
OVERVIEW OF WORLDWIDE EXPLORATION BUDGETS: TRENDS AND LOCATIONS

Worldwide exploration spending rebounds to highest level since 1997 peak (all dollar figures are US\$)

According to Metals Economics Group's recent edition of *Corporate Exploration Strategies*, this year's analysis of 1,138 companies' exploration budgets (using a \$100,000 cutoff) totals \$3.55 billion, covering an estimated 95% of worldwide, commercially oriented, nonferrous expenditures. When we also include estimates for budgets that we could not obtain, our estimate of total 2004 expenditures for commercial nonferrous metals exploration is almost \$3.8 billion.

As shown in Table 1 below, our estimates of worldwide nonferrous exploration spending steadily increased through the early 1990s to a crest of \$5.2 billion in 1997, before falling for five straight years to a 12-year low of \$1.9 billion in 2002—an overall decline of more than 63%. Since that time, our estimate has risen for two straight years, rebounding in 2004 to a level just slightly above our 1998 estimate. This year's \$3.8 billion estimated total is up 58% over last year's and is double the estimated worldwide total seen at the bottom of the cycle in 2002.

Table 1: Estimated Total Worldwide Nonferrous Exploration Budgets, 1991-2004 (US\$ billions)
(year-by-year changes from 1991 through 2004)

Year	MEG Estimated Total Budgets (US\$ billions)	% Change from Prior Year	\$ Change from Prior Year (US\$ millions)
2004	\$3.8	+58%	+\$1,400
2003	\$2.4	+26%	+\$500
2002	\$1.9	-14%	-\$300
2001	\$2.2	-15%	-\$400
2000	\$2.6	-7%	-\$200
1999	\$2.8	-24%	-\$900
1998	\$3.7	-29%	-\$1,500
1997	\$5.2	+13%	+\$600
1996	\$4.6	+31%	+\$1,100
1995	\$3.5	+21%	+\$600
1994	\$2.9	+16%	+\$400
1993	\$2.5	+14%	+\$300
1992	\$2.2	-4%	-\$100
1991	\$2.3		

Summary of exploration budget trends by surveyed companies

The \$3.55 billion nonferrous exploration total for the 1,138 companies included in this year's review is up 62% from the \$2.19 billion allocated by 917 surveyed companies in 2003—the second consecutive yearly increase since the bottom of the cycle in 2002. Prior to last year's 26% increase, substantial cutbacks by the majors, the negative effects of industry consolidation, and a loss of funding for a great number of junior companies contributed to five straight years of declining exploration spending, from a high of \$4.57 billion by surveyed companies in 1997 to a low of \$1.73 billion in 2002—an overall decline of more than 62%.

Last year's initial increase in worldwide exploration allocations by surveyed companies was in large part due to the combination of increased spending by the majors as they recognized the dearth of new projects moving up the pipeline, a significant reduction in the negative influence of industry consolidation on exploration from the peak consolidation levels seen in 2000 and 2001, and two consecutive years of increased spending by junior companies on the back of increased gold prices and rising investor interest. As the rise in gold prices took hold and prices for other commodities strengthened in late 2003 and early 2004, continued budget increases by most major companies and increased availability of capital to the juniors continued to push worldwide exploration spending higher in 2004, to more than double the total seen in 2002.

Junior exploration budgets double in 2004

Exploration budgets by junior companies included in our study are up 103% to \$1.58 billion this year, accounting for almost 60% of the overall increase in exploration allocations by all surveyed companies. This is the third consecutive yearly increase for the junior sector, building on a nominal 2% increase in 2002 and a 25% increase last year. This year's junior allocations account for almost 45% of the worldwide exploration total by surveyed companies, well above the average of about 33% seen over the past few years and the first time above 40% since the 1997 peak.

The current revival of junior exploration spending is largely being driven by commodity prices, as the recovery in the gold price that began in late 2001 and the subsequent recovery in other commodity prices beginning in late 2003 have substantially improved investors' sentiment toward the mining industry. The collapse of the dot.com market at the beginning of this period has also contributed, freeing up additional capital and sentiment that had flowed away from mining. The resulting increased interest in the sector led to a sharp rise in the availability of capital to juniors in 2003 and so far in 2004, allowing much of the sector to raise the funds necessary to restart exploration and also encouraging a flurry of IPO activity over the past 18-20 months. Canada's exploration tax incentives (flow-through and super flow-through share programs) have also significantly contributed to the scale of junior spending increases. Since the

super flow-through program has been extended through 2005 (with an expenditure deadline of December 2006), we expect Canadian companies to remain well funded in the near term. The possibility of a similar incentive program being introduced in Australia could also contribute to continued strength in junior exploration spending over the next few years.

