

Settlement in Merger Cases: Remedies and Litigation

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Introduction

Topic

- Mergers' competition concerns generally solved through conditional approval
- "Negotiated restructuring" of mergers – out-of-court settlement?

	remedies	litigations
US	23% of cases in the 80s, over 60% nowadays (Parker & Balto 2000)	Nb of public challenges: 243 District court cases filed: 104 Won: 91 Lost: 3 (DoJ, 1998-2007)
EU	up to 75% of Phase II mergers (Duso et al. 2008)	CFI's appeals: 5 Lost: 5

Introduction

Objective

Examine the remedy negotiation between Competition Agency and merging firms (insiders) as (possibly out-of-court) settlement offer game with imperfect information on true competitive status of merger

Assess the impact of factors such as

- efficiency gains pass-on rate
- severity of court in case of litigation
- bargaining power of insiders in sale of divested assets

Introduction

Outline of results

- Preliminary:
 - equilibrium probability of approval (1)
 - equilibrium divestiture (2)
- Main:
impact on equilibrium of
 - efficiency pass-on rate : (1) \uparrow , (2) \downarrow
 - severity of court: (1) \uparrow , (2) ?
 - bargaining power of insiders in sale of divested assets: (1) \uparrow , (2) ?

Introduction

Related literature

- settlement and litigation with imperfect information
 - Bebchuk (1984)
- virtually none on the antitrust agency as a negotiator and litigator
 - hints: Farrell (2003), Lyons and Medvedev (2007)
 - empirical analysis: Coate and Klein (2004)
- mostly on
 - incentives provided: Fridolfsson and Stennek (2005), Seldeslachts et al. (2007)
 - impact of information asymmetry : Röller et al. (2001), Gonzalez (2003), Cosnita and Tropeano (2005)

Model

Benchmark – Assumptions

players (risk-neutral)	CA	and	insiders
pre-merger payoffs	2π		CS
post-merger payoffs	$\alpha \cdot (2\pi), \alpha > 1$		$\alpha \cdot \beta \cdot CS, 0 < \beta < 1$

- imperfect information on efficiency gains $\alpha : \alpha \in [1, \bar{\alpha}]$
- $\alpha\beta CS \geq < CS$
- conditional approval: insiders divest $\delta\pi, \delta \in [0, 1]$

post-divestiture payoffs	$\alpha \cdot (2\pi - \delta\pi)$		$(\alpha\beta + \delta - \delta^2/2) \cdot CS$
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Model

Benchmark – Timing of the game

- 0) Nature determines the level of efficiency gains pass-on rate, publicly observed
- 1) firms privately learn their efficiency gains α and submit a merger project
- 2) CA makes settlement offer (take-it-or-leave-it) – otherwise, status-quo maintained
- 3) firms accept – otherwise, status-quo maintained

Model

Benchmark – Results

➤ **Outcome of settlement offer** (divest δ) by the CA:

marginal type: $\tilde{\alpha}(\delta)$ s.t. $\alpha \cdot (2\pi - \delta\pi) = 2\pi$ (indifference condition)

$$1 \begin{array}{c} \text{refuse to settle/divest} \\ \text{probability } F(\tilde{\alpha}(\delta)) \end{array} \quad \begin{array}{c} | \\ \tilde{\alpha}(\delta) \end{array} \quad \begin{array}{c} \text{agree to settle/divest} \\ \text{probability } 1 - F(\tilde{\alpha}(\delta)) \end{array} \quad \bar{\alpha}$$

programme: $\max_{\delta \geq 0} F(\tilde{\alpha}(\delta))CS + (1 - F(\tilde{\alpha}(\delta)))CS \left(\delta - \frac{\delta^2}{2} + \beta E(\alpha \mid \alpha > \tilde{\alpha}(\delta)) \right)$

Model

Benchmark – Results

Equilibrium strikes balance in following trade-off:

$$(1 - \delta)[1 - F(\tilde{\alpha}(\delta))] = \frac{2f(\tilde{\alpha}(\delta))}{(2-\delta)^2} \left((\beta\tilde{\alpha}(\delta) - \frac{\delta^2}{2} + \delta) - 1 \right)$$

marginal impact
of δ on CS (+)

probability for
settlement offer
 δ to be
accepted

marginal benefit of δ

marginal effect of δ on the
probability to see the merger
abandoned
(settlement offer refused)

loss in consumers'
surplus when offer
rejected
(opportunity cost of
type II error)

marginal cost of δ

Model

Benchmark – Results

➤ **Opportunity** for the CA **to make settlement offers** (divestiture requests):

There exists a pass-on threshold rate $\underline{\beta}$ such that for $\beta \geq \underline{\beta}$, the CA will settle by requesting a divestiture $\delta \geq 0$.

For all $\beta < \underline{\beta}$, divestitures cannot «restore competition» ((weakly) improve CS), and therefore the CA would have to ban all mergers; thus, mergers are not submitted for such β .

