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Stock Markets, Banks and Economic Growth in a Context of Common Shocks and Cross-Country Dependencies

(Supplement)

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STOCK MARKETS, BANKS AND ECONOMIC GROWTH IN A CONTEXT OF COMMON SHOCKS AND CROSS-COUNTRY DEPENDENCIES (Supplement)*

ABSTRACT
This is an supplement to the paper by Ruge-Leiva and Caivano (2017) "Stock Markets, Banks and Economic Growth in a Context of Common Shocks and Cross-Country Dependencies", which provides additional findings and figures, unit root test results, cross-section dependence test results, tables of data collection and additional descriptive statistics.

Keywords: Economic Growth, Stock Market Development, Banking Development, Cross-Section Dependence, Multifactor Error Structure.

JEL Codes: C23, G21, O16, O40

**The Paper of this supplement is available in the WP 03/17.*

RESUMEN

Este es un apéndice del artículo de Ruge-Leiva y Caivano (2017) "Stock Markets, Banks and Economic Growth in a Context of Common Shocks and Cross-Country Dependencies", que proporciona hallazgos y cifras adicionales, resultados de las pruebas de raíz unitaria, resultados de las pruebas de dependencia de la sección transversal, tablas de recolección de datos y estadísticas descriptivas adicionales.

Palabras clave: Crecimiento Económico, desarrollo del mercado de valores, desarrollo bancario, dependencia transversal, estructura de error multifactor.

JEL Codes: C23, G21, O16, O40

**El artículo que corresponde a este suplemento se recoge en el DT 03/17.*

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A1. BRIEF DESCRIPTION OF THE ADDITIONAL RESULTS IN TABLES A AND B

- Tables A1-A2 show the specifications of models in Tables 3-4 of for the separate modelling of bank and stock market development. Most of these results agree with our findings except for those which are misspecified due to strong cross-sectional correlation and non-stationary residuals. The negative effect of banking development also holds if we use data from 1988-2014 for bank development and growth (the results are available upon request). We do not examine models from 1988 to 2007 due to short time series data (this is the same case for models for the rest of the Tables A, except for Tables A3-A4).

- Tables A3-A4 present the estimates of the dynamic models which implement bank development as the only independent variable. The results suggest that the effect of bank development is negative and significant. However, all pooled dynamic specifications suffer from strong residual cross-sectional correlation. In contrast, only one of the CCEMG specifications suffers from this problem. These results hold for advanced countries, even if the time series sample ranges from 1961 to 2007; however, the evidence for emerging economies is weaker (the results are available upon request).

- In Tables A5-A8 we report the estimates for static and dynamic models for advanced and emerging economies which assume error cross-section independence and use data from 1988 to 2012. Although these models yield negative and significant coefficients of bank development and positive and significant estimates of stock market development, most of them are inconsistent due to strong cross-section dependence and/or non-stationary residuals. These results hold even if we model bank and stock market development separately; or if we employ data for bank development and economic growth from 1988 to 2014 when we only use bank development as the financial development regressor (the results are available upon request). Due to limitations of the sample size, we cannot report the results of the CCEP model for advanced countries.

- Table A9 contains the estimates of the basic static and dynamic models for the subsample of advanced countries, using full cross-sectional averages. However, the estimates are inconsistent due to strong residual cross-section dependence. This is also true when we analyze specifications where, in addition to cross-section averages: (i) we include additional regressors or different proxies for our main variable; (ii), we use cross-sectional averages that are computed on the basis of advanced countries plus two or more emerging economies; (iii), we detrend or demean the data to construct full sample averages; and (iv), we employ data from 1988 to 2014 for the bank development variable, growth and other variables, when bank development is the

only financial development regressor (the results are available upon request).

- We report estimates of the models in Table 6 from our paper by (i), studying the subsamples of advanced and emerging countries (Tables A10-A11); or (ii), using dynamic estimators for the full sample (Tables A12-A15). These results lend some support to our findings, except for those models that are misspecified due to the non-stationarity and/or strong cross-sectional dependence of the residuals. Some of these results also hold for: (i), cross-sectionally dependent models that include bank and stock market separately; (ii), those which employ data from 1988-2014 for bank development, output growth and other variables (in the case where bank development is the only financial regressor); or (iii) for some cross-sectionally independent static models (the results are available upon request). The CS-ARDL models for the full sample and all dynamic models for advanced and emerging economies are not analyzed due to very short time series data.

- We report estimates of the models in Table 7 of our investigation by (i), including additional variables; (ii), analyzing the subsamples for advanced and emerging economies, with the inclusion of additional regressors; or (iii), using dynamic models for the full sample (see Tables A16-A32). They agree with our previous findings; however, the MG and DL-MG dynamic models suffer from strong cross-sectional dependence. Due to a scarcity of time series data, we do not include the banking crisis and the bank lending-deposit spread variables when using the subsamples for advanced and emerging economies nor versions of the models in Tables A29-A32 for subsamples of advanced and emerging economies. The findings from Tables A16-A32 also hold even if we (i), include bank and stock markets development separately; (ii), use static models which assume cross-section independence of errors; or (iii) employ time series data from 1988 to 2014 for the bank development variable, growth and other variables, in the case where we include bank development as the only financial development regressor (results are available upon request).

- Table A33 presents the results of dynamic specifications that include gross government debt as an independent regressor, in addition to both bank and stock market development. We employ data from 1988 to 2012. We can infer that (1), the inclusion of gross government debt does not affect the results that we obtained in our work; (2), its estimates are insignificant in most cases, in contrast with our findings from Table 6; and (3), given the high level of significance of the stock market development estimates, stock markets should be accounted for when analyzing the effects of banking development and gross public debt on growth, especially because they appear to smooth the effects of common shocks to financial systems, with positive implications for economic activity. Unfortunately, due to the lack of time-series data, we cannot obtain reliable estimates from the CS-ARDL model with three lagged cross-section averages, and the estimates of the CS-DLMG model

in column (9) are insignificant. Moreover, although we employ cross-sectional dynamic models that include one and two lagged cross-sectional averages (specifications (5)-(8)), and that therefore allow us to analyze more flexible specifications in accordance with the short data availability, they do not consistently address feedback effects and cross-sectional dependencies. Moreover, due to the lack of data, we cannot obtain the estimates of these models for the subsamples of advanced and emerging economies.

- Table A34 presents the results of dynamic models from 1988 to 2012 which include the main financial development variables separately and the ratio of gross public debt to GDP. Overall, they support the conclusions we derived from Table A33. These and our general results are also supported by some findings of the cross-sectionally independent static models (these results are available upon request). However, due to the small sample size, we cannot determine if they hold for the subsamples of the advanced and emerging economies.

- Tables A35-A37 show results for models from 1988 to 2012, where we include gross fixed capital formation to GDP as the dependent variable, and both stock market and banking development as the independent regressors. Estimates of the stock market development variable are positive and significant in most cases; however, when the sample is divided between advanced and emerging economies, they become insignificant (possibly due to a small sample bias). In contrast, while the coefficient of bank development is significant and positive in static models, it becomes positive and insignificant, or negative and significant, in most of the dynamic models (and even for the subsamples of advanced and emerging countries, although these results might be affected by a possible small sample bias). The only dynamic model that yields positive and significant slopes for banking development is the CS-ARDL model (this contradicts the findings from Tables B27-B30, where this model yields insignificant estimates of bank development). In addition, most of the static models are misspecified due to nonstationary and/or cross-sectionally dependent residuals. We also used several robustness checks, and obtained similar results in terms of the sign and significance of estimates (results are available upon request). Therefore, we can infer that (i) stock market development may promote long-run investment in fixed assets; and (ii), banking development may marginally boost or not promote at all long-run aggregate investment. Our second conclusion is supported by the findings which are reported in Tables B27-B30.

- We report estimates of the models in Tables 8-11 of our investigation by (i), analyzing the main sample and the subsamples for advanced and emerging economies, with the inclusion of different additional regressors (in addition to inflation), or the implementation of different proxy variables for banking development and economic growth; and (ii), using cross-sectionally independent dynamic models for the full sample (see Tables B1-B26). Overall, the results from these specifications support

our findings. Although we do not use alternative proxies for the main variables of models which assume cross-sectionally independent errors, and/or split the sample between advanced and emerging countries in these models, the sign and significance of banking development in these cases coincide with previous findings (the results are available upon request).

In addition, most of the results from Tables B1-B26 and Tables 8-11 hold even if inflation is not included. This is also true when inflation is replaced by population growth or the log of the ratio of gross fixed capital formation to GDP; or when economic growth is proxied by per capita GDP growth. This evidence is weaker when inflation is replaced by the log of the ratio of trade to GDP, or when we use time series data for a time period between 1961 to 2007 and for specifications as in Tables 8-11. However, these estimates become insignificant in several cases when inflation is replaced by the log of the ratio of the total gross government debt to GDP or the log of human capital, or when banking development is proxied by the log of liquid liabilities (the results are available upon request). In this case, results are not conclusive because, as we found in Tables 3-7 and Tables A33-A34, stock markets should be accounted for when analyzing the impact of these variables on growth, because it may smooth the effects of common shocks. In addition, despite the results from the use of liquid liabilities, we mainly rely on the estimates of the ratio of domestic credit to private sector by banks to GDP because it excludes loans to the government and public enterprises and credits by development banks (Beck and Levine, 2004), and more data is available. Moreover, we do not employ the log of the bank lending-deposit spread and the banking crisis dummy due to a shortage of data.

- Tables B27-B30 show results for models from 1961 to 2014, where we include gross fixed capital formation to GDP as the dependent variable, banking development as the main independent regressor, and other covariates such as inflation and general government final consumption expenditure to GDP. When we use the full sample we find that the coefficient of bank development is positive and insignificant in ARDL specifications, and significant in the case of the DL models. Now, when we employ subsamples for advanced and emerging economies, the estimates of bank development are positive and insignificant (surprisingly, cross-sectional models for advanced countries fail to address residual cross-sectional dependence). We also used several robustness checks, and obtained similar results in terms of the sign and significance of estimates. In fact, the estimates of bank development in DL models become insignificant in some cases (the results are available upon request). Therefore, all of these findings agree with those of Tables A35-A37, and confirm that banking development may marginally foster or not promote at all long-run investment in fixed assets. However, we recognize that these findings may be subject to the omission of the stock market development regressor.

A2. BRIEF DESCRIPTION OF THE DEFINITIONS AND SOURCES OF THE DATA FOR VARIABLES

The GDP growth variable (Y_{it}) uses the constant GDP in Local Currency Units (LCU) from the World Bank World Development Indicators (WDI) database. We also use this source for variables, such as the ratio of domestic credit to private sector by banks to GDP (B_{it}), the ratio of trade (imports plus exports of goods and services) to GDP (TR_{it}), population growth (PG_{it}, which uses the data on total population (in millions)), the relationship of general government final consumption expenditure to GDP (GCE_{it}), the ratio of gross fixed capital formation to GDP (GFK_{it}), GDP per capita growth (YP_{it}, based on constant GDP per capita data in LCU), the ratio of market capitalization of listed companies to GDP (S_{it}), the ratio of total value of stocks traded to GDP (STV_{it}), market turnover ratio of stocks traded (MTR_{it}), and inflation ($INFL_{it}$) (which uses the consumer price index (CPI) where the observations for 2010 have a value of 100). The CPI for Argentina is taken from the International Financial Statistics (IFS) of the International Monetary Fund (IMF). The CPI for Germany and the United Kingdom are taken from the OECD Main Economic Indicators (MEI). For Brazil, Chile, China, Tunisia, and Venezuela, we used the data on inflation found at: http://www.carmenreinhart.com/data/browse-by-topic/topics/2/, which updates Reinhart and Rogoff (2011).

The data for the ratio of total (domestic plus external) gross government debt (in face value terms) to GDP (GD_{it}) are taken from the IMF Historical Public Debt Database (HPDD) (Abbas et al., 2011, Fall 2013 vintage). This database mainly covers public debt at the general government level. However, due to the lack of information on some countries before 1980, the figures for public debt refer to the central government level. The data for the Ivory Coast at the general government level are from http://www.carmenreinhart.com/data/browse-by-topic/topics/9/ and follow Reinhart and Rogoff (2011). We also used this source for the ratio of government debt to GDP at the central level for Argentina, Brazil, Chile, China, Indonesia, Philippines, Switzerland, and Venezuela. The index of human capital (HC_{it}) is taken from the Penn World Table 8.1.

The main source for the variables, such as the bank lending-deposit spread (SP_{it}), banking crisis dummy (BC_{it}), and the ratio of liquid liabilities to GDP (LL_{it}) is the Global Financial Development (GFD) database of the World Bank. The data on liquid liabilities for Argentina and Germany are taken from the WDI. If any of the abovementioned series contained gaps of up to three years, we used linear interpolations to fill them. A thorough description of the data sources, time coverage, and missing data of the variables per country can be found in Tables D1-D7.

A3. ADDITIONAL FIGURES

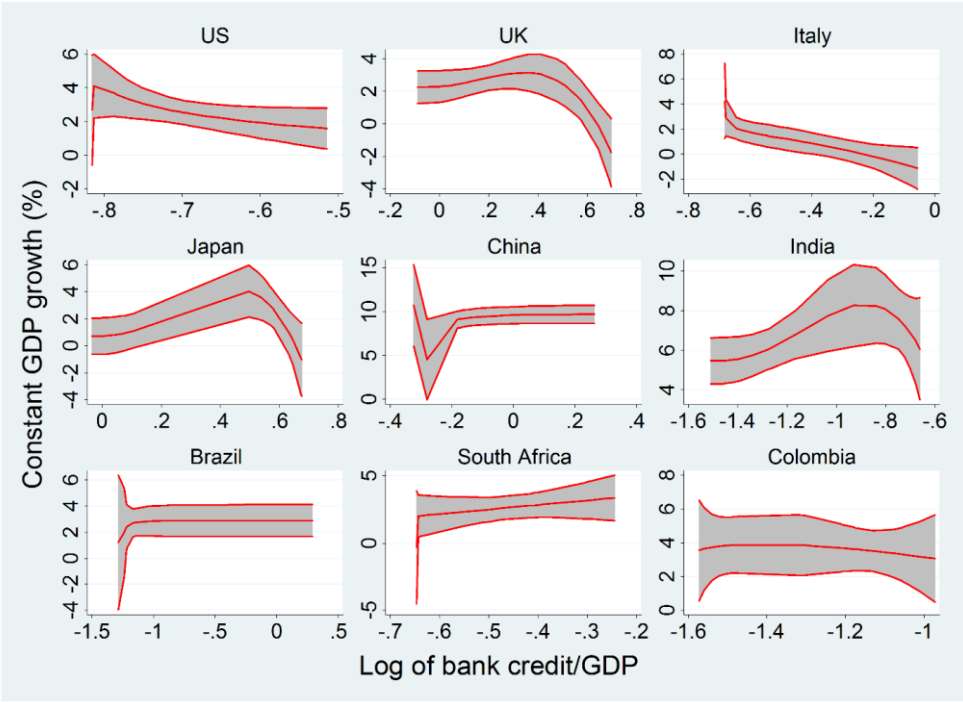

Fig. A1. It shows fractional polynomial lines (with a 95% confidence interval) for GDP growth against the log of the ratio of private credit by banks to GDP. The plots run from 1988 to 2012 and cover nine economies, which, from the left to the right, are: United States, United Kingdom, Italy, Japan, China, India, Brazil, South Africa, and Colombia.

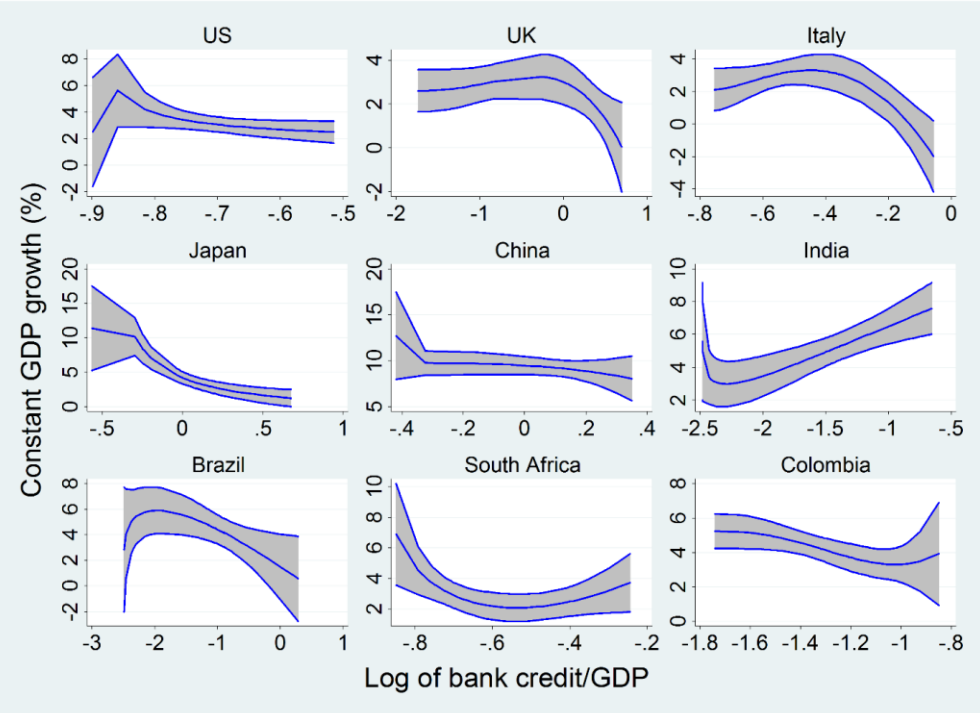

Fig. A2. It shows fractional polynomial lines (with a 95% confidence interval) for GDP growth against the log of the ratio of private credit by banks to GDP. The plots are from 1961 to 2014 and for nine economies, which, from the left to the right, are: United States, United Kingdom, Italy, Japan, China, India, Brazil, South Africa, and Colombia.

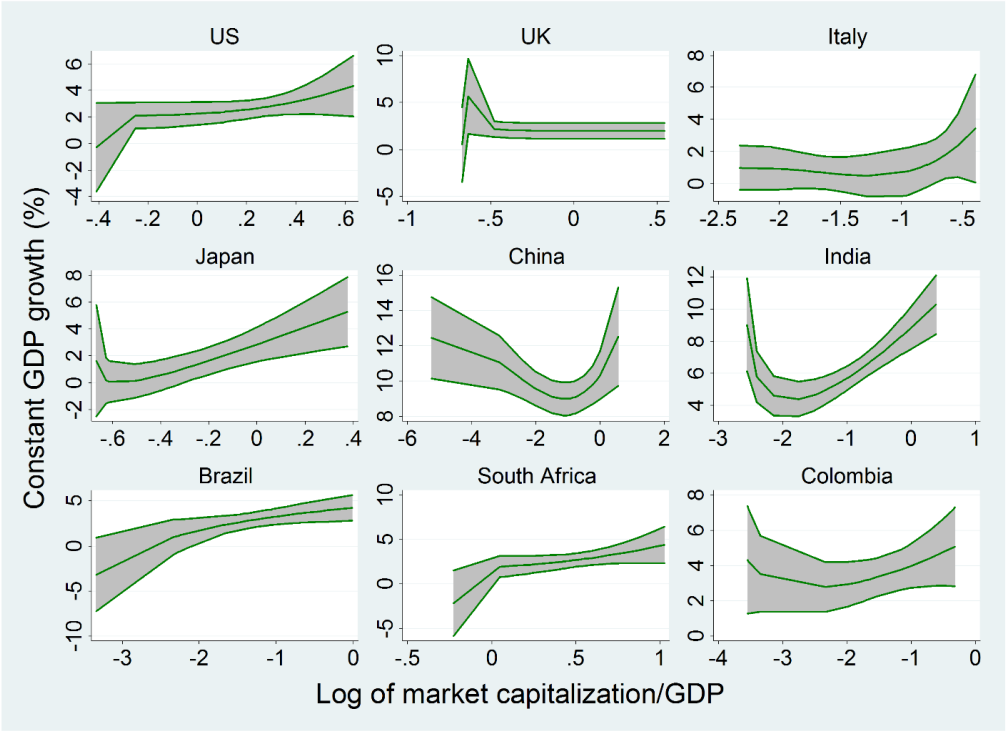

Fig. A3. It shows fractional polynomial lines (with a 95% confidence interval) for GDP growth against the log of the ratio of market capitalization of listed companies to GDP. The plots are from 1988 to 2012 and for nine economies, which, from the left to the right, are: United States, United Kingdom, Italy, Japan, China, India, Brazil, South Africa, and Colombia.

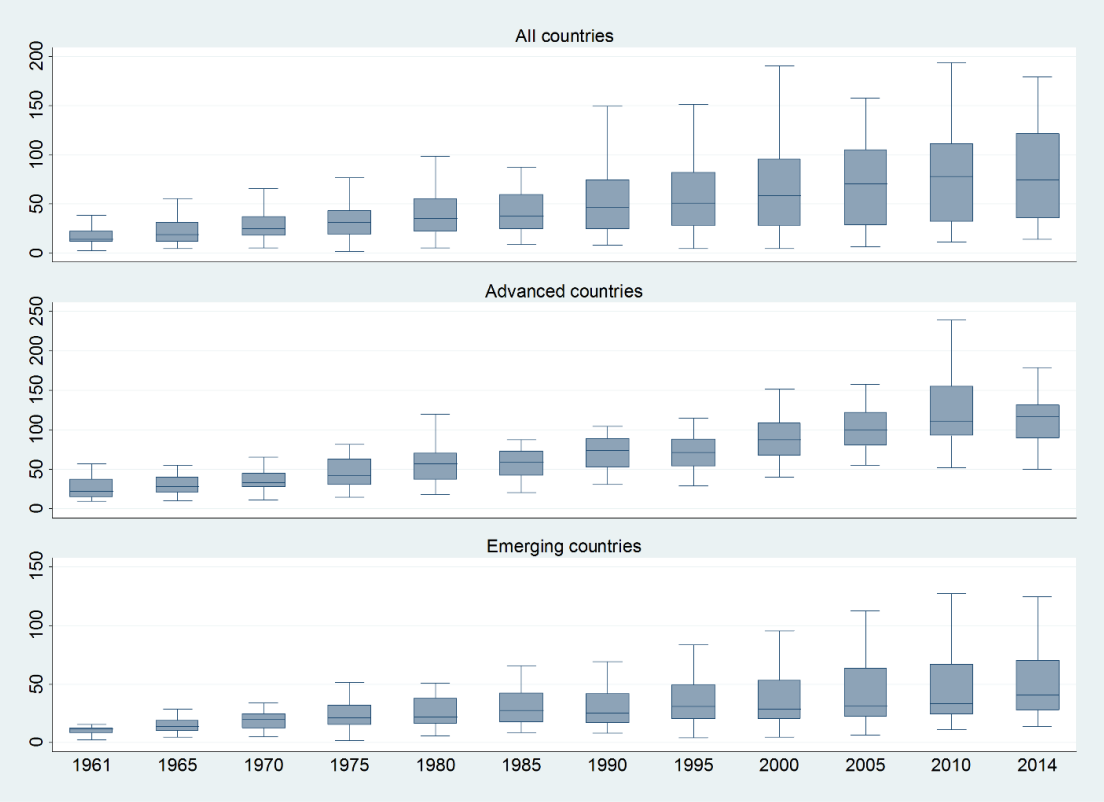

Fig. A4. It provides box plots of the percentage of private credit by banks as a share of GDP, between 1961 and 2014 for the full sample, and the subsamples of advanced and emerging economies, from top to the bottom, respectively. We suppress the display of extreme values.

