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**Working Paper**

## Measuring the "tailwind" in an emerging market economy: The case of Argentina

Serie Documentos de Trabajo, No. 600

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*Suggested Citation:* Ocampo, Emilio (2016) : Measuring the "tailwind" in an emerging market economy: The case of Argentina, Serie Documentos de Trabajo, No. 600, Universidad del Centro de Estudios Macroeconómicos de Argentina (UCEMA), Buenos Aires

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**UNIVERSIDAD DEL CEMA**  
**Buenos Aires**  
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**DOCUMENTOS DE TRABAJO**

**Área: Finanzas y Economía**

**MEASURING THE “TAILWIND” IN AN EMERGING  
MARKET ECONOMY: THE CASE OF ARGENTINA**

**Emilio Ocampo**

**Octubre 2016**  
**Nro. 600**



WORKING PAPER

Draft Version 10 October 2016

**Measuring the “Tailwind” in an Emerging Market Economy:  
The Case of Argentina**

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**Abstract:**

This paper introduces an index that seeks to objectively measure the intensity of favorable external conditions that can lead to improved macroeconomic performance in Argentina. The country is a net exporter of commodities and a net importer of capital, therefore it benefits from rising prices in international commodity markets and the availability of low cost long-term capital. The index is partly based on the framework of “push” and “pull” factors developed in the early 1990s to explain international capital flows into emerging markets economies and my own experience as an international investment banker during the nineties.

**Key words:** Tailwind, push factors, economic policy, Argentina, emerging markets.

I am grateful to Niso Abuaf, José Dapena, Daniel Lema and Julián Siri for helpful comments. The views and opinions expressed in this paper do not necessarily represent those of UCEMA University.

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## **Introduction**

In the first decade of twenty first century, most Latin American economies experienced particularly favorable conditions in international financial and commodity markets, which in many cases resulted in higher GDP growth. The press, politicians and the general public have loosely referred to this phenomenon as “tailwind”. The term however has never been properly defined. Some economists have associated it with improving terms of trade, others with lower interest rates in the US. In this paper I propose an index that measures tailwind objectively and in real time. I also introduce an index that measures the receptiveness of international investors to invest in emerging market securities (i.e., portfolio flows in balance of payments terminology).

The idea grew out of my research on the links between rising commodity prices and populism, which I explored in another paper (see Ocampo, 2015).

### **Tail Wind and the Current Account**

Let's start with a very simplified model of Argentina's external sector using the basic national accounts and balance of payments identity:

$$(1) CA = X - M + NFIA + \text{Net Foreign Aid} = \Delta NFA$$

Where CA is the current account, X exports of goods and services, M imports of goods and services, NFIA, net factor income from abroad and NFA, net foreign assets. To the extent the country runs a current account deficit, it has to import capital in the form of portfolio debt and equity and FDI, i.e., its NFA will fall.

There are two types of exports, agricultural ( $X_A$ ) and non-agricultural ( $X_I$ ). Let's assume that in the short run, the latter are relatively constant. The dollar volume of  $X_A$  is simply:

$$(2) X_A = P_A \times Q_A$$

Where  $P_A$  are nominal agricultural commodity prices and  $Q_A$ , agricultural production. We know that over the medium term,  $Q_A$  is a positive function of  $P_A$ .

In Argentina, NFIA is essentially equal to interest ( $R_R$ ) and dividends ( $d_R$ ) earned by residents on foreign assets minus interest ( $R_F$ ) on foreign debt ( $d_F$ ) and dividends ( $d_F$ ) paid to foreign residents. The latter is significantly larger than the former and the interest component has historically been larger than the dividend component.

$$(3) R_F = r \times D_E$$

Where  $r$  is the average rate of interest paid and  $D_E$  the outstanding country's external debt. A large portion of this debt carries a fixed rate of interest but short-term debt is usually rolled-over at a rate can be approximated by the yield on the 10-year US Treasury Note ( $r_{10}$ ) plus a country risk premium that reflects the extra spread required by investors to hold Argentine debt:

$$(4) r_{ST} = r_{10} + CRP$$

Where  $r_{ST}$  is the average rate on short-term external debt and CRP is the country risk premium. The CRP depends on both internal and external factors and it is usually positively correlated with  $r_{10}$ , i.e., all other things equal when benchmark US interest

rates go down, the probability of the country defaulting on its external debt also goes down. In the case of Argentina, CRP is also negatively correlated with  $P_A$ , i.e. higher agricultural commodity prices improve the country's creditworthiness pushing down CRP. But CRP also depends on internal factors, including both those that determine long-term growth (institutions, infrastructure, natural resource base, etc.) as well as fiscal and monetary policies.

