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Neela Badrie  
Editor

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## *Food prices and food security in CARICOM - The case of Trinidad and Tobago*

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### Abstract

*The unprecedented rise in food prices over the last two years sent shock waves throughout the entire world. The rise in food prices was caused by factors including increases in commodity prices, the use of corn for ethanol production, increased incidence or severity of drought and flooding and the greater demand for food and commodities, particularly in China and India. Trinidad and Tobago which is a net food importer, over TT\$4 billion in 2008, experienced food inflation of 25.2 per cent in 2008. The agriculture sector has been declining over the years. Its contribution to Gross Domestic Product was 0.4 per cent in 2007. Rising costs, shortage of labour, praedial larceny all had a negative impact on production. The government response to rising food inflation has been fiscal measures through the reduction of duties as well as addressing the supply side. In its 2008-09 budget, there were increased allocations for investment in the sector, provision of credit and reduction of interest rates.*

*A Transformational Plan was developed to address the issue of food security. The objectives outlined in this Plan is for the country to produce as least 25 per cent of its food needs from the six food groups, bringing into production an additional 20,000 acres of land (large farms and Caroni lands) and the production of targeted commodities to meet local and export market demands. There has been some evidence of success in reducing food prices through the strategies of establishing Farmers' Markets and the implementation of the National Agricultural Market Information System (NAMIS). This paper looks at the causes of soaring food prices in Trinidad and Tobago and the government's response to mitigate rising prices and measures to address the issue of food security.*

Key words: food prices, food security, Trinidad and Tobago, Transformation Plan

### 1. Introduction

#### a) Situation Analysis

Food price inflation was a worldwide phenomenon which impacted on all countries during 2008

(<http://www.wfp.org/node/7906-Virtual>

Press Room -High food prices - 02 June 2008). All strata of society were affected; however the impact was greatest on the lower income groups, who spend a large portion of their earnings on food and those on fixed incomes. (Rising food prices -

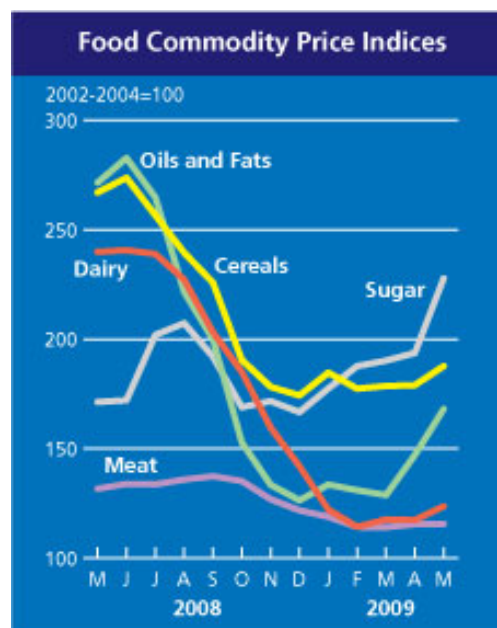
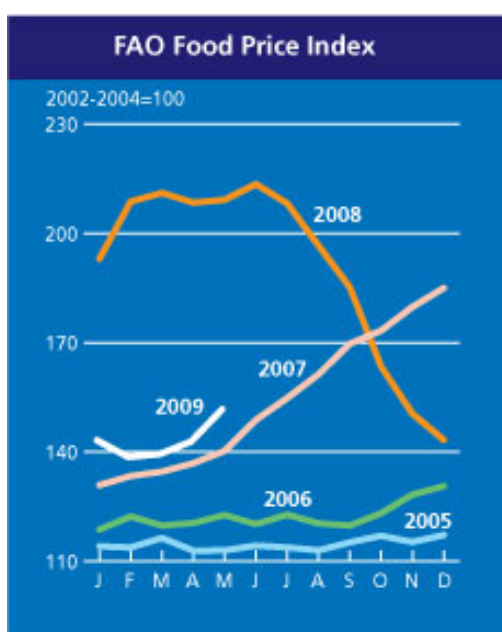
What should be done? - Joachim van Braun IFPRI Policy Brief-April 2008). So severe was the impact of the high prices that it led to public protests and in some cases food riots (<http://www.cnn.com/2008/WORLD/americas/04/14/world.food.crisis/>).

In the USA, the all-food CPI increased 5.5 percent between 2007 and 2008, the highest annual increase since 1990. (Economic Research Service –USDA – Food CPI and Expenditure).

