

New Economic School  
Research Project for 2006-2007

**The knowledge economy: some microeconomic issues**

The project is concerned with different aspects of the knowledge economy. Although it may be difficult to define exactly what the knowledge economy is, it is clear that to prosper a modern economic system must rely on and create the conditions for the proliferation of knowledge. The project concerns both the general principles that govern creation and dissemination of knowledge, and the country-specific aspects relevant for Russia. Students are free to elaborate on one of the topics described below or come up with their own project with a related theme.

1. One aspect concerns the creation of basic knowledge (i.e. the domain of fundamental or basic science). What are the mechanisms that ensure the financing of basic research in the modern world? What is the scope for the private and public partnership in financing basic research?

These questions can be investigated at some general level, using microeconomic modeling and relying on the existent literature (see, for example, Dasgupta and David (1994), Scotchmer (2003)); however, more specific research (including conducting relevant case studies), taking into account the current Russian situation is also most welcome.

2. How should the incentives of researchers be structured, how financing should be allocated between projects? One of the problems that exist in Russia now is to create proper incentives for the research activity. One issue is to attract young talented people into the domain of scientific, in particular, basic research, and give them proper incentives to pursue a research career. However, given the high mobility of the young and well-educated, Russian science has to compete here both with the private sector and with the foreign research institutions. A related question concerns the provision of incentives to those who have chosen a research career (in particular, one has to take into account the difficulties related to the measurement of a researcher's output). Is there scope for tenure-track/tenure contracts that are widespread in the West (see e.g. Carmichael (1988), McPherson and Schapiro (1999))?

Also, research (as well as, say, education, art or medicine) is the domain where intrinsic incentives are highly significant. However, some recent research by both psychologists and economists (see, e.g., Bénabou and Tirole (2003, 2005), Fehr and Falk (2002), Frey (1997)) has shown that under some circumstances extrinsic (often, explicit monetary) incentives can crowd out intrinsic motivation. One has to take this effect into account when designing contracts for academics (also, taking into account the agents' intrinsic motivation when sorting them via employment contracts is important, see Besley and Ghatak (2005)).

3. An important aspect of the knowledge economy concerns the dissemination of information in the society. Presumably, for the effective functioning of such economy, for the creation of the environment supporting creativity and originality, the free circulation of information is crucial. On the other hand, many sociological surveys indicate that the majority of people in the Russian society value the freedom of speech much less than material well-being or security. Does this mean that Russia is far from state of a modern knowledge economy and is unlikely to reach it soon? More generally, what drives the demand for the free dissemination information – why the freedom of speech proliferates in some countries and is more or less restrained in others?<sup>1</sup> (This question is somewhat outside of the scope of issues traditionally investigated within the framework of knowledge economy, but it is intimately related to them.)

Some recent papers investigate various supply-side aspects: for example, Baron (2006) shows that journalists' career concerns, that drive them to publish extreme news, may result in persistent media bias; Besley and Prat (2005) show that information unfavorable to some strong interest groups can be suppressed via media capture, etc. Mulainathan and Shleifer (2005) show that a confirmation bias in the readers' preferences with respect to information (which makes them happier if the news confirms their private beliefs rather than when it dissents with them) results in the biased news being communicated by competing media firms. Some further research, in particular, investigating when the "confirmation bias" emerges on the aggregate level, would be interesting to pursue.

4. Another topic could be to study the optimal level (and the optimal mechanisms) of intellectual property protection in environments with

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<sup>1</sup>Note, that more precise public information is not always good for the society – see, for example, Morris and Shin (2002).

imperfect judicial systems, which are often immanent to transition economies. Given that courts are imperfect, is it better to have tighter rules for intellectual property protection or is it better to leave more scope for private contracting?

### Selected References

- Baron D. (2006) "Persistent Media Bias", *Journal of Public Economics*, Vol. 90, Issue 1/2, pp.1-36.
- Bénabou R. and J. Tirole (2003) "Intrinsic and Extrinsic Motivation", *Review of Economic Studies*, 70(3), 489-520.
- Bénabou R. and J. Tirole (2005) "Incentives and Prosocial Behavior", *American Economic review*, forthcoming.
- Besley T. and M. Ghatak (2005) "Competition and Incentives with Motivated Agents", *American Economic review*, forthcoming.
- Besley T. and A. Prat (2005) "Handcuffs for the Grabbing Hand?: Media Capture and Government Accountability", *American Economic review*, forthcoming.
- Carmichael (1988) "Incentives in Academics: Why Is There Tenure?", *Journal of Political Economy*, 96(3), 453-472.
- Dasgupta P. and P. David (1994) "Towards a New Economics of Science", *Research Policy* 23, 487-521.
- David P. and D. Foray (2001) "Economic Fundamentals of the Knowledge Society", *Policy Futures In Education* (an E-journal).
- Fehr and Falk (2002) "Psychological Foundations of Incentives", *European Economic Review*, 46: 687-724.
- Frey, B. (1997) *Not Just For The Money - An Economic Theory Of Personal Motivation*, Edward Elgar, Cheltenham.
- McPherson M. and M. Schapiro (1999) "Tenure Issues in Higher Education", *Journal of Economic Perspectives*, Vol. 13, No. 1, pp. 85-98
- Morris S. and H. Shin (2002) "Social Value of Public Information", *American Economic Review*, December 2002.
- Mullainathan S. and A. Shleifer (2005) "The Market for News", *American Economic Review*, September, 2005.
- Scotchmer S. (2004) *Innovation and Incentives*, MIT Press.