

## Dynamic Comparative Advantage and Country Characteristics as Basis for Trade in Textiles and Clothing

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## The role of semi skilled intensive industries

- Stages of Economic Growth (Rostow's 5)
  - Traditional society, the preconditions for take-off, the take-off, Drive to maturity, High mass consumption.
- Dynamic comparative advantage ladder and product life cycle (Vernon, 1966; Klein, 1973)

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- By mid 1970s (Jan. 1, 1974), trade restrictions were imposed (such as Multi Fibre arrangement quotas).
- Four MFAs: MFA I (1974-77); MFA II (1978-1981); MFA III (1982-87); MFA IV (1987-1994)
- Effects on developing economies: export loss (-, short term), product upgradation (+, short term), FDI inflow from less restricted to non restricted economies (+, long term)
- Phase out- implemented under WTO over 1995-2004 (documented in ATC)

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- Measurement of comparative advantage:
  - Balassa (1965)- differences in relative costs and non-price factors are reflected in trade patterns in manufacturing ...'reveal' the comparative advantage of trading nations. Differences in opportunity.

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## ■ Balassa's (1965) revealed comparative advantage (RCA):

- Widely used as empirical method for measuring Comparative advantage
- Literature-
  - Comparison of sub-sectors (Ariovich, 1979; Crafts & Thomas, 1986; Olga, 1994; Lee, 1995; Cinquetti, 2008)
  - Cross-country trade perf. (Reza, 1983; Peterson, 1988; Yeats, 1991; Rodas-martini, 1998; Bender & Li, 2002)

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- Studies on CA in textiles & clothing
  - Pigato et al., 1997: Compared TC trade in 12 South & South East Asian economies. Relative competitiveness of homogen. Dev./inc. status.
  - Havrilla and Gunawardana (2003): RCA in Australian TC industries..found disadvantage in aggreg. Commodity groups but advantages in special products (e. g. floor cov., fur cloth.)
  - Balasubramaniam & Wei (2005): compared RCA in Indian & Chinese TC...found higher CA of China generally for TC and higher CA of India in for Women wear, men's shirt etc.

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- Kilduff & Ting (2006): TC in 30 countries over 42 years (panel). Across years and between income, prod. Groups.. Found product and income group characteristics combine to affect CA in TC.
  - Higher (lower) income countries stronger in capital (labour) intensive sectors.
- Wadud (2007): RCA and Intra Industry Trade (IIT) in TC for 26 countries in 17 years (1981-1997)- CA in TC for developing economies, few developed sustained CA or endured worsening CA.. Product differen. in tex & cost min in cloth.

- This study:
  - Similar to Kilduff and Ting (2006) and extension of Wadud (2007)
  - Kilduff & Ting adopted descriptive approach..did not examine CA factors and prod. Differentiation issues.
  - Wadud (2007): used merchandise export in RCA (imprecise); examined CA till 1996... left recent years of TC trade liberalisations.

- This study: Estimates RCA indices with total manufacturing exports, for 1981-2005, examines country specific industry characteristics as determinants of RCA.

- RCA: CA will be revealed by an economy's trade pattern (e.g., relative export shares)
  - $(X_{ij}/X_r) / (X_{iT}/X_{rT}) = x_{ij}/x_i$   
 $i$ th country,  $j$ th commodity,  $r$  regional (world) aggregate,  $T$  manuf. Total,  $X$  exports and  $x$  relative shares.
- Changes in relative shares;
  - $(x^{t+1}_{ij}/x^{t+1}_i) / (x^t_{ij}/x^t_i)$
  - Correcting level bias:
    - $(1/2)[((x^{t+1}_{ij}/x^{t+1}_i) + (x^{t+1}_{ij}/x^{t+1}_i)(x^{t+1}_{ij}/x^{t+1}_i)) / (x^t_{ij}/x^t_i)]$
- Takes the average of the relative change and growth relative to next year

