

Selected Trends in U.S. and Global Licensing

Walter G. Park, American University

USPTO-CPIP Conference on Economic Importance of Patent Licensing

June 8, 2016

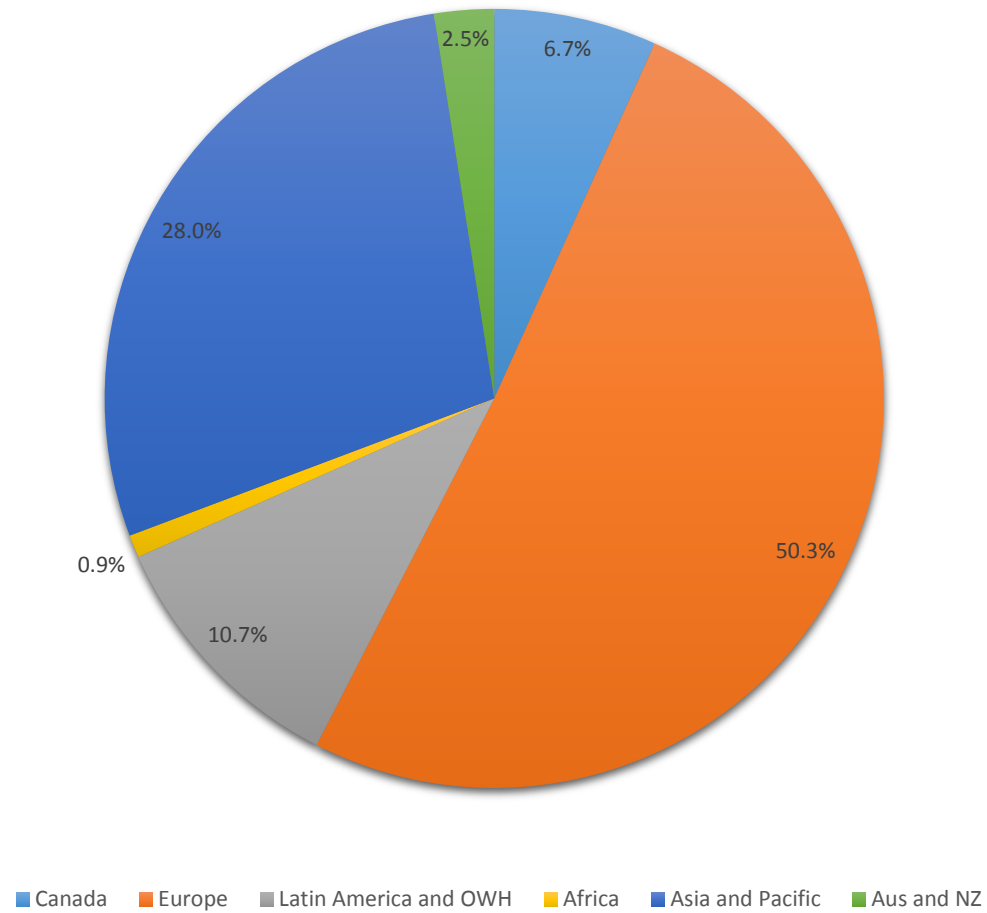
Alexandria, VA

U.S. International Licensing

	<u>2006</u>	<u>2014</u>
U.S. Outward Licensing <i>(billions of real 2009 dollars)</i>	88	120
Industrial processes	38.8%	37.4%
Computer software	27.1%	30.3%
Audio-visual and related products	17.6%	14.9%
Trademarks	12.4%	13.0%
Unaffiliated (Arms-Length) Licensing	33.8%	36.8%
Affiliated (Intra-Firm) Licensing	66.2%	63.2%

Source: www.bea.gov, Interactive Tables, International Services, Table 2.1

U.S. Outward Licensing by Destination, 2014



Source: www.bea.gov, Interactive Tables, Table 2.2



Global Licensing

Year	World Total	Share of Total Trade in Services				Share of World Total Licensing		
	(billions real 2009 \$)	World	Developed	Developing	U.S.A.	Developed	Developing	U.S.A.
2000	112	6%	7.8%	0.6%	17.9%	97.4%	2.4%	56.4%
2013	290	6.6%	9.3%	0.9%	18.7%	95.4%	4.3%	41.3%

Source: UNCTAD Statistics: Exports and imports by service-category, value, shares and growth, annual, 1980-2013

Panel 2: Importance of Licensing and Impacts on US Tech Transfer and on US Trading Partners

A. Trends:

Since 2000, licensing of IP has grown in the U.S. and ROW.

