

METHODOLOGICAL APPENDIX

Aldo Madariaga (2020). *Neoliberal Resilience: Lessons in Democracy and Development From Latin America and Eastern Europe*. Princeton and Oxford: Princeton University Press.

This file contains methodological details for the analyses in Chapter 3: dependent and independent variable specifications; further justification for the use of LPM-OLS models with panel data; and robustness checks.

A. Dependent variables: Exchange rates and industrial policy

Exchange rate regime

IMF de jure exchange rate classification as reported by Ilzetzki, Reinhart and Rogoff (2017).

Following table 3.1 in p.57 of the book, I recoded this classification into a binary variable taking the value of 1 if the underlying objective is “price stability” and 0 if it is national “competitiveness.” I included intermediate regimes in the latter category due to their association with more heterodox exchange rate management.

Exchange rate level

I calculated an index of exchange rate undervaluation following Rodrik (2008). Data comes from Penn World Tables (PWT) version 9.1 (Feenstra, Inklaar and Timmer 2015).

This index is calculated as the difference between the real exchange rate, RER , and an estimated equilibrium real exchange rate \widehat{RER} , that adjusts the RER for the Balassa-Samuelson effect. The index is thus defined as,

$$Rodrik\ index_{it} = \ln RER_{it} - \ln \widehat{RER}_{it}$$

where i are individual countries and t single years. Following Rodrik (2008), to estimate the RER, I calculated the following,

$$\ln RER_{it} = \ln \left(\frac{ER_{it}}{PPP_{it}} \right)$$

where ER is the nominal exchange rate and PPP the purchasing power parity. For this I used the inverse of the pl_gdpo variable in the PWT database which is defined as the price level of GDP (output) in constant US dollars (PPP/ER).

Finally, for the \widehat{RER} , I used the predicted value of the following regression:

$$\ln \widehat{RE\bar{R}}_{it} = \alpha + \beta \ln GDPpc_{it} + f_t + u_{it}$$

where $GDPpc$ is the GDP per capita of country i in time t , f_t is a fixed effect for time and u is the error term.

Industrial policy

The industrial policy variable corresponds to public expenditure on economic affairs as a % of GDP at the central government level. The following table describes the data sources for each country¹:

Table A.1. Data sources for expenditure in industrial policy

Country	Period	Source
Argentina	1970-1979	Ministry of Economy, National Budget Office. https://www.minhacienda.gob.ar/onp/documentos/series/Serie6506.pdf (last accessed 5 august 2020)
	1980-2015	Ministry of Economy, Subsecretaría de Programación Macroeconómica. “Gasto Público Consolidado por finalidad y función” https://www.argentina.gob.ar/economia/politicaeconomica/macroeconomica/gastopublicoconsolidado (last accessed 5 august 2020)
Chile	1970-1989	Wagner, Gert, José Jofre and Rolf Lüders (1998). <i>Economía Chilena 1810-1995. Cuentas Fiscales</i> . PUC Economics Institute Working Paper 188. Santiago de Chile: Pontificia Universidad Católica (PUC).
	1990-2015	Ministry of Finance, Budget Directorate. Clasificación Funcional de las Erogaciones del Gobierno Central https://www.dipres.gob.cl/598/w3-propertyvalue-15494.html (last accessed 5 august 2020)
Estonia	1995-2015	OECD Dataset 11. Government expenditure by function (COFOG)
Poland	1991-1994	Central Statistical Office (GUS). Statistical Yearbook of the Republic of Poland. Year 1996 (p.502); year 1998 (pp.470-1); year 1999 (pp.501-2)
	1995-2015	OECD Dataset 11. Government expenditure by function (COFOG)

B. Independent variables 1: value added by sector

¹ These same data sources are used for the control variable “Total government expenditure as % of GDP” used in table 3.9 (p.76) of the book. (see also below)

The independent variables correspond to the share of value added of different sectors. This was calculated in the following way.

Obtaining raw value added data

To calculate the value added by economic sector, I computed volume measure series of annual value added by economic activity (ISIC classification) for each country. As no available database fully covers the period of interest for the countries included in this study, data sources and adjustments vary from country to country in the following manner.

