www.journalofindexes.com

Journal of Indexes

SERIOUS IDEAS FOR SERIOUS INVESTORS

new perspectives

March / April 2013

Global Value And 10-Year CAPE
Mebane Faber and Prabhat Dalmia

Investor Requirements For Indexes: A Survey
Felix Goltz, Véronique Le Sourd and Masayoshi Mukai

How Smart Is 'Smart Beta'?
David Blitz

Are Active Mutual Funds Becoming Less Active?
David Blanchett

Plus an interview with Robert Maynard of PERSI, S&P DJI's Blitzer on ETF closures, Israelsen on bonds and diversification, Slivka et al. on covered-call ETFs, JOI's Bell and more!

Contributors


David Blanchett


David Blitz


David Blitzer


Mebane Faber


Felix Goltz


Craig Israelsen


Ronald Slivka

David Blanchett, CFA, is head of retirement research for Morningstar Investment Management, where he provides research support for the group's consulting and investment management activities. Blanchett holds a bachelor's degree in finance and economics from the University of Kentucky, a master's degree in financial services from the American College, and an MBA from the University of Chicago Booth School of Business.

David Blitz is senior vice president and co-head of Quant Research at Robeco, where he is responsible for coordinating all quantitative equity research efforts. He joined Robeco in 1995 after graduating cum laude in econometrics at Erasmus University in Rotterdam. In 2011, Blitz obtained a Ph.D. in empirical finance from the same university. His research has been published in multiple peer-reviewed academic journals.

David Blitzer is managing director and chairman of S&P Dow Jones Indices' index committee. He has overall responsibility for security selection for the company's indexes, as well as index analysis and management. Blitzer previously served as chief economist for Standard & Poor's and as corporate economist at The McGraw-Hill Companies. A graduate of Cornell University, he received his M.A. in economics from George Washington University and his Ph.D. in economics from Columbia University.

Mebane Faber, CAIA, CMT, is co-founder and chief investment officer of Cambria Investment Management. He is manager of Cambria's Global Tactical ETF (GTAA), separate accounts and private investment funds for accredited investors. Faber is also author of the World Beta blog, and co-author of "The Ivy Portfolio: How to Invest Like the Top Endowments and Avoid Bear Markets." He graduated from the University of Virginia with a double major in engineering science and biology.

Felix Goltz is head of applied research at EDHEC-Risk Institute. He does research in empirical finance and asset allocation, with a focus on alternative investments and indexing strategies. Goltz's work has appeared in various international academic and practitioner journals and handbooks. He obtained his Ph.D. in finance from the University of Nice Sophia Antipolis after studying economics and business administration at the University of Bayreuth and EDHEC Business School.

Craig Israelsen is an associate professor at Brigham Young University. He writes monthly for Financial Planning magazine. Israelsen is a principal at Target Date Analytics and the designer of the 7Twelve Portfolio. He is also the author of "7Twelve: A Diversified Investment Portfolio with a Plan" (John Wiley & Sons), published in 2010. Israelsen holds a Ph.D. in family resource management from Brigham Young University.

Ronald Slivka is an adjunct professor at the Polytechnic Institute of New York University and a faculty member of the New York Institute of Finance. During his more than 35 years of practical Wall Street experience, Slivka held equity derivative sales and management positions at Salomon Brothers, J.P. Morgan and ABN AMRO. He has written over 35 articles and book chapters on a broad range of derivative topics and holds a Ph.D. in physics from the University of Pennsylvania.

Jim Wiandt
Editor

Taking A Fresh Look

Sometimes life is just blind luck. At no point in time did we solicit articles for an issue titled "New Perspectives." We had an entirely different topic planned for March/April, but when we peeked in our hopper, we saw that we had a bevy of very good but disparate independently submitted articles that offer new perspectives on some established ideas. Not being ones to look a gift horse in the mouth, we took it and ran with it. It has made for some great reading.

