

FALL 2014



Retirement Report

CITY OF MESA
DEFERRED COMPENSATION PLAN

Is the Stock Market Overvalued?

Has the stock market become too expensive, or overvalued? Today, smart investors with much at stake disagree on the answer to this question—some reply with a gloomy “yes” and others with a cheerful “no.” Despite some “experts” strong convictions, identifying the market’s peaks and troughs—also known as buying low and selling high—is notoriously difficult, even for experienced investors. In this article, we will examine two popular measures for identifying whether stock prices are expensive or inexpensive: the price-to-earnings ratio and price-to-sales ratio. While each offers a useful measure of valuation, neither is perfect. In the end, those investing for retirement are wise to remain faithful to diversified, long-term investment allocations.

The Price-to-Earnings Ratio

We begin with the price-to-earnings (P/E) ratio. This metric helps investors assess the value of the portion of a company’s earnings they own through each share of stock. If a company has \$1 million dollars in earnings and one million shares outstanding, then it is earning \$1 per share. If a share currently trades for \$15, then the P/E ratio is found by dividing the \$15 price by the amount of earnings per share, \$1. In this example, the P/E ratio is 15 ($\$15 \div \1). Understanding the method of calculating a company’s P/E ratio makes it easier to appreciate how P/E levels change. When share prices are high and earnings levels are low, P/E ratios will increase, indicating that investors are paying more for less earnings (stocks are relatively more expensive). When prices are low and earnings high, P/E ratios will be lower, indicating that investors are paying less for more earnings (stocks are relatively less expensive).

In recent months, share prices have been quite high. In September, the Dow Jones Industrial Average (DJIA)



climbed to an all-time high of 17,350.64, and the S&P 500 Index reached an all-time high of 1,968.89. As described above, however, whether these price levels imply that shares are expensive depends on earnings levels. Because earnings levels have increased in tandem with share prices, average P/E ratios of major indexes have remained rather modest. In fact, as of early October 2014, the DJIA’s P/E ratio was approximately 16, slightly higher than the index’s long-term average of 14-15. The S&P 500’s P/E ratio was near 19, also slightly higher than its long-term average between 15 and 16. Compared to the high P/E ratios that often precede significant stock market declines—generally ranging from 25 to 30—the current valuation measures do not indicate a highly overvalued stock market.

Less optimistic investors, however, are pointing out the P/E ratio’s deficiencies. The metric’s greatest weakness is probably its enormous sensitivity to changes in earnings throughout the business cycle. As companies’ earnings decline and even become negative due to normal business cycle downturns, their P/E ratios can skyrocket. Consider the fictional company described above, with a P/E ratio of 15. If the next year earnings fall by half to \$500,000, or \$0.50 per share, and the stock price only falls by 15%, to \$12.75 per share, the resulting P/E ratio would be 25.5. Such a high P/E would normally indicate a very expensive stock. A look at the S&P 500 also illustrates this point.

Continued on page 2

Is the Stock Market Overvalued?

Continued from cover

A combination of extraordinarily low earnings and significant declines in stock prices produced astoundingly high P/E ratios of 46.7 in 2001 and 123.7 in 2008. Similarly, P/E can be misleadingly low when companies have unusually high earnings.

The Price-to-Sales Ratio—An Imperfect Solution

To avoid the influence of such extreme earnings fluctuations, investors can look to the price-to-sales (P/S) ratio. Similar to the P/E ratio, the P/S ratio measures stock valuation by dividing its price by the amount of sales, or revenue, per share. The two ratios differ in the measure of company performance with which they compare the stock price. Where earnings per share includes only the portion of sales remaining after a company deducts all of its expenses and taxes, sales per share includes the total amount of sales. As deductions for expenses and taxes fluctuate, earnings per share may change substantially from one year to the next. But sales per share tends to fluctuate less dramatically, and this stability reduces the appearance of outliers that P/E ratios can produce. Returning to the fictional company described above, if the company had sales of \$5 million, the P/S ratio would be 3 ($\$15 \div \5), and as described above, the P/E ratio would be 15. If the next year earnings dipped to \$500,000 on \$4 million in sales, and the stock price fell by 15% to \$12.75, the P/S ratio would be 3.19. The corresponding P/E ratio would be 25.5. The substantial fluctuation in P/E—from 15 to 25.5—is disproportionately larger than the change in P/S—from 3 to 3.18—illustrating the relative stability of the P/S metric. Indeed, in the two years that the S&P 500 produced extremely high P/E ratios—2001 and 2008—the respective P/S ratios were 1.56 and 0.87. Compared to the average P/S ratio of 1.38, the S&P 500 appears to have been somewhat expensive in 2001 and quite inexpensive in 2008. Therefore, an investor using

