Practical Applications of

Alternatives: *How? How Much? Why?*

Practical Applications
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Overview

"When I have given talks on investment-related issues, people have often asked me whether they should have exposure to commodities or real estate and, if so, how much," says **Javier Estrada (IESE Business School)**. "I was somewhat disappointed with the insights provided by existing literature on some quite obvious and important questions."

This was a deficit he sought to address in ***Alternatives: How? How Much? Why?***, published in the Winter 2016 issue of ***The Journal of Wealth Management***. Estrada draws on data from a 43-year period to present model portfolios made up of four asset classes: stocks, bonds and two alternatives—namely, commodities (gold ETFs) and real estate (REITs).

By optimizing his model portfolios for different objectives—risk minimization, Sharpe ratio maximization and geometric return maximization—Estrada finds that in all cases, both gold and REITs have a place in optimal portfolios, with allocations ranging from 15% to 35%. Further analysis demonstrates that these alternative investments appear to be considerably more effective at reducing risk than enhancing returns.

Practical Applications

- **The Sharpe side of alternatives.** The highest possible Sharpe ratio is produced by a portfolio with 20% of assets allocated to alternatives, including REITs and gold ETFs.
- **The gold rule.** Gold enhances risk-adjusted returns regardless of whether it replaces stocks or bonds in the portfolio. REITs only enhance risk-adjusted returns when they replace stocks.
- **Alts provide some shelter in a storm.** Alternatives proved to be significantly more effective at reducing risk than at increasing return, in large part due to their improved resilience during equity slumps.

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Javier is a Professor of Finance at **IESE Business School** in Barcelona, Spain. He is also a partner and financial advisor at **Sports Global Consulting Investments**, a company that specializes in providing wealth management advice to professional athletes.

Javier has held positions at both the Economics and Finance Departments at Carlos III University in Madrid. He is also a regular visiting professor at **Hanken** (Helsinki), **IPADE Business School** (Mexico City), **Universidad Torcuato Di Tella** (Buenos Aires), and the **Universidad de Montevideo**. He is the author of ***Finance in a Nutshell*** (FT Prentice Hall, 2005), a second edition of which was published in 2011 as ***The FT Guide to Understanding Finance***. He is also the author of ***The Essential Financial Toolkit: Everything You Always Wanted to Know About Finance But Were Afraid to Ask*** (Palgrave Macmillan, 2011).

He holds an MS in finance and a PhD in economics from the University of Illinois at Urbana-Champaign and a BA in economics from the National University of La Plata in Buenos Aires.

Key Definitions

Exchange-Traded Fund (ETF)

A fund that tracks an index, trades on an exchange and can be bought and sold throughout the day, just like common stocks.

Real Estate Investment Trust (REIT)

A listed company that manages a real estate portfolio for shareholders and pays no corporation or capital gains tax on its profits.

Sharpe ratio

The Sharpe Ratio uses standard deviation to measure a fund's risk-adjusted returns. The higher a fund's Sharpe ratio, the better its returns have been relative to the risk it has taken on. Because it uses standard deviation, the Sharpe ratio can be used to compare risk-adjusted returns across all fund categories. —www.morningstar.com

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Practical Applications Report

So-called alternatives, investment vehicles outside of conventional stocks, bonds or cash, span an immense range of potential asset classes and strategies. For his research, Estrada made a conscious decision to focus on two of the most accessible and most liquid types of alternatives.

"A lot of the questions I receive on this subject come from individual investors who may not have sufficient access to sophisticated, illiquid products," says Estrada. "Many people would like to have exposure [to alternatives] without large investment, low liquidity and high transaction costs…. I wanted to look at assets that were both highly liquid and easily investable through ETFs. Gold and REITs were the two obvious choices."

The availability of comparable data that can be analyzed alongside listed bonds and stocks is another obvious advantage of using gold ETFs and REITs for research rather than hedge funds or private equity vehicles.

The article shows how an investor in his theoretical portfolios could have optimized results over a 43-year period for maximum Sharpe ratio, minimum volatility, maximum geometric mean return (both unconstrained and with a short-selling constraint), or maximum risk-adjusted return, using various definitions of risk.

Estrada finds that the highest possible Sharpe ratio would have been produced by a portfolio with 20% in alternatives: 13% in gold, 7% in REITs, 23% in stocks and 57% in bonds. The highest geometric mean return would have required 11% in gold, 23% in REITS and 66% in stocks.

Estrada isn't a particular fan of alts. "I would have been equally happy to report that alternatives do not add much to investors' portfolios," he remarks. But, he adds, "It was very interesting to see that alternatives do belong to optimal portfolios in all of these very different optimization criteria in a rather sizeable way." Indeed, although the overall composition of optimized portfolios (where shorting is not permitted) varies dramatically, with equity weights ranging from 16% to 66% of total assets, the ideal allocation to gold remains more consistent than any other asset class, at 10% to 13%.

Following the initial discussion of portfolio optimization, Estrada's article provides a more thorough assessment of risk-adjusted returns using a range of risk variables, as well as an in-depth analysis of risk–return trade-offs when adding different amounts of the two alts at the expense of equity, bonds and both equity and bonds.

One key finding is that adding gold to a portfolio enhances risk-adjusted returns (RAR) over the period assessed, whether that allocation is shifted from equities or bonds. REITs improve RAR only if the investment is made at the expense of equities. If the allocation is shifted from bonds, adding REITs to a portfolio lowers RAR. Such a shift "is generally negative on all three risk variables," says Estrada, referring to volatility, downside volatility and beta.

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CRISIS ADVANTAGE

"Alternatives seem to be more effective at reducing risk than at enhancing returns," observes Estrada. Although the pure return-maximizing optimization does call for high alternative allocations, deeper analysis shows that the risk-mitigation benefits do outweigh the performance improvement. To a significant extent, this can be attributed to the data from periods when equity markets suffered significant downturns. "The 40/40/20 stock/bond/gold portfolio performed far better than a 60/40 stock/bond portfolio during the 2000–2002 and 2007–2009 crises," he explains.

That being said, Estrada does note the importance of investment horizon when deciding upon the appropriate allocation, particularly in the case of gold. "Gold plays an important role in reducing short-term volatility of the portfolio, but it has a lower return than equity historically, hence it is more important for short-term investors than for those able to take a longer-term view," he notes.

"For those who have never invested in alternative assets before, I'd say they should try them out with a bit of exposure to a gold ETF, maybe 5% to begin with," suggests Estrada. "If after a while they are comfortable with that, then perhaps add another 5% in gold and 5% of a global REIT ETF."

In addition to his many research interests and academic career, Estrada is also a partner in **Sports Global Consulting Investments**, a firm that provides wealth management advice to professional athletes. Estrada was a tennis instructor during his college years, and he notes that his current role at SGCI allows him to blend his expertise in finance with his passion for sports.