The Quest for Higher Risk-Adjusted Returns and Downside Protection

Institutional investors have a long history of owning commercial real estate in "Gateway Markets," a term popularized in the late 1990s to describe many of the largest real estate markets in the U.S.: New York, Washington, D.C., Boston, Chicago, Los Angeles, San Francisco and Seattle. These markets have enjoyed extraordinary and disproportionate interest from real estate investors since the GFC… and many would say for good reason.

They are economically diverse with deep pools of talent that attract a variety of employers. Gateway Markets are also considered to have the "highest barriers to entry" for new supply, either because there is very little available land (in contrast to, say, Las Vegas) and/or because the process for a developer to get the zoning/entitlements to build a project is so difficult, expensive, and/or time consuming that it constrains supply and makes existing space more valuable. Gateways are also viewed as the least risky because they are generally the most liquid and most attractive to the deepest pool of investors. For all of these reasons, the Gateway Markets have gotten extraordinarily expensive the past few years; pricing is at all-time highs and yields are at historic lows, so much so, Bailard believes, that this is an imprudent "entry point" for investors to get into the Gateways.

Bailard believes opportunity exists beyond the popular Gateways. Bailard's research bears out that there are a number of markets that offer the potential for higher risk-adjusted returns than the Gateways AND could provide better downside protection/cushion in the event of an economic downturn.

To begin, Bailard examined average capitalization rates ("cap rates") for Gateway Markets in order to compare them to a selection of markets Bailard calls "Strong Secondary Markets." A cap rate is the projected year-one yield for a real estate investment determined by dividing the prospective year's net operating income of the property by the property's price/market value. Generally, like a bond, a lower yield (i.e., lower cap rate) implies lower risk and a higher price/value. Conversely, a higher cap rate implies higher risk and a lower price/value. Bailard's selection of Strong Secondaries has solid economic fundamentals like Gateway Markets, but perhaps slightly lower barriers-to-entry and less liquidity than the Gateways since they have traditionally attracted less attention from the largest institutional investors.

The table below shows average cap rates as of March 31, 2018 for the seven Gateway Markets as well as seven other metropolitan statistical areas ("MSAs") that Bailard considers Strong Secondary Markets. The average cap rates for properties in Gateways are 100 basis points[2] lower—a 14.5% difference—than average cap rates for properties in Strong Secondaries.

As of March 31, 2018, funds in the NFI-ODCE Equal Weight index (NCREIF Fund index - Open-end Diversified Core Equity Equal Weight, or "ODCE-EW") had over 57% of their property portfolios invested in Gateway Markets. Bailard believes that, at current pricing/valuation levels, the Gateways are, ironically, riskier than many other markets, including the Strong Secondaries. Hence, Bailard currently recommends substantially underweighting (vis-à-vis the ODCE-EW) the Gateway Markets (by ~30%) and overweighting (by a similar amount) other non-Gateway Markets including the Strong Secondaries listed below.

Capitalization Rates for Selected MSAs (as of March 31, 2018)

Gateway Markets	Capitalization Rate
Boston	5.7%
Chicago	6.9%
Los Angeles	5.4%
New York	5.5%
San Francisco-Oakland	5.7%
Seattle	5.9%
Washington, D.C.	6.4%
Gateway Market Average	**5.9%**

Strong Secondary Markets	Capitalization Rate
Atlanta	6.4%
Columbus	8.0%
Minneapolis-St. Paul	7.2%
Orange County	5.3%
Philadelphia	6.9%
Phoenix	6.5%
St. Louis	7.9%
Strong Secondary Market Average	**6.9%**

Sources: Bailard, Real Capital Analytics, NCREIF

[1] Please see last page for important disclosures. [2] A basis point (bp) is 0.01%.

Minneapolis vs. San Francisco

To dive deeper, Bailard compared data for an historically lower barrier-to-entry/higher cap rate Strong Secondary Market (represented by Minneapolis) with an historically higher barrier-to-entry/lower cap rate Gateway Market (represented by San Francisco). Because property types behave differently, the comparison included Multifamily and Office property types in both markets.

Tables 1 and 2 below reflect cap rates, total returns (per the NCREIF Property Index or "NPI"), and measures of risk including the standard deviation of those returns and the Sharpe Ratio. The Sharpe Ratio is the average return in excess of the risk-free rate per unit of volatility; the higher the Sharpe Ratio, the better the risk-adjusted performance.

From 2000 to 2017, San Francisco's average total returns for Multifamily and Office were, respectively, 300 bps and 520 bps higher than in Minneapolis. However, the risk inherent in those higher returns cannot be overlooked. The standard deviation for San Francisco Multifamily (11.6%) and Office (14.2%) were substantially higher than Minneapolis Multifamily (6.8%) and Office (8.0%).

Similarly, it is important to view performance over the 18-year cycle and not just the smoothed average. Table 3 shows Multifamily property returns peaked in 2005 and hit the cycle low in 2009. San Francisco experienced a 43.0% decline from peak to trough; for the same time period, Minneapolis experienced a 24.0% decline. As for Office—where Minneapolis peaked in 2005, San Francisco peaked in 2007 and both hit their lows in 2009—Table 4 indicates returns in San Francisco declined 52.2% from high to low. Again, that vertiginous drop dwarfed the 35.8% decline in Minneapolis Office properties from peak to trough.

