Online Supplement to

The Dynamics of Comparative Advantage

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S.1 Classifications

Our empirical analysis requires a time-invariant definition of less developed countries (LDC) and industrialized countries (non-LDC). Given our data time span of more then four decades (1962-2007), we classify the 90 economies, for which we obtain export capability estimates, by their relative status over the entire sample period.

In our classification, there are 28 *non-LDC*: Australia, Austria, Belgium-Luxembourg, Canada, China Hong Kong SAR, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Kuwait, Netherlands, New Zealand, Norway, Oman, Portugal, Saudi Arabia, Singapore, Spain, Sweden, Switzerland, Trinidad and Tobago, United Kingdom, United States.

The remaining 62 countries are *LDC*: Algeria, Argentina, Bolivia, Brazil, Bulgaria, Cameroon, Chile, China, Colombia, Costa Rica, Côte d'Ivoire, Cuba, Czech Rep., Dominican Rep., Ecuador, Egypt, El Salvador, Ethiopia, Ghana, Guatemala, Honduras, Hungary, India, Indonesia, Iran, Jamaica, Jordan, Kenya, Lebanon, Libya, Madagascar, Malaysia, Mauritius, Mexico, Morocco, Myanmar, Nicaragua, Nigeria, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Rep. Korea, Romania, Russian Federation, Senegal, South Africa, Sri Lanka, Syria, Taiwan, Thailand, Tunisia, Turkey, Uganda, United Rep. of Tanzania, Uruguay, Venezuela, Vietnam, Yugoslavia, Zambia.

We split the industries in our sample by broad sector. The manufacturing sector includes all industries with an SITC one-digit code between 5 and 8. The nonmanufacturing merchandise sector includes industries in the agricultural sector as well industries in the mining and extraction sectors and spans the SITC one-digit codes from 0 to 4.

S.2 Application of the GMM generated-variable correction to second-stage OLS estimation

To adapt the results in **Appendix D.2** to the decay regression, we need to specify the appropriate moment condition and to account for the use of export capability estimates, instead of treating absolute advantage or comparative advantage as data.

Consider the decay relationship (10) and suppose true export capability were observed. Then, for any time interval Δ such as ten years,

$$k_{is,t+\Delta} - k_{ist} = \rho k_{ist} + \delta_{it} + \delta_{st} + \epsilon_{is,t+\Delta}. \tag{S.1}$$

The OLS estimator for ρ and the residual variance s^2 is the GMM estimator for the following conditional moment

$$\mathbb{E}_{ist}\mathbf{g}(\theta, k_{is,t+\Delta}, k_{ist}; \boldsymbol{\delta}) \equiv \mathbb{E}_{ist}\begin{pmatrix} (k_{is,t+\Delta} - k_{ist} - \rho k_{ist} - \delta_{it} - \delta_{st})k_{ist} \\ s^2 - (k_{is,t+\Delta} - k_{ist} - \rho k_{ist} - \delta_{it} - \delta_{st})^2 \end{pmatrix} = \mathbf{0}, \tag{S.2}$$

where $\theta = (\rho, s^2)'$ and $\boldsymbol{\delta}$ collects the industry-year and country-year fixed effects. We do not calculate a correction for standard errors on the industry-time and country-time fixed effects.

In the decay regression, we work with estimates of export capability directly and only use time series pairs spaced exactly Δ years apart. Let $\mathcal{S}_{it}$ denote the set of countries exporting good i in year t and also export good i in year $t+\Delta$. The effective sample size is $N \equiv \sum_{t=1}^{I}\sum_{t=1}^{T-\Delta}|\mathcal{S}_{it}|$. Denote the OLS estimator of θ with $\hat{\theta}_N$ and the OLS estimator for δ with $\hat{\delta}_N$.

A mean value expansion of the GMM criterion function (S.2) evaluated at the export capability estimates and estimates of the fixed effects gives

$$\mathbf{g}(\hat{\theta}_N, k^{\text{OLS}}_{is,t+\Delta}, k^{\text{OLS}}_{ist}; \hat{\delta}_N) = \underbrace{\mathbf{g}\left(\theta_0, k_{is,t+\Delta}, k_{ist}; \delta_0\right)}_{\equiv \mathbf{G}^0_{ist}} + \underbrace{\frac{\partial}{\partial\theta}\mathbf{g}\left(\theta, \tilde{k}_{is,t+\Delta}, \tilde{k}_{ist}; \tilde{\delta}_N\right)\Big|_{\theta=\tilde{\theta}_N}}_{\equiv \tilde{\mathbf{G}}^1_{ist}}(\hat{\theta}_N - \theta_0)$$
$$+ \underbrace{\frac{\partial}{\partial k^F}\mathbf{g}\left(\tilde{\theta}_N, k^F, \tilde{k}_{ist}; \tilde{\delta}_N\right)\Big|_{k^F=\tilde{k}_{is,t+\Delta}}}_{\equiv \tilde{\mathbf{G}}^2_{ist}}\left(k^{\text{OLS}}_{is,t+\Delta} - k_{is,t+\Delta}\right) + \underbrace{\frac{\partial}{\partial k}\mathbf{g}\left(\tilde{\theta}_N, \tilde{k}_{ist}, k; \tilde{\delta}_N\right)\Big|_{k=\tilde{k}_{ist}}}_{\equiv \tilde{\mathbf{G}}^3_{ist}}\left(k^{\text{OLS}}_{ist} - k_{ist}\right),$$

where $|\tilde{\theta}_N - \theta_0| \le |\hat{\theta}_N - \theta_0|$, $|\tilde{\delta}_N - \delta_0| \le |\hat{\delta}_N - \delta_0|$, and $|\tilde{k}_{ist} - k_{ist}| \le |k^{\text{OLS}}_{ist} - k_{ist}|$. From this mean-value expansion, we obtain

$$\sqrt{N}(\hat{\theta}_N - \theta_0) =$$
$$-\left[\tilde{\mathbf{\Lambda}}'_N \mathbf{W} \tilde{\mathbf{\Lambda}}_N\right]^{-1} \tilde{\mathbf{\Lambda}}'_N \mathbf{W} \frac{1}{\sqrt{N}} \sum_{i=1}^{I}\sum_{t=1}^{T-\Delta}\sum_{s\in\mathcal{S}_{it}} \frac{N}{I|\mathcal{S}_{it}|(T-\Delta)}\left[\mathbf{G}^0_{ist} + \tilde{\mathbf{G}}^2_{ist}(k^{\text{OLS}}_{is,t+\Delta} - k_{is,t+\Delta}) + \tilde{\mathbf{G}}^3_{ist}(k^{\text{OLS}}_{ist} - k_{ist})\right]$$

where $\tilde{\mathbf{\Lambda}}_N = [1/I(T-\Delta)]\sum_{i=1}^{I}\sum_{t=1}^{T-\Delta}(1/|\mathcal{S}_{it}|)\sum_{s\in\mathcal{S}_{it}}\tilde{\mathbf{G}}^1_{ist}$.

The sum in this expression can be rewritten as

$$\frac{1}{\sqrt{N}}\sum_{i=1}^{I}\sum_{t=1}^{T-\Delta}\sum_{s\in\mathcal{S}_{it}} \frac{N}{I|\mathcal{S}_{it}|(T-\Delta)}\left[\mathbf{G}^0_{ist} + \tilde{\mathbf{G}}^2_{ist}(k^{\text{OLS}}_{is,t+\Delta} - k_{is,t+\Delta}) + \tilde{\mathbf{G}}^3_{ist}(k^{\text{OLS}}_{ist} - k_{ist})\right]$$
$$= \frac{1}{\sqrt{N}}\sum_{i=1}^{I}\sum_{t=1}^{T-\Delta}\sum_{s\in\mathcal{S}_{it}} \frac{N}{I|\mathcal{S}_{it}|(T-\Delta)}\mathbf{G}^0_{ist} + o_p(1)$$
$$+ \frac{1}{\sqrt{N}}\sum_{t=1}^{T}\sum_{i=1}^{I}\underbrace{\sum_{s=1}^{S}\left[\mathbf{1}\{s\in\mathcal{S}_{i,t-\Delta}\}\frac{N}{I|\mathcal{S}_{i,t-\Delta}|(T-\Delta)}\mathbf{G}^2_{is,t-\Delta} + \mathbf{1}\{s\in\mathcal{S}_{it}\}\frac{N}{I|\mathcal{S}_{it}|(T-\Delta)}\mathbf{G}^3_{ist}\right](k^{\text{OLS}}_{ist} - k_{ist})}_{\equiv \mathbf{L}_{it}}$$

given that

$$\tilde{\mathbf{G}}^2_{ist} \xrightarrow{p} \mathbf{G}^2_{ist} \equiv \frac{\partial}{\partial k^F}\mathbf{g}\left(\theta_0, k^F, k_{ist}; \delta_0\right)\Big|_{k^F=k_{is,t+\Delta}},$$
$$\tilde{\mathbf{G}}^3_{ist} \xrightarrow{p} \mathbf{G}^3_{ist} \equiv \frac{\partial}{\partial k}\mathbf{g}\left(\theta_0, k_{is,t+\Delta}, k; \delta_0\right)\Big|_{k=k_{ist}}.$$

Define the matrix $\mathbf{G}_{it}$ so that its s'th column is

$$[\mathbf{G}_{it}]_{\cdot s} \equiv \left[\mathbf{1}\{s\in\mathcal{S}_{i,t-\Delta}\}\frac{N}{I|\mathcal{S}_{i,t-\Delta}|(T-\Delta)}\mathbf{G}^2_{is,t-\Delta} + \mathbf{1}\{s\in\mathcal{S}_{it}\}\frac{N}{I|\mathcal{S}_{it}|(T-\Delta)}\mathbf{G}^3_{ist}\right]. \tag{S.3}$$

Then the vector $\mathbf{L}_{it}$ is

$$\mathbf{L}_{it} = \mathbf{G}_{it}(\mathbf{k}^{\text{OLS}}_{i\cdot t} - \mathbf{k}_{i\cdot t}).$$

Based on these derivations, the following proposition states the corrected asymptotic distribution for the coefficients in the decay regression.