P/S during those years would have come to significantly different conclusions about market valuations than an investor focused on P/E. Similarly, given the S&P 500's current P/S ratio of 1.71, the market looks quite a bit more expensive now than in 2001 or 2008, even though P/E ratios currently indicate that valuations are just above average.

The Impact of Interest Rates

One weakness of both P/E ratios and P/S ratios is that they fail to account for the effect market interest rates have on stock prices. When rates on lower risk, fixed income securities like bonds are high, investors will prefer them to stocks. The converse is also true; lower interest rates tend to produce higher stock prices as investors seeking higher returns accept greater risk. Therefore, comparing P/E and P/S ratios in a low interest rate environment, like the one in which we find ourselves now, with periods of higher rates can be misleading. Although both P/E and P/S ratios indicate that the S&P 500 is currently valued at or above historical averages, the current low interest rates may render comparing today's ratios with their averages like the proverbial comparison of apples and oranges.

Conclusion

Both P/E ratios and P/S ratios offer useful insights into whether stocks are overvalued. However, neither offers a fool-proof measure of stock valuations. In fact, as described above, the two measures can lead investors to opposite conclusions, and neither takes account of all relevant information. Therefore, attempting to use a single metric to identify and trade on a peak or trough in valuations is a fool's errand. The better way forward is to maintain a diversified portfolio that corresponds to your time horizon and investing goals.

Whom do I call for help?

Investment Questions

Contact: Scott Taylor
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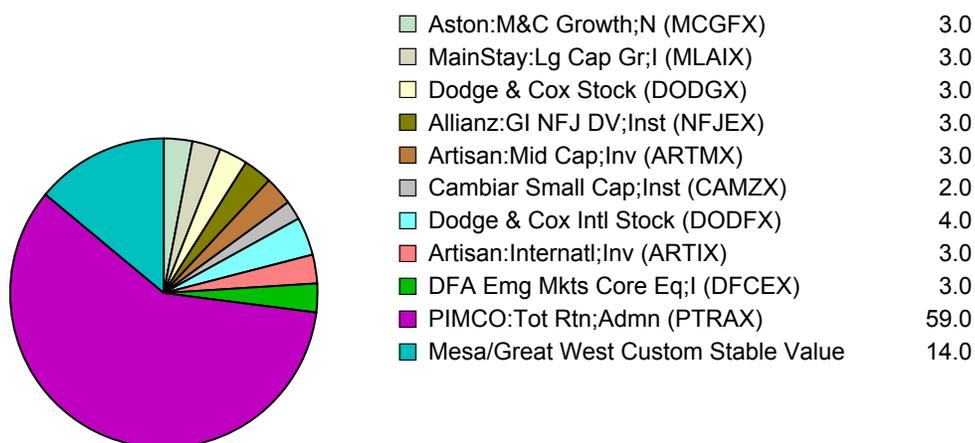
The Plan's Investment Consultant

Innovest Portfolio Solutions
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303.694.1900 | www.innovestinc.com

Who typically uses this portfolio?

Current Age:	over 60
Risk Level:	Low
Expected Return:	Low
Time Horizon:	
Years to Age 65:	under 5
Years to Age 85:	under 25
Expense Ratio (%)	0.72

Portfolio Allocation (%)



Past Performance (%)*

	Last Quarter	YTD	1 Year	3 Years	5 Years	10 Years
Mesa Conservative Portfolio	-0.71	2.78	5.47	7.34	6.31	5.82

Understanding Your Professionally-Managed Portfolios

Who typically uses this portfolio?

Current Age: The age (today) of an average investor with time horizon, risk level, and return expectations of the Conservative Portfolio.

