

Food Price Volatility & Political Unrest: The case of the Egyptian “Arab Spring”

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The “Arab Spring” has always been portrayed in Egypt as politically motivated revolts against decades of dictatorial regimes (Abu Hatab, 2014). From a scientific perspective however, way less attention has so far been paid to the question why the Arab spring movement occurred precisely in early 2011, and not any time earlier, given that the political system had been in power already for decades (Abu Hatab, 2014). Furthermore, it has been pointed out that the Arab spring coincided with a period of volatile global food prices, which is potentially important given that Egypt is a net importer of food and the world largest wheat importer.

Indeed, many famous revolutions in history have often coincided with periods of food price inflation. According to Arezki and Bruckner (2011), food prices play an essential role in social and political stability in developing countries. This is because volatile food prices make both smallholder farmers and poor consumers increasingly vulnerable to poverty (FAO, 2011). Moreover, poor consumers spend a large budget share on food, thus, the level of food prices is important determinant of their purchasing power (Minten, 2007). Food prices also influence wage levels and employment within and outside the food sector, and, thus, they have an impact on wage incomes of rural and urban poor (Headey and Fan, 2008).

The political system in Egypt had for decades sustained its legitimacy by providing cheap subsidized food and basic goods to the public in exchange for political loyalty (Harrigan, 2014). Nevertheless, the unprecedented global food price spikes in 2008 and onwards, which concurred with a period of high levels of income inequality, poverty and youth unemployment, resulted in a steep rises in the cost of living and steady declines in living standards of Egyptians. In this article, I hypothesize that these socio-economic conditions together with food price inflation have unraveled the social contract, as many Egyptians had no longer been willing to tolerate a repressive and a dictatorial regime, and led to the outbreak of the Arab Spring in early 2011.

While little is known so far about the precise causality between food prices, the role of various macroeconomic indicators and the emergence of socio-political unrest in Egypt, this article attempts to shed light on the role of food price volatility as an important underpinning to the 2011 uprising. The next section reviews food price and subsidy policies in Egypt in recent decades. The third section analyzes selected socio-economic indicators in Egypt in the lead up to the 2011 uprisings. Sector four highlights the relationship between food price volatility and political unrest in the context of the Arab Spring, and the last section concludes sustainable policy directions for the agrifood policies in Egypt to cope with food price volatility and minimize the recurrence of political unrest.

A Retrospect of Food Price Subsidy in Egypt

Keeping food prices affordable through subsidies has always been a major component of Egyptian economic policies (Tamimi, 2014). Due to the inherited idea that the political system in Egypt is ethically bound to provide food and basic goods at affordable prices, successive Egyptian governments used food subsidy as a measure to maintain social and political stability (Khouri-Dager, 1996). According to Ahmed and Bouis (2002), Egypt’s food subsidy system originated during the Second World War with the aim to serve as a social safety net to cope with scarcity and inflation resulting from the war.

In the wake of the July Revolution in 1952, Egyptian economic policies generally focused on redistributing accumulated surplus from agriculture towards financing the emerging industrial sector. This policy goal was achieved via a centrally controlled economy and an extensive government involvement in the production, marketing and distribution of most strategic agricultural commodities (Lewis, 2009). These mechanisms enabled the government in earlier decades to continue providing urban citizens with low cost food and avoiding food price inflation (El-Kholei, 2003).

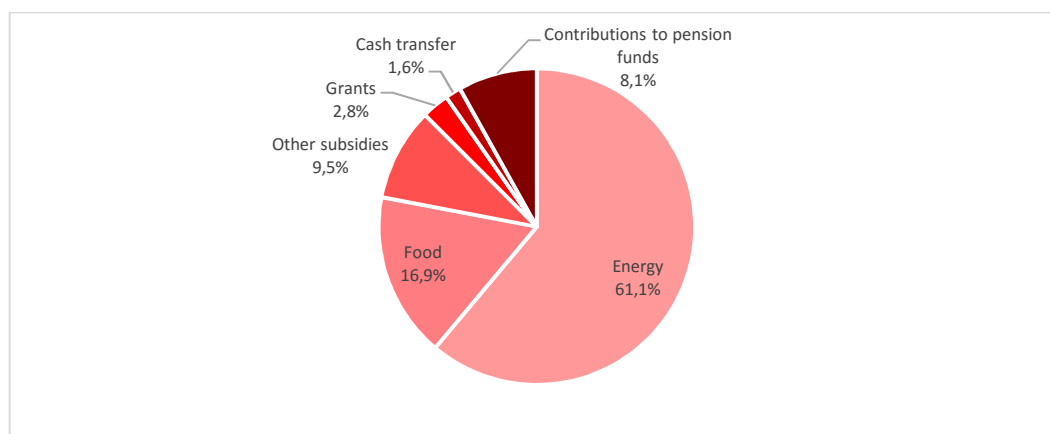
Nevertheless, food price subsidy has since mid-1970s become a problematic issue and a major drain on the budget of Egyptian governments. This is largely due to the negative consequences of public and agricultural policies in previous decades which gradually declined agriculture output and food security levels. To cite an example, wheat self-sufficiency continued to decline since late 1960s until the production-to-consumption ration amounted to less than 20% in 1983. During the Sadat regime (1970-1981), the food subsidy program expanded dramatically both in number of subsidized commodities and coverage (El-Kholei, 2003).

