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Abstract

Using a GARCH model, we study the effects of U.S. monetary policy and macroeconomic announcements on Argentine money, stock, and foreign exchange markets over the period January 1998 to July 2007. We show, first, that both types of news have a significant impact on all markets. Second, there are noticeable differences in reaction for different subsamples: Argentine money markets were more dependent on U.S. news under the currency board than after it was abandoned as the floating exchange rate partly absorbs spillover effects from the United States. Finally, we find that U.S.-dollar-denominated assets react less to U.S. news than peso-denominated assets, which suggests that the currency board was not completely credible during its final years.

JEL: E52, F33, G14, G15

Keywords: Argentina, Central Bank Communication, Financial Markets, Federal Reserve, Macroeconomic Announcements

1. Introduction

The impact of central bank communication and macroeconomic announcements on financial markets in the United States has been studied extensively. Concentrating on the formal and informal channels of central bank communication, many papers find that U.S. financial markets react to this news (e.g., Ehrmann and Fratzscher, 2007; Hayo et al., 2008). However, given that the United States is the world's largest economy, it is likely that its economic news matters for other countries, too. There are several channels through which foreign macroeconomic shocks are transmitted to financial markets: The first channel is based on greater real economic integration via international trade.¹ An economic upswing in a closely integrated foreign country is bound to improve the domestic situation through increased imports and vice versa. The second channel is financial market integration based on high capital mobility. This channel carries the risk of contagion arising from shocks in other markets. The third channel is driven by monetary policy: Argentina pegged its exchange rate against the U.S. dollar and, therefore, had to follow U.S. monetary policy very closely. This also implies a greater sensitivity to U.S. news and a co-movement of short-term interest rates.

Argentina is a particularly interesting emerging financial market. Given that it had a fixed exchange rate regime until February 2002, we expect U.S. developments to have a substantial impact on the Argentine economy.² Studying this period of recent Argentine economic history also allows an analysis of how financial markets in Argentina react to U.S. news after entering the new regime of flexible exchange rates with the U.S. dollar. Our analysis focuses on the influence of U.S. news on Argentine markets during "normal" times.³ Thus, it does not cover either the Argentine financial crisis, a period when domestic problems led to the breakdown of the currency board, or the recent financial crisis.⁴ Contrasting the currency board regime with the floating exchange rate regime, we address three specific research questions: First, do U.S. central bank communication and U.S. macroeconomic announcements influence Argentine financial market returns? Second, does the creation of the currency board affect the strength of this effect? Third, was the currency board credible during its final years?

The remainder of the paper is organized as follows. In the next section, we summarize previous work in this area and outline the contributions of this paper. Section 3 describes the

¹ The trade share of Argentina with the United States is between 10 and 16 percent and declines during the sample period.

² Wolf et al. (2008) provide a comprehensive overview of the technical functioning of currency boards and the macroeconomic challenges faced by countries that peg their exchange rate.

³ Further information on the sample period is provided in Section 3.

⁴ The Argentine currency board and its breakdown are discussed, for instance, in Bleaney (2004) and Gurtner (2004).

construction of the news dummies and explains our data set as well as the econometric methodology. Section 4 reports our empirical results for the money, stock, and foreign exchange markets. Section 5 concludes.

2. Related Literature and Our Contribution

A large branch of the literature analyses the impact of macroeconomic announcements on financial markets (e.g., Bollerslev et al., 2000) or the co-movements of international financial markets (e.g., Forbes and Rigobon, 2002). However, to our knowledge, there are very few papers that study spillover effects of either U.S. monetary policy or U.S. macroeconomic announcements on emerging markets. Wongswan (2009) analyzes the response of global equity indices to U.S. monetary policy announcements. Using intraday data, he finds that the Argentine Merval Index falls significantly, by 6 percentage points, after a surprise hike of 100 bps. However, when excluding intermeeting target rate moves, the coefficient becomes insignificant. Also employing intraday data, Robitaille and Roush (2006) examine the reaction of Brazilian sovereign yield spreads and stock prices to FOMC announcements and U.S. macroeconomic surprises. They find that announcements of a U.S. interest rate hike lead to an increase in bond spreads and a decline in the Bovespa index. Nonfarm payroll news, as well as CPI surprises, tend to raise spreads and lower share prices. Wongswan (2006) analyzes the transmission of U.S. macroeconomic announcements and interest rate decisions on financial markets in developing countries. Using high-frequency data, he concludes that a large and significant association exists between news originating in the United States and volatility, as well as trading volumes, in the Korean and Thai equity indices.

