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CAN FARMERS IN THE SOUTHEAST COMPETE IN WORLD MARKETS?

Bobby H. Robinson

Competitiveness of U.S. agriculture in world markets received a great deal of political, media and professional attention during the mid-1980s. Interest in U.S. agricultural trade intensified and as the farm financial situation deteriorated, and as the dollar has remained strong in international currency markets. Between 1965 and 1980, U.S. agricultural exports increased five-fold and accounted for about 30% of total farm cash receipts. Decreases in the value of U.S. agricultural exports during the 1980-85 era promulgated concern about agricultural viability in the U.S. and the Southeast. Thus, the future competitive position of U.S. agriculture in world markets became a critical issue.

Other papers in this issue of the Journal of Agribusiness explored the competitive position of U.S. agriculture, obstacles to trade and broad U.S. policies that impact agricultural trade. This paper explores the competitive position of the Southeast in world agricultural commodity markets.

The answer to the question posed by the title of this paper is a definite yes and no. To understand the answer, it is necessary to break the question into components and address each. Some of the components issues are:

- 1) What are the economic and institutional forces affecting Southeastern agriculture? Is the Southeast unique?
- Which commodities are important (critical) to the Southeast?
- 3) Are international markets changing?
- 4) What is the comparative position of the Southeast?
 - What factors affect competition?, and finally
 - 6) Can the Southeast compete in international markets?

DETERMINANTS OF TRADE

Simply stated, trade occurs only when it benefits traders. However, to better understand why trade does or does not occur, three concepts are critical: 1) comparative advantage, 2) trade policy, and 3) competitiveness.

Comparative Advantage

The theory of comparative advantage was first stated clearly by David Ricardo in 1817. It is used to explain the efficiency of one country or region relative to another in the production of commodities. Comparative advantage suggests that the costs of producing a unit of one product be compared to the reduction required in the output of other products. For example, a nation choosing to increase soybean production, would have to rearrange resources and forego the opportunity to produce other commodities to some degree.

The theory suggests that these opportunity costs be compared with world prices. Then countries would export commodities for which the world price is greater than the opportunity costs of producing additional units of the commodity at home. By the same logic, countries would import commodities when the world price is less than the opportunity costs of producing additional units of the commodity at home. Thus, countries and regions specialize in those commodities for which they have a comparative advantage or least comparative disadvantage. The result would be an increase in the production and export of commodities for which a country has a comparative advantage and a decrease in production and increase in imports of those commodities for which a country has a comparative disadvantage (1).

Trade occurs because of potential benefits to the traders based on differences in relative costs. While difficult to establish quantitatively in a complex multi-commodity world, comparative advantage appears to be a reasonable and logical explanation of why trade occurs and offers an explanation of the benefits of trade.

However, a problem exists in using the concept of comparative advantage to explain trade flows. It is a useful concept to explain trade in a world undistorted by trade barriers, domestic policies, currency misalignment, etc. Unfortunately, no such world exists. The number and type of distortions to free trade are innumerable and often camouflage comparative advantages that may exist. Thus, to better understand trade flows, it is necessary to examine two additional elements that determine trade: trade policy and competitiveness.

Trade Policy

Trade policies of various countries impact the types and amounts of commodities that are either imported or exported. For example, to protect an infant (developing) industry, a country may choose to prohibit imports of commodities produced by that industry. By doing so, the protected country argues that the internal industry must be protected as it develops and becomes more efficient, but will eventually become competitive. Of course, many such industries never become competitive. Health and/or environmental reasons also prompt countries to prohibit imports. For example, live cattle imports may be prohibited from a country known or suspected of having particular infectious diseases. Finally, political intervention may prohibit imports or exports. A recent example is the Russian grain embargo by the U.S. which was initiated to protest USSR involvement in the Middle East. The impact on the USSR was small. Unfortunately, the impact on U.S. agriculture was significant and far reaching.

These trade policies relate to those policies designed to impede trade. Other more subtle trade restraints and/or market distortions exist. However, most of the latter group of policies tend to affect competition in world markets. Examples include export subsidies, tariffs, import and export quotas, etc. These policies distort trade flows and often undermine the true comparative advantage a country may have. They are often designed to protect domestic markets (producers) from competition by creating an artificial production advantage or by distorting world prices. Since the latter policies represent market distortions, they are more appropriately related to the last determinant of trade — "competitiveness."

Competitiveness

The final element discussed here as a determinant of trade is "competitiveness". It is important to distinguish between comparative advantage and competitiveness. Due to distortions in the market, a country may not be competitive in the world market but may continue to retain a comparative advantage in some commodities. Similarly, due to the actions of other countries, export subsidies, or other market distorting factors, a country may be competitive in the world market in a commodity for which it has no comparative advantage.

