

# Effective Extractive Industries Taxation Regimes



Workshop on Mining Taxation  
African Union & European Commission in co-operation with UNECA

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## SUMMARY

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- Specific Taxation Regimes for the Mining Sector
- Adjustment of taxation regimes to market price volatility: case study
- Diagnosis and Recommendations



## SUMMARY

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- **Taxation Regimes for the Mining Sector**
- Adjustment of taxation regimes to market price volatility: case study
- Diagnosis and Recommendations



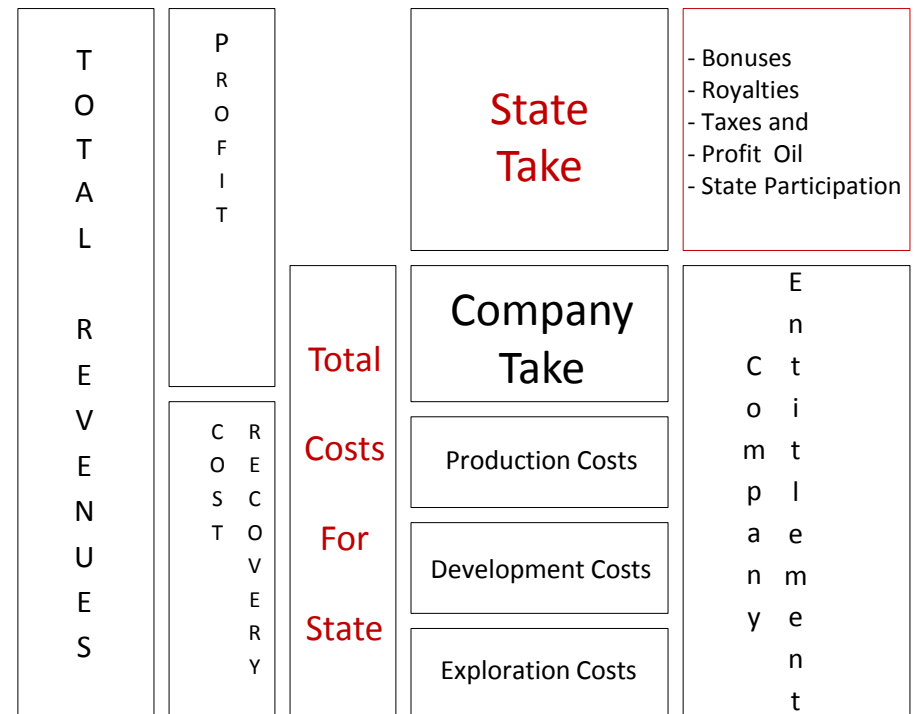
- **Taxation Regimes for the Mining Sector**
  - **Grounds of taxation regimes in the mining sector**
  - Key features of taxation regimes in the mining sector
  - Classification of taxation regimes in the mining sector



## Effective Extractive Industries Taxation Regimes

### Grounds of taxation regimes in the mining sector

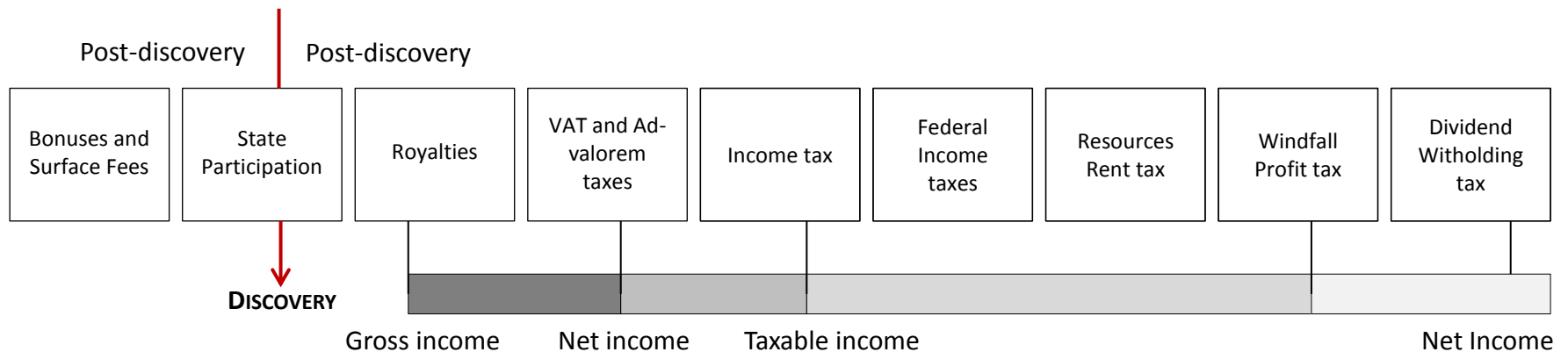
- The share of the extractive rent
  - The State is the **owner** the extractive non-renewable natural resources (US excepted)
  - The State's take of the extractive Rent is a **compensation** for the loss of the extractive non-renewable resources
  - The Company is the **operator** of the extraction: in charge of bearing the **investment** (exploration, development, production) and the **risks** (technological, geological, financial, geopolitical) of the project
  - The Company's take of the extractive Rent is a **remuneration** of its investment, risk and **industrial performance**