When the per ton international wheat prices climbed from USD 60 in 1970 to about USD 250 in 1973, the cost of wheat imports in Egypt skyrocketed from about USD 150 million to almost USD 400 million (Sadowski, 1991). Accordingly, spending on food subsidy rose from LE 3 million in 1970 to roughly LE 1.4 billion in 1980 (Ahmed and Bouis, 1998). Attempts were therefore made to lower subsidies sufficiently to reduce the public budget deficit. Particularly, the government announced in January 1971 increases in the prices of a number of subsidized staples to cut the spending on subsidy. However, these policy changes were met with waves of mass protests and public violence, so called food riots, and led to their reversal (Walton and Seddon, 1994). Since then, the government was always reminded of these food riots and that if any policy for a structural food subsidy reform was proposed; the political disturbance of 1997 might be repeated.

Under Mubarak regime, the food subsidy system continued to increasingly expand and almost the entire people of Egypt held subsidized ration cards (Abdel-Latif and El-Laithy, 1996). In 1981, spending on food subsidy represented about 20.5 % of the total government expenditures and became economically unsustainable under the growing wheat and other food stuff imports, the scarcity of foreign exchange, and the increasing budget deficit and foreign debt service obligations (Soliman and Daniel, 2011). In response, the government implemented a structural economic reform program within which a strategy for transforming the food subsidy program was adopted. The strategy was mainly based on a slow transformation process and indirect interventions in order to avoid the emergence of socio-political unrest (Adam, 2000). During the 1990s, Egypt implemented even larger food subsidy reforms which significantly reduced the percentage of Egyptians on the ration card system from around 99% in 1981 to around 70% by 2000. Moreover, the share of food subsidy in the total public expenditure shrank from 14% in 1991 to only 5.5% by 2000 (Ahmed and Bouis, 1998; MOF, 2003). This was achieved by further reductions in the number of subsidized commodities and attempts to apply changes to the bread recipe to reduce wheat imports by adding domestically grown corn into subsidized flour (Douglas, 1996).

During the early years of the twenty-first century, the government launched an extensive food and energy subsidy reform program and put into place considerably more consequential reductions to subsidies on food items (Momani, 2004). However, as the food crisis in tandem with the global financial crisis began to unfold in 2008, wheat, rice, and maize prices (three relevant commodities to basic sustenance) tripled in real terms in the first half of 2008 and many Egyptians become greatly exposed to the volatile global food prices. The symptoms of subsidy cuts were therefore seen in a large number of protests across the country.

Figure 1
Composition of subsidy and social benefits in Egypt, 2010



Source: Author calculations based on data from the Ministry of Finance, 2012

This led the government to abandoned subsidy reforms and increase spending on food subsidy once again and at unsustainable levels. In this context, overall spending on food subsidy almost doubled between 2007 and 2010 while it expanded from USD 2.3 billion to slightly more than USD 4.6 billion (MOF, 2012). Moreover, bread subsidy in 2008 amounted to USD 2.74 billion and exceeded public spending on health and education (Slackman, 2008). A composition of subsidy and social benefits in Figure 1 shows that food subsidy in 2010 calculated for about 17% of the government overall spending on subsidy. Together, food and energy absorbed about 77.5% of total subsidy expenditures. As a percent of the GDP, the IMF points out that food and energy subsidies in Egypt stood at 9.9% which is much higher if compared to the average of 2.2% in other MENA countries (IMF, 2014).

