



Real Estate Brokerage Research in the New Millennium

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簡報大綱

- 介紹美國自1999年後的房屋經紀仲介業
- 探討包括
 - 1) Efficiencies in brokerage operations
 - 2) Technology
 - 3) Performance
 - 4) Agency relationships

2000前的研究

- 經紀仲介業的需求出現在市場缺乏資訊和專業知識的情況下
- 仲介業較少出現規模經濟
- 仲介業的收入和從業人員的個人屬性呈正相關，eg. 資歷、學歷和工時
- 仲介市場的結構會因市場對新科技(new technology)的需求而變動



2000後的研究

Brokerage Firm Characteristics and Franchising(1/2)

- 女性的加入和稀有客層使得仲介業更形多樣化
- 銀行業的加入
- 加盟營業 vs. 非加盟營業
- 選擇仲介業的決策

延續前十年的研究

1. 委託仲介業是否比較有效率
2. 仲介業道德問題
3. 市場劃分和經營策略的問題
4. 規模經濟的問題



Brokerage Firm Characteristics and Franchising(2/2)

- 加盟店(franchise firm)較非加盟店家有經濟效率
- 二戰後女性大量加入仲介從業，並且同時期中產階級住宅自有大量擴張
- 口耳相傳仍是仲介業主要的顧客來源



Brokerage Commissions and Compensation(1/5)

**Exhibit 2
Broker Commissions and Compensation**

Author(s)	Title	Source	Citations	Summary of Results
Epley (2001)	U.S. Real Estate Agent Income and Commercial/ Investment Activities	<i>Journal of Real Estate Research</i> , 21:3, 221-44.	1	<ul style="list-style-type: none"> Examines income characteristics of real estate agents who elect to participate in commercial and investment activities. Uses a survey of real estate agents to estimate a canonical correlation model that shows the determining characteristics include male gender, not a minority, holding a broker's license, and experience. Characteristics that are not significant include age, managing one's own assets, firm ownership, realtor designation, and professional designations.
Munneke & Yavas (2001)	Incentives and Performance in Real Estate Brokerage	<i>Jou. Fina. Eco.</i>		<ul style="list-style-type: none"> The authors seek to compare the performance of full-commission agents with other agents. The paper hypothesizes that selling price and the property's TOM are equal for all agents at equilibrium. Differences in full- and partial-commission agents' performances are concluded to exist because of productive agents electing to be full-commission and pressure to perform as a full-commission agent.
Yavas (2001)	Impossibility of a Competitive Equilibrium in the Real Estate Brokerage Industry	<i>Journal of Real Estate Research</i> , 21:3, 187-200.	9	<ul style="list-style-type: none"> The article states that fixed brokerage costs prevent an equilibrium of competitive commission rates. Commission rate and entry decisions are endogenized, showing the impossibility of equilibrium. A simple finite period model is used to illustrate the decisions of entry/reentry and commission choices. The article concludes that the only pure strategy equilibrium involves charging the monopoly rate. A mixed strategy equilibrium is necessary to have competitive commission rates.

全傭金成數的仲介從業人員效率較高、壓力也較大

Brokerage Commissions and Compensation(2/5)

Exhibit 2 (continued)
Broker Commissions and Compensation

Author(s)	Title	Source	Citations	Summary of Results
Rutherford, Springer, & Yavas (2005)	Conflict Between Principals and Agents: Evidence from Residential Brokerage	<i>Journal of Financial Economics</i> , 76:3, 627-65.	42	<ul style="list-style-type: none"> ■ Using observations of Texan residential properties, the authors analyze the difference in TOM between an agent's personal properties and client's properties. ■ Agents' properties are found to sell no quicker than clients' properties. ■ Agents' properties are however found to sell at a higher premium than the properties of their clients. ■ The paper concludes that percentage commission systems induce agents to reduce their efforts for clients.
Levitt & Syverson (2005)	Market Distortions When Agents Are Better Informed: The Value of Information in Real Estate Transactions	11053.	1/a	<ul style="list-style-type: none"> ■ Uses a large data set of single-family homes where a portion is agent-owned to examine agency problems in agent-owned versus client-owned homes. ■ Uses a Herfindahl Index to measure heterogeneity of housing stock on a given city block. ■ The authors find that agent-owned properties sell at a price premium of 4%-5% and stay on the market longer.
Gardner, Heisler, Kallberg, & Liu (2007)	The Impact of Dual Agency	<i>Journal of Real Estate Finance and Economics</i> , 35:1, 39-	3	<ul style="list-style-type: none"> ■ Analyzes the effect of disclosed and un-disclosed dual agency, before and after legislation requiring dual agency disclosure. ■ Use MLS data from Honolulu and SUR modeling to estimate hedonic equations for price and TOM. ■ The authors find that dual agency reduced sales price but the effect was decreased after legislation took effect. ■ TOM was also reduced both before and after legislation went into effect.

