

Supplementary Appendix to
“Real Exchange Rate Persistence and Country Characteristics:
A Global Analysis”

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The structure of this appendix is as follows. Section [S1](#) displays graphs of inflation volatility, real exchange rate volatility and other correlates considered in the paper. In addition, the section presents tables on the models selected for each country and on averages of variables. Section [S2](#) provides summary statistics and reports regression results for countries that are common to both BRER and REER samples.

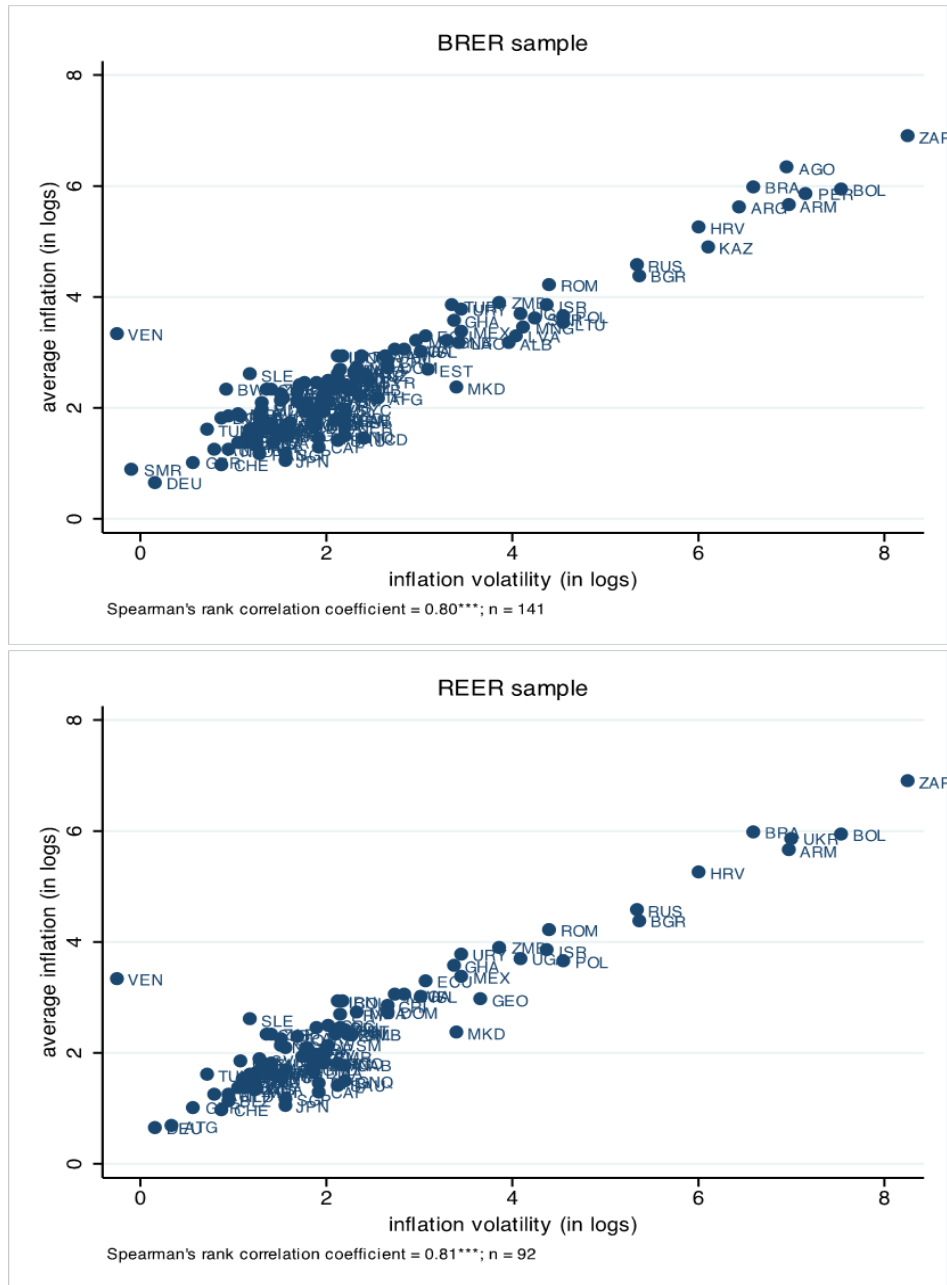
S1 Determinants of Real Exchange Rate Persistence

In this section, we display the inflation rate against inflation volatility, trade openness and nominal exchange rate volatility; these plots may be found in figures [S1–S3](#). We also include a graph of real versus nominal exchange rate volatility in figure [S4](#). Tables [S1](#) and [S2](#) provides details on the country-specific econometric specifications for BRER and REER country samples, respectively. We report average half-life estimates in tables [S3–S4](#). Finally, table [S5](#) presents means of macroeconomic variables.

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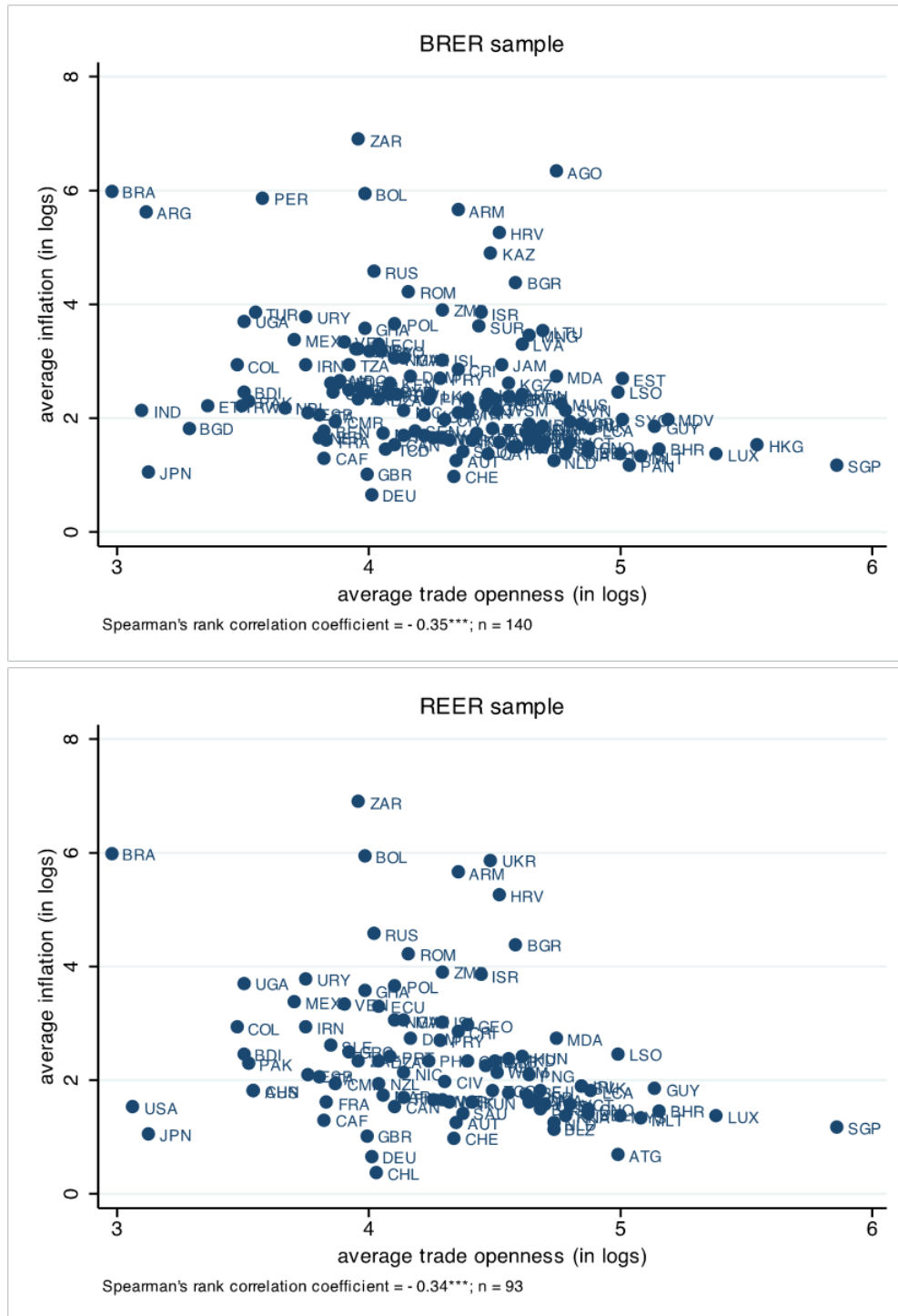
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Figure S1: Inflation Rate vs. Inflation Volatility



