CHAMBER OF MINES
of South Africa

ESKOM TARIFF APPLICATION TO NERSA: MINING SECTOR RESPONSE

Henk Langenhoven
Chief Economist: Chamber of Mines
Midrand
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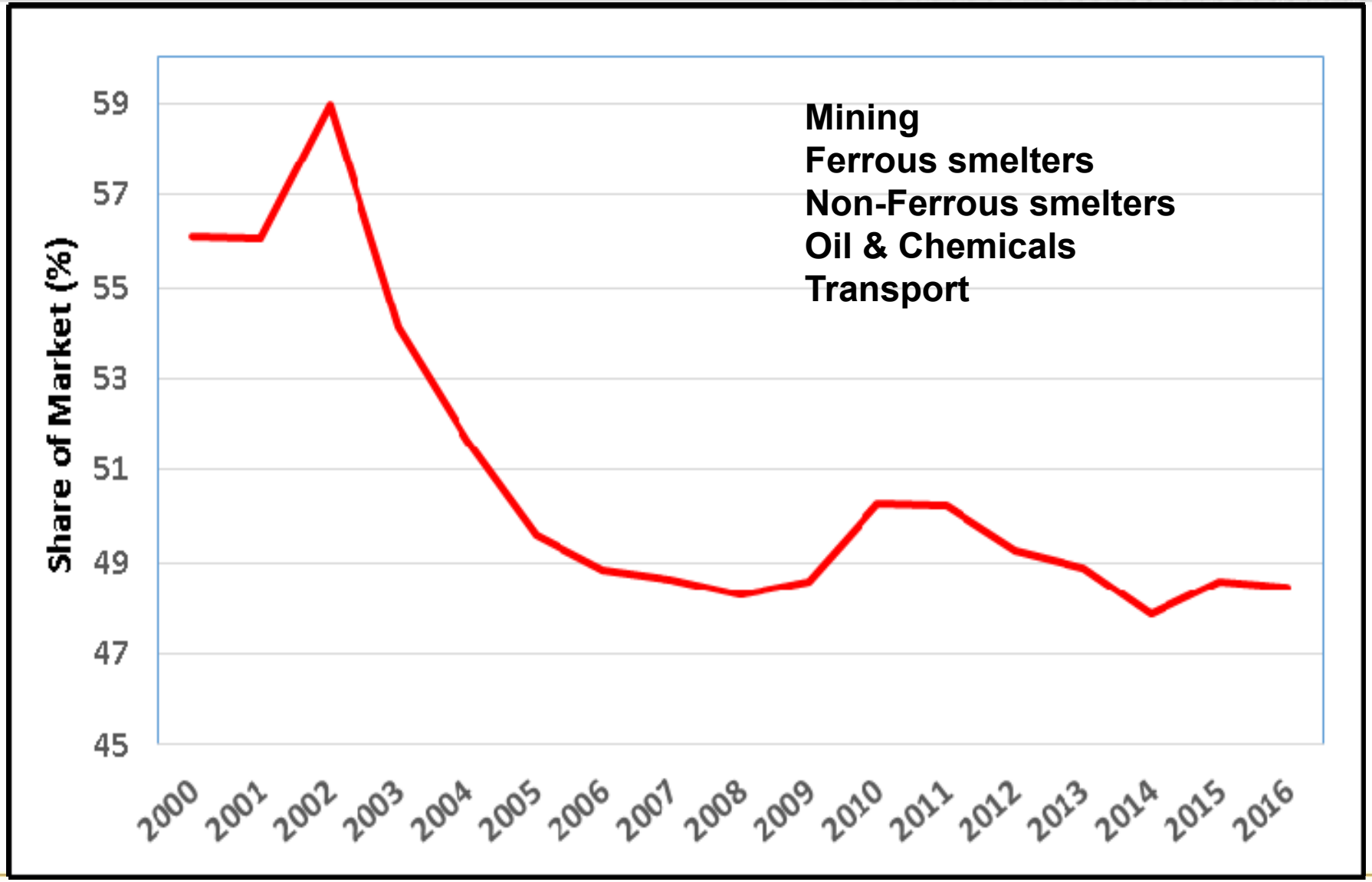
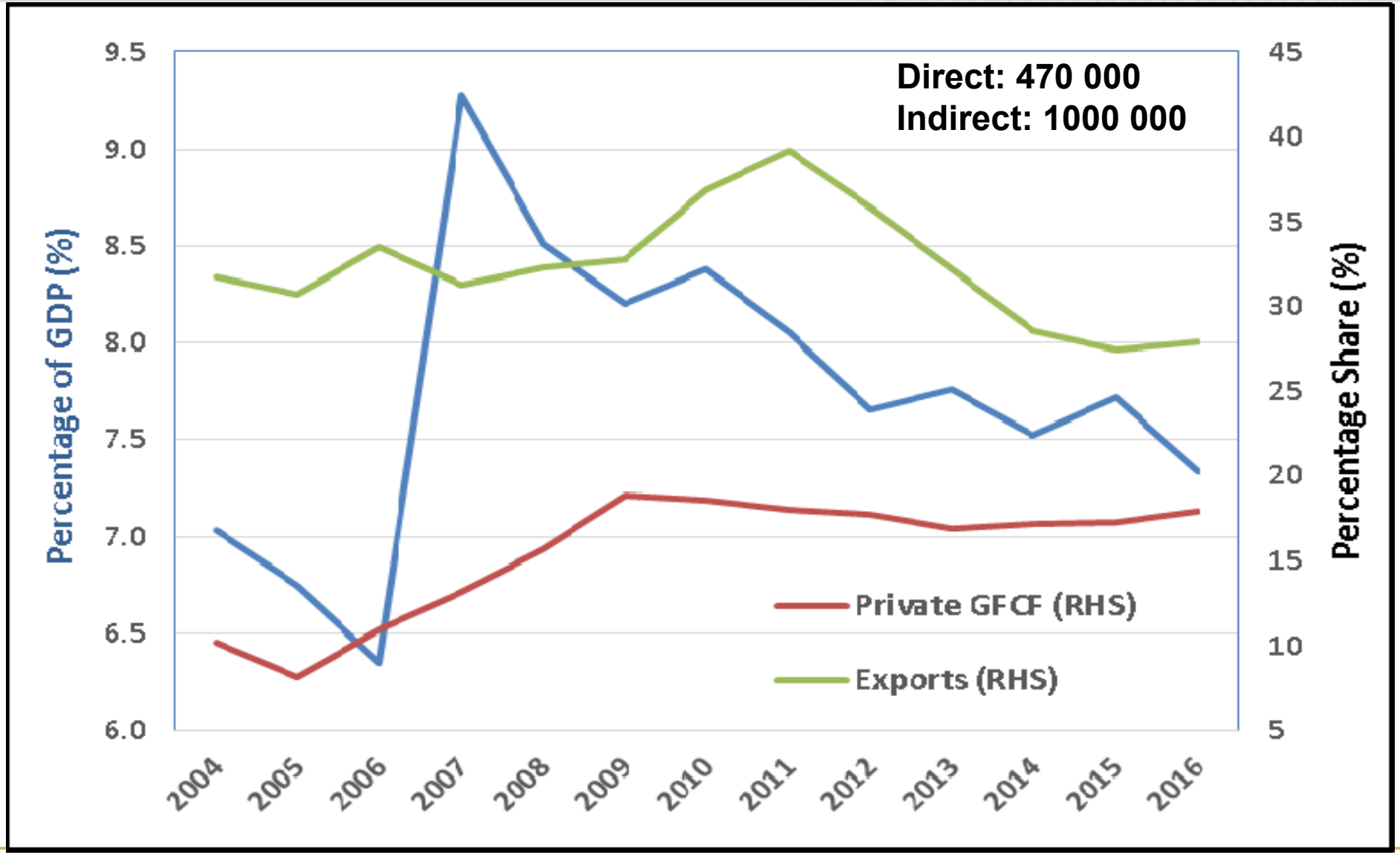
Content

- The electricity scenario for the mining sector
- The CLIFF, commodity prices, costs and profitability
- Eskom's response and impact on the mining sector
- Binding constraints and solutions

