AFTA dan Pengaruhnya Terhadap Kinerja Ekspor Produk Pertanian Indonesia

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Here I'm...

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AFTA

AFF

Competition

&

Cooperation

Economic Integration :

Remove Trade and Non-trade barriers

Free Trade Agreements
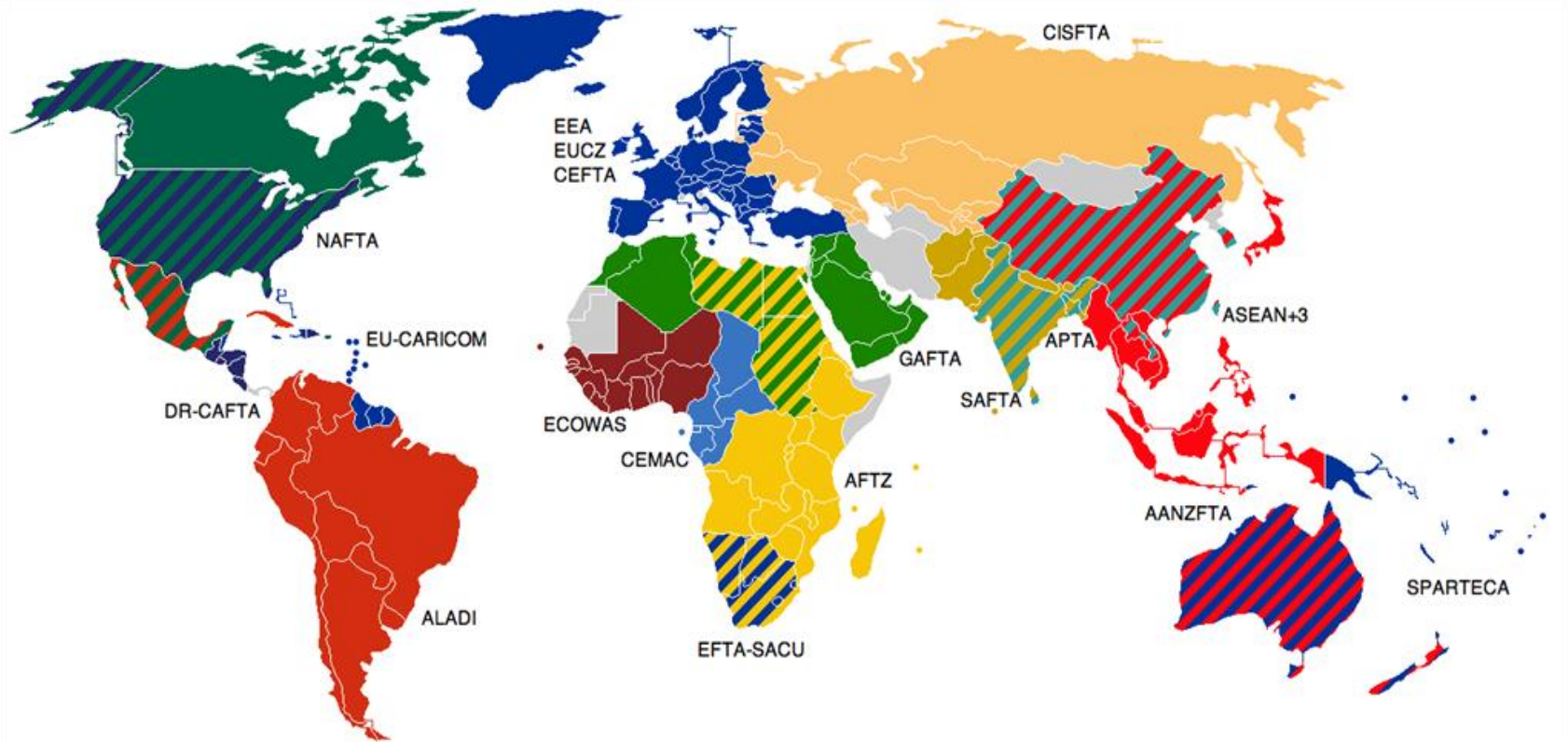
Increase trade

Competitive trade region

Welfare

Introduction :

Global trend on Free Trade Agreement (FTA)

604 FTAs notified to WTO (398 in force)

Source: WTO RTA Database 8 January 2015,

Indonesia and FTA

World map

Indonesia's FTA in force:
- AFTA
- ACFTA
- IJEPA
- AKFTA
- AANZFTA
- AIFTA
- IPFTA