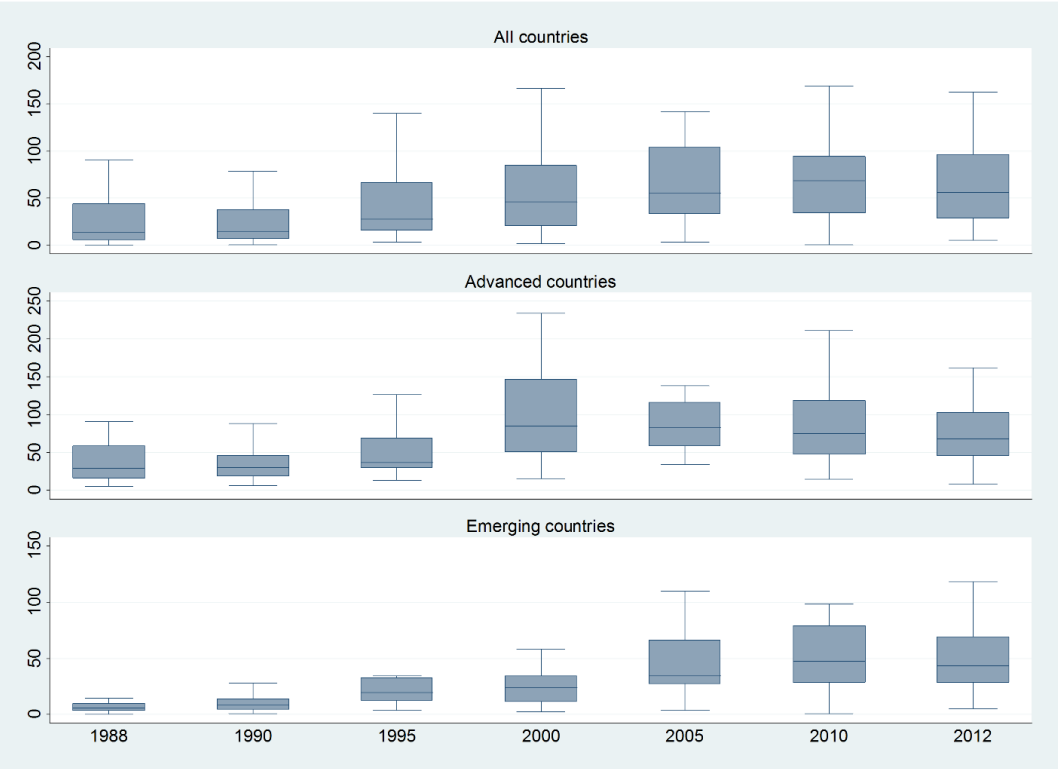

Fig. A5. It shows box plots of the percentage of market capitalization of listed companies as a share of GDP, between 1988 and 2012 for the full sample and the subsamples of advanced and emerging economies, from top to the bottom, respectively. We suppress the display of extreme values.

A4. Additional results for Tables 2-3: Tables A1-A4

TABLE A1

Static models for banking development and growth from 1988-2012

	POLS (1)	*POLS* (2)	*2FE* (3)	*2FE* (4)	*FD* (5)	*FD* (6)	*CCEP* (7)	*CCEP* (8)	*MG* (9)	*MG* (10)	*CCEMG* (11)	*CCEMG* (12)
B	-0.331**		-1.027*		-2.199**		-1.219***		-1.769***		-2.626***	
	(0.144)		(0.377)		(0.991)		(0.458)		(0.667)		(0.769)	
S		0.162		1.401***		0.981**		1.546***		0.860***		1.808***
		(0.104)		(0.218)		(0.433)		(0.285)		(0.184)		(0.276)
CD-test statistic	-0.24	-0.25	-0.34	-0.39	-0.31	-0.09	-0.28	0.36	38.52	44.06	0.05	-0.34
CD-test p-value	0.80	0.80	0.73	0.69	0.75	0.93	0.78	0.72	0.00	0.00	0.96	0.73
Order of Integration	I(1)	I(1)	I(1)	I(0)	I(0)	I(0)	I(1)	I(0)	I(1)	I(0)	I(0)	I(0)
RMSE	3.36	3.26	2.98	2.78	3.49	3.39	2.81	2.63	2.92	2.90	2.47	2.36
NXT	1332	1331	1332	1331	1331	1277	1332	1331	1332	1331	1332	1331
N	54	54	54	54	54	54	54	54	54	54	54	54

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Estimators: (1-2) POLS: Pooled OLS, augmented with T-1 year dummies; (3-4) 2FE: Two-way fixed effects, augmented with T-1 year dummies and N-1 country dummies; (5-6) FD: First Differences, augmented with T-2 year dummies; (7-8) CCEP: Pooled Pesaran (2006), augmented with common country dummies and cross-section averages; (9-10) MG: Mean Group Pesaran and Smith (1995); (11-12) CCEMG: Common Correlated Effects MG Pesaran (2006), augmented with cross-section averages. White heteroskedasticity-robust standard errors are reported for models (1)-(8). For models (9)-(12) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006) (the latter only for (11-12)). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: (evaluated at the 5% level of significance, full results of the following tests are available on request): 1) CD test: The Pesaran (2004, 2015) test, for which Ho: Weak cross-section dependence of the residuals (the test statistic as well as the p-value for each model are reported). 2) CIPS test: The Pesaran (2007) test evaluates the order of integration of the residuals where I(0): stationary, I(1): nonstationary. We include here up to 3 lags augmentation in the Dickey Fuller regressions employed. The root mean squared error (RMSE), NXT number of country-time observations and N number of countries are also included.

TABLE A2

Dynamic models for banking development and growth from 1988-2012

	POLS	*POLS*	*2FE*	*2FE*	*MG*	*MG*	*DLMG*	*DLMG*	*CS-ARDL*	*CS-ARDL*	*CS-DLMG*	*CS-DLMG*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
B	-0.517**		-1.537***		-2.213***		-2.104***		-2.480**		-2.917***	
	(0.247)		(0.513)		(0.696)		(0.674)		(1.101)		(0.852)	
S		0.129		1.644***		1.389***		1.252***		2.119***		2.158***
		(0.167)		(0.289)		(0.285)		(0.242)		(0.416)		(0.411)
Cointegration coefficient	-0.544***	-0.559***	-0.725***	-0.794***	-0.816***	-0.783***			-0.820***	-0.932***		
	(0.041)	(0.040)	(0.048)	(0.046)	(0.035)	(0.041)			(0.053)	(0.059)		
CD-test statistic	-0.16	-0.31	-0.38	-0.54	37.68	44.22	36.09	42.40	0.19	-1.89	1.32	-2.39
CD-test p-value	0.87	0.75	0.70	0.59	0.00	0.00	0.00	0.00	0.85	0.05	0.18	0.01
RMSE	2.99	2.87	2.85	2.66	2.61	2.60	2.73	2.79	1.77	1.58	2.08	1.98
NXT	1331	1277	1331	1277	1331	1277	1331	1277	1331	1183	1331	1183
N	54	54	54	54	54	54	54	54	54	54	54	54

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Estimators: (1-2) POLS: Dynamic autoregressive distributed lagged (ARDL) Pooled OLS, augmented with T-2 year dummies; (3-4) 2FE: Dynamic ARDL Two-way fixed effects, augmented with T-2 year dummies and N-1 country dummies; (5-6) MG: Dynamic ARDL Mean Group; (7-8) DLMG: Distributed lagged DL Mean Group; (9-10) CS-ARDL: Dynamic cross-sectional ARDL Chudik and Pesaran (2015a), augmented with three lags of the cross-sectional averages of the dependent and independent variables; (11-12) CS-DLMG: Cross-sectional DL Chudik et al. (2016) Mean Group, augmented with three lags of the cross-sectional averages of the independent variables. Models (1-6) and (9-10) are represented by a Error Correction Model (ECM) and are augmented with one lag of the dependent and independent variables. Standard errors of ARDL models are computed via the Delta method. DL models are augmented with one lag of the independent variables. White heteroskedasticity-robust standard errors are reported for models (1-4). For models (5-12) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006) (the latter only for (9-12)). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1, except for the CIPS test.

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TABLE A3

Pooled and MG dynamic models for banking development and growth from 1961-2014

	POLS			*2FE*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.296*	-0.348*	-0.474*	-0.360	-0.457	-0.588*
	-(0.177)	(0.201)	(0.245)	(0.282)	(0.296)	(0.339)
Cointegration coefficient	-0.608***	-0.535***	-0.434***	-0.740***	-0.724***	-0.647***
	(0.030)	(0.032)	(0.031)	(0.032)	(0.036)	(0.038)
CD-test statistic	-2.08	-1.99	-2.02	-2.44	-2.29	-2.25
CD-test p-value	0.03	0.04	0.04	0.01	0.02	0.02
RMSE	3.22	3.18	3.13	3.09	3.07	3.06
NXT	2615	2561	2507	2615	2561	2507
N	54	54	54	54	54	54

TABLE A3 (Continued)

Pooled and MG dynamic models for banking development and growth from 1961-2014

		MG			*DLMG*	
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(7)	(8)	(9)	(10)	(11)	(12)
B	-1.749***	-1.903***	-1.942***	-1.903***	-1.944***	-1.957***
	(0.340)	(0.386)	(0.396)	(0.322)	(0.355)	(0.364)
Cointegration coefficient	-0.763***	-0.810***	-0.779***			
	(0.023)	(0.030)	(0.030)			
CD-test statistic	35.94	35.95	33.88	35.07	34.57	32.65
CD-test p-value	0.00	0.00	0.00	0.00	0.00	0.00
RMSE	3.00	2.89	2.82	3.14	3.07	3.02
NXT	2615	2561	2507	2657	2605	2553
N	54	54	54	54	54	54

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) is the independent variable. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1961 to 2014. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Estimators: (1)-(3) POLS: Dynamic autoregressive distributed lagged (ARDL) Pooled OLS, augmented with T-2 year dummies; (4)-(6) 2FE: Dynamic ARDL Two-way fixed effects, augmented with T-2 year dummies and N-1 country dummies; (7)-(9) MG: Dynamic ARDL Mean Group Pesaran and Smith (1995); (10)-(12) DLMG: Distributed lagged DL Mean Group. Models (1)-(9) are represented by a Error Correction Model (ECM) and are augmented with one, two and three lags of the dependent and independent variables. Standard errors of ARDL models are computed via the Delta method. Models (10)-(12) are augmented with one, two and three lags of the independent variables. White heteroskedasticity-robust standard errors are reported for models (1)-(6). For models (7)-(12) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1, except for the CIPS test.

TABLE A4

Dynamic CCEMG models for banking development and growth from 1961-2014

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.760*	-1.153**	-1.303**	-1.069**	-1.193***	-1.309***
	(0.413)	(0.529)	(0.563)	(0.447)	(0.441)	(0.454)
Cointegration coefficient	-0.799***	-0.831***	-0.779***			
	(0.033)	(0.039)	(0.036)			
CD-test statistic	-1.98	-1.43	-1.28	-1.50	-1.46	-1.07
CD-test p-value	0.04	0.15	0.20	0.13	0.14	0.28
RMSE	2.45	2.36	2.3	2.69	2.63	2.59
NXT	2545	2526	2507	2588	2571	2553
N	54	54	54	54	54	54

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) is the independent variable. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1961 to 2014. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Estimators: (1)-(3) CS-ARDL: Dynamic cross-sectional ARDL Chudik and Pesaran (2015a), augmented with three lags of the cross-sectional averages of the dependent and independent variables; (4)-(6) CS-DLMG: Cross-sectional DL Chudik et al. (2016) Mean Group, augmented with three lags of the cross-sectional averages of the independent variables. Models (1)-(3) are represented by a Error Correction Model (ECM) and are augmented with one, two and three lags of the dependent and independent variables. Standard errors of ARDL models are computed via the Delta method. Models (4)-(6) are augmented with one, two and three lags of the independent variables. White heteroskedasticity-robust standard errors are reported for models (1) and (2). For models (3)-(6) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1, except for the CIPS test.

A5. ADDITIONAL RESULTS FOR TABLE 4: TABLES A5-A9

TABLE A5

Static models according to the basic specification for advanced countries

	POLS (1)	*2FE* (2)	*FD* (3)	*MG* (4)
B	-0.657***	-1.541***	-4.116**	-5.548***
	(0.207)	(0.326)	(1.596)	(0.835)
S	0.989***	1.781***	0.678	2.192***
	(0.156)	(0.286)	(0.590)	(0.295)
CD-test statistic	-2.12	-2.61	-0.89	29.42
CD-test p-value	0.03	0.00	0.37	0.00
Order of Integration	I(0)	I(1)	I(0)	I(1)
RMSE	2.26	1.87	2.20	2.05
NXT	608	608	583	608
N	25	25	25	25

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Estimators: (1) POLS: Pooled OLS, augmented with T-1 year dummies; (2) 2FE: Two-way fixed effects, augmented with T-1 year dummies and N-1 country dummies; (3) FD: First Differences, augmented with T-2 year dummies; (4) MG: Mean Group Pesaran and Smith (1995). White heteroskedasticity-robust standard errors are reported for models (1)-(3). For model (4) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1.

TABLE A6

Dynamic models according to the basic specification for advanced countries

	POLS	*2FE*	*MG*	*DLMG*
	(1)	(2)	(3)	(4)
B	-0.858**	-1.770***	-5.631***	-5.947***
	(0.363)	(0.403)	(1.039)	(1.010)
S	1.109***	2.421***	3.406***	3.153***
	(0.277)	(0.465)	(0.495)	(0.444)
Cointegration coefficient	-0.479***	-0.746***	-0.912***	
	(0.061)	(0.064)	(0.046)	
CD-test statistic	-1.30	-2.31	22.59	21.37
CD-test p-value	0.19	0.02	0.00	0.00
RMSE	1.92	1.76	1.68	1.76
NXT	583	583	583	583
N	25	25	25	25

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Estimators: (1) POLS: Dynamic autoregressive distributed lagged (ARDL) Pooled OLS, augmented with T-2 year dummies; (2) 2FE: Dynamic ARDL Two-way fixed effects, augmented with T-2 year dummies and N-1 country dummies; (3) MG: Dynamic ARDL Mean Group; (4) DLMG: Distributed lagged DL Mean Group. Models (1), (2) and (3) are represented by a Error Correction Model (ECM) and are augmented with one lag of the dependent and independent variables. Standard errors of ARDL models are computed via the Delta method. Model (4) is augmented with one lag of the independent variables. White heteroskedasticity-robust standard errors are reported for models (1) and (2). For models (3) and (4) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1, except for the CIPS test.

TABLE A7

Static models according to the basic specification for emerging countries

	POLS	*2FE*	*FD*	*CCEP*	*MG*
	(1)	(2)	(3)	(4)	(5)
B	0.914***	-0.529	-1.627	-2.054**	-1.111
	(0.268)	(0.542)	(1.625)	(0.793)	(1.117)
S	0.031	0.940***	1.001*	1.777***	1.519***
	(0.172)	(0.296)	(0.577)	(0.461)	(0.341)
CD-test statistic	-2.26	-2.39	-2.00	-1.82	13.01
CD-test p-value	0.02	0.01	0.04	0.06	0.00
Order of Integration	I(0)	I(1)	I(0)	I(0)	I(0)
RMSE	3.54	3.27	4.14	3.04	3.05
NXT	705	705	676	705	705
N	29	29	29	29	29

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Estimators: (1) POLS: Pooled OLS, augmented with T-1 year dummies; (2) 2FE: Two-way fixed effects, augmented with T-1 year dummies and N-1 country dummies; (3) FD: First Differences, augmented with T-2 year dummies; (4) CCEP: Pooled Pesaran (2006), augmented with common country dummies and cross-section averages; (5) MG: Mean Group Pesaran and Smith (1995). White heteroskedasticity-robust standard errors are reported for models (1)-(4). For model (5) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1.

TABLE A8

Dynamic models according to the basic specification for emerging countries

	POLS	*2FE*	*MG*	*DLMG*
	(1)	(2)	(3)	(4)
B	0.627*	-1.256*	-1.974*	-2.828**
	(0.355)	(0.652)	(1.097)	(1.093)
S	0.084	1.058***	1.997***	1.966***
	(0.228)	(0.386)	(0.428)	(0.424)
Cointegration coefficient	-0.717***	-0.873***	-0.975***	
	(0.056)	(0.061)	(0.062)	
CD-test statistic	-2.25	-2.44	8.04	9.54
CD-test p-value	0.02	0.01	0.00	0.00
RMSE	3.30	3.14	2.58	2.69
NXT	676	676	676	676
N	29	29	29	29

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Estimators: (1) POLS: Dynamic autoregressive distributed lagged (ARDL) Pooled OLS, augmented with T-2 year dummies; (2) 2FE: Dynamic ARDL Two-way fixed effects, augmented with T-2 year dummies and N-1 country dummies; (3) MG: Dynamic ARDL Mean Group; (4) DLMG: Distributed lagged DL Mean Group. Models (1), (2) and (3) are represented by a Error Correction Model (ECM) and are augmented with one lag of the dependent and independent variables. Standard errors of ARDL models are computed via the Delta method. Model (4) is augmented with one lag of the independent variables. White heteroskedasticity-robust standard errors are reported for models (1) and (2). For models (3) and (4) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1, except for the CIPS test.

TABLE A9

Static and dynamic CCEMG models for advanced countries including full cross-section averages

	CCEMG (1)	*CS-ARDL* (2)	*CS-DLMG* (3)
B	-4.178***	-2.007	-2.554
	(1.360)	(2.777)	(2.896)
S	2.352***	1.999**	2.244***
	(0.424)	(0.873)	(0.624)
Cointegration coefficient		-1.207***	
		(0.118)	
CD-test statistic	7.23	2.02	2.69
CD-test p-value	0.00	0.04	0.00
Order of Integration	I(0)		
RMSE	1.49	0.56	0.82
NXT	608	502	536
N	25	23	25

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. The estimates of the intercept term are omitted. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Standard errors of ARDL specifications are computed via the Delta method. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Estimators: (1) CCEMG: Common Correlated Effects MG Pesaran (2006), augmented with cross-section averages; (2) CS-ARDL: Dynamic cross-sectional ARDL Chudik and Pesaran (2015a) represented by a Error Correction Model (ECM), augmented with one lag of the dependent and independent variables and three lags of the cross-sectional averages of the dependent and independent variables; (3) CS-DLMG: Cross-sectional DL Chudik et al. (2016) Mean Group, augmented with one lag of the independent variable and three lags of the cross-sectional averages of the independent variables. For advanced countries we compute the cross-section averages based on the full sample. For these models we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1 Except for the CIPS test.

A6. ADDITIONAL RESULTS FOR TABLE 5: TABLES A10-A15

TABLE A10

Static CCEMG models for advanced countries including additional regressors

	(1)	(2)	(3)	(4)	(5)
B	-5.160***	-3.751***	-2.653**	-4.235**	-3.458***
	(1.452)	(1.243)	(1.215)	(1.824)	(1.218)
S	1.201*	0.944*	0.965**	0.978	1.671***
	(0.676)	(0.510)	(0.461)	(0.603)	(0.474)
TR	3.231				
	(2.392)				
GCE		-11.694***			
		(2.951)			
GFK			6.016***		
			(0.955)		
GD				-1.959	
				(1.289)	
PG					-0.479
					(0.606)
CD-test statistic	-0.12	0.42	1.51	0.33	10.78
CD-test p-value	0.90	0.67	0.13	0.74	0.00
Order of Integration	I(1)	I(1)	I(0)	I(0)	I(0)
RMSE	1.30	1.21	1.23	1.22	1.30
NXT	608	608	608	606	608
N	25	25	25	25	25

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the main independent variables. We include additional regressors such as the log trade to GDP (TR), log general government final consumption expenditure to GDP (GCE), log gross fixed capital formation to GDP (GFK), log total (domestic plus external) gross (central and/or general) government debt to GDP (GD), and population growth (PG). The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. We use the Common Correlated Effects MG Pesaran (2006) estimator augmented with cross-section averages of the dependent and independent variables. We compute the cross-section averages based on advanced countries plus China. Here we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1.

TABLE A11

Static CCEMG models for emerging countries including additional regressors

	(1)	(2)	(3)	(4)	(5)
B	-3.216*	-2.015*	-4.043***	-4.074***	-2.972**
	(1.456)	(1.178)	(1.403)	(1.545)	(1.425)
S	1.539***	1.731***	1.294***	1.647***	1.681***
	(0.362)	(0.443)	(0.377)	(0.440)	(0.413)
TR	1.828				
	(2.064)				
GCE		-1.598			
		(2.407)			
GFK			6.165***		
			(1.740)		
GD				-3.691***	
				(1.137)	
PG					-0.064
					(1.290)
CD-test statistic	-1.92	-1.82	-2.05	-2.34	-2.11
CD-test p-value	0.05	0.06	0.04	0.01	0.03
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	2.25	2.30	2.27	2.21	2.34
NXT	705	701	701	688	705
N	29	29	29	29	29

Notes: See Table A10.