In the case of Chile and Argentina, official volume measure series are available for different time spans and base prices. For Chile, original value added by economic activity comes from the Central Bank of Chile covering the period 1970-2015. Different periods within that range have different base years. For example, data for the 2008-2015 period is only available at base year 2008 while data over the 2003-2010 period is only available at base year 2003 and so on. In the case of Argentina, original value added by economic activity series come from the UN-CEPALSTAT database covering the period 1970-2015, and has the same problem as above, i.e. different periods have different base years. To obtain a comparable valuation basis I calculated and applied a link factor from annual overlap of these data. Further details regarding this method can be found in Eurostat (2013). These data cover single digit sector classifications.

Disaggregated data for manufacturing industries (two to three digits) is obtained from additional sources. To preserve comparability, I use these additional sources to calculate the share in value added within manufacturing, and then applied these shares to the totals reported in the official volume measure series. In the cases of Chile and Argentina, disaggregated data for manufacturing industries was obtained from UN-ECLAC's Industrial Dynamics Analysis Program (PADI). It should also be noted that for Argentina, no available data covers the years 1991 and 1992.

In the case of Estonia and Poland, original data comes from the OECD Dataset 6. "Value added and its components by activity" (SNA93), covering the period 1995-2015 at the same valuation basis. In the case of Poland, data for 1992-1994 is provided by the OECD STAN database. For Estonia, data for these early years come from Statistics Estonia table IN02 "Proportion of industrial production by Economic activity". All data were converted to the ISIC Rev.3 classification and from constant local currency to US\$ using data on Nominal exchange rates from the Reinhardt and Rogoff exchange rate database.

Calculating revealed comparative advantages

After producing the value added series, I calculated the index of revealed comparative advantage (RCA) for tradable sectors. The RCA index takes the share of one product in the export basket of a country relative to the share of that product

in the export basket of a trade partner, in this case the world. An index of more than 1 shows that the country has revealed comparative advantages in the respective product. While RCA typically involves analyses of specific products, in concordance with this research I make the analysis for economic sectors. Sectors are organized according the ISIC Rev. 3 classification, although original data was obtained in the ISIC Rev. 2 classification at the 3-digit level which offered a longer time frame for the analysis. Data came from the WITS (World Integrated Trade Solution) database.

The formula used to calculate the index is the following,

$$\text{Balassa index of RCA} = \frac{X_{ij}}{XT_j} \div \frac{X_{iw}}{XT_w}$$

where X is exports, XT total exports, i is a particular sector, j a particular country, and w the world.

I computed mean values of RCA per decade for each country-sector at the two-digit level and at the three digit-level for manufacturing. RCA scores are presented in tables 3.3 and 3.4 (pp.65-66) of the book.

Aggregating sectoral value added data by RCA

After obtaining RCA indexes per sector, I re-aggregated them into “competitive” and “non-competitive” sectors. For this, I aggregated as “competitive” those sectors that showed revealed comparative advantages (RCA index >1) and as “non-competitive” those that did not show revealed comparative advantages (RCA index < 1). The final independent variables are the following:

Competitive sector: share in value added of sectors showing an index of RCA higher than 1.

Noncompetitive sector: share in value added of sectors showing an index of RCA lower than 1.

Financial sector: share of the financial sector in value added.

C. Independent variables 2: partisanship

I use partisanship as an additional independent variable. I construct an indicator of partisanship based on two databases that use analogous data sources—a wide array of documentation, and country expert consultations—and that provide reliable assessments of region-specific political-ideological positions.

The dataset for Latin America is that of Murillo, Oliveros and Vaishnav (2010), extended by Murillo and Visconti (2017). For Eastern Europe I use the

Comparative Political Data Set (CPDS) elaborated by Armingeon et al. (2018). I recoded the data to fit a right (1), center (2), and left (3) classification, considering “right” and “left” the center-right and center-left categories respectively. The Argentinean and Chilean dictatorships, not present in these datasets, were coded as right-wing.

D. Controls

Table A.2 shows data sources for the controls used in the regressions in tables 3.6 (p70) 2.8 (p.73) and 3.9 (p76) of the book.

