

*Markets, Innovation and Experimental
economics – The Study of new
Institutions to deal with new risks in
society*

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- What makes an investor happy?
- The liquid markets!
 - He can enter and exit to adjust his position.
- Markets provide an “institution” to *manage risk and uncertainty* for economic actors,
 - Not only in stocks but in all kinds of assets: Emission rights, electricity, transportation rights, pension rights and ... innovation (IP)

Changing borders: Private versus Public Institutions

- Presentation and discussion on the use of *private* institutions versus *public* institutions to manage risk and uncertainty in the economy
- *Markets*, a private institution, are explored with examples - several new areas are given
- The study of institutional design through *experimental economics* is discussed
- Ref. list of articles at the end

Agenda

- Organization of economic activity and formalized markets
- Two research examples
- Experimental economics

Organizing wealth creation in the economy

- Management of Risk and Uncertainty in business / economy – a *systemic* issue (no only bilateral issue): actors interact increasingly frequently (IT) and globally (deregulation) across many jurisdictions
 1. Trade (products/manufacturing processes), 5000y
 2. IT enables suppliers to control *processes* at the customer's end (services/processes: e-banking, supply chain management, etc.), 50y
 3. Opens the opportunity new institutions to organize this trade more effectively, allowing for further specialization and gains from trade, 20y

“Risk Management – from value chain to system”, *Geneva Papers on Insurance Issues and Practices*, July 2002, Ullberg, et.al.

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Two possible new areas

- How to organize this more “open” economy?
- Today personal exchange in many private/semi private assets – bilateral agreements
- But impersonal exchange is more efficient (leads to more rational behavior*) – markets can help here
- Examples:
 - Pensions / PROGRES 22nd/Geneva Association, Geneva
 - IP / Meredith Lectures / McGill, Canada
 - “Emission” / VALDOR 2004,6
- Also, biggest problems for business/economy: past pension debts and future valuable assets

* Experimental evidence through Smith’s work.

Business Perspective on markets

- Stealing not economically efficient
 - Arrow, 1962b–Public good, welfare and innovation
 - Hayek, 1937,1945, Economics and knowledge: Market are economizers of information
 - Ohlin, 1960, Trade between nations H-O theorem
 - Smith, 1962, Experimental economics
 - Bible, circa 1500 B.C. “Don’t steal” – property rights (an abstraction) established; markets in law

Markets do more than produce prices

- Markets give aggregate information, can produce competitive equilibrium prices, and are manageable institutions
- A way to deal with the organization is therefore to organize markets for these assets – representing risk and opportunity
- They should be independent from buyers / sellers – not “cash cows” for transaction fees
- Purpose: institutions for trade, specialization and economic growth

1. Tradable pensions to fund the economy

- Basic message: governments/companies underperforms at managing **your** long-term money
- By issuing tradable pension rights (a new asset class) a market can be created
- Defined contribution > defined benefit
- Governments can issue bonds to “pay for” this debt
- New instruments can be created/Securitization of pension insurances
- Money returned to productive investment

