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6th Zambia International Mining and Energy Conference and Exhibition

The mining industry
Understanding the issues

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23 June 2016

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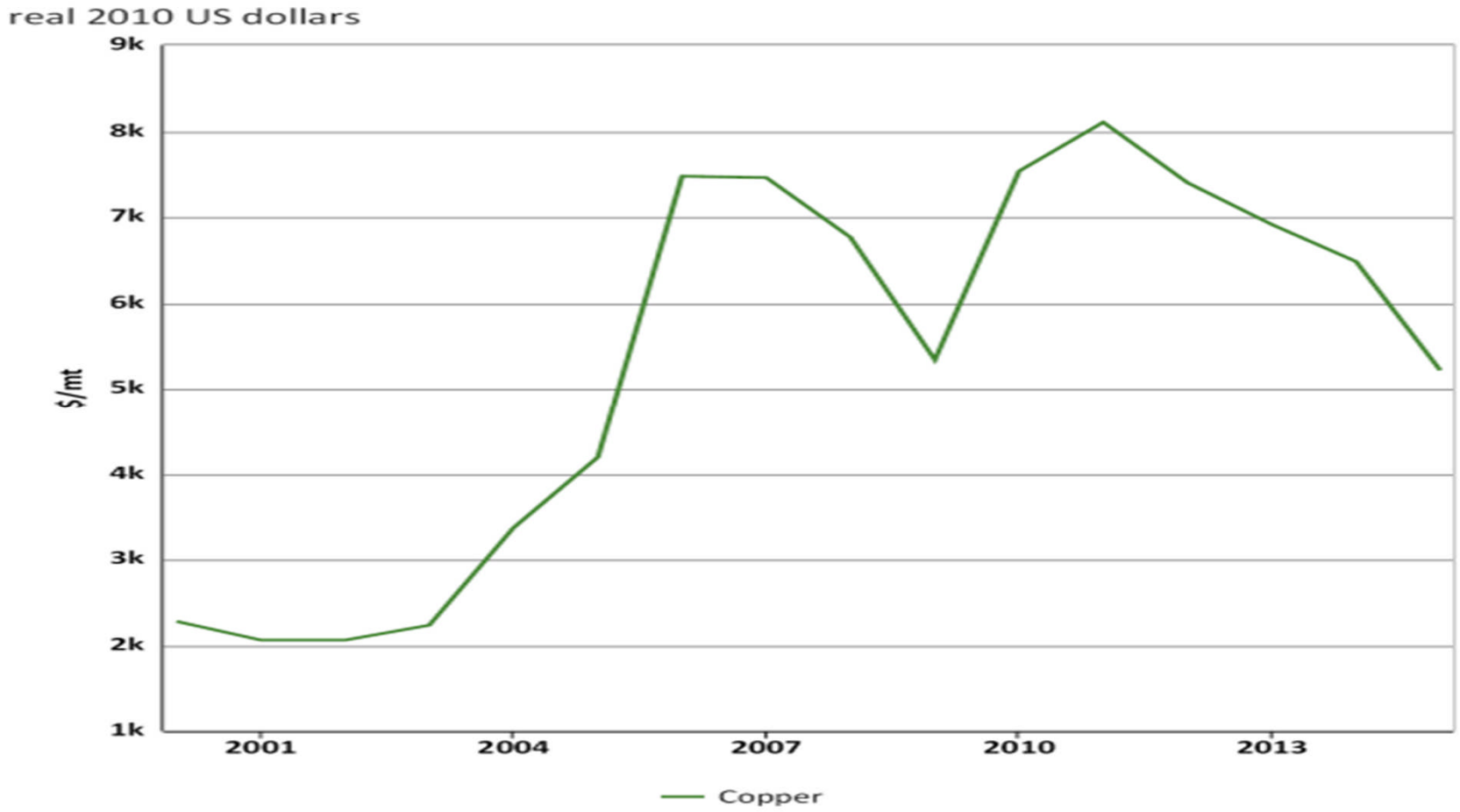
Agenda

1. Global developments and trends
2. Mining industry and government challenges
3. Mining cycles and tax changes
4. Lessons from mineral rich developing countries

