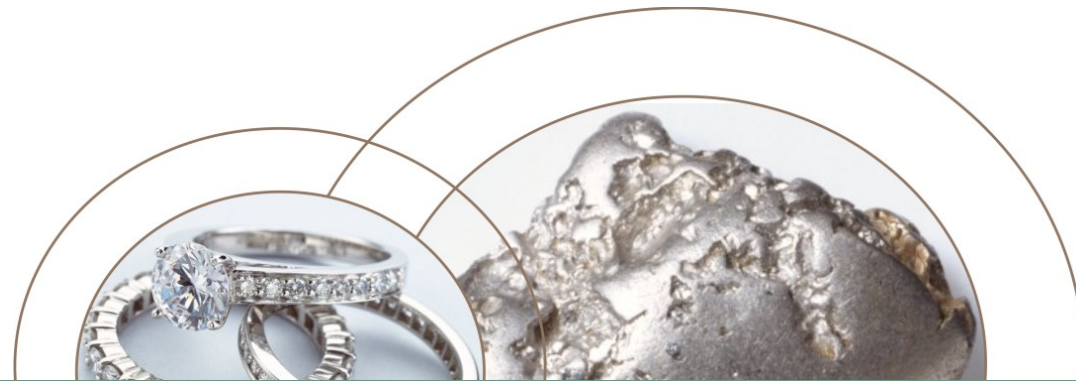




Long Term Prospect for Platinum Group Metals

- Price
- Producers
- Explorers

René Hochreiter
October 2006



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Platinum Demand/Supply Outlook



(000 oz)	2006	2010	2015	2020
Demand Total	6,705	9,736	11,964	12,879
<i>of which:</i> Autocats	3,900	5,063	6,087	7,052
Jewellery	1,950	3,200	4,350	4,400
Supply Total	6,679	9,015	10,002	10,009
<i>of which:</i> AngloPlat	2,415	3,288	4,040	3,930
Implats	1,692	2,153	2,127	2,240
Supply shortfall/surplus	-27	-721	-1,962	-2,870

Palladium Demand/Supply Outlook



(000 oz)	2006	2010	2015	2020
Demand Total	7,200	8,501	8,300	8,000
<i>of which:</i> Autocats	4,000	5,500	5,500	5,500
Jewellery	1,600	2,100	2,500	2,500
Secondary Recovery	-900	-1,600	-2,200	-2,500
Supply Total	8,430	8,427	8,380	8,370
<i>of which:</i> South Africa	2,630	3,427	3,880	3,870
Russia	4,600	3,800	3,300	3,305
Supply shortfall/surplus	1,230	-74	80	370

Rhodium Demand/Supply Outlook



	2006	2010	2015	2020
Demand Total	870	1,122	1,332	1,549
<i>of which:</i> Autocats	876	1,138	1,368	1,585
Supply Total	779	904	1,008	1,008
<i>of which:</i> South Africa	650	759	863	863
Supply shortfall/surplus	-91	-218	-324	-541

Price Outlook



- Dependent mainly on the Rand/Dollar exchange rate, demand supply to a lesser extent, until 2010 when serious supply deficits emerge
- At least 90% of world resources are in South Africa, 80% of world production
- R200 000/kg average basket price is required to keep Platinum supplied to the world, escalating at 10% a year
- Currently the range is between R250 000/kg and R320 000/kg
- If the Rand weakens, the platinum price will weaken, this is evidenced almost daily
- Within the framework of R200K/kg, the platinum price should remain at plus \$1000/oz, palladium at \$300/oz and rhodium at plus \$ 5000/oz
- In Platinum, prices will likely react to serious supply deficits after 2010 (mainly due to jewellery and autocat demand). Any weakness in the rand will further benefit SA production