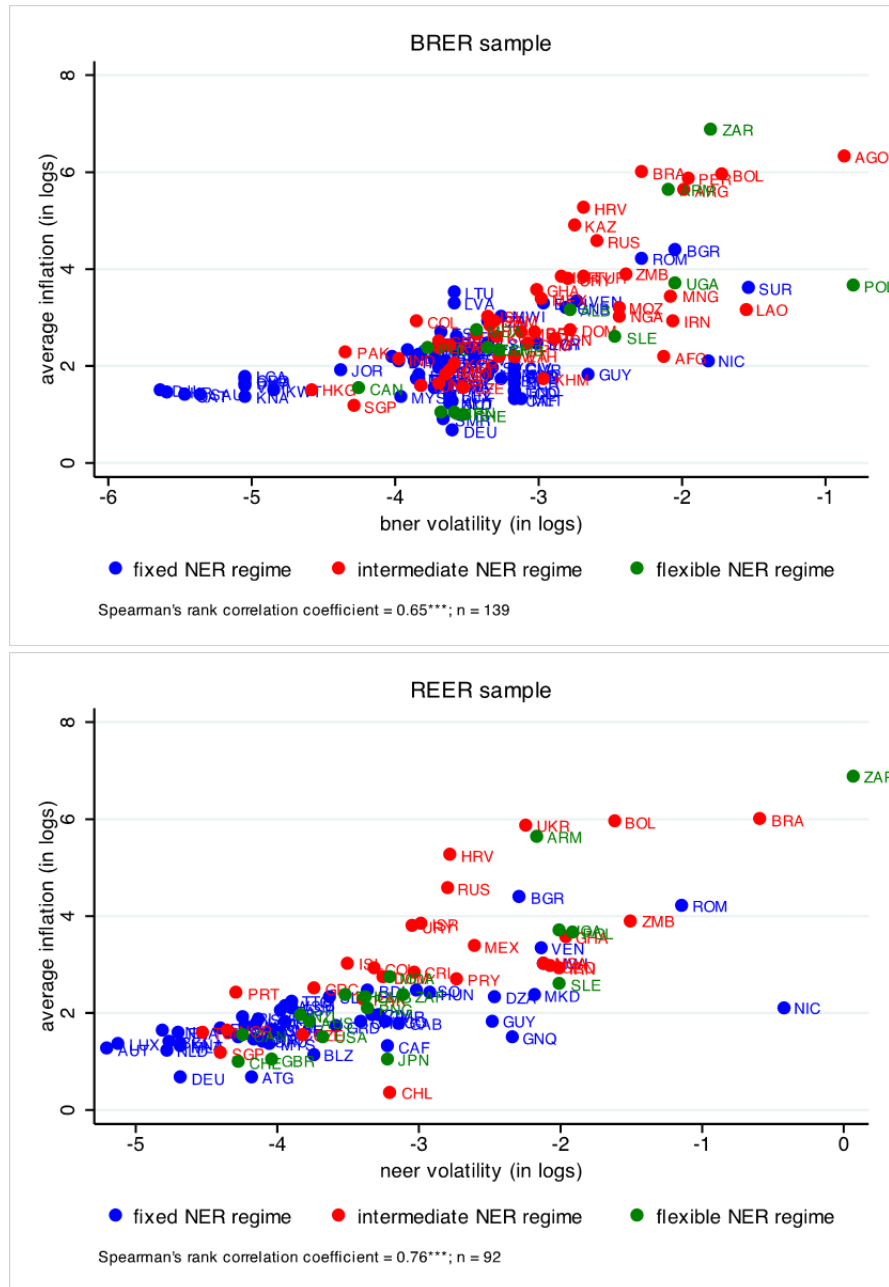
Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. BRER denotes bilateral real exchange rate. REER denotes real effective exchange rate. n is the country sample size. Time period: 1973-2010. CPI-based inflation (%) is used. Inflation volatility is defined as the standard deviation of the annual inflation rate (by the definition employed for nominal exchange rate volatility, this is effectively CPI volatility). Noting that the mathematical constant $e \approx 2.72$ is the base of the natural logarithm, it is easy to convert the log scales back to the original variable scales. With log scale data on the left of the equality and approximate original variable data in inverted commas on the right of the equality: 0 = "1", 1 = "2.72" ($1 \times e$), 2 = "7.39" ($2.72 \times e$), 3 = "20.09" ($7.39 \times e$), 4 = "54.60" ($20.09 \times e$), 5 = "148.41" ($54.60 \times e$), 6 = "403.43" ($148.41 \times e$), 7 = "1096.63" ($403.43 \times e$), 8 = "2980.96" ($1096.63 \times e$).

Figure S2: Inflation Rate vs. Trade Openness



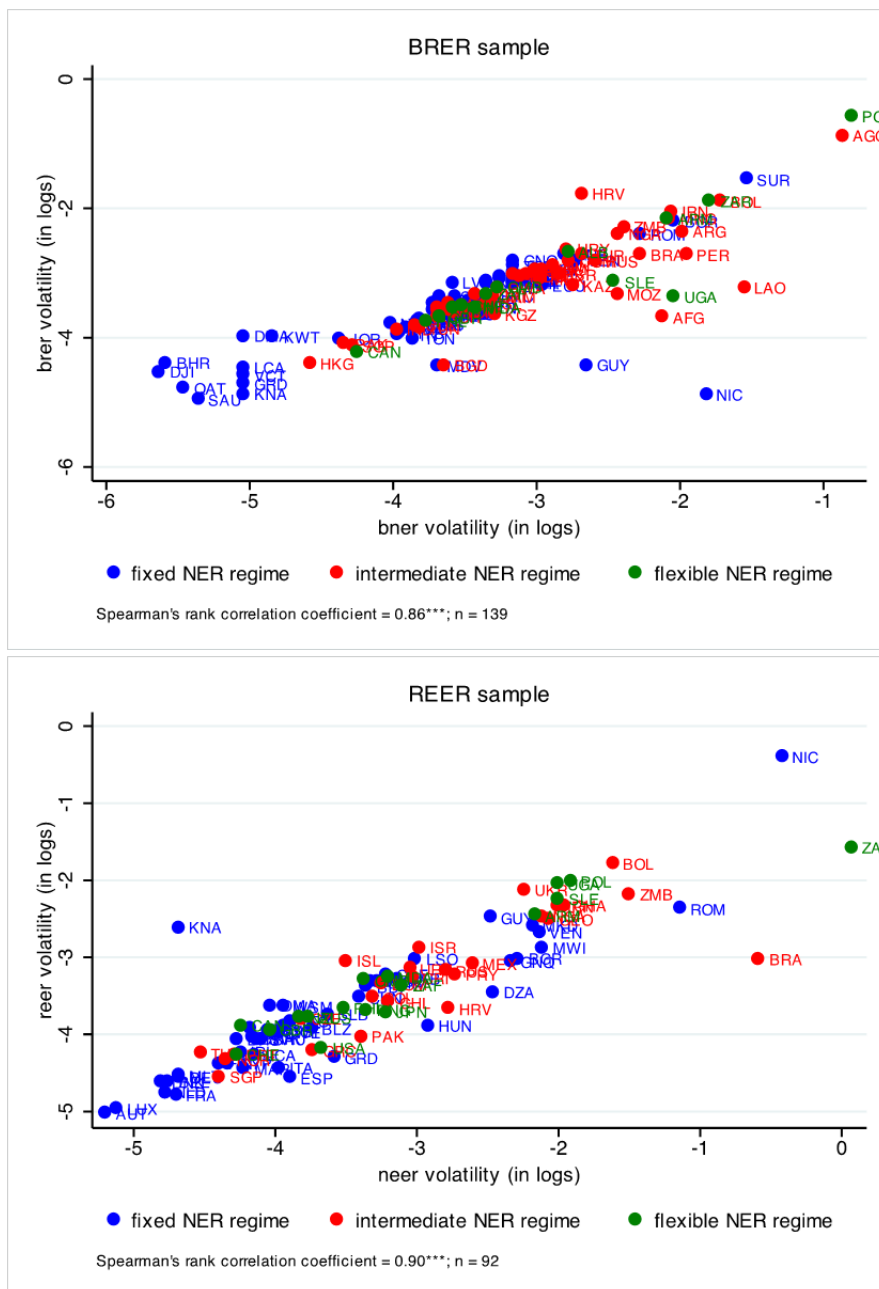
Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. BRER denotes bilateral real exchange rate. REER denotes real effective exchange rate. n is the country sample size. Time period: 1973-2010. CPI-based inflation (%) is used. Trade openness is defined as exports plus imports expressed as a percentage share of GDP. Noting that the mathematical constant $e \approx 2.72$ is the base of the natural logarithm, it is easy to convert the log scales back to the original variable scales. With log scale data on the left of the equality and approximate original variable data in inverted commas on the right of the equality: 0 = "1", 1 = "2.72" ($1 \times e$), 2 = "7.39" ($2.72 \times e$), 3 = "20.09" ($7.39 \times e$), 4 = "54.60" ($20.09 \times e$), 5 = "148.41" ($54.60 \times e$), 6 = "403.43" ($148.41 \times e$), 7 = "1096.63" ($403.43 \times e$), 8 = "2980.96" ($1096.63 \times e$).

Figure S3: Inflation Rate vs. Nominal Exchange Rate Volatility



Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. brer (bner) denotes bilateral real (nominal) exchange rate. reer (neer) denotes real (nominal) effective exchange rate. n is the country sample size. Time period: 1973-2010. CPI-based inflation (%) is used. Nominal exchange rate volatility is defined as the standard deviation of the change in the natural logarithm of the monthly nominal exchange rate. Noting that the mathematical constant $e \approx 2.72$ is the base of the natural logarithm, it is easy to convert the log scales back to the original variable scales. With log scale data on the left of the equality and approximate original variable data in inverted commas on the right of the equality: $-6 = "0.00"$, $-5 = "0.01"$ ($0.00 \times e$), $-4 = "0.02"$ ($0.01 \times e$), $-3 = "0.05"$ ($0.02 \times e$), $-2 = "0.14"$ ($0.05 \times e$), $-1 = "0.37"$ ($0.14 \times e$), $0 = "1"$ ($0.37 \times e$), $1 = "2.72"$ ($1 \times e$), $2 = "7.39"$ ($2.72 \times e$), $3 = "20.09"$ ($7.39 \times e$), $4 = "54.60"$ ($20.09 \times e$), $5 = "148.41"$ ($54.60 \times e$), $6 = "403.43"$ ($148.41 \times e$), $7 = "1096.63"$ ($403.43 \times e$), $8 = "2980.96"$ ($1096.63 \times e$).