Table A.2 Controls

Variable	Source
GDP growth	Calculated using the value added database (see above).
Inflation	GDP deflator, World Bank’s WDI database.
Trade balance	As % of GDP, World Bank’s WDI database.
Central bank independence	Cukierman index (LVAW), Bodea, Christina and Raymond Hicks (2015). “Price Stability and Central Bank Independence: Discipline, Credibility and Democratic Institutions” <i>International Organization</i> , 69(1): 35–61. http://www.columbia.edu/~rh2883/data/cb_rh_data.zip (last accessed 10 august 2020)

E. Using LPM-OLS models with a binary dependent variable and panel data

The regressions in chapter 3 use a Linear Probability Model (LPM or OLS as more commonly known) for a binary dependent variable in the context of panel data. This choice is not obvious and conventional wisdom would advice against the use of LMP on binary dependent variables.

However, the field is slowly moving in the contrary direction if certain conditions are met. First, a number of authors have justified the use of LMP models on limited value dependent variables arguing that the marginal effects obtained by LPM and non-linear models are quite similar (Greene 2003; Angrist and Pischke 2009, 105-7). But more importantly, out of range estimates obtained via LPM are less relevant when there is no predictive intention behind the analysis (Wooldridge 2002, 563-564). In favor of using LPM, these authors have pointed to the lack of transparency and interpretability of non-linear models as clear disadvantages vis a vis LPM. More importantly, these problems are larger when it comes to panel data, due to the effects of the distributional assumptions in non-linear models (Wooldridge 2002, 608-609; see also Greene 2003). In fact, because of the possibility of

controlling for unobservables using fixed effects, panel corrected (robust) errors accounting for the common problems of heteroskedasticity and serial correlation found in time-series data are a clear advantage of LPM (Wooldridge 2002, 608-609; Beck and Katz 1995; see also Greene 2003). While there are a number of tests available to check whether the data actually has problems of heteroskedasticity and serial correlation, OLS estimators with panel corrected errors are as consistent and as efficient (or better) than computing standard errors, therefore "there can be no harm from using PCEs [panel corrected errors]" (Beck and Katz 1995, 645). Although several criticisms have been raised lately on the automatic use of robust errors (see e.g. King) they are directed toward the predictive use of estimates thus generated which is not the case in this investigation. In addition, in the LPM models used here the explanatory variable and the respective controls are lagged one year, which is another way of correcting for the dynamics of panel data (see Beck and Katz 1996).

An additional characteristic of the value added dataset is that it constitutes an unbalanced panel due to the fact that the sample is larger for Argentine and Chile than for Estonia and Poland. Following Greene (2003, 293), in addition to the country-fixed effects I introduce year dummies (i.e. year fixed effects) to control for this.

To test that the use of fixed effects is correct, I compute here results for the Hausman test for the three regressions in table 3.6 (p.70), 3.8 (p.73) and 3.9 (p.76). Table A.3 shows that the results between fixed effects panel regressions and random effects panel regressions are significantly different (large chi-square and significance very close to zero), which confirms the choice of fixed effects.

Table A.3 Hausman test

		I	II	III	IV
Table 3.6 (p.70)	Chi-square	20.09	16.55	25.72	--
	Significance	0.0012	0.0111	0.0012	--
Table 3.8 (p.73)	Chi-square	NA	42.69	30.26	--
	Significance	NA	0.0000	0.0002	--
Table 3.9 (p.76)	Chi-square	41.55	NA	38.14	25.68
	Significance	0.0000	NA	0.0000	0.0006

Table A.4, A.5 and A.6 below show a replication of the regression results in tables 3.6 (p.70) 3.8 (p.73) and 3.9 (p.76) with and without fixed effects, and with and without panel-corrected (robust) standard errors. As we can see, regression results using country and year fixed effects plus robust standard errors as those reported in the book are extremely conservative, yet reveal strong effects of the

independent over the respective dependent variables in the direction expected by the theory.

