

Supplemental File:

Peripherality, income inequality, and economic development in Latin American countries

Data appendix

Table A-1 Data sources of Gini coefficient of household per-capita income

Country	Data Sources
Argentina	SEDLAC (1995-2014)
Brazil	SEDLAC (1996-1999, 2001-2009, 2011-2014)
Chile	EOD (1995-2014)
Colombia	World Bank (1995-2000); SEDLAC (2001-2005, 2008-2014)
Ecuador	SEDLAC (1995, 1998-2000, 2003-2014); ECLAC (2001-2002)
Guatemala	World Bank (1998); SEDLAC (2000, 2002-2004, 2006, 2011, 2014)
Honduras	SEDLAC (1995-1999, 2001-2014)
Mexico	SEDLAC (1996, 1998, 2000, 2002, 2004-2006, 2008, 2010, 2012, 2014)
Nicaragua	SEDLAC (1998, 2001, 2005, 2009, 2014)
Panama	SEDLAC (1995, 1997-2014); World Bank (1996)
Paraguay	SEDLAC (1995, 1997, 1999, 2001-2014)
Peru	SEDLAC (1997-2014)
Uruguay	SEDLAC (1995-1998, 2000-2014); ECLAC (1999)
Venezuela	World Bank (1995-1996, 2003); ECLAC (1997-2002, 2004-2014)

Notes: ECLAC, EOD, and SEDLAC indicate Economic Commission for Latin America and the Caribbean, *Encuesta de Ocupación y Desocupación en el Gran Santiago*, and Socio-Economic Database for Latin America and the Caribbean, respectively. The data from ECLAC and World Bank are provided by World Income Inequality Database (WIID4), while data from EOD are based on the authors' calculations. We first obtain data from SEDLAC. Next, we obtain any missing data from the other sources. In cases whereby WIID4 reports more than one observation per country per year from different data sources

(e.g. World Bank and ECLAC), we carefully select one of them by confirming its comparability with SEDLAC in the nearest year in the given country.

Table A-2. Data sources of sectoral FDI inflows

Country	Data Sources
Argentina	Foreign Direct Investment in Latin America and the Caribbean of ECLAC (1996-2014)
Brazil	Central Bank of Brazil (1996-2014)
Chile	Foreign Direct Investment in Latin America and the Caribbean of ECLAC (1996-2014)
Colombia	Central Bank of Colombia (1995-2014)
Ecuador	Foreign Direct Investment in Latin America and the Caribbean of ECLAC (1996-2014)
Guatemala	Foreign Direct Investment in Latin America and the Caribbean of ECLAC (2005-2014)
Honduras	Central Bank of Honduras (1995-1999); Foreign Direct Investment in Latin America and the Caribbean of ECLAC (2000-2014)
Mexico	Open Government Data in Mexico (1995-2014)
Nicaragua	Foreign Direct Investment in Latin America and the Caribbean of ECLAC (1997-2014)
Panama	National Institute of Statistics and Census of Panama (1995-2005, 2009-2014); Foreign Direct Investment in Latin America and the Caribbean of ECLAC (2006-2008)
Paraguay	Central Bank of Paraguay (2003-2014)
Peru	Foreign Direct Investment in Latin America and the Caribbean of ECLAC (1996-2009)
Uruguay	Foreign Direct Investment in Latin America and the Caribbean of ECLAC (2001-2014)
Venezuela	Central Bank of Venezuela (1997-2014)

Notes: Foreign Direct Investment in Latin America and the Caribbean includes formerly Foreign Investment in Latin America and the Caribbean (before 2006). The choice of data from the former or from each country's institution depends on the duration of comparable data.

Additional robustness checks

Finally, we perform two additional robustness checks. First, we estimate the simultaneous equations including the share of social expenditure to GDP in both equations (1) and (2).

Tables S-1 to S-3 report the estimation results. Expectedly, the share of social expenditure is insignificant in equation (1) in all specifications estimated in Section 4. The insignificance of the variable is especially plausible in our specifications in which the commodity terms-of-trade is included. Since social policies were mainly financed by the revenues from commodity exports during the analysis period (Sánchez-Ancochea, 2019), the commodity terms-of-trade are likely to capture the potential positive impacts of social policies on per-capita income. Indeed, the coefficient of the commodity terms-of-trade is significant and substantially larger in South American countries that benefited from the commodity boom (see equation (1) in Table S-2). We also find that the baseline results are unchanged.

