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A Faith-based Initiative: Do We Really Know that a Flexible Exchange Rate Regime Facilitates Current Account Adjustment?

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A Faith-based Initiative: Do We Really Know that a Flexible Exchange Rate Regime Facilitates Current Account Adjustment?

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Abstract:

The assertion that a flexible exchange rate regime would facilitate current account adjustment is often repeated in policy circles. In this paper, we show that the assertion is not supported in the data.

Keywords: floating exchange rate, fixed exchange rate, current account imbalances

JEL Classification Nos.: F3

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“The third part of the strategy [to address global current account imbalances] was to increase exchange rate flexibility in order to facilitate the adjustment of the current account over time.”

John Taylor, Professor of Economics at Stanford University and former Under Secretary of Treasury for International Affairs, speech at the IMF conference on April 21, 2006.

“We also agreed that an orderly unwinding of global imbalances, while sustaining global growth, is a shared responsibility involving ... greater exchange rate flexibility in a number of surplus countries ...”

G20 Communiqué, Meeting of Finance Ministers and Central Bank Governors, Cape Town, South Africa, November 17-18, 2007.

“From a global perspective, exchange rate flexibility ... would also help contribute to an orderly process for resolving global current account imbalances.”

IMF Staff, “People’s Republic of China: Staff Report for the 2006 Article IV Consultation.”

1. Introduction

The assertion that a more flexible exchange rate regime would promote current account adjustment has been repeated so often that policy makers and economic analysts take it as self-evident that this must be true. There is in fact no systematic evidence supporting this supposition. *Until one finds persuasive empirical evidence, the policy recommendation for a more flexible exchange rate regime in pursuit of current account adjustment is a faith-based initiative – based on something widely assumed to be true, actively peddled to countries as a truth, but with little solid empirical support.*

In this paper, we seek to address this deficiency by systematically investigating any relationship in the data between exchange rate regimes and speed of current account adjustment. In addition to using officially announced exchange rate regimes, we appeal to de facto regimes in place. To buttress our case, we utilize two well-established and familiar approaches to classifying a country’s exchange rate regime on a de facto basis,

by Levy-Yeyati and Sturzenegger (2003a,b), and by Reinhart and Rogoff (2004), respectively.

To anticipate the results, after experimenting with a large number of statistical specifications, we find no support in the data for the notion that countries on a *de facto* flexible exchange rate regime exhibit a faster convergence of their current account (as a percentage of their GDP) to the long run equilibrium, regardless of which *de facto* exchange rate regime classification scheme we employ. This is true when we control for trade and financial openness; and this is true when we separate large and small countries.

To be sure, the current account balance does have a tendency to revert to its long run steady state; it does not wander off or stay away from the long run equilibrium forever. This is clearly reflected in our empirical work. However, the speed of adjustment to the steady state is not systematically related to the degree of flexibility of a country's nominal exchange rate regime.

Should we be surprised by this finding? Perhaps not. The current account responds to real exchange rate, not the nominal exchange rate. If the real exchange rate adjustment does not depend very much on the nominal exchange rate regime, then the current account adjustment would not depend very much on nominal exchange rate regime either. That is why another key part of our analysis examines whether the nature of a country's nominal exchange rate regime significantly affects the pace of real exchange rate adjustment.

We conclude that the answer is no: the real exchange rate adjustment is not systematically related to how flexible a country's nominal exchange rate regime is. Again, this is true regardless of which *de facto* exchange rate regime classification we use. If anything, there is slight, but not very robust evidence that less flexible nominal exchange rate regimes sometimes exhibit faster real exchange rate adjustment.

The rest of the paper is organized as follows. Section 2 lays out the empirical methodology, data, and benchmark results. Section 3 conducts a series of extensions and robustness checks. Finally, Section 4 concludes.

2. An empirical examination of exchange rate flexibility and current account adjustment

2.1 Empirical Methodology

We estimate the rate at which current account balances (expressed as a share of GDP) revert to their mean values, using variations on this basic autoregression:

$$ca_{it} = \rho_0 + \rho_1 ca_{it-1} + v_{it} \tag{1}$$

Where ca is the current account to GDP ratio for country i .¹ One can determine how the autoregressive coefficient varies with the exchange rate regime in a variety of ways. The simplest would be to order the exchange rate regimes by degree of flexibility, and then interact with a single variable. An alternative would be to stratify the sample by exchange rate regime and run separate regressions per regime. The third (nearly equivalent) approach would be use dummy variables for each regime but in a single regression.

The first approach imposes the condition that there is a monotonic and linear relationship between flexibility and current account reversion. The second approach imposes the fewest assumptions, but might yield imprecise estimates due to substantially decreased number of observations for each regression. The third approach will yield the same point estimates as obtained in the second approach but will yield different estimated standard errors. The validity of this approach for making inference is dependent upon the condition that the error term is distributed in a similar fashion across exchange rate regimes.

¹ Note that this is a fairly simple manner with which to characterize the degree of persistence in the current account. While it is possible there are higher order autoregressive terms, only an AR(1) seems necessary for the annual data used in this study.

We will focus on the second and third approaches, although we will discuss the results from the first briefly. The second approach relies upon estimating equation (1) for each category of exchange rate regime. The third approach involves estimating (2):

$$ca_{it} = \rho_0 + \rho_1 ca_{it-1} + \theta_0 regime_{it} + \theta_1 (ca_{it-1} \times regime_{it}) + v_{it} \quad (2)$$

The variable *regime* is the de facto exchange rate regime.²

In all instances, we would like to control for other more structural variables that might also affect the rate of reversion. In the case of equation (2), we augment the equation with level and interaction effects.

$$ca_{it} = \rho_0 + \rho_1 ca_{it-1} + \theta_0 regime_{it} + \theta_1 (ca_{it-1} \times regime_{it}) + controls + v_{it} \quad (3)$$

Where *controls* includes different measures of economic openness, including trade and financial openness, described in greater depth below.

2.2. Data

The current account and trade openness data are from the World Bank's *World Development Indicators*. The trade openness variable is the standard measure (the sum of imports and exports divided by GDP). Over 170 countries are included, over the 1971-2005 period. The sample encompasses both developed and developing countries (as classified by the IMF).

The de facto exchange rate regime variables come from two sources: the Levy-Yeyati and Sturzenegger (2003a,b) and the Reinhart and Rogoff (2004) measures.

² We have used the de jure index based upon the IMF's *Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER)* instead of the de facto measures, to little effect. The results indicate no systematic relationship. Note that the de jure indices extend only up to 1999.

The Levy-Yeyati and Sturzenegger index ranges from 1 to 5, with 1 indicating “inconclusive” determination, 2 free float, 3 dirty float, 4 dirty float/crawling peg, and 5 fix. In this study, we drop 1’s, and subtract 2 off the index, so that the revised index ranges from 0 to 3 (hereafter the LYS index).

The Reinhart and Rogoff index ranges from 1 to 14, ranging from more to less fixity. We aggregated the series into 3 categories. The first is fixed (from no legal tender to de facto peg); the second is intermediate (from pre announced crawling peg to moving band that is narrower than or equal to $\pm 2\%$); the third is floating (managed floating to freely falling). These categories are then reversed so the index (hereafter the RR index) ranges from low values (high flexibility) to high values (high fixity).

