

Tobacco

Background for 1995 Farm Legislation

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Introduction

This report provides an overview of the U.S. tobacco industry, reviews Federal tobacco programs and their effects, and examines issues and potential program changes. Tobacco is produced in 21 States, with 65 percent of the acreage in North Carolina and Kentucky. Several different types and kinds of tobacco are grown, but flue-cured and burley—the primary cigarette tobaccos—account for about 94 percent of total production.

Tobacco is usually the sixth largest cash crop, behind corn, soybeans, wheat, hay, and cotton. In 1993, farm sales value of tobacco totaled \$3 billion, 1.7 percent of the value for all farm commodities and 3.5 percent of crop sales.

Consumer spending for tobacco products was estimated at \$48.9 billion in 1993. About 94 percent was for cigarettes, with cigars, snuff, chewing, and smoking tobacco accounting for the remainder.

Federal, State, and local governments tax tobacco products. In 1993, nearly \$13 billion in taxes was collected—\$5.7 billion by the Federal Government and \$7.2 billion by State and local governments. Thus, taxes collected amounted to more than 4-1/3 times the value of farm sales of tobacco.

Tobacco and tobacco products added \$66.7 billion to the U.S. gross national product in 1990. Tobacco directly or indirectly generates over 680,000 jobs. Most U.S. tobacco production has been under a price support and supply control program since the 1930's. The program limits production, sets minimum grower prices, and provides for acquisition, storage, and eventual sale of surplus tobacco.

The tobacco program is under permanent statutory authority, reflecting the basic marketing quota provisions of the Agricultural Adjustment Act of 1938. Thus, the Act does not expire after the 1995 crop. But

many legislative changes have been made since the 1938 law was enacted. Numerous laws enacted during the last dozen years have dramatically changed the tobacco program. These laws: (1) required that most tobacco program costs be borne by growers and purchasers, (2) reduced price support levels and slowed their rate of increase, (3) established a more market-oriented approach for setting quotas, and (4) effectively limited the amount of foreign-grown leaf that can be used in U.S.-produced cigarettes.

Tobacco is clearly a major crop and of special economic importance in several States. Although legislation during the last dozen years has made the tobacco program more acceptable to the general public and tobacco growers, concerns continue about tobacco programs, price support levels, imports, exports, quota size, quota lease, rental and sales rates, and who should pay for the operation of the program. Furthermore, social policy regarding prohibitions and restrictions on tobacco product use and taxation of tobacco products have major implications for the industry. These are among the factors that may be considered in finding appropriate policies. Program effects on the economic well-being of tobacco growers, taxpayers, and tobacco users will likely affect program changes.

This report discusses the economic and structural factors affecting grower costs and returns, and it examines how the tobacco program has affected taxpayer costs and consumer prices.

Structure of the Tobacco Industry¹

This section reviews the tobacco industry in terms of its production characteristics, trends in domestic tobacco use, loan programs and domestic stocks, the world tobacco market, and prices, costs, and returns.

¹See (4) and (5) for additional information. Numbers in parentheses refer to reports cited in the Additional Readings section.

Production Characteristics

According to preliminary 1992 Census of Agriculture estimates, about 124,000 U.S. farms produced tobacco that year (table 1). About 62 percent of the farms were located in North Carolina and Kentucky, the major tobacco-producing States.

The average U.S. farm grew about 6.7 acres of tobacco. Tobacco acreage per farm varied geographically, ranging from 2.1 acres in West Virginia to 33.9 acres in Connecticut. Acreage also varied by type of tobacco grown. In States where flue-cured predominates, average acreage varied from 16 to 26. Among burley-producing States, average acreage ranged from 2 to 5. The high average in Connecticut represents large vertically integrated cigar wrapper operations; cigar binder farms in this State are much smaller.

Census figures do not reveal the number of flue-cured and burley producers. However, data from U.S. Department of Agriculture (USDA) surveys provide

information about farm characteristics of these kinds of tobacco.

