

# WORLD EXPLORATION TRENDS

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# 2015

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A Special Report from SNL Metals & Mining  
for the PDAC International Convention



# WORLD EXPLORATION TRENDS

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## Markets were extremely difficult in 2014, and remain unfriendly as we enter the new year

The December quarter ended a difficult year for the extractive industry, with sharp falls in the price of oil and three of the four most valuable mined commodities: coal, iron ore and copper. Gold was little changed over the quarter, and has enjoyed a strong start to 2015.

A report by Barclays described last year as the worst for commodities since 2008. The steep price falls, exacerbated by the strength of the U.S. dollar, left the Bloomberg Commodity Index at its lowest level in almost six years. The index, which tracks 22 products, fell 17% in 2014.

The price of gold reacts to factors different from those that drive other metals, and often moves in contrary directions. Unlike the precious metal, there is a strong correlation between nonferrous metals prices and the percentage change in economic output from members of the Organisation of Economic Co-operation and Development. Membership in this organization has risen from 20 countries, when the OECD was formed in 1960, to 34 major countries, although countries such as China, India and Russia are still not members.

Similarly, the annual percentage changes in the consumption of aluminum, copper and zinc have historically closely followed annual percentage changes in global gross domestic product. Unfortunately, global GDP growth in 2014 was lower than initially expected, continuing a pattern of disappointing results over the past several years. Growth picked up only marginally to 2.6% in 2014, from 2.5% in 2013.

The economic scene remains problematic. In mid-January 2015, the World Bank cut its global growth forecast for the current year, warning that the world economy remains overly reliant on the “single engine” of the U.S. recovery.

The World Bank said it expected lower oil prices to boost global activity, but warned that this benefit would be offset by “headwinds” elsewhere. In its latest twice-yearly Global Economic Prospects report, the World Bank forecast that the global economy will expand 3.0% this year and 3.3% in 2016. Last June, the Bank’s economists predicted global growth of 3.4% and 3.5% this year and next, respectively.

The World Bank noted that while activity in the U.S. and the U.K. has gathered momentum as labor markets heal and monetary policy remains extremely accommodative, the recovery has been spluttering in the Euro Area and Japan. China, meanwhile, is undergoing a carefully managed slowdown. Disappointing growth in other developing countries in 2014 reflected weak external demand, but also domestic policy tightening, political uncertainties and supply-side constraints.

The International Monetary Fund is somewhat more optimistic, forecasting global growth at 3.5% this year, down from the previous projection of 3.8%, and 3.7% in 2016, down from 4.1% previously.

Both the IMF and the World Bank now see the benefits of lower oil prices being offset by dismal economic prospects in the eurozone, Japan and Russia, and amongst oil producers. Nevertheless, there are still opportunities. World Bank chief economist Kaushik Basu commented: “The lower oil price, which is expected to persist through 2015, is lowering inflation worldwide and is likely to delay interest rate hikes in rich countries... This creates a window of opportunity for oil-importing countries, such as China and India.”

## Commodity Prices

In January, the price of oil fell below US\$50/bbl for the first time in five years. This can be attributed to the lackluster international economic activity, the increase in recent years of shale oil production in the U.S. and Saudi Arabia's refusal to cede its market position by reducing output.

It has been a similar scenario for coal, and by the end of 2014 the price of 6,000kcal/kg thermal coal, FOB Richards Bay, had fallen below US\$65/t, compared with US\$85/t at the beginning of this year – and has subsequently traded below US\$60/t.

The International Energy Agency is able to see the silver lining, and expects the low price to result in a moderate growth in global demand despite policies aimed at emission control. According to the latest IEA report, global coal demand is expected to grow at an annual average rate of 2.1% until 2019, reaching 6,460 Mt coal equivalent by 2019, compared with 5,690 Mt in 2013. Asian countries, particularly China, will remain the driving force.

The second most valuable mined commodity is iron ore, and Morgan Stanley has lowered its price forecasts for the metal over the next two years: a 9% reduction in 2015 to under US\$72/t and a 14% drop for 2016 to US\$68/t. The company attributed the reduction to surging mined supply that has offset the closure of high-cost operations.

Copper also suffered in 2014, starting the year at around US\$7,400/t, which was a high for the 12-month period, and ending it at an annual low of under US\$6,370/t. A new monthly report on the copper market from SNL Metals & Mining noted that the recent fall in the price of copper has

been steep, but is only the latest step change in what has been a steady downward trajectory since prices peaked in 2010.

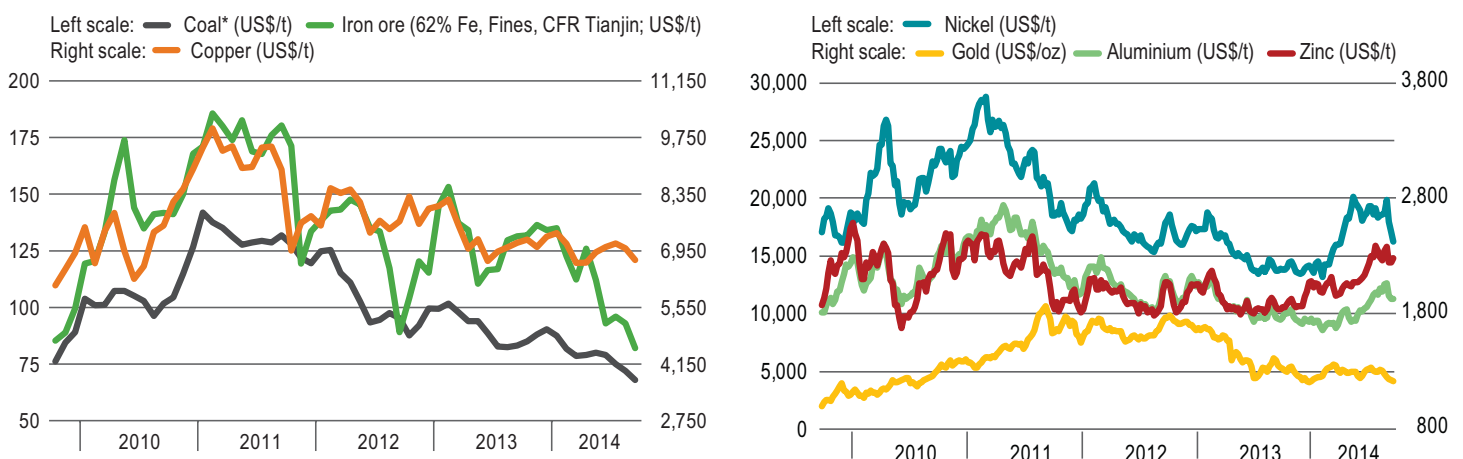
In SNL's latest Metals Market Report on copper, editor Paul Dewison commented that the increasingly negative sentiment towards the metal is hardly surprising. Projects are now coming on stream that originated in the heady days of high copper prices and strong corporate profits. This extra supply comes at a time when prospects for copper consumption do not look good at all.