Overview of Selected Socio-Economic Indicators in Egypt the Lead-up to the 2011 Uprisings

Egypt enjoys unique socioeconomic characteristics that make the impacts of food price volatility more visible and influential. At the end of 2010, the Central Agency for Public Mobility and Statistics (CAPMAS) announced that the country's total population (both at home and abroad) hit 87 million (CAPMAS, 2015), representing a growth of about 13.7% since the 2006 census.

Moreover, population growth rate was estimated at 2.1% in 2010 which is relatively high compared to the average growth rate of 1.5% in other developing countries (Hamed, 2014).

Such population growth cut across everything ranging from draining the country's natural resources, raising the budget deficit to deteriorating foreign currency reserves due to the need to fund the import of extra supplies. Moreover, population growth in Egypt has not been accompanied with similar increases in agricultural land nor water resources. The country loses nearly 60,000 acres per year as a result of soil erosion and construction. Moreover, it faces severe water shortage while its approximately 55 billion cubic meters per year have remained unchanged since 1954 despite a threefold increase in population (NPC, 2012).

Poverty is another critical issue in Egypt while the percentage of the Egyptians who fell below the national poverty line increased from 16.7% in 1995/96 to about 25.2% in 2010/11. Moreover, a further 24% of the population was just above the poverty line in 2010/11 putting them vulnerable to shocks and at risk of poverty (WFP, 2013). Income inequality was another characteristic of the period made for the Arab Spring. An examination of income share across the quintile groups in Egypt in 2010 shows that income distribution is skewed in favor of upper income classes while the richest 20% of Egyptians took 40.3% of the wealth, whereas the percentage of income held by the poorest 20% was estimated at 9.2%.

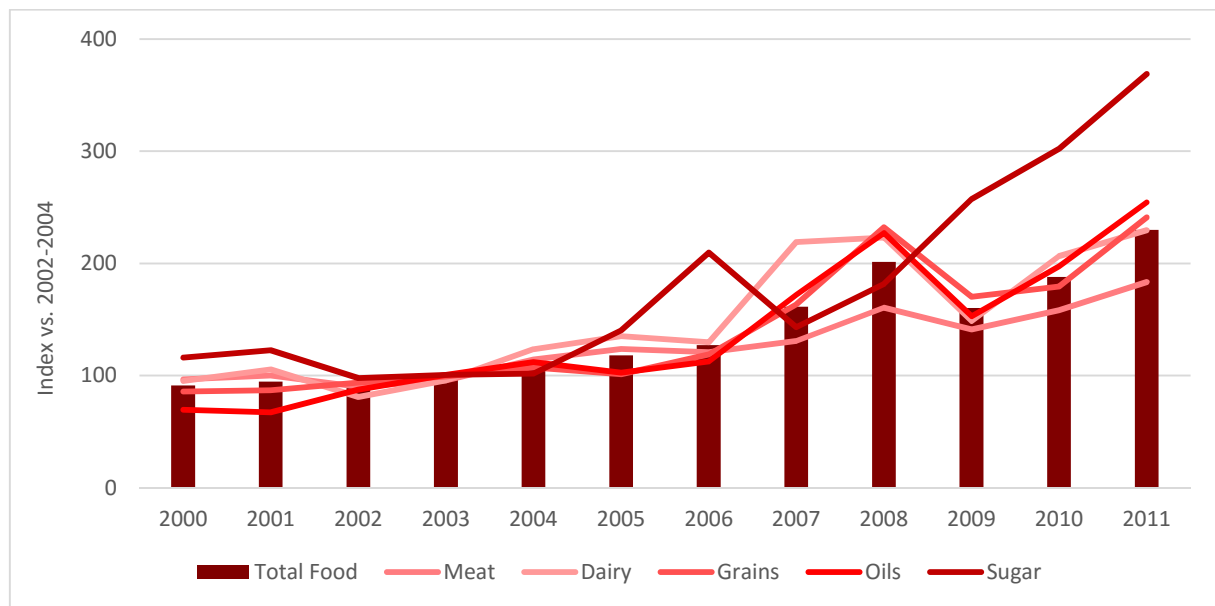
Besides, youth unemployment was another chronic challenge to the Egyptian government during the last decade of Mubarak regime while 90% of the unemployed in Egypt are young people (UNDP and INP, 2010). Another feature of unemployment in Egypt is that it generally increases with education. According to CAPMAS statistical yearbook (2012) the only groups in 2010 that experienced unemployment rates of less than 10% were illiterates and people with below- secondary education. In contrast, unemployment rates among male college graduates were 36.4%.

