

Investment Strategy

Summary

In this report we again examine Remgro's discount to NAV. We offer an explanation of the discount and explain why rand weakness has caused it to widen. We use a statistical analysis of the recent behaviour of the discount to suggest that when it is above 25% there is a distinct trading opportunity. We also offer Remgro some advice as to how it may reduce the discount and, more importantly, increase the value of Remgro itself.

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Brian Kantor

 Tel
 (2721) 416 1453

 Fax
 (2721) 416 2453

 eMail
 brkantor@investec.co.za

Making sense of Remgro's discount to NAV - and sensing a trading opportunity

Some leading questions

We have previously analysed the forces responsible for the discount to NAV of the typical holding company quoted on the JSE.¹ Our analysis attempted to answer the following questions:

- 1. When will the value of a holding company stand at a discount to its NAV?
- 2. Why does the discount go up or down?
- 3. When will unbundling reduce or eliminate the discount to NAV?
- 4. How can unbundling hope to add value for shareholders?

A simple answer

We introduced the report by offering the obvious simple answer to question 1:

The market believes that the management of the holding company will destroy shareholder value by making investment decisions that will cost shareholders more than they will prove to be worth. The upfront discount is thus meant to compensate shareholders for the poor decisions management is expected to make. The discount converts expected below-normal internal rates into expected, normal, risk-adjusted share market returns. The opposite would be true of the rare holding company that stands at a premium to its NAV, for example Buffet's Berkshire Hathaway. A premium reflects the expectation that management will make above-normal returns and shareholders are willing to pay a premium for the privilege of sharing in them.

The Rembrandt unbundling

In applying this analysis we focused then, as we do now, on the example of the Rembrandt Group and its own unbundling exercise. We explained why unbundling would not eliminate the discount to NAV or necessarily add value for shareholders. We tested whether or not the break up of the group into its Venfin and Remgro parts had actually added value for shareholders and the conclusion we came to, after adjusting for market effects, was ambiguous, ie the statistical evidence was not at all conclusive either way.

In this report we examine Remgro's discount to NAV since its listing in September 2000 measured at the close of each trading day (see below). The (negative) discount is presented as a positive value for convenience, but it

¹ Brian Kantor, Investment Strategy, Why the discount to NAV and what may usefully be done about it, Investec Securities, 14 Sept 2001.



represents the percentage difference between the always lower Remgro share price and the market value per share of its mostly listed and some unlisted assets, expressed as a percentage of Remgro's share price. It can be seen that the history of the discount may be divided into two parts – lower discounts before November 2001 and higher discounts afterwards.



Remgro share price and NAV October 2000 - August 2002

Source: Investec Securities

The bi-modeal character of the discount shows up very well in the histograms below. The average discount before November 2001 was 15%





with a standard deviation of 2% while thereafter the discount has averaged 24% with a SD of nearly 4%.

Source: Investec Securities Research

The earlier phase to November 2001



Series: DISCOUNT Sample 9/26/2000 10/31/2001 Observations 287				
Mean	0.154124			
Maximum	0.151557 0.216992			
Minimum	0.101628			
Sta. Dev. Skewness	0.023999			
Kurtosis	2.434936			
Jarque-Bera Probability	6.753215 0.034163			

Source: Investec Securities Research

The more recent phase: November 2001 - August 2002



Series: DISCOUNT Sample 10/31/2001 8/26/2002 Observations 214		
Mean	0.244488	
Median	0.255638	
Maximum	0.295408	
Minimum	0.107690	
Std. Dev.	0.038289	
Skewness	-1.737074	
Kurtosis	6.204482	
Jarque-Bera	199.1841	
Probability	0.000000	

Source: Investec Securities Research

Blame the rand

Of course it was in November that the rand weakened significantly (see below). We refer to our previous report to explain why the discount exists and why a weaker rand, other things equal, could lead to a larger discount.





