



Commodity Profile: Tobacco

*Hayley Boriss, Research Economist
Marcia Kreith, Program Analyst
Agricultural Issues Center
University of California
aic@ucdavis.edu*

History

Tobacco is a native to the Americas. Indigenous peoples smoked and otherwise used tobacco leaves for ceremonial and medicinal purposes for at least 25 centuries before dried tobacco leaves were handed to Christopher Columbus as a gift when he landed in the Caribbean. It has been grown commercially in the United States as far back as 1612 when the European colonist John Rolfe, who later married Pocahontas, first planted seeds in Virginia for export to England (APVA, Breed).

Overview

The tobacco industry has gone through a considerable amount of change over the last decade. It has experienced a significant downturn in demand related to health concerns from smoking, a settlement on medical costs, and a notable change in marketing from auction markets to contracts. In addition, significant legislative changes in 2004 resulted in the elimination of price supports and a quota buyout, thus eliminating quota and associated acreage and geographic planting restrictions.

There are six major classes of tobacco including flue-cured, air-cured, fire-cured, cigar filler, cigar binder, and cigar wrapper (ERS (A)). Flue-cured tobacco accounted for 60 percent of tobacco production in 2005 and air-cured burley tobacco accounted for 30 percent (NASS). The majority of U.S. tobacco is used for cigarettes. Cigarettes account for about 95 percent of flue-cured tobacco and 90 percent of burley tobacco (ERS (A)).

Quota and Marketing

As part of the Agricultural Adjustment Act of 1938, tobacco growers were issued marketing quotas for the tobacco they were currently growing. These production quotas controlled supply, limiting the amount of tobacco grown. Depending on an assessment of manufacturers' needs, quota could be revised (ERS (B)). Production and location restrictions, applied through quota, prohibited producers from increasing cost efficiencies through economies of scale or planting in alternative locations. As demand for tobacco products declined, quota allotments also declined, further restricting production.

In recent years tobacco marketing methods have shifted away from auction markets to contract markets. Previously, auction markets were utilized as the primary method of marketing (ERS 2002). In 2000, 9 percent of flue-cured tobacco was sold under contract. By 2004, this percentage increased to 24 (ERS 2005 (A)). This change was dramatic and swift and created lasting impacts. It detrimentally affected many tobacco warehouses that formerly handled nearly all tobacco auction sales, thus resulting in a decrease in the number of warehouses (SLC). Direct contracting with tobacco growers also allowed manufacturers to better influence production to suit their needs, given production was already limited by quota (ERS 2002).

Prior to 2004, tobacco growers benefited from government price support (ERS (B)). Price support however, was available only for leaf sold through USDA-approved auction warehouses and inspected by USDA graders. Growers selling through contract remained bound by quota, but forfeited their right to price support.

The 2004 Tobacco Transition Act and Quota Buyout

With the increase in contract marketing and continuing decline in quota available, conditions were optimal to garner grower support for a tobacco quota buyout. In October 2004, the U.S. Congress approved the Fair and Equitable Tobacco Reform Act as part of the American Jobs Creation Act. Under the Act, tobacco price supports, poundage quotas, acreage allotments, and geographic restrictions on production were eliminated (ERS (C)). One of the aims of the buyout is to allow U.S. tobacco to become more competitive with world prices. As the U.S. price falls, purchases would increase from both the domestic market and from abroad.

ERS estimated about 437,000 quota owners were expected to receive payments in the buyout as well as 57,000 producers. Producers who are also quota owners, which are the majority, would receive both buyout payments. The total cost of the tobacco buyout is estimated at \$9.6 billion in compensation to quota owners and producers plus an additional \$5 billion to the USDA for government losses on pool stocks. Quota owners will be paid \$7 per pound based on 2002 quota and producers will be paid \$3 per pound based on 2002 effective quota. Payments will occur over a 10 year period or farmers can receive lump sum payments (Womach 2005, ERS 2005 (B)). The buyout will be funded by assessments levied on manufacturers and importers of tobacco product.

Given the newly relaxed geographic and quota restrictions, production is likely to move to regions conducive to mechanization and economies of scale—Georgia, the Coastal Plain of North and South Carolina, and western Kentucky—and away from areas like Piedmont in North Carolina and eastern Kentucky (ERS 2005 (B)). In addition, the lower production costs of burley, which is air-cured, over flue-cured tobacco and the growing world demand for burley tobacco, make a switch to burley profitable for some producers (Capehart 2006).

The Master Settlement Agreement Concerning Smoking-Related Illness

The 1998 Master Settlement agreement between the United States Attorneys General and cigarette manufacturers allocated funds to reimburse states for medical costs associated with smoking induced illnesses and also put in place provisions to reduce underage smoking. In the terms of the agreement, \$206 billion was to be paid to the states over 25 years with an additional \$1.5 billion dedicated to anti-smoking measures and \$250 million for research in reducing under-aged smoking. Limitations were also placed on advertising and tobacco trade organizations were disbanded. In a separate portion of the agreement (commonly referred to as phase II), \$5.15 billion was allocated to growers of tobacco who were expected to experience a loss in production and sales as a result of the agreement (Capehart 2001).

Demand and Taxes

U.S. consumption of cigarettes increased throughout the 1950s, 1960s, and 1970s, peaking at 640 billion pieces in 1981. Although consumption of cigarettes increased between 1950 and 1980, advancement in cigarette production technology enabled a greater amount of cigarettes to be made from a given volume of leaf, so that utilization of leaf remained somewhat constant during this period (ERS (A)). Cigarette consumption decreased rapidly after the 1981 peak following public promotion of the negative effects of cigarettes. By 2005 consumption had fallen to 379 billion pieces (Figure 1).

Consumption also decreased as a result of increased prices from additional taxes. The federal excise tax for cigarettes increased 5 times in the fourteen years between 1989 and 2002. In 1990 the excise tax was \$8 per 1,000 cigarettes (16¢ per pack of 20 cigarettes). It increased to \$10 in 1991, \$12 in 1993, \$17 in 2000 and \$19.50 in 2002 (39¢ per pack) where it remains today.