Most analysts are cautious on this year's metals prices, although many see signs of encouragement for 2016. In a research report published in early January, Macquarie said base metals fundamentals look set to improve over the coming 12-18 months. The bank noted that zinc gained 13% in 2014, meaning it pipped nickel (which had a 12% year-on-year gain) as the best-performing LME metal. Aluminum (+1%) also posted an annual price gain, but copper (-6%) and lead (-3%) had a disappointing year. Molybdenum was the star performer, rising 50% in 2014.

Among the main precious metals, yet again, only palladium ended the year higher than it entered it. Gold was essentially flat, and platinum ignored supply problems to fall 11% in 2014. For the second year in a row, silver was the worst-performing precious metal, falling 20%.

Ivan Glasenberg, the chief executive of Glencore, told investors in December that the fault has been excessive supply rather than declining demand. He blamed the industry for investing too much in new mine capacity.

## Five-Year Prices



\* Australian thermal coal (12,000btu/lb, under 1% sulphur, 14% ash, FOB Newcastle/Port Kembla)



## China Watch

China, the world's largest consumer (and producer) of most natural resources, is facing severe economic headwinds. Even though official data show the economy continuing to expand quite rapidly, Beijing has rushed to announce a large number of apparently new infrastructure projects in an effort to sustain GDP growth of at least 7%.

According to the December issue of Global Industrial Production Watch, these measures indicate the country's leadership has abandoned efforts to rebalance the economy. The government had been seeking to reduce the reliance on fixed-asset investment and exports, in favor of consumer demand.

The newsletter, published by CHR Economics, warns that GDP has long since ceased to be a reliable measure of the true state of the Chinese economy, and the haste with which new projects have been approved suggests that conditions for business are far from satisfactory. CHR forecasts a recession in China this year, and a Reuters poll of economists concluded that the People's Bank of China will cut interest rates again by March.

Property and related sectors account for nearly one-quarter of China's economy, and December saw a worrying 4.3% year-on-year fall in the price of new homes in the larger cities. December also saw China's biggest year-on-year fall in factory gate prices for more than two years, adding to fears that deflation beckons in the world's second-largest economy. China's producer price index, which measures wholesale prices, has fallen for 34 consecutive months, and December's 3.3% decline was the largest since September 2012.

Nevertheless, the Financial Times noted in early January that while the Chinese economy is slowing, it is slowing off a much larger base. As the country's population ages, it can begin to discard its previous low-value-added, export-driven growth model, fuelled partly by a combination of huge economies of scale and a cheap renminbi.

The FT observed that slower growth does not mean lower quality growth but the opposite. China is cautiously moving toward a domestically driven model and away from its investment-heavy, resource- (and pollution-) intensive template. Recently, for the first time, consumption contributed more to growth than investment did.

## Market Scene

In the markets generally, 2014 was the best year for mergers and acquisitions since 2007. A rush of floats and takeovers lifted the fees earned by investment banks to almost US\$84 billion. However, Barclays estimated recently that commodity assets under management declined US\$50 billion to US\$276 billion in November, the lowest level since early 2010.

Currency movements have been an important consideration for the industry, and the U.S. dollar strengthened against all other major currencies in 2014 for the first time since the turn of the century. The dollar made gains last year against the euro, yen, pound, South Korean won, Brazilian real and 11 other global currencies. The dollar index, which weights the U.S. currency against a basket of major trading counterparts, recently hit its highest level in nine years, up 13% on a year ago.

Expectations that the Federal Reserve will raise interest rates in 2015 from historic lows have been a major factor in the dollar's strength, as central banks in other countries, including the European Central Bank and the Bank of Japan, continue to ease financial conditions. The euro and the yen both fell 12% against the dollar last year.

In mid-January, the Swiss Central Bank caused chaos on currency markets by abandoning its three-year-old currency cap. The Swiss franc jumped almost 30% within a few minutes and investors scrambled for traditional safe-haven assets. There were new record-low yields for Germany's government bonds, and gains for the yen and gold. The euro fell below US\$1.18 for the first time in more than nine years, trading at its launch value of US\$1.179.

Commodity currencies have also been hard hit over the past year; however the recovery in the price of oil at the beginning of February this year has given some respite. The Canadian dollar has rallied from its recent six-year low against the U.S. dollar of C\$1.28. Other commodity currencies have also recovered from their recent lows, with the Australian dollar improving from its near six-year low of US\$0.77.

## Exploration Budgets Continue to Retreat

Mining companies responded to these poor market conditions with a sharp reduction in their exploration activity. The result was a 26% decline in worldwide nonferrous metals exploration budgets in 2014<sup>1</sup>, compared with the previous year.

In the 25th edition of its Corporate Exploration Strategies (CES) report, SNL Metals & Mining calculated that the mining industry's total budget for nonferrous metals exploration was US\$11.4 billion in 2014. This contrasts with the US\$15.2 billion allocated in 2013 and the record US\$21.5 billion budgeted in 2012.