Global developments and trends

1

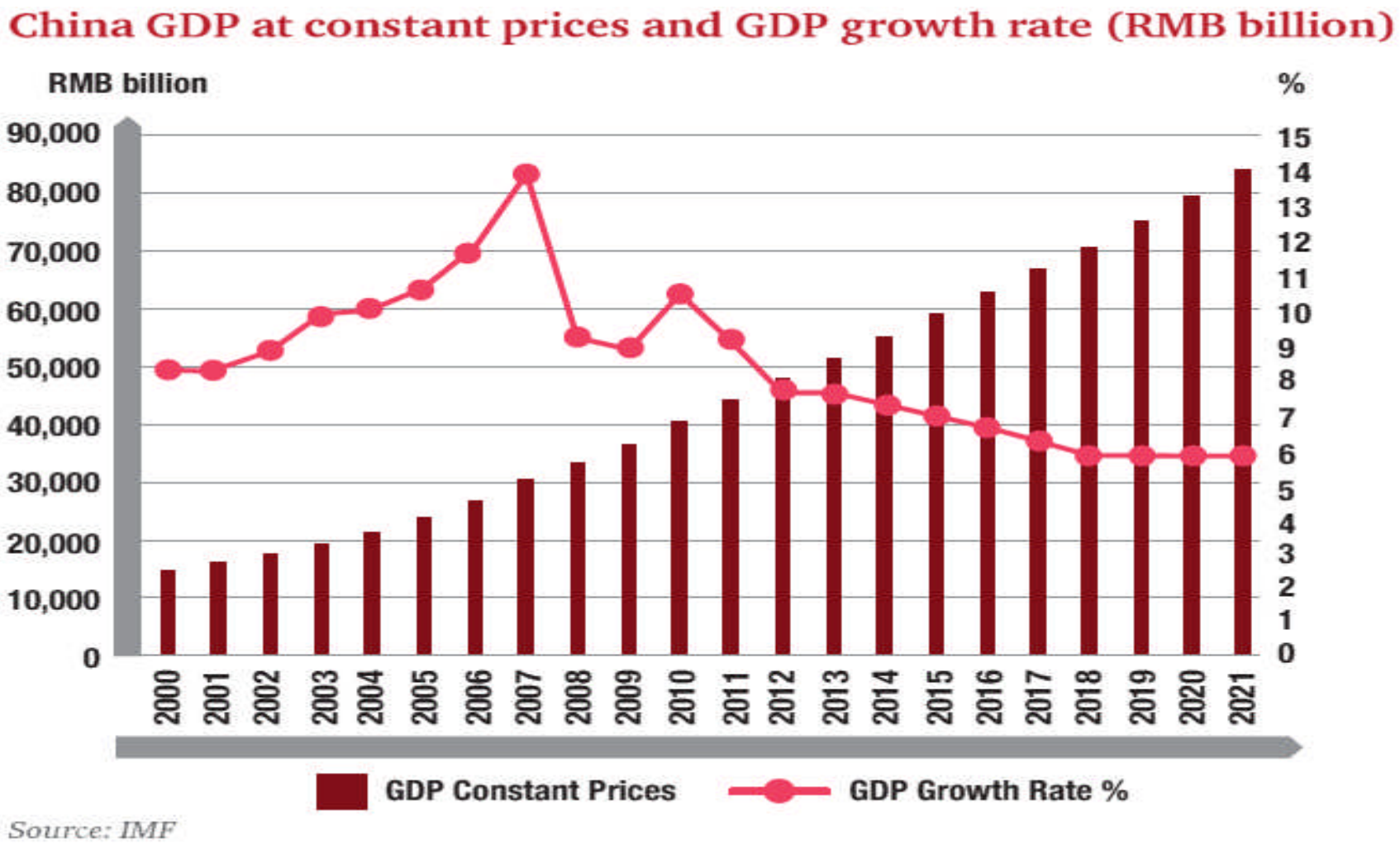
Copper price from 2000 - 2016



Impact of 2008 financial crisis and global trends

- The 2008 Financial Crisis Stunned China;
- China's reaction (over-reaction) caused massive overspending, and acceleration of construction;
- Demand for Cu between 2000 and 2014 grew by **1154%** (actual growth **132%**)
- Mining industry responded by ramping up production, capex & exploration;
- Capex amongst senior miners between 2009 and 2013 rose 947%
- Costs increased;
- China realized it was heading for a very bad ending;
- New Government Changed Course – China's Third Plenum:
  - *More trade liberalization, policies to spur innovation, factor price reform that weaken State Owned Enterprises, reduction of administrative interference in economy, 5 yr plan to combat corruption…;*
  - Effectively moving towards a market led economy;
  - Lower growth forecasts.

