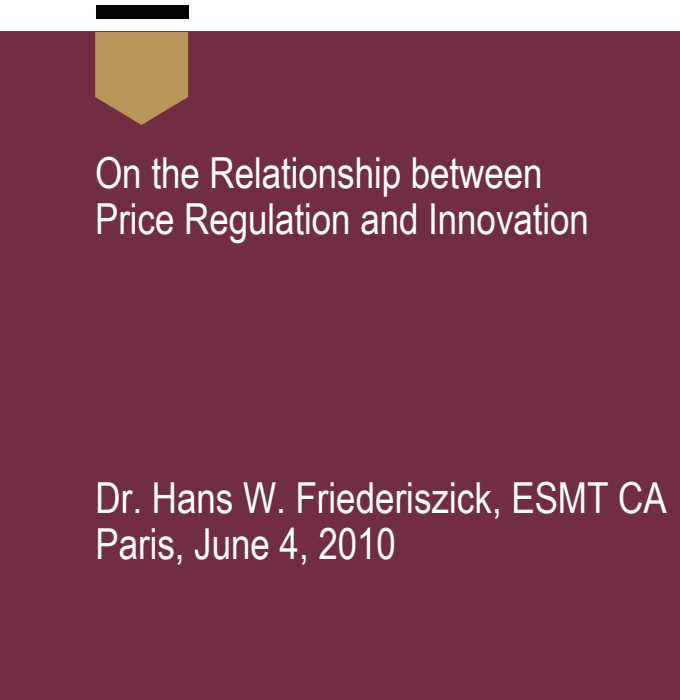


Competition and Intellectual Property Law



On the Relationship between
Price Regulation and Innovation

Dr. Hans W. Friederiszick, ESMT CA
Paris, June 4, 2010

Editorial note:
ESMT Competition Analysis
has been renamed to
E.CA Economics

Pharmaceutical Innovation and Pricing Regulation

- In the context of healthcare cost-containment efforts, pharmaceutical products are increasingly subject to strict pricing and reimbursement conditions in many European countries and likely the U.S.
- Relatively little attention has been paid to the (potentially adverse) consequences that pricing and reimbursement regulation may have on pharmaceutical innovation:
 - affects on the number and characteristics of drugs that will be launched in the market in the future?
 - Tension between the global nature of pharmaceutical innovation and the national nature of pricing regulation?
- In a recent study we evaluated the effect of pricing regulation on innovation in the pharmaceutical industry by performing policy experiments in the context of a simulation model
- See Friederiszick, H. W., Tosini, N., de Véricourt, F., and Wakeman, S. (2009). *An Economic Assessment of the Relationship between Price Regulation and Incentives to Innovate in the Pharmaceutical Industry*. ESMT White Paper No. WP-109-03.

Effect of price regulation on the value of a drug portfolio of a typical pharmaceutical firm (...after solving the model and calibrating)

- As a result of Internal Reference Pricing, the value of the selected portfolio moves from USD 24,808m under Market-Based Pricing to USD 21,912m - a drop of 11.7%
- As a result of External Price Benchmarking, the value of the selected portfolio moves from USD 24,808m under Market-Based Pricing to USD 23,389m - a drop of 5.7%
- As a result of Pricing Regulation, the value of the selected portfolio moves from USD 24,808m under Market-Based Pricing to USD 19,904m - a drop of 19.8%

Effect of pricing regulation on the number of drugs developed and launched

		Policy Scenario			
		Market-Based Pricing	Internal Reference Pricing (IRP)	External Price Benchmarking (EPB)	Pricing Regulation (both IRP and EPB)
Number of potential projects	Highly innovative	46			
	Total	74			
Number of projects developed	Highly innovative	32	30	29	26
	Total	54	49	51	45
Expected number of projects launched	Highly innovative	13.98	12.92	12.68	11.38
	Total	21.94	20.15	20.64	18.61

→ The expected number of highly innovative drugs launched under IRP and EPB declines by respectively 8% and 9%.

→ Under the combination of IRP and EPB, this decline is equal to 19%.

Example Pharmaceutical Industry: Conclusions

Policy conclusion

- Pricing and reimbursement regulation affects pharmaceutical innovation, by
 - Reducing the value of pharmaceutical projects and the resources available to carry them out
- The benefits of more affordable or cost-effective drugs must be traded against the costs of less pharmaceutical innovation
 - Fewer projects are developed in general
 - Different therapeutical areas will be developed

Thank you!

Hans W. Friederiszick
Managing Director, ESMT Competition Analysis

hans.friederiszick@esmt.org
+49 (0)30 21231 7010

ESMT Competition Analysis

Schlossplatz 1
10178 Berlin
Germany

Phone: +49 (0) 30 212 31-7009
Fax: +49 (0) 30 212 31-7099

CompetitionAnalysis@esmt.org
www.esmt.org