Proposition 5. *Under the conditions of Proposition 3 and Assumptions 1, 2, and 3 we have that*

$$\sqrt{N}(\hat{\boldsymbol{\theta}}_N - \boldsymbol{\theta}_0) \xrightarrow{d} \mathcal{N}(\mathbf{0}, (\boldsymbol{\Lambda}'\mathbf{W}\boldsymbol{\Lambda})^{-1}\boldsymbol{\Lambda}'\mathbf{W}(\boldsymbol{\Xi} + \boldsymbol{\Omega})\mathbf{W}\boldsymbol{\Lambda}(\boldsymbol{\Lambda}'\mathbf{W}\boldsymbol{\Lambda})^{-1})$$

with

$$\begin{aligned}
\boldsymbol{\Lambda} &\equiv \mathbb{E}\,\frac{\partial}{\partial\boldsymbol{\theta}}\mathbf{g}\left(\boldsymbol{\theta}_0, k_{is,t+\Delta}, k_{ist}; \boldsymbol{\delta}_0\right), \\
\boldsymbol{\Xi} &\equiv \mathbb{E}\,\mathbf{g}\left(\boldsymbol{\theta}_0, k_{is,t+\Delta}, k_{ist}; \boldsymbol{\delta}_0\right)\mathbf{g}\left(\boldsymbol{\theta}_0, k_{is,t+\Delta}, k_{ist}; \boldsymbol{\delta}_0\right)', \\
\boldsymbol{\Omega} &\equiv \lim_{N\to\infty}\frac{1}{ND}\sum_{i=1}^{I}\sum_{t=1}^{T}\mathbf{G}_{it}\boldsymbol{\Sigma}^*_{it}\mathbf{G}'_{it}/\omega_{it},
\end{aligned}$$

where the s'th column of the matrix $\mathbf{G}_{it}$ is defined as in (S.3)*, and ω_{it} and $\boldsymbol{\Sigma}^*_{it}$ are defined as in Appendix D.2.*

Proof. The proof follows the same logic as the proof of Proposition 4, but uses the asymptotic expansion derived in this section. □

S.3 The variance-covariance matrix of η and σ^2

Consider mean reversion of export capability under (S.1):

$$k_{is,t+\Delta} - k_{ist} = \rho k_{ist} + \delta_{it} + \delta_{st} + \epsilon_{is,t+\Delta}.$$

The coefficient ρ measures the fraction of log comparative advantage that dissipates over the time interval Δ. A constant ρ implies that dissipation is symmetric in the sense that export capability below zero reverts towards zero at the same rate as export capability above zero.

Suppose an Ornstein-Uhlenbeck (OU) process generates log comparative advantage $\ln \hat{A}_{is}(t)$ in continuous time, consistent with mean reversion of export capability following (S.1):

$$\mathrm{d}\ln\hat{A}_{is}(t) = -\frac{\eta\sigma^2}{2}\ln\hat{A}_{is}(t)\,\mathrm{d}t + \sigma\,\mathrm{d}W^{\hat{A}}_{is}(t), \tag{S.4}$$

where $W^{\hat{A}}_{is}(t)$ is a Wiener process that induces stochastic innovations in comparative advantage.[57] Equation (S.4) simply restates (11) from the text.

The discrete-time process that results from sampling from an OU process at a fixed time interval Δ is a Gaussian first-order autoregressive process with autoregressive parameter $\exp\{-\eta\sigma^2\Delta/2\}$ and innovation variance $(1-\exp\{-\eta\sigma^2\Delta\})/\eta$ (Aït-Sahalia, Hansen, and Scheinkman 2010, Example 13). Applying this insight to the first-difference equation (S.1), we obtain

$$\begin{aligned}
\rho &\equiv -(1-\exp\{-\eta\sigma^2\Delta/2\}) < 0, \\
s^2 &= (1-\exp\{-\eta\sigma^2\Delta\})/\eta > 0,
\end{aligned} \tag{S.5}$$

[57]Recall from definition (14) that comparative advantage in continuous time is $\hat{A}_{is}(t) \equiv A_{is}(t)/Z_s(t)$, where $A_{is}(t) = \exp\{k_{is}(t)\}/\exp\{(1/S)\sum_{\varsigma} k_{i\varsigma}(t)\}$ is measured absolute advantage by (7) and $Z_s(t)$ is an unobserved country-wide stochastic trend.

as also shown in the main text, where s^2 is the variance of the residual $\epsilon_{is}(t, t+\Delta)$ in (S.1) and the residual is normally distributed with mean zero. The decay model (S.1) is equivalent to an OU process with $\eta > 0$ given the unobserved country fixed effect $\delta_s(t) \equiv \ln Z_s(t+\Delta) - (1+\rho) \ln Z_s(t)$. An OU process with $\rho \in (-1, 0)$ generates a log normal stationary distribution of absolute advantage $A_{is}(t) = Z_s(t)\hat{A}_{is}(t)$ in the cross section, with a shape parameter of $1/\eta$ and a mean of zero.

The two equations (S.5) in (ρ, s^2) can be solved out for the equivalent OU parameters (η, σ^2):

$$
\begin{aligned}
\eta &= \frac{1-(1+\rho)^2}{s^2} > 0, \\
\sigma^2 &= \frac{\ln(1+\rho)^{-2}}{\Delta\,\eta} = \frac{s^2}{1-(1+\rho)^2}\frac{\ln(1+\rho)^{-2}}{\Delta} > 0.
\end{aligned} \tag{S.6}
$$

To express derivations more compactly, we consider the OU parameter vector $(\eta, \sigma^2)'$ a function $\mathbf{h}(\rho, s^2; \Delta)$ with

$$
\begin{pmatrix} \eta \\ \sigma^2 \end{pmatrix} = \mathbf{h}\big(\rho, s^2; \Delta\big) \equiv \begin{pmatrix} \frac{1-(1+\rho)^2}{s^2} \\ \frac{s^2}{1-(1+\rho)^2}\frac{\ln(1+\rho)^{-2}}{\Delta} \end{pmatrix}. \tag{S.7}
$$

Estimation. The OU process implies that equation (S.1) satisfies the assumptions of the classic regression model. Estimation of (S.1) with ordinary least squares therefore provides us with consistent estimators:

$$
\begin{aligned}
(\hat{\rho}, \hat{\boldsymbol{\delta}}')' \equiv (\mathbf{X}'\mathbf{X})^{-1}\mathbf{X}'\mathbf{y} &\sim \mathcal{N}\left((\hat{\rho}, \hat{\boldsymbol{\delta}}')', s^2(\mathbf{X}'\mathbf{X})^{-1}\right) \qquad \text{(S.8)} \\
\hat{s}^2 \equiv \frac{RSS}{N-P} &\sim \frac{s^2}{N-P}\,\chi^2_{N-P},
\end{aligned}
$$

where $\mathbf{y} \equiv \mathbf{J}^S_{i,t+\Delta}\mathbf{k}_{i\cdot,t+\Delta} - \mathbf{J}^S_{it}\mathbf{k}_{i\cdot t}$ is the dependent variable, $\mathbf{X} \equiv [\mathbf{J}^S_{it}\mathbf{k}_{i\cdot t}, \mathbf{I}_{it}, \mathbf{I}_{st}]$ is the $N \times P$ matrix of regressors ($N \equiv \sum_{t=1}^{I}\sum_{t=1}^{T-\Delta}|\mathcal{S}_{it}|$), RSS is the residual sum of squares (the sum of the squared regression residuals), and χ^2_{N-P} denotes a χ^2-distributed variable with $N-P$ degrees of freedom.[58] The variance of the estimator $\hat{\rho}$ is $\mathbb{V}_{\hat{\rho}} = s^2(X'X)^{-1}$, the variance of the estimator $\hat{s}^2$ is $\mathbb{V}_{\hat{s}^2} = 2s^4/(N-P)$ by the χ^2-distribution, and the estimators $\hat{\rho}$ and $\hat{s}^2$ are independent of each other by the properties of the classic regression model. For convenience, we define the variance-covariance matrix between the two estimators as

$$
\boldsymbol{\Sigma}_{\rho,s^2} \equiv \begin{pmatrix} \mathbf{V}_{\hat{\rho}} & 0 \\ 0 & \mathbf{V}_{\hat{s}^2} \end{pmatrix} = \begin{pmatrix} s^2(\mathbf{X}'\mathbf{X})^{-1} & 0 \\ 0 & 2s^4/(N-P) \end{pmatrix}. \tag{S.9}
$$

By (S.6) and (S.7), the according estimators of the equivalent OU parameters $(\hat{\eta}, \hat{\sigma}^2)$ can be compactly written as the function

$$
\begin{pmatrix} \hat{\eta} \\ \hat{\sigma}^2 \end{pmatrix} = \mathbf{h}\big(\hat{\rho}, \hat{s}^2; \Delta\big).
$$

By the multivariate delta method, this estimator is normally distributed with

$$
\begin{pmatrix} \hat{\eta} \\ \hat{\sigma}^2 \end{pmatrix} \sim \mathcal{N}\Big(\mathbf{h}\big(\rho, s^2; \Delta\big), \nabla_{\{\rho,s^2\}}\mathbf{h}\big(\rho, s^2; \Delta\big)\cdot\boldsymbol{\Sigma}_{\rho,s^2}\cdot\nabla_{\{\rho,s^2\}}\mathbf{h}\big(\rho, s^2; \Delta\big)'\Big), \tag{S.10}
$$

[58] As in Appendix D, $\mathbf{k}_{i\cdot t}$ denotes the vector of export capabilities of industry i at time t across countries and $\mathbf{J}^S_{it}$ is a matrix of indicators reporting the exporter country by observation.

