UNIVERSITY OF MIAMI

UNIVERSITY OF MIAMI REAL ESTATE RESEARCH INITIATIVE

Commercial Real Estate Sentiment Survey

February 8, 2019

University of Miami Commercial Real Estate Sentiment Survey

Abstract:

The University of Miami conducted its inaugural survey on Commercial Real Estate Sentiment in South Florida during the Fall 2018. The Real Estate Research Initiative was performed with the sponsorship of the three real estate programs at the University in the Architecture, Business, and Law Schools. The Advisory Boards comprise over 100 leading real estate professionals composed of developers, owners, investors, advisors, architects, engineers and brokerage/ marketing professionals throughout South Florida.

This study of real estate sentiment was developed as a baseline survey of the University's Advisory Board members, in addition to other South Florida real estate professionals they referred, broadly reflective of the South Florida real estate community. This survey was supplemented by outside research to determine the drivers of South Florida's commercial real estate market and their likely impact on the direction of the market in the coming year. The research team included Dr. Charles Bohl, Director, Master in Real Estate Development + Urbanism (MRED+U) Program; Mark Troen, FRICS, MRED+U Lecturer and Senior Vice President at Brookwood Group Inc; Advisory Board member Anthony M. Graziano, MAI, CRE and Senior Managing Director, Integra Realty Resources; Anthony Williams, Special Projects Director, Bendixen & Amandi International; and three graduate students (Eli P. Stephan, Erin Lysiane Sutherland, and Francisco Massó) from UM's MRED+U program.

The survey was conducted the last week in November through December 15, 2018 to represent a proxy for "market sentiment" given the Advisory Boards' depth and diversity.

Key Findings:

The research initially began in order to study and quantify the significance of foreign investment on the commercial market in South Florida, and to compile the Advisory Board sentiment to provide key insights into the coming year with respect to the availability of capital (debt and equity) defined herein as "Market Liquidity." The findings reveal a broad array of information encompassing a diverse set of data and trends.

Highlights include:

- **Does Transaction Volume Matter?**
- **Is Transaction Activity Up or Down?**
- **What are the Forms and Sources of Foreign Investment?**
- **What are the Drivers of Commercial Market Strength?**
- **Where are the Commercial Markets Headed in 2019?**
- **What are the Key Drivers to Attract Investors to the Region?**
- **So what's hot and what's not — Where are Values Moving?**
- **Which Asset Classes are Rated Buy Versus Sell?**

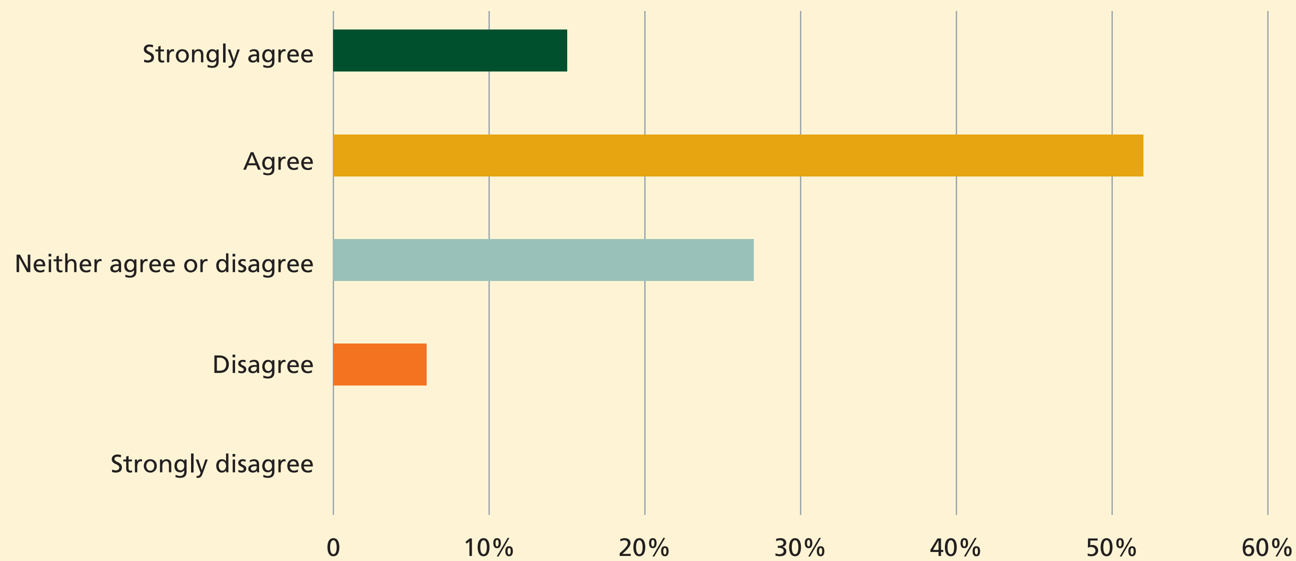
Does Transaction Volume Matter?

Intuitively, an increase in overall transaction volume in a market signals a number of positive underlying factors at play. First and foremost, the market area is viewed by investor-buyers as a good geography and asset class in which to invest as evidenced by buyer activity in the market. More buyer activity also signals the introduction of new equity and debt (liquidity) into the market. Last, sellers may be exiting the market based on investment timing requirements or other non-market factors. Generally however, sellers sell when they believe they've maximized their investment returns and can redeploy the capital elsewhere for higher yields. So an active market (evidenced by total transaction volume) shows buyers' enthusiasm for the future, and seller's expectation of asset pricing strength.

When asked "Does the volume of real estate transactions affect my impression of the health of the CRE market?" respondents voted a resounding "Yes", with 67% of all respondents agreeing or strongly agreeing. 27% neither agreed or disagreed, and only 6% of respondents disagreed. (See Table 1)

TABLE 1

The volume of real estate transactions affects my impressions of the CRE market…?



Interestingly, when asked whether commercial transaction volume is increasing or decreasing, the results were split 50/50, with half the respondents saying volume is up, and half responding that transaction volume was declining. (Table 2). A review of the subsequent tables (3, 4, and 5) outlines the data on transaction activity as reflected by Real Capital Analytics (RCA) between 2002 and Q42018 (preliminary).

