Is the Washington Consensus Dead?
Growth, Openness, and the Great Liberalization, 1970s–2000s

Antoni Estevadeordal and Alan M. Taylor

Forthcoming in the Review of Economics and Statistics

ONLINE SUPPLEMENTARY MATERIAL

APPENDIX TABLE 1
ROBUSTNESS CHECKS FOR CORE RESULTS 1:
CONTROLLING FOR THE LEVEL OF DEVELOPMENT

This table reports only the coefficient on *Liberalizer indicator* or $\Delta \ln(1 + tariff)$, and the regression is as in Table 1 (row 1) or Table 2 (row 2), with growth as a control variable but excluding institutions and schooling. In all cases there is no qualitative change or any statistically significant difference compared to the baseline results reported in Tables 1 and 2. In panel (a) some precision is lost due to a small sample.

Dependent variable: difference in growth, $\Delta growth$

(a) Table 1 and 2 results with developing country sample only

Sample Tariff measure	Full Average	Restricted Consumption	Restricted Capital	Restricted Intermediate	Restricted Capital & Intermediate
	(1)	(2)	(3)	(4)	(5)
Liberalizer indicator	0.00561	0.00818	0.00795	0.0114*	0.0108*
	(0.00482)	(0.00531)	(0.00534)	(0.00525)	(0.00515)
R-squared	0.562	0.439	0.436	0.479	0.474
$\Delta \ln(1 + tariff)$	-0.0237	-0.0198	-0.0453†	-0.0321†	-0.0389†
	(0.0162)	(0.0129)	(0.0244)	(0.0175)	(0.0206)
R-squared	0.568	0.439	0.458	0.457	0.460
Observations	53	31	31	31	31

(b) Table 1 and 2 results with full sample and log of 1975 real GDP per capita included as a control§

Liberalizer indicator	0.00496	0.00724	0.00706	0.00947*	0.00964*
	(0.00478)	(0.00439)	(0.00436)	(0.00450)	(0.00435)
R-squared	0.517	0.481	0.479	0.489	0.500
$\Delta \ln(1 + tariff)$	-0.0258	-0.0172	-0.0410†	-0.0321†	-0.0379†
	(0.0161)	(0.0128)	(0.0240)	(0.0174)	(0.0206)
R-squared	0.525	0.473	0.478	0.480	0.480
Observations	74	46	46	46	46

† significant at the 10% level; * significant at 5%; ** significant at 1%.
§The coefficient on the log of 1975 real GDP per capita control is never statistically significant.
Notes: See Tables 1 and 2. Standard errors in parentheses. Constant terms and other controls not reported.

APPENDIX TABLE 2
ROBUSTNESS CHECKS FOR CORE RESULTS 2:
LIBERALIZATION INTERACTED WITH CAPITAL AND INTERMEDIATE IMPORT INTENSITY LEVEL

This table reports only the coefficient on *Liberalizer indicator* or $\Delta \ln(1 + tariff)$, interacted with import intensity, where the latter is capital and/or intermediate imports as a share of total imports in 1987. Sample size is reduced compared to Tables 1 and 2 (from 46 to 35), and precision suffers, due to incomplete coverage in the import data.

Dependent variable: difference in growth, $\Delta growth$

Sample	Restricted	Restricted	Restricted
Tariff measure	Capital	Intermediate	Capital & Intermediate
	(3)	(4)	(5)
Liberalizer indicator × import intensity	0.0349*	0.0114	0.00984*
	(0.0135)	(0.00695)	(0.00471)
R-squared	0.522	0.468	0.492
$\Delta \ln(1 + tariff)$ × import intensity	-0.209*	-0.0442	-0.0425†
	(0.0774)	(0.0279)	(0.0219)
R-squared	0.530	0.465	0.483
Observations	35	35	35

† significant at the 10% level; * significant at 5%; ** significant at 1%.
Notes: See Table 1 and 2. Standard errors in parentheses. Constant terms and other controls not reported.

DATA APPENDIX

Compilation of disaggregated tariff data is a key component of our empirical research strategy in this study. Appendix Table 3 shows the sources for disaggregated data on tariffs in our newly constructed dataset for 49 economies in two benchmarks periods: a pre-liberalization period (circa mid-1980s) and a post liberalization period (circa 2000).