Figures 1 and 2 present the histograms for the LYS and RR indices, respectively. The number of observations on LYS and RR are comparable, at around 4000. There are some differences in the distribution of regimes, but the same general pattern is replicated. The fewest observations are in the freest floating category, while the greatest number of observations are to be found in the most fixed category.

2.3 The Basic Results

We estimate country by country the autoregressive parameter in (1), incorporating shifts due to different exchange rate regimes. Keeping in mind the caveat that some of the autoregressive parameters might be estimated over very short samples (recall, some countries will only be on the same exchange rate regime for a short period), one sees in Figure 3 a slight impression of higher degrees of persistence as one moves to higher degrees of exchange rate fixity.³ However, a closer examination indicates that the impression is being driven by the lack of negative coefficients in the least flexible regimes. The mean of the estimated coefficients are virtually the same across regimes. This result holds up if a deterministic trend is included in the specifications; the resulting

³ The samples have been truncated below at -1.5 and above at 2, to eliminate imprecisely estimated coefficients.

distributions are displayed in Figure 4. The bottom line: No clear evidence that more flexible exchange rate regimes are associated with a faster current account adjustment.

Another way to get at this question is to interact the LYS variable with the autoregressive parameter in a pooled regression. Table 1 displays the results obtained when the LYS index is included as an interaction term, and no additional controls are included. The first two columns report the simple autoregression, and the autoregression incorporating the LYS index. The results indicate that there is no evidence that a greater degree of exchange rate fixity induces slower adjustment (as measured by the autoregressive parameter). In the baseline specification for the full sample, the autoregressive coefficient is about 0.74. Allowing for differential effects, as the exchange rate regime shifts from free floating to fixed, the implied rate of reversion falls from 0.32 to 0.26; however, since the coefficient on the interaction term is not statistically significant, one should discount this implication.

To allow for heterogeneity, results are presented for several subsamples, including the industrial country group, the non-industrial country group, and the ex-oil non-industrial country group. It appears to be important to allow for different rates of reversion for different groups. The industrial country rate of reversion is 0.91, and 0.74 for non-industrial group. The standard errors are sufficiently small that there is little doubt that the current account balances behave in a different manner in the two groups. Excluding the oil-exporting countries does not change the rate of reversion.

In no case does the interactive term show up significantly. That is, there is no evidence that a more flexible exchange rate implies a faster current account convergence. This outcome could arise because the actual effect is not there, the assumption of linearity is inappropriate, or the relationship is obscured by the effect of other variables. It turns out that the inclusion of other variables and interaction terms does change the result, but in the wrong direction. That is, the basic result appears to indicate that the more fixed the exchange rate regime, the faster the rate of reversion.

Now we move to stratifying the sample by exchange rate regime. In Table 2, the LYS index is used to categorize. Moving from left to right is increasing degrees of fixity. In the first four columns of Table 2A, pertaining to the full sample, the degree of persistence is 0.63 under the most flexible regime, and rises to 0.76 and 0.79 as the regime gets progressively less flexible. Thus far, these results are in accord with the conventional wisdom. However, this is not robust or at least non-linear. When one gets to the most fixed regime, the degree of persistence *declines* to 0.74.

As previously remarked, there is high degree of heterogeneity in the sample. Focusing on the industrial countries, one finds the greatest degree of persistence (essentially a random walk) in an intermediate regime category. In any case, the industrial countries have not been the focus of the policy discussions. Rather it is the non-industrial countries upon which most analysts have concentrated on.

Moving to Table 2B, one finds that indeed the fastest rate of reversion is in the floating category. However, once again the relationship is nonlinear. Increasing degrees of fixity lead to greater persistence, until one gets to the fixed regime. Then the degree of persistence declines. This pattern is replicated if one focuses on non-oil exporting non-industrial countries. While this outcome might be taken as partial vindication of the conventional wisdom, it's of interest that transition that is most relevant to the current policy debate is that between the fixed and dirty float/crawling peg. And here the results are counter to what has been argued. For instance, China's move from de facto fixed regime to dirty float would result – if other countries' experience is any guide based on our estimation – in *slower* current account reversion.

An alternative means of identifying the differences in current account persistence across regimes is to use interactive dummies. The only substantive difference between the two methods involves the second moment; the dummy variable approach assumes that the same error distribution applies to all regimes. To verify this, note that in Table 3, the point estimate for the full sample rate of reversion under freely floating is the same using the two methods. The estimated coefficient on the interaction term (lagcurrent1) is the

implied effect on the reversion coefficient of being in the dirty float versus the free float, in the LYS schema. Adding 0.132 to 0.630 yields 0.762, which equals the point estimate in column (2) of Table 2A. The only additional information provided by this dummy variable approach is that it allows for direct assessment of whether the differences in reversion rates are statistically significant or not.

What is clear from this table is that in only one case does the switch from one regime to a different regime result in a statistically discernable increase in persistence – and that is for industrial countries moving from pure float to dirty float -- hardly the case in which most policy discussions have been focused on. These results hold if time fixed effects are included in the specifications.

Are our results sensitive to the measure of de facto exchange rate regime? Apparently not. Tables 4A and 4B report the results using the Reinhart and Rogoff measure, and the stratification approach (analogous to Table 2A, B; now there are only three different regimes, instead of four). A similar pattern is detected. Focusing on the non-industrial country results (Table 4B), one finds in columns 1-3 that while the intermediate regimes exhibit slower reversion than the floating, it is also slower than that exhibited by the fixed regimes. Excluding the oil exporters does not change the basic pattern. [Interestingly, now the fastest rate of reversion is for the fixed regimes.]

2.4 Openness to trade and to capital flows

In the above analyses, we have not controlled for other potentially important factors. The key ones in our view include trade openness and capital account openness. There are a number of variables that could be used to proxy for these measures. We appeal to two commonly used and easy to interpret measures.

For trade openness, we use the sum of imports and exports to GDP ratio (OPEN). One might conjecture that greater trade openness is associated with faster current account reversion, although one could contemplate alternative mechanisms whereby more trade

openness makes the economy less susceptible to financing shocks, such that more open economies exhibit slower reversion.

On the capital account openness side, we appeal to the Chinn and Ito (2006) financial openness index (KAOPEN). This measure is the first principal component of four categories of restrictions on external transactions, including dual foreign exchange rates, restrictions on current account transactions, restrictions on capital account transactions and finally the surrender of export proceeds. We switch the sign so that higher values of this index represent greater financial openness.

Table 5 presents the results from specifications incorporating these variables (in the context of the LYS index). Notice first in the full sample that the estimated rates of reversion do differ from those obtained in Table 2. This outcome is to be expected, to the extent that the openness terms, when interacted with the lagged current account balance, are statistically significant.

What the results indicate is that there is no clear pattern – for any country grouping – of increasing degrees of exchange rate fixity and current account persistence. What is in fact true is that the estimated autoregressive coefficient (holding at zero trade and financial openness) is never the highest in the fixed regime. Rather it is often the dirty float/managed peg category that exhibits the greatest persistence.

Here are some other notable points. First, in the dummy variable regressions (not shown), current account balances in the fixed exchange rate regimes exhibit *less* persistence than the freely floating regimes. In the full sample and the non-industrial country sample, the difference is statistically significant.

Second, trade openness does not appear to be an important determinant of current account persistence, but financial openness does. In the dummy variable regressions (not shown), financial openness implies greater current account persistence in every grouping. The effect is statistically significant for every grouping save the non-industrial ex-oil group,

and is most pronounced for the industrial country group. Similar results are obtained using the Reinhart-Rogoff measure, although in this case, we also find lower persistence for the non-industrial ex-oil group as well.

