INVESTMENT STRATEGIES

Real assets solutions: Implementing the Realization

June 2014

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Today, interest rates are lower than they have been in over six decades. At the same time, global equity market uncertainty—and correlations—remain elevated, while GDP growth prospects for the developed markets are low-to-moderate at best. And the specter of inflation looms on the horizon in the wake of unprecedented monetary and fiscal stimulus packages.

In short, investors face a perfect storm of challenges to their portfolio:

- How to generate sufficient income when rates are so low
- How to reduce portfolio risk when public market uncertainty and correlations are so high
- How to achieve growth when developed market economies are so stunted
- How to be ready for inflation when it comes

The Realization: A perfect storm of challenges for investors

EXHIBIT 1A: LOW YIELDING BONDS…FOR THE FORESEEABLE FUTURE[A]

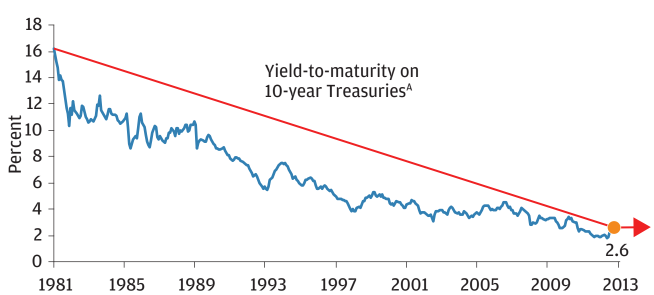


EXHIBIT 1B: VOLATILE EQUITIES AND HIGH CORRELATIONS[B]

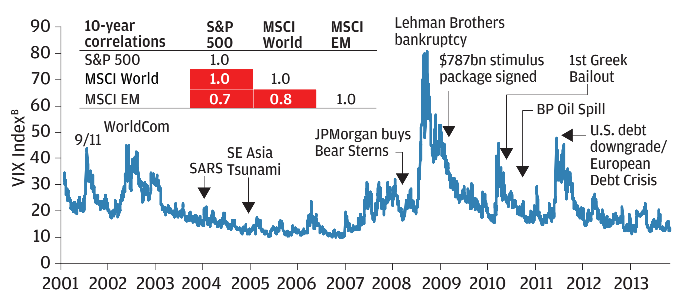


EXHIBIT 1C: HIGH GDP GROWTH IN DEVELOPED MARKETS A THING OF THE PAST[C]

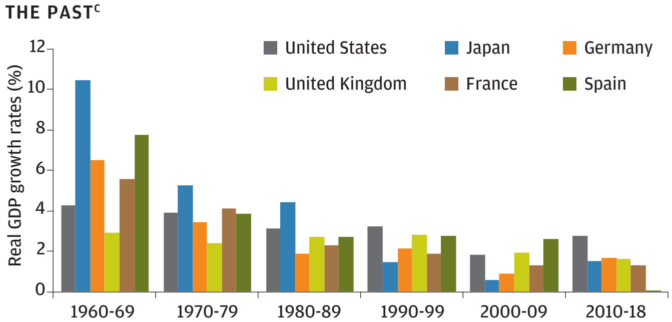
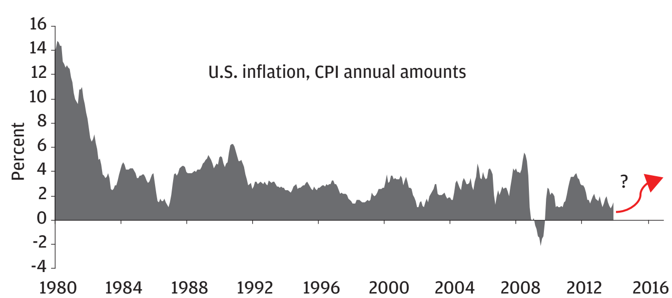


EXHIBIT 1D: INFLATION AT LEAST A MEDIUM-TERM THREAT[D]



Sources: Bloomberg, J.P. Morgan Asset Management.
[A] 10-year U.S. Treasury; data as of December 2013.
[B] VIX Index (S&P 500 Volatility Index). 20-year correlation matrix is in USD; data as of December 2013.
[C] IMF data. Estimates for 2010-2018 are forecasts from J.P. Morgan Asset Management-Global Real Assets; data as of 4Q2013.
[D] U.S. Consumer Price Index (CPI) year-over-year; data as of December 2013.

