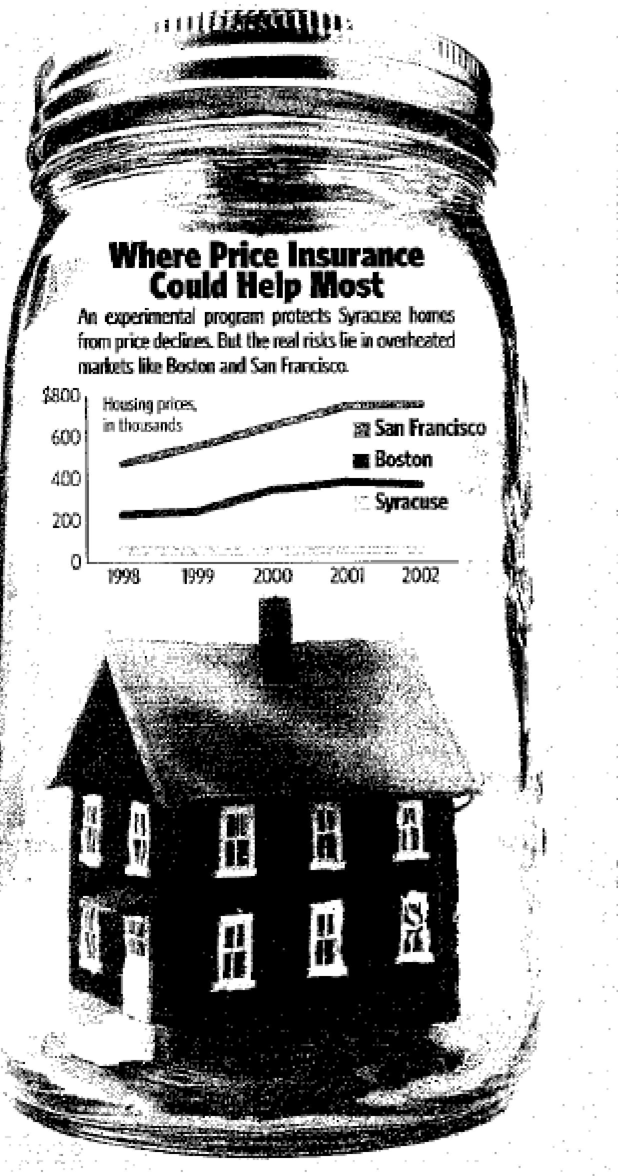
INVESTING

Preserving Your Home's Value

Worried that you bought your dream house at the very top of the market? Relief may be on the way.

When Peter Lesko bought a three-bedroom ranch-style home on the north side of Syracuse, N.Y., in 1999, he had all the usual policies to protect his investment. He was covered by title insurance, fire and flood insurance, and even mortgage insurance. But after considering the weakness in this Rust Belt city's economy, he decided last September to buy one more kind of protection: price insurance. For $750, or 1.5 percent of the value of his $50,000 home, Lesko got a guarantee that during the next 30 years, if the value of homes in his neighborhood goes down, he'll be made whole. "It was affordable, and it made me want to invest more in my home," he says.



Lesko's home equity protection is experimental, part of a federally funded test conceived by a startup called Real Liquidity and confined, for now, to Syracuse. But you have to wonder why no one came up with such a program before. Financiers long ago created ways to hedge assets from Nasdaq stocks to Japanese yen to pork bellies. Most of us don't have half our assets tied up in pork bellies. But we are, by any measure of financial prudence, completely overexposed to a single, illiquid, highly leveraged, and, according to some real estate experts, now seriously overvalued asset: our homes. Over five-year horizons, 25 percent of homeowners experience a decline of 10 percent or more in real estate prices. Home equity insurance would reduce the anxieties of buyers who fear they got in at the top of the market, of mobile employees who worry about getting transferred during a downturn, and of plucky urban pioneers taking a chance in an iffy inner-city neighborhood.

PUT OPTION
This gives the holder the right to sell an asset at a specified price until a specified date. Owning a put is a way to hedge a decline in the asset's value.

FUTURES CONTRACT
A promise to trade an asset at a specified price on a specified future date. In home insurance deals, the "asset" is an index of neighborhood home values, and the price might be, say, $10 times the index's value.