The factors that affect competitiveness and distort comparative advantage constitute a multitude of so-called economic sins. A few were included under "trade policies," but many others exist. For example, relative efficiencies of production (comparative advantage) are translated into currency exchange for the purpose of implementing trade flows between nonbarter economies. However, a market also

exists for currencies and in the shortrun is affected by forces other than those that determine relative production efficiencies (comparative advantage). National political and economic security, differential growth rates, relative trade balances, inflation rates, and interest rates are among a few of the factors that influence currency markets. Thus, relative currency values do not necessarily reflect relative production efficiencies. Currency values that are not in alignment can significantly distort comparative advantage and trade flows among countries.

The 1980s "high" value of the U.S. dollar in international currency markets brings the problem home. Export based industries such as agriculture suffer when the value of the dollar rises relative to the currencies of major customers or competitors. The reason is simple. As the value of the dollar increases relative to other currencies, the price of the U.S. produced commodity increases in importing countries. The result is a higher priced commodity to importers and a competitive edge for countries competing with the U.S. in world markets. Thus, the higher valued dollar stimulated increased production in other exporting and importing countries. The net result is a loss of U.S. market share.

This is not to argue that the dollar is over priced in short-term currency markets. Rather the example is used to point out that two markets exist: one for currencies and one for commodities and the factors that influence value in each are not the same in the short run. In the long run, relative currency values must reflect relative production efficiencies.

Another factor that can influence competitiveness and distort trade flows—which would occur based on comparative advantage— is a country's domestic agricultural policy. For example, a domestic agricultural policy which limits production and/or supports internal prices at a level higher than world market clearing levels distorts trade flows. Such a policy, particularly for a major exporting nation such as the U.S., can effectively place a floor under world price levels. When this occurs, less efficient producers (those with a lesser comparative advantage) begin to increase production. If these countries gain production efficiency over time, they become competitors even if the price floors are removed.

Some countries combine internal (domestic) price floors with export subsidies. This procedure distorts in two ways: 1) such countries must protect against imports thus distorting internal prices and penalizing consumers and 2) by providing export subsidies to make domestic surpluses competitive in world markets, world prices and country comparative advantage are distorted.

The range of economic, political and trade policies employed by different countries also often distort comparative advantage and trade flows. For example, a national policy designed to control inflation may have major trade impacts. The U.S. policies of the late 1970s and early 1980s illustrate the point. As inflation rates were reduced and interest rates increased, the U.S. became a more attractive country in which to invest, and attracted capital from other countries. Concurrently, expansionary fiscal policy led to record federal budget deficits, causing interest rates to rise. The results was a record level of real rates of return on dollar valued assets. As foreign investors sought to exchange their currencies for dollars, the value of the dollar was bid up. As the value of the dollar increased, so did the foreign price of U.S. export commodities. The result is history.

While not all inclusive, these are the most important factors that affect competitiveness. All of these factors individually or collectively can impact the competitiveness of a country in international trade although country comparative advantage may remain unchanged. Each had significant impacts on U.S. exports and the exports of traditional Southeastern export commodities. The effects of these factors are most frequently manifested through price distortions.

The determinants of trade provide a basis to explore the issue of whether the Southeast can compete in world markets. One must keep in mind that the system is imperfect and can only provide clues to the answer.

THE CHANGING SOUTH

Southern agriculture began as an export economy during the Colonial Period — and the traditional export crops of tobacco, rice and cotton continue to play an important but declining role in southern agriculture. Plantation agriculture simply would not have developed had it not been for a strong export demand for these commodities. European markets demanded a continuing supply of products that they were less able to efficiently produce. Thus, we must assume that the South had a comparative advantage in producing these commodities.

After the collapse of the international markets in the 1920s and 1930s and the shift of cotton to the West — due in part to government—subsidized irrigation — the South was faced with severe adjustment problems. However, the power of the "farm bloc" and the southern contingent was instrumental in protecting traditional export crops.

The result was twofold: 1) Due to government farm programs, the South increased the production of grains, soybeans, and livestock in order to fully utilize labor and land resources and expand income, 2) The price

umbrella created by the price support and loan programs encouraged production of cotton, tobacco and other southern export crops in other regions of the world. For example, in the late 1960s the U.S. price support for cotton pegged U.S. cotton prices at about \$0.34 per pound while the world price level was close to \$0.20 per pound. The U.S. was not concerned with exports until government commodity stocks — resulting from increased productivity and high loan rates — rose to politically unacceptable levels.