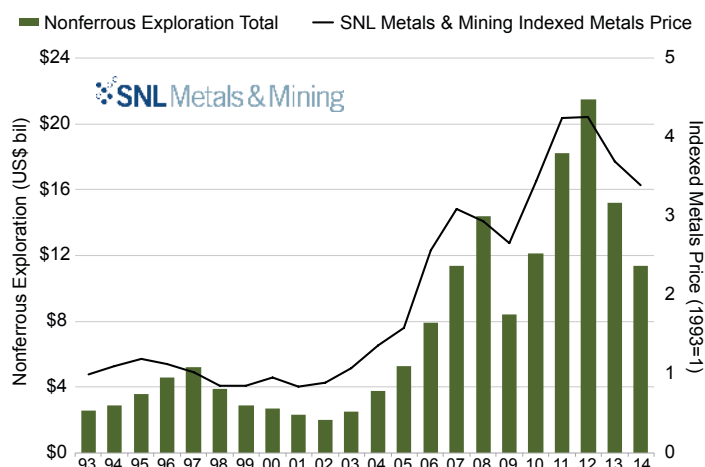
The steep plunge in exploration budgets was due to a combination of investor wariness of the junior sector, which made it difficult for most companies to raise funds, and a strong pullback by producing companies on capital and exploration spending to improve their margins.

SNL's 2014 exploration estimate was based on information collected from more than 3,500 mining and exploration companies worldwide, of which almost 2,000 had exploration budgets reported in the CES study. These companies (each budgeting at least US\$100,000) together allocated US\$10.74 billion for nonferrous exploration, which SNL estimates covers 95% of worldwide commercially oriented nonferrous exploration spending. Adding estimates of budgets that SNL could not obtain, the 2014 worldwide total exploration budget reached US\$11.36 billion.

Although iron ore exploration remains outside the scope of the CES, and is not included in the analysis throughout the remainder of this report, SNL began coverage of iron ore explorers in 2011 (surveying companies for their total ferrous budgets above the core targets detailed in the CES).

Including the allocations by a number of pure iron ore producers and explorers that were not otherwise part of the study, SNL compiled a total exploration budget of US\$1.44 billion for iron ore in 2014, down from US\$1.74 billion in 2013 and US\$2.89 billion in 2012. Aggregating the iron ore budgets with the budgets for the other commodities covered by the CES, the total 2014 exploration budget rises to US\$12.18 billion, of which 12% is attributable to iron ore.

**Figure 1: Estimated Global Nonferrous Exploration Budget Totals, 1993-2014**



## Exploration Trends

SNL's estimate of annual nonferrous exploration allocations since the early 1990s, relative to a weighted annual metals price index, is shown in Figure 1. The graph indicates the cyclical nature of exploration investment, and the correlation between metals prices and exploration spending.

Rising metals prices generated an increase in worldwide exploration from the low in 2002, while the emergence of China's appetite for resources led to a multiyear bull run that sent the worldwide exploration budget total to a new high of US\$13.75 billion in 2008 – a 677% increase from the bottom of the cycle six years earlier.

The mining industry's boom years came to an abrupt halt in September 2008 as the world fell into the worst economic downturn in decades. The resulting US\$5.77 billion (42%) drop in exploration spending in 2009 from 2008's high was the largest year-on-year decline, in both dollar and percentage terms, since SNL began producing the CES in 1989.

The global economy improved markedly through 2009 and 2010, and with it metals prices, most of which traded well above their long-term averages through 2011. In response, most companies aggressively increased their exploration budgets, lifting the industry's budget total by 44% in 2010 to US\$11.51 billion, and by a further 50% in 2011 to US\$17.25 billion.

Continued uncertainty in Europe and the U.S., along with concern over waning demand in China, caused most metals prices to dip, or at best level off, through 2012. Nevertheless, most metals prices remained well above their ten-year averages, and exploration budgets continued to increase in 2012 (up 19%), setting a new all-time high of US\$20.53 billion. Despite the increase, 2012 represented a year of change for the industry.

<sup>1</sup> SNL Metals & Mining obtains the data used in our CES studies through the generous cooperation of the companies we survey. The individual nonferrous exploration budgets covered by the study include spending for gold, base metals, platinum group metals, diamonds, uranium, silver, rare earths, potash/phosphate, and many other hard-rock metals. They specifically exclude exploration budgets for iron ore, coal, aluminum, oil and gas, and many industrial minerals. (All figures are reported in U.S. dollars; all historical exploration figures throughout this report represent dollars of the day and have not been adjusted for inflation.)

Beginning in the April of that year, investors became increasingly wary of the junior sector, causing many companies to struggle to raise funds for their ongoing programs and forcing them to cut actual spending below their budgets for the year.

Throughout 2013, markets were even less willing to support junior companies, and producers pulled back on capital and exploration spending in order to strengthen financial margins. As a result, the industry's total exploration budget fell to US\$14.43 billion in 2013, down 30% year on year.

Dramatically lower metals prices and persistent global economic uncertainty at the end of 2013, together with the mining industry's continued inability to attract investors in 2014, forced companies to lower their budgets by a further 26% to US\$10.74 billion.

## Regional Exploration

Exploration allocations for all regions declined in 2014, with the greatest dollar reductions being in Latin America and Africa. Nevertheless, the former remained the most popular exploration destination, attracting 27% of global spending in 2014. Six countries – Mexico, Chile, Peru, Brazil, Colombia and Argentina – accounted for the lion's share of the region's total.

For the first time since 2009, base metals (principally copper) were the top Latin American exploration target, with their share of overall budgets rising to 42% from 40% in 2013. The percentage allocated to gold decreased for the second year in a row, to 41% in 2014.

Eurasian countries had the second-largest aggregate budget, led by allocations for China and Russia, and by three other countries – Kazakhstan, Turkey and Sweden – that each attracted more than US\$70 million in exploration budgets in 2014. For the fourth time in five years, China was in the top position with 29% of total allocations.

Base metals replaced gold as the region's top target, led by major allocations for China, Russia and Kazakhstan.

