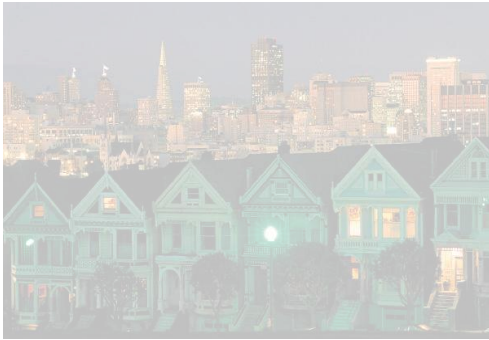




Chicago Booth
Sixth Annual Real Estate Conference
November 6, 2012

The Future of Urban Centers and Infrastructure
Evaluating Urbanization from a Physical, Demographic,
Economic and Social Perspective



What entities in a transition are responsible for logistics of food, water, hospital, petrol and infrastructure needs of an anxious local population?

Thomas J. Barrack, Jr.

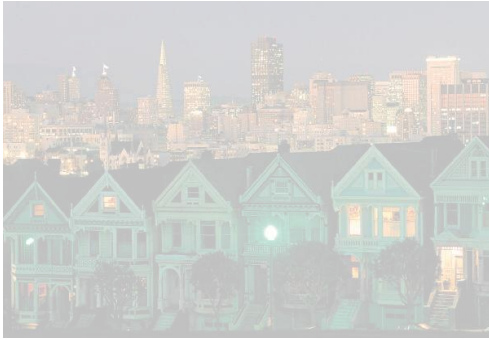
Real Estate in a Macrostructural Context

Commercial and residential property is de facto global macro as tenancy captures consumer, financial, industrial, technology, healthcare and service sectors.

As the city is the agglomeration of physical, social and cultural assets, it is only appropriate to discuss the future of the urban environment from an interdisciplinary standpoint incorporating physical and social sciences.

Differentiation is imperative as developed and emerging cities require vastly different social and economic infrastructure.

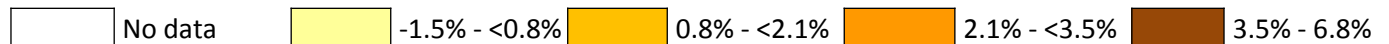
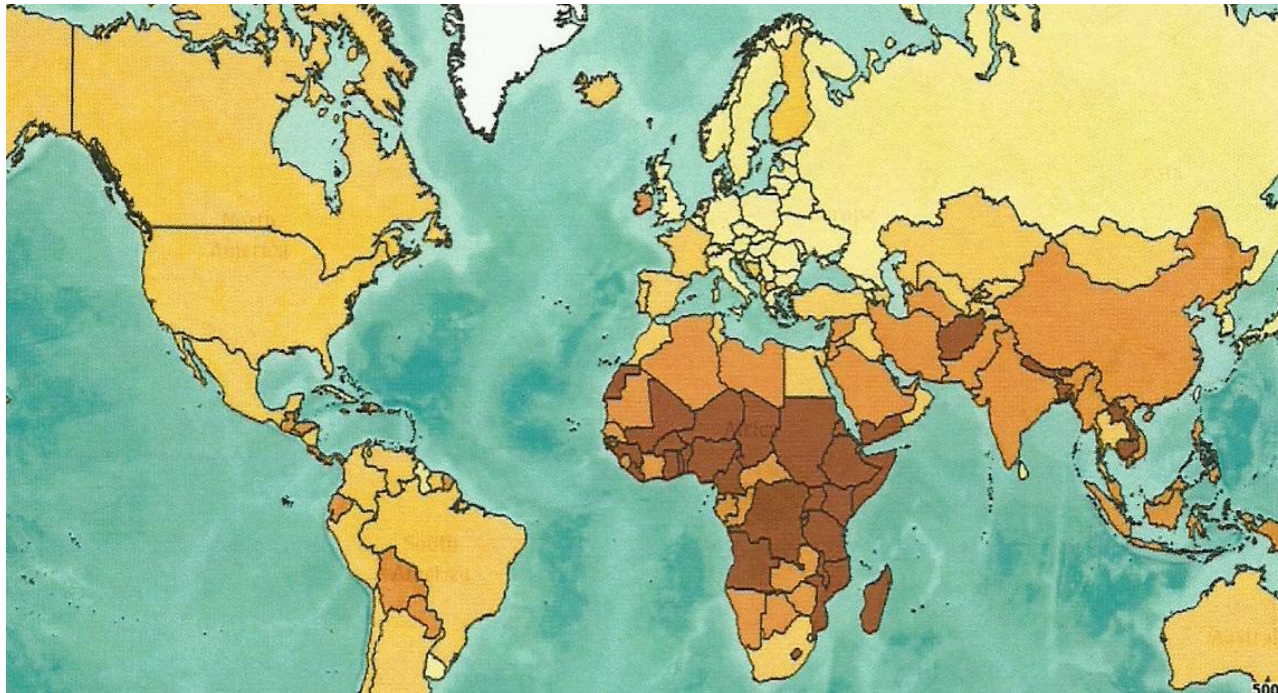
Address urban requirements from a bespoke perspective