J.P.Morgan Asset Management

Real solutions from real assets: Higher and more diversified allocations

In a research paper entitled *The Realization* (May 2012), the J.P. Morgan Asset Management—Global Real Assets (GRA) team proposed that, to address these fundamental challenges, institutional investors will need to increase allocations to real assets to as high as 25% or more of their portfolios. While this figure will vary by investor (and certainly be lower for portfolios with liquidity and/or regulatory restrictions), the rationale for higher and more diversified allocations is that real assets provide real solutions to the challenges facing investors today. Real assets include real estate, infrastructure (e.g., regulated utilities, power generation, transportation assets), timberland, farmland, shipping and other large-scale, long-life tangible investments that deliver what investors are looking for.

- **Income:** Core real estate and infrastructure typically yield 5%–7% per year, or 300–500 basis points above 10-year Treasuries.
- **Stability:** Returns for these assets are less volatile than for equities, particularly when part of a diversified real assets portfolio, due to low correlations between and among different real assets categories.
- **Growth:** Real assets provide a direct link to higher growth Asian economies, offering a "pure play" on local GDP growth.
- **Inflation sensitivity:** These assets, particularly core infrastructure, can enhance inflation sensitivity through their ability to provide positive real returns, even during periods of rising or elevated inflation.

The Realization: Real solutions from real assets

EXHIBIT 2A: HIGHER CURRENT INCOME POTENTIAL THAN TRADITIONAL ASSETS[A]

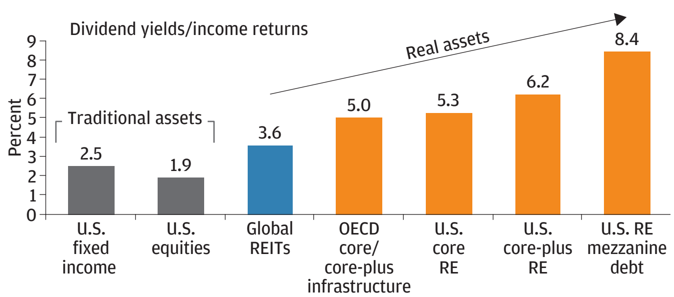


EXHIBIT 2B: LOWER VOLATILITY THAN EQUITIES[B]

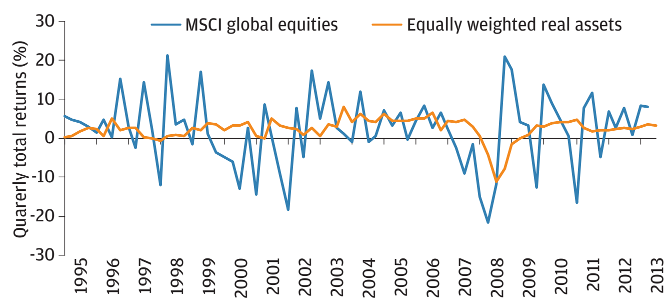


EXHIBIT 2C: LINK TO EMERGING MARKET GROWTH[C]

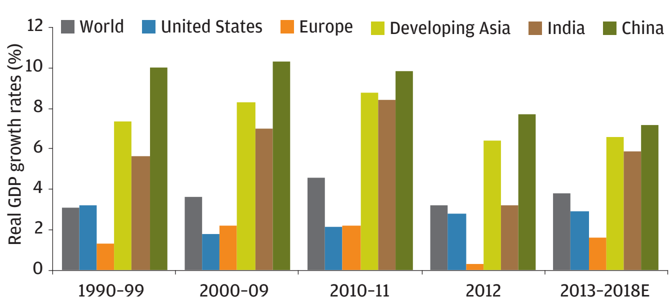
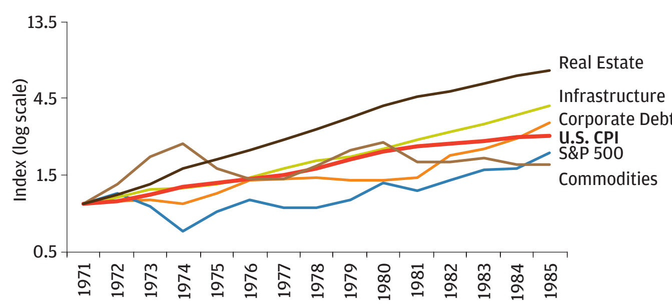


EXHIBIT 2D: INFLATION PROTECTION WHEN IT MATTERS[D]



[A] Barclays U.S. Agg Yield-to-Worst, S&P 500 Dividend Yield, FTSE/EPRA NAREIT Global REITs Dividend Yield, J.P. Morgan U.S. Core RE strategy trailing 12-month income return, J.P. Morgan U.S. Core-plus RE strategy trailing 12-month income return, J.P. Morgan OECD Infrastructure strategy trailing 12-month cash yield, J.P. Morgan U.S. Real Estate Mezzanine strategy trailing 12-month income yield; data as of December 2013.

