

# **Models - Asset Allocation Report**

Prepared on: 1/13/2017 | Fund data as of 12/31/2016

**Prepared For: Prepared By: Service Providers:** 

**Alex Anderson** 453 S. Fourth Ave Suite 200 Pittsburgh, PA 15222 MDC Advisors Chicago, IL

Attorney: HWB LLP

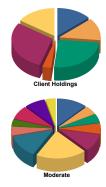
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### **Models - Profile**

Asset Allocation is a decision to place a portfolio's assets in a certain % combination of asset classes with the expectation of meeting a certain risk/return profile. The suggested allocation below does not represent any particular investment. It is a broad view of the market that should be refined with your advisor before implementing an investment strategy. In determining an asset allocation, your advisor may have considered your ability to handle market volatility (financially and/or emotionally) your financial needs and goals, the expected market behavior of the various asset classes, and other factors. Past performance should not be considered indicative of future results.

#### Strategic Asset Allocation / Diversification

	Large Cap Equity	Mid Cap Equity	Small Cap Equity	International Equity	Emerging Market Equity	REITS	High Yield Bond	Long-Term Bond	Intermediate-Te rm Bond	International Bond	Commodities	Money Market
Client Holdings	13.6	13.0	25.0	0.0	3.2	0.0	0.0	0.0	29.5	0.0	0.0	15.6
IPS Strategic Allocation	20.0	15.0	15.0	0.0	5.0	0.0	0.0	0.0	30.0	0.0	0.0	15.0
Moderate	12.0	5.0	5.0	13.0	6.0	5.0	4.0	8.0	10.0	8.0	4.0	20.0







#### **Strategic Risk & Return Characteristics**

The table below will provide additional hypothetical risk and return characteristics. This hypothetical data is for illustrative purposes only and may not reflect the actual performance and volatility that will be experienced.

	Client Holdings	IPS Strategic Allocation	Moderate
Initial Amount	2,691,000	2,691,000	2,691,000
Hypothetical 5-Year	3,245,215	3,250,009	3,484,877
Inflation Rate	2.0	2.0	2.0
Annualized Return	4.3	4.3	5.7
Standard Deviation	10.0	9.7	8.4
Likely Range of Returns	-5.67 to 14.31	-5.35 to 13.99	-2.75 to 14.07
Large Loss Scenario	-15.7	-15.0	-11.2

#### **Risk & Return Definitions**

Hypothetical 5-Year Growth The hypothetical growth of the initial amount in 5 years. Initial Amount \* (1 + (annualized return - 1/2 variance))^5.

Inflation Rate The inflation assumption used to calculate in the return calculations. Annualized Return The hypothetical annualized nominal return for the portfolio.

Standard Deviation The hypothetical standard deviation for the portfolio.

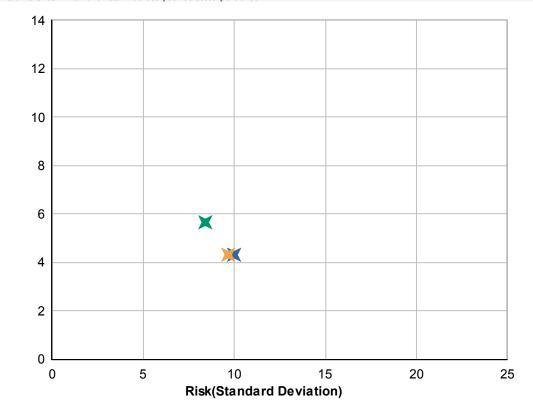
Likely Range of Returns Statistically, there is a 68% chance that any one year's nominal return will fall within this range. Annualized Return (+) or

Large Loss Scenario Statistically, there is a 2.5% probability that the "large loss" will be as bad or even worse than this. Annualized Return (-) 2 Standard Deviations

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# **Models - Optimizer Risk/Return Comparison**

The chart below will plot each portfolio based on its hypothetical risk and return. The chart allows you to view the relative difference in risk and return across your selected portfolios.



X Client HoldingsX IPS Strategic AllocationX Moderate

Annualized Return (Nominal)

# **Hypothetical Portfolio Performance**

This section is intended to show hypothetical performance of the client portfolio along with various benchmarks (if included). This hypothetical performance is for illustrative purposes only and may not reflect the actual performance that would have been experienced. It should NOT be used to represent the actual returns realized by a client since timing and cash flows are not considered. For this hypothetical calculation, annual rebalancing is assumed. If an underlying investment does not have the required performance history, its allocation is excluded from that particular month(s) calculation. Please view the detailed calculation methodology on the following page for more details.

