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Inflation dynamics in LATAM: A comparison with global trends and implications for monetary policy

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1. Introduction

Inflation rates in most advanced economies remain stubbornly low. To many observers, this reflects persistent economic slack in the aftermath of the Global Financial Crisis (GFC), coupled with the evolution of oil prices since late 2014. Indeed, this combination has put deflation concerns at the forefront of policymakers' concerns, particularly in the Eurozone where output has lagged compared to the recovery in the US, bringing prices even lower despite a significant depreciation against the dollar.

This narrative, however, fits better the situation in the advanced world than in emerging-market economies (EMEs). In this paper we put special emphasis in the recent inflationary experience in LATAM. Contrary to what seems to be the norm among advanced economies (AEs), Latin America has seen a surge in inflation in the last two years. As we will argue, such trend prevails despite a slowdown in activity, and results mainly from a combination of external shocks, and structural elements that make inflation dynamics in these countries especially susceptible to those shocks.

Regarding the external shocks, we highlight the effects of the end of the commodity super cycle. This development is hugely important for several LATAM countries, where commodities account for a relatively large share of exports. While this process started at different specific dates for each particular economy, most of the countries of the region we consider have seen a significant deterioration in their terms of trade (ToT) since 2013 and, consequently, a depreciation of their currencies *vis-à-vis* the USD that has been larger than elsewhere.

Regarding structural characteristics, we study the hypothesis that a high degree of exchange rate pass-through (ERPT) may also explain recent inflationary experiences, to the extent that it amplifies the inflationary effect of a given external shock. We construct an indicator of ERPT for a sample of 48 countries, based on impulse-response functions (IRF) simulated from structural VARs. We document that LATAM has a high degree of ERPT, a phenomenon that is shared more generally with other EMEs, in particular those with flexible exchange rates. These results are

[1] A shorter version of this paper was presented at the 2015 Jackson Hole Annual Meeting. We thank Gabriela Contreras and Francisco Pinto for excellent research assistance.

consistent with a large body of literature on ERPT.[2] Furthermore, we study the cross-sectional determinants of our ERPT index, and find that higher values are associated with more exchange rate flexibility, a less competitive environment within domestic firms in each country, and proxies for monetary policy credibility.

To put our results in perspective, we contrast the experience in LATAM with other groups of countries which serve as natural controls. The first is a group of Southeast Asian EMEs under flexible exchange rate regimes. These countries share with LATAM the structural feature of having a high degree of ERPT (albeit smaller on a GDP-weighted-average basis), which appears to be an emerging world phenomenon more generally. While inflation in these countries has been lower than in LATAM, this is mainly because they do not rely on commodities, and hence faced a very different evolution of ToT, leading to significantly lower depreciation rates. Hence, the main feature separating LATAM from other EMEs are external shocks. We then compare LATAM with commodity exporting AEs (CEAEs), which do rely on commodities in their export bundle. We show that the deterioration of ToT in these countries has been of comparable magnitude, although the depreciation of their currencies has been smaller than in LATAM. However, we show that ERPT coefficients are much smaller for these economies, and closer to the rest of the AEs in the sample. We conclude that, while experiencing similar ToT shocks, CEAE faced lower inflationary pressures mostly due to different structural characteristics. Finally, we study a subset of EME with high ERPT levels, which are also commodity exporters and thus subject to similar ToT and NER depreciation shocks, finding that they, too, have experienced significantly higher inflation recently.

The rest of the paper is structured as follows. In section 2, we present stylized facts about the evolution of inflation, activity, ToT and exchange rates, for a large sample of countries. In section 3 we construct estimates of ERPT coefficients for all the countries in our sample and study the determinants of ERPT in the cross section. In section 4 we present a comparative discussion contrasting LATAM with the aforementioned control groups. Section 5 concludes.

