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Risky Business:
Opportunity Cost -- Easy to Overlook, Dangerous to Ignore
(update from May 27, 2009)

Welcome to Risky Business -- our Traders' Notes devoted to what we view as important risk management issues currently faced by equity portfolio managers. This publication will serve as a window into our current thoughts and actions as we actively risk-manage our Riverfront portfolios.

After three months of almost uninterrupted gains, the equity markets finally hit the skids over the past week or so, hitting the top end of our "decision box" around 950 and failing to break through it. The S&P 500 lost close to 2% over the last week to close virtually flat with the levels where we were the last time we updated our *Opportunity Cost* piece. However, under the surface, several pawns have shifted their position on the chessboard. For instance, up until very recently, the "reflation" trade (see *Trader's Notes*, 6/10/09, for further explanation) was working quite well as the dollar weakened, long rates rose, and risk appetite returned. However, while we still believe in the story and remain overweight, our TMI quant model is suggesting raising stops in some of these reflation assets, including broad commodities and certain parts of energy. However, the other side of the deflation/inflation argument, i.e. Treasuries, still remains a significantly poor scorer in the model, suggesting to us that the reflation bet may be intact longer term and that our current market pullback could end up to be relatively shallow. Interestingly enough, the TMI model is also starting to recommend sectors with both growth AND defensive characteristics, sectors such as Healthcare (which has recently come to the fore in the model as an emerging alpha[1] candidate), Technology (which remains an outperformer), and Defense.

As we mentioned before, the TMI model is a relative strength ranking system; and in a "box" type of trading range, particularly in high volatility markets such as this one, this type of technical analysis may have lower efficacy than in strongly trending markets. This is precisely why we use multiple technical tools, and in fact why we have rolled out a periodical companion piece in *Traders' Notes* called *Sector Rotator* (last published on 6/3/09) that is meant to be used in conjunction with this piece to help investment managers tactically adjust their sector exposures. We like to think of the TMI as a helpful tool in an investor's toolbox that, along with other quant, fundamental and technical tools, can help to create a "mosaic" view of the markets to aid in the navigation of these tumultuous waters.

Opportunity Cost: What does that mean?
When strategizing on risk, many portfolio managers focus on what we like to call "absolute risk," which refers to the stocks in a portfolio that could penalize an investor for owning them, or stocks held in a portfolio that have the ability to hurt relative portfolio performance by underperforming a specific benchmark. While absolute risk is an essential part of any risk analysis, we think that other less obvious but equally dangerous forms of risk deserve time and effort from risk managers.

Today we'd like to focus on **opportunity cost risk --** the stocks that could potentially hurt an investor if they are NOT in a portfolio. While an investor may have a handle on the risks surrounding the 40 or 50 stocks in his or her portfolio, often the stocks one *doesn't* own can have just as great or worse of an impact to relative performance, and therefore should be within the purview of any risk manager managing to a specific benchmark.

How Can Quantitative Tools Help Combat Opportunity Cost Risk?
As money managers, we use several tools, such as attribution software and relative portfolio construction comparisons, to help identify the potential risk surrounding what we don't own. The attribute that many of these different tools have in common is their focus on quantitative methods and outputs, rather than qualitative ones. In general, many risk managers like quant tools because they offer impartial, unemotional outputs relative to generally qualitative opinions that, while valuable, can be distorted in highly volatile and emotional times (such as the market has been experiencing lately!).

Our TMI Model for Exchange-Traded Funds (ETFs)
One quantitative tool that we use to help gauge opportunity-cost risk in our portfolios is a proprietary technical momentum indicator (TMI) model[I] that analyzes weekly relative strength and other momentum-based trends in different classes of exchange-traded funds (ETFs). The TMI model is based on the assumption that trends in financial markets tend to be persistent and momentum indicators have a degree of predictive ability. A sample excerpt is shown below (for illustrative purposes only):

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[1] *Alpha measures the risk (beta) adjusted rate of return on a portfolio or index in excess of what would be predicted by an equilibrium model, such as the Capital Asset Pricing Model (CAPM). If two managers (indices) had the same return, but one had a lower beta, that manager (index) would have a higher alpha. Alphas may change over time.*

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		Technical Momentum Index (Best rank=100)								13-wk	Rel Strgth (Best=100)		Trend Strength (Strongest=1.0)			Beta vs SPX500	Volatility		Average Daily $ Volume (mm)	
	12/01/08	Current	-1Day	-2Day	-1Wk	-2Wk	-3Wk	-8Wk	-13Wks	%chg	3mth	9mth	10 day	12wk	38wk	3yr, wkly	5 day	1 yr	1 Month	1 yr
	CNSMR STAPLES																			
XLP	Consumer Staples Select Sector SPDR	79	82	81	82	80	82	90	90	-20.07	78	83	-0.08	-0.31	-0.13	**0.55**	4.34%	2.27%	$169.2	$114.1
	REITs																			
IYR	iShares Dow Jones US Real Estate Index	*4*	*19*	*19*	*18*	*8*	*7*	59	57	-58.73	31	35	-0.25	-0.33	-0.20	**1.31**	13.05%	4.65%	$1,080.7	$732.3