比較仲介從業人員自身的物件和客戶的物件之銷售情況

Dual agency會使得成交價降低，但法規會使的情況改變

Brokerage Commissions and Compensation(3/5)

Exhibit 2 (continued)
Broker Commissions and Compensation

Author(s)	Title	Source	Citations	Summary of Results
Huang & Rutherford (2007)	Who you Going to Call? Performance of Realtors and Non-Realtors in a MLS Setting	<i>Journal of Real Estate Finance and Economics</i> , 35:1, 77-93.	4	<ul style="list-style-type: none"> ■ Examines the effect of Realtor versus Non-Realtor listings on selling price and TOM. ■ Uses MLS data from several counties in Texas and estimates duration, probit, and hedonic models. ■ The authors find that non-Realtor listings sell at lower prices, take longer to sell, and are less likely to sell than Realtor listings.
Miceli, Pancak, & Sirmans (2007)	Is the Compensation Model for Real Estate Brokers Obsolete?			<ul style="list-style-type: none"> ■ Asserts that the traditional method of real estate broker compensation being paid by the seller based on a percentage of the sales price is socially unproductive and creates substantial transactional inefficiencies for buyers and sellers. ■ Notes that the brokerage industry is resistant to changing the compensation method but proposes several alternative compensation structures, including: <ul style="list-style-type: none"> ● Eliminate property rights in, or ownership of, listings by brokers; ● Provide access to MLS listings by all sellers without requiring sellers to enter into an agency relationship with a broker; ● Allow buyers and sellers to negotiate broker fees during the bargaining stage.
Rutherford, Springer, & Yavas (2007)	Evidence of Informational Asymmetries in the Market for Residential Condominiums	<i>Journal of Real Estate Finance and Economics</i> , 35:1, 23-38.	5	<ul style="list-style-type: none"> ■ Uses a large sample of condominium transactions to examine whether agency problems exist in the condo market relative to agent-owned versus client-owned condos. ■ Using MLS data from a large metropolitan area, the authors estimate GLS and probit models. ■ The authors find evidence of a 3%-7% price premium for agent-owned homes but that they have longer marketing time.

Non-realtor成交價較低，也賣較久，較realtor相比也更難賣出

Brokerage Commissions and Compensation(4/5)

Exhibit 2 (continued)
Broker Commissions and Compensation

Author(s)	Title	Source	Citations	Summary of Results
Salter, Johnson, & Webb (2007)	Theory of the Real Estate Brokerage Firm: A Portfolio Approach	<i>Journal of Real Estate Portfolio Management</i> , 13:2, 129-38.	0	<ul style="list-style-type: none"> ■ The authors construct a model real estate brokerage firm, and apply the Markowitz portfolio optimization theory to determine the optimal combination of 100% agents (agents that earn full commission in exchange for a set payment to the firm, which are relatively less risky) and split agents (which are riskier assets as they split commission with the firm). ■ The paper demonstrates that a real estate brokerage firm would likely need to retain over half of its assets as 100% agents. ■ The article concludes by giving a practical explanation for diversification of agents and the synergies that 100% and split agents create when working for a common real estate brokerage firm.
Barker (2008)	Ethics and Lobbying: The Case of Real Estate Brokerage	<i>Journal of Business Ethics</i> , 80:1, 23-35.	4	<ul style="list-style-type: none"> ■ Examines whether the real estate brokerage profession benefits from limiting entry via licensing and educational requirements. ■ Finds that requiring real estate brokers to meet minimum and periodic educational standards raise average commissions by one quarter of a percentage point, which ultimately results in an additional cost to consumers of \$5.4 billion per year.
Johnson, Zumpano, & Anderson (2008)	Intra-firm Real Estate Brokerage Compensation Choices and Agent Performance	<i>Journal of Real Estate Finance</i>	0	<ul style="list-style-type: none"> ■ The authors determine the effects that full-commission agents and split-commission agents have on selling price and TOM. ■ The relationship between agent incentive and agent performance is measured using hedonic pricing and duration models. ■ Full-commission agents are concluded to maximize selling price and minimize TOM compared to split-commission agents. ■ Discrepancies with previous research are discussed and explained.