TABLE 2

Is the volume of real estate transactions in CRE increasing or decreasing?

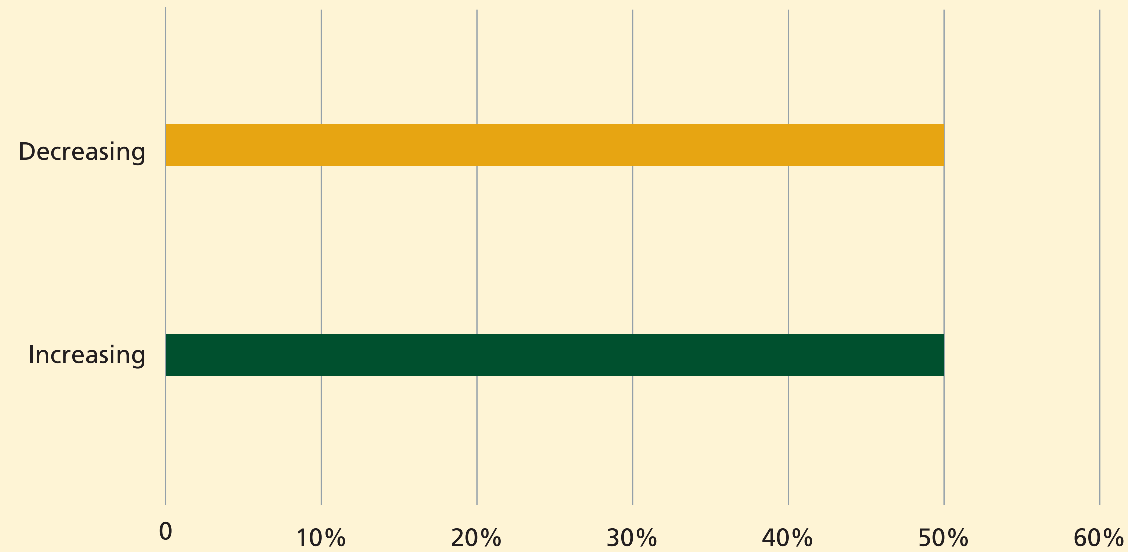
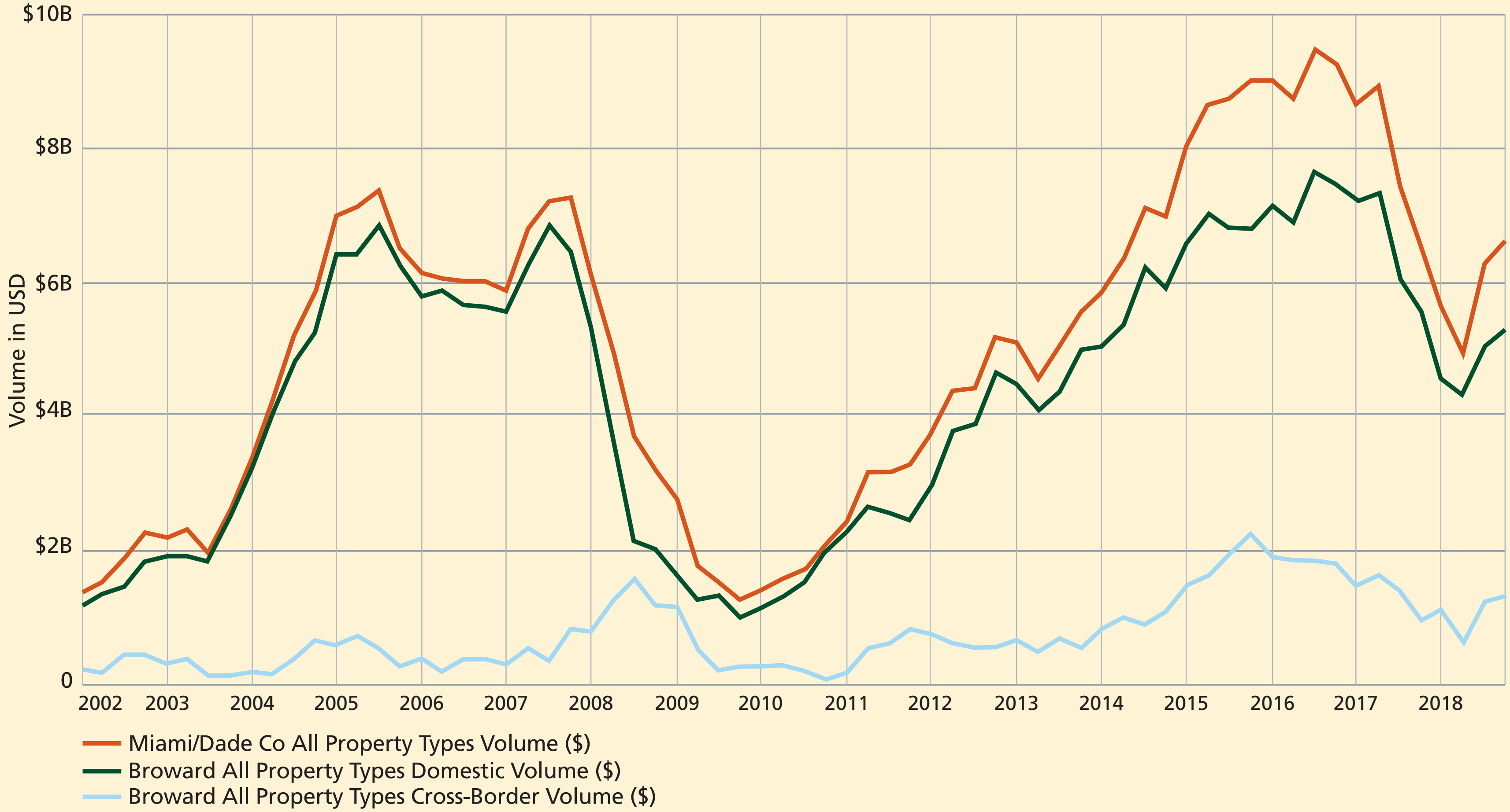