Second, following Cavalcanti et al. (2015), Makhoul et al. (2017), and Mendoza (1997), we estimate the simultaneous equations using the alternative measure of the commodity terms-of-trade volatility (i.e. the 12-month standard deviations of monthly *CTOT*). Since the use of the standard deviation of the departures from the trend of monthly *CTOT* can capture the volatile changes distinguished from a structural break (Blattman et al., 2007), we consider that this measure is more appropriate. However, we check that the insignificance of the commodity terms-of-trade volatility is robust to the use of the alternative measure. Tables S-4 to S-6 report the estimation results. We find that the

variable is insignificant in equations (1) and (2) in all specifications estimated in Section 4. Additionally, other variables are unaffected by the use of this alternative measure. Indeed, the correlation between the two measures is as high as 0.927.

References

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Table S-1 Estimation results of equations (1) and (2)

Estimation technique	FE 3SLS		FE 3SLS		FE 3SLS	
	(1) <i>y</i>	(2) <i>Gini</i>	(1) <i>y</i>	(2) <i>Gini</i>	(1) <i>y</i>	(2) <i>Gini</i>
<i>k</i>	0.549 *** (0.116)		0.555 *** (0.132)		0.447 ** (0.196)	
<i>Gini</i>	-1.611 (1.257)		-2.105 (1.409)		-3.598 (2.222)	
<i>y</i>		-0.283 ** (0.124)		-0.149 * (0.080)		0.023 (0.048)
<i>y</i> ²		0.009 (0.007)		0.002 (0.005)		-0.005 (0.003)
<i>CTOT</i>	0.029 (0.045)	-0.021 *** (0.007)	0.001 (0.036)	-0.010 * (0.006)	-0.015 (0.048)	-0.009 (0.006)
<i>CTOTV</i>	0.171 (0.141)	-0.005 (0.036)	0.027 (0.236)	-0.054 (0.038)	0.002 (0.302)	-0.044 (0.039)
<i>Patent</i>	1.414 ** (0.589)	0.510 *** (0.081)	1.061 (0.666)	0.372 *** (0.087)	1.779 ** (0.893)	0.341 *** (0.071)
<i>FDI</i>	2.117 *** (0.594)	0.496 *** (0.160)	1.315 * (0.680)	0.353 *** (0.127)		
<i>FDI_m</i>					4.093 * (2.142)	0.907 *** (0.253)
<i>Intermediate_X</i>	2.321 * (1.345)	1.053 *** (0.205)	2.115 (1.384)	0.729 *** (0.198)	3.371 * (1.912)	0.643 *** (0.195)
<i>Intermediate_M</i>	-0.431 (0.365)	-0.100 (0.100)	-0.312 (0.577)	0.060 (0.102)	-0.006 (0.772)	0.135 (0.100)
<i>Patent * FDI</i>	-6.256 (4.445)	-2.697 ** (1.159)	-0.681 (6.097)	-2.024 * (1.207)		
<i>Patent * FDI_m</i>					-11.45 (23.14)	-7.214 ** (3.372)
<i>Patent * Intermediate_X</i>	-14.63 * (8.150)	-5.381 *** (1.576)	-9.941 (9.591)	-3.280 ** (1.503)	-15.97 (12.80)	-2.772 * (1.516)
<i>Inflation</i>	0.068 * (0.041)	0.005 (0.011)	0.055 (0.069)	-0.003 (0.013)	0.047 (0.086)	0.000 (0.013)
<i>Trade</i>	0.008 (0.056)	0.013 (0.015)	0.017 (0.077)	-0.019 (0.013)	-0.053 (0.113)	-0.034 ** (0.013)
<i>Social</i>	0.717 (0.600)	-0.228 *** (0.085)	-0.119 (0.865)	-0.416 *** (0.077)	-0.923 (1.292)	-0.458 *** (0.077)
<i>Cons</i>	3.569 * (1.961)	2.461 *** (0.552)	3.962 * (2.129)	1.732 *** (0.365)	5.856 * (3.224)	0.929 *** (0.209)
Linear interpolation		No		Yes		Yes
Number of obs.	190	190	274	274	274	274
Number of countries	14	14	14	14	14	14
<i>R</i> -squared	0.992	0.913	0.993	0.864	0.989	0.863
<i>F</i> test	160.6 ***	91.90 ***	309.3 ***	82.48 ***	159.9 ***	97.6 ***
Hausman test		-549.7		-1412		-588.9

Note: Numbers in parentheses represent standard errors. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Dummy variables indicating sample characteristics of the Gini coefficients are included in all specifications of equation (2).

