



Intellectual Capital for Communities in the Knowledge Economy Nations, Regions, Cities and Emerging Communities



WORLD BANK INSTITUTE
Promoting knowledge and learning for a better world

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- Fourth Edition -

TENSIONS BETWEEN GLOBAL AND LOCAL KNOWLEDGE

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- **Knowledge**
- **An intellectual property perspective on the global/local knowledge tensions**
 - **WIPO Development Agenda**
 - **Traditional Knowledge, Genetic Resources and Traditional Cultural Expressions**

- Indian rage over yoga patents
 - It seems that yoga is no longer a source of relaxation, with the Indian Government furious at efforts by Americans to patent the ancient practice.
- US denies yoga patents
 - The United States has denied granting patents and trademarks for the ancient Indian practice of yoga. “Recent media reports alleging that such patents exist are inaccurate,” the US embassy in New Delhi said in a statement.

Storm over Turmeric, Neem ...

- Indian government spent some \$6m over past ten years in fighting legal battles against the patenting of turmeric and neem-based medicines.
- Why such a visceral reaction? Why this tension?



Rudolph Ackerman, East India House, from *Microcosm of London* (1808)

“They steal our
TURMERIC, NEEM
and now our **YOGA**”

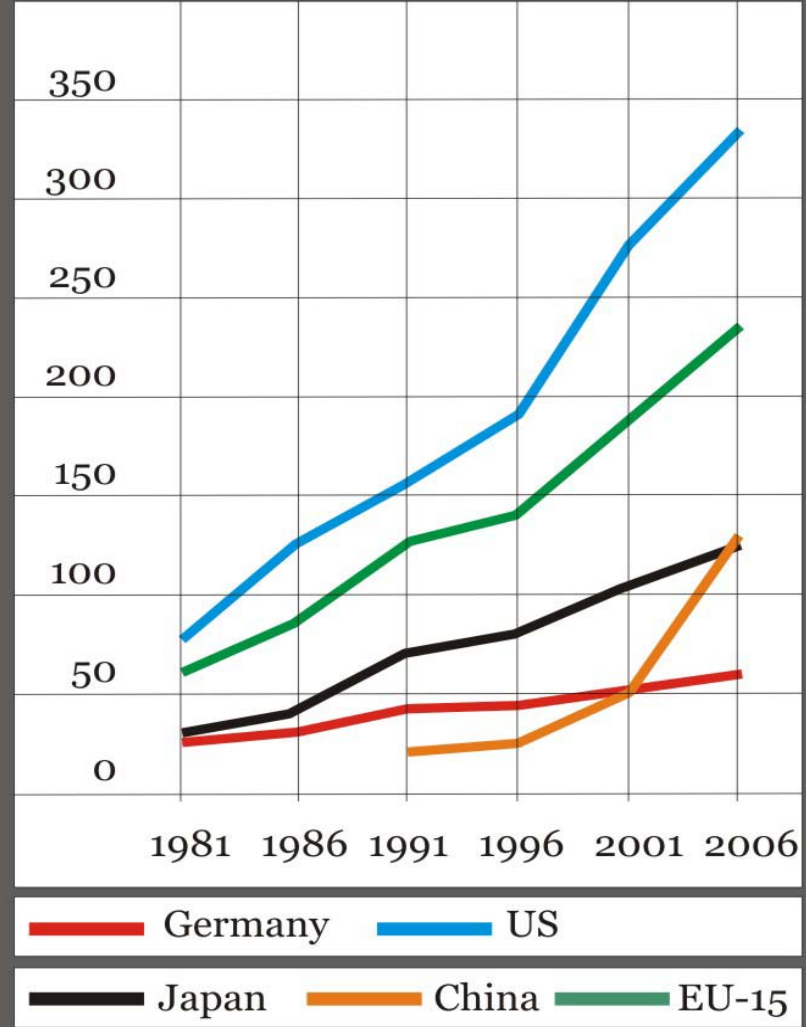
“They steal our
medicines, software,
films and music”

- **Knowledge has always been a source of power and prosperity**
- **In a knowledge-based economy**
 - **knowledge is seen as a critical factor of production & economic development (Teece, 2000)**
 - **a dominant source of competitive advantage for a firm (Drucker, 1995).**