where

$$\nabla_{\{\rho,s^2\}}\mathbf{h}\big(\rho,s^2;\Delta\big)=\begin{pmatrix}\frac{\partial\eta}{\partial\rho} & \frac{\partial\eta}{\partial s^2}\\ \frac{\partial\sigma^2}{\partial\rho} & \frac{\partial\sigma^2}{\partial s^2}\end{pmatrix}=\begin{pmatrix}-\frac{2(1+\rho)}{s^2} & -\frac{1-(1+\rho)^2}{s^4}\\ -\frac{2s^2}{\Delta}\frac{\left[1-(1+\rho)^2\right]-(1+\rho)^2\ln(1+\rho)^{-2}}{(1+\rho)^2[1-(1+\rho)^2]^2} & \frac{\ln(1+\rho)^{-2}}{\Delta[1-(1+\rho)^2]}\end{pmatrix}$$

with $\partial\eta/\partial\rho,\partial\eta/\partial s^2,\partial\sigma^2/\partial\rho<0$ and $\partial\sigma^2/\partial s^2>0$ for $\rho\in(-1,0)$. For clarity, using (S.9) the variance-covariance matrix of the estimator $(\hat{\eta},\hat{\sigma}^2)'$ can also be rewritten as

$$\nabla_{\{\rho,s^2\}}\mathbf{h}\big(\rho,\hat{s}^2;\Delta\big)\cdot\mathbf{\Sigma}_{\rho,s^2}\cdot\nabla_{\{\rho,s^2\}}\mathbf{h}\big(\rho,s^2;\Delta\big)'=\begin{pmatrix}\left(\frac{\partial\eta}{\partial\rho}\right)^2\mathbf{V}_{\hat{\rho}}+\left(\frac{\partial\eta}{\partial s^2}\right)^2\mathbf{V}_{\hat{s}^2} & \frac{\partial\eta}{\partial\rho}\frac{\partial\sigma^2}{\partial\rho}\mathbf{V}_{\hat{\rho}}+\frac{\partial\eta}{\partial s^2}\frac{\partial\sigma^2}{\partial s^2}\mathbf{V}_{\hat{s}^2}\\ \frac{\partial\eta}{\partial\rho}\frac{\partial\sigma^2}{\partial\rho}\mathbf{V}_{\hat{\rho}}+\frac{\partial\eta}{\partial s^2}\frac{\partial\sigma^2}{\partial s^2}\mathbf{V}_{\hat{s}^2} & \left(\frac{\partial\sigma^2}{\partial\rho}\right)^2\mathbf{V}_{\hat{\rho}}+\left(\frac{\partial\sigma^2}{\partial s^2}\right)^2\mathbf{V}_{\hat{s}^2}\end{pmatrix}.$$

Similarly, for the full vector of all estimators $\mathbf{H}(\rho,s^2;\Delta)\equiv(\hat{\rho},\hat{s}^2,\hat{\eta},\hat{\sigma}^2)'$ the variance-covariance matrix $\mathbf{Cov}=\nabla_{\{\rho,s^2\}}\mathbf{H}\big(\rho,\hat{s}^2;\Delta\big)\cdot\mathbf{\Sigma}_{\rho,s^2}\cdot\nabla_{\{\rho,s^2\}}\mathbf{H}\big(\rho,s^2;\Delta\big)'$ can be written as

$$\mathbf{Cov}=\begin{pmatrix}\mathbf{V}_{\hat{\rho}} & 0 & \frac{\partial\eta}{\partial\rho}\mathbf{V}_{\hat{\rho}} & \frac{\partial\sigma^2}{\partial\rho}\mathbf{V}_{\hat{\rho}}\\ 0 & \mathbf{V}_{\hat{s}^2} & \frac{\partial\eta}{\partial s^2}\mathbf{V}_{\hat{s}^2} & \frac{\partial\sigma^2}{\partial s^2}\mathbf{V}_{\hat{s}^2}\\ \frac{\partial\eta}{\partial\rho}\mathbf{V}_{\hat{\rho}} & \frac{\partial\eta}{\partial s^2}\mathbf{V}_{\hat{s}^2} & \left(\frac{\partial\eta}{\partial\rho}\right)^2\mathbf{V}_{\hat{\rho}}+\left(\frac{\partial\eta}{\partial s^2}\right)^2\mathbf{V}_{\hat{s}^2} & \frac{\partial\eta}{\partial\rho}\frac{\partial\sigma^2}{\partial\rho}\mathbf{V}_{\hat{\rho}}+\frac{\partial\eta}{\partial s^2}\frac{\partial\sigma^2}{\partial s^2}\mathbf{V}_{\hat{s}^2}\\ \frac{\partial\sigma^2}{\partial\rho}\mathbf{V}_{\hat{\rho}} & \frac{\partial\sigma^2}{\partial s^2}\mathbf{V}_{\hat{s}^2} & \frac{\partial\eta}{\partial\rho}\frac{\partial\sigma^2}{\partial\rho}\mathbf{V}_{\hat{\rho}}+\frac{\partial\eta}{\partial s^2}\frac{\partial\sigma^2}{\partial s^2}\mathbf{V}_{\hat{s}^2} & \left(\frac{\partial\sigma^2}{\partial\rho}\right)^2\mathbf{V}_{\hat{\rho}}+\left(\frac{\partial\sigma^2}{\partial s^2}\right)^2\mathbf{V}_{\hat{s}^2}\end{pmatrix}.$$

S.4 Top products

Table S1 shows the top two products in terms of normalized log absolute advantage $\ln A_{ist}$ for 28 of the 90 exporting countries, using 1987 and 2007 as representative years. To obtain a measure of comparative advantage, we normalize log absolute advantage by its country mean: $\ln A_{ist}-(1/I)\sum_{\iota}^{I}\ln A_{\iota st}$. The country normalization of log absolute advantage $\ln A_{ist}$ results in a double log difference of export capability k_{ist}—a country's log deviation from the global industry mean in export capability less its average log deviation across all industries. For comparison, **Table S2** presents the top two products in terms of the Balassa RCA index.

S.5 Absolute advantage and export shares

To verify that our measure of export advantage (7) does not peg obscure industries as top sectors, we plot $\ln A_{ist}$ against the log of the share of the industry in national exports $\ln\left(X_{ist}/(\sum_{\iota}X_{\iota st})\right)$. As **Figure S1** documents for the years 1967, 1987 and 2007, there is a strongly positive correlation between log absolute advantage and the log industry share of national exports. This correlation is 0.77 in 1967, 0.78 in 1987, and 0.83 in 2007. (For comparison, the correlation between $\ln A_{ist}$ and the log Balassa RCA index in these same years is 0.69, 0.70, and 0.68, respectively.

S.6 Additional evidence on cumulative probability distributions

We repeat the cumulative probability distribution plots, which were based on OLS estimated gravity measures of absolute advantage, now using absolute advantage measures based on the Poisson pseudo-maximum-likelihood (PPML) gravity model proposed by Silva and Tenreyro (2006). This exercise helps us verify that the cross sectional distributions of OLS-based absolute advantage in **Figures A2** and **A3** in the Appendix to the main paper are robust to alternative gravity estimation that can accommodate zero bilateral trade flows. **Figures S2** and **S3** plot, for the same 28 countries in 1987 and 2007, the log number of a source country s's industries that

Table S1: **Top Two Industries by Normalized Absolute Advantage**

Country	**1987**		**2007**		**Country**	**1987**		**2007**	
Argentina	Maize, unmilled	4.22	Maize, unmilled	5.48	Mexico	Sulphur	3.63	Alcoholic beverages	4.00
	Animal feed	3.88	Oil seed	4.59		Other crude minerals	3.22	Office machines	3.85
Australia	Wool	3.74	Cheese and curd	3.23	Peru	Metal ores & concntr.	4.21	Metal ores & concntr.	6.33
	Jute	3.78	Fresh meat	3.18		Animal feed	4.00	Coffee	4.69
Brazil	Iron ore	3.61	Iron ore	5.18	Philippines	Vegetable oils & fats	3.85	Office machines	4.48
	Coffee	3.39	Fresh meat	4.47		Preserved fruits & nuts	3.54	Electric machinery	3.59
Canada	Sulphur	3.99	Wheat, unmilled	5.16	Poland	Barley, unmilled	5.34	Furniture	2.19
	Iron ore	3.57	Sulphur	3.34		Sulphur	3.26	Glassware	2.77
China	Explosives	7.33	Sound/video recorders	4.99	Rep. Korea	Radio receivers	5.57	Television receivers	6.06
	Maize, unmilled	6.89	Radio receivers	4.71		Television receivers	5.43	Telecomm. equipmt.	5.11
Czech Rep.	Glassware	4.06	Glassware	4.26	Romania	Furniture	3.55	Footwear	3.50
	Prep. cereal & flour	3.69	Road vehicles	3.67		Fertilizers, manuf.	2.73	Silk	3.16
Egypt	Cotton	4.46	Fertilizers, crude	4.34	Russian Fed.	Maize, unmilled	5.63	Animal oils & fats	8.11
	Textile yarn, fabrics	2.84	Rice	3.79		Pulp & waste paper	5.04	Fertilizers, manuf.	4.34
France	Electric machinery	3.52	Other transport eqpmt.	3.42	South Africa	Stone, sand & gravel	3.90	Iron & steel	4.17
	Alcoholic beverages	3.47	Alcoholic beverages	3.26		Radioactive material	3.62	Fresh fruits & nuts	3.47
Germany	Road vehicles	4.08	Metalworking mach.	2.78	Taiwan	Explosives	4.74	Television receivers	5.24
	General machinery	4.02	Meters & counters	0.75		Footwear	4.45	Office machines	5.06
Hungary	Margarine	3.21	Telecomm. equipmt.	4.21	Thailand	Rice	4.92	Rice	4.99
	Fresh meat	2.79	Office machines	4.14		Fresh vegetables	4.18	Natural rubber	4.57
India	Tea	4.23	Precious stones	3.89	Turkey	Fresh vegetables	3.45	Glassware	3.35
	Leather	3.92	Rice	3.65		Tobacco, unmanuf.	3.38	Textile yarn, fabrics	3.25
Indonesia	Natural rubber	5.02	Natural rubber	5.24	United States	Office machines	4.00	Other transport eqpmt.	3.49
	Improved wood	4.66	Sound/video recorders	4.88		Other transport eqpmt.	3.29	Photographic supplies	2.63
Japan	Sound/video recorders	6.37	Sound/video recorders	5.97	United Kingd.	Measuring instrmnts.	3.22	Alcoholic beverages	3.30
	Road vehicles	6.17	Road vehicles	5.70		Office machines	3.17	Pharmaceutical prod.	3.16
Malaysia	Natural rubber	6.19	Radio receivers	5.77	Vietnam	Maize, unmilled	7.63	Animal oils & fats	10.26
	Vegetable oils & fats	4.85	Sound/video recorders	5.01		Jute	5.16	Footwear	6.97

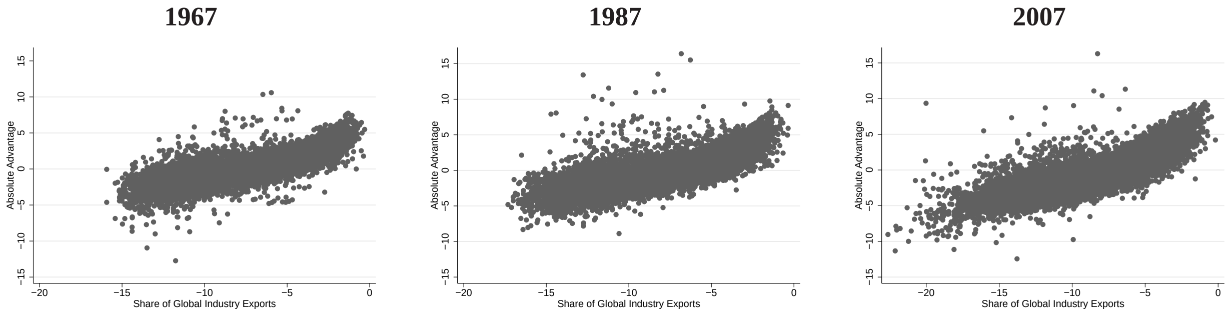
Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 133 time-consistent industries in 90 countries from 1962-2007.
Note: Top two industries for 28 of the 90 countries in 1987 and 2007 in terms of normalized log absolute advantage, relative to the country mean: $\ln A_{ist} - (1/I)\sum_{i'}^{I} \ln A_{i'st}$.