During the period of adjustment, the structure of southern agriculture changed dramatically. The South lost 40% of its farms in the 1940s and 1950s and an additional 48% of those remaining between 1960 and 1970. This. trend was more acute in the South than in any other region. Farm size increased and the level of technological innovation and capital-labor substitution intensified.

Shifts from cotton to soybeans and cash grains occurred in most areas, and livestock production -- particularly poultry and beef cows -- and fruit and vegetable production increased. Cotton production moved to the Delta and Southwest. Tobacco and peanut acreage declined due to supply controls and competition in international markets. Between 1965 and 1985, the number of cash grain and livestock farms doubled and cotton farms declined from 35% to 3% of total farms. Large inflows of capital, in consort with technological innovation, productivity growth, cropping patterns, etc. brought the structure of southern agriculture closer to national norms. Yet, the region has some differences. The South experiences more biological risks due to its climate, and its leached soils require more fertilizer. Thus, the South developed as a marginal area in the production of many crops with lower average yields and higher per unit production costs than other farming areas. The South is less able to adjust to or endure price declines, particularly with the heavy debt load incurred during the 1970s. The structural changes of the past three decades have remolded the South in the image of the rest of the country. Yet, some regional differences continue to exist:

- 1) production costs for many commodities are higher due to lower yields:
- land values are lower but generally reflect the greater climatic risk and lower profit levels;
- the South continues to be a major producer of some "traditionally Southern" crops such as tobacco, peanuts and to a lesser extent cotton;
- 4) the South has increased livestock production, particularly poultry, as well as vegetable and fruit production:

5) the South continues to have a relatively large proportion of small and poor farms.

COMPARATIVE ADVANTAGE AND SOUTHERN AGRICULTURE

The total value of U.S. agricultural exports increased more than five-fold during the 1970s in nominal dollars — increasing from an average of around \$7.0 billion per year in the 1950s and 1960s to almost \$44 billion in 1981. However, the value of exports declined by 13% to \$38 billion by 1984 and reached only \$31 billion in 1985.

Recent reductions in the value and volume of exports and a longer term loss of world market share for important export commodities led many to conclude that the U.S. has lost its comparative advantage in agricultural commodities. Closer scrutiny of data and trends reveals significant problems for the traditional southern export crops of tobacco, cotton and peanuts.

Broad based and comprehensive studies on comparative advantage simply do not exist. Data do not exist to adequately address the issue in a complex, multicommodity, multicountry world. Analysts must resort to partial analyses based on available data that provide clues to measure comparative advantage. The procedures used are imperfect, fraught with data problems, and provide inconclusive but nonetheless important clues about comparative advantage (2).

Realizing the problems in attempting to assess comparative advantage among countries, it is even more difficult to disaggregate national data to measure the comparative advantage of a region. It becomes necessary to resort to commodity comparisons for world traded commodities.

U.S. Comparative Advantage

A recent USDA study employed several comparisons to measure comparative advantage:

1) Relative efficiency between the U.S. and the rest of the world (ROW) for the major inputs used in agricultural production, 2) relative prices paid by major exporting countries for agricultural inputs, 3) relative productivity between agriculture and nonagricultural production for the U.S., 4) relative productivity of nonfarm sectors between the U.S. and several other developed countries, and 5) the relative costs of producing selected agricultural commodities between the U.S. and other major producing countries (3). The authors delineate the problems associated with using these comparisons to analyze comparative advantage. Some of the comparisons measure absolute not comparative advantage. Yet, they provide significant clues as to country comparative advantage.

The study suggests that the U.S. leads the ROW in aggregate productivity growth in agriculture, that prices paid by farmers for production inputs have increased at about the same rate and are at the same level as that of major U.S. competitors in world agricultural commodity markets, that productivity growth in U.S. agriculture has been higher than in other U.S. industries, and that nonagricultural productivity growth was higher in other nations than in the U.S. These results lead the authors to conclude that the U.S. has maintained an absolute advantage in agriculture and appears to have maintained a comparative advantage (4).

Southeast Comparative Advantage

This section begins with the premise that the U.S. has maintained its comparative advantage in agriculture. Due to a lack of data to explore in detail relative regional efficiencies between agriculture and nonagriculture in the Southeast, comparisons will be limited to cost of production and world price level comparisons for selected commodities between the Southeast and other regions of the U.S., and between the Southeast and other countries. Such comparisons measure absolute not comparative advantage and are subject to the usual problems of comparing cost of production (COP) estimates between countries. However, if the U.S. has an overall comparative advantage in agriculture, the COP estimated do indicate how the region fares.