Future look – a case for pension markets

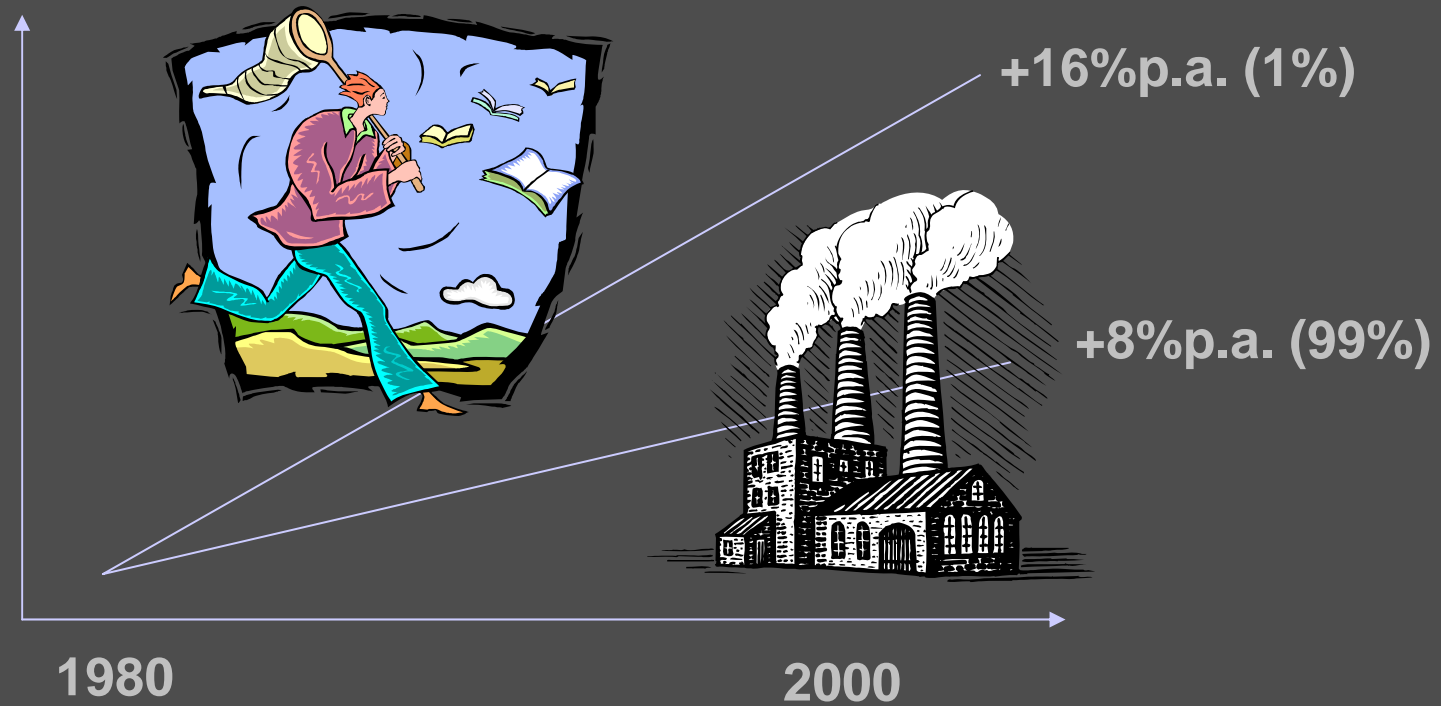
- Incentives for information
- Buyer side initiatives equally important
- A price can be defined
- A “signal” to sellers on value of rights
- These signals are important to direct future development – future investments – more efficient use of resources
- Liquidity of rights – getting in and out of risk positions.

Information, Markets and Regulators

- Regulators need complete information, but who will benefit from this information remains a political issue, and ... “governments are always wrong”
- Market participants don't need perfect information therefore who will benefit is a knowledge issue (Hayek; markets are economizers of information) and ... “markets are always right”
- Arrow's case for state insurance (=redistribution) was build on lack of markets in these rights not an “absolute”
- Markets do a better job in pricing risk – consumers have to be on the buying side not supplying side

2. IPR versus product/services trade

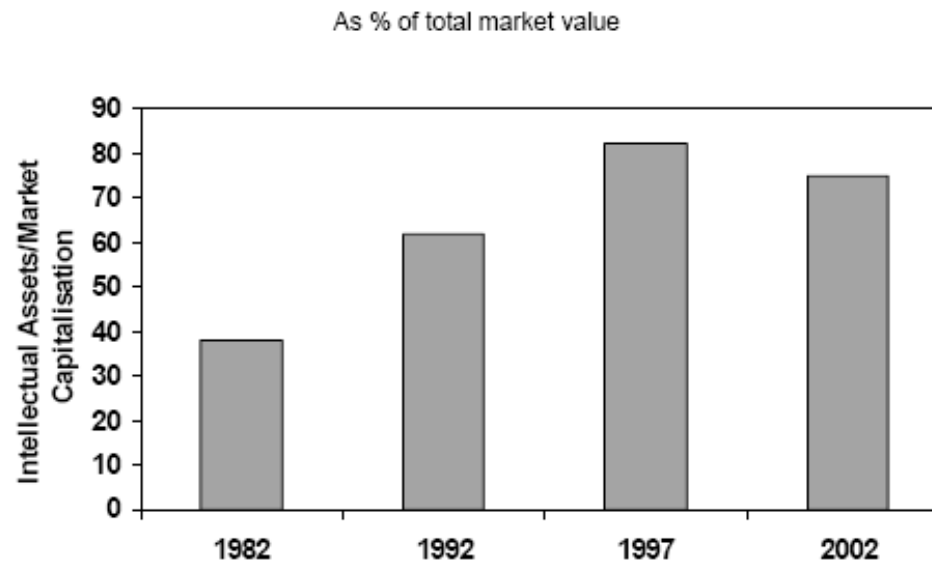
%, value



Example from Sweden. IMF have similar data.