Table S2: **Top Two Industries by Balassa Comparative Advantage**

Country	1987		2007		Country	1987		2007	
Argentina	Cereals, unmilled	3.65	Animal feed	3.74	Mexico	Stone, sand & gravel	2.14	Television receivers	2.20
	Dyeing extracts	3.20	Oil seed	3.34		Sulphur	2.12	Fresh vegetables	1.45
Australia	Wool	3.74	Uranium	4.57	Peru	Metal ores & concntr.	3.79	Animal oils & fats	4.07
	Uranium	3.58	Wool	4.04		Ores, precious metals	3.19	Metal ores & concntr.	3.83
Brazil	Iron ore	3.34	Iron ore	5.18	Philippines	Vegetable oils & fats	3.81	Office machines	4.41
	Preserved fruits/nuts	2.64	Tobacco, unmanuf.	3.21		Pres. fruits & nuts	3.50	Electric machinery	3.51
Canada	Sulphur	2.24	Cinemat. film, exposed	2.64	Poland	Sulphur	3.78	Smoked fish	2.19
	Pulp & waste paper	1.90	Sulphur	2.45		Preserved meat	2.66	Wood manuf.	1.71
China	Silk	3.77	Silk	1.97	Rep. Korea	Travel goods	1.88	Optical instrmnts.	2.15
	Jute	3.30	Travel goods	1.43		Footwear	1.78	Synthetic fibres	1.49
Czech Rep.	Glassware	2.03	Television receivers	1.61	Romania	Jute	3.28	Leather manuf.	3.03
	Metalworking mach.	1.74	Glassware	1.33		Fertilizers, manuf.	2.71	Silk	2.03
Egypt	Cotton	4.47	Fertilizers, crude	3.70	Russian Fed.	Ferrous scrap metal	2.58	Fertilizers, manuf.	3.00
	Vegetable fibres	2.57	Vegetable fibres	3.63		Raw furskins	5.02	Radioactive material	2.72
France	Alcoholic beverages	1.70	Vegetable fibres	2.21	South Africa	Uranium	3.92	Ores, precious metals	3.09
	Radioactive material	1.49	Alcoholic beverages	1.72		Ores, precious metals	3.02	Natural abrasives	2.71
Germany	Synthetic dye	0.95	Other man-made fibres	0.99	Taiwan	Travel goods	2.09	Optical instrmnts.	2.27
	Dyeing extracts	0.77	Meters & counters	0.75		Footwear	1.96	Synthetic fibres	1.51
Hungary	Preserved meat	2.22	Television receivers	1.63	Thailand	Rice	3.93	Natural rubber	3.24
	Crude animal materials	2.17	Maize, unmilled	1.58		Cereal meals & flour	3.31	Rice	3.03
India	Tea	3.81	Iron ore	2.68	Turkey	Tobacco unmanuf.	3.17	Tobacco unmanuf.	2.28
	Spices	3.10	Precious stones	2.65		Crude minerals	2.45	Lime, cement	2.11
Indonesia	Improved wood	3.90	Natural rubber	3.57	United States	Maize, unmilled	1.42	Maize, unmilled	1.64
	Natural rubber	3.88	Vegetable oils & fats	3.03		Oil seed	1.39	Cotton	1.56
Japan	Sound/video recorders	1.76	Photographic supplies	1.36	United Kingd.	Cinemat. film, exposed	1.47	Alcoholic beverages	1.27
	Photographic eqpmnt.	1.33	Photographic eqpmnt.	1.23		Precious stones	1.41	Rags	1.07
Malaysia	Natural rubber	3.90	Proc. animal/plant oils	2.71	Vietnam	Fresh shellfish	4.59	Rice	3.74
	Proc. animal/plant oils	3.56	Vegetable oils & fats	2.36		Spices	3.42	Natural rubber	3.12

Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 133 time-consistent industries in 90 countries from 1962-2007.
Note: Top two industries for 28 of the 90 countries in 1987 and 2007 in terms of log revealed comparative advantage, using the log Balassa (1965) index $\ln RCA_{ist} = \ln(X_{ist}/\sum_{\varsigma} X_{i\varsigma t})/(\sum_{\iota} X_{\iota st}/\sum_{\iota}\sum_{\varsigma} X_{\iota\varsigma t})$.

Figure S1: **Absolute Advantage and Export Shares**



Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 133 time-consistent industries in 90 countries from 1962-2007.
Note: The vertical axis shows a country-industry's gravity-based measure of log absolute advantage $\ln A_{ist}$ given by (7), the horizontal axis plots the same country-industry's share of the industry i's global export value: $X_{ist}/(\sum_{\varsigma} X_{i\varsigma t})$.

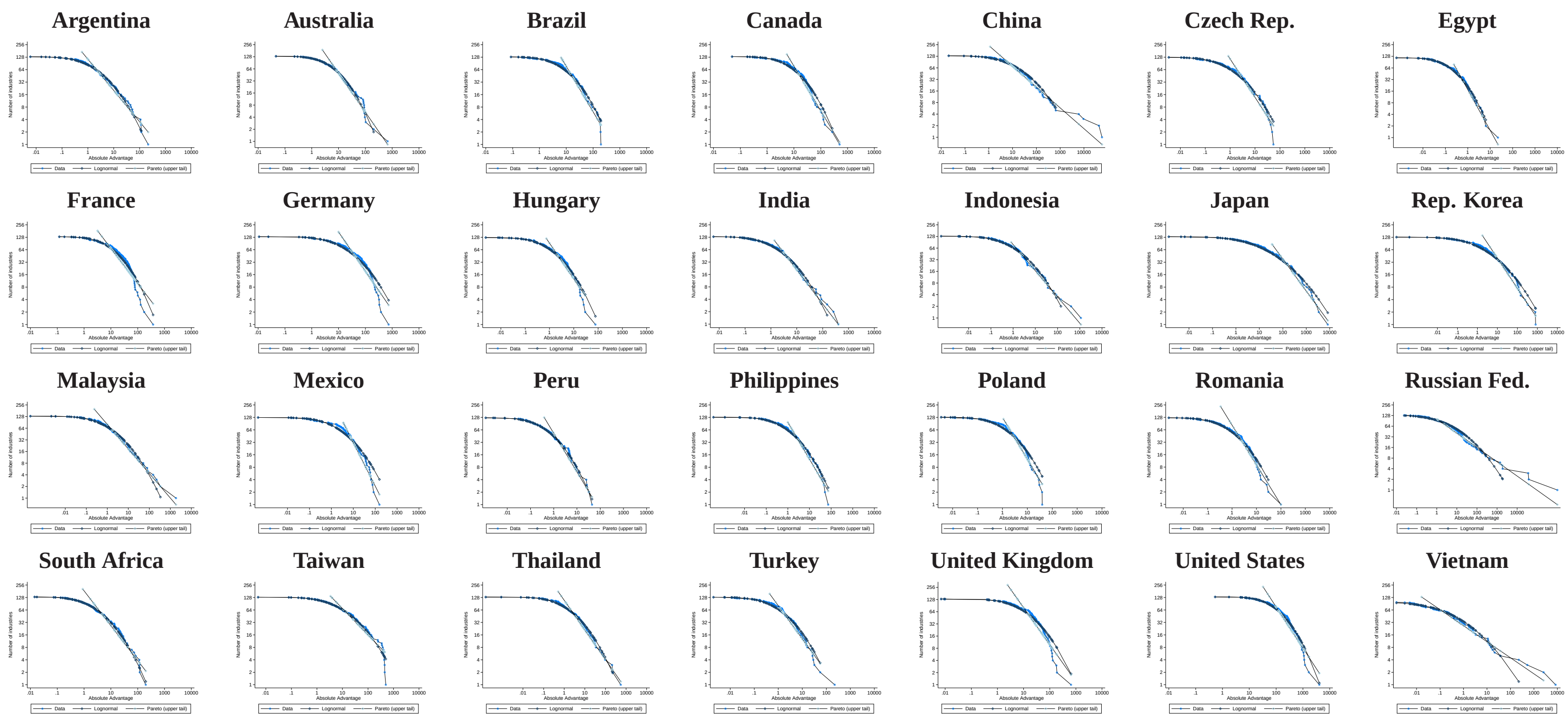
have at least a given level of PPML-based absolute advantage in year t against that comparative advantage level for industries i. The figures also graph the fit of the revealed comparative advantage index in the cross section to a log normal distribution using maximum likelihood separately for each country in each year. Results resemble those for export capabilities (7).

To verify that the graphed cross sectional distributions in **Figures A2** and **A3** in the Appendix to the main paper are not a byproduct of specification error in estimating export capabilities (7) from the gravity model, we also repeat the cumulative probability distribution plots using the revealed comparative advantage index by Balassa (1965) for comparative advantage. **Figures S4** and **S5** plot, for the same 28 countries in 1987 and 2007, the log number of a source country s's industries that have at least a given level of revealed comparative advantage $(X_{is}/\sum_{\varsigma} X_{i\varsigma})/(\sum_{\iota} X_{\iota s}/\sum_{\iota}\sum_{\varsigma} X_{\iota\varsigma})$ in year t against that comparative advantage level for industries i. The figures also graph the fit of the revealed comparative advantage index in the cross section to a log normal distribution using maximum likelihood separately for each country in each year. Results broadly resemble those for export capabilities (7).

