

REVIEW / ASSESS

IS IT TIME FOR A NEW APPROACH?



MES Discussion Group November 2015

Chart 1: US companies with high economic exposure to Emerging Markets at 12-year lows vs broad US equities



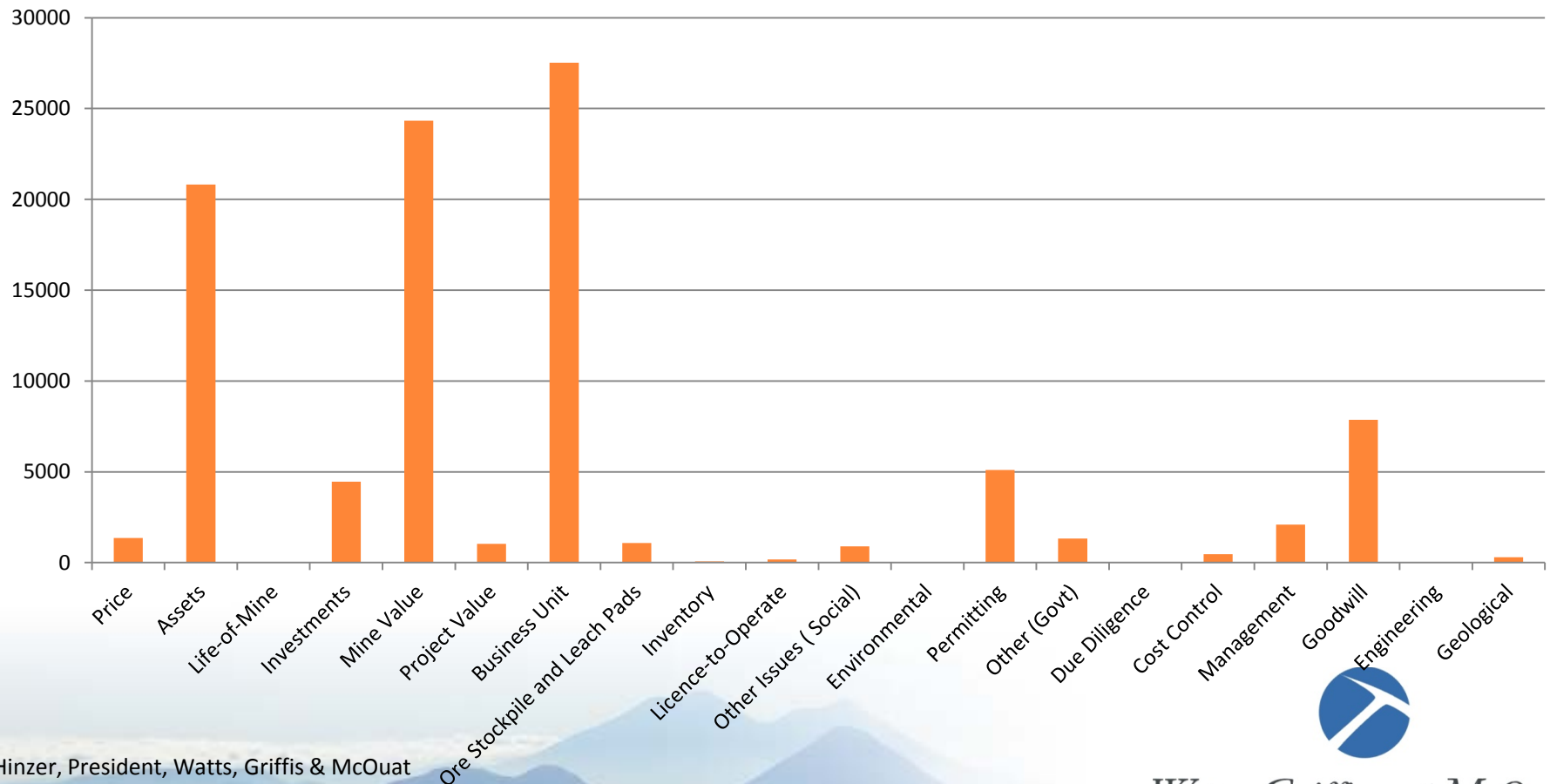
Source: BofA Merrill Lynch Global Investment Strategy, MSCI
Note: relative total return



2011-2013

>US \$99, billion in company/project value write downs

Impairment (US\$ millions)