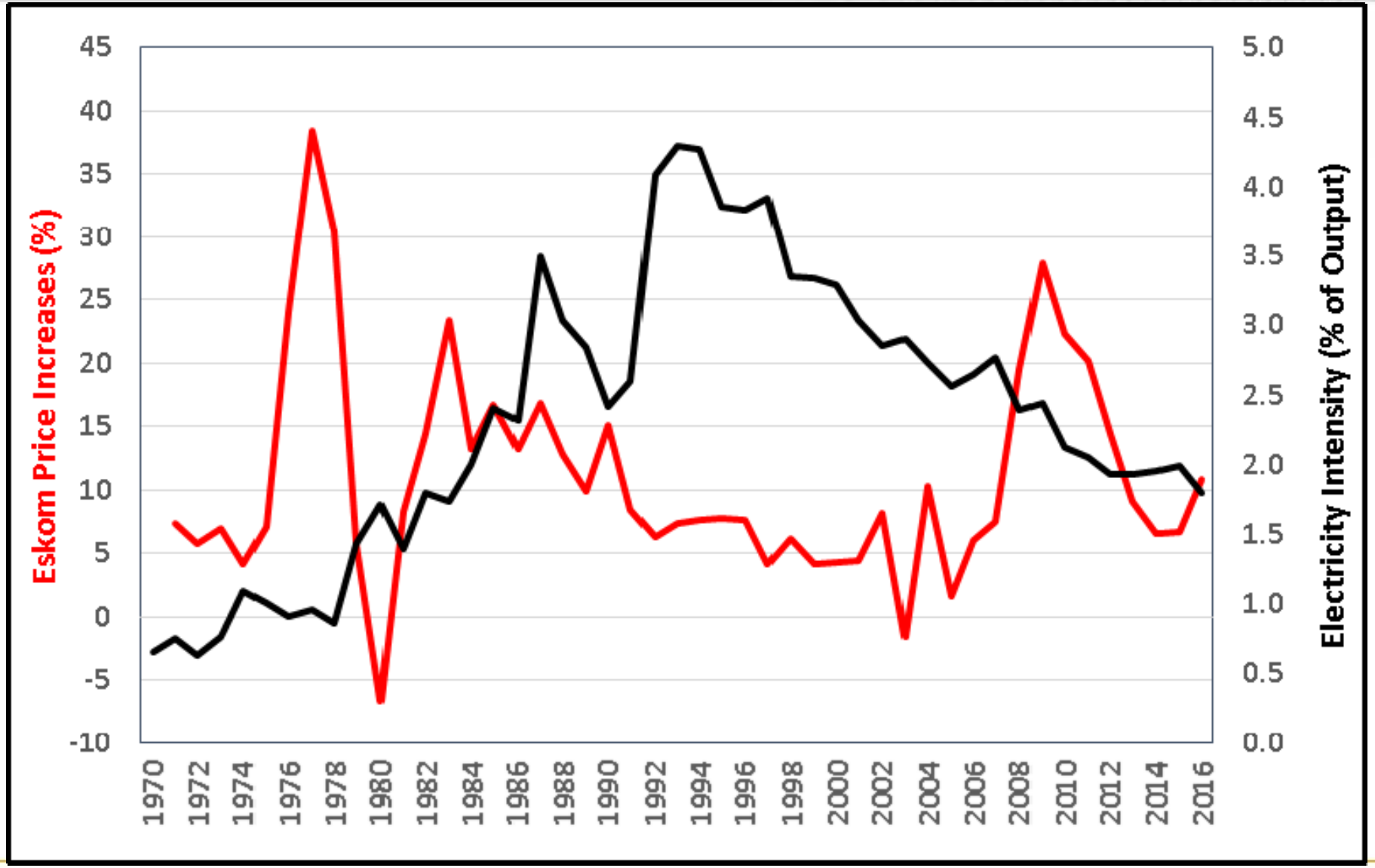
Share of electricity demand



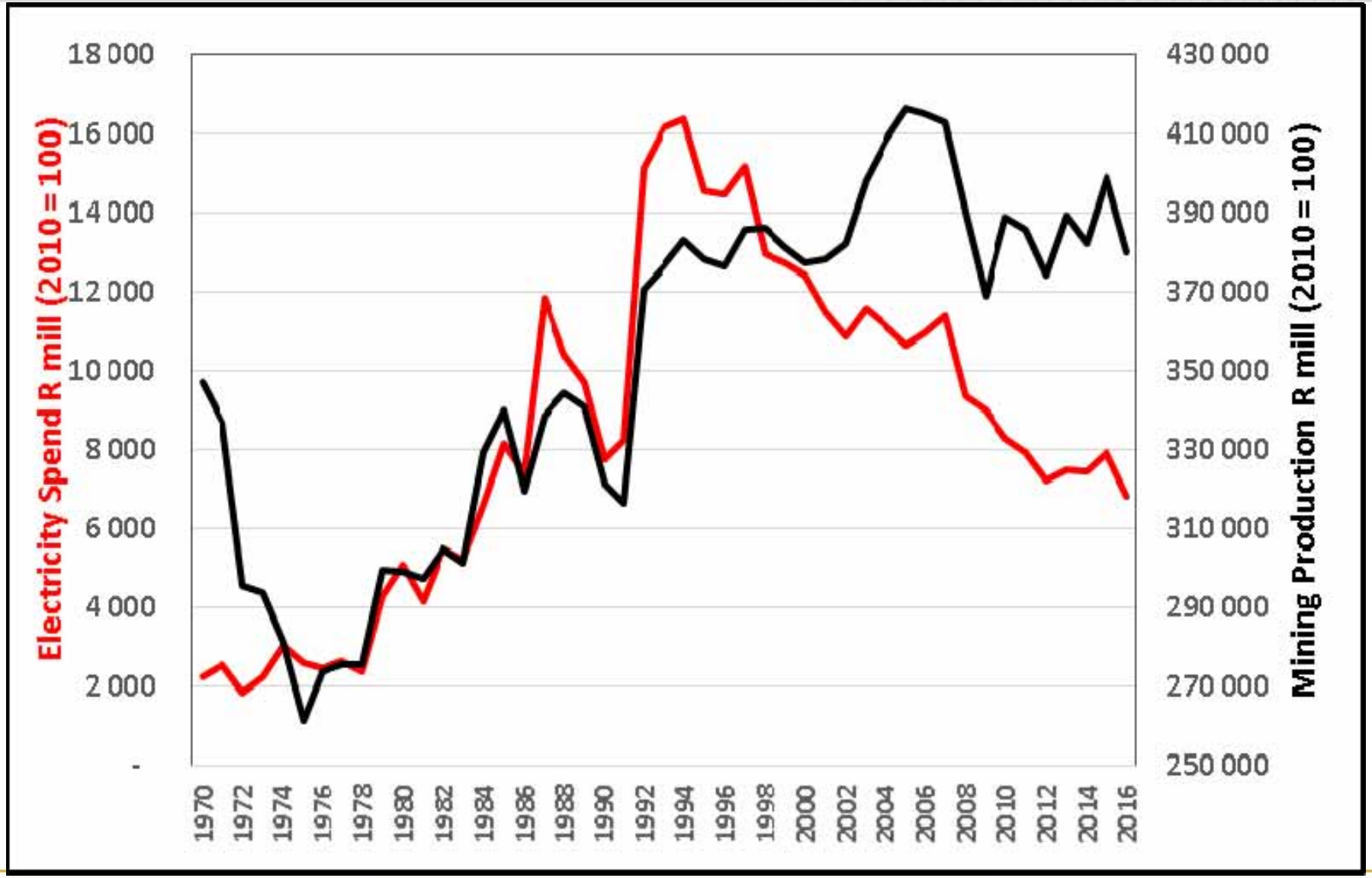
Mining contribution to the economy



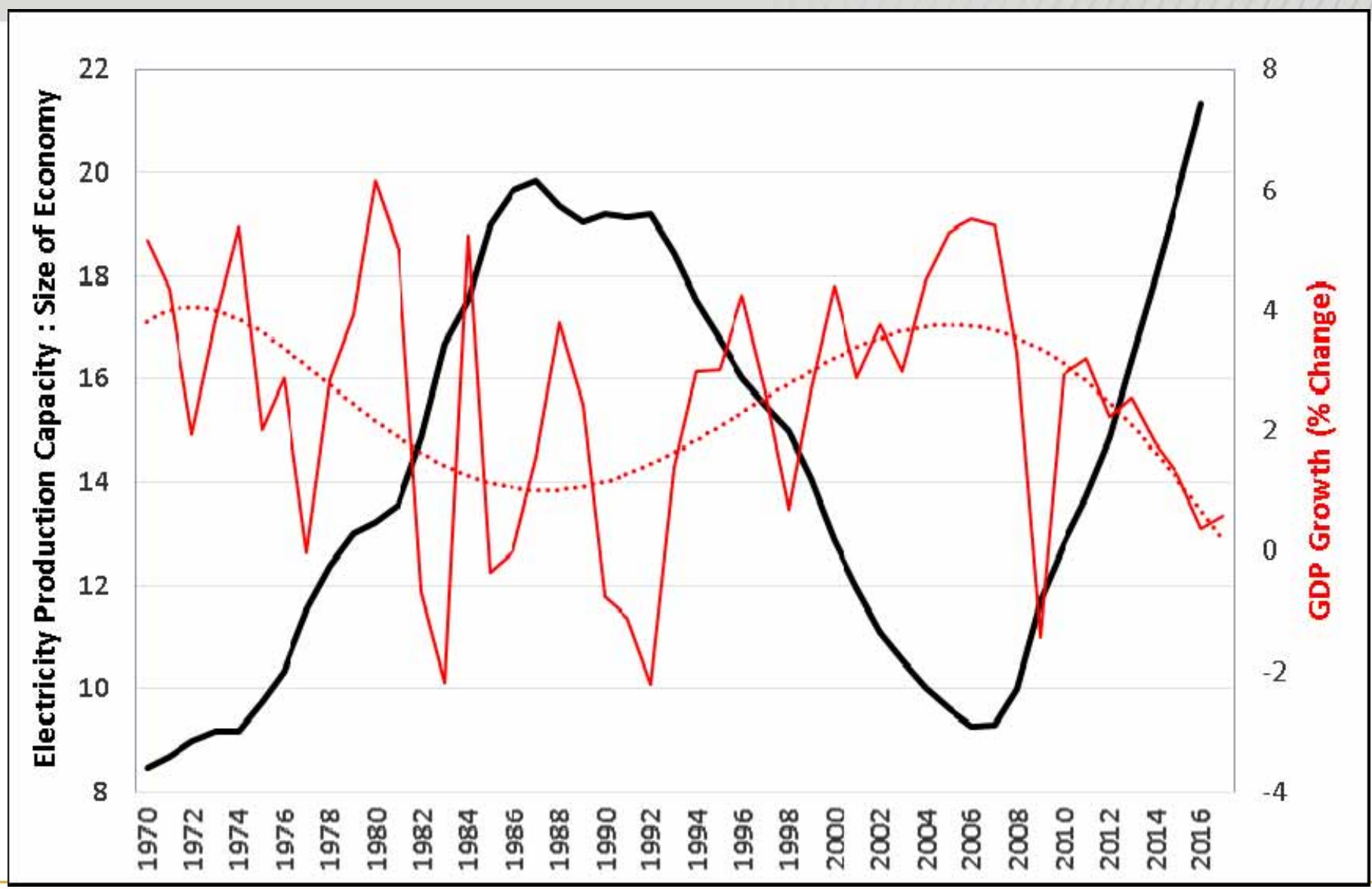
Mining electricity intensity vs prices



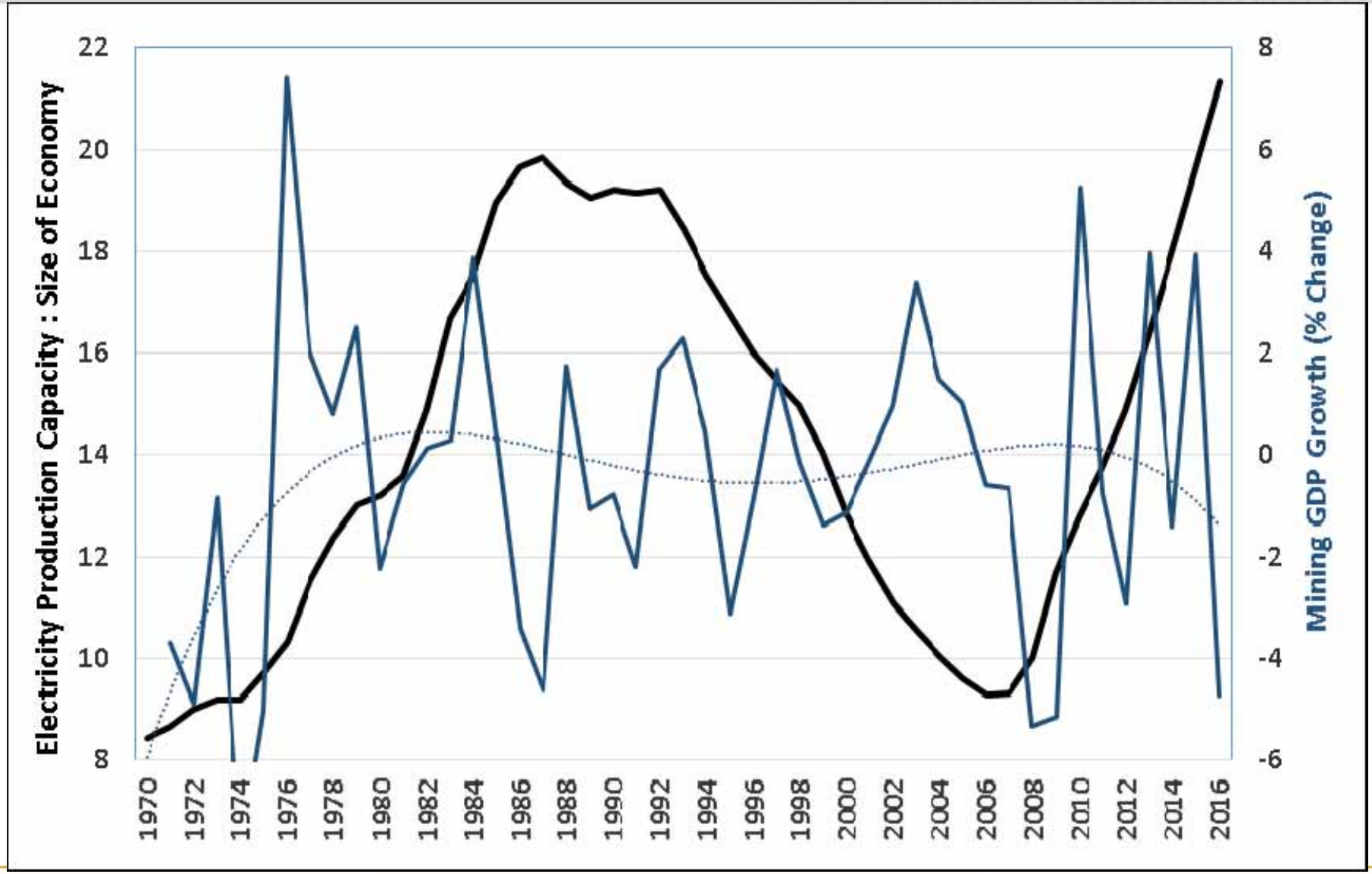
Mining electricity spend vs production