Fourteen of the twenty megacities are situated within emerging markets: China (six), India (three), Nigeria (Lagos), Brazil (São Paulo), Mexico (Mexico City), Turkey (Istanbul) and Bangladesh (Dhaka).

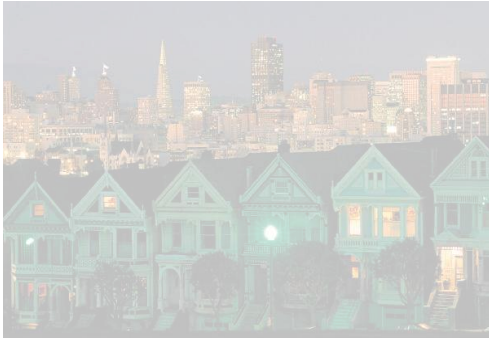
McKinsey Global Institute

Urban Population Change Between 2005 and 2010



Source: Population Reference Bureau 2011 World Population Data Sheet; Hokenson & Company.

Ascendancy of southern and eastern quadrants



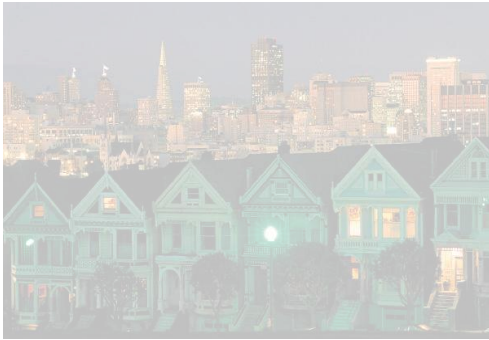
Demographer Kingsley Davis (1969) noted that before 1850, no society could be described as being fundamentally urban in nature.

Maslow, the Brazilian Favela and the Chicago Connection

As of 2008, 50% of the world was urban dwelling. By 2050, over 70% of the global population will reside within cities. Optimal urban density theoretically results in greater efficacy regarding the delivery of goods and service.

Over 1B urban poor exist without the most basic of municipal services including potable water and sanitation. While infrastructural requirements may be more physical in nature within emerging markets, substandard and disparate social infrastructure such as urban education within the US hinders global competitiveness.