Time Horizon: Indicates the number of years (time horizon) to the average retirement age of 65, when the investor will begin spending the money in their account, and the number of years to assumed life expectancy of age 85.

Risk Level: The amount of expected risk in the Conservative Portfolio. Risk is measured by the potential loss over a 12-month period that an investor might expect in the Conservative Portfolio, and is calculated via a statistical process consistent with 95% probability.

Low: 0% to -14%

Expected Return: The level of expected investment return from the Conservative Portfolio. The range of returns shown below indicates the potential gain that an investor might expect each year, on average, over a 5-year period. This is also referred to as the "mean" return, and is calculated using a statistical process to determine a range of probabilities.

Low: 5% to 7%

Past Performance

Investment performance results shown above represent past performance and are not indicative of future results. Please read the information contained in the applicable fund prospectuses carefully before investing money.

How is the portfolio diversified?

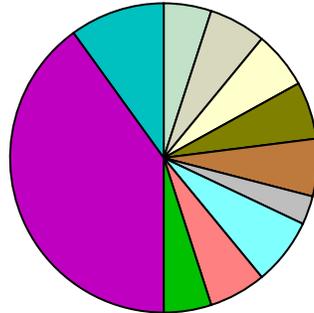
The pie chart and accompanying data shown for each portfolio illustrates the percentage allocated to each fund.

*Innovest relies on 3rd party data for these returns. Periods greater than one year are annualized.

Who typically uses this portfolio?

Current Age: 40 - 60
Risk Level: Moderate
Expected Return: Moderate
Time Horizon:
Years to Age 65: 5 - 25
Years to Age 85: 25 - 45
Expense Ratio (%) 0.77

Portfolio Allocation (%)



Aston:M&C Growth;N (MCGFX)	5.0
MainStay:Lg Cap Gr;I (MLAIX)	6.0
Dodge & Cox Stock (DODGX)	6.0
Allianz:GI NFJ DV;Inst (NFJEX)	6.0
Artisan:Mid Cap;Inv (ARTMX)	6.0
Cambiar Small Cap;Inst (CAMZX)	3.0
Dodge & Cox Intl Stock (DODFX)	7.0
Artisan:Internat;Inv (ARTIX)	6.0
DFA Emg Mkts Core Eq;I (DFCEX)	5.0
PIMCO:Tot Rtn;Admn (PTRAX)	40.0
Mesa/Great West Custom Stable Value	10.0

Past Performance (%)*

	Last Quarter	YTD	1 Year	3 Years	5 Years	10 Years
Mesa Moderate Portfolio	-1.03	2.92	8.01	11.72	8.64	6.99

Understanding Your Professionally-Managed Portfolios

Who typically uses this portfolio?

Current Age: : The age (today) of an average investor with time horizon, risk level, and return expectation of the Moderate Portfolio.

Time Horizon: Indicates the number of years (time horizon) to the average retirement age of 65, when the investor will begin spending the money in their account, and the number of years to assumed life expectancy of age 85.

Risk Level: The amount of expected risk in the Moderate Portfolio. Risk is measured by the potential loss over a 12-month period that an investor might expect in the Moderate Portfolio, and is calculated via a statistical process consistent with 95% probability.

Moderate: -14% to -20%

Expected Return: The level of expected investment return from the Moderate Portfolio. The range of returns shown below indicates the potential gain that an investor might expect each year, on average, over a 5-year period. This is also referred to as the "mean" return, and is calculated using a statistical process to determine a range of probabilities.

Moderate: 6% to 8%

Past Performance

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How is the portfolio diversified?

