



ASEAN Research Digest

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REGION WIDE FREE TRADE OF THE ASIA-PACIFIC MAY YIELD US\$210 BILLION ANNUAL GAINS FOR ASEAN, AND US\$1,922 BILLION WORLDWIDE

Title of study: The Trans-Pacific Partnership and Asia-Pacific Integration: Policy Implications

By Peter A. Petri and Michael G. Plummer

Published in: Policy Brief NUMBER PB12-16, Peterson Institute for International Economics, June 2012



BACKGROUND

Research objectives:

To report on the authors' ongoing quantitative assessment of the Trans-Pacific Partnership (TPP) and other Asia-Pacific integration efforts, and to provide policy implications of the two integration tracks.

- There are currently **47 trade agreements** among the members of the Asia Pacific Economic Cooperation (APEC) forum, up from six agreements in 2000.
- In the Asia Pacific, there are two tracks of trade agreements:

The Trans-Pacific track

- in which 12 countries, Australia, Brunei, Chile, Canada, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the US, and Vietnam, are working towards forming the **Trans-Pacific Partnership**
- is a US priority and a part of the Obama administration's "pivot" to Asia

The Asian track

- is centred on ASEAN, negotiations among China, Japan, and South-Korea, and proposals for pan-Asian free trade areas
- is aimed to promote the **ASEAN Economic Community**, improve political relations in Northeast Asia, and to define space for China

- The interest of these diverse countries diverge in many ways. **Asian emerging-market economies focus on liberalisation on goods trade** and allow extensive exceptions to sensitive products while **advanced countries prefer comprehensive liberalisations**.
- These two tracks are **large, positive-sum projects** that promise substantial gains to all participants.
- Furthermore, they could **consolidate the "noodle bowl"** of current smaller agreements in the region and **paving the way for a Free Trade Area of the Asia-Pacific (FTAAP)**.



METHODOLOGY

- The results reported in this policy paper are based the authors' previous paper *The Trans-Pacific Partnership and Asia-Pacific Integration: A Quantitative Assessment*.
- In that study, the authors examined the benefits and strategic incentives generated by the two tracks of trade agreements over the period 2010-2025.
- They analysed 48 actual and proposed Asia-Pacific trade agreements and modelled impact on various variables, including sectoral trade, output, employment, and job shifts.
- The simulations are conducted with an advanced 18 sector, 24 region computable general equilibrium model of the world economy.
- The data is based on a preliminary version of Release 8 of the GTAP dataset (up to 2007).



KEY FINDINGS

- The results show that regional trade agreements, both under the Trans-Pacific track and the Asian track, will **create substantial benefits for ASEAN** in terms of increased trade and increased income.
- The study projects that the **TPP track will create more income gains for ASEAN than the Asian track**, with a 2.62% increase from the baseline compared with a 1.71% increase respectively.
- A **Free Trade Area of the Asia Pacific (FTAAP)** would create the most income gain in ASEAN, 6.89% change from the baseline.

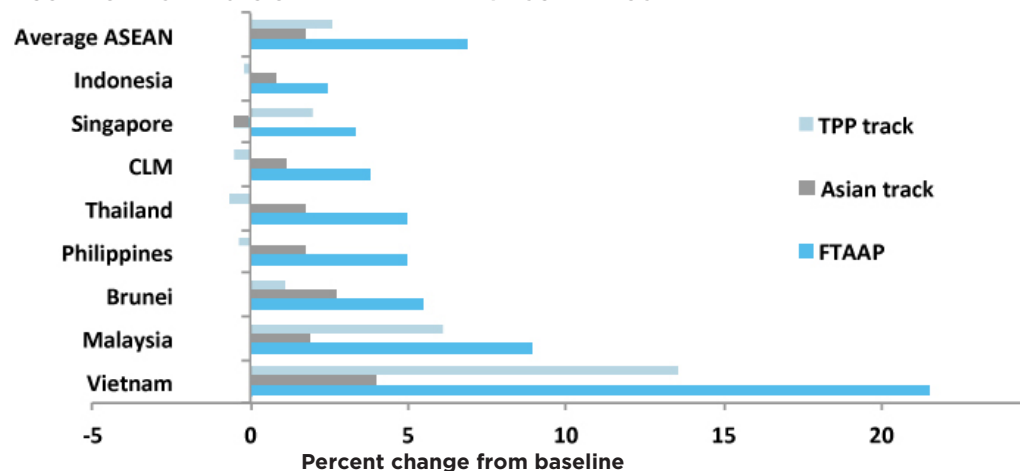
INCOME GAINS IN 2025

	TPP Track	Asian Track	FTAAP
ASEAN average (% change from baseline)	2.62	1.71	6.89
ASEAN total (billions of 2007 US\$)	72.0	49.6	210.4