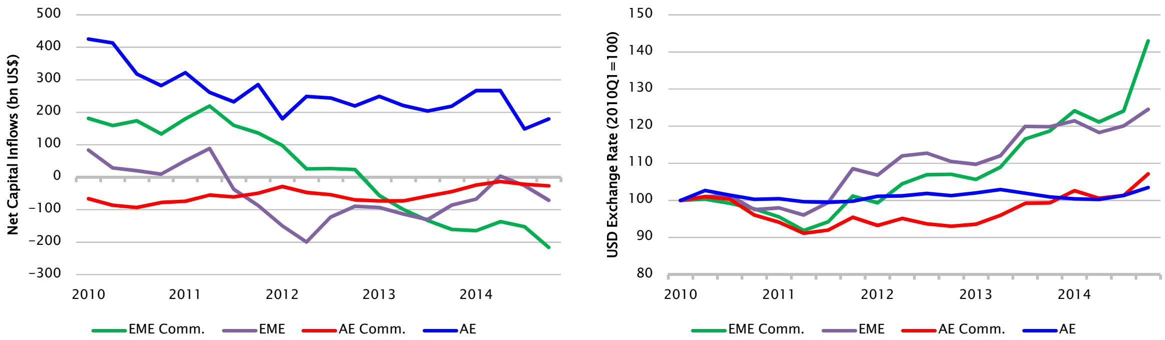
2. Recent stylized facts about inflation around the world

The last two years have been marked by several developments in the determinants of inflation across a wide spectrum of countries. Firstly, there is the sharp drop in oil prices in the last quarter of 2014, which has contributed to reduce headline CPI inflation across the globe. A second important force has been the depreciation of most currencies versus the US dollar. Finally, in many countries output remains below trend, generating low inflationary pressures by standard Phillips curve arguments. While the exact date and quantitative importance of these mechanisms,

[2] See Calvo and Reinhart (2000), Choudhri and Hakura (2006), and Ca'Zorzi et al. (2007).

in particular the last two, differs for each particular country, a natural starting point to conduct the analysis is the so-called taper talk episode, when signals from the Federal Reserve about an upcoming liftoff date for the FFR became internalized by markets. This episode was especially important for commodity-exporting EMEs, as it triggered an important reversal in capital flows and a consequent depreciation *vis-à-vis* the US dollar (figure 1).

Figure 1: net capital inflows and exchange rate depreciations



To gain further insight about the causes behind the heterogeneity of NER depreciation, figure 2 plots the relation between changes in ToT and currency depreciation rates, *vis-à-vis* the US dollar. While ToT worsened for commodity exporters across the board, the degree of depreciation was larger among EMEs than for AE. For non-commodity-exporting EMEs and AEs, ToT improved reflecting mostly the fall in oil prices.

Figure 2: ToT and currency depreciations since May 2013

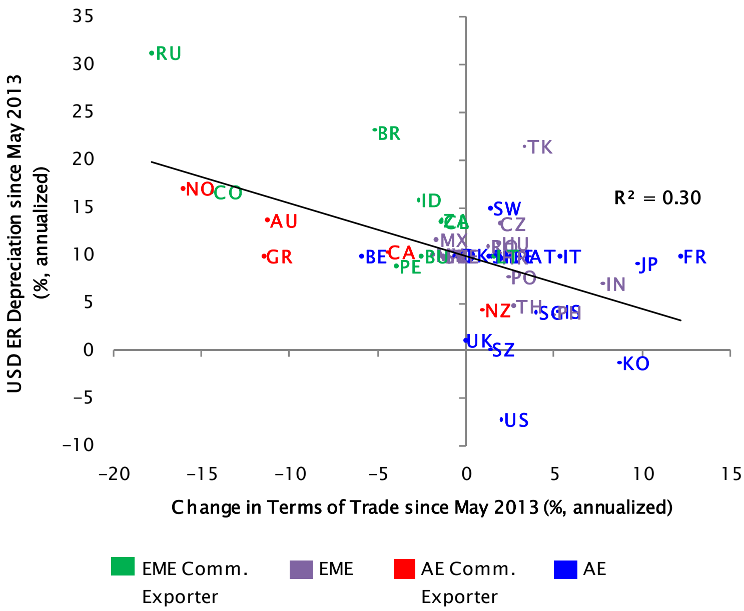


Figure 3 seeks to explain the cross-sectional determinants of inflation across 48 countries since the taper talk of 2013.Q1.[3] The left-hand panel plots the relation between the average output gap based on differences with a univariate HP filter (horizontal axis), and the annualized inflation rate (vertical axis), measured as the deviation from the inflation target.[4] The right-hand panel plots the relation between the annualized NER depreciation (horizontal axis), and inflation deviations.