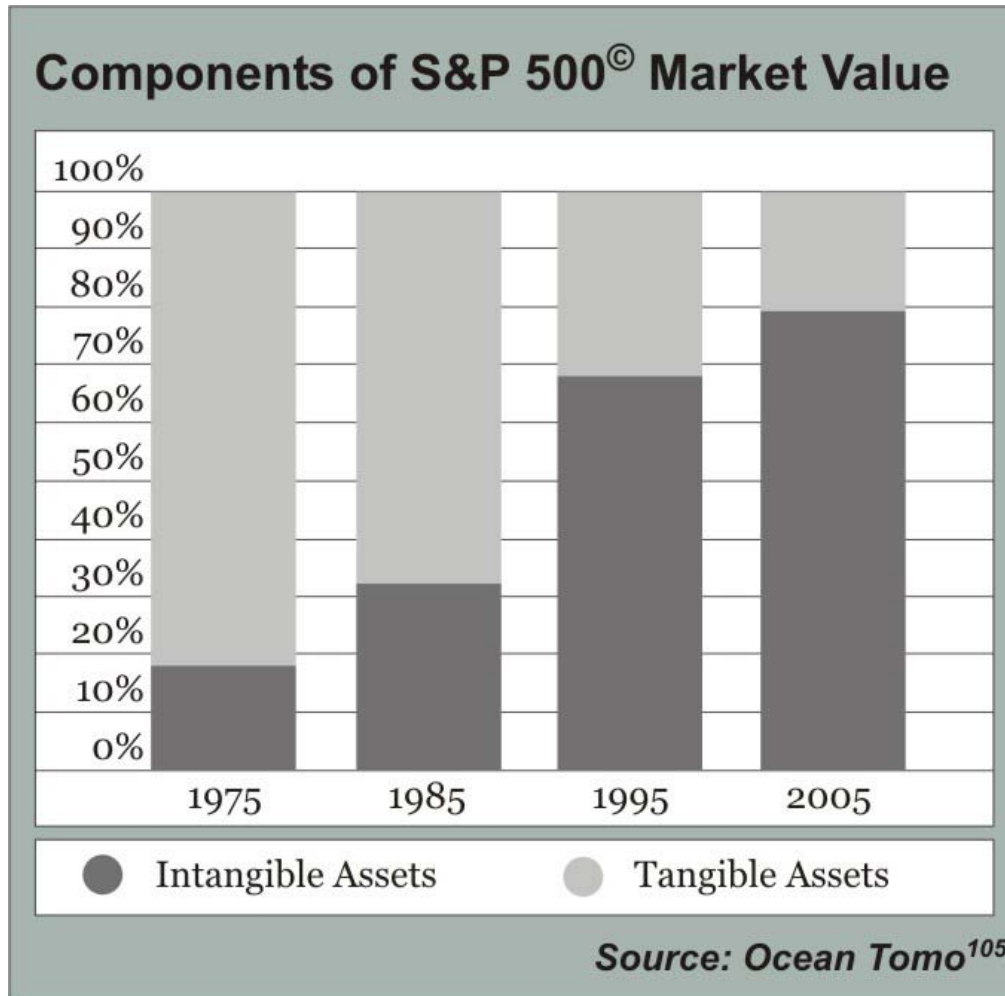
- **New knowledge is produced at an unprecedented rate. Knowledge in terms of publications, reports and patents is doubling every 10 years.**
- **Knowledge production is unevenly distributed resulting in knowledge gap which in turn explain the income differences between developed and less developed economies. (World Bank, 1999)**
- **Most scientific and technical knowledge and knowledge about the developing world is still produced outside the region to which it pertains. (Evers & Gerke, 2003)**