Source: Investec Securities Research

Explaining the discount

... a persistently large discount must reflect great pessimism about the value of the investment programme of the holding company. That is, the appearance of a persistently large discount will reveal that a large negative value has been attached to MP (stands for the net present value of all the projects the management of the holding company are expected to undertake in the future). The net present value is the difference between the present value of the operating surpluses the investment is expected to realise and the cost of undertaking these investments. This may be their acquisition costs or the value of a series of cash disbursements that might have to be made over time to bring a greenfield project to completion. MP represents the market's estimate of the value of the gleam in management's eye. If these projects are expected to add value for shareholders over and above the value of the cash that will be paid out to undertake the projects, then MP will have a positive value. If not MP will be negative.

Thus fundamentally if the management of a large holding company with significant listed and unlisted companies under its control were to reduce the discount it would have to raise the value of MP. Naturally words alone cannot hope to overcome this degree of market scepticism. It would have to take the convincing adoption of a highly disciplined process for undertaking investments. That is, for the firm and its subsidiaries to pursue only those investment projects that could provide returns that exceeded the opportunity cost of the capital invested. Only in this way can they hope to add value for shareholders. It should be appreciated that additional equity issued to finance investments or relying on internally generated cash is as expensive for shareholders as would be any additional debt raised for the purpose. Indeed the willingness to incur debt may be very helpful over and above any tax advantages for successful investments

Thus if the future investments are not regarded as promising by the market, but are expected to be undertaken anyway because of the financial strength of the holding company, then more balance sheet strength is a disadvantage, rather than an advantage, to shareholders. In the case of holding companies with listed assets,

We argued in our previous report

To reduce the discount we offered this advice

But we also argued that larger balance sheets represent opportunity and threat to shareholders



Investment Strategy

A weaker rand means a bigger rand NAV and so a larger threat

Looking at return on NAV

Thanks but no thanks

The same discipline applied to the stand alone company

More advice to management

it is not only the waste of cash that may be of concern to shareholders, but also the waste of the listed assets, which are easily converted into cash.

Remgro is very much a rand hedge company. 48.8% of its headline earnings are derived from offshore sources. When the rand depreciated, Remgro's rand NAV naturally grew proportionately. But the larger asset value did not bring with it any obvious change in investment behaviour. What it did bring, as we see it, was an enhanced ability to undertake additional investments. But these additional investments, consistently with the same assumptions about the quality of investment decisions, were still expected by the market to destroy shareholder value. And so the discount widened to anticipate more value destruction than before. There appeared to be no obvious reason why the market's opinion of the investment process at Remgro changed for the better with the weaker rand and so the discount automatically widened to provide shareholders with normal returns. That is to say, normal returns from what are expected to be a greater volume of investment activity that would fail to meet its cost of capital.

Another way of making the same point is to recognise that, were shareholders to regard the value of their investment as represented by Remgro's NAV rather than its market value, then the shareholder return on NAV would be as low as 7% per annum. When the rand depreciates and NAV increases proportionately this would then be equivalent to adding a large amount of extra capital to a firm that is expected to earn only 7%. Thus when its cost of capital is significantly higher than 7%, then the value the share market would put on the extra capital to be employed would be significantly less than its NAV, which is, by definition, the liquidation value of the firm. Of course there is no expectation that the firm will be liquidated or comprehensively unbundled. Then when the share price is compared to the NAV, after the NAV has increased so significantly, a larger discount must emerge automatically to provide shareholders with normal returns that are equal to the cost of capital.

Of course this discount does not at all mean that the management of the holding company had not done well by shareholders over time. The share price, even while at a discount to its NAV, may still stand at a large premium to the book value of the holding company and also its EVAequivalent capital. But notwithstanding the company's proven ability to have added value for shareholders over time (though not necessarily at a rate equal to the historic costs of capital), the market, in the form of a revealed discount to NAV, is telling management that it is not expected to beat the cost of capital going forward.

The market would show the same lack of gratitude to a stand-alone company that is expected to realise a rate of return going forward that is lower than its cost of capital. The market value of such a company would be marked down accordingly to provide market-related returns and the management would come under pressure from the market to pay out more cash in dividends or buy backs. There would be no obvious discount to NAV - just a lower share price.