The idea is simple: Homeowners buy a classic risk-management tool known as a **put option.** In the Syracuse test, the put gives the owner the right to sell a **futures contract** at a price pegged to average home prices in his or her zip code. If prices go down, the owner exercises the option, and the seller of the put forks over the cash. If prices go up, the owner is out only the cost of the put. The reason no one has ever been able to buy puts on home values before is that, up to now, no one has been willing to sell them.

Enter two Yale Business School professors, Will Goetzmann and Barry Nalebuff, and one from NYU, Andrew Caplin. The economists had done groundbreaking research on real estate price indexes, game theory, and the pricing of derivatives, including options, which gave them confidence that they could create a market for options on real estate. The professors got together with a community-development nonprofit organization in Syracuse, where home equity declines have been a serious problem—in some neighborhoods, home prices fell 30 percent during the booming 1990s. Arguing that price insurance could help stave off urban blight, the community group won a $5 million federal grant last year to set up a test program. Goetzmann, Nalebuff, and Caplin formed Real Liquidity to roll it out.

To assess the risk, the academics generated as many as 10,000 computer-simulated scenarios for the Syracuse home market—

TODD TANKERSLEY

ranging from a smart rebound in prices to a grinding 30 percent decline over 30 years—and assigned probabilities to each. That exercise told them that the $5 million grant would allow the nonprofit to sell puts against homes valued at a total of $24 million every year for the next five years. The project, only five months old, is already protecting 40 homes, worth $2 million.

Before Real Liquidity can take its insurance to other cities, as it hopes to do, there are a lot of questions to answer. Chief among them is pricing. In overheated markets like San Francisco and Boston, the chance of decline is much higher than it is in Syracuse. In those areas, premiums would have to be significantly higher than 1.5 percent of the home's value, and it's unclear how that would affect demand.

Whether or not Real Liquidity expands into more cities, there are others who think that financial protection for real estate is an idea whose time has come. Back in 1990, Yale economics professor Robert Shiller, of *Irrational Exuberance* fame and a pioneer in calculating home-price risk, pitched futures contracts based on real estate indexes to several Chicago exchanges, which currently sponsor contracts on indexes like the S&P 500. Although Shiller has no takers as yet, he says he hasn't given up; he just has to figure out how to price the contracts correctly to make them attractive to both sides of the deal—the hedgers and the speculators.

Ralph Liu, a Southern California financier who ran derivative sales for several banks in Asia in the 1990s, says he is setting up an online market for trading real estate risk for homes in select California and New York zip codes. His selling point? A homeowner can lock in a residence's appreciation by selling short a futures contract based on an index of properties in the homeowner's zip code—a bit like selling the house today for delivery in the future.

One problem with all of these strategies is that they ultimately depend on something that doesn't yet exist: a steady supply of speculators who want to take the other side of the transaction from the homeowners. In theory, institutional investors ought to be very interested, since returns on residential real estate and returns on stocks are almost entirely uncorrelated. If such investors could get past their reservations, a useful new market would be born, one with the potential to hedge assets worth $11 trillion. And a population of anxiety-ridden homeowners would finally be able to get a good night's sleep. — GALLAGHER POLYN

We are completely overexposed to a single, illiquid, highly leveraged, and now seriously overvalued asset: our homes.

Building a hedge

Homeowners' fears that housing markets may be overvalued and on the brink of a crash has spurred several residential real estate hedging market initiatives in the UK and the US.

In the UK, where, according to Halifax Bank, average housing prices have skyrocketed by more than 30% in the past year, financial bookmaker IG Index has sold £20 million in 'spread bets' on average housing prices in 12 regional markets and the entire UK since August. Trading volume is highest on the Greater London regional index. IG Index was started in 1974 to enable UK gold speculators to dodge currency controls. Over the years, it has grown to allow speculation for tax-free capital gains on commodities, stocks and stock indexes, sports and foreign exchange.