Tenure Arrangements

Although not sampling the entire flue-cured population, a survey of farms in 1991 showed only 7 percent of the flue-cured operators owned the entire tobacco quota they produced, about 21 percent rented all their quota (the right to produce and sell a specified quantity of tobacco), and the remaining 72 percent both owned and rented quota. Based on a survey of farms in 1989 that may not reflect Burley Belt population averages, 48 percent of operators grew their entire tobacco acreage on quota allotments they owned. About 19 percent rented all their burley quota, and the remaining 33 percent produced tobacco on acreage combining owned, rented, or leased quota in 1989. Lease and transfer of quota refers to an arrangement whereby the quota is grown on a farm other than the one to which it is assigned (lease and transfer of flue-cured quotas was eliminated in 1987 but reinstated for disaster conditions beginning in 1988). Renting refers

Table 1—Number of farms, acres, and average acres of tobacco on farms growing tobacco, 1992

State	Farm	Tobacco	Average tobacco
	Number	acreage	acreage per farm
		----- Acres -----	
Alabama	14	335	23.9
Connecticut	43	1,456	33.9
Florida	233	6,928	29.7
Georgia	1,658	40,403	24.4
Indiana	2,946	9,170	3.1
Kansas	12	37	3.1
Kentucky	59,373	268,140	4.5
Maryland	951	8,470	8.9
Massachusetts	27	400	14.8
Missouri	454	1,846	4.1
North Carolina	17,625	283,900	16.1
Ohio	3,487	11,006	3.2
Pennsylvania	1,348	8,445	6.3
South Carolina	1,965	50,194	25.5
Tennessee	22,953	75,621	3.3
Virginia	8,444	55,419	6.6
West Virginia	1,003	2,072	2.1
Wisconsin	1,729	7,379	4.3
Other States	5	12	2.4
United States	124,270	831,233	6.7

to growing the quota on the farm to which the quota is assigned.

The lease rate, rental rate, and sales price of the right to grow and sell tobacco depend on the price of the type and quality of the tobacco to which the quota applies and the expected cost of production (net of quota rental) for the grower. Even though much of the quota is grown by quota owners and thus is not rented, sold, or leased and transferred, information on these rates allows estimation of total income attributable to quota ownership. Flue-cured and burley quotas can be sold only within county boundaries. Flue-cured quotas generally cannot be leased but burley quotas can be leased within county lines except that they can be leased across county boundaries within Tennessee.

The cost to lease, sell, or rent quota varies by county, but also rates within counties vary according to production costs, alternative uses for resources, and other factors. In 1993, when U.S. flue-cured tobacco prices averaged \$1.68 per pound, county average rental rates for flue-cured quota in North Carolina varied from a low of 25 cents per pound to 42 cents a pound with an overall median of around 35 cents a pound. Burley lease costs in Kentucky averaged about 48 cents a pound in 1994, up from 44 cents in 1993, 37 cents in 1992, and 33 cents in 1991. With a smaller quota and high price supports, lease and rental costs have risen. As uncertainty about the future of the price support-production control program increases, the time horizon for capitalizing the value of quotas into production sales rights has shrunk from 5 or 6 years to 3 or 4 years.

Tobacco Classes and Types

Although most of the tobacco grown in the United States goes into cigarette production, U.S. tobacco is also used in snuff, chewing tobacco, cigars, and smoking tobacco. The different tobacco products require leaf with different characteristics; therefore, a standard system of classification exists. Six major classes of tobacco are grown in the United States: flue-cured, fire-cured, air-cured (burley is the major type), cigar filler, cigar binder, and cigar wrapper (table 2). The first three classes are named on the basis of the method used in curing; the last three, which are all cigar leaf classes, on the basis of traditional use in cigars. Each class is made up of two or more different types. The classes are largely grown in distinct regions, have different end uses, and are marketed separately.

Since the inception of tobacco price supports and production controls in the late 1930's, little change has occurred in the location of U.S. tobacco production.

In 1993, North Carolina and Kentucky produced 65 percent of total U.S. production, compared with 62 percent 35 years earlier. Trends in production, yields, and use of U.S. tobacco are shown in appendix tables 1 and 2.

Trends in Domestic Tobacco Consumption and Leaf Use²

Cigarettes take 90 percent of the tobacco used in the United States. They also account for most of the sales of U.S. tobacco products, about 94 percent of the \$48.9 billion total in 1993, with taxes amounting to about \$13 billion (appendix tables 3 and 4). U.S. consumers smoked an estimated 485 billion cigarettes in 1993. This was about 3 percent below the previous year and continued a declining trend that began in 1982 (appendix table 5).

