# **MIT Center for Real Estate**

Founded in 1984, the MIT Center for Real Estate (MIT/CRE) is entering its third decade strong and re-energized. At the end of fiscal year 2014, the center appointed Professor Albert Saiz as director. Our mission is to turn the MIT/CRE into a global forum and a network for intelligent discussion around issues relating to international real estate development, investments, and finance. CRE aspires to be the global leader in research and to establish a network of global thought leaders and enlightened entrepreneurs who will shape the future of the industry, capital markets, and the built environment.

As future leaders of the industry, our students obtain the best education to become the visionaries that reinvent the built environment and its social, economic, and environmental footprints for years to come. Our research and scientific production has had tremendous social impact. Intellectual tools developed here have become common staples in real estate valuation, investments, and development. Real Estate Economics—as a business and practically oriented academic discipline—was developed at MIT. Our publications and books are widely used and consulted by students, professionals, and practitioners globally. Our partner, alumni, and industry network has no parallel in its quality and the commitment of its members.

# **Highlights**

### Faculty, Staff, and Visiting Scholars

Steve Weikal, Head of Industry Relations. As of May 30, 2015, Steve Weikal was appointed CRE's head of industry relations. Weikal will be responsible for increasing the membership base as well as for improving the value proposition/services we offer to our industry partners. As an alumnus of the Master of Science in Real Estate Development (MSRED) program, Weikal will work closely with the School of Architecture and Planning's (SA+P) resource development to assist with alumni relations.

Andrea Chegut, Postdoctoral Research Associate. After receiving her post-doctoral degree from Maastricht University, Dr. Andrea Chegut returned to the Center for Real Estate to further her research in innovation entrepreneurship in real estate. Chegut developed and taught her first course this spring in innovative products and served as one of the instructors for our capstone course, Real Estate Development Studio. She also worked closely with Professor Saiz to develop and implement the center's new bimonthly Thought Leader Speaker Series.

*Bridget Smith, Academic Assistant.* As of June 4, 2015 Smith accepted the position of academic assistant. She recently graduated from Skidmore College with a bachelor of arts in religion and a second BA in anthropology. Smith will provide overall administrative support to the center, especially to the MSRED program, faculty, students, and career services.

*Tricia Nesti, Senior Program Assistant.* After serving in the position of academic assistant for just over three years, Nesti was promoted to senior program assistant. She is now

responsible for the admissions process, working with faculty on grades, registering, degree audits, and academic transactions. She will act as the liaison between the center and MIT admissions, the registrar, the International Students Office, the Office of the Dean for Graduate Education, and our applicants.

*Maria Vieira*. After 30 years as the center's academic administrator, Maria retired from MIT in October 2015.

### **Endowment**

The endowment of the center continued to be a major initiative during FY2015. In the interest of long-term stability, we worked closely with the Dean's Office and other SA+P staff (i.e., Resource Development, Communications) to identify and cultivate key donors. We also identified Student Fellowships as a key initiative. As part of our 30th anniversary, we started a William Wheaton Student Fellowship fund. The Fellowship will be presented to students based on financial need, career objectives, and academic standing. Students awarded this fellowship will contribute ten hours a week as an Alumni liaison. One of our partner firms, Prologis inaugurated a fellowship for students with a specific interest in industrial real estate and logistics industries, in the amount of \$50,000 for the 2016 academic year.

In January 2015, MIT received one of the largest gifts in its history from alumnus Samuel Tak Lee '62, SM '64, to establish the Samuel Tak Lee MIT Real Estate Entrepreneurship Lab (STL Lab). The lab's mission is to promote social responsibility among entrepreneurs and academics in the real estate profession worldwide, with a particular focus on China. The gift funds fellowships to attract both US and international students and funds research on sustainable real estate development and global urbanization. The STL Lab is charged with developing a MOOC platform (Massive Open Online Course) to reach learners worldwide. The Samuel Tak Lee MIT Real Estate Entrepreneurship Lab is administered by MIT's Department of Urban Studies and Planning (DUSP) and the Center for Real Estate. The CRE investigates the real estate transaction from initial concept to market reality through a cross-disciplinary lens, including design, urban planning, environmental studies, construction, management, economics, finance, policy and regulation, and the law. MIT is a pioneer in the study of real estate, becoming the first university to offer a master of science degree in real estate development in 1984.