Based on this evidence, it is true that investment in Minneapolis Multifamily and Office properties offered less upside potential than investment in San Francisco Multifamily and Office (if the investor timed his/her entry deftly). On the other hand, Minneapolis offered greater "cushion" in the event of a downturn than did San Francisco.

Did San Francisco's higher returns compensate investors for the higher volatility/risk?

For Multifamily, they have not and for Office, they have.

- Minneapolis Multifamily, with a Sharpe Ratio of 1.13, enjoyed higher risk-adjusted returns than San Francisco Multifamily, with a Sharpe Ratio of 0.94.
- Conversely, investors in San Francisco Office properties enjoyed higher risk-adjusted returns with a Sharpe Ratio of 0.66 versus Minneapolis, with a Sharpe Ratio of 0.53.

In conclusion, for the time period evaluated, an historically lower barrier-to-entry/higher cap rate market such as Minneapolis produced better risk-adjusted returns for Multifamily, while also providing superior downside protection for both Multifamily and Office than an historically higher barrier-to-entry/lower cap rate market like San Francisco.

As the economy and, by extension, the real estate markets get deeper into the current cycle, it would seem that additional cushion and lower downside risk would be ever more important to the prudent investor.

Table 1: NPI Total Returns and Cap Rates, Multifamily

	San Francisco		Minneapolis	
2000-2017	Cap Rate	Total Return	Cap Rate	Total Return
Average	4.9%	12.4%	6.2%	9.4%
Standard Deviation	1.0%	11.6%	0.8%	6.8%
Sharpe Ratio		0.94		1.13

Table 2: NPI Total Returns and Cap Rates, Office

	San Francisco		Minneapolis	
2000-2017	Cap Rate	Total Return	Cap Rate	Total Return
Average	6.3%	10.8%	7.7%	5.6%
Standard Deviation	1.5%	14.2%	1.3%	8.0%
Sharpe Ratio		0.66		0.53

Table 3: NPI Peak and Trough Total Returns, Multifamily

	Year	San Francisco Total Return	Minneapolis Total Return
Cycle Peak	2005	26.0%	13.0%
Cycle Trough	2009	-16.9%	-11.0%
Delta		-43.0%	-24.0%

Table 4: NPI Peak and Trough Total Returns, Office

	Year*	San Francisco Total Return	Minneapolis Total Return
Cycle Peak	2007/05	25.6%	18.8%
Cycle Trough	2009	-26.6%	-17.0%
Delta		-52.2%	-35.8%

** San Francisco's Office properties peaked in 2007, and Minneapolis peaked in 2005.*
Sources: Bailard, Real Capital Analytics, NCREIF. ***Past performance is no indication of future results.*** *All investments have the risk of loss.*

ABOUT *THE 9:05*

Since 1978, we've held a weekly company-wide meeting during which we talk about the prior week's activities and those anticipated in the week to come. We refer to this meeting, which begins just after nine each Monday morning, as "the 9:05." Just as the 9:05 meeting enables us to share our knowledge and insights with each other, this newsletter provides us with a valuable means of communicating with our clients. Hence its title: *the 9:05*.

DISCLOSURES

the 9:05 is produced by the Asset Management Group of Bailard, Inc. The information in this publication is based primarily on data available as of June 30, 2018 and has been obtained from sources believed to be reliable, but its accuracy, completeness and interpretation are not guaranteed. We do not think it should necessarily be relied on as a sole source of information and opinion.

This publication has been distributed for informational purposes only and is not a recommendation of, or an offer to sell or solicitation of an offer to buy any particular security, strategy or investment product. It does not take into account the particular investment objectives, financial situations or needs of individual clients. Any references to specific securities are included solely as general market commentary and were selected based on criteria unrelated to Bailard's portfolio recommendations or the past performance of any security held in any Bailard account. All investments have risks, including the risks that they can lose money and that the market value will fluctuate as the stock and bond markets fluctuate. Asset class specific risks include but are not limited to: 1) interest rate, credit and liquidity risks (bonds); 2) style, size and sector risks (U.S. stocks); 3) the concentration risk of investing in a subsector of the healthcare industry, and the higher risks of investing in small and micro capitalization stocks (biotech); 4) increased risk relative to U.S. stocks due to economic or political instability, differences in accounting principles and fluctuating exchange rates – with heightened risk for emerging markets (international stocks); and 5) fluctuations in supply and demand, inexact valuations and illiquidity (real estate). The volatility of real estate may be understated due to inexact and infrequent valuations. Real estate and alternative investment strategies have significant risks and are not suitable for all investors. There is no guarantee that any investment strategy will achieve its objectives. Charts and performance information portrayed in this newsletter are not indicative of the past or future performance of any Bailard product, strategy or account. **Past performance is no guarantee of future results.** This publication contains the current opinions of the authors and such opinions are subject to change without notice. Bailard cannot provide investment advice in any jurisdiction where it is prohibited from doing so.

the 9:05 is published four times a year by Bailard, Inc., 950 Tower Lane, Suite 1900, Foster City, California 94404-2131 (650) 571-5800. www.bailard.com. Publication dates vary depending upon the availability of critical data, but usually fall in the first month of each new quarter.