TABLE 3

Miami-Dade Commercial Transaction Volume – 2002-2018

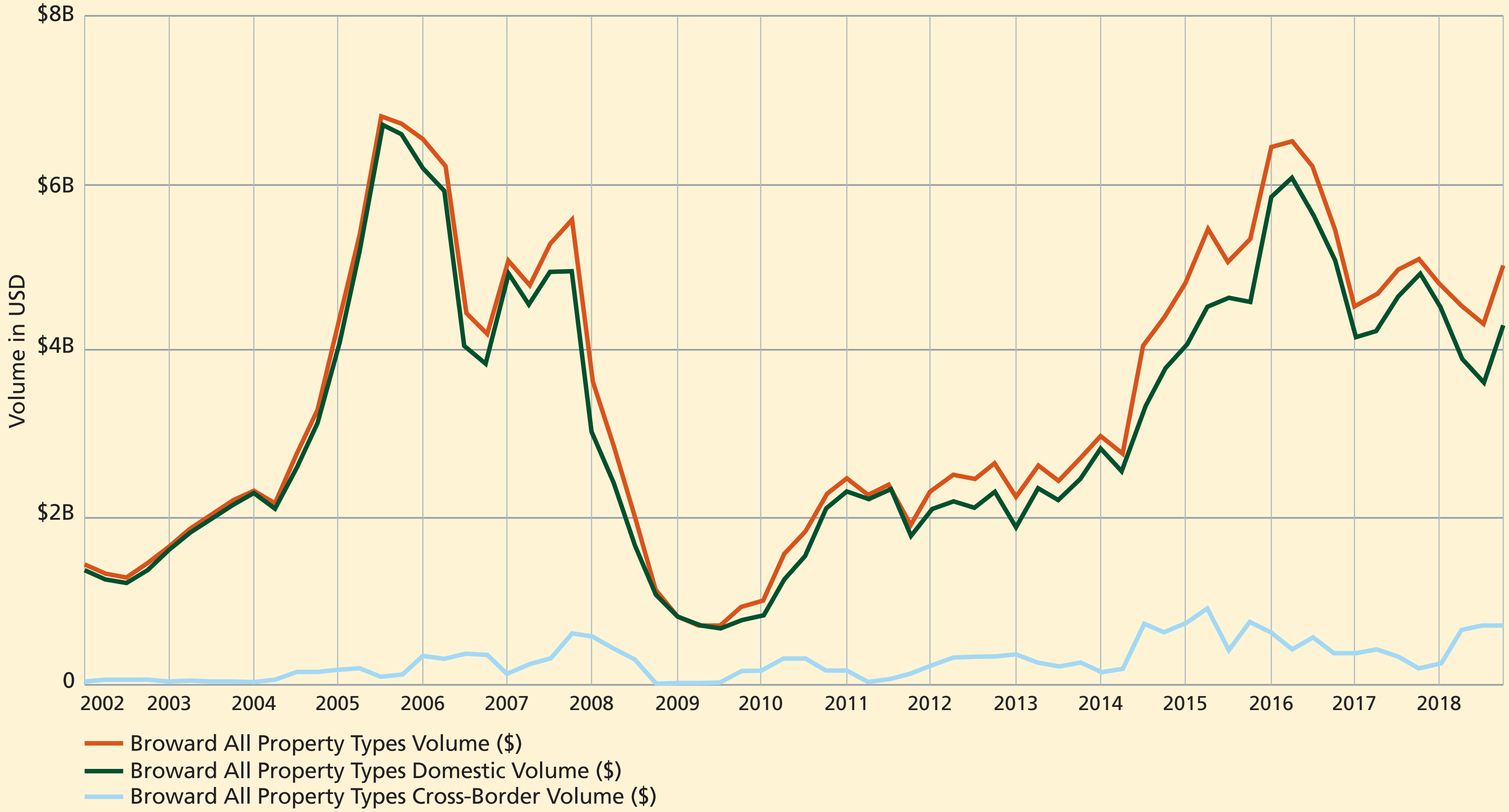


Price floor selections do not apply to Indices or Fundamentals data. Volume displayed as 12 Months Totals. Cap rates and PPU displayed as a 12 Month Average. Includes property or portfolio sales $2.5 million or greater. Q4 2018 preliminary data.

Source: Real Capital Analytics (RCA)

