



*Dynamic Models of Research and Development.*

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Are cartels really bad? Grega Smrkolj claims in his thesis that in technology industries they can well be beneficial. Cartels have larger incentives to engage in technology projects that call for high expenses in advance of production. Furthermore, cartels accelerate the speed with which new technologies enter production, and are more likely to continue investing in technologies with considerable costs of maintenance and low revenue potential. Consequently, cartels can bring about higher welfare than firms whose cooperation is strictly limited to research. These results challenge the current stance of competition authorities, treating price-fixing agreements as illegal per se.

In his thesis, Grega Smrkolj combines theory of industrial organization with bifurcation theory and numerical methods to develop a new, more complete theoretical framework for modeling process innovations. This framework makes it possible to study not only how different economic factors and economic policies affect R&D investments on existing markets, but also how they influence the formation of new markets. Besides revealing potential hidden opportunity costs of existing competition policies that prohibit cartel formation, the thesis also provides new insights into the R&D investment decisions of firms whose innovation efforts are subject to imitation - a phenomenon which is rising in importance with expanding globalization and advances in information systems.