We use for both periods Most Favored Nation (MFN) applied customs duty. For the late benchmark we rely on pre-compiled tariff data by the UNCTAD's TRAINS (Trade Analysis and Information System). However, for the earliest benchmark, UNCTAD's TRAINS only covers 22 economies in our sample. Tariff data for a number of European Union economies are based on UNCTAD's TRAINS complemented with EU Tariff Schedules. For the rest of the sample we had no option but to collect the tariff data by hand, line by line, from national tariff schedules from the 1980s. Tariff data for all Latin American economies (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela) comes from national customs schedules provided by ALADI.

For China, Korea, Pakistan, Philippines, Japan, Singapore, and Taiwan we used (scanned and translated) published national tariff schedules from the Library of Congress (Washington, D.C.):

- China: *The official Chinese customs guide*, General Office of the Customs General Administration of the People's Republic of China, 1985–86.
- Japan: *Customs tariff schedules of Japan*, Nihon Kanzei Kyokai, 1985.
- Korea (Republic): *Korea customs law and regulations*, Korea Customs Research Institute, 1984.

- Pakistan: *Pakistan customs tariff and import trade guide*, Karachi Law Publishers, 1985–86.
- Philippines: *Commentaries on the revised Tariff and Customs Code of the Philippines: P.D. no. 1464, as amended by Executive order no. 688,* Central Lawbook Pub. Co., 1983.
- Singapore: *Singapore Trade Classification and Customs Duties*, Trade Development Board (Singapore), 1985
- Taiwan: *Customs import tariff of the Republic of China: revised edition, Jan. 1985*, Hai guan zong shui wu si shu, 1985.

In general, the tariff data were obtained in national nomenclatures based on the Harmonized System nomenclature (HS). The data had to be averaged out into 6-digit HS Sub-headings, and then each 6-digit tariff line were linked to their corresponding codes using the UN Broad Economic Categories (BEC) classification by means of conversion tables for the 1988 and 2006 versions of the HS, also obtained from WITS. Finally, the BEC categories were mapped out to the System of National Accounts (SNA) categories to distinguish between capital, intermediate and consumption goods.

For the purposes of this research project we had to make some adjustments of the SNA categories. The concordance procedure for the early benchmark was especially difficult since it varied according to the source of the data. Tariff data for Latin American economies was usually provided in NALADISA nomenclature and were correlated first into Standard International Trade Classification (SITC, Rev. 2), and then converted into BEC and SNA. Tariff data for other economies (national schedules) used generally the Customs Cooperation Council Nomenclature (CCCN), the predecessor to the HS. For these data, a conversion table had to be produced manually connecting the CCCN to the SNA categories via the SITC and BEC. In particular, tariff schedules for China and Pakistan were not fully consistent with the standard CCCN, so ad-hoc conversions and assumptions had to be made for these two economies.

Appendix Table 3
Sources for Disaggregated Tariffs

MFN Tariff Data	Late Benchmark	Early Benchmark	Source for Early Benchmark	Early Benchmark in TRAINS
Argentina	2000	1985	NAT	1992
Algeria	2001	1992	TRAINS	
Australia	2000	1991	TRAINS	
Austria	2000	1990	TRAINS	
Bangladesh	2000	1989	TRAINS	
Belgium-Luxembourg*	2000	1988	TRAINS-EU	
Bolivia	2000	1985	NAT	1993
Brazil	2000	1985	NAT	1989
Canada	2000	1989	TRAINS	
Chile	2000	1985	NAT	1992
China	2000	1985	NAT	1992
Colombia	2000	1985	NAT	1991
Côte d'Ivoire	2001	1993	TRAINS	
Denmark	2000	1988	TRAINS-EU	
Ecuador	1999	1985	NAT	1993
Finland	2000	1988	TRAINS	
France	2000	1988	TRAINS-EU	
Germany*	2000	1988	TRAINS-EU	
Ghana	2000	1993	TRAINS	
Hong Kong	1998	1988	TRAINS	
Iceland	2001	1993	TRAINS	
India	1999	1990	TRAINS	
Indonesia	2000	1989	TRAINS	
Israel	2004	1993	TRAINS	
Italy	2000	1988	TRAINS-EU	
Japan	2000	1985	NAT	1988
Korea, Rep.	1999	1985	NAT	1988
Malaysia	2001	1988	TRAINS	
Mexico	2000	1985	NAT	1991
Morocco	2000	1993	TRAINS	
Nepal	2000	1993	TRAINS	
Netherlands	2000	1988	TRAINS-EU	
New Zealand	2000	1992	TRAINS	
Pakistan	2001	1985	NAT	1995
Paraguay	2000	1985	NAT	1991
Peru	2000	1985	NAT	1993
Philippines	2000	1985	NAT	1988
Singapore	2001	1985	NAT	1989
Spain	2000	1988	TRAINS-EU	
Sri Lanka	2000	1990	TRAINS	
Sweden	2000	1988	TRAINS	