Andritzky et al. (2007) investigate the reaction of emerging market bonds to U.S. macroeconomic announcements and target rate changes. Global bond spreads tend to respond more to rating actions and changes in U.S. rates than to the respective domestic news. U.S. macroeconomic data and policy announcements reduce uncertainty and stabilize spreads. Arora and Cerisola (2001) explore how sovereign bond spreads are influenced by U.S. monetary policy. They conclude that the stance and predictability of U.S. monetary policy are important for stabilizing capital flows and capital market conditions in emerging markets. Alper (2006) concludes that the unanticipated component of U.S. monetary policy is significant in explaining movements in emerging market sovereign bond spreads.

In this paper, we study the effects of Federal Reserve (Fed) communications (including target rate movements) and U.S. macroeconomic announcements on money, stock, and foreign exchange market returns in Argentina. The inclusion of U.S. news (in addition to

U.S. financial market returns) allows us to explore one of the sources of financial market co-movement. Our sample time period (January 1998–July 2007) is particularly useful in this regard as it includes the change in the Argentine exchange rate regime. Econometrically, we employ a GARCH specification of daily financial returns to capture the autoregressive conditional heteroscedasticity that characterizes many financial series. Our approach extends the existing literature in two ways. First, ours is a pioneering study of the effects of formal and informal communication by the Fed on Argentine financial markets. We employ a data set containing indicators based on speeches by Fed officials on the topics of monetary policy inclination and economic outlook. Previously, only actual target rate changes by the Fed have been studied. Second, this is the first paper to examine the different Argentine exchange rate regimes in this context.

3. Data and Econometric Methodology

In our analysis, we use a subsample of the data set introduced and extensively described in Hayo et al. (2008). It includes summaries of 705 speeches and 159 congressional hearings, covering all members of the Board of Governors, as well as 72 postmeeting statements and 22 monetary policy reports (MPR). The communication events are subjectively coded into dummy variables on the basis of their written content.⁵ Following the literature (e.g., Ehrmann and Fratzscher, 2007), we categorize the communication content into a monetary policy and an economic outlook component. The coding for the U.S. economic outlook news is either “positive” (EO+) or “negative” (EO–), while “tightening” (MP+) or “easing” (MP–) are the categories for the Fed’s monetary policy stance. In the analysis, we employ dummy variables that are split into positive and negative news to account for possible asymmetric reactions of financial markets.⁶ In total, there are 16 communication dummies as all four types (statements, MPR, testimony, speeches) can be coded into the four different categories EO+, EO–, MP+, and MP–. As there are no explicit expectation indicators about the content of an upcoming speech (like the Bloomberg survey before every meeting of the Federal Open

⁵ In designing these categories of news, we carefully read each speech twice, with a considerable time lag between each reading, and then coded them independently into the respective dummy categories. In the case of a conflict between the two codings, we checked the relevant speeches yet another time and adjusted our indicators accordingly. We employed extensive robustness checks to ensure that our results do not depend on the particular coding of ambiguous individual observations. Data are obtained from the official website of the Board of the Governors of the Federal Reserve System.

An alternative to subjective coding is using content analysis software (for instance, Lucca and Trebbi, 2009). However, communications other than postmeeting statements are not standardised and, thus, content analysis programmes fail to detect systematic patterns in these more complex texts.

⁶ For example, this type of asymmetry can be found in the impact of IMF statements on financial returns in emerging markets (Hayo and Kutan, 2005).

Market Committee), we cannot extract a surprise component from the communication events. Communication events occurring after market closure are assigned to the next business day.

The surprise components of several macroeconomic indicators typically watched by financial market participants are also subject to examination. We choose the 10 news items from Ehrmann and Fratzscher (2007): advance gross domestic product (GDP), industrial production, and trade balance to capture the growth expectations; the Institute for Supply Management (ISM) survey and the Conference Board consumer confidence for producer and consumer confidence; nonfarm payroll and the unemployment rate to proxy labour market conditions; retail sales for actual consumption; the consumer price index (CPI) and producer price index (PPI) for inflation. These variables enter Equation (1) separated into positive and negative impulse dummies on the day of their announcement.⁷

Our Argentine financial market indicators are comprised of daily closing interbank lending rates and daily returns on stock and foreign exchange markets over the period from January 2, 1998 to July 31, 2007.⁸ We choose daily data instead of intraday data for two reasons. At a conceptual level, we are interested in the question of whether there are persistent economically important effects, rather than just short-term ups and downs. Furthermore, even though the scheduled delivery time of speeches is recorded on the central bank's website, it is not possible to time the central bank *news* in precise in five-minute intervals, as can be done for newswire reports.

