

MEGAPROJECTS OUTLOOK – CANADA

June 2014

Projects include major private industrial investments (i.e.: resource extraction, pipelines, manufacturing sector), announced or under construction in Canada as of December 2013 and valued at \$1 billion or more. Selected projects have a precise location, a set value and timetable, and are at the construction or pre-construction stage.

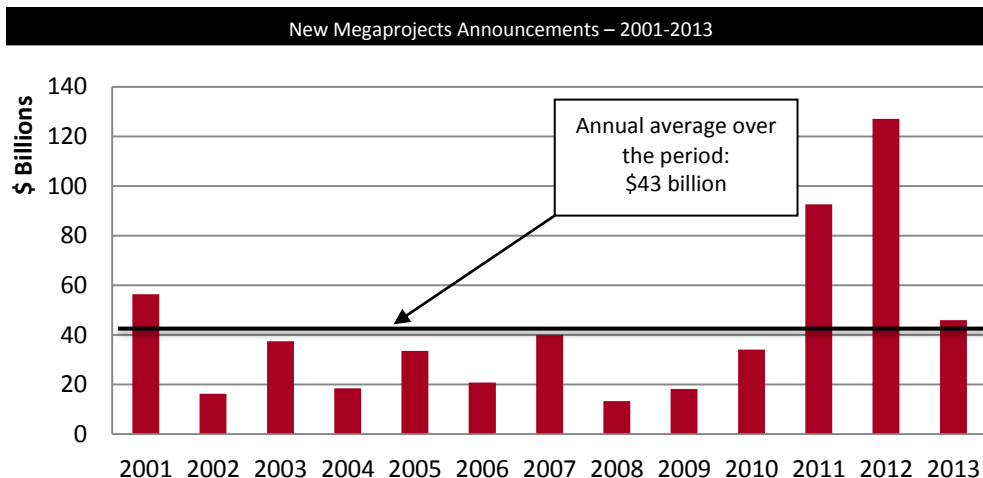
\$413 BILLION

Total value of ongoing industrial megaprojects in Canada

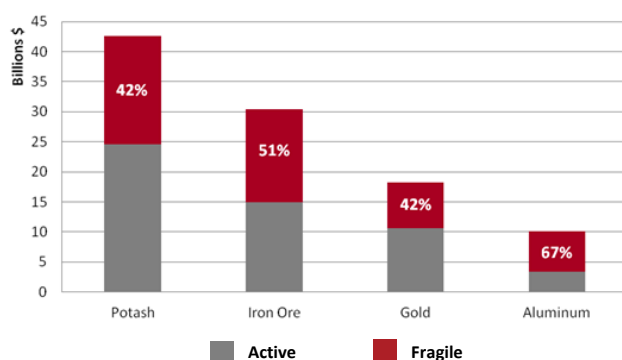
-  **Sharp drop in new announcements**
More than \$120 billion worth in 2012 – Less than \$50 billion worth in 2013.
-  **Mining: investors reconsidering their decisions**
Almost half of all planned investment in extraction and processing projects is now under review.
-  **Opening up oil & gas foreign markets a top priority**
Almost as much capital invested in transport (pipelines, LNG terminals) as in extraction.

AFTER THE PEAKS, A RETURN TO NORMAL

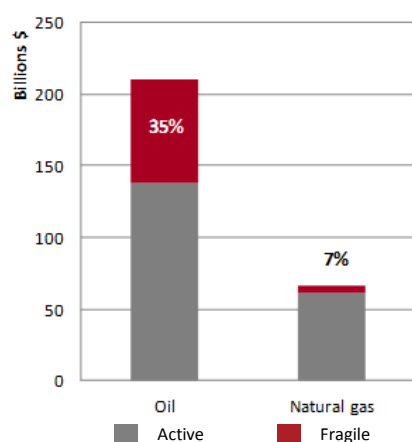
The prices of most minerals were too low in 2013 to convince many investors to make new capital investments. As for the oil & gas sector, Canada must deal with global energy rebalancing, triggered by new oil & gas extraction technologies, the move toward energy independence in the United States, and changes in energy flows from Russia in recent months. The urgency for Canadian oil & gas to reach new markets has led to a reallocation of capital away from extraction projects and into oil & gas transport projects located on coastlines. In both cases (mining and oil & gas), situations are uncomfortable for investors who had announced projects: E&B DATA estimates that 33% of the total value of announced projects is actually fragile, i.e. delayed, reduced or even compromised. This is a significant increase from the end of 2012, when 24% of the value of all projects was deemed to be fragile.