Mebane Faber and Prabhat Dalmia of Cambria Investment Management kick off the issue with a discussion of the cyclically adjusted price-to-earnings, or CAPE, ratio that was developed by Robert Shiller. They examine the metric's applicability across a range of foreign markets and how it can be used in building portfolios.

We then check in with Robert Maynard of the Public Employee Retirement System of Idaho for our regular institutional investor feature to discuss how he manages one of the country's most successful public pension funds.

Felix Goltz, Véronique Le Sourd and Masayoshi Mukai of the EDHEC-Risk Institute follow up with a discussion of a survey of American investment professionals and their main concerns and requirements with regard to the benchmarks they use, including their views on alternatively weighted indexes. On the same general theme, David Blitz of Robeco then weighs in with a commentary on what he sees as the problems with "smart beta" indexes.

Next up, S&P Dow Jones Indices' David Blitzer offers a unique angle on the wave of ETF closures that took place in 2012. David Blanchett of Morningstar steps in after that to provide evidence that actively managed mutual funds have become increasingly less active in recent years, raising the question of whether the trend is because of the rise of index funds.

Brigham Young University Professor Craig Israelsen follows with a reality check for investors who might be thinking about jettisoning (or significantly reducing) their fixed-income allocation. And Ronald Slivka, Sharad Bhat and Sridhar Nonabur Srinivasamurthy offer a blueprint for how one might go about constructing a covered-call ETF for an emerging market.

Finally, always-quick-on-the-uptake JOI Managing Editor Heather Bell puts the issue to bed with a meditation on her shocking realization that the sky hasn't fallen.

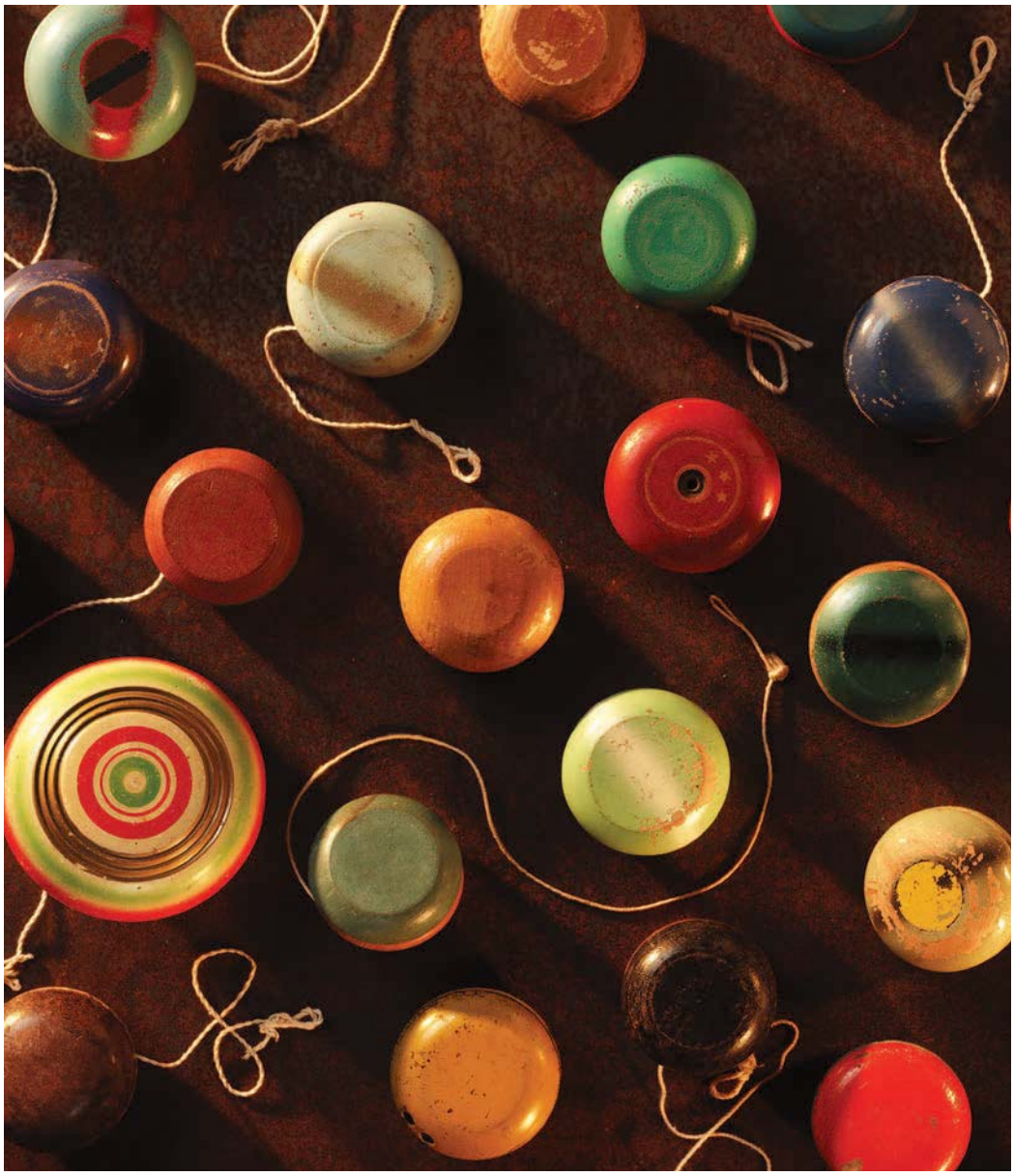
We hope you find the issue as useful as we have and that your 2013 is off to a good start.