Figure S4: Real Exchange Rate Volatility vs. Nominal Exchange Rate Volatility



Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. brer (bner) denotes bilateral real (nominal) exchange rate. reer (neer) denotes real (nominal) effective exchange rate. n is the country sample size. Time period: 1973-2010. Real exchange rate volatility is defined as the standard deviation of the change in the natural logarithm of the monthly real exchange rate. Nominal exchange rate volatility is defined as the standard deviation of the change in the natural logarithm of the monthly nominal exchange rate. Noting that the mathematical constant $e \approx 2.72$ is the base of the natural logarithm, it is easy to convert the log scales back to the original variable scales. With log scale data on the left of the equality and approximate original variable data in inverted commas on the right of the equality: $-6 = "0.00"$ ($0.00 \times e$), $-5 = "0.01"$ ($0.01 \times e$), $-4 = "0.02"$ ($0.02 \times e$), $-3 = "0.05"$ ($0.05 \times e$), $-2 = "0.14"$ ($0.14 \times e$), $-1 = "0.37"$ ($0.37 \times e$), $0 = "1"$ ($1 \times e$).

Table S1: Country BRER Econometric Specification Details

COUNTRY	TREND	LEVEL INTERCEPT BREAK	TREND SLOPE BREAK	LAG LENGTH (Perron)	MODEL SELECTED
Afghanistan	Yes	0	0	8	AR(1), augmented AR*, ESTAR** , *** ^f
Albania	Yes	0	0	11	AR(1)***, AR(1) with trend1***, augmented AR, ESTAR*** , *** ^f
Algeria	Yes	0	0	12	AR(1), augmented AR, ESTAR*** , ***
Angola	Yes	0	0	12	AR(1)***, augmented AR, ESTAR*** , ***
Argentina	Yes	0	0	10	AR(1), augmented AR, ESTAR*** , ***
Armenia	Yes	1	0	12	AR(1)***, augmented AR*, ESTAR*** , ***
Austria	No	0	0	11	AR(1), augmented AR*, ESTAR*** , *
Bahamas, The	No	0	0	12	AR(1), augmented AR, ESTAR** , *** ^f
Bahrain, Kingdom of	Yes	0	0	12	AR(1), augmented AR, ESTAR*** , †
Bangladesh	No	0	0	12	AR(1), augmented AR, ESTAR*** , **
Belgium	No	0	0	12	AR(1), augmented AR*, ESTAR** , **
Benin	No	1	0	0	AR(1), augmented AR , ESTAR**, †
Bhutan	Yes	0	0	1	AR(1), augmented AR, ESTAR*** , *
Bolivia	No	0	0	12	AR(1)***, augmented AR, ESTAR*** , ***
Botswana	No	0	0	1	AR(1), augmented AR, ESTAR* , *
Brazil	No	1	0	8	AR(1), augmented AR, ESTAR** , *
Bulgaria	Yes	0	0	6	AR(1), augmented AR*, ESTAR*** , ***
Burundi	Yes	0	0	0	AR(1), augmented AR , ESTAR**, ††
Cambodia	No	0	0	5	AR(1), augmented AR, ESTAR** , **

Cameroon	No	1	0	0	AR(1), <i>augmented AR**</i> , ESTAR*, ^{‡‡}
Canada	No	0	0	12	AR(1), augmented AR, ESTAR**,**
Cape Verde	No	0	0	1	AR(1), <i>augmented AR</i> , ESTAR ^{‡,‡‡}
Central African Republic	No	1	0	0	AR(1), augmented AR ^{***} , ESTAR***,*
Chad	No	1	0	8	AR(1), augmented AR, ESTAR*,***[†]
Colombia	No	0	0	10	AR(1), augmented AR, ESTAR*,***[†]
Congo, Dem. Rep.	No	1	0	2	AR(1) ^{**} , augmented AR ^{***} , ESTAR***,**
Costa Rica	No	1	0	11	AR(1), augmented AR ^{***} , ESTAR***,**
Côte d'Ivoire	No	1	0	0	AR(1), <i>augmented AR**</i> , ESTAR ^{***,‡‡}
Croatia	No	1	0	4	AR(1) ^{***} , augmented AR ^{***} , ESTAR***,**
Cyprus	No	0	0	12	AR(1), <i>augmented AR*</i> , ESTAR ^{***,‡‡}
Czech Republic	Yes	0	0	7	AR(1), augmented AR, ESTAR***,*
Denmark	No	0	0	12	AR(1), <i>augmented AR*</i> , ESTAR ^{‡,‡}
Djibouti	No	0	0	11	AR(1), augmented AR, ESTAR*,***
Dominica	No	0	0	12	AR(1) ^{***} , <i>augmented AR***</i> , ESTAR ^{‡,‡}
Dominican Republic	No	1	0	0	AR(1), augmented AR ^{***} , ESTAR***,**
Ecuador	No	1	0	6	AR(1), augmented AR ^{***} , ESTAR***,**
Egypt	Yes	5	0	11	AR(1), <i>augmented AR***</i> , ESTAR ^{***,‡}
El Salvador	Yes	2	0	2	AR(1), augmented AR ESTAR***,**
Equatorial Guinea	No	1	0	11	AR(1), augmented AR, ESTAR*,***
Estonia	Yes	0	0	1	AR(1) ^{***} , <i>augmented AR**</i> , ESTAR ^{***,‡‡}

Ethiopia	No	1	0	0	AR(1), augmented AR ^{***} , ESTAR^{***, **}
Fiji	No	2	0	4	AR(1), augmented AR ^{**} , ESTAR^{***, *}
Finland	No	0	0	12	AR(1), augmented AR [*] , ESTAR^{***, *}
France	No	0	0	12	AR(1), augmented AR [*] , ESTAR^{**}, *
Gabon	No	1	0	0	AR(1), <i>augmented AR^{**}</i> , ESTAR ^{***, †}
Gambia, The	Yes	0	0	0	AR(1), augmented AR, ESTAR^{***, †}
Germany	No	0	0	12	AR(1), augmented AR, ESTAR[*], ***
Ghana	Yes	0	0	12	AR(1) ^{***} , augmented AR [*] , ESTAR^{***, **}
Greece	No	0	0	12	AR(1), augmented AR, ESTAR[*], *
Grenada	No	0	0	12	AR(1) ^{**} , augmented AR ^{***} , ESTAR^{***, **}
Guatemala	Yes	1	0	0	AR(1), augmented AR ^{***} , ESTAR^{***, ***}
Guinea-Bissau	No	0	0	5	AR(1) [*] , <i>augmented AR^{**}</i> , ESTAR ^{***, †}
Guyana	Yes	0	0	0	AR(1), <i>augmented AR</i> , ESTAR ^{‡, ††}
Haiti	Yes	1	0	12	AR(1), augmented AR [*] , ESTAR^{***, *†}
Honduras	Yes	1	0	8	AR(1), augmented AR ^{***} , ESTAR^{***, ***}
Hong Kong	Yes	1	1	10	AR(1), augmented AR, ESTAR^{***, ***}
Hungary	Yes	0	0	12	AR(1), augmented AR, ESTAR^{**}, †
Iceland	No	0	0	10	AR(1), augmented AR ^{**} , ESTAR^{**}, *
India	No	0	0	3	AR(1), augmented AR, ESTAR[*], ***
Indonesia	No	3	0	11	AR(1), augmented AR [*] , ESTAR^{***, ***}
Iran, Islamic Rep.	Yes	2	0	2	AR(1), augmented AR ^{***} , ESTAR^{***, ***}

Ireland	No	0	0	1	AR(1), <i>augmented AR</i> , ESTAR ^{‡, ‡}
Israel	No	0	0	2	AR(1) ^{***} , <i>augmented AR</i> ^{***} , ESTAR ^{***, ‡}
Italy	No	0	0	12	AR(1), <i>augmented AR</i> [*] , ESTAR ^{‡, ‡}
Jamaica	Yes	2	2 (only in ESTAR)	11	AR(1), augmented AR ^{***} , ESTAR ^{***, ***}
Japan	No	0	0	11	AR(1), augmented AR, ESTAR ^{***, *†}
Jordan	No	0	0	12	AR(1), augmented AR, ESTAR ^{**} , ***
Kazakhstan	Yes	2	0	1	AR(1), augmented AR ^{**} , ESTAR ^{***, ***}
Kenya	No	0	0	1	AR(1), augmented AR, ESTAR ^{***, †}
Korea, Rep.	No	0	0	8	AR(1), augmented AR [*] , ESTAR ^{***, *}
Kuwait	No	1	0	1	AR(1), augmented AR ^{***} , ESTAR ^{***, ***}
Kyrgyz Republic	No	0	0	4	AR(1), augmented AR, ESTAR [*] , ***
Lao PDR	No	0	0	5	AR(1), augmented AR, ESTAR [*] , ***
Latvia	Yes	0	0	12	AR(1) ^{***} , augmented AR [*] , ESTAR ^{***, **}
Lesotho	Yes	0	0	8	AR(1), augmented AR, ESTAR ^{***, **†}
Libya	No	1	0	7	AR(1), augmented AR ^{***} , ESTAR ^{**} , ***
Lithuania	Yes	0	0	1	AR(1) ^{***} , augmented AR ^{***} , ESTAR ^{***, **}
Luxembourg	No	0	0	12	AR(1), augmented AR, ESTAR ^{***, **}
Macedonia, FYR	No	0	0	1	AR(1), augmented AR, ESTAR ^{**} , *
Madagascar	Yes	0	0	1	AR(1), augmented AR, ESTAR ^{***, *}
Malawi	Yes	0	0	12	AR(1), augmented AR ^{**} , ESTAR ^{***, ***}
Malaysia	Yes	0	0	8	AR(1), augmented AR, ESTAR [*] , ***