Electricity over capacity vs economic growth



Electricity over capacity vs mining growth



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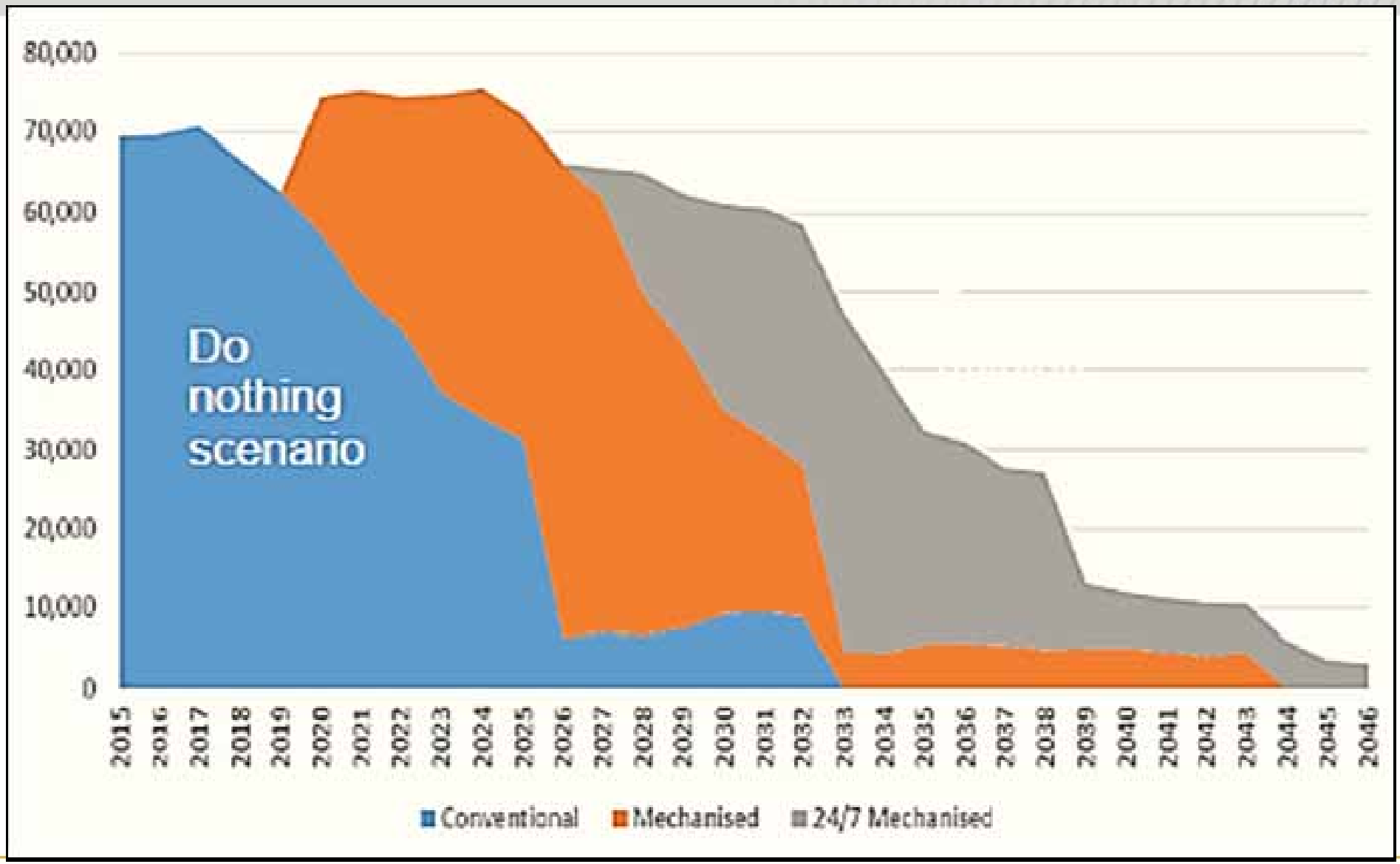
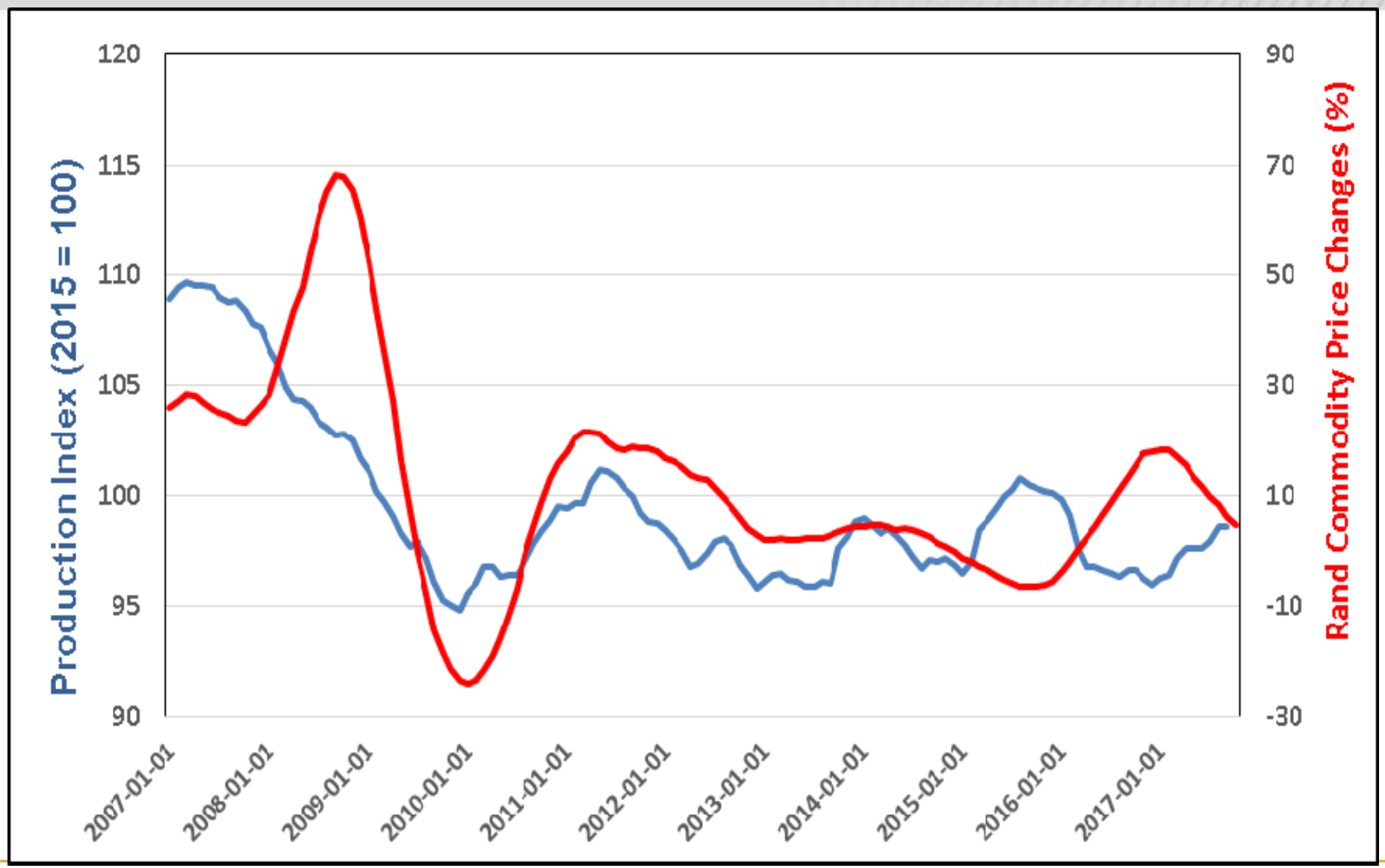
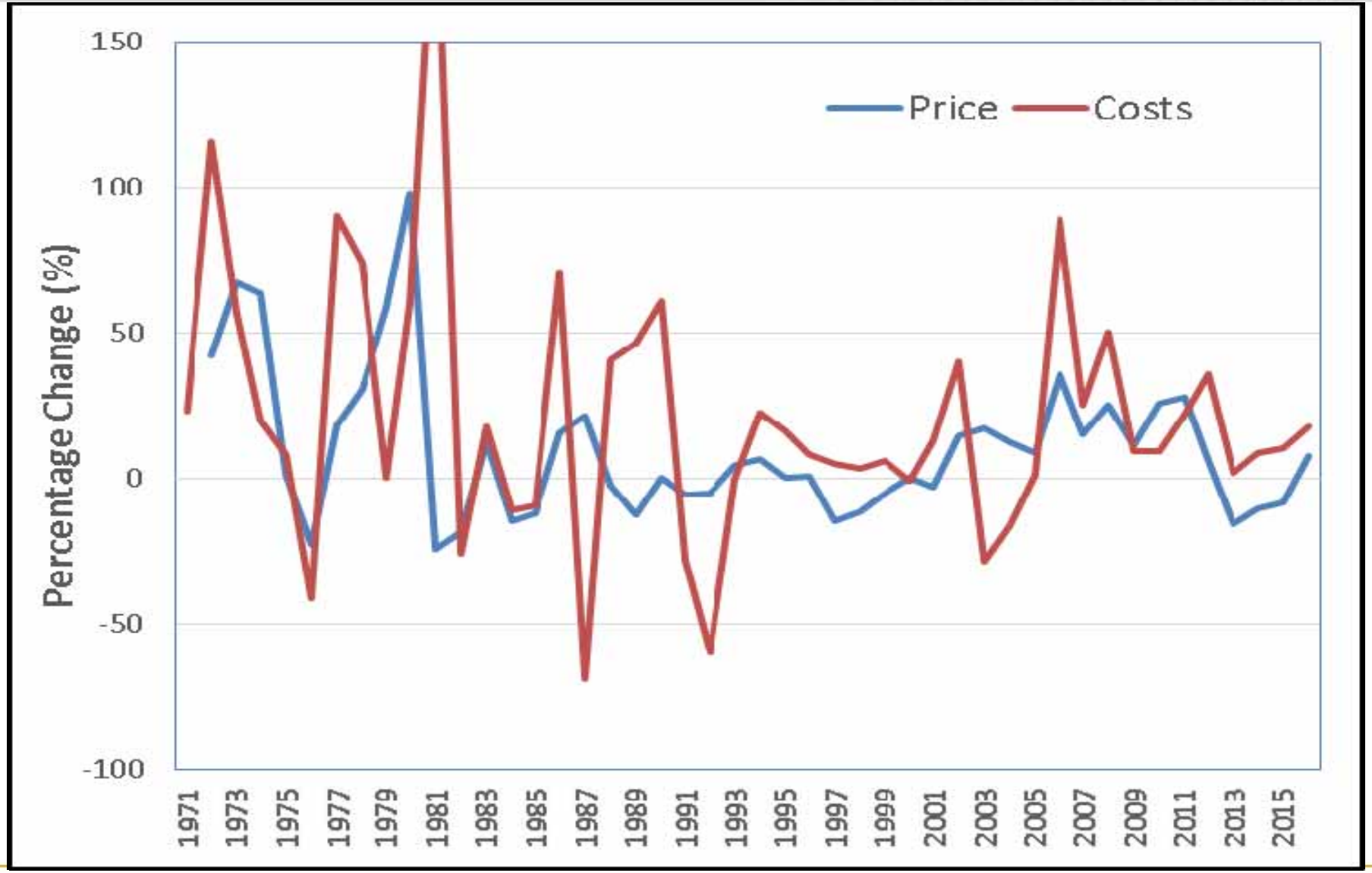
Project Phakisa: gold mining scenarios



