



Rock, Paper, Scissors

Making Tactical Asset Allocation Decisions



Valuations | Technicals | Fundamentals

The optimal way to make investment decisions is to follow a structure that offers the rigidity of a process but the flexibility to identify which factors are the most significant in each unique investment opportunity.

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LPL Financial Research believes that fundamental, valuation, and technical factors form the basis of a sound investment decision-making process. However, how they combine and which takes precedence when making an optimal investment decision changes depending on the scenario. The reason is that successful investing does not always follow a basic “rule’s based” decision-making framework. Rather, the optimal way to make investment decisions is to follow a structure that offers the rigidity of a process but the flexibility to identify which factors are the most significant in each unique investment opportunity.

In short, the key to a successful investment strategy is a multi-factor, multi-scenario process. In other words, depending on the scenario, factors such as fundamental, valuation, and technicals can either be a significant, insignificant or negative determinant to success. But understanding which combination of factors work in concert under which scenarios requires a sophisticated decision-making structure.

While there are many instances in science, nature, physics, evolution and mathematics of multi-factor, multi-scenario models, perhaps the best known is the game of Rochambeau; otherwise called Rock, Paper, Scissors (“RPS”). Nearly every one is familiar with the children’s game of Rock, Paper, Scissors. The premise of this game is that at the same time, players reveal one of the three hand symbols. Rock trumps (crushes) scissors, scissors trumps (cuts) paper, and paper trumps (covers) rock.

While few think of RPS as a sophisticated framework, the inter-dependencies of the three factors and the multiple scenario outcomes lead to a complex model for making decisions. For example, compare RPS to a simple version of a “rule’s based” framework, such as cards. In cards, the King is always greater than the Queen, regardless of the scenario. It is simply a rule. But in RPS, it is much more sophisticated. Each of the factors can either be a winner, a loser or a non-event, depending on the scenario. For example, a rock wins against scissors, loses to paper, but is insignificant to another rock. There is no one choice that is always optimal. The right answer just depends on the scenario.



Science, Math, and Nature

Rock, Paper, Scissors is far more than simply a children's game. It is a sophisticated process. Indeed, RPS is a key design of the fabric of the universe, a mathematical concept, and a driver of natural selection. What could be more sophisticated than something that can do all of that.

In the field of science, braids have a special significance. A braid exhibits RPS ordering. For example, when making a braid you place strand one over strand two and then strand three over strand one. There is a theory of quantum physics based on braids called Quantum Field Gravity. The basic idea is that all matter and all energy are just twisted braids of space-time. Thus, matter and energy and space-time are the same things. It is hard to conceptualize, but the idea is that space-time and matter and energy are linked in an RPS discipline.

In the area of mathematics, RPS is an example of the mathematical concept of intransitive relations. Intransitivity has application to game theory, economics, and political science. For example, in politics, candidate Rock is preferred to candidate Scissors on a particular topic, and candidate Scissors is preferred to candidate Paper on another topic, yet candidate Paper is preferred to candidate Rock on yet another topic.

In nature, there are numerous examples of RPS based strategies of reproduction. The male and female common side-blotched lizard have three color types: orange, blue, and yellow. When competing for mates, female preferences are based on color and follow an RPS ordering: orange seeks blue, blue seeks yellow, and yellow seeks orange. Also, strains of Coliform bacteria compete with each other in an RPS ordered process. Some bacteria strains (let's call them Rocks) produce toxins to inhibit the growth of competing strains of bacteria (we'll call these Scissors). The strains that are able to resist the toxin (we can call these Papers) then multiply and out-compete the toxin producing strains (the Rocks).

The same is true in investing. Fundamental, valuation, and technical analysis are all important factors to consider when making portfolio decisions; depending on the scenario, each can be relatively more or less important. This multi-factor, multi-scenario decision-making framework is highly complex and allows for LPL Financial Research to build optimal strategies by evaluating which combination of factors under which scenarios offer the best risk/reward tradeoff.

Multi-Factor Decision-Making Process

If RPS is a key element in the disciplines of science, math, and nature, then why not an investment process?

Valuations	=	Rock
Technicals	=	Paper
Fundamentals	=	Scissors

The RPS discipline compels the following relationships when making investment decisions:

Valuation

Valuation (rock) trumps Fundamentals (scissors) but is trumped by Technicals (paper).

Translation: We may love the fundamentals of an investment, but if the valuation is high then the good news may be fully priced in. However, we would continue to own the investment until the technicals (momentum) began to deteriorate.

Implementation: On May 5th, 2009 we decided to add Emerging Markets to our models based on strong fundamentals led by demand-driven growth from China. While fundamentals were strong and technical indicators were on the upswing, relative valuations were on the expensive side at that time. While in most scenarios high valuation would trump good fundamentals, in this case it was the third factor, technicals, that contributed to the buy. While expensive on a relative basis, the fact that the market was still rewarding (momentum is a technical measure) the fundamentally sound investment of Emerging Markets, valuation concerns were trumped and the investment was committed to.