Wholesale cigarette prices and federal excise taxes have not increased since 2002, but several state excise taxes did increase in 2005. At present, 18 states have cigarette excise taxes exceeding \$1.00 per pack, and four additional states have taxes exceeding \$2.00 per pack (Figure 2) (ERS 2005 (A)).

Supply

Production of tobacco has decreased from more than 2 billion pounds in the 1970s to 678 million pounds in 2005. Since 1997, tobacco production has fallen by 60 percent, from 1.7 billion pounds to 678 million (Figure 3). Between 2004 and 2005, following the quota buyout, tobacco production decreased by 20 percent, with U.S. production of flue-cured tobacco falling by 33 percent and production of burley tobacco falling by 26.5 percent (NASS).

Tobacco bearing acreage has trended downward over the last 3 and a half decades, reaching a low of 320,000 acres in 2005. Likewise, both flue-cured and burley tobacco acreage has decreased (Figure 4).

U.S. tobacco yields have been variable, peaking in 1994 at 2,358 pounds per acre compared to a low of 1,811 pounds per acre in 1983. In 2005, yield per acre was 2,121 pounds (Figure 5).

While tobacco acreage is smaller in comparison to other field crops, its higher market value makes tobacco the 8th highest valued field crop in 2005 behind corn, soybeans, hay, wheat, cotton, potatoes, and rice (USDA Crop Values). In 2005, the tobacco crop was valued at \$1.1 billion. The value of U.S. tobacco production has been variable over the years. The most recent downturn in value has declined to values below those last seen in the early 1970s (Figure 6).

Although North Carolina harvests the most acres of tobacco, in Kentucky tobacco is a more important crop in terms of cash receipts. In 2004, 34 percent of Kentucky's total crop cash receipts came from tobacco, versus 22 percent of North Carolina's receipts, 13.9 percent of Virginia receipts, and 13.1 percent of South Carolina. Notably, the share of the state cash receipts from tobacco decreased for Kentucky and South Carolina between 2002 and 2004, while North Carolina was the only state whose share increased over the same time period (Figure 7).

North Carolina has been and remains the largest producing state in terms of harvested tobacco acreage, followed by Kentucky. North Carolina has the most acres of flue-cured tobacco and Kentucky the most acreage of burley tobacco. Other, smaller, producing states include Tennessee, South Carolina, Virginia, and Georgia. Between 2004 and 2005, harvested tobacco acreage in North Carolina decreased by 19 percent while acreage in Kentucky decreased by 30 percent. Acreage in Tennessee, South Carolina, and Virginia decreased by 24 percent, 26 percent and 43 percent respectively (Figure 8).

In 2006 production shifted within the Southeast and even to the mid-Atlantic region. Some Pennsylvania producers are now growing burley for the first time after previously planting cigar and air-cured Maryland leaf types. In North Carolina and other states, some flue-cured producers are adding burley production to the mix. The switch to burley production is the likely result of changing world tastes in cigarettes (blends of both flue-cured and burley are gaining in popularity against all flue-cured or all dark tobaccos) and lower production costs (ERS 2006).

Exports

By value, the United States has been the world's largest importer of tobacco leaf and at the same time the largest exporter of cigarettes (ERS (D)). The high dollar value of exports and imports makes tobacco one of the leading U.S. agricultural crops in both export and import products.

The United States remains a major player in world tobacco trade, but the U.S. share of world tobacco trade has decreased steadily since the 1960s, from over 25 percent in the late 1960 to less than 10 percent in the new millennium (ERS 2003). The U.S. still remains a net exporter of cigarettes and tobacco, however the gap between exports and imports is narrowing (Figure 9).

In 1996, the United States exported more than \$6.6 billion dollars in tobacco and tobacco products. Cigarettes make up the largest share of U.S. exports followed by unmanufactured stem tobacco and unmanufactured tobacco. The two leading destinations for U.S. tobacco have been and remain Japan and the EU (most notably Germany). For cigarettes in particular, Japan, Iran, Saudi Arabia, Israel, Lebanon have been the largest markets, with Japan receiving about 72 percent of U.S. cigarette exports in 2005 (ERS (E)).

In recent years, the share of U.S. production exported has increased to record high levels. In 2004, an estimated 47 percent of production was destined for export. A greater share of burley tobacco production has been exported in recent years in comparison to flue-cured tobacco.

Imports

Overall, the value of U.S. imports of tobacco has remained relatively constant over the last decade and a half, at around \$1.2 billion. The leading countries exporting to the United States include the Dominican Republic, Brazil, and Turkey (Figure 10).

The share of foreign tobacco in U.S. cigarettes has steadily increased in the last four decades and continues to rise (Figure 11). U.S. manufacturers blend low quality import tobacco with domestic leaf to achieve a desirable blend at a lower cost. The steady increase in imports is due mainly to cheaper world market prices for tobacco (ERS 2002)

Price

Adjusted for inflation, the grower price of tobacco decreased steadily since the 1980s. The greatest decrease in price was notable between 1984 and 1986. Since 1997, tobacco prices remained under \$2 per pound (Figure 12). U.S. prices for burley tobacco are competitive on the world market (ERS (E); Capehart 2006). The wholesale price of cigarettes has continued upwards while export price remained constant.

References:

Association for the Preservation of Virginia Antiquities (APVA). Accessed May 2007. Available at: <http://www.apva.org/history/jrolfe.html>

Breed. "Breed's Collection of Tobacco History Sites". Accessed May 2007. Available at: <http://smokingsides.com/docs/hist.html>

Capehart, Thomas C. 2001 (October). "Trends in the Cigarette Industry After the Master Settlement Agreement". ERS Electronic Outlook Reports TBS 250-01. Available at: www.ers.usda.gov/publications/tbs/oct01/tbs250-01/

Capeheart, Thomas C. 2003 (September) "US Tobacco Industry Responding to New Competitors, New Challenges". ERS Amber Waves 1(4). Available at: <http://www.ers.usda.gov/AmberWaves/September03/pdf/featuretobaccosept2003.pdf>

Capehart, Thomas C. 2006 (February). "U.S. Tobacco Sector Regroups". ERS Amber Waves 4(1) pp. 2. Available at:
www.ers.usda.gov/AmberWaves/February06/Findings/findings_mt1.htm

Food and Agricultural Organization of the United Nations (FAO). Statistical Database-Agriculture. Accessed July 2005. Available at:
<http://faostat.fao.org/faostat/collections?subset=agriculture>

Orzechowski and Walker. "The Tax Burden on Tobacco: Historical Compilation 2004."