As dependent variables, we employ (i) daily changes of the three-month Buenos Aires Interbank Offered Rate. Up to the time the currency board was abandoned, we examine both peso- and dollar-denominated interbank rates. We also assess (ii) the daily growth rates of the Merval Stock Index and (iii) the dollar/peso spot rate.⁹ We split the sample into two subsamples: the first ends on June 29, 2001 and is called the 'currency board subsample'.¹⁰

⁷ We explore several specifications for U.S. macroeconomic news. In a first step, we test whether the actual values, the standardized shocks, or both have an impact on our financial market indicators. The shocks are significant, whereas the actual values remain insignificant. The same outcome occurs when including actual values and news dummies instead of shocks. In a second step, we discover that the results using news dummies weakly dominate the ones using standardised shocks in terms of significance and, therefore, we employ news dummies in the analysis presented below.

⁸ Data sources: U.S. bond market and foreign exchange market series—Federal Reserve's statistical releases H10 and H15; stock market series—Yahoo! Finance database; Argentine interbank lending rates—Central Bank of Argentina statistical database; Surveys of macroeconomic announcements—Bloomberg newswire.

⁹ Exchange rates are defined in price notation, which implies that an increase in the exchange rate indicates a depreciation of the peso against the dollar. The exchange rate is used as an endogenous variable only in the second subsample, as it was pegged until February 2002.

¹⁰ In July 2001, the Argentine economic and financial crisis hit the money market as returns increased sharply. Markets displayed lack of confidence in the government's plan to balance the budget and subsequently the country rating worsened.

The ‘floating exchange rate subsample’ starts on January 2, 2003 and continues until the end of our sample window.¹¹

Descriptive statistics show that all financial market series exhibit excess kurtosis (Tables A1 and A2 in the Appendix). ARCH models increase estimation efficiency in time series characterized by volatility clustering (Engle, 1982). We start with a generalized version of the GARCH specification proposed by Bollerslev (1986) and apply a testing-down process to increase estimation efficiency:

$$(1) \text{ returns}_t = \gamma + \delta \text{ returns}_{t-1} + \zeta \text{ financial control variables}_{t-1} \\ + \eta \text{ day of the week effects} + \theta \text{ target rate movements} \\ + \iota \text{ U.S. macroeconomic announcements} \\ + \lambda \text{ U.S. communication dummies} + \mu_t,$$

$$\mu_t = \epsilon_t h_t^{1/2},$$

$$h_t = \alpha_0 + \alpha_1 \mu_{t-1}^2 + \beta_1 h_{t-1},$$

where $\alpha_0, \alpha_1, \beta_1, \mu, \gamma, \delta, \zeta, \eta, \theta, \iota, \lambda,$ and v are parameters or vectors of parameters and $\epsilon_t | \Gamma_{t-1} = t(v)$, with Γ_{t-1} capturing all information up to $t-1$, and $t(v)$ a t -distribution with v degrees of freedom (Bollerslev, 1987). Contemporaneous financial control variables (returns on other Argentine markets, U.S. bond returns, U.S. stock returns, and growth rates of the EMBIG Latin spread) are excluded to avoid potential simultaneity problems. We also control for day of the week effects and movements in the Federal Funds Target Rate by including separate dummies for expected and unexpected rate hikes and cuts.¹² After estimating these rich GARCH(1,1) models, we exclude all insignificant variables in a general-to-specific approach (Hendry, 2000).

4. Analyzing the Effects of Fed Communication on Financial Market Returns

Table 1 shows the impact of U.S. news on money market returns (Buenos Aires Interbank Offered Rate, Baibor) and on the main equity market index (Merval) during the currency board era. U.S. target rate changes are particularly important when they hit the markets as surprises. Both peso- and dollar-denominated money market rates increase after a 25 bps

¹¹ In December 2002, the financial crisis effects on money markets decreased substantially after restrictions on peso-denominated bank withdrawals were relaxed and the government showed its ‘good faith’ by symbolically repaying some debt to several international organisations.

