The Impact of Meat Self-Sufficiency Ratio on GDP

An analysis on nine Latin American Countries

Introduction

1. The role of livestock

- Animal-source foods are one of the best sources of protein and nutrients
- Helps poor children to grow healthily
- Provides income and employment

→ Having domestic access to meat should have a positive impact on GDP

Introduction

How do we measure domestic access?

Food Self-Sufficiency Ratio

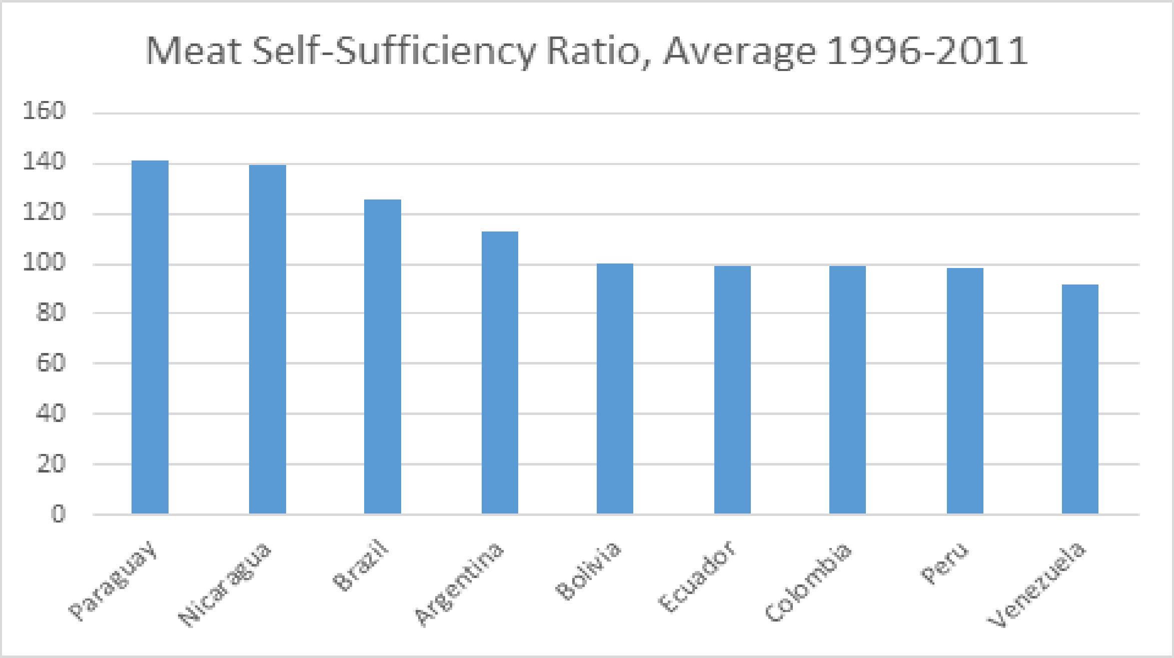
Food self-sufficiency ratio expresses the magnitude of production in relation to domestic utilization. It can be calculated by the following formula (FAO, 2001) :

$$\frac{\text{Production}}{\text{Production} + \text{Imports} - \text{Exports}} \text{ X100}$$

Introduction

- Meat Industry in Latin America

→ A big feature in all Latin American countries



Introduction

Objective and Value-Added

- To examine the impact of meat self-sufficiency ratio on GDP in nine middle-income Latin American countries from years 1996-2011
- No other works directly studying the relationship between food self-sufficiency and GDP and also very few works focusing on food self-sufficiency in general

Model and Method

$$GDP_{it} = b_0 + b_1 ME_{it} + b_2 ODA\_A_{i(t-1)} + b_3 FDI\_P_{i(t-1)} + b_4 MSSR$$

GDP: Growth domestic product per capita

ME: Meat exports, per capita

ODA_A: Official development assistance in agriculture, per capita

FDI_P: Foreign direct investment in the primary sector, per capita

MSSR: Meat self-sufficiency ratio

i: country

t: time

Expected Results

Variable	Definition	Expected Results
GDP	GDP per capita (current US$)	N/A
ME	Meat Exports per capita(1000 tonnes)	+
ODA_A	ODA in the agricultural sector per capita (current US million $)	+/−
FDI_A	FDI in the primary sector per capita	+
MSSR	Meat Self-Sufficiency Ratio per capita	+

Results

	Group 1	Group 2	Group 3
Meat exports*	+	+	Somewhat +
ODA in agriculture*	-	-	Insignificant
FDI in primary sector*	+	Somewhat +	+
Meat self-sufficiency ratio	-	-	-

*per capita

Conclusion

- Although Latin American countries have a high meat self-sufficiency ratio, they lack the successful implementation of governmental programs and policies/efficient production system
- FDI and Exports have a positive impact on GDP
- ODA does not necessarily have a positive impact on GDP

Suggestions for Further Research

Other aspects that should be taken into consideration:

- Government expenditure in agriculture
- Political situation
- Inflation
- Food prices
- Freedom of trade/tariffs
- Longer time period
- Type of meat produced in each country

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