KEY FINDINGS

INCOME GAINS IN 2025 UNDER ALTERNATIVE SCENARIOS



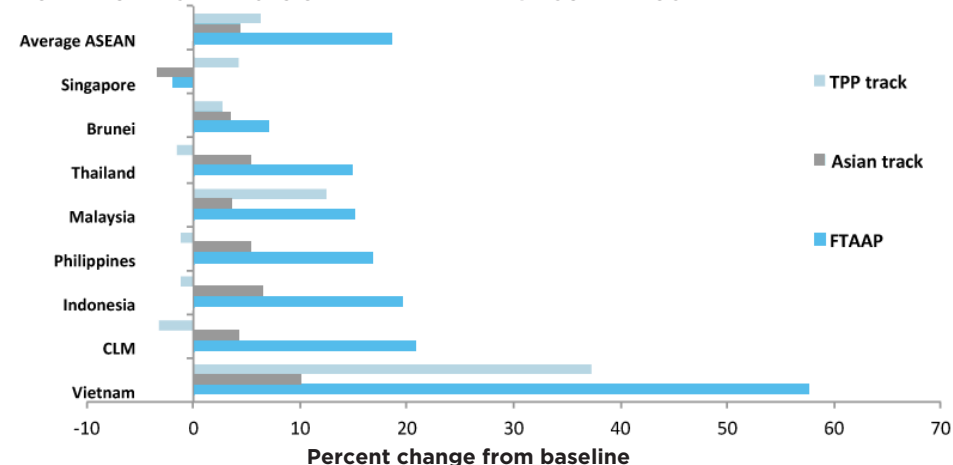
- The benefits of the trade agreements is expected to **spread unevenly** among the ASEAN countries, especially under the TPP track in which Indonesia, Thailand, the Philippines, Cambodia, Laos and Myanmar are expected to experience **slight income loss**. (0.23%-0.67%).
- Singapore is the only country with losses (0.49%) on the Asian track.
- Vietnam** is expected to enjoy the **most income gains** under any of the three scenarios, followed by Malaysia and Brunei.
- All ASEAN countries would benefit from a FTAAP, with an expected total income gain of US\$210.4 billion (2007 level), which is a 6.89% increase from the baseline
- Under the TPP track, exports are expected to be **6.21% higher** than the baseline in 2025, compared to a **4.43% increase** under the Asian track.
- A **FTAAP would create the most export increase** of US\$385.9 billions (2007 level), which is an 18.69% higher than the baseline.

EXPORT INCREASE IN 2025

	TPP Track	Asian Track	FTAAP
ASEAN average (% change from baseline)	6.21	4.43	18.69
ASEAN total (billions of 2007 US\$)	126.3	95.8	385.9

- Vietnam is expected to have the **most export increase** under all three scenarios.
- All countries would have a substantial export increase under a FTAAP, except Singapore which is expected to suffer a 2% export decrease.

EXPORT INCREASE IN 2025 UNDER ALTERNATIVE SCENARIOS



GLOBAL RESULTS

- The Asian track is expected to yield more income gains than the TPP track. The Asian track is expected to yield an annual benefit of US\$500 billion, compared to US\$295 billion (2007 US\$ level).
- An FTAAP would yield US\$1,922 billion in global annual gains (2007 US\$ level).
- In terms of trade, the Asian track is expected to increase world trade by 3.3%, markedly higher than the 1.6% on the TPP track.
- An FTTAP is expected to lead to a 12% increase in world trade.

- The results indicate that these **benefits are mainly the result of trade creation**, not trade diversion from excluded countries.
- Despite its potential benefits, a comprehensive agreement including all major Asia-Pacific economies is **unlikely in the current macroeconomic and political context**, especially because China and the US are not ready to compromise.
- However, a logical endpoint of the two Asia-Pacific tracks is a region wide free trade agreement, as the economic case for it is clear and compelling.