3. Size, Inflation, Endogeneity and Other Robustness Tests

3.1 Size

Table 6 reports results stratified by economic size. We used both the dollar measure and the PPP measure of GDP to split the samples by average GDP. That is, for each year, we calculated the average GDP for the entire sample, and placed countries in either the high or low sample. We then re-estimated the dummy variable specifications to examine whether the effect of exchange rate regimes differed depending on economic size.

We report only the results for PPP-defined size (the results using market exchange rates are similar, but less statistically significant). First note that a simple autoregressive characterization (no controls) indicates very similar degrees of current account persistence across large and small countries. However, differences become highlighted when additional controls are added. With the exchange regime dummy variables included, the large country current account balances are much less persistent than those for the smaller countries, even though few of the regime variables are statistically significant. The big difference comes when the openness variables are also included. Then for the large countries, all regimes exhibit less persistence than the free float, although the difference is not significant for the dirty float/crawling peg.

Another way to break the groups into large and small is to focus on the G-7 countries as opposed to all others. The results of using this breakdown are reported in Table 7. In this case, the most important features are that, unconditionally, G-7 current account balances are much more persistent than other countries'. When regime and openness effects are allowed for, it appears that financial openness in particular induces much greater persistence (especially in the G-7 countries, although the effect is visible for both sets of countries).

Turning to the regime results, for the G-7, a dirty float/crawling peg induces much greater persistence, in both economic and statistical terms. For the non-G-7, a fixed exchange rate induces much *less* persistence. This effect is statistically significant. This seems counter to the general presumption (although it must be allowed that the result obtains only when the openness variables are included).

3.2 Inflation

One could argue that the exchange rate regimes proxy for other, more central, factors. Given the popularity of nominal anchor argument as a means of reducing inflation rates, it makes sense to examine whether our results are overturned by including inflation in our regressions. We augment the basic specifications using dummies for the LYS indicator variable with CPI inflation measured as the log difference in the CPI.

In fact, we retain the basic pattern of results highlighted in Table 3. In general, exchange rate regimes still do not display a statistically significant impact on reversion rates, and to the extent that they do, more rigid regimes are associated with faster reversion rates after controlling for openness. Indeed, the only instances in which the inflation rate variable comes into play are those involving the industrial countries. There, higher inflation *is* associated with faster reversion.

3.3 Endogeneity

The preceding discussion assumes that one can take the exchange rate regime selection as exogenous with respect to current account persistence. However, it seems inappropriate to take this assumption for granted. Hence, we undertake an examination to see whether the results we obtain are robust.

The question is what variables enter into the determination of de facto exchange rate regimes. Here, we rely upon Levy-Yeyati and Sturzenegger's (2003b) work, where they find that the regime selection depends upon initial forex reserves, island dummy, economic size, area and an index of average exchange rate regimes in the region.

Motivated by their results, we use a two stage procedure to re-estimate the equations for specifications excluding and including openness variables.

In the first stage, we estimate a probit model for each indicator variable (regime 0 through regime 3, floating up to fixed), using as regressors the initial foreign exchange to GDP ratio, GDP in PPP terms, land area, and a dummy variable for islands. We also include dummy variables for regions to approximate the regional exchange rate regime effect detected by Levy-Yeyati and Sturzenegger. The probit regressions yield probabilities, which we then convert back to binary variables.⁴ We report the results of these first stage probit regressions in Table 7a.

In the second stage, these predicted regime variables are then used instead of the actual regime variables. These results are reported in Table 7b. In the regressions excluding openness variables, they indicate that, except for the full sample, there is no evidence that differing exchange rate regimes are associated with statistically significantly differing rates of current account reversion. In the full sample, moving from a fully floating to a dirty float results in an increase in current account persistence: 0.68 to 0.78, implying an increase in the half life of a current account deviation from about 1.8 to 2.8 years.

However, this result seems specific sample and specification. In no other case does the regime matter in a statistically significant manner. One might be concerned that weak instruments is hindering the ability to find an impact. Interestingly, the largest *economic* impact is in moving from flexible to dirty float. Relative to floating, current account balances under the fixed regime exhibit roughly the same degree of persistence, at least for the non-industrial ex-oil sample. Consequently, we can be fairly certain that our basic results are robust to accounting for endogeneity.

4. The Exchange Rate Regime

⁴ We use the 0.5 cutoff for regimes 0 and 3 (pure float, fixes), and 0.1 and 0.2 for the intermediate regimes. Note that the probit regressions are more successful for the extreme regimes (pseudo-R-squareds of about 0.2) than for the intermediate (about 0.05).

Should we be surprised by these findings regarding current account persistence? Perhaps not. The current account responds to *real* exchange rate, not nominal exchange rate. If the real exchange rate adjustment does not depend very much on the nominal exchange rate regime, then the current account adjustment would not depend very much on nominal exchange rate regime either. We now examine whether the nature of a country's nominal exchange rate regime significantly affects the adjustment process of its real exchange rate.

In order to accomplish this aim, we repeat a similar process to that listed above, except we replace the current account with real effective exchange rates, as calculated by the IMF. These are CPI-deflated trade-weighted indices.⁵

We estimate the basic specification, then augment with dummy variables for the regime, and then incorporate the openness measures. In Table 8, one finds that the results indicate little evidence that the nature of the exchange rate regime matters. On the other hand, countries with greater trade openness exhibit faster real exchange rate reversion, as one might expect.

It turns out that the results – at least pertaining to the exchange rate regime – do depend upon whether one accounts for time fixed effects or not. In Table 9, the specifications are augmented with time fixed effects. More fixed exchange rate regimes are not associated with slower reversion, except for the fixed regime. For the full sample, and the non-industrial country samples, the fixed regime induces substantially slower real exchange rate reversion.

To put this into perspective, for the non-industrial ex-oil countries, the rate of reversion under flexible rates is 0.37. Under fixed exchange rates, the rate of reversion is 0.18. The half-life of a deviation in the former case is 1.5 years, while in the latter it is 3.5 years.

5. Conclusion

⁵ See Chinn (2006) for a discussion.

The notion that more flexibility in an exchange rate regime implies speedier adjustment in current account is very plausible *ex ante*. The only problem is that it does not hold in the data. In this paper, we examine the connection between the two for over 170 economies during 1971-2005. We make use of two leading classification schemes of de facto exchange rate regimes. The key finding is an utter absence of any robust association between nominal exchange rate regime and speed of current account adjustment.

We further explore the reasons behind the disconnect. What matters for current account adjustment is real, not nominal, exchange rate. Yet, there is no strong connection between the type of a nominal exchange regime and the convergence pattern of the real exchange rate. This finding again is independent of which de facto exchange rate regime classification scheme we use.

We therefore conclude that there is no robust and systematic association between a country's nominal exchange rate regime and the speed of current account adjustment. If public policies can work on the level of real exchange rate directly, they may have some hope of altering the pattern of current account imbalances. However, changing nominal exchange rate regimes does not reliably alter the real exchange rate.

Future work ...

Data Appendix

The data used in this paper were drawn from a number of different sources. We provide below a listing of the mnemonics for the variables used in the analysis, descriptions of these variables and the source(s) from which the primary data for constructing these variables were taken. A listing of the countries in the final sample, along with the country groupings used in the analysis, is provided in the working paper version of this paper. For most countries, data were available from 1971 through 2005.