Table S-2. Estimation results of equations (1) and (2) using different country groups

Country groups Estimation technique	South America FE 3SLS		12 LACs FE 3SLS	
	(1)	(2)	(1)	(2)
	<i>y</i>	<i>Gini</i>	<i>y</i>	<i>Gini</i>
<i>k</i>	0.609 *** (0.073)		0.696 *** (0.077)	
<i>Gini</i>	-0.996 * (0.577)		-0.934 (0.845)	
<i>y</i>		-0.363 ** (0.181)		-0.327 *** (0.090)
<i>y</i> ²		0.013 (0.010)		0.012 ** (0.005)
<i>CTOT</i>	0.073 ** (0.034)	-0.010 (0.008)	0.000 (0.034)	-0.030 *** (0.006)
<i>CTOTV</i>	0.064 (0.167)	-0.021 (0.038)	0.178 (0.150)	0.006 (0.045)
<i>Patent</i>	0.801 * (0.410)	0.399 *** (0.085)	0.843 ** (0.330)	0.349 *** (0.064)
<i>FDI</i>	1.528 ** (0.677)	0.408 ** (0.167)		
<i>FDI_m</i>			2.228 ** (1.070)	1.073 *** (0.237)
<i>Intermediate X</i>	-1.008 (1.232)	0.848 *** (0.281)	1.675 ** (0.749)	0.727 *** (0.185)
<i>Intermediate M</i>	-0.519 (0.479)	-0.111 (0.113)	-0.389 (0.313)	-0.021 (0.094)
<i>Patent * FDI</i>	-2.068 (5.128)	-1.883 (1.290)		
<i>Patent * FDI_m</i>			5.726 (11.47)	-7.224 ** (3.102)
<i>Patent * Intermediate X</i>	-5.000 (9.599)	-3.218 (2.161)	-6.869 (4.928)	-2.643 * (1.379)
<i>Inflation</i>	0.045 (0.048)	0.002 (0.011)	0.056 (0.046)	0.019 (0.013)
<i>Trade</i>	0.035 (0.090)	0.017 (0.021)	0.001 (0.051)	0.027 * (0.014)
<i>Social</i>	0.007 (0.419)	-0.408 *** (0.078)	0.152 (0.468)	-0.357 *** (0.084)
<i>Cons</i>	2.681 ** (1.066)	2.735 *** (0.801)	1.899 (1.301)	2.538 *** (0.403)
Linear interpolation		Yes		Yes
Number of obs.	176	176	236	236
Number of countries	9	9	12	12
<i>R</i> -squared	0.988	0.915	0.992	0.875
<i>F</i> test	115.16 ***	193.0 ***	153.5 ***	79.14 ***
Hausman test		-2185		-2390

Note: Numbers in parentheses represent standard errors. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Dummy variables indicating sample characteristics of the Gini coefficients are included in equation (2).

Table S-3. Estimation results of equations (1) and (2) using triennial data

Estimation technique	FE 3SLS	
	<i>y</i>	<i>Gini</i>
<i>k</i>	0.599 *** (0.123)	
<i>Gini</i>	-1.279 (1.073)	
<i>y</i>		1.215 *** (0.273)
<i>y</i> ²		-0.073 *** (0.015)
<i>CTOT</i>	0.059 (0.053)	-0.002 (0.011)
<i>CTOTV</i>	0.217 (0.338)	-0.056 (0.066)
<i>Patent</i>	0.968 (0.988)	0.429 ** (0.167)
<i>FDI_m</i>	3.769 (2.652)	1.338 ** (0.505)
<i>Intermediate_X</i>	2.886 (1.943)	-0.102 (0.410)
<i>Intermediate_M</i>	-0.395 (0.952)	0.505 ** (0.204)
<i>Patent * FDI_m</i>	15.30 (38.16)	-24.49 *** (8.033)
<i>Patent * Intermediate_X</i>	-6.341 (15.80)	-2.300 (3.039)
<i>Inflation</i>	0.198 (0.128)	-0.006 (0.028)
<i>Trade</i>	-0.026 (0.136)	-0.122 *** (0.029)
<i>Social</i>	1.038 (0.939)	-0.690 *** (0.156)
<i>Cons</i>	2.684 (1.732)	-4.451 *** (1.206)
Linear interpolation		Yes
Number of obs.	84	84
Number of countries	14	14
<i>R</i> -squared	0.996	0.866
<i>F</i> test	112.4 ***	25.16 ***
Hausman test		-414.3

Note: Numbers in parentheses represent standard errors. ***, **, and * denote

significance at the 1%, 5%, and 10% levels, respectively. Dummy variables indicating

sample characteristics of the Gini coefficients are included in equation (2).