Given all of the above, in the short run, changes in Argentina's current account balance are mainly a function of what happens to agricultural commodity prices, US interest rates and the CRP:

$$(5) \Delta CA = \Delta P_A \times Q_A - \Delta r_{SR} \times D_E = \Delta P_A \times Q_A - (\Delta r_{10} + \Delta CRP) \times D_E$$

In this very simplified model, exogenous factors have a direct and immediate impact on Argentina's external. When those factors are favorable (high  $P_A$  and low  $r_{10}$ ), the country experiences tail wind, and when the opposite occurs it faces head wind. Given the above, an index to measure the wind's intensity and direction could be constructed using  $P_A$  and  $\Delta r_{10}$  as its main inputs.

But the level of interest rates alone is not enough to determine whether tail wind exists. It is also important to gauge to what extent international investors are willing to allocate capital to opportunities in emerging markets. As we shall see, this willingness depends on a myriad of other variables that can also be measured such as risk appetite, volatility and momentum. The literature refers to all of these variables as "push factors".

### **The Push and Pull Factor Framework**

Most Latin American economies have historically shared, in different degrees, two main features: they are net exporters of commodities and net importers of capital. Basically, a strong tailwind meant access to cheap capital abroad and very favorable prices for their exportable commodities. As explained above, at the most elementary level, there are two variables that explain tailwind: a) the US dollar price of those key commodities that generate the bulk of a country's export revenues, and b) the yield on the 10-year US Treasury note, which is the benchmark off which emerging market risk is priced. However, the latter is an imperfect indicator, as it does not necessarily reflect availability of capital for a borrower in an emerging market country.

In the case of Argentina, a net importer of capital with chronic fiscal imbalances, the availability and cost of long term debt in US dollars is a critical variable not only due to its potential impact on portfolio and FDI flows (and indirectly on economic growth), but also due its immediate and direct impact on public sector financing.

In a seminal paper, Fernandez-Arias (1993) introduced the terms "push" and "pull" factors to explain the direction and intensity of capital flows into emerging market economies (EME). Essentially, push factors are external (and therefore common to most EME) whereas pull factors are country specific (e.g., growth prospects, institutional strength, quality of economic policy, etc.). Both factors could also operate in reverse. For example, a tightening of Fed policy would indicate a negative "push" factor whereas a misguided economic policy at home would indicate a negative "pull" factor.

Writing in the early 1990s when capital flows were returning to Latin America, Fernandez-Arias described the issue that policymakers were facing at the time: whether

capital flows were being “pushed” by low interest rates in advanced economies (AE) or “pulled” by prospects of higher returns in EME. The answer had important policy implications. According to Chuhan, Claessens and Mamingi (1993), pull factors dominated, whereas Calvo, Leiderman and Reinhart asserted that push factors were more important. Fernandez-Arias sided with the latter.

The push-pull framework developed by Fernandez-Arias proved quite useful and has become a standard tool of analysis to explain capital flows into EME. In recent years, a number of studies have attempted to quantify the relative impact and importance of these factors. The issue became particularly important in the aftermath of the global financial crisis. A study by Fratzscher (2011) found that common shocks exerted a substantial effect on global capital flows and this effect changed markedly during the crisis. In particular, the rise in risk and crisis episodes triggered a reallocation of flows from many EME to some AE, while they had the opposite effect before and after the crisis, consistent with a “flight-to-safety” hypothesis during the crisis. In reviewing the literature, Koepke (2012) found there is a consensus among economists that both external and domestic factors matter for capital flows. It is also generally accepted that push factors have a significant impact on the direction of portfolio flows, somewhat less for banking flows, and least for FDI.

In a recent paper, Cerutti, Claessens and Dpuy (CCP) found that (i) the aggregate co-movement of aggregate inflows into EME conceals significant heterogeneity across asset types, as only bank-related and portfolio bond and equity inflows do co-move; (ii) while global “push factors” in AE mostly explain the common dynamics, their relative importance varies by type of flow; and (iii) the sensitivity to common dynamics varies significantly across countries, with market structure characteristics (especially the composition of the foreign investor base and the level of liquidity) rather than borrower country’s institutional fundamentals strongly affecting sensitivities.