Table A.4. Exchange rate regime and sectoral power with country fixed effects, year fixed effects, and robust errors.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Competitive sectors	4.087*** (1.136)	7.749*** (1.581)	7.749* (2.728)	3.908*** (1.161)	7.590*** (1.514)	7.590* (2.445)	4.291*** (1.048)	7.181*** (1.796)	7.181** (1.368)
Noncompetitive sectors	-0.860 (0.887)	2.459* (1.366)	2.459 (2.310)	-0.385 (0.883)	3.580*** (1.321)	3.580 (1.738)	0.0818 (0.722)	1.583 (1.286)	1.583 (0.811)
Financial sectors	5.609* (3.177)	20.32*** (5.832)	20.32 (10.34)	5.411 (3.457)	26.39*** (5.674)	26.39* (9.915)	8.783*** (2.881)	23.71*** (5.853)	23.71** (6.743)
GDP growth	1.261* (0.755)	2.034* (1.218)	2.034 (1.303)	0.675 (0.760)	1.900 (1.141)	1.900 (0.929)	1.013 (0.618)	1.443 (0.999)	1.443 (0.777)
Inflation	0.000389*** (0.000119)	0.000674*** (0.000171)	0.000674** (0.000121)	0.000443*** (0.000117)	0.000860*** (0.000167)	0.000860*** (0.000129)	0.000727*** (0.000103)	0.000959*** (0.000139)	0.000959*** (5.96e-05)
External balance	-0.00565 (0.00897)	-0.0145 (0.0144)	-0.0145 (0.0174)	-0.0114 (0.00935)	-0.00724 (0.0141)	-0.00724 (0.0107)	-0.0131* (0.00778)	-0.00294 (0.0125)	-0.00294 (0.00781)
CBI				0.529** (0.254)	1.711*** (0.451)	1.711* (0.663)	0.928*** (0.246)	1.994*** (0.408)	1.994*** (0.302)
Partisanship=Right							0.637*** (0.106)	0.684*** (0.128)	0.684** (0.152)
Partisanship=Left							0.555*** (0.118)	0.398** (0.164)	0.398 (0.187)
Constant	-1.230 (0.789)	-3.620*** (1.225)	-3.620 (2.264)	-1.597** (0.801)	-5.184*** (1.166)	-5.184* (1.892)	-3.052*** (0.676)	-5.301*** (1.158)	-5.301** (0.955)
Observations	119	119	119	114	114	114	111	111	111
R-squared	0.242	0.558	0.558	0.302	0.636	0.636	0.544	0.764	0.764
Countries	4	4	4	4	4	4	4	4	4
Country FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	YES	YES	NO	YES	YES	NO	YES	YES
Robust SE	NO	NO	YES	NO	NO	YES	NO	NO	YES

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

A.5. Exchange rate level and sectoral power with country fixed effects, year fixed effects, and robust errors.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Competitive sectors	-2.882*** (0.623)	-4.492*** (1.018)	-4.492* (1.811)	-2.799*** (0.663)	-4.488*** (0.982)	-4.488* (1.829)	-2.932*** (0.756)	-7.123*** (1.271)	-7.123** (1.819)
Noncompetitive sectors	-0.734 (0.486)	-1.625* (0.878)	-1.625 (1.220)	-0.872* (0.503)	-2.338*** (0.857)	-2.338 (1.148)	-0.874* (0.519)	-3.707*** (0.910)	-3.707* (1.433)
Financial sectors	-4.511** (1.747)	-8.369** (3.756)	-8.369 (5.357)	-4.240** (1.977)	-11.83*** (3.683)	-11.83 (5.200)	-4.272** (2.078)	-20.02*** (4.141)	-20.02** (5.137)
GDP growth	-0.521 (0.415)	-0.501 (0.783)	-0.501 (0.488)	-0.389 (0.434)	-0.342 (0.741)	-0.342 (0.299)	-0.411 (0.446)	-1.142 (0.707)	-1.142 (0.579)
Inflation	-0.00026*** (6.53e-05)	-0.00035*** (0.000110)	-0.00035** (6.76e-05)	-0.00027*** (6.67e-05)	-0.00045*** (0.000108)	-0.00045*** (7.52e-05)	-0.00030*** (7.40e-05)	-0.00054*** (9.84e-05)	-0.00054*** (7.86e-05)
External balance	0.0143*** (0.00484)	0.0271*** (0.00902)	0.0271*** (0.00406)	0.0191*** (0.00530)	0.0282*** (0.00918)	0.0282* (0.00914)	0.0199*** (0.00556)	0.0300*** (0.00883)	0.0300** (0.00745)
CBI				-0.178 (0.145)	-0.949*** (0.293)	-0.949*** (0.132)	-0.214 (0.178)	-1.201*** (0.289)	-1.201*** (0.163)
Partisanship=Right							-0.0738 (0.0766)	-0.0841 (0.0907)	-0.0841 (0.151)
Partisanship=Left							-0.0448 (0.0848)	0.0721 (0.116)	0.0721 (0.0401)
Constant	1.453*** (0.432)	2.420*** (0.786)	2.420 (1.347)	1.548*** (0.456)	3.148*** (0.755)	3.148 (1.503)	1.659*** (0.486)	4.416*** (0.817)	4.416** (1.142)
Observations	122	122	122	115	115	115	112	112	112
R-squared	0.236	0.388	0.388	0.268	0.512	0.512	0.274	0.642	0.642
Countries	4	4	4	4	4	4	4	4	4
Country FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	YES	YES	NO	YES	YES	NO	YES	YES
Robust SE	NO	NO	YES	NO	NO	YES	NO	NO	YES