### Hypothetical Performance as of 12/31/2016 (%)

	1-Month	3-Month	YTD	1-Year	3-Year	5-Year	10-Year
Client Holdings	1.59	2.61	14.03	14.03	4.44	8.78	6.67
Client Holdings - Peer Group Median	1.44	3.44	11.41	11.41	4.39	8.50	5.56
IPS Benchmark - Peer Group Median	1.06	1.77	8.86	8.86	3.93	8.04	5.41
Custom Benchmark - Balanced	1.23	1.53	7.93	7.93	6.30	9.67	6.26
Model - Moderate	1.09	-2.18	7.40	7.40	2.63	5.06	4.05

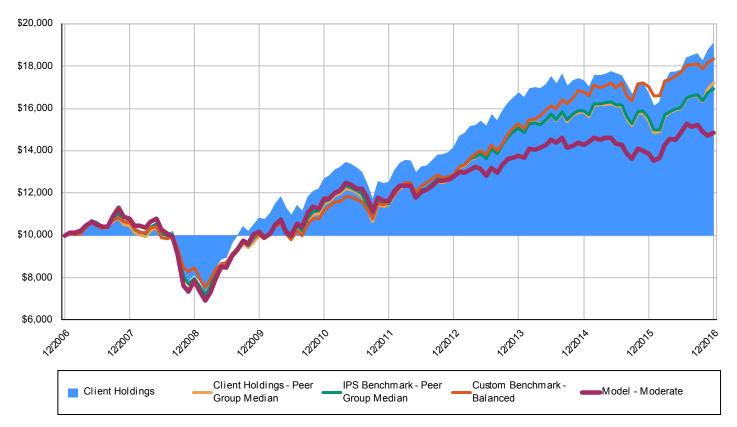
#### **Hypothetical Standard Deviation (%)**

	1-Year	3-Year	5-Year	10-Year
Client Holdings	8.51	7.42	7.19	10.77
Client Holdings - Peer Group Median	7.97	7.20	7.05	10.51
IPS Benchmark - Peer Group Median	7.37	6.87	6.87	10.37
Custom Benchmark - Balanced	5.83	6.30	6.25	9.02
Model - Moderate	7.36	6.36	6.33	11.41

### Hypothetical Calendar Year Performance (%)

	2012	2013	2014	2015	2016
Client Holdings	13.19	18.12	3.48	-3.44	14.03
Client Holdings - Peer Group Median	11.83	18.21	4.77	-2.55	11.41
IPS Benchmark - Peer Group Median	11.80	17.30	5.19	-1.98	8.86
Custom Benchmark - Balanced	11.00	18.98	9.84	1.31	7.93
Model - Moderate	10.01	7.64	3.69	-2.94	7.40

### Hypothetical Growth of a \$10,000 investment from 12/31/2006 to 12/31/2016



## **Hypothetical Portfolio Performance Calculation Methodology**

Investors should consider the investment objectives, risks, and charges and expenses of a fund carefully before investing. Prospectuses containing this and other information about the fund are available by contacting your financial consultant. Please read the prospectus carefully before investing to make sure that the fund is appropriate for your goals and risk tolerance. The performance information shown represents past performance and is not a guarantee of future results. The investment return and principal value of an investment will fluctuate so that the shares, when redeemed, may be worth more or less than their original cost. The performance information shown reflects performance without adjusting for sales charges. If adjusted for sales charges, the load would reduce the performance quoted.

The performance of the client peer group benchmark, IPS peer group benchmark (if included), and custom benchmark (if included) are not an exact representation of any particular investment, as you cannot invest directly in an index or peer group median that are used in the calculations.