To verify that the graphed cross sectional distributions in **Figures A2** and **A3** in the Appendix are not a consequence of arbitrary industry aggregation, we construct plots also at the 2-digit and 3-digit levels, based on SITC revision 2 data in 1987 and 2007. The figures also graph the fit of log absolute advantage in the cross section to a log normal distribution using maximum likelihood separately for each country in each year. As **Figures S6** and S7 show for 60 time-consistent 2-digit industries, and **Figures S8** and S9 for 224 time-consistent 3-digit industries, stability across countries and over time in the curvatures are broadly similar to those for export capabilities at our benchmark SITC 2-3 digit level for 133 industries.

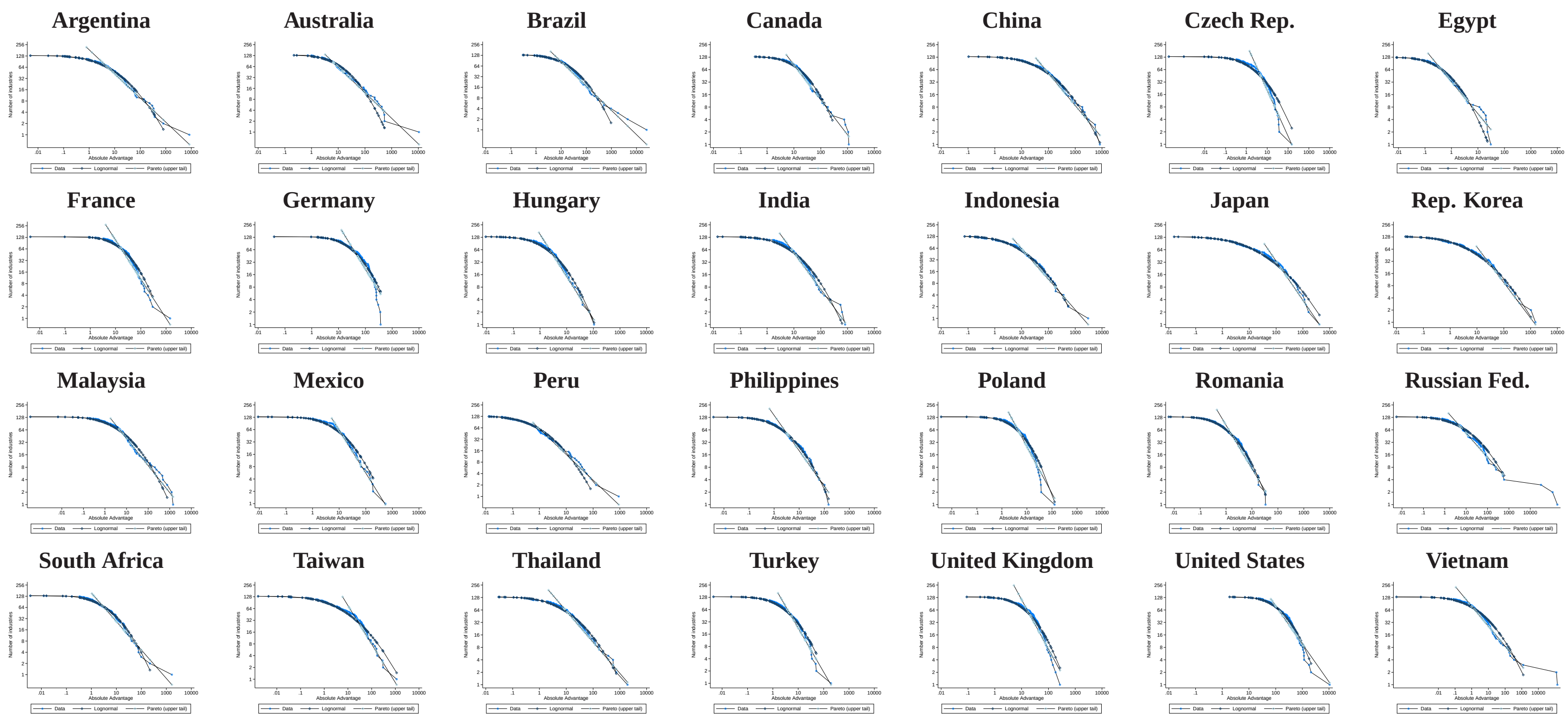
To further substantiate the stationarity of comparative advantage measures, we compare the pooled industry-level measures of comparative advantage across countries from OLS-based export capability to those from PPML-based export capability in **Figure S10**. We obtain log comparative advantage as the residuals from OLS projections on industry-year and source country-year effects and plot the percentiles of the global distribution of these comparative advantage measures over time. The time lines for the 5th/95th, 20th/80th, 30th/70th, and 45th/55th percentiles are, with minor fluctuation, parallel to the horizontal axis for both OLS-based and PPML-based export capability—a strong indication that the global distribution of comparative advantage is stationary. **Figure S11** plots a selection of time lines from **Figure S10** and compares them visually to the GMM estimates of the comparative advantage diffusion (15) in Table 2 (parameters η and ϕ in columns 1 and 4). The fit is close, especially for the PPML-based measures of export capability.

Figure S2: **Cumulative Probability Distribution of PPML Absolute Advantage for 28 Countries in 1987**



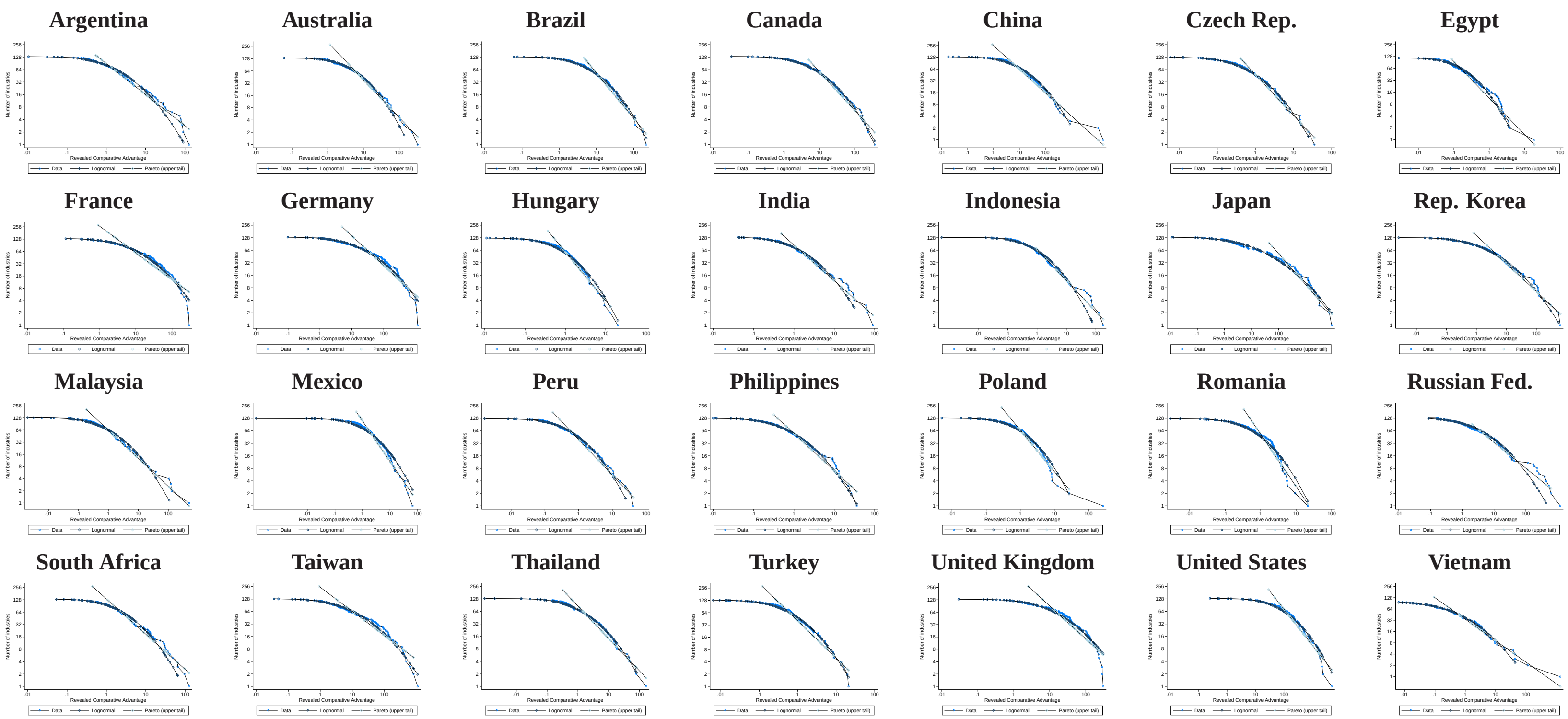
Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 133 time-consistent industries in 90 countries from 1985-1987 and CEPII.org; three-year means of PPML gravity measures of export capability (log absolute advantage) $k = \ln A$ from (8).
Note: The graphs show the observed and predicted frequency of industries (the cumulative probability $1 - F_A(a)$ times the total number of industries $I = 133$) on the vertical axis plotted against the level of absolute advantage a (such that $A_{ist} \geq a$) on the horizontal axis, for the year $t = 1987$. Both axes have a log scale.