Source: WTO RTA Database 2015

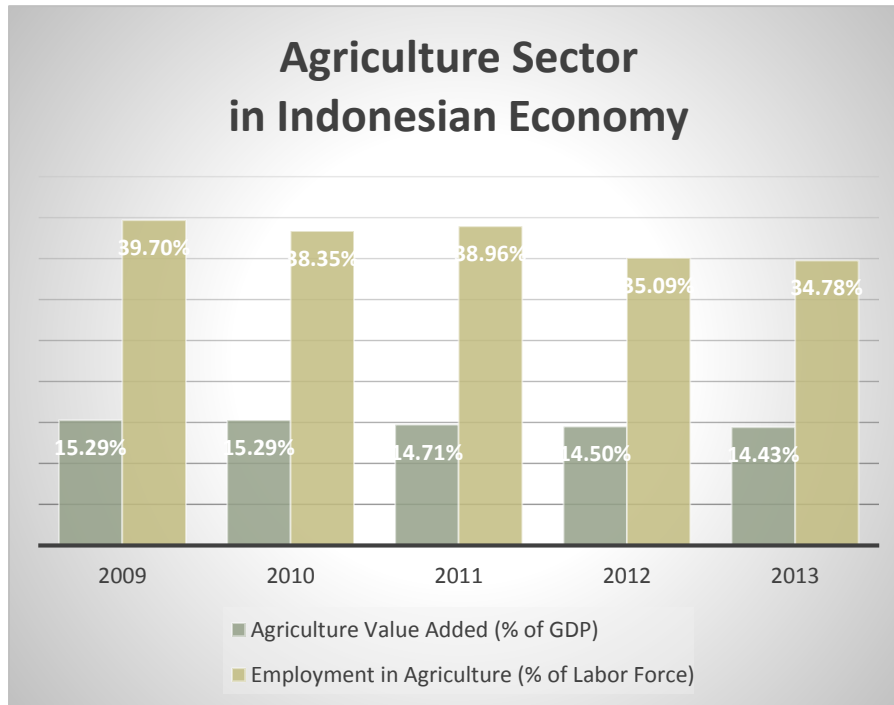Indonesia had been involving on 29 FTAs ➡ 7 FTAs are in force

Debate about the effect of FTA on agriculture in Indonesia

- Enhance market size

- Increase competitiveness

- Efficient in trade mechanism

- Increase economic growth and welfare

- The fear of invasion of imported goods to Indonesia's domestic market.

- Readiness of domestic agriculture product to compete with imported product.

Agriculture Sector in Indonesia

Agriculture Sector in Indonesian Economy

	2009	2010	2011	2012	2013
Agriculture Value Added (% of GDP)	15.29%	15.29%	14.71%	14.50%	14.43%
Employment in Agriculture (% of Labor Force)	39.70%	38.35%	38.96%	35.09%	34.78%

- Agriculture Value Added (% of GDP)
- Employment in Agriculture (% of Labor Force)

Contribute **14.43%-15.29% GDP** in the last 5 year

Provide more than **39 million or 34.78% labor force** in 2013

Source: Statistic Indonesia, (2014).

Agriculture is the "Backbone of Indonesian Economy"

Objective :

AFTA

Does Indonesia's membership on ASEAN Free Trade Area (AFTA) encourages Indonesian agricultural exports?

Literature Review

Economic Integration

No Discrimination   Partnership   Welfare

(Snorrason, 2012).

Literature Review

Integration Process

Political Union

Fiscal Union

Monetary Union

Common Market

Customs Union

Free Trade Area

Preferential Trade Area

Independent Economy

INCREASING INTEGRATION

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MU : step towards macro-economic integration, including single currency, common exchange rata and monetary policy

CM : all barriers to trade in goods, services, capital, and labour are removed

CU : removal of tariff plus the acceptance of a common (unified) external tariff against non-members

FTA : eliminate barriers to trade on _all goods_ coming from other members

PTA : eliminate tariff barriers on _selected goods_ imported from other members of the area.

(Ndulu, Kritzingerand Reinikka, 2005)

Literature Review
Agriculture and FTA

Many studies found that FTA would expand trade in agriculture commodities

The benefit from the membership of FTA are different among member, FTA and over time

>>> DeRosa and Govindan (SAPTA-1996), Grant and Lambert (NAFTA/AFTA/APEC-2005), Erdem and Nazliogrlu (EU-2008), Makochekanwa (COMESA/EAC/SADC-2013)

Literature Review

Indonesian Agriculture and FTA

Several study found that Indonesian agricultural sector **benefits** from participating trade liberalisation.

>> Erwidodo (1999), Oktaviani et.al (2008), Haryadi (2007) --- APEC, AFTA

A study conducted by Dianniar (2013), Suryanta (2012), shows that Indonesia's participation in FTA *did not have a significant impact* on Indonesian agricultural trade flows. -- AFTA, ACFTA.