The figure makes two central points. First, in the cross-section of countries considered, there is a very weak relation between estimates of the output gap and inflation (left-hand panel).[5] These scatter plots do not imply, of course, that negative output gaps are irrelevant. Indeed, a number of AE central banks have explicitly estimated a significant impact of economic slack as a driver of the low inflation levels currently observed.[6] However, several recent studies and speeches by prominent central bankers also tend to downplay the role of activity in the determination of inflation more recently.[7] This could be due to a number of factors, including: i) a better anchoring of inflation expectations, which tends to lower the response of inflation to temporary output gaps, ii) a more prominent role for global output gaps, which tends to reduce the importance of domestic economic slack in Phillips curves, and iii) downward wage rigidity, which may shift the lead-lag relation between unemployment and wage inflation.[8]

The second major point of the figure is that there is a significant correlation between the rate of currency depreciation and the inflation deviations (right-hand panel). The green dots correspond to EMEs for which commodities signify more than 40% of total exports, including 4 LATAM countries: Brazil, Chile, Colombia, and Peru. In general, these dots tend to be above the linear trend line describing the relation between NER depreciation and inflation. That is, for a given level of NER depreciation, commodity-exporting EMEs tend to have greater inflation rates.

The figure includes EMEs more broadly (purple dots), whose depreciation and inflationary experiences are quite diverse in the post-taper-talk episode. Commodity-exporting advanced economies (red dots), on the other hand, exhibited relatively low inflation rates, despite annualized depreciation rates exceeding 10%

[3] We include 24 EMEs and 24 AEs. The selection criterion is based on data availability going back to at least 2000, to be able to calculate comparable ERPT statistics in section 3. We also exclude countries which have fixed exchange rate regimes *vis-à-vis* de USD (such as China and Hong Kong), since we focus on the ERPT with respect to this currency in our later exercises.

[4] For countries without a stated inflation target, we use the post-2000 sample average as a point of comparison. In the case where there is a significant trend in inflation, we use instead a rolling window (24 months) of average inflation.

[5] This weak relation still holds if we compare only EMEs, or only AEs, in the cross-section.

[6] See, for example, the Central Bank of Canada´s *Inflation Report* (April 2015, page 24).

[7] See Yellen (2014) for the case of the US, and Weale (2014) for the case of the UK.

[8] See Moccero et al. (2011), IMF (2013), and BIS (2014) for a discussion on the role of inflation expectations; Borio and Filardo (2007), Milani (2010), Bullard (2012), and BIS (2014) for the role of the global output gap; Krugman (2013) and Yellen (2014) for the role of downward wage rigidities.

in a number of cases. Other AEs more generally (blue dots) show low inflation rates, irrespective of their degree of NER depreciation.