¹² Bloomberg surveys are used to identify surprises occurring at scheduled meetings. Intermeeting moves are naturally classified as surprises. For instance, a “surprise hike” can be (i) an unexpected rise in the target rate or (ii) an unchanged target rate when a rate cut was expected.

surprise hike, whereas such news depresses equity returns.¹³ Furthermore, expected target rate cuts decrease peso-denominated returns. Unexpectedly loose monetary policy also influences all three markets. The hike in equity returns is the largest reaction found across all news and assets.¹⁴ The influence on money market returns is somewhat counterintuitive. However, three unexpected interest rate cuts took place at an unscheduled meeting, whereas the Fed cut its target rate by more than expected only once at a scheduled meeting. Further examination reveals that when the Fed cuts its target rate at an unscheduled meeting, financial market agents interpret the cut as a signal that the central bank has new information indicating that the U.S. economy will perform worse than expected, which then leads to an increase in foreign interest rates.¹⁵

Macroeconomic news is important only for peso-denominated and equity returns; dollar-denominated returns are unaffected by this type of news. A higher than expected CPI is interpreted as a sign of a possible interest rate hike in the near future and, therefore, significantly moves the money market returns up (an indication of the Fisher relationship) and the stock market down due to the increase in borrowing costs. We also observe falling money market rates after lower than expected CPI.¹⁶ Worse GDP figures indicate a possible decrease in credit demand and, thus, cause interest rates to decline.

Central bank communication is particularly important when it conveys negative news about the economic outlook. Not only does it indicate a decline in credit demand, but a negative economic outlook can also be interpreted as signalling a future interest rate cut. Therefore, speeches (postmeeting statements) decrease peso-denominated (dollar-denominated) returns. A straightforward interpretation with regard to the equity market is that a negative economic outlook implies lower expected profits. As a consequence, equity returns are depressed by this type of news conveyed in MPR or congressional hearings.

¹³ The coefficients can be interpreted as follows. All target rate variables are coded as multiples of 25 bps. For instance, the coefficient 0.198 (−0.801) implies an increase of 19.8 bps (decrease of 80.1 bps) in the three-month peso rates (the Merval index) after a surprise hike in the U.S. target rate. In the case of macroeconomic surprises and central bank communication, we rely on news dummies. For instance, the coefficient 0.055 (−2.262) denotes an increase of 5.5 bps (decrease of 2.26 pp) in the three-month peso rates (the Merval index) after announcement of a higher than expected U.S. CPI.

¹⁴ The influence is statistically larger than for target rate hike surprises ($\text{Chi}^2(1) = 4.2^*$).

¹⁵ All unexpected interest rate hikes took place at scheduled meetings.

¹⁶ The influence of positive and negative CPI news is statistically equal ($\text{Chi}^2(1) = 0.43$).

Table 1: Results for Currency Board Subsample (January 1998–June 2001)

	3-Month Peso	3-Month Dollar	Merval
α_0	0.001 *	0.000	0.232 *
α_1	0.441	0.285	0.090 **
β_1	0.559 **	0.715 **	0.872 **
Student-t dof	3.202 **	2.812 **	3.989 **
Endogenous 1st Lag	0.437 **	0.256 **	
EMBIG Latin 1st Lag	-0.020 **		
TR Surprise Hike	0.198 **	0.136 *	-0.801 **
TR Cut	-0.037 *		
TR Surprise Cut	0.088 *	0.105 **	3.272 **
CPI +	0.055 **		-2.262 **
CPI -	-0.040 **		
GDP -	-0.096 **		
Statement MP +			-0.647
Statement EO -		-0.150 *	
MPR/Testimony EO -			-1.174 **
Speech MP +			-0.750
Speech EO -	-0.044 *		
Exclusion Restriction	48.6	16.8	51.2
ARCH 1-2 Test	0.002	0.017	0.105

Notes: * (**) indicates significance at a 5% (1%) level. Standard errors are heteroscedasticity-consistent (Bollerslev and Wooldridge, 1992). Number of observations: 839.

The results for the floating exchange rate subsample are given in Table 2. Neither U.S. macroeconomic news nor target rate movements have any significant impact on money market rates. A U.S. target rate cut depresses equity returns, likely signalling the expectation of a recession in the United States and causing fear of negative effects for Argentine firms, but appreciates the peso against the dollar. A relatively higher Argentine rate then triggers additional capital imports, which lead to an appreciation of the exchange rate.

