAMGOLD	Cambior shareholders	\$1,196.0
AngloGold Ashanti	South Africa	PRD	2Q 2006	9.3%	Market investors	Anglo American	\$1,050.0
Penasquito	Mexico	FEA	1Q 2006	100%	Glamis Gold	Western Silver	\$1,000.0
South Deep	South Africa	PRD	3Q 2006	50%	Gold Fields	Western Areas	\$975.0
Gualcamayo	Argentina	RD	3Q 2006	100%	Yamana Gold	Viceroy Exploration	\$515.0
Jacobina	Brazil	PRD	1Q 2006	100%	Yamana Gold	Desert Sun Mining	\$500.0
Ballarat East	Australia	FEA	4Q 2006	100%	Lihir Gold	Ballarat Goldfields	\$350.0
South Deep	South Africa	PRD	1Q 2006	14.6%	Harmony Gold Mining	Western Areas	\$313.0
Reko Diq	Pakistan	RD	1Q 2006	75%	Antofagasta, Barrick	Tethyan Copper, BHP Billiton	\$224.4
Mexgold Resources	Canada	PRD	2Q 2006	80%	Gammon Lake	Mexgold shareholders	\$217.0
Boddington	Australia	FEA	1Q 2006	22.2%	Newmont Mining	Newcrest Mining	\$166.4
Lingbao Gold	China	PRD	1Q 2006	38.6%	Market investors	Lingbao shareholders	\$127.0
South Deep	South Africa	PRD	2Q 2006	6%	Gold Fields	Western Areas	\$121.0
Highland Gold Mining	United Kingdom	PRD	4Q 2006	14%	Barrick Gold	Highland Gold shareholders	\$116.5
Areva Gold Mines	France	PRD	1Q 2006	100%	La Mancha Resources	Areva shareholders	\$116.0
Mount Milligan	Canada	RD	2Q 2006	100%	Terrane Metals	Goldcorp	\$106.0
White Knight	Canada	RD	1Q 2006	100%	US Gold	White Knight shareholders	\$104.5
Martabe	Indonesia	RD	3Q 2006	100%	Agincourt Resources	Newmont Mining	\$80.3
Nezhdaninskoye	Russia	PRE	1Q 2006	20%	Polyus Gold Mining	Celtic Resources	\$80.0
San Anton	Mexico	RD	3Q 2006	51%	San Anton Resource	Kings Minerals	\$75.6
Nevada Pacific Gold	Canada	PRD	1Q 2006	100%	US Gold	Nevada Pacific shareholders	\$73.0

Table 9: Worldwide Gold Acquisitions Highlights, 2006 (cont'd)  
(Listed by purchase price)

Project or Company Acquired	Location of Project or Company HQ	Stage of Dev	Date of Sale	% Acquired	Buyer	Seller	Purchase Price or Value (US\$ mil)
Cracow	Australia	PRD	3Q 2006	29.4%	Auselect	Sedimentary Holdings	\$64.1
Pan African Resources	South Africa	RD	4Q 2006	55%	Metorex	Pan African shareholders	\$62.9
American Gold Capital	Canada	FEA	1Q 2006	100%	Chesapeake Gold	American Gold shareholders	\$52.7
Natalka	Russia	RD	3Q 2006	4.9%	Polyus Gold	Matrosov Mine	\$48.0
Hera	Australia	FEA	2Q 2006	92.8%	CBH Resources	Triako Resources	\$47.5
Poderosa	Peru	PRD	4Q 2006	38%	Minera Atacocha	Private interest	\$44.9
Mena Resources	Canada	RD	4Q 2006	100%	Rusoro Mining	Mena shareholders	\$42.8
Holloway	Canada	PRD	3Q 2006	100%	St Andrew Goldfields	Newmont Mining	\$40.0
Veduga	Russia	RD	3Q 2006	100%	AngloGold Ashanti	Trans-Siberian Gold	\$36.4
Bibiani	Ghana	PRD	3Q 2006	100%	Central African Gold	AngloGold Ashanti	\$36.0
Novosheokinskoye	Russia	FEA	4Q 2006	48.3%	Kazzinc	Highland Gold	\$36.0
Lefa Corridor	Guinea	PRD	3Q 2006	15%	Crew Gold	Government of Guinea	\$30.0
Pinson	United States	RD	2Q 2006	40%	Pinson Mining	Atna Resources	\$30.0
Stawell	Australia	PRD	4Q 2006	100%	Perseverance	Leviathan Resources	\$28.1
San Martin	Mexico	PRD	1Q 2006	100%	Starcore International	Industrias Luismin	\$26.0
Total							\$23,375.7