Model

Benchmark – Results

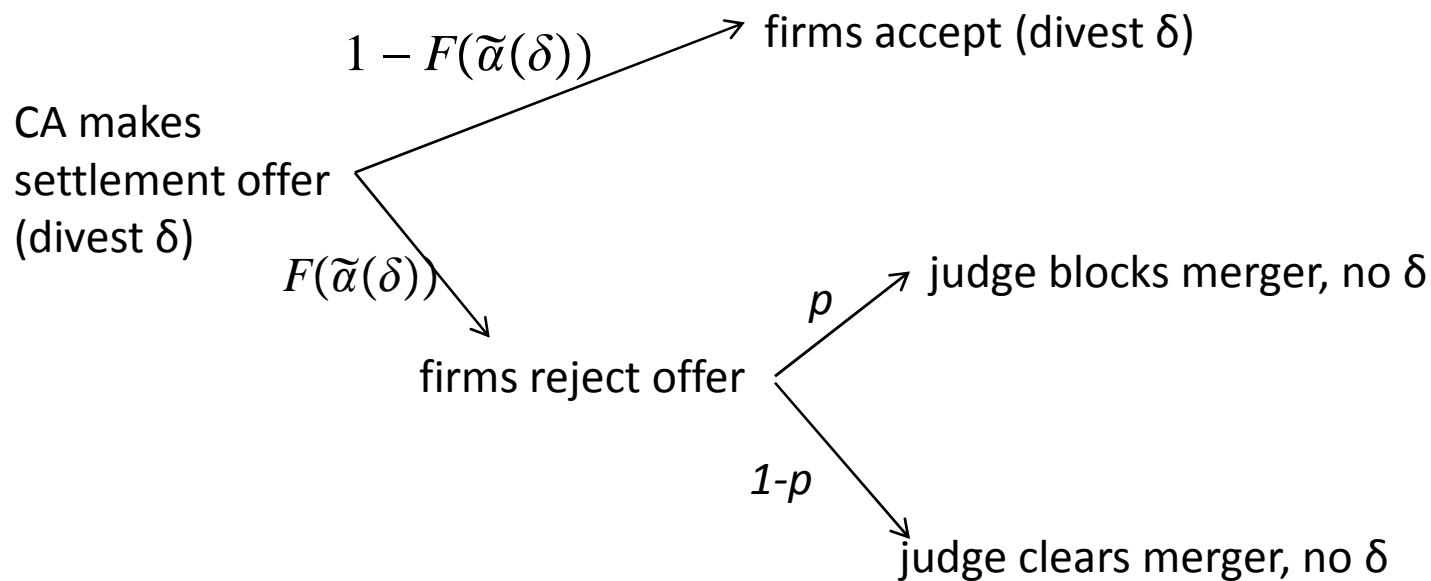
➤ Comparative statics (I)

$\beta \uparrow$ { \uparrow likelihood of settlement (\downarrow marginal type)
 \downarrow settlement offer (divestiture) δ

Model

Extension 1 – Settlement before court litigation

The trial changes the parties' outside option:



payoffs
$(\alpha\beta + \delta - \delta^2/2) \cdot CS$ $\alpha \cdot (2\pi - \delta\pi)$
CS 2π
$\alpha\beta \cdot CS$ $\alpha \cdot 2\pi$

Model

Extension 1 – Settlement before court litigation

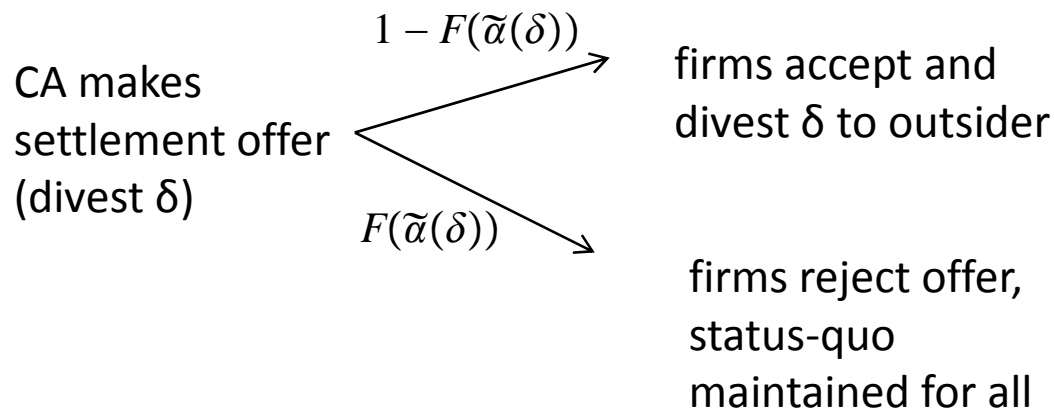
➤ Comparative statics (II)

$p \uparrow$ { \uparrow likelihood of settlement (\downarrow marginal type)
? settlement offer/divestiture δ

{ change in marginal type : indirect effect ($\downarrow \delta$)
for given marginal type : direct effect ($\uparrow \delta$)

Model

Extension 2 – Sale of divested assets and bargaining power



payoffs
$(\alpha\beta + \delta - \delta^2/2) \cdot CS$ $\alpha \cdot (2\pi - \delta\pi) + P(\gamma)$ $\pi + \delta\pi - \alpha\beta \cdot \delta\pi - P(\gamma)$
CS 2π π

P = sale price,
 γ = insiders' bargaining power

$$P(\gamma) = \gamma \cdot \text{Outsider's Willingness To Pay} = \gamma \cdot (1 - \alpha\beta) \delta\pi$$

> 0 iff anticompetitive merger ($\alpha\beta < 1$)

Model

Extension 2 – Sale of divested assets and bargaining power

➤ Comparative statics (III)

$\gamma \uparrow$ { \uparrow likelihood of settlement (\downarrow marginal type)
? settlement offer/divestiture δ

{ change in marginal type : indirect effect ($\downarrow \delta$)
for given marginal type : direct effect ($\uparrow \delta$)

Conclusion

➤ **Primary results:**

Conditional merger approval as settlement game with imperfect information

➤ **Comparative statics**

	Impact on probability of settlement (of conditional approval)	Impact on settlement offer
β	>0	<0
p	>0	?
δ	>0	?

Conclusion

➤ Testable predictions?

$\beta \rightarrow$ industry data and approval rate (US, EU)

$\rho \rightarrow$ data on court severity (US only)

$\gamma \rightarrow$ data on divestiture sale prices ? (US, EU)