Southern Legislative Conference (SLC). 2002. "Tobacco in Transition". Available at:
<http://www.csg.org/pubs/Documents/slc-0202-TobaccoInTransition.pdf>

United States Department of Agriculture, National Agricultural Statistical Service (NASS). 2002 Census of Agriculture Data. Available at: www.nass.usda.gov/census/

United States Department of Agricultural, Economic Research Service (ERS).

- (A). Briefing Rooms. Tobacco Background. Accessed May 2007. Available at:
<http://www.ers.usda.gov/Briefing/Tobacco/Background.htm>

- (B). Briefing Rooms. Tobacco Policy. Accessed May 2007. Available at:
<http://www.ers.usda.gov/briefing/tobacco/program2.htm>

- (C) 2005. "Long-Lived Tobacco Program to End." Amber Waves 3(1) pp2-3. Available at:
<http://www.ers.usda.gov/AmberWaves/February05/Findings/LongLivedTobacco.htm>

- (D). Briefing Rooms. Tobacco Trade. Accessed May 2007. Available at:
<http://www.ers.usda.gov/Briefing/Tobacco/Trade.htm>

- (E) Dec 2005. "Tobacco Situation and Outlook Yearbook." Available at:
<http://usda.mannlib.cornell.edu/reports/erssor/specialty/tbs-bb/2005/tbs2005.pdf>

- 2002. "The Tobacco Industry Downsizing, Restructuring." Commodity Spotlight.
<http://www.ers.usda.gov/publications/agoutlook/jan2002/ao288c.pdf>

- 2004. "Trends in Tobacco Farming." Available at:
<http://www.ers.usda.gov/publications/tbs/nov04/tbs25702/>

- 2004. "The Changing Tobacco User's Dollar." Available at:
<http://www.ers.usda.gov/Publications/tbs/OCT04/tbs25701/>

- 2005. Tobacco Yearbook Data Tables. Available at:
<http://www.ers.usda.gov/Data/SDP/view.asp?f=specialty/92015/>

- Tobacco Costs and Returns Data. Accessed May 2007. Available at:
<http://www.ers.usda.gov/Data/CostsAndReturns/TestPick.htm>

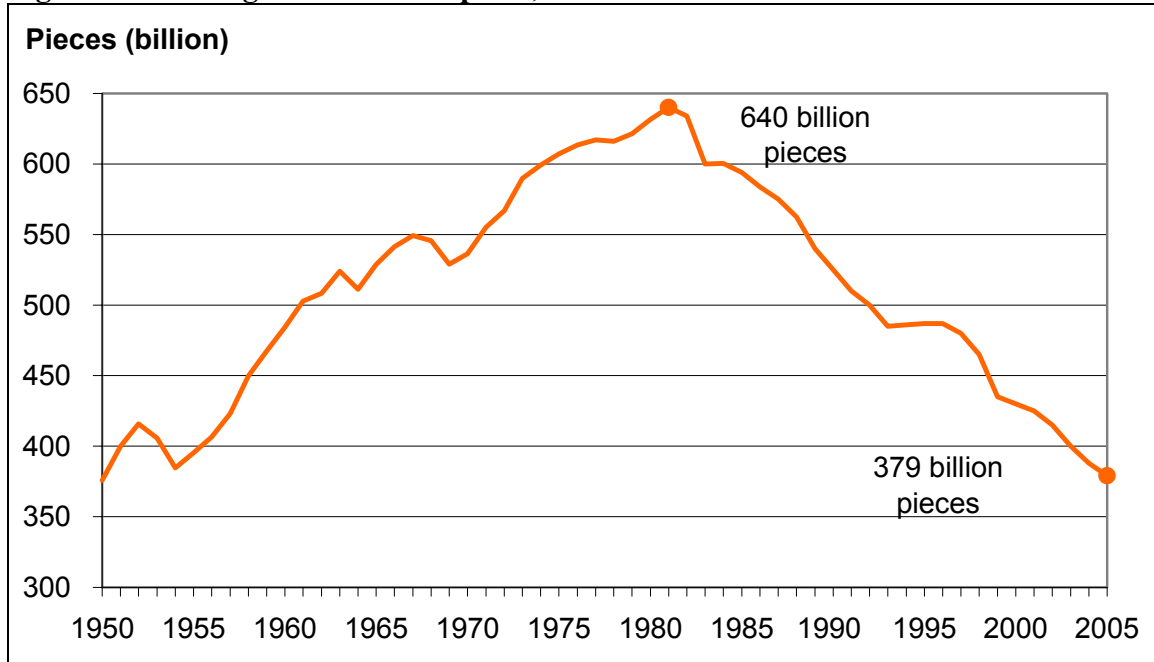
United States Department of Agriculture, Foreign Agricultural Service (FAS). Trade Database. Available at: <http://www.fas.usda.gov/ustrade/>

United States Department of Agriculture, National Agricultural Statistical Service (NASS). Crop Production Annual Summaries. Available at:
<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do;jsessionid=6E8EA41251C9BC2E2ACA696AB2BB2654?documentID=1047>

Womach, Jasper. "Tobacco Quota Buyout." CRS Report for Congress. Available at:
<http://www.nationalaglawcenter.org/assets/crs/RS22046.pdf>