Chinese GDP from 2000 to 2021 – mine 2016



Source: IMF

The mining industry: Understanding the issues
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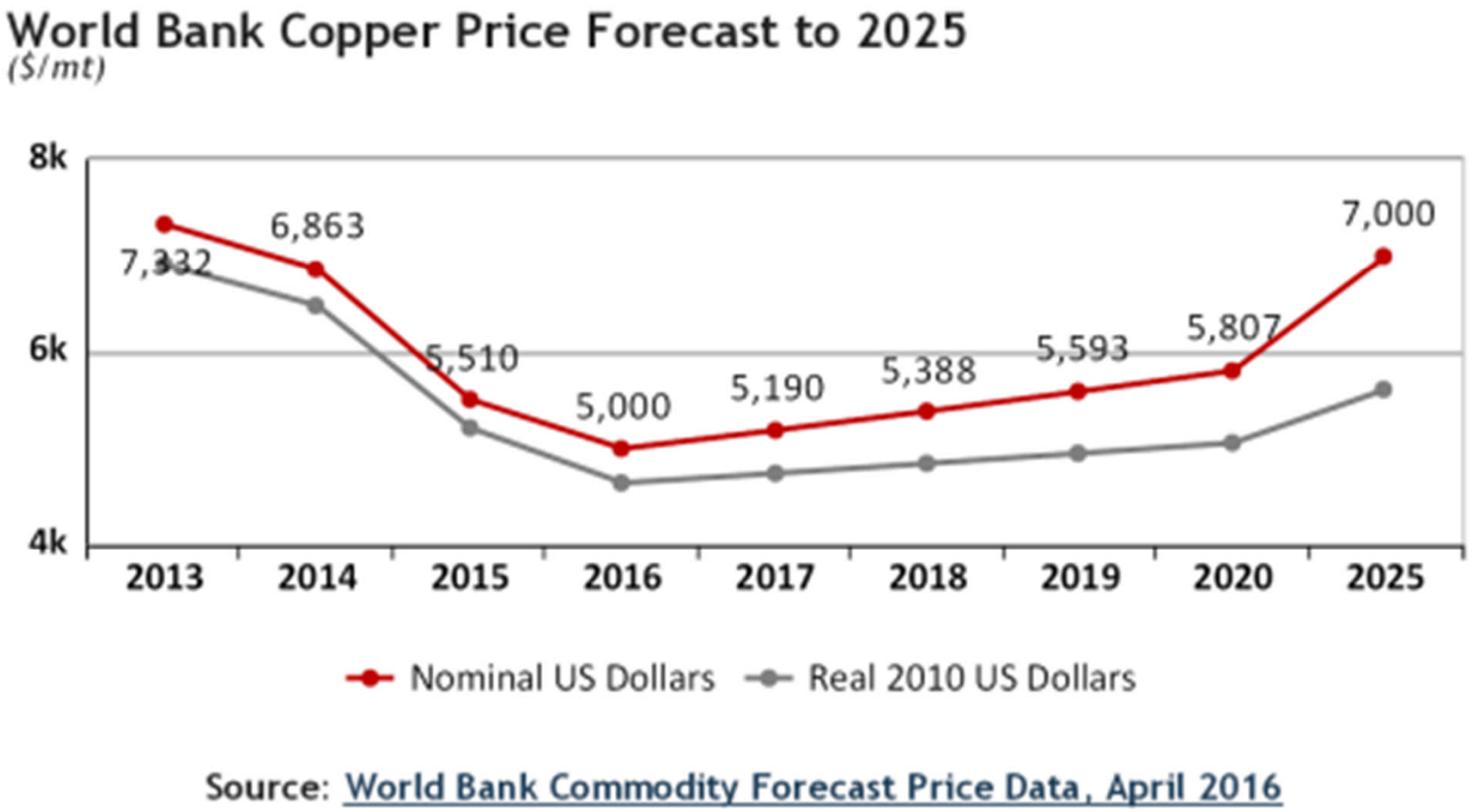
Copper price forecast



Source: World Bank Commodity Forecast Price Data, April 2016

Shareholder expectations

- The new/ digital economy require less capital investment and yields higher returns in shorter time frame – Apple v BP
- Mining industry performance lagged behind other industries
- Shareholders demand better performance
- Result:
  - cost cutting measures to improve free cash flow events
  - exploration and capex strategy re-aligned
  - appetite for risk reduces - selection of projects / investment refined to minimize political risk and uncertainty.