It is important to note that the composition of U.S. agricultural exports has changed dramatically over time, particularly since the 1950s. Exports of feed grains and soybeans increased from 12% of the value of U.S. agricultural exports in the 1950s to almost half the value in the 1980s. Wheat and rice as a proportion of the value of U.S. agricultural exports changed little between the 1950s and 1980s. Tobacco and cotton declined sharply over the same period — from almost 40% or less than 10% of the value of U.S. agricultural exports (5). This change is important in two ways: 1) the demand for traditional U.S. agricultural exports changed only slightly with increasing consumer incomes, but the demand for feed grains and oilseeds is responsive to changes in incomes; and 2) traditional southern export crops decreased in relative importance.

As the relative importance of feed grains and soybeans increased as export commodities, the South increased production of those commodities. When average U.S. COP data for wheat, soybeans and corn were compared with similar COP data of major export competitors, an interesting result emerged. The results revealed that U.S. costs were higher. However, when the "high cost regions" such as the Southeast were excluded, U.S. costs of production were comparable to or lower than those of major competitors. The COP data for major competitors were based on the better production regions of these countries.

A simple comparison of regional costs of production for the same "export" commodities which currently account for over 60% of the value of U.S. agricultural exports, reveals an expected but nonetheless sobering conclusion: "The Southeast is a marginal producer of grains and soybeans (tables 1-3), and has production costs considerably above those of major world competitors (table 4)." While the U.S. may have an advantage in grain and soybean production, that advantage is not shared by the Southeast. Obviously, there are variations in cost of production within a region as well as among regions. Some farmers in the Southeast may share the U.S. advantage in grains and soybeans, but these crops offer no singular opportunity for regional export growth, except in limited cases of direct sales.

If the South has no apparent advantage in the production of grains and soybeans, what about the traditional southern export crops? Cost of production comparisons become more difficult with these crops because of a lack of reliable, comparable cost data. Yet, a few estimates will provide a clue as to the relative efficiency of production. Additional clues are provided by comparing export prices for major world competitors. However, comparing export prices in U.S. dollars is plagued by another problem — exchange rates.

Tobacco producers in the Southeast have historically depended on foreign markets as an outlet for their crop. From 25 to 50% of total production was exported through most of the 19th and 20th centuries. The inherent resource and climatic advantages of the South apparently provided the ideal environment for the production of tobacco and cotton. Additionally, public and private investments in research and development paid handsome dividends in productivity growth. Yet, U.S. tobacco is the most expensive leaf traded in world markets. In fact, it is so expensive that U.S. manufacturers have doubled their imports of foreign leaf in the past four years.

Has the U.S. lost its comparative advantage in tobacco production? Reasonably comparable cost of production data from Zimbabwe suggest production costs (excluding land) of about \$0.84 per pound compared with a Southeastern average of \$1.09. However, the Zimbabwe costs were calculated on a "model" farm while U.S. cost of production data represent averages for the Southeast. Zimbabwe is considered to be one of the lowest cost of production regions in the world; however, U.S. leaf has a quality advantage. Poor internal transportation systems increase the Zimbabwe export cost. Costs of production in the U.S. also tends to be higher than those of most major competitors. A comparison of landed prices of leaf (in U.S. dollars) in importing nations from several exporting nations is most striking (table 5). However, one must remember that these prices reflect exchange rate differences, quality differences, etc. No doubt there is a problem, but

given quality differences, exchange rates and other factors there is insufficient evidence to conclude that the region has lost its comparative advantage in tobacco.

Similar comparisons could be made for peanuts and cotton. Yet the two-price system in peanut programs and the international price link to cotton support prices result in export prices for these commodities which are more in line with world price levels.

U.S. cotton exports remained basically constant at about 6 to 7 million bales between 1960 and 1985 as has world exports. However, the small growth in the world export markets has been captured by major U.S. competitors and has resulted in a loss of U.S. market share from about 40% to a little over 30%. Another more revealing statistic is lost export potential created by large increases in production in many former importing nations. World cotton production increased from 54 to 80 million bales during the 1970s. Thus, one must conclude that while U.S. exports were stable, potential markets have not been exploited and competitive position and market share declined.

The Peoples Republic of China is a prime example. The PRC moved from an importing nation in the 1970s and early 1980s (e.g., 4.1 million bales imported in 1979) to an exporting nation in the mid-1980s. Similar increases in production have occurred in other countries.

