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The Benefits of Introducing a Housing Price Index Future in Hong Kong

Yingsi FENG

Abstract
It is widely recognized and accepted that, financial innovation such as options and futures can help to manage risk, speculate, arbitrage and discover price in financial markets. As such, the researcher believes that the introduction of a Housing Price Index Futures in Hong Kong can greatly improve the investment environment in Hong Kong’s property market. Therefore, the purpose of this paper is to perform a feasibility study of the proposed Housing Price Index Futures in Hong Kong financial Market, to reveal the crucial need of this innovation for the betterment of the real estate market in Hong Kong, and the society as a whole. The researcher will highlight some of the most important problems in the market and discuss the benefits and possible limitation of this innovation in Hong Kong’s market place.
1. Introduction
The Hong Kong property market has been known for its immense volatility throughout the years. From this volatile market and the contiguous appreciation of property prices, the rich continue to get richer, while the poor still cannot afford to own a home, (which is not needed for investment, but to live in). The wealth effect of Hong Kong’s property is so great that investors are always busy keeping track of it however, due to the weak liquidity, property owners suffer from the risk of negative asset once the market shifts downward.

Since the financial tsunami in 2008, with the depreciation of Hong Kong dollar against other countries’ currency, Hong Kong properties have become more and more attractive to speculators. With properties taken up by speculators, the houses are left unused and become idle recourses until the required rate of return has achieved. In other words, houses have become commodities for speculators, rather than necessities for life. This, as one can imagine, can be very dangerous because when the bubble of property burst again we shall have another economy recession which can lead to a repeat of the great depression.

2. Background and foreign experiences
In 1991, Prof. Ho Lok-Sang suggested that Hong Kong should introduce an index future for property prices\(^1\). In Hong Kong, the Hang Seng Index Futures market has been well developed since 1986, and it has been playing an important role in Hong Kong’s financial market since then. Two of the greatest advantages of having a mature Housing Price Index Futures market are that, the mechanism of transaction will be gradually perfected, and risk management will improve as people will be able to hedge against their risk exposure in the underlined asset. To implement this index in the Hong Kong Market, there will be no serious technical or software problems. Already, there is a Real Estate Investment Trust ("REIT") which could provide a market benchmark of the REITs listed in Hong Kong; this is technically another form of securitization involving the repackaging of real estate assets\(^2\).

In 2006, Chicago Mercantile Exchange ("CME") introduced the Dow Jones U.S. Real Estate Index\(^3\). During that time, the prosperity in the property market exerted upwards pressure on inflation causing overheating in the economy. This overheating led the government to raise interest rate, which negatively affected home loaners and house builders. At the same time, as the general citizens could not afford the high housing prices, the turnover of transaction began to reduce, and the housing price began to plunge as shown in the figure below. Therefore, a financial innovation, aiming at hedging against the fall in property prices was needed and implemented by CME.
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Source: http://mysite.verizon.net/vzeqrguz/housingbubble/
Foreign experience:

### DJ US Real Estate Index Futures

<table>
<thead>
<tr>
<th>Opening Date</th>
<th>2/21/2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes to Dow Jones Index Futures Closing Ranges (June 1)</td>
<td></td>
</tr>
</tbody>
</table>

**Ticker Symbol**

- RX
- JR= Clearing
- View product and vendor codes

**Contract Size**

- $100 x Dow Jones U.S. Real Estate Index
- .10 index points = $10.00 per contract

**Trading Hours**

- CME Globex (Electronic Platform)
- MON-THURS: 5:00 p.m.-3:15 p.m. & 3:30 p.m.-4:30 p.m.
- (Daily maintenance shutdown 4:30 p.m.-5:00 p.m.)
- SUN: 5:00 p.m.-3:15 p.m.

**Contract Months**

- Four months in the March Quarterly Cycle
- (Mar, Jun, Sep, Dec)

**Last Trade Date/Time**

- CME Globex (Electronic Platform)
- Trading can occur up to 8:30 a.m. on the 3rd Friday of the contract month.

**Final Settlement Procedure**

- Cash Settlement. All open positions at close of last day of trading are settled in cash to the Special Opening Quotation (SOQ) on Friday a.m. of the NASDAQ-100 Index, computed from the NASDAQ Official Opening Price for the component stocks in the index.
- See SOQ FAQ.

**Daily Price Limits**

- RTH: Successive 10%, 20%, 30% limits (downside only)
- ETH (overnight): 5% up or down
- View price limits details

**Position Limits**

- 5,000 contracts net long or net short in all contract months combined with a reportable limit of 200 contracts

**Rulebook Chapter**

- CBOT 30

**Exchange Rule**

- These contracts are listed with, and subject to, the rules and regulations of CBOT.