- Limitations of Balassa's RCA index:
  - Asymmetry (Volrath, 1991 and Kilduff and Ting, 2006) -> Volrath suggested Logs of RCA indices -> CA (disadvantage) indicated by positive (negative) values.
  - New growth theory: CA/ product diff. also measured with Intra Industry Trade (IIT) index (Glubel -Lloyd, 1975). IIT-. Due to product diff., changes in cons. Pref. EOS etc.
  - This study: extends Wadud's (2007) GL measures from 1997-2005
  - $GL = 1 - (|X-M|/(X-M))$

- Determinants of CA:
  - CA depends on a number of factors
  - H-O Model: Countries with abundant labour force - CA in textiles and clothing industries.
  - SS Model: Country specific specialisation driven by rise in prices of textiles and clothing → raise the wage rates.
  - Other factors: income, EOS, public policies.
  - Model for RCA with panel data:  
 $RCA_{it} = \alpha + \beta w_{it} + \gamma F_{it} + \delta S_{it} + \theta K_{it} + \varepsilon$
  - Where  $w$ ,  $F$ ,  $S$  and  $K$  -> wage rates, factor proportions, size and capital, respectively for the  $i$ th country and  $t$ th year.

## Data

- Coverage: 1981-2005
- Trade data for TC and manuf. industries -> from WTO online database.
- Industry data: gross output, wages, K/L ratios -> UNIDO 3 digit database.

## Empirical Evidence on dynamic Comp. Adv.

- Indices computed for all years (1981-2005) and reported in three year benchmark (Tables 1-3)
- Table 1 for Textiles
  - Low indices for most developed economies
  - 7 out of 14 had comp. disadvantage in all years.
  - 4 (Austria, N'lands, Spain & Swi'land lost CA by end 1980s and mid 1990s)
  - 3 (Belgium-L'burg, Italy and Portugal) had CA over entire period.

Table 1: Revealed Comparative Advantage in Textiles Trade: Indices of Export Shares

Countries	1981	1984	1987	1990	1993	1997	2000	2002	2005	Rank	
	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	2005
<i>Developed Economies</i>											
Australia	-0.064	-0.008	-0.028	-0.296	-0.250	-0.144	-0.165	-0.250	-0.261	18	18
Austria	0.216	0.138	0.101	0.120	0.070	-0.010	-0.037	-0.079	-0.128	10	14
Belgium-Luxembourg	0.205	0.236	0.186	0.205	0.201	0.148	0.095	0.035	0.004	11	12
Canada	-0.718	-0.864	-0.762	-0.668	-0.585	-0.449	-0.425	-0.372	-0.366	26	24
France	-0.095	-0.074	-0.101	-0.065	-0.134	-0.121	-0.136	-0.145	-0.175	20	15
Germany	-0.118	-0.085	-0.090	-0.068	-0.076	-0.140	-0.173	-0.208	-0.274	21	19
Italy	0.124	0.177	0.163	0.167	0.181	0.198	0.229	0.225	0.223	12	8
Japan	-0.089	-0.156	-0.285	-0.311	-0.340	-0.358	-0.330	-0.318	-0.342	19	23
Netherlands	0.064	0.053	0.033	-0.067	-0.003	-0.119	-0.271	-0.281	-0.279	13	20
Portugal	0.586	0.543	0.406	0.367	0.243	0.336	0.387	0.415	0.210	6	5
Spain	0.012	0.024	-0.090	-0.085	-0.109	-0.012	0.007	0.012	-0.032	17	13
Switzerland	0.056	0.092	0.013	-0.007	-0.109	-0.182	-0.207	-0.255	-0.325	15	21
United Kingdom	-0.153	-0.168	-0.199	-0.165	-0.201	-0.224	-0.225	-0.243	-0.235	23	17
United States	-0.314	-0.432	-0.445	-0.401	-0.400	-0.367	-0.297	-0.239	-0.216	25	16