— For important performance information regarding these funds, please see Page 4 —

In the example above, note the difference in scoring between the two ETFs. We compared the TMI scoring for **Dow Jones US Real Estate Index (IYR-NYSEArca-$31.31),** a proxy for a Real Estate Investment Trust (REIT) index, and the **Consumer Staples Select Sector SPDR (XLP-NYSEArca-$22.66),** which we believe is a good proxy for the Consumer Staples sector**.** The TMI model indicates that during the period surveyed, (in this case from fall to winter 2008), IYR was a much poorer performer across the board than XLP; it received a much lower TMI score and also demonstrated worse relative strength on multiple time horizons, less consistent trend strength, and a higher volatility reading**.** By using ETFs as proxies, we can make significant inferences about sectors, subsectors and industries, and we also have a useful way to implement opportunity-cost risk trades if necessary. Risk management implementation using ETFs is attractive, in our opinion, for a number of reasons. First, the diversified nature of ETFs tends to help minimize the company-specific risk that individual equities possess. Second, ETFs can help shorten the implementation time of risk trades due to a lessened need for deep-dive fundamental analysis (again, due to the diversified nature of most ETFs).

Bottom Line: Opportunity Cost Model Takeaways

By using the TMI model approach with a long list of ETFs, we can identify sectors, industries, and/or geographic regions to target for potential overweight or underweight positions within our portfolios. In the case of potential overweights, we believe the following ETFs offer a quick and diversified way to implement trades and minimize opportunity cost risk.

Potentially Significant Changes From Last Month

- *Healthcare* stocks are showing signs of life, particularly in non-pharma subsectors.
- *Domestic* securities appear to be staging a bit of a comeback.
- The *US dollar* has started strengthening.
- *Gold* has started weakening considerably.
- *Oil* has continued to strengthen relative to both the market and other commodities.
- *International* sector momentum has bifurcated, with Europe weakening considerably versus both the US and the emerging markets, which are still the highest-scoring despite some recent loss of strength.
- The *US domestic small and mid-cap*[2] sectors have gained ground versus the *large* domestic sector.
- The *Nasdaq* has reasserted itself as a relative leader among the major US indices.
- *Consumer Discretionary* performance intra-sector is continuing to bifurcate, as retail, media, and gaming subsectors remains solid, while homebuilders have shed significant strength since last month.
- The relative strength of *Commodities* remains mixed; while the relative strength of the broad commodity and precious metals indices is lackluster, oil and base metals are strengthening.

Key Similarities to Last Month

- *The Financials sector* continues to paint a very mixed picture, with brokers remaining strong, banks weakening, insurance continuing to be lackluster, regional banks looking very poor, and REITs[3] are starting to crumble.

Broad-based takeaways: One positive characteristic of the TMI model is its organization; grouped by major driver, the significant number of ETFs available for ranking allows for quick, definitive conclusions to be made simply by scanning the model. From a tactical (shorter term) timeframe, this information can be very useful, as we believe that the majority of one's trading alpha comes from getting the major asset class right, not necessarily the individual securities. For instance, at a broad level, the TMI model is currently suggesting the following allocations (we have included some of our preferred ETFs in each space):

- **Nasdaq over S&P 500 and Dow:** Nasdaq–100 Trust Series 1 (QQQQ-NYSEArca-$35.00)

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[2] Small- and mid-cap companies may be hindered as a result of limited resources or less diverse products or services and have therefore historically been more volatile than the stocks of larger, more established companies.

[3] There are special risks associated with an investment in real estate, including credit risk, interest rate fluctuations and the impact of varied economic conditions.

Sector Work

Consistently Strong TMI Scoring Over Various Time Periods

We would remain Overweight the following types of securities (we have listed some of our favorite ETFs in each space):

- **Pacific ex-Japan:** iShares MSCI Pacific ex-Japan Fund Index ETF (EPP-NYSEArca-$30.19)[4]
- **Broker-Dealers:** iShares Dow Jones US Broker Dealers Index (IAI-NYSEArca-$24.24)
- **Retail:** SPDR S&P Retail (XRT-NYSEArca-$26.32)
- **Software:** iShares Goldman Sachs Software Index ETF (IGV-N-$37.25)[5]
- **Networking:** iShares Goldman Sachs Networking Index (IGN-NYSEArca-$22.53)
- **Emerging Market Debt:** PowerShares Emerging Market Sovereign Debt ETF (PCY-NYSEArca-$22.92)
- **Oil (the commodity): PowerShares DB Oil ETF** (DBO-NYSEArca-$24.91)[6]
- **Healthcare Providers:** iShares Dow Jones US Health Care Provider Index (IHF-NYSEArca-$36.93)
- **Metals and Mining:** SPDR S&P Metals and Mining ETF (XME-NYSEArca-$35.83)
- **China:** iShares FTSE/Xinhua China 25 Index (FXI-N-$35.81)