In Canada the increase was 7.3%. (<http://www.cbc.ca/money/story/2009/01/23/inflationdecember.html?ref=rss>). In the Caribbean region, an analyses of the movements in the Food Price Indices (January – December 2008) for selected countries showed that it increased by 24.7 for Jamaica (Bank of Jamaica – December 2008 Statistical Digest), 11.6 per cent for Guyana (The Bureau of Statistics – Georgetown Price Index) and 13.5 per cent for Barbados (Barbados Statistical Services- Monthly Bulletin - Index of Retail Prices – December 2007 and 2008).

### b) Reasons for Rising Food Prices

There were a number of factors responsible for food inflation and these have been well documented. Among the factors were, sharply higher commodity costs for wheat, corn, soyabeans and milk, plus higher energy and transportation costs.



Source: FAO

Food Prices have been gradually rising over the last decade. The FAO Price Index which was 90 peaked at 214 in June of 2008, an increase of 213 per cent.

In terms of the commodities, the meat and dairy indices were up by 253%, while cereals went up by over 300 per cent.

Over the period June 2007 to June 2008, global prices increased by 58 per cent for wheat, 71 per cent for corn, 261 per cent for rice, 89 per cent for soybeans and 51 per cent for beef.

Since then prices have decreased, and in May 2009 commodity prices were at the average level obtained in 2007. (See Table 1)

Other reasons put forward were rapid economic growth in China and India which increased demand for food products in these countries. Corn was diverted to produce ethanol as a result of high oil price. Drought in Australia led to higher global wheat prices.

In summary, the causes of the volatility in the world food equation were due to;

1. Income growth and demand
2. Biofuels (energy price)
3. Underinvestment in agricultural productivity and technology
4. Trade policy and low stocks
5. Production shocks (emerging climate change)
6. High input and transport costs (energy price)
7. Population growth

## 2. The Case of Trinidad and Tobago

### a) The Economy

Trinidad and Tobago with a population of approximately 1.3 million has an economy which is heavily dependent on the petro-chemical sector. Oil and gas is the major revenue earner in the country and accounts for approximately 40 per cent of the Gross Domestic Product (GDP).

Per Capita GDP in 2006 was US\$21,669, the highest in Latin America and the Caribbean. Life expectancy is 69.4 years while infant mortality is 26 per 1,000 births.

Trinidad and Tobago has a large annual food import bill. The value of food imports in 2008 was TT\$ 4.2 billion. This figure was almost double the value of 2004 imports. This was due to the increased quantity as well as rising prices of imports. (Graph 1). Cereals, meats and dairy products accounted for 50% of the total import value.

The Central Statistical Office (CSO) reported that overall food price inflation rose by 25.9 per cent in 2008. Graph 2 shows the inflation rates for the period 2004 to 2008.

Consumers were forced to pay higher prices for imported items such as cereals, oil, and grains products. On the other hand, the price of local fruits and vegetables rose due to increased cost of fertilizers, chemicals and labour. In addition, unfavorable weather conditions reduced supplies.

A comparison of the Year on Year Food Price Index for the months of December 2008 to December 2009 shows that the Index rose by 32.43 per cent.

The main drivers of food price inflation were Bread and Cereals, up by 36.13 per cent, Fish, up by 22.04 per cent, Oils and Fats, up by 32.34 per cent, Fruits, up by 31.43 per cent and Vegetables, up by 31.95 per cent. By way of illustration, a white bread sandwich loaf which retailed in this country at \$6.25 at the beginning of January 2007 rose to \$10.68 toward the end of 2008, an increase of 71%.

Local fresh produce prices were not spared the inflationary pressure. Wholesale and retail prices for a selected basket of fresh produce rose by 23 and 20 per cent respectively in 2008. (Graph 3) So far for 2009, these prices have fallen by 31 per cent at the wholesale level and 5 per cent at the retail end.

### b) The State of Food Security

The WHO defines food security as a state 'when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life.' (FAO Policy Brief Issue 2-June 2006). Food security is essential to development. Research shows that adequate and appropriate nutrition frees people from the burdens of disease, enabling them to work, concentrate, study and educate themselves out of poverty or at the very least to feed themselves better.

A Report by the Ministry of Agriculture to the Food and Agriculture Organisation noted that domestic consumption of food in Trinidad and Tobago exceeded local food production (National Report to FAO and World Summit -Plan of Action – March 2008).