The bet mechanism is simple and resembles a future. Participants can take long and/or short exposures on housing index quotes as far as a year forward. Transaction costs are 0.3% or 0.6% of the bet size, depending on whether the purchaser holds the position to expiry or not. Shorts, or homeowners concerned about a sudden fall in housing values, are currently driving the market. Because IG Index has no other markets in which to hedge house price risk, the imbalance of long and short interest has forced one-year prices to trade at a 10% to 15% discount to fair value. John Austin, deputy head of financial trading at IG Index in London, says: "These clients are all homeowners and have all been reading newspaper articles about an approaching 'crash' in house prices."

The bet has accounted for only 1–2% of IG Index's trading profits this year, but Austin calls it the most successful new launch for the company in five years. IG Index plans to market the product more aggressively with the British expatriate community, many of whom might wish to take long positions to preserve their ability to return to their UK housing market of choice.

In the US, a group of Yale University, Oxford University and Massachusetts Institute of Technology (MIT)-trained economists, including MIT's Stephen Ross, have teamed up to develop house price insurance for major metropolitan areas, which they hope to offer by the second half of 2003.

Their Washington, DC-based firm, Real Liquidity, is currently behind a government-sponsored pilot project in Syracuse, New York, where, against national trends, housing prices fell on average by 10% between 1991 and 2001, and by as much as 30% in some neighbourhoods. To rebuild confidence in the market, a local congressman obtained a $5 million grant for a programme to insure the equity of local homebuyers. The result, the Home Equity Protection (HEP) programme, was launched in July.


Photo: Alex Segre

John Austin, IG Index: the imbalance of long and short interest has forced one-year prices to trade at a 10% to 15% discount to fair value

The cost of protection under the programme is a one-time fee of 1.5% of the value of an owner's principal residence and lasts 30 years. Local real estate values, tracked by zip code, are maintained by a third-party real estate research firm. If the owners wish to sell their home after a minimum contract of three years, and if their local index value has fallen, HEP pays them the protected value of their home multiplied by the percentage decline in the index. To preserve the homeowner's incentive to maintain and improve the home, no attention is paid to the actual sale price of the home – only the index value counts. Should the local index rise, the owner receives nothing and loses the 1.5% fee. The programme currently insures more than 30 homes for a total value of $2.1 million.

Real Liquidity performed the capital reserve calculations with historical and Monte Carlo analysis. Against the worst-case scenario that housing prices in Syracuse decline 30% over the next 30 years, they determined HEP could offer $120 million in protection against its $5 million in capital.

Though in essence an at-the-money put option, HEP was classified as insurance by New York State regulators. HEP's backers also considered offering Syracuse homeowners equity protection through mortgages, where downward movements in the local index value would adjust downward the principal in an outstanding mortgage balance. The concept is already in use in some high-inflation housing markets, where the principal in a mortgage balance is linked to inflation. However, New York State regulatory prohibitions stopped development of this version of protection.

Should regulatory barriers be overcome in New York and other high-valued metropolitan real estate markets, Real Liquidity believes providing mortgage-based equity protection and variations of the Syracuse programme would be attractive to institutional investors, such as pension funds. At more than $11 trillion, the US real estate market is the largest untapped financial market in the world. Also, real estate is usually uncorrelated with stocks and bonds, while pos-

for housing

itively correlated with wages.

Tom Skinner, an Oxford-trained economist who founded Real Liquidity, says the cost of protection in the new private markets will average around 3% of a home's protected value, though it will vary depending on the risk of the housing market concerned.

Housing futures

Ralph Liu plans to roll out an online futures market for trading real estate risk in California and New York by zip code in 2003. He's got the right background. He ran the Asian derivatives operations of UBS and Chase Manhattan in the early 1990s, until he left to build several Asian equity derivatives exchanges and began his own company in Singapore, Advanced Risk Management Solutions, to sell financial risk and trading systems to private and central banks. After burning his fingers slightly with a financial dotcom play after the technology meltdown in 2000, Liu returned home to southern California and began trading wineries and horse ranches. "That is how I got the idea and saw the great opportunity of creating a hedging market for real estate holdings," he says.

Margin requirements plus the uncomfortable idea of trading away upside gains on a fully hedged short position could keep retail users away from the exchange. But Liu sees its real value as a secondary market banks would use to hedge their own new line of retail real estate equity options products.