Maldives	No	0	0	11	$AR(1)^{***}$, augmented AR, $ESTAR^{\ddagger, \ddagger}$
Malta	No	1	0	12	AR(1), augmented AR^{***} , $ESTAR^{***, ***}$
Mauritania	No	0	0	6	AR(1), augmented AR, $ESTAR^{***, *}$
Mauritius	No	0	0	10	AR(1), <i>augmented AR</i> , $ESTAR^{\ddagger, \ddagger}$
Mexico	Yes	5	0	5	AR(1)**, augmented AR^{**} , $ESTAR^{***, **}$
Moldova	Yes	1	0	5	AR(1), augmented AR^* , $ESTAR^{**, **}$
Mongolia	No	0	0	10	AR(1)***, augmented AR^{***} , $ESTAR^{***, ***}$
Morocco	No	0	0	12	AR(1), augmented AR, $ESTAR^{**, * \ddagger}$
Mozambique	No	0	0	12	AR(1), augmented AR^{**} , $ESTAR^{***, **}$
Namibia	No	0	0	6	AR(1)*, <i>augmented AR*</i> , $ESTAR^{***, * \ddagger}$
Nepal	No	0	0	11	AR(1), <i>augmented AR</i> , $ESTAR^{*, \ddagger \ddagger}$
Netherlands	No	0	0	11	AR(1), augmented AR^* , $ESTAR^{***, *}$
Nicaragua	No	0	0	3	AR(1), augmented AR, $ESTAR^{\ddagger, *** \ddagger}$
Niger	No	1	0	0	AR(1), augmented AR, $ESTAR^{***, *}$
Nigeria	Yes	3	2	3	AR(1), augmented AR^{***} , $ESTAR^{***, ***}$
Norway	No	0	0	1	AR(1), augmented AR^{**} , $ESTAR^{***, *}$
Pakistan	No	0	0	12	AR(1), <i>augmented AR</i> , $ESTAR^{\ddagger, \ddagger \ddagger}$
Panama	No	0	0	0	$AR(1)^{**}$, augmented AR^{NA} , $ESTAR^{***, *}$
Paraguay	No	5	4	9	AR(1), augmented AR, $ESTAR^{***, ***}$
Peru	No	1	0	12	AR(1)***, augmented AR, $ESTAR^{***, **}$
Philippines	No	0	0	8	AR(1), augmented AR, $ESTAR^{*, *}$

Poland	No	1	0	0	AR(1), <i>augmented AR</i> ***, ESTAR***,*
Portugal	No	0	0	9	AR(1), augmented AR, ESTAR **,*
Qatar	Yes	0	0	1	AR(1) , augmented AR, ESTAR ^{‡,‡}
Romania	Yes	0	0	12	AR(1), augmented AR***, ESTAR ***,**
Russian Federation	Yes	1	0	3	AR(1), augmented AR***, ESTAR ***,***
Rwanda	No	3	0	1	AR(1), augmented AR***, ESTAR ***,*
Samoa	No	0	0	1	AR(1), <i>augmented AR</i> , ESTAR**, ^{‡,‡}
San Marino	Yes	0	0	3	AR(1)*, <i>augmented AR</i> *, ESTAR***,*
Saudi Arabia	No	0	0	12	AR(1)***, <i>augmented AR</i> **, ESTAR*,*
Senegal	No	1	0	10	AR(1), augmented AR*, ESTAR **,**
Seychelles	No	3	0	10	AR(1), augmented AR**, ESTAR ***,**
Sierra Leone	Yes	0	0	10	AR(1)***, augmented AR, ESTAR ***,**
Singapore	No	0	0	12	AR(1), augmented AR*, ESTAR **,* [†]
Slovak Republic	Yes	0	0	2	AR(1), <i>augmented AR</i> , ESTAR ^{‡,‡}
Slovenia	No	0	0	1	AR(1), <i>augmented AR</i> , ESTAR ^{‡,‡}
Solomon Islands	No	0	0	0	AR(1), augmented AR ^{NA} , ESTAR **,* [†]
South Africa	Yes	0	0	8	AR(1), augmented AR, ESTAR ***,**
Spain	No	0	0	3	AR(1), <i>augmented AR</i> , ESTAR ^{‡,‡}
Sri Lanka	No	1	0	7	AR(1)*, augmented AR***, ESTAR ***,**
St. Kitts & Nevis	No	1	0	0	AR(1), <i>augmented AR</i> , ESTAR ^{‡,‡}
St. Lucia	No	0	0	12	AR(1)***, augmented AR***, ESTAR ***,**

St. Vincent & the Grenadines	No	0	0	0	AR(1)* , augmented AR ^{NA} , ESTAR ^{***, †}
Suriname	Yes	3	0	0	AR(1) ^{***} , augmented AR ^{***} , ESTAR^{***, ***}
Sweden	No	0	0	10	AR(1), augmented AR, ESTAR^{**}, ***
Switzerland	No	0	0	11	AR(1), augmented AR*, ESTAR^{***, **}
Syrian Arab Republic	Yes	1	0	0	AR(1), augmented AR*, ESTAR^{***, *}
Tanzania	No	0	0	10	AR(1), augmented AR, ESTAR^{***, *}
Thailand	No	2	1	7	AR(1), augmented AR ^{***} , ESTAR^{***, ***}
Togo	No	1	0	9	AR(1), augmented AR, ESTAR^{**}, *†
Tonga	No	0	0	1	AR(1), augmented AR , ESTAR ^{‡, ††}
Trinidad & Tobago	Yes	1	0	2	AR(1), augmented AR ^{***} , ESTAR^{***, ***}
Tunisia	Yes	0	0	1	AR(1), augmented AR* , ESTAR ^{***, ††}
Turkey	Yes	3	1	11	AR(1)*, augmented AR, ESTAR^{***, **}
Uganda	No	0	0	12	AR(1) ^{***} , augmented AR, ESTAR^{**}, **†
United Kingdom	No	0	0	6	AR(1), augmented AR*, ESTAR^{***, *}
Uruguay	No	1	0	11	AR(1) ^{**} , augmented AR, ESTAR^{**}, ***
Venezuela	Yes	5	0	1	AR(1), augmented AR ^{**} , ESTAR^{***, ***}
Zambia	Yes	0	0	0	AR(1), augmented AR** , ESTAR ^{***, †}

Notes: *significant at 10% level; **significant at 5% level; ***significant at 1% level. Model selected is in bold and italics. For linear ‘AR(1)’ and ‘augmented AR’ models, statistical significance of ρ is shown. In the case of the ‘ESTAR’ model only: † insignificant; ‡ failed to reject null of linearity. For the ‘ESTAR’ model, moving from left to right we have: significance of ρ^* , significance of ψ , and an indication if we fail to reject the null hypothesis of linearity in the linearity test (indication via the aforementioned symbol is only given if we fail to reject the null). NA denotes not applicable. We separately show the ‘AR(1) with trend’ model result for Albania in order to distinguish it from the ‘augmented AR’ model which also included lags. Additionally: * borderline significant at 10% level; † borderline insignificant. Structural breaks are detected through the use of country chronologies, visual inspection of real exchange rate series, and subsequent tests of significance in line with the techniques of Perron (1989) and the sequential methods of Zivot and Andrews (1992) and Perron (1993), as well as those of Bai (1997) and Bai and Perron (1998) in the case of multiple breaks. Selected break points typically minimize the p-value of ρ , maximize the break test statistic(s), and result in the greatest reduction in the sum of squared residuals. Campbell and Perron (1991) procedure is adopted when selecting the lag length q with $q_{max} = 12$. Schwarz-Bayesian and Akaike Information criteria are also considered for lag selection, as well as the maxlags yielded by DFGLS tests. A battery of unit root tests, including ADF, PPerron, DFGLS, KPSS, fractional and sequential unit root tests, are inspected. See Kapetanios *et al.* (2003) on tests of nonstationarity against ESTAR global stationarity.