Together, these disquieting socioeconomic indicators contributed to broader process of social exclusion and triggered frustration especially among young people and university graduates and provided a suitable environment for a mass revolutionary movement in 2011.

The Role of Food Price Volatility in the Making of the Arab Spring in Egypt

Several authors have cited food price volatility among the major factors which contributed to the popular discontent in Arab countries leading to the Arab Spring movement (eg: Elena et al, 2014; Breisinger, Ecker, & Al-Riffai, 2011; Zurayk, 2011; Arezki and Bruckner, 2011). While poor consumers spend a large proportion of their budget on food, the level of food prices is an important determinant of their purchasing power. Moreover, soaring food prices pose challenges to developing low-income countries facing higher import bills, rising costs for safety net programs and political unrest (ODI, 2008).

Figure 2
FAO Global Food Price Index, 2000-2011

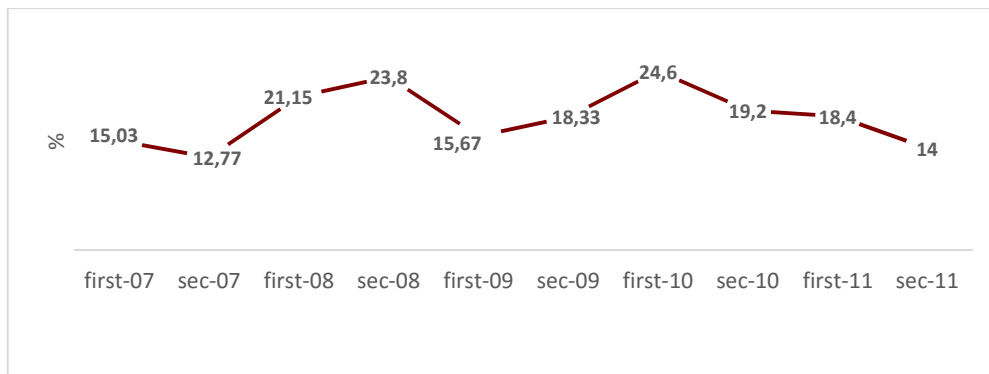


Source: Compiled by the author from U.N-FAO, "FAO Food Price Index," Available at: www.fao.org/worldfoodsituation/foodpricesindex/en/, on April 18, 2015. Average 2002-2004=100

A look at Figure 2 shows that since 2000, global food prices have been rapidly increasing. Particularly in 2006, total food price index shot up by 17% in comparison to average 2002-2004 prices. The index had further risen to a record high of about 230% in 2011, topping the previous all-time high of 201% set in 2008. As a result, rising food prices have driven an estimated 44 million people into poverty (World Bank, 2011). At the commodity groups' level, Figure 2 reveals that the cereal price index reached 119% in 2006, 232% in 2008 and 241% in 2011. Particularly, soaring cereal prices are alarming because the poor in developing countries obtain the bulk of their diet from cereals. Prices of other food commodity groups experienced rapid increases between 2006 and 2011 as well.

On the back of global food price spikes, domestic food prices in Egypt had also increased dramatically during the period 2008-2010. This is mainly because Egyptian households spend on average around 47% of their budget on food items. For instance, with a triple-fold increase in global wheat prices between 2006 and 2008, domestic bread prices in Egypt became 48% up in 2010 (IMF, 2008). This is no surprise given that Egypt is the world largest purchaser of wheat with about 60% of its wheat consumption imported in 2010 (CAPMAS, 2012). Moreover, rice prices increased by 83%, cooking oil prices tripled, vegetables prices rose by 88% and food stuff as a whole rose by 24% in 2010 (Figure 3).

