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THE IMPACT OF THE GLOBAL ECONOMIC RECESSION ON WORLD BANANA AND TROPICAL FRUIT MARKETS

I. INTRODUCTION

1. In the latter half of 2007, much of the world entered a deep and prolonged economic recession. Coordinated global efforts to steer economies towards growth through measures such as stimulating government expenditure and increasing the money supply are now being seen to pay off: economic indicators in many industrialized economies – the bedrock of global demand – are returning to positive territory; while economic growth in many of the emerging countries, is showing signs of an upswing in momentum. However, as with previous recessions, translating a full economic recovery to growth in household incomes and hence to consumer demand is always a slow process.

2. Markets for banana and tropical fruits underwent impressive expansions in the past few decades on the back of sustained global economic growth. This paper examines how the recent recession has affected, and given the lag in recovery, how it might shape banana and tropical fruit markets in the near future. The analysis was based only on fresh fruits and did not include processed products. Therefore, the implications on development policies and strategies, relate only to the fresh fruit segment of the markets, and not the processed segment which has entirely different market characteristics and behaviour. Since changes in import demand largely reflect how consumers respond to changes in income and prices, much can be learnt from the evolution of trade flows.

II. HISTORICAL EVIDENCE OF RECESSIONAL IMPACTS

3. History is a mirror to the present and to the future. To gain a better understanding about how the recession will likely affect global demand for banana and tropical fruits, it is useful to review briefly how demand for these products fared under previous economic recessions.

4. Over the period for which global data exist, there have been several recessions, each varying in depth, breadth and length. A review of FAOSTAT data over the past 5 decades, shows that consumption for bananas and tropical fruits experienced only a minor contraction during short-lived recession episodes. These include the 1990-91 recession, the 1997-98 Asian financial crisis and the 2001 recession. However, demand shrank much more, particularly for some types of fruit, during the prolonged recessions. There were two such downturns of this nature over the past 50 years. The first was the episode that lasted April 1973 – March 1975 and the other was the early 1980's recession, which spanned from March 1980 to March 1982.

5. Table 1 compiles changes in imports of banana and tropical fruits in the European Community (EC), the United States (US), other developed countries and developing countries for the period 1972 – 1976 and 1979 – 1983. Imports of bananas in particular, and to a limited extent other tropical fruits, are regarded as a good proxy for demand in developed countries in the analysis carried out for this document. The reason being that domestic consumption of especially bananas, are mainly sourced from imports.

A. THE 1973-75 RECESSION

6. According to the International Monetary Fund (IMF), during the recession from 1973 to 1975, world per capita GDP growth contracted substantially, from 6.86 percent in 1973 to 2.78 percent in 1974 and continued to slow to 1.98 percent in 1975 but recovered in 1976. The recession was much more severe in developed countries. For instance, in the US, the growth rate in per capita GDP, once adjusted for inflation, fell from 4.76 percent in 1973 to -1.41 percent in 1974 and continued at a negative rate of -1.17 percent in 1975. Moreover, in most developed countries, equity market indices crashed by as much as 40 percent and the rate of unemployment and inflation hovered above 10 percent during these two years. At the same time, most commodity prices soared along with the oil price.

7. Induced by lower income growth and higher prices, imports of banana by European countries dropped by 9.7 percent between 1973 and 1975. The US, which at that time accounted for more than 27 percent of world total banana imports, however, experienced no such decline. Other major developed country markets, including Japan and Australia, saw their imports increase slightly while imports by developing countries rose by nearly 20 percent. Consequently, with such divergent trends, world imports of banana declined by only 1 percent during 1973 and 1975. Interestingly, the recession had no apparent adverse effects on imports of tropical fruits at both the global and country level – on the contrary, global trade expanded by about 13 percent during 1973-75.

B. THE 1980s RECESSION

8. The recession of the early 1980s, however, had much more of a prominent effect on world banana trade than that registered in the 1973 – 1975 episode. Indeed, global banana trade between 1980 and 1983 contracted by as much as 10 percent, largely on the back of a fall in demand in European countries. Other developed countries and developing countries saw their imports collapse by 20 and 38 percent, respectively. Demand in the US, on the other hand, experienced little change during the 1980s recession. As with the 1970s recession, the size of the global market for tropical fruits, except pineapple inflows to the US and the EC, experienced no decline, but instead increased by nearly 18 percent during 1980-1983.