The economic boom has resulted in higher disposable incomes, which in turn has led to increased imports of foods, such

as cereals, rice, beef, mutton, cheese and powdered milk.

On the local front, while production of commodities, such as, cocoa, coffee, rice, citrus and sugar have declined the production of fruits and vegetables have been fluctuating.

The country is self sufficient in poultry. There are plans to revitalize the production of rice, small ruminants and to develop a sustained aquaculture industry.

The stability of local supplies has been affected by shortages due to adverse weather conditions, pest and disease infestation, praedial larceny, labour shortages and a drift away from agriculture.

An FAO Study noted that among CARIFORUM countries, Trinidad and Tobago met the Recommended Population Goals (RPG) for total food calories and fats; however, the RPG with respect to fruits and vegetables was not meet. By way of comparison, the per capita consumption of fruits and vegetables was 25 per cent that of the United States.

The Government of Trinidad and Tobago has committed itself towards the objectives of the Millennium Development Goals. One targeted outcome for the period 1990-2015 is to halve the proportion of people who suffer from hunger.

### **3. Measures to Address High Food Prices and Food Security**

A number of measures have been adopted to deal with the surge in food prices. While the main focus has been on initiatives to increase production and improve efficiency in marketing of food products, fiscal and social measures were also adopted.

Duties and value added taxes on a wide variety of food items were eliminated or significantly reduced.

Members of the lower income groups were provided with cash transfers known as

T&T Debit Card to enable them to purchase basic food items at retail outlets. Senior Citizens grants were increased.

### **4. State of Agriculture in Trinidad and Tobago**

The sector faces a number of challenges which are not insurmountable and which if addressed has the potential to address the issue of Food Security.

The contribution of this sector to the country's Gross Domestic Product has been declining in constant and real terms. The contribution of this sector has been declining over the years as illustrated in Table 2.

The dollar value contribution of the sector has declined by TT\$314.6 million since 2002.

The economic boom being experienced in the country has resulted in a demand for labour by the construction sector. In addition, labour has been diverted to social work programmes, CEPPEP and URP. This has led to a movement of labour away from agriculture to these higher paying jobs. The number of persons employed in agriculture has fallen by 50 percent since 1997. (See Table 3). This has resulted in a labour shortage at farms and farmers have had to reduce acreage under production.

The rising costs of equipment, fertilizer and chemical added to the challenges, so too was the incidence of praedial larceny.

### **5. Increased Food Production a) Budgetary Support**

In the presentation of the 2008-2009 Budget, The Minister of Finance addressed the issue of rising prices and increased food production as follows;

"In order to meet rising domestic demand there has been a sharp increase in food imports at escalating international market prices. This is perhaps the strongest

justification for Trinidad and Tobago to increase food production and accelerate agricultural development, as urgent national priorities aimed at economic diversification and inflation protection.

“We consider increasing agricultural production as essential to mitigating food price inflation and providing the linkages among other sectors of the economy. In addition, it provides an incentive for private involvement in downstream agribusiness”. (Minister of Finance-2008-09 Budget Presentation)

To achieve this objective, a number of measures were announced;

- Increased investment in the agricultural sector from approximately \$1.2 billion in the last fiscal year to \$1.7 billion for the year 2008-09
- Reduction in the Agricultural Development Bank lending rate from 12 to 6 per cent and in the case of ex- Caroni workers to 5 per cent
- Increase in the allocation to the ADB from \$100 million in fiscal 2008 to \$125 million in fiscal 2009

## **b) Transformation of the Agricultural Sector**

In 2008, the Ministry of Agriculture developed a Transformation Plan for the agriculture sector.

The Plan outlined a number of strategies for Increasing Agricultural Production for Food Nutrition Security and Competitiveness in Trinidad and Tobago.

The Plan recognizes that agriculture has a critical role to play in national development and the policy measures outlined below, seeks to do just that.

- ensure food sovereignty and food security

- promote economic diversification
- support rural development
- support for the national health improvement strategy
- support for the tourism strategy
- support for the social development strategy

The sector objectives;

- meeting at least 25 per cent of national demand for the six food groups from domestic and regional production
- bringing into production an additional 20,000 acres of lands (large farms, Caroni lands)
- increased production of targeted commodities for the local and international market (fresh and value added).