[B] MSCI World Index, Global Real Assets Portfolio is representative of an equally-weighted portfolio of: U.S. Core RE (NCREIF—ODCE), OECD Infrastructure (J.P. Morgan GRA Research modeled), Europe Non-core RE (IPD/CBRE), and Emerging Market RE (Asia—Jones Lang LaSalle). All returns are U.S. Dollar denominated; data as of December 31, 2013.

[C] Bloomberg, J.P. Morgan Asset Management, IMF; data as of 4Q2013. Estimates for 2013 through 2018 are from IMF.

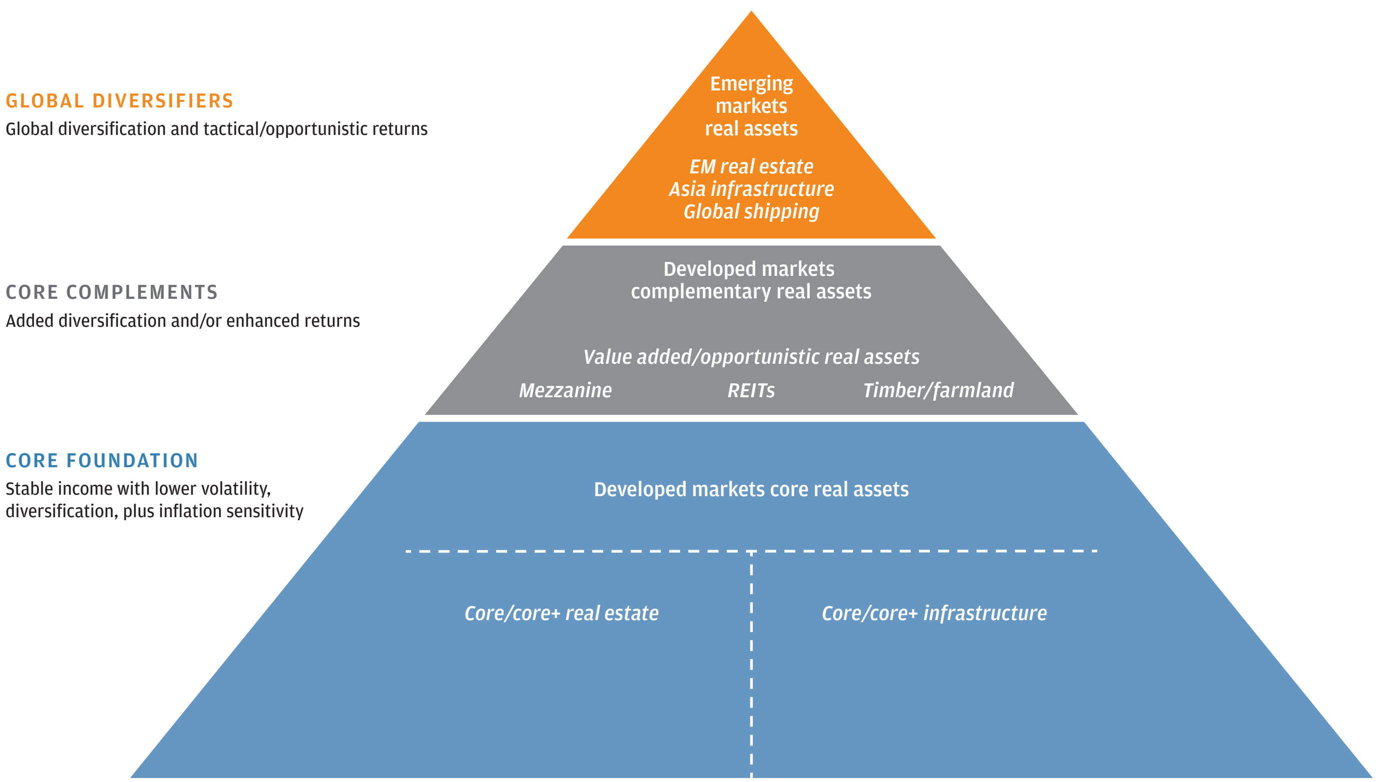
[D] Bloomberg, Barclays, Standard & Poors, S&P GSCI (Standard & Poor's Goldman Sachs Commodity Index), NCREIF, Global Financial Data, and J.P. Morgan Asset Management GRA Research. Past performance is no guarantee of future results.