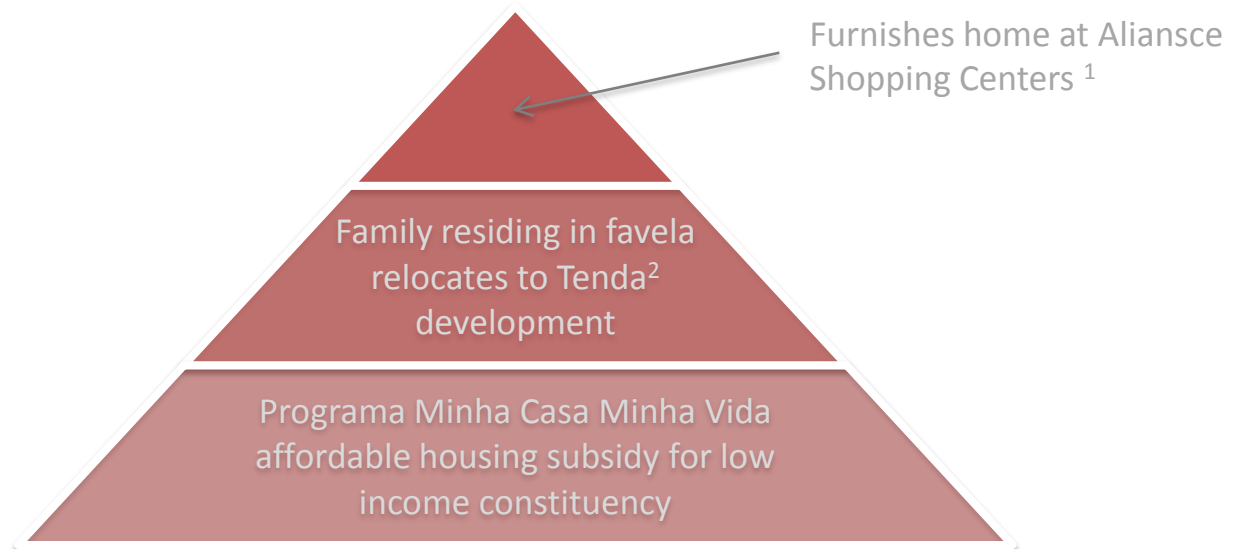
Does technological advancement diminish the urban density argument?



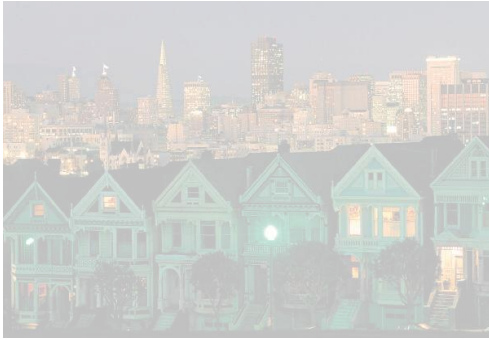
From 1990 to 2025, three billion people are set to join the world's consuming class, of which more than half will live in large cities
McKinsey Global Institute

Maslow, the Brazilian Favela and the Chicago Connection (continued)

An illustration of symbiosis between infrastructure, real estate and consumption (apologies to Maslow) is as follows:



Fulfillment of basic needs results in increased consumption



I'm old enough to remember
when the air above cities was a
lot dirtier than it is now

PJ O'Rourke

Maslow, the Brazilian Favela and the Chicago Connection (continued)

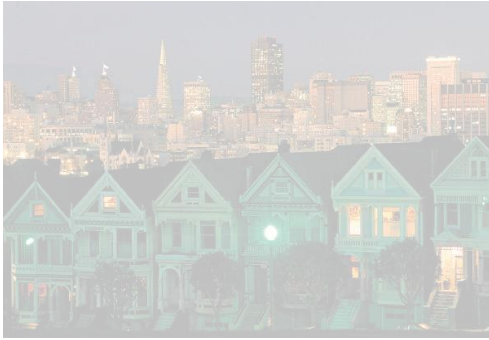


¹ On February 2010, Gafisa (Bovespa: GFSA3) completed its acquisition of Tenda Construindo Felicidade. Equity International, controlled by Samuel Zell, currently owns _% of the outstanding common shares of GFSA3.



² Aliansce Shopping Centers (Bovespa: ALCS3) is the third largest shopping center company in Brazil. General Growth Properties, Inc., headquartered in Chicago, cofounded ALSC3 in 2004 and currently owns _% of the outstanding common shares.

Chicago continues to be the epicenter of the universe



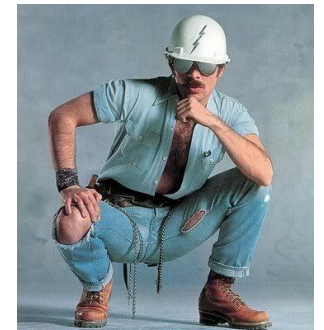
Texas has the number four 'app economy' in the nation according to a study by the Application Developers Alliance...[with] an annual economic impact of \$1.2B.