WHY IT MATTERS

This study shows that several ASEAN countries stand to gain more from the TPP than from Asian trade agreements, but all ASEAN countries would benefit greatly from a comprehensive free trade agreement of the Asia-Pacific.

While the establishment of an FTAAP hinges on the cooperation of the US and China, ASEAN could still reap its benefits from such an agreement by joining both tracks. The TPP track would yield all the benefits from trade with the Americas, while the Asian track would yield the benefits of trade with China . Four ASEAN members are negotiating to join both tracks; Malaysia, Vietnam, Brunei, and Singapore.

Title of study: *Rice Trade and Price Volatility: Implications on ASEAN and Global Food Security*

By Ramon L. Clarete, Lourdes Adriano, and Amelia Esteban




Published in: ADB Economics Working Paper Series, No.368, September 2013

BACKGROUND

Research objective:




To explore the tradability of rice relative to maize and wheat, and to determine whether rice trade causes extreme price volatility in rice such as in the 2007-2008 rice crisis.

- The output of the three cereals, **wheat, maize and rice**, have grown rapidly in the past decade, mainly due to a **significant increase in yields**. In 2011, **ASEAN produced over 28% of the world's output of rice**, 4.23% of the world's maize output but only 0.03% of the world's wheat output.
- ASEAN accounted for **45.1% of global rice exports** and **14.55% of global rice imports** in 2011

OUTPUT	WHEAT		MAIZE		RICE	
		2000 2011		2000 2011		2000 2011
World (in million tons)		585.69 704.0		592.48 883.46		599.36 722.76
ASEAN (as % of world)		0.02 0.03		3.62 4.23		25.43 28.61

- Many governments blamed trade for the rice crisis of 2007-2008 in which prices spiked to as high as 150% in four months, leading to a series of **export bans and self-sufficiency programs** throughout the region.
- Since the rice crisis, world **rice prices have remained high but stable**, while the price of maize and wheat have been volatile.

Tradability and price volatility of cereals World averages during 1961-2010

 CEREALS	 AVERAGE EXPORT-TO-OUTPUT RATIO	 PRICE VOLATILITY
Wheat	18.63%	139.08%
Maize	13.57%	133.72%
Rice	4.98%	152.28%

Rice has historically had the most price volatility while been the least tradable of the three cereals.

- ASEAN's rice trade influences the global trend as **the region includes two of the world's top rice exporters, Thailand and Vietnam, and three of the world's top rice importers, Malaysia, Indonesia and Philippines.**



 Top Exporter } **43%** of world exports

 Top Importer } **14.52%** of rice imports

- Net rice importers in ASEAN, such as Indonesia, Malaysia, and the Philippines, have **intensified their self-sufficiency programs** following the rice crisis.
- The study addresses the question whether these countries are pursuing rice self-sufficiency to **protect their rice farmers or to insure themselves from the high risk** of unreliable rice supply and excessive rice prices.
- Furthermore, the study asks **whether it really is trade that causes extreme price volatility?** And if not, **what measures are needed to rebuild confidence in trade?**

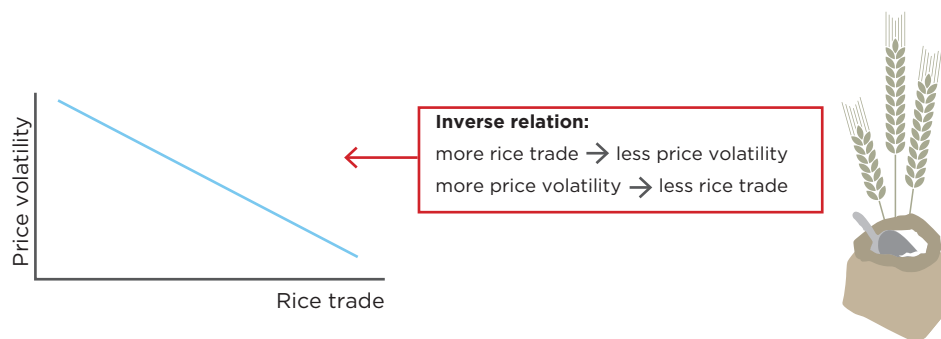
METHODOLOGY

- The authors explore the relationship between **rice trade** and **price volatility** analytically and empirically using the **Granger causality tests** to determine correlation.
- Tradability** is measured in terms of export-to-output ratio and import-to-output ratio, expressed in percentage.
- Price volatility** is measured as the standard deviation of the natural logarithm of monthly changes in prices, multiplied by the square root of the total number of observations.



