



Bread Riots: Inquiry into Food Prices and Political Stability

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Introduction

“You can’t have peace when people are hungry” and “politics is expressed through people’s stomachs” are sayings often attributed to political instability as a result of high food prices. The classic image of a bread riot from the French Revolution comes to mind when people were unable to afford even bread. The question now is: “Do these sayings have truth within them?” Specifically, are food prices related to political stability? Using data from the Food and Agriculture Organization (FAO) of the United Nations and the World Bank, this study assesses the relationship between food prices and political stability throughout the world using data between 2012 and 2014.

Hypothesis: As food prices increase, political stability decreases.

Research Question: Do food prices significantly affect political stability?

Research Design

The variable Food Prices is represented by the FAO’s General Food Indices, which is a type of Consumer Price Index. CPI measures a change in prices since the year 2000. However, this measure can be influenced more by inflation than food security. Additionally, there is missing data for specific cases, thus the most recent data was used unless it was prior to 2012.

The variable Political Stability is defined as “capturing perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism.” This variable measures stability on a scale from 0 to 100, where 0 is a complete lack of political stability and 100 is extreme political stability.

There are a few control variables to consider when measuring political stability: GDP per capita, Democracy Score, GINI Coefficient, and Confidence in Institutions. The controls may provide better correlations than food prices, which offer a new perspective on future studies.

Results

A correlation and regression test finds that there is a negative correlation between Food Prices and Political Stability ($R = -.136$) and a significance of .089; thus not a relatively strong relationship.

Figure 1

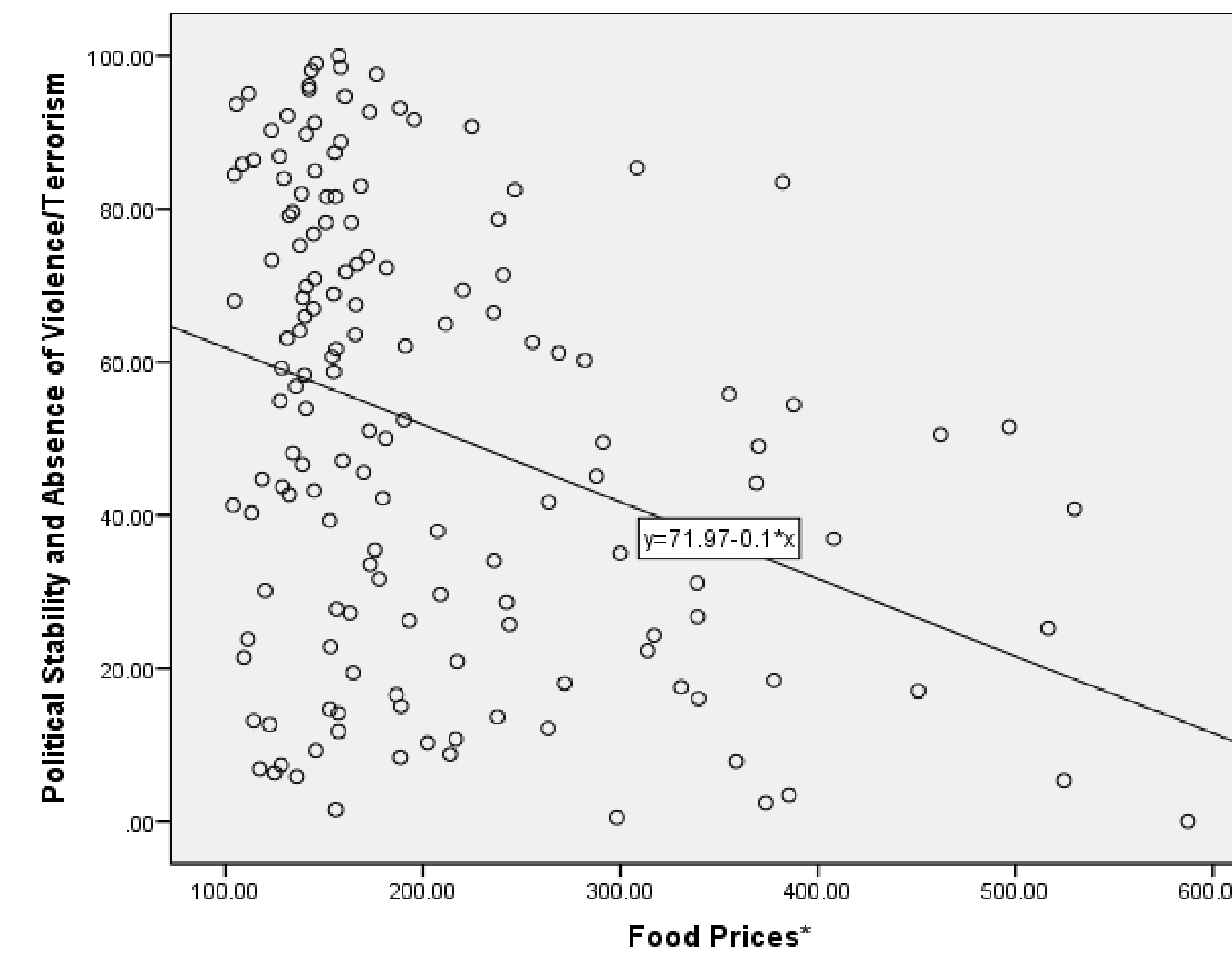
	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Beta	B	Beta	
(Constant)	26.096	17.560		1.486	.143
Food Prices	-.035	.019	-.144	-1.849	.070
GDP per capita in 10K US\$	5.102	2.518	.212	2.026	.047
Democracy Score	8.375	1.563	.557	5.357	.000
GINI Coefficient	-.502	.272	-.138	-1.846	.070
Confidence in Institution Scale	-.200	.127	-.112	-1.574	.121