Market factors

- 2015 Chinese slowdown in GDP growth - 6.7%
- Use of copper as financial collateral
- Digital and internet companies require less capital investment and yielded higher returns in shorter time frame
- Shareholders demand better performance
- Post 2008, Chinese demand resulted in long term cost increases and high capex expenditure with lower shareholder returns;
- Lower appetite for investment in mining sector;
- Significant cost cutting and down sizing;
- Govts re-aligning policies to retain mining sector investment and business

Mining industry and government challenges

2

Challenges faced by mining industry

- Shareholder demands and returns – profitability and return on investment
- Capital intensive
- Long Life span of mine => high levels of uncertainty;
- Geological factors
- Stability of mining regime
- Profitability highly sensitive to market factors: supply, demand, price dependent on global factors

Key factors for assessing mining opportunities

1. Geological potential
2. Infrastructure
3. Availability of skilled work force
4. System of land concession, title and mineral rights
5. Tax stability
6. Rule of law
7. Political stability and quality of governance
8. Social and environmental regulations

Government objectives

- Need to ensure greatest possible benefit for the public whilst simultaneously encouraging investments

- Key objectives include:
  - Increased investment, production, exports and job creation;
  - Inclusive growth and development;
  - Diversification
  - Building capacity –increase skills, knowledge, technology;
  - Creation of mining clusters and use of local suppliers

Government policy – balancing act

Appropriate mining policy:

- Acknowledges need for investors to make sufficient returns to recoup investment that factor in the high risk, long term investment and uncertainty

- Targets broader resource based development, economic diversification, etc

- Avoid adverse social impacts – displacement of local communities, conflict of land use

- Minimise negative factors – pollution and waste dumping

- Creates an environment for value added processing and permanent/ long term mining cluster development

Mining cycle and tax changes

3

Unique features of life cycle of a mine and taxation

Phase 1 Exploration :	• Substantial cost phase with no income • Highly risky • Tax loss relief critical
Phase 2: Mine Development:	• High cost phase • Purchase of capital inputs which need to be imported • Require accelerated capital allowances • Require import duty relief
Phase 3: Production:	• Only phase where revenue is earned from sale of minerals • Susceptible to price fluctuations
Phase 4: Post mining	• No income, but significant rehabilitation costs • Tax deductibility for rehabilitation provisions critical

Zambia - key tax changes over last decade

2008 Introduction of windfall tax; increase in mineral royalties to 3%, introduction of variable profits tax and reduction of capital allowances;

2009 Windfall taxes removed;

2012 Mineral royalty increases from 3% to 6%, hedging income taxed separately;

2013 Property transfer tax of 10% on transfer of mining rights;

2014 Export duty on semi processed minerals 10% and customs duty on copper blisters etc. 15%;

1 Jan 2015 – 30 June 2015 Single tier regime for mining companies - MRT for open pit mines 20%, MRT for underground mines 8%, CIT for mineral processing and tolling operations at 30%;

1 July 2015 9% MRT, 30% CIT for mining operations, 35% for processing

1 June 2016 Variable MRT on copper 4% - 6%, MRT of 5% on other base metals

Positive changes in mineral royalty

Category - MRT	1 Jan 2015 – 30 Jun 2015	Post 1 June 2016
MRT on copper extracted from underground operations	8%	4% - 6%
MRT on copper extracted from open cast operations	20%	4% - 6%
MRT on other base metals extracted from underground operations	8%	5%
MRT on other base metals extracted from open cast operations	20%	5%

Current tax regime– effective 1 April 2016

Recent changes to the Mineral Royalty Tax regime provided for the following:

- A reduction in the rate of mineral royalty for copper extracted from both underground and open cast mining operations to a range from 4% to 6% depending on the prevailing prices as follows;
  - 4% when the norm price of copper is less than USD 4,500 per tonne;
  - 6% when the norm price of copper is USD 6,000 or greater per tonne; and
  - 5% when the norm price of copper is between USD 4,500 and USD 6,000 per tonne.
- A reduction in the rate of mineral royalty for other base metals to 5% for both underground and open cast mining operations;
- A reduction in the rate of mineral royalty for energy and industrial minerals to 5% for both underground and open cast mining operations;
- A mineral royalty of 6% for gemstones and precious metals.