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

A.6 Industrial policy and sectoral power with country fixed effects, year fixed effects, and robust errors.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Competitive sectors	-0.155*** (0.0304)	-0.137*** (0.0354)	-0.137** (0.0317)	-0.134*** (0.0294)	-0.106*** (0.0326)	-0.106** (0.0276)	-0.157*** (0.0313)	-0.0865** (0.0353)	-0.0865* (0.0365)	-0.147*** (0.0346)	-0.00273 (0.0400)	-0.00273 (0.0266)
Noncompetitive sectors	0.0191 (0.0278)	0.0145 (0.0359)	0.0145 (0.0214)	0.0455* (0.0272)	0.0579* (0.0337)	0.0579* (0.0184)	0.0174 (0.0293)	0.0657* (0.0358)	0.0657* (0.0273)	0.00691 (0.0302)	0.120*** (0.0409)	0.120** (0.0352)
Financial sectors	-0.420*** (0.0888)	-0.476*** (0.134)	-0.476** (0.105)	-0.317*** (0.0882)	-0.376*** (0.124)	-0.376** (0.0810)	-0.423*** (0.0903)	-0.492*** (0.123)	-0.492** (0.146)	-0.429*** (0.0915)	-0.243* (0.133)	-0.243** (0.0758)
GDP growth	-0.00649 (0.0193)	0.0137 (0.0268)	0.0137 (0.00953)	-0.0120 (0.0186)	0.0112 (0.0245)	0.0112 (0.0149)	-0.00714 (0.0197)	0.0366 (0.0254)	0.0366* (0.0120)	-0.00585 (0.0201)	0.0536** (0.0236)	0.0536*** (0.00800)
Inflation	-9.20e-07 (2.84e-06)	5.3e-06 (3.81e-06)	5.3e-06** (1.33e-06)	-1.25e-06 (2.96e-06)	3.30e-06 (4.17e-06)	3.30e-06 (1.73e-06)	-9.19e-07 (2.86e-06)	3.31e-06 (3.54e-06)	3.31e-06 (2.09e-06)	9.20e-07 (3.01e-06)	2.65e-06 (3.21e-06)	2.65e-06 (1.99e-06)
Total expenditure	0.174*** (0.0378)	0.166*** (0.0551)	0.166** (0.0519)	0.156*** (0.0473)	0.133** (0.0575)	0.133* (0.0441)	0.177*** (0.0403)	0.118** (0.0523)	0.118 (0.0618)	0.165*** (0.0441)	0.101** (0.0498)	0.101 (0.0620)
CBI				-0.00404 (0.00718)	-0.0122 (0.0138)	-0.0122 (0.00595)						
Domestic savings							3.96e-05 (0.000208)	-0.0012*** (0.000320)	-0.0012*** (0.000344)	0.000117 (0.000217)	-0.0013*** (0.000331)	-0.0013** (0.00037)
Partisanship = Right										0.00693** (0.00317)	-0.00208 (0.00316)	-0.00208 (0.00156)
Partisanship = Left										0.00385 (0.00321)	-0.00607 (0.00383)	-0.00607** (0.00172)
Constant	0.109*** (0.0255)	0.123*** (0.0314)	0.123* (0.0445)	0.0907*** (0.0262)	0.0870*** (0.0305)	0.0870** (0.0237)	0.108*** (0.0256)	0.128*** (0.0288)	0.128* (0.0497)	0.103*** (0.0262)	0.0997*** (0.0280)	0.0997** (0.0227)
Observations	118	118	118	112	112	112	118	118	118	114	114	114
R-squared	0.686	0.834	0.834	0.699	0.863	0.863	0.686	0.863	0.863	0.692	0.903	0.903
Countries	4	4	4	4	4	4	4	4	4	4	4	4
Country FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	YES	YES	NO	YES	YES	NO	YES	YES	NO	YES	YES
Robust SE	NO	NO	YES	NO	NO	YES	NO	NO	YES	NO	NO	YES