Table 1: Continued

	1981	1984	1987	1990	1993	1997	2000	2002	2005	Rank	Rank
<i>Asian NIEs</i>											
Hong Kong (China)	0.344	0.350	0.419	0.396	0.321	0.336	0.320	0.300	0.250	8	7
South Korea	0.414	0.321	0.284	0.361	0.441	0.465	0.390	0.356	0.161	7	9
Singapore	-0.122	-0.188	-0.160	-0.258	-0.303	-0.513	-0.637	-0.666	-0.749	22	26
Taiwan	0.308	0.225	0.235	0.355	0.387	0.457	0.402	0.379	0.309	9	6
<i>Other Developing Economies</i>											
Bangladesh	1.220	1.185	0.850	0.814	0.618	0.530	0.365	-0.115	0.039	1	11
China	0.809	0.838	0.764	0.572	0.443	0.361	0.342	0.336	0.325	3	4
India	0.679	0.681	0.634	0.601	0.624	0.722	0.715	0.676	0.608	4	2
Indonesia	0.036	0.366	0.392	0.498	0.594	0.414	0.474	0.461	0.490	16	3
Malaysia	0.060	-0.090	-0.175	-0.304	-0.319	-0.255	-0.318	-0.387	-0.332	14	22
Pakistan	1.136	1.089	1.100	1.143	1.161	1.201	1.249	1.242	1.292	2	1
Philippines	-0.255	-0.543	-0.400	-0.267	-0.396	-0.388	-0.593	-0.624	-0.585	24	25
Thailand	0.593	0.539	0.344	0.164	0.086	0.103	0.054	0.073	0.072	5	10

Source: Author's calculations

- Among the Asian NIEs (4)-> except Singapore, the rest three, viz. Hong Kong, South Korea and Taiwan record high CA throughout.
- CA in textiles for the remaining developing economies -> with mixed dynamics.
  - 1981--> 2005:
    - Falling CA: Bangladesh (1.22→0.04), China (0.81→0.33) and Thailand (0.59→ 0.07) 9
    - Rising CA: Indonesia (0.04→1.14), Pakistan (0.49→1.29),
  - No CA: Malaysia, Philippines,

- Table 2 Clothing:
  - CA for Italy and Portugal (although declining)
  - No CA for the rest of the developed
  - Asian NIEs: CA for Hong Kong; Other three lost CA by 1990s
  - All developing economies (except Malaysia) possess high CA

**Table 2: Revealed Comparative Advantage in Clothing Trade: Indices of Export Shares**

Countries											Rank	
	1981	1984	1987	1990	1993	1997	2000	2002	2005	1981	2005	
<i>Developed Economies</i>												
Australia	-0.843	-0.905	-0.750	-0.501	-0.509	-0.422	-0.513	-0.582	-0.597	25	21	
Austria	0.046	-0.003	-0.053	-0.147	-0.213	-0.229	-0.311	-0.368	-0.203	14	13	
Belgium-Luxemburg	-0.220	-0.269	-0.312	-0.314	-0.286	-0.234	-0.218	-0.232	-0.194	18	12	
Canada	-0.733	-0.906	-0.853	-1.005	-0.808	-0.600	-0.551	-0.536	-0.621	24	24	
France	-0.140	-0.190	-0.213	-0.194	-0.257	-0.310	-0.327	-0.305	-0.228	15	15	
Germany	-0.328	-0.338	-0.329	-0.333	-0.411	-0.416	-0.444	-0.448	-0.432	20	18	
Italy	0.277	0.293	0.282	0.247	0.187	0.204	0.175	0.182	0.188	12	9	
Japan	-0.971	-0.927	-1.198	-1.340	-1.415	-1.570	-1.550	-1.550	-1.619	26	26	
Netherlands	-0.214	-0.284	-0.264	-0.206	-0.234	-0.290	-0.365	-0.322	-0.358	17	16	
Portugal	0.732	0.725	0.790	0.771	0.686	0.592	0.512	0.463	0.424	4	6	
Spain	-0.274	-0.296	-0.338	-0.498	-0.383	-0.395	-0.256	-0.187	-0.126	19	11	
Switzerland	-0.443	-0.521	-0.617	-0.594	-0.659	-0.667	-0.701	-0.650	-0.532	21	19	
United Kingdom	-0.157	-0.248	-0.280	-0.339	-0.334	-0.296	-0.375	-0.425	-0.360	16	17	
United States	-0.634	-0.804	-0.830	-0.709	-0.541	-0.449	-0.500	-0.611	-0.742	23	25	