Jim Wiandt
Editor

Taking A Long View Of Bond Performance

Don't be distracted by the short term

By Craig Israelsen



Interest rates go up. And down. And up.

Over the past 64 years (1948-2011), that is exactly what has happened. During the 34-year period from 1948-1981, the Federal discount rate increased—not every year, but as a general trend, as shown in Figure 1. In 1948, the Federal discount rate was 1.34 percent, and by 1981, it was 13.42 percent. During this time frame of rising interest rates, the 34-year average annualized return for U.S. bonds was 3.83 percent. The year-to-year performance of U.S. bonds is represented in the graph by the vertical bars.

Starting in 1982, the Federal discount rate began its downward trend. At the end of 2011, the rate was 0.75 percent. During the last 30 years (1982-2011), the average annualized return of U.S. intermediate bonds has been 8.98 percent (see Figure 1).

Clearly, the last 30 years have provided a wonderful environment for bonds to perform well as the Federal discount rate steadily descended. Interestingly, U.S. stocks (represented by the S&P 500 Index) performed essentially the same during both periods. From 1948 to 1981, when interest rates were rising, the S&P 500 Index had an annualized return of 11.00 percent. During the recent 30-year period of declining interest rates, the S&P 500 Index generated a 10.98 percent annualized return. Whereas bond returns are markedly impacted by interest rate movement, stocks are largely immune—they march to a variety of drummers. Furthermore, cash (as represented by the three-month T-bill) averaged 4.49 percent during the 34-year period of rising interest rates, and 4.88 percent during the 30-year period of declining interest rates.

With this review of history now in mind, the question of the day is, *If I expect interest rates to rise, should I avoid bonds going forward?*

First, let's clarify something. Are we talking about avoiding bonds as our only investment asset, or, are we talking about avoiding bonds as one of the asset classes in our overall asset allocation models? I will assume we are talking about the latter question. To those who invest all their money in one asset class—such as a 100 percent stock portfolio or a 100 percent bond portfolio—this article is not for you.