Mnemonic	Source*	Variable description
CAGDP	WDI	Current account to GDP ratio
OPEN	WDI	Openness indicator: ratio of exports plus imports of goods and nonfactor services to GDP
RYUS	WDI	Real GDP in USD.
RYPPP	WDI	Real GDP in PPP terms
RER	IFS	Real effective exchange rate
KAOPEN**	CI	Capital account openness
LYS	LYS	De facto exchange rate regime measure
RR	RR	De facto exchange rate regime measure
AREA	Rose	Area in square km
ISLAND	Rose	Island dummy
Reserves	IFS	Foreign exchange reserves ex. gold

* These are mnemonics for the sources used to construct the corresponding. CI: Chinn and Ito (2006); WDI: *World Development Indicators* (2006). IFS: *International Financial Statistics*. LYS: Levy-Yeyati and Sturzenegger (2003), updated to 2004 from http://200.32.4.58/~fsturzen/Base_2005.zip. RR: Reinhart and Rogoff (2004), updated to 2004 by Eichengreen and Razo-Garcia from http://www.econ.berkeley.edu/~eichengr/updated_rr_nat_class.pdf. Rose denotes data set downloaded from <http://faculty.haas.berkeley.edu/arose/StabData.zip>.

** *KAOPEN* is the first principal component of four indices; in order to simplify interpretation, this variable is adjusted such that the minimum value is zero, i.e., *KAOPEN* ranges between zero and some positive value.

References

- Baxter, M. and A.C. Stockman, 1989, "Business Cycles and the Exchange Rate Regime," *Journal of Monetary Economics* 23.
- Chinn, M.D., 2006, "A Primer on Real Effective Exchange Rates: Determinants, Overvaluation, Trade Flows and Competitive Devaluations," *Open Economies Review* 17(1) (January): 115-143.
- Chinn, M.D and H. Ito, 2006, "What Matters for Financial Development? Capital Controls, Institutions, and Interactions," *Journal of Development Economics* Vol. 82, p. 163 – 192, also NBER Working Paper #11370.
- Eichengreen, E. and Razo-Garcia, R., 2006, "The International Monetary System in the Last and Next Twenty Years," *Economic Policy* 21(47) (July).
- Flood, R., and A. Rose, 1995, "Fixing exchange rates A virtual quest for fundamentals," *Journal of Monetary Economics* 36(1).
- Levy-Yeyati, E. and F. Sturzenegger, 2003a, "A de facto Classification of Exchange Rate Regimes: A Methodological Note," *mimeo*.
- Levy-Yeyati, E. and F. Sturzenegger, 2003b, "To Float or to Fix: Evidence on the Impact of Exchange Rate Regimes on Growth," *American Economic Review* 93 (4) (September).
- Ju, J., and S.-J. Wei, 2007, "Current Account Adjustment: Some New Theory and Evidence," NBER Working Paper 13388. <http://www.nber.org/papers/w13388>
- Reinhart, C.M. and K. Rogoff, 2004, "The Modern History of Exchange Rate Arrangements: A Reinterpretation," *Quarterly Journal of Economics* 119(1)(February 2004): 1-48.

TABLE 1: Current Account Persistence and Exchange Rate Regime

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All		Industrial Countries		Non-Industrial Countries		Non-Industrial Countries ex-oil	
lagcurrent	0.747 (0.023)***	0.68 (0.085)***	0.908 (0.025)***	0.936 (0.047)***	0.739 (0.024)***	0.643 (0.094)***	0.738 (0.027)***	0.625 (0.104)***
lagcurrentlys		0.020 (0.030)		0.000 (0.020)		0.030 (0.030)		0.029 (0.040)
Lys		-0.001 (0.000)		0.000 (0.000)		-0.001 (0.000)		-0.002 (0.000)
Constant	-0.009 (0.001)***	-0.007 (0.003)**	0.000 (0.00)	0.000 (0.00)	-0.011 (0.002)***	-0.010 (0.004)**	-0.013 (0.002)***	-0.011 (0.005)**
Observations	4565	3560	728	573	3837	2987	3432	2648
Adjusted R-squared	0.59	0.57	0.76	0.79	0.58	0.55	0.56	0.51

Notes: LYS is a variable that ranges from 0 to 3, with higher values indicating more exchange rate fixity.

Table 2A: Current Account Persistence by Country Sample, by Regime

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		All				Industrial Countries		
lagcurrent	0.630	0.762	0.788	0.735	0.867	1.060	0.893	0.929
	(0.111)***	(0.068)***	(0.065)***	(0.030)***	(0.044)***	(0.066)***	(0.120)***	(0.033)***
Constant	-0.010	0.002	-0.006	-0.012	-0.001	0.003	-0.001	0.000
	(0.004)***	(0.003)	(0.003)**	(0.002)***	(0.001)	(0.003)	(0.004)	(0.001)
Observations	769	278	388	2125	209	50	35	279
Adjusted R-squared	0.38	0.55	0.64	0.58	0.71	0.88	0.8	0.78

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 2B: Current Account Persistence by Country Sample, by Regime

	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
		Non-Industrial Countries				Non-Industrial Countries ex-Oil		
lagcurrent	0.596	0.726	0.781	0.728	0.564	0.717	0.797	0.701
	(0.122)***	(0.078)***	(0.068)***	(0.031)***	(0.133)***	(0.071)***	(0.072)***	(0.039)***
Constant	-0.014	0.000	-0.007	-0.014	-0.016	-0.001	-0.006	-0.020
	(0.005)***	(0.004)	(0.004)*	(0.002)***	(0.006)***	(0.004)	(0.004)	(0.003)***
Observations	560	228	353	1846	529	209	331	1579
Adjusted R-squared	0.34	0.5	0.62	0.57	0.33	0.49	0.65	0.51

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Notes: LYS ranges from 0 to 3, with higher values indicating more exchange rate fixity.

Table 3: Current Account Persistence, by Country Sample

	(1)	(2)	(3)	(4)
	All	Industrial Countries	Non- Industrial Countries	Non- Industrial Countries ex-oil
lagcurrent	0.630 (0.111)***	0.867 (0.044)***	0.596 (0.122)***	0.564 (0.133)***
lagcurrent1	0.132 (0.130)	0.193 (0.079)**	0.131 (0.145)	0.153 (0.151)
lagcurrent2	0.158 (0.128)	0.026 (0.125)	0.185 (0.140)	0.233 (0.152)
lagcurrent3	0.105 (0.115)	0.062 (0.055)	0.132 (0.126)	0.137 (0.139)
lys1	0.012 (0.005)**	0.003 (0.003)	0.014 (0.007)**	0.016 (0.007)**
lys2	0.004 (0.005)	-0.001 (0.004)	0.007 (0.006)	0.011 (0.007)
lys3	-0.002 (0.004)	0.001 (0.002)	0.000 (0.006)	-0.003 (0.006)
Constant	-0.010 (0.004)***	-0.001 (0.001)	-0.014 (0.005)***	-0.016 (0.006)***
Observations	3560	573	2987	2648
Adjusted R-squared	0.57	0.79	0.56	0.52

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 4A: Current Account Persistence, by Country Sample, by Reinhart Rogoff Regime

	(1)	(2)	(3)	(4)	(5)	(6)
		All		Industrial Countries		
lagcurrent	0.533 (0.062)***	0.799 (0.060)***	0.719 (0.046)***	0.915 (0.044)***	0.840 (0.042)***	0.946 (0.042)***
Constant	-0.012 (0.003)***	-0.005 (0.002)**	-0.015 (0.003)***	0.000 (0.001)	-0.001 (0.002)	0.001 (0.001)
Observations	1029	1275	1179	213	307	200
Adjusted R-squared	0.36	0.67	0.51	0.77	0.66	0.84

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Notes: RR ranges from 1 to 3, with higher values indicating more exchange rate fixity.