Legislative proposals in 1985 to limit textile imports and problems of the U.S. textile industry suggest that the U.S. does not have a comparative advantage in textile production. A comparison of prices of foreign produced vs. U.S. produced textile goods supports that conclusion. The evidence is much less conclusive relative to the loss of comparative advantage in raw cotton production.

In the absence of reliable cost of production data, one must rely on world prices for comparison even though such comparisons have significant problems. Between the mid-1960s and mid-1980s, export prices of U.S. cotton were close to the world price levels which indicates no overwhelming problem. Appreciation of the dollar during the 1980s increased the gap between U.S. prices and those of major competitors.

From the perspective of the Southeast, it may be more meaningful to compare interregional rather than international cost of production. There are two reasons for this approach:

- Most production from the Southeast is purchased for domestic use in the region.
- The Southeast lost its interregional comparative advantage due to subsidized water in the West and heavy insect infestations which

resulted in significant increases in cost of production.

New insecticides and the Boll Weevil Eradication program improved yields and efficiency in the Southeast and — in consort with increasing water costs in the West — resulted in competitive per unit cost of production for the Southeast compared to other U.S. production regions (table 6). Only the Delta produces at a lower per unit cost. Given the transportation cost differentials between the Southeast and other U.S. producing regions, the major market for expanded Southeast production may be domestic rather than foreign markets. Given this scenario, a higher proportion of non-Southeastern cotton must flow to export markets in the absence of expanded U.S. mill use.

The Georgia-Alabama-Florida area is the largest producer of peanuts in the U.S. followed by the Virginia-North Carolina area which produces the Virginia variety. The Georgia-Alabama-Florida area is also the lowest cost of production area (table 7). The U.S. is also the world's major exporter of peanuts. U.S. peanut exports increased over ten-fold between the 1960s and mid-1980s. World exports declined during 1980-85 and the U.S. lost market share over this period. With 65% of the total U.S. production in the Georgia-Alabama-Florida area and an additional 20% in the Virginia-North Carolina area, the Southeast must be concerned with exports. While the world market does not absorb the same proportion of U.S. peanut production as is the case with grains -- 25% vs. 46% -- it nonetheless is a critical market and has become increasingly more important over time. For example, only 3% of U.S. production was exported in the early 1960s compared with almost 25% in the early 1980s.

The two-price provisions of the peanut program since 1977 have been beneficial in keeping U.S. export prices more in line with the world market. As a result of this pricing system and other factors, U.S. peanut exports increased during 1983-84. Although 75% of U.S. peanut exports are for edible use, the major use of peanuts outside of the U.S. is for oil. Peanut oil is a high valued product and must compete with other oils on the world market. Intense competition in world oil markets has led to price volatility and has impacted potential exports. Similarly competition from other edible nuts has impacted on edible exports, particularly to European markets.

The growth in peanut exports suggests that the Southeast has not lost its comparative advantage in production. However, the impact of U.S. farm programs on international competition is also important and may camouflage other problems. This is discussed in the next section.

While certainly not conclusive, the data suggest that the Southeast has a regional

disadvantage in grains and soybeans, retained its comparative advantage in cotton and peanuts, but may have lost ground in tobacco. Despite these tentative conclusions about comparative advantage, the U.S. and the Southeast continue to have problems in international agricultural commodity markets.

COMPETITIVENESS AND SOUTHEASTERN AGRICULTURE

The decline in export volume and value, the changing composition of U.S. agricultural exports, and the shifts in world markets shares must lie with changes in competitiveness not comparative advantage. The impacts on U.S. agricultural trade due to appreciation of the U.S. dollar, government domestic farm programs, and other national and foreign policies are well documented in other sources and will not be repeated here.

The competitive position of commodities produced in the Southeast is affected by the same factors that influence agricultural exports generally. However, the competitiveness of southern crops has been influenced more and for a longer period of time by government farm programs than have other major U.S. agricultural export commodities. The result has been a longer term loss in competitive position and world market share. This has not mitigated the impact of the other factors affecting competitiveness; it has simply amplified the results.

Beginning with the agricultural legislation of the 1930s and through the 1970s, the southern political bloc was able to obtain special treatment for traditional southern commodities. In some cases these crops were handled separately from general farm legislation, e.g., tobacco and until the early 1980s peanuts. To a lesser extent cotton had preferential treatment prior to the 1970s. The arguments were to protect incomes of small, family farms and provide stability — a laudable goal, but with serious side-effects.