The Realization Solutions Pyramid: Finding the appropriate mix of real assets for your needs

Institutional investors tend to broadly diversify their equity portfolios (e.g., large cap, mid cap, small cap, growth, value, domestic, international, emerging, etc.) and fixed income portfolios (e.g., government, corporate and high yield—by different rating levels, etc.). Investors need to consider doing the same for their real assets portfolios. Traditionally, when investing in real assets, investors have turned first to real estate and, more often than not, to home country core real estate. A key point of the Realization is that while core real estate is a prudent first step, it should not be the last one. When planning to implement the Realization through a higher allocation to real assets, it is important to:

- Think strategically about building a foundation that is diversified across both core real estate and core infrastructure in developed markets for steady income, reduced volatility, inflation sensitivity and relative liquidity.
- Consider augmenting this foundation with complementary non-core real assets in developed markets for enhanced returns and diversification.
- Explore adding global diversification and total return opportunities through emerging market real assets.

Stable structure: The Realization Solutions Pyramid divides a real assets allocation into categories with unique and complementary benefits



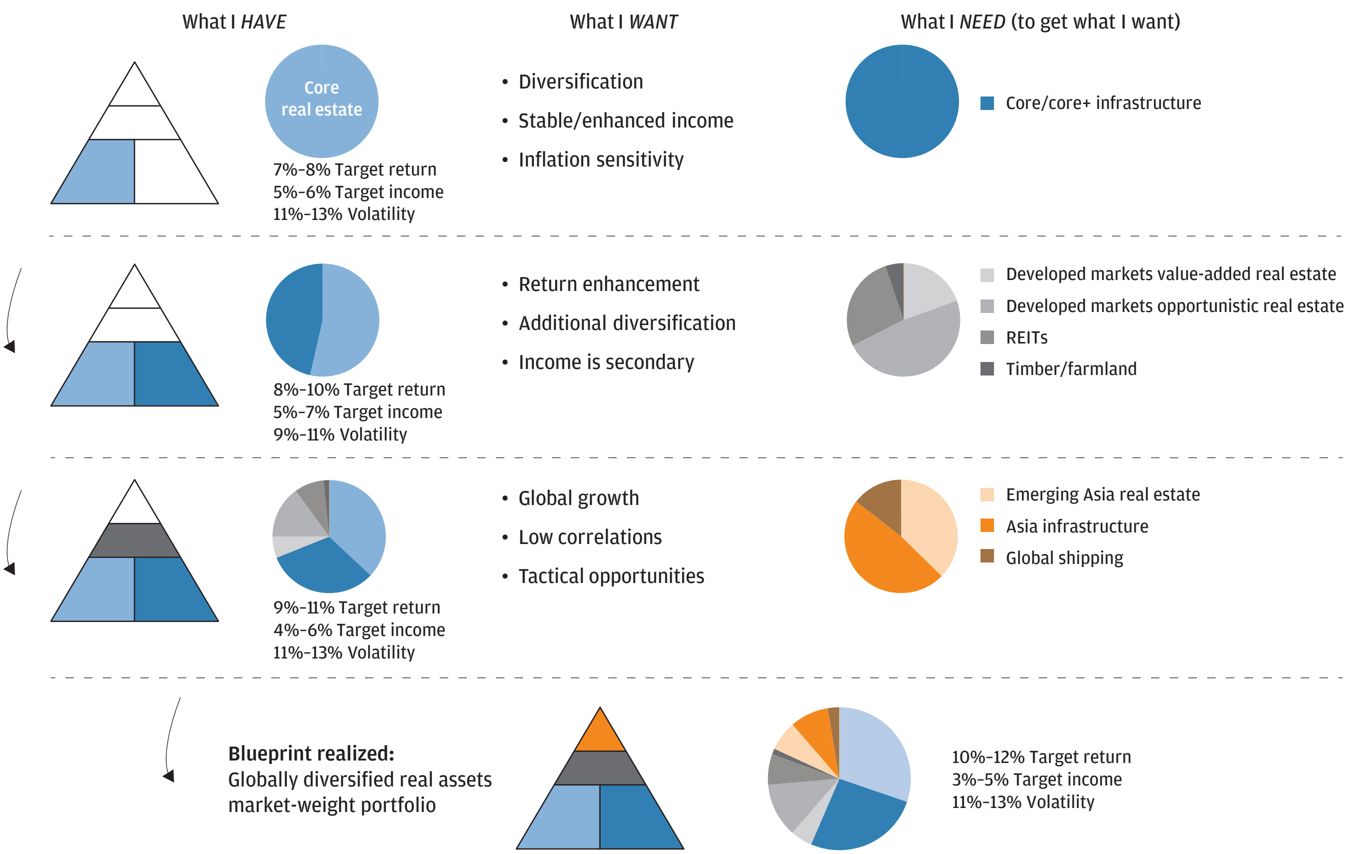
Source: J.P. Morgan Asset Management-Global Real Assets; as of June 2014.

