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## Semicollusion

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*Outside North America:*

now Publishers Inc.  
PO Box 179  
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The preferred citation for this publication is F. Steen and L. Sørsgard, Semicollusion, Foundations and Trends<sup>®</sup> in Microeconomics, vol 5, no 3, pp 153–228, 2009

ISBN: 978-1-60198-334-3

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Foundations and Trends<sup>®</sup> in Microeconomics, 2009, Volume 5, 8 issues. ISSN paper version 1547-9846. ISSN online version 1547-9854. Also available as a combined paper and online subscription.

Foundations and Trends<sup>®</sup> in  
Microeconomics  
Vol. 5, No. 3 (2009) 153–228  
© 2010 F. Steen and L. Sørsgard  
DOI: 10.1561/07000000034



## Semicollusion\*

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### Abstract

The notion ‘semicollusion’ refers to situations where firms collude in one (or several) choice variable(s) and compete in others. For example, firms collude on prices and compete on advertising. Although the notion ‘semicollusion’ is not so often used explicitly, it turns out that the topic is covered extensively in the economic literature. Moreover, the phenomena ‘semicollusion’ seem to be present in numerous industries. The purpose of this survey is to explain how semicollusion works in theory, describe empirical studies of semicollusion, and discuss the possible welfare effects of semicollusion.

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\* We are indebted to an anonymous referee and Joseph E. Harrington, Jr. for their helpful comments on an earlier draft.

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# 1

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## Introduction

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Collusion and competition are well-known concepts in economic literature. A typical study would consider either the competitive outcome or the (stability of) the collusive outcome in an industry, and it might be undertaken a comparison between a competitive and a collusive outcome. But is this the only possible comparison? What about the possible combinations of competition and collusion in an industry? Could it be that firms collude, and at the same time compete? How could that work in theory? Do we observe some empirical evidence of such a mixture of competition and collusion, a market outcome we will characterize as semicollusion?

The notion “semicollusion” refers to situations where firms collude in one (or several) choice variable(s) and compete in others. For example, firms collude on prices and compete on advertising. Although the notion “semicollusion” is not so often used explicitly, it turns out that the topic is covered extensively in the economic literature. Moreover, the phenomena “semicollusion” seem to be present in numerous industries. The purpose of this survey is to explain how semicollusion works in theory, describe empirical studies of semicollusion, and discuss the possible welfare effects of semicollusion.



## 2 *Introduction*

The monograph will start with a section where we motivate for why semicollusion is an important topic. The concept will be defined, to distinguish between collusion and semicollusion. We give some examples of what we regard as semicollusive behavior in particular industries. Moreover, we also discuss the rules of the game and which choice variables we expect firms to collude on.

In the third section we will provide a framework for understanding the mechanism at work with semicollusion. In one strand of the literature it is assumed that firms collude on prices and compete on other choice variables such as advertising, capacities, or location. However, there is also another strand of the literature where firms compete on prices and collude along other dimensions. In particular, it is assumed that firms collude on R&D. We also discuss the possible outcome with semicollusion in industries with free entry.

In Section 4 we review the empirical literature on semicollusion. There are some old, anecdotal evidence of semicollusion. For example, Scherer and Ross (1990) refer to several events in various industries. We will briefly refer to some of these cases. However, in the main part of the section we concentrate on empirical studies of the effects of semicollusion. There are empirical studies that cover various types of collusion, for example collusion on prices or collusion on R&D, and we discuss empirical studies for those outcomes that were covered in Section 3.

In Section 5 we summarize our findings. We offer some general conclusions, and discuss some issues for future research.

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