Several online derivatives exchanges – including the IntercontinentalExchange and the International Securities Exchange – have already proven popular with professional traders, which suggests Liu's online futures model could fly. Liu won't disclose the names of investors or the amount of investment attracted so far, but he says he's confident in the venture and has put a "significant" amount of his own money into it. "From my previous banking contacts, it has been very well received," he says. He's now preparing to file for approval with the Commodity Futures Trading Commission.

IG Index plans to market its product more aggressively with the British expatriate community, many of whom might wish to take long positions to preserve their ability to return to their UK housing market of choice

Hedging markets for US real estate have been pitched before. In 1993, Yale economist Robert Shiller, author of the best-selling 2000 book *Irrational Exuberance*, approached several of the Chicago derivatives exchanges to list real estate futures. Despite some initial interest from the Chicago Board of Trade, the venture never got off the ground. Shiller says exchange officials were discouraged by a survey that indicated only short interest. Shiller thinks that wasn't reason enough to block the contract. As with any new product, investors would wait in the wings before committing. "Investors aren't going to give an excited response – they say, 'I have to see what the price is'," he says.

But now, the timing may be right. Liu says today's situation is exactly the reverse of the early 1990s – the real estate market is up and the stock market is down. Real Liquidity's Skinner points to better housing price data. In the end, however, the sale will be to the average US individual investor, who is heavily over-concentrated in their housing. "Many people have seen sharp declines in their 401(k) employee investment accounts and worry that their largest asset, their home, could be next," Skinner says. ■

Gallagher Polyn

Correction

[illegible]

FOW Sept 2002

~~For Bob Peter~~ FYI JR

First online exchange for real estate futures

Melonie Stern

A US firm is setting up an online cash-settled futures market on residential and commercial real estate, available to both retail and professional investors.

California-based Advanced e-Financial Technologies (AeFT) said it is creating an electronic, cleared matching exchange to allow US homeowners and real estate investors to lock in asset appreciation by shorting futures without selling their real estate holdings or create synthetic long positions.

Contracts will be made available from 3-60 months in length based on 'per square foot median price' indices currently published for each zip code region. According to the firm, it will concentrate on serving the Californian and New York markets once regulatory and money margin requirements are set out.

Currently the only similar offerings are traded OTC according to AeFT ceo Ralph Yin. "A lot of these offerings have little fundamental risk behind them and so they are basically taking a punt," he told *FO Week*.

"The US real estate market is strong at the moment and is worth about $10trillion – it's at an all time high," Yin explained. "We think there will be a lot of demand for this type of service." Yin would not confirm who the index provider was except to say that it was a well known, established US provider.

The nearest the US has come to such an offering before was when Chicago Mercantile Exchange applied for and received a license to offer futures and options on Real Estate Investment Trusts (REITs) several years ago, but the contracts never listed. "The same efforts were tried in the early 1990's but the farthest anyone got was the press release," Yin told *FO Week*. "The market circumstances back then were very different, however – it was the end of the 1991 recession but the stock market was doing well. Now it's the other way around."

AeFT is run by former realtor and Chase Manhattan structured derivatives head Yin, finance director Laura Liu and former Carr Futures broker Stuart Lane.

Trade groups team up to boost futures market

Tom Zaitsev

Two industry groups representing exchanges in emerging market countries have agreed on a wide-ranging cooperation to beef up futures trading.

During its annual meeting in Switzerland, Association of Futures Markets (AFM) signed a relevant agreement with International Association of CIS Exchanges (IAE). The former acts for commodity and futures exchanges as well as clearing organisations in Eastern Europe and South East Asia. The latter was set up in Moscow in 2000 by 19 inter-bank currency and stock exchanges throughout the former Soviet Union.

According to AFM chairman Oleg Andronov, the introduction of viable pricing and risk management systems is of paramount importance for emerging markets represented by the two signatories. "Our agreement is designed to facilitate sharing that kind of experience, particularly in enhancing infrastructure for futures trading. Its main aim is to co-ordinate efforts among the exchanges on a regular basis and attract investment to develop lacking mechanisms."

IAE executive director Alexei Kuprin says IAE is intent on bringing activities of its members in line with the internationally accepted standards. He adds: "The other priority is to work towards creating an integrated financial market, including futures exchanges, in the CIS. Close co-operation with AFM would help carry out these tasks."

To follow up the accord, the two organisations will hold a joint meeting next spring in Moscow.