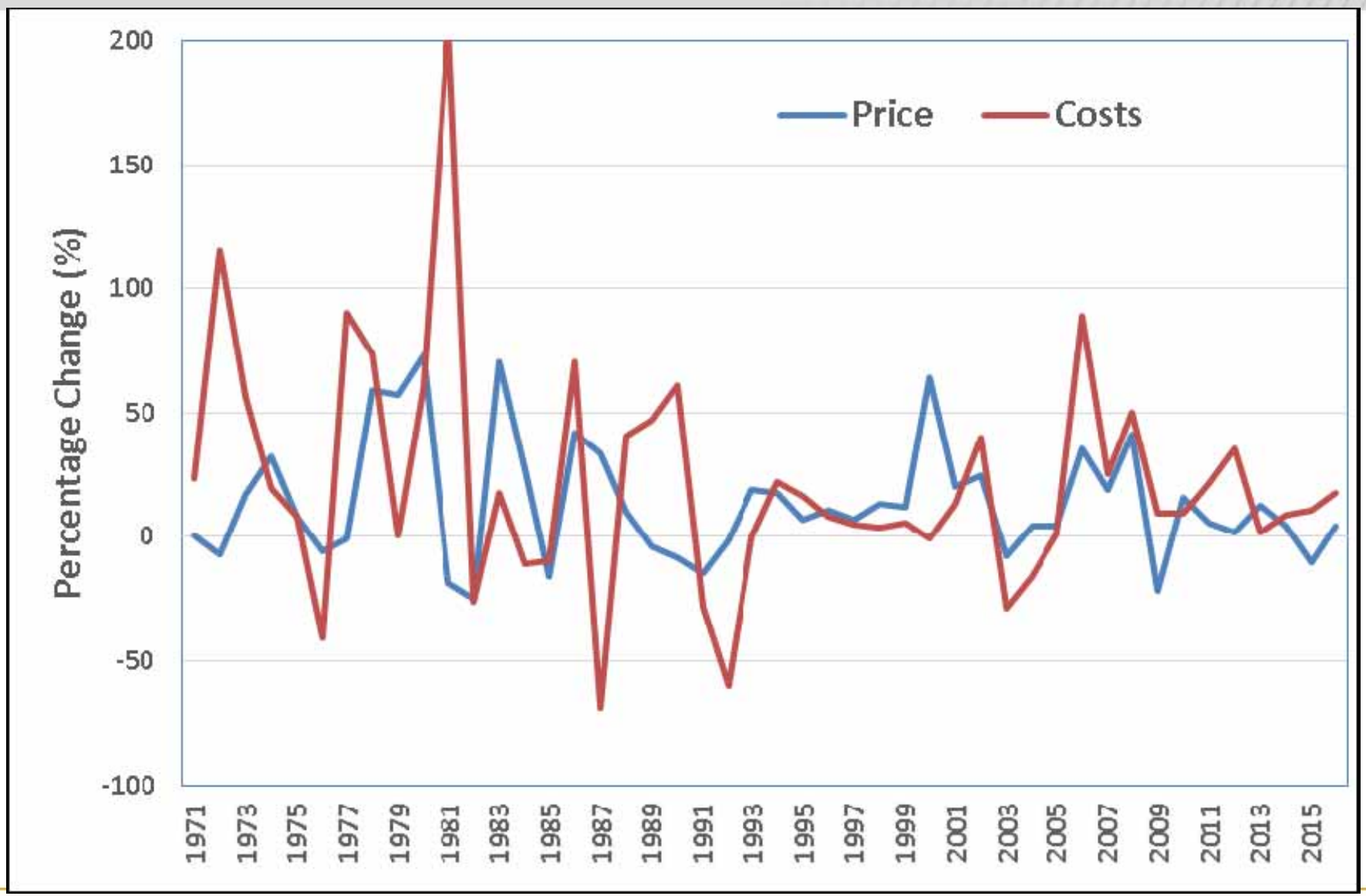
Commodity prices & mining production



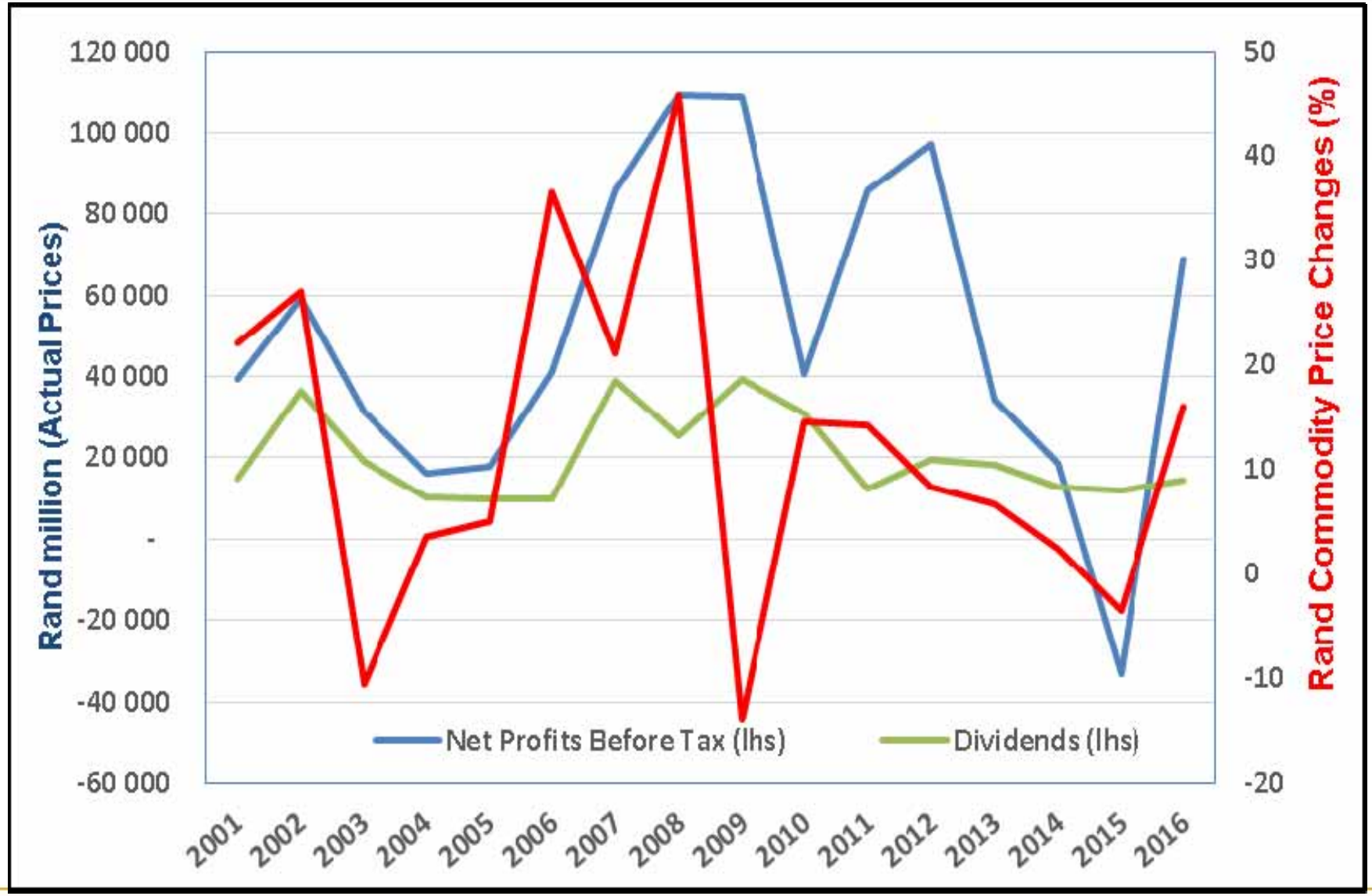
Gold price movements vs costs



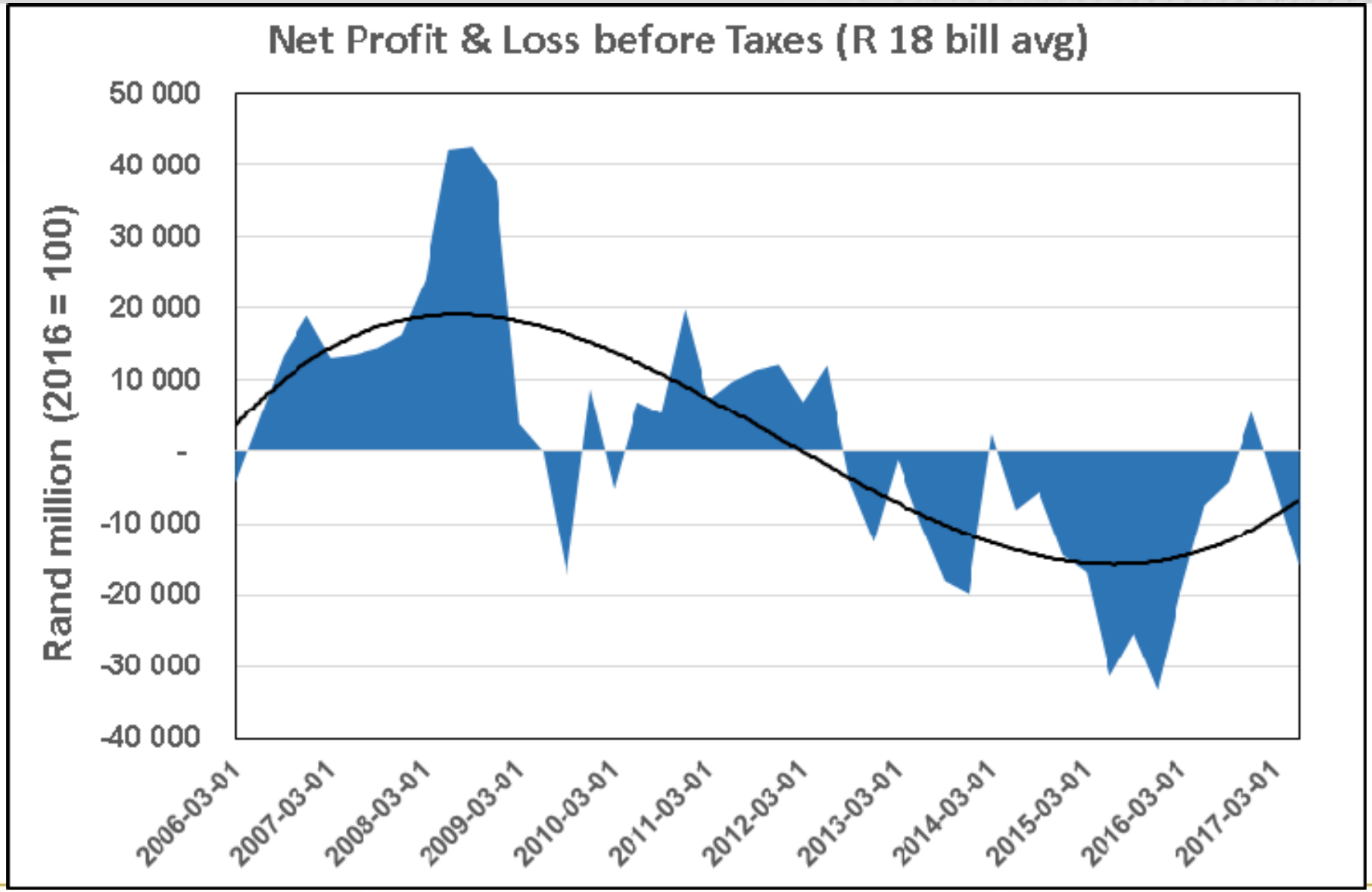
Platinum price movements vs costs



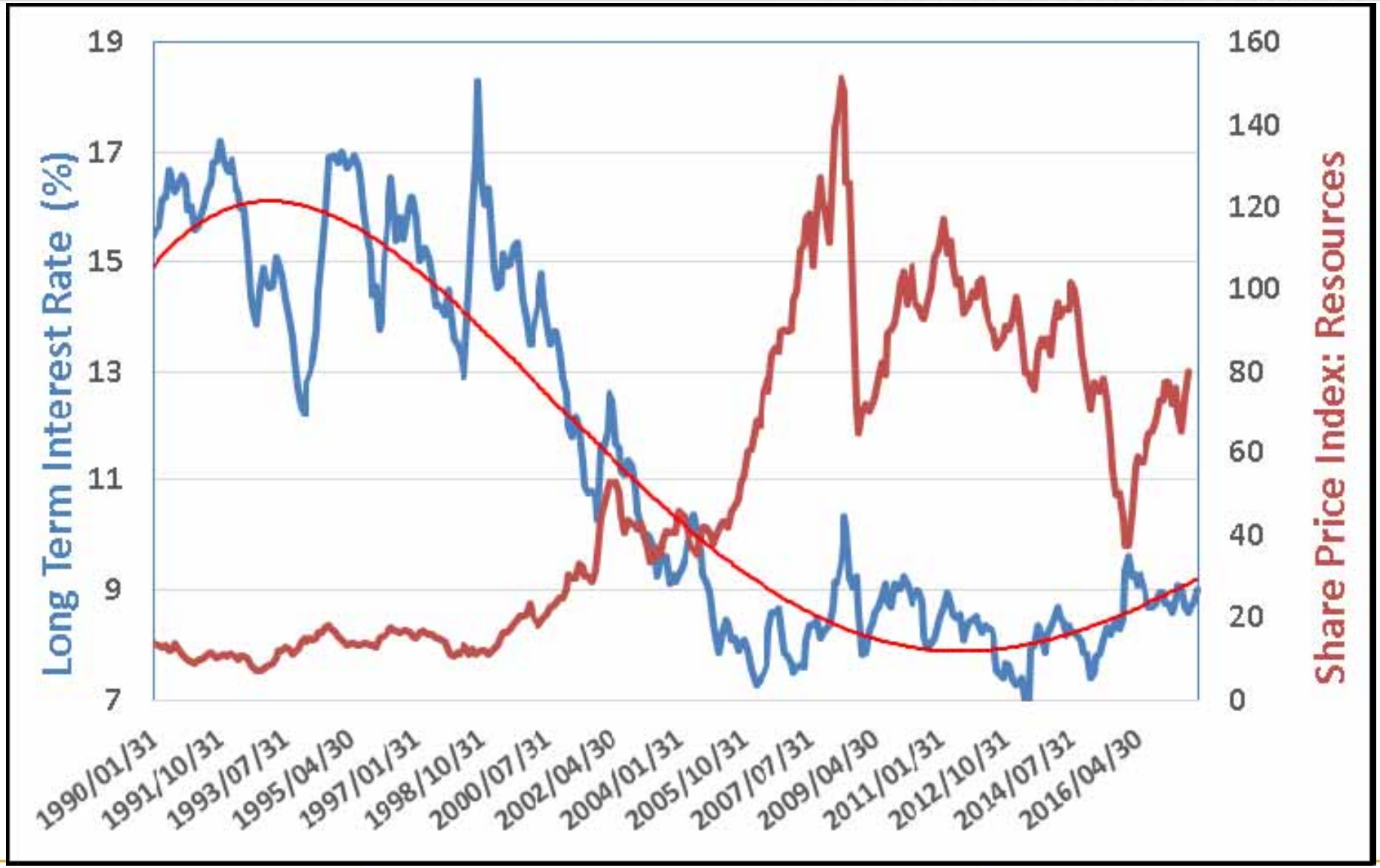
Commodity cycle instability & profitability



Mining sector profitability



Mine share prices & cost of capital



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Eskom response

	Weighted average production increase	Weighted average price increase
1970-1980	8,94	13,99
1980-1990	6,01	14,86
1990-2000	3,33	6,49
2000-2010	1,96	9,09
1970-2016	4,24	10,26
1980-2016	2,96	9,33
1990-2016	2,09	8,78
2000-2016	0,94	12,06
2005-2016	-0,21	15,04
2010-2016	0,66	10,35

