

研 究 用 役 計 劃 書

契 約 期 間	2011. 4. ~ 2011. 10. (6 개월)
提 出 日 字	2011. 4. 10.
提 出 者	Prof. Liu, Hong Yu (서명/인)

韓 國 開 發 研 究 院 長 貴下

研 究 擔 當 者	Prof. Liu, Hong Yu
所 屬 및 職 位	Professor in Real Estate and Construction Director, Hang Lung Center for Real Estate Associate Dean, School of Civil Engineering
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K D I 內 責 任 者	Dr. Dongsoo Kang

貴院 研究用役規程 第15條에 의거하여 本 研究計劃
書를 提出합니다.

2011 년 4월 10일

提 出 者 Prof. Liu, Hong Yu (인)

韓國開發研究院長 貴下

研究題目

Market and Institutional Factors of Local Housing Markets in China: Focusing on 2nd- & 3rd-tier cities (Chapter 1)

研究目的

- This proposed research aims to collect and assess data on market and institutional factors of local housing markets in China (focusing on 2nd- and 3rd-tier cities), for the purpose of conducting sound empirical analyses on housing price and quantity cycles in China along with their main determinants. To the extent possible, we also plan to make international comparisons of patterns of housing cycles, land and housing supply systems, and housing finance arrangements in China with those of other countries.
- In this research, we will collaborate with our colleagues in Korea, Professors Kyung-Hwan Kim and Man Cho, both in collecting data and in conducting relevant analyses. In the following, we delineate first segment (or Chapter 1) of the research.

研 究 内 容

I. Data compilation and exploratory analyses (with case studies)

- ✓ Collecting housing price indices (HPIs) in China's local housing markets. Initially, target cities will be 70 cities where home price indices are available, which will be reduced and narrowed down later on depending upon the availability of data on market fundamentals elaborated below. To the extent possible, time-series data will be compiled to cover the period of 2006 to current for the 2nd-&3rd-tier cities and the period of 1998 to current for the 1st- and major 2nd-tier cities. There are three main sources of HPIs, i.e. 70 Index, CREIS Index and CREP Index. We will utilize these sources accordingly:
 - “70 Index” is the Real Estate Price Index of 70 major cities published by National Bureau of Statistics (NBS) and National Development and Reform Commission (NDRC). This housing price index is transaction-based index and is the best available housing price data in China for its larger coverage of sample cities as well as its length. This index can be dated back to year 1998 (for 35 major cities).
 - “CREIS Index” is the China Real Estate Index System price index proposed by China Index Academy. It is considered to be the earliest established housing index in China. In its calculation process, it sets up a standard case substitution scheme and non-market factor adjusting procedure, which is effective for reflecting the fluctuations in China's housing market. Beijing and Shanghai were the earliest cities to employ the CREIS Index, starting in 1994. Currently, there are up to 70 cities covered by this index system.
 - “CREP Index” is the City Real Estate Price Index set up by Ministry and Urban-Rural Development together with Institute of Real Estate Study Tsinghua University. This index is calculated from the hedonic price of a standard house. It is considered to be the most accurate index in China's

housing market because of the homogenization adjustment and the transaction-based sample set. 40 major cities were included when CREP index set up in 2006. At present, this number has reached 90, including a lot of 2nd-&3rd-tier cities.

- ✓ Collecting other market and economic fundamental variables:
 - Candidate for housing market fundamentals including: land prices (average values or indices); rental prices (average values or indices); total housing units (in stock as well as in flow); housing transaction volumes
 - Other national or local variables include: regional GDP, interest rates, population, residential investment, and others
 - Data Source: Data will be collected from various issue of China Monthly Economic Indicators, China City Statistical Yearbook and Statistic Yearbook of different cities.
- ✓ Collecting data on residential mortgage lending (nationally, available from 2000), e.g., mortgage debt outstanding, new issuance, delinquency rates of different sort
- ✓ Compiling and assessing housing market indicators, e.g., housing price to income ratios (PIR), housing affordability indices (HAI), user cost of capital (UCC), and so on
- ✓ Compiling and assessing data on institutional factors: (1) mortgage lending system (predominant mortgage products, underwriting criteria, funding method(s), and regulatory controls); (2) housing delivery mechanism (including public rental housing); (3) real estate taxes; (4) provision of infrastructure