A number of strategies were outlined to achieve these sector objectives, three of which are highlighted in this paper, expansion of lands under production for large and small farms, the National Agri-Business Development Programme and improving marketing information system and agricultural market infra-structure.

It should be noted that measures to address the issues of high food prices and food security were enunciated a few years ago with the announcement of the establishment of large farms at Tucker Valley in Chaguaramus and other locations in the country, the implementation of the National Agri-Business Development Programme, the establishment of Farmers' Markets and the implementation of a National Agricultural Market Information System (NAMIS). The latter two measures were the responsibility of the National Agricultural Marketing and Development Corporation (NAMDEVCO).

## **7. Strategies Implemented**

### **a) Large Farms Project**

In order to increase local food production, eleven (11) large farms will be developed. The first of these farms, the Tucker Valley Large Farm which comprises 200 acres began operation in June 2008. This project is being implemented through a technical cooperation agreement between the Governments of Cuba and Trinidad and Tobago. When fully operational, it will employ crop rotation and intensive land utilization practices. The target for this farm is 4,000 tons of agricultural produce per year, inclusive of fruits, vegetables, root crops and grains.

To date, four other large farms have been developed for which private investors have been identified. These farms will be engaged in the production of food crops and rice.

### **b) National Agri-Business Development Programme**

This programme seeks to build marketing and processing capacity among farmers and other agri-entrepreneurs, through contract production, agro-processing and marketing services provided to entrepreneurs in the sector by the Trinidad and Tobago Agri-business Association (TTABA).

Currently, farmers have been contracted for the production of sweet potato and cassava which are then converted into value added products such as cubes, fries and wedges. These products are sold to the School Nutrition Programme and retail outlets.

### **c) Farmers' Markets**

In December 2007, Farmers' Markets were set up at Macoya in East Trinidad and Debe

in South Trinidad.

The objective of these markets was for producers to sell directly to consumers, thereby eliminating the middle men in the marketing chain. The result would be better prices obtained by both parties. Graph 4 illustrates the prices for a selected fresh produce basket at the farmers' markets and the comparison with other retail outlets.

The success of these markets led to the establishment another five in other parts of the country. The intention is to have fifteen such markets at strategic locations throughout the country.

### **d) The National Agricultural Market Information Systems**

The National Agricultural Market Information System (NAMIS) was implemented in January 2007.

This system has a number of components for the benefit of producers and consumers. One such component is Market Information which has a Price and Volume database. Data on wholesale prices and volumes is collected at our two Wholesale Fresh Produce and two Wholesale Seafood markets.

This information is made available on a daily basis, both manually and electronically to producers and buyers. The producers use the information for setting prices and production planning. The bulk buyers know in advance what the selling price is for commodities and can plan their purchases accordingly.

In addition to the wholesale data, retail prices are collected for fresh produce, grocery items, meats and seafood. This information is made available to consumers via the internet and daily newspapers. It has empowered consumers to make wise purchasing decisions and it has also led to a reduction in price spreads at public retail markets and supermarkets as illustrated below. (See Graphs 5 & 6)

## **7. Conclusion**

The era of cheap food is over. Although world prices for food commodities have reverted to their 2007 level as at May 2009, the impact of the peak prices in 2008 are still being felt. The high food prices have affected all strata of society and have forced governments to take action in order to mitigate the impact.

In its Food Outlook Report for 2009-2018, the OECD and FAO notes that "the issue of food security is high on the political agenda as evidenced by the number of recent high-level summits, including the first ever G8 Agriculture Ministerial in April 2009. Much of the discussion is about the capacity of the agricultural sector to meet the rising demand for food. Is there more land that can be brought into production? Can existing agriculture be more productive while becoming more environmentally sustainable? Will there be enough water? What will be the effects of climate change"?

The Report projects that average crop prices are projected to be 10-20% higher in real terms relative to 1997-2006, while for vegetable oils real prices are expected to be more than 30% higher. Meat prices in real terms are not expected to surpass the 1997-2006 average, while reduced consumer incomes in the beginning of the projection period will tend to encourage substitution to cheaper meats, favoring poultry over beef. Average dairy prices in real terms are likely to be slightly higher in 2009-18 relative to 1997-2006, driven up by rising energy and vegetable oil prices, with a 12% increase in average butter prices being the most notable.

For Trinidad and Tobago, the rise in commodity prices has had a bitter sweet impact. While earnings from the energy sector have soared, our imports of food has increased and with it inflation, as a result of higher world prices.