Breakdown of Ongoing Industrial Megaprojects
by Type of Mineral/Metal and Fragility Indicator – December 2013



Breakdown of Ongoing Industrial Megaprojects
by Type of Hydrocarbons and Fragility Indicator – December 2013



FRAGILITY INDICATOR

Represents the value of projects whose status is categorized as "Fragile", i.e. projects whose public information suggests that the project as initially announced could be reduced, delayed or even abandoned.

METAL MINING AND PROCESSING

More than 75% of the \$132 billion worth of investments announced by December 2013 in Canada's mining and primary metals sector is concentrated in potash, iron ore, gold and aluminum. In the potash industry, the collapse of the potash cartel is finally being felt. The fall in the price of potash affects the outlook for the \$43 billion worth of ongoing projects: only 58% are on schedule (compared with 82% in December 2012). While the prices of iron ore have yet to recover to 2011 levels—when prices last reached pre-financial-crisis levels—half of the total value of iron ore mining and processing projects is considered fragile. Moreover, weakness in gold prices (\$1,411 US per ounce in 2013 compared to \$1,670 US per ounce in 2012)¹ is causing uncertainty among investors: E&B DATA estimates that more than 40% of the total value of these projects could be compromised. Regarding aluminum, international competition for production sites dragged the completion of two-thirds of these projects in Canada down into a fragile state.

OIL & GAS

The opening up of overseas markets for Canada's oil & gas is now, more than ever, a top priority. While transportation projects (pipelines, LNG terminals) made up 31% of the total value of oil & gas projects in December 2012, they made up 41% in December 2013. Nearly every LNG project (pipelines and terminals) progresses diligently toward construction, while oil-related projects face obstacles at every stage. Some oil-extraction projects are experiencing significant cost overruns, while new processing projects (refineries) must be justified in relation to existing capacity (especially in the southern United States). Overall, 35% of announced oil-related projects (\$70 billion) can be described as fragile. Despite these obstacles, nearly two-thirds of oil-related projects (worth approximately \$140 billion) are progressing smoothly towards completion.

For the first time since the middle of the 2000s, there has been significant growth in industrial megaprojects outside the natural resources sector, namely in automotive and high technology (e.g. assembly plants, data centres). Indeed, these sectors have begun to appear in Quebec and Ontario, with nearly \$5 billion worth of projects announced in 2013.

¹ Annual averages. Peak of \$1,772 US per ounce in September 2011. World Bank.

TABLES AND NOTES

Megaprojects' Status Updates

Development Stage of Megaprojects	Value (\$M)
Previously ongoing (December 2012)*	415,473
New in 2013	48,190
Abandoned in 2013	26,940
Completed in 2013	23,367
Total ongoing	413,356

New Megaprojects Announcements

Sector	Country of Origin			
	Canada (\$M)	Other (\$M)	Total (\$M)	%
Mining	5,988	4,152	10,140	21%
Oil & Gas	16,050	17,100	33,150	69%
Others	0	4,900	4,900	10%
Total	22,038	26,152	48,190	100%

Ongoing Megaprojects' Status

Status	December 2013		December 2012	
	Value (\$M)	%	Value (\$M)	%
Active	278,896	67%	314,878	76%
Fragile	134,460	33%	100,595	24%
Total	413,356	100%	415,473	100%