TABLE A12

Dynamic models including general government final consumption expenditure to GDP as an additional regressor

	POLS	*2FE*	*MG*	*DLMG*	*CS-DLMG*
	(1)	(2)	(3)	(4)	(5)
B	-0.594**	-1.850***	-2.548***	-2.883***	-4.867*
	(0.271)	(0.471)	(0.861)	(0.801)	(2.753)
S	0.701***	1.719***	1.871***	1.913***	2.553**
	(0.179)	(0.310)	(0.317)	(0.311)	(1.141)
GCE	-2.861***	-2.490*	-7.225***	-7.802***	-1.977
	(0.480)	(1.383)	(1.954)	(1.781)	(9.228)
Cointegration coefficient	-0.615***	-0.822***	-1.061***		
	(0.044)	(0.048)	(0.036)		
CD-test statistic	-0.35	-0.71	10.17	12.11	-1.96
CD-test p-value	0.72	0.48	0.00	0.00	0.05
RMSE	2.80	2.62	1.78	1.86	0.59
NXT	1255	1255	1255	1255	1052
N	54	54	54	54	48

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. Log general government final consumption expenditure to GDP (GCE) is included as an additional regressor. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Estimators: (1) POLS: Dynamic autoregressive distributed lagged (ARDL) Pooled OLS, augmented with T-2 year dummies; (2) 2FE: Dynamic ARDL Two-way fixed effects, augmented with T-2 year dummies and N-1 country dummies; (3) MG: Dynamic ARDL Mean Group Pesaran and Smith (1995); (4) DLMG: Distributed lagged DL Mean Group; (5) CS-DLMG: Cross-sectional DL Chudik et al. (2016) Mean Group, augmented with three lags of the cross-sectional averages of the independent variables. Models (1), (2) and (3) are represented by a Error Correction Model (ECM) and are augmented with one lag of the dependent and independent variables. Standard errors of ARDL models are computed via the Delta method. Models (4) and (5) are augmented with one lag of the independent variables. White heteroskedasticity-robust standard errors are reported for models (1) and (2). For models (3)-(5) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006) (the latter only for (5) and (6)). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1, except for the CIPS test.

TABLE A13

Dynamic models including trade to GDP as an additional regressor

	POLS	*2FE*	*MG*	*DLMG*	*CS-DLMG*
	(1)	(2)	(3)	(4)	(5)
B	-1.099***	-1.782***	-4.125***	-5.060***	0.164
	(0.262)	(0.414)	(0.978)	(0.947)	(2.945)
S	0.518***	1.710***	2.511***	2.650***	2.341**
	(0.187)	(0.278)	(0.375)	(0.365)	(1.159)
TR	0.640***	0.999	-1.212***	-1.011	15.269**
	(0.237)	(0.778)	(1.362)	(1.295)	(6.945)
Cointegration coefficient	-0.585***	-0.827***	-0.976***		
	(0.042)	(0.046)	(0.044)		
CD-test statistic	-0.92	-1.23	13.94	14.99	-0.22
CD-test p-value	0.35	0.21	0.00	0.00	0.82
RMSE	2.83	2.60	1.80	1.92	0.56
NXT	1259	1259	1259	1259	1074
N	54	54	54	54	49

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. Log trade to GDP (TR) is included as an additional regressor. For additional details see Table A12. For diagnostics see Table A1, except for the CIPS test.

TABLE A14

Dynamic models including gross fixed capital formation to GDP as an additional regressor

	POLS	*2FE*	*MG*	*DLMG*	*CS-DLMG*
	(1)	(2)	(3)	(4)	(5)
B	-1.141***	-1.538***	-2.161***	-2.537***	-3.868
	(0.207)	(0.356)	(0.482)	(0.576)	(2.631)
S	0.334**	1.087***	1.757***	2.037***	2.096**
	(0.140)	(0.265)	(0.245)	(0.287)	(0.828)
GFK	4.508***	2.871***	2.714**	2.134*	3.126
	(0.547)	(0.807)	(1.242)	(1.176)	(4.455)
Cointegration coefficient	-0.720***	-0.909***	-1.135***		
	(0.041)	(0.045)	(0.039)		
CD-test statistic	-0.68	-0.86	21.97	24.62	0.84
CD-test p-value	0.49	0.38	0.00	0.00	0.40
RMSE	2.60	2.41	1.67	1.78	0.53
NXT	1255	1255	1255	1255	1052
N	54	54	54	54	48

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. Log gross fixed capital formation to GDP (GFK) is included separately as an additional regressors. For additional details see Table A12. For diagnostics see Table A1, except for the CIPS test.

TABLE A15

Dynamic models including inflation as an additional regressors

	POLS	*2FE*	*MG*	*DLMG*	*CS-DLMG*
	(6)	(7)	(8)	(9)	(10)
B	-0.880***	-1.902***	-3.975***	-4.054***	0.038
	(0.297)	(0.434)	(0.916)	(0.917)	(3.501)
S	0.682***	1.925***	2.252***	2.258***	2.206
	(0.195)	(0.289)	(0.328)	(0.305)	(1.504)
INFL	0.305	0.204	-0.398	-0.251	0.247
	(0.215)	(0.201)	(0.213)	(0.208)	(0.937)
Cointegration coefficient	-0.569***	-0.812***	-0.939***		
	(0.042)	(0.048)	(0.044)		
CD-test statistic	-0.76	-1.06	21.39	21.31	5.04
CD-test p-value	0.44	0.29	0.00	0.00	0.00
RMSE	2.85	2.63	1.92	2.02	0.56
NXT	1249	1249	1249	1249	965
N	54	54	54	54	44

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. Log of inflation (INFL) is included separately as an additional regressors. For additional details see Table A12. For diagnostics see Table A1, except for the CIPS test.

A7. ADDITIONAL RESULTS FOR TABLE 6: TABLES A16-A34

TABLE A16

Static CCEMG models including additional regressors and the total value of stocks traded to GDP as a proxy for stock markets development

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
B	-3.528***	-3.803***	-5.588***	-5.499***	-4.067***	-3.139***	-4.385***
	(1.019)	(1.009)	(0.990)	(1.077)	(0.990)	(0.797)	(0.719)
STV	0.960***	0.963***	1.017***	1.020***	0.933***	1.428***	1.206***
	(0.193)	(0.200)	(0.187)	(0.176)	(0.184)	(0.219)	(0.189)
TR	3.691**						
	(1.669)						
GCE		-9.589***					
		(2.348)					
GFK			7.927***				
			(1.385)				
GD				-3.112***			
				(0.694)			
PG					0.044		
					(0.569)		
BC						-2.284***	-0.282
						(0.718)	(0.312)
BxBC						-2.277**	
						(1.021)	
SxBC							-0.089
							(0.166)
CD-test statistic	0.94	1.79	1.93	2.61	0.72	2.56	2.71
CD-test p-value	0.34	0.07	0.05	0.00	0.47	0.01	0.00
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	1.80	1.81	1.78	1.74	1.84	1.68	1.62
NXT	1309	1305	1305	1290	1309	1260	1208
N	54	54	54	54	54	54	54

TABLE A16 (Continued)

Static CCEMG models including additional regressors and the total value of stocks traded to GDP as a proxy for stock markets development

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log total value of stocks traded to GDP (STV) are the main independent variables. We include additional regressors such as those included in Table A10, a banking crisis dummy (1=banking crisis, 0=none) (BC), the interaction between the dummy of banking crisis and the log domestic credit to private sector by banks to GDP (BxBC), and the interaction between the dummy of banking crisis and log market capitalization of listed companies to GDP (SxBC). The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012, except for those models which include banking crisis dummies where the time frame is from 1988-2011. We use the Common Correlated Effects MG Pesaran (2006) estimator augmented with cross-section averages of the dependent and independent variables. Here we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1.

TABLE A17

Static CCEMG models for advanced countries including additional regressors and the total value of stocks traded to GDP as a proxy for stock markets development

	(1)	(2)	(3)	(4)	(5)
B	-4.248***	-3.391***	-2.965*	-2.579	-4.832***
	(1.214)	(1.097)	(1.547)	(1.706)	(1.587)
STV	1.052***	0.772***	0.472**	0.801**	0.935***
	(0.362)	(0.252)	(0.230)	(0.317)	(0.276)
TR	4.473*				
	(2.568)				
GCE		-10.711***			
		(2.815)			
GFK			9.071***		
			(1.759)		
GD				-1.848	
				(1.446)	
PG					-0.180
					(0.528)
CD-test statistic	-0.39	1.09	1.86	0.78	9.07
CD-test p-value	0.69	0.27	0.06	0.43	0.00
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	1.29	1.20	1.16	1.15	1.26
NXT	605	605	605	603	605
N	25	25	25	25	25

Notes: See Table A16

TABLE A18

Static CCEMG models for emerging countries including additional regressors and the total value of stocks traded to GDP as a proxy for stock markets development

	(1)	(2)	(3)	(4)	(5)
B	-2.716**	-2.275**	-5.276***	-4.782***	-3.332**
	(1.271)	(1.125)	(1.314)	(1.311)	(1.301)
STV	0.979***	1.156***	0.862***	0.964***	0.910***
	(0.305)	(0.327)	(0.285)	(0.266)	(0.249)
TR	0.146				
	(2.161)				
GCE		-3.874			
		(2.966)			
GFK			6.944***		
			(1.934)		
GD				-4.578***	
				(0.946)	
PG					0.174
					(1.257)
CD-test statistic	-1.93	-1.67	-1.96	-2.61	-2.17
CD-test p-value	0.05	0.09	0.04	0.00	0.03
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	2.11	2.18	2.14	2.07	2.23
NXT	704	700	700	687	704
N	29	29	29	29	29

Notes: See Table A16

TABLE A19

Static CCEMG models including additional regressors and the turnover ratio of stocks traded as a proxy for stock markets development

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
B	-3.246***	-3.854***	-5.533***	-4.690***	-3.659***	-3.180***	-3.960***
	(1.017)	(0.940)	(1.115)	(1.011)	(0.887)	(0.999)	(0.931)
MTR	0.346	0.317	0.585**	0.452	0.476*	0.911***	0.388
	(0.253)	(0.210)	(0.264)	(0.281)	(0.286)	(0.300)	(0.269)
TR	3.995**						
	(1.725)						
GCE		-8.094***					
		(2.163)					
GFK			8.325***				
			(1.186)				
GD				-3.525***			
				(0.777)			
PG					0.052		
					(0.539)		
BC						-1.252**	-0.483
						(0.564)	(0.343)
BxBC						-0.727	
						(0.656)	
SxBC							0.129
							(0.140)
CD-test statistic	1.89	1.62	1.54	2.13	1.70	3.39	1.75
CD-test p-value	0.05	0.10	0.12	0.03	0.08	0.00	0.07
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	1.77	1.76	1.72	1.68	1.79	1.59	1.64
NXT	1257	1253	1253	1238	1257	1208	1208
N	54	54	54	54	54	54	54

TABLE A19 (Continued)

Static CCEMG models including additional regressors and the turnover ratio of stocks traded as a proxy for stock markets development

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log turnover ratio of stocks traded (MTR) are the main independent variables. We include additional regressors such as those included in Table A12. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1989 to 2012, except for those models which include banking crisis dummies where the time frame is from 1989-2011. We use the Common Correlated Effects MG Pesaran (2006) estimator augmented with cross-section averages of the dependent and independent variables. Here we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1.

TABLE A20

Static CCEMG models for advanced countries including additional regressors and the turnover ratio of stocks traded as a proxy for stock markets development

	(1)	(2)	(3)	(4)	(5)
B	-4.670***	-3.078***	-2.578*	-1.576	-4.443***
	(1.570)	(1.026)	(1.336)	(1.259)	(1.349)
MTR	0.293	0.119	-0.028	0.190	0.159
	(0.236)	(0.274)	(0.297)	(0.285)	(0.423)
TR	5.087**				
	(2.404)				
GCE		-10.189***			
		(2.899)			
GFK			8.956***		
			(1.840)		
GD				-1.992*	
				(1.167)	
PG					-0.874*
					(0.499)
CD-test statistic	-0.66	1.33	1.80	1.30	11.34
CD-test p-value	0.51	0.18	0.07	0.19	0.00
Order of Integration	I(1)	I(0)	I(0)	I(0)	I(1)
RMSE	1.32	1.21	1.15	1.16	1.29
NXT	581	581	581	579	581
N	25	25	25	25	25

Notes: See Table A19.

TABLE A21

Static CCEMG models for emerging countries including additional regressors and the turnover ratio of stocks traded as a proxy for stock markets development

	(1)	(2)	(3)	(4)	(5)
B	-3.312**	-3.045**	-6.124***	-5.775***	-3.401***
	(1.392)	(1.278)	(1.458)	(1.568)	(1.251)
MTR	0.755*	0.419	0.894**	0.868**	0.765**
	(0.458)	(0.342)	(0.345)	(0.347)	(0.377)
TR	0.901				
	(2.088)				
GCE		-2.547			
		(2.646)			
GFK			6.687***		
			(1.425)		
GD				-5.457***	
				(1.209)	
PG					1.010
					(1.092)
CD-test statistic	-1.75	-1.73	-2.13	-2.41	-2.16
CD-test p-value	0.08	0.08	0.03	0.01	0.03
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	2.04	2.08	2.02	1.95	2.23
NXT	676	672	672	659	676
N	29	29	29	29	29

Notes: See Table A19.

TABLE A22

Static CCEMG models including additional regressors and per capita GDP growth as a proxy for economic growth

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
B	-3.334***	-3.833***	-4.472***	-4.398***	-3.795***	-3.976***	-4.757***
	(1.132)	(0.984)	(0.968)	(1.167)	(0.876)	(0.977)	(0.826)
S	1.838***	1.619***	1.671***	1.909***	0.409	1.872***	1.801***
	(0.264)	(0.314)	(0.290)	(0.329)	(0.281)	(0.356)	(0.334)
TR	3.090**						
	(1.411)						
GCE		-7.204***					
		(2.289)					
GFK			6.360***				
			(1.229)				
GD				-1.724**			
				(0.786)			
PG					-0.579		
					(0.444)		
BC						-0.366	-0.441
						(0.417)	(0.300)
BxBC						-0.612	
						(0.503)	
SxBC							0.245
							(0.244)
CD-test statistic	0.38	0.42	0.76	0.60	1.64	1.74	2.56
CD-test p-value	0.70	0.67	0.44	0.54	0.10	0.08	0.01
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	1.89	1.90	1.89	1.85	1.81	1.80	1.72
NXT	1313	1309	1309	1294	1257	1264	1208
N	54	54	54	54	54	54	54

TABLE A22 (Continued)

Static CCEMG models including additional regressors and per capita GDP growth as a proxy for economic growth

Notes: GDP per capita growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the main independent variables. We include additional regressors such as those included in Table A12. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012, except for those models which include banking crisis dummies where the time frame is from 1988-2011. We use the Common Correlated Effects MG Pesaran (2006) estimator augmented with cross-section averages of the dependent and independent variables. Here we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1.

TABLE A23

Static CCEMG models for advanced countries including additional regressors and per capita GDP growth as a proxy for economic growth

	(1)	(2)	(3)	(4)	(5)
B	-3.875***	-3.236***	-2.843**	-3.329*	-3.946***
	(1.233)	(1.204)	(1.430)	(1.851)	(1.253)
S	1.118*	1.068**	1.145**	1.101*	0.148
	(0.611)	(0.514)	(0.491)	(0.631)	(0.434)
TR	3.999*				
	(2.106)				
GCE		-9.567***			
		(2.814)			
GFK			4.859***		
			(1.274)		
GD				-1.623	
				(1.148)	
PG					-1.178**
					(0.471)
CD-test statistic	-0.25	0.62	1.41	0.09	11.81
CD-test p-value	0.79	0.53	0.16	0.93	0.00
Order of Integration	I(0)	I(1)	I(0)	I(0)	I(1)
RMSE	1.29	1.22	1.27	1.25	1.34
NXT	608	608	608	606	581
N	25	25	25	25	25

Notes: See Table A22.

TABLE A24

Static CCEMG models for emerging countries including additional regressors and per capita GDP growth as a proxy for economic growth

	(1)	(2)	(3)	(4)	(5)
B	-3.406**	-2.249*	-4.203***	-4.084***	-3.477***
	(1.470)	(1.222)	(1.421)	(1.497)	(1.283)
S	1.641***	1.836***	1.424***	1.458***	0.495**
	(0.375)	(0.463)	(0.391)	(0.418)	(0.247)
TR	2.099				
	(1.985)				
GCE		-1.935			
		(2.385)			
GFK			6.190***		
			(1.693)		
GD				-3.647***	
				(1.117)	
PG					0.026
					(1.122)
CD-test statistic	-1.79	-1.75	-1.75	-2.09	-2.07
CD-test p-value	0.07	0.07	0.08	0.03	0.03
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	2.24	2.30	2.26	2.20	2.13
NXT	705	701	701	688	676
N	29	29	29	29	29

Notes: See Table A22.

TABLE A25

Static CCEMG models including additional regressors and liquid liabilities as a proxy for banking sector development

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
LL	-3.683***	-2.445**	-4.896***	-5.092***	-4.582***	-5.898***	-6.577***
	(1.114)	(1.065)	(1.001)	(1.140)	(1.101)	(1.269)	(1.126)
S	1.509***	1.527***	1.594***	1.818***	1.734***	2.057***	1.631***
	(0.271)	(0.350)	(0.286)	(0.387)	(0.359)	(0.348)	(0.347)
TR	4.306***						
	(1.619)						
GCE		-8.345***					
		(2.521)					
GFK			3.637***				
			(1.322)				
GD				-1.728*			
				(0.902)			
PG					-0.548		
					(0.621)		
BC						-0.123	0.457
						(0.541)	(0.324)
BxBC						-1.161*	
						(0.702)	
SxBC							0.372
							(0.328)
CD-test statistic	1.15	-0.02	0.20	0.78	1.55	1.88	1.85
CD-test p-value	0.24	0.98	0.84	0.43	0.12	0.06	0.06
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	1.93	1.94	1.91	1.92	1.98	1.80	1.79
NXT	1261	1257	1257	1242	1261	1213	1161
N	52	52	52	52	52	52	52

TABLE A25 (Continued)

Static CCEMG models including additional regressors and liquid liabilities as a proxy for banking sector development

Notes: GDP per capita growth is the dependent variable. Log liquid liabilities to GDP (LL) and log market capitalization of listed companies to GDP (S) are the main independent variables. We include additional regressors such as those included in Table A12. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012, except for those models which include banking crisis dummies where the time frame is from 1988-2011. We use the Common Correlated Effects MG Pesaran (2006) estimator augmented with cross-section averages of the dependent and independent variables. Here we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1.

TABLE A26

Static CCEMG models for advanced countries including additional regressors and liquid liabilities as a proxy for banking sector development

	(1)	(2)	(3)	(4)	(5)
LL	-4.108***	-1.757	-2.535**	-3.031**	-2.909**
	(0.946)	(1.292)	(1.239)	(1.379)	(1.352)
S	0.878	0.927**	0.939***	0.752	1.701***
	(0.540)	(0.462)	(0.432)	(0.644)	(0.533)
TR	4.548				
	(2.978)				
GCE		-13.478***			
		(3.715)			
GFK			4.634***		
			(1.066)		
GD				-2.020**	
				(0.923)	
PG					-0.087
					(0.651)
CD-test statistic	-0.9	-0.7	0.83	0.42	10.27
CD-test p-value	0.37	0.48	0.40	0.67	0.00
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	1.18	1.19	1.20	1.21	1.28
NXT	579	579	579	577	579
N	24	24	24	24	24

Notes: See Table A25.

TABLE A27

Static CCEMG models for emerging countries including additional regressors and liquid liabilities as a proxy for banking sector development

	(1)	(2)	(3)	(4)	(5)
LL	-4.882***	-2.910	-5.068***	-6.432***	-5.445***
	(1.857)	(1.822)	(1.493)	(1.778)	(1.536)
S	1.580***	1.698***	1.301***	1.713***	1.722***
	(0.361)	(0.515)	(0.299)	(0.533)	(0.518)
TR	2.085				
	(2.392)				
GCE		-2.480			
		(2.749)			
GFK			4.137***		
			(1.568)		
GD				-2.824**	
				(1.426)	
PG					-0.054
					(1.469)
CD-test statistic	-2.27	-1.39	-1.69	-1.99	-1.68
CD-test p-value	0.02	0.16	0.09	0.04	0.09
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	2.35	2.37	2.32	2.33	2.42
NXT	682	678	678	665	682
N	28	28	28	28	28

Notes: See Table A25.

TABLE A28

Static CCEMG models including additional regressors and bank lending-deposit spread as a proxy for banking sector development

	(1)	(2)	(3)	(4)	(5)
SP	-0.702	-0.832	-0.480	-0.418	-0.869
	(0.532)	(0.775)	(0.788)	(1.069)	(0.765)
S	1.064*	1.547***	1.117***	0.975*	1.076*
	(0.492)	(0.478)	(0.378)	(0.511)	(0.570)
TR	2.857				
	(1.799)				
GCE		-4.676*			
		(2.817)			
GFK			3.886**		
			(1.847)		
GD				-0.769	
				(1.202)	
PG					1.307
					(1.037)
CD-test statistic	0.48	-0.59	-1.07	-0.57	0.34
CD-test p-value	0.63	0.55	0.28	0.56	0.73
Order of Integration	I(0)	I(0)	I(0)	I(0)	I(0)
RMSE	1.92	1.88	1.93	1.96	1.97
NXT	615	611	611	600	615
N	26	26	26	26	26

Notes: GDP per capita growth is the dependent variable. Log liquid liabilities to GDP (LL) and log market capitalization of listed companies to GDP (S) are the main independent variables. We include additional regressors such as those included in Table A10. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. We use the Common Correlated Effects MG Pesaran (2006) estimator augmented with cross-section averages of the dependent and independent variables. Here we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1.

TABLE A29

Dynamic models including the total value of stocks traded to GDP as a proxy for stock markets development

	POLS	*2FE*	*MG*	*DLMG*	*CS-ARDL*	*CS-DLMG*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.812***	-1.796***	-3.534***	-4.193***	-2.734	-2.799*
	(0.275)	(0.487)	(0.917)	(0.894)	(2.209)	(1.537)
STV	0.188*	0.821***	1.024***	1.034***	1.596**	1.108**
	(0.097)	(0.153)	(0.166)	(0.157)	(0.638)	(0.457)
Cointegration coefficient	-0.548***	-0.766***	-0.894***		-1.101***	
	(0.042)	(0.051)	(0.039)		(0.088)	
CD-test statistic	-0.51	-0.56	33.93	32.38	0.88	-0.69
CD-test p-value	0.60	0.57	0.00	0.00	0.37	0.49
RMSE	2.86	2.69	2.24	2.35	0.84	1.19
NXT	1255	1255	1255	1255	1132	1166
N	54	54	54	54	52	54

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log total value of stocks traded to GDP (STV) are the independent variables. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Estimators: (1) POLS: Dynamic autoregressive distributed lagged (ARDL) Pooled OLS, augmented with T-2 year dummies; (2) 2FE: Dynamic ARDL Two-way fixed effects, augmented with T-2 year dummies and N-1 country dummies; (3) MG: Dynamic ARDL Mean Group Pesaran and Smith (1995); (4) DLMG: Distributed lagged DL Mean Group; (5) CS-ARDL: Dynamic cross-sectional ARDL Chudik and Pesaran (2015a), augmented with three lags of the cross-sectional averages of the dependent and independent variables; (6) CS-DLMG: Cross-sectional DL Chudik et al. (2016) Mean Group, augmented with three lags of the cross-sectional averages of the independent variables. Models (1), (2), (3) and (5) are represented by a Error Correction Model (ECM) and are augmented with one lag of the dependent and independent variables. Standard errors of ARDL models are computed via the Delta method. Models (4) and (6) are augmented with one lag of the independent variables. White heteroskedasticity-robust standard errors are reported for models (1) and (2). For models (3)-(6) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006) (the latter only for (5) and (6)). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1, except for the CIPS test.

