





Inter-Firm Contracts: Evidence

Written for Handbook of Organizational Economics
(Bob Gibbons and John Roberts eds.)

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Inter-Firm Contracts: Evidence

Two main goals beside taking stock:

Highlight areas for future work; along the way, show industries/data

Bring empirical literature on vertical restraints into org econ literature

Here – also think about Antitrust Implications





Organization of this Talk

1. Types and terms of common contracts
2. Theoretical frameworks – super briefly
3. Methods – super briefly
4. Summary of results on some contracts/clauses
5. Conclusion





Introduction: Common Contracts/Clauses

Vertical restraints: contract clauses that restrict the behavior of one party

Often imposed by upstream on the downstream party

Most studied: Resale price maintenance (RPM), Exclusive dealing (ED), Exclusive territories (ET), Tying

Can be viewed as clauses allocating decision rights

Also correspond to partial or contractual vertical integration

=> Vertical integration/merger (VI) as benchmark



Introduction – Why study franchising?

First, because of its economic importance

The U.S. Census reports franchise businesses accounted for 10.5 percent of businesses with paid employees in the 295 industries for which franchising data were collected in 2007

= 453,326 establishments either franchisee or franchisor-owned businesses

accounts for nearly \$1.3 trillion of the \$7.7 trillion in total sales for these industries and employs 7.9 million workers



Introduction – Why study franchising

Second, franchising is an exemplar of long-term, contract-based, organizational forms that stand in between spot market interactions and complete vertical integration

Caves and Murphy (1976) : "The franchise relationship raises fundamental questions concerning the nature of the firm and the extent of its integration."



Introduction – Why study franchising

Third, one can get data on many aspects of contracts and organizational decisions:

Most chains have both franchised and company owned units;

=> Can ask what determines the mix or how they choose which outlets to franchise or not

Can get information on contract terms (because uniform offering at a point in time!)

=> Can ask what affects the choice of contract terms

When "lucky," can compare performance outcomes too (e.g. Lafontaine and Sivadasan, 2009, Kosova and Lafontaine, 2010)



But What is in a Franchise Contract?

Udell (1972)

Input purchases: Equipment, may or must, 66%;
Supplies, may or must, 52%; Vendor approval, 50%

Monitoring: Franchisor right (obligation) to inspect, 71% (13%); to audit books, 44%; periodic reports by franchisee, 76%; must use franchisor's bookkeeping system, 58%; specified penalties for violations, 20%

Vertical Restraints: Franchisor controls price, 28%
(Otteiaontarisor controls 54o5 28%)



But What is in a Franchise Contract?

Udell (1972)

Operations:

Standards, 64%;

Cleanliness, 72%;

Operation manual part of contract, 43%;

Franchisors sets: days, 58%, hours, 57%, product line, 60%;

Franchisee must operate, full time, 13%

Franchisee cannot own competing business, 27.5%



But What is in a Franchise Contract?

Udell (1972)

Sale/transfer rights: Franchisor approval required, 74%; Franchisor right of first refusal, 32%; Right of inheritance, 33%

Duration/Termination: Duration: 10-20 years; Option to renew, 54%; Conditions for termination, 98%; Conditions for immediate cancellation, 42%; Grace period, 69%; Non-compete years, 56%; Non-compete distance, 49%



But What is in a Franchise Contract?

Arruñada, Garicano, Vázquez (2001) (Spain)

Operations: Manufacturer sets:

sales targets, 100%

number of trial vehicles, 52%,

inventory levels, 100%

advertising requirements, 100%,

has right to set personnel, number and qualifications,
100%;

training, for salesforce, 65%, for after sales personnel,
100%;

manufacturer can specify stock of spare parts, 100%



But What is in a Franchise Contract?

Arruñada, Garicano, Vázquez (2001) (Spain)

Sale/transfer rights: Changes in ownership of dealership can lead to termination if not authorized, 100%

Duration/Termination: Contract specifies conditions for termination, 100%



But What is in a Franchise Contract?