全成數傭金仲介人員會將售價極大化、銷售時間極小化

Brokerage Commissions and Compensation(5/5)

Exhibit 2 (continued)
Broker Commissions and Compensation

Author(s)	Title	Source	Citations	Summary of Results
Schnare & Kulick (2009)	Do Real Estate Agents Compete on Price? Evidence from Seven Metropolitan Areas, in <i>Housing Markets and the Economy: Risk, Regulation and Policy</i>	<i>Essays in Honor of Karl E. Case</i> , Editors: Edward L. Glaeser and John M. Quigley, Cambridge, MA: Lincoln Institute of Land Policy, 308-47.	n/a	<ul style="list-style-type: none"> ■ Examines variations in buy-side commission rates within real estate markets, across markets, and overtime to determine the extent to which commission rates are consistent with price competition. ■ Argues that price competition among agents should produce declining commission rates, an inverse relationship between commission rates and the strength of the housing market, and a positive relationship between commission rates and agent experience. ■ Uses MLS data for seven metropolitan areas from 2000 through mid-2007 to estimate a series of multiple regression models with buy-side commission rates as the dependent variable; the independent variables include both supply and demand side variables such as list price, number of transactions, number of agents, and limited-service listing agents. ■ Regression results suggest that commission rates are market-drive and contradict the notion that commissions are "fixed."
Zumpano, Johnson, & Anderson (2009)	Determinants of Real Estate Agent Compensation Choice	<i>Journal of Housing Research</i> , 18:2, 195-207.	n/a	<ul style="list-style-type: none"> ■ Examines factors affecting agent's decision to choose 100% versus the more traditional split-commission agreement. ■ Estimates a probit model of agent compensation choice using NAR 2001 Membership Survey data. ■ Results show that those preferring 100% commission agreements tend to be younger, male agents with more experience and significant past income. ■ Finds that the length of time at current employment, number of hours worked, and education does not affect commission agreement decision.

Brokerage Products and Services(1/3)

Exhibit 3
Real Estate Brokerage Products and Services

Author(s)	Title	Source	Citations	Summary of Results
Isakson & Spencer (2000)	Total Quality Management and Residential Real Estate Agency Issues	<i>Journal of Real Estate Research</i> , 20:1-2, 179-88.	2	<ul style="list-style-type: none"> ■ The article analyzes Total Quality Management (TQM) principles in real estate brokerage. ■ Customer focus is concluded to be the most important aspect of TQM, which raises a challenge in residential brokerage. ■ Customer focus is best facilitated by an agency specialization approach, in which firms specialize in the representation of either buyers or sellers. ■ Other approaches (consensual dual agency, facilitator, and firewall) were concluded to not be as efficient under the TQM principles.
Miceli, Pancak, & Sirmans (2000)	Restructuring Agency Relationship in the Real Estate Brokerage Industry: An Economic Analysis	<i>Journal of Real Estate Research</i> , 20:1/2, 31-47.	11	<ul style="list-style-type: none"> ■ Examines agency relationships between real estate brokers and residential clients. ■ Bundling property and owner information and representation services by brokers results in a tradeoff between the benefits to buyers/sellers in sharing information, but a cost to them when too much information is revealed during negotiations. ■ Suggests that effective agency reform measures should focus on unbundling the matching and information functions.

Customer focus and dual agency

仲介公司重組應把重點放在資訊和需求的配對上

Brokerage Products and Services(2/3)

Exhibit 3 (continued)
Real Estate Brokerage Products and Services

Author(s)	Title	Source	Citations	Summary of Results
Seiler, Webb, & Whipple (2000)	Assessment of Real Estate Brokerage Service Quality with a Practicing Professional's Instrument	<i>Journal of Real Estate Research</i> , 20:1/2, 105-17.	13	<ul style="list-style-type: none"> ■ Using a service quality survey, the authors use a Linear Structural Relations model to determine the aspects of service quality that influence clients of real estate brokerage firms to reuse and recommend the firm's services in the future. ■ Results link two exogenous aspects of service quality (designated "agent characteristics" and "tangibles") with three customer satisfaction measures ("overall service quality," "Future Use," and "Recommend to others"). ■ Concludes that an empirical link exists between the characteristics of a real estate firm and the likelihood of a client using the firm again or recommending it in the future.
Sirmans & Macpherson (2001)	Affinity Programs and the Real Estate Brokerage Industry	<i>Journal of Real Estate Research</i> , 22:3, 337-51.	1	<ul style="list-style-type: none"> ■ The authors use a mail survey of Floridian real estate brokers to gauge their involvement in affinity and referral/relocation networks. ■ Affinity affiliation is concluded to positively affect income. ■ A probit model is used to test characteristics of those firms that participate in affinity programs. ■ Larger and more widely spread firms are concluded to be more likely to utilize affinity programs.
Benjamin, Chinloy, Jud, & Winkler (2008)	Profitability through Product Expansion: Does It Work in the Real Estate Brokerage Industry?	<i>Journal of Real Estate Practice and Education</i> , 11:1, 1-14.	n/a	<ul style="list-style-type: none"> ■ A two-stage model is used to examine product expansion in brokerage. ■ Product expansion is concluded to positively impact revenues and profit. ■ Inspection financial, legal, physical services are concluded to directly contribute to gains in revenues and profits.