Our advice to Remgro is to convince the market that it will not waste capital as it is expected to do. Paying out more cash in dividends, buying back shares and even incurring debt to do more of both would demonstrate a conviction to improve the process for making investment



decisions. We therefore repeat the concluding remarks we made in our earlier report:.

Clearly, in many cases, the market is openly sceptical about the ability of managers of holding companies, and stand-alone companies, even those with a good track record, to add additional value in the future. In the case of a holding company this scepticism reveals itself in a discount to market adjusted NAV. In the case of stand-alone companies the same scepticism would be revealed in a low, or lower, ratio of market to book value. Perhaps it will be a comfort to the managers of holding companies, subject to a discount to market NAV, to realise that should they succeed further in identifying investments that return more than their cost of capital, they will take the market by surprise and be rewarded with a higher share price - but not necessarily a premium of market value to NAV. A premium is awarded only to holding companies that are expected to find cost of capital beating investments, not merely to those with a history of them. So the task for value-adding companies is to manage investments and expectations very well.

The appropriate statistical test for mean reversion, that is whether the series may be regarded as mean stationary, is to test whether or not the series has one or more unit roots. In other words, whether the discount behaves like a random walk with no fixed behavioural pattern or whether the discount exhibits mean stationarity with movements away from a mean discount being followed on average by a movement back to that mean discount. Such mean reversion would allow one to operate a trading rule; an above-average discount represents a buying opportunity and a below-average discount means you should be selling.

The results of the test for unit roots using the Augmented Dickey Fuller (ADF) Test as applied by E Views soft ware are reported fully below in the Appendix. For the entire period the discount exhibits one unit root and thus is non-stationary (even at the 10% level). However, when the discount is tested across the different sub-periods before and after November 2001 the results indicate that the discount was mean stationary over the two different sub-periods (at the 1% and 5% level respectively) and indicate the possibility of using a mean reversion trading rule. Before the exchange rate shock the discount did tend, very significantly, to revert back to its lower mean value of 15%. And after November 2001 there is a similar, statistically significant, tendency to revert back to a higher mean value of 25%.

Thus we can say with some degree of confidence that a Remgro discount of greater than 25% represents a good buying opportunity independently of any change in the market's expectations of the quality of the investment or other decisions to be taken by Remgro management. Of course any perceived improvement in the investment process of Remgro management would reduce the discount and so add to Remgro's share price, for any given value of the listed assets that make up the NAV. A revealed willingness to pay out more cash would be a very valuable signal of this.

A statistical exercise - does the discount revert to its mean value?

The results

A conclusion



Statistical Appendix

Full history					
ADF Test Statistic	-1.926213	1% Critical	√alue*	-3.4458	
		5% Critical	√alue	-2.8677	
		10% Critical	Value	-2.5700	
*MacKinnon critical va	*MacKinnon critical values for rejection of hypothesis of a unit root.				
Augmented Dickey Ful	llon Tost Equ	ation			
Dependent Variable: D	I I I I I I I I I I I I I I I I I I I				
Method: Least Squares		,			
Date: 08/28/02 Time:	18.02				
Sample (adjusted): 10/(13/2000 8/26	/2002			
Included observations:	Sample (adjusted). 10/03/2000 8/26/2002				
			1105		
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
DISCOUNT (-1)	-0.022513	0.011688	-1.926213	0.0547	
D (DISCOUNT (-1))	-0.091008	0.045334	-2.007508	0.0452	
D (DISCOUNT (-2))	-0.155282	0.045287	-3.428868	0.0007	
D (DISCOUNT (-3))	-0.000746	0.045055	-0.016549	0.9868	
D (DISCOUNT (-4))	-0.093519	0.044628	-2.095530	0.0366	
C	0.004575	0.002333	1.960828	0.0505	
D 2	0.040772	Maan dan an	1	0 000 1 00	
N ² Adjusted D ²	0.047662	SD dependent var		0.000178	
Aujusted K ²	0.037745	S.D. dependent var		0.014039	
S.E. of regression	0.013/35	Akaike into criterion		-3./22/14	
Jog likelihaad	0.072525	Schwarz Criterion -			
Durbin Watson stat	1422.372 2012025	Prob (Estatistic)		5.110/29	
Durbin-watson stat	2.012035	FIOD (F-Statis	suc)	0.000140	