The Question of Alternatives



- In 20 years on the market, many alternatives have come and gone
- Platinum remains the best catalyst for “making a reaction go” in chemistry
- In 300 years, chemists have not discovered a better catalyst, why should we believe anyone else?
- Most alternatives are scams, announced ahead of price negotiations, or impractical. For example: The Mn catalyst, the Au catalyst, etc.
- Pt is best for diesels, Pt/Pd/Rh combination is best for gasoline engines
- Until fuel cells and the hydrogen infrastructure become commonplace, PGMs will continue to be consumed for legislated environmental reasons

Fuel Cell Prospects



- Fuel cells are being mentioned in every other Fortune or Time magazine these days
- Hybrid cars will become commonplace in the next ten years (watch for higher nickel prices)
- Fuel cells need Pt of 5grams/kW (250grams/avg 50kW vehicle) vs 5grams PGMs (or Pt in diesels) per vehicle today. There is not enough Pt production planned 10 years from now for the Fuel Cell market
- Certain car companies are developing Fuel Cell cars, but I believe the Toyota Hybrid route of development will dominated in the next decade
- This must happen as South African producers cannot increase production fast enough to meet new additional demand
- Fuel Cells will come in time

Long Term Prospects



Producers

Good prospects for:

- Anglo Platinum
- Aquarius
- Elands
- Implats
- Northam
- Lonmin
- Barplats / Eastplats

Consolidators could be:

- Northam
- Royal Bafokeng
- AN Other

Explorers

Consolidation candidates

- PTM
- Anooraq
- Platmin
- Ridge
- Afplats
- Wesizwe

Potential Take Over

- Nkwe
- AfriOre
- Pan Palladium
- AIM Resources

The Question of Consolidation



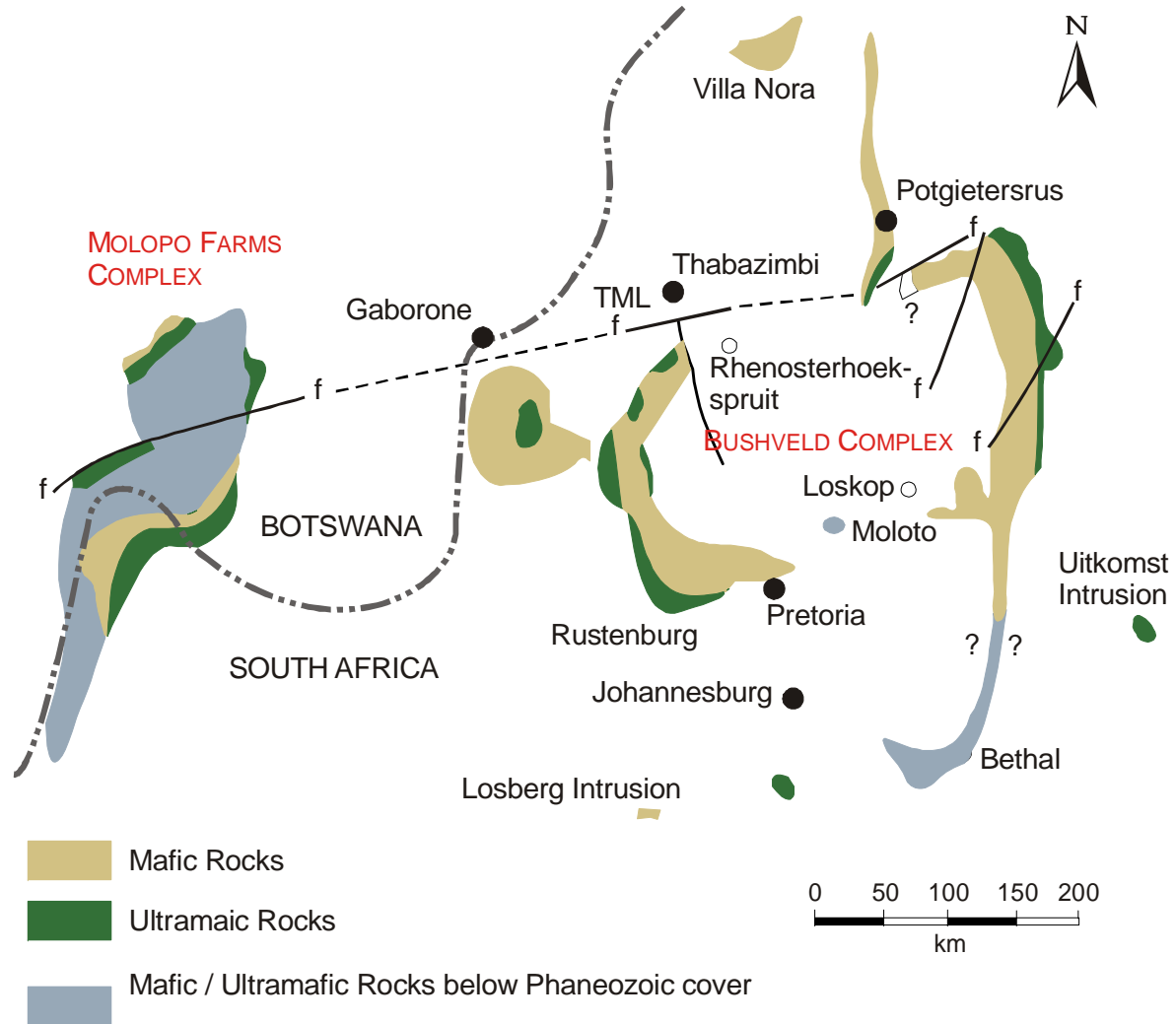
- **Many of the Explorers will likely take part in Consolidation of the Industry**
- **Most Explorers (and some Producers) are likely to be the target of a takeover bid**
- **Several plans for smelters, base metal refineries and precious metal refineries have been muted for some time**
- **With Chinese, Russian, Japanese or Automobile backing/ funding, this could kick-start a new, independent integrated producer**
- **The DME in South Africa will likely welcome such a move**
- **Reality is that good prospects remain far and few between, most ore-resources have been tied up by the big producers, mining start ups in the South African platinum industry are generally late**