Improving business confidence, as reflected by positive ISM news, increases Argentine equity returns. A lower than expected CPI moves the Fed's monetary policy inclination toward an interest rate cut and, similar to what happens when there is an actual interest rate cut, the peso appreciates. Negative nonfarm payroll news, as well as negative retail news, indicate a worsening of the U.S. economy, which is reflected by depreciation against the peso.

Central bank communication is relevant for all markets. First, in line with the finding for the currency board era, a negative economic outlook put forward in a MPR or in testimony decreases money markets returns. Second, a speech indicating a future target rate cut causes a decline in interest rates. Third, similar to the results for an actual interest rate cut, the peso

appreciates after the mention of an interest rate cut in a MPR, testimony, or a speech. Finally, a dovish MPR/testimony indicates lower borrowing costs in the future and, therefore, causes higher equity returns. The same result is found for a speech implying a bright economic outlook as it signals an increase in expected profits.

Table 2: Results for Floating Exchange Rate Subsample (January 2002–July 2007)

	3-Month Peso	Merval	ARS/USD
α_0	0.001 **	0.105 *	0.001 **
α_1	0.308	0.091 **	0.245 **
β_1	0.692 **	0.876 **	0.755 **
Student-t dof		6.171 **	9.268 **
EMBIG Latin 1st Lag			-0.065 **
ARS/USD 1st Lag	0.068 *		0.159 **
Constant Term		0.173 **	
Friday			0.037 **
TR Cut		-0.352 **	-0.237 **
CPI –			-0.105 *
ISM +		0.612 *	
NFP –			-0.062 *
RET –			-0.066 **
MPR/Testimony MP –		2.575 **	-0.745 **
MPR/Testimony EO –	-0.070 **		
Speech MP –	-0.089 **	-0.817	-0.617 **
Speech EO +		0.684 *	
Exclusion Restriction	48.7	43.9	47.3
ARCH 1-2 Test	1.132	0.543	2.060

Notes: * (**) indicates significance at a 5% (1%) level. Standard errors are heteroscedasticity-consistent (Bollerslev and Wooldridge, 1992). Number of observations: 1,106.

A comparison of the results in Tables 1 and 2 reveals some interesting insights. First, we find that there are generally fewer significant news variables in the money market after the crisis than during the currency board era. In particular, neither central bank actions nor macroeconomic indicators exert a significant influence. We interpret this as evidence that the Argentine economy became less dependent on events in the United States and, particularly on U.S. monetary policy, after the currency board was abandoned.¹⁷

¹⁷ To test for statistical differences between the currency board era and the floating exchange rate subsample, we estimate an unrestricted version of Equation (1) in both periods for the peso-denominated money market and the equity market, respectively. Tests of differences in means across the two samples are mostly insignificant, except for two cases. The influence of MPR/Testimony EO– on the money market is larger during the second subsample ($z = 2.47^*$) and CPI+ shocks have a larger impact on the equity market during the currency board era ($z = -3.07^{**}$).

Second, neither communication about the future course of U.S. monetary policy nor any type of macroeconomic news triggers a significant reaction of dollar-denominated money market returns. In contrast, peso-denominated assets are affected by a variety of U.S. news. On the one hand, dollar-denominated assets are expected to react more strongly to U.S. news than are peso-denominated assets because of movements in the external value of the U.S. dollar. On the other hand, dollar assets are considered much safer investments than peso-denominated assets and thus markets react less nervously to any U.S. news. The latter interpretation receives indirect support by the sharp increase in the spread between peso- and dollar-denominated assets at the beginning of the financial crisis. Thus, these findings can be interpreted as evidence that during its final years, the currency board was not completely credible and dollar-denominated Argentine assets were used as a ‘safe haven’.

Third, our results provide evidence for the absorbing role of the exchange rate in the transmission of U.S. macroeconomic news to Argentine financial markets. In particular, we find the peso/dollar exchange rate to be strongly influenced by U.S. news during the second subsample, whereas the money market has a less pronounced reaction in this period than it did in the currency board era. Furthermore, money market returns are directly influenced by past foreign exchange returns. A depreciation of the peso against the dollar increases interest rates, possibly reflecting capital outflows and vice versa.

Fourth, we generally discover Argentine financial markets mirroring the effects found for the United States (see, e.g., Ehrmann and Fratzscher, 2007; Hayo et al., 2008). For instance, a weak economic outlook decreases money market returns, whereas a higher than expected CPI reduces equity market returns. For investors, mirroring implies that the diversification opportunities between U.S. and Argentine financial markets may be limited.