2011-2013

A Bloomberg Index of the 14 large gold miners at the end of 2013 showed that they had lost about US\$164 billion in market value since gold peaked on September 6, 2011 (Mining Review.com);

MAC reports 41% reduction in exploration expenditures 2013

2014-2015

>US\$ 70 billion in impairment losses reported by KPMG for 2014,

“At the peak of the boom, the market value of the mining sector was \$2.3-trillion. Today, it is worth less than half of this... (Mark Bristow Feb 2015)



WHAT HAPPENED

Demand Side;

- Forecasters, Analyst remain bullish on commodities
- issuers were competing for investor money
- shareholders demanded
 - ever higher returns
 - and shorter time frames

Management –applied Aggressive Assumptions instead of
Conservative Experience



MES Discussion Group November 2015

April 2013 forecast

Exhibit 23: Key commodity price forecasts

Commodity forecasts	2013	2014	2015	2016	2017	LT
Gold (US\$/oz)	\$1,580	\$1,498	\$1,420	\$1,400	\$1,380	\$1,300
Silver (US\$/oz)	\$28.45	\$27.20	\$26.80	\$25.90	\$25.10	\$22.80
Copper (US\$/lb)	\$3.39	\$3.03	\$2.81	\$2.86	\$3.08	\$3.00
Zinc (US\$/lb)	\$0.98	\$1.06	\$1.27	\$1.13	\$1.00	\$0.86
Lead (US\$/lb)	\$1.05	\$1.22	\$1.36	\$1.27	\$1.09	\$0.91
Iron ore fines - 62% (China CFR) US\$/t	\$125	\$100	\$90	\$90	\$95	\$90

Source: Credit Suisse commodities team

Joe Hinzer, President, Watts, Griffis & McOuat



Watts, Griffis and McOuat

WHAT HAPPENED

Supply Side :

Resource nationalism

Duty to consult

Social license

Land use/access

Indigenous-small scale artisanal miners



The following headlines from Mining Weekly speak to the desires of governments to draw increasing benefits from the mining sector,

[Zimbabwe threatens to reimpose platinum tax if miners don't process locally](#) Oct 16, 2015

[Zimbabwe proposes 10% black empowerment tax – State paper](#) Oct 5, 2015

Last Year Indonesia introduced local processing regulation for producers and many other jurisdictions are looking to take similar actions.



THE RECOVERY PATH

CUT COSTS

Innovation

Increased Mechanization

Operational efficiencies

FLIGHT TO QUALITY

Increased Due Diligence

Better Management

Staff Quality



MES Discussion Group November 2015

The minority Economic Freedom Fighters (EFF) political party on Tuesday called for **the nationalisation of South Africa's mines without compensation, noting that the State should own and control a minimum of 60% of the country's mines.**

...the political party demanded ...to start a *process of transfer of wealth to the rightful owners.*

...the EFF marched in Johannesburg to call for an immediate end to and moratorium on retrenchments of workers in all mining companies,

We expect each and every mining company to respond to the demands we are making and propose a concrete programme of action on each and every aspect of these demands.

“[On] failure to do so within 30 days, the EFF and the people of South Africa will target individual mines and close their operations until they come with commitments to meet our demands,”

27th October 2015 By: Megan van Wyngaardt Creamer Media Contributing Editor

<http://www.miningweekly.com/article/eff-makes-radical-demands-for-turnaround-in-mining-industry-2015-10-27>

[Volatility spikes may be unintended consequence of EU commodities rules](#) October 5, 2015 Mining Weekly



Meanwhile Wood Mackenzie reports in a biv.com article (22/10/2015) that the current actions of the global mining industry –could be paving the way for a major supply shortage in the next decade- suggesting a \$US 150 billion investment is needed to avoid the shortage.

These sentiments were also reported in mining weekly Oct 15, 2015 by Amec CEO Simon Bennison, who noted that the discovery rate in Australia is not keeping pace with depletion of existing mines.



Simon Rees (creamer media correspondent) reported on Oct 20th, 2015 on a presentation by Kate Lyons (Goodman Partners)

Noting that major Banks now engage CSR officers to review projects—primarily in response to bank shareholders demands.

Not only –is financing for such projects as
-mountain top removals (for coal mining), illegal timber cutting, oil sands etc.
being restricted or at risk;

CSR concerns for all types of projects are carefully reviewed as

CSR failures can be costly and large scale projects (\$3-5 billion) can loose up to \$20 million per week –as a result of project delays

Not to mention the cost of legal challenges.