Table S2: Country REER Econometric Specification Details

COUNTRY	TREND	LEVEL INTERCEPT BREAK	TREND SLOPE BREAK	LAG LENGTH (Perron)	MODEL SELECTED
Algeria	Yes	2	2	8	AR(1), augmented AR, ESTAR***,***
Antigua and Barbuda	Yes	2	0	1	AR(1), augmented AR***, ESTAR***, **
Armenia	Yes	0	0	12	AR(1), augmented AR**, ESTAR***, *
Australia	No	0	0	2	AR(1), augmented AR, ESTAR^{‡, ‡}
Austria	No	0	0	10	AR(1), augmented AR**, ESTAR***, *^f
Bahamas, The	No	2	0	2	AR(1), augmented AR***, ESTAR***,***
Bahrain, Kingdom of	Yes	0	0	1	AR(1), augmented AR, ESTAR**, *
Belgium	No	0	0	3	AR(1), augmented AR, ESTAR***,***
Belize	Yes	0	0	8	AR(1), augmented AR** , ESTAR***, ‡
Bolivia	Yes	1	1	8	AR(1)***, augmented AR***, ESTAR***,***
Brazil	No	0	0	10	AR(1), augmented AR, ESTAR**, *
Bulgaria	Yes	0	0	6	AR(1)**, augmented AR*** , ESTAR***, ‡
Burundi	Yes	0	0	5	AR(1), augmented AR, ESTAR**, ^f
Cameroon	No	1	0	0	AR(1), augmented AR***, ESTAR***,***
Canada	Yes	1	1	8	AR(1), augmented AR , ESTAR**, ‡
Central African Republic	Yes	1	1	0	AR(1), augmented AR***, ESTAR***,***
Chile	No	0	0	9	AR(1), augmented AR, ESTAR***, *
China	Yes	1	1	1	AR(1)**, augmented AR, ESTAR***,***
Colombia	Yes	2	1	0	AR(1), augmented AR, ESTAR***, **

Congo, Dem. Rep.	No	6	1	3	AR(1)*, augmented AR***, ESTAR***, ***
Costa Rica	No	0	0	9	AR(1)***, augmented AR***, ESTAR***, *
Côte d'Ivoire	No	1	1	0	AR(1)*, augmented AR***, ESTAR***, ***^f
Croatia	Yes	0	0	12	AR(1)***, augmented AR*** , ESTAR***, †
Cyprus	Yes	1	1	10	AR(1), augmented AR, ESTAR***, *
Czech Republic	Yes	0	0	10	AR(1), augmented AR , ESTAR**, * [†]
Denmark	Yes	0	0	11	AR(1), augmented AR* , ESTAR*, † [†]
Dominica	No	0	0	8	AR(1), augmented AR, ESTAR**, **
Dominican Republic	No	1	0	6	AR(1), augmented AR***, ESTAR***, ***
Ecuador	No	1	0	10	AR(1), augmented AR***, ESTAR***, ***
Equatorial Guinea	Yes	1	1	1	AR(1), augmented AR***, ESTAR***, *
Fiji	Yes	4	4	3	AR(1), augmented AR***, ESTAR***, ***
Finland	No	4	3	10	AR(1), augmented AR***, ESTAR***, ***
France	No	0	0	8	AR(1)*, augmented AR** , ESTAR***, † [†]
Gabon	No	2	0	1	AR(1), augmented AR***, ESTAR***, ***
Gambia, The	No	2	2	2	AR(1), augmented AR, ESTAR***, ***
Georgia	No	2	1	10	AR(1)***, augmented AR***, ESTAR***, ***
Germany	No	0	0	1	AR(1), augmented AR, ESTAR***, ***
Ghana	Yes	3	2	4	AR(1), augmented AR***, ESTAR***, ***
Greece	No	4	2	12	AR(1), augmented AR***, ESTAR***, ***^f
Grenada	No	0	0	12	AR(1), augmented AR*, ESTAR***, ***

Guyana	Yes	7	1	10	AR(1), augmented AR***, ESTAR***,***
Hungary	Yes	0	0	1 (0 in ESTAR)	AR(1), augmented AR , ESTAR**.*†
Iceland	No	1	0	5	AR(1), augmented AR***, ESTAR***,***
Iran, Islamic Rep.	Yes	15	0	0	AR(1), augmented AR***, ESTAR***,***
Ireland	No	5	0	1	AR(1), augmented AR, ESTAR***,***
Israel	No	2	0	8	AR(1)***, augmented AR***, ESTAR***,***
Italy	Yes	2	2	3	AR(1), augmented AR, ESTAR***,***
Japan	No	0	0	8	AR(1), augmented AR, ESTAR**,*†
Lesotho	No	9	0	12	AR(1), augmented AR, ESTAR***,***
Luxembourg	No	2	1	3	AR(1), augmented AR, ESTAR***,**
Macedonia, FYR	No	2	0	12	AR(1)***, augmented AR***, ESTAR***,***
Malawi	Yes	16	0	7	AR(1)**, augmented AR, ESTAR***,***
Malaysia	Yes	2	0	3	AR(1), augmented AR, ESTAR***,**
Malta	Yes	3	1	5	AR(1), augmented AR*, ESTAR***,*†
Mexico	Yes	7	0	11	AR(1)*, augmented AR, ESTAR***,**
Moldova	Yes	0	0	5	AR(1)*, augmented AR*, ESTAR***,**
Morocco	Yes	3	2	11	AR(1)***, augmented AR, ESTAR***,*†
Netherlands	No	0	0	10	AR(1), augmented AR** , ESTAR***.*††
New Zealand	No	2	0	1	AR(1), augmented AR*, ESTAR***,**
Nicaragua	Yes	2	2	1	AR(1), augmented AR***, ESTAR***,***
Nigeria	Yes	5	5	0	AR(1), augmented AR***, ESTAR***,***

Norway	No	0	0	1	AR(1)*, <i>augmented AR**</i> , ESTAR***,†
Pakistan	Yes	0	0	1	AR(1), augmented AR, ESTAR***, *
Papua New Guinea	No	9	0	12	AR(1), augmented AR, ESTAR***, ***
Paraguay	Yes	2	2	6	AR(1), augmented AR, ESTAR***, ***
Philippines	Yes	0	0	8	AR(1), augmented AR, ESTAR** ,***f
Poland	Yes	6	0	1	AR(1), augmented AR***, ESTAR***, ***
Portugal	Yes	6	0	11	AR(1), augmented AR, ESTAR***, ***
Romania	No	10	2	12	AR(1), <i>augmented AR***</i> , ESTAR***,***
Russian Federation	Yes	2	0	3	AR(1), augmented AR***, ESTAR***, ***
Samoa	No	0	0	5	AR(1)*, <i>augmented AR*</i> , ESTAR*,†
Saudi Arabia	Yes	0	0	3	AR(1)*, augmented AR, ESTAR** ,*
Sierra Leone	Yes	4	2	10	AR(1), augmented AR***, ESTAR***, ***
Singapore	No	0	0	6	AR(1)*** , augmented AR*, ESTAR**,*
Slovak Republic	Yes	0	0	3	AR(1), augmented AR, ESTAR***, ***
Solomon Islands	No	0	0	1	AR(1), augmented AR, ESTAR***, †
South Africa	No	11	0	8	AR(1), augmented AR, ESTAR***, ***f
Spain	No	0	0	6	AR(1), <i>augmented AR</i> , ESTAR‡,†
St. Kitts & Nevis	No	2	0	10	AR(1)**, augmented AR***, ESTAR***, ***
St. Lucia	No	0	0	12	AR(1)**, augmented AR**, ESTAR***, *f
St. Vincent & the Grenadines	Yes	0	0	10	AR(1)**, augmented AR*, ESTAR***, ***
Sweden	Yes	5	1	1	AR(1), augmented AR***, ESTAR***, ***

Switzerland	Yes	0	0	3	AR(1), augmented AR**, ESTAR***,**
Togo	Yes	1	1	11	AR(1), augmented AR*** , ESTAR***,††
Trinidad & Tobago	Yes	5	3	2	AR(1), augmented AR*, ESTAR***,***
Tunisia	Yes	1	0	11	AR(1), augmented AR, ESTAR**,***
Uganda	No	2	0	12	AR(1)**, augmented AR***, ESTAR***,***
Ukraine	No	0	0	12	AR(1)***, augmented AR**, ESTAR*,***
United Kingdom	No	0	0	9	AR(1), augmented AR*, ESTAR***,***
United States	No	0	0	10	AR(1), augmented AR , ESTAR‡,‡
Uruguay	Yes	2	0	6	AR(1), augmented AR*** , ESTAR‡,‡
Venezuela	Yes	11	0	2	AR(1), augmented AR***, ESTAR***,***
Zambia	No	4	1	0	AR(1), augmented AR***, ESTAR***,***

Notes: *significant at 10% level; **significant at 5% level; ***significant at 1% level. Model selected is in bold and italics. For linear ‘AR(1)’ and ‘augmented AR’ models, statistical significance of ρ is shown. In the case of the ‘ESTAR’ model only: † insignificant; ‡ failed to reject null of linearity. For the ‘ESTAR’ model, moving from left to right we have: significance of ρ^* , significance of ψ , and an indication if we fail to reject the null hypothesis of linearity in the linearity test (indication via the aforementioned symbol is only given if we fail to reject the null). NA denotes not applicable. Additionally: * borderline significant at 10% level; ‡ borderline insignificant. Structural breaks are detected through the use of country chronologies, visual inspection of real exchange rate series, and subsequent tests of significance in line with the techniques of Perron (1989) and the sequential methods of Zivot and Andrews (1992) and Perron (1993), as well as those of Bai (1997) and Bai and Perron (1998) in the case of multiple breaks. Selected break points typically minimize the p-value of ρ , maximize the break point test statistic(s), and result in the greatest reduction in the sum of squared residuals. Campbell and Perron (1991) procedure is adopted when selecting the lag length q with $q_{max} = 12$. Schwarz-Bayesian and Akaike Information criteria are also considered for lag selection, as well as the maxlags yielded by DFGLS tests. A battery of unit root tests, including ADF, PPerron, DFGLS, KPSS, fractional and sequential unit root tests, are inspected. See Kapetanios *et al.* (2003) on tests of nonstationarity against ESTAR global stationarity.