Acquisitions are having less of a negative effect on exploration

If we look at the effects of industry consolidation on exploration spending over the past few years, we see that large portions of the acquired companies' budgets effectively disappeared in the years following the acquisitions, as the surviving companies' budgets either remained the same as before the acquisitions or were reduced further, despite incorporating an expanded exploration portfolio.

From 1997 through 2003, the industry saw the demise of 39 significant mining and exploration companies through mergers and acquisitions, effectively erasing a cumulative \$433 million from worldwide exploration efforts during this period. While major company consolidations have had a negative effect on subsequent exploration in each year since 1997, industry consolidation at the peak of acquisition activity in 2000 and 2001 cumulatively cut \$246 million in exploration budgets, accounting for more than half of the overall decline due to acquisitions from 1997 to 2003.

Although acquisition activity in general has risen from the recent low in 2002, major company consolidations have remained muted since the 2001 peak. While the acquisitions totals in 2000 and 2001 were largely driven by the growth strategies of senior companies, a large portion of the activity in the years since the peak is the result of other factors, such as South African black-empowerment ownership requirements, substantial divestments by senior companies, and government-owned projects coming to tender. So, while acquisition values have gone up, the rate of industry consolidation at the top levels has gone down, and we have seen acquisitions have a far less negative effect on exploration in the past two years than previously.

Exploration should continue to rise in 2005

Although metals prices are expected to experience increased volatility in the near term and may come down off recent highs, continued low inventories and a lack of significant new production in the pipeline, combined with China's as-yet undiminished appetite, should provide adequate support to keep base metals at attractive levels for the near future. In addition, most analysts expect that the U.S. dollar will remain soft in the near term, which, combined with other global uncertainties, should continue to support the gold price.

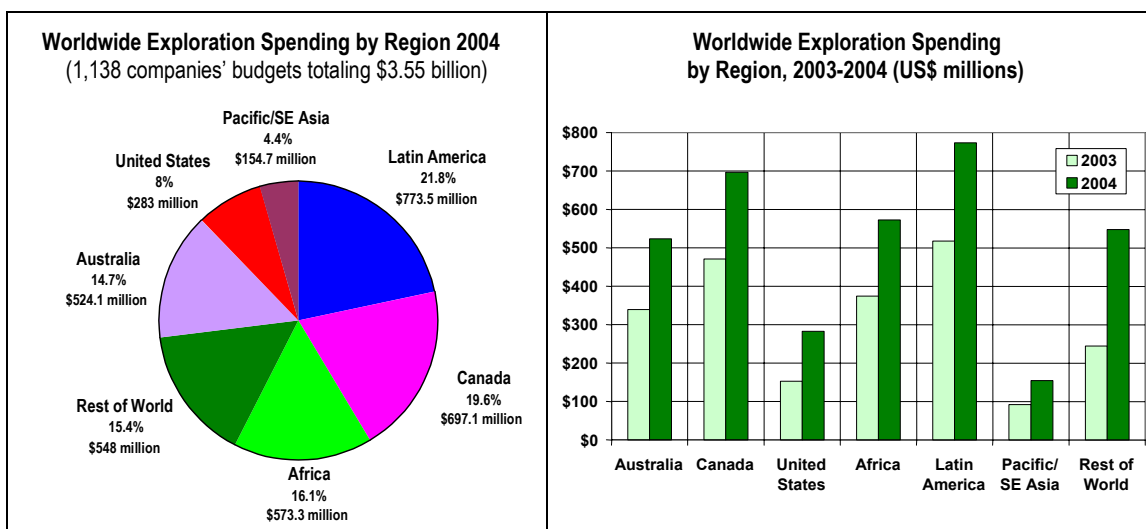
If metals prices remain relatively high in the current cycle, the increased rate of junior financings over the past 12-18 months should continue. While the juniors are spending a substantial portion of the money raised over the past year on this year's programs, many have already replenished their coffers to fund exploration programs that will run into next year. While we don't expect to see further substantial increases in exploration spending by major companies in 2005, we anticipate that growing spending by the juniors will lead to an increase in overall spending again next year, although at a more modest rate than seen this year.

Latin America still the leading location for spending

Figure 1 below illustrates the regional distribution of the \$3.55 billion in exploration allocations by the 1,138 companies included in this year's study compared with the \$2.19 billion budgeted by 917 companies in 2003.