Table S-4 Estimation results of equations (1) and (2) using the alternative measure of the commodity terms-of-trade volatility.

Estimation technique	FE 3SLS		FE 3SLS		FE 3SLS	
	(1) y	(2) Gini	(1) y	(2) Gini	(1) y	(2) Gini
<i>k</i>	0.563 *** (0.071)		0.730 *** (0.035)		0.746 *** (0.034)	
<i>Gini</i>	-1.812 *** (0.574)		-0.510 ** (0.204)		-0.493 ** (0.195)	
<i>y</i>		-0.277 *** (0.081)		-0.327 *** (0.082)		-0.235 *** (0.083)
<i>y</i> ²		0.008 * (0.005)		0.012 ** (0.005)		0.007 (0.005)
<i>CTOT</i>	0.028 (0.031)	-0.021 *** (0.007)	0.030 * (0.017)	-0.014 ** (0.006)	0.031 * (0.017)	-0.012 ** (0.006)
<i>CTOTV</i>	0.065 (0.121)	-0.009 (0.031)	0.074 (0.096)	-0.032 (0.032)	0.107 (0.096)	-0.021 (0.032)
<i>Patent</i>	1.478 *** (0.392)	0.515 *** (0.081)	0.631 ** (0.266)	0.379 *** (0.088)	0.732 *** (0.217)	0.365 *** (0.070)
<i>FDI</i>	2.074 *** (0.587)	0.499 *** (0.155)	1.174 *** (0.362)	0.353 *** (0.124)		
<i>FDI_m</i>					2.141 *** (0.765)	0.937 *** (0.251)
<i>Intermediate_X</i>	2.102 ** (1.006)	1.087 *** (0.195)	0.856 (0.611)	0.796 *** (0.197)	1.106 * (0.605)	0.764 *** (0.197)
<i>Intermediate_M</i>	-0.459 (0.384)	-0.098 (0.099)	-0.633 ** (0.302)	0.031 (0.102)	-0.602 ** (0.302)	0.088 (0.101)
<i>Patent * FDI</i>	-6.517 (4.301)	-2.586 ** (1.130)	-1.349 (3.307)	-1.767 (1.154)		
<i>Patent * FDI_m</i>					-0.634 (9.600)	-6.441 ** (3.248)
<i>Patent * Intermediate_X</i>	-15.35 ** (6.746)	-5.528 *** (1.574)	-5.483 (4.551)	-3.526 ** (1.503)	-6.077 (4.540)	-3.230 ** (1.504)
<i>Inflation</i>	0.035 (0.041)	0.007 (0.011)	0.030 (0.035)	-0.002 (0.013)	0.033 (0.035)	0.001 (0.013)
<i>Trade</i>	0.008 (0.058)	0.014 (0.015)	0.075 * (0.039)	-0.010 (0.013)	0.068 * (0.040)	-0.022 (0.013)
<i>Social</i>		-0.177 ** (0.071)		-0.383 *** (0.074)		-0.382 *** (0.074)
<i>Cons</i>	3.602 *** (1.043)	2.360 *** (0.349)	1.295 *** (0.444)	2.530 *** (0.365)	1.095 ** (0.428)	2.085 *** (0.366)
Linear interpolation		No		Yes		Yes
Number of obs.	190	190	274	274	274	274
Number of countries	14	14	14	14	14	14
<i>R</i> -squared	0.992	0.913	0.993	0.865	0.993	0.867
<i>F</i> test	156.4 ***	96.63 ***	279.8 ***	86.13 ***	256.2 ***	103.2 ***
Hausman test		-292.0		314.6 ***		-1162

Note: Numbers in parentheses represent standard errors. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Dummy variables indicating sample characteristics of the Gini coefficients are included in all specifications of equation (2).