- ✓ Performing exploratory data analyses, as well as case studies on a small number of cities chosen. One 1st-tier city will be chosen for the intention of comparison and 2 or 3 2nd- & 3rd-tier cities will be studied

研 究 方 法

Case study: to show the housing market operation mechanism in the 2nd-&3rd-tier cities in China, to learn their housing price fluctuation features and influence of institutional factors, to compare the differences of housing market between 1st-tier cities and 2nd-&3rd-tier cities

연구기간 및 진행 「스케줄」

(研究開始, 資料蒐集, 中間點檢, 最終報告 豫定 등)

Segment 1 Schedule

2012.04.01-2012.05.10	Data compiling and accessing
2012.05.10-2012.08.30	Exploratory data analyses and case study
	Housing price dynamics analyses
	Report drafting
2012.08	Mid-term seminar (time to be determined)
2012.09	Final report (draft)
2012.10	KDI referee & final report

Division of labor

Research contents	Researchers
Segment 1-1 HPIs, market/economic fundamentals and residential mortgage lending data collecting	Lee Jin, Jiang Peiyan, Yang Siqui, Zhang Yingjie
Segment 1-2 Compiling and assessing housing market indicators as well as data on institutional factors	Lee Jin, Jiang Peiyan, Yang Siqui, Zhang Yingjie
Segment 1-3 Performing exploratory data analyses and case study	Prof. Liu Hongyu, Prof. Zhang Siqui, Lee Jin, Jiang Peiyan, Yang Fan, Zhang Yingjie

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研究 題 目

Market and Institutional Factors of Local Housing Markets in China: Focusing on 2nd- & 3rd-tier cities (Chapter 2)

研 究 目 的

- This proposed research aims to collect and assess data on market and institutional factors of local housing markets in China (focusing on 2nd- and 3rd-tier cities), for the purpose of conducting sound empirical analyses on housing price and quantity cycles in China along with their main determinants. To the extent possible, we also plan to make international comparisons of patterns of housing cycles, land and housing supply systems, and housing finance arrangements in China with those of other countries.
- In this research, we will collaborate with our colleagues in Korea, Professors Kyung-Hwan Kim and Man Cho, both in collecting data and in conducting relevant analyses. In the following, we delineate first segment (or Chapter 2) of the research.

研 究 内 容

II. Econometric analyses to assess local housing price dynamics

- ✓ Performing econometric analyses to test extents of over- or under-valuations in local housing prices, along with dynamic adjustment patterns (e.g., mean-reversion and autocorrelation parameters)
- ✓ Testing various alternative models (e.g., ECM, VAR, or Panel-VAR), endogenous vs. exogenous variables, as well as data disaggregation strategies (e.g., determining regional housing markets, similar to the ones employed by Cho (2011))
- ✓ Performing predictive empirical tests (e.g., impulse-response analyses) based on a set of scenarios of future courses of Chinese housing markets
- ✓ Documenting policy implications of empirical findings (to both China and Korea)

研 究 方 法

Empirical study: to analyze housing prices, their dynamic adjustment patterns and the influencing factors, some advanced econometric models will be introduced, e.g., ECM, VAR, or Panel-VAR, impulse-response model.