Through its socio-economic measures, the country has been able to cushion the impact of higher prices for the vulnerable groups in the society but has left exposed the middle income earners. This has led to calls for increased wages to offset high inflation. If achieved, this has the potential to create a spiral of inflationary pressure in the country.

Consumers must look to reorient their consumption patterns, not only to reduce dependence on imported foods but also for health reasons. Research carried out Caribbean Food and Nutrition Institute shows that, as a region, we surpass our daily calorie requirements, a success, however the downside has been increased consumption of high energy foods (fats and sugars) contributing to increase rates of obesity and life style diseases.

The Transformation Plan for the agriculture sector is timely. The imperative is to increase domestic product to reduce dependence on imports, ensure stability of supplies and access to adequate levels of foods by the population.

To achieve the objectives outlined in the Transformational Plan, all the strategies enunciated must be adequately resourced.

We have seen some evidence of success in terms of the strategies with the Farmers' markets and the implementation of the National Agricultural Market Information System (NAMIS). The large farm at Tucker Valley has been established and is operational.

All sections of the society have role to play in ensuring the success of the increased domestic food production, be they producers, traders, service producers or consumers.

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**Table 1: FAO Food Price Index**

	<b>Food Price index</b>	<b>Meat</b>	<b>Dairy</b>	<b>Cereals</b>	<b>Oil &amp; Fats</b>
2000	90	94	95	85	68
2007	154	112	212	167	169
2008	191	128	220	238	225
2008					
June	214	134	241	274	283
2009					
May	152	116	124	188	168

Source: FAO

**Table 2: Contribution of Agriculture to G.D.P. of 1997-2007**

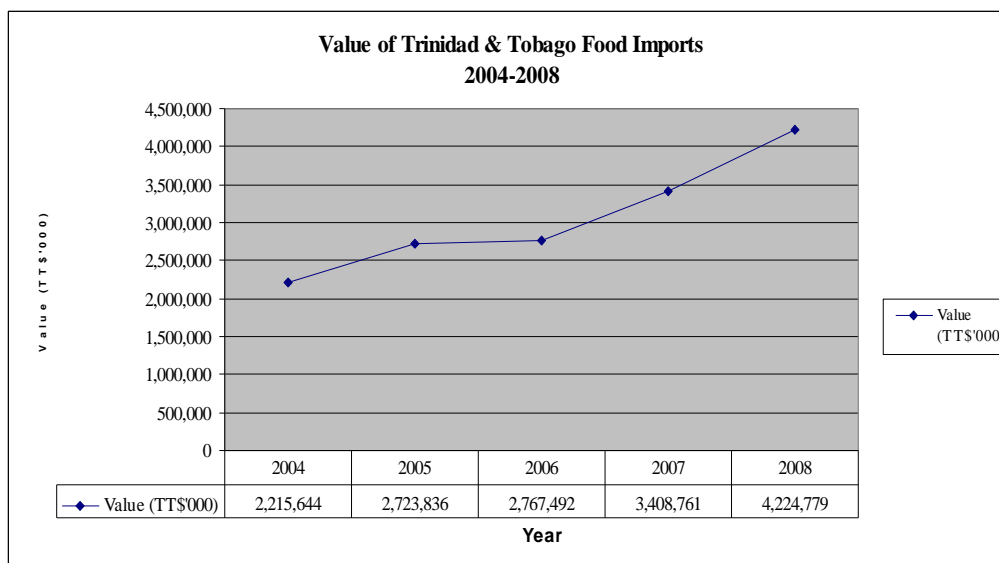
	<b>Current Price – (TT\$MN)</b>		
	<b>1997</b>	<b>2002</b>	<b>2007</b>
Gross Domestic Product	36,028.2	56,290.0	132,114.8
Total Agriculture	777.4	787.2	472.6
As % of Total GDP	2.2	1.4	0.4