When looking at the correlation and regression tests for the new model (Food Prices-GDP per Capita-Democracy Score-GINI Coefficient-Confidence in Institutions), we find the model has $R = .867$. However, find there are mixed significances with each variable put into the new model.

Additionally, Political Stability has a stronger correlation with GDP per Capita than Food Prices ($R = .654$), GINI Coefficient ($R = -.280$), and Democracy Score ($R = .663$).

As for these strong correlations, GDP per Capita and Democracy are significant (.070 and .000 respectively).

Figure 2



*Cases where price >700 disincluded

Figure 3

		Food Prices	Political Stability	GDP per capita in 10K US\$	Democracy Score	GINI Coefficient	Confidence in Institutions Scale
Food Prices	Pearson Correlation	1	-.136	-.148	-.183	.223	-.153
	Sig. (2-tailed)		.089	.097	.033	.011	.229
Political Stability	Pearson Correlation	-.136	1	.654**	.663**	-.280**	-.064
	Sig. (2-tailed)	.089		.000	.000	.000	.603
GDP per capita in 10K US\$	Pearson Correlation	-.148	.654**	1	.586**	-.437**	.151
	Sig. (2-tailed)	.097	.000		.000	.000	.224
Democracy Score	Pearson Correlation	-.183	.663**	.586**	1	-.204	-.081
	Sig. (2-tailed)	.033	.000	.000		.011	.509
GINI Coefficient	Pearson Correlation	.223	-.280**	-.437**	-.204	1	-.091
	Sig. (2-tailed)	.011	.000	.000	.011		.464
Confidence in Institutions Scale	Pearson Correlation	-.153	-.064	.151	-.081	-.091	1
	Sig. (2-tailed)	.229	.603	.224	.509	.464	
	N	64	68	67	68	67	68

Discussion

Despite rejecting the hypothesis, the inquiry has still provided insight into political stability. While food prices are not the major factor in stability, we have found that high GDP and strong democracies tend to have more stability (or lack of political violence). This finding has allowed us to pursue different economic measures (ie tax income) or look at different types of governments to see if political stability is affected. There are also several other World Governance Indicators to study, such as Rule of Law and Government Effectiveness. Perhaps the biggest limitation on this study was the absence of particular data points. Countries like Afghanistan were not represented due to certain conditions making it unfeasible to properly collect data. In future research, accessing different databases may assist in

closing those gaps in the dataset. Additionally, using new measures may produce a new outcome. For instance, CPI is a measure of change in price, not primarily a price an average person is paying. Thus, in a new study, we may also want to use change in GDP as a measure. What we may want to consider is creating case studies and study the effect of food prices in the short-term. Specifically, looking at the Arab Spring as way to predict political instability. Hopefully by continuing to study political stability, we can find policies that are more effective and easier to implement. On the other side of the spectrum, we are free to investigate other factors of food security to see whether or not food truly does play a role in political stability.