Changes to CIT regime

- Corporate income tax on income earned from **mining operations is 30 percent**;
- Corporate income tax on income earned from **mineral processing is 35 percent**;
- Variable profit tax on income earned from mining operations will be up to **15 percent when taxable income exceeds 8 percent of the gross sales**;
- Deduction of tax losses carried forward to be **limited to 50 percent of taxable profits**.

*Mining Tax Regimes of Comparable Economies***

Country	CIT	Mineral Royalty (Copper and Base Metals)	Basis of Mineral Royalty
Zambia (Current)	Basic Rate – 30/35% (mining/ processing)	4-6% - Open cast mining 4-6%- Underground mining	Norm Value/Gross Value
Botswana	Variable rate	3%	Gross Value
Congo, Republic of	30%	3%	Market Value
Democratic Republic of Congo	35%	2.0%	Adjusted Revenue*
Ghana	35%	5%	Gross Value
Tanzania	30%	4%	Market Value
Mozambique	32%	3%	
Zimbabwe	25%	2%	Invoice Value
Chile	18.5%	Variable (0% - 14%)	Taxable income

*Transportation, analysis, insurance and marketing costs are deductible from taxable basis

** Information accurate as at June 2015

Lessons from mineral rich developing countries

3

Lessons from mineral rich developing countries Policy areas - UNCTAD

Supply Factors	Enhance public and private efforts in exploration Address water, energy and transportation needs Encourage training of specialized engineers and mine technicians
Policy stability & governance	Use instruments that assure foreign investment of regime stability – assurance re property rights, tax and regulatory stability
Taxation	Consider geological endowment when setting taxes
	Prioritise profit based taxation
	Proactive tax enforcement and management of financial risks
	Recognise cyclical nature of mining Tax relief for capital costs to be recuperated quickly

Lessons from mineral rich developing countries Policy areas - UNCTAD

Industry and local enterprise development	Rely on capability of senior mining transnational corporations (TNCs) for efficient mineral production
	Assist efforts of TNCs to develop local workforce and supplier capabilities
Environmental and social impact	Require comprehensive EIAs for project approval and ensure govt follow up on commitments Implement local framework that protects rights of local communities and ensure their participation in mineral development
Multi-stakeholder policy and collaborative approach	Consultative process to create policy consensus, taxation policy, revenue / risk sharing between govt and private sector
Creation of funds to manage volatility	Absorbs excess revenue in boom times for draw down in times of low prices

Specific examples – Chile & Botswana

Supply factors

Availability of skilled workers & professionals
Creation of strong mining culture – Chile has graduated more mining engineers than any other developing country

Political stability & quality of governance

Posses high quality governance – Chile in 2015 ranked 23rd out of approx 180 countries in Corruptions Perception Index, likewise Botswana is also ranked as the least corrupt country in Africa (ranked 28 in 2015). Chile also a member of the OECD

FDI Policy

Chile – Foreign investment statute:

- Good facilitation of JV between foreign investors and government
- Guarantees non-discriminatory treatment of foreign investors wrt to legal & regulatory provisions

Botswana – acknowledgement that "exploitation of mineral resources must depend on foreign capital investment and promotion of a satisfactory climate of investment is clearly of the greatest importance

Specific examples – Chile & Botswana

Acknowledgment that financial resources and technical expertise to develop and operate mines best achieved by TNCs	Botswana – acknowledgement that "exploitation of mineral resources must depend on foregin capital investment and promotion of a satisfactory climate of investment is clearly of the greatest importance
Development of Bamagwato Concession Ltd	Required significant infrastructure investment (150% of GDP)– govt invested in Shashe Dam and associated water pipelines, diesel power station, road and rail spur – through WB loan
Learning and experience with De-Beers	Govt of Botwana through 5% ownership of De-Beers by Debswana with access to high level data and information on operation of global diamond industry & market was able to negotiate better revenue distribution

Specific examples – Chile & Botswana

Mineral taxation	Traditionally both Chile and Botswana have been low tax mining jurisdictions providing for accelerated depreciation, deferred customs payment on capital imports, use of non profits based taxes, and stable tax environment with few strategically formulated changes over the last 20 years
Tax policy more internationally orientated	To encourage use of Chile as base for foreign TNCs – - tax incentives for regional headquarter companies
Creation of Copper Stabilisation Fund, followed by Economic and Social Stabilisation Funds	Fiscal surpluses between 0.2 and 1% of GDP contributed to these funds

“Slower, weaker but not defeated” – PwC Mine 2016