1. Price increase(s) of 20%

Economic growth: -0.1% on 0,6% points = 17% decline

Cumulative **Employment** -600,000

Mining: -5% to -9% decline

Employment: -25,000 to -41,000

2. Government support

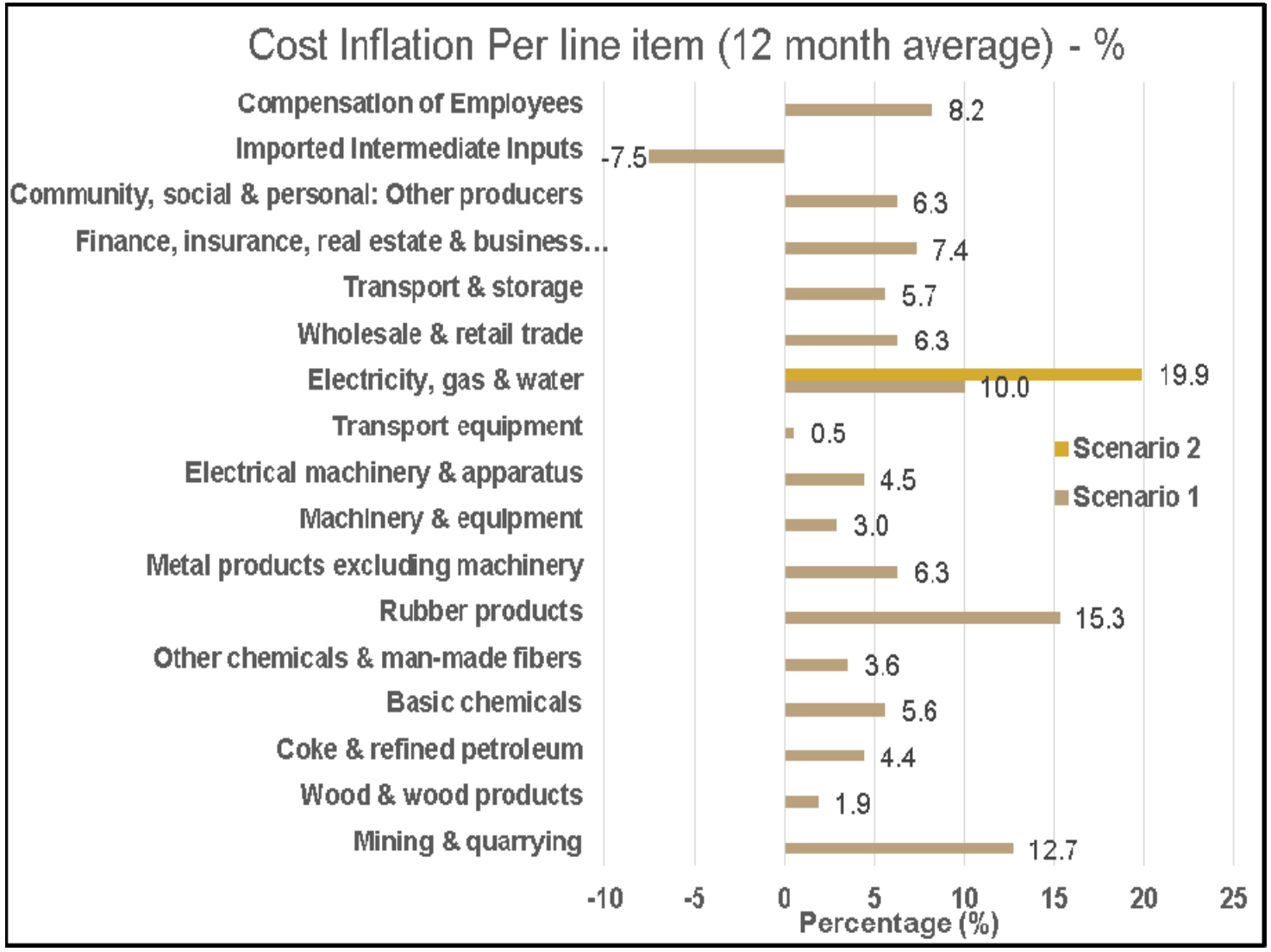
Government debt : GDP up to + 100%

Economic decline and hardship

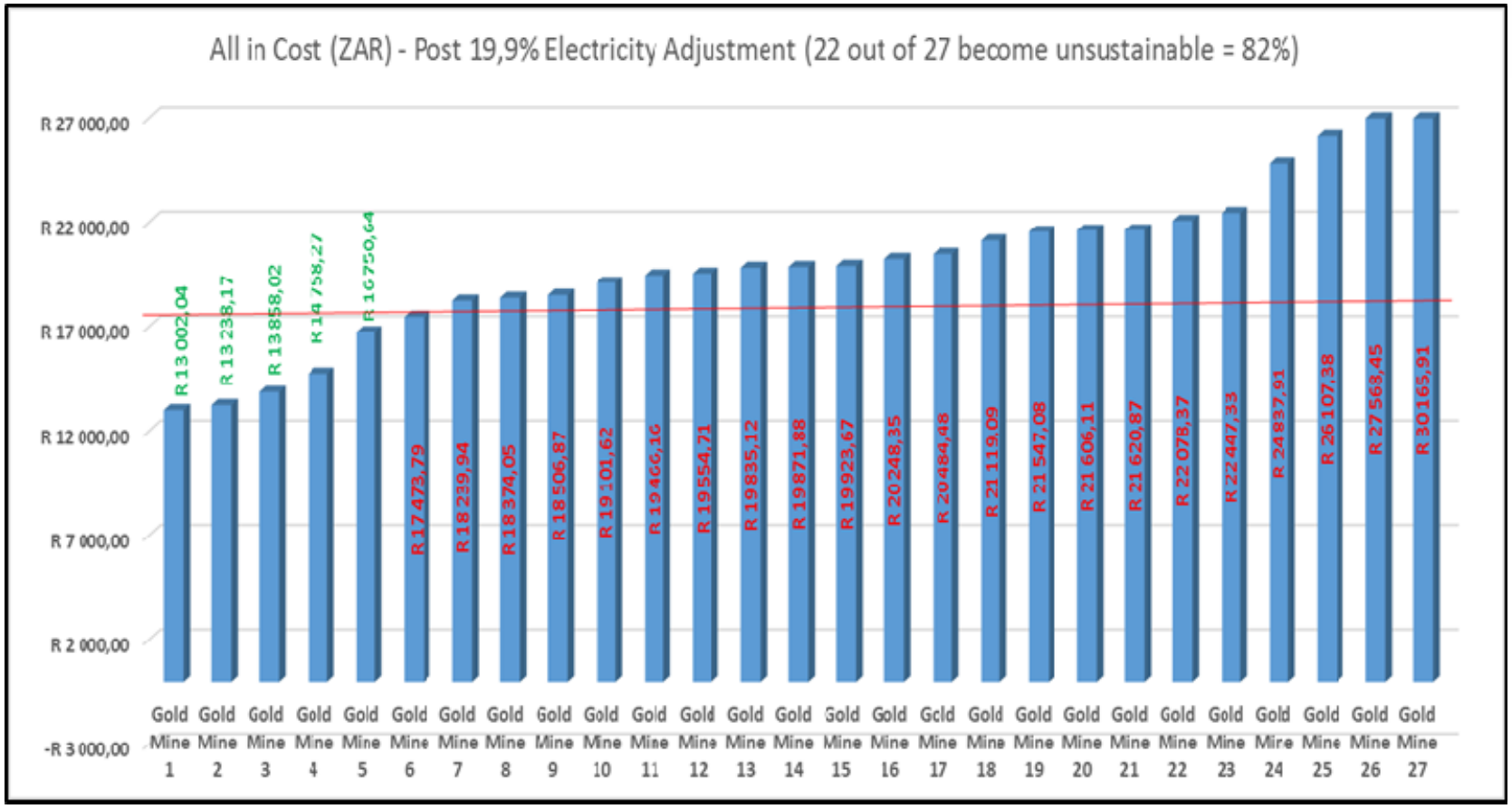
Mining composite cost index

Cost Basket	Total Mining	Coal	Gold and Uranium Ore	Other Mining
Intermediate Cost Basket				
Mining & quarrying	1,22%	0,78%	1,29%	1,26%
Wood & wood products	1,52%	0,44%	8,01%	0,43%
Coke & refined petroleum	1,32%	1,54%	0,88%	1,28%
Basic chemicals	1,85%	1,03%	4,62%	1,45%
Other chemicals & man-made fibers	2,98%	3,20%	4,60%	2,52%
Rubber products	1,41%	2,46%	1,22%	1,08%
Metal products excluding machinery	1,85%	2,12%	3,56%	1,36%
Machinery & equipment	5,11%	5,86%	7,71%	4,30%