## Grounds of taxation regimes in the mining sector

- Standard contracts do not exist in the Extractive Industries
  - A contract is necessarily based upon a **specific economic model** and **specific economic expectations**
  - **Economic models** are key to determine the share of the extractive rent
- Economic models use **fiscal levies** to determine the fair division of rent between the State and the Company





## Grounds of taxation regimes in the mining sector

- Countries use a variety of taxation regimes to levy revenues and share the extractive rent
  - Concession contracts
    - Companies have full control **over the production process**
    - The owner of the extractive resources (e.g. the State) **receives revenues** or equivalent proceeds in return
  - Production sharing contracts
    - **Production outcomes** are negotiated between the State and the Company
    - The owner of the extractive resources (e.g. the State) receives a **portion of the physical production** as a payment for the ownership of the extractive resource



## Grounds of taxation regimes in the mining sector

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### ■ Taxation regimes

- Can be found in **mining codes** or in **common-law tax codes**
  - e.g. Mali (1991, revised in 1999 ), Ghana (1986, revised in 2001), Senegal (1989, revised in 2003)

⇒ **What about the economic underlying of mining projects?**

- Can be set out in **specific project agreements**
  - Fixing a specific fiscal regime for each mining project

⇒ **What about transparency and economic justification?**





## ■ Taxation Regimes for the Mining Sector

- Grounds of taxation regimes in the mining sector
- **Key features of fiscal policies in the mining sector**
- Classification of taxation instruments in the mining sector



## Key features of fiscal policies in the mining sector

- Mining projects extract non-renewable resources
  - The **compensation for the loss** of non-renewable resource is necessary
    - Tax policy response: Royalty tax + Specific income tax
- Mining projects are usually run by multinationals
  - Conducting **risky operations**
    - Tax policy response: Loss carry-forward
  - **Exporting mining products** on the international markets
    - Tax policy response: Exemption of export duties
- Mining projects are capital intensive
  - **Imports of large quantities of equipment** is needed
    - Tax policy response: Exemption of import duties, exemption or reduction of VAT



## Key features of fiscal policies in the mining sector

- Mining projects can be developed on large or small scale
  - The extraction can either be **industrial** or **artisanal**
    - Tax policy response: variable royalty rate + variable income tax rate
- Mining projects are costly
  - Projects are developed in **remote locations**
    - Tax policy response: tax depreciation rates for infrastructure costs
  - Companies can operate on **different licenses**
    - Tax policy response: tax consolidation of exploration and production activities



## Key features of fiscal policies in the mining sector

- Mining projects are finite
  - **Site restoration** and rehabilitation
    - Tax policy response: require a set-aside provision of funds
  - Guiding companies to **environmental and social behaviors**
    - Tax policy response: special incentives or penalties
- Mining products are distinctive
  - Mining products are **rarely final goods**
    - Tax policy response: variable royalty rate for different groups of minerals
  - Commodity prices are **volatile**
    - Tax policy response: loss carry-forward , windfall profit taxes
  - **Long-term contracts, hedging contracts**
    - Tax policy response: transparency on market price risk-sharing



- **Taxation Regimes for the Mining Sector**
  - Grounds of taxation regimes in the mining sector
  - Key features of the fiscal policies in the mining sector
  - **Classification of taxation instruments in the mining sector**



## Classification of taxation instruments in the mining sector

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- Taxation instruments are usually classified into two categories
  - Profits-based taxes
  - Production-based taxes



## Classification of taxation instruments in the mining sector

- Profits-based taxes
  - **Corporate income** tax, determined by
    - The tax rate
    - The fiscal base
  - **Net profit-based royalty**
    - % of net profit
  - **Withholding tax on remitted profits or dividends**



## Classification of taxation instruments in the mining sector

- Profits-based taxes are generally **preferred by** Companies
  - Can **delay** payments of taxes
  - Help Companies to **optimize** their tax-base
- Profit-based taxes may **confuse** the management of the extractive rent
  - Lead to **irregular** public revenues
  - Imply a **strong level** of State capacities to enable secure controls





## Classification of taxation instruments in the mining sector

- Production-based taxes
  - **Unit-based** royalties
    - Based on volume or on weight
  - **Value-based** royalties
    - Based on the value of the product
  - **Value Added Tax (VAT)**
    - Consumption tax levied on value added
    - Most countries have chosen to negate its impact
  - **Import/export** tax
    - Can impact the country's competitiveness – not recommended
  - **Withholding tax** on imported services



## Classification of taxation instruments in the mining sector

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- Production-based taxes are preferred by States
  - Guarantee a **regular level** of public revenues
  - Are **simple** to administer and **cost-efficient** to collect
- Production-based taxes can raise Companies' financial risks
  - Constitute a **yearly cost**, even when the Company is facing losses
  - May **discourage** new investments or marginal explorations



## SUMMARY

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- Taxation Regimes for the Mining Sector
- **Adjustment of taxation regimes to market price volatility: case study**
- Diagnosis and Recommendations



