

# OVERVIEW OF 2007 WORLDWIDE EXPLORATION BUDGETS: LOCATIONS, TARGETS, AND STAGES OF DEVELOPMENT

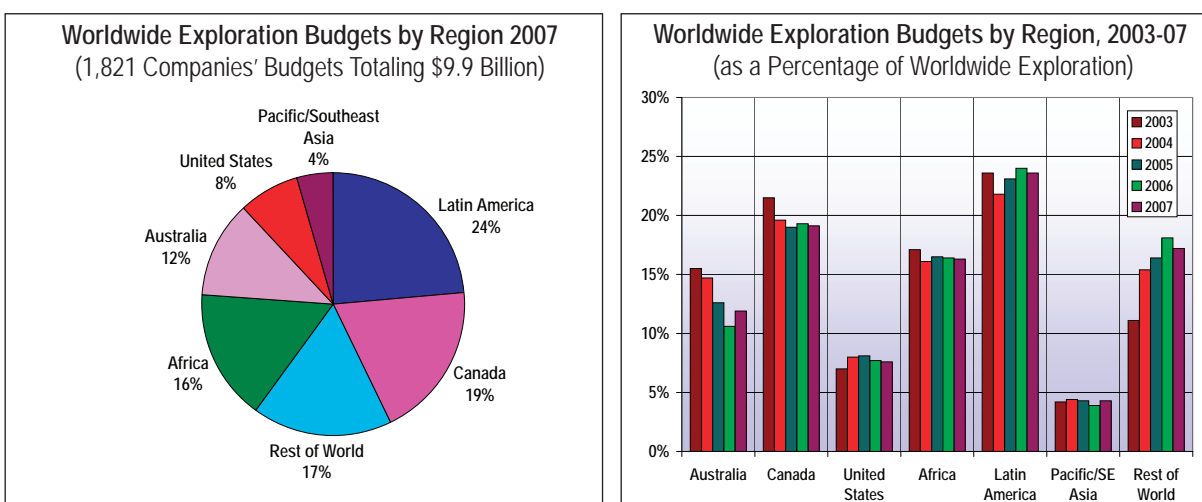
(Note: all currency is in U.S. dollars)

## Exploration continues to increase in all regions

Figure 1 below shows the regional distribution of the \$9.99 billion in commercially oriented nonferrous exploration allocations by the 1,821 companies included in Metals Economics Group's 2007 edition of *Corporate Exploration Strategies*, and a five-year comparison of the allocations to each region as a percentage of each year's worldwide exploration total.

Exploration allocations increased in each of our world regions for the fifth consecutive year, and the regional distribution of spending in 2007 remains roughly the same as last year. Since 1994, Latin America has been the most popular destination for exploration, with just under 24% of worldwide spending in 2007. About 83% of this year's \$2.4 billion allocation is directed to the traditional big five Latin American countries—Mexico, Peru, Chile, Brazil, and Argentina. Canada has held second place since overtaking Australia in 2002, and its \$1.9 billion allocation represents about 19% of worldwide spending. Our rest-of-world region, which includes Europe, the Middle East, and most of mainland Asia, holds third place for the second year in a row; its \$1.7 billion 2007 allocation represents 17% of total spending, up dramatically from less than \$200 million in 2002. Africa is close behind, with allocations totaling \$1.6 billion (16%); major exploration destinations on the continent include South Africa, Democratic Republic of Congo, Angola, Tanzania, Botswana, and Ghana. Although in fifth place by region for the fourth year in a row, Australia recorded the largest year-on-year increase in 2007 (up 57%

Figure 1: Worldwide Nonferrous Exploration Budgets by Region



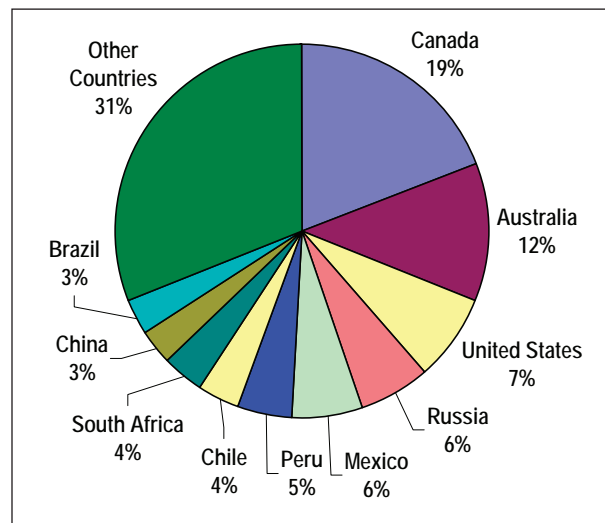
Data source: *Corporate Exploration Strategies: 2007 edition.*

to \$1.18 billion), increasing its share of worldwide spending from 11% to 12%. The United States remains solidly in sixth place, with allocations of \$763 million and the same 7%-8% of worldwide spending it has held for the past seven years. In the Pacific/Southeast Asia region, 2007's allocations of \$431 million are up 55% over last year (this year's second-largest year-on-year increase), with Papua New Guinea, the Philippines, and Indonesia each attracting more than \$100 million and collectively contributing almost three-quarters of the total. Nevertheless, the region's 4.3% of the worldwide total ranks it last among all regions.