- 1. Hypothetical client holdings performance is calculated as follows: (a) Starting ten years ago, a weighted average return is calculated for each month based upon the current investment asset allocations entered for this client; (b) The portfolio is rebalanced annually to these original allocations; and (c) If an investment does not have a return for a particular month, the weighted average return for those month(s) is calculated excluding that investment's allocation. Once the investment has return history, it is included in all calculations from that point forward. (Reference the list below for any investments that fall into this category.)
- 2. Hypothetical client holdings peer group median performance is calculated as follows: (a)For each client investment, the median 1-month return for the assigned peer group is used in place of the actual investment's 1-month return; (b)All other calculations follow the same process as stated above for the client; and (c) If the peer group median return is not available, the assigned index return will be used instead.
- 3. IPS benchmark peer group median performance (if included) is calculated as follows: (a) Starting ten years ago, a weighted average return is calculated for each month based upon the current asset allocation stated in the client's IPS; (b) If more than one peer group is included, the IPS asset allocation is rebalanced annually to the original allocations; and (c) If the peer group median return is not available, the assigned index return will be used instead.
- 4. Custom benchmark performance (if included) is calculated as follows: (a)Starting ten years ago, a weighted average return is calculated for each month based upon the benchmark asset allocation shown below; (b) If more than one index is included, the benchmark asset allocation is rebalanced annually to the original allocations; and (c) If an index does not have a return for a particular month, the weighted average return for those month(s) is calculated excluding that indices allocation. Once the index has return history, it will be included in all calculations from that point forward. (Reference the list below for any indices that fall into this category.)

Investments and indices (if included) which do not have a full 10-year return history. Their monthly performance began to be included on the dates shown below.

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### **Client Benchmarks**

### **Investment Policy Statement (IPS) Benchmark**

<u>%</u>	Peer Group	<u>%</u>	Peer Group	<u>%</u>	Peer Group
5%	Diversified Emerging Mkts	10%	Intermediate-Term Bond	5%	Large Blend
5%	Large Growth	10%	Large Value	15%	Mid-Cap Growth
20%	Multisector Bond	15%	Short-Term Bond	10%	Small Blend

### **Custom Benchmark: Balanced**

<u>%</u>	Benchmark Index	<u>%</u>	Benchmark Index	<u>%</u>	Benchmark Index
40%	BBgBarc US Agg Interm TR USD	60%	S&P 500 TR USD		

#### **Model: Moderate**

World Bond

8%

<u>%</u>	Peer Group	<u>%</u>	Peer Group	<u>%</u>	Peer Group
6%	Diversified Emerging Mkts	4%	Equity Precious Metals	13%	Foreign Large Blend
4%	High Yield Bond	10%	Intermediate-Term Bond	6%	Large Growth
6%	Large Value	8%	Long-Term Bond	5%	Mid-Cap Blend
20%	Money Market Taxable	5%	Real Estate	5%	Small Blend

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### **Glossary**

#### Asset Allocation

Asset Allocation is a decision to place a portfolio's assets in a certain % combination of asset classes with the expectation of meeting a certain risk/return profile. The suggested allocation below does not represent actual securities. It is a broad view of the market that should be refined with your advisor before implementing an investment strategy. In determining an asset allocation, your advisor may have considered your ability to handle market volatility (financially and/or emotionally) your financial needs and goals, the expected market behavior of the various asset classes, and other factors. Past performance should not be considered indicative of future results. (Description provided by fi360)

#### **Broad Asset Class**

A term used to group funds with similar categories and investing styles. (Description provided by fi360)

#### **Capital Market Inputs**

The inputs required for a risk-premium optimizer to run its calculations. The inputs are Expected Standard Deviation, Expected Return and the Correlation Coefficients for each asset class used in the Optimizer. The inputs used in the fi360 Asset Allocation Optimizer were developed by New Frontier Advisors. Please view the Capital Market Inputs Methodology PDF for more details. (Description provided by fi360)

#### **Capital Market Inputs - Correlation Coefficient**

The expected correlation for each of the asset classes used in the Optimizer. Correlation measures the degree to which two variables are associated. Historically, equities and fixed-income asset returns have not moved in unison, therefore the asset returns are not strongly correlated. A balanced portfolio with equities and fixed-income asset represents a diversified portfolio that attempts to take advantage of the low correlation between the two asset classes. Please view the Capital Market Inputs Methodology PDF for more details. (Description provided by fi360)

#### **Capital Market Inputs - Return**

The expected return for each of the asset classes used in the Optimizer. In the fi360 Asset Allocation Optimizer, New Frontier Advisors uses Historical monthly return data as the basis for the risk-return estimates. Adjustments for the current T-bill rate and Capital Asset Pricing Model (CAPM) equilibrium methodology led to Security Market Line (SML) estimates of return. Please view the Capital Market Inputs Methodology PDF for more details. (Description provided by fi360)