## Effective Extractive Industries Taxation Regimes

# Adjustment of taxation regimes to market price volatility: case study

- Examples of taxation regimes for gold

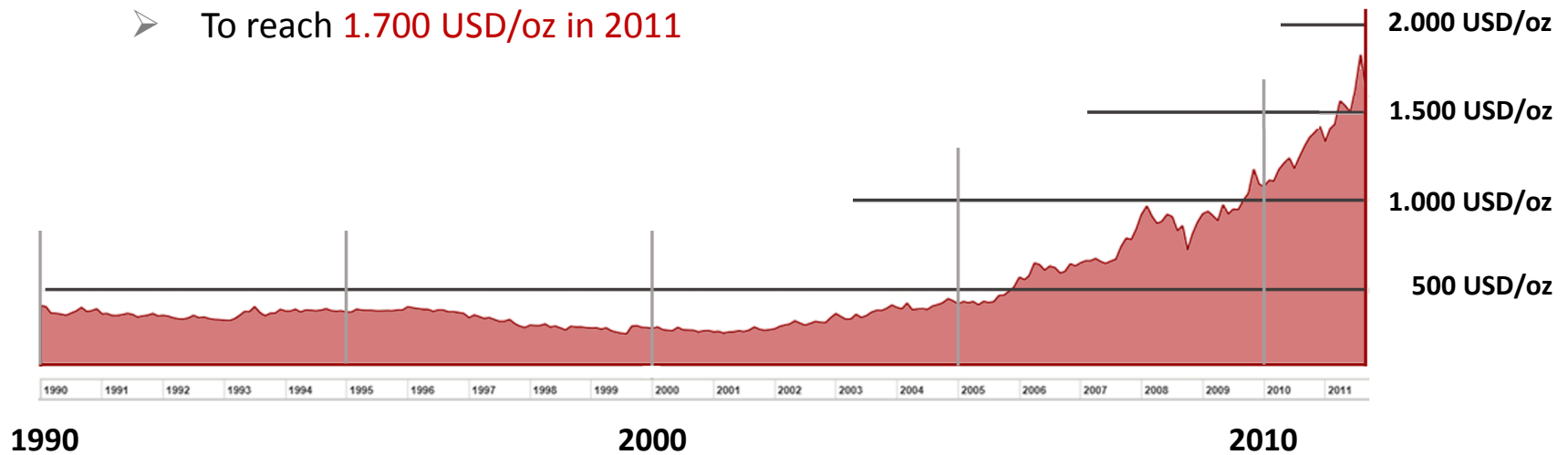
	Country 1	Country 2	Country 3
<b>Surface fees</b>	N/S	N/S	N/S
<b>Royalties</b>	3-6% Tax holiday for the first 3 years	3+3%	5%
<b>Income Tax</b>	25%	45% Tax holiday for the first 5 years	25%
<b>Dividends</b>	10%	10%	10%
<b>VAT and customs duties</b>	Exemption	Exemption	Exemption



## Effective Extractive Industries Taxation Regimes

# Adjustment of taxation regimes to market price volatility: case study

- Market price volatility analysis
  - Stable at 300-400 USD/oz for a couple of decades
  - Tripled during the last five years
  - To reach **1.700 USD/oz in 2011**





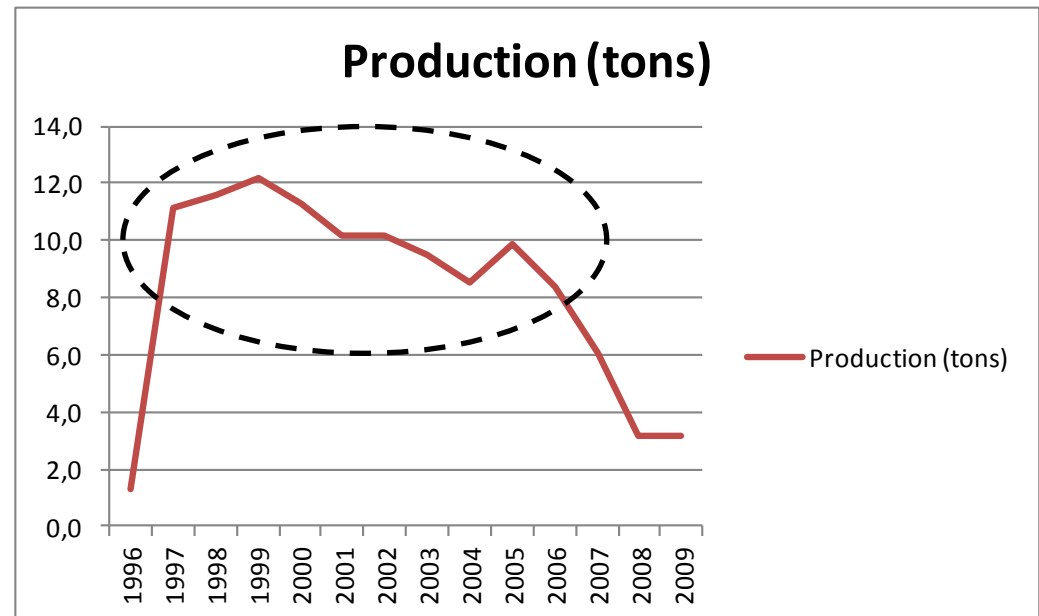
## Adjustment of taxation regimes to market price volatility: case study