As defined, tailwind can have a positive effect on economic growth of EME in two ways. The first is direct, through the impact of improving commodity prices on export revenues. Aslam et al (2016) found that historically commodity price booms led to sizable output gains in commodity exporters. The effect is stronger for countries with lower levels of financial development, more pro-cyclical fiscal policies and less flexible exchange rates. Gruss (2014) confirmed that for most commodity exporting countries in Latin America, the recent commodity price boom had a significant positive effect on GDP growth.

The second effect is indirect. Kose, Prasad, Rogoff and Wei (2009) reviewed the vast literature on capital flows and economic growth and concluded that it was positive if certain thresholds were met. These thresholds had to do with the level of development of domestic financial markets, the quality of institutions and corporate governance, the nature of macroeconomic policies (including the exchange rate regime), and the extent of openness to trade. If a country doesn’t meet these thresholds the positive relationship between capital flows and growth can disappear and even turn negative.

## Tail wind and “push” factors

Given all of the above, from a practical point of view, it would appear that an index that precisely measures the intensity of “push” factors would be valuable to EME policymakers and financial decision makers in the private sector. The indices developed in this paper attempt to do this by drawing on the original push-pull framework and my own experience as an international investment banker for over a decade.

For most EME, tailwind has two main components: the price of its key commodity exports and the cost and availability of foreign capital. In the case of Argentina, the first is simply the US dollar price of wheat, maize and soybeans in Chicago. Capturing the second is more complex. Portfolio flows, and to a lesser extent FDI, are affected by the level of US long-term interest rates. Market practitioners focus on the 10-year US Treasury Note, which is a key input to determine the price of any US dollar denominated bond offering and also to calculate the cost of capital for any long-term investment project in EME. But this rate tells half the story. The other half has to do with the availability of capital for EME issuers.

Following the literature, CCP define “push” factors as including the following variables: (i) the average GDP growth rate in four core economies (U.S., Euro Area, Japan, and U.K.), (ii) the US VIX, (iii) changes in the expected U.S. policy rate (difference between the 6 months fed funds future and the fed funds), (iv) the slope of the U.S. yield curve (the difference between the 10 year and the 3 month U.S. government T-bill yields, (v) the U.S. real effective exchange rate (REER), (vi) the TED spread (calculated as the difference between the three-month LIBOR and the three-month T-bill interest rate.) to capture global banks’ leverage and funding conditions, (vii) the 10-year U.S. government bond yield, to capture risk-free long term cost of investing; (viii) the lagged return of the EMBI+ as a proxy for return-chasing in EME bond markets, (ix) the lagged return in the MSCI emerging market index, to capture equity return-chasing in portfolio equity inflows. All these variables affect all types of capital flows. An increase in any of these variables would have, *caeteris paribus*, a negative impact on capital flows.

The tailwind index (TWIN™) is made up of two different sub-indices. The first includes only financial market variables. This is an index of financial market receptiveness to emerging market issuers (FREM for short). To build the FREM, I took the following approach: (i) I discarded any variables that could not be observed daily, i.e., GDP growth rate and REER, (ii), I used the EMBI+ spread instead of its monthly return, (iii) instead of using the return on the MSCI Emerging Markets Index, I subtracted it from the return on the S&P 500 Index, and (iv) I added the fed funds rate.

The second component of the TWIN is an index of international commodity prices, which CCP consider, in my view incorrectly, a “pull factor” (this is a totally exogenous variable beyond the control of any country’s policymakers). Also, to a certain extent, commodity prices serve as a proxy for the REER. In the case of Argentina, the commodity price index uses the monthly average price in Chicago for soybeans, wheat and maize.

Determining the appropriate weights for each of its components is the most difficult challenge when building any index. In this case, one approach is to rely on the parameters of the econometric models estimated in recent papers. However, these papers conclude that the relative importance of “push” factors: a) changes over time, b)

varies across types of capital flows (e.g., the TED spread affects bond inflows and equity inflows differently), and c) is country specific. For example, Cerruti, Claessens and Puy found that for total investment flows, the variables with the highest explanatory value are TED, EPC and YCS, in this order. For bond flows, the US10Y was the most important factor and, interestingly, YCS in the case of equity flows. In the case of bank flows, TED dominated. These results apply to the whole sample of 35 countries.