TABLE A30

Dynamic models including the turnover ratio of stocks traded as a proxy for stock markets development

	POLS	*2FE*	*MG*	*DLMG*	*CS-ARDL*	*CS-DLMG*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.822***	-1.543***	-3.309***	-3.615***	-2.747	-3.725**
	(0.235)	(0.450)	(0.801)	(0.730)	(2.625)	(1.667)
MTR	0.151	0.714***	0.771***	0.783***	-0.704	0.180
	(0.116)	(0.201)	(0.262)	(0.230)	(0.767)	(0.537)
Cointegration coefficient	-0.580***	-0.811***	-0.892***		-1.090***	
	(0.043)	(0.047)	(0.041)		(0.085)	
CD-test statistic	-0.87	-0.93	38.46	37.37	-0.83	1.59
CD-test p-value	0.38	0.35	0.00	0.00	0.40	0.11
RMSE	2.84	2.65	2.23	2.35	0.68	1.10
NXT	1203	1203	1203	1203	1063	1113
N	54	54	54	54	51	54

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log turnover ratio of stocks traded (MTR) are the independent variables. Results are reported for a period of time from 1989 to 2012. For additional details see Table A29. For diagnostics see Table A1, except for the CIPS test.

TABLE A31

Dynamic models including the per capita GDP growth as a proxy for economic growth

	POLS	*2FE*	*MG*	*DLMG*	*CS-ARDL*	*CS-DLMG*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.457*	-2.004***	-3.992***	-4.390***	-4.369**	-4.983***
	(0.262)	(0.442)	(0.841)	(0.752)	(1.704)	(1.648)
S	0.544***	1.818***	2.843***	2.768***	3.201***	3.223***
	(0.187)	(0.301)	(0.350)	(0.329)	(0.731)	(0.608)
Cointegration coefficient	-0.588***	-0.811***	-0.939***		-1.226***	
	(0.042)	(0.047)	(0.039)		(0.072)	
CD-test statistic	-0.53	-0.97	29.31	28.91	-0.94	-1.38
CD-test p-value	0.59	0.33	0.00	0.00	0.34	0.16
RMSE	2.86	2.66	2.20	2.30	0.82	1.26
NXT	1259	1259	1259	1259	1133	1167
N	54	54	54	54	52	54

Notes: Per capita GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. For additional details see Table A29. For diagnostics see Table A1, except for the CIPS test.

TABLE A32

Dynamic models including the liquid liabilities to GDP as a proxy for banking development

	POLS	*2FE*	*MG*	*DLMG*	*CS-ARDL*	*CS-DLMG*
	(1)	(2)	(3)	(4)	(5)	(6)
LL	-0.776***	-3.292***	-5.029***	-5.239***	-1.890	-3.498**
	(0.295)	(0.750)	(0.842)	(0.778)	(1.960)	(1.594)
S	0.575***	1.864***	2.127***	2.113***	2.103***	2.093***
	(0.209)	(0.297)	(0.308)	(0.264)	(0.584)	(0.452)
Cointegration coefficient	-0.557***	-0.804***	-0.919***		-1.268***	
	(0.041)	(0.049)	(0.045)		(0.056)	
CD-test statistic	-0.49	-1.02	25.46	25.55	0.13	-1.47
CD-test p-value	0.62	0.30	0.00	0.00	0.89	0.14
RMSE	2.89	2.66	2.24	2.35	0.84	1.26
NXT	1209	1209	1209	1209	1086	1120
N	52	52	52	52	50	52

Notes: GDP growth is the dependent variable. Log liquid liabilities to GDP (LL) and log turnover ratio of stocks traded (MTR) are the independent variables. For additional details see Table A29. For diagnostics see Table A1, except for the CIPS test.

TABLE A33

Dynamic models including both banking and stock market development, and total (domestic plus external) gross central government debt to GDP as regressors

	POLS	*2FE*	*MG*	*DLMG*	*CS-ARDL*	*CS-ARDL*	*CS-DLMG*	*CS-DLMG*	*CS-DLMG*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
B	-0.482**	-1.463***	-2.148***	-2.135***	-2.018*	0.361	-2.735*	2.424	-2.934
	(0.214)	(0.364)	(0.686)	(0.639)	(1.135)	(3.014)	(1.488)	(1.852)	(3.394)
S	0.256	1.366***	1.623***	1.668***	1.673***	0.995	2.382***	1.756***	0.386
	(0.158)	(0.235)	(0.351)	(0.372)	(0.440)	(0.739)	(0.484)	(0.547)	(1.271)
GD	-0.791***	-0.594*	-0.569	-0.152	-0.417	0.113	1.077	0.452	2.205
	(0.203)	(0.313)	(0.602)	(0.614)	(0.881)	(2.564)	(0.806)	(1.754)	(3.489)
Cointegration coefficient	-1.670***	-0.880***	-1.093***		-1.294***	-1.173***			
	(0.095)	(0.043)	(0.038)		(0.050)	(0.073)			
CD-test statistic	-1.67	-2.08	15.78	18.32	-0.01	-1.32	0.84	-1.60	-1.80
CD-test p-value	0.09	0.03	0.00	0.00	0.99	0.18	0.40	0.10	0.07
RMSE	2.62	2.35	1.65	1.75	0.95	0.54	1.14	0.91	0.41
NXT	1240	1240	1240	1240	1240	1060	1240	1178	898
N	54	54	54	54	54	47	54	53	41

TABLE A34

Dynamic models including both banking and stock market development separately, and total (domestic plus external) gross central government debt to GDP as regressors

	POLS	*POLS*	*2FE*	*2FE*	*MG*	*MG*	*DLMG*	*DLMG*	*CS-ARDL*	*CS-ARDL*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
B	-0.267		-1.060**		-0.757		-0.677		-2.695**	
	(0.195)		(0.415)		(0.553)		(0.543)		(1.320)	
S		0.035		1.248***		0.945***		0.965***		1.702***
		(0.142)		(0.231)		(0.249)		(0.236)		(0.319)
GD	-0.793***	-0.792***	-0.316	-0.338	-0.854*	0.090	-0.655	0.122	-1.065	0.542
	(0.197)	(0.202)	(0.350)	(0.309)	(0.496)	(0.625)	(0.465)	(0.581)	(0.914)	(0.694)
Cointegration coefficient	-0.625***	-0.628***	-0.809***	-0.859***	-0.994***	-1.004***			-0.984***	-1.075***
	(0.042)	(0.041)	(0.047)	(0.043)	(0.042)	(0.040)			(0.050)	(0.045)
CD-test statistic	-1.57	-1.55	-1.67	-1.84	21.48	21.79	21.74	22.40	1.25	1.43
CD-test p-value	0.11	0.12	0.09	0.06	0.00	0.00	0.00	0.00	0.21	0.15
RMSE	2.66	2.61	2.46	2.36	1.95	1.90	2.06	2.01	1.36	1.44
NXT	1259	1258	1259	1258	1259	1258	1259	1258	1259	1258
N	54	54	54	54	54	54	54	54	54	54

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TABLE A34 (Continued)

Dynamic models including both banking and stock market development separately, and total (domestic plus external) gross central government debt to GDP as regressors

	CS-ARDL (11)	*CS-ARDL* (12)	*CS-ARDL* (13)	*CS-ARDL* (14)	*CS-DLMG* (15)	*CS-DLMG* (16)	*CS-DLMG* (17)	*CS-DLMG* (18)	*CS-DLMG* (19)	*CS-DLMG* (20)
B	-2.471**		-2.297		-2.687**		-2.236**		-1.494	
	(1.119)		(2.394)		(1.075)		(1.063)		(1.456)	
S		1.464***		1.870***		1.642***		1.852***		1.968***
		(0.435)		(0.696)		(0.306)		(0.348)		(0.429)
GD	-0.213	0.391	-1.749	1.193	-0.558	0.742	-0.096	1.101	-0.101	1.028
	(0.748)	(0.917)	(1.865)	(1.103)	(0.685)	(0.656)	(0.817)	(0.832)	(0.948)	(0.835)
Cointegration coefficient	-1.093***	-1.101***	-1.046***	-1.223***						
	(0.056)	(0.047)	(0.076)	(0.068)						
CD-test statistic	1.65	-0.76	0.14	-0.21	0.99	1.71	2.34	-1.74	1.44	-2.20
CD-test p-value	0.10	0.44	0.88	0.83	0.32	0.08	0.01	0.08	0.15	0.02
RMSE	1.03	1.05	0.67	0.70	1.54	1.58	1.30	1.38	1.10	1.13
NXT	1206	1212	1119	1164	1259	1258	1206	1212	1153	1164
N	54	54	52	54	54	54	54	54	54	54

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B), log market capitalization of listed companies to GDP (S), and log total (domestic plus external) gross (central and/or general) government debt to GDP (GD) are the independent variables. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Long-run estimates of dynamic models and cointegration coefficients of ARDL models are reported. *Estimators:* See Tables A3 and A4. ARDL models are augmented with one lag of the dependent and independent variables. Standard errors of ARDL models are computed via the Delta method. DL models are augmented with one lag of the independent variables. Models (9), (10), (15) and (16) are augmented with one lag of the cross-sectional averages; models (11), (12), (17) and (18) are augmented with two lags of the cross-sectional averages; and specifications (13), (14), (19) and (20) are augmented with three lags of the cross-sectional averages. Levels of significance are represented by * 10%, ** 5% and *** 1%. *Diagnostics:* See Table A1, except for the CIPS test.

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A8. ADDITIONAL RESULTS WHEN INCLUDING THE LOG OF GROSS FIXED CAPITAL FORMATION TO GDP AS THE DEPENDENT VARIABLE, FOR A TIME FROM 1988 TO 2012: TABLES A35-A37

TABLE A35

Static models from 1988 to 2012, including gross fixed capital formation to GDP as the dependent variable

	POLS	*2FE*	*FD*	*CCEP*	*MG*	*CCEMG*
	(1)	(2)	(3)	(4)	(5)	(6)
B	0.120***	0.079***	0.135***	0.129***	0.045	0.170***
	(0.012)	(0.017)	(0.028)	(0.018)	(0.040)	(0.038)
S	0.010	0.077***	0.006	0.071***	0.009	0.066***
	(0.008)	(0.010)	(0.009)	(0.011)	(0.012)	(0.018)
CD-test statistic	0.60	-1.44	-0.13	1.26	12.96	0.11
CD-test p-value	0.54	0.14	0.90	0.20	0.00	0.90
Order of Integration	I(1)	I(1)	I(1)	I(0)	I(0)	I(1)
RMSE	0.23	0.14	0.08	0.10	0.12	0.07
NXT	1309	1309	1255	1309	1309	1309
N	54	54	54	54	54	54

Notes: Log gross fixed capital formation to GDP is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Estimators: (1) POLS: Pooled OLS, augmented with T-1 year dummies; (2) 2FE: Two-way fixed effects, augmented with T-1 year dummies and N-1 country dummies; (3) FD: First Differences, augmented with T-2 year dummies; (4) CCEP: Pooled Pesaran (2006), augmented with common country dummies and cross-section averages; (5) MG: Mean Group Pesaran and Smith (1995); (6) CCEMG: Common Correlated Effects MG Pesaran (2006), augmented with cross-section averages. White heteroskedasticity-robust standard errors are reported for models (1)-(4). For models (5)-(6) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006) (the latter only for (6)). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: (evaluated at the 5% level of significance, full results of the following tests are available on request): 1) CD test: The Pesaran (2004, 2015) test, for which Ho: Weak cross-section dependence of the residuals (the test statistic as well as the p-value for each model are reported). 2) CIPS test: The Pesaran (2007) test evaluates the order of integration of the residuals where I(0): stationary, I(1): nonstationary. We include here up to 3 lags augmentation in the Dickey Fuller regressions employed. The root mean squared error (RMSE), NXT number of country-time observations and N number of countries are also included.

TABLE A36

Dynamic models from 1988 to 2012, including gross fixed capital formation to GDP as the dependent variable

	POLS	*2FE*	*MG*	*DLMG*	*CS-ARDL*	*CS-DLMG*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.220*	-0.137**	-0.181***	0.003	0.210**	0.044
	(0.119)	(0.070)	(0.066)	(0.044)	(0.103)	(0.055)
S	0.198**	0.241***	0.151***	0.022	0.082**	0.106***
	(0.084)	(0.049)	(0.035)	(0.016)	(0.037)	(0.020)
Cointegration coefficient	-0.058***	-0.183***	-0.298***		-0.683***	
	(0.015)	(0.028)	(0.031)		(0.085)	
CD-test statistic	-0.07	-0.61	8.00	10.87	0.12	-0.50
CD-test p-value	0.94	0.54	0.00	0.00	0.90	0.61
RMSE	0.08	0.08	0.06	0.09	0.02	0.03
NXT	1255	1255	1255	1255	1111	1163
N	54	54	54	54	51	54

Notes: Log gross fixed capital formation to GDP is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Estimators: (1) POLS: Dynamic autoregressive distributed lagged (ARDL) Pooled OLS, augmented with T-2 year dummies; (2) 2FE: Dynamic ARDL Two-way fixed effects, augmented with T-2 year dummies and N-1 country dummies; (3) MG: Dynamic ARDL Mean Group Pesaran and Smith (1995); (4) DLMG: Distributed lagged DL Mean Group; (5) CS-ARDL: Dynamic cross-sectional ARDL Chudik and Pesaran (2015a), augmented with three lags of the cross-sectional averages of the dependent and independent variables; (6) CS-DLMG: Cross-sectional DL Chudik et al. (2016) Mean Group, augmented with three lags of the cross-sectional averages of the independent variables. Models (1), (2), (3) and (5) are represented by a Error Correction Model (ECM) and are augmented with one lag of the dependent and independent variables. Standard errors of ARDL models are computed via the Delta method. Models (4) and (6) are augmented with one lag of the independent variables. White heteroskedasticity-robust standard errors are reported for models (1) and (2). For models (3)-(6) we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006) (the latter only for (5) and (6)). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A35, except for the CIPS test.

TABLE A37

Static and dynamic CCEMG models from 1988 to 2012 for advanced and emerging countries, including gross fixed capital formation to GDP as the dependent variable

	Advanced countries			*Emerging countries*		
	CCEMG	*CS-ARDL*	*CS-DLMG*	*CCEMG*	*CS-ARDL*	*CS-DLMG*
	(1)	(2)	(3)	(4)	(5)	(6)
B	0.020	-0.097	-0.023	0.124***	0.148	-0.076
	(0.048)	(0.120)	(0.079)	(0.042)	(0.103)	(0.060)
S	-0.005	0.082	0.044	0.034	0.068	0.132***
	(0.021)	(0.058)	(0.039)	(0.022)	(0.046)	(0.036)
Cointegration coefficient		-0.598***			-0.874***	
		(0.156)			(0.137)	
CD-test statistic	-2.57	-0.78	-1.91	-1.29	-0.81	-0.89
CD-test p-value	0.01	0.43	0.05	0.19	0.41	0.37
Order of Integration	I(1)			I(0)		
RMSE	0.04	0.01	0.02	0.09	0.02	0.04
NXT	608	502	536	701	609	627
N	25	23	25	29	28	29

Notes: Log gross fixed capital formation to GDP is the dependent variable. Log domestic credit to private sector by banks to GDP (B) and log market capitalization of listed companies to GDP (S) are the independent variables. The estimates of the intercept term are omitted. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Standard errors of ARDL specifications are computed via the Delta method. Standard errors are given in parentheses. Results are reported for a period of time from 1988 to 2012. Estimators: (1) and (4) CCEMG: Common Correlated Effects MG Pesaran (2006), augmented with cross-section averages; (2) and (5) CS-ARDL: Dynamic cross-sectional ARDL Chudik and Pesaran (2015a) represented by a Error Correction Model (ECM), augmented with one lag of the dependent and independent variables and three lags of the cross-sectional averages of the dependent and independent variables; (3) and (6) CS-DLMG: Cross-sectional DL Chudik et al. (2016) Mean Group, augmented with one lag of the independent variable and three lags of the cross-sectional averages of the independent variables. For advanced countries we compute the cross-section averages based only on advanced countries plus China, while for emerging economies we use cross-section averages based on the full sample. For these models we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A35.

A9. ADDITIONAL RESULTS FOR TABLES 7-10: TABLE B1-B26

TABLE B1

Dynamic CCEMG models for banking development and growth from 1961-2014 for all countries, including trade to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-1.127	-1.850***	-1.661**	-1.214	-1.860**	-2.040**
	(0.707)	(0.705)	(0.724)	(0.878)	(0.890)	(0.860)
TR	6.637***	6.847***	6.600***	7.148***	7.048***	7.772***
	(1.215)	(1.348)	(1.595)	(1.120)	(1.120)	(1.635)
INFL	-0.853***	-0.982***	-1.457***	-0.826***	-0.842***	-1.027***
	(0.204)	(0.222)	(0.331)	(0.214)	(0.253)	(0.362)
Cointegration coefficient	-1.008***	-1.238***	-1.290***			
	(0.033)	(0.048)	(0.093)			
CD-test statistic	-0.62	-0.08	-1.38	1.12	0.08	0.41
CD-test p-value	0.53	0.93	0.16	0.26	0.93	0.68
RMSE	1.80	1.58	1.43	1.96	1.81	1.69
NXT	2457	2385	2243	2489	2445	2377
N	53	51	47	54	53	51

Notes: GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) is the main independent variable. Log trade to GDP (TR) and log inflation (INFL) are included as additional regressors. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Standard errors of ARDL specifications are computed via the Delta method. Estimators: (1)-(3) CS-ARDL: Dynamic cross-sectional ARDL Chudik and Pesaran (2015a) represented by a Error Correction Model (ECM), augmented with one, two and three lags of the dependent and independent variables and three lags of the cross-sectional averages of the dependent and independent variables; (4)-(6) CS-DLMG: Cross-sectional DL Chudik et al. (2016) Mean Group, augmented with one, two and three lags of the independent variables and three lags of the cross-sectional averages of the independent variables. For all models we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1, except for the CIPS test.

TABLE B2

Dynamic CCEMG models for banking development and growth from 1961-2014 for advanced countries, including trade to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.892*	-1.383**	-0.712	-0.728*	-1.841**	-0.935
	(0.485)	(0.642)	(0.869)	(0.390)	(0.838)	(0.825)
TR	4.187***	6.491***	6.537***	5.643***	5.767***	7.906***
	(1.346)	(1.537)	(1.535)	(1.408)	(1.243)	(1.272)
INFL	-1.236***	-1.159***	-1.122**	-1.238***	-1.509***	-1.035**
	(0.306)	(0.377)	(0.513)	(0.271)	(0.377)	(0.497)
Cointegration coefficient	-1.065***	-1.190***	-1.320***			
	(0.045)	(0.075)	(0.111)			
CD-test statistic	-1.36	-1.42	-0.89	-1.01	-1.00	-1.24
CD-test p-value	0.17	0.15	0.37	0.31	0.31	0.21
RMSE	1.29	1.10	1.00	1.41	1.23	1.16
NXT	1186	1179	1112	1190	1184	1178
N	25	25	23	25	25	25

Notes: Compared to Table B1, we implement cross-section averages based only on advanced countries plus China. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B3

Dynamic CCEMG models for banking development and growth from 1961-2014 for emerging countries, including trade to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.563	-1.243	-1.165	-1.048	-2.088	-2.841*
	(0.768)	(1.341)	(1.216)	(1.270)	(1.608)	(1.305)
TR	5.746***	7.107***	6.150***	7.132***	7.570***	7.569***
	(1.748)	(2.110)	(2.066)	(1.539)	(1.932)	(2.885)
INFL	-0.515***	-0.921***	-1.618***	-0.582*	-0.391	-0.965
	(0.277)	(0.283)	(0.443)	(0.309)	(0.306)	(0.594)
Cointegration coefficient	-1.051***	-1.268***	-1.396***			
	(0.048)	(0.070)	(0.143)			
CD-test statistic	-2.42	-0.88	0.33	-2.26	-1.58	-0.33
CD-test p-value	0.01	0.37	0.74	0.02	0.11	0.74
RMSE	2.13	1.90	1.71	2.32	2.16	2.03
NXT	1271	1206	1131	1299	1261	1199
N	28	26	24	29	28	26

Notes: Compared to Table B2, we implement cross-section averages based on the full sample. For additional details see Table B1. For the diagnostics see Table A1, except for the CIPS test.