C. OVERALL ASSESSMENT

9. History shows that global import demand for tropical fruits is robust in the wake of economic recessions, even under prolonged episodes. World banana demand, however, is apparently more fragile to economic downturns, as evidenced by some falls in the EC, though little change in the US. But what does research say? Many previous studies [such as the international banana trade study by Julian Rochehave (2006), Analysis of U.S. Demand for Fresh Tropical Fruits and Vegetables Imports, USDA (2004) and FAO (2001)] found that fruits and vegetables are 'necessary' goods for consumers and demand responsiveness to income and price changes is not very elastic. Even so, this research predicts that recessions should still result in a contraction in demand to some degree. So, why does empirical evidence differ from predictions by theory?

10. Many fruits are competitive substitutes with one another. During times of recession, consumers will substitute lower price fruits for more expensive ones, which depending on the consumption bundle, can result in no overall decline or even an increase in demand for certain fruits. For instance, banana imports by the US did not suffer, even under the deep recessions of 1972-75 and 1980-83. According to consumer surveys conducted around that time, banana was the major fresh fruit consumed by households in the US because of its nutritional value and its convenience in consumption. Moreover, banana consumption differed little between household income levels, suggesting that banana consumption was not sensitive to changes in income. At the same time, the banana price was relatively low compared with prices of other fruits, which induced consumers to buy more banana and to lower consumption of other fruits when purchasing power fell.

11. Another feature that could explain the perverse historical trends is that during the 1970s and the 1980s, the volume of trade in tropical fruits was at a very low level relative to the volumes traded today. For instance, global trade in tropical fruits during 1972-75 and 1980-83 was around 300,000 and 500,000 tonnes, respectively, and which accounted for roughly 0.2 percent of world fruit consumption. Therefore, any moderate rise in per caput consumption would translate into a much more marked expansion for imported fruit. Moreover, purchases by new consumers would also translate into a trade expansion. Consequently, the increase in imports of tropical fruits during the 1973-75 and 1980-83 recessions could easily have reflected expanded markets for tropical fruits rather than existing consumers' responses to changes in their purchasing power.

III. PROJECTING EFFECTS OF THE CURRENT RECESSION ON DEMAND FOR BANANA AND TROPICAL FRUITS

12. The current economic recession is often regarded as the most severe since the Great Depression of the 1930s. There is no fundamental difference in the outcomes of the current recession and those that occurred before it: a contraction in economic activity leading to higher unemployment, lower income and hence lower consumption. However, compared with previous recessions, the cause of the current recession is not the same as previous episodes. These were mostly induced by supply shocks, whereas the current recession was triggered by developments in global financial markets, leading to contractions in both demand and supply, and much pronounced effects to personal wealth and household incomes.

13. Also, world markets for banana and tropical fruits are now very different from those of the 1970s and 1980s. Global banana and tropical fruit trade has expanded substantially over the past few decades. At 14.3 million tones, banana trade is roughly three times the size of the market of the early 1970s. While the global tropical fruit market now stands at around 5 million tonnes, eighteen times the size of the market three decades ago. The combined trade in banana and tropical fruits now accounts for nearly 40 percent of world trade in fruits. Consequently, a more expanded market may be prone to falling purchasing power than was the case before.

14. To analyze the likely impact of the current recession on global imports of banana and tropical fruits, a simple econometric model was constructed. The model defines world import demand for banana and tropical fruits, respectively, as a function of per capita GDP, the price ratio of banana/tropical fruits to other fruits and a one-year lag on imported quantities. The model is specified in log-linear form and estimated on FAOSTAT data over 1972 – 2006, for the world, the US, the EC and developing countries. All estimated parameters in the model were found to be statistically significant. The model was then used to simulate global import demand for 2008 - 2011. The results are presented in Table 2.

15. Banana imports are expected to decline to 13.8 million tonnes in 2009, about 3.3 percent lower than the level in 2007, with banana imports by the US, EC and other developed countries expected to decline by 4.1 percent, 5.5 percent and 3.2 percent, respectively. Developing countries, on the other hand, would see their imports increase by 2.5 percent to 2.33 million tonnes in 2009, largely driven by larger inflows to China.

16. According to the projections, world imports of tropical fruits would experience a very similar pattern to the international banana market, but the declines would be less severe. Comparing 2009 with 2007, global tropical fruit demand would decline by less than 1 percent. Imports by the US, EC and other developed countries in 2009 would be about 2.4 percent, 2.1 percent and 11.5 percent, respectively lower than in 2007, while imports by developing countries would increase by 5 percent.

17. If the current crisis were to bottom out in the latter half of 2009, global import demand for banana in 2010 would increase significantly, by about 7.8 percent, to its pre-recession level. The US and the EC would see demand for imported bananas reaching 4.03 and 4.7 million tonnes in 2010, respectively, which would be slightly above levels prior to the slump. By contrast, developing countries would continue to expand markets for banana, and imports could reach 2.57 million tonnes by 2010. Global import demand for tropical fruits would recover in 2010 too. All country groups would increase their imports by about 2 percent and world demand in 2010 could reach a record 4.8 million tonnes.