- In developed countries, IP licensing is just under 10% of all trade in services. A lot considering that services trade includes travel, transportation, communications, insurance, finance. (1/5 for the U.S.)
- Participation in outward licensing almost doubled for developing economies
- Diminished share of global licensing for the U.S.
- Among U.S. firms, we observe shift to arms-length licensing; majority is still intra-firm
- Active licensing in copyright-related work (software, AV). That shows that patentable knowledge or trade secret know-how aren't the only sources of international knowledge diffusion (but books, software, databases, journals, films, ...)
- Main issue: inward flows of licensing very small in areas like Africa and Latin America/OWH

B. Contribution to U.S. Exports & FDI

First, to the extent that arms-length licensing is an alternative means of international tech transfer, we should observe a reduction in exports & FDI, holding other factors constant. We have to account for both a *substitution* and *scale* effect:

- One reason for the increased trend in licensing, esp. arms-length licensing, has been the strengthening of IP rights worldwide, since about 2000. This is consistent with the 'Internalization Theory' in the International Business literature. The basic idea is that although FDI involves huge set-up costs, which can be avoided by licensing, the latter involves risks of technology leakage and rent dissipation, and so IP assets are kept internal by transferring technology via FDI. But with TRIPS, WIPO Treaties, etc., and a general rise in global IPRs, firms at the margin choose licensing over FDI (and this is the substitution effect)
- Scale effects can be observed if we view things from an economy-wide perspective. Increased licensing activity results in greater knowledge and technology diffusion. Through purchase or contracts, more firms can access or exploit new technologies. To the extent that this raises firm productivity, this should enhance innovation and tech transfer capabilities, and hence we would observe expanded trade, FDI, and further licensing. This would be the scale effect.

On this, there's also a side debate about whether firms are better off exploiting their IP assets exclusively or by licensing. This choice depends on a host of factors – and hence, no one right answer. Suffice it to say that there are *scenarios* where indeed a firm profits more from royalties than from being a sole user or seller. For example, in the case of process innovations, and a highly competitive market, a firm profits more from licensing than exploiting the technology exclusively since rival firms can still use the old technology and possibly undercut a monopolist.

Other reasons to license include: (i) lack of manufacturing capacity or capital to meet the demand and so the licensor can reach a larger market by tapping into the resources of licensees; (ii) rights holders may have a comparative advantage in inventive activity rather than production, and so licensing frees up resources for the inventor to focus on that activity; and (iii) licensing may help establish industry standards in the presence of network effects, or create brand loyalty.

C. Benefit to U.S. Trading Partners

For other developed countries

- Licensing also provides trading partners with access to this “pool” of technological knowledge, which should help expand innovation and production possibilities, either via increased efficiency or resources.
- Licensing can be thought of as a way for licensees to procure external R&D, and like internal or within-firm R&D, can be the source of knowledge spillovers.
- To the extent that licensees enter product markets, we should observe an increase in the intensity of competition. This in turn is also a driver of innovation, and could eventually provide consumers with more choice, although the ultimate impacts on price, quantity, and quality will vary with certain circumstances (type of market, degree of product differentiation, substitutability of products, firm characteristics). There’s no unique prediction.

For developing economies,

- They should especially benefit, especially those in the lower-middle income group of developing economies that still lack a strong indigenous R&D sector. Licensing for them is a means for them to access new and existing technologies.
- Licensing offers an opportunity for learning-by-doing, technological catch-up, and for improving local productivity. Certainly inward technology transfers are part of the explanation for why developing economies have become more outward-oriented; and as the slides have shown, we have seen developing economies emerge as licensors themselves.

Challenges: Right now, inward licensing is concentrated in the developed world. Very little goes to the least developed countries. Several factors may explain why: poor institutions, poor governance, weak contract enforcement, weak absorptive capacity, small markets, the possibility that the IP assets of foreign firms are not appropriate for local conditions and needs, and policy barriers, such as restrictions on foreign investment and other regulations.

Negatives of licensing: More isn’t necessarily always better. Too many licenses issued could result in excessive market entry, particularly in markets characterized by product differentiation, resulting in high AC and prices because each firm has such a small slice of the market and is unable to fully exploit economies of scale. Other drawbacks to licensing: internalization advantages (of keeping technology in-house); increased rivalry could dissipate rent (i.e., why it would be better to exclusively exploit IP assets); ability to shift profits between affiliates and subsidiaries; loss of control over marketing (as licensee may want some autonomy).