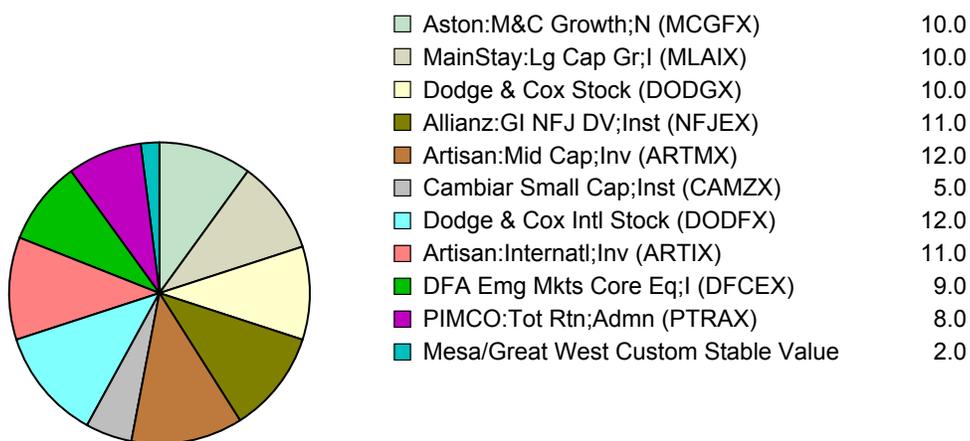
The pie chart and accompanying data shown for each portfolio illustrates the percentage allocated to each fund.

*Innovest relies on 3rd party data for these returns. Periods greater than one year are annualized.

Who typically uses this portfolio?

Current Age:	30 - 50
Risk Level:	High
Expected Return:	High
<u>Time Horizon:</u>	
Years to Age 65:	15 - 35
Years to Age 85:	35 - 55
Expense Ratio (%)	0.87

Portfolio Allocation (%)



Past Performance (%)*

	Last Quarter	YTD	1 Year	3 Years	5 Years	10 Years
Mesa Aggressive Portfolio	-1.67	3.20	11.76	18.28	11.85	8.18

Understanding Your Professionally-Managed Portfolios

Who typically uses this portfolio?

Current Age : The age (today) of an average investor with time horizon, risk level, and return expectation of the Aggressive Portfolio.

Time Horizon: Indicates the number of years (time horizon) to the average retirement age of 65, when the investor will begin spending the money in their account, and the number of years to assumed life expectancy of age 85.

Risk Level: The amount of expected risk in the Aggressive Portfolio. Risk is measured by the potential loss over a 12-month period that an investor might expect in the Aggressive Portfolio, and is calculated via a statistical process consistent with 95% probability.

High: -20% to -26%

Expected Return: The level of expected investment return from the Aggressive Portfolio. The range of returns shown below indicates the potential gain that an investor might expect each year, on average, over a 5-year period. This is also referred to as the "mean" return, and is calculated using a statistical process to determine a range of probabilities.

High: 7% to 9%

Past Performance

Investment performance results shown above represent past performance and are not indicative of future results. Please read the information contained in the applicable fund prospectuses carefully before investing money.

How is the portfolio diversified?

The pie chart and accompanying data shown for each portfolio illustrates the percentage allocated to each fund.

*Innovest relies on 3rd party data for these returns. Periods greater than one year are annualized.

City of Mesa

Comparison of Plan Expenses for the City of Mesa 457 Retirement Plan

Plan Expenses - Expenses for your retirement plan include investment, record-keeping (accounting and reporting), customer service, participant education, trust and custody. The table below provides a comparison between annual plan expenses for the average 401(k) retirement plan (as a percentage of assets) and the actual expenses for the City of Mesa 457 Retirement Plan. Source: 401(k) Source Data.

Average 401(k) Plan Expenses

0.94%

City of Mesa 457 Plan Expense Estimate

0.53%

Your retirement plan offers many different mutual fund investment options that cover a broad range of risk and investment opportunities. Each fund charges fees for management and operating expenses. These fees are referred to as the expense ratio. This is the percentage of fund assets paid for operating expenses and management fees. The expense ratio typically includes the following types of fees: accounting, administrator, advisor, auditor, board of directors, custodial, distribution (12b-1), legal, organizational, professional, registration, shareholder reporting, sub-advisor, and transfer agency. The table below provides a comparison between the median category expense ratio and the actual expense ratio of funds offered through the City of Mesa 457 Retirement Plan. Source: Innovest Portfolio Solutions LLC.