- Case study: a gold mine in Africa
  - Initial development plan (1990s)
  - Based on a gold market-price of 350 USD/oz
  - Investment of **200 MUSD**
  - International Company : 90%
  - State : 10%



## Adjustment of taxation regimes to market price volatility: case study

- Production profile
  - 120 tons of gold produced during 15 years
    - mid-1990→2010
  - High level production (“platform” type) for more than 10 years





## Adjustment of taxation regimes to market price volatility: case study

- Division of the extractive rent
  - The State's take is composed of **fiscal revenues**...
    - Royalties + Ad-valorem taxes = 6%
    - Income taxes = 35-45%
  - ... and of **State participations**
    - Dividends from the 10% capital owned in the production company
  - The company's take is composed of the **shares** owned in the production company
    - i.e. 90% in the present case study





## Adjustment of taxation regimes to market price volatility: case study

- Case study: the project's IRR
  - The development plan has been designed with a market price of 350 USD/oz
  - Corresponds to an IRR **beyond 20%**
    - Exceeds the usual 15% usually used to compare mining projects' profitability
  
- A mining project's IRR must cover
  - The **equity** risk
  - The **industrial** risk
  - The **geological** risk
  - The **geographical** risk
  - The industrial performance



## Effective Extractive Industries Taxation Regimes

# Adjustment of taxation regimes to market price volatility: case study

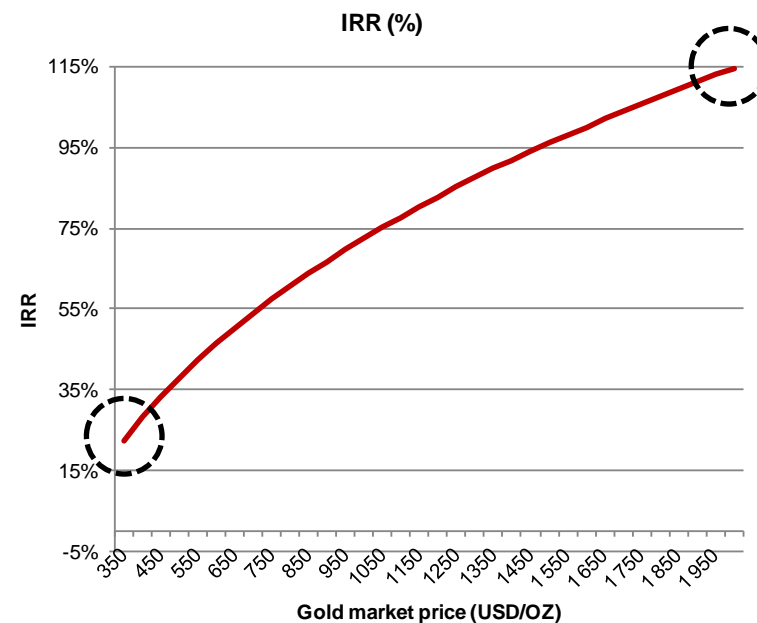
## ■ Division of the Extractive rent

(kUS\$)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total		
Prix <sup>1</sup> (kUS\$/OZ)	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35			
Production <sup>2</sup> (OZ)	40 510	357 034	371 684	391 902	363 254	326 394	326 394	306 332	274 278	316 395	268 555	194 480	101 275	101 275		3 739 762		
Production <sup>3</sup> (tonnes)	1,260	11,105	11,561	12,190	11,313	10,152	10,152	9,528	8,531	9,841	8,353	6,049	3,150	3,150		116,3		
OPEX par once produite <sup>2</sup> (kUS\$/OZ)	0,1562	0,1169	0,1159	0,1106	0,1191	0,1227	0,1228	0,1306	0,1454	0,1276	0,1494	0,1752	0,2575	0,2575				
<b>Revenus Bruts<sup>c</sup></b>	<b>14 179</b>	<b>124 962</b>	<b>130 089</b>	<b>137 166</b>	<b>127 139</b>	<b>114 238</b>	<b>114 238</b>	<b>107 216</b>	<b>95 997</b>	<b>110 738</b>	<b>93 994</b>	<b>68 068</b>	<b>35 446</b>	<b>35 446</b>		<b>1 308 917</b>		
Operating Costs	-6 328	-41 737	-43 078	-43 344	-43 264	-40 049	-40 081	-40 007	-39 880	-40 372	-40 122	-34 073	-26 078	-26 078		-504 491		
CPS	-425	-3 749	-3 903	-4 115	-3 814	-3 427	-3 427	-3 216	-2 880	-3 322	-2 820	-2 042	-1 063	-1 063		-39 268		