仲介公司的特徵和顧客回頭率有相關

而大公司更具備這種特性

Brokerage Products and Services(3/3)

Exhibit 3 (continued)
Real Estate Brokerage Products and Services

Author(s)	Title	Source	Citations	Summary of Results
Seiler, Seiler, Winkler, Newell, & Webb (2008)	Service Quality Dimensions in Residential Real Estate Brokerage	<i>Journal of Housing Research</i> , 17:2, 101-18.	n/a	<ul style="list-style-type: none"> Examines service quality in real estate brokerage in the context of changes in technology, licensing laws, and agency reform over the last decade. Uses a survey of Ohio home buyers (instead of sellers) since, as part of the community, the buyer is more likely to provide referrals for brokers. Estimates a model that includes measures of both perceptions and expectations. Results show that a real estate agent's reliability, responsiveness to customers' needs, and empathy with customers are the most important dimensions in measuring overall service quality. Overall service quality and especially empathy are shown to be a major factor in both reusing the agent and referring the agent to others.
Wiley & Zumpano (2008)	The Real Estate Brokerage Market and the Decision to Disclose Property Condition Defects	<i>Real Estate Economics</i> , 36:4, 693-716.	0	<ul style="list-style-type: none"> The authors implement a theoretical model and comparative statics to model the decision to disclose property defects. Comparative static results describe several explanations for disclosure, including the cost of repair, commission rates, and the legal environment of the selling area. The paper concludes that disclosure is obviously assured when a defect's repair cost is lower than anticipated. When the repair costs are higher than market average, disclosure may be affected by the legal environment, commission rates, and market conditions.

仲介公司的可靠程度、和顧客同理心是吸引顧客回鍋的主因



當住宅缺陷的修復成本低於預期時，該項缺失便會被揭露



The Effect of Brokerage on House Price and TOM

- 仲介的使用可減少買方的搜尋時間
- 對低價值住宅而言，較高的傭金能使成交價提高
- 獨家(exclusive agency)販售的物件能賣得較快，但售價較低
- 異質性住宅地區的仲介收益較高
- 仲介持有物件較非仲介持有物件賣得較慢但利潤較高(agent owned&client owned)
- 仲介經手物件較未仲介物件賣得快且利潤高(realtor&non-realtor)



Technology and Real Estate Brokerage

- 新科技的使用能加速交易時程及減少部分成本
- 網路能增加仲介商機
- 由仲介公司的網路流量可預期其成交時間(反比)和傭金(正比)
- 網路能減少搜尋成本，但非搜尋時間



Efficiency and Productivity in Real Estate Brokerage(1/2)

- 討論仲介業的X效率(x-efficiency)、規模經濟(economics of scale)和範圍經濟(economics of scope)
- 成立較久的仲介公司較能達到經濟效率
- 仲介業在競爭環境中較能達到經濟效率
- 仲介業的存在是因為資訊的缺乏
- 銀行加入仲介業能導入更多利潤，但亦有持相反想法者(Gramm-Leach-Bliley Act of 1999)



Efficiency and Productivity in Real Estate Brokerage(2/2)

- 當小規模銀行和小規模仲介公司合作時，才會減少邊際成本
- 對仲介的需求增加將會提高傭金成數，但卻會被不斷新增的仲介公司所抵銷
- 仲介人員的教育程度與傭金成正比



結論

- Real Estate brokerage仍是重要的研究議題，內容包括franchising、commissions and compensation(各類比較)、products and services(顧客滿意度)、TOM、brokerage firm efficiency等等
- 未來更有趣的研究議題包括仲介業的規範制度和市場環境、dual agency的效率、銀行業的加入等等