Figure 3
Consumer index of food and non-alcoholic beverages (urban) in Egypt, 2007-2011

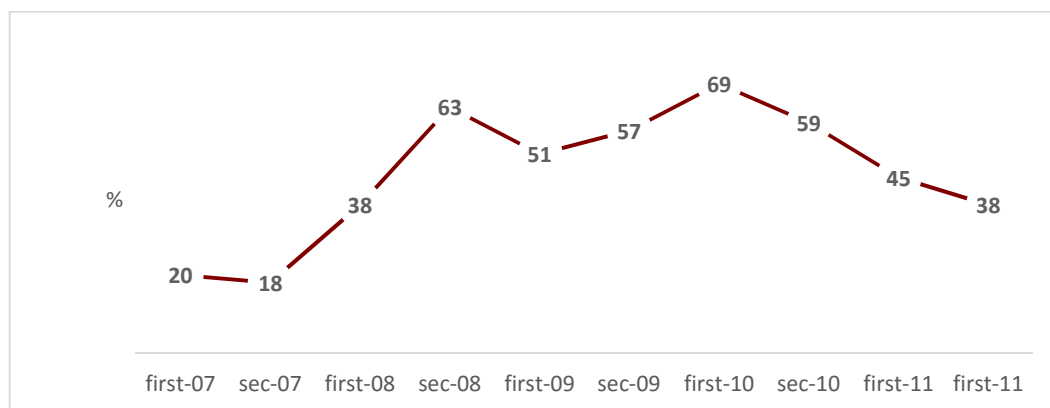


Source: Central Bank of Egypt, 2011

These developments in food prices complicated macroeconomic indicators of Egypt and contributed to an acceleration of inflation across the country. According to a report by the IMF (2009), changes in global commodity prices contribute about 43% of the variation in headline inflation in Egypt, with international food prices playing a much larger role at 39.8%. Given the high food share in the consumption basket for many population segments in Egypt, food price inflation has a strong short-run effect on non-food items as it can be transmitted to core inflation through higher inflationary expectations and workers' demands for higher wages (IMF, 2011).

Figure 4 portrays food-related unrest events as a percentage of overall unrest events that took place in Egypt during the period 2007-2011. It shows that food-related/overall unrest events ratio in the country developed from around 20% in the first half of 2007 to almost 38% in the first half of 2008. During the second half of 2008, food-related unrest represented about 63% of the overall civil unrest events. In the first half of 2010, a few months before 2011 revolts, the share of food-related unrest calculated for more than two thirds of total unrest across the country. Linking the data in Figure 3 together with those in Figure 4, it is quite obvious that the highest levels of the domestic food price index moved hand-in-hand with the two peaks of the food-related/total unrest revolts ratio in the country during the period 2007-2011. This may imply that a correlation exists between domestic food price volatility and socio-political unrest in Egypt during the period under study.

Figure 4
Percentage of food related to total unrest in Egypt during the period 2007-2011



Source: Based on preliminary results of an ongoing project carried out by the author in collaboration with Professor Yves Surry and Professor Sebastian Hess from the Swedish University of Agricultural Science. The data are collected from the searches of digital archives of two leading Egyptian newspapers on socio-political unrest during the period 2007-2011.

To contextualize these findings; one could argue that due to Egypt's high dependency on global markets for food imports (i) and the high share of food in the consumption basket of many segments of the Egyptian population, global food price spikes during the period 2008-2010 were transmitted to the Egyptian domestic food market and caused inflationary waves in domestic food prices (ii). Such high domestic food prices were coupled with several other existing political, economic and social grievances. Subsequently, together these factors heightened social tensions and sparked protests and mass revolts against the ruling government across the country and led finally to the ouster of the political regime in 2011. It should be however re-emphasized that the 2011 uprisings in Egypt did not have one cause and it was definitely about much more than food, but there is no doubt that rising food prices fueled the already combustible mix and played an important role.

Based on the previous narrative, it could be concluded that food price volatility played an essential role in the emergence of the Arab Spring in Egypt in 2011. As Harrigan (2014) puts it, food price inflation was the final nail in the coffin for the Egyptian political system that was failing to deliver on their side of the social contract.

Today, the Egyptian government faces burgeoning socioeconomic challenges including among others; increasing public deficit, high unemployment rates and increasing poverty and food insecurity levels. Moreover, food subsidy continues in the post Arab Spring period to be a major economic concern for the country while food and fuels subsidies account on average 30% of Egypt's public spending, or 13% of the GDP during the period 2011-2015 (Central Bank of Egypt, 2016). Under these economic circumstances, food subsidy reform and food price stabilization have to be dealt with as a top policy priority for Egypt to avoid the reoccurrence of future waves of the Arab Spring. In this respect, following the presidential election in May 2014, the new regime embarked fundamental reforms in the food subsidy system with the aim to mitigate its expeditiously growing fiscal burden and to increase its efficiency by implementing a more targeted approach.