Figure 3: Output gap, NER depreciation, and inflation since May 2013

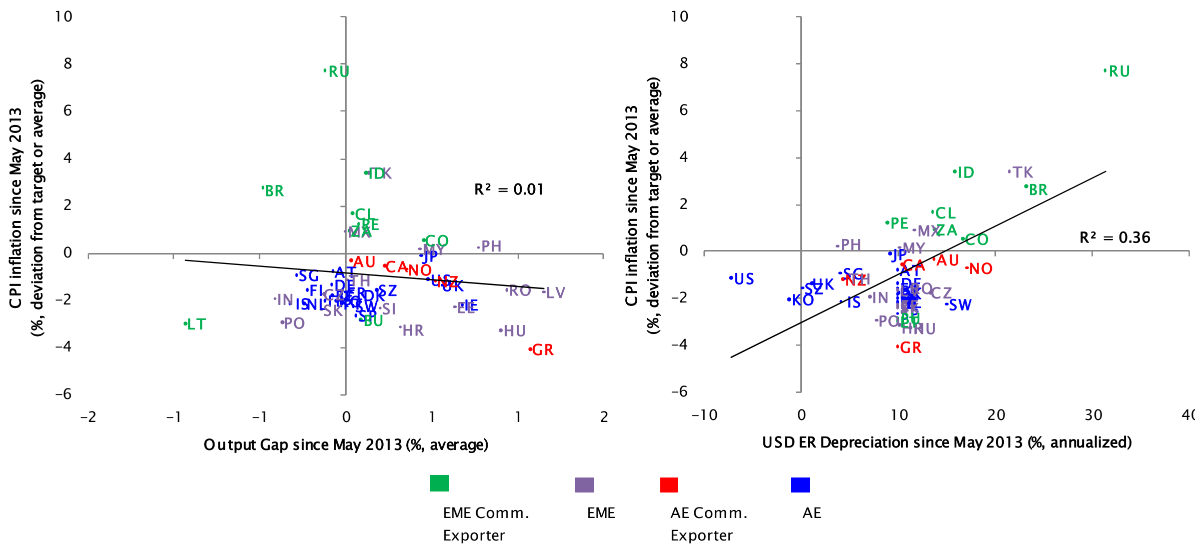


Table 1: Cross-sectional determinants of inflation since May 2013

Dependent Variable:	CPI Inflation since May 2013 (annualized deviation from target)			
	(1)	(2)	(3)	(4)
Output gap	-0.159	-0.222		
	[0.620]	[0.658]		
GDP Growth Differential			0.103	0.272
			[0.285]	[0.290]
Depreciation	0.205***	0.095	0.212***	0.103*
	[0.069]	[0.057]	[0.066]	[0.053]
Depreciation x EME		0.130***		0.140***
		[0.040]		[0.041]
Constant	-2.995***	-2.666***	-3.003***	-2.614***
	[0.696]	[0.572]	[0.753]	[0.603]
N° Observations	48	48	48	48
Adjusted R-squared	0.333	0.439	0.335	0.454

(*) p<0.1, (**) p<0.05, (***) p<0.01, robust standard errors in brackets. Source: Authors' calculations based on Bloomberg, CEIC.

Table 1 presents a more formal exercise where the inflation deviation is regressed on output gap, NER depreciation, and an interaction term reflecting EME status. Of course, the results should be taken with a grain of salt, since output gaps and depreciation rates depend, among other variables, on monetary policy decisions, which in turn depend on inflation outcomes. With these potential endogeneity problems in mind, the results do tend to confirm the message from figure 3, highlighting the role of NER depreciation as a driver of inflation in the cross-section, in particular for EMEs. In contrast, activity (measured either by the output gap, or average growth since May 2013 minus the sample average) appears as statistically non- significant.

3. Measuring and explaining ERPT in the cross-section

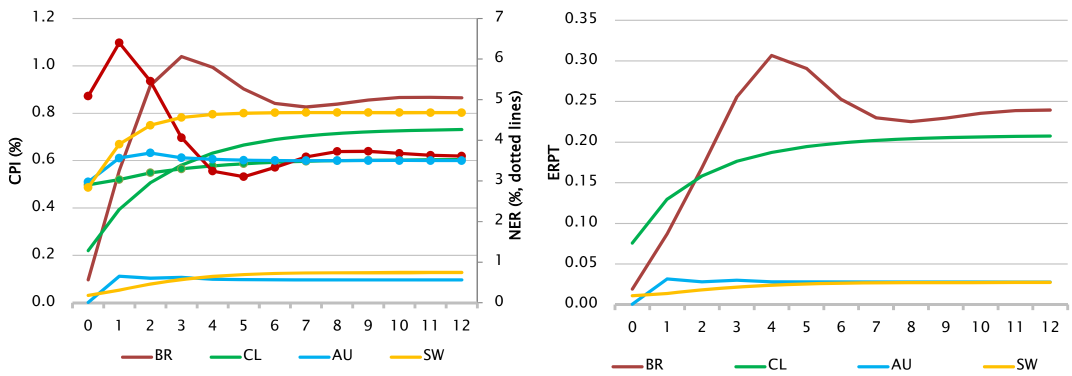
The stylized facts in section 2 suggest a significant correlation between NER depreciation rates and inflation outcomes since May 2013 in a large cross-section of countries. The degree of currency depreciation, in turn, is significantly correlated with the evolution of ToT, in particular for commodity-exporting countries. This section studies more formally the link between inflation rates and NER depreciations.

Specifically, we construct measures of exchange rate pass-through (ERPT) for the 48 economies considered. The central measure of ERPT we will focus on is estimated for each country from a VAR system. As an exogenous bloc, the VAR includes the first two principal components of the following variables: world industrial production, FFR, US industrial production, oil prices, world food prices, and a country-specific index of export prices.[9] Among the endogenous domestic variables we include GDP, NER, CPI, and the MPR. All the variables are expressed in log-differences, except the MP rates which are expressed as changes in percentage points. To identify the structural shocks to each variable, we follow a Cholesky decomposition according to the aforementioned order of exogeneity.