IP and value (risk)

Figure 1. Estimated contribution of intellectual assets to market value of firms

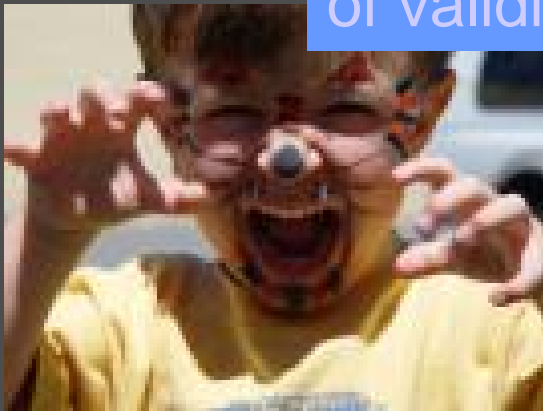


Source: Kaplan and Norton, 2004.

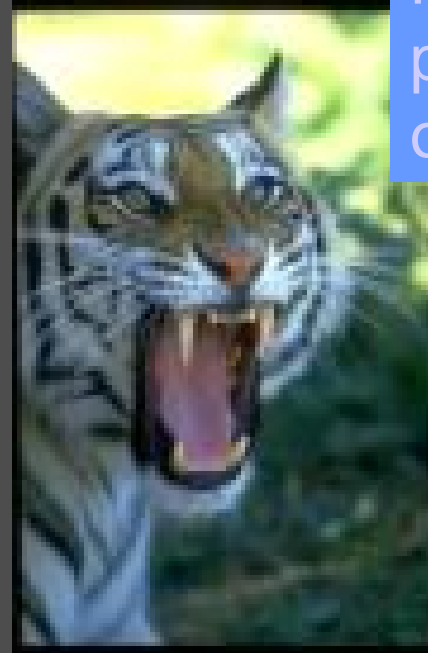
75% of
future
value?

”The patent should be real tigers...”