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**Table 2: (continued)**

<i>Asian NIEs</i>											
Hong Kong (China)	0.877	0.822	0.723	0.654	0.538	0.478	0.475	0.432	0.413	1	7
South Korea	0.748	0.634	0.578	0.459	0.224	-0.094	-0.113	-0.209	-0.577	3	20
Singapore	0.153	0.069	0.065	-0.028	-0.257	-0.491	-0.434	-0.440	-0.614	13	22
Taiwan	0.594	0.542	0.349	0.153	-0.009	-0.174	-0.294	-0.385	-0.618	8	23
<i>Other Developing Economies</i>											
Bangladesh	-0.534	0.513	1.017	1.072	1.156	1.235	1.306	1.322	1.369	22	1
China	0.702	0.773	0.742	0.684	0.714	0.666	0.591	0.515	0.449	6	5
India	0.626	0.608	0.612	0.650	0.577	0.583	0.628	0.552	0.499	7	4
Indonesia	0.593	0.613	0.524	0.605	0.572	0.467	0.504	0.471	0.528	9	3
Malaysia	0.286	0.230	0.277	0.264	0.091	-0.055	-0.168	-0.208	-0.203	11	14
Pakistan	0.417	0.556	0.643	0.708	0.754	0.738	0.824	0.785	0.866	10	2
Philippines	0.807	0.742	0.794	0.836	0.714	0.393	0.239	0.273	0.216	2	8
Thailand	0.729	0.754	0.736	0.631	0.516	0.307	0.237	0.199	0.109	5	10

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- Dynamics of high CA in Developing 1981→2005
    - Rise: B'desh (-0.534→1.369), P'tan (0.417→0.866)
    - Fall: Thailand (0.729→0.109), P'ppines (0.807→0.216), China (0.702→0.449), India (0.626→0.499)
    - CA for low wage economies
    - Rising labour cost along industrialisation → caused decline in CA in clothing.
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**Table 3: RCA Indices of Relative Change from Early 1980's to Mid 2000's**

	Early 1980's to mid 2000's			
	Textiles	Rank	Clothing	Rank
<i>Developed Economies</i>				
Australia	-0.351	22	-0.389	16
Austria	-0.237	17	-0.391	17
Belgium-Luxemburg	-0.068	12	-0.194	12
Canada	-0.106	13	-0.452	19
France	-0.203	15	-0.306	13
Germany	-0.301	6	-0.475	20
Italy	0.259	19	0.135	8
Japan	-0.349	21	-1.773	26
Netherlands	-0.328	20	-0.380	15
Portugal	0.310	4	0.334	6
Spain	0.021	11	-0.082	11
Switzerland	-0.411	24	-0.564	21
United Kingdom	-0.229	16	-0.437	18
United States	-0.119	14	-0.711	23

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**Table 3 (continued): RCA Indices of Relative Change from Early 1980's to Mid 2000's**

	Early 1980's to mid 2000's			
	Textiles	Rank	Clothing	Rank
<i>Asian NIEs</i>				
Hong Kong (China)	0.246	7	0.238	7
South Korea	0.132	9	-0.708	22
Singapore	-0.863	26	-0.749	24
Taiwan	0.308	5	-0.784	25
<i>Developing Economies</i>				
Bangladesh	-0.281	18	1.497	1
China	0.148	8	0.344	5
India	0.606	2	0.442	4
Indonesia	0.442	3	0.462	3
Malaysia	-0.386	23	-0.378	14
Pakistan	1.339	1	1.060	2
Philippines	-0.711	25	0.011	9
Thailand	0.036	10	-0.070	10