TABLE 4

Broward Commercial Transaction Volume – 2002-2018

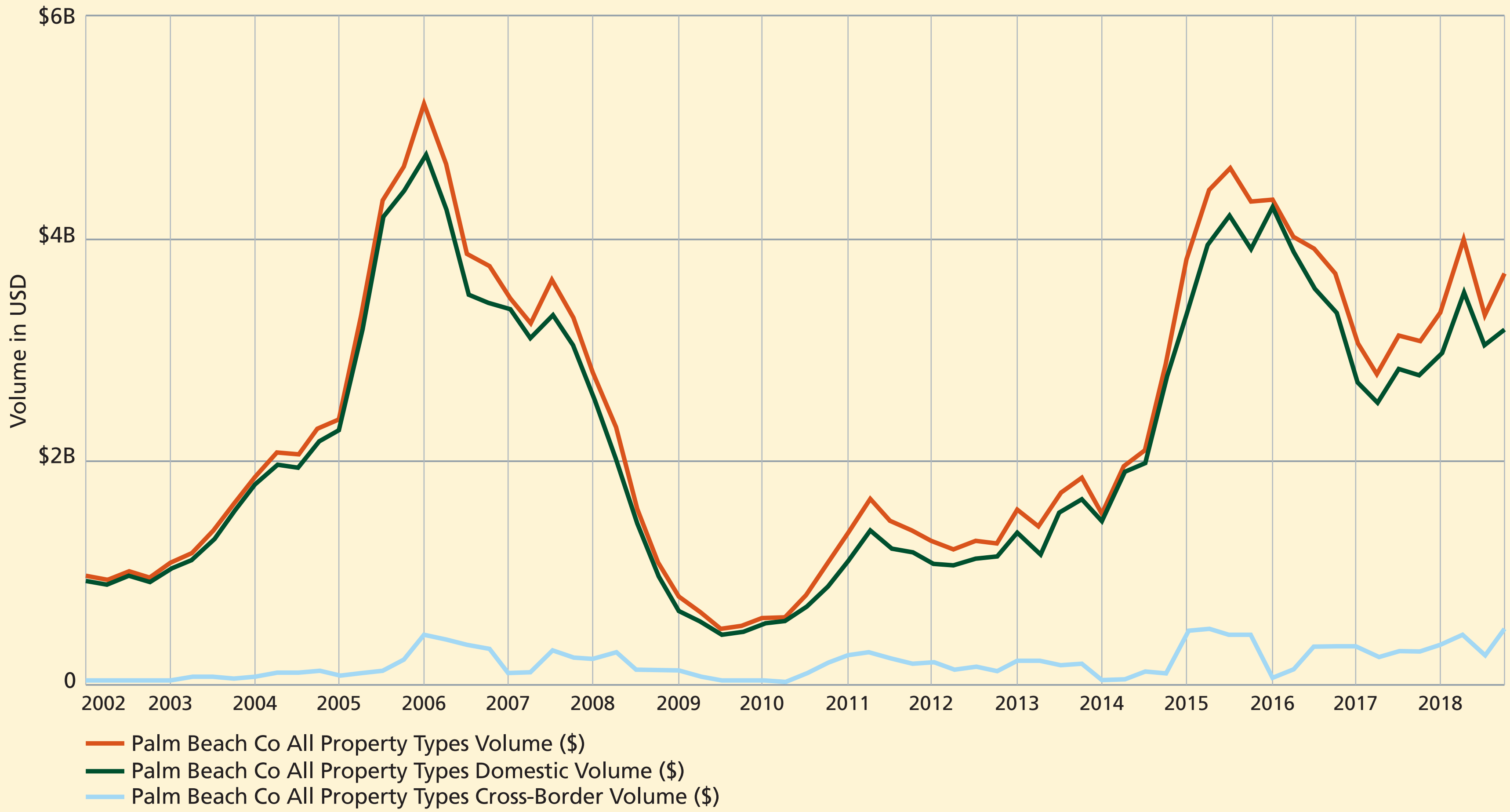


Price floor selections do not apply to Indices or Fundamentals data. Volume displayed as 12 Months Totals. Cap rates and PPU displayed as a 12 Month Average. Includes property or portfolio sales $2.5 million or greater. Q4 2018 preliminary data.

Source: Real Capital Analytics (RCA)

TABLE 5

Palm Beach Commercial Transaction Volume – 2002-2018



Price floor selections do not apply to Indices or Fundamentals data. Volume displayed as 12 Months Totals. Cap rates and PPU displayed as a 12 Month Average. Includes property or portfolio sales $2.5 million or greater. Q4 2018 preliminary data.

Source: Real Capital Analytics (RCA)

Transaction Activity Up or Down?

The data demonstrates that 2018 quarterly transaction volume dipped in Q1, and edged higher in Q2-Q4 (Miami-Dade); dipped in the first three quarters, then edged higher (Broward County), and was up and down in Palm Beach County, but up overall from the prior year.

In an order of magnitude, Miami-Dade transaction volumes reflect 5- 6+/- Billion per quarter (peak at 9.5 Billion in Q3-2016); $4 - $5 Billion per quarter in Broward (peak of $6.45 Billion Q2-2016), and $3 - $4 Billion per quarter in Palm Beach (peak of $4.6 Billion in Q3-2015). So, transaction volumes on average are below their 2015-2016 peak, and below the 2005 and 2006 peaks prior to the last recession.

Whether the better 2018 results correlate with recent (early 2018) increases in GDP, federal tax cuts, changes in general investment sentiment, or a combination of all these factors, what can be said is that 2018 ended with aggregate transaction volumes higher in 2018 than in 2017, and yet down from their 2015-2016 peak.

The data also reveals some significant findings with respect to the relationship of foreign investment capital versus domestic. Despite the perception that foreign investment volume plays a significant role in South Florida commercial activity, Broward and Palm Beach County demonstrated relatively insignificant levels of foreign investment (<10% per quarter) even during the most active transaction years. On the other hand, Miami derives 15%-25% of its total commercial transaction volume from foreign buyers.

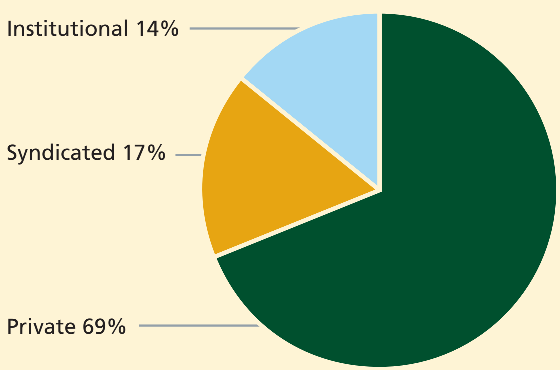
Transactions volumes in South Florida peaked in late 2015 – early 2016, and have declined 25%-40% since this peak. Miami's decline is even greater from its 2016 peak, dropping nearly 50% inclusive of foreign investment declines. Despite increases in the early to middle quarters of 2018, overall transaction volume (foreign and domestic) has been on the decline, with a notable uptick in foreign investment in Broward and Palm Beach counties over the past year.

Segregated Forms and Sources of Foreign Investment

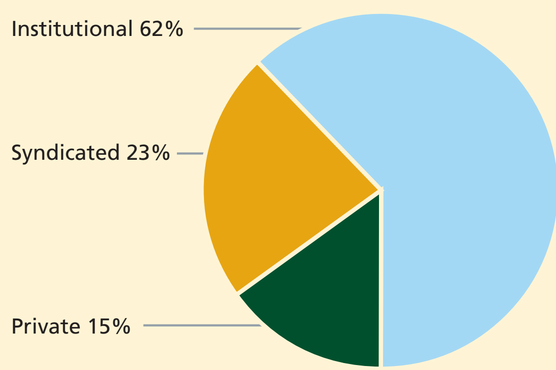
Survey respondents were asked to classify the predominant form of commercial investment (foreign and domestic). The predominant foreign investor is private, and the predominant domestic investor is institutional. Syndicated investments are classified as joint-ventures (non-institutional), partnerships and private equity fund investments, and are estimated to comprise less than 25% of each buyer class.