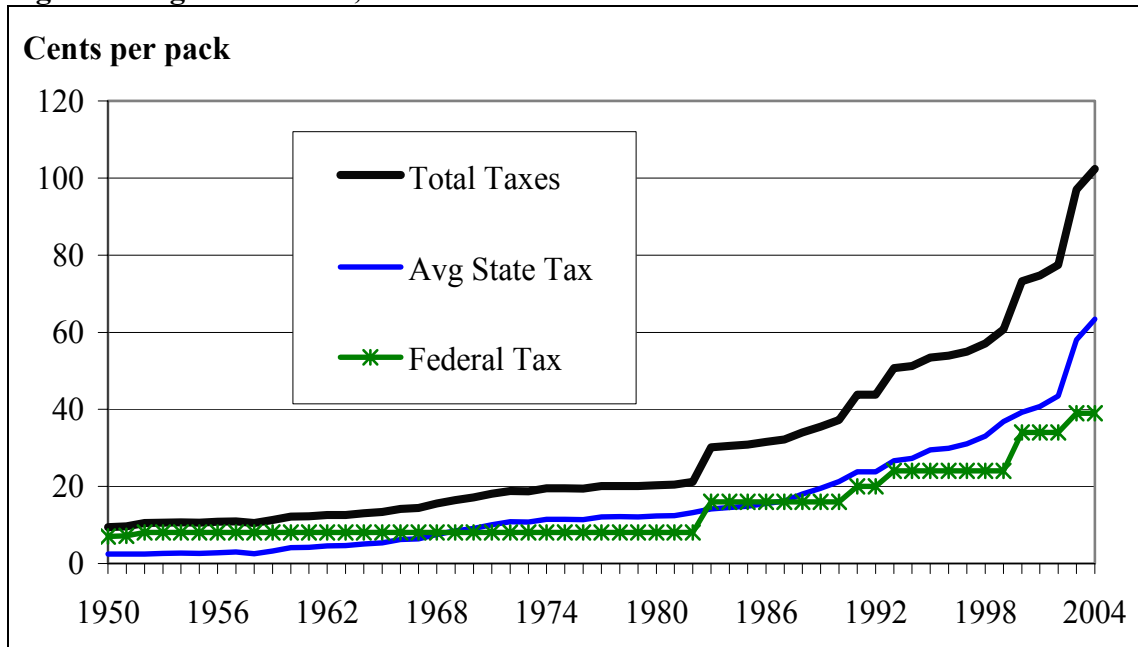
FIGURES

Figure 1. U.S. Cigarette Consumption, 1950-2005



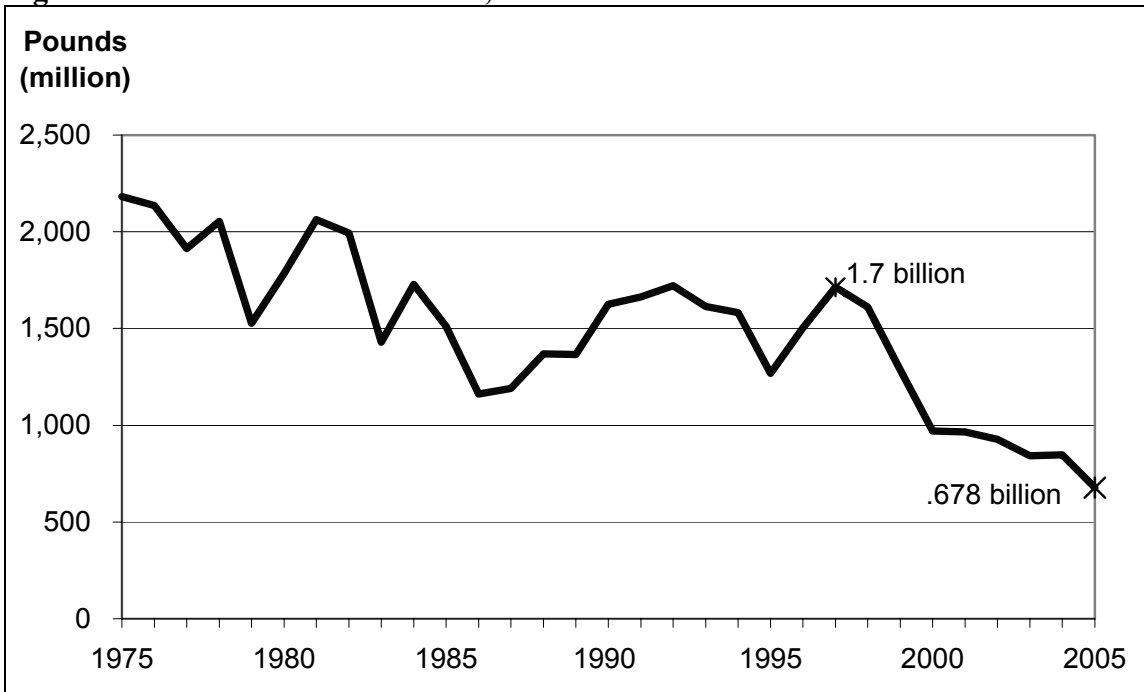
Source: USDA Economic Research Service, Tobacco Yearbook: Table 1