Africa remained in third place for a second year, with 16% of worldwide budgets, although the amount separating it from the 'rest of the world' category has increased from a mere US\$4 million in 2013 to US\$336 million in 2014. Major African exploration destinations included the Democratic Republic of Congo (DRC), South Africa, Burkina Faso, Zambia and Tanzania. Allocations for gold were down sharply, lowering the metal's share of overall African budgets to 41% from 48%. Led by allocations for DRC, budgets for base metals fell only 15%, raising their share to 31% from 27%.

Canada had the second-lowest decrease (22%) of any region, remaining in fourth place with 14% of worldwide allocations. Ontario accounted for 28% of Canadian exploration budgets, followed by Quebec with 17%. Gold exploration was down by US\$319 million, lowering its share of total expenditure to 46% from 52%. Planned expenditures for base metals were down 22%, leaving their percentage of overall budgets at about 19%.

Australia (which was in second place as recently as in 2001) has been in fifth place since 2003, with a 2014 budget of US\$1.25 billion and 12% of the total. Its allocations are down almost 34% (the second-largest decrease among the regions) from 2013, increasing its distance behind Canada from US\$25 million to US\$233 million. Australia had 12% of the 2014 world total and held fifth place, where it has languished since 2003. However, after factoring in iron ore budgets, Australia continues to be the top destination by country.

Enactment of the Exploration Development Incentive (EDI) in July 2014 may provide a much-needed boost to greenfields exploration in Australia.

Western Australia was again by far the most popular Australian state for exploration, with 51% of the country's total. Gold remained the top exploration target; but with allocations falling 40%, its share of overall spending was down to 41% from 45% in 2013.

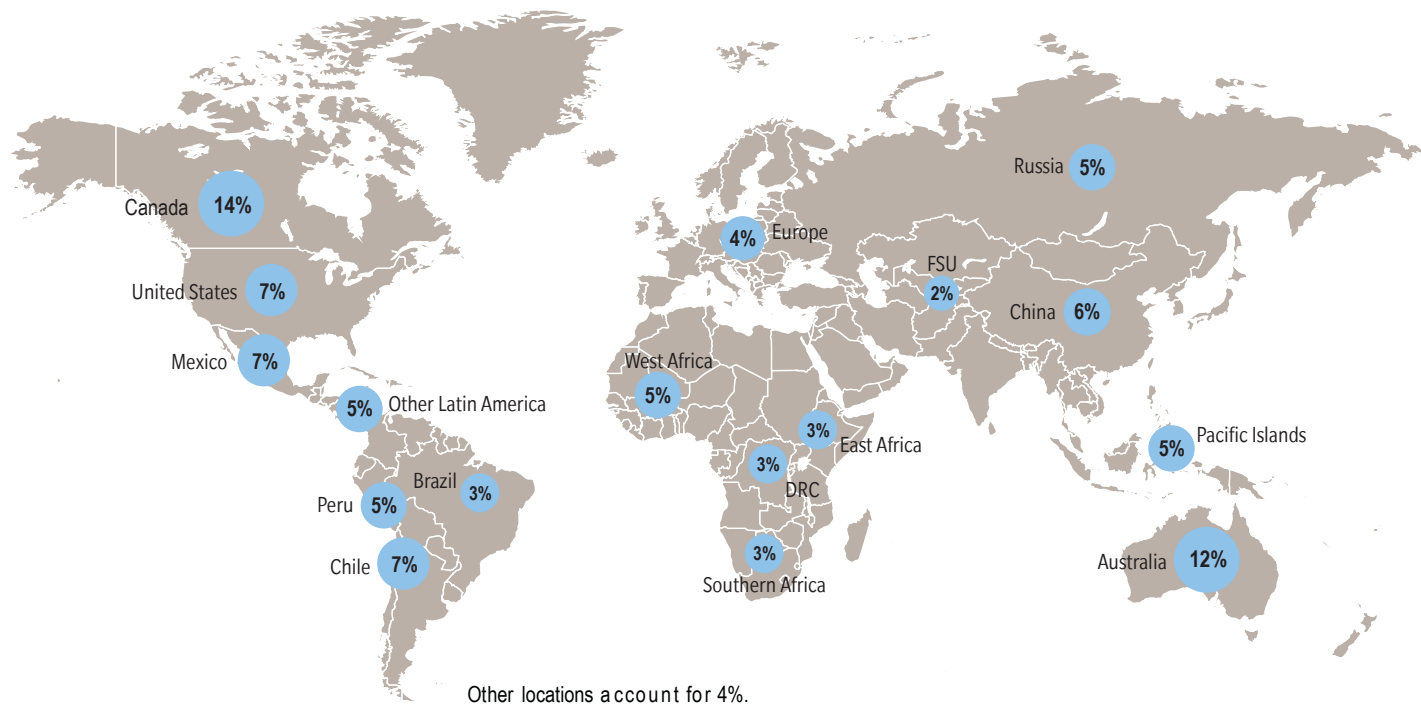
Gold and copper exploration in the U.S. kept the country in sixth place regionally, ahead of the Pacific Islands. Nevada had the largest share (41%) of the country's 2014 budget total, and three states – Nevada, Alaska and Arizona – together accounted for 71%. Gold increased its dominance as the preferred exploration target; with allocations dropping just 13%, its share of overall U.S. budgets rose to 60% from 50% in 2013, its highest share since 2006. Base metals allocations were down 43% year on year, lowering their share of the total to 28% from 36%.

Among the Pacific Islands, exploration allocations for Indonesia, Papua New Guinea and the Philippines accounted for the bulk of the region's 8% of the world total. Remaining securely in last place regionally, Pacific/Southeast Asia had the largest percentage decrease (38%) of all regions in 2014, increasing the gap between it and the U.S. to US\$162 million from just US\$78 million in 2013. Gold remains the primary target with 56% of total budgets, its highest share since 2006.