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

F. Robustness checks for regression analyses

In this section I conduct robustness checks for the regression analyses found in chapter 3, tables 3.6 (p.70), 3.8 (p.73) and 3.9 (p.76).

Exchange rate regime

First, I run a logit model instead of OLS using the model specifications in table 3.6 (p. 70) of the book. I take these results carefully, as there are well researched consistency problems with the estimations of logit models using fixed effects (see Greene 2003). Moreover, logit models do not allow to include year-fixed effects, an important tool to control for heteroskedasticity and unbalanced panel data in our OLS models (see above). To account for this, I include a dummy variable for each decade. Not least, the introduction of fixed-effects in logit models implies the elimination of cases that do not vary in time in the variable of interest, in this case, dropping Estonia.

Table A.7 below shows the logit coefficients for the three original models. As we can see, the coefficients maintain their sign and weight.

Further, I run the same OLS models in table 3.6 (p.70) using different variable specifications. This is relevant due to the fact that both dependent and independent variables were constructed, so it is good to find alternative definitions of them to check against possible biases in this process. For the dependent variable, table A.8 below shows regression results using the Levi-Yeyati and Sturzenegger (LyS) exchange rate regime definition and dataset (Levi-Yeyati and Sturzenegger, 2016). This dataset refers to *de facto* ER regimes that is, those operating in practice in spite of what the legal mandate and dispositions of central bank's are. The choice of LyS over others (for example, the Reinhart and Rogoff definition and database) is because LyS put particular importance to capturing intermediate regimes, which in this analysis are the ones associated with competitiveness-oriented ERs.

As explained in detail in the chapter, this indicator captures the macroeconomic determinants of ER change rather than the political determinants (Klein and Shambaugh 2009, 38), and the relationship between the two –*de facto* and *de jure* exchange rate regimes– is a matter of ongoing research and debate (e.g. Bearce 2013, Ghosh, Qureshi & Tsangarides 2011; Guisinger, A., & Singer, D. 2010).

Table A.7 Robustness check 1: ER regime and logistic regression

VARIABLES	(1)	(2)	(3)
Competitive sectors	42.61*** (12.80)	44.12** (17.69)	64.88 (45.05)
Noncompetitive sectors	7.539 (11.31)	-22.35 (22.96)	-96.17* (50.28)
Financial sectors	85.94* (45.63)	164.3** (69.58)	209.0 (152.6)
GDP growth	21.34** (8.286)	31.84*** (12.01)	68.43** (32.52)
Inflation	0.00437** (0.00170)	0.0127*** (0.00342)	0.0239*** (0.00873)
External balance	-0.174** (0.0882)	-0.198 (0.141)	-0.251 (0.274)
CBI		52.63*** (17.56)	85.64** (39.97)
Partisanship=Right			7.593** (3.480)
Partisanship=Left			0.353 (3.006)
Constant			
Observations	100	98	95
Countries	3	3	3
Decade dummy	YES	YES	YES
Country FE	YES	YES	YES

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Models I, II and III in table A.6 show that coefficients for the independent variables are lower and less significant than our original models but nevertheless consistent with them. The one difference to consider is the change of sign from positive to negative of the relationship between financial sectors and exchange rate regimes when including the effect of partisanship (model III). Although the effect is small and non-significant, we investigate this further as it presents an unexpected finding respective to our main results.