Another approach would be to use the relative weights implied in equation (5) above. For each year, we could estimate the value of  $P_A \times Q_A$  and  $r_{SR} \times D_E$  and use those values to fix relative weights. This alternative offers some promise but would require periodic adjusting.

Given the above considerations and with the objective of avoiding unnecessary complexity, I adopted the simple average method, i.e., 50% of any of the indices reflects information in commodity markets and the other 50% in financial markets. Within each grouping I also used simple averages. A narrower version of the tailwind index (TWIN3™) only uses commodity prices and the yield on the 10-year US Treasury Note, in both nominal and real terms.

The TWIN 1 index is the inverse of a weighted average of the following variables (monthly averages):

Variable	Indicator used	Ref.	Source
Exogenous growth in export revenues:	Minus average nominal price of maize, soybean and wheat	MSW	FRED
Long term cost of capital:	Yield on 10-year US Treasury Note	US10Y	FRED
Tightness of US monetary policy:	Fed funds rate	FF	FRED
Expected tightening	Difference between 6-month futures contract on fed funds and current fed funds rate	EPC	FRED
Equity Market Volatility	CBOE S&P500 Volatility VIX	VIX	FRED
Liquidity conditions in the interbank market:	TED Spread (the difference between the three-month LIBOR and the three-month T-bill interest rate)	TED	FRED
Risk aversion in the bond market	Yield Curve Steepness difference between yield on 10-year Note and the 3-month T-bill	YCS	FRD
Investor appetite for Emerging Market Equities	Monthly Return on the S&P 500 – Monthly return on MSCI EM	MOM	Standard & Poors and MSCI
Investor appetite for Emerging Market Debt:	EMBI+ spread	EMBI	J.P. Morgan

The intensity of the tail wind (or head wind) for any given period can be measured by the rate of change of the TWIN index over such period.

## Data

I have built three versions of the tailwind index: a) TWIN 1 starts in January 1990 and it excludes both the EMBI (not available before December 1993) and MOM, b) TWIN 2 uses all the data above but as a result starts on December 1993, when J.P. Morgan started publishing the EMBI, and c) TWIN 3 uses only MSW and US10Y and therefore can be calculated starting in December 1983, when democracy returned to Argentina.

However, given that the country was in default of its external debt, and therefore no access to foreign capital, the index is of limited use.

With the exception of EMBI, all other variables are available on a daily basis since at least January 1990. Note that the variable for agricultural commodity prices was included with a changed sign. All variables were normalized for the period December 1993-May 2016.

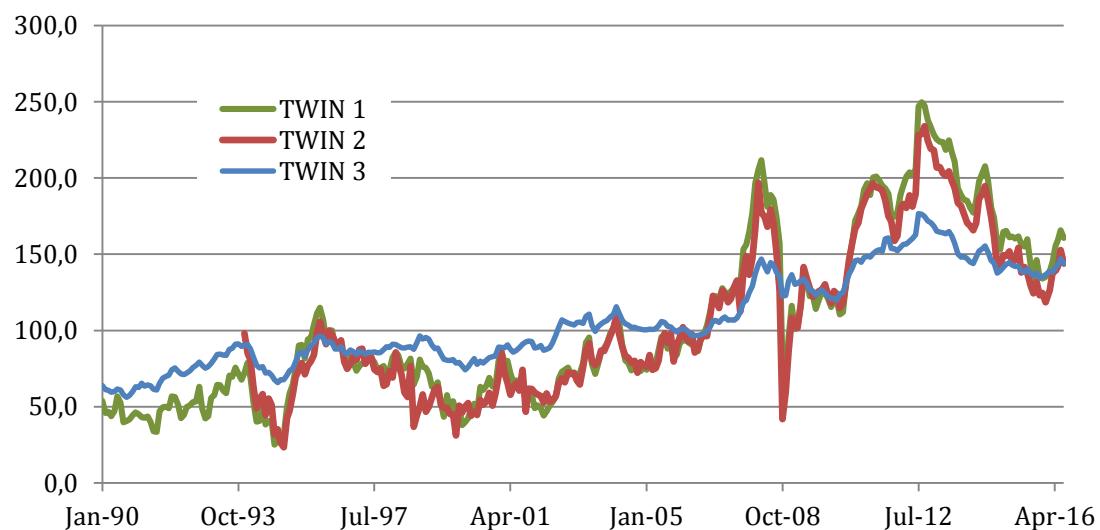
After changing its sign, the resulting average was rescaled and expressed in two formats: a) on a scale of 1 to 10 that provides historical context (therefore past index values change over time), and b) as an index normalized for the period 12/93-05/16 with the average of 2006 as its base.