Ad Valorem	-425	-3 749	-3 903	-4 115	-3 814	-3 427	-3 427	-3 216	-2 880	-3 322	-2 820	-2 042	-1 063	-1 063		-39 268		
<b>Total OPEX</b>	<b>7 178</b>	<b>49 235</b>	<b>50 884</b>	<b>51 574</b>	<b>50 892</b>	<b>46 903</b>	<b>46 935</b>	<b>46 440</b>	<b>45 640</b>	<b>47 016</b>	<b>45 762</b>	<b>38 157</b>	<b>28 205</b>	<b>28 205</b>		<b>583 026</b>		
Amortissements <sup>a</sup>		-20 655	-20 684	-20 840	-18 979	-19 138	-17 568	-17 618	-17 632	-17 647	-17 661	-5 917	-5 895	-5 873		-206 107		
Reversement de frais bancaires																0		
<b>Profit avant Impôt</b>	<b>7 000</b>	<b>55 072</b>	<b>58 522</b>	<b>64 751</b>	<b>57 268</b>	<b>48 197</b>	<b>49 734</b>	<b>43 158</b>	<b>32 725</b>	<b>46 075</b>	<b>30 571</b>	<b>23 994</b>	<b>1 346</b>	<b>1 368</b>		<b>519 783</b>		
IBC-IS	-45%	Exonération	Exonération	Exonération	Exonération	-5 422	-22 380	-19 421	-14 726	-20 734	-13 757	-10 797	-606	-616		-108 460		
<b>Profit après Impôt</b>	<b>7 000</b>	<b>55 072</b>	<b>58 522</b>	<b>64 751</b>	<b>57 268</b>	<b>42 775</b>	<b>27 354</b>	<b>23 737</b>	<b>17 999</b>	<b>25 341</b>	<b>16 814</b>	<b>13 197</b>	<b>740</b>	<b>752</b>		<b>411 323</b>		
<b>Rente Etat</b>	<b>1 551</b>	<b>13 005</b>	<b>13 658</b>	<b>14 705</b>	<b>13 355</b>	<b>16 554</b>	<b>31 970</b>	<b>28 228</b>	<b>22 286</b>	<b>29 912</b>	<b>21 078</b>	<b>16 201</b>	<b>2 807</b>	<b>2 818</b>	<b>0</b>	<b>228 127</b>	<b>38%</b>	
CPS	3%	425	3 749	3 903	4 115	3 814	3 427	3 427	3 216	2 880	3 322	2 820	2 042	1 063	1 063	0	39 268	
Ad-Valorem	3%	425	3 749	3 903	4 115	3 814	3 427	3 427	3 216	2 880	3 322	2 820	2 042	1 063	1 063	0	39 268	
Impot sur les Societes	45%	0	0	0	0	0	5 422	22 380	19 421	14 726	20 734	13 757	10 797	606	616	0	108 460	
Dividends	10%	700	5 507	5 852	6 475	5 727	4 277	2 735	2 374	1 800	2 534	1 681	1 320	74	75	0	41 132	
<b>Rente Partenaires</b>	<b>90%</b>	<b>6 300</b>	<b>49 565</b>	<b>52 670</b>	<b>58 276</b>	<b>51 541</b>	<b>38 497</b>	<b>24 619</b>	<b>21 363</b>	<b>16 199</b>	<b>22 807</b>	<b>15 133</b>	<b>11 877</b>	<b>666</b>	<b>677</b>	<b>0</b>	<b>370 191</b>	<b>62%</b>
<b>Total (Etat + Partenaires)</b>		<b>7 851</b>	<b>62 570</b>	<b>66 327</b>	<b>72 981</b>	<b>64 896</b>	<b>55 051</b>	<b>56 589</b>	<b>49 591</b>	<b>38 485</b>	<b>52 719</b>	<b>36 211</b>	<b>28 078</b>	<b>3 473</b>	<b>3 495</b>	<b>0</b>	<b>598 318</b>	



## Adjustment of taxation regimes to market price volatility: case study

- The fundamental issue is rather to determine whether the Company is **able to reach the internal rate of return it expected** to reward its investment, risk and industrial performance
- Sensitivity analysis to gold market price volatility
  - IRR of **20%** for a market price of 350 USD/oz
  - IRR of **111%** for a market price of 2.000 USD/oz