KEY FINDINGS

- The main result of the study is that **trade is not the cause of extreme price volatility for rice** in the region, but rather **price volatility is the cause of low rice trade levels**.
- The study finds an **inverse** relationship between price volatility and tradability:



- For **maize and wheat**, however, **there is positive correlation between tradability and price volatility**, meaning that **more trade** is correlated with **more price volatility**.
- International trade for rice has been low compared to the other two cereals for nearly half a century and price volatility tends to exacerbate the low levels of rice trade, creating a **self-perpetuating cycle**.



- The main reason for the different relationship between price volatility and trade for rice and the two other cereals is the **political motivation in ASEAN to ensure self-sufficiency in rice**.
- The results suggest that **ASEAN countries implement rice self-sufficiency programs as a national self-insurance** against the risk of excessive rice price volatility, rather than to protect their farmers from import competition.

- Collective action** is needed on measures to reduce the chances of extreme price volatility while also **building confidence in international trade**.

FOUR ACTIONS TO BUILD CONFIDENCE IN RICE TRADE

- Pursue arrangements whereby **rice importing countries gradually reduce their rice self-sufficiency** targets in exchange for import guarantees from the rice-exporting countries
- Institute **clearer criteria** for the use of rice waivers under ASEAN Trade In Goods Agreement (ATIGA)
- Decouple** Thailand's paddy-pledging program
- Expand coordinated rice policy actions with **India and Pakistan**.

THE ASEAN INTEGRATED FOOD SECURITY PROGRAM

- ▶ ASEAN has already taken several steps to reduce rice price volatility and ensure rice security.
- ▶ As a response to the rice crisis of 2008, ASEAN created the **ASEAN Integrated Food Security Framework** and its implementing mechanism, the Strategic Action Plan on Food Security in the ASEAN Region.
- ▶ Under the plan, ASEAN has established **regional and national food reserves**, expanded **food trade**, strengthened **market information**, and increased food **productivity**.
- ▶ ASEAN has also established the **ASEAN Plus Three Emergency Rice Reserve** (APTERR) with Japan, China, and South-Korea, the **ASEAN Food Security Information System** (AFSIS), and the pilot implementation of the **ASEAN Rice Trade Forum**.

WHY IT MATTERS

Rice trade has always been a politically sensitive subject for ASEAN due to the large population of rice farmers in the region, and its importance in food security. After the rice crisis of 2008, many ASEAN governments have implemented expensive policies to control the trade of rice, perpetuating the cycle of low levels of international rice trade and excessive price volatility. Since ASEAN's rice market is large, actions have global affects. Increased rice trade in ASEAN would help stabilise rice prices, and would help increase global rice trade.

Title of study: Infrastructure and Income Distribution in ASEAN-5: What are the Links?

By Dulani Seneviratne and Yan Sun | Published in: IMF Working Paper 13/41, February 2012

BACKGROUND

Research objective:

To assess empirically the impact of infrastructure and investment on income distribution

- Infrastructure is considered vital for economic development:



- Theoretically, infrastructure development can improve income equality by enhancing the **access of the poor to economic opportunities**.
- While the five ASEAN countries included in the study (Indonesia, Malaysia, Philippines, Thailand, and Vietnam) are among the fastest growing in the world, they all have **infrastructure bottlenecks** albeit to varying degrees.

BASIC INFRASTRUCTURE RANKING* 2013 (RANK OUT OF 60 COUNTRIES)