Mining industry is 'basically bust' – Bristow

<http://www.miningweekly.com/article/mining-industry-is-basically-bust-bristow-2015-02-10>

handicapped by its short-term culture,

Commodity prices won't return to past high levels – Bristow

2015-10-13



THE NOW

Shifting global economic power dynamics



Macro Economics

Professor Zhou Shijian-Senior research fellow Sino-US Relations Research Centre of Tsinghua University

2008 –US banking collapse ---QE by \$US -10.6 Trillion

plus

2013 –EU banking sector difficulties -----EU and Japan QE \$US ?

He estimates 9.2 Trillion – flowed to emerging economies

to be paid back at higher interest rates

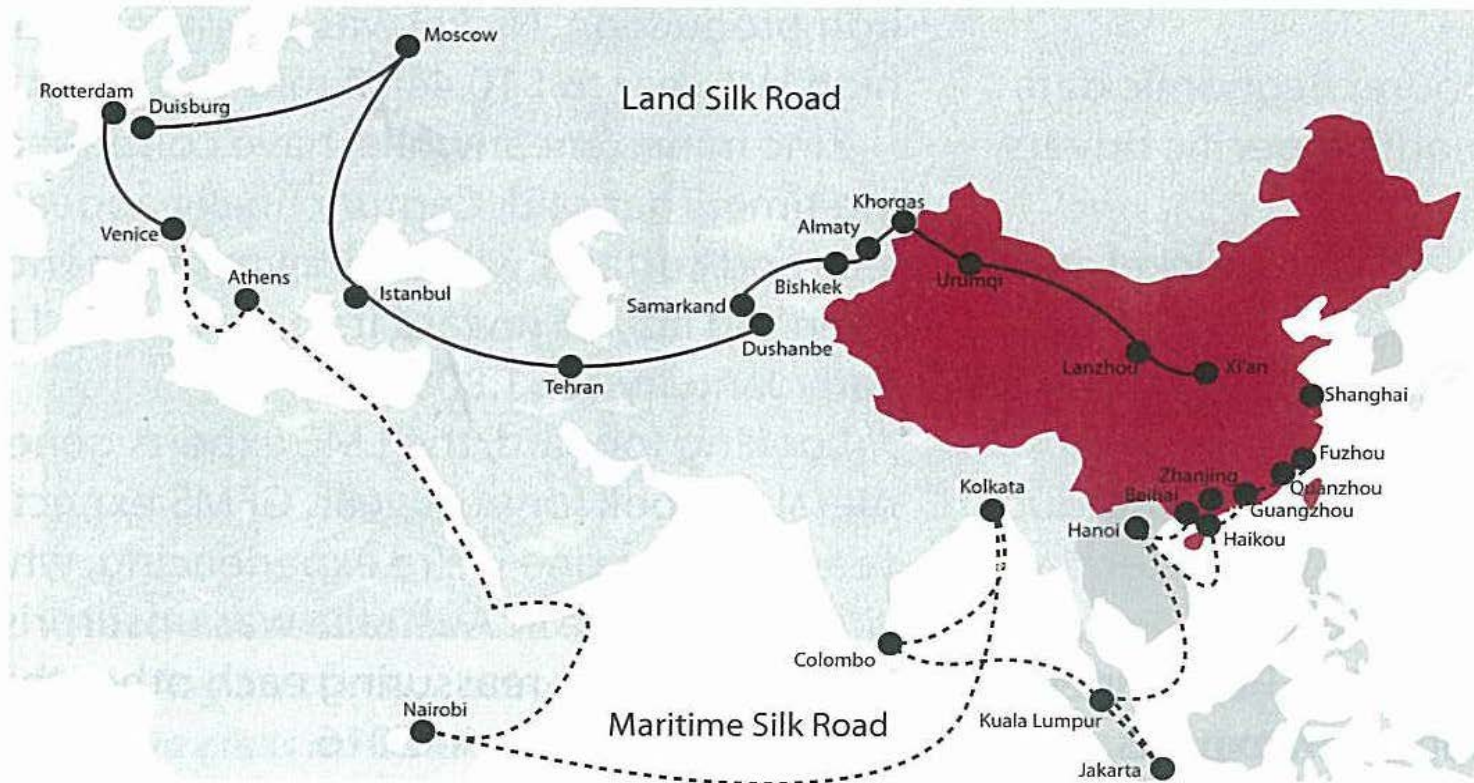
2016-2030?-Emerging market challenges



MES Discussion Group November 2015

OPPORTUNITIES

China announced a new commodity super highway



China's new economic and maritime Silk Road

OPPORTUNITIES

GFMS raised its gold price forecast

New Gold Rainy River project –on time/on schedule

China expects increased base metal H2 2016



THE NOW

John Poley (Reuters Breakingviews/Thompson ONE April 28, 2015 reports on China's plans to merge SOE's to reduce the number to 40 larger enterprises –fewer and bigger –Is bigger better??