TABLE B4

Dynamic CCEMG models for banking development and growth from 1961-2014 for all countries, including population growth and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-1.128*	-2.036***	-1.564	-1.194*	-1.845**	-2.563***
	(0.647)	(0.764)	(1.003)	(0.622)	(0.753)	(0.721)
PG	0.110	-0.116	-0.786	-0.398	0.291	-0.118
	(0.713)	(0.858)	(0.640)	(0.523)	(0.993)	(0.633)
INFL	-0.753***	-0.918***	-0.972***	-0.801***	-1.157***	-1.362***
	(0.201)	(0.259)	(0.359)	(0.212)	(0.260)	(0.323)
Cointegration coefficient	-0.978***	-1.222***	-1.358***			
	(0.033)	(0.059)	(0.110)			
CD-test statistic	-0.81	0.44	0.96	0.63	-0.33	0.26
CD-test p-value	0.41	0.65	0.33	0.52	0.73	0.79
RMSE	1.86	1.64	1.43	2.05	1.90	1.76
NXT	2482	2412	2302	2514	2472	2406
N	53	51	48	54	53	51

Notes: Based on Table B1, population growth (PG) and log inflation (INFL) are included as additional regressors. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B5

Dynamic CCEMG models for banking development and growth from 1961-2014 for advanced countries, including population growth and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-1.723**	-2.893***	-2.144**	-1.312	-2.237**	-3.294***
	(0.845)	(0.996)	(0.946)	(0.838)	(1.137)	(1.184)
PG	0.340	0.020	-0.146	0.297	-0.180	-0.730
	(0.372)	(0.309)	(0.337)	(0.388)	(0.360)	(0.482)
INFL	-1.439***	-1.192***	-1.277**	-1.278***	-1.378***	-1.149**
	(0.268)	(0.371)	(0.493)	(0.248)	(0.353)	(0.547)
Cointegration coefficient	-1.022***	-1.180***	-1.286***			
	(0.046)	(0.074)	(0.121)			
CD-test statistic	-1.81	-1.05	-0.42	-1.68	-1.38	-0.9
CD-test p-value	0.07	0.29	0.67	0.09	0.16	0.36
RMSE	1.30	1.13	1.06	1.43	1.30	1.22
NXT	1188	1181	1114	1192	1186	1180
N	25	25	23	25	25	25

Notes: Compared to Table B4, we implement cross-section averages based only on advanced countries plus China. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B6

Dynamic CCEMG models for banking development and growth from 1961-2014 for emerging countries, including population growth and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.938	-1.874	-0.695	-0.569	-1.036	-2.428**
	(0.859)	(1.146)	(1.569)	(0.723)	(0.994)	(1.065)
PG	1.487	1.253	-1.597	-0.273	0.373	-1.943
	(1.636)	(2.118)	(1.941)	(1.552)	(2.361)	(2.673)
INFL	-0.454	-0.777*	-1.215**	-0.588*	-0.972**	-1.413**
	(0.289)	(0.420)	(0.533)	(0.328)	(0.422)	(0.580)
Cointegration coefficient	-1.003***	-1.276***	-1.567***			
	(0.051)	(0.102)	(0.195)			
CD-test statistic	-2.34	-2.14	-0.44	-2.21	-1.62	-0.37
CD-test p-value	0.01	0.03	0.66	0.02	0.10	0.71
RMSE	2.24	1.98	1.68	2.45	2.29	2.11
NXT	1294	1231	1188	1322	1286	1226
N	28	26	25	29	28	26

Notes: Compared to Table B5, we implement cross-section averages based on the full sample. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B7

Dynamic CCEMG models for banking development and growth from 1961-2014 for all countries, including gross fixed capital formation to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-1.029**	-1.608***	-1.527***	-1.070**	-1.915***	-1.851**
	(0.518)	(0.576)	(0.577)	(0.497)	(0.636)	(0.798)
GFK	3.181***	3.317***	4.902***	2.711***	3.001***	3.413***
	(0.944)	(1.101)	(1.230)	(0.976)	(0.885)	(1.135)
INFL	-0.972***	-1.163***	-1.634***	-0.974***	-1.098***	-1.606***
	(0.187)	(0.235)	(0.345)	(0.173)	(0.236)	(0.353)
Cointegration coefficient	-1.100***	-1.248***	-1.432***			
	(0.031)	(0.058)	(0.103)			
CD-test statistic	0.36	-0.85	-1.58	1.14	-0.33	-0.89
CD-test p-value	0.72	0.39	0.11	0.25	0.73	0.37
RMSE	1.57	1.34	1.16	1.71	1.55	1.43
NXT	2385	2304	2121	2417	2364	2287
N	53	51	46	54	53	51

Notes: Based on Table B1, log gross fixed capital formation to GDP (GFK) and log inflation (INFL) are included as additional regressors. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B8

Dynamic CCEMG models for banking development and growth from 1961-2014 for advanced countries, including gross fixed capital formation to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.418	-2.382***	-2.460***	-0.320	-1.995***	-2.731***
	(0.341)	(0.704)	(0.828)	(0.455)	(0.650)	(0.889)
GFK	1.312	3.788***	7.078***	1.590	2.660**	3.513***
	(0.977)	(1.368)	(1.452)	(1.238)	(1.230)	(1.142)
INFL	-0.758***	-0.943***	-1.173***	-0.764***	-0.991***	-1.281***
	(0.190)	(0.350)	(0.424)	(0.214)	(0.324)	(0.375)
Cointegration coefficient	-1.129***	-1.303***	-1.437***			
	(0.042)	(0.054)	(0.107)			
CD-test statistic	-1.20	-1.66	-0.65	-1.97	-1.52	-2.07
CD-test p-value	0.22	0.09	0.51	0.04	0.12	0.03
RMSE	1.14	0.99	0.91	1.27	1.15	1.07
NXT	1148	1135	1062	1152	1140	1128
N	25	25	23	25	25	25

Notes: Compared to Table B7, we implement cross-section averages based only on advanced countries plus China. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B9

Dynamic CCEMG models for banking development and growth from 1961-2014 for emerging countries, including gross fixed capital formation to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.414	-0.962	-1.452*	-1.036	-1.046	-1.015
	(0.711)	(0.690)	(0.789)	(0.749)	(1.011)	(1.382)
GFK	1.773	2.571	3.675**	1.530	1.211	0.902
	(1.471)	(1.914)	(1.588)	(1.605)	(1.678)	(1.925)
INFL	-0.972***	-1.418***	-1.593**	-0.949***	-0.889***	-2.014***
	(0.306)	(0.428)	(0.642)	(0.260)	(0.381)	(0.748)
Cointegration coefficient	-1.089***	-1.209***	-1.472***			
	(0.039)	(0.098)	(0.196)			
CD-test statistic	-2.18	-1.48	-0.83	-2.02	-1.79	-1.66
CD-test p-value	0.02	0.13	0.40	0.04	0.07	0.09
RMSE	1.86	1.59	1.37	2.00	1.83	1.70
NXT	1237	1169	1059	1265	1224	1159
N	28	26	23	29	28	26

Notes: Compared to Table B8, we implement cross-section averages based on the full sample. For additional details see Table B1. For the diagnostics see Table A1, except for the CIPS test.

TABLE B10

Dynamic CCEMG models for banking development and growth from 1961-2014 for all countries, including human capital and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-1.213	-2.811**	-1.239	-1.264	-2.687**	-2.436**
	(1.001)	(1.091)	(1.114)	(0.968)	(1.098)	(1.238)
HC	3.762	9.832	-1.735	5.565	-4.957	-7.722
	(11.029)	(11.221)	(11.120)	(11.739)	(11.153)	(14.524)
INFL	-1.025***	-1.048***	-1.199***	-1.255***	-1.167***	-1.409***
	(0.251)	(0.316)	(0.342)	(0.271)	(0.309)	(0.386)
Cointegration coefficient	-1.092***	-1.381***	-1.553***			
	(0.028)	(0.055)	(0.101)			
CD-test statistic	-1.95	-1.68	-1.67	-1.62	-1.14	0.75
CD-test p-value	0.05	0.09	0.09	0.10	0.25	0.45
RMSE	1.86	1.62	1.36	2.01	1.86	1.65
NXT	2334	2291	2154	2387	2325	2285
N	52	51	47	54	52	51

Notes: Based on Table B1, log human capital (HC) and log inflation (INFL) are included as additional regressors. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B11

Dynamic CCEMG models for banking development and growth from 1961-2014 for advanced countries, including human capital and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.596	-1.249	-1.776	-0.559	-0.861	-1.937
	(0.666)	(0.793)	(1.144)	(0.891)	(1.158)	(1.577)
HC	-1.080	-4.153	-11.096	2.283	-14.664	-28.052
	(12.712)	(15.449)	(21.222)	(13.071)	(17.189)	(23.525)
INFL	-1.5681***	-1.153***	-0.746	-1.695***	-1.781***	-1.311*
	(0.347)	(0.364)	(0.553)	(0.350)	(0.472)	(0.725)
Cointegration coefficient	-1.105***	-1.342***	-1.640***			
	(0.053)	(0.076)	(0.074)			
CD-test statistic	-1.28	-0.95	-0.63	-1.97	-2.01	-1.27
CD-test p-value	0.20	0.34	0.52	0.04	0.04	0.20
RMSE	1.32	1.13	1.04	1.44	1.30	1.18
NXT	1128	1121	1056	1132	1126	1120
N	25	25	23	25	25	25

Notes: Compared to Table B10, we implement cross-section averages based only on advanced countries plus China. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B12

Dynamic CCEMG models for banking development and growth from 1961-2014 for emerging countries, including human capital and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-1.551	-2.211	-0.947	-2.015	-3.388*	-2.050
	(1.644)	(1.862)	(2.567)	(1.376)	(1.839)	(2.460)
HC	-13.584	1.921	-35.419**	-17.333	-22.715	-40.058
	(17.636)	(21.003)	(16.528)	(20.907)	(21.156)	(27.210)
INFL	-0.628	-1.011*	-0.730*	-1.042***	-0.889*	-1.167*
	(0.409)	(0.525)	(0.442)	(0.382)	(0.462)	(0.601)
Cointegration coefficient	-1.071***	-1.391***	-1.648***			
	(0.040)	(0.083)	(0.172)			
CD-test statistic	-1.94	-2.01	-1.15	-2.26	-1.77	0.96
CD-test p-value	0.05	0.04	0.25	0.02	0.07	0.33
RMSE	2.23	1.94	1.57	2.39	2.23	1.95
NXT	1206	1170	1098	1255	1199	1165
N	27	26	24	29	27	26

Notes: Compared to Table B11, we implement cross-section averages based on the full sample. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B13

Dynamic CCEMG models for banking development and growth from 1961-2014 for all countries, including total (domestic plus external) gross central government debt to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.759	-1.744	-1.627	-0.268	-1.084	-0.471
	(1.042)	(1.138)	(1.234)	(0.895)	(1.035)	(1.172)
GD	-0.431	-0.882	-0.639	-0.654	-0.757	-1.893*
	(0.708)	(0.871)	(0.884)	(0.558)	(0.730)	(1.036)
INFL	-0.998***	-0.669**	-1.364***	-1.173***	-1.100***	-1.293***
	(0.286)	(0.334)	(0.449)	(0.286)	(0.322)	(0.457)
Cointegration coefficient	-1.051***	-1.229***	-1.287***			
	(0.036)	(0.067)	(0.082)			
CD-test statistic	-0.19	-0.29	-0.14	1.00	1.34	0.88
CD-test p-value	0.84	0.77	0.89	0.31	0.18	0.37
RMSE	1.68	1.46	1.24	1.86	1.68	1.53
NXT	2337	2208	2157	2365	2320	2251
N	53	49	48	54	53	51

Notes: Based on Table B1, log total (domestic plus external) gross (central and/or general) government debt to GDP (GD) and log inflation (INFL) are included as additional regressors. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B14

Dynamic CCEMG models for banking development and growth from 1961-2014 for advanced countries, including total (domestic plus external) gross central government debt to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-1.128	-1.392	-0.949	-1.142	-1.878	-2.607*
	(1.084)	(1.387)	(1.260)	(0.890)	(1.142)	(1.440)
GD	-0.720	-0.691	-0.287	-0.352	-1.124	-1.362
	(0.902)	(0.651)	(0.748)	(0.741)	(0.946)	(1.092)
INFL	-1.616***	-1.548***	-1.144**	-1.649***	-1.671***	-2.112***
	(0.385)	(0.371)	(0.519)	(0.333)	(0.408)	(0.617)
Cointegration coefficient	-1.121***	-1.326***	-1.580***			
	(0.046)	(0.068)	(0.158)			
CD-test statistic	-1.05	-0.76	-0.32	-0.92	-1.01	-1.13
CD-test p-value	0.29	0.44	0.74	0.35	0.31	0.25
RMSE	1.16	0.98	0.88	1.32	1.16	1.07
NXT	1127	1090	1052	1131	1123	1115
N	25	24	23	25	25	25

Notes: Compared to Table B13, we implement cross-section averages based only on advanced countries plus China. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B15

Dynamic CCEMG models for banking development and growth from 1961-2014 for emerging countries, including total (domestic plus external) gross central government debt to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.090	-1.094	-0.820	0.290	-0.140	1.188
	(1.301)	(1.382)	(1.650)	(0.944)	(1.263)	(1.177)
GD	0.273	-0.207	-0.012	-0.845	-0.781	-1.729
	(1.089)	(1.257)	(1.303)	(0.872)	(0.993)	(1.502)
INFL	-0.685	-0.008	-0.737	-0.887**	-0.503	-0.805
	(0.428)	(0.425)	(0.643)	(0.391)	(0.437)	(0.571)
Cointegration coefficient	-1.049***	-1.210***	-1.377***			
	(0.059)	(0.088)	(0.126)			
CD-test statistic	-1.58	-2.53	-2.41	-2.74	-0.36	-1.59
CD-test p-value	0.11	0.01	0.01	0.00	0.71	0.11
RMSE	2.00	1.74	1.45	2.21	2.02	1.82
NXT	1210	1118	1105	1234	1197	1136
N	28	25	25	29	28	26

Notes: Compared to Table B14, we implement cross-section averages based on the full sample. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B16

Dynamic pooled and MG models for banking development and growth from 1961-2014, including trade to GDP and inflation as additional regressors

	POLS			*2FE*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.492**	-0.601***	-0.819***	-0.626**	-0.686**	-0.826**
	(0.193)	(0.231)	(0.284)	(0.269)	(0.291)	(0.339)
TR	0.707	0.732***	0.814***	2.521***	2.271***	2.114***
	(0.181)	(0.205)	(0.257)	(0.460)	(0.478)	(0.562)
INFL	0.011***	-0.088	-0.099	-0.291**	-0.417**	-0.425**
	(0.157)	(0.188)	(0.239)	(0.148)	(0.166)	(0.202)
Cointegration coefficient	-0.616***	-0.529***	-0.421***	-0.758***	-0.734***	-0.644***
	(0.031)	(0.032)	(0.031)	(0.032)	(0.036)	(0.039)
CD-test statistic	-2.45	-2.24	-2.38	-2.89	-2.59	-2.62
CD-test p-value	0.01	0.02	0.01	0.00	0.00	0.00
RMSE	3.19	3.14	3.06	3.04	3.01	2.98
NXT	2543	2489	2435	2543	2489	2435
N	54	54	54	54	54	54

TABLE B16 (Continued)

Dynamic pooled and MG models for banking development and growth from 1961-2014, including trade to GDP and inflation as additional regressors

	MG			*DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(7)	(8)	(9)	(10)	(11)	(12)
B	-2.386***	-2.697***	-2.616***	-2.224***	-2.601***	-2.716***
	(0.381)	(0.434)	(0.517)	(0.366)	(0.405)	(0.461)
TR	1.008	1.915**	1.754*	1.036	1.635*	1.656
	(0.810)	(0.877)	(0.967)	(0.767)	(0.889)	(1.015)
INFL	-0.891***	-0.936***	-0.881***	-0.798***	-0.857***	-0.804***
	(0.135)	(0.172)	(0.181)	(0.134)	(0.147)	(0.170)
Cointegration coefficient	-0.846***	-0.872***	-0.901***			
	(0.023)	(0.038)	(0.048)			
CD-test statistic	27.72	27.92	23.26	27.42	28.64	25.31
CD-test p-value	0.00	0.00	0.00	0.00	0.00	0.00
RMSE	2.69	2.50	2.34	2.77	2.62	2.47
NXT	2543	2489	2435	2551	2499	2447
N	54	54	54	54	54	54

Notes: Compared to Table B1, we implement the dynamic pooled and MG estimators reported in Table A3. For additional details see Table A3 and for diagnostics see Table A1, except for the CIPS test.

TABLE B17

Dynamic pooled and MG models for banking development and growth from 1961-2014, including population growth and inflation as additional regressors

	POLS			*2FE*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.303	-0.404*	-0.568**	-0.558**	-0.684**	-0.852**
	(0.196)	(0.228)	(0.276)	(0.281)	(0.302)	(0.344)
PG	0.312***	0.328***	0.358***	0.122	0.156	0.215
	(0.078)	(0.090)	(0.112)	(0.085)	(0.094)	(0.134)
INFL	-0.122	-0.229	-0.261	-0.280*	-0.414**	-0.434**
	(0.160)	(0.190)	(0.239)	(0.157)	(0.177)	(0.214)
Cointegration coefficient	-0.610***	-0.534***	-0.436***	-0.735***	-0.716***	-0.640***
	(0.031)	(0.032)	(0.032)	(0.032)	(0.036)	(0.038)
CD-test statistic	-2.18	-1.94	-1.99	-2.58	-2.29	-2.25
CD-test p-value	0.02	0.05	0.04	0.01	0.02	0.02
RMSE	3.19	3.16	3.11	3.07	3.06	3.04
NXT	2572	2518	2464	2572	2518	2464
N	54	54	54	54	54	54

TABLE B17 (Continued)

Dynamic pooled and MG models for banking development and growth from 1961-2014, including population growth and inflation as additional regressors

	MG			*DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(7)	(8)	(9)	(10)	(11)	(12)
B	-2.691***	-2.871***	-2.919***	-2.596***	-2.717***	-2.990***
	(0.433)	(0.498)	(0.567)	(0.405)	(0.428)	(0.499)
PG	0.341	0.015	-0.075	0.272	0.128	-0.030
	(0.365)	(0.379)	(0.441)	(0.345)	(0.349)	(0.424)
INFL	-0.814***	-0.888***	-0.976***	-0.660***	-0.842***	-0.956***
	(0.132)	(0.152)	(0.191)	(0.129)	(0.164)	(0.201)
Cointegration coefficient	-0.863***	-0.943***	-0.982***			
	(0.024)	(0.035)	(0.048)			
CD-test statistic	28.65	28.27	25.62	28.25	27.62	25.13
CD-test p-value	0.00	0.00	0.00	0.00	0.00	0.00
RMSE	2.72	2.51	2.32	2.80	2.64	2.48
NXT	2572	2518	2464	2580	2528	2476
N	54	54	54	54	54	54

Notes: Compared to Table B4, we implement the dynamic pooled and MG estimators reported in Table A3. For additional details see Table A3 and for diagnostics see Table A1, except for the CIPS test.

TABLE B18

Dynamic pooled and MG models for banking development and growth from 1961-2014, including gross fixed capital formation to GDP and inflation as additional regressors

	POLS			*2FE*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.752***	-0.798***	-0.867***	-0.493**	-0.532**	-0.594**
	(0.162)	(0.192)	(0.243)	(0.228)	(0.242)	(0.269)
GFK	3.333***	3.083***	2.866***	3.222***	2.895***	2.664***
	(0.433)	(0.514)	(0.648)	(0.511)	(0.537)	(0.645)
INFL	-0.147	-0.225	-0.216	-0.337***	-0.420***	-0.407**
	(0.126)	(0.153)	(0.198)	(0.129)	(0.144)	(0.178)
Cointegration coefficient	-0.703***	-0.606***	-0.483***	-0.843***	-0.831***	-0.743***
	(0.030)	(0.032)	(0.034)	(0.032)	(0.038)	(0.046)
CD-test statistic	-2.85	-2.74	-2.71	-2.99	-2.85	-2.83
CD-test p-value	0.00	0.00	0.00	0.00	0.00	0.00
RMSE	2.93	2.90	2.84	2.78	2.77	2.76
NXT	2453	2399	2345	2453	2399	2345
N	54	54	54	54	54	54

TABLE B18 (Continued)

Dynamic pooled and MG models for banking development and growth from 1961-2014, including gross fixed capital formation to GDP and inflation as additional regressors

	MG			*DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(7)	(8)	(9)	(10)	(11)	(12)
B	-1.931***	-2.070***	-2.201***	-1.884***	-2.059***	-2.024***
	(0.326)	(0.326)	(0.389)	(0.340)	(0.326)	(0.368)
GFK	3.495***	3.161***	3.550***	3.494***	3.193***	3.615***
	(0.847)	(0.857)	(0.957)	(0.838)	(0.817)	(0.782)
INFL	-0.729***	-0.757***	-0.710***	-0.695***	-0.764***	-0.755***
	(0.114)	(0.136)	(0.156)	(0.124)	(0.129)	(0.148)
Cointegration coefficient	-0.990***	-1.036***	-1.044***			
	(0.027)	(0.048)	(0.067)			
CD-test statistic	27.90	28.05	24.19	28.36	29.04	26.27
CD-test p-value	0.00	0.00	0.00	0.00	0.00	0.00
RMSE	2.40	2.20	2.01	2.47	2.31	2.16
NXT	2453	2399	2345	2461	2409	2357
N	54	54	54	54	54	54

Notes: Compared to Table B7, we implement the dynamic pooled and MG estimators reported in Table A3. For additional details see Table A3 and for diagnostics see Table A1, except for the CIPS test.

TABLE B19

Dynamic pooled and MG models for banking development and growth from 1961-2014, including human capital and inflation as additional regressors

	POLS			*2FE*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	0.050	-0.018	-0.168	-0.424	-0.516*	-0.633*
	(0.201)	(0.230)	(0.278)	(0.288)	(0.305)	(0.341)
HC	-1.264**	-1.252*	-1.101	-2.704*	-2.990**	-2.995*
	(0.604)	(0.685)	(0.827)	(1.439)	(1.509)	(1.749)
INFL	-0.129	-0.219	-0.234	-0.274*	-0.380**	-0.388*
	(0.153)	(0.179)	(0.223)	(0.158)	(0.175)	(0.208)
Cointegration coefficient	-0.633***	-0.564***	-0.467***	-0.756***	-0.748***	-0.680***
	(0.031)	(0.033)	(0.034)	(0.033)	(0.037)	(0.040)
CD-test statistic	-2.11	-1.84	-1.93	-2.38	-2.07	-2.07
CD-test p-value	0.03	0.06	0.05	0.01	0.03	0.03
RMSE	3.22	3.20	3.15	3.10	3.09	3.08
NXT	2445	2391	2337	2445	2391	2337
N	54	54	54	54	54	54

TABLE B19 (Continued)

Dynamic pooled and MG models for banking development and growth from 1961-2014, including human capital and inflation as additional regressors

	MG			*DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(7)	(8)	(9)	(10)	(11)	(12)
B	-2.039***	-2.548***	-2.149***	-2.102***	-2.450***	-2.479***
	(0.511)	(0.576)	(0.606)	(0.478)	(0.549)	(0.669)
HC	-1.406	-2.692	-2.530	-0.995	-2.506	-2.120
	(2.234)	(2.197)	(2.478)	(1.996)	(2.096)	(2.767)
INFL	-1.028***	-1.057***	-0.940***	-0.919***	-1.053***	-1.042***
	(0.195)	(0.216)	(0.255)	(0.184)	(0.201)	(0.283)
Cointegration coefficient	-0.893***	-0.989***	-1.127***			
	(0.024)	(0.034)	(0.052)			
CD-test statistic	29.98	29.30	23.80	29.39	29.63	27.08
CD-test p-value	0.00	0.00	0.00	0.00	0.00	0.00
RMSE	2.72	2.52	2.33	2.79	2.64	2.46
NXT	2445	2391	2337	2453	2401	2349
N	54	54	54	54	54	54

Notes: Compared to Table B10, we implement the dynamic pooled and MG estimators reported in Table A3. For additional details see Table A3 and for diagnostics see Table A1, except for the CIPS test.