If get impression that the contracts are long and detailed, I have done my job

In fact, in business-format franchising, contracts are often 20 to 30 pages of small typeset

And often include the operations manual by reference

And other inter-firm contracts are also detailed and long (see Lafontaine and Slade, 2013, Table 3)



Theoretical Frameworks

Agency Theory

Single-sided moral hazard (Stiglitz 1974)

Double-sided moral hazard (Reid, 1977)

Yields "share parameter" – effects on share can be tested directly (e.g. Lafontaine, 1992)

Also can be "reinterpreted" to explain the choice of share contract versus arms length and vertical integration (ordered "types" of contracts)



Theoretical Frameworks

Transaction Cost Theory

can be traced back to Coase (1937)

developed further by Williamson (1971, 1979, 1983), Klein et al (1978) and others

Empirical content provided in particular by Williamson: specific assets and contract incompleteness combine to yield potential issues of ex-post haggling and opportunism

The more severe these are, the more firms will rely on longer term contracts or integrate ultimately



Theoretical Frameworks

Property Rights Theory

also can be traced back to Coase (1937)

more recent and formal than transaction-costs arguments, developed by Grossman and Hart(1986), Hart and Moore (1990), Hart (1995)

demonstrated how the allocation of property rights, which confer the authority to make decisions on the use of assets under unforeseen contingencies, affect *ex ante* investment incentives



Theoretical Frameworks

Property Rights Theory (cont'd)

Empirically, was interpreted as more formal version of TCE

Whinston (2003) showed important differences

But Grossman and Hart (1986): as the importance of the manufacturer's investment (or effort) grows, manufacturer ownership becomes more likely

These predictions are consistent with those of double-sided moral hazard models in particular



Theoretical Frameworks

Self-enforcement

Third-party enforcement may be unavailable, or prohibitive

For private enforcement, the breaching party must face some future loss

Loss may be of future benefit from given relationship (relational), or in a group setting, where other parties participate in sanctioning

Empirically, authors have looked for evidence of rent, and effect of past or future expectations



Theoretical Frameworks

Market Power Arguments

Above are efficiency arguments for contracts and contract terms

Prior antitrust literature very wary of particular (vertical) restrictions

concerns – leveraging and foreclosure (and dealer cartels)



Theoretical Frameworks

Market Power Arguments

but vertical restraints, like other contracting practices, also can be explained using incentive/efficiency arguments

E.g. can solve double margins problem, reduce free-riding, encourage service provision or dealer investments, ...



Methods

Incidence – when are clauses or particular types of contracts used

Effects – what do these do to firm profits, survival, consumer prices, and so on

Central empirical issue: IDENTIFICATION

Due to omitted factors and thus endogenous selection, or endogenous matching, and so on





Some Evidence

Pricing contracts - Incidence

Large make-or-buy literature can be viewed as tests of incidence of pricing contracts versus VI

Shows that asset specificity increases the use of VI, but most studies do not consider explicitly the form of the pricing contract (form of the “buy” option)





Some Evidence

Flexibility and Adjustment Clauses - Incidence

The sort of flexibility that can be built into contracts includes adjustment clauses for price or quantity and clauses that make breach easier

Can take the form of a formula (redetermination) or a process (renegotiation)

Trade off flexibility, associated with renegotiation, and freedom from opportunism or "haggling costs," which favors redetermination

Crocker and Masten (1991) find that longer term contracts tend to include renegotiation clauses

Note : example where issue of complementarity



Some Evidence

Flexibility and Adjustment Clauses – Effects

Large literature on the most favored nation (MFN) clause, which guarantees buyers (sellers) the lowest (highest) price offered to others in a market

Most authors model the use of MFN clauses as practices that facilitate oligopolistic coordination

Crocker and Lyon (1994): MFN provisions facilitate efficient price adjustment in long-term contracts

They use data from natural gas contracts to distinguish empirically between these explanations and find support for the price adjustment argument



Some Evidence

Fixed Price v. Cost Plus – Incidence

Cost-plus contracts are more flexible : they adjust automatically to changed costs

Theory predicts they should prevail when

- i) projects are highly uncertain/not clearly defined
- ii) the technology is complex or untested
- iii) measuring costs is not problematic
- iv) quality is important but difficult to verify, and
- v) trading parties trust each other