# **Professional Education Certificate Program**

This year, the Center for Real Estate began partnering with MIT Professional Education (MIT/PE). Together we launched and successfully executed a certificate program in real estate development and finance. Fifty-six (56) professionals applied for candidacy in the first year, with 37 participants completing their master certificate during the first two weeks of June. Courses included Real Estate Finance: Fundamentals; Evaluating Real Estate Markets; Real Estate Finance: Advanced; Commercial Real Estate Development; and Global Real Estate Markets.

This was the first time MIT/PE partnered with a department, lab, or center outside of the School of Engineering. The success of our program established a benchmark by which to broaden the relationship with MIT/PE to include the School of Architecture and Planning.

#### **Executive Education**

In June 2015, CRE partnered with the National Council of Real Estate investment Fiduciaries to offer executive education courses on the MIT campus.

### **Industry Partners Program**

During FY2015, 28 domestic and international real estate firms were listed as partners and friends of the center. Six new partners joined in 2015: Geotel (Florida), Xymax (Japan), CREW (Kansas), Portsmouth Development (California), Sumitomo Mitsui Trust Research institute Co., LTD (Japan), and Orevco (Washington).

The CRE held its 2015 annual Partners Meeting at the MIT Media Lab on May 28, 2015. William Schwab '75 of the Abu Dhabi Investment Authority presented the keynote: "A Sovereign Wealth Funds' Perspective on Investing in US and European Commercial Real Estate." The partners enjoyed a tour of the Media Lab, and the following day 200 people attended our Global Real Estate Forum at the Federal Reserve Bank of Boston.

### **Capital Campaign**

In FY15, \$25,500 was received towards the total goal.

### **Marketing**

The center continues to strengthen the MIT/CRE brand and to increase the visibility of the Industry Partners Program, MSRED Program, and Professional Education Certificate Program. The center launched a live-feed open house this fall with 45 potential applicants watching globally. Also, we launched an exclusive, password-protected partner and alumni portal. Content includes student theses (from the prior three years), videos from our annual global real estate forums; white papers; and research briefings. Our online and social media presence has continued to evolve with a blog and LinkedIn subgroups, including one specifically for our industry partners: Intelligent Real Estate Connections.

### **Master of Science in Real Estate Development**

The master of science in real estate development is the most concentrated science-based graduate degree in real estate available. Launched in 1983 by the MIT Center for Real Estate, the MSRED is the first degree of its kind, fulfilling a need for specialized education beyond the scope of the traditional MBA.

#### **Enrollment**

Thirty students matriculated in the fall of 2014 including seven dual degree students from DUSP. The class profile consisted of 10 women and 20 men, with an average age of 29 years. There were 18 international students.

In April, the MSRED Program admitted its 32nd class, consisting of 10 women and 16 men. The average age is 29 years old; half of the class is international, hailing from: Mexico, China, India, Hong Kong, Singapore, Thailand, Korea, Armenia, Finland, Ireland, and Lebanon.

### **Connecting Students with Industry**

Our students are offered multiple opportunities to network with and learn from industry professionals. Most courses include guest lecturers who are leaders in the real estate sector. We also offer a speaker series that highlights innovations in the field, cutting edge projects, and significant trends in the industry. In addition, the expanding alumni base includes prominent industry leaders as well as practitioners in professional roles at all levels. Our active alumni organization, the Alumni Association of the Center for Real Estate (AACRE), provides many opportunities for exposure to these professionals throughout the year, in particular during the "Real Disruption" conference, which the alumni association hosts.