## Juniors Struggle

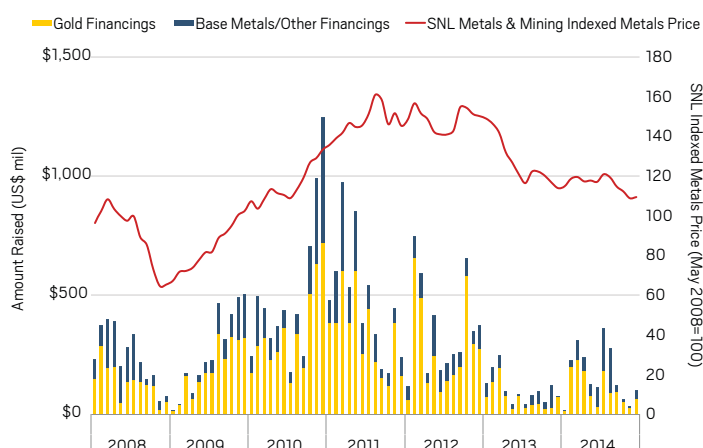
Since the great majority of junior companies do not generate revenue from producing mines, and typically rely on equity

Map 1: Top Destinations for Nonferrous Exploration, 2014



financings to fund exploration, their spending capacity largely depends on market conditions and investor interest, which are in turn heavily influenced by current and forecast metals prices. Figure 2 shows the amount raised for precious and base metals exploration by junior companies.

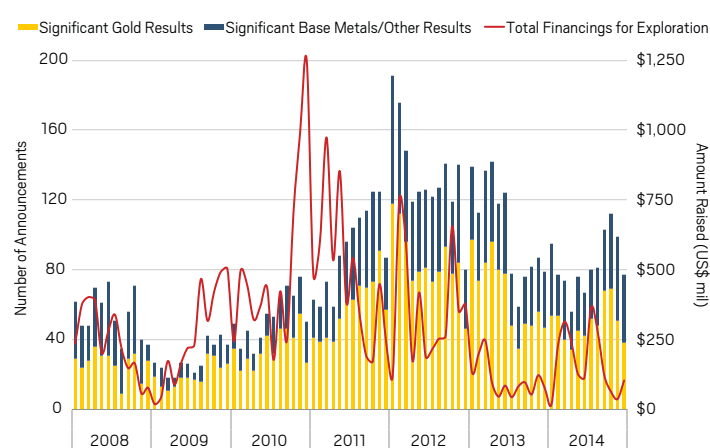
Figure 2: Significant Exploration-related Financings by Juniors, 2008-14



Note: Exploration-related financings include financings by junior companies of US\$2 million, or more, where the company indicated that all or most of the proceeds were for exploration. Proceeds used primarily for acquisitions, development, or debt servicing/ repayment are excluded. The financing data only covers precious and base metals, which account for most of the exploration spending covered by the CES report.

Following the sharp economic downturn of late 2008, market conditions recovered much more quickly than most analysts anticipated. Conditions began to improve through the latter part of 2009 as safe-haven investing sent the gold price higher and base metals prices recovered. Strong support

Figure 3: Significant Gold and Base Metals/Other Drill Results Announced, 2008-14



Note: SNL Metals & Mining's Monthly Industry Monitor tracks significant precious and base metals drill results monthly from 2008 onward, as reported in SNL's online database. Significant drilling includes initial finds, new zones, or satellite deposits and extensions to existing mineralization – essentially any drilling that adds to the resource potential of a particular project or deposit. For this graph, and in the Industry Monitor publication, silver and PGM results are included with the base metals (copper, nickel, zinc-lead, molybdenum and cobalt) to allow a clear picture of the unique trends in gold exploration.



from investors allowed junior companies to secure an average annual total of US\$6 billion for exploration in 2010 and 2011.

By early 2012, however, investment in mining had become increasingly scarce, forcing many juniors to curtail programs in the last half of the year. No longer buoyed by a rising gold price, the juniors' access to capital continued to evaporate in 2013, lowering the sector's amount raised for exploration to levels not seen for a decade.

Dismal investor interest remains the primary concern for most junior companies, and has already forced considerable strategic shifts within the sector. Many juniors are now focused on advancing only their flagship assets in order to be well-positioned once funding conditions improve.

Some companies are merging to combine resources, while those without standout projects have slashed programs and laid off most of their exploration personnel, become dormant, or left the mining industry altogether. Although these measures will allow many companies to survive this period of weak funding, macroeconomic conditions continue to cloud the mining industry's near-term outlook, leaving no clear path for companies to reactivate programs.

### Finance for Exploration

Even juniors with promising initial resource announcements had only mixed results in attracting funding for their current exploration programs. Those with less attractive deposits attracted minimal investor interest.

The lags in junior sector exploration activity become apparent when comparing the timing of successful financings with the timing of announced exploration successes and initial resources. While the 2008-09 global economic downturn was relatively short-lived in terms of metals prices and mining profitability, the junior sector took almost three years to resume adding resources at new deposits to the pipeline at pre-crisis levels.

Financings peaked in late 2010, but reports of initial finds and new zones only peaked almost a year later, and initial resource announcements followed suit the year after that. With the number of new finds and initial resources in 2013 falling below the levels of early 2009, a rebound in the numbers of initial finds and initial resource announcements seems unlikely before 2015.

### Lackluster Drilling

As illustrated in Figure 3, recent research by SNL suggests that many companies able to raise funds for exploration reported a significant exploration result within six months. This represents the lag needed for juniors to deploy capital, complete part of a drill program, and receive assay results.

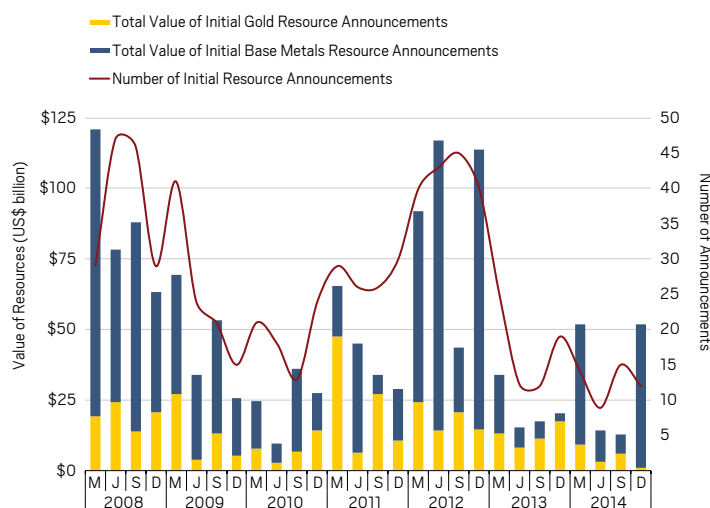
Changing investor interest has also spurred changes in the nature of exploration drill programs over the past six years. During the sharp downturn in late 2008 and early 2009, exploration programs shifted to more advanced assets and focused on expanding known resources. By late 2010, a return to earlier-stage exploration caused a greater share of significant exploration results to come from initial finds, new zones and satellite deposits.