Methodology

Follow Erdem and Nazlioglu (2008) and Greene (2013) the **gravity model** is employed in this research, the model is as follows:

$$LnE_{ijt} = \beta_0 + \beta_1 \, lnGDP_{ijt} + \beta_2 \, lnDist_{ij} + \beta_3 \, lnP_{jt} + \beta_4 \, Land_{jt} + \beta_5 \, Ex_{ijt} + \beta_6 \, Price_{ijt} + \beta_6 \, AFTA_{ij} + \varepsilon_{ijt}$$

Dependent Variable :

E_{ijt} is total Agricultural export from Indonesia (i) to partner countries (j) measured in US$
Independent Variable : Real GDP, Distance, Population, Irrigated Land, Real Exchange Rate, Price Index and Dummy variable AFTA (ASEAN Free Trade Area) which was Indonesia involved.

Methodology

Panel data

Panel data can give empirical analysis in a way that is not feasible if just use a cross-section or time series data.

3 types of panel data estimation model: Pooled OLS, Fixed Effect Model (FEM), and Random Effect Model (REM).

POOLED   FEM   REM

Data

The annual data of agricultural export commodities are obtained from Statistics Indonesia and United Nation Commodity Trade Database.

The data on GDP, population and exchange rate are obtained from World Development Indicators (WDI) database of the World Bank.

Data of Free Trade Agreement (FTA) are come from World Trade Organization (WTO) database.

Data on distance are collected from Centre d'Etudes Prospectiveset d'Informations Internationales (CEPII) and data of Irrigated land are collected from Food and Agriculture Organization (FAO).

Data are collected for periods **2004-2013**

Hypothesis

The hypothesis of this study are:

$$H_0 = \beta_0, \beta_1, \beta_2, \ldots, \beta_{15} = 0$$

each variable does not influence Indonesia's major commodity agricultural exports to trading partner.

$$H_1 \neq H_0$$

There is significant effect of GDP, Distance, Population, Exchange Rates, FTA and PTA on Indonesia's major commodity agricultural exports to trading partner.

Empirical Result

The Hausman Test

FEM

Tabel. I
Hasil Analisis Dengan Gravity Model

Variable Terikat: ln (Ekspor Pertanian Indonesia)

Variable Bebas	Koefisien	p-Value
Constant	-423.169***	(0.000)
LNGDP$_i$	Omitted	
LNGDP$_j$	-0.888	(0.203)
LNDIST$_{ij}$	Omitted	
LNPOP$_i$	25.053***	(0.000)
LNPOP$_j$	0.074	(0.958)
LNLAND$_j$	-0.571†	(0.164)
LNEXCi	-2.076**	(0.023)
LNEXCj	-0.010	(0.925)
LNPRICE	0.139	(0.788)
AFTA	1.544*	(0.088)
R-squared	0.842	
F-statistic	45.539	
Prob.(F-statistic)	0.000	
No. Observations	1400	
Estimation Method	FEM	

Note: ***/ **/* denotes statistical significance at 1%, 5% and 10% level.

Figure in parentheses represent p-value. LnGDPi Omitted due to collinearity.

Tabel. II
Individual Effect Regressed With Time-Invariant Variable (Variabel Jarak)

Variable Bebas	Koefisien	p-Value
Constant	-1.716	(0.875)
LNDIST$_{ij}$	-0.456	(0.698)
R-squared	0.002	
No. Observations	1400	
Estimation Method	FEM	

Note: ***/ **/* denotes statistical significance at 1%, 5% and 10% level.

Figure in parentheses represent p-value.

Empirical Result

GDP is <u>negative but statistically insignificant</u>.
It's may because:
1. Small portion of agriculture in GDP
2. Agriculture products mostly are nececities

Distance show negative value but *insignificant*
Estimate coefficient of -0.456
>>> Distance is not a hindrance of exports due to improvement on transportation infrastructure and lowering cost.

Population of Indonesia is positive and statistically significant on exports while partner country's population shows positive sign but statistically *insignificant*. Magnitude -2.27
>>>bigger population would encourages ability to produce and increase specialty which finally increase on production.

Empirical Result (continued)

Irrigated land of partners countries *shows* negative sign
negative but statistically insignificant.
It's may because:

1. Different geographical area, climate
2. Different agricultural products

Real exchange rate of Indonesia shows negative sign and statistically
significant. >>> rupiah fluctuation is influences on exports.

Moreover, partner countries real exchange rate are negative but
insignificant effect on exports.

PRICE shows positive value but *insignificant* on exports
>>> Price is not a factors who influences agriculture exports

Impact of AFTA on Agricultural Exports

AFTA shows **positive** sign as *expected* and statistically significant.

Magnitude : 1.54, meaning that Indonesian export to partner countries which are members of AFTA will be *3.7 times higher* [exp(1.54)-1*100] than for countries that are not affiliated with the FTA.