METHODOLOGY

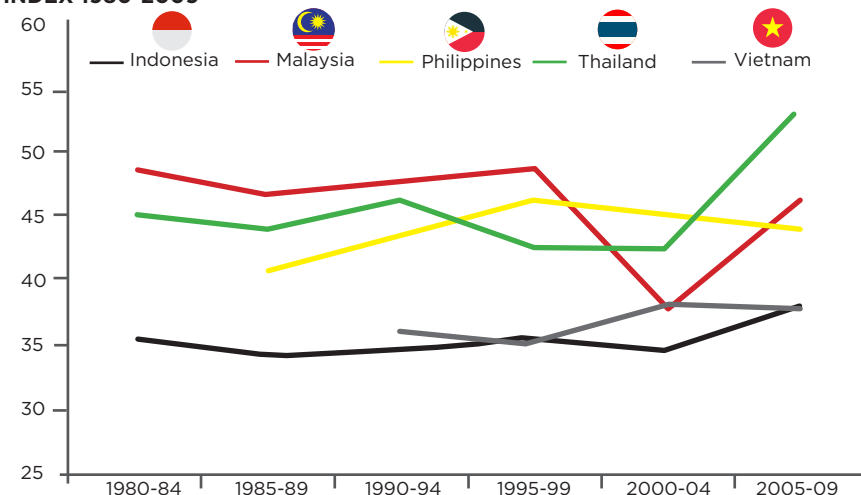
- The authors use a **pooled OLS** (ordinary least squares) regression analysis covering 76 advanced and emerging market economies during the period 1980-2010.
- The regressions use non-overlapping 5-year averages.

- The ability to meet infrastructure needs has been limited in some of the ASEAN-5 countries by **structural primary deficits** and **large public debt burdens**.
- Malaysia and Thailand have a smaller infrastructure gap** than the other countries due to their higher per capita income but they also have a higher Gini index, i.e. more income inequality.

Gini Index:

The GINI Index shows the income distribution of a nation's residents. Under perfect equality, the GINI Index would be zero, while under perfect inequality, the Index would be 1 (or 100%).

GINI INDEX 1980-2009

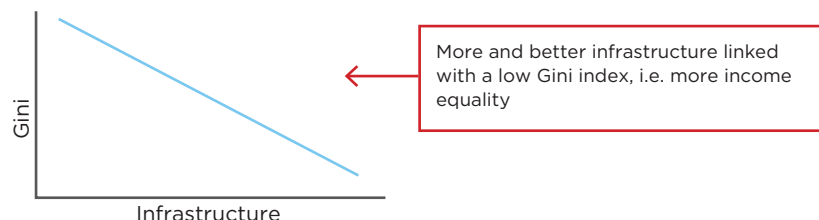


- Income inequality increased significantly in Malaysia, Thailand and Indonesia** from the period 2000-04 to 2005-09, while it **decreased in Vietnam and the Philippines** during the same period.
- To measure infrastructure, the study follows Calderon and Servén (2004, 2008) to construct quantitative indices of infrastructure quality and quantity.
- The analysis is subject to data limitations regarding income distribution and infrastructure.



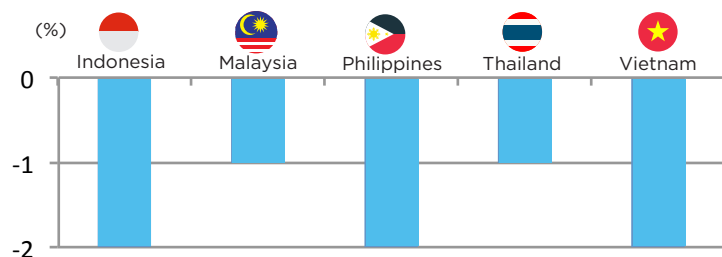
KEY FINDINGS

- The main result of the study is that **better infrastructure**, both in quantity and quality, **improves income distribution**, meaning that by improving infrastructure the ASEAN-5 countries could not only raise growth but also spread the benefits of growth more evenly.



- The study does however **not find a relationship between investment and income inequality**, which could be because total investment might **not be a good proxy** for infrastructure development due to spending inefficiency.
- If **Indonesia, Philippines and Vietnam** would catch up to the 2010 average levels of **infrastructure quantity and quality indices in advanced economies**, their Gini index would **decrease by 2% points**, while the Gini index of **Malaysia and Thailand** would **decrease by 1% point**.

ESTIMATED DECLINE IN GINI INDEX WITH INFRASTRUCTURE IMPROVEMENT TO 2010 AVERAGE LEVELS OF ADVANCED ECONOMIES (%)



- The paper also points to **other public policies that influence income distribution**:

- ▶ **Education spending enhances human capital** and could reduce income inequality by increasing access to high-skill economic activities
- ▶ **Improving formal sector employment opportunities** that help the poor move to higher-earning jobs improves income distribution
- ▶ **Private credit as a percent of GDP** has a **negative effect** on **income distribution**, which may seem counter intuitive as it is generally believed that financial development has a positive effect as it increases the poor's access to capital. The quality of the institutions and regulations are key, but weak institutions and governance may cause the benefits of **financial development** accruing disproportionately to the rich

WHY IT MATTERS

Although ASEAN countries have grown rapidly in the recent past, there is still a huge infrastructure gap in most ASEAN countries. The ADB estimates the infrastructure need of ASEAN to be **US\$60 billion** a year from 2010-2020.