IV. CONCLUDING REMARKS

18. The impacts of the current recession on world import demand for banana and tropical fruits are likely to be less significant than for other agricultural commodities, largely due to the lower sensitivity of fruit consumption to changes in income, compared to the other commodities. If the global economy were to register growth in late 2009, international demand for banana and tropical fruits would return to pre-recession volumes fairly quickly. Moreover, with steady growth in populations and income, and rising awareness about the positive nutritional value of fruits, global banana and tropical fruit consumption is likely to continue its upward trend in the next few decades.

19. These findings have important implications for exporting countries. Since demand for banana and tropical fruits could follow a steady upward trend, it is important that exporting countries make the necessary investments to increase supply in tune with this trend.

Table 1. Banana and tropical fruit markets developments during the past economic recessions

	1972	1973	1974	1975	1976	1979	1980	1981	1982	1983
IMF Per Capita GDP Growth Rate	5.49	6.86	2.76	1.85	4.99	3.9	2.54	1.98	1.08	2.82
US Per Capita GDP Growth Rate	4.17	4.76	-1.41	-1.17	4.33	2.03	-1.40	1.52	-2.87	3.57
World fruit trade	18501.2	18716.2	18841.3	19078.1	19828.9	21156.1	20956.7	21331.3	21359.7	21458.9
World banana real price index	42.2	44.3	47.0	56.2	50.4	54.9	59.4	57.2	52.1	58.3
World tropical fruit real price index	69.6	83.5	91.0	98.1	97.1	109.1	118.1	106.9	101.2	107.3
World banana imports		6429.1	6388.2	6390.4	6325.6	6974.4	6781.7	6854.2	6740.1	6129.8
USA banana import		1711.1	1791.3	1793.8	1902.4	2140.3	2147.1	2241.5	2374.0	2257.7
EU banana import		2505.9	2406.9	2263.5	2183.1	2440.2	2360.6	2375.5	2302.9	2178.6
Other Developed countries		1756.5	1687.1	1789.8	1714.1	1687.2	1553.6	1495.4	1460.7	1247.2
Developing country import		455.6	502.9	543.3	526.0	706.7	720.4	741.8	602.5	446.3
World tropical fruit imports	281.9	275.6	285.9	310.9	356.1	524.6	532.1	536.5	573.9	627.9
USA tropical fruit import	27.1	27.4	29.5	55.8	46.8	81.9	91.5	83.6	90.2	111.2
Pineapples	22.7	22.4	22.5	47.5	37.6	65.2	69.0	62.8	59.1	68.4
EU tropical fruit import	72.5	86.4	87.8	100.7	128.0	165.8	161.0	169.7	183.0	241.3
Pineapples	56.5	58.7	66.6	74.3	74.5	110.9	111.7	111.1	111.2	111.4
Other Developed countries	71.3	55.8	36.5	54.6	63.0	113.4	109.5	128.9	127.3	108.9
Developing country import	111.0	106.0	132.1	99.7	118.3	163.5	170.1	154.4	173.4	166.5

Note: Data is from FAOSTAT, which included EU intra-trade.

Table 2. Projecting recession impacts on world banana and tropical fruit imports

	2005	2006	2007	2008	2009	2010	2011
IMF GDP Growth Rate	4.9	4.7	5.3	3.4	-1.7	2.9	5.1
US GDP Growth Rate	2.76	2.65	2.13	0.43	-3.6	1.2	2.5
World banana real price index	48.4	45.8	46.1	47.8	47.9	46.7	47.4
World tropical fruit real price index	78.8	78.4	83.1	83.0	79.2	81.6	83.2
World banana imports	13 416	14 003	14 254	14 085	13 780	14 580	14 860
USA banana import	3 824	3 839	4 004	3 920	3 838	4 030	4 135
EU banana import	3 737	4 185	4 679	4 550	4 420	4 695	4 730
Other developed countries	3 308	3 385	3 298	3 245	3 192	3 290	3 375
Developing country import	2 546	2 593	2 273	2 370	2 330	2 565	2 620
World tropical fruit imports	4 113	4 512	4 578	4 500	4 480	4 590	4 800
USA tropical fruit import	1 219	1 253	1 278	1 240	1 220	1 250	1 300
EU tropical fruit import	1 588	1 827	1 863	1 740	1 790	1 820	1 880
Other developed countries	213	225	221	200	200	220	240
Developing country import	1 093	1 208	1 216	1 320	1 270	1 300	1 380

Note: Data used as base period for simulation is from FAOSTAT, which included EU intra-trade.