Figure 2. Cigarette Taxes, 1950-2004



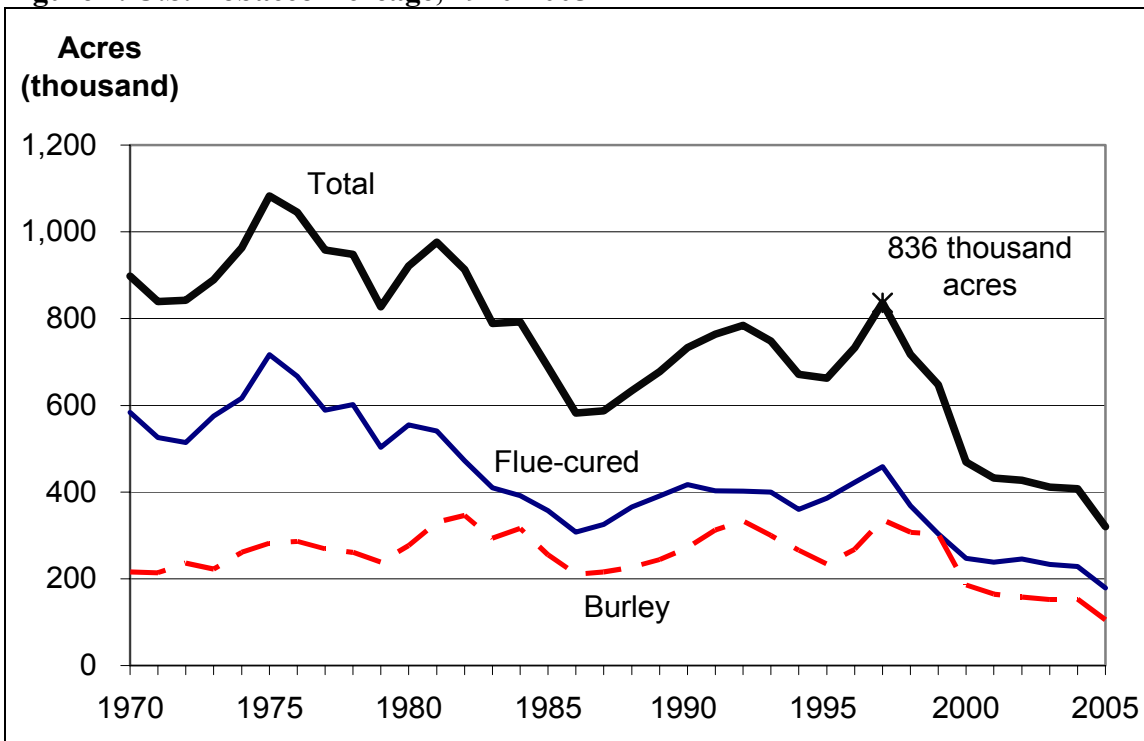
Source: USDA Economic Research Service, Tobacco Yearbook and The Tax Burden on Tobacco

Figure 3. U.S. Tobacco Production, 1970-2005



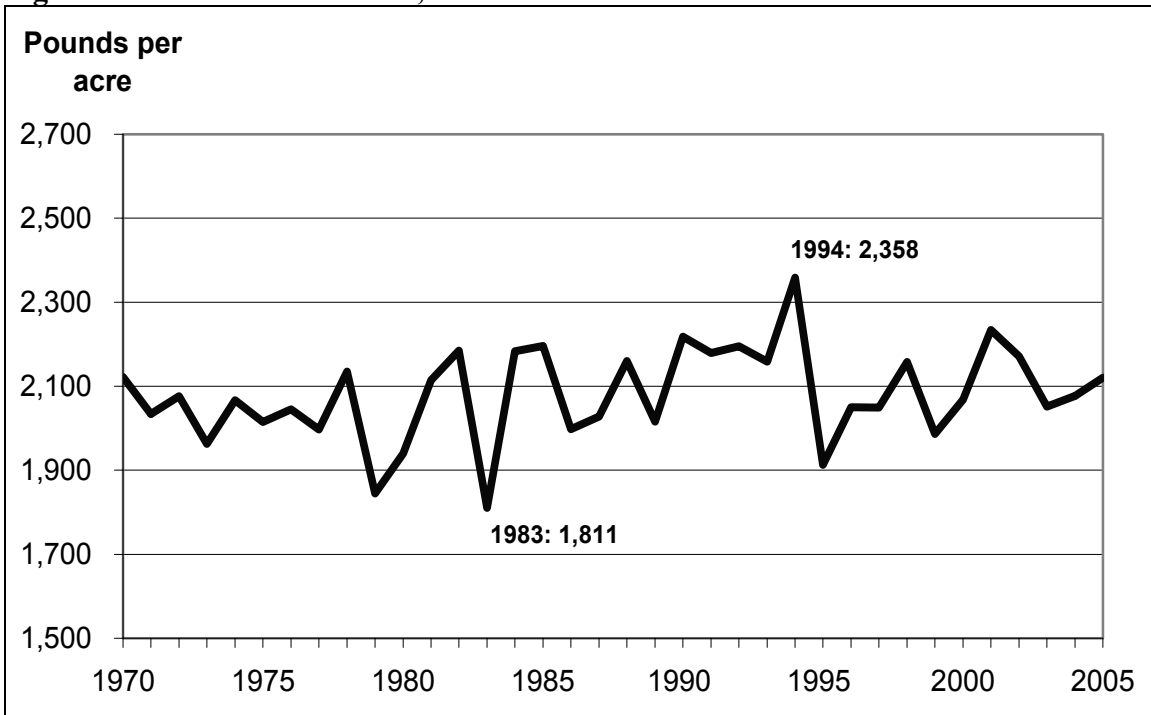
Source: USDA Economic Research Service, Tobacco Yearbook: Table 28

Figure 4. U.S. Tobacco Acreage, 1970-2005



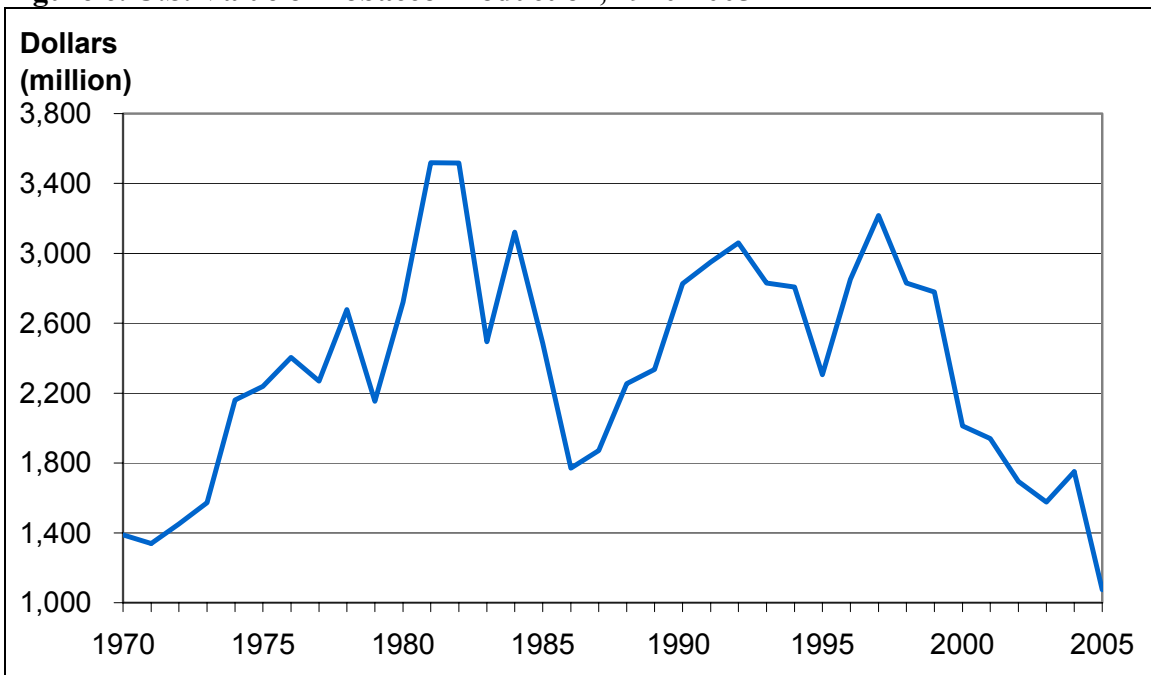
Source: USDA Economic Research Service, Tobacco Yearbook: Tables 16, 17, & 28