To cite some examples, the Egyptian Ministry of Supply and Internal Commerce (MSIC) implemented in 2014 a program to displace the paper-based ration cards with electronic smart cards. The overall goal of this program is to expand the umbrella of the ration card program of the *baladi* bread to cover households which rely on this subsidized bread but are not covered by the program. Moreover, the total number of subsidized food items has increased since December 2014 to thirty-two food items including dairy products, pulses, meat, chicken and fish.

Under the new smart ration card program, beneficiaries are given the flexibility to choose among these thirty-two subsidized commodities at any available packaging unit instead of the quantity-based quotas as under the old system. Specifically, beneficiaries receive a monthly cash allowance which they can redeem for any of these subsidized commodities; but they still need to contribute an out-of-pocket copayment of about 10% of the ration card deduction for the purchased commodities.

Another example, MSIC eliminated in 2014 bakery quotas for *baladi* flour with the aim to move the bread subsidy to the end of the supply chain. Accordingly, bakeries have now to buy *baladi* flour at market prices while the government bears all production costs of the *baladi* bread through direct cash transfers to the bakeries. Besides, the government has restricted the purchase of the *baladi* bread to ration-card holders who are registered on the household ration card, and it has also put a ceiling of 150 loaves per each household member on the purchase of the *baladi* bread.

Nevertheless the implementation of these reform programs, Rohac (2013) indicates that most attempts to reform subsidies and mitigate food price volatility in Egypt have failed to achieve their goals of protecting vulnerable population and reduce public spending on food subsidy. Moreover, a number of these programs have been short-lived, and in some other cases, reforms were announced but never followed through subsequently eroding the government's credibility in implementing food subsidy reform.

Concluding remarks

In view of these ongoing attempts to reform programs and in the light of the importance of food price stability to social and political stability in Egypt, as shown in the earlier sections of this article, the following policy implications could be drawn:

First, Egypt is ought to put food price stabilization as a top priority. In fact, Egyptian agricultural policies over the past three decades have contributed to declining food security levels and left the country relying heavily on food imports. While several international development organizations including FAO and IMF project global food prices to remain high and volatile in the future, Egypt's vulnerability to food price fluctuations is expected to increase under a rapidly growing population, climate changes and desertification, water resources scarcity and its dependency on food imports. In this context,

strategies to increase agricultural productivity and the supply of food are required. This could be achieved by expanding public investments in agricultural R&D to improve water use efficiency, increase agricultural yields and adapt to global warming.

Second, efforts to reform Egypt's food subsidy system should pay special focus to minimizing system leakage. Ramadan (2014) shows that Egypt's food subsidy system suffers from sizable leakages which reduce its effectiveness as considerable proportions of the subsidy do not reach target consumers and benefit non-poor groups of the population. This makes the current subsidy system a heavy burden on the public budget more than a targeted social protection tool. Accordingly, the targeting of poor and vulnerable population should be revisited based on a precise assessment of the attributes and determinants of poverty and food insecurity across the country. This should also be based on a comprehensive analysis and consultation to manage the social impact of such reforms in order to avoid their negative consequences on the poor especially during the undergoing transition processes.

Third, while food subsidy is one of the most important tools of public policies to reduce poverty, malnutrition and ensure food security in Egypt (Ramadan, 2014), a successful implementation of these recently adopted food subsidy reforms in post-2011 need to be accompanied by a series of complementary reforms to reduce food insecurity across the country and improve food supply chains. Provident macroeconomic policies, including a reduction in inflation rates, are necessary to absorb the potential effects of food price spikes on poorer households. Strengthening social safety nets is also crucial and can be achieved by introducing well-targeted conditional-cash transfer programs to enable the poor improve their human capital. Additionally, it is widely recognized that reducing vulnerability means increasing the incomes of the poor. Therefore, policies aiming at stabilizing food prices and reducing risks to food insecurity should be concerned with increasing expenditure on income-generating projects that could provide job opportunities and improve poor household incomes.

Last but equally important, to the best of the author's knowledge, very little research has so far been undertaken to empirically examine the relationship between food price inflation and the socio-political unrest with particular focus on the Egyptian context. Existing studies look mainly into the 2011 revolts as a political fate of a longstanding dictatorship regime, whereas the other side of the coin related to the increased economic suffering of the Egyptian people and the hardships connected to food price inflation has not been well researched. Thus, in-depth empirical quantitative research of the price chain of essential food commodities and the likely impacts of food price volatility on the poor segments of the Egyptian population is both required and highly recommended.

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