

**MALACHITE AGGRESSIVE PREFERRED FUND**

Monthly Report, May 2002

MAPF “broke even” in the month, probably underperforming the NB-50 index for only its third time in the past twelve months. This underperformance was related to the weakness of split-share corporations, many of which came under media attack in May due to the many dividend cuts many of them have made to their “capital” shares. Specifically, the fund invested in SPL.A (Mulvihill Pro-AMS RSP Split Share Corp Cl ‘A’, issued March 15, 2002 at \$10.00) at an average price of about \$9.85. This issue promptly fell to be quoted at \$9.30-75 at month end and the book loss negated a month of successful trading. The shares continue to be rated Pfd-2 by DBRS and Hymas Investment Management considers them quite attractive at this lower price. The holders of SPL.B can take a lot more pain before the dividend on the Class A is in danger!

Month	MAPF Total Return*	NB-50 Total Return	
June, 2001	+2.56%	-0.62%	<i>The “NB-50” is an index of preferred shares proprietary to BMO Nesbitt Burns. It is composed of 50 issues having good liquidity and credit quality.</i>
July	+1.40%	+0.48%	
August	+1.74%	+1.13%	
September	+4.20%	+0.51%	
October	+1.25%	-0.06%	
November	-0.81%	+0.98%	
December, 2001	-2.54%	-0.14%	
January, 2002	+5.43%	+2.01%	
February	+1.16%	+0.17%	
March	-0.08%	-2.16%	
April	+1.22%	-0.63%	
May, 2002	+0.01%	+0.58%**	
<b>Last 12 Months</b>	<b>+16.41%</b>	<b>+2.21%**</b>	
<i>*MAPF total returns include reinvestment of dividends and are after fund expenses but prior to management fees. They are shown for illustrative purposes only and future returns are not assured.</i>			
<i>**May return data for the NB-50 was not available at time of writing and has been estimated by Hymas Investment. The estimate may vary considerably from the actual number due to differences in issues examined, weighting and calculation methodology</i>			

There were only three major moves in the yield curve during May: the split-share spread widened, as noted; floating rate issues as a class became less expensive but remained at greatly elevated levels; and the spread on third-tier credits narrowed, with these relatively poor credits outperforming their more solid peers. It was, all things considered, a quiet month in the Canadian preferred share market, as the recent glut of issuance was digested smoothly.

These moves are, of course, reflected in the relative returns of the risk-classes in May. Split share corporations underperformed “regular” issues by about 1%, as did floating-rate issues, while those issues considered to be in “Credit Class 3” outperformed their more solid counterparts by 0.25%. Other differences in the returns of the various risk-classes may be attributed to other factors; the influence of other factors in any defined risk group is extremely heterogeneous.

Curve Attribute	April 30, 2002 (After Tax Figures)	May 31, 2002 (After Tax Figures)
Base Rate	3.40%	3.45%
Short Term Premium	-3.60%	-3.60%
Short Term Decay Time	4.5 Years	5.8 Years
Long Term Premium	1.46%	1.58%
Long Term Decay Time	21.5 Years	19.3 Years
Interest Income Spread	0.63%	0.62%
Cumulative Div. Spread	-0.28%	-0.32%
Split-Share Spread	0.32%	0.42%
Retractability Spread	-0.49%	-0.47%
Floating Rate Spread	-1.56%	-1.43%
2 <sup>nd</sup> Tier Credit Spread	0.52%	0.52%
3 <sup>rd</sup> Tier Credit Spread	1.14%	1.08%
“High” Credit Spread	-0.28%	-0.30%
“Low” Credit Spread	0.00%	0.00%
<i>Note: Figures for May have changed somewhat from the previous report. This is due to additions of data.</i>		

Risk Factor	Returns for “True” (Pre-Tax)	Returns for “False” (Pre-Tax)
Retractable	0.66%±1.82%	0.44%±1.81%
Split Share Corp	-0.35%±2.85%	0.73%±1.53%
Cumulative Dividends	0.22%±2.09%	1.07%±1.20%
Payments are Dividends	0.53%±1.90%	0.98%±0.76%
Floating Rate	-0.23%±2.08%	0.78%±1.69%
Credit Class 2	0.56%±1.61%	0.59%±2.02%
Credit Class 3	0.80%±0.83%	0.55%±1.91%
Credit Class Modifier “High”	0.61%±1.34%	0.57%±1.90%
Credit Class Modifier “Low”	0.80%±1.18%	0.28%±2.38%

The heterogeneity of the various risk classes is one of the factors that bedevil analysts of preferred shares and corporate bonds; another major factor is the question of embedded options. These options are

part of the characteristics of most preferred shares and refer to the redemption and retraction privileges specified in the original prospectus. “Redemption” refers to the ability of the issuer to “call” the shares at some time in the future – hence, redemption privileges always work against the investor. “Retraction” refers to the options available to the holder.