Table S3: Average Half-Life Estimates (in Years)

<i>Sample</i>	<i>Size</i>	<i>simple AR model half-life</i>	<i>augmented AR model monotonic half-life</i>	<i>augmented AR model IRF half-life</i>	<i>augmented ESTAR model TF max. half-life</i>	<i>augmented ESTAR model TF mean half-life</i>
<i>BRER</i>						
Whole	141	101.08	3.42	3.49	2.11	2.85
Industrial	20	4.21	3.12	3.49	1.92	2.80
Emerging	45	296.76	3.76	3.78	2.37	3.30
Developing	76	10.71	3.29	3.31	1.99	2.60
Test of Equal		1.02	0.23	0.19	0.26	0.46
Sub-Group Means		[0.37]	[0.80]	[0.83]	[0.77]	[0.63]
High Income	42	315.51	3.16	3.50	1.84	2.82
Middle Income	74	10.86	3.33	3.37	2.34	3.05
Low Income	25	7.89	4.11	3.82	1.84	2.30
Test of Equal		1.00	0.29	0.09	0.56	0.38
Sub-Group Means		[0.38]	[0.75]	[0.91]	[0.58]	[0.69]
Africa	41	8.87	3.34	3.39	2.04	2.73
Asia	32	411.43	5.22	5.05	2.88	4.10
Europe	35	10.15	2.18	2.44	1.31	1.90
Latin America	28	5.48	2.59	2.69	1.96	2.49
Oceania	4	51.61	5.76	6.28	3.63	3.95
Test of Equal		1.00	2.10*	1.82	1.34	1.58
Sub-Group Means		[0.42]	[0.09]	[0.14]	[0.26]	[0.19]
<i>REER</i>						
Whole	93	6.08	1.31	1.44	0.83	1.41
Industrial	23	4.37	1.87	2.10	1.28	1.91
Emerging	28	6.24	1.55	1.68	1.01	1.87
Developing	42	6.92	0.84	0.91	0.47	0.83
Test of Equal		0.75	4.01**	4.40**	5.43***	2.73*
Sub-Group Means		[0.48]	[0.02]	[0.02]	[0.01]	[0.08]
High Income	38	7.92	1.76	1.94	1.22	2.14
Middle Income	47	4.80	1.06	1.15	0.60	0.94
Low Income	8	5.08	0.64	0.72	0.37	0.68
Test of Equal		1.47	4.42**	4.72***	6.83***	5.58***
Sub-Group Means		[0.24]	[0.02]	[0.01]	[0.00]	[0.01]
Africa	20	6.69	0.60	0.67	0.39	0.58
Asia	13	10.48	2.49	2.72	1.48	2.95
Europe	30	5.06	1.24	1.41	0.90	1.43
Latin America	22	4.71	1.03	1.11	0.63	1.10
Oceania	6	4.62	1.92	2.00	0.60	1.17
Test of Equal		0.71	2.60*	2.68*	3.06**	2.09
Sub-Group Means		[0.60]	[0.06]	[0.06]	[0.04]	[0.13]

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. 'Test of equal sub-group means' tests the null hypothesis of equal means across the relevant sub-groups using the F*-test. Since the Levene and Bartlett tests often reject the null of equal variances across the sub-groups of concern, the F*-test of equal means is employed. This test is more robust to violations of the homogeneity of variances across sub-groups assumption than the traditional F-test. For the tests, the F* statistic and corresponding p-value in square brackets are reported. The results of the F*-test are consistent with those of the W test of equal means. TF: Transition Function.

Table S4: Average Half-Life Estimates (in Years) based on Selected Models

Sample	Size	Selected Model I half-life	Selected Model II half-life	Selected Model III half-life	Selected Model IV half-life	Sample	Size	Selected Model I half-life	Selected Model II half-life	Selected Model III half-life	Selected Model IV half-life
<i>BREER</i>						<i>REER</i>					
Whole	141	2.88	2.90	2.50	2.52	Whole	93	1.20	1.17	0.91	0.88
Industrial	20	3.11	3.04	2.51	2.44	Industrial	23	1.91	1.82	1.56	1.47
Emerging	45	3.06	3.23	2.79	2.96	Emerging	28	1.17	1.17	0.92	0.92
Developing	76	2.71	2.66	2.32	2.28	Developing	42	0.83	0.82	0.54	0.53
Test of Equal		0.25	0.42	0.33	0.59	Test of Equal		6.24***	5.88***	5.84***	5.63***
Sub-Group Means		[0.78]	[0.66]	[0.72]	[0.56]	Sub-Group Means		[0.00]	[0.00]	[0.01]	[0.01]
High Income	42	2.78	2.73	2.36	2.30	High Income	38	1.63	1.58	1.33	1.27
Middle Income	74	3.07	3.15	2.73	2.80	Middle Income	47	0.93	0.93	0.65	0.65
Low Income	25	2.45	2.38	2.06	2.04	Low Income	8	0.69	0.68	0.38	0.38
Test of Equal		0.42	0.58	0.56	0.76	Test of Equal		5.41***	4.96***	6.64***	6.30***
Sub-Group Means		[0.66]	[0.56]	[0.57]	[0.47]	Sub-Group Means		[0.01]	[0.01]	[0.00]	[0.00]
Africa	41	2.57	2.57	2.21	2.21	Africa	20	0.58	0.58	0.39	0.39
Asia	32	3.74	3.97	3.25	3.48	Asia	13	1.76	1.76	1.35	1.35
Europe	35	2.14	2.09	1.78	1.73	Europe	30	1.32	1.26	1.08	1.02
Latin America	28	2.62	2.59	2.30	2.27	Latin America	22	1.03	1.03	0.65	0.64
Oceania	4	6.36	5.88	6.30	5.82	Oceania	6	1.38	1.41	0.95	0.98
Test of Equal		1.74	1.79	1.80	1.79	Test of Equal		2.23*	2.22*	2.47*	2.43*
Sub-Group Means		[0.17]	[0.15]	[0.16]	[0.15]	Sub-Group Means		[0.09]	[0.10]	[0.07]	[0.08]

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%.

†Test of equal sub-group means† tests the null hypothesis of equal means across the relevant sub-groups using the F*-test. Since the Levene and Bartlett tests often reject the null of equal variances across the sub-groups of concern, the F*-test of equal means is employed. This test is more robust to violations of the homogeneity of variances across sub-groups assumption than the traditional F-test. For the tests, the F* statistic and corresponding p-value in square brackets are reported. The results of the F*-test are consistent with those of the W test of equal means. TF: Transition Function.

Selected Model I: whenever ESTAR is chosen, half-life is based on mean of TF; whenever linear augmented AR is chosen, IRRF half-life is picked.

Selected Model II: whenever ESTAR is chosen, half-life is based on mean of TF; whenever linear augmented AR is chosen, monotonic half-life is picked.

Selected Model III: whenever ESTAR is chosen, half-life is based on max. of TF; whenever linear augmented AR is chosen, IRRF half-life is picked.

Selected Model IV: whenever ESTAR is chosen, half-life is based on max of TF; whenever linear augmented AR is chosen, monotonic half-life is picked.

Table S5: Means of Macroeconomic Variables

<i>Sample</i>	<i>Size</i>	<i>Inflation Rate</i>	<i>Government Expenditure</i>	<i>Trade Openness</i>	<i>International Financial Integration</i>	<i>Productivity Growth</i>	<i>Nominal Exchange Rate Volatility</i>
<i>BRER</i>							
Whole	141	37.04	31.44	83.05	280.75, 98.27	1.98	0.05
United States	1	4.48	37.44	21.54	110.26, 42.74	2.05	(0.03)
Industrial	20	5.96	45.88	77.17	1019.36, 466.55	2.30	0.03
Emerging	45	41.67	32.70	98.46	222.27, 54.05	2.72	0.05
Developing	76	42.48	26.90	75.67	119.47, 26.38	1.47	0.06
Test of Equal		1.69	42.99***	3.22**	1.35, 1.26	9.67***	3.21**
Sub-Group Means		[0.19]	[0.00]	[0.05]	[0.28], [0.31]	[0.00]	[0.05]
High Income	42	11.87	41.10	102.99	680.28, 275.01	2.69	0.04
Middle Income	74	46.93	29.35	80.81	123.39, 30.64	2.11	0.06
Low Income	25	50.08	21.40	56.95	107.32, 15.68	0.42	0.05
Test of Equal		1.09	54.09***	9.08***	2.22, 1.67	14.18***	2.48*
Sub-Group Means		[0.35]	[0.00]	[0.00]	[0.12], [0.20]	[0.00]	[0.09]
Africa	41	48.22	27.14	71.69	123.10, 27.70	1.12	0.06
Asia	32	23.34	27.98	94.00	218.54, 46.33	2.77	0.05
Europe	35	21.01	43.21	90.60	661.56, 289.64	2.56	0.05
Latin America	28	61.67	26.63	77.34	146.92, 37.74	1.72	0.06
Oceania	4	8.15	30.65	93.09	93.85, 26.27	1.28	0.02
Test of Equal		1.17	29.88***	1.82	1.31, 1.25	5.86***	0.64
Sub-Group Means		[0.33]	[0.00]	[0.13]	[0.29], [0.31]	[0.00]	[0.64]
<i>REER</i>							
Whole	93	39.61	33.49	83.23	343.48, 132.75	2.09	0.07
Industrial	23	5.94	44.50	72.04	902.20, 412.49	2.25	0.02
Emerging	28	37.23	32.49	93.08	159.36, 49.10	2.53	0.06
Developing	42	59.64	28.12	82.80	155.89, 33.34	1.71	0.11
Test of Equal		2.22*	29.05***	1.16	1.30, 1.25	1.84	5.06***
Sub-Group Means		[0.10]	[0.00]	[0.32]	[0.29], [0.31]	[0.17]	[0.01]
High Income	38	12.38	41.66	93.52	675.76, 281.82	2.59	0.02
Middle Income	47	45.75	28.60	79.57	120.22, 35.25	2.13	0.09
Low Income	8	132.89	23.37	55.90	118.40, 16.10	-0.57	0.20
Test of Equal		0.93	35.99***	3.38**	1.87, 1.44	10.42***	1.92
Sub-Group Means		[0.43]	[0.00]	[0.04]	[0.17], [0.25]	[0.00]	[0.21]
Africa	20	61.67	26.15	69.20	121.31, 30.06	0.88	0.13
Asia	13	31.42	28.04	100.56	252.10, 47.38	3.66	0.05
Europe	30	32.54	44.23	87.79	732.43, 322.92	2.25	0.04
Latin America	22	45.97	28.26	83.94	142.18, 44.77	2.23	0.10
Oceania	6	7.53	32.72	81.07	113.22, 42.68	1.35	0.02
Test of Equal		0.37	28.56***	0.82	1.32, 1.21	3.82***	1.75
Sub-Group Means		[0.83]	[0.00]	[0.52]	[0.28], [0.33]	[0.01]	[0.16]