Electrical machinery & apparatus	0,93%	1,51%	1,23%	0,63%
Transport equipment	1,39%	1,47%	1,81%	1,20%
Electricity, gas & water	5,79%	3,00%	22,00%	4,37%
Wholesale & retail trade	4,93%	5,90%	7,02%	4,17%
Transport & storage	43,89%	43,04%	1,96%	52,49%
Finance, insurance, real estate & business services	4,69%	4,71%	9,78%	3,59%
Community, social & personal: Other producers	2,22%	2,22%	3,09%	1,97%
Residual	0,00%	0,00%	0,00%	0,00%
Imported Intermediate Inputs	18,92%	21%	21,30%	17,91%
Total Intermediate Costs (Ex Labour)	100,00%	100,00%	100,00%	100,00%
Intermediate Costs	65%	69%	47%	69,5%
Compensation of Employees	35%	31%	53%	30,5%
Total Input Costs	100%	100%	100%	100,0%

Mining input component cost trends

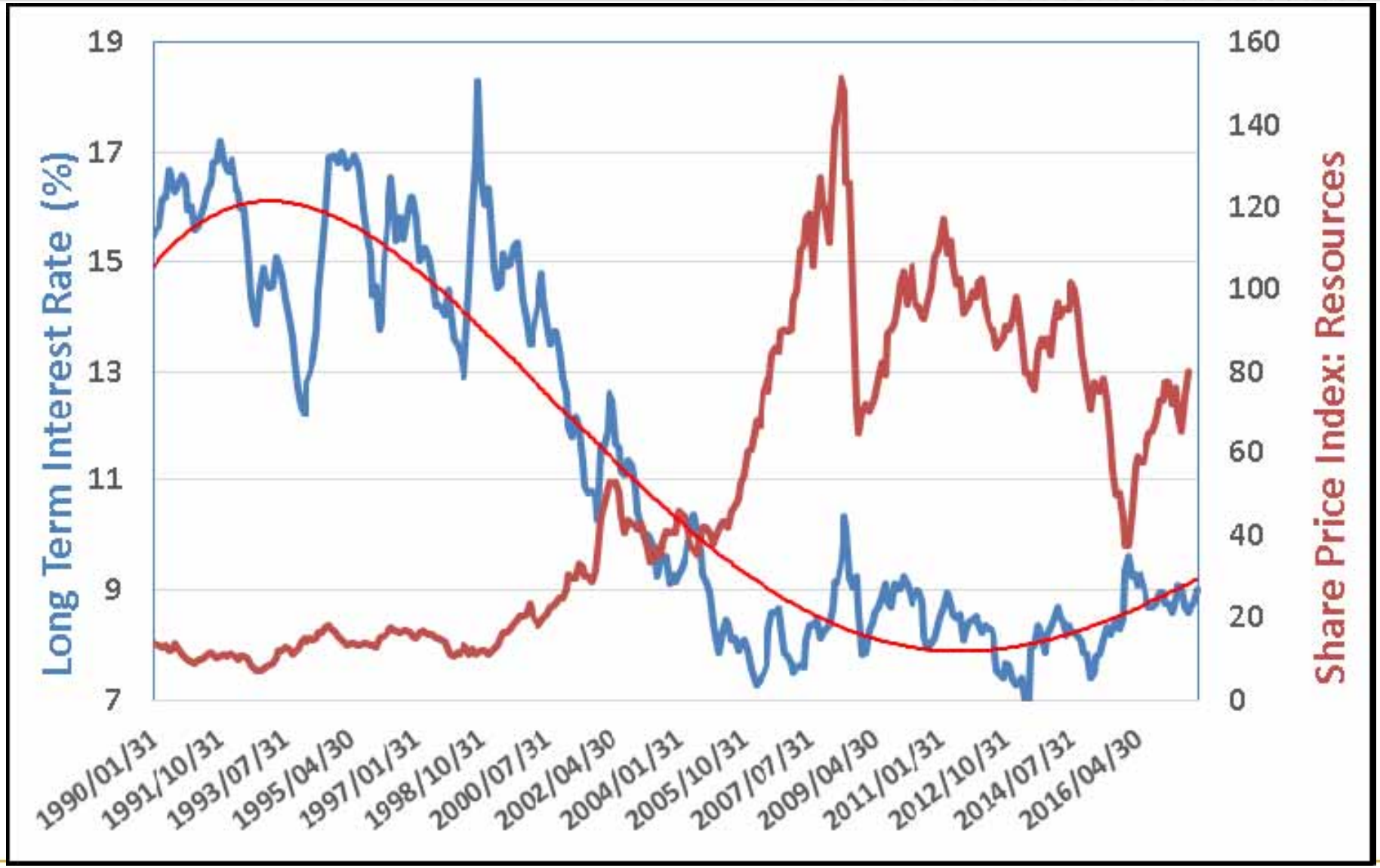


Impact on the mining sector

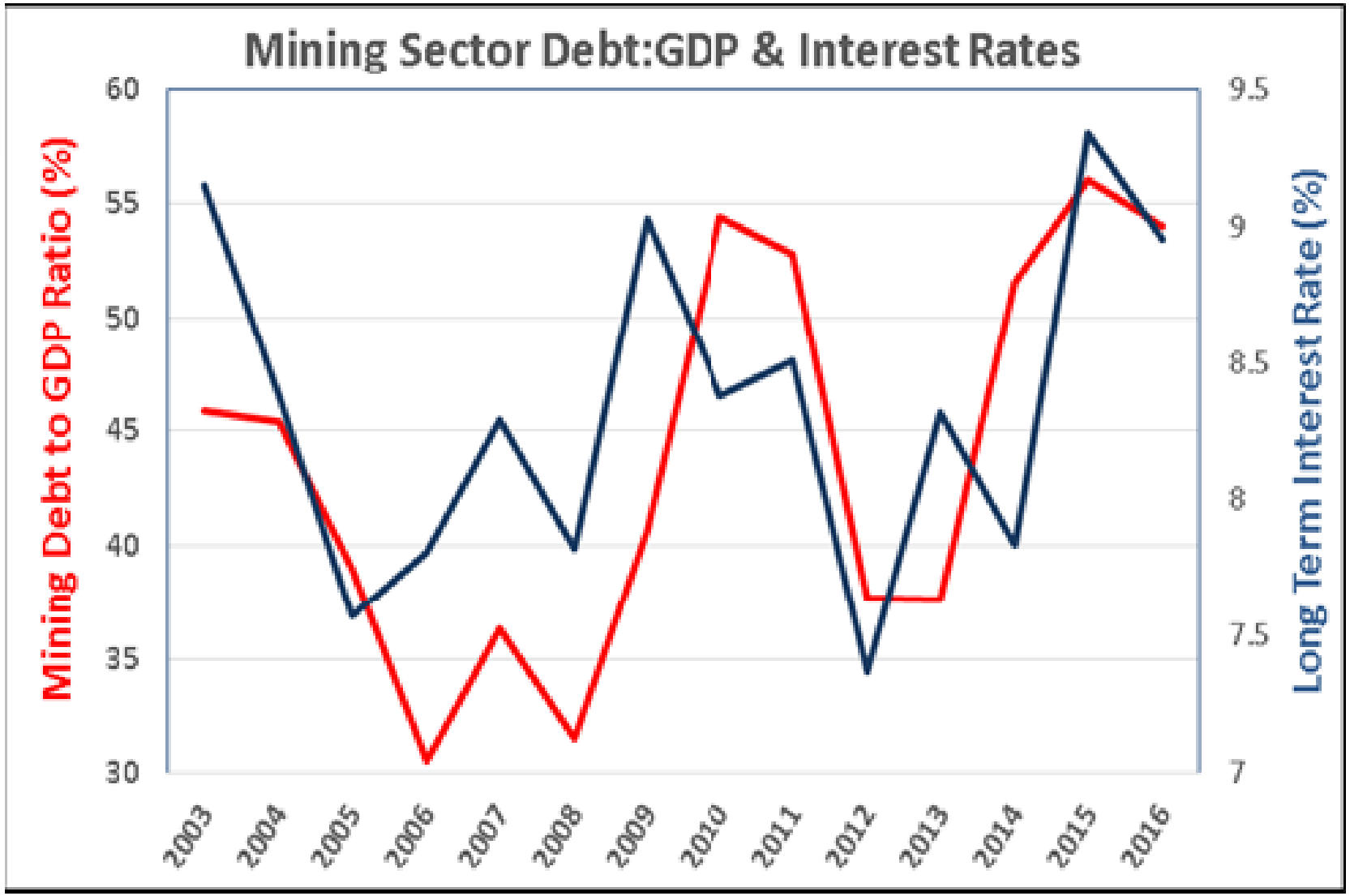


- R3.21bn costs
- 66% of gold and platinum mines unsustainable
- 48,000 jobs at risk