We then define the ERPT as the ratio of the cumulative CPI's one-year change, over the cumulative NER's one-year change, following a one standard-deviation innovation in the NER exogenous shock, as identified by our Choleski decomposition. As illustration, figure 4 plots said impulse-response functions for two EMEs (Brazil and Chile), and two advanced countries (Australia and Sweden). The left-hand-side panel plots the IRF of inflation (solid lines, left axis) and NER (dotted lines, right axis) to a simulated autonomous shock to the NER (against the USD). While the effect on the NER is roughly of the same magnitude, the effects on inflation are quite different, leading to considerable differences in ERPT, computed as the ratio between the solid and dotted lines. In particular, ERPT is large for EMEs, while it is relatively small for the AEs included. Our specific measure of ERPT is the level reached by month 12 after the initial shock.

[9] The sources are: CPB Netherlands Bureau for Economic Policy Analysis for world industrial production; Bloomberg for WTI oil prices; the World Bank for the index of food prices; and the IMF for country-specific exports price indexes.

Figure 4: IRF to a NER shock, and ERPT estimates for selected countries



Before continuing, it is worthwhile to mention two aspects of our methodology and results. First, the estimated ERPT measures, in particular their relative rankings among different country groups, are quite robust to alternative orderings in the Choleski decomposition. Second, the proposed ERPT measure is not the only one that can be used, since in practice the pass-through from the NER to domestic prices could be driven by many different shocks that move both variables. Here, we focus on the ERPT as captured by the response to the "autonomous" NER shock.

Table 2 presents the ERPT estimates for the 48 countries in our sample. Panel a) considers EMEs, dividing them into LATAM region, other countries which have flexible exchange rate regimes, and those that implement exchange rate pegs against some major currency. Because we are interested in the ERPT against the USD, we naturally exclude economies fixing their currencies against the dollar (China and Hong Kong). This leaves several countries classified as pegged regimes against the euro. Panel b) then performs a similar subdivision among AEs. The country group's ERPT averages are weighted by country GDP (at PPP).

Table 2 unveils the following patterns. First and foremost, EMEs have a significantly higher degree of ERPT, a result that is consistent with previous studies such as Calvo and Reinhart (2000), Choudhri and Hakura (2006), and Ca'Zorzi et al. (2007). Second, among EMEs, LATAM stands out as having a larger degree of ERPT, a result largely driven by the high contribution of Brazil to the sample (given its high ERPT estimate and large size), but also true for some of the smaller economies of the group, such as Chile and Peru. Third, free-floaters among EMEs tend to have relatively larger ERPT estimates. This is natural, since pegged regimes mostly include small European economies whose trade integration is dominated by Eurozone partners, and their peg is against the euro. This implies that a given NER depreciation against the USD has a smaller impact on overall CPI, all else equal, since the weight of dollar-denominated imports is likely smaller.[10]

[10] Unfortunately, we do not have systematic country data on the currency denomination of imports.

Table 2: ERPT estimates by country group

a) Emerging economies

Latam	0.19	EME Floating	0.14	EME Pegged	0.07
Brazil	0.31	Czech Republic	0.09	Croatia	0.07
Chile	0.19	Hungary	0.11	Bulgaria	0.08
Colombia	0.10	India	0.09	Estonia	0.03
Mexico	0.04	Indonesia	0.19	Latvia	0.12
Peru	0.17	Malaysia	0.12	Lithuania	0.12
		Philippines	0.08	Slovakia	0.03
		Poland	0.10	Slovenia	0.07
		Romania	0.09		
		Russia	0.13		
		South Africa	0.19		
		Thailand	0.12		
		Turkey	0.48		

b) Advanced economies

AE Floating	−0.01	AE Pegged	0.03
Australia	0.03	Austria	0.02
Canada	0.11	Belgium	0.05
Norway	0.02	Denmark	0.05
Israel	0.20	Finland	0.04
Japan	0.02	France	0.02
Korea	0.09	Germany	0.02
New Zealand	0.04	Greece	0.08
Singapore	0.03	Ireland	0.07
Sweden	0.02	Italy	0.02
Switzerland	0.05	Netherlands	0.01
United Kingdom	0.03	Portugal	0.06
United States	−0.06	Spain	0.04

Source: Authors' calculations.