Drill result announcements gained momentum through 2010, including a typical seasonal increase in the September quarter. Buoyed by strengthening metals prices and an exceptional period of financing availability in the December 2010 quarter, drilling activity increased dramatically, beginning in May 2011, and reached a four-year peak in October and November 2011.

Drill result announcements remained fairly robust through most of 2012, with increasing curtailment of programs only reflected at the very end of the year. The slowdown in drilling activity became more pronounced in 2013, with 771 significant results announced by junior and intermediate companies – a 30% decline from 2012, but less than the 39% and 71% year-on-year drops in junior budgets and financings respectively.

Despite the modest level of success in 2013, the continued lack of investor funding for junior exploration inevitably translated into fewer significant drill results being reported by juniors in 2014. This will cause stagnation in much of the industry's medium- and long-term supply pipeline.

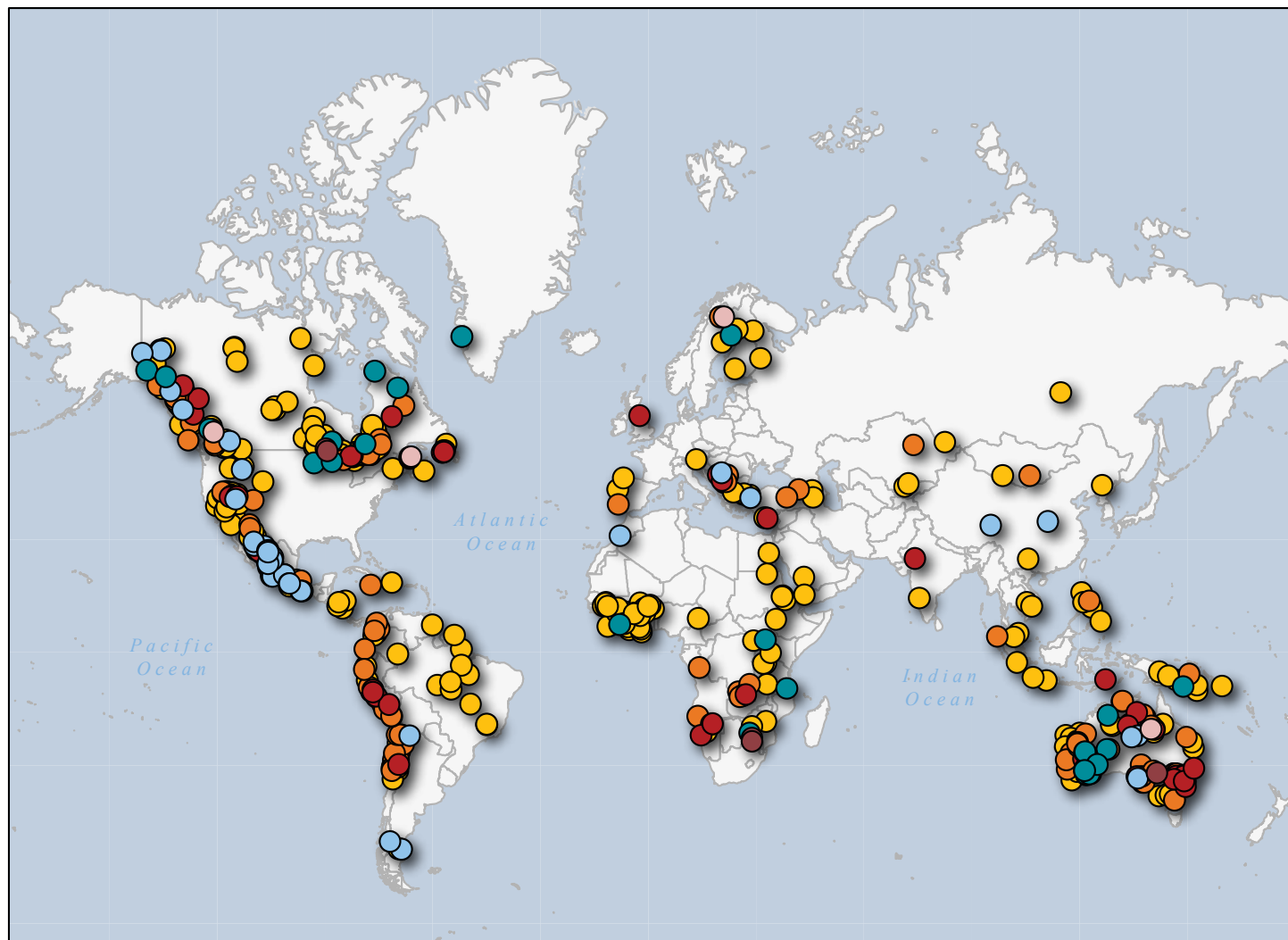
**Figure 4: Initial Resource Values, 2008-14**



Note: SNL's Monthly Industry Monitor tracks significant precious and base metals initial resources monthly since 2008. The database includes initial estimates for both new deposits and new zones. For this graph, and in the Industry Monitor service, silver and PGM results are included with the base metals (copper, nickel, zinc-lead, molybdenum and cobalt) to allow a clear picture of the unique trends in gold exploration.



Map 2: Location of Significant Gold and Base Metals/Other Drill Results, 2014



### Primary commodity



### Plunging Initial Resources

With exploration drilling at a low level, the number of initial resource announcements has also been disappointing. As the graph below demonstrates, the number and value of initial resources peaked in 2008 and 2012, with deep depressions in 2009-10 and 2013-14. Indeed, with the exception of encouraging resource announcements in January and February 2014, the past two years have been a period of remarkably little exploration success.