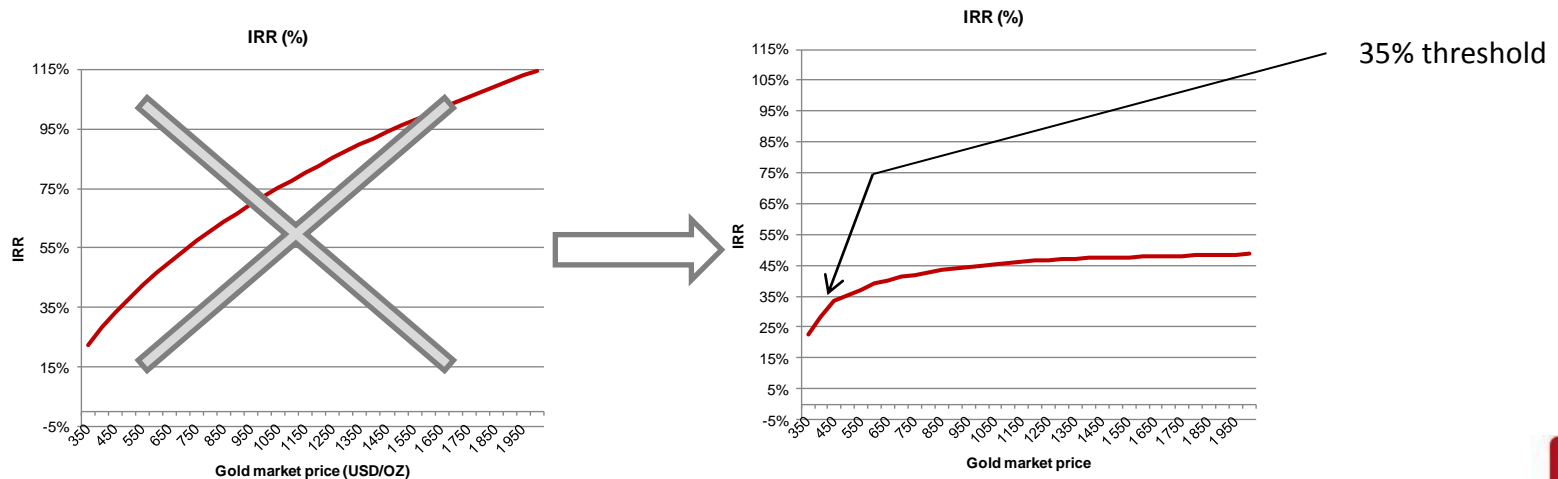




## Adjustment of taxation regimes to market price volatility: case study

### ■ Analysis

- Taxation regimes in most African countries do not allow to regulate the Companies's levels of profits in high market price contexts
- The IRR of the project should not exceed 35%

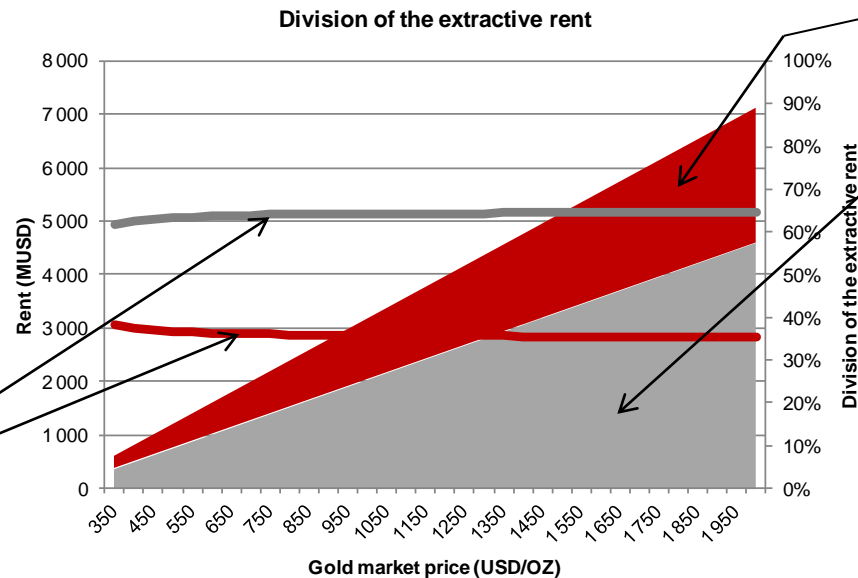




## Effective Extractive Industries Taxation Regimes

# Adjustment of taxation regimes to market price volatility: case study

### ■ Sensitivity analysis to gold market price volatility



The evolution of the division of the extractive rent, however, remains stable :

- 62-64% for the Company
- 36-38% for the State

The evolution of the State's take of the extractive rent remains **relatively low** compared to the Company's take

