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Food Inflation Today and the Black Horse of the Apocalypse

By Wilfred Hahn

"I looked, and there before me was a black horse! Its rider was holding a pair of scales in his hand. Then I heard what sounded like a voice among the four living creatures, saying, 'A quart of wheat for a day's wages, and three quarts of barley for a day's wages, and do not damage the oil and the wine!'" (Revelation 6:6, NIV) . This is the pronouncement at the time that the third seal is opened during the future Tribulation Period.



Described here is rampant food inflation. Following the first two seals which introduce the white and red horses — these signifying the consecutive stages of a globalized peace and prosperity and war and strife — comes this picture of soaring prices for the two agricultural products of wheat and barley.

It is a timely topic to explore if for no other reason than the world again appears to be on the verge of a period of major food inflation. This may not be overly obvious to North Americans just yet; how-

ever, the precursors to this global development can hardly be ignored. Basic food prices in North America have surely surged of late. For example, raw milk futures on the Chicago Mercantile Exchange have risen 80% over the past year. Wheat prices have doubled from a year ago, while corn prices have more than doubled since the start of 2006. Similar price spikes can be observed across a wide range of agricultural products. Other countries are experiencing even higher surges. In China, pork prices are triple that of a year ago and in Russia most food items tracked by the Statistics Committee



(Rosstat) rose 30% in one month (August 2007).

Granted, these current day events may not be any more significant than other similar occurrences of virulent food inflation in world history. Yet, all the same, the unprecedented global trends being witnessed today do beckon the question: Could this vision in Revelation 6 be connected with developments already evident on the world scene today? We'll seek to answer this question.

Wheat and Barley

In the pursuit of an answer, let's first delve into the interpretation of the prophecy found in Revelation 6:6. Here we see that a "quart" of wheat costs the equivalent of a day's wage — *denarion* in the original Greek — as does three quarts of barley.

Actually, quite a few Bible translations obscure the meaning of this prophecy as they use unhelpful interpretations for the Greek word *denarion*. This refers to the denarius which was the most common Roman coin in earlier New Testament times. Though this currency had experienced some minor inflation by the time that Apostle John recorded the Book of Revelation, as best as we can tell, it was still considered the equivalent of a day's wages. The Bible itself confirms this. Earlier, in Matthew 20:2, we read of a vineyard owner who "[...] agreed to pay them a denarius for the day" to work for him.

Just how expensive are these grain prices? Here we can make some calculations that will provide some perspective to the living standards relative to our day.

Let's begin with wages. The average annual income in the world today (in US terms) is estimated at \$7,439 (a figure including both high — and low — income countries). Assuming a five-day work



week, that would amount to \$33 per work day.¹ Were the "black horse" to appear today, just how much would it cost to buy either one quart of wheat or three of barley? As a rough estimate, about 150 times higher than the price of unprocessed grain today.

Next, let's turn our attention to the food adequacy of this amount of grain. How long would that much grain sustain a person? In the original Greek, the term interpreted as a "quart" is the ancient dry-goods measure, the *choenix*. This measure, though sources are somewhat imprecise on its size, is probably equivalent to 1.2 dry quarts or 1.3 liters.

Therefore, assuming that the average household in the world today would have approximately one worker per a household of 3.5 people (which indeed is representative of the average household size worldwide), then could one measure of wheat or three quarts of barley sustain a household of this size? Barely. Both wheat and barley have approximately the same caloric content (about 90 calories per ounce). And, as there are roughly 40 ounces in one *choenix*, one day's wages could acquire at maximum 3,600 calories of wheat or 10,800 calories of barley. However, let's not forget that there are

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more days in a week than there are work-days. Making that adjustment would allow only 2,750 calories of wheat per day, for example.

According to the UN Food and Agricultural Organization (FAO) the average person in the world today consumes a little over 2,700 calories per day. For illustration, assuming that humankind maintain this same level of consumption, it appears that 100% of a laborer's daily wages and more would be required to supply a household with sufficient food at this prophesied time. Even in this case, a family could only eat barley — the coarser grain — and not wheat. Barley was considered the poor man's flour in Old Testament times. It was more difficult to process because of its hard husk and didn't have quite the same favorable baking properties as wheat. Today, barley is the most important feed for livestock.

Having made these comparisons to conditions of our day, we can well understand why the writer in Revelation 6:6 wrote, "... do not damage the oil and the wine!" These items would surely be high-priced foods during that time. Also, this may explain why meat is not mentioned.

Meat is much more expensive than grain. After all, some livestock — for example poultry and cattle — are grain-fed, requiring as much as three and more pounds of grain to produce one pound of meat.

Next and finally, we focus in on another strange feature of this prophecy. Wheat during that time is three times as expensive as barley. Today, if you were to transact on the Winnipeg commodity exchange, wheat and barley prices would be broadly similar — about \$200 per metric ton. Why then will wheat prices soar to three times that of barley at the time of the third seal? Again, we can only speculate. Barley usually yields about 50% more in bushel terms per acre than wheat. However, it is also a hardier cereal grain that can grow under more diverse conditions than wheat. Perhaps growing conditions at that future time will favor barley. We will explore some other possibilities.

Reasons for Food Inflation

Why will the affordability of food decline at the time of the black horse? There may be any possible number of causes. Such details will remain speculative. However, we can certainly point to reasons why agricultural prices may be soaring today, although these may not be relevant at all to that future time.

For example, among the possible factors may be changing weather patterns, the impact of rising petroleum prices (agriculture uses a high amount of energy through transportation, fertilizer and pesticides) the rapid increase in the wealth of Asia (China particularly) and its related higher demand for more expensive foods such as meat, and more general supply/demand problems. It is a fact that the amount of arable land in the world continues to decline on a per-capita basis. Moreover, the days of high gains in agri-



cultural crop yields through the use of fertilizers and pesticides seem to be over.