Mine share prices & cost of capital



Mining sector debt to VA & cost of capital



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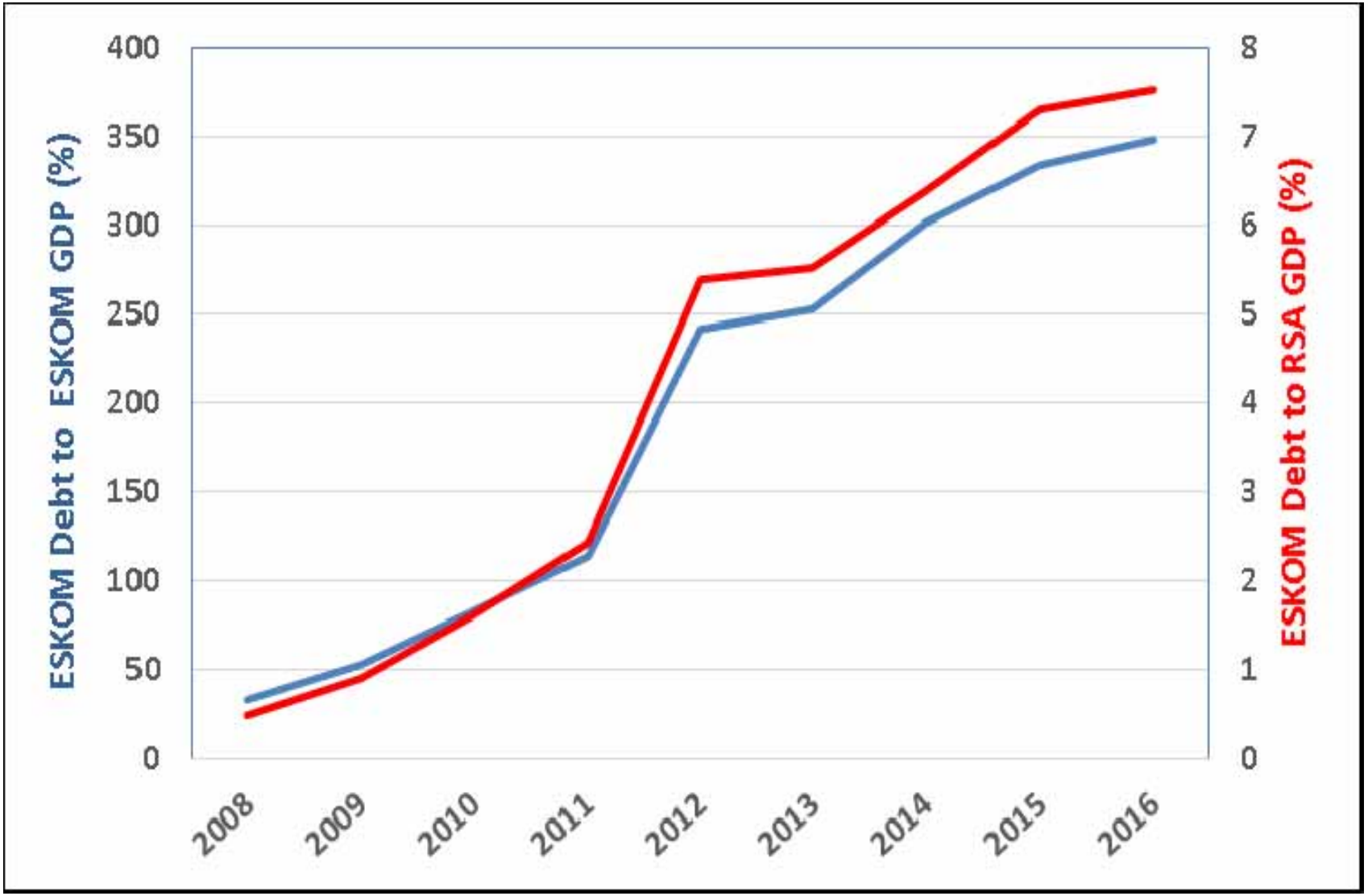
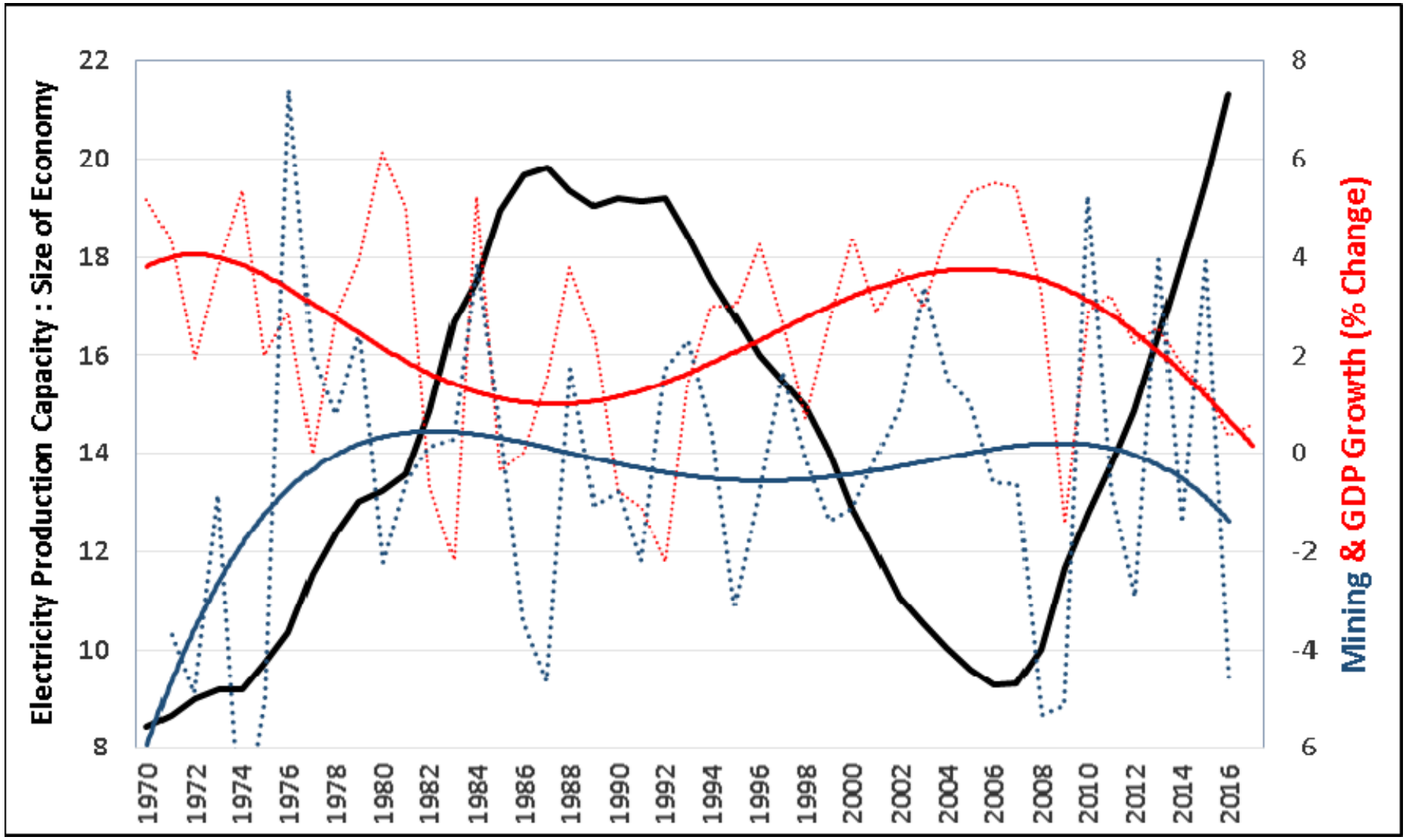
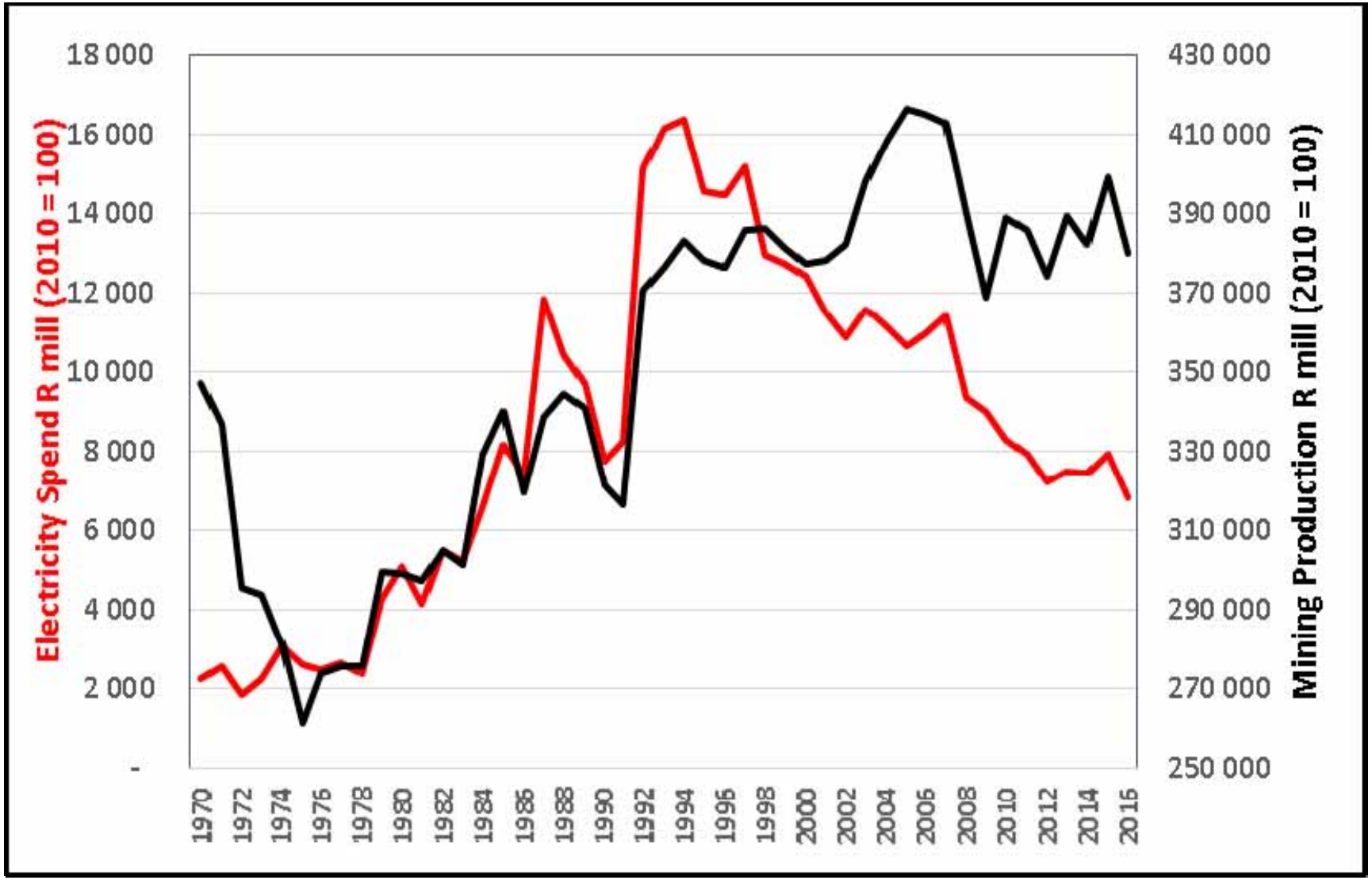
Eskom debt to Eskom GDP vs Eskom debt to RSA GDP