TABLE 6

Foreign



Domestic



Because foreign investment capital is viewed as predominantly private capital, survey respondents were asked to rank the country of origin comprising the majority of equity investment (2018) and provide a forecast for 2019 of dominant foreign equity sources. Table 7 shows the mean ranking of capital sources by respondents for 2018/2019.

Singapore, Mexico, Columbia and the U.K. are expected to take a more prominent role in 2019, with Brazil, Venezuela and Argentina expected to register lower commercial investment activity in 2019. The "other" category is ranked as the number 1 investor in 2019, signaling respondents' perceptions that historically dominant investors in South Florida may pull back in favor of "other" foreign investors who may enter the market. These "others" may include Middle East, Pan Asian, Eastern European, or Central American countries not specifically enumerated.

TABLE 7

2018		2019	
1	**Canada**	1	**Other**
2	Brazil	2	**Canada**
3	**Other**	3	**Singapore**
4	Venezuela	4	**Colombia**
5	Argentina	5	**UK**
6	Germany	6	Brazil
7	China	7	**Mexico**
8	**Singapore**	8	Argentina
9	**Colombia**	9	Germany
10	**Mexico**	10	China
11	Russia	11	Russia
12	France	12	Venezuela
13	Italy	13	Italy
14	**UK**	14	France

Drivers of Commercial Market Strength

Survey respondents were asked to rank specific factors in terms of their relative importance in sustaining a healthy commercial market. The study team then ranked these based on the mean score each element received in the respondents aggregate ranking as shown in Table 8.

TABLE 8

	Factors by Importance	Mean score
1	Balance of Supply and Demand	7.43
2	Economic Activity in the Local Market	7.05
3	High Vacancy	7.00
4	Equity Liquidity	6.67
5	Economic Activity in the Macro Market	6.40
6	Debt Liquidity	6.34
7	Level of Institutional Capital	6.24
8	Level of Foreign Capital	5.47

The level of foreign capital ranked last among the factors affecting the health of the market. This sentiment could reflect the composition of the respondents (since Broward and Palm Beach are less sensitive to foreign capital flows). Despite the respondents' strong position that institutional capital dominates the domestic investment landscape and the RCA data that confirms 80%+ of total transactions are from domestic investments, the level of institutional capital ranks second to last in importance. Essentially, the respondent mean answers indicate that the amount of institutional and foreign capital is least important from among the other factors in guaging the health of the markets.

Balance of Supply and Demand and Local Economic Activity ranked first and second. Vacancy in the market ranked third, which in most respects correlates with supply-demand balance but it specifically addresses the use and occupancy of real estate driving its relative health. Equity/Debt Liquidity generally ranked 4 and 6th with Macro US Economic Activity registering the 5th spot.

Survey respondents essentially downgraded the theory that liquidity affects the "health" of the market in favor of a more traditional approach that focuses on demand, supply, and core economic activity (population, job growth and household formation). Only Equity Liquidity registered an average ranking nearly equivalent to Occupancy and Local Economic Activity.

Asked about the availability of debt in the coming year, respondents indicated resoundingly (75%+) that debt would be available (more readily or as readily as 2018), but 90% of respondents suggest debt will be more expensive in 2019.

Where are the commercial markets headed?

With respondents showing a strong bias towards the importance of supply and demand balance contributing to the commercial market viability, their perception of where each South Florida county sits with respect to supply and demand reveals an interesting outlook that favors Broward and Palm Beach in 2019.

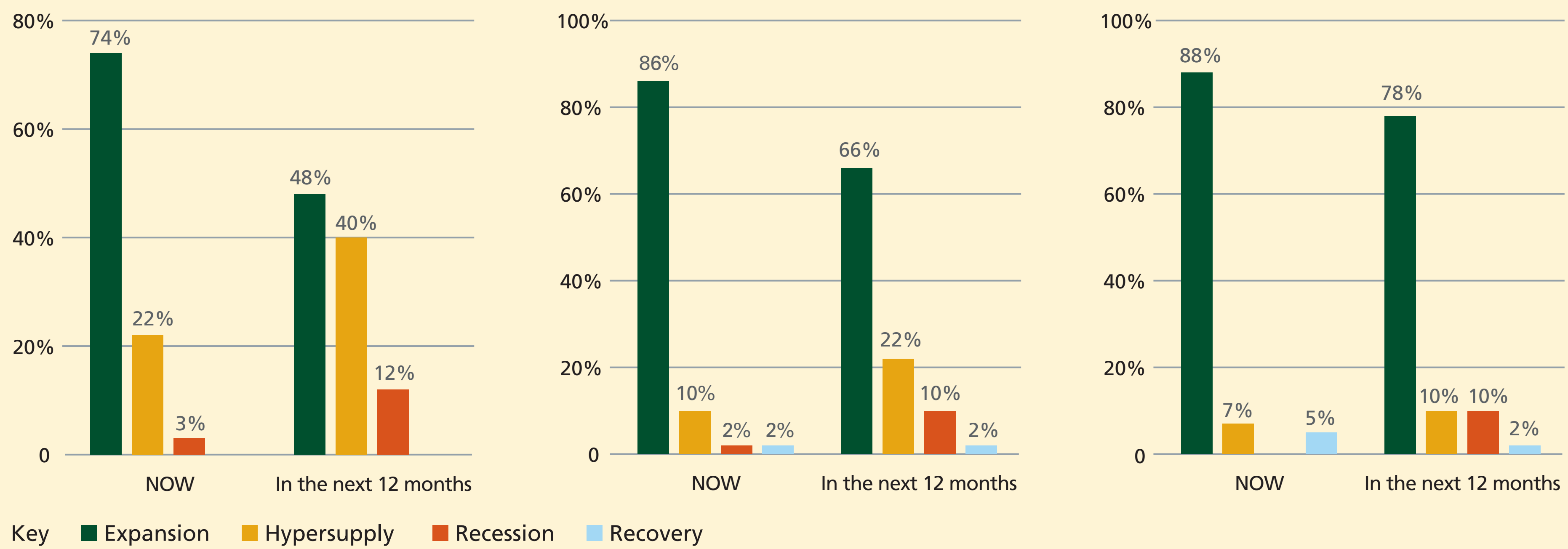
Respondents overwhelmingly view all three counties as being firmly in expansion as of 2018, although notably 20% of respondents indicate Miami-Dade was within a hyper-supply phase in 2018 (increased level of construction, increasing vacancy, moderately slowing rents).