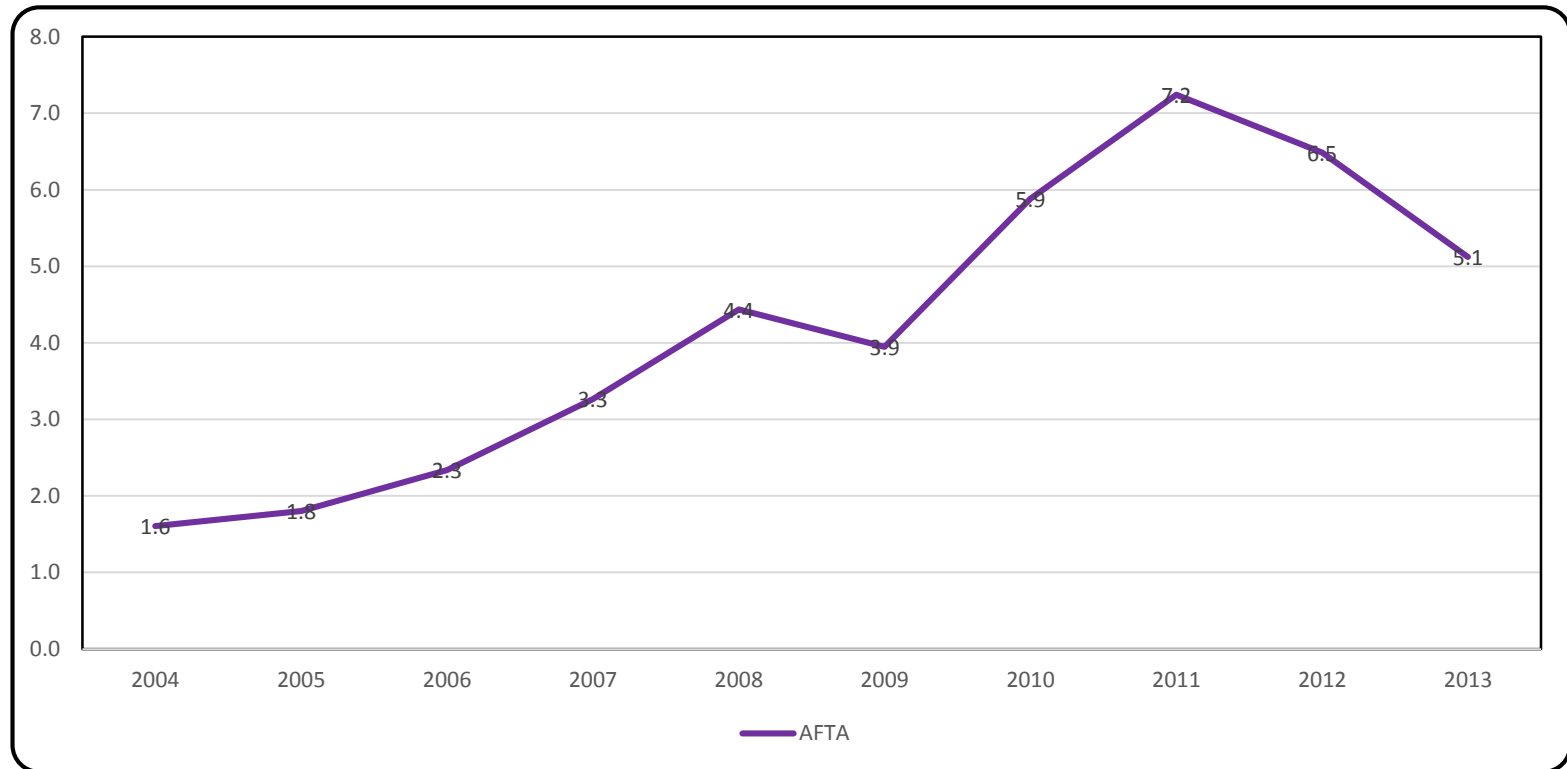Indonesian membership on AFTA had boosted Indonesia's agriculture exports.

AFTA

>>Decreasing on trade and non trade barrier and easier procedure on trade among ASEAN Countries

>>AFTA had been going as FTA since 1993 and became full implemented on tariff reduction in 2003 for ASEAN-6 and 2010 completed liberalization for all members.

>>strong relationship among ASEAN countries due to geographic proximity, common border, common language ang culture.

Indonesian Agricultural Exports Performance to ASEAN 2004-2013 (US$ Billion)

Source: United Nation COMTRADE, (2014).

Conclusion

Fixed Effect Model was found to be the best suitable model for this study

Conventional of the gravity model variable (GDP&Distance) are <u>insignificant impact</u> on Indonesian agricultural exports.

Indonesian population and rupiah fluctuation are significant impact on exports. While, partner countries population and irrigated land are statistically insignificant. Price index are not influenced on exports.

Indonesian participation on *AFTA has positive impact on agricultural exports*, IOW, Indonesian export to partner countries which are members of the ASEAN is higher than countries that are not affiliated with the AFTA

"That's all Folks!"