Earlie	er þeriod – b	efore Novemb	er 2001	
ADF Test Statistic	-4.603198	1% Critical V	alue*	-3.4552
		5% Critical V	alue	-2.8719
		10% Critical V	/alue	-2.5723
*MacKinnon critical va	lues for rejea	ction of hypoth	esis of a unit ro	oot.
	,	71		
Augmented Dickey-Fu	ller Test Equ	ation		
Dependent Variable: [D (DISCOUN	IT)		
Method: Least Squares	5			
Date: 08/28/02 Time:	18:07			
Sample (adjusted): 10/	03/2000 10/3	1/2001		
Included observations	: 282 after ad	justing endpoin	ts	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DISCOUNT (-1)	-0.190720	0.041432	-4.603198	0.0000
D (DISCOUNT (-1))	-0.032691	0.062699	-0.521405	0.6025
D (DISCOUNT (-2))	-0.015007	0.061986	-0.242094	0.8089
D (DISCOUNT (-3))	0.114814	0.060809	1.888112	0.0601
D (DISCOUNT (-4))	0.010010	0.059415	0.168480	0.8663
С	0.029167	0.006439	4.529482	0.0000
R ²	0.106554	Mean depende	ent var	-0.000160
Adjusted R ²	0.090369	S.D. dependent var		0.014613
S.E. of regression	0.013937	Akaike info criterion		-5.687482
Sum ² resid	0.053611	Schwarz criterion		-5.609995
Log likelihood	807.9350	F-statistic		6.583277
Durbin-Watson stat	1.996721	Prob (F-statist	cic)	0.000008



	After No	vember 2001		
ADF Test Statistic	-3.044543	1% Critical Value*		-3.4623
		5% Critical Value		-2.8751
		10% Critical Value		-2.5739
*MacKinnon critical va	lues for rejec	ction of hypoth	nesis of a unit	root.
Augmented Dickey-Fu Dependent Variable: D Method: Least Squares Date: 08/28/02 Time:	iller Test Equ D (DISCOUN s 18:11	ation IT)		
Sample: 10/31/2001 8/ Included observations:	26/2002 : 214			
Variable	Coefficient	Std. Error	t-Statistic	Prob
DISCOUNT (-1)	-0.068204	0.022402	-3.044543	0.0026
D (DISCOUNT (-1))	-0.012564	0.067351	-0.186551	0.8522
D (DISCOUNT (-2))	-0.236248	0.067244	-3.513296	0.0005
D (DISCOUNT (-3))	-0.040542	0.066820	-0.606732	0.5447
D (DISCOUNT (-4))	-0.157600	0.066721	-2.362084	0.0191
` C `″	0.017504	0.005517	3.172823	0.0017
R ²	0.119380	Mean dependent var		0.000633
Adjusted R ²	0.098211	SD dependent var		0.013240
S.E. of regression	0.012573	Akaike info criterion		-5.886814
Sum ² resid	0.032883	Schwarz criterion		-5.792441
Log likelihood	635.8891	F-statistic		5.639445
Durbin-Watson stat	1.987752	Prob (F-statistic)		0.000067
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100 Grayston Drive, Sandown	JOHA 1, Sandton, 2196. P O Box	NNESBURG × 78055, Sandton, 2146, Tel	(011) 286 7000, Fax (011)	286 9923
36 Hans Strijdom Avenue, Foresho	re, Cape Town, 8001, PO	Box 4059, Cape Town, 800	0, Tel (021) 416 3462, Fax (021) 416 3598
325 Smith Street, Du	Irban, 4001, PO Box 3912	, Durban, 4000, Tel (031) 36	5 4700, Fax (031) 301 1734	
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