Figure 5. U.S. Tobacco Yields, 1970-2005



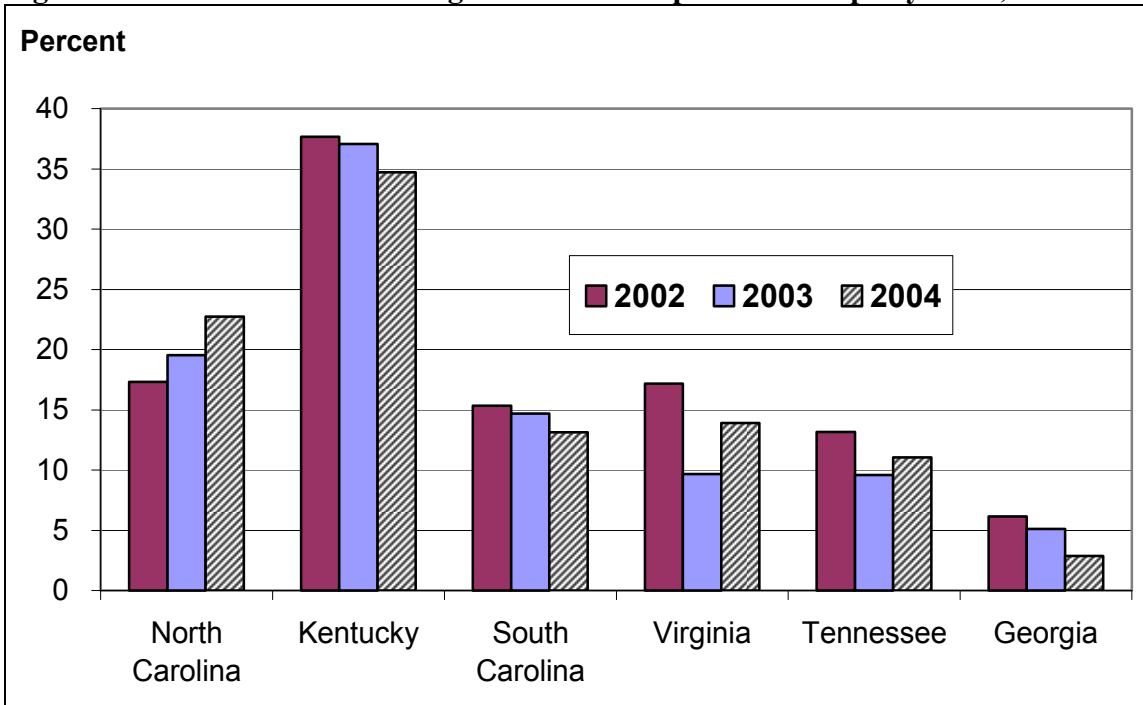
Source: USDA Economic Research Service, Tobacco Yearbook: Table 28

Figure 6. U.S. Value of Tobacco Production, 1970-2005



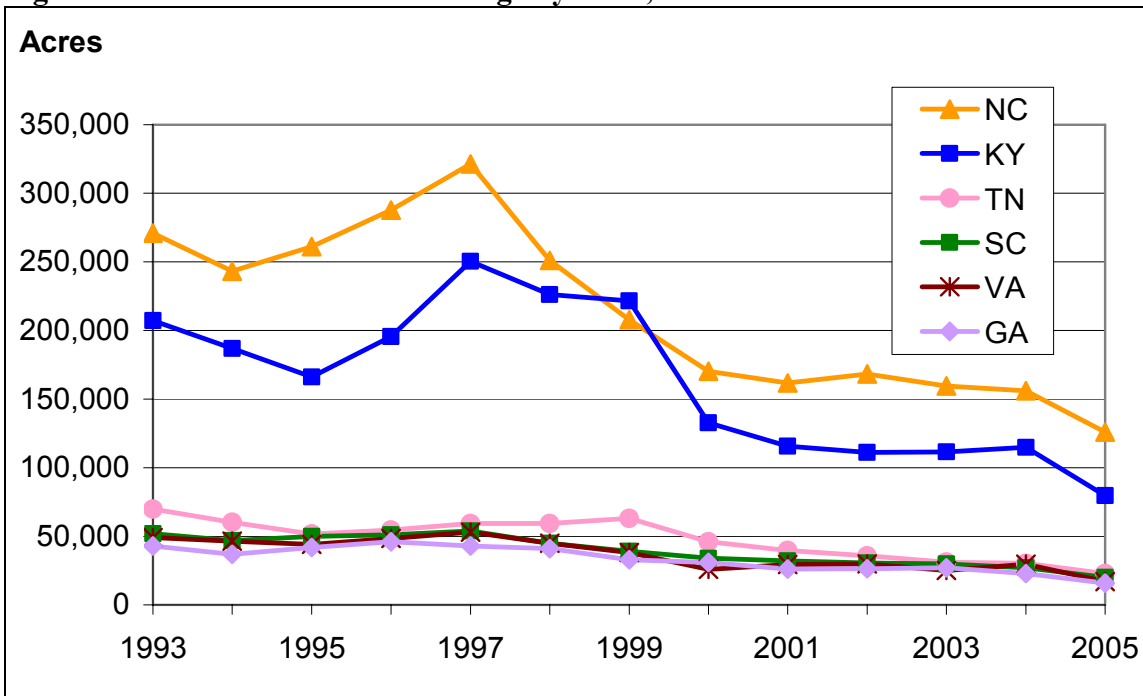
Source: USDA Economic Research Service, Tobacco Yearbook: Table 28