Zimbabwe according to Mining Weekly (July 31, 2015) is reducing royalties to small scale gold miners (artisanal miners) to encourage production. The artisanal mining sector is seen as means of providing employment to a significant number of people and to encourage entrepreneurs.

Many countries in Africa, South America have strong vibrant mining sectors that operate privately and often contribute significantly to the local economy.



THE NOW

ZIMBABWE

Legitimizing Artisanal and Small-Scale Mining (ASM) in Zimbabwe

ASM is estimated to provide a direct livelihood for upwards of one million Zimbabweans. Since 2014, the government has decriminalized ASM, and the Ministry has prioritized cultivating legal trading channels. Meanwhile, private players are already embracing the ASM integration initiative. |

Meredith Veit

GBRoundup - MINING - November 11th 2015



Artisanal Gold Production Africa

Ghana	Sudan	Burkina-faso	Mali	Tanzania	DRC (ቱንዲ)	Ethiopia
2013	2014	2012	2013	2013	2013	2013
43.3 tonnes	70 tonnes estimated	27 tonnes	20.7	1.1 tonnes	10 tonnes estimated	8.3 tonnes
1m miners	500,000	200,000	1 million	800,000	?	350,000+
	60% of export revenue. Estimated 25% production smuggled out	Only 500kg moves through official supply chain			Official Production 181 kg USGS estimates 98% illegally exported	

ETHIOPIA INTERNATIONAL MINING CONFERENCE

23-24 SEPTEMBER 2015 ~ ADDIS ABABA, ETHIOPIA

Dr. Girma Woldetinsae, Research and Development Directorate, Ministry of Mines, Ethiopia



Watts, Griffis and McOuat

MES Discussion Group November 2015



Photo J Hinzer Zamfara State Nigeria, 2010

Joe Hinzer, President, Watts, Griffis & McOuat



Watts, Griffis and McOuat

Global artisanal Gold Production

Gold council data (2015):

- 2011

World Artisanal Gold Production (source Telmer 2011 AGC):

–330 Tonnes of Gold 12 % of the total production roughly \$330 billion USD
at\$1500/oz

–10 million miners probably engaged

- .2012

–400 tonnes gold from 70+countries 15% of the production %20 billion USD

–15 million direct and 100 million secondary economy



FUTURE

Government Industry Partnerships
Shared Infrastructure
Collaboration between Industry Participants
Innovation
Innovative Financing
Different approaches to Small Scale Mines



FUTURE

Sharing infrastructure with neighbouring mines to cut costs

collaboration across the broader industry, particularly between miners and services companies,

increased collaboration between industry participants

junior mining executives need to innovate to find solutions

innovation also had to extend to capital raising,

look to partnerships between companies and governments.