Table 4B: Current Account Persistence, by Country Sample, by Reinhart Rogoff Regime

	(7)	(8)	(9)	(10)	(11)	(12)
	Non-Industrial Countries			Non-Industrial ex-oil		
lagcurrent	0.504 (0.063)***	0.795 (0.063)***	0.688 (0.048)***	0.580 (0.058)***	0.800 (0.066)***	0.655 (0.054)***
Constant	-0.015 (0.003)***	-0.006 (0.003)**	-0.021 (0.003)***	-0.014 (0.003)***	-0.007 (0.003)**	-0.026 (0.004)***
Observations	816	968	979	712	921	905
Adjusted R-squared	0.33	0.66	0.47	0.39	0.67	0.43

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Notes: RR ranges from 1 to 3, with higher values indicating more exchange rate fixity.

Table 5A: Current Account Persistence with Openness, by Country Sample, by Regime

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All				Industrial Countries			
lagcurrent	0.725 (0.055)***	0.536 (0.102)***	0.832 (0.150)***	0.656 (0.073)***	0.809 (0.123)***	0.569 (0.382)	1.959 (0.644)***	0.657 (0.107)***
lagcurrentopen	0.086 (0.073)	0.257 (0.084)***	-0.067 (0.116)	0.037 (0.075)	-0.127 (0.21)	0.368 (0.570)	-1.845 (0.848)**	0.064 (0.110)
lagcurrentka	0.059 (0.019)***	-0.001 (0.057)	0.078 (0.030)**	0.034 (0.017)*	0.063 (0.027)**	0.188 (0.091)**	0.166 (0.087)*	0.108 (0.035)***
Open	-0.001 (0.004)	-0.001 (0.008)	0.000 (0.009)	-0.008 (0.004)*	0.007 (0.005)	-0.029 (0.033)	0.006 (0.013)	0.001 (0.003)
kaopen	0.002 (0.001)**	0.001 (0.002)	0.002 (0.002)	0.007 (0.001)***	0.003 (0.001)**	0.000 (0.003)	0.004 (0.003)	0.002 (0.001)**
Constant	-0.006 (0.003)**	0.000 (0.007)	-0.006 (0.006)	-0.009 (0.003)***	-0.010 (0.003)***	0.008 (0.015)	-0.010 (0.006)	-0.007 (0.003)**
Observations	727	245	357	1917	206	36	31	266
Adjusted R-squared	0.6	0.58	0.65	0.54	0.72	0.92	0.83	0.79

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 5B: Current Account Persistence with Openness, by Country Sample, by Regime

	Floating	Dirty float	Dirty/Crwl	Fixed	Floating	Dirty float	Dirty/Crwl	Fixed
	Non-Industrial Countries				Non-Industrial Countries ex-Oil			
lagcurrent	0.705 (0.078)***	0.436 (0.130)***	0.834 (0.161)***	0.647 (0.076)***	0.690 (0.069)***	0.675 (0.177)***	0.839 (0.173)***	0.630 (0.091)***
lagcurrentopen	0.101 (0.09)	0.323 (0.097)***	-0.067 (0.120)	0.041 (0.080)	0.101 (0.090)	0.103 (0.120)	-0.052 (0.120)	0.063 (0.090)
lagcurrentka	0.047 (0.035)	-0.050 (0.072)	0.079 (0.034)**	0.032 (0.018)*	0.067 (0.031)**	0.065 (0.088)	0.068 (0.034)**	0.020 (0.026)
Open	0.000 (0.01)	0.005 (0.010)	-0.001 (0.010)	-0.008 (0.005)*	-0.001 (0.010)	-0.002 (0.010)	0.008 (0.010)	-0.007 (0.010)
kaopen	0.001 (0.000)	-0.003 (0.000)	0.002 (0.000)	0.007 (0.002)***	0.003 (0.002)*	0.004 (0.000)	0 (0.000)	0.006 (0.002)***
Constant	-0.007 (0.004)*	-0.006 (0.010)	-0.005 (0.010)	-0.009 (0.004)**	-0.008 (0.003)**	0.002 (0.010)	-0.010 (0.010)	-0.014 (0.005)***
Observations	521	209	326	1651	490	190	305	1407
Adjusted R-squared	0.57	0.55	0.64	0.52	0.62	0.54	0.67	0.51

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 6: Current Account Persistence by Country Size

	(1)	(2)	(3)	(4)	(5)	(6)
		Large			Small	
lagcurrent	0.760 (0.042)***	0.475 (0.271)*	1.021 (0.111)***	0.731 (0.028)***	0.691 (0.050)***	0.652 (0.073)***
lagcurrent1		0.076 (0.297)	-0.358 (0.204)*		0.119 (0.092)	0.111 (0.093)
lagcurrent2		0.239 (0.280)	-0.165 (0.119)		0.121 (0.096)	0.086 (0.099)
lagcurrent3		0.269 (0.277)	-0.275 (0.091)***		0.026 (0.059)	-0.012 (0.054)
lys1		0.009 (0.007)	0.006 (0.006)		0.014 (0.005)***	0.014 (0.005)***
lys2		0.003 (0.005)	0.001 (0.005)		0.005 (0.005)	0.005 (0.006)
lys3		0.001 (0.007)	-0.003 (0.005)		-0.003 (0.004)	-0.005 (0.004)
lagcurrentopen			-0.144 (0.130)			0.066 (0.070)
Open			-0.006 (0.006)			-0.005 (0.004)
lagcurrentka			0.017 (0.026)			0.043 (0.018)**
kaopen			0.003 (0.001)*			0.005 (0.001)***
Constant	-0.005 (0.002)**	-0.006 (0.004)	0.000 (0.003)	-0.011 (0.002)***	-0.012 (0.003)***	-0.008 (0.004)**
Observations	1126	889	770	3365	2655	2462
Adjusted R-squared	0.64	0.61	0.5	0.55	0.53	0.56

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 7: Current Account Persistence by G-7 versus non-G-7