An increase in the value any of these variables would indicate a push factor working in reverse (i.e., head wind). Since they are included in the index with a changed sign, an increase in TWIN indicates an increase in the tailwind.

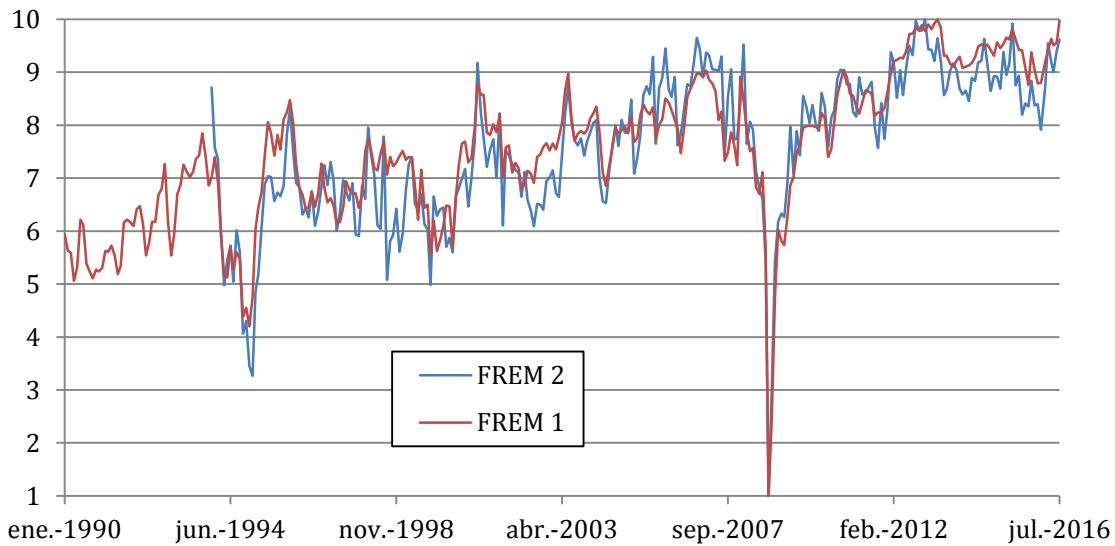
Why three versions of the index? The Republic of Argentina formally reentered international debt markets in December 1992, when it reached an agreement to join the Brady Plan. Before that date however, private sector issuers had already tapped the international debt and equity markets. Also, it is generally agreed that the second era of globalization started in 1990. Both indices are highly correlated as can be seen in Table 3. TWIN 3 can be used to explore the impact of the tailwind over longer periods of time.

Graphs 1 and 2 below show the evolution of both versions of each index for the period 1990-2016 and a fitted 6<sup>th</sup> order polynomial for the longer version (TWIN 1). As can be seen, they tell a story tailwind/headwind which coincides with what is generally accepted as common wisdom: so far the 21<sup>st</sup> century has been much more favorable to Argentina than the nineties. As we shall see, this has important policy implications.

**Graph 1. Tailwind for Argentina 1990-2016**



**Graph 2. Financial Market Receptiveness to Argentina 1990-2016**



### Tailwind and the Terms of Trade

Economists generally use an index of the terms of trade (ITOT), which is the ratio of export prices to import prices, to determine whether a country faces a favorable international environment. The ITOT is extremely valuable for historical analysis but given its frequency (quarterly or annual) and the lag with which it is published (up to three months) is not very useful for “real time” decision-making.