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- Table 3: dynamic measures
    - Changes over mean indices (1981-83 to 2003-05)
    - Out of 14 developed: CA in both TC: Italy & Portugal; CA in textiles: Spain
    - No dynamic CA for other developed in TC (greater disadvantages in Clothing)
    - Asian NIEs
      - CA (no CA) in TC: Hong Kong (S'pore); CA in Tex: Korea, Taiwan; No CA in Cloth: Korea, S'pore, and Taiwan
    - Developing:
      - No CA in Tex: Malaysia, B'desh and P'ppines
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- CA in tex: Pakistan, India, I'nesia, China, T'land; No CA in cloth: Malaysia & T'land.
- CA in cloth: B'Desh (high 1.497), Pakistan (high 1.060), I'nesia, India, China, P'ppines (low 0.011)
- DCA in TC retained by the low wage economies
- CA combines with disadvantage for some low wage economies (B'Desh & P'ppines)
- Changing industry specialisations: Malaysia (disadvan in TC), T'land's CA in text by low (.036) & disadvan in cloth.

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Table 4a: Rank Correlation Between Country Specific Income and Absolute RCA Indices

	1981		1990		2005	
	Correlation Coefficient	t-value	Correlation Coefficient	t-value	Correlation Coefficient	t-value
Textiles	-0.621	-3.876**	-0.519	-2.971**	-0.430	-2.332*
Clothing	-0.639	-4.069**	-0.755	-5.644**	-0.626	-3.932**

\*\* Significant at 1 per cent level.  
\* Significant at 5 per cent level.

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- Income-RCA correlations.
- Rank correl. Between income pc & RCA
- Table 4a:
  - Sig. negative relationship
  - Tex: -0.62 in 1981 → -0.43 in 2005; Cloth: 0.64 in 1981 → 0.63 in 2005.
- Table 4b:
  - Tex: -0.45 ; Cloth: -0.68
- Inverse correlation → income & RCA → higher in Cloth (lower in tex)

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Table 4b: Rank Correlation Between Country Specific Income and Dynamic RCA Indices

	Correlation Coefficient	t-value
Textiles	-0.450	-2.466*
Clothing	-0.684	-4.595**

\*\* Significant at 1 per cent level.  
\* Significant at 5 per cent level.

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- Figure 1: country group plots, Textiles :
- RCA indices:
  - All developing: fell from about 0.5 < in 1981 to 0.3 < in 2005
  - Asian NIEs (other developing) → from 0.30(0.70) in 1981 → 0.10 (0.30) in 2005
  - Convergence in CA between Asian NIEs & other developing by end 1990s, then increased fall of CA.
  - No CA for the developed economies.

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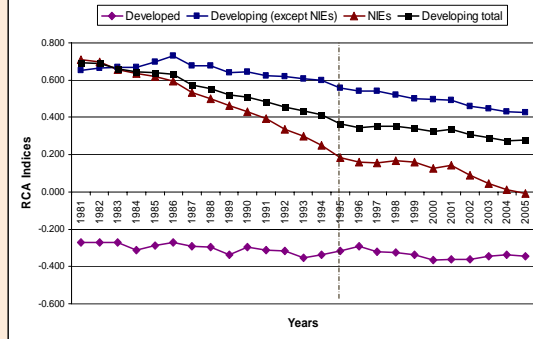
Figure 1: Pattern of RCA in Textiles Trade by Country Groups

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Figure 2: country group plots, Clothing:

- RCA indices:
  - All developing: fell from about 0.7 in 1981 to 0.3 in 2005
  - Asian NIEs → from about 0.7 in 1981 → 0.0 < in 2005; other developing steady at 0.40 >
  - No CA for the developed economies.
- MFA regime (dotted lined in both Figs.)
  - CA growth tending to be steadier for developed and low wage econs?