Table A.8. Robustness check 2: ER regime dependent variable LyS

	(1)	(2)	(3)	(4)
Competitive sectors	3.569 (1.566)	3.653 (1.758)	0.983 (1.853)	2.764 (1.416)
Noncompetitive sectors	1.236 (0.853)	0.664 (0.884)	-1.011 (1.378)	-1.009 (0.708)
Financial sectors	9.864* (3.251)	6.504 (4.292)	-1.377 (6.424)	2.276 (4.638)
GDP growth	0.250 (0.612)	0.240 (0.780)	-0.520 (0.979)	-1.170 (0.792)
Inflation	-0.00027** (5.60e-05)	-0.00037** (7.13e-05)	-0.00040** (7.84e-05)	-0.00044*** (5.07e-05)
External balance	-0.00937 (0.0175)	-0.0160 (0.0180)	-0.0105 (0.0221)	-0.0212 (0.0168)
CBI		-0.950** (0.227)	-1.047* (0.349)	-0.994** (0.223)
Partisanship=Right			0.0911 (0.109)	
Partisanship=Left			0.197 (0.135)	
Partisanship (WB)=Right				0.316** (0.0969)
Partisanship (WB)=Left				0.131** (0.0367)
Constant	-1.526 (1.131)	-0.799 (1.152)	0.0851 (1.246)	-0.541 (1.042)
Observations	107	106	104	104
R-squared	0.530	0.557	0.591	0.590
Countries	4	4	4	4
Year FE	YES	YES	YES	YES
Country FE	YES	YES	YES	YES

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

To check this further, in model IV I use a different variable for partisanship to check whether this is a problem with this variable alone or should be considered a larger flaw in the results. I take partisanship directly from the World Bank's Political Institutions dataset, recoding the variable to conform to the 1=right, 2=center and 3=left codification. Results confirm the strong relationship between our variables of interest, and the effect of partisanship regardless of how it is measured. Model IV using the World bank partisanship definition produces error terms more similar to model 2, and with coefficients consistent with this for all our variables of interest. This means that our estimates based on a de jure classification of exchange rate regimes are overall consistent with those based on a de facto exchange rate regime, although the relations are weaker and less significant in the latter case.

Finally, I run the same models as in table 3.6 (p.70) using different independent variables (table A.9). In this case, I use the logarithm of sectoral value added as independent variable instead of its share. Results again are overall consistent, with the exception of model I where coefficients for the competitive sector are negative although very small and nonsignificant.

Summarizing, the different estimations suggest that the size and sign of the regression coefficients in table 3.6 (p.70) of the book, particularly those for the competitive and the financial sectors, are overall robust throughout the different checks.

Table A.9: Robustness check 3: ER regime and independent variable log value added.

	(1)	(2)	(3)
Competitive sectors	-0.0250 (0.198)	0.175 (0.210)	0.487* (0.202)
Noncompetitive sectors	-0.595* (0.212)	-0.517* (0.198)	-0.547* (0.186)
Financial sectors	0.695 (0.402)	0.376 (0.391)	0.0295 (0.333)
Inflation	0.000465*** (5.10e-05)	0.000591*** (5.71e-05)	0.000897*** (9.19e-05)
GDP growth	0.849 (0.907)	0.878 (1.090)	0.500 (0.927)
External balance	0.0120 (0.00922)	0.00850 (0.00989)	0.00753 (0.00541)
CBI		1.042*** (0.174)	2.462** (0.486)
Partisanship=Right			0.684** (0.169)
Partisanship=Left			0.422* (0.138)
Constant	-0.345 (0.439)	-0.349 (0.166)	-0.773** (0.156)
Observations	119	114	111
R-squared	0.568	0.572	0.761
Countries	4	4	4
Year FE	YES	YES	YES
Country FE	YES	YES	YES

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Exchange rate level

Tables A.10 and A.11 show robustness checks for the exchange rate level with different specifications of the dependent and independent variables following the models in table 3.8 (p.73). Table A.10 shows regression results for a different dependent variable, in this case, instead of the Rodrik index of undervaluation I simply use the log of the real exchange rate expressed as national currency divided by PPP (data from the Penn World Tables 9.1). Results are consistent with the above.

Further, table A.11 shows regression results for the original Rodrik index dependent variable, but changing independent variables from the share of value added to the log of value added. Results are overall consistent with the exception of the change in sign of the coefficient for the competitive sector in the three models (although very small). Results confirm problems in the consistency of coefficients for the Competitive sector which would advise taking results more carefully. At the same time, we increase our confidence that results for the Financial sector are consistent across the different robustness checks conducted.