The TWIN is not an alternative to the ITOT. Both indices are complementary and describe different macroeconomic phenomena. In the case of Argentina, there is a relatively high positive correlation between the TWIN and the ITOT, particularly since 1990, but they are conceptually very different. First, the TWIN summarizes the aggregate behavior of nominal market variables whereas the ITOT measures relative aggregate prices. Second, the TWIN is built using market variables that can be observed daily whereas the ITOT is based on macroeconomic indicators, which are published annually or quarterly and with significant lag. Third, the TWIN not only reflects export prices but also how receptive are international investors to buying securities issued by EME. For a net importer of capital such as Argentina, this is a crucial piece of information.

### Practical Applications

Despite being backward-looking (only one of its components, EPC, is forward looking), the TWIN and FREM can be useful both at the micro and macro levels both for analysis and decision-making.

First, the TWIN can be used analyze to what extent a government’s economic policy takes advantage of the tailwind or squanders the opportunities it creates. In other words, it helps put macroeconomic policy and performance in a broader, global context. This is particularly relevant when analyzing the case of Argentina and certain other Latin American countries that were governed by populist leaders during the latest commodity boom. Table 4 provides the average value of all indices for each presidential period and

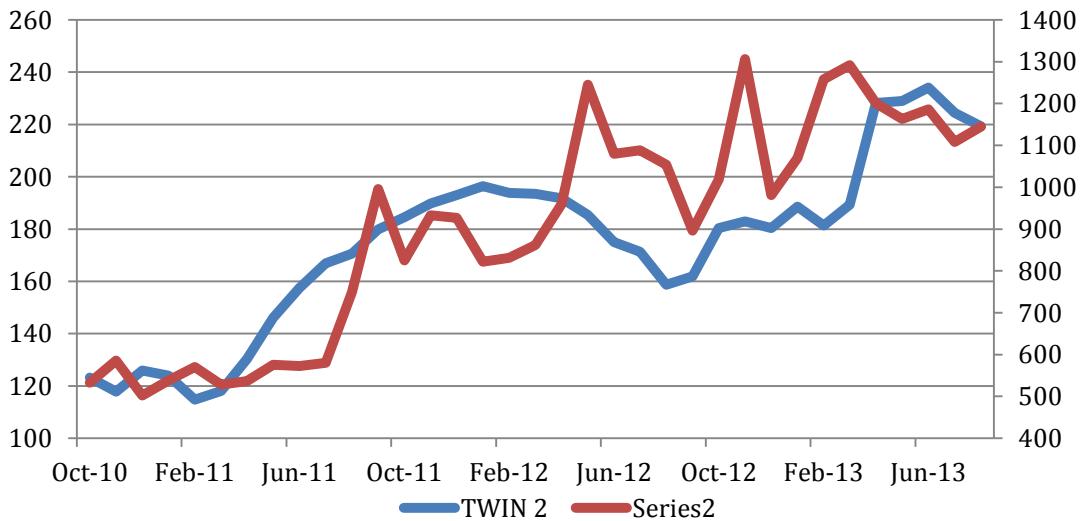
Table 5 shows the frequency and intensity of tailwind/head wind Argentina faced in the last decade of the 20<sup>th</sup> century and since 2000.

In theory, when the TWIN (or FREM) goes up, *caeteris paribus*, the country risk premium (CRP) should decline. Let's call this a "virtuous" phase. If the opposite occurred, it would suggest that "pull" factors are operating in reverse, i.e., there is a deterioration of the country's growth prospects. In this case, there is a *prima facie* indication that the market has lost credibility in the country's economic policy (obviously, analyzing macroeconomic performance solely on the behavior of CRP is a simplification). Let's call this a "destructive" phase. As Table 3 shows, this inverse relationship between CRP and TWIN has been weaker for Argentina than for emerging markets as a whole (as measured by the EMBI+), suggesting virtuous phases have been less prevalent.\*

The contrast between the first and the second term of President Fernandez de Kirchner (CFK) is quite striking, as can be seen in the Table 7. The second term was almost the exact opposite of the first in terms of the correlation between tailwind and CRP. One of the most "destructive" periods took place between October 2010 and August 2013. As Graph 3 shows, during this period there was a significant improvement in the TWIN 2 index but CRP almost doubled. Part of the explanation has to do with the decisions taken by Judge Griesa in the courts of New York. But those decisions were, to a great extent, a response to decisions taken by the Argentine government. In this instance we clearly have a lost opportunity.

Secondly, FREM provides a valuable historical frame of reference that can be used by financial decision makers in EME, both at the private and public sector level, when deciding the timing of any international debt or equity offering.

