Science & Technology

Study Briefs From Columbia Researchers

By
David J. Craig
|
Summer 2007

James O'Brien

Shining Cities

Charlotte, North Carolina, is a “superstar city.” Chicago definitely is not. New York City has star potential. Washington, D.C., a bit less.

A superstar city, according to Christopher Mayer, who coined the term, is one where wealthy homebuyers drive real estate prices to historic — yet apparently sustainable — highs. In a forthcoming paper written with Wharton College real-estate professors

Joseph Gyourko and Todd Sinai, Mayer says the phenomenon is the result of population growth and a widening income gap that has made more Americans rich. The number of high-income families living in U.S. cities, the paper shows, increased eightfold between 1950 and 2000. That caused a sharp increase in real-estate values, especially in coastal cities crunched for space.

San Francisco is the prototypical superstar. Bounded by water on three sides and by the San Bruno hills to the south, the city saw real housing prices jump 458 percent between 1950 and 2000 compared to an average increase of just 132 percent among cities nationwide. In San Francisco, as in many space-constrained cities, the wealthy have steadily pushed out the poor. In contrast is Las Vegas, which has been able to expand into the desert to accommodate its remarkable population growth. As a result, its percentage of rich, poor, and middle-class families has remained relatively stable.

So, does this mean homeowners in superstar cities like San Francisco, Los Angeles, Seattle, and Boston needn’t worry about a real-estate bubble? Not exactly. Mayer’s theory only explains long-term pricing trends. Speculative buying in any city can cause short-term price spikes that are out of whack with fundamental economic conditions. In fact, Mayer’s research suggests that federal interest rates disproportionately affect housing prices in the most expensive markets because prices there are driven partly by the dramatic appreciation expected on property, which can wither when the economy slows.

“House prices right now are more sensitive to interest rates than at any point in the past 30 years,” says the real estate professor. “If the recent run-up in interest rates continues, I think we could see a decline in prices in superstar cities by as much as 15 percent, maybe more in areas of Southern California and South Florida, where I believe prices are now running above economic conditions.”

Psychological Warfare

Bush administration officials have repeatedly said there’s little point in asking Iraq’s neighbors to help fix the post-Saddam quagmire. Iran and Syria, in particular, they say, are more interested in stoking the chaos than in achieving peace. But what if these countries, along with Turkey, Jordan, and Saudi Arabia, become so fearful that sectarian violence will spill across their borders that they unilaterally intervene in Iraq more aggressively?

That’s the fear of Columbia political science professor Robert Jervis, who says a true catastrophe could befall the Middle East unless the U.S. soon launches another surge — a *diplomatic* surge. Without “extensive communication, if not coordination” amongst Iraq’s neighbors, the countries are likely to become bewildered by the sheer complexity of the Iraq War, increasingly suspicious of one another, and ultimately combative, Jervis writes in a working paper he distributed recently to U.S. policymakers.

Jervis, who is an expert at applying social psychology to the study of international conflicts, imagines several possible outcomes for Iraq. None looks good. One likely scenario goes like this: When it becomes clear that American troops will withdraw from Iraq, Shia and Sunni factions will renege on agreements regarding oil revenues and disarmament because each will suspect that the other is acting in bad faith. Fighting and ethnic cleansing will intensify; the central government will collapse; and the Shias, having subjugated the Sunnis altogether, will splinter, with subfactions turning against one another.

The worst-case scenario, he says, is if nearby countries soon decide that a full-scale civil war in Iraq is inevitable. Then, Iran, Syria, Saudi Arabia, Jordan, and Turkey will likely step up unilateral efforts to protect their own interests. Don’t rule out Iran and Saudi Arabia launching air strikes against one another’s cities, Jervis says, or Jordan seizing parts of western Iraq, or widespread Shia-Sunni tensions sparking a renewed civil war in Lebanon, perhaps dragging Israel into the bloodbath.

Bad Buzz

Word-of-mouth marketing campaigns can seem as ingenious as they are deceitful: Beer companies have given away six-packs to tattooed musicians so they’ll drink it in front of their buddies; video-game makers have given freebies to socialite moms to talk up to their friends. The idea is to capitalize on consumers’ willingness to trust the product recommendations of their cooler friends.

Turns out, though, marketing campaigns that recruit social mavens to act as corporate shills are all hype, according to Duncan Watts, a Columbia sociology professor. He recently conducted a series of computer-modeling experiments to simulate how information is transmitted across social networks and discovered that it's trickier to generate good buzz than is commonly believed. That's a downer for America's $100 million word-of-mouth marketing industry; Watts says his research also has implications for understanding political behavior and how best to disseminate public-health information.

The major flaw behind word-of-mouth marketing, Watts says, is that it assumes "influencing a lot of people is just like influencing an individual, but many times over." That is, marketers commonly believe that the hippest 10 or 15 percent of the population has a profound influence over prevailing attitudes and opinions, just as they influence their personal acquaintances.

Image not found or type unknown

But Watts finds that large-scale social trends — or "social cascades," as network theorists call them — depend much less on the endorsement of a trendy elite than on the enthusiasm of lots of ordinary Joes encouraging one another to adopt particular products or behaviors. This suggests that American corporations that have rushed to adopt word-of-mouth marketing strategies might be underestimating the relative value of traditional mass-media advertising, according to Watts.

He says that his findings are mirrored in natural systems. "No one would claim that the size of a forest fire can be attributed to the exceptional properties of the spark that ignited it or to the size of the trees that were first to burn," Watts writes in a forthcoming paper. "Major forest fires require a conspiracy of wind, temperature, low humidity, and combustible fuel that extends over large tracts of land. Just as for large cascades in social networks, when the right combination of conditions exists, any spark will do; and when it does not, none will suffice."

This political disintegration might be avoided, Jervis argues, if regional powers restrain Iraqi factions with whom they're friendly. Iran, for instance, could promise to support Iraqi Shias only if Shia leaders respect power-sharing agreements; Saudi Arabia and Jordan could act as guarantors of Iraqi Sunnis.

Jervis is skeptical that the Bush administration has the skill or moral authority to broker such cooperation. Nevertheless, he implores U.S. policymakers to think about concessions this country could make to Iraq's neighbors for their help in stabilizing Iraq. "Would it support Syria's goal of regaining the Golan Heights?" he says. "Even more sensitively, would it be willing to permit Iran some uranium enrichment in return for intrusive inspection and cooperation on Iraq? It is far from clear that these countries could bring peace to Iraq even if they wanted to, but they can certainly make things worse."

Read more from
David J. Craig

Guide to school abbreviations

All categories >

Read more from
David J. Craig