As a professional graduate degree program, we are mindful of our responsibility to help students achieve their career goals. We continued our tradition of the MIT/ Harvard Career Day program to introduce students to different career paths in the real estate sector and provide networking opportunities. In addition, we organized a number of project and office visits to provide students with the opportunity to observe a variety of corporate cultures and business models. This year we institutionalized the center's student fellow attendance at the National Association of Real Estate Investment Managers executive officers' spring meeting, providing the opportunity to network with real estate investment management leaders.

Finally, students can gain valuable experience through internship opportunities offered over MIT's Independent Activities Period or during the summer. There is a growing interest in this component of our program and a majority of our students participated. Placements were made throughout the US as well as in Panama, the United Kingdom, China, and the United Arab Emirates. Industry participants included Investbridge, CBRE, Hines, Forest City Ratner, MITIMCo, the Davis Companies, Ackman-Ziff, Taurus Investments, Country Garden, Grosvenor, and Lend Lease, among others.

### **Graduate Student Trips**

### **Africa**

Center for Real Estate lecturer John Kennedy and Campbell Mayer (DUSP '11) continue their collaborative project with the University of KwaZulu Natal (UKZN). Called CREATE (Cultural, Research, Entrepreneurship and Technology Exchange), their mission is to empower rural and local economic development initiatives and to foster economic self-sufficiency through entrepreneurship and innovation in local markets. As a result, our students are provided with a unique opportunity to play a vital role in bringing development solutions to the people of South Africa.

In its third year, Kennedy brought eight MIT students on a two-week trip to Durban, South Africa, in May. They engaged with grassroots entrepreneurs in multi-disciplinary teams to bring skills training and strategic consulting to local community groups and aspiring new ventures. MIT students worked on projects for "Warwick Market," an informal marketplace in Durban. They maximized the amount of produce delivered to the market for farmers in Port Shepstone, developed a process and criteria for the advocating of entrepreneurship in Pietermaritzburg, and developed a process to

introduce entrepreneurship to schools in Ballito. Together with graduate students from UKZN and local entrepreneurs, this project has identified deep connections between real estate markets/land use and barriers to economic and community development and entrepreneurship as a vehicle to establish economic self-sufficiency. Kennedy and Mayer presented a lecture to practicing entrepreneurs at UKZN titled The Ecosystem of MIT Entrepreneurship. The CREATE workshop makes use of real-world scenarios in which real estate is at the nexus of emerging market development challenges.

### **Alumni Association of the Center for Real Estate**

There are 980 graduates of the MSRED program. Approximately 20% live outside of the United States in more than 14 countries. There are significant concentrations of alumni in New England, New York City, Washington, DC, San Francisco, Toronto, Beijing, Seoul, Tokyo, and Hong Kong. The alumni group is an all-volunteer organization represented by the AACRE.

### **Annual Case Competition**

For the 6th annual AACRE Case Competition, the alumni association chose a site in Seattle, WA. Thirty-eight graduate school teams from five counties analyzed and underwrote the redevelopment of the Seattle waterfront mixed-use development site gifted to Gonzaga University. The preliminary rounds, semi-finals, and finals were held in Boston. The top three teams in order were Cornell University, MIT, and New York University.

#### **Events**

Co-hosted by the CRE and Saul Ewing, the East Coast Back to School 2014 event was held on October 25, 2014, at a shell space venue, which had been donated by our industry partner's Boston Properties at 250 West 55th Street in New York City. Professor William Wheaton was the keynote speaker. It was well attended by alumni, industry leaders, MSRED students, and CRE faculty. In January 2015 we held our first ever West Coast Back to School event, hosted by Industry Partner Prologis at their headquarters in San Francisco, CA.

### **Thesis Award**

Each year, AACRE selects a current student to receive their Outstanding Thesis Award. Thesis advisors nominate the submission that best represents both excellence in academic achievement and the practical application of advanced techniques and analysis to the field of real estate. A panel of AACRE members reviews and selects the submissions, and grants the award during the graduation dinner. In August 2014, Yanjia Liu received the award for his thesis titled Incorporating Property Characteristics and Capital Market Conditions in Optimizing Commercial Real Estate Portfolios.