Source: Central Statistical Office

**Table 3: Labour Force and Employment in Trinidad and Tobago - 1997-2007**

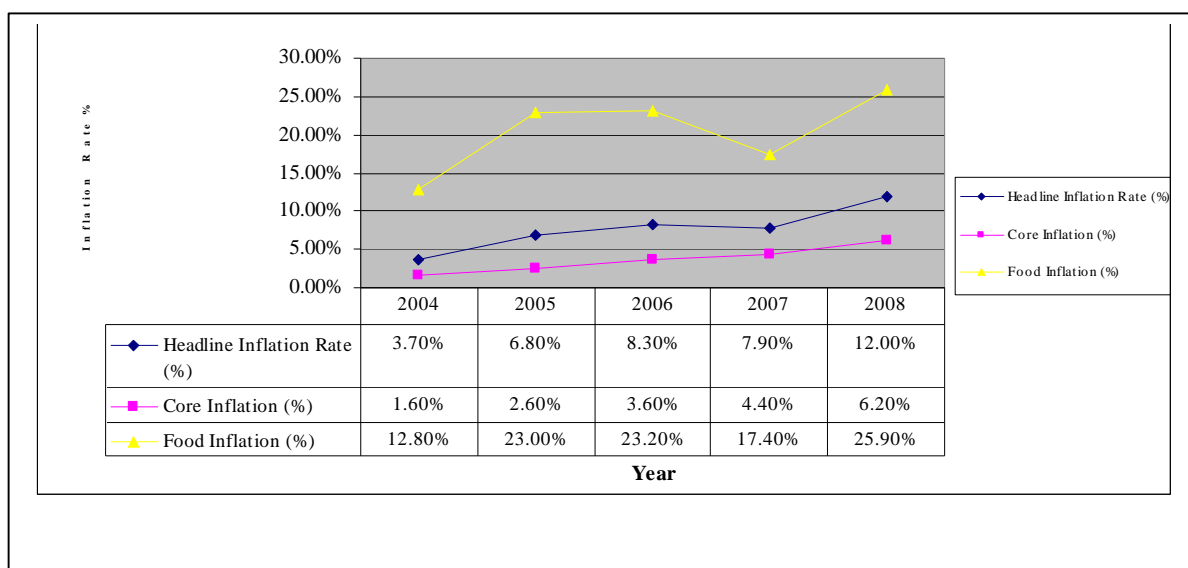
	<b>Labour Force</b>		
	<b>1997</b>	<b>2002</b>	<b>2007</b>
Labour Force: All Industries	541,000	586,200	622,300
Labour Force: Agriculture	43,200	37,500	23,500
Agriculture % all industries	8.00	6.4	4.0
	<b>Persons Employed</b>		
Persons Employed: All Industries	459,800	525,100	587,900
Persons Employed: Agriculture	40,400	36,100	22,400
Persons Employed in Agriculture % all industries	8.8	6.9	3.8

Source: Central Statistical Office



Source Central Statistical Office

Figure 1: Value of Trinidad and Tobago Food Imports (2004 – 2008)



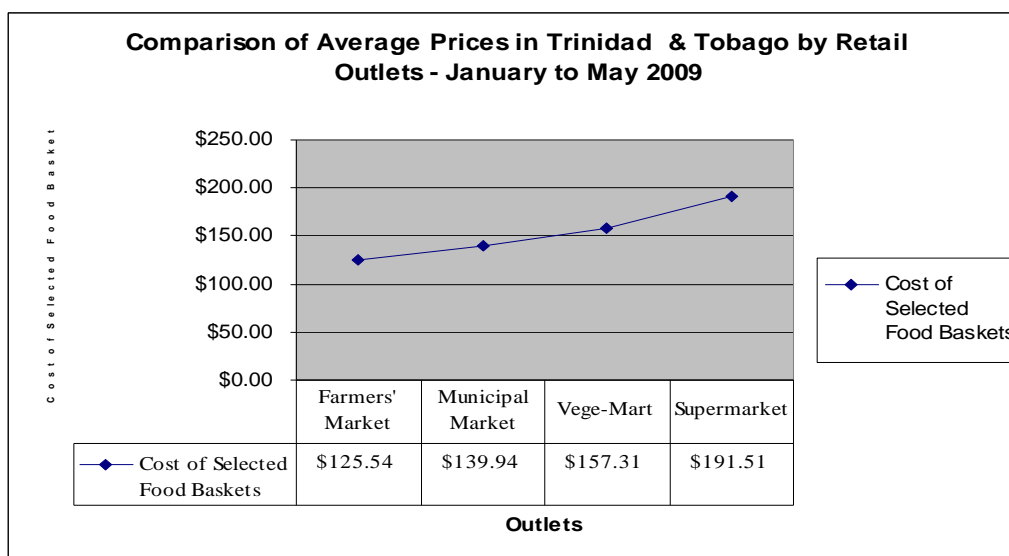
Source Central Statistical Office

Figure 2: Annual Inflation Rate (2004 – 2008)