There could be yet other reasons unique to our time. Some financial market observers speculate that a huge speculative boom could occur in the prices of “things” (i.e. gold or any type of commodity) as people flee from plunging currencies. The world appears ripe for such a phenomenon. Certainly, countries around the world continue to debase their currencies and the world’s wealth skew may be more extreme today than ever before in history.

Also, some analysts today are predicting imminent disaster for world agriculture, arguing that the reckless development of genetically modified foods, the massive reduction of bio-diversity through the extinction of thousands of natural plant food varieties already witnessed over the past century, and the exhaustion of farmland through erosion and toxicity, makes for certain troubles in the future. These are all factors unique to our era ... never having occurred before.

All in all, the modern world that man has made is assuredly ripe for disaster if not judgment.

Endtime Agricultural Conditions

While all the above-mentioned trends and developments are surely relevant to our day, we are best to rely on the Bible for our explanations. Revelation 6:4 does indicate that a disruption of peace occurs just prior to the point that the black horse comes on the scene. At that prior time, “[...] another horse came out, a fiery red one. Its rider was given power to take



peace from the earth and to make men slay each other. To him was given a large sword.” The aftermath of widespread war on earth could certainly disrupt food prices.

What else does the Bible say about agricultural conditions during the last days? We know that food production will not be entirely mechanized in the last days, though presently it sure may seem to be headed into this direction. Jesus Christ said: “That is how it will be at the coming of the Son of Man. Two men will be in the field; one will be taken and the other left. Two women will be grinding with a hand mill; one will be taken and the other left.” Here we see that in some parts of the world, at least, people will be processing food the old fashioned way — namely, with milling stones. Also, many of the catastrophes of the Tribulation Period are sure to have an impact on agriculture (darkening skies, hail, poisoned waters.... etc.) although these events may occur somewhat later.

Importantly, a prophecy of James sheds crucial light on the agricultural conditions of the last days. “Look! The wages you failed to pay the workmen who mowed your fields are crying out against you. The cries of the harvesters have

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reached the ears of the Lord Almighty.” (James 5:4-5, NIV) Here is indicated that agricultural conditions of the world are a key feature of a worldwide state of economic injustice in the last days. The “harvesters” and those that “mowed” — this latter word better translated as cutters and gatherers of crops, not lawn groomers — are oppressed and underpaid.

It is a condition that already exists today. The “rich” of the world (basically, almost everyone living in the Western, industrialized nations of the world today) are benefiting from the low wages of many agricultural laborers around the world. Many workers labor for pennies or a few dollars a day picking coffee beans or harvesting sugar cane, for example. In one way or another, all of the high-income nations subsidize their agricultural industries. While this is certainly supportive of farmers in those nations, it also has the side effect of seriously disadvantaging laborers in lower-income countries that cannot afford similar subsidies yet are dependent upon exporting agricultural products.

Even independent farmers living in North America might be included in that number of harvesters “crying out” against wealthy interests as they increasingly become oppressed by large corporate “pharming” enterprises, the chemical

companies who are buying up “patent rights” to living plants and marketing genetically-modified plants today ...to mention just a few of their challenges.

A Global Condition

The conditions mentioned in Revelation 6:6 are worldwide in scope. The whole context of the revelation dealing with the four horsemen of the apocalypse, does indicate that the entirety of earth will be involved. In that context, it is crucial to recognize that agricultural products, such as barley and wheat, are staple commodities traded around the world today.

We now live in a world where almost all resources, minerals and agricultural products have been “commoditized.” That means that prices of such items are set on a worldwide basis — for the rich and poor countries alike. That’s one of the effects of the last-day globalization that has swept the world. Price trends of commodities affects the entire world today. It is a condition that has really only come about in the last 100 to 150 years. Yet, here we see that the prophecies of the Bible are in fact aligned with such a globalized, commoditized world.

Thoughts to Ponder

The prophecy of the black horse clearly outlines a time of severe economic trou-



bles. For whatever reason — soaring food prices, collapsing wages or supply — keeping a family fed during that time will require 100% and more of a household's income. For reference, consider that food costs for households in the high income nations of the world are in the range of 10% of income, whereas it is not uncommon to be as high as 30-40% for households in lower income countries such as China or Nigeria.

All in all, the conditions described in Revelation 6:6 will represent quite a change in diet and consumer conditions. Today, as much as 40% of the world's food (in terms of caloric content) comes from meats and oils, not just cereal grains. One can imagine that mortgage payments and the cable-TV bill will go unpaid. Such conditions seem unthinkable to our supposedly advanced world of today.

Of course, we can only speculate as to when that future day will arrive ... when wheat prices will rise to three times that of barley. Yet, we can easily identify a number of developments in the world today that could plausibly lead to such conditions in the future, though “the faithful” will not be on earth to experience this “rider on the black horse.” We can surely recognize another “sign of the times” in relation to this prophecy. The kind of global conditions described here are only possible in our day and not before.

As we well know, Christ's return for His own is signless. It may be the very next moment, or indeed perhaps yet decades and more in the future. Yet, all the same, we are implored to discern the general “season” of the last days.

It would not be too speculative to say that that season is now here. After all, a



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landed Israel is again on the scene. Moreover, as ordinary observers, we can certainly see processes and developments underway in the world today that can and will intersect with the future literal fulfillment of many of the prophecies recorded in the Bible.

“See, I have told you ahead of time” (Matthew 24:25). “Now learn this lesson from the fig tree: As soon as its twigs get tender and its leaves come out, you know that summer is near. Even so, when you see all these things, you know that it is near, right at the door” (Matthew 24:32). (MC)

ENDNOTES

- 1 World Bank, Development Indicators, 2005.