One method of analysis simply calculates the “Yield-to-Worst” (YTW) of every issue; considering the sequence of events (short of default) that would result in the lowest possible return for the investor and basing the valuation of the issue on that worst-case scenario. This technique, while valuable (see the February 2002 report for an example), does have its problems. Consider an issue which is currently redeemable at \$25.00; if the current price is \$25.10, YTW will presume that the issue will be called immediately, assigning a 100% chance to this event; if the current price is \$24.90 however, the chance assigned will be 0%. This ignores desirable traits such as downside protection – if other

terms of the instrument are favourable, perhaps we may expect the issue to drop only \$0.20 if rates change such that the market as a whole drops \$1.00.

The Hymas Investment Management method of valuing preferred shares examines the provisions of each issue and assigns a probability to each sequence of events, considering the issue as a “portfolio” of instruments, with the probabilities shifting in response to market conditions. Probabilities are assigned in accordance with a modified “Black-Scholes” equation, which is often used to value marketable options by those who deal in such instruments. Consider, for example, the case of BNN.PR.E, a “ratcheted floating rate” issue (the proportion of prime paid varies inversely with the market price) currently callable at \$25.50 and quoted at \$24.70-75 at month-end.

Calculated with price of \$24.45		Calculated with price of \$25.19	
Date of call	Probability	Date of call	Probability
2002-09-28	8.11%	2002-06-30	9.73%
2003-01-26	5.35%	2002-07-30	5.63%
2003-09-23	5.47%	2002-09-28	5.64%
2005-02-14	5.04%	2003-01-26	5.07%
Not called	76.03%	2003-12-22	5.08
		Not called	68.84%

The overall effect of these calculations may be seen at a glance: an increase in price both increases the chance that the issue will be called and brings the call dates closer, a much more satisfactory manner of handling the analysis that the classical method of presuming that, since the issue is below call

price, it will not be called at all. One method of analyzing the overall term of a series of cash flows is Macaulay Duration: this has been applied to a wide range of possible prices in accordance with the Hymas Investment Management “Portfolio Method” of cash flow analysis: the results are shown as this month’s chart. The methodology captures the shortening of predicted term as the market price increases and shows the expected “negative convexity” (as the absolute rate of change increases with increasing price, an effect opposite to that found with “normal” (non-callable) instruments (until, of course, the price is sufficient as to make an immediate call virtually certain)).

TSE Ticker Symbol	Total Return, May 2002	Remarks (Valuation commentary based on Ontario’s highest marginal tax rate)
YLD.PR.B	-9.43%	4 <sup>th</sup> Tier Credit
NTL.PR.F	-7.79%	5 <sup>th</sup> Tier Credit, Floating Rate – for speculators only!
SPL.A	-6.45%	2 <sup>nd</sup> Tier Credit, good value at \$9.30, MAPF bought in May
BC.PR.B*	-3.46%	2 <sup>nd</sup> Tier Credit, Floating Rate, good value at \$23.75
TOC.PR.B	-2.20%	2 <sup>nd</sup> Tier Credit, Floating Rate, good value at \$20.00
...	...	...
ENB.PR.A	+2.84%	2 <sup>nd</sup> Tier Credit
RY.PR.K	+3.21%	1 <sup>st</sup> Tier Credit, expensive at \$25.75
WN.PR.B	+3.32%	2 <sup>nd</sup> Tier Credit, expensive at \$25.75
NTL.PR.G*	+4.11%	5 <sup>th</sup> Tier Credit, Floating rate – for speculators only!
IGI.PR.A	+4.51%	2 <sup>nd</sup> Tier Credit, expensive at \$26.31
*indicates that the issue was also on last month’s best/worst performers table		

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# Instrument: BNN.PR.E (Security A41203)

Macaulay Duration (Port Method) vs. Price