As a robustness test, we check whether the inclusion of Argentine macroeconomic announcements affects our results. To that end, we employ the surprise component of six Argentine macroeconomic announcements for which systematic Bloomberg expectation surveys are available: GDP, industrial production, trade balance, unemployment rate, government tax revenue, and CPI. These variables enter the reduced models presented in Tables 1 and 2, separated into positive and negative impulse dummies on the day of their announcement. Our results remain virtually unchanged.¹⁸ Thus, in general, domestic news

¹⁸ Only two significant coefficients from Tables 1 and 2 are found to be marginally insignificant when controlling for Argentine macroeconomic news: (i) surprise interest rate cuts in the peso-denominated money market during the currency board era and (ii) positive ISM news in the equity market during the second subsample. To conserve space, we do not report these regressions. All omitted results are available on request.

does not crowd out the effect of U.S. monetary policy and macroeconomics news on Argentine financial markets.

5. Conclusions

We study the effects of many types of Fed communication and U.S. macroeconomic shocks on Argentina's financial market returns. Using a GARCH model, we explore the impact on money, stock, and foreign exchange markets over the period January 1998 to July 2007 after splitting the sample into two, one subsample capturing the currency board regime, and the other the floating exchange rate regime. We concentrate our analysis on three research questions.

First, do U.S. central bank communication and U.S. macroeconomic announcements influence Argentine financial market returns? We show that both types of news have a significant impact on money, equity, and foreign exchange markets. The impact is statistically significant and economically relevant (up to 3.3 percentage points during the currency board era). We generally find Argentine financial markets mirroring the effects found in the corresponding U.S. markets. As a consequence, investors should be aware that diversification opportunities between U.S. and Argentine financial markets could be limited.

Second, does the creation of the currency board affect the strength of this effect? Yes, as we conclude that Argentina's money markets have become less dependent on U.S. events after the breakdown of the currency board. There are fewer significant news variables in the floating exchange rate subsample compared with the currency board subsample. In particular, neither central bank actions nor macroeconomic indicators exert a significant influence. Our results provide evidence that the exchange rate acts as an absorber in the transmission of U.S. macroeconomic news to Argentine financial markets.

Third, was the currency board credible during its final years? We find that Argentine assets denominated in dollars are generally influenced by fewer significant variables with smaller coefficients in absolute terms than are peso-denominated assets during the currency board subsample. Our results suggest that dollar-denominated assets are seen as safer than peso-denominated assets, which implies that the currency board was not regarded as completely credible by market participants during its final years.

The results of this paper have some policy implications. First, a currency board fosters financial integration. We show that under the pegged exchange rate system, Argentine money markets react to the same set of macroeconomic variables as do U.S. markets. However, they are much less sensitive to U.S. news after the currency board was abandoned. Thus, financial

integration between the two countries has decreased, which suggests that the currency board must have caused a higher degree of financial integration in the first place.

Second, our results suggest that policymakers should consider real economic developments, in addition to monetary policy, in the anchor country before deciding to peg their currency. In a one-sided fixed exchange rate system, the anchor country's central bank sets interest rates based on domestic conditions. Hence, through this channel, the anchor country's domestic conditions have a direct influence on financial markets in the currency board country. Thus, even when there is not a particularly high degree of real economic integration between the two countries, financial markets will react to economic shocks in the anchor country.

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Appendix

Table A1: Descriptive Statistics for Currency Board Subsample (January 1998–June 2001)

	3-Month Peso	3-Month Dollar	Merval
Observations	840	840	840
Mean	0.006	0.001	−0.037
Standard Deviation	0.796	0.310	2.376
Skewness	5.006	4.847	0.028
Excess Kurtosis	71.120	68.644	4.289
Minimum	−4.563	−2.063	−13.323
Maximum	11.688	4.563	12.260

Number of observations: 839.

Table A2: Descriptive Statistics for Floating Exchange Rate Subsample (January 2002–July 2007)

	3-Month Peso	Merval	ARS/USD
Observations	1107	1107	1107
Mean	−0.005	0.144	−0.006
Standard Deviation	0.190	1.723	0.476
Skewness	3.490	−0.362	0.101
Excess Kurtosis	63.536	2.419	11.459
Minimum	−1.063	−8.627	−3.428
Maximum	2.750	6.701	3.187

Notes: Number of observations: 1,106.