Figure S3: **Cumulative Probability Distribution of PPML Absolute Advantage for 28 Countries in 2007**



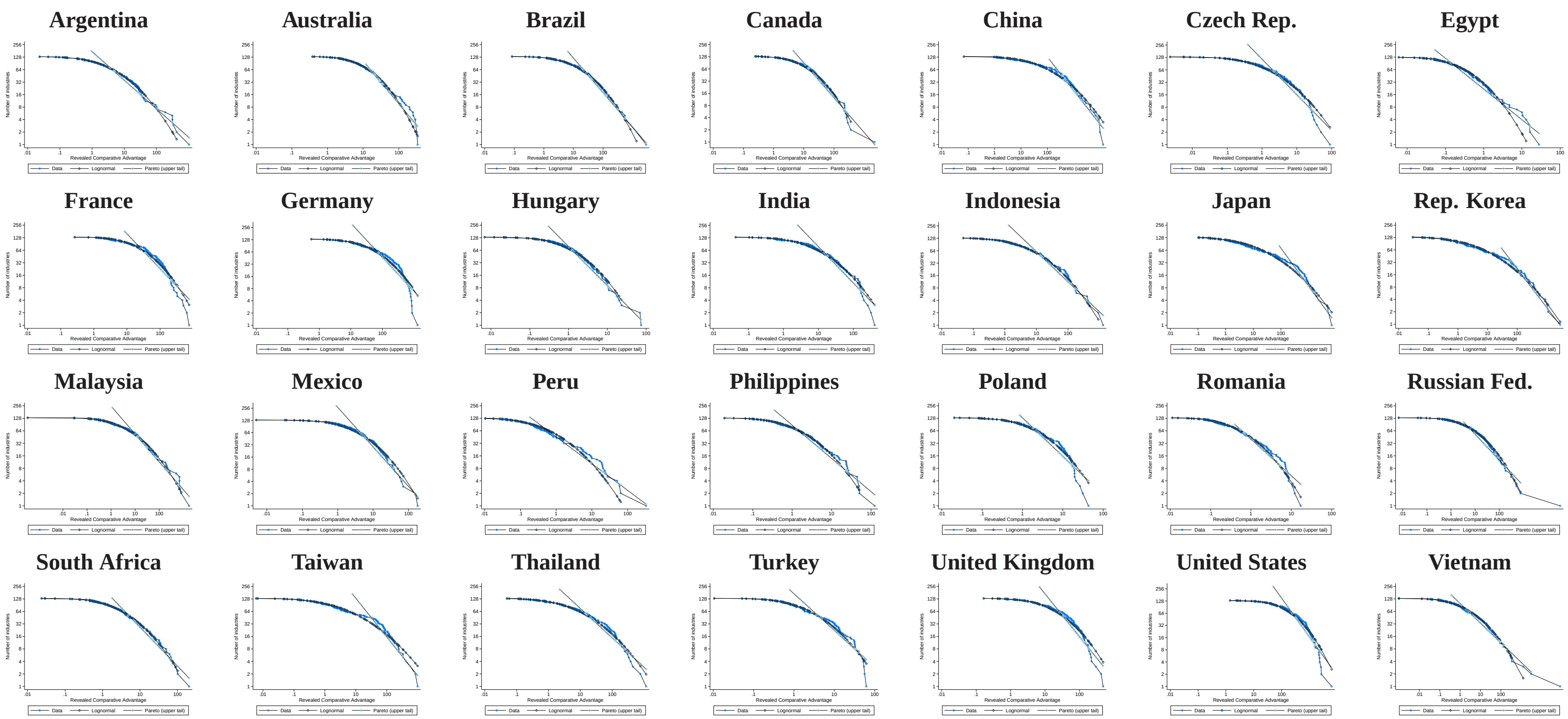
Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 133 time-consistent industries in 90 countries from 2005-2007 and CEPII.org; three-year means of PPML gravity measures of export capability (log absolute advantage) $k = \ln A$ from (8).
Note: The graphs show the observed and predicted frequency of industries (the cumulative probability $1 - F_A(a)$ times the total number of industries $I = 133$) on the vertical axis plotted against the level of absolute advantage a (such that $A_{ist} \geq a$) on the horizontal axis, for the year $t = 2007$. Both axes have a log scale.

Figure S4: **Cumulative Probability Distribution of Balassa Revealed Comparative Advantage for 28 Countries in 1987**



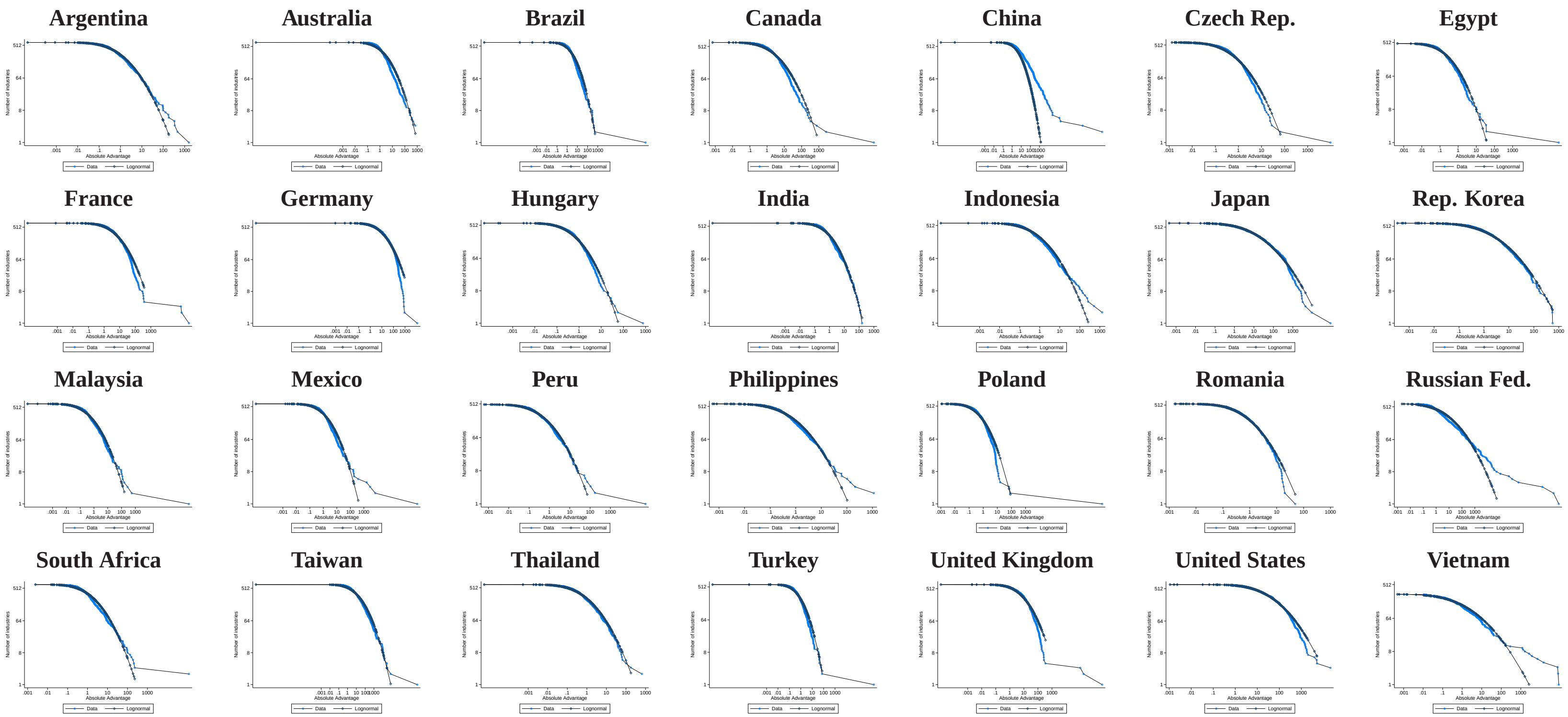
Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 133 time-consistent industries in 90 countries from 1985-1987, three-year means of .
Note: The graphs show the frequency of industries (the cumulative probability $1 - F_{\hat{X}}(\hat{x})$ times the total number of industries $I = 133$) on the vertical axis plotted against the Balassa index of revealed comparative advantage $\hat{X} = (X_{is}/\sum_{\varsigma} X_{i\varsigma})/(\sum_{\iota} X_{\iota s}/\sum_{\iota}\sum_{\varsigma} X_{\iota\varsigma})$ on the horizontal axis. Both axes have a log scale. The fitted log normal distribution is based on maximum likelihood estimation by country s in year $t = 1987$.

Figure S5: **Cumulative Probability Distribution of Balassa Revealed Comparative Advantage for 28 Countries in 2007**



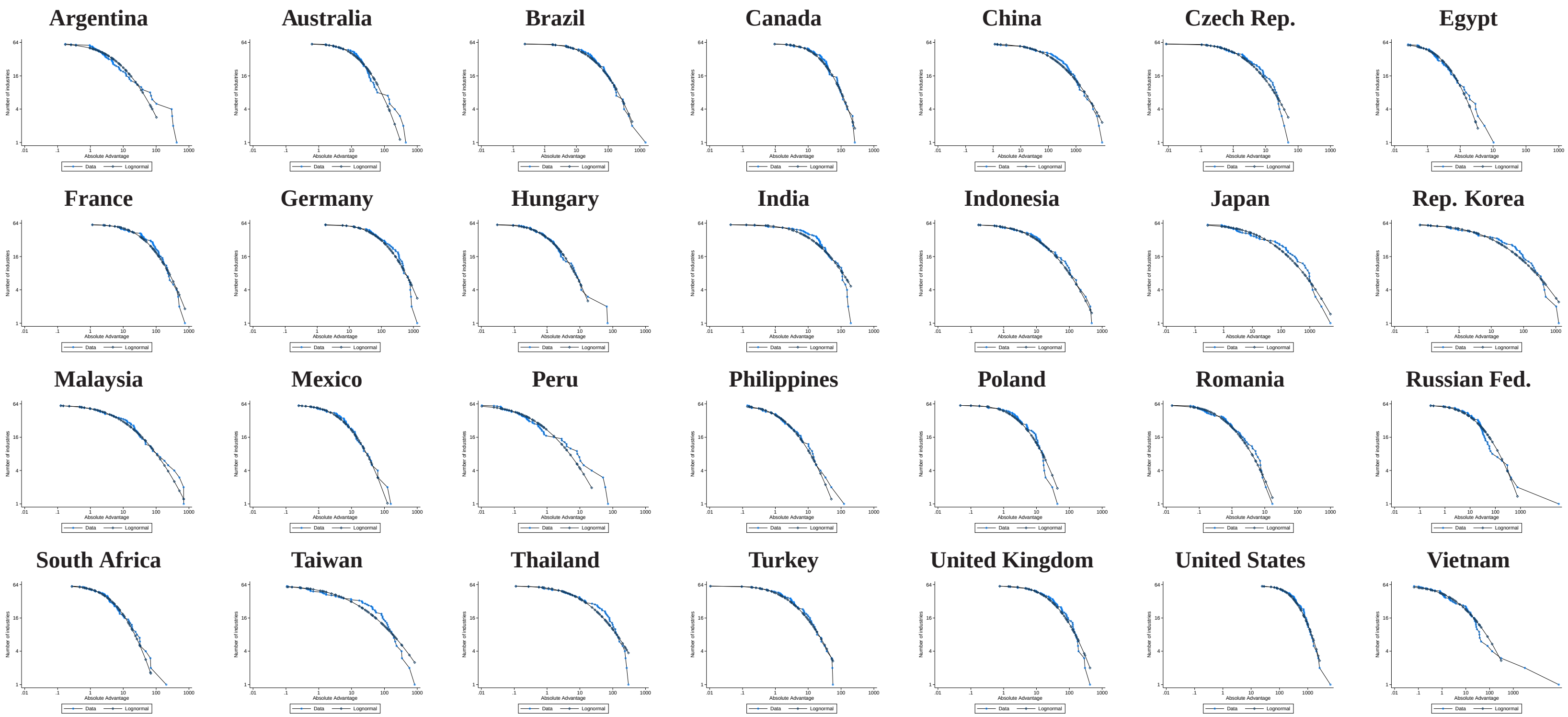
Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 133 time-consistent industries in 90 countries from 2005-2007, three-year.
Note: The graphs show the frequency of industries (the cumulative probability $1 - F_{\hat{X}}(\hat{x})$ times the total number of industries $I = 133$) on the vertical axis plotted against the Balassa index of revealed comparative advantage $\hat{X} = (X_{is}/\sum_{\varsigma} X_{i\varsigma})/(\sum_{\iota} X_{\iota s}/\sum_{\iota}\sum_{\varsigma} X_{\iota\varsigma})$ on the horizontal axis. Both axes have a log scale. The fitted log normal distribution is based on maximum likelihood estimation by country s in year $t = 2007$.