Figure 2: Pattern of RCA in Clothing Trade by Country Groups



IIT and CA:

- Wadud's (2007) estimates: 1981-1996; this study extends: 1997-2005
- Table 5 (Textiles):
  - A general move towards IIT of the developed economies (incl. Hong Kong & S'pore)
  - For most other developing: trade dominated by CA
- Table 6 (Clothing)
  - Some developed (Belgium-L'bourg, Germany, Italy, N'lands, Portugal moved towards IIT; Others (viz., Austria, France, Japan, UK) moved away from IIT (to CA based trade)
  - Three of Asian NIEs (exc. S'pore) .. Move to IIT (Korea & Taiwan from pure CA → IIT.. Prod. Diff.)
  - Other developing: trade based on CA

Table 5: Grubel-Lloyd Index of Intra Industry Trade in Textiles, 1981-2005

Countries	1981	1984	1987	1990	1993	1997	2000	2003	2005
Australia	0.228	0.203	0.251	0.191	0.277	0.416	0.351	0.314	0.314
Austria	0.953	0.981	0.986	0.972	0.973	0.959	0.940	0.947	0.994
Belgium-Luxembourg	0.762	0.750	0.730	0.719	0.677	0.737	0.726	0.712	0.725
Canada	0.376	0.332	0.382	0.456	0.528	0.646	0.696	0.741	0.726
France	0.920	0.913	0.865	0.887	0.944	0.982	0.994	0.998	0.958
Germany	0.979	0.933	0.903	0.916	0.932	0.928	0.960	0.936	0.945
Italy	0.655	0.683	0.754	0.785	0.626	0.666	0.681	0.664	0.666
Japan	0.437	0.530	0.697	0.826	0.739	0.924	0.825	0.878	0.914
Netherlands	0.955	0.976	0.984	0.892	0.911	0.886	0.992	0.940	0.863
Portugal	0.627	0.545	0.965	0.883	0.913	0.923	0.954	0.975	0.990
Spain	0.571	0.516	0.990	0.844	0.994	0.993	0.949	0.934	0.923
Switzerland	0.807	0.791	0.812	0.839	0.879	0.918	0.938	0.983	0.958
United Kingdom	0.805	0.697	0.692	0.769	0.788	0.781	0.805	0.822	0.799
United States	0.902	0.709	0.649	0.856	0.810	0.849	0.813	0.747	0.709

Table 5 (continued): Grubel-Lloyd Index of Intra Industry Trade in Textiles, 1981-2005

Countries	1981	1984	1987	1990	1993	1997	2000	2003	2005
<i>Asian NIEs</i>									
Hong Kong (China)	0.778	0.790	0.874	0.893	0.934	0.948	0.990	0.994	0.999
South Korea	0.335	0.375	0.513	0.485	0.449	0.421	0.418	0.450	0.508
Singapore	0.552	0.558	0.632	0.674	0.770	0.838	0.831	0.957	0.938
Taiwan	0.278	0.329	0.300	0.284	0.318	0.255	0.219	0.225	0.206
<i>Developing Economies</i>									
Bangladesh	0.446	0.457	0.917	0.863	0.662	0.636	0.475	0.167	0.224
China	0.660	0.527	0.713	0.846	0.936	0.940	0.886	0.692	0.548
India	0.134	0.144	0.166	0.198	0.145	0.139	0.175	0.279	0.423
Indonesia	0.253	0.770	0.625	0.775	0.598	0.676	0.526	0.370	0.360
Malaysia	0.617	0.679	0.650	0.530	0.718	0.974	0.935	0.904	0.843
Pakistan	0.307	0.230	0.156	0.091	0.056	0.036	0.056	0.084	0.125
Philippines	0.322	0.194	0.210	0.253	0.250	0.406	0.384	0.403	0.391
Thailand	0.761	0.818	0.866	0.984	0.976	0.764	0.908	0.860	0.836