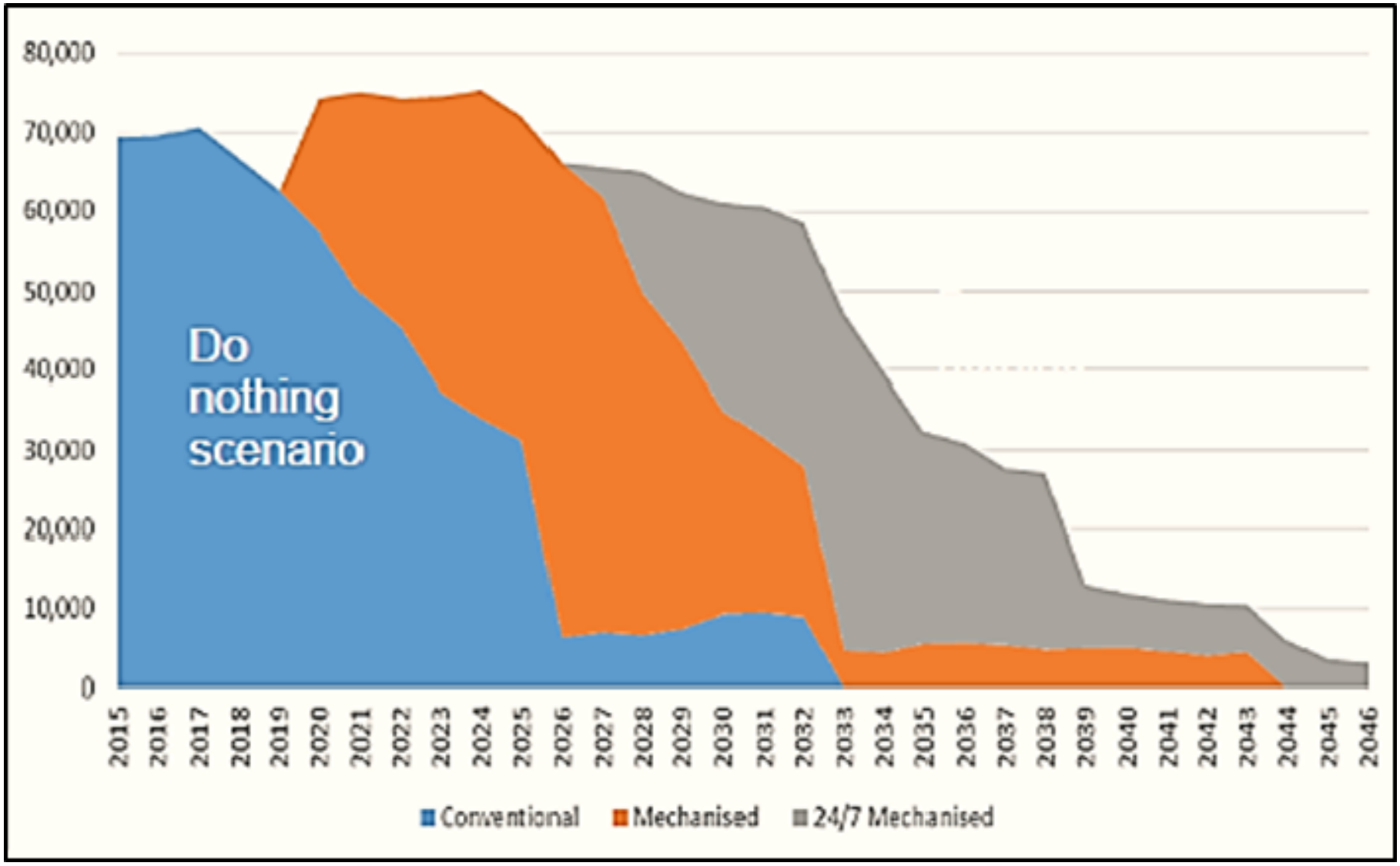
Electricity oversupply vs economic & mining growth



Mining electricity spend vs production



There is a CLIFF and it is CLOSE



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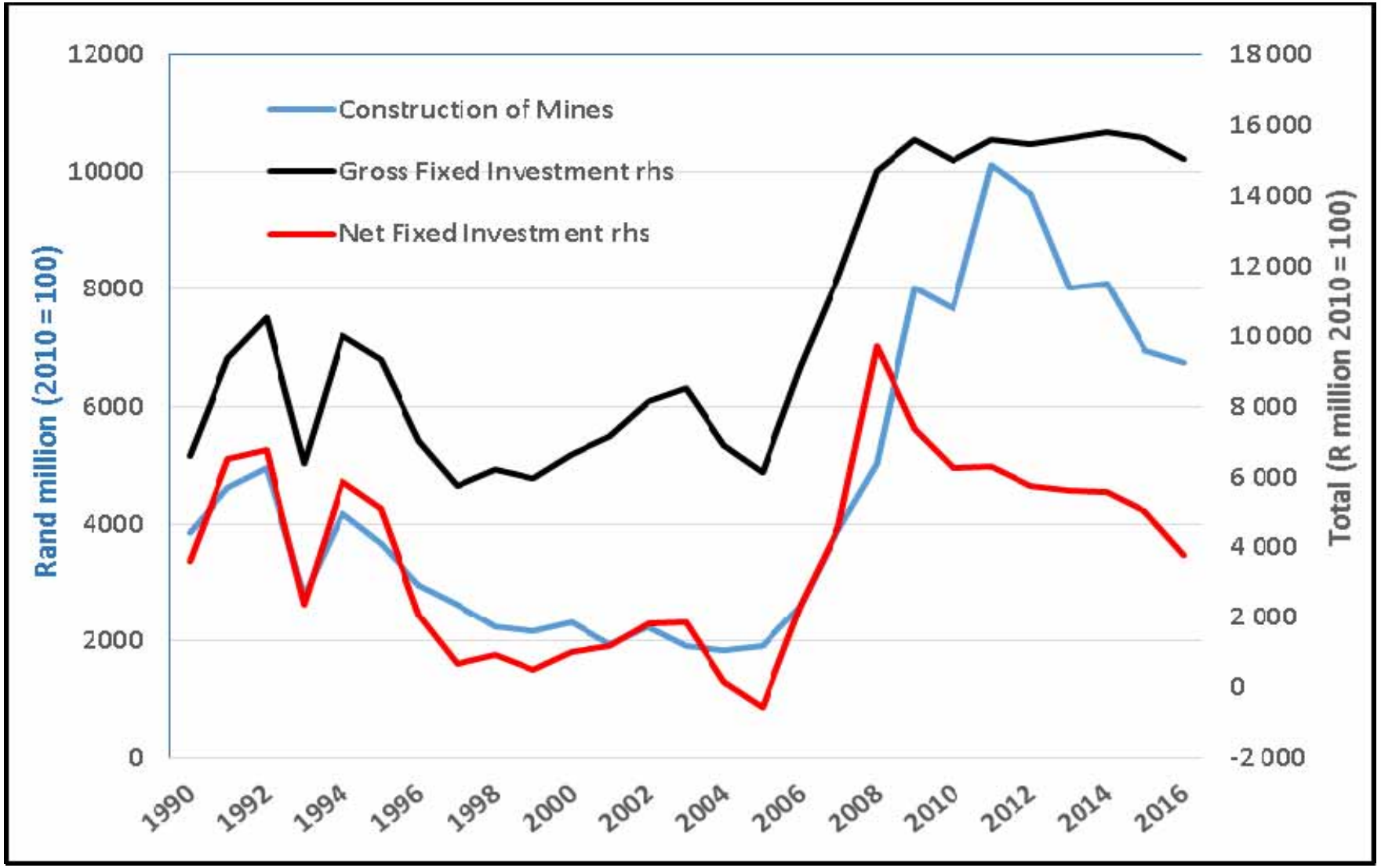

Conclusion

- Two scenarios (20% increase or government support) are not viable – they are catastrophic
- Without Structural Adjustment in the Electricity Sector there is no solution
- Three binding constraints;
  - Over capacity in Electricity Generation
  - Virtually exponentially rising ESKOM debt burden
  - Lower electricity intensity of Production
- THE ideal Opportunity: Begin Structural Adjustment HOLISTICALLY
- Low tariff adjustment WITH Structural Adjustment

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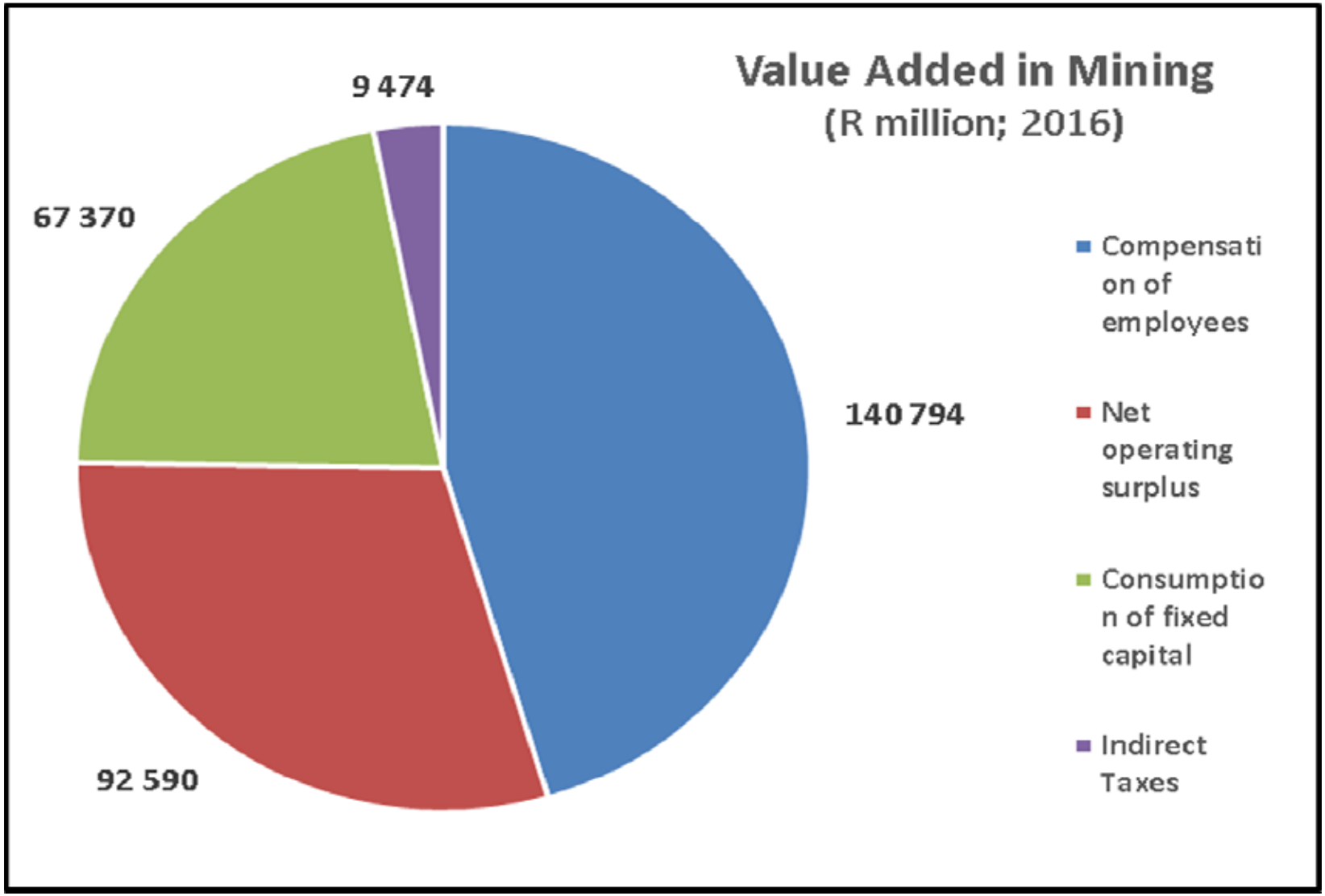
Short term & structural adjustment components

1. Find the least damaging solution for the approaching cash crunch
2. Drastic changes needed at Eskom:
   - accelerate the decommissioning of old inefficient power stations
   - bring Eskom operational cost (primarily head count) in line with international standards
   - complete regulated asset base (RAC) re-evaluation as soon as possible so that the return on asset (ROA) absolute value diminishes while weighted average cost of capital (WACC) stays the same
   - accelerate the completion and commissioning of the new more efficient power stations
3. Accelerate the buying of electricity from IPP's and continue the program
4. Revisit the MYPD and RCA regulatory regime

Mining sector income/expenses

		R million	%	R million
Total Income		577 801		
Intermediary Inputs	Transport & Logistics	141 983	24.6	
	Electricity	18 239	3.2	
	Other Inputs	54 184	9.4	263 885
	Imported Intermediary	49 479	8.6	
Value Added	Employees	140 794	24.4	
	Dividends	14 331	2.5	
	Profit After Tax	33 899	5.9	273 689
	Depreciation	67 370	11.7	
	Net Investment	17 295	3.0	
Taxes	Company Tax	20 613	3.6	
	Indirect Taxes	9 474	1.6	
Forex Losses	Forex Losses	10 140	1.8	
Total Expenses		577 801	100.0	

Mining value add to the economy



Mining intermediate input costs