	(1)	(2)	(3)	(4)	(5)	(6)
	G-7 Countries			Non G-7 Countries		
lagcurrent	0.889 (0.039)***	0.886 (0.046)***	0.720 (0.162)***	0.746 (0.024)***	0.604 (0.118)***	0.730 (0.066)***
lagcurrent1		-0.319 (0.216)	-0.025 (0.169)		0.160 (0.136)	0.007 (0.086)
lagcurrent2		0.271 (0.177)	0.325 (0.183)*		0.185 (0.135)	0.002 (0.079)
lagcurrent3		-0.031 (0.138)	0.028 (0.148)		0.131 (0.122)	-0.087 (0.049)*
lys1		-0.004 (0.004)	-0.002 (0.004)		0.015 (0.006)***	0.010 (0.005)**
lys2		-0.006 (0.003)**	-0.006 (0.004)*		0.007 (0.006)	0.002 (0.004)
lys3		0.000 (0.002)	0.000 (0.002)		0.001 (0.005)	-0.008 (0.003)***
lagcurrentopen			-0.464 (0.196)**			0.053 (0.063)
Open			0.005 (0.005)			-0.005 (0.003)
lagcurrentka			0.145 (0.060)**			0.039 (0.015)**
kaopen			0.001 (0.001)			0.005 (0.001)***
Constant	-0.001 (0.001)	0.001 (0.001)	-0.004 (0.003)	-0.010 (0.001)***	-0.013 (0.005)***	-0.003 (0.003)
Observations	230	196	196	4335	3364	3050
Adjusted R-squared	0.73	0.75	0.77	0.59	0.57	0.55

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 7A: Probit Regression Determinants of Exchange Rate Regimes

	(1)	(2)	(3)	(4)
	lys0	lys1	lys2	lys3
island	0.586 (0.088)***	-0.247 (0.118)**	-0.129 (0.098)	-0.386 (0.082)***
larea	0.101 (0.018)***	0.002 (0.021)	0.040 (0.019)**	-0.087 (0.016)***
lryppp	0.273 (0.019)***	0.090 (0.022)***	0.106 (0.020)***	-0.322 (0.018)***
iniresgdp	-0.503 (0.551)	-0.524 (0.627)	1.201 (0.561)**	0.062 (0.444)
eap	-1.521 (0.261)***	5.064 (0.628)***	0.603 (0.250)**	5.480 (0.493)***
eca	-0.587 (0.270)**	5.318 (0.589)***	0.525 (0.267)**	4.530 (0.460)***
mena	-1.433 (0.263)***	5.184 (0.599)***	0.267 (0.257)	5.560 (0.475)***
sa	-0.895 (0.278)***	4.798 (0.638)***	1.193 (0.267)***	4.402 (0.497)***
we	-1.932 (0.261)***	5.196 (0.615)***	0.312 (0.250)	5.894 (0.490)***
ssa	-1.250 (0.265)***	5.120 (0.554)***	0.324 (0.258)	5.329 (0.441)***
lac	-1.144 (0.259)***	5.212 (0.567)***	0.880 (0.249)***	4.953 (0.447)***
Constant	-7.390 (0.604)***	-8.702 0.000	-4.870 (0.631)***	3.801 0.000
Observatio	3377	3377	3377	3377

Standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at

Table 7B: Current Account Persistence, Accounting for Regime Endogeneity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All	Industrial	Non-Industrial	Non-Industrial ex oil	All	Industrial	Non-Industrial	Non-Industrial ex oil
lagcurrent	0.676 (0.048)***	0.888 (0.046)***	0.666 (0.052)***	0.743 (0.053)***	0.600 (0.067)***	0.677 (0.095)***	0.591 (0.075)***	0.653 (0.083)***
lagcurrent1h	0.094 (0.045)**	0.055 (0.059)	0.050 (0.050)	0.032 (0.065)	0.072 (0.051)	0.085 (0.070)	0.036 (0.057)	0.075 (0.058)
lagcurrent2h	-0.070 (0.053)	-0.065 (0.182)	-0.022 (0.056)	-0.021 (0.064)	0.010 (0.059)	-0.055 (0.127)	0.041 (0.065)	-0.026 (0.060)
lagcurrent3h	0.042 (0.046)	0.002 (0.050)	0.044 (0.050)	-0.030 (0.052)	0.042 (0.046)	0.020 (0.075)	0.046 (0.051)	-0.019 (0.049)
lys1h	0.008 (0.002)***	0.001 (0.002)	0.005 (0.003)	0.000 (0.003)	0.007 (0.002)***	0.005 (0.002)**	0.005 (0.003)	0.001 (0.004)
lys2h	-0.003 (0.003)	-0.001 (0.003)	-0.001 (0.004)	0.000 (0.003)	0.001 (0.003)	0.004 (0.003)	0.001 (0.004)	-0.001 (0.004)
lys3h	-0.005 (0.002)**	0.002 (0.002)	-0.007 (0.003)**	-0.012 (0.003)***	-0.004 (0.003)*	-0.001 (0.002)	-0.008 (0.004)**	-0.012 (0.004)***
lagcurrentopen					0.074 (0.064)	0.009 (0.133)	0.077 (0.066)	0.092 (0.074)
lagcurrentka					0.027 (0.015)*	0.085 (0.022)***	0.026 (0.016)	0.020 (0.022)
open					-0.003 (0.003)	0.003 (0.004)	-0.003 (0.004)	-0.002 (0.004)
kaopen					0.004 (0.001)***	0.002 (0.001)***	0.004 (0.001)***	0.003 (0.002)**
Constant	-0.009 (0.002)***	-0.002 (0.002)	-0.009 (0.003)***	-0.006 (0.003)*	-0.009 (0.003)***	-0.010 (0.003)***	-0.006 (0.004)	-0.003 (0.004)
Observations	3805	607	3198	2832	3358	572	2786	2456
Adjusted R-sq	0.58	0.78	0.57	0.54	0.59	0.78	0.57	0.58

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 8: Real Exchange Rate Persistence, by Country Sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		All			Industrial			Non-industrial		Non-industrial ex-oil		
Laglrer	0.797 (0.024)***	0.782 (0.056)***	0.785 (0.053)***	0.624 (0.055)***	0.579 (0.103)***	0.704 (0.102)***	0.803 (0.024)***	0.814 (0.054)***	0.832 (0.060)***	0.779 (0.030)***	0.733 (0.043)***	0.728 (0.066)***
Laglrer1		-0.042 (0.075)	-0.029 (0.072)		0.035 (0.159)	-0.119 (0.141)		-0.063 (0.077)	-0.034 (0.074)		0.001 (0.083)	0.019 (0.083)
Laglrer2		-0.101 (0.111)	-0.115 (0.106)		-0.124 (0.152)	-0.107 (0.159)		-0.120 (0.110)	-0.125 (0.106)		-0.033 (0.095)	-0.068 (0.096)
Laglrer3		0.064 (0.083)	0.093 (0.073)		0.075 (0.104)	0.022 (0.095)		0.032 (0.084)	0.074 (0.076)		0.097 (0.099)	0.126 (0.094)
lys1		0.181 (0.349)	0.121 (0.340)		-0.171 (0.732)	0.546 (0.647)		0.280 (0.360)	0.136 (0.353)		-0.002 (0.394)	-0.092 (0.403)
lys2		0.450 (0.507)	0.517 (0.487)		0.611 (0.701)	0.518 (0.729)		0.529 (0.503)	0.557 (0.483)		0.140 (0.444)	0.307 (0.449)
lys3		-0.248 (0.386)	-0.377 (0.339)		-0.351 (0.490)	-0.106 (0.445)		-0.073 (0.390)	-0.270 (0.352)		-0.366 (0.471)	-0.500 (0.450)
laglreropen			-0.115 (0.052)**			-0.122 (0.056)**			-0.130 (0.056)**			-0.134 (0.057)**
laglrerka			-0.029 (0.024)			-0.055 (0.037)			-0.007 (0.029)			-0.036 (0.044)
Open			0.359 (0.212)*			0.408 (0.602)			0.423 (0.233)*			0.410 (0.242)*
kaopen			0.129 (0.112)			0.267 (0.171)			0.025 (0.139)			0.148 (0.206)
Constant	0.956 (0.111)***	1.001 (0.258)***	1.129 (0.255)***	1.749 (0.256)***	1.957 (0.481)***	1.454 (0.462)***	0.932 (0.112)***	0.840 (0.245)***	0.918 (0.295)***	1.037 (0.139)***	1.205 (0.205)***	1.420 (0.333)***
Observations	2489	1936	1728	687	571	515	1802	1365	1213	1587	1176	1024
Number of												
cn	92	90	88	24	23	22	92	67	66	92	59	58
R-squared	0.64	0.63	0.66	0.46	0.47	0.49	0.65	0.64	0.67	0.61	0.59	0.64