— Company's take      — State's take

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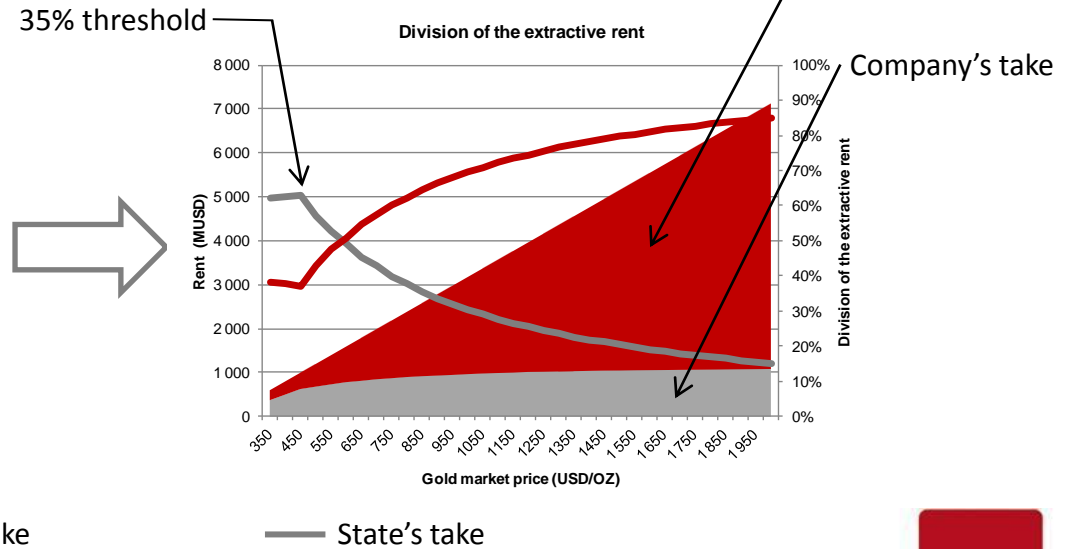
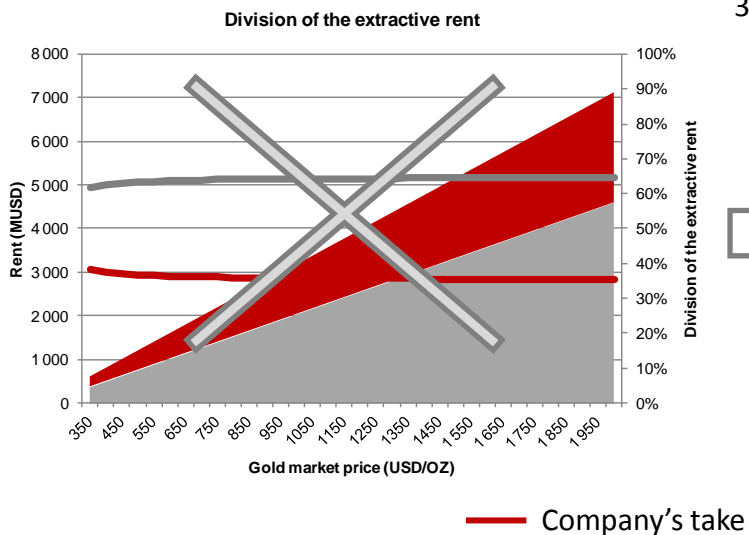


## Effective Extractive Industries Taxation Regimes

# Adjustment of taxation regimes to market price volatility: case study

### ■ Analysis

- Over 500 USD, the division of the extractive rent should reverse to reach, progressively, **10%** for the Company and **90%** for the State



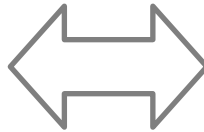


## Adjustment of taxation regimes to market price volatility: case study

- Taxation regimes in country 1 and 3
  - Taxation regimes in these countries are **similar**
  - They differ to Country 2's taxation regimes on the Income tax

**25%**  
(Country 1 et 3)

**No tax holiday**



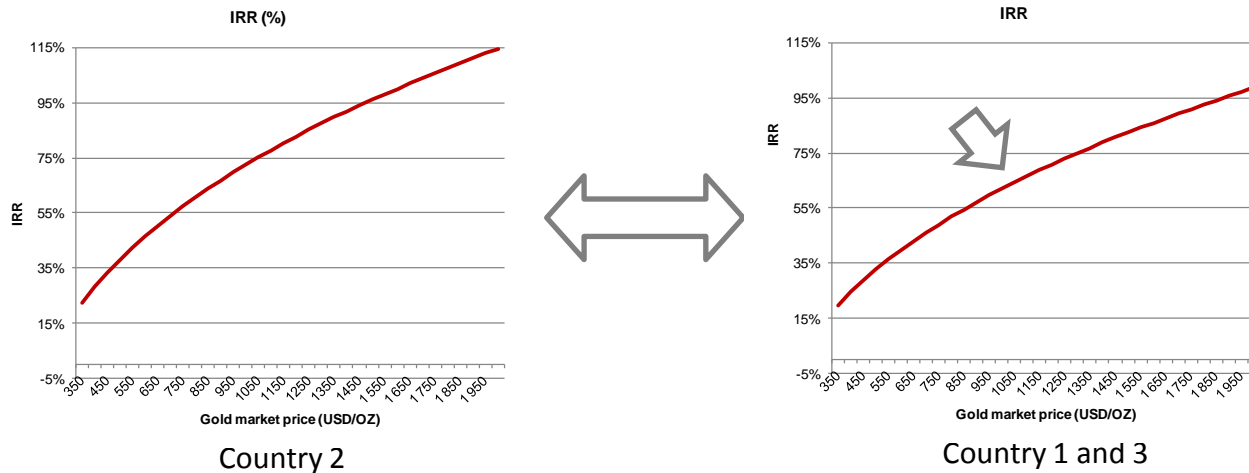
**45%**  
(Country 2)

