

# Colluding Against Environmental Regulation

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## Abstract

We study collusion among firms against imperfectly monitored environmental regulation. Firms increase variable profits by violating regulation and reduce expected noncompliance penalties by violating jointly. We consider a case of three German automakers colluding to reduce the effectiveness of emission control technology. By estimating a structural model of the European automobile industry from 2007 to 2018, we find that the collusion lowers expected noncompliance penalties substantially and increases buyer and producer surplus. Welfare decreases by 0.78–4.44 billion euros because of increased pollution. We show how environmental policy design and antitrust play complementary roles in preventing noncompliance.

**Keywords:** collusion, regulation, pollution, automobile market, noncompliance

**JEL codes:** L4, L5, L6, Q5

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