While detailed empirical evidence bearing on this issue is discussed in Section 7 of this chapter, the overall stylized facts pertaining to the globa

When measured by the payments of royalties and licensing fees, much of the global action in technology transfer is still within developed countries and occurs within the boundaries of multinational …rms: estimates vary but in a typical year over 80 percent of global royalty payments for international transfers of t

innovation and the patent system.[9]

context.

licensing. Furthermore, it does not permit exclusivity and

44%, wh

TRIPS made it mandatory (after some time lags) for developin

investor in R&D in the world. While Japan has historically dwarfed all Asian countries

(**i**) $h' > 0$ **and** $h'' < 0$; (**ii**) **every variety of di¤erentiated goods is purchased in equilibrium (i.e.** $h'(0) = 1$**); and** (**iii**) **the optimal monopoly price of a typical di¤erentiated good is …nite (i.e.** $xh''=h' < 1$

country must o¤er the same level of patent protection oome]TJ 333.6470 0Tdm [(s)7.98881(t)7.9

4.1 Variety expansion approach

The classic paper by Vernon (1966) cast the standardization of production technology as the driving force behind the international product cycle

rate in region i

(i.e. $p^M < p^N$

horizontally di¤erentiated products and the number of products grows exogenously over time.

In their model, a Northern …rm wishing to sell in the South chooses between (i) producing in the North; (ii

negative.[46] Furthermore, their analysis together with that of Dinopoulos and Segerstrom (2010) cl

world.[52]

South i¤ its pro…t under uniform pricing (^{u}) net of the …xed cost exceeds its pro…t

o¤ers no gains since the equilibrium policy of the North maximizes aggregate welfare. The logic for this surprising result is as follows. Conditional on the …rm exporting, international exhaustion yields higher welfare than national exhaustion since it equalizes

88-29

relativ

where p is the South's optimal price ceiling if the South can implement its price control without worrying about the …rm not serving its market. It fol

gic interdependence at the policy setting stage allows the model to shed new light on

are willing to accept a local price that equals either the average or the median price in

medicines (Beall and Kuhn, 2012).[67]

of the patent.

Southern welfare under a compulsory license equals:

$$w_{CL} = T\,[S($$

6.3 Bargaining in the shadow of compulsory licensing

the surplus generated by entry is negative, the multinational may make a preemptive

the market power e¤ect of increased patent protection is stronger in such industries.[72]

Bilir (2014) notes that since successive generations om88435.986(t)7.98677(h)11.98e

well as international technology transfer. While TRIPS does include a nominal clause

60suu t **Finally, I brie‡y discuss the …ndi tf26870091w**

licensing under TWEA occurred under an environment where international relations

raising local prices and the hope that it would bene...t them by directing more invest-

knowledge, such an argument has neither been

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Table 1: Allocation of global GDP (PPP)

	1990	1995	2005	2010	2013

Table 3: Shares of inward FDI stock

2005o

Table 5: Allocation of total patents granted

	1995	2000	2005	2010	2013
LICs	0.09%	0.16%	0.73%	0.74%	0.10%
LMICs	1.67%	2.35%	2.31%	1.83%	1.36%
UMICs	6.21%	6.72%	13.15%	18.90%	21.59%
HICs	92.03%	90.77%	83.81%	78.53%	76.95%
World total	427600	514600	631300	911400	1169900

Source: WIPO Statistics Database

Table 6: Cumulative patent grants (1993-2013)

LM1IPO

UMenb

HICs

Table 8: R&D as a % of GDP and R&D