Among developed economies, on the other hand, ERPT estimates are much closer to zero, with no clear pattern between countries formally in the Eurozone or pegged to the euro, *vis-à-vis* other flexible exchange rate AEs.

What explains the large differences in ERPT estimates between different country groups? To answer this question, we collect information for the 48 countries in the sample in a number of dimensions that have been identified in previous literature as determinants of ERPT. Table 3 includes regression results from a subset of these variables that are found to be significant in some of our specifications.

Regarding the impact of market structure, stronger competition should tend to reduce ERPT, as firms are more reluctant to pass NER fluctuations on to prices and risk a loss in market share, adjusting their own margins instead.[11] We include a measure of firm competition constructed by the World Economic Forum (first row). The effect of a higher degree of competition on ERPT is negative, and statistically significant in some of the regressions. In economic terms, a one-standard-deviation increase in the level of competition reduces the ERPT estimate between 0.04 and 0.064 (depending on the specific regression).

Table 3: cross-sectional determinants of ERPT

(dependent variable: 1-year ERPT 2000-2015, 24 EME, 24 AE)

	(1)	(2)	(3)	(4)
Competition Index	-0.034*	-0.031*	-0.025	-0.022
	[0.018]	[0.017]	[0.017]	[0.017]
Inflation (%, abs dev from target, avg 2000-2015)	0.064***	0.062***	0.041***	0.039***
	[0.017]	[0.017]	[0.009]	[0.009]
Interest Rate Volatility (%)			1.328***	1.361***
			[0.409]	[0.393]
Exchange Rate Stability (index)		-0.069***		-0.052**
		[0.021]		[0.020]
Pegged ER Regime (dummy)	-0.043***		-0.032**	
	[0.013]		[0.012]	
Constant	0.168*	0.175*	0.124	0.128
	[0.095]	[0.095]	[0.088]	[0.088]
N° Observations	48	48	48	48
Adjusted R2	0.597	0.588	0.668	0.663

(*) $p<0.1$, (**) $p<0.05$, (***) $p<0.01$, robust standard errors in brackets.
Source: Authors' calculations based on Bloomberg, CEIC, IMF (AREAER, IFS), World Bank and World Economic Forum. The competition index captures competition in the local and foreign markets and takes values from 1 to 7 (most competitive). Inflation deviation is measured as the average of the absolute difference between actual inflation and target inflation. The pegged ER regime dummy takes the value of 1 if the country's exchange rate is anchored to another currency and 0 otherwise. Exchange rate stability is measured as the reciprocal of one plus the annual standard deviations of the monthly exchange rate between the home country and its base country (as in Aizenman, Menzie and Ito, 2013). Interest rate volatility is the standard deviation of the nominal interest rate.

We also include measures of monetary policy credibility, which have been found in several studies to explain the degree of ERPT in the cross section.[12] We measure it as the average absolute deviation of inflation from its target (a higher value stands for less credibility),[13] which has a highly significant, positive coefficient (second row). In terms of economic magnitude, a reduction of one standard deviation in the sample's absolute inflation error leads to a decline in the ERPT between 0.34 and 0.55. Another measure that has been used to a similar end is the volatility of the

[11] For related theory, see Bacchetta and van Wincoop (2005). Yang (1997) also finds a negative effect of increased competition in empirical work.
[12] See, for example, Campa and Goldberg (2005).
[13] For countries without an explicit target, we use their implicit targets often mentioned in MPR statements, such as 2% for the US and many EZ countries.

MPR, which we test in some specifications (row 3).[14] The logic for its inclusion is that a less credible central bank will need a more responsive policy to accommodate shocks, since long-term inflation expectations can become unanchored more easily.[15] It has the expected positive effect, but its inclusion reduces the coefficient of the previous proxy, as well as the significance of some of the other variables.

Another set of variables that has been found to explain ERPT are those related to the stability of the exchange rate. Several papers have argued that in a less volatile environment, firms are less likely to pass on to prices NER movements that might be perceived as transitory.[16] We indeed find a negative and statistically significant relation between exchange rate stability and ERPT (row 4).[17] Alternatively, the inclusion of an exchange rate peg dummy also lowers ERPT, but this might be more mechanically associated with the effect of currency pegs on ERPT, as such policy de facto eliminates depreciations in important components of the import basket, as explained above.