Fundamentals

Fundamentals (scissors) trump Technicals (paper) but is trumped by Valuation (rock).

Translation: We wouldn't be positive on an investment based solely on technicals if there were no favorable fundamentals to support it, unless the valuation was very low making it a deep value idea with an improving technical picture providing the needed catalyst.

Implementation: In early 2009 we added a position in Preferred Securities. Despite the fact that fundamentals were poor given the headwind facing many financial services companies and the possibility of conversion to common stock for many issues, valuations were very low and momentum was improving. Thus, even though it appeared that Preferred Stocks were a bad fundamental investment, given the attractive valuations and improving momentum, we allocated assets before the fundamental backdrop improved and reaped the rewards of an outperforming investment.



Transparency

The LPL Financial Research team endeavors to always provide transparency into the process behind our recommendations. The Portfolio Compass is our bi-weekly guide to the thinking behind our tactical asset allocation recommendations. It contains our view on each asset class and sector, ranging from positive to neutral to negative, in addition to our assessment of the valuations, fundamentals, and technicals for each asset class and sector. Consistent with the RPS discipline you will find that, in general, if we are positive on an asset class or sector it must have no red dots (which note an unfavorable view) in the fundamental, valuation, or technical columns, or if it does it must have the right green dot to trump the red:

- If the Technicals dot is red then the Fundamentals dot must be green
- If the Valuations dot is red then the Technicals dot must be green
- If the Fundamentals dot is red then the Valuation dot must be green

If not, the asset class or sector is likely to be rated negative or neutral, at best.

You can see this in the Portfolio Compass excerpts to the right.

Technicals

Technicals (paper) trump Valuation (rock) but are trumped by Fundamentals (scissors)

Translation: If technicals are good than the momentum may continue to support the investment even though valuations are high, as long as fundamentals remain favorable.

Implementation: In early March 2009 we initiated a position in Commodities. Similar to Emerging Market stocks, our goal of getting indirect exposure to China drove this decision. Since early March, this investment has proven very positive, stretching valuation levels. Despite elevated valuation levels, we remain committed to it because of positive technical momentum and continued strong fundamentals (demand driven growth from China).

Excerpts from the September 23rd edition of the Portfolio Compass

		Fundamentals	Technicals	Valuation	View		
					Negative	Neutral	Positive
Equity Asset Class & Commodity Compass							
STYLE / CAPITALIZATION	Large Growth	●	●	●	■	●	■
	Large Value	●	●	●	■	●	■
	Mid Growth	●	●	●	■	●	■
	Mid Value	●	●	●	■	●	■
	Small Growth	●	●	●	■	●	■
	Small Value	●	●	●	■	●	■
REGION	U.S. Stocks	●	●	●	■	●	■
	Large Foreign	●	●	●	■	●	■
	Small Foreign	●	●	●	■	●	■
	Emerging Markets	●	●	●	■	●	■
REITS	●	●	●	■	●	■	

Fixed Income Compass

TAXABLE BONDS	U.S.	Treasuries	●	●	●	■	●	■
		TIPS	●	●	●	■	●	■
		Agency Debt	●	●	●	■	●	■
		Investment-Grade Corporates	●	●	●	■	●	■
		Agency Mortgages	●	●	●	■	●	■
		Non-Agency Mortgages	●	●	●	■	●	■
		Preferred Stocks	●	●	●	■	●	■
		High Yield Corporates	●	●	●	■	●	■
		Bank Loans	●	●	●	■	●	■
		Foreign Bonds - Hedged	●	●	●	■	●	■
FOREIGN	Foreign Bonds - Unhedged	●	●	●	■	●	■	
	★ Emerging Market Debt	●	●	●	■	○	■	

★ Denotes change in view from last issue. ● Negative ● Neutral ● Positive



Conclusion

Market participants compete with one another in an environment of imperfect information. No single approach to investing has proven to always be superior. We believe the discipline of Rock Paper Scissors (Valuations, Technicals, and Fundamentals) is the optimal model to maximize the reward/risk relationship by utilizing a multi-factor, multi-scenario framework.

IMPORTANT DISCLOSURES

This report was prepared by LPL Financial Research. The opinions voiced in this material are for general information only and are not intended to provide or be construed as providing specific investment advice or recommendations for any individual. To determine which investments may be appropriate for you, consult your financial advisor prior to investing. All performance referenced is historical and is no guarantee of future results. All indices are unmanaged and cannot be invested into directly.

International and emerging markets investing involves special risks such as currency fluctuation and political instability and may not be suitable for all investors.

Bonds are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise and are subject to availability and change in price.

Preferred Stock investing involves risk which may include loss of principal.

The fast price swings in commodities will result in significant volatility in an investor's holdings.

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