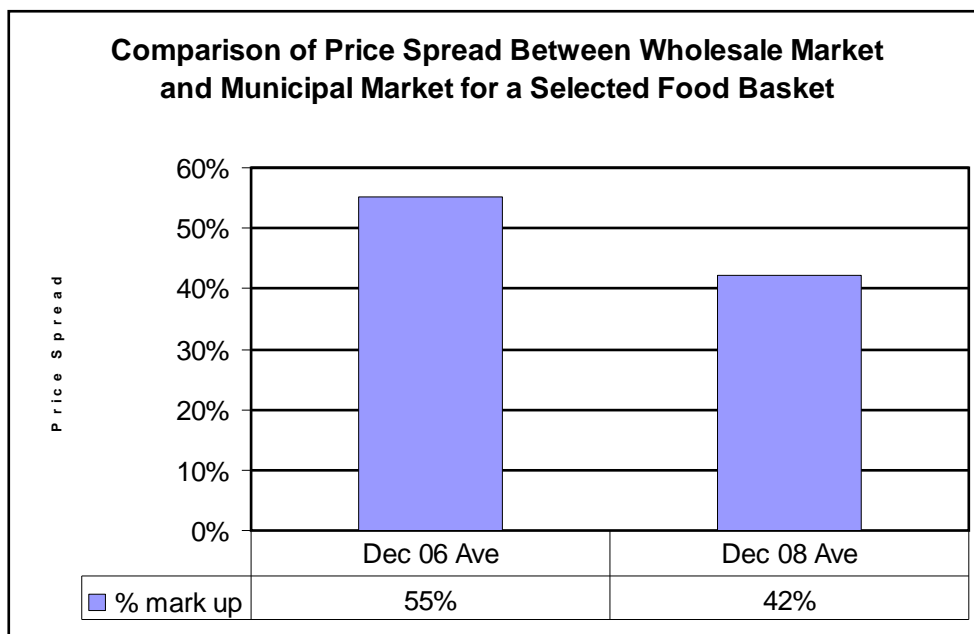
Source NAMIS

**Figure 3: Changes in Average Wholesale and Retail Prices (2007 – 2008)**



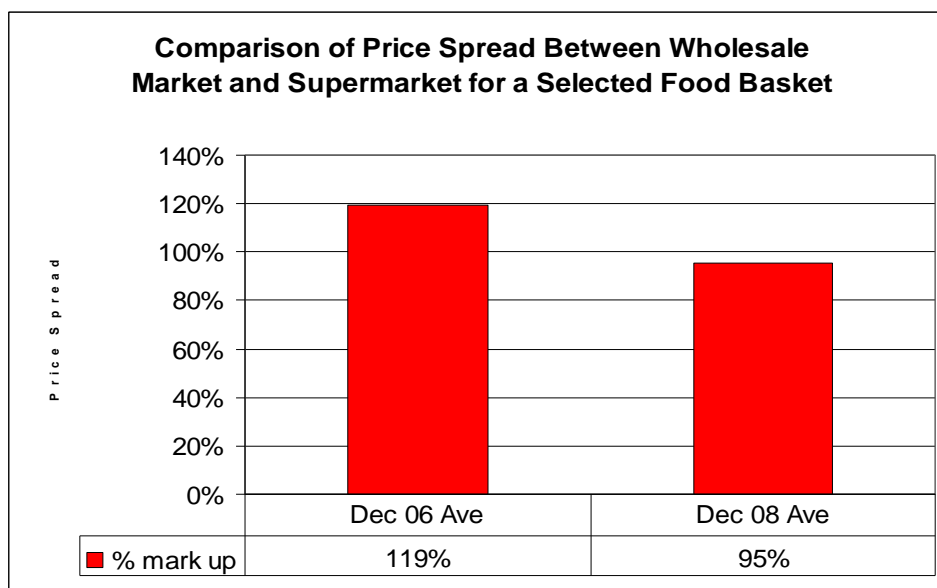
Source: NAMIS

**Figure 4: Comparison of Average Prices in Trinidad and Tobago By Retail Outlets – January to May 2009**



Source: NAMIS

**Figure 5: Comparison of Price Spread between Wholesale Market and Municipal Market for a Selected Food Basket**



**Figure 6: Comparison of Price Spread between Wholesale Market and Supermarket for a Selected Food Basket**

Source NAMIS