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 8: Real Exchange Rate Persistence with Time Fixed Effects, by Country Sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		All			Industrial			Non-industrial		Non-industrial ex-oil		
Laglrer	0.776 (0.024)***	0.739 (0.055)***	0.731 (0.050)***	0.624 (0.057)***	0.585 (0.097)***	0.696 (0.112)***	0.768 (0.026)***	0.731 (0.056)***	0.719 (0.063)***	0.750 (0.032)***	0.645 (0.046)***	0.627 (0.071)***
Laglrer1		-0.011 (0.071)	0.001 (0.070)		-0.026 (0.142)	-0.135 (0.151)		-0.011 (0.072)	0.013 (0.069)		0.062 (0.077)	0.067 (0.077)
Laglrer2		-0.092 (0.110)	-0.102 (0.104)		-0.071 (0.195)	-0.096 (0.214)		-0.092 (0.111)	-0.100 (0.104)		0.017 (0.099)	-0.016 (0.099)
Laglrer3		0.089 (0.080)	0.122 (0.068)*		0.059 (0.093)	-0.040 (0.107)		0.095 (0.082)	0.141 (0.071)*		0.164 (0.093)*	0.192 (0.085)**
lys1		0.034 (0.331)	-0.023 (0.329)		0.091 (0.655)	0.609 (0.695)		0.023 (0.338)	-0.099 (0.330)		-0.304 (0.363)	-0.336 (0.373)
lys2		0.411 (0.507)	0.455 (0.478)		0.357 (0.915)	0.462 (0.997)		0.387 (0.506)	0.426 (0.475)		-0.107 (0.462)	0.046 (0.460)
lys3		-0.381 (0.368)	-0.533 (0.313)*		-0.290 (0.439)	0.173 (0.500)		-0.425 (0.383)	-0.650 (0.332)*		-0.739 (0.443)	-0.885 (0.405)**
laglreropen			-0.107 (0.056)*			-0.057 (0.165)			-0.113 (0.057)*			-0.104 (0.058)*
laglrerka			-0.032 (0.021)			-0.061 (0.038)			-0.023 (0.028)			-0.046 (0.040)
Open			0.326 (0.245)			0.047 (0.784)			0.352 (0.255)			0.309 (0.253)
kaopen			0.162 (0.100)			0.289 (0.175)			0.110 (0.128)			0.206 (0.186)
Constant	1.052 (0.113)***	1.236 (0.265)***	1.487 (0.257)***	1.763 (0.287)***	1.965 (0.494)***	1.553 (0.587)**	1.089 (0.118)***	1.218 (0.322)***	1.635 (0.338)***	1.174 (0.149)***	1.615 (0.298)***	2.123 (0.370)***
Time Fixed Effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	2489	1936	1728	687	571	515	1802	1365	1213	1587	1176	1024
Number of cn	92	90	88	24	23	22	92	67	66	92	59	58
R-squared	0.68	0.68	0.73	0.52	0.53	0.57	0.71	0.71	0.77	0.67	0.67	0.74

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

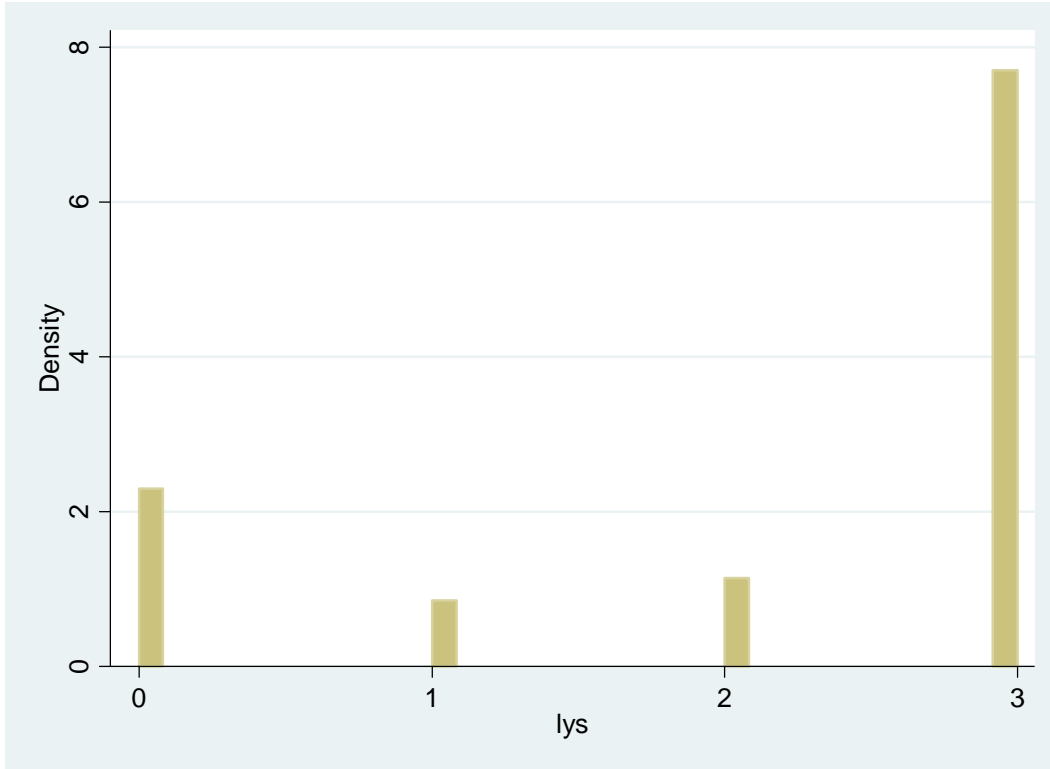


Figure 1: Levy-Yeyati and Sturzenegger index (higher values are more fixed)