The major provisions of the tobacco program remain intact. U.S. flue-cured tobacco production remained fairly constant during the 1960s and 1970s. However, world production doubled between 1955 and 1985. U.S. exports exhibited a slow but steady decline while exports from other producing regions more than doubled. Between 1955 and 1985 the U.S. share of world export trade declined from 60% to 25%. An even more startling development is the increase in imports by U.S. manufacturers. Between 1969 and 1985, U.S. manufacturers increased imports of foreign produced leaf from 5.7 to 103.1 million pounds. Imports now account for almost 18% of domestic use -- up from less than 1% in 1975. The import prices of non-U.S. produced leaf are a major factor (table 8). Additionally, the strong U.S. dollar is and will continue to encourage imports by U.S. manufacturers and reduced exports by U.S. producers.

Obviously, the dollar appreciation impacted substantially on U.S. tobacco prices in the 1980s. However, another critical factor that must be taken into account to explain the large price differential between U.S. and foreign produced leaf is the U.S. tobacco program. Average U.S. prices and support levels are closely correlated. The market price usually averages only a few cents above the support level (table 9). Although 1980s program changes give the U.S. Secretary of Agriculture some discretion in lowering price supports, tobacco support levels continue to be based on a moving average parity index. Average support rates increased by 157% between 1970 and 1985 and 30% between 1979 and 1985. When combined with an appreciating U.S. dollar, the results are predictable. The U.S. is pricing itself out of the world tobacco market and is losing market share to foreign producers in both world and domestic markets. Due to quality differences, some price advantage for U.S. leaf is justified, but the data suggest that the price differential is far too wide to avoid problems (table 10). Tobacco producers were assessed 25 cents per pound to finance accumulating stocks. While assessments reduce program costs, they do nothing to improve the competitive position.

A recent study indicated that elimination of the tobacco program would be beneficial to the industry. Sumner and Alston conclude that elimination of the tobacco program would lead to production increases of 50 to 100%, price declines of 25%, a 50 to 100% increase in exports, and an increase in total revenue of 25 to 75% (6). Other impacts of program elimination would be a loss of quota value, greater price fluctuations, movement of production to the most efficient production areas, increased size of operation, and a loss of personal income in those counties with a high proportion of tobacco quota.

Economic prospects for tobacco for the 1985-90 half decade are not bright. High U.S. price supports, stagnant world demand (due to less tobacco per cigarette, quitters, and little increase in "new" smokers), and increased foreign competition will reduce U.S. growers' chances for increased quotas or improved prices. Also large stocks and likely increases in assessments are likely to further reduce returns. Yet, this assessment of the future for one of the Southeast's major export commodities is based on 1980s economic and institutional conditions.

While somewhat similar prospects hold for both cotton and peanuts, the impact of government farm programs on competitiveness are not as great. Both cotton and peanuts are under the general farm legislation. Both programs have been revised and neither is completely insulated from market forces. For example, the peanut program contains a two-price system to permit flexibility in pricing for non-domestic markets. Given current production costs, a real concern is

the competitive position of U.S. peanuts in the absence of government programs. The current program basically provides a blended price to producers for quota and nonquota peanuts and producers do not face the lower and more volatile world market prices. The price support level for cotton is tied to the average price level in northern European markets. Nonetheless, earlier programs for peanuts and cotton insulated both from world market conditions and resulted in loss of competitiveness and world market shares.

FUTURE PROSPECTS

All the evidence is not in. However, the data and analyses available indicate that:

- The U.S. has maintained its comparative advantage in agriculture.
- The Southeast has probably maintained a comparative advantage in peanuts and possibly tobacco and has regained an advantage in cotton.
- 3) The Southeast does not appear to have either an interregional or international advantage in the production of grains and soybeans. (One possible exception is double cropping wheat and soybeans due to the Southeast's climatic advantage).
- 4) Although the evidence suggests that a comparative advantage exists for agriculture in the U.S. and certain crops in the Southeast, neither the nation nor the region has remained competitive.
- 5) Trade and domestic agricultural policies; exchange rates; institutions; and world growth rates, inflation and recession affect the competitive position of U.S. and Southeast agriculture. The evidence also indicates that domestic agricultural programs have had a greater negative impact on competitiveness for traditional southern crops than for other U.S. commodities.
- 6) Domestic markets may offer the greatest potential for expansion for cotton and tobacco, at least in the short run.

Many of the factors determining absolute advantage have remained basically intact in the Southeast. Additionally, agricultural productivity growth has increased faster in the South than for the U.S. over the past decade. However, research is needed to more conclusively identify the Southeast's comparative advantage. Such analyses must include both agricultural and nonagricultural enterprises. While recent data would suggest that textiles — a major Southeast industry — has lost its comparative advantage, little is known of other manufacturing and service industries.