What Makes a US City Great? Technology and a Ten Gallon Hat

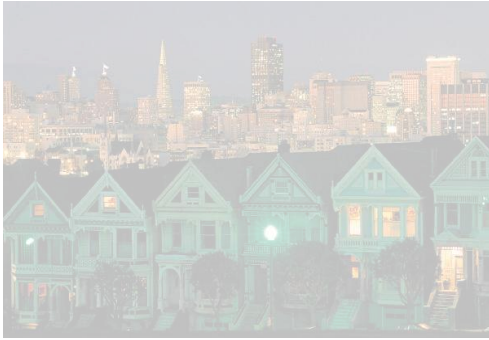
According to the Milken Institute, Employment Growth, Technology GDP Growth, and Diversification of Technology Industries deserve the highest coefficient weightings when evaluating city performance. In 2011, San Antonio ranked first while nine of the top 25 large MSAs were located in Texas.



Chicago fell nine places primarily due to housing woes as well as continuing 'specialty trade contractor' employment losses. This subsector comprises establishments whose primary activity is performing specific activities involved in building construction.



Cities cannot live on housing alone



There are 100,00 acres of vacant or underutilized land within the City of Chicago. Commercial and residential redevelopment could accommodate 1.2M or 50% of population growth by 2040.

Chicago as Laboratory: Innovative Recipes for Wild Onion

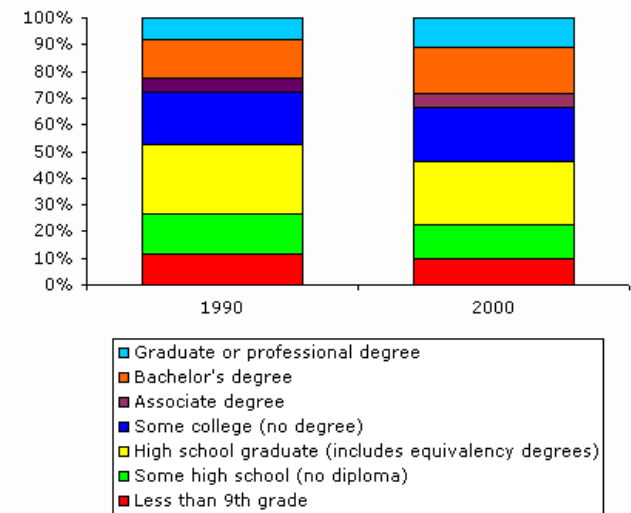
It is imperative to address the following structural deficiencies detrimentally impacting the future of US cities:

1. Educational improvement and development of practical vocational programs;
2. Arrest increasing socioeconomic disparity and its deleterious effects.

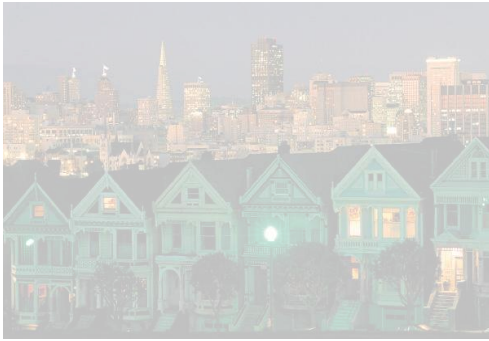
On September 13, The Financial Times wrote, 'Chicago, where 80 per cent of public school students qualify for free or subsidized lunches, is a microcosm of the national education crisis and its devastating consequences.

Only 20% of city students perform at "proficient" levels based on national standards. Four in ten do not graduate from high school. At a time when a university degree is a prerequisite for financial security, only 6% graduate by the age of 25.'

Educational Attainment, 1990-2000



Unacceptable



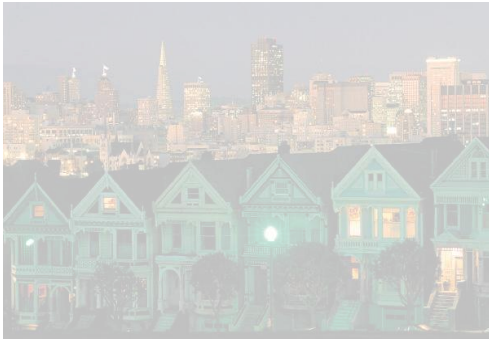
Chinese urbanization and industrialization is happening at 100 times the scale and ten times the speed of the first country to urbanize, the United Kingdom.