4. Comparing LATAM with selected country groups

In order to gain further perspective about the recent inflationary experience in LATAM, we compare the region with other selected country groups. Ideally, one would like to have at least three control groups with the following characteristics: First, a group of economies sharing the structural element of having relatively large ERPT, but whose external shocks have differed from those experienced by LATAM in the post-taper-talk period. Such group would be useful to assess the differential effect of shocks to the recent inflationary episode in LATAM. Second, one would want to study countries which were exposed to similar external shocks, but that differ substantially in the degree of ERPT, in order to assess the contribution of structural elements. Lastly, a final check on our hypothesis could be provided by a control group which shares both similar shocks, as well as structural characteristics. If our hypothesis is correct, we would expect such group of economies to exhibit similar inflation trends as LATAM in the more recent period.

Table 4 summarizes the estimates of ERPT, as well as some key indicators of external shocks, including the evolution of ToT and the NER depreciation *vis-à-vis* the USD (both in annualized terms), for different control groups. The first control

[14] See Ghosh (2013).
[15] This argument is reminiscent of Barro and Gordon (1983), and Calvo and Reinhart (2002).
[16] See Campa and Goldberg (2005), and Choudhri and Hakura (2006).
[17] An alternative argument is that, when a country goes from fixed to floating NER regime, the degree of ERPT could actually be lower, since in a fixed regime any movement in the NER is likely to be considered permanent. Indeed, Steel and King (2004) estimate that the transition in New Zealand from a fixed exchange rate to a flexible regime in the 1990s lowered the ERPT. This result is not inconsistent with our findings, since we focus exclusively on countries with flexible exchange rate regimes *vis-à-vis* the USD, and hence exclude NER regime switches in our sample.

group includes a subset of EMEs from Southeast Asia that are classified as non-commodity-exporters. These economies are closer to LATAM in terms of economic development and the many different factors associated with it, such as institutions, rule of law, etc. Also, all these economies exhibit flexible exchange rates. In terms of ERPT, the group average is estimated at 0.11, which is smaller than the 0.19 estimated for LATAM, but significantly higher than for AEs.

Table 4: shocks, structural conditions, and inflation outcomes

	Shocks		Structural	Outcome
	NER (%)	ToT (%)	ERPT	Inflation deviation (%)
LATAM	**17.6**	**-4.6**	**0.19**	**1.83**
Brazil	23.2	-5.2	0.31	2.77
Chile	13.6	-1.4	0.19	1.68
Colombia	16.7	-14.4	0.10	0.55
Mexico	11.7	-1.7	0.04	0.92
Peru	8.9	-4.0	0.17	1.25
EME SoA, non-commodity	**6.1**	**1.9**	**0.11**	**-0.34**
Malaysia	10.1	-1.9	0.12	0.18
Philippines	3.8	5.0	0.08	0.24
Thailand	4.7	2.7	0.12	-1.14
AE commodity	**12.0**	**-7.8**	**0.07**	**-0.52**
Australia	13.7	-11.2	0.03	-0.32
Canada	10.4	-4.5	0.11	-0.55
New Zealand	4.3	1.0	0.04	-1.18
Norway	17.1	-16.0	0.02	-0.69
EME commodity	**23.6**	**-10.3**	**0.16**	**5.38**
Indonesia	15.9	-2.7	0.19	3.41
Russia	31.3	-17.8	0.13	7.73
South Africa	13.7	-1.4	0.19	0.96

Source: Authors´s calculations.

At the same time, the exposure of this group to external shocks was markedly different. Indeed, ToT actually improved after May 2013, mostly reflecting the sharp drop in oil prices. Consequently, the rate of NER depreciation was only a third of the figure for LATAM. This comparison suggests that for this group of countries, having significantly lower exchange rate depreciation is likely to be the main feature explaining its lower inflation outcome (-0.34% on average) *vis-à-vis* LATAM (+1.83%).

A second relevant control group is one in which exposure to external shocks was similar, but which does not share the high degree of ERPT of LATAM. This group consists of the AE commodity exporters with flexible exchange rate regimes, including Australia, Canada, New Zealand and Norway. The table shows that these countries actually suffered worse ToT shocks than LATAM during this period (-7.8% vs. -4.6% for LATAM), although the NER depreciation was smaller. But the key difference seems to be the degree of ERPT, which at 0.07 is less than a third of the value estimated for LATAM. In consequence, the NER depreciation had but minor effects on inflation in this group.