The Question of South African Valuations

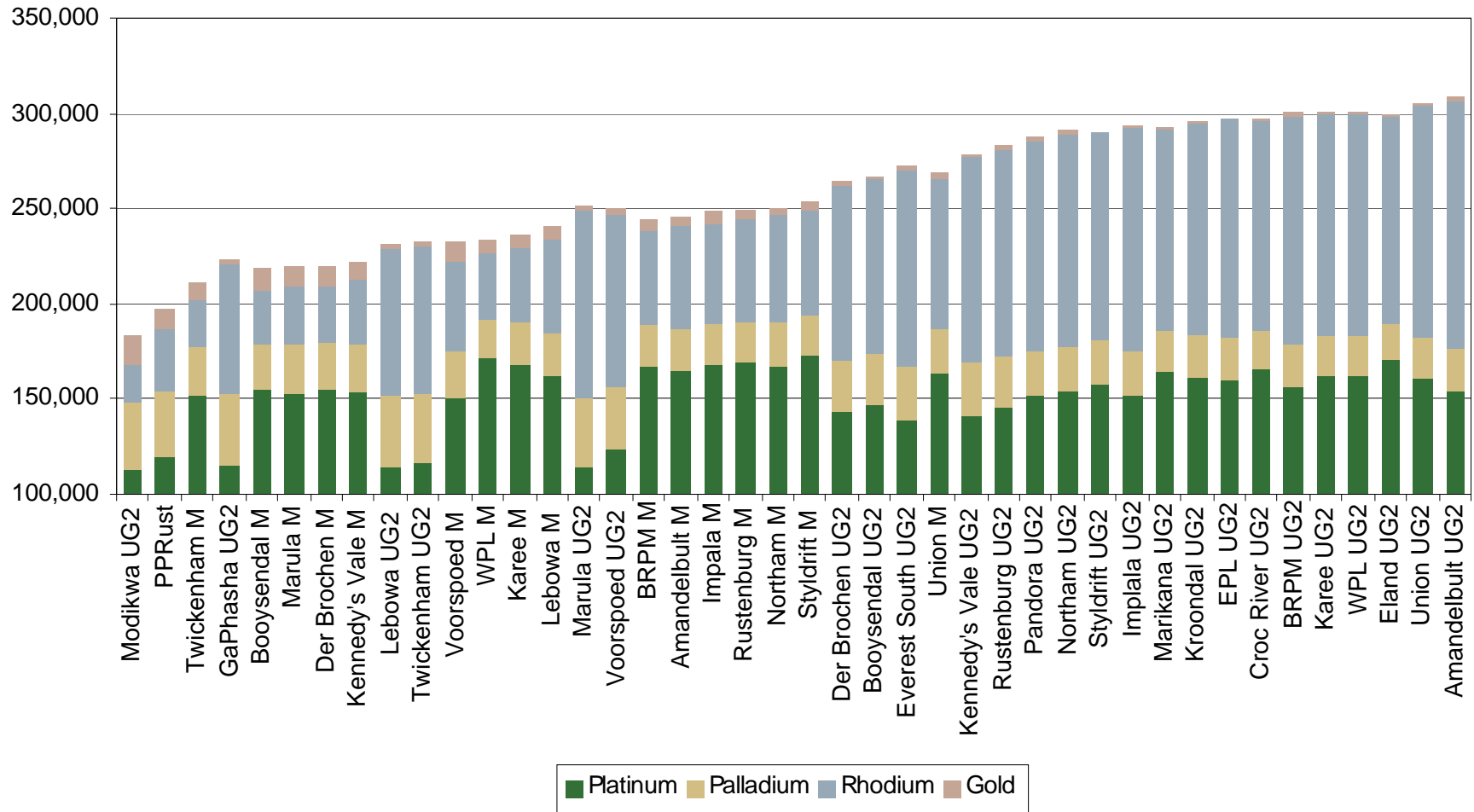


- **South African listed platinum companies have been traditionally valued at lower multiples than their TSX, LSE or AIM counterparts**
- **Reasons are that South African Analysts value production and earnings, offshore Analysts value resources and blue sky**
- **South African listed PGM producers have dominantly SA investors who are Conservative, whilst TSX, AIM and lesser extent LSE have investors willing to accept higher risk by investing in Exploration counters**
- **LSE and TSX listed shares are included in their local indices and do not have emerging market restrictions, hence far more money is available for investing locally than in Emerging Market shares**
- **To make the Sector re-rate, international investors need make Absolute Return decisions (detach themselves from index beating) make bigger bets in SA platinum shares; SA investors need to value resources and blue sky**

Resources



Prill Split (4PGE R/kg revenue)