Figure S6: **Cumulative Probability Distribution of Absolute Advantage for 28 Countries in 1987, Two-digit Industries**



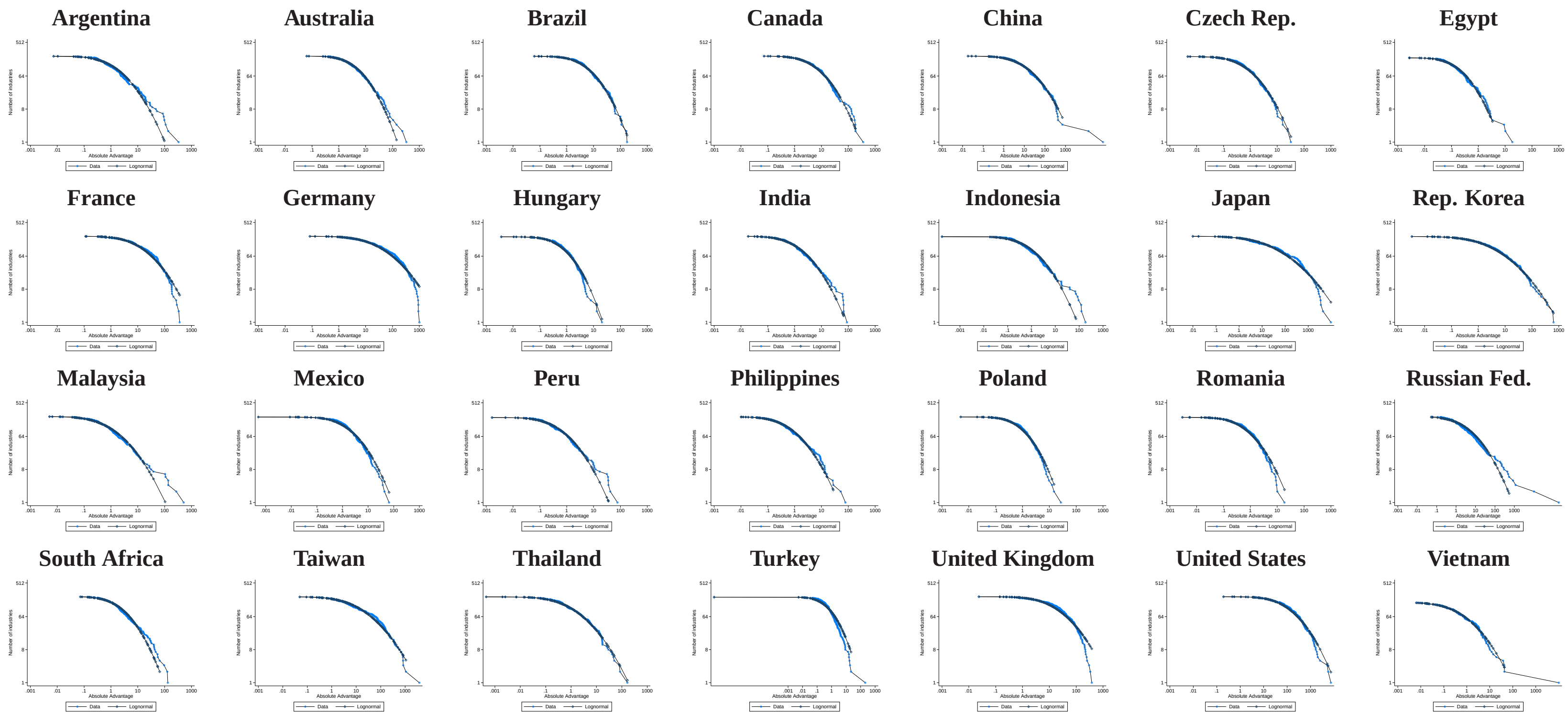
Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 60 time-consistent industries at the two-digit SITC revision 2 level in 90 countries from 1985-1987 and CEPII.org; three-year means of OLS gravity measures of export capability (log absolute advantage) $k = \ln A$ from (6).
Note: The graphs show the frequency of industries (the cumulative probability $1 - F_A(a)$ times the total number of industries $I = 683$) on the vertical axis plotted against the level of absolute advantage a (such that $A_{ist} \geq a$) on the horizontal axis. Both axes have a log scale. The fitted log normal distribution are is based on maximum likelihood estimation by country s in year $t = 1987$.

Figure S7: **Cumulative Probability Distribution of Absolute Advantage for 28 Countries in 2007, Two-digit Industries**



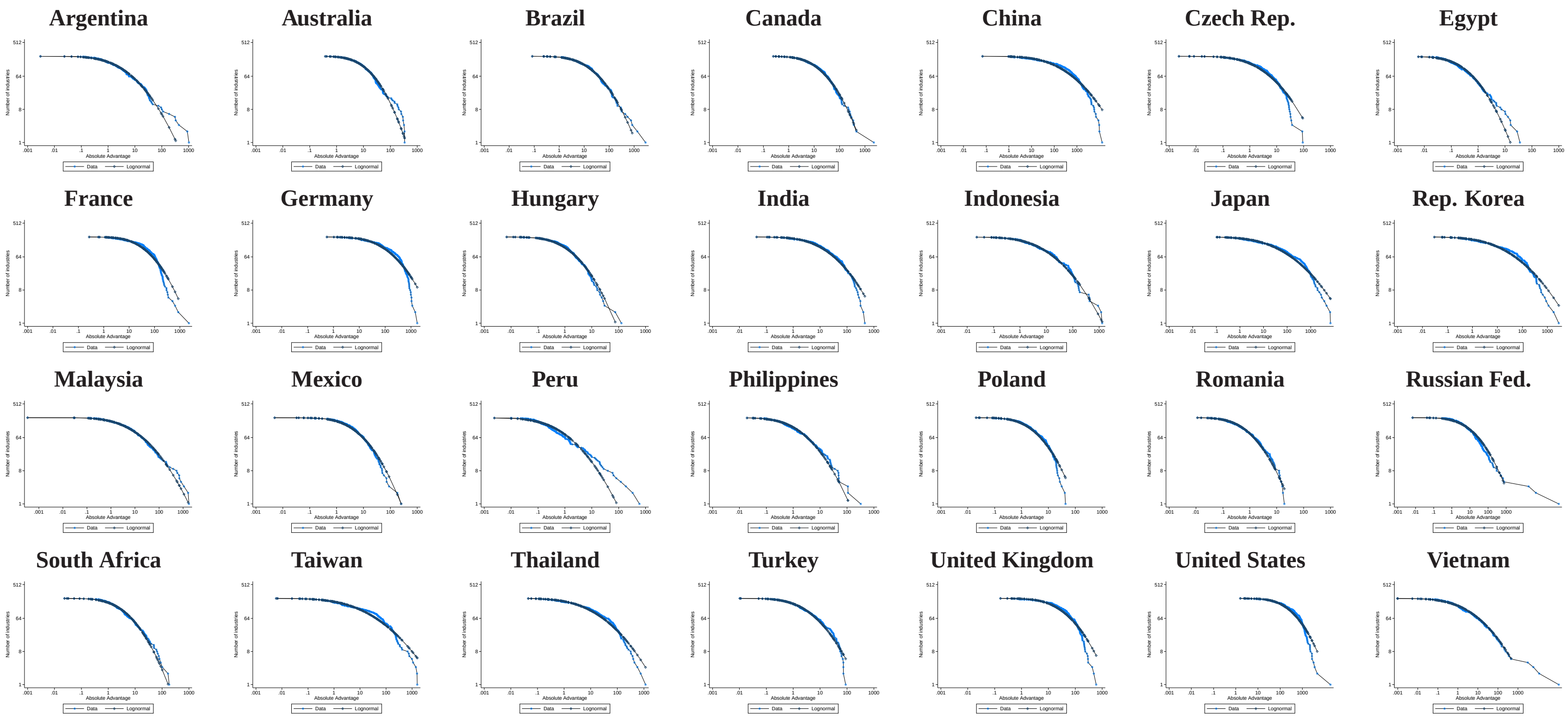
Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 60 time-consistent industries at the two-digit SITC revision 2 level in 90 countries from 2005-2007 and CEPII.org; three-year means of OLS gravity measures of export capability (log absolute advantage) $k = \ln A$ from (6).
Note: The graphs show the frequency of industries (the cumulative probability $1 - F_A(a)$ times the total number of industries $I = 683$) on the vertical axis plotted against the level of absolute advantage a (such that $A_{ist} \geq a$) on the horizontal axis. Both axes have a log scale. The fitted log normal distribution are is based on maximum likelihood estimation by country s in year $t = 2007$.