### Graph 3 – Tailwind and Country Risk Premium (2010-2013)




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\* An alternative way of determining whether a country is in a virtuous or a destructive phase would be to use the ratio of its CRP and the global EMBI+. However, this measure can be distorted by events in other EME.

## **Conclusion**

The two main indices presented in this paper, the TWIN and FREM, provide valuable information about the strength and direction of the “tailwind” that Argentina has faced since the 1990, when the second era of globalization started. Both indices provide an objective measure of its intensity, which in turn allow us to evaluate to what degree economic policy took advantage of favorable conditions in international commodity and capital markets.

The TWIN shows that Argentina was much luckier in the first decade of the 21<sup>st</sup> century than in the last decade of the 20<sup>th</sup>: tailwind was more prevalent and stronger and headwind was less prevalent and weaker. However, CRP increased more frequently in the former than in the latter and there was a higher incidence of destructive phases during the period 2000-2015. But the figures have to be analyzed with care. Since mid 2013, CRP consistently declined, even in the face of weaker tailwind. This had more to do with the expectation of a change of government than the prevailing economic policy.

With respect to financial market receptiveness, since 1990 the FREM has grown consistently. This positive trend was interrupted several times, most notably in the 2004 Mexican crisis, the 1998 Russian crisis, September 11 and the global financial crisis of 2008. However, the FREM also shows that current financial market receptiveness to EME is at levels only surpassed in the first half of 2013.

With some minor modifications the tailwind index presented in this paper can be adapted to other countries for the same purposes outlined here. For example, in the case of Chile, the relevant commodity would be copper, in the case of Brazil, iron ore could be added to soybeans, crude oil and sugar; for Venezuela it would be just the price of crude oil.

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## APPENDIX

**Table 1**  
**Summary Statistics (December 1993-July 2016)**

Indicator	Average	Std. Deviation	Coef. of Variation	Max	Min	Range
MSW	155.7	65.7	42%	323.6	77.3	246.3
US10Y	5.8%	2.7%	47%	13.6%	1.5%	12.1%
VIX	20%	8%	39%	63%	11%	52%
FF	2.7%	2.3%	86%	6.5%	0.1%	6.5%
TED	0.5%	0.4%	77%	3.4%	0.1%	3.3%
YCS	1.8%	1.1%	60%	3.7%	-0.6%	4.3%
MOM	0.0%	5.7%	34484%	18.7%	-18.6%	37.3%
EMBI	414	208	50%	1172	105	1067
TMS	138.2	60.0	43%	323.6	72.1	251.5

**Table 2**  
**Correlation Table**

	VIX	TD A	FF	EPC	SLOPE	MOM	EMBI	TED
<b>VIX</b>	100.0%							
<b>TD A</b>	<b>-9.9 %</b>	100.0%						
<b>FF</b>	<b>-11.0 %</b>	86.0%	100.0%					
<b>EPC</b>	<b>-22.0 %</b>	11.0%	<b>-20.8 %</b>	100.0%				
<b>YCS</b>	13.5%	<b>-29.5 %</b>	<b>-73.3 %</b>	41.1%	100.0%			
<b>MOM</b>	4.0%	6.7%	8.5%	<b>-1.5 %</b>	<b>-6.5 %</b>	100.0%		
<b>EMBI</b>	28.5%	35.3%	22.2%	4.7%	5.4%	1.7%	100.0%	
<b>TED</b>	48.6%	24.8%	37.5%	<b>-27.0 %</b>	<b>-29.5 %</b>	9.4%	4.7%	100.0%
<b>-TMS</b>	<b>-1.3 %</b>	74.8%	69.7%	1.1%	<b>-33.1 %</b>	<b>-11.5 %</b>	48.2%	4.3%

**Table 3**  
**Summary Statistics for TWIN and FREM Indices**  
**(2006=100)**

	TWIN 1	TWIN 2	TWIN 3	FREM 1	FREM 2
<b>Average</b>	112.95	107.4	96.2	110.6	86.9
<b>Std. Deviation</b>	54.29	49.9	34.99	24.0	15.7
<b>Coef. of Variation</b>	48%	46%	36%	22%	18%
<b>Maximum</b>	249.71	234.1	176.54	194.0	114.2
<b>Minimum</b>	24.97	23.4	17.65	19.4	11.4
<b>Range</b>	224.74	210.7	158.9	174.6	102.8
<b>Number of Obs.</b>	319	272	392	319	272