Notes: significant at 10%; ** significant at 5%; *** significant at 1%. 'Test of equal sub-group means' tests the null hypothesis of equal means across the relevant sub-groups using the F*-test. Since the Levene and Bartlett tests often reject the null of equal variances across the sub-groups of concern, the F*-test of equal means is employed. This test is more robust to violations of the homogeneity of variances across sub-groups assumption than the traditional F-test. For the tests, the F* statistic and corresponding p-value in square brackets are reported. The results of the F*-test are consistent with those of the W test of equal means.

S2 Summary Statistics and Regressions for countries common to both BRER and REER series

Table S6: Means of Macroeconomic Variables for BRER Country Samples

<i>Sample</i>	<i>Size</i>	<i>Inflation Rate</i>	<i>Government Expenditure</i>	<i>Trade Openness</i>	<i>International Financial Integration</i>	<i>Productivity Growth</i>	<i>Nominal Exchange Rate Volatility</i>
Whole	83	39.50	33.86	84.34	3.71, 1.43	1.92	0.05
Industrial	20	5.96	45.88	77.17	1019.36, 466.55	2.30	0.03
Emerging	26	39.57	33.20	99.75	214.45, 52.53	2.33	0.05
Developing	37	57.58	27.83	77.38	125.63, 30.16	1.42	0.06
Test of Equal		1.69	32.22***	1.82	1.32, 1.24	2.94*	2.31*
Sub-Group Means		[0.19]	[0.00]	[0.17]	[0.29], [0.31]	[0.06]	[0.10]
High Income	35	12.95	42.21	98.29	724.70, 302.09	2.65	0.04
Middle Income	40	44.06	28.66	77.82	120.24, 34.00	1.78	0.05
Low Income	8	132.89	23.37	55.90	118.40, 16.10	-0.57	0.07
Test of Equal		0.90	34.83***	4.82***	1.87, 1.44	11.81***	1.40
Sub-Group Means		[0.44]	[0.00]	[0.01]	[0.17], [0.25]	[0.00]	[0.26]
Africa	20	61.67	26.15	69.20	121.31, 30.06	0.88	0.06
Asia	11	34.87	29.18	108.31	282.61, 50.85	2.84	0.04
Europe	29	21.65	44.33	87.74	753.95, 333.42	2.25	0.05
Latin America	19	52.89	28.45	80.43	141.48, 42.31	2.12	0.05
Oceania	3	8.17	32.01	96.91	100.60, 33.04	0.91	0.02
Test of Equal		0.50	24.80***	1.15	1.31, 1.23	2.57**	0.46
Sub-Group Means		[0.73]	[0.00]	[0.36]	[0.29], [0.32]	[0.05]	[0.76]

Notes: significant at 10%; ** significant at 5%; *** significant at 1%. 'Test of equal sub-group means' tests the null hypothesis of equal means across the relevant sub-groups using the F*-test. Since the Levene and Bartlett tests often reject the null of equal variances across the sub-groups of concern, the F*-test of equal means is employed. This test is more robust to violations of the homogeneity of variances across sub-groups assumption than the traditional F-test. For the tests, the F* statistic and corresponding p-value in square brackets are reported. The results of the F*-test are consistent with those of the W test of equal means.

Table S7: Medians of Macroeconomic Variables for BRER Country Samples

<i>Sample</i>	<i>Size</i>	<i>Inflation Rate</i>	<i>Government Expenditure</i>	<i>Trade Openness</i>	<i>International Financial Integration</i>	<i>Productivity Growth</i>	<i>Nominal Exchange Rate Volatility</i>
Whole	83	8.13	33.38	73.70	139.91, 38.66	1.81	0.03
Industrial	20	4.88	44.69	67.06	209.57, 63.59	2.15	0.03
Emerging	26	9.95	33.95	95.43	140.01, 40.17	1.94	0.03
Developing	37	10.40	28.37	73.70	115.29, 25.21	1.01	0.04
Test of Equal		13.21***	31.91***	3.20	11.8***, 18.0***	20.60***	20.76***
Sub-Group Medians		[0.00]	[0.00]	[0.20]	[0.00], [0.00]	[0.00]	[0.00]
High Income	35	4.82	43.02	79.55	191.51, 53.34	2.28	0.03
Middle Income	40	10.96	28.61	71.22	109.55, 26.90	1.55	0.04
Low Income	8	12.27	19.78	49.97	122.84, 14.06	-0.57	0.04
Test of Equal		17.20***	32.35***	3.79	20.2***, 27.1***	25.49***	18.40***
Sub-Group Medians		[0.00]	[0.00]	[0.15]	[0.00], [0.00]	[0.00]	[0.00]
Africa	20	10.23	26.02	59.44	118.70, 20.71	0.39	0.04
Asia	11	4.83	28.85	79.55	143.52, 26.28	2.03	0.02
Europe	29	6.38	43.59	75.77	177.79, 45.72	2.28	0.03
Latin America	19	14.49	29.03	72.85	121.82, 22.10	1.68	0.05
Oceania	3	8.42	32.02	91.31	97.24, 38.35	0.85	0.02
Test of Equal		3.39	46.32***	5.71	10.7** , 13.0***	20.73***	14.64***
Sub-Group Medians		[0.50]	[0.00]	[0.22]	[0.03], [0.01]	[0.00]	[0.01]

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. 'Test of equal sub-group medians' tests the null hypothesis of equal medians across the relevant sub-groups using the non-parametric Mood's median test. For the tests, the Pearson χ^2 statistic and corresponding p-value in square brackets are reported. The Pearson χ^2 and Fisher exact versions of the test lead to consistent conclusions. The results of the median test are consistent with those of the Kruskal-Wallis test. Unlike Mood's median test, the Kruskal-Wallis test assumes that the variances across the sub-group samples of concern are approximately equal. Nevertheless, it is a more powerful (efficient) test for moderate to large samples.

Table S8: Means of Macroeconomic Variables for REER Country Samples

<i>Sample</i>	<i>Size</i>	<i>Inflation Rate</i>	<i>Government Expenditure</i>	<i>Trade Openness</i>	<i>International Financial Integration</i>	<i>Productivity Growth</i>	<i>Nominal Exchange Rate Volatility</i>
Whole	83	39.50	33.86	84.34	370.69, 143.41	1.92	0.08
Industrial	20	5.96	45.88	77.17	1019.36, 466.55	2.30	0.02
Emerging	26	39.81	33.36	96.73	163.82, 49.82	2.30	0.07
Developing	37	57.42	27.72	79.50	159.84, 31.99	1.44	0.12
Test of Equal		1.68	32.74***	1.20	1.30, 1.24	2.67*	4.68***
Sub-Group Means		[0.20]	[0.00]	[0.31]	[0.29], [0.31]	[0.08]	[0.01]
High Income	35	12.95	42.21	98.29	724.70, 302.09	2.65	0.02
Middle Income	40	44.06	28.66	77.82	120.24, 34.00	1.78	0.10
Low Income	8	132.89	23.37	55.90	118.40, 16.10	-0.57	0.20
Test of Equal		0.90	34.83***	4.82***	1.87, 1.44	11.81***	1.92
Sub-Group Means		[0.44]	[0.00]	[0.01]	[0.17], [0.25]	[0.00]	[0.21]
Africa	20	61.67	26.15	69.20	121.31, 30.06	0.88	0.13
Asia	11	34.87	29.18	108.31	282.61, 50.85	2.84	0.04
Europe	29	21.65	44.33	87.74	753.95, 333.42	2.25	0.04
Latin America	19	52.89	28.45	80.43	141.48, 42.31	2.12	0.11
Oceania	3	8.17	32.01	96.91	100.60, 33.04	0.91	0.02
Test of Equal		0.50	24.80***	1.15	1.31, 1.23	2.57**	1.84
Sub-Group Means		[0.73]	[0.00]	[0.36]	[0.29], [0.32]	[0.05]	[0.14]

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. 'Test of equal sub-group means' tests the null hypothesis of equal means across the relevant sub-groups using the F*-test. Since the Levene and Bartlett tests often reject the null of equal variances across the sub-groups of concern, the F*-test of equal means is employed. This test is more robust to violations of the homogeneity of variances across sub-groups assumption than the traditional F-test. For the tests, the F* statistic and corresponding p-value in square brackets are reported. The results of the F*-test are consistent with those of the W test of equal means.