Across all three counties, 10% or more of respondents believe recession is imminent in 2019. Another 20-40% indicate 2019 will represent a hyper-supply phase (Miami-Dade and Broward). These results indicate a substantial decline in the respondents who believe each county will be in expansion phase in 2019, although notably the respondents remain "more bullish" on Palm Beach and Broward County when compared to Miami-Dade.

Whether this bullishness is based on less new construction occurring in Broward and Palm Beach (i.e. a perception of better supply-demand balance), or just reflects more favorable pricing in those markets allowing for continued expansion, it is difficult to ignore the respondents' more favorable ranking of Broward and Palm Beach versus Miami-Dade's commercial market position at the end of 2018.

TABLE 9

Miami-Dade County | Broward County | Palm Beach County



Key Drivers to Attract Investors

Notwithstanding the importance of fundamental supply and demand, when asked what factors are likely to attract investors into South Florida, respondents ranked the following factors as most important in Table 10.

Given the outsized volume of transactions in Miami-Dade, followed closely by Broward, access to major trade and logistics hubs ranked number 1 in attracting investors. The specific property location ranked second in importance, confirming the old adage that the most important factor in real estate is location, location, location. The specific investment/return profile of the investment ranked third with the two traditional fundamentals of population and employment growth rounding out the top 5.

Education, Diversity, Workforce Education, Workforce Availability, and Natural Beauty rounded out the Top 10.

Asked which factors deterred investment in an area, respondents ranked eight factors in Table 11.

Despite consistent concerns over sea level rise and natural disasters, these factors ranked last behind Expensive and/or Scarcity of Land, and Traffic Mobility as the top 3. These top 3 conditions, combined with increasing development regulation, higher rents, and workforce availability are emerging most quickly in Miami-Dade, posing threats to Miami's dominance in the investment landscape in the near future.

TABLE 10

	Factors that Attract Investors	Mean score
1	Access to major trade hubs	2.94
2	Geographic location	2.86
3	Investment/ROI opportunity	2.84
4	Population growth	2.80
5	Employment growth	2.62
6	Workforce	2.36
7	Natural beauty	2.32
8	Availability of workforce	2.30
9	Educated workforce	2.16
10	Educational institutions	2.14
11	Diversity/welcoming	2.12

TABLE 11

	Factors that Deter Investors	Mean score
1	Expensive land prices	2.53
2	Scarcity of developable land	2.29
3	Traffic and mobility concerns	2.15
4	Regulation of development	2.08
5	High rents	2.02
6	Availability of workforce	2.02
7	Environmental concerns/sea level	1.92
8	Natural hazards/hurricanes	1.81

However, these conditions largely typify the South Florida markets since no area of South Florida is immune to traffic/mobility issues, and a fixed urban boundary will drive land prices upward, and land availability downward, in all of South Florida in the years to come.

Given the concern that environmental conditions may play an increasing role in investment decisions, respondents ranked these two issues last among the eight deterrents. However, asked to rank the most significant environmental concerns, respondents cited Natural Hazards/Hurricanes and Sea Level Rise as the two dominant themes, with Stormwater Management, Ocean Cleanliness and Lack of Fresh Water rounding out the Top 5.

While resiliency professionals and government entities in South Florida are working hard to address hazard mitigation and stormwater management plans, the survey reveals the strong recognition emerging within the real estate industry for the need to address the long-term resiliency of development in response to the threat of sea level rise.

TABLE 12

	Environmental Impacts	% of Respondents
1	Natural hazards/hurricanes	31%
2	Sea level rise	29%
3	Stormwater and sewage management	13%
4	Ocean health/red tide	10%
5	Lack of fresh water	6%
6	N/A – "other"	6%
7	Water pollution	5%
8	House and industrial waste	1%
9	Nuclear issues	0%
10	Light and noise pollution	0%

So what's hot and what's not?

To round out this years' University of Miami Commercial Sentiment Survey, we asked respondents two correlated questions: In which direction are values moving (by asset class), and is now a good time to buy, hold, or sell that asset class.

Tables 13 and 14 summarize the participating respondents' results:

TABLE 13

In which direction are values moving?