Low
presumption
of validity

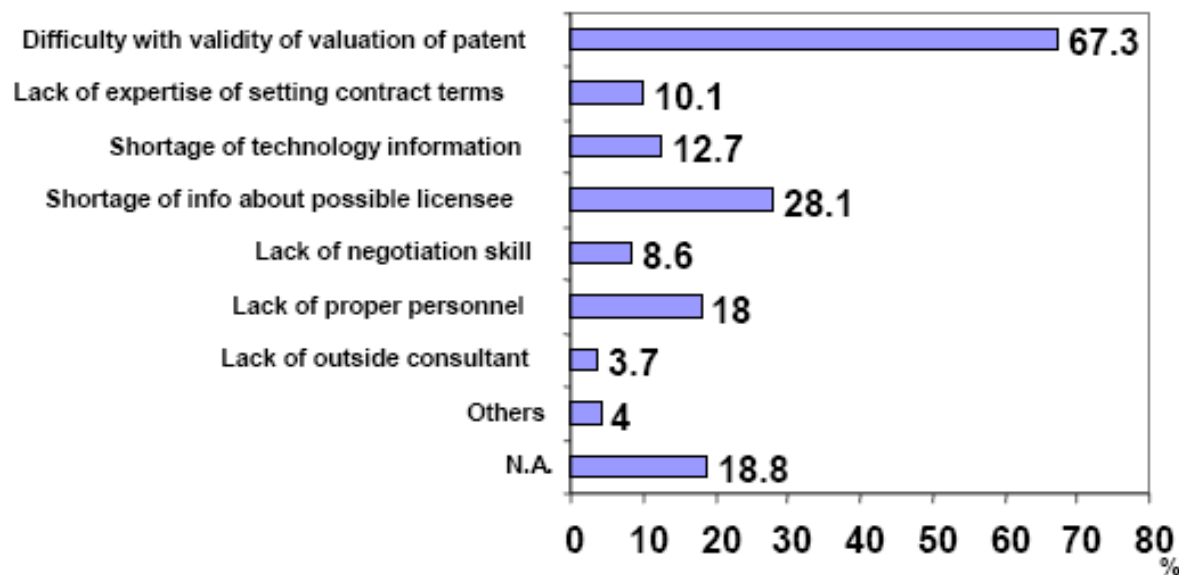


High
presumption
of validity



The #1 uncertainty in licensing

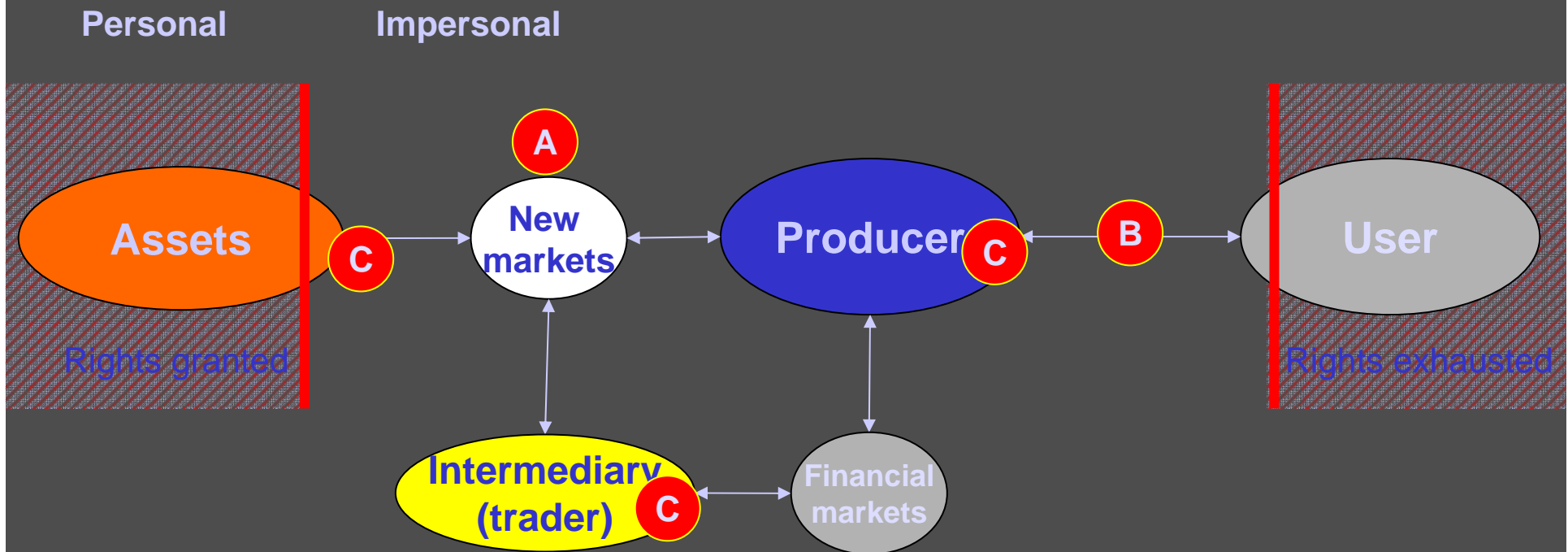
Figure 6. Issues for patent licensing



Can markets solve this?

Source: (JIII, 2003)

New transactions



Timeframes – four magnitudes of thinking

- Transactions – days (10^{-2})
 - IT – access to products/services/knowledge
- Institutions – 100 years (10^2)
 - Some still oppose stock markets to fund risky company activity for social/political reasons (some for reasons they are incapable of dealing with long term risks)
- Now you know why so much research on transactions – lot's of data is available

Experimental Economics Lab to study institutional issues

- Study what people *do*
- Experimental economics allows for the controlled study of markets, environments (rules for trading) and the behaviour of participants.
- Guess what? They don't do what you think!
- Are they right or “stupid”?
- Vary economic environment or institution
- Cash motivated subjects
- Prof. Smith pioneered field, Nobel Prize 2002

Areas of potential interest to Europe

- Pension system in Europe - Anticipate deregulation
- IP system in Europe
- Transportation pricing in Europe
- Emission rights in Europe
- US Experiences (Smith)
 - Electricity/Gas pipeline networks (distribution)
 - Emission rights trading in California (combinatorial)
- Future:
 - Use of land. Industrial use versus other use. Ex: Bid for (private) national parks instead of forestry? Prof Werner Schenkel, UBA Berlin: Not to destroy the earth!

Sum-up

- *Private institutions*, like formalized markets, may outperform public institutions in managing risk and uncertainty in the economy
- *Hayek hypothesis*: aggregates all information to participants in the market and gives benefit to the *participants*, not a *policy* decision who will benefit from that information.
- *Market experiments* in lab of institutions efficiency are an important tool in today's development of the economic and social system.

- Thank you!

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List of referenced articles

- “Risk Management – From portfolio strategy to value creating system strategy,” *Geneva Papers on Risk and Insurance – Issues and Practice*, July 2002, Ullberg et.al.
- “Anticipating the deregulation of the pension system in Europe – Risks and Meeting Future Needs”, *PROGRES Newsletter*, June 2006
- “World Trade in Intellectual Property – Managing Risk and Uncertainty in the Knowledge Economy”, *Meredith Memorial Lectures Series, McGill*, May 2006
- “IPRs, Trade and Experimental Economics”, *Know IP – Stockholm Network Monthly Bulletin on IPRS*, March 2006 Volume 2 Issue 2, p 4-6
- Also look at www.iku.se for more articles or mail directly eskil.ullberg@iku.se.