Low But Improving TMI Scoring

Potential Turnaround Stories – emerging alpha potential, we would not be significantly underweight the following types of securities:

Medical Devices	Utilities	Biotech
Aerospace and Defense	Transports	Media

High and Fading TMI Scoring

Take Caution – raise stops on these positions, as their previously strong readings may be fading:

Energy Exploration and Production	Materials	Large banks
Agriculture	Broad Commodities	Gold Miners
Europe	Gold	Emerging Markets

Consistently Poor TMI Scoring

We would remain Underweight the following types of industries:

Insurance	US Dollar	Treasuries
Regional Banks	Homebuilders	Domestic REITs

One Important Caveat: Don't Judge an ETF "Book" by its Cover

When risk managing using ETFs, we think it's essential for managers to look under the hood to the ETFs' underlying holdings. While two ETFs may have very similar-sounding names, the underlying holdings could be completely different and, in some cases, a significant portion of an ETF's weighted-average holdings may be in stocks in sectors other than what the ETF's name suggests. Comprehensive holdings lists and attributes for ETFs are often found on the websites of the individual ETF issuers; we would recommend being well-acquainted with an ETF's underlying holdings before purchasing it.

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[1] Our TMI model ranking system of the ETF universe is based on technical analysis. The TMI is a tool for comparing relative price momentum and how it is changing within the ETF universe. Eight TMI observations are shown for each ETF, including the most recent three days and up to 13 weeks ago. We also display each ETF's trend strength over ten days, three months and nine months. Volatility data shown includes each ETF's volatility relative to the S&P 500 on a weekly basis over the past three years, as well as the five-day and one-year average of the true range of prices.

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[4] Investments in international and emerging markets securities include exposure to risks including currency fluctuations, foreign taxes and regulations, and the potential for illiquid markets and political instability.

[5] Technology and Internet-related stocks, especially of smaller, less-seasoned companies, tend to be more volatile than the overall market.

[6] Buying commodities allows for a source of diversification for those sophisticated persons who wish to add this asset class to their portfolios and who are prepared to assume the risks inherent in the commodities market. Any commodity purchase represents a transaction in a non-income-producing asset and is highly speculative. Therefore, commodities should not represent a significant portion of an individual's portfolio.

iShares Dow Jones US Real Estate Index Fund (IYR)
Inception Date: 6/12/00

	1 year	3 Year	5 Year	Since Inception
Price Returns	-57.83%	-26.02%	-9.99%	1.78%
Index Returns	-57.95%	-26.12%	-9.84%	2.12%
NAV (Market) Returns	-57.97%	-26.03%	-9.98%	1.76%

Expense Ratio and Returns as of 3/31/09: 0.48%

The performance quoted represents past performance and does not guarantee future results. Investment return and principal value of an investment will fluctuate so that an investor's shares, when sold or redeemed, may be worth more or less than the original cost. Current performance may be lower or higher than the performance quoted. Performance data current to the most recent month end may be obtained by calling toll-free 1-800-iShares or by visiting www.ishares.com.

Returns are average annualized total returns. Market returns are based upon the midpoint of the bid/ask spread at 4:00pm ET (when NAV is normally determined for most iShares Funds), and do not represent the returns you would receive if you traded shares at other times. Performance information for the Index assumes reinvestment of all income and excludes management fees, transaction costs and expenses.

Consumer Staples Select Sector SPDR Fund (XLP)
Inception Date: 12/16/98

	1 year	3 Year	5 Year	Since Inception
Price Returns	-22.72%	-1.61%	0.41%	-0.35%
Index Returns	-22.54%	-1.34%	0.68%	-0.09%
NAV (Market) Returns	-22.55%	-1.51%	0.47%	-0.33%

Expense Ratio and Returns as of 3/31/09: 0.21%

The performance quoted represents past performance and does not guarantee future results. Investment return and principal value of an investment will fluctuate so that an investor's shares, when sold or redeemed, may be worth more or less than the original cost. Current performance may be lower or higher than the performance quoted. Performance data current to the most recent month end may be obtained by calling toll-free 1-800-843-2639 or by visiting www.sectorspdrs.com.

All total return figures assume reinvestment of dividends and capital gains at net asset value; actual returns may differ. Performance information for the Index assumes reinvestment of all income and excludes management fees, transaction costs and expenses.

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Standard & Poor's (S&P) 500 Index measures the performance of 500 large cap stocks, which together represent about 75% of the total US equities market.