### Continued growth in Russia, Mexico, and Chile

Figure 2 below illustrates the distribution of 2007 exploration budgets for the top ten individual countries (as well as the total for all other countries), which account for 69% of the budget total, the same as in 2005 and 2006 but slightly below the 70%-73% range that prevailed from 2000 to 2004. The traditional big three—Canada, Australia, and the United States—head the list, with Canada's \$1.9 billion allocation exceeding Australia's by \$729 million and increasing its lead from \$621 million in 2006. Russia, with allocations totaling \$613 million, edged past Mexico (\$604 million) to reclaim fourth place. Chile, with allocations totaling \$357 million, jumped from 11th to 7th place, just overtaking South Africa. Mongolia, which occupied the number nine spot in 2006, dropped off the top-ten list, with China and Brazil claiming the ninth and tenth slots in 2007.

**Figure 2: 2007 Exploration Budgets for the Top Ten Countries**  
(Top Ten Countries' Budgets Account for 69% of 2007 Total Budgets of \$9.99 Billion)

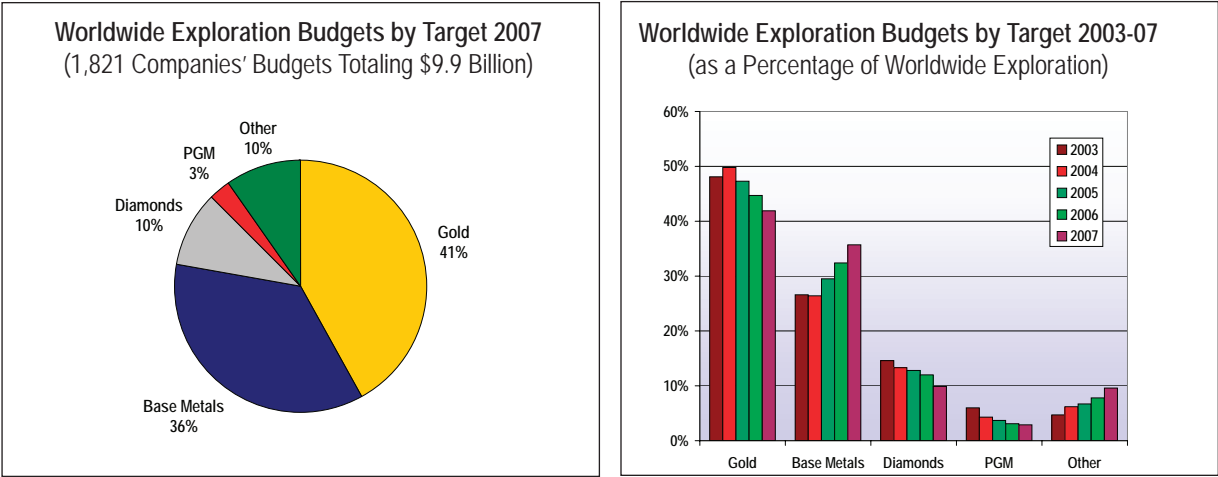


Data source: *Corporate Exploration Strategies: 2007 edition.*

**Allocations for all commodities reach new highs**

Examining exploration allocations by target shows that in 2007, gold, base metals, diamonds, platinum group metals, and other targets (primarily silver, but also molybdenum, cobalt, mineral sands, and other industrial minerals) all continued to build on the record levels reached in 2006. Figure 3 below illustrates the distribution of the \$9.99 billion in exploration allocations by target for the 2007 surveyed companies, and a five-year comparison of the allocations to each target as a percentage of each year’s worldwide exploration total. Gold consistently attracts more exploration expenditure than any other metal covered by our study; buoyed by prices not seen since 1980, spending for gold reached new heights this year at \$4.2 billion. Nevertheless, gold allocations fell to just under 42% of the overall budget total in 2007—its lowest share since we began this series of studies in 1989, and the eighth consecutive year that gold accounted for less than half of worldwide spending.

**Figure 3: Worldwide Nonferrous Exploration Budgets by Target**



Data source: Corporate Exploration Strategies: 2007 edition.

Base metals allocations increased significantly over the past five years as copper, nickel, and zinc prices have rose steadily to record or near-record levels. The percentage of overall spending attributable to base metals maintained an inverse relationship to that of gold for more than a decade. In 2007, base metals spending represents almost 36% of total exploration allocations, up from a low of 26% in 2004 but still below the 2001 peak of 39%. Copper allocations accounted for at least half of the base metals total for well over a decade, and this year’s \$2.06 billion total copper budget—a new high for the third consecutive year—represents almost 58% of the total. Nickel budgets also increased over last year’s record high, rising 50% year-on-year to \$828 million, while zinc allocations rose 76% over 2006 to \$679 million this year.