Ongoing Megaprojects by Sector

Sector	December 2013			December 2012		
	Value (\$M)	%	Fragility	Value (\$M)	%	Fragility
Mining - Total	131,991	32%	43%	132,808	32%	20%
Extraction	108,891	26%	39%	104,908	25%	22%
Processing	23,100	6%	65%	27,900	7%	14%
Oil & Gas - Total	276,465	67%	28%	282,665	68%	26%
Extraction	124,415	30%	28%	147,565	36%	22%
Processing	38,350	9%	32%	48,700	12%	33%
Transport	113,700	28%	26%	86,400	21%	29%
Others	4,900	1%	0%	0	0%	0%
Total	413,356	100%	33%	415,473	100%	24%

Ongoing Megaprojects by Region of Destination

Region	December 2013			December 2012		
	Value (\$M)	%	Fragility	Value (\$M)	%	Fragility
Western Canada	317,737	77%	31%	322,966	78%	24%
Northern Canada	10,715	3%	13%	7,440	2%	10%
Central Canada	55,165	13%	49%	49,900	12%	28%
Atlantic	29,739	7%	26%	35,167	8%	29%
Total	413,356	100%	33%	415,473	100%	24%

Ongoing Megaprojects by Region of Origin

Region	December 2013			December 2012		
	Value (\$M)	%	Fragility	Value (\$M)	%	Fragility
Canada	244,092	59%	37%	253,833	61%	31%
United States	44,922	11%	18%	53,122	13%	2%
BRIC	26,590	6%	42%	23,590	6%	17%
Europe	46,600	11%	36%	29,300	7%	41%
Others	51,152	12%	17%	55,628	13%	8%
Total	413,356	100%	33%	415,473	100%	24%

MEGAPROJECTS

Projects with a total value of \$1 billion or more. Selected projects have a precise location, a set value and timetable, and are at the construction or pre-construction stage.

DEVELOPMENT STAGES

"New" megaprojects are those publicly announced in 2013 (may include projects previously abandoned, but being relaunched). "Previously ongoing" projects were ongoing as of December 31st 2012. Megaprojects labeled "abandoned" have been either announced as, or presumed abandoned, in 2013. "Completed" megaprojects have been completed since January 2013. "Ongoing" megaprojects include both new and previously ongoing projects not yet completed.

* Adjustments to projects' values (e.g., cost overruns) as of December 2013 have been made for projects announced in previous years.

MEGAPROJECT SECTORS

The mining sector includes extraction activities (metallic and non-metallic minerals) and processing, such as iron-ore pelletizing and aluminum smelting. The oil & gas sector includes extraction activities, processing (i.e. upgrading, refining) and transportation, which includes pipelines and liquefied natural-gas terminals. All other manufacturing sectors are included in "others."

MEGAPROJECT STATUS

"Active" projects are those under construction or in the process for obtaining government approval and financial structuring, while showing no sign of slow-down. Projects are categorized as "fragile" when available public information suggests that the project as initially announced could be reduced, delayed or even abandoned, due to financial factors (market conditions, financing) or regulatory concerns, or because the investor has remained silent about the project for an abnormally long period of time. Projects officially on hold are also included in this category.

FRAGILITY INDICATOR

Represents the value of a project categorized as fragile at the time of the analysis.

REGION OF DESTINATION

Western Canada includes British Columbia, Alberta, Saskatchewan and Manitoba. Northern Canada includes Yukon, Northwest Territories and Nunavut. Central Canada includes Ontario and Quebec. The Atlantic region includes Newfoundland and Labrador, New Brunswick, Nova Scotia and Prince Edward Island.

REGION OF ORIGIN

BRIC refers to Brazil, Russia, India and China. Europe includes all members of the European Union as of December 2013, as well as Norway and Switzerland. Countries such as Australia, South Africa and Malaysia are included within the "others" category.

PROPERTY

This study covers privately held projects, with the exception of projects announced in Canada by non-Canadian state owned enterprises.

E&B (Economic and Business) DATA is an independent economic-analysis company specializing in the industrial sector, particularly in heavy industry. Its clients include private investors, industry associations, governments and trade unions. Data come from CAPEX-online and are based on a continuous screening of public announcements concerning private capital investment projects of \$1 billion and over in Canada. For a purchase or a subscription to CAPEX-online, please contact info@ebdata.com.

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