The largest single-project transaction was Gold Fields's purchase of Barrick Gold's 50% interest in the 55-million-oz *South Deep* gold mine in South Africa for \$1.5 billion. In 2005, South Deep produced more than 460,000 oz of gold at cash costs of \$387/oz. A twin-shaft expansion at the mine was commissioned in late 2004 and is expected to raise production to 750,000 oz/y over a 70-year mine life. Most of South Deep's remaining gold lies between 2 and 4 km underground. Gold Fields plans to access the bulk of South Deep reserves, located in the Phase 2 section of the mine, by utilizing the infrastructure at nearby Kloof, rather than developing a second shaft complex at South Deep. South Deep has proven and probable reserves of 147 million mt grading 6.2 g/mt Au, containing 29.3 million oz of gold, plus measured and indicated resources totaling about 108 million mt grading 7.3 g/mt Au, containing 25.3 million oz.

IAMGOLD acquired Canadian gold producer, Cambior, in a \$1.2 billion friendly takeover that was completed in November 2006. Cambior's shareholders received 0.42 IAMGOLD share for each Cambior share held, a value of \$4.33 (C\$4.83)/share based on IAMGOLD's closing price on the TSX on September 13, 2006. This represented a premium of 31% to Cambior's September 13, 2006, closing price, and 33% based on its 20-day average closing price. Former IAMGOLD shareholders own about 57% of IAMGOLD and former Cambior shareholders about 43%. Cambior controlled almost 10.3 million oz of gold at the time—5.6 million oz in its Rosebel mine in Suriname, 180,000 oz in the Sleeping Giant mine in Quebec, and 4.5 million oz in earlier-stage projects.

Two other 2006 transactions involved assets valued at more than \$1 billion each. One was another divestiture—Anglo American's sale of a 9% interest in *AngloGold Ashanti* to the market in April for \$1.05 billion (\$51.25/share), reducing Anglo American's 51% interest in AngloGold Ashanti to 41.8%. The holding represented about 28.2 million oz of gold in reserves and resources in 20 projects.

On May 3, 2006, Glamis Gold completed its acquisition of a 100% interest in Western Silver and its *Penasquito* gold-silver project in Mexico. Glamis acquired all the outstanding shares of Western Silver for a total consideration of about \$1 billion (C\$1.2 billion). Western Silver transferred its non-core assets to Western Copper, a new company, plus about \$33 million (C\$38 million) in cash. Based on the 20-day average closing price of both companies' shares on the TSX before February 24, 2006, the deal valued each Western Silver share at \$20.80 (C\$23.96), plus the value of each of the new company's shares, estimated at \$0.77 (C\$0.89) based on assets and cash, for a premium to Western Silver shareholders of about 40%.

The focus of the transaction was Western Silver's Penasquito gold-silver open pit project in Zacatecas, Mexico. At the time of the transaction, Penasquito reserves totaled 335 million mt grading 28.6 g/mt Ag, 0.45 g/mt Au, 0.53% Zn, and 0.24% Pb, plus measured and indicated resources totaling 671 million mt grading 28.5 g/mt Ag, 0.4 g/mt Au, 0.6% Zn, and 0.26% Pb. There were additional inferred resources of 247 million mt containing 193 million oz of silver, 2.8 million oz of gold, 1.4 million mt of zinc, and 562,000 mt of lead. Western Silver also owned the small Carmacks open pit copper-gold project in the Yukon, which had been on hold awaiting higher copper prices since 2001, and is projected to produce 14,000 mt/y of copper over an 8.5-year mine life from reserves of 15.5 million mt grading 1.01% Cu. The company also owned an 18.75% interest in the feasibility-stage San Nicolas copper-zinc project (Teck Cominco 81.25%) in Mexico, with 1.2 million mt of copper and 1.6 million mt of zinc in resources, and had interests in several early-stage base metals projects, also in Mexico. ◆