Table A.10 Robustness check 4: ER level dependent variable real exchange rate (log)

	(1)	(2)	(3)
Competitive sectors	-3.960** (1.203)	-3.653** (1.021)	-6.353** (1.311)
Noncompetitive sectors	-2.020 (1.260)	-2.571* (0.822)	-3.318** (1.014)
Financial sectors	-3.597 (3.519)	-6.919 (3.300)	-14.04** (3.911)
GDP growth	-0.560 (0.546)	-0.497 (0.343)	-0.835 (0.617)
Inflation	-0.00037** (6.38e-05)	-0.00049*** (7.94e-05)	-0.00056*** (7.58e-05)
External balance	0.0289* (0.0114)	0.0237* (0.00949)	0.0293** (0.00595)
CBI		-1.106** (0.194)	-1.173*** (0.142)
Partisanship=Right			-0.109 (0.0998)
Partisanship=Left			0.156** (0.0370)
Constant	3.416** (0.914)	3.862** (0.971)	5.118** (0.877)
Observations	122	115	112
R-squared	0.714	0.768	0.841
Countries	4	4	4
Year FE	YES	YES	YES
Country FE	YES	YES	YES

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table A.11 Robustness check 5: ER level and independent variable log value added

	(1)	(2)	(3)
Competitive sectors (log)	0.0783 (0.173)	0.0834 (0.178)	0.0757 (0.250)
Noncompetitive sectors (log)	0.248 (0.163)	0.272 (0.156)	0.226 (0.195)
Financial sectors (log)	-0.385 (0.254)	-0.423 (0.284)	-0.359 (0.258)
GDP growth	0.387 (0.265)	0.578 (0.354)	0.164 (0.253)
Inflation	-0.00022** (3.93e-05)	-0.000195*** (3.07e-05)	-0.000267* (9.17e-05)
External balance	0.0114** (0.00308)	0.0178* (0.00633)	0.0138* (0.00475)
CBI		0.221 (0.276)	-0.111 (0.625)
Partisanship=Right			-0.0823 (0.199)
Partisanship=Left			-0.135 (0.108)
Constant	1.162* (0.373)	1.277 (0.565)	1.035* (0.356)
Observations	122	115	112
R-squared	0.438	0.478	0.520
Countries	4	4	4
Year FE	YES	YES	YES
Country FE	YES	YES	YES

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Industrial policy

Finally, I conduct the same type of analyses as above for the case of industrial policy. Table A.12 shows results consistent with those found in table 3.9 (p.76) of the book, for the noncompetitive and the financial sectors. In the case of the competitive sector, models 3 and 4 have different sign but with very small effects.

Table A.12 Robustness check 6: Industrial policy and indep. variable log value added

	(1)	(2)	(3)	(4)
Competitive sectors (log)	-0.00628 (0.00704)	-0.00549 (0.00443)	0.00197 (0.00609)	0.00605 (0.00495)
Noncompetitive sectors (log)	0.0148** (0.00342)	0.0169*** (0.00221)	0.0193** (0.00451)	0.0151* (0.00576)
Financial sectors (log)	-0.00866 (0.00752)	-0.0116* (0.00383)	-0.0212* (0.00858)	-0.0206 (0.00932)
GDP growth	0.0345 (0.0188)	0.0266 (0.0222)	0.0496 (0.0223)	0.0514** (0.0141)
Inflation	9.45e-06*** (1.46e-06)	7.82e-06** (1.45e-06)	6.32e-06* (2.04e-06)	3.20e-06 (2.44e-06)
Total expenditure	0.179** (0.0494)	0.146** (0.0354)	0.108 (0.0601)	0.0664 (0.0818)
CBI		-0.00452 (0.00794)		
Domestic savings			-0.00143** (0.000279)	-0.00151** (0.000337)
Partisanship = Right				-0.000764 (0.00151)
Partisanship = Left				-0.00700* (0.00273)
Constant	0.0401 (0.0352)	0.0281* (0.0112)	0.0590 (0.0353)	0.0826** (0.0242)
Observations	118	112	118	114
R-squared	0.795	0.836	0.835	0.901
Number of cod_pais	4	4	4	4
Country FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Robust standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1

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