CIFREM SEMINARS

Do patents over-compensate innovators?

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Thursday 10 May 2007

4 PM Disa Seminar room

Facoltà di Economia- Via Inama, 5

This paper asks whether patents over-compensate innovators. I develop a simple and flexible model of the optimal strength of intellectual property protection and use what empirical evidence is available to calibrate the model. This provides benchmarks to evaluate whether the strength of patent protection is currently too high, too low, or is indeed optimal. The strength of protection is defined as the ratio between the discounted profits innovators actually obtain given the limits of patent protection and the discounted profits they would hypothetically obtain with complete, infinitely lived monopoly control over their inventions. In the calibration, the key parameter is the elasticity of the number of innovations with respect to investment in research. This elasticity has been estimated in several empirical studies: most estimates cluster between .5 and .7. In the baseline model of stand-alone innovations, it turns out that the strength of protection should be equal to this elasticity. In reality, it seems quite unlikely that the representative patentee gets more than two thirds of the hypothetical profits he would get with complete, infinitely lived monopoly control over his invention. In fact, I argue that the representative patentee probably obtains less than a half of those profits. This suggests that the over-reward hypothesis is not supported by the data. Moving beyond the baseline model, I discuss a number of additional effects that influence the benchmark strength of protection. Some of these effects are difficult to assess empirically. However, even accounting for the additional effects, a preponderance of the evidence suggests that the representative patentee is not over-compensated.

Referente

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