#### **Capital Market Inputs - Standard Deviation**

The expected standard deviation for each of the asset classes used in the Optimizer. Standard deviation is a statistical measure of portfolio risk. It reflects the average deviation of the observations from their sample mean. In the fi360 Asset Allocation Optimizer, New Frontier Advisors uses Historical monthly return data as the basis for the risk-return estimates. Risk relationships were estimated from the historical data and the Expectation-Maximization (EM) algorithm to account for missing data in some of the eleven indices. Please view the Capital Market Inputs Methodology PDF for more details. (Description provided by fi360)

#### **Efficient Frontier Analysis**

This graph uses the vertical axis to represent return and the horizantal axis to represent risk. The Resampled Efficient Frontier along with the Classical Efficient Frontier is drawn to illustrate not only the differences between the two methods, but also to serve as a comparison against the current portfolio. To be an 'optimal portfolio', the current portfolio should lie directly on the Resampled Effecient Frontier. Any portfolio below the frontier, does not represent the most optimial combination of asset classes as an allocation on the Efficient Frontier could result in the same return with less risk or the same risk with more return. (Description provided by fi360)

#### Index

A collection of securities chosen to represent a specific investment area. Common indexes include the Dow Jones Industrial Average, the S&P 500, and the NASDAQ Composite. (Description provided by Morningstar)

#### **Investment Policy Statement (IPS)**

The Investment Policy Statement can be considered the business plan for the portfolio. It outlines the general rules that the investment advisor will follow to achieve the client's desired outcome for the portfolio. Minimum components of an IPS should include: The duties and responsibilities of all parties, Diversification and rebalancing guidelines, Due diligence criteria to be used in selecting investments, Monitoring criteria for investment options and service vendors, and procedures for controlling and accounting for investment expenses. (Description provided by fi360)

### **Modeled Portfolio Outlook - Annualized Return**

The projected annualized return for this portfolio. This weighted return is calculated using the allocation specified on the report and the expected return for each of the broad asset classes stated in the Capital Market Inputs section. (Description provided by fi360)

#### **Modeled Portfolio Outlook - Initial Amount**

The Initial Amount of the Portfolio to be invested. (Description provided by fi360)

#### Modeled Portfolio Outlook - Large Loss Scenario

While the technical definition of risk assesses both upward and downward variation in prices, from a layman's perspective, risk is viewed as the amount of money the investor is willing to lose in a given year. Recognizing this, we model a 'large loss' scenario that is based upon the calculated return found two standard deviations below the mean. This equates to the 95th percentile but we focus only on the left, or loss side, of the bell shaped curve. This theoretically represents a 1 in 40 event that could be as bad or worse then indicated once every forty years. Stated differently, there is a 2.5% probability that the 'large loss' will be as bad or even worse than the modeled value. (Description provided by fi360)

#### **Modeled Portfolio Outlook - Likely Range of Returns**

There is a 68% chance that any one year's return will fall within this range. This figure is calculated by adding (and subtracting) 1 Standard Deviation to (from) the Annualized Return. (Description provided by fi360)

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### Glossary (Cont.)

#### **Modeled Portfolio Outlook - Standard Deviation**

The projected standard deviation for this portfolio. Standard deviation is a commom way to measure the risk of a portfolio. If the returns follow a normal distribution, then approximately 68 percent of the time they will fall within one standard deviation of the portfolio's annualized return and 95 percent of the time within two standard deviations. The portfolio standard deviation is a function of not only the individual standard deviations of each asset class, but also of the degree of correlation among the asset classes. (Description provided by fi360)

#### Modeled Portfolio Outlook - The Projected \$ Value in 5 Years

The projected 5 year growth of the Initial Amount using the annualized return and standard deviation of the portfolio. This figure is calculated by multiplying the Intial Amount times (1+(Annualized Return - 1/2 of the variance))^5. (Description provided by fi360)

#### Peer Group (Morningstar Category)

In an effort to distinguish funds by what they own, as well as by their prospectus objectives and styles, Morningstar developed the Morningstar Categories. While the prospectus objective identifies a fund's investment goals based on the wording in the fund prospectus, the Morningstar Category identifies funds based on their actual investment styles as measured by their underlying portfolio holdings (portfolio and other statistics over the past three years). See specific category name for further details (i.e. "Peer Group - Large Value"). (Description provided by Morningstar)