Realization Solutions Step 1:

The blueprint for putting together a diversified real assets portfolio

Investors can follow the blueprint below to build diversified portfolios at all three levels of the Realization Solutions Pyramid. For example, for the investor who starts with no allocation or a basic allocation to core real estate in their own country, the next step is to consider adding core plus real estate (essentially, an investment in core real estate with slightly higher leverage to enhance yields and total returns) and developed market (i.e., OECD) infrastructure. These investments offer similar characteristics: stable total returns, attractive income yields and sensitivity to inflation. However, in combination they have the potential to provide even more, with core plus generating enhanced core-like returns and infrastructure offering, not only attractive IRRs, but also proven inflation-hedging capability. The blueprint below provides suggestions for real assets components at every level of the pyramid. Additionally, the resulting global real assets portfolio at the end provides an example of the final construction—in this case, a market-weight portfolio that is fully diversified by geography and purpose.

The Realization Solutions blueprint: Building to a market-weight portfolio



Source: NCREIF, DTZ Research, FTSE/EPRA NAREIT, RBI, PropEquity, Jones Lang LaSalle, UBS, Clarkson Research, and J.P. Morgan Asset Management-GRA Research; as of December 2011.

Notes: (1) The return ranges are derived from J.P. Morgan Asset Management–GRA's internal estimates by the investment teams for each of the respective strategies. (2) The portfolio attributes stated in the above table are estimates within ranges and are for illustration purposes only. (3) Volatility is calculated using the standard deviation of annual data for the 20-year time period from 1992-2011. (4) Portfolios assume annual re-balancing.

Of course, diversified Realization Solutions may incorporate other approaches to setting allocation weights, including risk-based approaches or a traditional mean-variance approach. And depending on the starting point, the solution may represent a "complete" portfolio—where the investor goes from a 0% allocation to real assets to a fully-diversified portfolio—or a "completion" portfolio—where the analysis helps select new investments and set allocations for a portfolio that builds on an existing allocation to real assets. In any scenario, it is important to recognize the particular goals for the allocation.

Realization Solutions Step 2:

Recognize goals, preferences and the current investing environment.

Goals	Risk tolerance	Liquidity needs	Macro environment
Are you seeking income, growth, or a combination of both?	How much risk are you willing to accept?	How much liquidity do you really need?	How do GDP, interest rates and inflation inform allocations?

Realization Solutions Step 3:

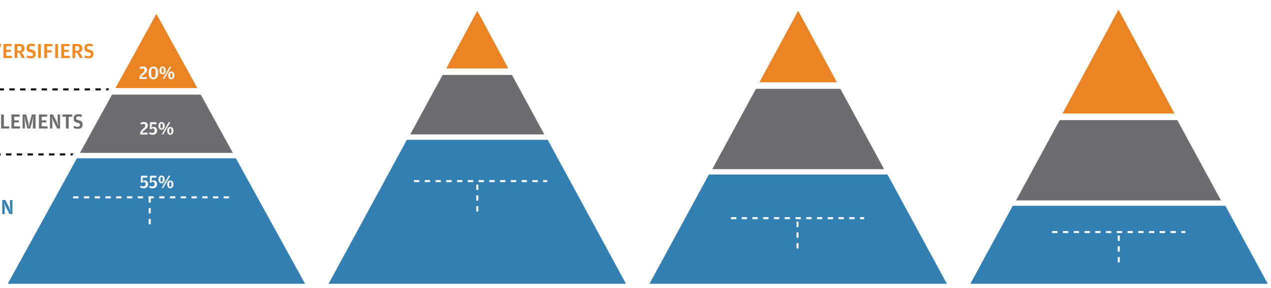
Determine allocation amounts within the Realization Solutions Pyramid according to your investment objectives.