Figure S8: **Cumulative Probability Distribution of Absolute Advantage for 28 Countries in 1987, Three-digit Industries**



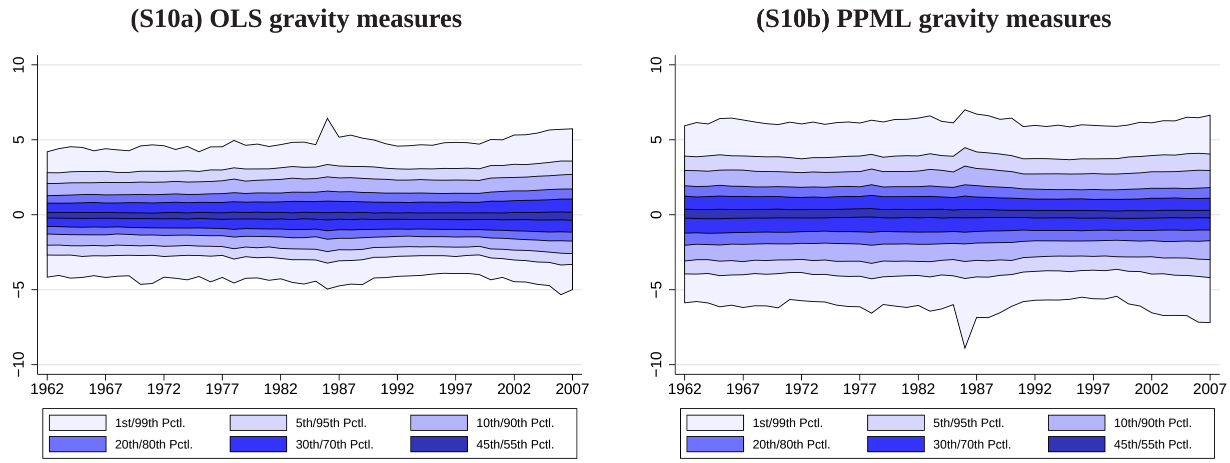
Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 224 time-consistent industries at the three-digit SITC revision 2 level in 90 countries from 1985-1987 and CEPII.org; three-year means of OLS gravity measures of export capability (log absolute advantage) $k = \ln A$ from (6).
Note: The graphs show the frequency of industries (the cumulative probability $1 - F_A(a)$ times the total number of industries $I = 683$) on the vertical axis plotted against the level of absolute advantage a (such that $A_{ist} \geq a$) on the horizontal axis. Both axes have a log scale. The fitted log normal distribution are is based on maximum likelihood estimation by country s in year $t = 1987$.

Figure S9: **Cumulative Probability Distribution of Absolute Advantage for 28 Countries in 2007, Three-digit Industries**



Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 224 time-consistent industries at the three-digit SITC revision 2 level in 90 countries from 2005-2007 and CEPII.org; three-year means of OLS gravity measures of export capability (log absolute advantage) $k = \ln A$ from (6).
Note: The graphs show the frequency of industries (the cumulative probability $1 - F_A(a)$ times the total number of industries $I = 683$) on the vertical axis plotted against the level of absolute advantage a (such that $A_{ist} \geq a$) on the horizontal axis. Both axes have a log scale. The fitted log normal distribution are is based on maximum likelihood estimation by country s in year $t = 2007$.

Figure S10: **Percentiles of Comparative Advantage Distributions by Year, OLS- and PPML-based Measures**



Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 133 time-consistent industries in 90 countries from 1962-2007; OLS and PPML gravity measures of export capability (log absolute advantage) $k = \ln A$ from (6) and (8).
Note: We obtain log comparative advantage as the residuals from OLS projections on industry-year and source country-year effects (δ_{it} and δ_{st}) for (a) OLS and (b) PPML gravity measures of log absolute advantage $\ln A_{ist}$. Panel (a) repeats Panel (a) of Figure 2

S.7 GMM estimates of comparative advantage diffusion at ten-year horizon

We repeat GMM estimation of the generalized logistic diffusion of comparative advantage at the ten-year horizon. **Table S3** shows that estimated coefficients at the ten-year horizon are comparable to those for our benchmark estimation at the five-year horizon. The qualitative similarity in global diffusion coefficients at varying intervals for the estimation moments suggest that our results tightly characterize the dynamics of comparative advantage.

Table S3: GMM Estimates of Comparative Advantage Diffusion, 10-year Transitions

	OLS gravity k			PPML gravity k			$\ln$ *RCA*		
		LDC	Nonmanf.		LDC	Nonmanf.		LDC	Nonmanf.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Estimated Generalized Logistic Diffusion Parameters									
Dissipation rate η	0.264	0.280	0.269	0.188	0.171	0.156	0.225	0.202	0.196
	(0.004)***	(0.006)***	(0.005)***	(0.048)***	(0.006)***	(0.166)	(0.012)***	(0.013)***	(0.009)***
Intensity of innovations σ	0.569	0.648	0.659	0.661	0.740	0.736	0.604	0.672	0.618
	(0.007)***	(0.012)***	(0.012)***	(0.263)**	(0.046)***	(0.786)	(0.076)***	(0.085)***	(0.042)***
Elasticity of decay ϕ	-0.029	-0.055	-0.026	0.013	0.024	-0.030	0.026	0.016	0.003
	(0.014)**	(0.025)**	(0.014)*	(0.276)	(0.043)	(0.685)	(0.092)	(0.095)	(0.041)
Implied Parameters									
Log gen. gamma scale $\ln \hat{\theta}$	202.43	82.33	232.38	-523.43	-239.70	173.77	-217.95	-404.48	-2,856.50
	(131.469)	(53.268)	(166.775)	(13961.730)	(591.202)	(5513.348)	(1017.349)	(3060.931)	(41377.530)
Log gen. gamma shape $\ln \kappa$	5.781	4.527	6.002	6.967	5.710	5.171	5.770	6.626	9.733
	(0.968)***	(0.897)***	(1.077)***	(41.667)	(3.681)	(44.979)	(6.974)	(11.679)	(24.111)
Mean/median ratio	7.281	7.119	6.932	13.329	16.019	32.282	8.392	10.969	12.627
Observations	335,820	211,640	161,940	332,320	209,760	158,750	335,820	211,640	161,940
Industry-source obs. $I \times S$	11,213	7,556	5,588	11,203	7,546	5,581	11,214	7,556	5,589
Root mean sq. forecast error	1.876	2.039	1.979	2.023	2.166	2.243	1.887	2.049	2.003
Min. GMM obj. ($\times$ 1,000)	3.03e-12	1.20e-11	1.53e-11	1.59e-11	4.83e-11	4.83e-11	2.01e-11	6.24e-11	8.82e-11

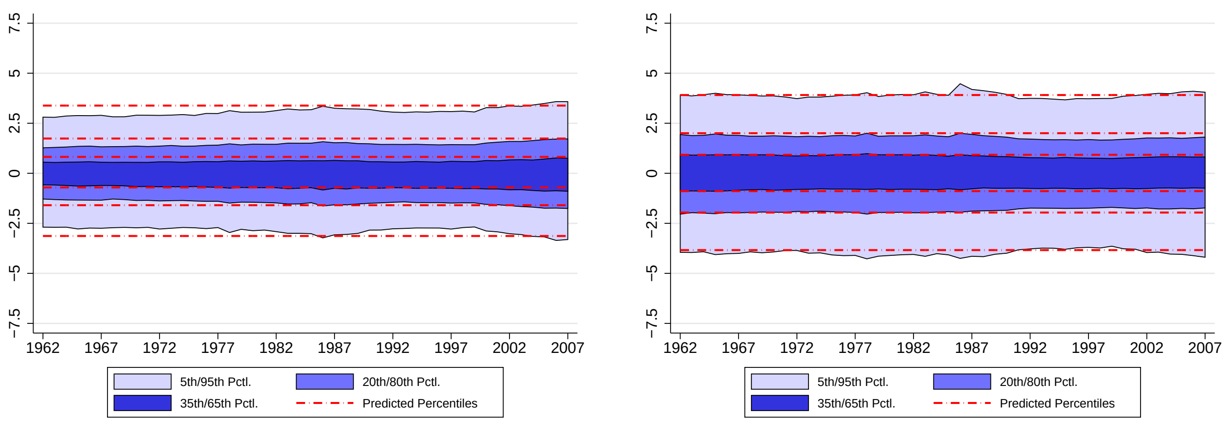
Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 133 time-consistent industries in 90 countries from 1962-2007 and CEPII.org; OLS and PPML gravity measures of export capability (log absolute advantage) $k = \ln A$ from (6) and (8).
Note: GMM estimation at the ten-year horizon for the generalized logistic diffusion of comparative advantage $\hat{A}_{is}(t)$,

$$\mathrm{d} \ln \hat{A}_{is}(t) = -\frac{\eta\sigma^2}{2} \frac{\hat{A}_{is}(t)^{\phi} - 1}{\phi} \, \mathrm{d}t + \sigma \, \mathrm{d}W_{is}^{\hat{A}}(t)$$

using absolute advantage $A_{is}(t) = \hat{A}_{is}(t) Z_s(t)$ based on OLS and PPML gravity measures of export capability k from (6), and the Balassa index of revealed comparative advantage $RCA_{ist} = (X_{ist}/\sum_{\varsigma} X_{i\varsigma t})/(\sum_{\iota} X_{\iota st}/\sum_{\iota}\sum_{\varsigma} X_{\iota\varsigma t})$. Parameters η, σ, ϕ are estimated under the constraints $\ln \eta, \ln \sigma^2 > -\infty$ for the mirror Pearson (1895) diffusion of (20), while concentrating out country-specific trends $Z_s(t)$. The implied parameters are inferred as $\hat{\theta} = (\phi^2/\eta)^{1/\phi}$, $\kappa = 1/\hat{\theta}^{\phi}$and the mean/median ratio is given by (A.10). Less developed countries (LDC) as listed in the Supplementary Material (Section S.1). The manufacturing sector spans SITC one-digit codes 5-8, the nonmanufacturing merchandise sector codes 0-4. Robust errors in parentheses (corrected for generated-regressor variation of export capability k): * marks significance at ten, ** at five, and *** at one-percent level. Standard errors of transformed and implied parameters are computed using the multivariate delta method.

Figure S11: **Fit to Percentiles of Comparative Advantage Distributions by Year, OLS- and PPML-based Measures**

(S11a) OLS gravity measures **(S11b) PPML gravity measures**



Source: WTF (Feenstra, Lipsey, Deng, Ma, and Mo 2005, updated through 2008) for 133 time-consistent industries in 90 countries from 1962-2007; OLS and PPML gravity measures of export capability (log absolute advantage) $k = \ln A$ from (6) and (8).

Note: The graphs depict the observed percentiles as previously shown in Figure S10 and the predicted percentiles from the GMM estimates of the comparative advantage diffusion (15) in Table 2 (parameters η and ϕ in columns 1 and 4). Observed log comparative advantage is based on the residuals from OLS projections on industry-year and source country-year effects (δ_{it} and δ_{st}), absorbing the country-specific stochastic trend component $\ln Z_{st}$ from (18), for (a) OLS and (b) PPML gravity measures of log absolute advantage $\ln A_{ist}$.