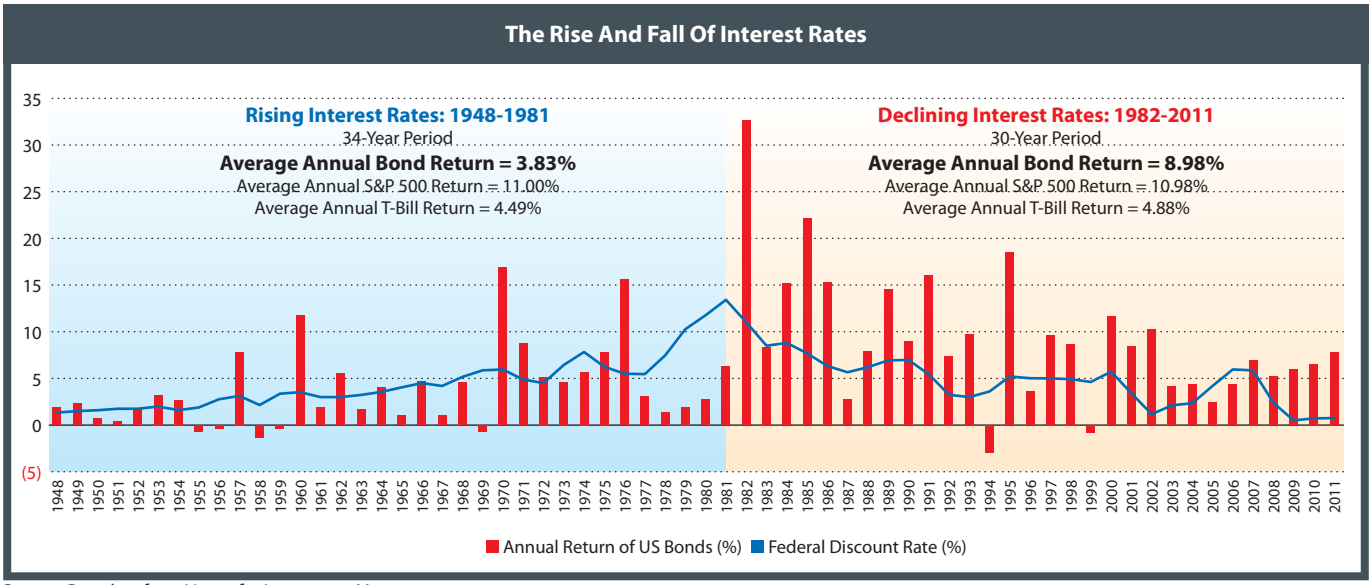
Let me demonstrate. A one-asset portfolio that held only U.S. bonds (U.S. intermediate government bonds from 1948-1975 and the Barclays Capital Aggregate Bond Index from 1976-2011) was clearly impacted by the period of time. During the 34-year period of rising interest rates, a nondiversified all-bond portfolio averaged 3.83 percent per year, whereas during the last 34 years, it would have produced an average annualized return of 8.98 percent (see Figure 2). Realistically, a one-asset portfolio is not a prudent design.

How about a two-asset portfolio? Let's assume the classic "balanced" design with a 60 percent allocation to stocks (S&P 500) and a 40 percent allocation to bonds (rebalanced annually). As shown in Figure 2, the differential in performance between the two time periods (1948-1981 and 1982-2011) is much less dramatic, but it clearly favors the more recent 30-year time period, which was more favorable to bond performance—which affected 40 percent of the two-asset portfolio.

A four-asset portfolio that allocated 40% to large U.S. stocks, 20 percent to small U.S. stocks, 30 percent to

The last 30 years has been a wonderful environment for bonds to perform well as the Federal Discount rate steadily descended.