FUTURE

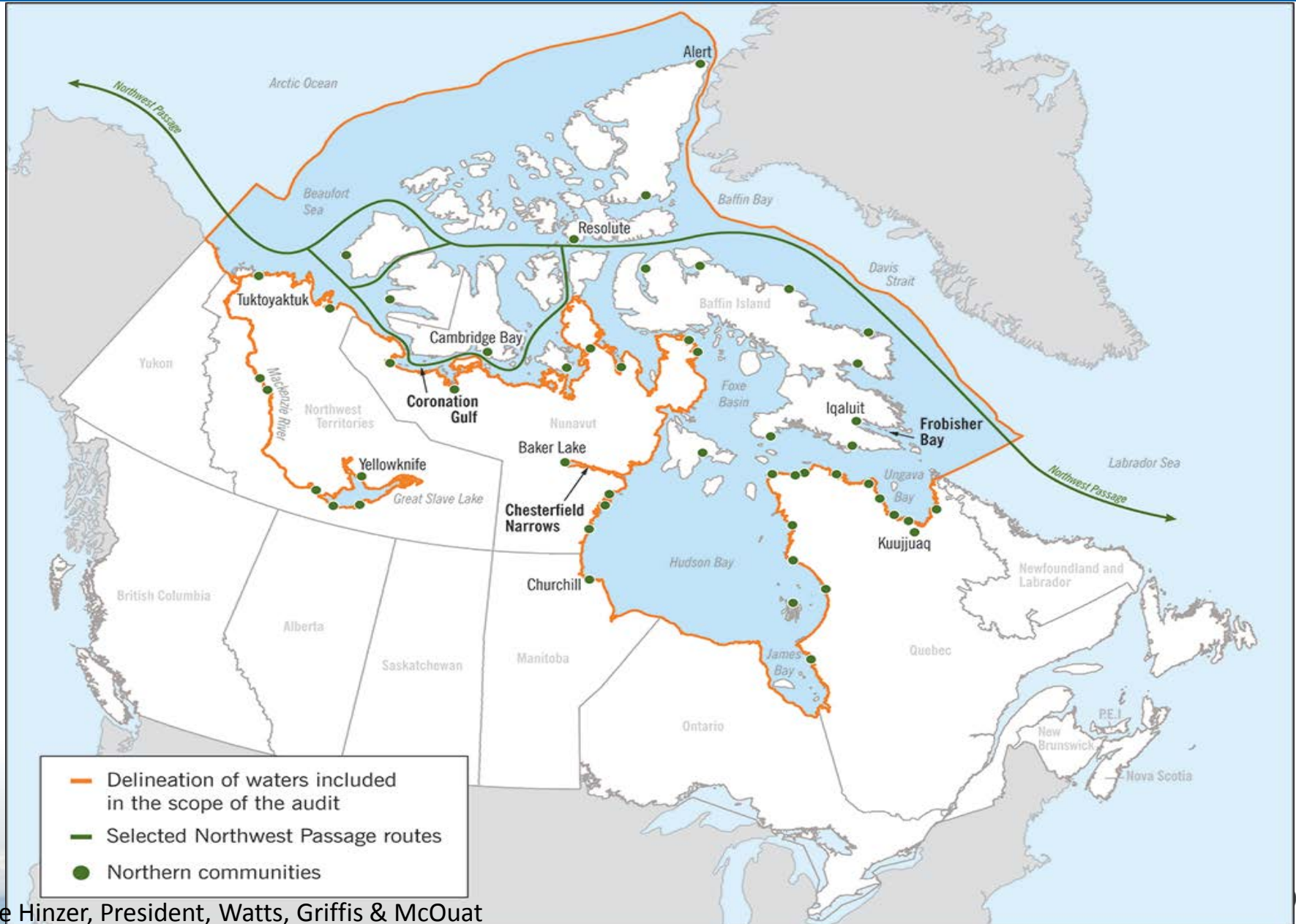
For any mine to be a successful venture, it required infrastructure such as roads, ports, railways and power grids to operate, which were often not available in the remote and northern regions of Canada.

These areas held significant opportunities for mining development and would provide significant socioeconomic benefits to northern communities.

"The government can advance this nation-building opportunity and meet its stated policy objectives for the North by creating the right fiscal framework to stimulate investment in critical infrastructure that mines and communities will both benefit from," Gratton said.



MES Discussion Group November 2015



FUTURE

New Crowdfunding Regime

Ontario, Manitoba, Québec, New Brunswick and Nova Scotia (collectively, the Jurisdictions), to provide reporting and non-reporting issuers with a crowdfunding prospectus exemption and a registration framework for the operation of a funding portal. On November 5, 2015, the securities regulatory authorities in the Jurisdictions published [Multilateral Instrument 45-108 Crowdfunding](#) (the Rule) in final form, which is expected to come into force on January 25, 2016.

The Rule is intended to provide another way for start-ups and small and medium-sized enterprises to raise capital more effectively and at a lower cost, while protecting investor interests.

the total proceeds must not exceed \$1.5 million within the 12-month period

- (a) for an investor that does not qualify as an accredited investor
 - (i) \$2,500 per investment, and (ii) in Ontario, \$10,000 in total for all investments in a calendar year;
- (b) for an accredited investor other than a permitted client
 - (i) \$25,000 per investment, and (ii) in Ontario, \$50,000 in total for all investments in a calendar year
- © in Ontario, none for a permitted client (e.g. net financial assets exceeding \$5 million)



FUTURE

Government Industry Partnerships
Shared Infrastructure
Collaboration between Industry Participants
Innovation
Innovative Financing
Different approaches to Small Scale Mines



Thank You