The Growing Investment in Knowledge Production

Gross domestic expenditure on R&D (\$Bn, current PPP) 1981-2006



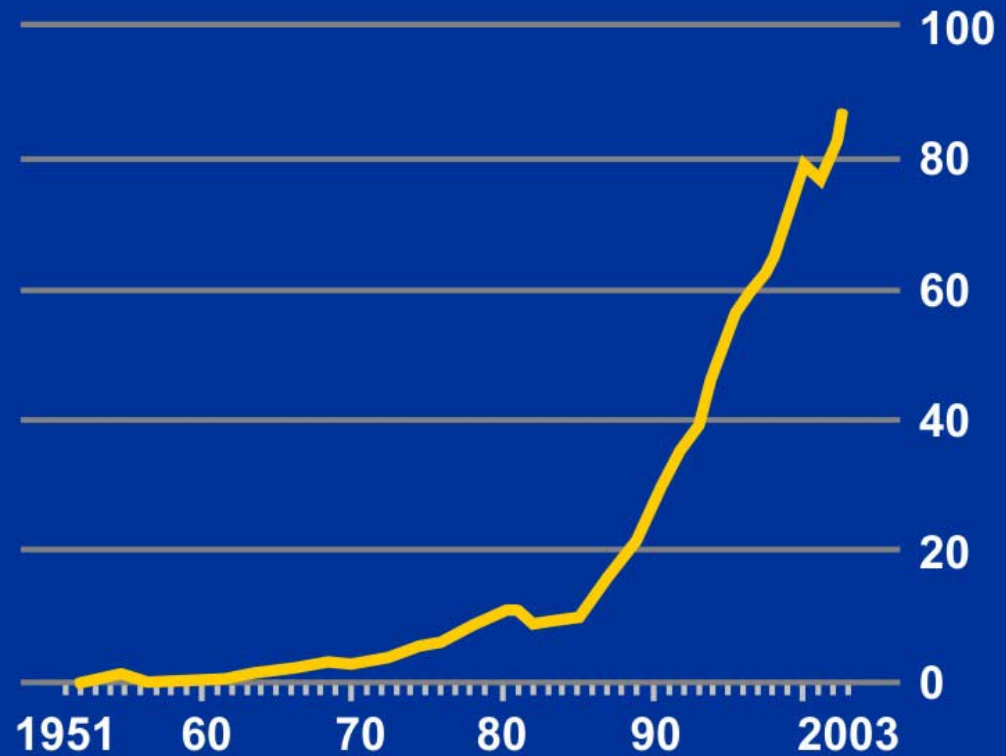
Source: OECD¹⁹



The Growth of Knowledge Value in the Global Economy

The age of proliferation

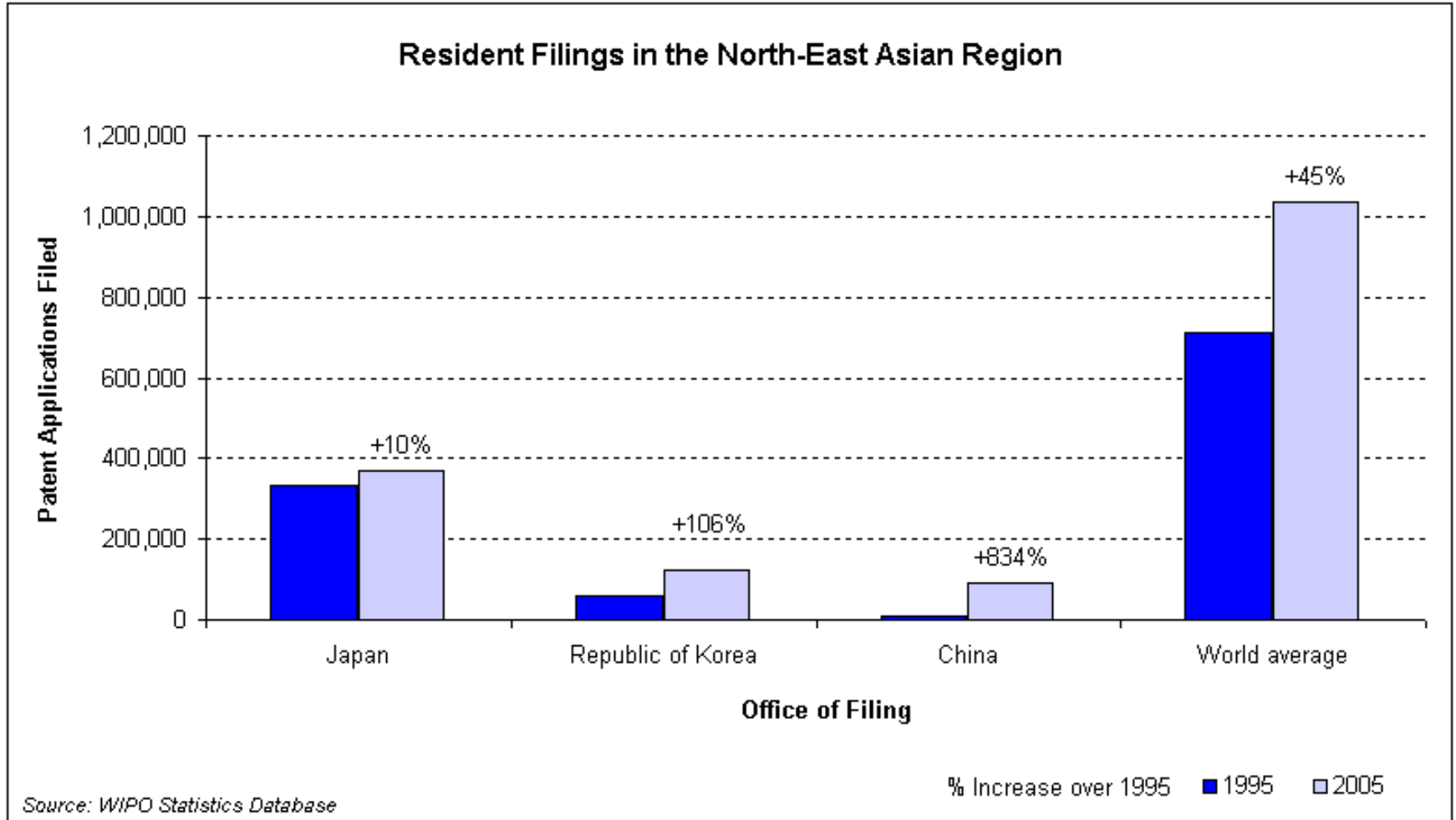
Intellectual property receipts, \$bn



Source: Athreye and Cantwell, 2005

- **The geography of knowledge production is shifting.**
- **Trend of rapid growth in patent applications and scientific publications in N.E. Asia and in the emerging economies. (WIPO 2008)**

Resident patent applications in North East Asia



- **Knowledge matters - understanding how people and societies acquire and use knowledge is essential to improving people's lives, especially the lives of the poorest. (World Development Report, 1998)**
- **Indigenous knowledge is unique to every culture and society. It is the basis for local decision-making in agriculture, health, natural-resource management and other activities. Indigenous knowledge is embedded in community practices, institutions, relationships and rituals. Indigenous knowledge is part of everyday life. (Indigenous knowledge for development, World Bank, 2004)**

- **The capacity to benefit from knowledge is governed by**
 - **ability to acquire and to apply knowledge that already exists**
 - **ability to produce new knowledge**

- **An issue here is how far knowledge is produced to meet local needs rather than the interests of a global community of scholar or the R&D interests of MNCs...**

- **While there is the desire to retain the traditional economy of scale based on extensive routinisation and standardization, in order to present a reasonably coherent face or identity (Leidner, 1993), there exists the ever-increasing pressure from local partners to pay closer attention to contextual details and to support different often conflicting needs.**
- **‘Think Global, Act Local’**

- **Tensions arise between the two knowledge sets because**
 - **One set, usually global knowledge, vies for prominence or precedence over the local**
 - **local knowledge resists unsolicited invasion of its economic and cultural space by global knowledge.**
- **“You do not want to eat Cheeseburgers in Paris every day ”**

- **At WIPO and in other intellectual property (IP) circles there has been a growing realization that one-size-does-not-fit-all.**
- **In much of the developing world global IP rules are perceived as ill suited for the current state of their economic and social development.**
- **In fact those rules are perceived as obstacles to economic, social and cultural development**