Exploration allocations by surveyed companies have increased in each of our identified regions of the world for the second consecutive year. In dollar terms, budgets increased the most this year in our rest-of-world category (up by almost \$304 million), led by sharp increases in Russia, Mongolia, and China; Latin America (up by \$256 million), led by increased spending in Peru and Mexico; and Canada (up by \$226 million).

Figure 1: 2004 and 2003 Worldwide Nonferrous Exploration Budgets by Region, 2003-2004



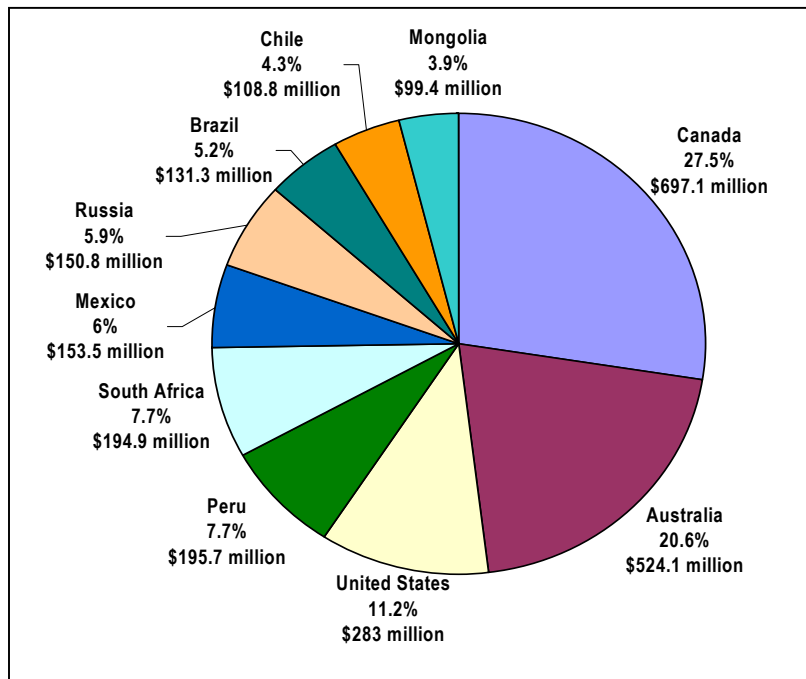
Latin America continues to be the most popular destination for exploration, increasing its lead over second-place Canada to more than \$76 million this year from the \$46 million margin in 2003. Africa remains in third place by region, having surpassed Australia for the first time in 2003. The substantial increase in allocations in our rest-of-world region (encompassing Europe, the Middle East, and most of mainland Asia) moved it to fourth place by region, outstripping a

more moderate recovery in Australia, which slipped to fifth position. Before beginning its gradual slide in recent years, Australia had firmly held second place by region from 1994 to 2001, when Canada displaced it for the first time. The United States and the Pacific/Southeast Asia region remain in sixth and seventh place, respectively, positions they have held since 2001. Despite multiple layers of regulatory involvement and strong environmental activism, exploration in the United States has shown surprising strength, led by increased activity in Nevada and Alaska, whereas growth in the Pacific/Southeast Asia region remains somewhat muted amidst uncertainty of tenure and continued political and social unrest.

Top ten countries show Peru, Mexico, and Russia moving up and arrival of Mongolia

Figure 2 below shows 2004 exploration spending for the top ten individual countries, which account for about 72% (almost \$2.54 billion) of the overall budget total, well within the 70%-73% range seen in the previous five years. The traditional big three—Canada, Australia, and the United States—head the list, with Canada widening its ascendancy for the third straight year to

Figure 2: 2004 Exploration Spending for the Top Ten Countries
 (budgets totaling \$2.54 billion)
 (72% of 2004 total budgets of \$3.55 billion)



attract \$173 million more in exploration allocations than Australia. Peru, with allocations totaling \$196 million, moved ahead of South Africa into fourth place this year, while Mexico and Russia jumped ahead of Brazil into the sixth and seventh slots. Chile, with allocations totaling \$109 million in 2004, dropped back to ninth place, and Mongolia, where Ivanhoe Mines is planning to spend \$78 million of this year's \$99 million total for the country, bumped Argentina from the

number ten spot. A surge in the number of surveyed companies active in China this year has resulted in a 350% increase in allocations from \$19 million in 2003 to about \$86 million in 2004, giving it the 11th-place ranking in 2004. ◆