Figure 7. Tobacco as a Percentage of Cash Receipts from Crops by State, 2002-2004



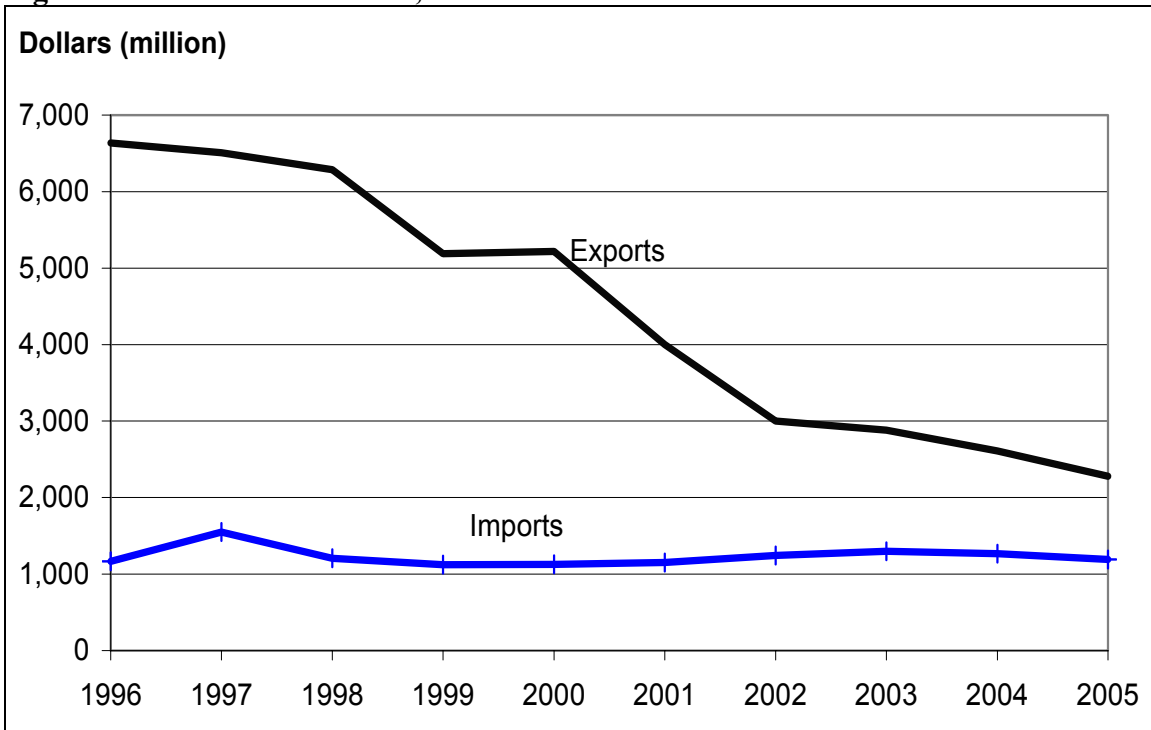
Source: USDA Economic Research Service, Tobacco Yearbook: Table 31

Figure 8. Harvested Tobacco Acreage by State, 1993-2005



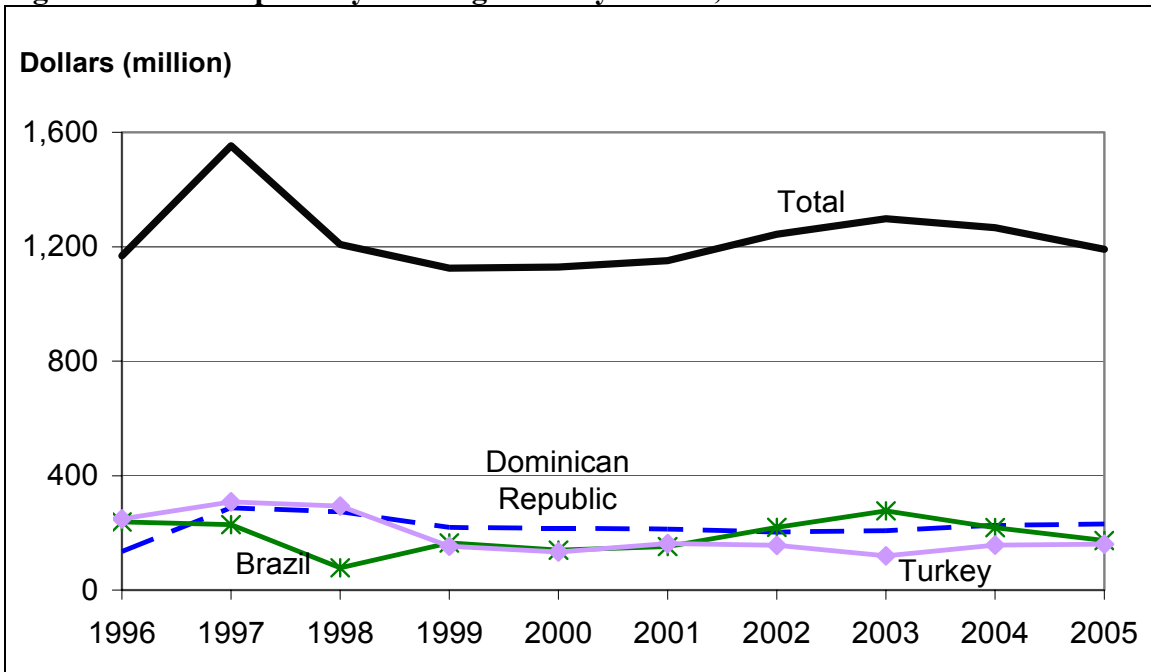
Source: USDA National Agricultural Statistics Service, Crop Production Annual Summaries