TABLE B20

Dynamic pooled and MG models for banking development and growth from 1961-2014, including total (domestic plus external) gross central government debt to GDP and inflation as additional

	POLS			*2FE*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.288	-0.360	-0.538*	-0.305	-0.385	-0.483
	(0.193)	(0.232)	(0.289)	(0.257)	(0.277)	(0.316)
GD	-0.496***	-0.511***	-0.557**	-0.544***	-0.550**	-0.652**
	(0.152)	(0.177)	(0.222)	(0.207)	(0.214)	(0.255)
INFL	-0.225	-0.299	-0.316	-0.384***	-0.467***	-0.431**
	(0.150)	(0.182)	(0.233)	(0.143)	(0.156)	(0.184)
Cointegration coefficient	-0.641***	-0.552***	-0.440***	-0.794***	-0.790***	-0.712***
	(0.032)	(0.035)	(0.033)	(0.033)	(0.039)	(0.042)
CD-test statistic	-2.69	-2.33	-2.40	-2.98	-2.72	-2.66
CD-test p-value	0.00	0.02	0.01	0.00	0.00	0.00
RMSE	3.09	3.06	3.01	2.93	2.92	2.90
NXT	2415	2361	2307	2415	2361	2307
N	54	54	54	54	54	54

TABLE B20 (Continued)

Dynamic pooled and MG models for banking development and growth from 1961-2014, including total (domestic plus external) gross central government debt to GDP and inflation as additional

	MG			*DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(7)	(8)	(9)	(10)	(11)	(12)
B	-1.469***	-1.589***	-1.454***	-1.337***	-1.528***	-1.460***
	(0.367)	(0.410)	(0.448)	(0.354)	(0.379)	(0.389)
GD	-0.995***	-1.019***	-0.953***	-1.159***	-1.038***	-1.115***
	(0.341)	(0.302)	(0.354)	(0.339)	(0.287)	(0.293)
INFL	-0.719***	-0.721***	-0.799***	-0.778***	-0.815***	-0.852***
	(0.155)	(0.173)	(0.193)	(0.170)	(0.162)	(0.194)
Cointegration coefficient	-0.938***	-0.975***	-1.024***			
	(0.027)	(0.041)	(0.046)			
CD-test statistic	23.05	21.06	16.88	23.71	21.14	18.7
CD-test p-value	0.00	0.00	0.00	0.00	0.00	0.00
RMSE	2.53	2.31	2.13	2.60	2.41	2.26
NXT	2415	2361	2307	2421	2369	2317
N	54	54	54	54	54	54

Notes: Compared to Table B13, we implement the dynamic pooled and MG estimators reported in Table A3. For additional details see Table A3 and for diagnostics see Table A1, except for the CIPS test.

TABLE B21

Dynamic CCEMG models for banking development and growth from 1961-2014, including per capita GDP growth as a proxy for output growth, and general government final consumption expenditure to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-1.801***	-1.881**	-1.678*	-2.013***	-1.782**	-2.193**
	(0.652)	(0.797)	(0.941)	(0.713)	(0.848)	(1.043)
GCE	-5.874***	-7.012***	-7.043***	-5.984***	-5.047***	-6.281**
	(1.596)	(1.751)	(2.376)	(1.683)	(1.936)	(2.526)
INFL	-1.163***	-1.253***	-1.320***	-0.916***	-1.397***	-1.036***
	(0.226)	(0.261)	(0.401)	(0.201)	(0.253)	(0.374)
Cointegration coefficient	-0.993***	-1.134***	-1.138***			
	(0.034)	(0.067)	(0.090)			
CD-test statistic	-0.28	0.73	-0.74	-0.44	0.21	-0.39
CD-test p-value	0.77	0.46	0.45	0.65	0.83	0.69
RMSE	1.73	1.51	1.33	1.91	1.74	1.61
NXT	2431	2334	2193	2463	2419	2327
N	53	50	46	54	53	50

Notes: Per capita GDP growth is the dependent variable. Log domestic credit to private sector by banks to GDP (B) is the main independent variable. Log general government final consumption expenditure to GDP (GCE) and log inflation (INFL) are included as additional regressors. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B22

Dynamic CCEMG models for banking development and growth from 1961-2014 for advanced countries, including per capita GDP growth as a proxy for output growth, and general government final consumption expenditure to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-1.155*	-2.148***	-2.985***	-1.332*	-1.604**	-1.754**
	(0.607)	(0.694)	(0.667)	(0.690)	(0.750)	(0.843)
GCE	-4.477**	-5.252**	-4.141	-4.349***	-5.327***	-5.294**
	(1.863)	(2.494)	(2.517)	(1.471)	(1.782)	(2.575)
INFL	-1.278***	-1.293***	-1.542***	-1.455***	-1.384***	-1.183**
	(0.276)	(0.379)	(0.468)	(0.243)	(0.351)	(0.475)
Cointegration coefficient	-1.072***	-1.143***	-1.259***			
	(0.040)	(0.073)	(0.104)			
CD-test statistic	-1.18	-0.88	-2.38	-1.53	-1.74	-2.11
CD-test p-value	0.23	0.38	0.01	0.12	0.08	0.03
RMSE	1.22	1.06	0.98	1.34	1.23	1.16
NXT	1186	1179	1112	1190	1184	1178
N	25	25	23	25	25	25

Notes: Compared to Table B21, we implement cross-section averages based only on advanced countries plus China. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B23

Dynamic CCEMG models for banking development and growth from 1961-2014 for emerging countries, including per capita GDP growth as a proxy for output growth, and general government final consumption expenditure to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-1.241	-0.404	0.083	-2.130*	-1.648	-0.816
	(0.975)	(1.265)	(1.217)	(1.126)	(1.455)	(1.701)
GCE	-3.727	-4.095	-1.538	-3.353	-2.724	-4.257
	(2.507)	(2.583)	(3.311)	(2.770)	(3.147)	(3.918)
INFL	-1.242**	-1.525***	-1.467**	-0.782**	-1.467***	-0.949
	(0.487)	(0.458)	(0.636)	(0.373)	(0.508)	(0.683)
Cointegration coefficient	-0.990***	-1.183***	-1.278***			
	(0.048)	(0.101)	(0.164)			
CD-test statistic	-1.40	-1.41	-0.84	-1.33	-1.61	-1.52
CD-test p-value	0.16	0.15	0.40	0.18	0.10	0.12
RMSE	2.07	1.83	1.59	2.28	2.09	1.93
NXT	1245	1155	1081	1273	1235	1149
N	28	25	23	29	28	25

Notes: Compared to Table B22, we implement cross-section averages based on the full sample. For additional details see Table B1. For diagnostics see Table A1 except, for the CIPS test.

TABLE B24

Dynamic CCEMG models for banking development and growth from 1961-2014, including liquid liabilities to GDP as a proxy for banking development, and general government final consumption expenditure to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
LL	-0.843	-1.957*	-1.819	0.020	-1.206	-2.390**
	(1.161)	(1.159)	(1.198)	(1.127)	(1.123)	(1.112)
GCE	-5.609***	-7.119***	-6.887***	-5.018***	-6.736***	-7.316***
	(1.662)	(1.665)	(1.815)	(1.743)	(1.901)	(1.923)
INFL	-0.852***	-1.190***	-1.497***	-0.868***	-1.397***	-1.477***
	(0.167)	(0.248)	(0.307)	(0.216)	(0.315)	(0.327)
Cointegration coefficient	-1.091***	-1.308***	-1.387***			
	(0.033)	(0.056)	(0.093)			
CD-test statistic	0.80	2.10	0.40	0.03	-0.34	-0.07
CD-test p-value	0.42	0.03	0.68	0.97	0.73	0.94
RMSE	1.70	1.44	1.25	1.87	1.75	1.57
NXT	2231	2186	2048	2305	2217	2173
N	49	48	44	52	49	48

Notes: GDP growth is the dependent variable. Log liquid liabilities to GDP (LL) is the main independent variable. Log general government final consumption expenditure to GDP (GCE) and log inflation (INFL) are included as additional regressors. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B25

Dynamic CCEMG models for banking development and growth from 1961-2014 for advanced countries, including liquid liabilities to GDP as a proxy for banking development, and general government final consumption expenditure to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
LL	-1.138	-1.106	0.671	-0.425	-0.709	-0.259
	(1.165)	(1.601)	(1.861)	(1.381)	(1.589)	(2.082)
GCE	-7.272***	-7.832***	-8.610***	-7.262***	-9.175***	-12.349***
	(2.158)	(1.870)	(2.114)	(1.848)	(2.139)	(2.501)
INFL	-1.139***	-0.911***	-1.158***	-1.301***	-1.090***	-0.727***
	(0.227)	(0.180)	(0.274)	(0.272)	(0.327)	(0.439)
Cointegration coefficient	-1.149***	-1.283***	-1.452***			
	(0.040)	(0.062)	(0.131)			
CD-test statistic	-0.23	0.35	-1.12	-0.13	0.26	-1.29
CD-test p-value	0.81	0.72	0.26	0.89	0.79	0.19
RMSE	1.14	0.98	0.87	1.26	1.16	1.08
NXT	1074	1069	1004	1101	1073	1069
N	23	23	21	24	23	23

Notes: Compared to Table B24, we implement cross-section averages based only on advanced countries plus China. For additional details see Table B1. For diagnostics see Table A1, except for the CIPS test.

TABLE B26

Dynamic CCEMG models for banking development and growth from 1961-2014 for emerging countries, including liquid liabilities to GDP as a proxy for banking development, and general government final consumption expenditure to GDP and inflation as additional regressors

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
LL	-2.041	-2.028	-2.059	-0.429	-1.075	-2.994
	(1.837)	(1.808)	(1.792)	(1.813)	(1.635)	(2.001)
GCE	-2.533	-3.768**	-2.703	-1.786	-2.480	-2.337
	(2.008)	(1.888)	(2.301)	(2.364)	(2.727)	(2.963)
INFL	-1.253***	-1.478***	-2.054***	-1.038***	-1.692***	-1.709***
	(0.273)	(0.319)	(0.546)	(0.344)	(0.579)	(0.497)
Cointegration coefficient	-1.087***	-1.357***	-1.472***			
	(0.043)	(0.075)	(0.161)			
CD-test statistic	-1.66	-1.12	-1.14	-2.64	-2.88	-1.80
CD-test p-value	0.09	0.26	0.25	0.00	0.00	0.07
RMSE	2.06	1.76	1.51	2.28	2.15	1.92
NXT	1157	1117	1044	1204	1144	1104
N	26	25	23	28	26	25

Notes: Compared to Table B25, we implement cross-section averages based on the full sample. For additional details see Table B1. For diagnostics see Table A1 except, for the CIPS test.

A10. ADDITIONAL RESULTS WHEN INCLUDING THE LOG OF GROSS FIXED CAPITAL FORMATION TO GDP AS THE DEPENDENT VARIABLE, FOR A TIME FROM 1961 TO 2014: TABLE B27-B30

TABLE B27

Dynamic CCEMG models for banking development and growth from 1961-2014, including general government final consumption expenditure to GDP and inflation as additional regressors, and gross fixed capital formation to GDP as the dependent variable

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	0.038	-0.004	0.033	0.134***	0.105**	0.095**
	(0.082)	(0.075)	(0.064)	(0.045)	(0.044)	(0.043)
GCE	-0.533***	-0.604***	-0.574***	-0.286***	-0.347***	-0.497***
	(0.162)	(0.159)	(0.194)	(0.084)	(0.101)	(0.110)
INFL	-0.024	-0.018	-0.015	0.030***	0.027**	0.018
	(0.019)	(0.027)	(0.031)	(0.010)	(0.013)	(0.022)
Cointegration coefficient	-0.393***	-0.453***	-0.526***			
	(0.030)	(0.051)	(0.057)			
CD-test statistic	-0.53	-0.73	1.57	0.73	-0.57	0.06
CD-test p-value	0.59	0.46	0.11	0.46	0.56	0.95
RMSE	0.05	0.04	0.03	0.07	0.06	0.06
NXT	2377	2271	2118	2413	2370	2279
N	53	50	46	54	53	50

Notes: Log gross fixed capital formation to GDP is the dependent variable. Log domestic credit to private sector by banks to GDP (B) is the main independent variable. Log general government final consumption expenditure to GDP (GCE) and log inflation (INFL) are included as additional regressors. The estimates of the intercept term are omitted. Standard errors are given in parentheses. Long run estimates of dynamic models and cointegration coefficients of ARDL models are reported. Standard errors of ARDL specifications are computed via the Delta method. Estimators: (1)-(3) CS-ARDL: Dynamic cross-sectional ARDL Chudik and Pesaran (2015a) represented by a Error Correction Model (ECM), augmented with one, two and three lags of the dependent and independent variables and three lags of the cross-sectional averages of the dependent and independent variables; (4)-(6) CS-DLMG: Cross-sectional DL Chudik et al. (2016) Mean Group, augmented with one, two and three lags of the independent variables and three lags of the cross-sectional averages of the independent variables. For all models we report (i), the estimates of the outlier-robust mean of parameter coefficients across groups following Hamilton (1992); and (ii), nonparametric standard errors according to Pesaran and Smith (1995) and Pesaran (2006). Levels of significance are represented by * 10%, ** 5% and *** 1%. Diagnostics: See Table A1, except for the CIPS test.

TABLE B28

Dynamic pooled and MG models for banking development and growth from 1961-2014, including general government final consumption expenditure to GDP and inflation as additional regressors, and gross fixed capital formation to GDP as the dependent variable

	POLS			*2FE*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.007	0.019	-0.002	-0.080	-0.031	-0.019
	(0.051)	(0.043)	(0.049)	(0.052)	(0.042)	(0.044)
GCE	-0.247***	-0.182***	-0.197***	-0.332**	-0.258**	-0.248**
	(0.082)	(0.066)	(0.073)	(0.128)	(0.110)	(0.120)
INFL	-0.055	-0.050	-0.062	-0.007	-0.004	-0.002
	(0.040)	(0.035)	(0.040)	(0.027)	(0.023)	(0.024)
Cointegration coefficient	-0.071***	-0.084***	-0.075***	-0.126***	-0.152***	-0.147***
	(0.011)	(0.011)	(0.011)	(0.015)	(0.015)	(0.016)
CD-test statistic	-1.04	-0.99	-0.80	-1.50	-1.57	-1.24
CD-test p-value	0.29	0.32	0.42	0.13	0.11	0.21
RMSE	0.09	0.08	0.08	0.08	0.08	0.08
NXT	2445	2391	2337	2445	2391	2337
N	54	54	54	54	54	54

TABLE B28 (Continued)

Dynamic pooled and MG models for banking development and growth from 1961-2014, including general government final consumption expenditure to GDP and inflation as additional regressors, and gross fixed capital formation to GDP as the dependent variable

	MG			*DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(7)	(8)	(9)	(10)	(11)	(12)
B	-0.023	0.009	0.041	0.102***	0.096**	0.102**
	(0.045)	(0.037)	(0.052)	(0.024)	(0.028)	(0.031)
GCE	-0.476***	-0.329***	-0.381***	-0.216***	-0.250***	-0.297***
	(0.122)	(0.098)	(0.130)	(0.063)	(0.068)	(0.073)
INFL	0.004	0.010	0.022	0.067***	0.072**	0.074
	(0.020)	(0.017)	(0.018)	(0.012)	(0.014)	(0.014)
Cointegration coefficient	-0.228***	-0.271***	-0.286***			
	(0.018)	(0.022)	(0.030)			
CD-test statistic	11.88	10.05	8.45	7.13	7.19	6.72
CD-test p-value	0.00	0.00	0.00	0.00	0.00	0.00
RMSE	0.07	0.06	0.06	0.12	0.11	0.10
NXT	2445	2391	2337	2457	2415	2373
N	54	54	54	54	54	54

Notes: Compared to Table B27, we implement the dynamic pooled and MG estimators reported in Table A3. For additional details see Table A3 and for diagnostics see Table A1, except for the CIPS test.

TABLE B29

Dynamic CCEMG models for banking development and growth from 1961-2014 for advanced countries, including general government final consumption expenditure to GDP and inflation as additional regressors, and gross fixed capital formation to GDP as the dependent variable

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	-0.122	-0.092	-0.126	0.051	0.041	0.056
	(0.093)	(0.083)	(0.103)	(0.039)	(0.049)	(0.060)
GCE	-0.848***	-0.645**	-0.889***	-0.494***	-0.548***	-0.592***
	(0.309)	(0.270)	(0.301)	(0.172)	(0.178)	(0.144)
INFL	-0.018	0.012	0.003	0.037***	0.033**	0.030**
	(0.032)	(0.028)	(0.031)	(0.012)	(0.016)	(0.015)
Cointegration coefficient	-0.317***	-0.378***	-0.423***			
	(0.041)	(0.048)	(0.056)			
CD-test statistic	-2.64	-2.90	-2.47	-2.30	-2.46	-2.20
CD-test p-value	0.00	0.00	0.01	0.02	0.01	0.02
RMSE	0.03	0.02	0.02	0.04	0.04	0.03
NXT	1158	1145	1101	1164	1157	1150
N	25	25	24	25	25	25

Notes: Compared to Table 27, we implement cross-section averages based only on advanced countries plus China. For additional details see Table 27. For diagnostics see Table A1, except for the CIPS test.

TABLE B30

Dynamic CCEMG models for banking development and growth from 1961-2014 for emerging countries, including general government final consumption expenditure to GDP and inflation as additional regressors, and gross fixed capital formation to GDP as the dependent variable

	CS-ARDL			*CS-DLMG*		
	1 lag	*2 lags*	*3 lags*	*1 lag*	*2 lags*	*3 lags*
	(1)	(2)	(3)	(4)	(5)	(6)
B	0.071	0.009	0.090	0.134*	0.072	0.065
	(0.118)	(0.099)	(0.081)	(0.072)	(0.084)	(0.082)
GCE	-0.088	-0.152	-0.121	-0.088	-0.048	-0.1612*
	(0.133)	(0.135)	(0.133)	(0.080)	(0.109)	(0.087)
INFL	-0.032	-0.030	-0.028	0.002	-0.004	-0.002
	(0.030)	(0.043)	(0.058)	(0.016)	(0.021)	(0.043)
Cointegration coefficient	-0.464***	-0.546***	-0.663***			
	(0.043)	(0.075)	(0.083)			
CD-test statistic	0.99	0.42	1.28	3.03	2.85	2.81
CD-test p-value	0.32	0.67	0.20	0.00	0.00	0.00
RMSE	0.06	0.05	0.04	0.08	0.08	0.07
NXT	1219	1126	1017	1249	1213	1129
N	28	25	22	29	28	25

Notes: Compared to Table 29, we implement cross-section averages based only on advanced countries plus China. For additional details see Table 27. For diagnostics see Table A1, except for the CIPS test.

A11. RESULTS OF UNIT ROOT AND CROSS-SECTION DEPENDENCE TESTS: TABLES C1-C10

TABLE C1

Pesaran (2007) unit root test for data from 1988 to 2012 Part 1

Panel 1: Variables in Levels

Pesaran (2007) CIPS test (Including a Constant)

Lags	*Y*		*B*		*INFL*		*TR*		*PG*		*GCE*		*GFK*		*GD*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	-10.91	0.00	0.53	0.70	-10.32	0.00	-0.97	0.16	1.22	0.89	-0.56	0.28	2.26	0.98	5.21	1.00
1	-6.44	0.00	-1.62	0.05	-7.13	0.00	-3.06	0.00	-6.42	0.00	-2.01	0.02	-0.93	0.17	2.32	0.99
2	-0.85	0.19	-0.28	0.38	-3.56	0.00	-1.09	0.13	1.54	0.93	-0.09	0.46	1.70	0.95	1.12	0.86
3	0.24	0.59	-1.68	0.04	-1.10	0.13	-3.23	0.00	-1.20	0.11	0.12	0.55	3.58	1.00	0.64	0.74

Pesaran (2007) CIPS test (Including a Constant and a Time Trend)

Lags	*Y*		*B*		*INFL*		*TR*		*PG*		*GCE*		*GFK*		*GD*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	-9.29	0.00	4.47	1.00	-8.12	0.00	3.50	1.00	6.06	1.00	1.63	0.94	1.99	0.97	5.35	1.00
1	-4.95	0.00	2.45	0.99	-6.53	0.00	1.37	0.91	-7.19	0.00	0.65	0.74	-2.44	0.00	2.06	0.98
2	0.79	0.78	4.27	1.00	-3.36	0.00	3.47	1.00	4.86	1.00	1.93	0.97	-0.91	0.18	1.89	0.97
3	1.86	0.96	2.36	0.99	-1.36	0.08	1.96	0.97	4.70	1.00	1.60	0.94	-0.43	0.33	-0.25	0.40

Panel 2: Variables in First Differences

Pesaran (2007) CIPS test (Including a Drift)

Lags	*Δ Y*		*Δ B*		*Δ INFL*		*Δ TR*		*Δ PG*		*Δ GCE*		*Δ GFK*		*Δ GD*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	-27.65	0.00	-14.96	0.00	-24.95	0.00	-16.76	0.00	-4.74	0.00	-17.13	0.00	-16.40	0.00	-13.18	0.00
1	-19.48	0.00	-7.48	0.00	-16.95	0.00	-9.19	0.00	-9.47	0.00	-9.62	0.00	-11.39	0.00	-5.78	0.00
2	-9.88	0.00	-1.66	0.04	-10.34	0.00	-3.76	0.00	-3.90	0.00	-5.52	0.00	-6.01	0.00	-2.19	0.01
3	-7.31	0.00	-0.85	0.19	-5.68	0.00	-1.65	0.04	0.40	0.65	-3.52	0.00	-3.01	0.00	-1.69	0.04

Notes: For the results of the Pesaran (2007) test we present the standardized Z-tbar statistic and its respective *p*-value. The null hypothesis of this test refers to all series are nonstationary, which we evaluate at the 5% level of significance. Zero to three lags augmentation in the performed Dickey Fuller regressions are included. Augmentation of the Dickey Fuller regressions with a constant or a constant and trend as indicated. Panel 1 displays the Dickey Fuller regressions for variables in levels, including a constant, on the one hand, and, on the other, a constant and a trend. Panel 2 contains the variables in first differences including a drift (constant). All variables are in logarithms, except for GDP growth (Y) and population growth (PG).