Meanwhile, in Malaysia and Thailand, countries that have relatively good infrastructure compared to their ASEAN peers, income inequality has risen in the past decade.

This paper shows that increased quantity and improved quality of infrastructure will not only contribute to increased economic growth but will also help even income distribution.

Title of study: Re-examining the relationships between stock prices and exchange rates in ASEAN-5 using panel Granger causality approach

By Chin-Chia Liang, Jeng-Bau Lin, Hao-Cheng Hsu

Published in: Economic Modelling, Volume 32, May 2013

BACKGROUND

Research objective:

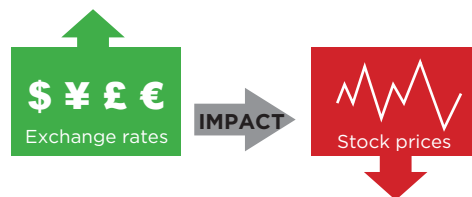
To re-examine the relationships between the equity market and the currency market in the ASEAN-5.

- Many recent studies on financial asset prices have focused on the relationship between stock prices and exchange rates. Many of these studies support either of the following two theoretical models:

- Flow-oriented model** - exchange rates influence stock prices positively, based on the premise that exchange rate changes influence real output and thereby stock prices via international competitiveness and trade balance in general.

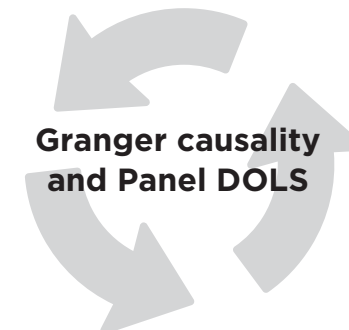


- Stock-oriented model** - exchange rates impact stock prices negatively, and vice versa, via (short term) capital mobility in capital accounts.



METHODOLOGY

- The study uses the panel **Granger causality and panel dynamic ordinary least squares (DOLS)** methodologies to explore the relationships between the equity market and currency market in these ASEAN countries: Indonesia, Malaysia, Philippines, Singapore and Thailand.
- The data covers the period 8/2008-6/2011 and are sourced from DataStream.
- The stock indices of the stock exchange of the ASEAN-5 are used for stock prices, and both the data series of stock prices and exchange rates are monthly.



KEY FINDINGS

- The **results support the stock-oriented model**, in which exchange rates influence stock prices negatively via capital mobility.
- The exchange rate here is expressed in home currency per unit of foreign currency. That means in case of an increase in the exchange rate, the home country needs to pay more for one unit of the foreign currency, i.e. the home currency depreciates.
- The results show that a **1% depreciation** in the home currency would lead to a **3.96% reduction** in stock prices in home country. Likewise a **1% appreciation** in home currency would lead to a **3.96% increase** in stock prices in home country.
- The study finds that there is uni-directional causality from exchange rates to stock prices for the ASEAN-5 countries.

UNI DIRECTIONAL CAUSALITY



POLICY IMPLICATIONS

The findings suggests that the **monetary authorities in the ASEAN-5 countries should keep allowing their currency values to be determined by economic fundamentals** instead of interrupting them to stimulate export growth, unless huge amounts of speculative funds flow into the currency markets.

WHY IT MATTERS

The developments of the exchange rates and stock prices in these ASEAN countries support the findings of this study. All of these ASEAN countries experienced significant depreciation of their currencies in 2013, as well as decreases in stock prices. These developments have to some extent been blamed on the outflow of US funds following the tapering of the US stimulus. Although the inflow of funds from the west over the past few years were not speculative funds, it was clearly in such amounts that it affected the exchange rate - and perhaps contributed to an over-evaluation of ASEAN currencies. The depreciation that happened in ASEAN during 2013 could therefore have been, to some extent, a correction of an over valuation, but according to this paper, the depreciation contributed to the fall in stock prices also experienced by the ASEAN-5 in 2013.

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