Other agricultural commodities which offer hope to Southeastern agriculture include aquaculture, poultry, wood products, and fruits and vegetables -- particularly some of the more exotic (at least to the Southeast) fruits such as kiwi. Studies are underway at several land grant universities to determine the Southeast's relative efficiency competitiveness in producing these crops both for domestic and export markets. Changing world income levels suggest a greater growth potential for food products beyond the basic food energy products. Growth in world demand for feed grains during the 1970s--while the demand for wheat, rice and cotton remained relatively stable--indicates a relative increase in demand for animal products. The demand for basic commodities increases relatively little with increasing per capita income. Thus, poultry, aquaculture, and fruit and vegetable production are potentially viable enterprises for the Southeast.

In the absence of major overhauls in domestic agricultural policy and nationally economic policy, the competitive position of Southeastern agriculture will continue to erode and the region will continue to lose market share in domestic and foreign markets for the traditional commodities critical to Southeastern agriculture. As a marginal producer of grains and soybeans, the Southeast will suffer more as markets for these commodities deteriorate. Future growth in agriculture in the Southeast may be more closely linked with the newer commodities which are dependent upon the unique resources and climate of the region.

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NOTES

- For a more complete discussion of comparative advantage, see Houck and Pollak 3.
- (2) For a more complete discussion of empirical comparative advantage analyses, see references 2, 4, and 14.
- (3) See Paarlberg, et. al. 4.
- (4) Supporting conclusions are found in reference 14.
- (5) See reference 15.
- (6) For a detailed discussion, see reference 5.

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Table 1. Production costs per bushel, excluding land, for soybeans, by region, by year.

			Region		
	Northern		•	-	
<u>Year</u>	Corn Belt	Plains	Southeast	Delta	United States
			\$/bushel		
975	2.45	2.88	4.33	3.96	2.97
976	2.83	3.49	4.92	4.61	3.42
1977	2.34	2.32	5.14	4.73	3.04
978	2.66	3.00	5.22	4.82	3.37
979	3.08	2.83	5.00	4.56	3.61
980	3.90	4.43	9.20	8.28	5.03
981	4.09	3.45	6.22	6.39	4.66
982	3.91	3.68	5.57	5.34	4.34
983	4.75	5.07	7.96	6.23	5.35
1984	4.91	5.77	6.25	5.40	5.23

Source: Economic Research Service, U.S. Department of Agriculture.

Table 2. Production costs per bushel, excluding land, for corn, by region, by year.

	Region							
			Northern					
Year	Northeast	Corn Belt	Plains	Southeast	Southwest	United States		
	- -			- \$ /bushel		<u>-</u>		
1975	1.80	1.48	1.71	2.47	1.90	1.60		
1976	1.81	1.57	1.85	2.13	1.90	1.67		
1977	1.79	1.49	1.67	3.30	2.28	1.66		
1978	1.69	1.39	1.59	2.41	2.38	1.53		
1979	1.48	1.50	1.82	2.24	2.21	1.63		
1980	3.01	2.20	2.98	2.87	3.03	2.45		
1981	2.49	2.06	2.62	3.05	2.67	2.24		
1982	2.48	2.08	2.42	2.45	2.97	2.19		
1983	3.28	2.92	3.12	3.78	3.14	3.04		
1984	2.46	2.34	2.72	2.67	3.44	2.46		

Source: Economic Research Service, U.S. Department of Agriculture.

Table 3. Production costs per bushel, excluding land, for soft red winter wheat, by region, by year.

	Region					
Year	Northeast	Corn Belt	Southeast	United States		
			bushel — — — — — —			
1975	2.73	2.23	3.54	2.38		
1976	2.77	2.15	3.20	2.27		
1977	2.88	1.97	2.72	2.13		
1978	3.00	2.22	2.93	2.39		
1979	4.13	2.55	3.44	2.75		
1980	4.65	3.14	3.89	3.40		
1981	4.99	3.44	3.55	3.52		
1982	5.55	3.84	3.84	3.88		
1983	4.95	3.53	3.99	3.76		
1984	5.19	3.86	3.61	3.79		

Source: Economic Research Service, U.S. Department of Agriculture.

Table 4. Average variable production costs, 1980-82.

	Wheat		Soybeans
		- U.S./bushel ^c	,
United States	1.28	1.13	1.46
Southeast	2.02	1.91	3.64
Canada	1.28		
Australia	2.06		
Brazil			1.84
Argentina		.87	1.73
a. Variable	costs	exclude land	d, taxes,
depreciation,	intere	st, insura	nce and
management.			
Source: U.S.	Depart	ment of Ag	riculture,
"Agricultural F	ood Poli	cy Review," Ju	lly 1985.