**3-5 years of tax holiday**



## Adjustment of taxation regimes to market price volatility: case study

- Comparison of the same project within two different taxation regimes



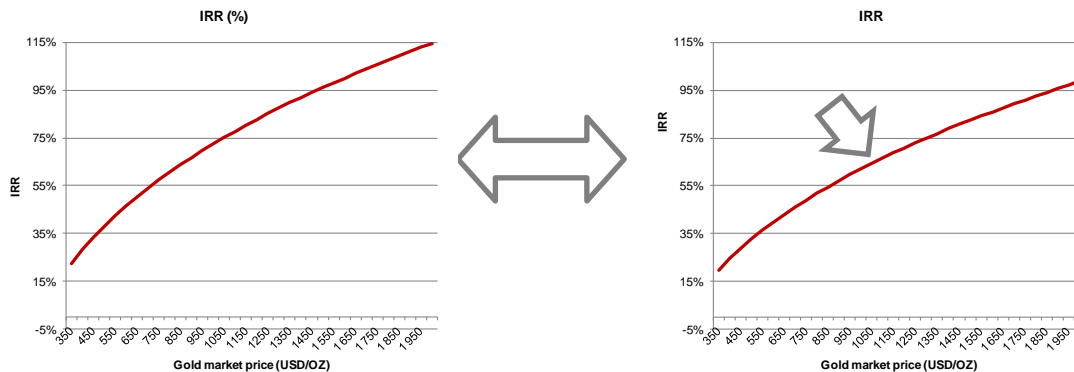
- IRR is **lower** in countries 1 and 3
  - Similar IRR for a market price of 350 USD/oz
  - IRR of 96% vs. 111% for a market price of 2.000 USD/oz





## Adjustment of taxation regimes to market price volatility: case study

- Raise of gold market prices or increased industrial performance?



- How to fairly adjust the division of the extractive rent
  - Replace the tax holiday for a loss carry-forward
  - Adopt a windfall profit tax



## SUMMARY

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- Taxation Regimes for the Mining Sector
- Adjustment of taxation regimes to market price volatility: case study
- **Diagnosis and Recommendations**



- **Diagnosis and Recommendations**
  - **How can States maximize their taxation regimes?**
  - How can fiscal controls optimize States' revenues?
  - The positive impact of the EITI
  - Contract revisions vs. Fiscal adjustments



## How can States maximize their fiscal regimes?

- **Diagnosis**
  - Limited understanding of the concept of the extractive rent
  - Standardized mining codes (good) ... including royalty and income tax rates (non-sense)
  - Insufficient link between the project's economic model and taxation regimes
  - Weak tax administration: incomplete comprehension of the projects economics



## How can States maximize their fiscal regimes?

- Recommendations
  - Understanding of the **underlying** of fiscal policies
    - Beyond the legal expertise
  - Follow-up of the **current** development plans
    - Sensitivity analysis
    - Monitoring of the realized budget
  - Benchmark of the **other** national taxation regimes



## ■ Diagnosis and Recommendations

- How can States maximize their taxation regimes?
- **How can tax administration optimize States' revenues?**
- The positive impact of the EITI
- Contract revisions vs. Fiscal adjustments



## How can tax administration optimize States' revenues ?

- **Diagnosis**
  - **Limited capacities** of civil servants on contractual frameworks
  - **Lack of integrated information** at the State level
    - Lack of communication between services
    - Lack of dialogue between administrations
  - **Absence of distinction** between the State's tasks: Sovereign State or State as partner?
  - **Scarce available information** on transfer pricing
    - States rarely request "at cost" reports from Companies



## How can tax administration optimize States' revenues ?

- Recommendations
  - Nomination of a **State control coordinator**
    - High-level, respectable and reputable
    - Able to reach information at the highest levels of the administration
  - **Reorganization** of State controls and **clear division** of tasks
    - Between civil servants at the administrative level
    - Between the overlapping Sovereign and Partner roles of the State
  - A rigorous **control procedure**





## ■ Diagnosis and Recommendations

- How can States maximize their taxation regimes?
- How can fiscal controls optimize States' revenues?
- **The positive impact of the EITI**
- Contract revisions vs. Fiscal adjustments



## The positive impact of the EITI

- **Diagnosis**
  - The Extractive Industries Transparency Initiative (EITI) seeks to reinforce the **governance** and **management** of extractive public revenues
  - The EITI initiates
    - A **clearer** and more transparent State accountability
    - A **formal link** between mining revenues and development programs
- **Recommendations**
  - EITI implementation generates
    - An **enhanced dialogue** between the administrative bodies
    - An **improved transparency** in tax collection process



- **Diagnosis and Recommendations**
  - How can States maximize their taxation regimes?
  - How can fiscal controls optimize States' revenues?
  - The positive impact of the EITI
  - **Contract revisions vs. Fiscal adjustments**



## Contract revisions vs. Fiscal adjustments

### ■ Diagnosis

- Why **change** the contractual framework?
  - Mining revenues may not increase in correct relation with commodity prices
  - States rarely took into account the changing market prices when designing their taxation regimes
- What does it **involve**?
  - Changing mining contracts into sophisticated contracts must go with the capacity to deal with more complex taxation regimes

### ■ Recommendations

- Revision of contracts raises a **few concerns**
  - Breaching contractual stability clauses may lead to costly arbitrations
  - Contract revision may damage the country's reputation and affect the future developments in the extractive sector
- States should focus first on the **full implementation** of existing taxation regimes
- Only then should States consider contract revision



Effective Extractive Industries  
Taxation Regimes

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