Table S9: Medians of Macroeconomic Variables for REER Country Samples

<i>Sample</i>	<i>Size</i>	<i>Inflation Rate</i>	<i>Government Expenditure</i>	<i>Trade Openness</i>	<i>International Financial Integration</i>	<i>Productivity Growth</i>	<i>Nominal Exchange Rate Volatility</i>
Whole	83	8.13	33.38	73.70	139.91, 38.66	1.81	0.03
Industrial	20	4.88	44.69	67.06	209.57, 63.59	2.15	0.01
Emerging	26	10.28	35.21	93.94	139.81, 38.98	1.94	0.03
Developing	37	10.18	28.37	73.70	121.79, 25.21	1.01	0.05
Test of Equal		12.59****	34.44****	3.20	10.5****, 15.9****	20.60****	26.00****
Sub-Group Medians		[0.00]	[0.00]	[0.20]	[0.01], [0.00]	[0.00]	[0.00]
High Income	35	4.82	43.02	79.55	191.51, 53.34	2.28	0.01
Middle Income	40	10.96	28.61	71.22	109.55, 26.90	1.55	0.05
Low Income	8	12.27	19.78	49.97	122.84, 14.06	-0.57	0.08
Test of Equal		17.20****	32.35****	3.79	20.2****, 27.1****	25.49****	28.88****
Sub-Group Medians		[0.00]	[0.00]	[0.15]	[0.00], [0.00]	[0.00]	[0.00]
Africa	20	10.23	26.02	59.44	118.70, 20.71	0.39	0.05
Asia	11	4.83	28.85	79.55	143.52, 26.28	2.03	0.03
Europe	29	6.38	43.59	75.77	177.79, 45.72	2.28	0.02
Latin America	19	14.49	29.03	72.85	121.82, 22.10	1.68	0.04
Oceania	3	8.42	32.02	91.31	97.24, 38.35	0.85	0.02
Test of Equal		3.39	46.32****	5.71	10.7** , 13.0****	20.73****	20.33****
Sub-Group Medians		[0.50]	[0.00]	[0.22]	[0.03], [0.01]	[0.00]	[0.00]

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. 'Test of equal sub-group medians' tests the null hypothesis of equal medians across the relevant sub-groups using the non-parametric Mood's median test. For the tests, the Pearson χ^2 statistic and corresponding p-value in square brackets are reported. The Pearson χ^2 and Fisher exact versions of the test lead to consistent conclusions. The results of the median test are consistent with those of the Kruskal-Wallis test. Unlike Mood's median test, the Kruskal-Wallis test assumes that the variances across the sub-group samples of concern are approximately equal. Nevertheless, it is a more powerful (efficient) test for moderate to large samples.

Table S10: Cross-section regression results for sample common across BRER and REER series

	simple AR model half-life	augmented AR model monotonic half-life	augmented AR model IRF half-life	augmented ESTAR model TF max. half-life	augmented ESTAR model TF mean	selected model I half-life	selected model II half-life	selected model III half-life	selected model IV half-life
<i>BRER-based</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
inflation	-0.202	-0.205	-0.230*	-0.394**	-0.172	-0.174	-0.174	-0.382**	-0.382**
(inf)	(0.193)	(0.141)	(0.143)	(0.167)	(0.133)	(0.127)	(0.128)	(0.170)	(0.170)
govt. exp.	-0.112	-0.193	-0.103	0.191	-0.050	-0.024	-0.081	0.258	0.201
(gov)	(0.457)	(0.309)	(0.298)	(0.406)	(0.308)	(0.304)	(0.311)	(0.398)	(0.406)
trade open.	0.374	-0.850**	-0.836**	-0.676*	-0.693**	-0.718**	-0.754**	-0.803**	-0.839**
(to)	(0.385)	(0.351)	(0.338)	(0.384)	(0.309)	(0.319)	(0.329)	(0.410)	(0.420)
prod. growth	-0.125*	0.025	0.023	-0.104	-0.012	0.023	0.026	-0.054	-0.051
(PG)	(0.073)	(0.054)	(0.058)	(0.079)	(0.057)	(0.048)	(0.049)	(0.072)	(0.073)
ner volatility	-0.523	-0.649**	-0.709***	-0.425	-0.674**	-0.705***	-0.701**	-0.621**	-0.618**
(nerv)	(0.427)	(0.271)	(0.255)	(0.306)	(0.288)	(0.276)	(0.282)	(0.305)	(0.310)
financial int.	-0.009	0.288*	0.279*	0.143	0.181	0.204	0.209	0.144	0.149
(ifi)	(0.349)	(0.157)	(0.150)	(0.173)	(0.166)	(0.165)	(0.166)	(0.188)	(0.188)
geo. distance	0.372	0.343	0.301	0.425	0.308	0.216	0.249	0.364	0.397
(dist)	(0.276)	(0.273)	(0.243)	(0.342)	(0.285)	(0.275)	(0.283)	(0.325)	(0.333)
Observations	82	82	82	82	82	82	82	82	82
R^2	0.27	0.40	0.47	0.32	0.38	0.41	0.40	0.38	0.37
<i>BRER-based (no distance)</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
inflation	-0.203	-0.205	-0.231*	-0.395**	-0.173	-0.175	-0.175	-0.383**	-0.383**
(inf)	(0.194)	(0.136)	(0.138)	(0.161)	(0.127)	(0.122)	(0.123)	(0.163)	(0.163)
govt. exp.	-0.139	-0.219	-0.126	0.159	-0.073	-0.040	-0.099	0.231	0.171
(gov)	(0.462)	(0.325)	(0.310)	(0.419)	(0.319)	(0.310)	(0.320)	(0.412)	(0.422)
trade open.	0.440	-0.789**	-0.782**	-0.601*	-0.638**	-0.680**	-0.709**	-0.739*	-0.768*
(to)	(0.369)	(0.328)	(0.317)	(0.368)	(0.290)	(0.299)	(0.308)	(0.387)	(0.396)
prod. growth	-0.136*	0.015	0.014	-0.116	-0.021	0.017	0.019	-0.065	-0.063
(PG)	(0.076)	(0.054)	(0.058)	(0.081)	(0.058)	(0.047)	(0.048)	(0.070)	(0.072)
ner volatility	-0.491	-0.619**	-0.683***	-0.389	-0.647**	-0.686***	-0.680***	-0.590**	-0.584**
(nerv)	(0.422)	(0.256)	(0.239)	(0.295)	(0.272)	(0.259)	(0.264)	(0.288)	(0.292)
financial int.	-0.021	0.277*	0.270*	0.130	0.172	0.197	0.202	0.133	0.137
(ifi)	(0.350)	(0.149)	(0.143)	(0.166)	(0.159)	(0.159)	(0.159)	(0.180)	(0.180)
Observations	82	82	82	82	82	82	82	82	82
R^2	0.26	0.38	0.45	0.30	0.36	0.40	0.39	0.36	0.35
<i>REER-based</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
inflation	-0.272***	0.063	0.014	-0.133	0.083	-0.010	0.004	-0.143	-0.129
(inf)	(0.108)	(0.119)	(0.111)	(0.151)	(0.130)	(0.110)	(0.109)	(0.146)	(0.147)
govt. exp.	-0.080	-0.286	-0.211	0.397	-0.052	0.027	0.009	0.511	0.493
(gov)	(0.370)	(0.396)	(0.393)	(0.486)	(0.449)	(0.339)	(0.348)	(0.461)	(0.464)
trade open.	-0.141	-0.585	-0.615*	-0.292	-0.414	-0.561*	-0.573*	-0.291	-0.303
(to)	(0.287)	(0.370)	(0.356)	(0.398)	(0.381)	(0.318)	(0.320)	(0.388)	(0.389)
prod. growth	-0.025	0.065	0.049	0.047	0.103**	0.087*	0.092*	0.021	0.026
(PG)	(0.049)	(0.065)	(0.064)	(0.074)	(0.053)	(0.047)	(0.050)	(0.069)	(0.071)
ner volatility	-0.021	-0.783***	-0.744***	-0.587***	-0.709***	-0.638***	-0.653***	-0.629***	-0.643***
(nerv)	(0.151)	(0.149)	(0.138)	(0.150)	(0.140)	(0.133)	(0.136)	(0.150)	(0.150)
financial int.	-0.042	0.110	0.109	-0.071	0.061	0.058	0.063	-0.142	-0.137
(ifi)	(0.194)	(0.165)	(0.164)	(0.206)	(0.205)	(0.179)	(0.181)	(0.188)	(0.189)
Observations	82	82	82	82	82	82	82	82	82
R^2	0.12	0.37	0.38	0.38	0.40	0.43	0.42	0.41	0.41

Notes: Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. The dependent variable is the natural logarithm of the bilateral real exchange rate (BRER) half-life for BRER-based regression results and the natural logarithm of the real effective exchange rate (REER) half-life for REER-based regression results. The half-life is our measure of persistence. All regressors except for productivity growth (PG) are also expressed in logarithms. A test of normality of residuals is also performed for every specification using the Shapiro-Wilk test, and in each case the null hypothesis of normality cannot be rejected at the 10 percent level (all p-values are found to be notably larger than 0.10). Alternative numerical normality tests based on skewness and kurtosis yield consistent results. TF: Transition Function.

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