Figure 1



Source: Raw data from Lipper for Investment Management
Note: Intermediate term U.S. government bond returns from 1948-1975 and the Barclays Capital Aggregate Bond Index returns from 1976-2011

Figure 2

Asset Allocation Across Time

Portfolio	Period of Rising Interest Rates 34-Year Period from 1948-1981	Period of Declining Interest Rates 30-Year Period from 1982-2011
1-Asset Portfolio 100% US Bonds	**3.83% Annualized Return** **4.32% Standard Deviation**	**8.98% Annualized Return** **7.05% Standard Deviation**
2-Asset Portfolio 60% Large US Stock 40% Bonds	**8.52% Annualized Return** **10.49% Standard Deviation**	**10.54% Annualized Return** **11.52% Standard Deviation**
4-Asset Portfolio 40% Large US stock 20% Small US Stock 30% Bonds 10% Cash	**9.52% Annualized Return** **11.80% Standard Deviation**	**9.96% Annualized Return** **11.17% Standard Deviation**

Source: Raw data from Lipper for Investment Management

As a portfolio is more diversified, the impact of the performance of one asset class on the overall portfolio is dramatically reduced.

bonds and 10 percent to cash (with annual rebalancing) generated an annualized return of 9.52 percent during the 34-year period when interest rates were rising, and a 9.96 percent annualized return during the last 30 years in which rates were falling. There was a modest difference of 44 basis points between the two time frames.

Clearly, as a portfolio is more diversified, the impact of the performance of one asset class on the overall portfolio (assuming the allocations are not heavily skewed toward only one asset) is dramatically reduced. This is precisely why portfolios should be diversified—by doing so, we lower the risk of allowing the bad performance of one particular asset class to sink the portfolio's overall returns.

Let's now examine how the performance of bonds (actual, worst-case, and best-case) impacted a broadly diversified 12-asset portfolio. I will utilize a portfolio known as the 7Twelve Portfolio.

As shown in Figure 3, the 7Twelve Portfolio includes 12 asset classes that are equally weighted at 8.33 percent of the portfolio. Each asset class is rebalanced annually. During the 10-year period from Jan. 1, 2002 to Dec. 31, 2011, the performance of the 7Twelve Portfolio (using the performance of 12 raw indexes) was 8.93 percent, with a standard deviation of annual returns of 15.30 percent. The actual performance of U.S. bonds during this 10-year period (using the Barclays Capital U.S. Aggregate Bond Index) was 5.78 percent.

Figure 3

Performance Of A Broadly Diversified Portfolio (2002-2011)

7Twelve Portfolio Asset Category *(Using Raw Index Performance)*	10-Year Annualized % Return 1/1/2002-12/31/2011	10-Year Standard Deviation of Annual Returns
US Large Cap Equity	2.92	20.50
US Mid Cap Equity	7.04	22.63
US Small Cap Value Equity	6.40	22.52
Developed Non-US Equity	4.67	25.05
Emerging Non-US Equity	13.86	38.00
Real Estate	10.12	25.16
Natural Resources	10.99	26.87
Commodities	14.97	20.34
US Aggregate Bonds	**5.78**	**2.23**
Inflation-Protected Bonds	7.57	5.99
International Bonds	8.38	8.34
Cash	1.91	1.86
7Twelve Portfolio Return	**8.93**	**15.30**

Source: Raw data from Lipper for Investment Management

Figure 4

Impact Of Worst-Case Bond Performance In A Broadly Diversified Portfolio (2002-2011)

7Twelve Portfolio Asset Category *(Using Raw Index Performance)*	10-Year Annualized % Return 1/1/2002-12/31/2011 (US Govt Bonds 1950-1959)	10-Year Standard Deviation Of Annual Returns
US Large Cap Equity	2.92	20.50
US Mid Cap Equity	7.04	22.63
US Small Cap Value Equity	6.40	22.52
Developed Non-US Equity	4.67	25.05
Emerging Non-US Equity	13.86	38.00
Real Estate	10.12	25.16
Natural Resources	10.99	26.87
Commodities	14.97	20.34
US Bonds (1950-1959)*	**1.34**	**2.71**
Inflation-Protected Bonds	7.57	5.99
International Bonds	8.38	8.34
Cash	1.91	1.86
7Twelve Portfolio Return	**8.54**	**15.47**