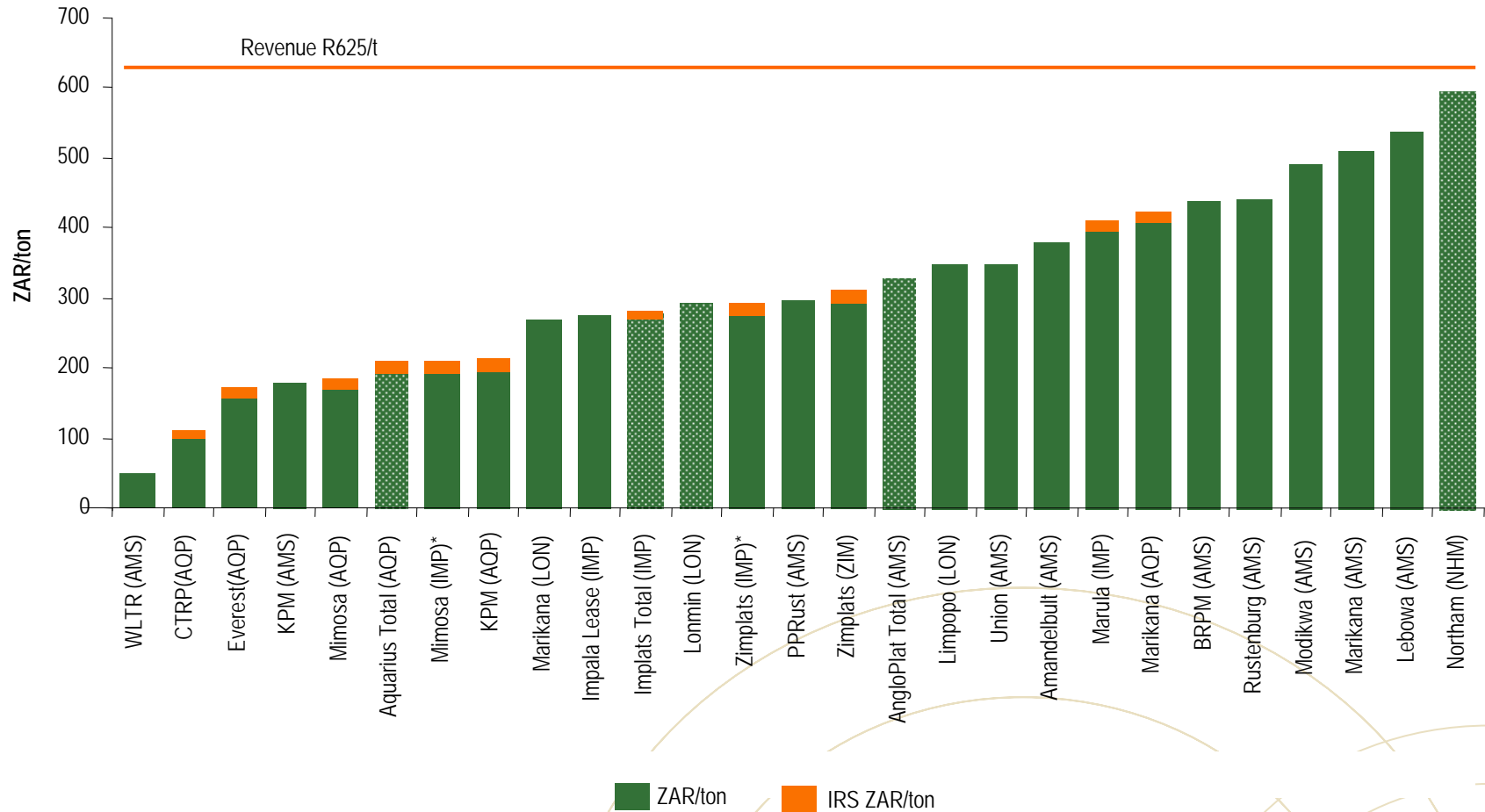


Resources Summary



Producers	Resources Mt	Grade 4 Element g/t	Ounces millions 4E pgm	Market Capitalisation per Ounce - US\$ (ZAR/\$ 7.75)
Anglo Platinum	6,288	4.9	821	27
Implats	3,392	4.8	**458	25
Elands	108	4.3	15	11
Aquarius	98	4.2	13	105
Northam	98	6.1	19	59
Lonmin	1,227	4.5	178	39
Barplats	448	4.3	61	5
Others *	1,243	3.5	233	4
TOTAL Bushveld Complex	12,902		1,773	

SA Platinum Producers Rand per ton Cash cost and IRS costs per ton



Merrill Lynch, September 2006

Conclusion – Stay Long in Platinum



- The outlook for PGMs remains good
- Supply continues to struggle, Demand continues to mount
- Alternatives are unlikely to be a threat
- Prices should remain high: Pt +\$1000, Pd +\$300, Rh +\$5000/oz
- Biggest risk facing Investors in PGMs is a global recession involving the US, Europe and China regarding the Auto industry
- South African political risk, the DME is not backing down on Black Empowerment
- Resources declared in the BIC is 1.7 billion ounces 4PGM. Resources remaining is estimated at 10bn ounces in Merensky and UG2 reefs. The outlook for most explorers and producers remains good, especially with the shortfalls in platinum forecast. Only South Africa can potentially make up this shortfall

Questions