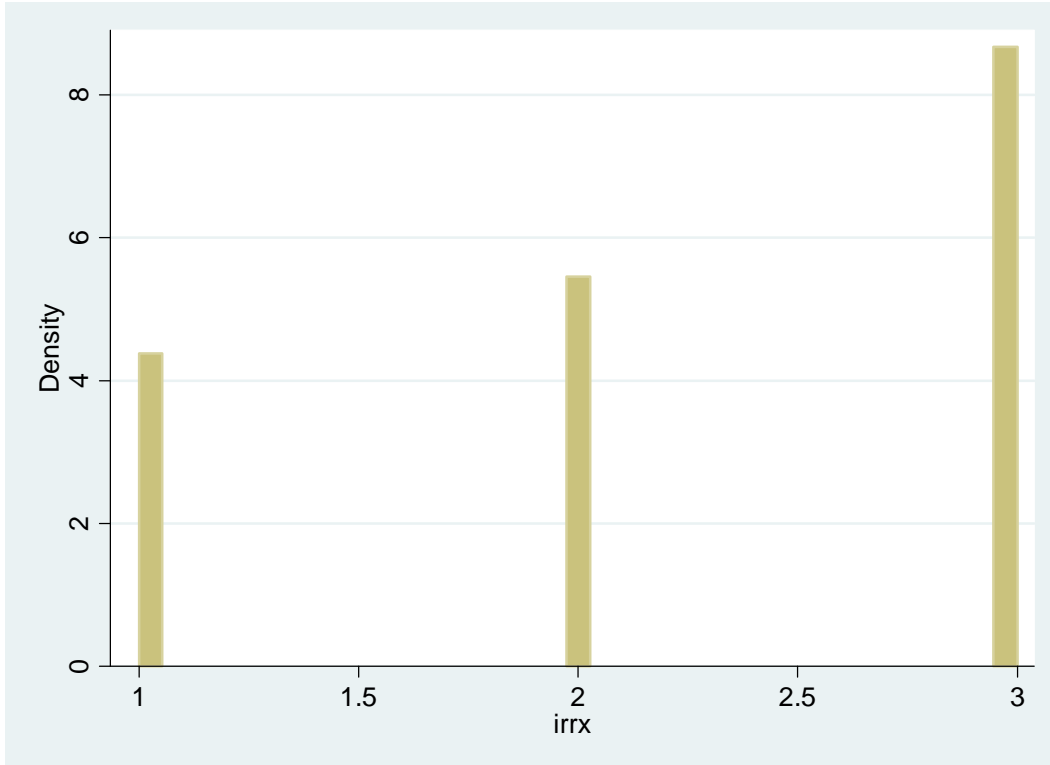


Figure 2: Reinhart and Rogoff index, aggregated and inverted (higher values are more fixed)

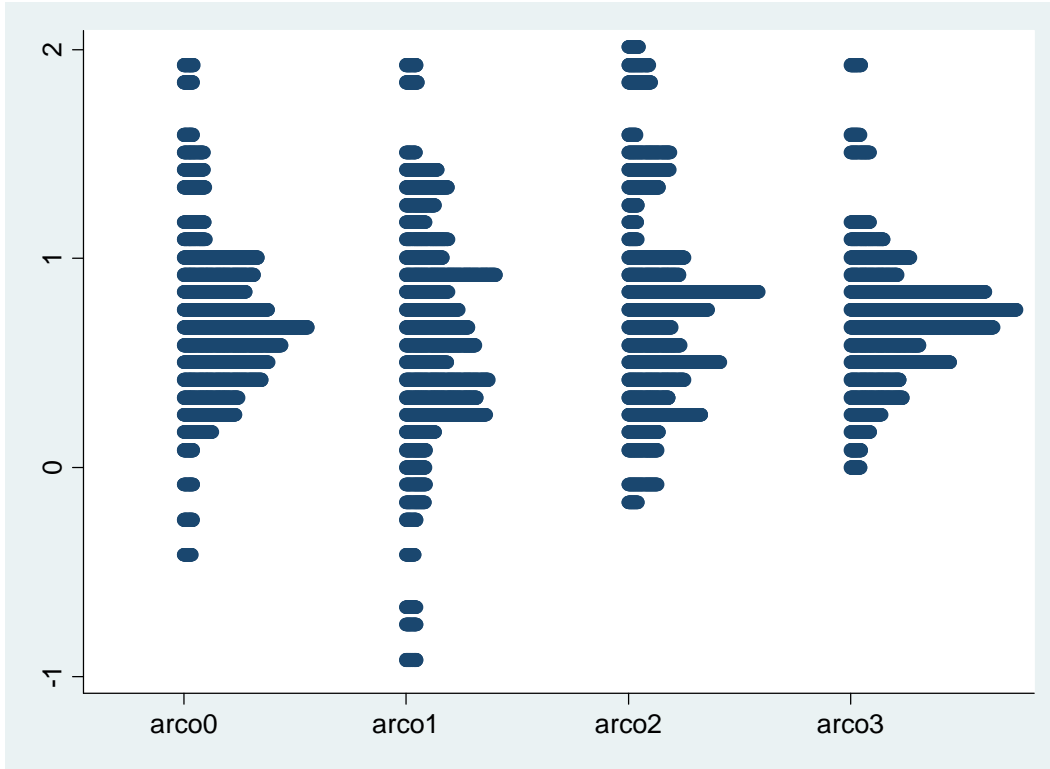


Figure 3: Individual autoregressive coefficients (no trend) for LYS categories (higher indicates more fixity).

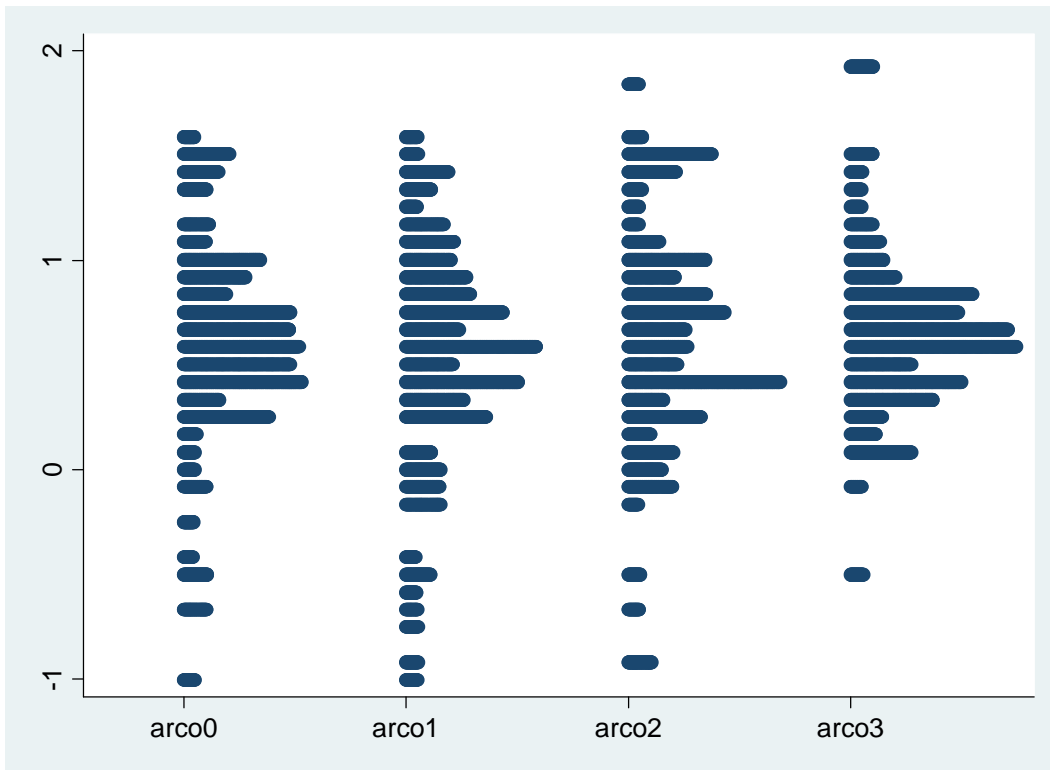


Figure 4: Individual autoregressive coefficients (with trend) for LYS categories (higher indicates more fixity).