The persistent uncertainties, financing difficulties and reduced drill programs resulted in the announcement of only 50 initial resources in 2014, compared with 68 in 2013 and 168 in 2012.

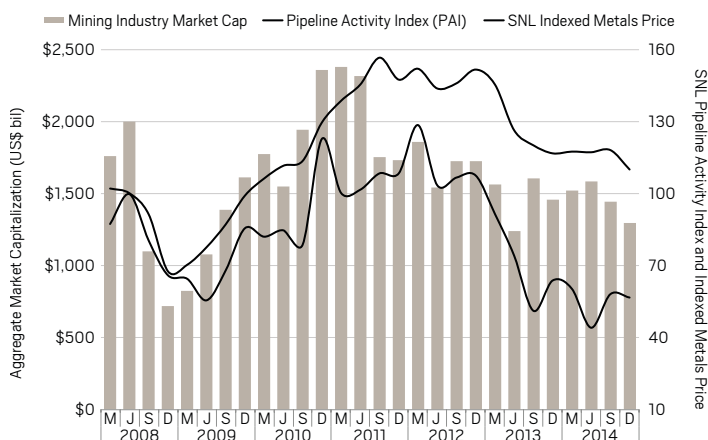
According to SNL's methodology, the value of 2014's initial resource announcements was US\$130.6 billion, which

was an encouraging improvement on the valuation of only US\$87.1 billion in 2013, but is still well short of the US\$366.5 billion valuation achieved in 2012.

### Pipeline Trends

A valuable measure of exploration and development activity in the international mining industry is SNL's Pipeline Activity Index. The PAI incorporates data on the number of projects where significant drill results have been announced, initial resource statements, exploration financings and positive project milestones.

The PAI slumped in the early part of 2014, reaching an all-time monthly low of 40.2 in April. However, with relatively benign market conditions in the middle half of last year, the PAI rose from May to September. Unfortunately, the PAI declined each month in the final three months of the year (see graph below).

**Figure 5: Pipeline Activity Index and Industry Market Cap, 2008-14**


The graph plots the PAI against SNL's indexed metals price and the market capitalization of listed companies on the SNL Metals & Mining database. Although the number of qualified companies increased slightly to 2,739 at the end of December, the combined market valuation of the industry fell for each of the final five months of 2014.

By the end of 2014, the mining industry had a combined market capitalization of under US\$1,300 billion, compared with over US\$1,343 billion at the end of November and more than US\$2,000 billion in February 2012. Of the latest valuation, 86.7% was contributed by the largest 100 companies.

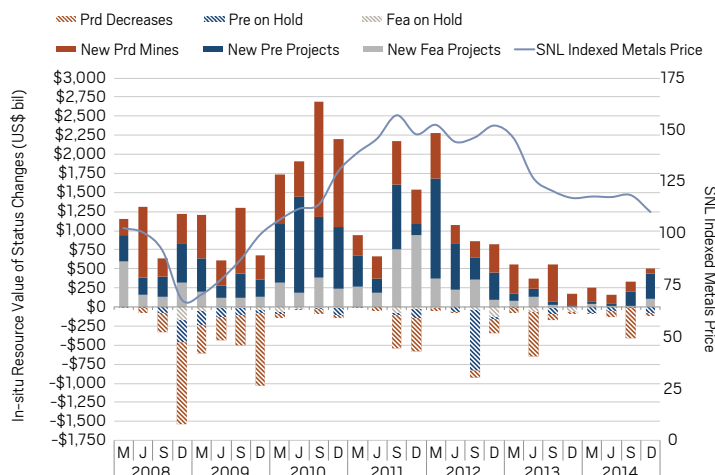
### Significant Industry Milestones

SNL also monitors project "milestones." Positive developments include the opening of mines, favorable project decisions and the initiation of feasibility studies. Negative milestones include stalled feasibility work, cancelled expansions and mine closures.

There were 96 positive milestones in 2014, compared with 144 in 2013 and 389 in 2010. The dollar value of these positive milestones last year plunged to US\$1,251 billion, compared with US\$1,640 billion in 2013 and US\$8,533 billion in 2010.

In 2014, there were a total of 20 negative milestones, valued at US\$752 billion. This compares with a total of 49 negative milestones in 2013, valued at US\$995 billion.

Although the past quarter of 2014 represented an improvement on the four previous quarters, the number and value of the milestones has clearly declined over the past three years, as illustrated in the graph below.

**Figure 6: Project Milestone Announcements, 2008-14**


### Looking Forward

After another year of strong headwinds in 2014, and with lower demand and overproduction continuing to depress metals prices, the mining industry's outlook for 2015 is unpromising at best. Although a stronger economy is likely in the U.S., weaker growth is projected for China and the Euro Zone. There is also geopolitical unease due to conflict in Ukraine and the seizure of territory in the Middle East by militant extremists.

Most metals prices are expected to fall further in 2015, albeit perhaps not by as much as over the past two years. As a result, SNL does not expect a rebound in the industry's total exploration budgets in the near-to-medium term.

Over the past two years, companies significantly restructured their operations and refined their strategies better to align with modest economic forecasts. A drive for lower spending and increased profit margins caused the majors to trim their exploration departments and focus on less risky brownfields assets. The inevitable result is a slowdown in organic growth, which is seeing large-scale, high-cost greenfields assets being pushed out several years at a minimum or divested entirely.

More than two years of investor caution has created an unenviable position for many junior explorers, forcing them to slash spending, renegotiate agreements or settle for unfavorable terms, or leave the industry altogether. Although the amount of funding raised by the juniors is up slightly in 2014 as those with more promising projects are able to attract some funding, it is insufficient to reverse the trend towards further reductions in exploration spending by the sector.