#### **Portfolio Composition Maps**

A Portfolio Composition Map is a graphical method to display portfolios along the efficient frontier, from low to high risk, in terms of their portfolio weights. Each color in the graph represents a certain type of asset. The relative size of each band of color represents the "weight" of that asset in the portfolio. The horizontal axes represent the efficient frontier. The composition of portfolios to the left of each graph has the minimum risk. The composition of portfolios to the right of each graph has the maximum expected return and a correspondingly higher risk.A chart is shown for both Resampled Efficiency(tm) and Classical Efficiency to illustrate the drastic difference in proposed allocations between the two methods. (Description provided by fi360)

#### **Standard Deviation**

A statistical measurement of dispersion about an average, which, for a mutual fund, depicts how widely the returns varied over a certain period of time. Investors use the standard deviation of historical performance to try to predict the range of returns that are most likely for a given fund. When a fund has a high standard deviation, the predicted range of performance is wide, implying greater volatility. Standard deviation is most appropriate for measuring risk if it is for a fund that is an investor's only holding. The figure can not be combined for more than one fund because the standard deviation for a portfolio of multiple funds is a function of not only the individual standard deviations, but also of the degree of correlation among the funds' returns. If a fund's returns follow a normal distribution, then approximately 68 percent of the time they will fall within one standard deviation of the mean return for the fund, and 95 percent of the time within two standard deviations. Morningstar computes standard deviation using the trailing monthly total returns for the appropriate time period. All of the monthly standard deviations are then annualized. (Description provided by Morningstar)

#### Strategic Allocation

A strategic allocation is a long term, or market neutral allocation decision set to meet an expected risk/ return profile. An allocation profile may deviate from the strategic allocation from time to time, but the strategic allocation is not expected to change very frequently. (Description provided by fi360)

#### **Tactical Allocation**

A tactical allocation is the implementation of a strategic allocation, both in terms of investment vehicle selection and short term allocation changes. Tactical allocation changes may be made to over-weight or under-weight certain asset classes for small periods of time to take advantage of short term shifts in an investors view of the market and economy. (Description provided by fi360)

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# **Appendix: Optimizer Broad Asset Class Mapping**

To calculate the broad asset class percentages and risk/return data shown in the Optimizer Profile section, each peer group in the client investments, IPS strategic asset allocation and custom model is mapped to one (or multiple) broad asset classes used in the fi360 Asset Allocation Optimizer. The table below will identify this mapping.

#### **Current Holdings**

	Large Growth	Large Value	Mid-Cap Growth	Small Blend	Small Value	Diversified Emerging	Corporate Bond	Intermediate- Term Bond	Multisector Bond	Short-Term Bond	Total
Large Cap Equity	0.9	12.7	-	-	-	-	-	-	-	-	13.6
Mid Cap Equity	-	1	13.0	1	1	1	-	-	1	-	13.0
Small Cap Equity	-	-	-	8.6	16.5	-	1	-	-	1	25.0
<b>Emerging Market Equity</b>	-	-	-	-	-	3.2	-	-	-	-	3.2
Intermediate-Term Bond	-	-	-	-	-	-	1.8	10.3	17.5	-	29.5
Money Market	-	-	-	-	-	-	-	-	-	15.6	15.6
Total	0.9	12.7	13.0	8.6	16.5	3.2	1.8	10.3	17.5	15.6	100.0

#### **IPS Strategic Allocation**

	arge Blend	rge Growth	Large Value	Mid-Cap Growth	Small Blend	Small Value	Diversified Emerging	Intermediate- Term Bond	Multisector Bond	Short-Term Bond	Total
		La				Sn					-
Large Cap Equity	5.0	5.0	10.0		-	-	-	-	-	-	20.0
Mid Cap Equity	-	-	-	15.0	-	-	-	-	-	-	15.0
Small Cap Equity	-	-	-	-	10.0	5.0	-	-	-	-	15.0
<b>Emerging Market Equity</b>	-	-	-	-	-	-	5.0	-	-	-	5.0
Intermediate-Term Bond	-	-	-	-	-	-	-	10.0	20.0	-	30.0
Money Market	-	1	-	1	-	1	1	1	-	15.0	15.0
Total	5.0	5.0	10.0	15.0	10.0	5.0	5.0	10.0	20.0	15.0	100.0