Market-weight allocation | **Income** | **Income + Growth** | **Growth**

GLOBAL DIVERSIFIERS

CORE COMPLEMENTS

CORE FOUNDATION



BASELINE MACRO SCENARIO:

Low-to-moderate growth in developed markets

The market-weight allocation is based on actual and estimated market sizes of various real assets categories, geographies, and risk/return profiles.

▲ Increase ▼ Decrease ◆ Neutral

	Income	Income + Growth	Growth
	GLOBAL DIVERSIFIERS (0–20%)	**GLOBAL DIVERSIFIERS (15–35%)**	**GLOBAL DIVERSIFIERS (30–50%)**
EM real estate	▼	▲	▲
Asia infrastructure	▼	▲	▲
Global shipping	▼	◆	▲
	CORE COMPLEMENTS (0–20%)	**CORE COMPLEMENTS (15–35%)**	**CORE COMPLEMENTS (20–40%)**
Opportunistic real estate	▼	◆	▲
Value-added real estate	◆	◆	▲
REITs	▼	◆	◆
	CORE FOUNDATION (80–100%)	**CORE FOUNDATION (40–60%)**	**CORE FOUNDATION (20–40%)**
Core real estate	▲	▼	▼
Core+ real estate	▲	▲	▼
Core/core+ infrastructure	▲	◆	▼

Low GDP/Inflation ← Allocation tilt → High GDP/Inflation

Sources: McKinsey Global Institute, DTZ, Mercer, Barclays, FTSE EPRA NAREIT, UBS Investment Research, RREEF, NCREIF, Townsend Group, J.P. Morgan Asset Management. As of 2011 or see specific dates for reports and data used in the following description of this analysis. We used 2011 estimates of the market sizes, in terms of invested stock, for global real estate and timberland/farmland presented in "The Realization" paper published by J.P. Morgan Asset Management in May 2012 (Exhibit 18) as a base for this analysis. Note, that the Infrastructure total from "The Realization" is an estimate from J.P. Morgan's Asset Management investment team, and we were provided a 2012 update. The maritime (shipping) investment team also presented a 2012 update that excluded government-owned ships as well as non-investment grades ship types (e.g. ferries). To size the Global REIT market, we used Debt to Equity percentage estimates for the UBS Investment Research REIT coverage by global regions to estimate debt totals. These were added to the equity market capitalization from FTSE EPRA NAREIT's Global Index as of December 2012, a representative index but not inclusive of all property companies. To determine the size of core to non-core real estate, we used the ratio of total assets for the NCREIF Property Index to the total assets for the Value Added and Opportunistic indices maintained by the Townsend Group in coordination with NCREIF. This resulted in a 57% core to 43% non-core ratio which was rounded to 60%/40%. This assumption was used for the developed property markets of the U.S. and Europe. For Asia, the ratio was reversed given the larger scale of developing markets in the region. To determine geographical breakdown, we performed two analyses for comparison purposes (a check). The first used McKinsey's estimates of securitized financial stock by region as a market weight allocation. This regional share of global financial stock comes from the report, Mapping Global Capital Markets, August 2011, McKinsey Global Institute. To calculate the regional breakdown used here from McKinsey's data, we used all categories provided (page 11 of that report) except for the Nonsecuritized loans outstanding category. We used the 2010 sub-regional breakdowns from page 16, and apportioned out the "Other Developed" percentage share among the constituent countries of that sector (shown in Exhibit 14, page 26) using relative share calculated by comparing the result of the Financial Depth measure (per Exhibit 14, page 26) and 2010 Gross Domestic Product for each country (source: IMF). Using the resulting regional breakdowns of approximately 43% North America, 32% EMEA, 25% Asia Pacific, we then calculated the size of each real assets sector covered for each region by multiplying the regional share percentage by the global market sizes for each real assets sector mentioned above. We also used the geographical breakdown from "The Realization," Exhibit 18, to do the same calculation (while using McKinsey's market weights for Maritime and the geographical breakdown from FTSE EPRA NAREIT's Global Index for the REITs). Combining the two analyses results in 18%-20% for the Global Diversifiers component of the Realization Solutions Pyramid (both analyses had similar results), 25%-26% for the Core Complements component, and 53%-56% for the Core Foundation component. For the market-weight allocation shown in the Exhibit on this page, we settle on a 20%/25%/55% mix for the three components.