Lastly, we consider a selected group of EMEs which are also commodity exporters, including Indonesia, Russia, and South Africa. Table 4 shows that this group suffered the worse ToT evolution in the period considered among all four groups (-10.3% annualized), which translated into the largest NER depreciation (23.6%). At the same time, the degree of ERPT is estimated at a group average of 0.16, very similar than for LATAM. Our hypothesis that inflationary pressures in this period reflect a combination of both shocks, as well as structural responses to these shocks, will therefore predict a large, positive inflation deviation for this group. This is precisely the outcome reported in the table (5.38% for the group average).

5. Conclusions

The recent inflationary experience in LATAM seems strongly related to the evolution of external events. First, ToT have worsened significantly, leading to rather large NER depreciations of the currencies in the region *vis-à-vis* the USD. Second, structural characteristics of these economies are consistent with a relatively large degree of ERPT to domestic prices. Both elements seem important to understand the recent deviation of inflation above targets. Indeed, countries which share high levels of ERPT but were exposed to less NER depreciation show inflation rates below targets since May 2013. On the other hand, countries which experienced similar external shocks but have significantly lower ERPT have also exhibited low inflation rates. And finally, countries which share both the degree of ERPT and the exposure to external shocks as LATAM have also seen a significant rise in recent inflation rates.

References

Aizenman, J., Menzie D., and H. Ito (2013). “The 'Impossible Trinity' Hypothesis in an Era of Global Imbalances: Measurement and Testing,” Review of International Economics, 21(3), 447–458.

Bacchetta, P. and E. van Wincoop (2005). “A Theory of the currency denomination of international trade,” Journal of International Economics, 67, 295-319.

Barro, R. and D. Gordon (1983). “Rules, discretion and reputation in a model of monetary policy.” Journal of monetary economics, 12(1), 101-121.

BIS (2014). 84th annual report.

Borio, C. and A. Filardo (2007). “Globalisation and inflation: New cross-country evidence on the global determinants of domestic inflation.” Working paper.

Bullard, J. (2012) "Global output gaps: wave of the future?" Federal Reserve Bank of St. Louis Speech March 28.

Calvo, G. and C. Reinhart (2000). “Fixing for your life,” NBER Working Paper, 8006.

Calvo, G. and C. Reinhart (2002). “Fear of Floating.” Quarterly Journal of Economics, 117(2), 379-408.

Campa, J. and L. Goldberg (2005). “Exchange Rate Pass-Through into Import Prices,” The Review of Economics and Statistics, 87(4), 679-690.

Ca’Zorzi, M., Eke H., and M. Sánchez (2007). “Exchange Rate Pass-Through in Emerging Markets,” The IUP Journal of Monetary Economics, IUP Publications, 0(4), 84-102.

Choudhri, E. and D. Hakura (2006). “Exchange Rate Pass-Through to Domestic Prices: Does the Inflationary Environment Matter?,” Journal of International Money and Finance, 25, 614-639.

Ghosh, A. (2013). Exchange rate pass through, macro fundamentals and regime choice in Latin America. Journal of Macroeconomics, 35, 163-171.

IMF. 2013 *World Economic Outlook* (April).

Krugman, P. (2013). Personal Blog.

Milani, F. (2010). Global slack and domestic inflation rates: A structural investigation for G-7 countries. Journal of Macroeconomics, 32(4), 968-981.

Moccero, D., S. Watanabe, and B. Cournède (2011). "What Drives Inflation in the Major OECD Economies?." OECD working paper.

Steel, D., and A. King (2004). "Exchange Rate Pass-through: The Role of Regime Changes." International Review of Applied Economics, 18(3), 301-322.

Weale, M. (2014) Speech at the Confederation of British Industry, Belfast. 18 June.

Yang, J. (1997). "Exchange Rate Pass-Through in U.S. Manufacturing Industries," The Review of Economics and Statistics, 79(1), 95-104.

Yellen, J. (2014) Speech at the Federal Reserve Bank of Kansas City Economic Symposium, Jackson Hole, Wyoming. August 22.

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