City of Mesa 457 Plan Fund Name	Fund Objective/Category	Ticker	Category Median Expense Ratio	Category Annual Expense For Each \$1,000	Mutual Fund Expense Ratio	Mutual Fund Annual Expense For Each \$1,000
Fidelity Contrafund	Lg Cap Growth	FCNTX	1.33%	\$ 13.30	0.74%	\$ 7.40
Vanguard Institutional Index Instl	Lg Cap Broad	VINIX	0.63%	\$ 6.30	0.04%	\$ 0.40
Aston/Montag & Caldwell Growth	Lg Cap Growth	MCGFX	1.33%	\$ 13.30	1.06%	\$ 10.60
MainStay Large Cap Growth I	Lg Cap Growth	MLAIX	1.33%	\$ 13.30	0.81%	\$ 8.10
Dodge & Cox Stock	Lg Cap Value	DODGX	1.25%	\$ 12.50	0.52%	\$ 5.20
Allianz NFJ Dividend Value Instl	Lg Cap Value	NFJEX	1.25%	\$ 12.50	0.71%	\$ 7.10
Vanguard Mid Capitalization Index Signal	Mid Cap Broad	VMISX	1.32%	\$ 13.20	0.09%	\$ 0.90
Artisan Mid Cap Inv	Mid Cap Growth	ARTMX	1.41%	\$ 14.10	1.22%	\$ 12.20
JH Disciplined Mid Cap Value	Mid Cap Value	JVMIX	1.35%	\$ 13.50	0.98%	\$ 9.80
Vanguard Small Cap Index Signal	Sm Cap Broad	VSISX	1.39%	\$ 13.90	0.09%	\$ 0.90
Cambiar Small Cap	Sm Cap Value	CAMZX	1.53%	\$ 15.30	1.08%	\$ 10.80
Kalmar Growth-with-Value Small Cap	Sm Cap Growth	KGSCX	1.55%	\$ 15.50	1.48%	\$ 14.80
Artisan International Inv	International Lg Cap Growth	ARTIX	1.13%	\$ 11.30	1.20%	\$ 12.00
American Funds EuroPacific Gr R5	International Lg Cap Core	RERFX	1.46%	\$ 14.60	0.55%	\$ 5.50
Dodge & Cox International Stock	International Lg Cap Value	DODFX	1.29%	\$ 12.90	0.64%	\$ 6.40
Oppenheimer Global A	Intl Eq Non US	OPPAX	1.48%	\$ 14.80	1.16%	\$ 11.60
DFA Emerging Markets Core Equity	Emerging Markets	DFCEX	1.52%	\$ 15.20	0.68%	\$ 6.80
PIMCO Total Return Admin	Core Bond	PTRAX	0.92%	\$ 9.20	0.72%	\$ 7.20
Voya Global Real Estate A	Real Estate	IGLAX	1.45%	\$ 14.50	1.31%	\$ 13.10
JPMorgan High Yield Select	High Yield	OHYFX	1.21%	\$ 12.10	0.86%	\$ 8.60
Great West Fixed Portfolio	Fixed Income		0.50%	\$ 5.00	0.47%	\$ 4.70
T. Rowe Price Retirement 2010	Target Date	TRRAX	0.58%	\$ 5.80	0.61%	\$ 6.10
T. Rowe Price Retirement 2015	Target Date	TRRGX	0.88%	\$ 8.80	0.65%	\$ 6.50
T. Rowe Price Retirement 2020	Target Date	TRRBX	0.81%	\$ 8.10	0.69%	\$ 6.90
T. Rowe Price Retirement 2025	Target Date	TRRHX	0.88%	\$ 8.80	0.72%	\$ 7.20
T. Rowe Price Retirement 2030	Target Date	TRRCX	0.82%	\$ 8.20	0.74%	\$ 7.40
T. Rowe Price Retirement 2035	Target Date	TRRJX	0.91%	\$ 9.10	0.76%	\$ 7.60
T. Rowe Price Retirement 2040	Target Date	TRRDX	0.86%	\$ 8.60	0.76%	\$ 7.60
T. Rowe Price Retirement 2045	Target Date	TRRKX	0.93%	\$ 9.30	0.76%	\$ 7.60
T. Rowe Price Retirement 2050	Target Date	TRRMX	0.82%	\$ 8.20	0.76%	\$ 7.60
T. Rowe Price Retirement Income	Target Date	TRRIX	0.63%	\$ 6.30	0.56%	\$ 5.60