Table S-5. Estimation results of equations (1) and (2) using the alternative measure of the commodity terms-of-trade volatility and different country groups

Country groups Estimation technique	South America FE 3SLS		12 LACs FE 3SLS	
	(1)	(2)	(1)	(2)
	<i>y</i>	<i>Gini</i>	<i>y</i>	<i>Gini</i>
<i>k</i>	0.860 *** (0.034)		0.764 *** (0.037)	
<i>Gini</i>	-0.117 *** (0.043)		-0.399 * (0.226)	
<i>y</i>		-0.061 (0.223)		-0.360 *** (0.070)
<i>y</i> ²		-0.003 (0.013)		0.014 *** (0.004)
<i>CTOT</i>	0.097 *** (0.025)	-0.022 *** (0.008)	0.015 (0.021)	-0.029 *** (0.006)
<i>CTOTV</i>	0.035 (0.116)	0.005 (0.032)	0.080 (0.124)	0.006 (0.037)
<i>Patent</i>	0.291 (0.271)	0.338 *** (0.074)	0.686 *** (0.221)	0.347 *** (0.064)
<i>FDI_m</i>	0.939 (0.968)	1.039 *** (0.275)	1.612 ** (0.803)	1.092 *** (0.233)
<i>Intermediate X</i>	-1.515 * (0.926)	0.572 ** (0.287)	1.204 * (0.612)	0.755 *** (0.181)
<i>Intermediate M</i>	-0.424 (0.403)	-0.090 (0.112)	-0.434 (0.308)	-0.028 (0.093)
<i>Patent * FDI_m</i>	20.05 (12.17)	-10.71 *** (3.50)	10.709 (10.028)	-7.679 ** (3.010)
<i>Patent * Intermediate X</i>	6.648 (8.012)	-1.932 (2.173)	-6.052 (4.594)	-2.629 * (1.379)
<i>Inflation</i>	0.041 (0.039)	0.012 (0.012)	0.030 (0.043)	0.019 (0.013)
<i>Trade</i>	-0.123 (0.076)	0.008 (0.022)	-0.004 (0.046)	0.027 * (0.014)
<i>Social</i>		-0.376 *** (0.080)		-0.328 *** (0.077)
<i>Cons</i>	-0.490 (0.375)	1.439 ** (0.984)	0.916 * (0.487)	2.693 *** (0.304)
Linear interpolation		Yes		Yes
Number of obs.	176	176	236	236
Number of countries	9	9	12	12
<i>R</i> -squared	0.986	0.919	0.992	0.875
<i>F</i> test	97.40 ***	269.0 ***	144.0 ***	80.52 ***
Hausman test		10087 ***		217.2 ***

Note: Numbers in parentheses represent standard errors. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Dummy variables indicating sample characteristics of the Gini coefficients are included in equation (2).

Table S-6. Estimation results of equations (1) and (2) using the alternative measure of the commodity terms-of-trade volatility and triennial data

Estimation technique	FE 3SLS	
	<i>y</i>	<i>Gini</i>
<i>k</i>	0.686 *** (0.058)	
<i>Gini</i>	-0.755 ** (0.315)	
<i>y</i>		0.354 (0.266)
<i>y</i> ²		-0.025 * (0.015)
<i>CTOT</i>	0.073 ** (0.028)	-0.009 (0.011)
<i>CTOTV</i>	0.076 (0.112)	-0.010 (0.044)
<i>Patent</i>	0.919 ** (0.456)	0.452 *** (0.168)
<i>FDI_m</i>	2.961 ** (1.363)	1.387 *** (0.509)
<i>Intermediate_X</i>	2.242 ** (1.013)	0.465 (0.410)
<i>Intermediate_M</i>	-0.778 (0.507)	0.269 (0.199)
<i>Patent * FDI_m</i>	11.33 (19.15)	-17.44 ** (7.878)
<i>Patent * Intermediate_X</i>	-6.121 (7.88)	-3.560 (3.001)
<i>Inflation</i>	0.118 * (0.063)	0.004 (0.028)
<i>Trade</i>	0.061 (0.070)	-0.079 *** (0.027)
<i>Social</i>		-0.444 *** (0.154)
<i>Cons</i>	1.614 ** (0.702)	-0.580 (1.183)
Linear interpolation		Yes
Number of obs.	84	84
Number of countries	14	14
<i>R</i> -squared	0.996	0.896
<i>F</i> test	87.68 ***	33.77 ***
Hausman test		398.1 ***

Note: Numbers in parentheses represent standard errors. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Dummy variables indicating sample characteristics of the Gini coefficients are included in equation (2).