Taiwan	2000	1985	NAT	1989
Thailand	2000	1989	TRAINS	
Trinidad and Tobago	2001	1991	TRAINS	
Turkey	1999	1993	TRAINS	
United Kingdom	2000	1988	TRAINS-EU	
United States	2000	1989	TRAINS	
Uruguay	2000	1985	NAT	1992
Venezuela	2000	1985	NAT	1992

Notes: Source is TRAINS for the late benchmark, and ALADI, TRAINS, and national sources in the early benchmark. EU tariff data is disaggregated by product at a finer level of digits in TRAINS than trade data. TRAINS = UNCTAD-TRAINS (Trade Analysis and Information System). TRAINS-EU = EU schedule of tariffs according to TRAINS. NAT = National sources.

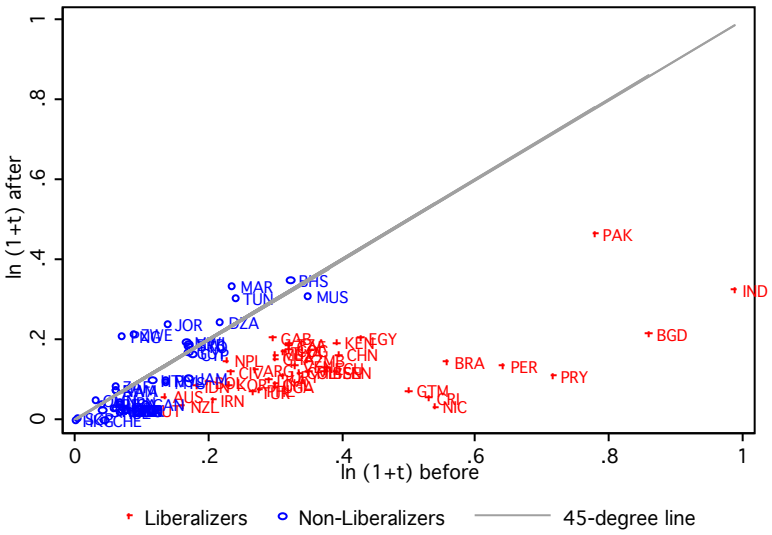
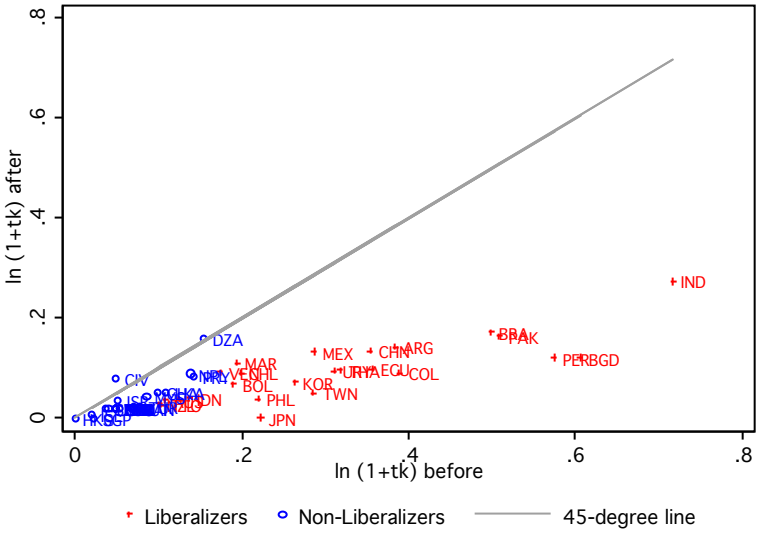
* Belgium and Luxembourg are treated as separate economies starting in 1999. Trade for both economies was queried separately and then aggregated for years 1998 and earlier.

* East Germany (DDR) is excluded for years 1990 and prior; BEC and SITC Rev.1 leaf-level data is not available for DDR.

Figure 2
ONLINE VERSION IN COLOR

The Great Liberalization: Treatment and Control Groups

(a) Average tariffs, ln(1+t): after versus before



(b) Capital and intermediate goods tariffs, ln(1+t_{ki}): after versus before