Emerging Market Urbanization and Consumerism

In stark contrast to developed counterparts, emerging economies are urbanizing at a torrid pace. The demand for infrastructure and natural resources is monumental. According to McKinsey Global Institute, by 2025 emerging markets cities: will dominate the global macro landscape.

- ✓ 440 emerging cities will contribute \$23T or 47% of global GDP growth;
- ✓ 60% of marginal consumption (\$10T) will take place in emerging markets;
- ✓ \$10T in additional annual infrastructure investment is required;
- ✓ Emerging cities will produce 1B new consumers;
- ✓ Construction equivalent to 85% of today's global real estate stock;
- ✓ Nearly 80B cubic meter increase in municipal water demand;
- ✓ 2.5 times of current port infrastructure is required to meet shipping demand.

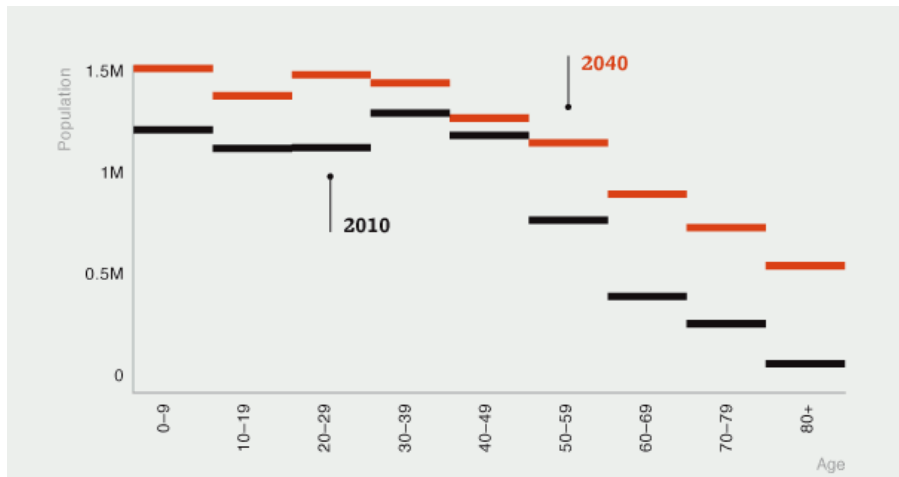
Finite resources, infinite demand



As of 2010, 7.8% of global population was 65 and older; this cohort is expected to double within the next thirty years.

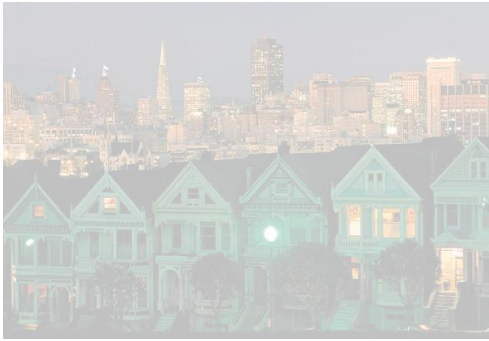
100 is the New 80

An aging population (and declining workforce as the number of dependents per worker increases) due to lower fertility and higher life expectancy impacts both developed and emerging economies as governmental reliance increases, productivity decreases and household savings are depleted. Initiatives by which to offset include increasing mandatory retirement age, encouraging immigration and expanding women in the workforce.



While Chicago's population is expected to increase across all ages by 2040, residents over 50 will increase dramatically. People will tend to change jobs more often throughout their careers, requiring improvements to our workforce development system.

Aging demands on social services and healthcare



Consumer packaged goods are expected to grow by \$10T by 2050 fueled by emerging markets demand.

Viagra, Pepsi and Apple

Demographic Theme	Industry	Real Estate
Retiring Baby Boomers	Healthcare	Assisted Living, Ambulatory Care Facilities
Emerging Markets Middle Class	Consumer	Regional Malls, Shopping Centers
Millennial and Generation Z Economic Dominance	Technology	Data Centers, Distribution Facilities

As real estate professionals, it is imperative to incorporate global macro thematics and apply to physical asset analysis. Real estate is as much about demographics, demographics, demographics as it is about location, location, location.

Chicago Booth as interdisciplinary thought leader in real estate