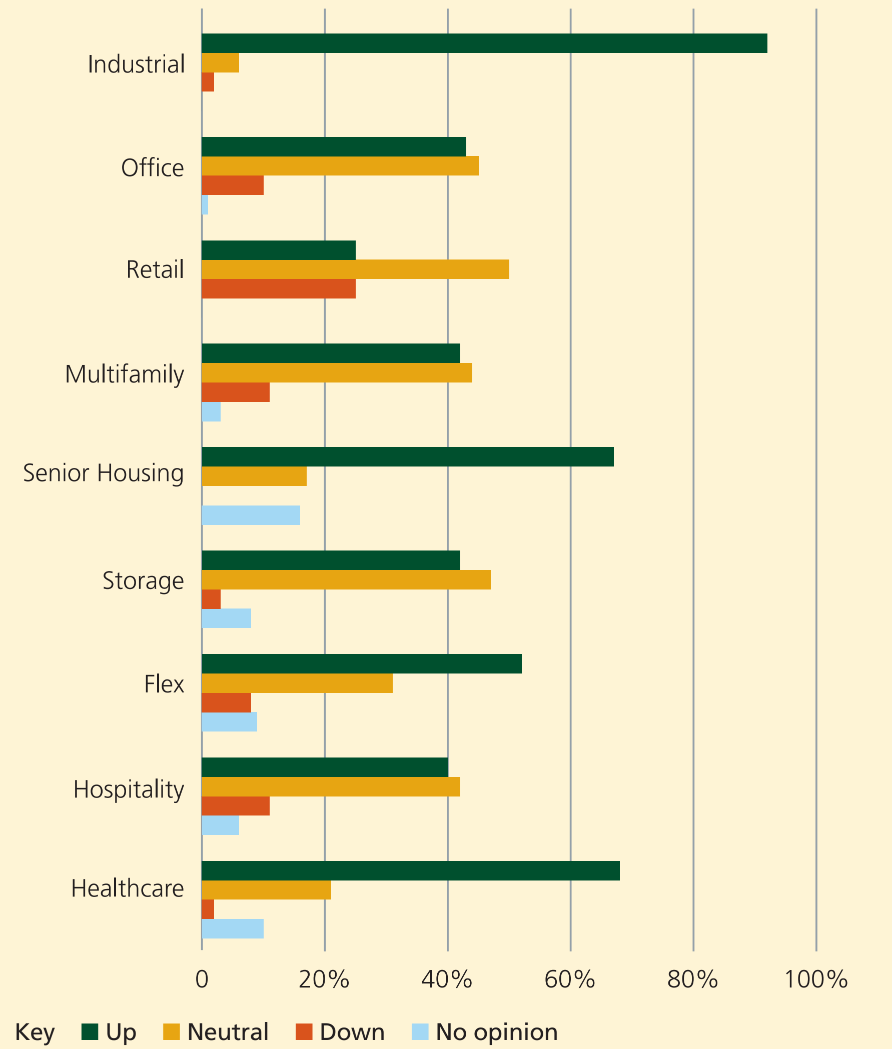
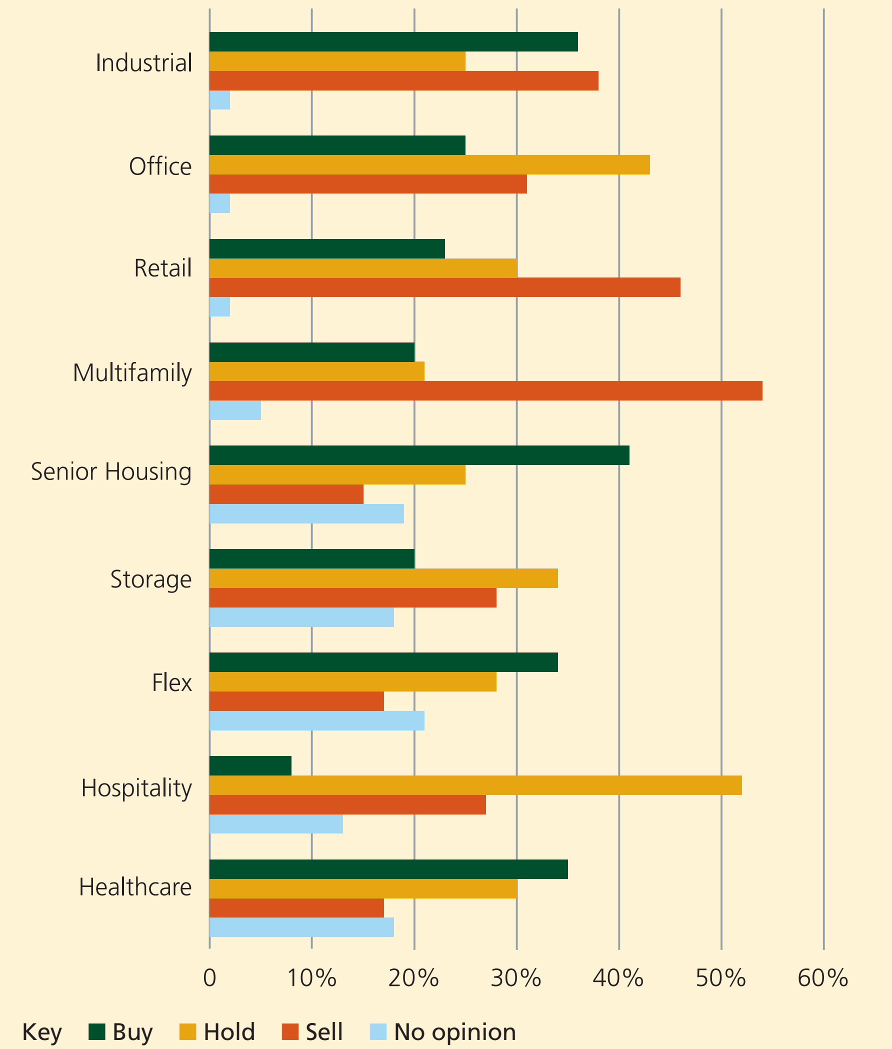


TABLE 14

Is now the time to...?



Healthcare, Senior Housing, Flex and Industrial all ranked most strongly on values increasing. Flex Industrial, Healthcare and Senior Housing were also ranked a strong buy, indicating respondents' belief that value growth prospects remain strong. Despite Industrial's strong value-growth prospects, respondents showed a bias towards a "sell" position in equal proportion to buy, indicating it might be time to reap the rewards of industrial's value growth.

Office and Hospitality were ranked a strong "hold" by respondents, but with stronger "sell signals." This could reflect expectations of deteriorating business or tourism conditions, or may be reflective of too much yield/investment compression relative the risk of changing business conditions for these asset classes. This could be an early indication of expansion in capitalization rates and increasing yield requirements for Office and/or Hospitality assets.

Multifamily and Retail both exhibited strong sell signals from respondents, likely for different but related supply-demand reasons driving investment decision-making. Retail suffers from high vacancy concerns, coupled with a structural concern regarding the long-term future of shopping/physical retail demand. Multi-family fundamentals are more secure than retail, but the supply of multi-family has been expanding quickly over the past five years. Yield compression, buyer competition, and improving rents have also buoyed multi-family values, providing a "best-time-to-sell" opportunity for investors.

Based on the respondents' outlook, expect increasing transaction volume on healthcare, senior housing, and industrial asset classes in 2019, with more muted activity in the office and hotel sectors. Given the strong sell signals for multi-family, we may see record transaction volumes in 2019 since conservative investors favor multi-family when market conditions become more volatile. This flight to safety may provide a balance of sellers (who have maximized their market returns) and buyers (who still believe the market has room to run) in 2019.

The University of Miami: An Interdisciplinary Powerhouse in Real Estate

As one of the world's top markets for real estate development, South Florida represents an extraordinary setting for the study of real estate development. The University of Miami is unique in that it offers undergraduate and graduate programs in every field connected to the real estate industry and provides rich, interdisciplinary experiences for students that mirror the real world relationships between disciplines and professions. The School of Architecture offers graduate programs and dual degrees in Real Estate Development + Urbanism (MRED+U), Construction Management (MCM), Architecture and Urban Design. The Miami Business School offers an undergraduate real estate major, an MBA concentration in real estate and an accelerated MBA in real estate.