Figure 9. U.S. Tobacco Trade, 1996-2005



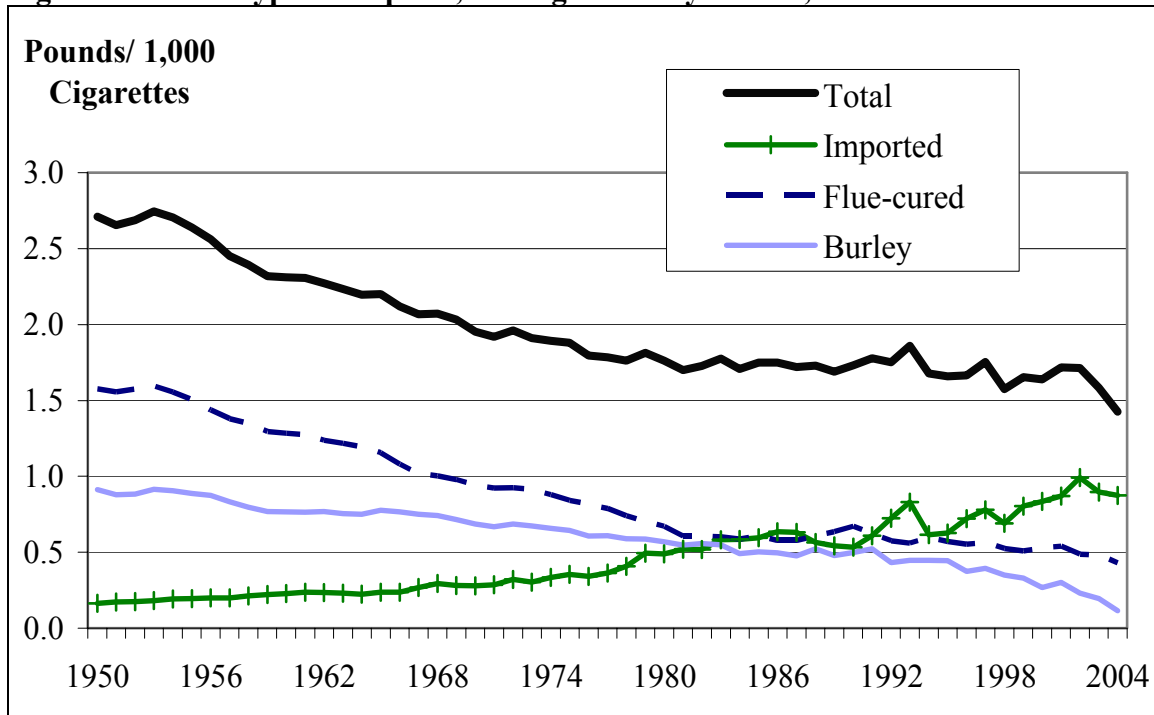
Source: USDA Foreign Agricultural Service

Figure 10. U.S. Imports by Leading Country Source, 1996-2005



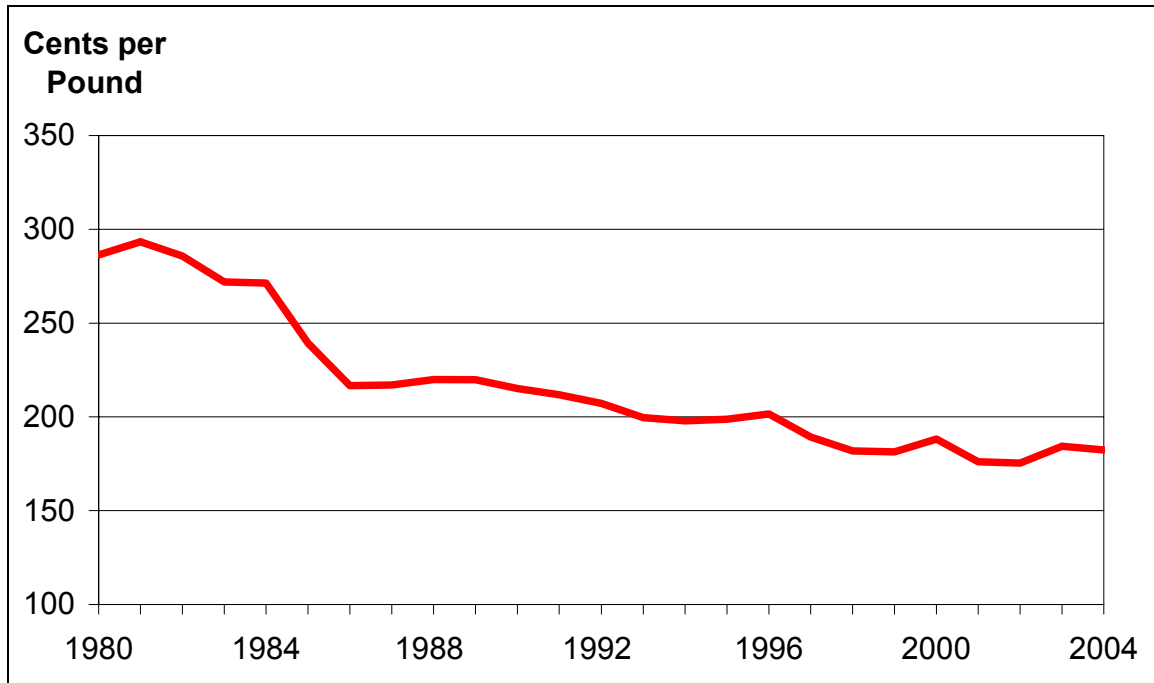
Source: USDA Foreign Agricultural Service

Figure 11. Leaf Type Used per 1,000 Cigarettes by Source, 1950-2004



Source: USDA Economic Research Service, Provided by Thomas Capehart

Figure 12. U.S. Tobacco Grower Price (in year-2000 inflation adjusted dollars), 1980-2004



Source: USDA Economic Research Service, Tobacco Yearbook: Table 28