Implementing the Realization through Global Real Assets Omni

The Global Real Assets Omni program has been designed by J.P. Morgan Asset Management to help investors build customized portfolio allocations across different real assets categories, geographies, and structures. The Omni team of dedicated real assets professionals works collaboratively with investors and consultants to design and implement real assets solutions that are tailored to individual risk/return objectives. They do not take a one-size-fits-all approach. The Omni team uses a combination of top-down and bottom-up real assets analytics and research to inform portfolio construction:

- Customized portfolio analysis and design
  - Collaborative and objective-driven
  - Investor preferences and consultant input
- Omni allocation modeling tools
  - Mean-variance
  - Risk-based
  - Inflation sensitivity
  - Other bespoke models
- Omni historical real assets dataset
  - More science, less art

In conclusion: Get started now

Investors are at various stages of the Realization, an expected structural shift toward higher and more diversified real assets allocations. Real assets can diversify vs. your existing holdings of traditional assets, while delivering higher distributable income, reduced volatility, increased inflation sensitivity and higher risk-adjusted return potential. Each real assets category offers a unique set of risk-return characteristics. These risks can be mitigated by constructing a broadly diversified portfolio of real assets categories. Those investors who recognize, embrace and act on these Realization Solutions in their portfolio allocations are likely to have better investment outcomes than those who do not.

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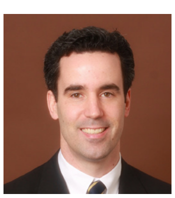

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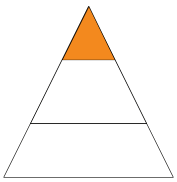
Appendix: The Real Assets Palette

Real assets offer a spectrum of opportunities spanning real estate, REITs, infrastructure, land and even shipping. Investors can select from these strategies to build a diversified portfolio designed to meet their objectives.

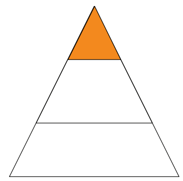
ASIA INFRASTRUCTURE



Attractive risk

- Nearly $1 trillion in annual infrastructure investment needed in Asia, supported by enabling regulatory environment
- True diversification: accessing the building blocks of Asia's growth via infrastructure
- Entry valuations + sustainability emphasis + local execution = attractive risk adjusted returns

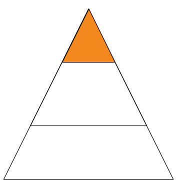
INDIA REAL ESTATE



Capital scarcity

- Massive urbanization trend, expanding middle class, soon to be largest country by population
- Acute shortage of growth capital post financial crisis + huge demand-supply imbalance = an attractive entry point
- Opportunities to partner with high quality Indian developers for infill sites in gateway cities to provide "last mile capital" on compelling terms, especially for mid-income housing

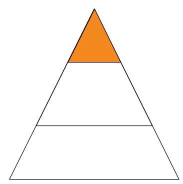
CHINA REAL ESTATE



Aligned JV structures

- China: world's 2nd largest economy and 3rd largest RE market by investable stock
- GDP growth expectations 2–3X OECD countries (2013) + urbanization + domestic consumption = need for office in Tier 1 cities, retail and mass residential
- Keys to success: strong local JV partner structures with aligned interests, sourcing advantages and enhanced asset management

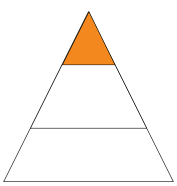
LATIN AMERICA (BRAZIL) REAL ESTATE



Steady growth

- Brazil: macro-economic stability, young and expanding middle-class, low unemployment, steady growth outlook
- Underpenetrated RE market with developers in need of capital, the potential for further yield compression, and solid exit options
- Greenfield development opportunities across office, retail, residential, logistics and distribution centers

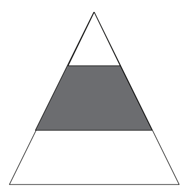
GLOBAL SHIPPING



Industry recapitalization

- Post global financial crisis industry distress continues to present opportunities for discounted purchases and new builds across bulkers, tankers, and containerships
- Recovering global economy and dwindling new supply provide tailwind to charter rates
- Need for new financing/operating structures provides income and growth opportunities

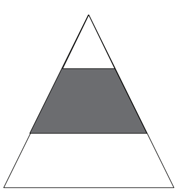
U.S. MEZZANINE/VALUE-ADDED/OPPORTUNISTIC REAL ESTATE



Tactical premium

- Mezz: potential to earn significantly wider spreads vs. historical averages due to first mortgage shortfall
- Value-Add/Opp: significant discounts to core on properties in need of (re)development, recapitalization, or repositioning
- Value-Add/Opp: historically low new construction + low vacancy = opportunities for build-to-core and improve-to-core strategies