Some Evidence

Fixed Price v. Cost Plus – Incidence

Evidence supporting these predictions found in

Leffler and Rucker (1991): private timber harvesting contracts

Banerjee and Duflo (2000): contracts for Indian customized software

Kalnins and Mayer (2004) and Shi and Susarla (2008): contracts for the provision of IT services

Corts and Singh (2004): contracts between oil companies and independent drilling contractors

Bajari, McMillan and Tadelis (2008): private sector construction contracts





Some Evidence

Share Contracts – Effects



Some Evidence

Share Contracts – Effects

Also need studies outside of franchising

One such : Mortimer (2008) analyzes the move from linear pricing to revenue sharing in video rental stores

Using structural model of firms' contracting choices, quantifies the benefit for upstream and downstream firms = 10% for popular, and more for less popular titles.

She also shows that small retailers benefit more from revenue sharing than larger retailers do, and consumers are better off too



Some Evidence

Vertical Restraints – Effects

Cooper et al. (2005) and Lafontaine and Slade (2008) reviewed the empirical literature on these

Both concluded that VR imposed by manufacturers on their resellers seem to be associated with lower costs, greater consumption, higher stock returns, and better chances of upstream firm survival

=> they are devices for aligning incentives, eliminating free riding, and controlling opportunistic behavior

little evidence of foreclosure or other anti-competitive effects

But – too few studies in too few industries!



Some Evidence

Vertical Restraints – Effects

The evidence also suggests that mandated restraints, such as the exclusive territories that car manufacturers are required to provide to their dealers in most states, and the mandated separation of production and distribution in beer, lead to higher prices, higher costs, shorter hours of operation, lower consumption, and fewer points of sale

Thus when put in place in response to dealer pressure, have a negative effect on manufacturers and consumers



Some Evidence

Control Rights Allocation: Lafontaine and Slade (2013), Table 3 describe many of the clauses that parties write in contracts

First shows much variety in clauses, as in contexts

Second, same issues are addressed repeatedly:

- Contract sets prices and sometimes quantities

- then limit the rights of the agent (licensee, franchisee, or supplier) explicitly to a time and place

- give the principal the capacity to monitor the behavior of the agent and terminate the contract at will or under certain conditions



Some Evidence

Complementarities

Formally, complementarities occur when the marginal profitability of one action (e.g., practice or contract clause) increases with the level of another

Noted early on: Goldberg and Erickson (1987) state that because many contractual provisions and organizational-form decisions are made simultaneously, they can interact, so empirical studies should strive to estimate decisions concerning the set of contractual provisions and organizational decisions together

Problem is that there are numerous contract terms to consider, so too many interaction terms, and data requirements are huge



Evidence – Incidence and Effects

Complementarities (cont'd)

Standard technique of including other contract terms on the RHS is not satisfactory

Does not allow for interactions in linear models, and the form of interaction is very inflexible in non-linear models

We view analyses of contract types, that group characteristics together, as a more promising avenue

This is fundamentally the comparative institutions approach emphasized by Williamson (1991, 1996)

In some sense, rely on lawyers and their templates...



Evidence – Incidence and Effects

Complementarities (cont'd)

Of course, not panacea – some issues require that we go more fine grained too

E.g. Ippolito finds that vertical restraints are used together (ED with ET) and Mathewson and Winter (1985) describe how combinations of VRs can achieve the vertically integrated outcome

=>Rules (or lack thereof) on VI and any VR affects decisions on use of other (complementary or substitute) VRs, and/or vertical integration decisions, in ways may not foresee/want, and affect effects as well



Conclusion

There is renewed interest in vertical restraints broadly defined, especially in Europe

Concerns about foreclosure due to exclusivity or tying, especially in “digital” markets

But effect of preventing mutually agreed upon contracts – not clear, even if may be exclusionary

See Jing and Mathewson (2013), on *Nielsen*:
contracts were struck down but nothing changed



Repeal of Rhode Island Fair Trade

1. The repeal of Rhode Island's fair-trade law did not lead to universal reductions in the retail prices of all products which had previously been fair traded. The prices of five of the nine product lines surveyed were virtually unaffected by the demise of the fair-trade law.

2. In three out of the four cases where retail prices did decline, the availability of that product to consumers was reduced significantly, usually by a decline in the average depth

(inventory) and width (selection) of the product line carried by