### Moderate

	Large Growth	Large Value	Mid-Cap Blend	Small Blend	Foreign Large Blend	Diversified Emerging	Real Estate	Long-Term Bond	Intermediate- Term Bond	World Bond	High Yield Bond	Equity Precious	Money Market Taxable	Total
Large Cap Equity	6.0	6.0	-	-	-	-	-	-	-	-	-	-	-	12.0
Mid Cap Equity	-	-	5.0	-	-	-	-	-	-	-	-	-	-	5.0
Small Cap Equity	-	-	-	5.0	-	-	-	-	-	-	-	-	-	5.0
International Equity	-		,	-	13.0	-	-	,	-	-	-	-	-	13.0
Emerging Market Equity	-	-	-	-	-	6.0	-	-	-	-	-	-	-	6.0
REITs	-	1		-	-	-	5.0		-	-	-	-	-	5.0
High Yield Bond	-	-	-	-	-	-	-	-	-	-	4.0	-	-	4.0
Long-Term Bond	-	-	-	-	-	-	-	8.0	-	-	-	-	-	8.0
Intermediate-Term Bond	-	-	-	-	-	-	-	-	10.0	-	-	-	-	10.0
International Bond	-	-	-	-	-	-	-	-	-	8.0	-	-	-	8.0
Commodities	-	-	-	-	-	-	-	-	-	-	-	4.0	-	4.0
Money Market	-	-	-	-	-	-	-	-	-	-	-	-	20.0	20.0
Total	6.0	6.0	5.0	5.0	13.0	6.0	5.0	8.0	10.0	8.0	4.0	4.0	20.0	100.0

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# **Appendix: Capital Market Inputs and Correlation Matrix**

Capital Market Data last updated December 31, 2016. Returns include a default inflation rate of 2.0%. Copyright (c) 2017 MacroRisk Analytics

	Return (%)	Risk (%)
Large Cap Equity	6.3	16.2
Mid Cap Equity	6.4	18.4
Small Cap Equity	6.7	20.5
International Equity	7.0	17.9
Emerging Market Equity	7.1	22.0
REITs	5.0	19.3
High Yield Bond	4.8	10.9
Long-term Bond	-0.1	13.5
Intermediate-term Bond	2.1	4.7
International Bond	0.7	4.5
Commodities	4.9	16.6
Money Market	0.7	0.7

### **Correlation Matrix**

	LCE	MCE	SCE	IE	EM	REIT	HY	LTB	ITB	IB	ММ	со
Large Cap Equity (LCE)	1.00	0.94	0.79	0.70	0.69	0.60	0.64	0.09	0.07	0.03	0.04	0.09
Mid Cap Equity (MCE)	0.94	1.00	0.90	0.68	0.71	0.67	0.69	0.09	0.07	0.02	0.02	0.13
Small Cap Equity (SCE)	0.79	0.90	1.00	0.58	0.66	0.63	0.65	0.00	-0.01	-0.04	-0.01	0.10
International Equity (IE)	0.70	0.68	0.58	1.00	0.72	0.48	0.56	0.05	0.05	0.35	0.04	0.26
Emerging Market Equity (EM)	0.69	0.71	0.66	0.72	1.00	0.49	0.58	0.01	0.00	0.13	0.00	0.29
REITs (REIT)	0.60	0.67	0.63	0.48	0.49	1.00	0.56	0.20	0.17	0.12	0.07	0.07
High Yield Bond (HY)	0.64	0.69	0.65	0.56	0.58	0.56	1.00	0.22	0.20	0.13	0.05	0.18
Long-term Bond (LTB)	0.09	0.09	0.00	0.05	0.01	0.20	0.22	1.00	0.91	0.44	0.40	-0.02
Intermediate-term Bond (ITB)	0.07	0.07	-0.01	0.05	0.00	0.17	0.20	0.91	1.00	0.52	0.53	0.01
International Bond (IB)	0.03	0.02	-0.04	0.35	0.13	0.12	0.13	0.44	0.52	1.00	0.28	0.28
Money Market (MM)	0.04	0.02	-0.01	0.04	0.00	0.07	0.05	0.40	0.53	0.28	1.00	-0.10
Commodities (CO)	0.09	0.13	0.10	0.26	0.29	0.07	0.18	-0.02	0.01	0.28	-0.10	1.00

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