CRE alumnus Craig Govan '94 also offered a thesis award called the Govan Family Entrepreneurship Award. Chester Foo received this award for his thesis, Biomass Energy: A Real Estate Investment Perspective.

# **Faculty Awards**

Andrea Chegut was named the 2016 Postdoctoral Homer Hoyt Fellow by the Homer Hoyt Institute, Weimer School of Advanced Studies. Postdoctoral honorees are recognized for both their recent contributions and for an expectation of continued productivity.

# Faculty Lectures, Presentations, and Research

#### **Professor David Geltner**

- Real Estate Roundtable Commercial Property Capital Consumption Study: Empirical study of the nature and magnitude of capital consumption (capital expenditures plus net depreciation) in US commercial property
- System Dynamics Model of Chinese Urban Housing Markets: Development of a system dynamics model of the urban housing market in typical Chinese cities
- Economics of Real Estate Innovation: Theoretical and empirical study of the nature of innovation in real estate products from an economic perspective
- Advanced Commercial Property Price Indexing: Exploration of commercial property price indexes using advanced econometric techniques for data scarce environments

#### **Professor Albert Saiz**

- Housing Markets: 4th International Workshop on Regional, Urban, and Spatial Economics in China, Tsinghua University, China, June 7, 2015
- "Winning Women Study: Fielding More Female Candidates Helps Political Parties Gain Votes," MIT News, Huffington Post Deutschland, Le Figaro, Business Insider Australia, April 2015
- "Why can't middle class Americans afford to live in Liberal cities," *The Atlantic*, October 2014
- "At the Intersection of Real Estate and Urban Economics," MIT Industrial Liaison Program, ILP Institute Insider, October 2014

### **Dr. Walter Torous**

- "Invest in Real Estate or Shares?" University of New South Wales, Sydney, Australia, November 2014
- "Smart Portfolio Allocation," Business Think, March 2015

### **Professor William Wheaton**

- "Economists Examine Why the Housing Industry Continues to Lag," *National Public Radio*, May 2015
- "CMBS: Is Underwriting for CMBS Back to Pre-Crisis Levels?" *Commercial Observer*, September 2014

#### **Chris Gordon**

"Developing a Wynn Win: Onsite Development of the Wynn Everett Resort," Boston Society of Civil Engineers, April 2015

### **Dennis Frenchman**

"Innovation Districts," Monterrey, Mexico, August 2014

National Park Service Advisory Board meeting on Urban Parks, October 2014

"Sustainable Cities: Urban Energy Efficiency," World Bank keynote speech, November 2014

# **Andrea Chegut**

"Technology Value in Commercial Real Estate," MIT/CRE Back to School in San Francisco, CA, January 2015

"Innovate the City; Driving Innovation," keynote speech, Urban Farmers Opinion Leader Forum, Eat the City, Netherlands, October 2014

"The Economics of Big Data: the Value of Real Estate Capital in the Digital Economy," Financial Management Association Europe in Maastricht, Netherlands, July 2014

"Waarde-effecten van duurzaamheidsinvesteringen in corporatiewoningen," Report for the Nederlands Kadaster, August 2014, with Piet Eichholtz (Maastricht University), Rogier Holtermans (Maastricht University) and R. van Marwijk (Kadaster)

"Determination of the Economic Outcomes of Energy Efficiency Retrofits, Deliverable to Building Energy Efficiency for Massive Market Uptake," September 2014, with Piet Eichholtz, Rogier Holtermans, Nils Kok (Maastricht University), and Isabel Tausendschoen (Maastricht University)

The Center for Real Estate continues to be a catalyst of brainpower and is well positioned to build bridges between the challenges and opportunities of technology and the environment as they relate to real estate development and investments. Solutions to current economic, social, and environmental challenges will come from the industry and its innovative and enlightened entrepreneurs. The MIT Center for Real Estate can be a stimulant for connecting the existing brainpower and entrepreneurship in the industry with the research communities devoted to these issues.

Albert Saiz Director

Daniel Rose Associate Professor of Urban Economics and Real Estate