- **Resistance started building up soon after the adoption of the TRIPS agreement in 1994**
- **Common complaints: inflexible, does not take into account the situation in developing countries, unfair, barrier to development**
- **Opposition by developing countries to TRIPS began to manifest in various discussions at WIPO and WTO**

At WIPO significant developments include:

- Opposition to “TRIPS Plus” activities within the Standing Committee on Law of Patents**
- Call for a balanced Substantive Patent Law Treaty (SPLT) and then major disagreement**
- Setting up of an Inter Governmental Committee on Traditional Knowledge, Genetic Resources and Folklore**
- More recently, adoption of WIPO Development Agenda**

- **On the one side, the developed world side, there exists a powerful lobby of those who believe that all IPRs are good for business, benefit the public at large and act as catalysts for technical progress.**
- **They believe and argue that, if IPRs are good, more IPRs must be better.**

- **On the other side, the developing world side, there exists a vociferous lobby of those who believe that IPRs are likely to cripple the development of local industry and technology, will harm the local population and benefit none but the developed world. [CIPR, 2000]**
- **IP rules undermine efforts to increase productivity and eradicate poverty, and will result in a widening of the gap between rich and poor nations (Oxfam study)**

- **IP is a controversial issue**
- **Conclusions of economists have been ambivalent and offer little definitive guidance for policy makers**
- **Theoretically ambiguous. Need for more empirical analysis (Fink & Maskus)**

WIPO Development Agenda

- **WIPO member states on September 28, 2007 adopted a Development Agenda consisting of a series of recommendations to enhance the development dimension of the Organization's activities.**
- **The recommendations include a set of 45 agreed proposals covering six clusters of activities including Technical Assistance and Capacity Building; Norm-setting, Flexibilities, Public Policy and Public Knowledge; Technology Transfer, Information and Communication Technology (ICT) and Access to Knowledge; Assessments, Evaluation and Impact Studies; Institutional Matters including Mandate and Governance.**

TK, Genetic Resources, Folklore

- **The role of intellectual property (IP) systems in relation to traditional knowledge (TK), and how to preserve, protect and equitably make use of TK, has recently received increasing attention in a range of international policy discussions.**
- **These address matters as diverse as food and agriculture, the environment, notably the conservation of biological diversity, health, including traditional medicines, human rights and Indigenous issues and aspects of trade and economic development.**

TK, Genetic Resources, Folklore

- While the policy issues concerning TK are broad and diverse, the IP issues break down into two key themes
- Defensive protection of TK, or measures which ensure that IP rights over TK are not given to parties other than the customary TK holders.
- Positive protection of TK, or the creation of positive rights in TK that empower TK holders to protect and promote their TK.

- **These measures have included the amendment of WIPO-administered patent systems (the International Patent Classification system and the Patent Cooperation Treaty Minimum Documentation).**
- **Some countries and communities are also developing TK databases that may be used as evidence of prior art to defeat a claim to a patent on such TK**
- **In some countries, sui generis legislation has been developed specifically to address the positive protection of TK. Providers and users may also enter into contractual agreements and/or use existing IP systems of protection.**

- HD. Evers and S. Gerke, University of Bonn, *Local and Global Knowledge: Social Science Research on Southeast Asia*, 2003
- S. Joshi, M. Barrett, G. Walsham and S. Cappleman, *In Search of balance: local knowledge within global organisations*, Working Paper Series 09/2006, Judge School of Business, Cambridge University, 2006
- O. Arewa, *Culture as Property: Intellectual Property, Local Norms and Global Rights*, Northwestern University School of Law, Public Law and Legal Theory Series No. 07-13
- D. Teece, *Strategies for Managing Knowledge Assets: Role of Firm Structure and Industrial Context*, 2000
- *Indigenous Knowledge for Development*, World Bank, 2004
- J. Davis, E. Subrahmaniam and A. Westerberg, *The “global” and the “local” in knowledge management*, 2005
- Various WIPO publications

It is my hope that [India] would create a new social order and a new civilization by combining her best spiritual traditions with the latest advancement in science and technology. She would be rich both materially and spiritually. (Swami Vivekananda, India, early 20th century).

Thank you