Table 6: Grubel-Lloyd Index of Intra Industry Trade in Clothing, 1981-2005

Countries	1981	1984	1987	1990	1993	1997	2000	2003	2005
Australia	0.084	0.068	0.131	0.243	0.265	0.311	0.191	0.179	0.124
Austria	0.822	0.747	0.718	0.665	0.591	0.638	0.612	0.609	0.694
Belgium-Luxembourg	0.692	0.734	0.702	0.716	0.724	0.831	0.884	0.915	0.921
Canada	0.429	0.309	0.338	0.242	0.417	0.662	0.720	0.608	0.475
France	0.880	0.833	0.705	0.716	0.686	0.665	0.643	0.641	0.640
Germany	0.519	0.544	0.553	0.557	0.409	0.495	0.532	0.613	0.654
Italy	0.298	0.240	0.312	0.358	0.406	0.527	0.629	0.724	0.790
Japan	0.473	0.557	0.241	0.122	0.097	0.055	0.053	0.051	0.043
Netherlands	0.076	0.036	0.111	0.222	0.377	0.409	0.514	0.579	0.693
Portugal	0.476	0.517	0.531	0.629	0.619	0.744	0.674	0.785	0.805
Spain	0.696	0.478	0.914	0.512	0.652	0.666	0.703	0.674	0.607
Switzerland	0.381	0.324	0.290	0.333	0.317	0.329	0.322	0.424	0.433
United Kingdom	0.743	0.662	0.680	0.608	0.627	0.644	0.483	0.420	0.390
United States	0.277	0.116	0.104	0.174	0.244	0.294	0.228	0.144	0.118
<i>Asian NIEs</i>									
Hong Kong	0.293	0.357	0.475	0.619	0.720	0.788	0.796	0.816	0.806
South Korea	0.005	0.007	0.006	0.038	0.110	0.499	0.413	0.823	0.940
Singapore	0.591	0.723	0.677	0.734	0.930	0.905	0.985	0.959	0.886
Taiwan	0.004	0.004	0.015	0.136	0.274	0.454	0.490	0.563	0.823

**Table 6 (continued): Grubel-Lloyd Index of Intra Industry Trade in Clothing, 1981-2005**

Developing Economies									
Bangladesh	0.053	0.053	0.019	0.043	0.009	0.026	0.090	0.155	0.000
China	0.068	0.004	0.006	0.010	0.058	0.068	0.064	0.053	0.043
India	0.001	0.001	0.003	0.001	0.002	0.004	0.008	0.014	0.016
Indonesia	0.199	0.033	0.016	0.019	0.013	0.024	0.016	0.013	0.027
Malaysia	0.393	0.307	0.133	0.109	0.123	0.124	0.123	0.154	0.205
Pakistan	0.005	0.014	0.004	0.001	0.001	0.003	0.004	0.009	0.015
Philippines	0.009	0.011	0.006	0.016	0.030	0.072	0.058	0.071	0.082
Thailand	0.021	0.041	0.010	0.020	0.022	0.071	0.067	0.083	0.099

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- Factors explaining CA:
    - Estimates of Panel model- random effect (Table 7 and Table 8)
    - Textiles equations:
      - Factor proportion significantly (& adversely) affect CA
      - Wages and Size mainly insignificant.
    - Clothing equations:
      - Wage rates significantly (& adversely) affect CA
      - Capital and size show significantly negative and positive effect, respectively on CA (limited from evid. From 1 equation).
      - Overall, CA tilted towards econs. With lower wages, larger industries and lower K stock.
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**Table 7: Estimated Relationship between Revealed Comparative Advantage, Wage Rate and Capital-Labour Ratio, 26 Countries, Textiles Sector, Random Effects Panel Regression, 1981- 2005**