Diamond allocations increased for the sixth consecutive year, rising to \$985 million in 2007. Planned spending for diamonds increased by just 15% this year, however, lowering the percentage of diamond

exploration allocations to 10%—the lowest share since 2001. Since the early 1990s, when the discovery of diamonds in northern Canada sparked an exploration boom, Canada has vied with Africa as the most popular destination for diamond exploration. In 2007, Africa increased its lead over Canada to \$172 million from \$92 million in 2006, as De Beers and BHP Billiton—two of Canada’s largest diamond explorers—appear to be trimming their Canadian exploration efforts in favor of other regions.

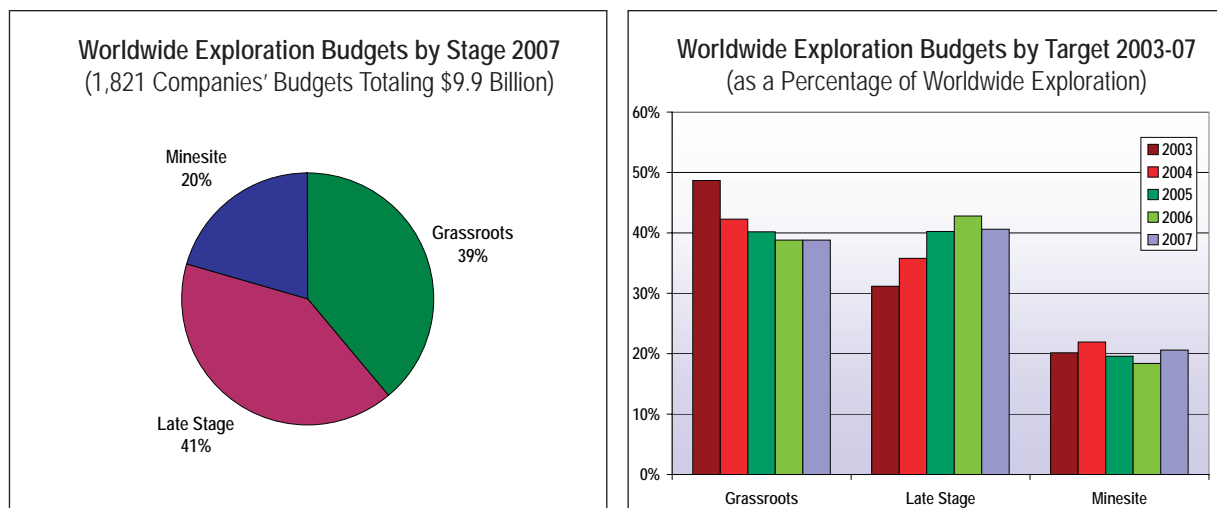
Allocations for platinum group metals rose 31% year-on-year in 2007 to about \$288 million; as a percentage of overall spending, PGM exploration remains at 3% for the second consecutive year. Almost 57% of this year’s PGM spending is destined for South Africa, with Canada and Russia receiving 14% and 13% of total PGM allocations, respectively.

Budgets for targets other than gold, base metals, diamonds, and PGM are up 71% this year to \$958 million. More than half (an estimated \$522 million) of the “other targets” total is attributable to silver; however, most silver exploration occurs in conjunction with the search for gold or base metals polymetallic deposits. Molybdenum is by far the most popular target among the remaining commodities, attracting an estimated \$197 million in 2007. The remaining “other targets” budget of \$239 million is directed to a variety of commodities (mostly mineral sands, potash, tungsten, cobalt, manganese, tin, vanadium, and tantalum) by relatively small groups of companies.

### Minesite allocations exhibit the largest year-on-year growth

Figure 4 below illustrates the distribution of the \$9.99 billion in exploration allocations by stage of development for the companies included in our 2007 study, and a five-year comparison of the allocations to each stage as a percentage of each year’s worldwide exploration total. Grassroots spending maintained

Figure 4: Worldwide Nonferrous Exploration Budgets by Stage of Development



Data source: Corporate Exploration Strategies: 2007 edition.

its 39% share of the worldwide budget total for the second consecutive year, while minesite allocations (more than 20%) increased the most on a year-on-year basis (up 57%) at the expense of late-stage budgets (almost 41%). Nevertheless, aggregate late-stage budgets outweigh grassroots allocations for the third consecutive year after surpassing grassroots budgets for the first time in 2005.

While junior companies currently have the largest influence on the proportion of grassroots and late-stage exploration allocations—accounting for 60% and 63% of aggregate grassroots and late-stage spending, respectively, in 2007—major and intermediate companies, by definition, account for almost all minesite work in any given year. The recent uptick in minesite's share of worldwide allocations reflects the many large and mid-sized producers focusing on near-mine exploration in an effort to replace and increase reserves depleted by mining—a task that many senior producers already struggle to accomplish—and to bring new reserves into production more economically by using existing infrastructure. In addition, the added pressure to increase production in the current price environment, coupled with increased competition for a diminishing number of acquisition opportunities and the perceived decline in significant new discoveries, makes brownfields exploration a high priority for most producers. ◆