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TABLE C2

Pesaran (2007) unit root test for data from 1988 to 2012 Part 2

Panel 1: Variables in Levels

Pesaran (2007) CIPS test (Including a Constant)

Lags	*HC*		*YP*		*S*		*STV*		*MTR*		*SP*		*LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	2.86	0.99	-10.39	0.00	-5.98	0.00	-7.86	0.00	-7.34	0.00	-2.38	0.00	-0.09	0.46
1	-5.40	0.00	-6.02	0.00	-5.15	0.00	-5.73	0.00	-4.48	0.00	-3.19	0.00	-3.75	0.00
2	-6.87	0.00	-0.20	0.41	-2.42	0.00	-2.07	0.01	-2.74	0.00	-1.19	0.11	0.27	0.60
3	-5.04	0.00	0.37	0.64	-2.28	0.01	0.50	0.69	0.07	0.52	-1.05	0.14	-1.65	0.04

Pesaran (2007) CIPS test (Including a Constant and a Time Trend)

Lags	*HC*		*YP*		*S*		*STV*		*MTR*		*SP*		*LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	3.59	1.00	-9.23	0.00	-2.70	0.00	-5.07	0.00	-5.50	0.00	-1.92	0.02	4.20	1.00
1	-2.54	0.00	-4.76	0.00	-2.57	0.00	-3.29	0.00	-1.55	0.05	-3.92	0.00	0.50	0.69
2	0.16	0.56	1.24	0.89	0.19	0.57	-0.16	0.43	0.04	0.51	-0.94	0.17	5.11	1.00
3	-1.76	0.03	1.68	0.95	0.15	0.56	2.49	0.99	3.29	0.99	1.02	0.84	3.91	1.00

Panel 2: Variables in First Differences

Pesaran (2007) CIPS test (Including a Drift)

Lags	*Δ HC*		*Δ YP*		*Δ S*		*Δ STV*		*Δ MTR*		*Δ SP*		*Δ LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	-1.30	0.09	-27.70	0.00	-20.24	0.00	-22.88	0.00	-25.55	0.00	-12.16	0.00	-12.33	0.00
1	-6.11	0.00	-19.56	0.00	-11.98	0.00	-13.84	0.00	-13.70	0.00	-9.62	0.00	-9.80	0.00
2	2.58	0.99	-9.66	0.00	-5.49	0.00	-8.41	0.00	-9.20	0.00	-6.43	0.00	-4.10	0.00
3	1.36	0.91	-7.40	0.00	-2.67	0.00	-3.72	0.00	-4.38	0.00	-3.09	0.00	-1.27	0.10

Notes: See Table C1. All variables are in logarithms, except for per capita GDP growth (YP).

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TABLE C3

Maddala and Wu (1999) Fisher unit root test for data from 1988 to 2012 Part 1

Panel 1: Variables in Levels

Maddala and Wu (1999) Fisher test (Including a Constant)

Lags	*Y*		*B*		*INFL*		*TR*		*PG*		*GCE*		*GFK*		*GD*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	700.06	0.00	73.59	0.99	359.23	0.00	113.62	0.33	253.25	0.00	165.05	0.00	113.55	0.33	84.36	0.95
1	434.75	0.00	94.05	0.82	243.23	0.00	106.01	0.53	481.73	0.00	181.11	0.00	256.46	0.00	151.74	0.00
2	244.31	0.00	100.07	0.69	171.81	0.00	89.17	0.90	165.27	0.00	148.69	0.00	155.91	0.00	188.70	0.00
3	210.20	0.00	169.16	0.00	179.84	0.00	111.84	0.38	262.74	0.00	147.49	0.00	135.58	0.03	161.49	0.00

Maddala and Wu (1999) Fisher test (Including a Constant and a Time Trend)

Lags	*Y*		*B*		*INFL*		*TR*		*PG*		*GCE*		*GFK*		*GD*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	618.73	0.00	71.66	0.99	350.37	0.00	134.11	0.04	140.29	0.02	134.72	0.04	102.12	0.64	62.49	1.00
1	383.89	0.00	127.62	0.09	203.85	0.00	173.07	0.00	661.33	0.00	170.43	0.00	256.61	0.00	144.21	0.01
2	194.90	0.00	107.76	0.48	104.34	0.58	134.55	0.04	171.51	0.00	130.06	0.07	186.19	0.00	168.29	0.00
3	189.41	0.00	218.69	0.00	113.40	0.34	143.98	0.01	170.35	0.00	121.81	0.17	181.52	0.00	164.17	0.00

Panel 2: Variables in First Differences

Maddala and Wu (1999) Fisher test (Including a Drift)

Lags	*Δ Y*		*Δ B*		*Δ INFL*		*Δ TR*		*Δ PG*		*Δ GCE*		*Δ GFK*		*Δ GD*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	2045.33	0.00	796.04	0.00	1923.14	0.00	1158.47	0.00	663.84	0.00	917.67	0.00	775.74	0.00	622.70	0.00
1	1228.55	0.00	474.36	0.00	1143.01	0.00	642.84	0.00	844.31	0.00	604.74	0.00	599.79	0.00	350.54	0.00
2	636.66	0.00	255.91	0.00	506.77	0.00	372.38	0.00	435.15	0.00	370.70	0.00	367.51	0.00	252.01	0.00
3	446.29	0.00	295.74	0.00	344.51	0.00	327.61	0.00	209.77	0.00	302.71	0.00	309.95	0.00	246.25	0.00

Notes: For the results of the Maddala and Wu (1999) test we present the Fisher statistic and its respective p-value. The null hypothesis of this test refers to all series are nonstationary, which we evaluate at the 5% level of significance. Zero to three lags augmentation in the performed Dickey Fuller regressions are included. Augmentation of the Dickey Fuller regressions with a constant or a constant and trend as indicated. Panel 1 displays the Dickey Fuller regressions for variables in levels, including a constant, on the one hand, and, on the other, a constant and a trend. Panel 2 contains the variables in first differences including a drift (constant). All variables are in logarithms, except for GDP growth (Y) and population growth (PG).

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TABLE C4

Maddala and Wu (1999) Fisher unit root test for data from 1988 to 2012 Part 2

Panel 1: Variables in Levels

Maddala and Wu (1999) Fisher test (Including a Constant)

Lags	*HC*		*YP*		*S*		*STV*		*MTR*		*SP*		*LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	939.83	0.00	678.36	0.00	264.41	0.00	337.03	0.00	225.52	0.00	154.87	0.00	88.28	0.86
1	172.34	0.00	424.10	0.00	165.83	0.00	201.14	0.00	211.93	0.00	163.88	0.00	156.21	0.00
2	384.87	0.00	238.78	0.00	185.04	0.00	187.15	0.00	191.81	0.00	81.81	0.00	94.95	0.72
3	131.63	0.06	217.03	0.00	162.62	0.00	200.30	0.00	182.60	0.00	178.71	0.00	144.71	0.00

Maddala and Wu (1999) Fisher test (Including a Constant and a Time Trend)

Lags	*HC*		*YP*		*S*		*STV*		*MTR*		*SP*		*LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	108.57	0.46	597.56	0.00	215.07	0.00	203.76	0.00	183.74	0.00	112.86	0.00	93.43	0.76
1	120.42	0.19	367.03	0.00	156.20	0.00	138.76	0.02	130.26	0.07	150.15	0.00	213.12	0.00
2	170.24	0.00	183.29	0.00	102.01	0.64	96.28	0.78	96.50	0.77	54.82	0.36	108.45	0.36
3	106.06	0.53	190.88	0.00	135.27	0.03	101.51	0.65	107.26	0.50	134.26	0.00	225.89	0.00

Panel 2: Variables in First Differences

Maddala and Wu (1999) Fisher test (Including a Drift)

Lags	*Δ HC*		*Δ YP*		*Δ S*		*Δ STV*		*Δ MTR*		*Δ SP*		*Δ LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	85.14	0.94	2030.06	0.00	1377.69	0.00	999.83	0.00	1329.74	0.00	480.89	0.00	601.37	0.00
1	189.35	0.00	1211.20	0.00	800.89	0.00	600.95	0.00	643.98	0.00	415.39	0.00	568.56	0.00
2	65.40	1.00	619.07	0.00	347.38	0.00	317.08	0.00	398.23	0.00	231.37	0.00	294.38	0.00
3	89.50	0.90	438.47	0.00	263.09	0.00	208.99	0.00	232.85	0.00	180.05	0.00	260.65	0.00

Notes: See Table C3. All variables are in logarithms, except for per capita GDP growth (YP).

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TABLE C5

Pesaran (2007) unit root test for data from 1961 to 2014 Part 1

Panel 1: Variables in Levels

Pesaran (2007) CIPS test (Including a Constant)

Lags	*Y*		*B*		*INFL*		*TR*		*PG*		*GCE*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	-26.87	0.00	0.20	0.58	-13.11	0.00	-2.39	0.00	-2.68	0.00	-2.56	0.00
1	-19.67	0.00	-2.63	0.00	-10.98	0.00	-3.26	0.00	-14.29	0.00	-3.50	0.00
2	-12.60	0.00	-2.31	0.01	-6.73	0.00	-2.80	0.00	-2.10	0.01	-3.76	0.00
3	-10.66	0.00	-2.34	0.01	-4.74	0.00	-2.84	0.00	-5.19	0.00	-3.73	0.00
4	-6.99	0.00	-2.49	0.00	-3.19	0.00	-2.26	0.01	-4.03	0.00	-2.46	0.00

Pesaran (2007) CIPS test (Including a Constant and a Time Trend)

Lags	*Y*		*B*		*INFL*		*TR*		*PG*		*GCE*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	-26.07	0.00	3.14	0.99	-14.26	0.00	0.94	0.82	2.67	0.99	-1.07	0.14
1	-18.36	0.00	-0.20	0.42	-11.21	0.00	-0.29	0.38	-13.18	0.00	-2.29	0.01
2	-10.54	0.00	-0.14	0.44	-6.73	0.00	0.62	0.73	2.47	0.99	-2.51	0.00
3	-8.88	0.00	0.01	0.50	-3.49	0.00	0.33	0.63	-1.95	0.02	-2.91	0.00
4	-5.35	0.00	-0.17	0.42	-2.22	0.01	1.38	0.91	-1.17	0.12	-1.38	0.08

Panel 2: Variables in First Differences

Pesaran (2007) CIPS test (Including a Drift)

Lags	*Δ Y*		*Δ B*		*Δ INFL*		*Δ TR*		*Δ PG*		*Δ GCE*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	-34.74	0.00	-27.52	0.00	-34.31	0.00	-30.81	0.00	-14.75	0.00	-30.39	0.00
1	-34.08	0.00	-17.46	0.00	-32.43	0.00	-23.55	0.00	-23.90	0.00	-22.21	0.00
2	-29.32	0.00	-12.33	0.00	-26.71	0.00	-16.32	0.00	-10.43	0.00	-15.04	0.00
3	-24.88	0.00	-9.37	0.00	-19.91	0.00	-13.79	0.00	-8.46	0.00	-13.92	0.00
4	-19.51	0.00	-6.58	0.00	-16.50	0.00	-11.16	0.00	-6.81	0.00	-10.14	0.00

Notes: See Table C1. Zero to four lags augmentation in the performed Dickey Fuller regressions are included. All variables are in logarithms, except for GDP growth (Y) and population growth (PG).

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TABLE C6

Pesaran (2007) unit root test for data from 1961 to 2014 Part 2

Panel 1: Variables in Levels										
Pesaran (2007) CIPS test (Including a Constant)										
Lags	*GFK*		*GD*		*HC*		*YP*		*LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	-0.72	0.23	0.86	0.80	0.87	0.80	-26.02	0.00	-0.19	0.42
1	-4.18	0.00	-2.58	0.00	-8.84	0.00	-18.63	0.00	-3.87	0.00
2	-2.06	0.01	-3.32	0.00	-7.47	0.00	-11.42	0.00	-1.67	0.04
3	-0.84	0.20	-3.59	0.00	-6.46	0.00	-9.07	0.00	-2.87	0.00
4	1.05	0.85	-2.68	0.00	-4.96	0.00	-5.23	0.00	-1.37	0.08
Pesaran (2007) CIPS test (Including a Constant and a Time Trend)										
Lags	*GFK*		*GD*		*HC*		*YP*		*LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	0.23	0.59	3.09	0.99	5.51	1.00	-25.93	0.00	3.78	1.00
1	-5.35	0.00	-1.34	0.09	-6.35	0.00	-18.33	0.00	-1.11	0.13
2	-2.91	0.00	-1.97	0.02	-4.87	0.00	-10.36	0.00	1.80	0.96
3	-1.53	0.06	-2.78	0.00	-3.62	0.00	-8.68	0.00	0.23	0.59
4	0.50	0.69	-2.24	0.01	-1.68	0.04	-5.15	0.00	1.82	0.96
Panel 2: Variables in First Differences										
Pesaran (2007) CIPS test (Including a Drift)										
Lags	*Δ GFK*		*Δ GD*		*Δ HC*		*Δ YP*		*Δ LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	-27.85	0.00	-25.20	0.00	-1.77	0.03	-34.71	0.00	-22.08	0.00
1	-22.83	0.00	-16.74	0.00	-3.14	0.00	-34.13	0.00	-19.01	0.00
2	-17.37	0.00	-11.26	0.00	-4.15	0.00	-29.36	0.00	-11.33	0.00
3	-13.99	0.00	-9.29	0.00	-6.54	0.00	-24.78	0.00	-9.90	0.00
4	-10.57	0.00	-6.50	0.00	-8.04	0.00	-19.53	0.00	-5.37	0.00

Notes: See Tables C1 and C5. All variables are in logarithms, except for per capita GDP growth (YP).

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TABLE C7

Maddala and Wu (1999) Fisher unit root test for data from 1961 to 2014 Part 1

Panel 1: Variables in Levels												
Maddala and Wu (1999) Fisher test (Including a Constant)												
Lags	*Y*		*B*		*INFL*		*TR*		*PG*		*GCE*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	1308.20	0.00	126.31	0.11	364.70	0.00	131.49	0.06	180.06	0.00	185.52	0.00
1	772.55	0.00	137.45	0.02	297.34	0.00	122.18	0.16	551.36	0.00	169.75	0.00
2	437.73	0.00	118.72	0.22	174.26	0.00	113.06	0.35	122.59	0.16	173.59	0.00
3	367.53	0.00	111.77	0.38	152.43	0.00	121.33	0.17	169.99	0.00	189.83	0.00
4	267.27	0.00	111.83	0.38	132.58	0.05	131.07	0.06	138.11	0.02	157.88	0.00
Maddala and Wu (1999) Fisher test (Including a Constant and a Time Trend)												
Lags	*Y*		*B*		*INFL*		*TR*		*PG*		*GCE*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	1331.10	0.00	76.40	0.99	364.73	0.00	177.41	0.00	272.58	0.00	127.39	0.09
1	823.87	0.00	124.85	0.12	278.53	0.00	174.61	0.00	855.35	0.00	150.94	0.00
2	446.99	0.00	109.13	0.45	161.81	0.00	136.13	0.03	132.37	0.05	140.23	0.02
3	398.69	0.00	110.39	0.41	141.01	0.01	136.83	0.03	222.49	0.00	166.82	0.00
4	308.32	0.00	108.79	0.46	131.77	0.06	129.30	0.07	169.19	0.00	120.56	0.19
Panel 2: Variables in First Differences												
Maddala and Wu (1999) Fisher test (Including a Drift)												
Lags	*Δ Y*		*Δ B*		*Δ INFL*		*Δ TR*		*Δ PG*		*Δ GCE*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	4216.00	0.00	1573.30	0.00	3294.40	0.00	2400.90	0.00	1273.30	0.00	2045.60	0.00
1	2840.00	0.00	914.44	0.00	2010.30	0.00	1505.10	0.00	1815.20	0.00	1248.80	0.00
2	1761.20	0.00	568.70	0.00	1240.60	0.00	925.04	0.00	561.65	0.00	760.60	0.00
3	1312.40	0.00	423.56	0.00	872.64	0.00	732.18	0.00	506.59	0.00	623.96	0.00
4	1152.10	0.00	331.27	0.00	650.19	0.00	492.13	0.00	424.97	0.00	461.46	0.00

Notes: See Table C3. Zero to three lags augmentation in the performed Dickey Fuller regressions are included. All variables are in logarithms, except for GDP growth (Y) and population growth (PG).

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TABLE C8

Maddala and Wu (1999) Fisher unit root test for data from 1961 to 2014 Part 2

Panel 1: Variables in Levels										
Maddala and Wu (1999) Fisher test (Including a Constant)										
Lags	*GFK*		*GD*		*HC*		*YP*		*LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	142.94	0.01	105.23	0.55	890.89	0.00	1335.40	0.00	98.58	0.63
1	245.63	0.00	124.67	0.13	139.14	0.02	801.18	0.00	97.05	0.67
2	197.45	0.00	137.29	0.03	148.24	0.00	452.19	0.00	77.45	0.97
3	198.52	0.00	173.66	0.00	165.33	0.00	379.85	0.00	79.13	0.96
4	157.77	0.00	145.24	0.01	207.85	0.00	287.19	0.00	88.77	0.85
Maddala and Wu (1999) Fisher test (Including a Constant and a Time Trend)										
Lags	*GFK*		*GD*		*HC*		*YP*		*LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	99.56	0.70	66.47	0.99	374.63	0.00	1319.01	0.00	65.81	0.99
1	248.30	0.00	100.18	0.69	124.25	0.13	827.58	0.00	157.39	0.00
2	178.98	0.00	104.48	0.57	109.20	0.45	458.51	0.00	112.67	0.26
3	172.89	0.00	125.44	0.12	104.44	0.57	405.21	0.00	111.25	0.29
4	127.07	0.10	107.39	0.49	121.68	0.17	312.77	0.00	86.6	0.89
Panel 2: Variables in First Differences										
Maddala and Wu (1999) Fisher test (Including a Drift)										
Lags	*Δ GFK*		*Δ GD*		*Δ HC*		*Δ YP*		*Δ LL*	
	Chi sq	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*	*Chi sq*	*p-value*
0	1448.60	0.00	1226.20	0.00	112.58	0.36	4191.30	0.00	1175.10	0.00
1	1117.40	0.00	760.07	0.00	133.89	0.04	2821.40	0.00	1031.30	0.00
2	827.34	0.00	492.99	0.00	157.15	0.00	1755.60	0.00	560.32	0.00
3	684.46	0.00	406.68	0.00	209.09	0.00	1313.70	0.00	505.49	0.00
4	531.95	0.00	313.41	0.00	179.62	0.00	1154.30	0.00	326.50	0.00

Notes: See Table C3 and C7. All variables are in logarithms, except for per capita GDP growth (YP).

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Table C9

Cross-Section Dependence of variables from 1988 to 2012

Panel 1					
	Y	*B*	*INFL*	*TR*	*PG*
CD	38.40	46.11	62.45	69.58	26.51
Test p-value	0.00	0.00	0.00	0.00	0.00
Avg Corr	0.20	0.24	0.34	0.36	0.14
Avg |Corr|	0.27	0.49	0.39	0.51	0.50
Panel 2					
	GCE	*GFK*	*GD*	*HC*	*YP*
CD	18.33	7.74	9.59	74.15	36.90
Test p-value	0.00	0.00	0.00	0.00	0.00
Avg Corr	0.09	0.04	0.05	0.94	0.19
Avg |Corr|	0.36	0.34	0.42	0.94	0.27
Panel 3					
	S	*STV*	*MTR*	*SP*	*LL*
CD	93.39	95.83	34.93	3.16	61.07
Test p-value	0.00	0.00	0.00	0.00	0.00
Avg Corr	0.50	0.51	0.18	0.03	0.33
Avg |Corr|	0.54	0.57	0.41	0.33	0.51

Notes: For the results of the Pesaran (2004, 2015) cross-section dependence (CD) test across variables in levels, we present its statistic, which is distributed N(0,1), and its respective p-value. The null hypothesis of this test is weak cross-section dependence. The average and average absolute correlation coefficients across the *N(N-1)* sets of correlations are also presented. All variables are in logarithms, except for GDP growth (Y), population growth (PG) and per capita GDP growth (YP).

Table C10

Cross-Section Dependence of variables from 1961 to 2014

Panel 1					
	Y	*B*	*INFL*	*TR*	*PG*
CD	47.49	119.34	98.52	122.25	53.51
Test p-value	0.00	0.00	0.00	0.00	0.00
Avg Corr	0.17	0.46	0.36	0.45	0.19
Avg |Corr|	0.23	0.55	0.39	0.54	0.40
Panel 2					
	GCE	*GFK*	*GD*	*HC*	*YP*
CD	59.10	20.88	100.39	255.86	40.58
Test p-value	0.00	0.00	0.00	0.00	0.00
Avg Corr	0.21	0.08	0.38	0.94	0.15
Avg |Corr|	0.41	0.33	0.54	0.94	0.22
Panel 3					
	LL				
CD	108.07				
Test p-value	0.00				
Avg Corr	0.44				
Avg |Corr|	0.55				

Notes: See Table C9.

A12. DATA COLLECTION: TABLES D1-D6

TABLE D1

List of Countries in Sample

Advanced Europe	Emerging Asia and Oceania	Latin America and the Caribbean
Austria	Bangladesh	Argentina
Belgium	China	Barbados
Cyprus	India	Brazil
Denmark	Indonesia	Chile
Finland	Malaysia	Colombia
France	Philippines	Mexico
Germany	Sri Lanka	Panama
Greece	Thailand	Peru
Italy		Trinidad and Tobago
Luxembourg	Advanced Asia and Oceania	Venezuela
Netherlands		
Norway	Australia	Sub-Saharan Africa
Portugal	Israel	
Spain	Japan	Botswana
Sweden	Korea	Ivory Coast
Switzerland	New Zealand	Kenya
United Kingdom	Singapore	Mauritius
		Niger
Advanced North America	MENA and Pakistan	South Africa
Canada	Egypt, Arab Rep.	Emerging Europe
United States	Morocco	
	Pakistan	Turkey
	Tunisia	

Countries are classified as advanced or emerging economies as defined by the document World Economic Outlook (2015), Adjusting to lower commodity prices.

TABLE D2

Definitions and Sources of Data

Variable	Definition	Source
Y	GDP growth (annual %), based on GDP (constant LCU)	World Bank World Development Indicators (WDI)
B	Natural logarithm of domestic credit to private sector by banks to GDP	WDI
INFL	Natural logarithm of inflation according to Burbidge et al. (1988) and Arcand et al. (2015) where the inverse hyperbolic sine transformation is applied as follows: $INFL = \ln(inflation + \sqrt{inflation^2 + 1})$ Data are constructed based on the consumer price index (CPI) where the observation of the year 2010 takes the value of 100.	WDI. CPI data for Argentina were taken from the International Financial Statistics (IFS) database of the International Monetary Fund (IMF). CPI data for Germany and the United Kingdom were taken from the OECD Main Economic Indicators (MEI). For Brazil, Chile, China, Tunisia and Venezuela we took data on inflation directly from Reinhart and Rogoff (2011), "Financial Crash to Debt Crisis."
TR	Natural logarithm of trade (Exports plus imports of goods and services) to GDP	WDI
PG	Population growth (annual %) (this variable is constructed taking data on total population (in millions), which is defined according to all residents regardless of legal status or citizenship, the values shown are midyear estimates)	WDI
GCE	Natural logarithm of general government final consumption expenditure to GDP	WDI
GFK	Natural logarithm of Gross fixed capital formation to GDP	WDI
GD	Natural logarithm of Total (domestic plus external) gross (central and/or general) government debt to GDP	Abbas et al. (2011), "A Historical Public Debt Database." For Ivory Coast we took data on the government debt to GDP ratio at the General level directly from Reinhart and Rogoff (2011), "Financial Crash to Debt Crisis." For Argentina, Brazil, Chile, China, Indonesia, Philippines, Switzerland and Venezuela we took data on the government debt to GDP ratio at the Central level from Reinhart and Rogoff (2011), "Financial Crash to Debt Crisis."