**Table 4**  
**Index Correlation Table**

	TWIN 1	TWIN 2	TWIN 3	FREM 1	FREM 2	CRP	EMBI +	S&P
<b>TWIN 1</b>	100%							
<b>TWIN 2</b>	99%	100%						
<b>TWIN 3</b>	95%	94%	100%					
<b>FREM 1</b>	70%	70%	65%	100%				
<b>FREM 2</b>	69%	74%	64%	92%	100%			
<b>CRP</b>	-29 %	-28 %	-14 %	-7 %	-15 %	100%		
<b>EMBI +</b>	-55 %	-61 %	-48 %	-39 %	-60 %	45%	100%	
<b>S&amp;P</b>	56%	53%	59%	66%	62%	-22 %	-35 %	100%
<b>MSW</b>	96%	96%	92%	50%	52%	-28 %	-53 %	41%

**Table 5**  
**Average Index Level by Presidential Period**

	TWIN 1	TWIN 2	TWIN 3	FREM 1	FREM 2
Menem 1	52.4	58.8	73.2	73.9	67.3
Menem 2	74.3	68.3	87.2	83.1	75.6
De La Rua	59.1	56.2	83.9	87.3	80.5
Duhalde	63.4	63.5	98.5	88.8	78.3
Kirchner	96.3	95.4	103.7	96.6	94.4
F. de Kirchner 1	149.5	143.5	135.9	89.0	87.4
F. de Kirchner 2	186.3	172.3	150.7	112.4	103.2
Macri	143.9	130.7	138.4	111.6	102.5
1990-1999	61.0	64.8	78.8	77.5	72.8
2000-2015	124.8	119.1	120.7	97.0	91.7

Note: For the first Menem presidency, in each case it includes only the period for which there is available data. Only Twin 3 includes the whole period.

**Table 6**  
**Average Percentage Increase of Index Values and Country Risk**

Period	TWIN 1	TWIN 2	TWIN 3	FREM 1	FREM 2	CRP	CRP 6M
Menem 1	n.a.	n.a.	47%	n.a.	n.a.	n.a.	n.a.
Menem 2	42%	16%	19%	12%	12%	-35 %	-40 %
De La Rua	-20 %	-18 %	-4 %	5%	7%	95%	359%
Duhalde	7%	13%	17%	2%	-3 %	9%	127%
Kirchner	52%	50%	5%	9%	20%	-57 %	-93 %
F. de Kirchner 1	55%	50%	31%	-8 %	-7 %	-66 %	99%
F. de Kirchner 2	25%	20%	11%	26%	18%	3%	-27 %
F. de Kirchner	74%	65%	38%	4%	1%	-65%	45%
Kirchner Era	224%	213%	131%	112%	121%	-75 %	-90 %
Macri (8 months)	-23 %	-24 %	-8 %	-1 %	-1 %	-44 %	-13 %

Note: CRP 6M is the percentage change between the average CRP in the last six months of each presidential period and the average of the last six months of the previous presidential period.

**Table 7**  
**Correlations between Tailwind and Country Risk**

<b>Period</b>	<b>Correlation between CRP and</b>				<b>Correlation TWIN 1 and 2</b>
	<b>TWIN 1</b>	<b>TWIN 2</b>	<b>TWIN 3</b>	<b>EMBI</b>	
Menem 1	26%	n.a.	-11 %	n.a.	87%
Menem 2	3%	-21 %	31%	72%	87%
De La Rua	-10 %	17%	52%	82%	82%
Duhalde	26%	3%	41%	75%	95%
Kirchner	-63 %	-68 %	-14 %	98%	97%
F. de Kirchner 1	-69 %	-74 %	-33 %	97%	96%
F. de Kirchner 2	80%	78%	78%	-61 %	99%
Jun-2010/Aug-2013	49%	39%	56%	60%	99%
F. de Kirchner	-20 %	-23 %	7%	53%	97%
Kirchner Era	-51 %	-51 %	-42 %	75%	99%
MM (8 months)	58%	30%	50%	-34 %	93%
1990-1999	-4 %	-27 %	-24 %	70%	86%
2000-2015	-50 %	-49 %	-37 %	77%	99%