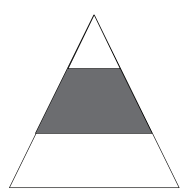
EUROPEAN VALUE-ADDED/OPPORTUNISTIC REAL ESTATE



Extreme risk aversion

- Ongoing distress in Europe causing extreme risk aversion among investors and significant discounts on non-core/trophy assets
- €250 bn of assets in suspended animation
- Broad brush mispricing of risk assets + critical need for recapitalization of properties = opportunity for proven investor-operators with active management

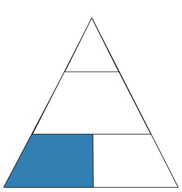
U.S., NON-U.S., AND GLOBAL REITS



Springing strategy

- U.S.: opportunities to invest across the REIT capital stack in the U.S. to take advantage of market movements and mispricings and/or to reduce traditional REIT volatility
- Non-U.S./Global: typically lower volatility than U.S. REITs due to lower leverage on average; ability to tap into growth markets
- Liquidity enables tactical springing strategies

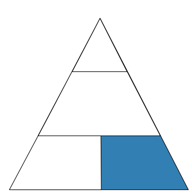
CORE/CORE PLUS REAL ESTATE



Strong fundamentals

- A foundational investment due to steady income, lower volatility, inflation sensitivity and diversification vs. financial assets
- Pricing has rebounded significantly since the bottom but fundamentals remain strong
- Low cost financing makes core plus (moderate leverage) particularly attractive

CORE/CORE PLUS INFRASTRUCTURE



Bridge to The Realization

- Essential, monopolistic services deliver stable, growing, and inflation-sensitive cash flows across regulated utilities, power generation and transportation sectors
- Similar attributes to core RE, but with low correlations for added diversification
- Time is now: discount rates likely to compress

NOTICE TO EUROPEAN INVESTORS: FOR PROFESSIONAL CLIENTS ONLY. NOT FOR RETAIL USE OR DISTRIBUTION.

Real estate and infrastructure investing may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate and infrastructure investing may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower. International investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Also, some overseas markets may not be as politically and economically stable as the United States and other nations. The Fund's investments in emerging markets could lead to more volatility in the value of the Fund. As mentioned above, the normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

An Internal Rate of Return—also sometimes called an Asset Weighted Return—measures the performance of a portfolio or investment between two dates, taking into account the amount of capital invested during each time period. An Internal Rate of Return calculation gives greater weight to those time periods where more capital was invested, and takes into account not only the size of cash flows, but also the length of time that each cash flow affected the portfolio. Essentially, an Internal Rate of Return answers the question, "if all the capital had been invested in a money market account instead (but the same contributions and withdrawals were made), what interest rate would have resulted in the same ending value?" These calculations are used where the timing and size of cash flows are important to the validity of the results, for example, when reviewing the returns on individual investment positions. Internal Rates of Return are also used to compute an unleveraged return in order to illustrate the impact of leverage on performance.

The Target Return has been established by J.P. Morgan Investment Management Inc. "J.P. Morgan" based on its assumptions and calculations using data available to it and in light of current market conditions and available investment opportunities and is subject to the risks set forth herein and to be set forth more fully in the Memorandum. The target returns are for illustrative purposes only and are subject to significant limitations. An investor should not expect to achieve actual returns similar to the target returns shown above. Because of the inherent limitations of the target returns, potential investors should not rely on them when making a decision on whether or not to invest in the strategy. The target returns cannot account for the impact that economic, market, and other factors may have on the implementation of an actual investment program. Unlike actual performance, the target returns do not reflect actual trading, liquidity constraints, fees, expenses, and other factors that could impact the future returns of the strategy. The manager's ability to achieve the target returns is subject to risk factors over which the manager may have no or limited control. There can be no assurance that the Fund will achieve its investment objective, the Target Return or any other objectives. The return achieved may be more or less than the Target Return. The data supporting the Target Return is on file with J.P. Morgan and is available for inspection upon request.

Leverage: Certain of the Fund's investments may be leveraged, which may adversely affect income earned by the Fund or may result in a loss of principal. The use of leverage creates an opportunity for increased net income, but at the same time involves a high degree of financial risk and may increase the exposure of the Fund or its investments to factors such as rising interest rates, downturns in the economy or deterioration in the condition of the investment collateral. The Fund may be unable to secure attractive financing as market fluctuations may significantly decrease the availability and increase the cost of lever.

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