TABLE D2 (Continued)

Definition and Sources of Data

Variable	Definition	Source
HC	Human capital (Index of human capital per person, based on years of schooling (Barro/Lee, 2012) and returns to education (Psacharopoulos, 1994))	Penn World Table 8.1.
YP	GDP per capita growth (annual %), based on GDP per capita (constant LCU)	WDI
LL	Natural logarithm of Liquid liabilities to GDP	Global Financial Development (GFD) database of the World Bank. Data for Argentina and Germany were taken from WDI.
SP	Natural logarithm of Bank lending-deposit spread. According to the source, it is the "difference between lending rate and deposit rate. Lending rate is the rate charged by banks on loans to the private sector and deposit interest rate is the rate offered by commercial banks on three-month deposits."	GFD
BC	Banking crisis dummy (1=banking crisis, 0=none). According to the source, "a banking crisis is defined as systemic if two conditions are met: a. Significant signs of financial distress in the banking system (as indicated by significant bank runs, losses in the banking system, and/or bank liquidations), b. Significant banking policy intervention measures in response to significant losses in the banking system. The first year that both criteria are met is considered as the year when the crisis start becoming systemic. The end of a crisis is defined the year before both real GDP growth and real credit growth are positive for at least two consecutive years."	GFD
S	Natural logarithm of market capitalization of listed companies (i.e. the share price times the number of shares outstanding) to GDP	WDI
STV	Natural logarithm of the total value of stocks traded to GDP (where stocks traded are the total value of shares traded during the period)	WDI
MTR	Natural logarithm of the turnover ratio of stocks traded. According to the source, it is the "total value of shares traded during the period divided by the average market capitalization for the period."	WDI

TABLE D3

Time Coverage per Country and Variable Part 1

Country	Y			B			S			INFL			TR			PG		
	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs
	from	to		from	to		from	to		from	to		from	to		from	to	
Argentina	1961	2014	54	1961	2014	54	1988	2012	25	1961	2013	53	1961	2014	54	1961	2014	54
Australia	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Austria	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Bangladesh	1961	2014	54	1974	2014	41	1988	2012	25	1987	2014	28	1961	2014	54	1961	2014	54
Barbados	1961	2014	54	1966	2009	44	1990	2012	23	1967	2014	48	1961	2013	53	1961	2014	54
Belgium	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Botswana	1961	2014	54	1972	2014	43	1991	2012	22	1975	2014	40	1961	2014	54	1961	2014	54
Brazil	1961	2014	54	1961	2014	54	1988	2012	25	1964	2010	47	1961	2014	54	1961	2014	54
Canada	1961	2014	54	1961	2008	48	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Chile	1961	2014	54	1961	2014	54	1988	2012	25	1961	2010	50	1961	2014	54	1961	2014	54
China	1961	2014	54	1985	2014	30	1991	2012	22	1963	2010	48	1961	2014	54	1961	2014	54
Colombia	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Cyprus	1976	2014	39	1975	2014	40	1991	2012	22	1961	2014	54	1975	2014	40	1961	2014	54
Denmark	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Egypt	1966	2014	49	1965	2014	50	1988	2012	25	1961	2014	54	1965	2014	50	1961	2014	54
Finland	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
France	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Germany	1971	2014	44	1970	2014	45	1988	2012	25	1961	2014	54	1970	2014	45	1961	2014	54
Greece	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
India	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Indonesia	1961	2014	54	1980	2014	35	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Israel	1961	2014	54	1961	2011	51	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Italy	1961	2014	54	1963	2014	52	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Ivory Coast	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Japan	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2013	53	1961	2014	54
Kenya	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Korea	1961	2014	54	1961	2014	54	1989	2012	24	1961	2014	54	1961	2014	54	1961	2014	54

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TABLE D3 (Continued)

Time Coverage per Country and Variable Part 1

Country	Y			B			S			INFL			TR			PG		
	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs
	from	to		from	to		from	to		from	to		from	to		from	to	
Luxembourg	1961	2013	53	1961	2013	53	1988	2012	25	1961	2014	54	1961	2013	53	1961	2014	54
Malaysia	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Mauritius	1977	2014	38	1976	2014	39	-	-	0	1964	2014	51	1976	2014	39	1961	2014	54
Mexico	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Morocco	1961	2014	54	1990	2014	25	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Netherlands	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
New Zealand	1978	2013	36	1961	2010	50	1988	2012	25	1961	2014	54	1971	2013	43	1961	2014	54
Niger	1961	2014	54	1961	2014	54	1988	2012	25	1964	2014	51	1961	2014	54	1961	2014	54
Norway	1961	2014	54	1961	2006	46	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Pakistan	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1967	2014	48	1961	2014	54
Panama	1961	2014	54	1961	2014	54	1992	2012	21	1961	2014	54	1980	2012	33	1961	2014	54
Peru	1961	2014	54	1961	2014	54	1989	2012	24	1961	2014	54	1961	2014	54	1961	2014	54
Philippines	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Portugal	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Singapore	1961	2014	54	1963	2014	52	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
South Africa	1961	2014	54	1965	2014	50	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Spain	1961	2014	54	1972	2014	43	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Sri Lanka	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Sweden	1961	2014	54	1961	2013	53	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Switzerland	1981	2013	33	1980	2013	34	1988	2012	25	1961	2014	54	1980	2013	34	1961	2014	54
Thailand	1966	2014	49	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
Trinidad and Tobago	1961	2013	53	1961	2013	53	1988	2012	25	1961	2014	54	1961	2013	53	1961	2014	54
Tunisia	1966	2013	48	1965	2013	49	1988	2012	25	1964	2010	47	1965	2013	49	1961	2014	54
Turkey	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
United Kingdom	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2014	54	1961	2014	54
United States	1961	2014	54	1961	2014	54	1988	2012	25	1961	2014	54	1961	2013	53	1961	2014	54
Venezuela	1961	2014	54	1964	2014	51	1988	2012	25	1961	2010	50	1961	2013	53	1961	2014	54
Total			1390			1354			645			1441			1376			1458

TABLE D4

Time Coverage per Country and Variable Part 2

Country	GCE			GFK			GD			HC			YP		
	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs
	from	to		from	to		from	to		from	to		from	to	
Argentina	1987	2014	28	1961	2014	54	1961	2010	50	1961	2011	51	1961	2014	54
Australia	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
Austria	1961	2014	54	1970	2014	45	1961	2012	52	1961	2011	51	1961	2014	54
Bangladesh	1961	2014	54	1980	2014	35	1974	2012	39	1961	2011	51	1961	2014	54
Barbados	1961	2013	53	1961	2013	53	1970	2012	43	1961	2011	51	1961	2014	54
Belgium	1961	2014	54	1970	2014	45	1961	2012	52	1961	2011	51	1961	2014	54
Botswana	1961	2014	54	1965	2014	50	1972	2012	41	1961	2011	51	1961	2014	54
Brazil	1961	2014	54	1970	2014	45	1961	2010	50	1961	2011	51	1961	2014	54
Canada	1961	2013	53	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
Chile	1961	2014	54	1961	2014	54	1961	2010	50	1961	2011	51	1961	2014	54
China	1961	2013	53	1961	2013	53	1984	2012	29	1961	2011	51	1961	2014	54
Colombia	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
Cyprus	1975	2014	40	1975	2014	40	1970	2012	43	1961	2011	51	1976	2014	39
Denmark	1961	2014	54	1966	2014	49	1961	2012	52	1961	2011	51	1961	2014	54
Egypt	1965	2014	50	1965	2014	50	1970	2012	43	1961	2011	51	1966	2014	49
Finland	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
France	1961	2014	54	1970	2014	45	1961	2012	52	1961	2011	51	1961	2014	54
Germany	1970	2014	45	1970	2014	45	1961	2012	52	1961	2011	51	1971	2014	44
Greece	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
India	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
Indonesia	1961	2014	54	1979	2014	36	1970	2009	40	1961	2011	51	1961	2014	54
Israel	1961	2014	54	1961	2014	54	1972	2012	41	1961	2011	51	1961	2014	54
Italy	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
Ivory Coast	1961	2014	54	1965	2014	50	1970	2010	41	1961	2011	51	1961	2014	54
Japan	1961	2013	53	1961	2013	53	1961	2012	52	1961	2011	51	1961	2014	54
Kenya	1961	2014	54	1964	2014	51	1961	2012	52	1961	2011	51	1961	2014	54
Korea	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54

TABLE D4 (Continued)

Time Coverage per Country and Variable Part 2

Country	GCE			GFK			GD			HC			YP		
	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs
	from	to		from	to		from	to		from	to		from	to	
Luxembourg	1961	2013	53	1961	2013	53	1974	2012	39	1961	2011	51	1961	2013	53
Malaysia	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
Mauritius	1976	2014	39	1976	2014	39	1970	2012	43	1961	2011	51	1975	2014	40
Mexico	1961	2014	54	1961	2014	54	1964	2012	49	1961	2011	51	1961	2014	54
Morocco	1961	2014	54	1961	2014	54	1965	2012	48	1961	2011	51	1961	2014	54
Netherlands	1961	2014	54	1970	2014	45	1961	2012	52	1961	2011	51	1961	2014	54
New Zealand	1971	2013	43	1971	2013	43	1961	2012	52	1961	2011	51	1978	2013	36
Niger	1961	2014	54	1980	2014	35	1970	2012	43	1961	2011	51	1961	2014	54
Norway	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
Pakistan	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
Panama	1980	2012	33	1980	2012	33	1961	2012	52	1961	2011	51	1961	2014	54
Peru	1961	2014	54	1961	2014	54	1970	2012	43	1961	2011	51	1961	2014	54
Philippines	1961	2014	54	1961	2014	54	1961	2009	49	1961	2011	51	1961	2014	54
Portugal	1961	2014	54	1970	2014	45	1961	2012	52	1961	2011	51	1961	2014	54
Singapore	1961	2014	54	1961	2014	54	1963	2012	50	1961	2011	51	1961	2014	54
South Africa	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
Spain	1961	2014	54	1970	2014	45	1961	2012	52	1961	2011	51	1961	2014	54
Sri Lanka	1961	2013	53	1965	2013	49	1961	2012	52	1961	2011	51	1961	2014	54
Sweden	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
Switzerland	1980	2013	34	1980	2013	34	1961	2010	50	1961	2011	51	1981	2013	33
Thailand	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1966	2014	49
Trinidad and Tobago	1961	2008	48	1961	2008	48	1963	2012	50	1961	2011	51	1961	2014	54
Tunisia	1965	2013	49	1965	2013	49	1970	2012	43	1961	2011	51	1966	2013	48
Turkey	1961	2014	54	1968	2014	47	1961	2012	52	1961	2011	51	1961	2014	54
United Kingdom	1961	2014	54	1961	2014	54	1961	2012	52	1961	2011	51	1961	2014	54
United States	1961	2013	53	1961	2013	53	1961	2012	52	1961	2011	51	1961	2014	54
Venezuela	1961	2013	53	1961	2013	53	1961	2009	49	1961	2011	51	1961	2014	54
Total			1376			1319			1336			1377			1393

TABLE D5

Time Coverage per Country and Variable Part 3

Country	MTR			STV			SP			LL			BC		
	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs
	from	to		from	to		from	to		from	to		from	to	
Argentina	1989	2012	24	1988	2012	25	1994	2013	20	1961	2014	54	1961	2012	52
Australia	1989	2012	24	1988	2012	25	1981	2013	33	1961	2013	53	1961	2012	52
Austria	1989	2012	24	1988	2012	25	-	-	0	1961	2013	53	1961	2012	52
Bangladesh	1989	2012	24	1988	2012	25	1986	2013	28	-	-	0	1961	2012	52
Barbados	1991	2012	22	1990	2012	23	1981	2013	33	1967	2009	43	1961	2012	52
Belgium	1989	2012	24	1988	2012	25	1981	2003	23	1961	2013	53	1961	2012	52
Botswana	1992	2012	21	1991	2012	22	1980	2013	34	1977	2013	37	1961	2012	52
Brazil	1989	2012	24	1988	2012	25	-	-	0	1980	2013	34	1961	2012	52
Canada	1989	2012	24	1988	2012	25	1980	2013	34	1961	2008	48	1961	2012	52
Chile	1989	2012	24	1988	2012	25	1980	2013	34	1962	2013	52	1961	2012	52
China	1992	2012	21	1991	2012	22	1982	2013	32	1987	2013	27	1961	2012	52
Colombia	1989	2012	24	1988	2012	25	1986	2013	28	1961	2013	53	1961	2012	52
Cyprus	1992	2012	21	1991	2012	22	1980	2007	28	1961	2013	53	1961	2012	52
Denmark	1989	2012	24	1988	2012	25	1980	2002	23	1961	2013	53	1961	2012	52
Egypt	1989	2012	24	1988	2012	25	1980	2013	34	1961	2013	53	1961	2012	52
Finland	1989	2012	24	1988	2012	25	1981	2004	24	1961	2013	53	1961	2012	52
France	1989	2012	24	1988	2012	25	1980	2004	25	1961	2013	53	1961	2012	52
Germany	1989	2012	24	1988	2012	25	1980	2002	23	1970	1998	29	1961	2012	52
Greece	1989	2012	24	1988	2012	25	1980	2003	24	1961	2013	53	1961	2012	52
India	1989	2012	24	1988	2012	25	-	-	0	1961	2013	53	1961	2012	52
Indonesia	1989	2012	24	1988	2012	25	1986	2013	28	1969	2013	45	1961	2012	52
Israel	1989	2012	24	1988	2012	25	1983	2012	30	1961	2009	49	1961	2012	52
Italy	1989	2012	24	1988	2012	25	1980	2003	24	1961	2013	53	1961	2012	52
Ivory Coast	1989	2012	24	1988	2012	25	-	-	0	1963	2013	51	1961	2012	52
Japan	1989	2012	24	1988	2012	25	1980	2013	34	1961	2013	53	1961	2012	52
Kenya	1990	2012	23	1990	2012	23	-	-	0	1967	2013	47	1961	2012	52
Korea	1990	2012	23	1989	2012	24	-	-	0	1971	2013	43	1961	2012	52

TABLE D5 (Continued)

Time Coverage per Country and Variable Part 3

Country	MTR			STV			SP			LL			BC		
	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs	Coverage		# obs
	from	to		from	to		from	to		from	to		from	to	
Luxembourg	1989	2012	24	1988	2012	25	-	-	0	1961	2011	51	1961	2012	52
Malaysia	1989	2012	24	1988	2012	25	1987	2013	27	1961	2013	53	1961	2012	52
Mauritius	1991	2012	22	1990	2012	23	1981	2013	33	1963	2013	51	1961	2012	52
Mexico	1989	2012	24	1988	2012	25	1993	2013	21	1961	2013	53	1961	2012	52
Morocco	1989	2012	24	1988	2012	25	-	-	0	1961	2013	53	1961	2012	52
Netherlands	1989	2012	24	1988	2012	25	1980	2008	29	1961	2013	53	1961	2012	52
New Zealand	1989	2012	24	1988	2012	25	-	-	0	1961	2010	50	1961	2012	52
Niger	1989	2012	24	1988	2012	25	-	-	0	1969	2013	45	1961	2012	52
Norway	1989	2012	24	1988	2012	25	1980	2009	30	1961	2006	46	1961	2012	52
Pakistan	1989	2012	24	1988	2012	25	-	-	0	1961	2013	53	1961	2012	52
Panama	1993	2012	20	1992	2012	21	1986	2013	28	1961	2013	53	1961	2012	52
Peru	1990	2012	23	1988	2012	25	1993	2013	21	1961	2013	53	1961	2012	52
Philippines	1989	2012	24	1988	2012	25	1980	2013	34	1961	2013	53	1961	2012	52
Portugal	1989	2012	24	1988	2012	25	-	-	0	1961	2013	53	1961	2012	52
Singapore	1989	2012	24	1988	2012	25	1980	2013	34	1964	2013	50	1961	2012	52
South Africa	1989	2012	24	1988	2012	25	1980	2013	34	1966	2013	48	1961	2012	52
Spain	1989	2012	24	1988	2012	25	1980	2002	23	1961	2013	53	1961	2012	52
Sri Lanka	1989	2012	24	1988	2012	25	1991	2013	23	1961	2012	52	1961	2012	52
Sweden	1989	2012	24	1988	2012	25	1980	2005	26	1961	2013	53	1961	2012	52
Switzerland	1991	2012	22	1991	2012	22	1982	2013	32	1961	2013	53	1961	2012	52
Thailand	1989	2012	24	1988	2012	25	1980	2013	34	1966	2013	48	1961	2012	52
Trinidad and Tobago	1989	2012	24	1988	2012	25	1981	2013	33	1961	2013	53	1961	2012	52
Tunisia	1989	2012	24	1988	2012	25	-	-	0	1988	2013	26	1961	2012	52
Turkey	1989	2012	24	1988	2012	25	-	-	0	1970	2013	44	1961	2012	52
United Kingdom	1989	2012	24	1988	2012	25	1980	1998	19	1989	2013	25	1961	2012	52
United States	1989	2012	24	1988	2012	25	-	-	0	1961	2013	53	1961	2012	52
Venezuela	1989	2012	24	1988	2012	25	1990	2013	24	1961	2013	53	1961	2012	52
Total			639			666			505			1331			1404

Total data points from Table D3, Table D4, Table D5: 38104

TABLE D6

Years of Missing Data by Data Series and Countries

Total (domestic plus external) gross (central and/or general) government debt/GDP	
Australia	1965
Austria	1965
Barbados	1974-1976
Belgium	1965, 1980-1981, 1989
Colombia	1970-1971, 1996
Cyprus	1995
Denmark	1997
Egypt, Arab Rep.	2002
Finland	1964-1966, 1979-1980
France	1978-1979
Germany	1976
Greece	1976-1978
India	1966, 1983-1984, 1991-1992
Israel	1981-1982
Ivory Coast	1978-1979
Kenya	1977-1978
Korea, Rep.	1970
Luxembourg	1990
Madagascar	1973, 1990
Malaysia	1990
Mauritius	2000
Mexico	1962-1964, 1969, 1981
New Zealand	2002
Norway	1966, 1981-1982
Pakistan	1991-1993
Peru	2005
Spain	1963-1964
Sweden	1965-1966, 2003
Switzerland	1984-1985
Thailand	2000
Trinidad and Tobago	1967, 1977, 1980, 1998
Tunisia	1977
United States	1979
Liquid liabilities to GDP	
Austria	1998-1999
Belgium	1998-1999
Colombia	1986-1987, 1989-1990
Luxembourg	1993-1994, 1998-1999
Population (in millions)	
Korea	1992-1994
GDP per capita (constant LCU)	
Morocco	1965
General government final consumption expenditure to GDP	
Bangladesh	1971-1972

TABLE D6 (Continued)

Years of Missing Data by Data Series and Countries

GDP (constant LCU)	
Morocco	1965
Market capitalization of listed companies to GDP	
Venezuela	2007-2008
Bank lending-deposit spread	
China	1989, 1993-1994
Egypt	1991
Finland	1998
Indonesia	1998
Israel	1984-1985
Switzerland	1989-1990
Trinidad and Tol	1995-1996
United Kingdom	1982-1983
Total value of stocks traded to GDP	
Venezuela	2007-2008

Domestic credit to private sector by banks (% of GDP)	
Austria	1998-2000
Belgium	1998-2000
Colombia	1986, 1989
Finland	1999-2000
France	1998-2000
Germany	1999-2000
Italy	1999-2000
Luxembourg	1993, 1998-2000
Netherlands	1998-2000
New Zealand	1970
Portugal	1999-2000
South Africa	1991
Spain	1999-2000
Turnover ratio of stocks traded	
Venezuela	2007-2009
GDP per capita (constant LCU)	
Morocco	1965

TABLE D7

Descriptive Statistics, Growth Rates of Variables

	From 1988 to 2012				From 1961 to 2014			
Variable	Mean	SD	Min	Max	Mean	SD	Min	Max
GDP growth	-0.074	3.806	-18.664	24.866	-0.043	4.221	-19.382	27.101
Log domestic credit to private sector by banks/GDP	0.020	0.130	-1.110	1.358	0.026	0.126	-1.110	1.952
Log inflation	-0.033	0.705	-3.779	5.150	-0.005	0.719	-5.189	5.544
Log trade/GDP	0.014	0.083	-0.424	0.647	0.012	0.099	-0.867	1.140
Population growth	-0.019	0.440	-3.803	5.551	-0.016	0.359	-3.803	5.551
Log general government final consumption expenditure/GDP	0.003	0.081	-0.426	1.513	0.006	0.082	-0.651	1.513
Log gross fixed capital formation/GDP	-0.001	0.094	-0.646	0.559	0.001	0.095	-0.785	0.559
Log total (domestic plus external) gross (central and/or general) government debt/GDP	0.002	0.139	-0.893	1.053	0.020	0.155	-0.893	1.224
Log human capital	0.007	0.006	-0.012	0.040	0.008	0.007	-0.019	0.058
Per capita GDP growth	-0.055	3.821	-18.630	24.903	-0.027	4.231	-19.469	27.081
Log liquid liabilities/GDP	0.018	0.088	-0.653	0.627	0.019	0.082	-0.653	0.627
Log bank lending-deposit spread	-0.008	0.298	-1.953	2.462	-0.012	0.322	-2.194	2.642
Banking crisis dummy	0.009	0.223	-1	1	0.005	0.189	-1	1
Log market capitalization of listed companies/GDP	0.057	0.394	-1.533	2.090	-	-	-	-
Log total value of stocks traded/GDP	0.083	0.598	-2.462	4.773	-	-	-	-
Log turnover ratio of stocks traded	0.017	0.489	-2.365	4.016	-	-	-	-

Notes: These descriptive statistics refer to the sample of N = 54 countries from (i) 1988 to 2012, and (ii) 1961 to 2014.

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