MIAMI SCHOOL of ARCHITECTURE

The Master of Real Estate Development + Urbanism (MRED+U) program is an immersive one-year interdisciplinary graduate program that combines coursework in real estate development, finance, market analysis, construction, law, architecture, urban design and entrepreneurship. The prestigious MRED+U Advisory Board connects students with 60 industry leaders who are directly engaged in the program as lecturers, mentors and advisors, providing access to dozens of cutting-edge projects from every real estate sector, internship opportunities and employment. Students take advantage of a developer-in-residence program, sponsored case studies and Capstone workshops, studio collaborations, extensive networking events and study abroad programs in Barcelona, Amsterdam, Japan, Latin America, the Caribbean and other destinations.

MIAMI BUSINESS SCHOOL

The Miami Business School offers one of the top Real Estate MBA programs in the country. Designed for those who have already earned an undergraduate degree in business, this accelerated program begins each May and includes two paid internships. It brings together the school's strengths in management education with the University of Miami School of Architecture's strengths in new urbanism. Students get real-world, hands-on commercial real estate experience at two different commercial real estate companies. Past internships have been at industry leaders such as The Kislak Company, Lennar Commercial Real Estate and The Related Group. Students also receive mentoring and consult on a project with a real estate industry non-profit organization. MBS also sponsors and hosts the Annual Impact Investing in Commercial Real Estate Case Competition.

MIAMILAW UNIVERSITY OF MIAMI SCHOOL OF LAW

The School of Law offers an LLM degree in Real Property/ Property Development. The Law School offers the oldest LLM degree in the nation dedicated to the study of Real Property Development (RPD), and is widely regarded as the nation's best. The RPD degree is available on campus and in an online format that offers both innovation and academic excellence. For thorough preparation and to reflect the issues most relevant to practitioners, the Real Property Development LLM program is organized into four components: regular (foundational and elective) courses, concentrated courses, internships, and site visits. These course offerings enable students to develop an understanding of land acquisition, finance, regulation, tax law, construction law, residential and commercial development, landlord-tenant issues, closings, negotiation, and planning strategies.

Source: New Urban News

Acknowledgements

This research project was undertaken as a collaboration between the University of Miami, it's graduate students, and industry advisors Integra Realty Resources (IRR), Bendixen & Amandi, and Brookwood Group.

The research team (outlined below) wants to thank all of the MRED+U Advisory Board members for their insight and support, and in particular those Advisory Board members who completed the survey and participated in the interview process as part of this project. A special thanks to Manny DeZarraga from HFF, Inc. who provided early insights to the research team to assist in framing the research context around key issues facing South Florida real estate investment.

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University Representatives:

Dr. Charles Bohl – Associate Professor (tenured)/Founding Director,
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Mark Troen, FRICS – Full-Time Lecturer (MRED+U)

Graduate Student Representatives:

Francisco Massó completed his undergraduate career in Architecture at the University of Illinois Urbana-Champaign. After working for CA Ventures in Chicago, he decided to pursue an education in real estate development and joined the University of Miami's MRED+U program with expected graduation in the Spring 2019. Mr. Massó is currently working for AG&T as a financial analyst.

Erin Sutherland completed her undergraduate degree in Urban Planning from the College of Charleston in 2014, and recently graduated from University of Miami's Master of Real Estate Development program in December 2018. Ms. Sutherland currently works for Terra Group as a Development Associate. Prior to joining Terra, Ms. Sutherland worked for the Land Use and Development Practice at Akerman, LLP as an Urban Planner.

Eli Stephan completed his undergraduate degree in business administration at Florida International University (FIU), and holds a Master's of Science in Management from the University of Miami. Eli is graduating the University of Miami MRED+U program in the Fall of 2019. Mr. Stephan is currently working as a Sr. Manager for Facilities Operations and Planning with the University of Miami.

Acknowledgements – continued

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Appendix Methodology

While the survey results were revealing, we did not reach the level of responses necessary to determine statistical significance. Therefore, the results are not statistically validated for this inaugural report.

The survey was distributed to over 1,000 professionals from both the residential and commercial sectors. About 30% of practitioners self-identified as conducting activities in "both" sectors. The commercial and "both" category were aggregated in compiling these results. The participation rate on the residential survey questions was deemed insufficient based on the number of responses, in addition to the geographic, job role, location, and tenure of the residential respondents.

The commercial responses totaled 127 responses, with general composition of the respondents as follows:

Respondent Job-Role Composition	
Asset Management \ Ownership	7.09%
Asset Management \ Development	15.75%
Investment Owner - Operator	22.83%
Brokerage - Leasing and Sales	14.96%
Private \ Public Equity	7.09%
Debt Provider \ Financial Intermediary	11.02%
Advisory Services - Legal, Consulting, Appraisal	14.96%
Architect \ Engineer \ Environmental	6.30%

Location of Respondents	
Miami-Dade	53.43%
Broward	24.34%
Palm Beach	23.64%

Length of Tenure in South Florida	
Less than 5 years	18.00%
5-10 years	8.00%
11-15 years	9.00%
15-20 years	5.00%
20+ years	60.00%

Value rounded to nearest 1%

Highest Level of Education	
High School	0.00%
Some College - No Degree	1.00%
Associates Degree	2.00%
Bachelor's Degree	28.00%
Graduate Degree	52.00%
Doctoral or Professional Degree	17.00%
No Response	0.00%

Value rounded to nearest 1%

Appendix Methodology – continued

No responses were eliminated as part of the survey unless the survey was less than 80% completed (all 127 responses were deemed more than 80% complete). Not all survey questions were answered by all respondents, but most survey questions were authenticated as "Don't Know" or "No answer" such that respondents were not forced to answer questions outside their area of expertise.

The majority of respondents (77%) were born between 1950 and 1979, have more than 20 years experience in South Florida, hold a minimum a bachelor's degree or higher. The distribution of respondents as shown above broadly represents the population distribution between the three counties.

To promote survey quality, respondents were assured their individual answers (and their participation) would remain anonymous.

For any additional information on the survey results or process, please email the MRED+U graduate office (nbixby@miami.edu) who can direct inquiries to the research team as necessary.