Source: Raw data from Lipper for Investment Management
Note: Worst-performing 10-year return for U.S. bonds during 1948-2011 period

Now, let's insert the *worst* 10-year performance for U.S. bonds since 1948, and measure the impact on a broadly diversified 12-asset portfolio. As shown in Figure 4, the worst 10-year period for U.S. bonds between 1948 and 2011 was from 1950-1959. During that 10-year span, U.S. bonds produced an average annualized return of 1.34 percent. The overall return of the 12-asset portfolio dropped from 8.93 to 8.54 percent—a decline of 39 basis points. The standard deviation of the 12-asset portfolio was essentially unchanged.

Next, as shown in Figure 5, I inserted the returns of the best 10-year period for U.S. bonds, which happened to be the period from 1982-1991. During this 10-year period, U.S. bonds generated a 10-year annualized return of 14.09 percent. The impact of superior bond returns on the portfolio was beneficial, of course. The 10-year return of the 12-asset portfolio was 9.65 percent, with a standard deviation of 15.32 percent.

A summary of the scenarios (based on actual bond performance, worst-case bond performance and best-case bond performance) is provided in Figure 6.

For an investor placing all her investments in one asset, such as bonds or stocks or real estate, timing is everything. As it pertains to bond performance, the difference between the worst-case 10-year time period and best-case 10-year time period for a 100 percent U.S. bond portfolio was nearly 1,300 basis points—resulting in a performance differential of nearly $26,000.

Figure 5

Impact Of Best-Case Bond Performance In A Broadly Diversified Portfolio (2002-2011)

7Twelve Portfolio Asset Category *(Using Raw Index Performance)*	10-Year Annualized % Return 1/1/2002-12/31/2011 (US Agg Bonds 1982-1991)	10-Year Standard Deviation Of Annual Returns
US Large Cap Equity	2.92	20.50
US Mid Cap Equity	7.04	22.63
US Small Cap Value Equity	6.40	22.52
Developed Non-US Equity	4.67	25.05
Emerging Non-US Equity	13.86	38.00
Real Estate	10.12	25.16
Natural Resources	10.99	26.87
Commodities	14.97	20.34
US Bonds (1982-1991)*	**14.09**	**8.43**
Inflation-Protected Bonds	7.57	5.99
International Bonds	8.38	8.34
Cash	1.91	1.86
7Twelve Portfolio Return	**9.65**	**15.32**

Source: Raw data from Lipper for Investment Management
Note: Best-performing 10-year return for U.S. bonds during 1948-2011 period

Figure 6

Summary Of Three Bond Scenarios

Time Period	Description Of US Bond Performance	10-Year Annualized Return Of US Bonds	Growth Of $10,000 In US Bonds	10-Year Annualized Return Of 12-Asset Portfolio*	Growth Of $10,000 In A Diversified Portfolio
2002-2011	Actual Performance	**5.78%**	**17,540**	**8.93%**	**23,522**
2002-2011 (US bond returns from 1950-1959)	Worst-case Performance	**1.34%**	**11,423**	**8.54%**	**22,693**
2002-2011 (US bond returns from 1982-1991)	Best-case Performance	**14.09%**	**37,365**	**9.65%**	**25,123**
Difference between Worst-case and Best-case Bond Performance		**1,275 bps**	**25,942**	**111 bps**	

For an investor who used a diversified approach (in this analysis, a 12-asset portfolio), the performance differential between the worst-case bond period and the best-case bond period was 111 basis points, or $2,430 in ending account value.

Completely avoiding any asset class in a diversified portfolio amounts to a guess that it will underperform and that another asset class will outperform. Building prudent portfolios is *not* about guessing and timing; it's about broad diversification. A broadly diversified portfolio is naturally insulated—not completely, but largely—from the normal swings in performance among its various components. The "underperformance" of one or several of its ingredients will not sink the performance of the overall portfolio.