연구기간 및 진행 「스케줄」

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	Report drafting
2012.08	Mid-term seminar (time to be determined)
2012.09	Final report (draft)
2012.10	KDI referee & final report

Division of labor

Research contents	Researchers
Segment 2-1 Housing prices and dynamic adjustment patterns analyses	Prof. Liu Hongyu, Dr. Wu Jiang Peiyan
Segment 2-2 Performing housing price predictive empirical tests	Prof. Zheng Siqu, Dr. Yingnan, Zhang Yingjie
Segment 2-3 Documenting policy implications	Prof. Liu Hongyu, Prof. 2 Siqu,

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提 出 者	조 만 (서명/인)

韓 國 開 發 研 究 院 長 貴下

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提 出 者 조 만 (인)

韓國開發研究院長 貴下

研究題目

- 중국 2선-3선 주택시장 및 제도에 대한 실증 분석 (3 장)

研究目的

- 본 연구는 중국 2선, 3선 도시 주택부문의 시장적·제도적 요인에 대한 자료수집 및 분석, 이들 도시 주택가격의 적정성에 대한 계량 분석, 그리고 중국 주택시장의 향후 추이가 우리나라 거시경제에 주는 시사점을 정리하는데 그 목적이 있음.
- 본 연구의 수행에 있어서, 중국 칭화대학교 부동산 연구진과 협력하여 다음의 과제를 수행하고자 함: (1) 중국의 70개 대도시 주택시장의 시장·제도적인 요인에 대한 자료수집, (2) 주택가격 적정성에 대한 실증분석, (3) 주택금융·공급시스템·부동산세제 등 정책 요인들이 향후 중국 주택시장에 주는 영향을 분석하고, 우리나라 거시경제 운용에 주는 시사점 논의. (1), (2)에 대해서는 별도의 연구계획서를 준비하였고, 본 계획서는 (3)에 대한 내용을 포함.

研 究 内 容 (구체적이고 자세하게)

중국 주택시장의 제도적 요인 분석 정책시사점 도출

- 1장, 2장의 주요 결과 및 시사점 정리 (1장, 2장에 대한 별도 계획서 참조)
- 중국 도시화추세의 비교·분석: 중국의 도시화 추세를 지역별로 분석하고 전망하며, 한국 등 관련 외국의 경험과 비교하여 그 차이점 및 유사점을 정리 (호구제도 등 관련 정책에 대한 분석 포함)
- 중앙 및 지방 정부의 역할분담에 대한 연구: 토지 및 주택공급 (공공임대 포함) 시스템, 부동산세제, SOC 공급 등 주요 부동산 정책에 있어서 중앙정부 및 지방정부의 역할을 분석하고, 국제비교를 통하여 정책시사점 도출
- 분석 대상이 되는 주요 제도적 요인으로 중앙-지방정부에 의한 ‘보장형주택’의 대량 공급 정책, 공급지방정부의 토지 수용 및 사용권 판매 제도 (지방정부-건설업자-소비자 간의 형평성 및 이윤 공유 문제 포함), ‘호구제도’ 및 이원화 된 토지소유시스템(농촌 지역의 집체소유와 도시 지역의 국가소유) 등
- 부동산금융 제도의 분석: 중국의 주택금융 및 부동산개발금융의 현황 및 문제점을 정리하고 (상품, 자금조달, 리스크 관리, 규제 측면에서), 국제비교를 통하여 주거복지와 주택시장 안정의 두 가지 정책목표를 고려한 정책 방향 및 과제에 대하여 정리
- 미국·유럽·동아시아 국가와의 비교·분석 및 시사점 도출 (공급제도, 주택금융 등)

연구 방법

- 1장, 2장의 분석을 위해 취합된 중국의 1선, 2선 도시 주택시장에 대한 자료를 이용한 실증분석 및 제도적 요인에 대한 비교·분석
- 관련 문헌의 정리 및 정책시사점 연구

연구기간 및 진행 「스케줄」

(研究開始, 資料蒐集, 中間點檢, 最終報告 豫定 등)

2012.04	계약체결 및 착수Data compiling and accessing
2012.08	중간보고 (중국 연구진과 공동으로)
2012.09	최종보고서 초안 제출
2012.10	레퍼리 리뷰 및 최종보고서 제출

참여 연구진 (3 장)

- 조만, KDI국제정책대학원
- 김경환, 서강대학교