Table 5. Unmanufactured tobacco export prices of selected countries, by importing country, 1984.a

		<u>Importin</u>	g Country	
Exporting				United
Country	Japan	Germany	Spain	Kingdom
000,1013	oupun	Price		Kingdom
		Price	∌/ ID	
United				
States	2.77	2.41	2.87	2.33
Brazil	1.48	.96	.63	.91
DIAZII	1.40	. 30	.03	.91
<u>Philippines</u>			.39	50
a. Value,	landed	at port.	adjusted	to farm
sales weight	. Pri	ces are fo	or all to	bacco
but is pred				
Brazil and				
	abou	. 1/2	flue-cure	ed from
Philippines.				
Source: F	oreign	Ag. Ci	rcular,	Tobacco.
September 19	85.	<u>-</u>	•	
	~~.			

Table 6. Production costs per pound of lint, excluding land, for cotton, by region, by year.

	Region					
			Southern			
Year	Southeast Delta		Plains	Southwest	United States	
			\$/1b			
1975	.641	.486	.487	.333	.450	
1976	.680	. 583	.453	.327	.553	
1977	1.011	.560	.444	.523	.518	
1978	.668	.642	.632	.729	.664	
1979	.826	.633	.598	.648	.631	
1980	1.25	.96	1.05	.73	.91	
1981	.75	.69	.66	.63	.66	
1982	.60	.56	.83	.72	.69	
1983	1.03	.73	.81	.75	.78	
1984	.65	.62	.73	.76	.70	

Source: Economic Research Service, U.S. Department of Agriculture.

Table 7. Production costs per pound, excluding land, for peanuts, by region, by year.

Year	Region						
	Southeast	Southern Plains	Virginia & North Carolina	United States			
		\$/	'lb				
1978	.14	.18	.13	.14			
1979	.14	.18	.18	.16			
1980	.27	.35	.27	.29			
1981	.18	.22	.17	.18			
1982	.16	.23	.19	.18			
1983	.18	.22	.25	.20			
1984	.16	.23	.20	.17			

Source: Economic Research Service, U.S. Department of Agriculture.

Table 8. Prices of U.S. flue-cured imports, \$/lb. farm sales weight equivalent, 1984.

Exporting	
Country ·	Price
	- \$ -
Canada	1.11
Brazil	.88
Zimbabwe	.82
(U.S. Average Price - \$1.81/1b)	
Source: Foreign Ag. Circular, 1985.	Tobacco, March

Table 10. Prices of flue-cured exports from major exporting countries U.S. cents per pound, export weight.

Country	1980	1981	1982	1983
United States	248.0	280.8	302.5	313.3
Canada	161.5	174.6	184.2	244.0
Zimbabwe*	87.5	110.0	151.0	139.0
Malawi*	106.1	157.4	171.0	167.0
India	104.3	106.6	109.3	101.6
Brazil	115.7	122.5	158.8	104.8
Thailand	95.3	98.4	106.6	103.0
Korea, Rep. of	134.7	130.6	196.0	202.8

*Estimated.
Source: Thirty-Eighth Annual Report, Tobacco Associates, Inc. March 1985.

Table 9. Average prices and support levels for tobacco, 1970-83.

-	Flue-	Cured	Bui	rley	Avg. Price
Crop Year ^a	Price Received	Support Rate	Price Received	Support Rate	Received, All Tobacco
	- -		¢/1b		
1970-71	72.0	66.6	72.2	68.6	72.9
1971-72	77.2	69.4	80.9	71.5	78.6
1972-73	85.3	72.7	79.2	74.9	83.0
1973-74	88.1	76.6	92.9	78.9	90.0
1974-75	105.0	83.3	113.7	85.9	108.6
1975-76	99.8	93.3	105.5	96.1	102.6
1976-77	110.4	106.0	114.2	109.3	112.5
1977-78	- 117.6	113.8	120.0	117.3	118.6
1978-79	135.0	121.0	131.2	124.7	132.4
1979-80	140.0	129.3	145.2	133.3	141.1
1980-81	144.5	141.5	165.9	145.9	152.3
1981-82	166.4	158.7	180.7	163.6	170.6
1982-83	178.5	169.9	181.0	175.1	176.4
1983-84	177.9	169.9	177.3	175.1	174.7

a. For flue-cured and cigar wrapper, year beginning July 1; for all other types October 1. Source: U.S. Department of Agriculture.