The methodology of DJ US Real Estate Index Futures is a weighted index with the biggest 10 cities in US. The weights of these 10 components are:

<table>
<thead>
<tr>
<th>CITY</th>
<th>WEIGHTS(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston</td>
<td>7.4122</td>
</tr>
<tr>
<td>Chicago</td>
<td>8.8868</td>
</tr>
<tr>
<td>Denver</td>
<td>3.6835</td>
</tr>
<tr>
<td>Las Vegas</td>
<td>1.4802</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>21.1620</td>
</tr>
<tr>
<td>Miami</td>
<td>4.9862</td>
</tr>
<tr>
<td>New York</td>
<td>27.2390</td>
</tr>
<tr>
<td>San Diego</td>
<td>5.5134</td>
</tr>
<tr>
<td>San Francisco</td>
<td>11.7879</td>
</tr>
<tr>
<td>Washington.D.C</td>
<td>7.8500</td>
</tr>
</tbody>
</table>

In Hong Kong, there is a similar housing price index, called the "Centa-City Index", which aims at providing the latest information, to the public, as a source of reference on the trends in Hong Kong's property market\(^4\). It is a monthly index, based on all transaction records, as registered with the Land Registry, to reflect property price movements in previous months. There is even another Centa-City Sub-index provides the price trends in different areas in Hong Kong.

**Proposed Methodology**

When working out the methodology of housing price index, Hong Kong could use the Centra-City Index as a source of reference. For example, July 2000 could be used as the base period for the index and make the index in the base period is equal to 100. The most important step in this process is the partitioning of the significant districts in Hong Kong. For example, it could be divided into Hong Kong Island, Kowloon, New Territories East and New Territories West; this will be done to give different weights to the different districts according to their transaction turnover and total market value.

**3. Benefits**

Futures were originally derived from/based upon physical commodities. It is used as a means for hedging against market risks, speculation, arbitrage, and price discovery and capital allocation. The principal reason for introducing the housing price index futures in Hong Kong, are listed as below.

**Eliminate Speculative Activities in the Real Property Market**

According to Prof. Ho Lok-Sang, index futures for the property market could help siphon the speculative activity away from the real estate’s, spot market, to the futures market. This is for the benefit of both the property market, as it protects the genuine home buyers from price fluctuation caused by the speculative trading, and the speculators, who can benefit from, low transaction cost, higher liquidity, trading conveniences with electronic platform, investment without spending time and transaction costs associated with matching the right house and etc. Speculators usually prefer assets which are highly liquid, as such, the potential Housing Price Index Futures, as it would attract a lot of speculative investors, would create a very liquid market.

**Hedge against Exposure to the Real Asset Price Risk**

The Housing Price Index Futures can hedge against the price risk of property. If people invest in real estate market, they can only profit from a strong market, (although arrangements can be made to make REITS available for short sale in principle, REITs, such as the LINK, are usually specific to a small segment of the property sector) but, with an index futures, investors can hedge the price risk of a weak property market and profit from the index futures position if they lose in the real market.

**A Housing Price Index Can Give Insight on Future Market Potentials**

The housing price index can provide the expected trend, of future property price, and also signal an economic slowdown according to Dimitri N. Delis. Housing Market Index in the following table means housing market price.
In 2006, Dimitri argued that Housing Market Index has always heralded the start of a slowdown once it has dropped in level by more than 25 points. Now, the signalling of Housing Market Index seems correct again, with the recently economic down turn in 2007. As a result of that, the house price index futures would attract more investors as given the function of a barometer of economy.

**Little Capital Needed for Investment**

A property market index helps people to invest in property market without a large sum of money. With Housing Price Index Futures property investment is no longer only for millionaires, but also for small/medium size investor. Just like the rationale behind the existence of mutual funds, property Market index provides a more convenient and realistic platform for all investors to participate in the property market. Another advantage of the Property Market index is that investor’s capital is easily retrieved since they can sell the futures contract freely compared to selling a home they own.

**Physical Resources Restrictions**

The supply of houses is subject to the land resources. Therefore, even if there is an excess demand in property market, the land to satisfy the demand maybe limited. In contrast, the housing price index futures would not have this limitation. It’s just a derivative. Investors can long or short the futures, without facing any physical resources restrictions. Moreover, if investors invest in the housing price index futures instead of the real housing market, the portion of the real users of houses would increase, reducing the vacancy rate and fluctuation of house price.
4. Problems

Getting Support
The major problem facing this innovative idea is getting the policy supported by Securities and Futures Commissions (SFC) and Hong Kong Exchanges (HKEx) by convincing them of the great prospect of Housing Index Price Futures, as well as the social benefits it will bring to the Hong Kong society. Surveys can be done to see if institutional investors are interested in this idea. If they are, the Housing Index Price Futures could become a very profitable product for Hong Kong Exchanges.

Delay in Actual Trading Process
It is important to establish a fair and representative methodology of calculating the housing price index; making sure the index represents the true and latest trend of the housing prices in Hong Kong. Since the information on house sales transactions from the Land Registry would have been delayed for the actual trading process, it is difficult to calculate the index with the latest transaction information. If we use the data from the property agencies, it may not cover all the transaction record due to some private or online trading. To solve this problem, the index futures could run by the quarter and not by the month.

5. Conclusion
Housing Price Index Future is a financial innovation to enrich the global property market of the 21st century. As a well developed financial centre in the world, Hong Kong should take it into consideration. As previously discussed, it will bring great benefits to Hong Kong’s property market and also the society’s social welfare. There is no big technical problem in implementing this innovation, except establishing a fair and representative methodology of calculating the housing price index. And as explained, we can take DJ US Real Estate Index Futures and Centa-City Index as references. I am confident that if/when this Housing Price Index Futures is introduced; more institutional and individual investors will invest in it instead of in the real property market.

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