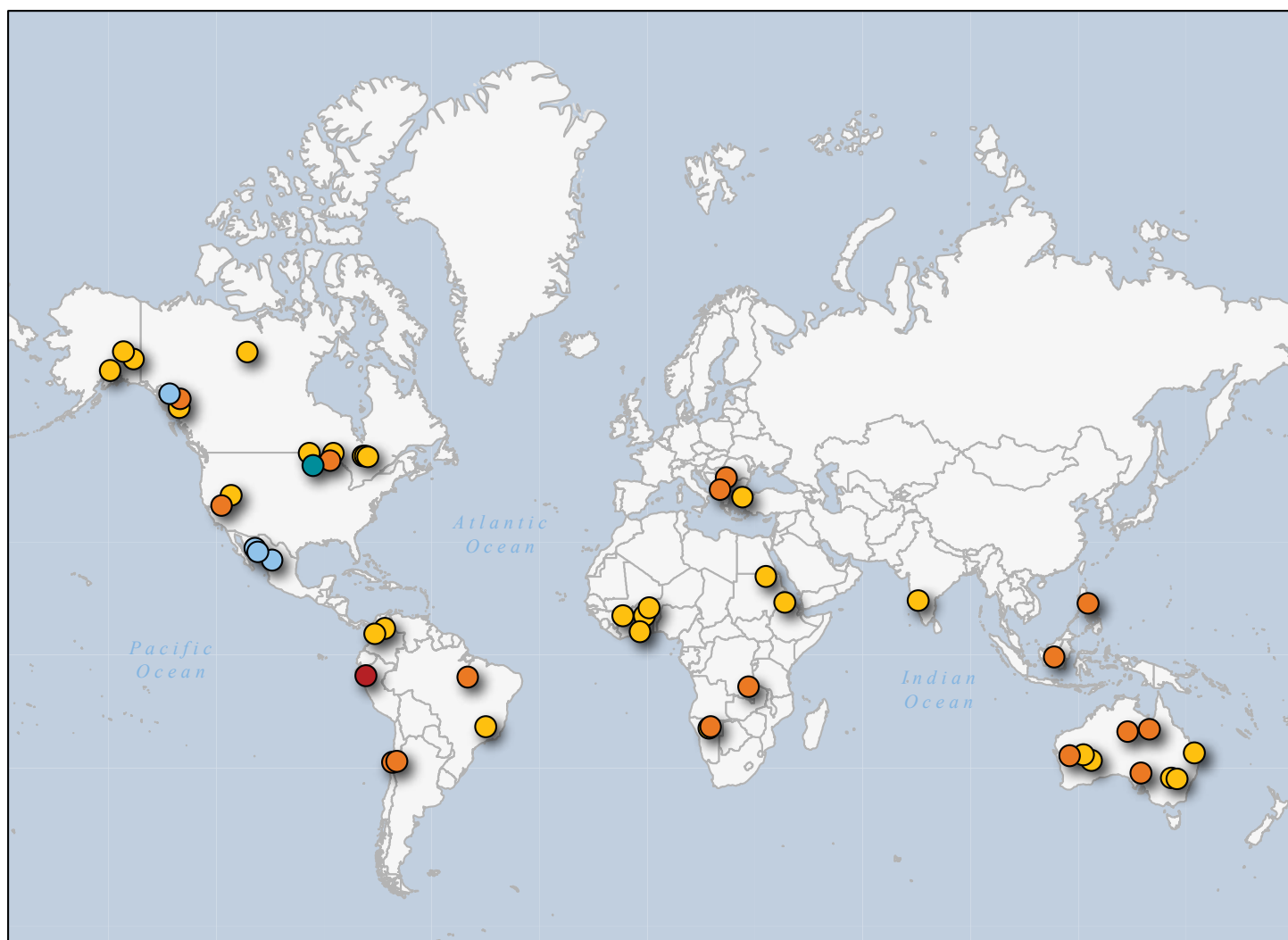
While some equity markets seem immune to ongoing economic uncertainty, the mining industry remains unattractive to investors. With any upward shift in market sentiment likely to be gradual and uneven, it could be some time before junior explorers derive any practical benefit; SNL projects a further modest decline in the juniors' aggregate budget total for 2015.

The major producers have already gone a long way in refining their strategies and trimming spending, and are likely settling into a longer-term strategic outlook. SNL expects them to continue with highly focused exploration programs at, or near, current spending levels for the foreseeable future.

With Russian companies facing geopolitical uncertainty and economic sanctions, and commercially oriented Chinese miners adapting to more modest domestic growth forecasts, SNL expects companies based in these countries to lower exploration spending in the near term.

Given these forecast scenarios, SNL projects a net decrease of about 10% in total exploration budgets for 2015, although the level of exploration activity may benefit due to lower costs for exploration services.

**Map 3: Location of Significant Gold and Base Metals/Other Initial Resources, 2014**



**Primary commodity**

● Copper ● Gold ● Nickel ● Silver ● Zinc



## SNL METALS & MINING: THE SINGLE SOURCE FOR GLOBAL MINING INTELLIGENCE

SNL Financial first entered the Metals & Mining sector with the purchase of Metals Economics Group in 2012. Now, with the acquisition of IntierraRMG, another leading mining intelligence provider, SNL has reaffirmed our commitment to providing the global mining industry with a one-stop source for accurate and complete data to support better decision-making.

SNL Financial is the world's premier provider of sector-specific financial data, news, analytics and expert insights. For almost three decades, Wall Street and operating companies in each sector have looked to SNL as the foremost authority on Banking, Insurance, Real Estate, Energy and Media & Communications, and now Metals & Mining joins the ranks.

FOR A DEMO OR FREE TRIAL, EMAIL [SNLINFO@SNL.COM](mailto:SNLINFO@SNL.COM) OR VISIT [SNLMETALS.COM](http://SNLMETALS.COM)

A photograph of a deep mine tunnel with a complex network of red metal support beams and bright lights at the end of the tunnel.

# SNL MINE ECONOMICS

Introducing SNL Mine Economics — highly detailed mine production and cost data compiled by a dedicated team of experts. Access comprehensive mine cost models and global cost curves for the 360° view required to fully inform business development, benchmarking and investment strategies.

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