Dependent Variable is Revealed Comparative Advantage for both the regressions				
Explanatory Variables	Estimated Random Effect Coefficients (1)	P-values (1)	Estimated Random Effect Coefficients (2)	P-values (2)
Constant	4.11*** (4.50)	0.000	4.20*** (4.48)	0.000
Wage Rate (w)	-0.00002* (1.85)	0.065	-0.00002 (-1.46)	0.142
Capital (K)	0.0000 (1.44)	0.150	.....	.....
Factor proportion (F)	-1.75e-08*** (11.85)	0.000	-1.84e-08*** (-2.086)	0.000
Size (S)	-2.56-12 (-0.0257)	0.797	6.45e-12 (0.78)	0.435

Number of Observations for both the regressions: 328

Note: \*\*\* = significant at 1%, \*\* = significant at 5%, \* = significant at 10%  
 Hausman specification Test for regression (1) & 2:  $\chi^2 = 0.00$ , P-Value: 1.00  
 Hausman Specification Test is insignificant and hence, Random Effects regression is suitable for this dataset.  
 Source: Authors' calculation

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**Table 8: Estimated Relationship between Revealed Comparative Advantage and Wage Rate and Capital-Labour Ratio, 26 Countries, Clothing Sector, Random Effects Panel Regression, 1981- 2005**

Dependent Variable is Revealed Comparative Advantage for both the regressions				
Explanatory Variables	Estimated Random Effect Coefficients (1)	P-values (1)	Estimated Random Effect Coefficients (2)	P-values (2)
Constant	3.17* (7.38)	0.000	3.21*** (7.60)	0.000
Wage Rate	-0.00001*** (-3.19)	0.001	-0.00009*** (-2.64)	0.008
Capital	-3.94e-10** (-2.03)	0.043	.....	.....
Capital-Labour Ratio	-3.21e-06 (-0.01)	0.882	-0.00002* (-1.67)	0.094
Output	9.47e-11** (2.14)	0.033	1.65e-11 (0.74)	0.462

Number of Observations for both the regressions: 317

Note: \*\*\* = significant at 1%, \*\* = significant at 5%, \* = significant at 10%  
 Hausman specification Test for regression (1):  $\chi^2 = 4.80$ , P-Value: 0.302  
 Hausman specification Test for regression (2):  $\chi^2 = 4.52$ , P-Value: 0.039  
 Hausman Specification Test is insignificant in regression (1) and significant at 10% in regression (2) and hence, Random Effects regression could be justified for this dataset for clothing sector as well.  
 Source: Authors' calculation

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- ## Conclusions
- About half of the developed econs → CA in textiles
  - Few lost CA in textiles by 1990s
  - Three (Italy, Portugal and Belgium-L'bourg) retained CA in tex.
  - Most developing have high CA
  - Within the developing group → A changing pattern: magnitude of CA fell for some developing; increased for others.
  - In clothing, all developed had disadvantage (except Italy & Portugal)
  - Three Asian NIEs falling CA → in contrast rising CA in other developing
  - Similar result in DCA: CA generally tilting for developing; developed and NIEs less disadvantaged in textiles
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- Inverse income-RCA rank correlation; higher for clothing; declined for textiles over time.
  - Developed econs generally moved towards IIT in tex; both IIT and CA in cloth
  - Developing and NIEs: Mixed evidence on shifting pattern; Developing econs relying on CA.
  - Panel estimates: In text → Higher K/L ratio lower CA; In cloth → Higher (lower) wage lower (higher) CA. Also, Higher CA with larger industries and lower K/L.
  - Overall, higher wage --. A clear bar to attain CA in cloth.
  - Technology, innovation to support the developed for IIT (prod. Diff.) (and not CA) → esp. in textiles.
  - Among developing: Patterns to emerge → one following trails of NIEs (i.e. growth & specialisation path), others trials of Italy and Portugal
- Many Thanks!! ☺
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