Consumption per person, based on the population 18 years and older, dropped to 2,539 cigarettes in 1993, a 4-percent decline from 1992, 42 percent below the 1963 peak, and the lowest level since pre-World War II years (appendix table 6).

Total U.S. cigarette consumption in 1993 was 24 percent lower than in 1981. Cigarette prices tripled from 1980 to mid-1993; more than double the increase for all consumer items during the period, and a major reversal from the price changes of the 1970's when the overall price index rose more rapidly than cigarette prices. Retail cigarette prices fell after manufacturers reduced wholesale prices of premium brand cigarettes about 25 percent in August 1993. In addition to price, concerns about smoking and its effects on health of smokers and nonsmokers also dampened cigarette consumption. These concerns have resulted in an increasing number of restrictions and prohibitions on smoking in public places.

U.S. manufacturers used an estimated 1.23 billion pounds of tobacco (unstemmed processing weight) in cigarettes in 1993. This was 3 percent less than the year before, because cigarette output fell. Manufacturers used an estimated 1.85 pounds of tobacco (unstemmed processing weight) per 1,000 cigarettes produced in 1993 (appendix table 2). Domestic burley accounted for about 24 percent of the tobacco used in cigarettes; domestic flue-cured, 30 percent; Maryland, 1 percent; and imported, the remaining 45 percent. Since the mid-1970's, the shares of both U.S. flue-cured and burley have declined. However, burley declined less than flue-cured. The decline has been offset by a shift to an increasing share (a record-

²See (4) and (5) for more detail.

Table 2—Tobacco production and chief uses by class, 1993

Class	Quantity	Share	Where grown	Major uses
	Million pounds	Percent		
Flue-cured	886.9	54.9	N.C., S.C., Va., Ga., Fla., Ala.	Cigarettes
Fire-cured	40.9	2.5	Ky., Tenn., Va.	Snuff, chewing tobacco
Air-cured ¹	664.5	41.2	Ky., Tenn., Va., N.C., Ohio, Mo., W.Va., Ind., Md., Pa.	Cigarettes, chewing tobacco
Cigar filler	12.2	.8	Pa., Ohio, Puerto Rico	Cigars, chewing tobacco
Cigar binder	8.3	.5	Wisc., Conn., Mass.	Cigars, chewing tobacco
Cigar wrapper	1.6	.1	Conn., Mass.	Cigars
Total	1,614.4	100.0		

¹Burley is the main type; also includes Maryland and dark air-cured types. The dark air-cured types are mainly used in chewing tobacco and snuff.

high in 1993) of imported tobacco in U.S. cigarettes.

In 11 of the 12 years since 1981, total cigarette consumption has declined. Consumption is expected to continue declining for the next several years despite stable consumption in 1994 due to lower cigarette prices. The Administration's proposed health care reform, the Health Security Act, would have increased Federal excise taxes by 75 cents to 99 cents per pack. Other proposals would have increased the tax even more, but later proposals of the 103rd Congress limited the increase to 45 cents. Manufacturer price increases, higher taxes, more prohibitions and restrictions on smoking, and heightened antismoking activities will continue to reduce U.S. cigarette consumption.

Further declines in use of most other tobacco products will likely continue to reduce the demand for dark air-cured and cigar types. Rising demand for snuff could increase the demand for fire-cured. Cigar consumption declined 42 percent, smoking tobacco 60 percent, and chewing tobacco about 40 percent from 1981 to 1993. Snuff consumption rose more than 70 percent during this period but declined in both 1986 and 1987. The downtrend for cigars, smoking tobacco, and chewing tobacco is expected to continue. Snuff consumption is likely to increase during the next several years, but longer term use depends on taxation and whether there is negative publicity concerning its use.

Tobacco consumption in foreign countries that represent major U.S. export outlets will grow little, if any, during the remainder of this century. This stagnating demand, coupled with increased foreign leaf produc-

tion at lower selling prices than in the United States, suggests a very competitive world market for tobacco.

As U.S. leaf prices rose during the 3 years 1991-93, the proportion of U.S.-produced leaf in U.S. cigarettes fell. The shift to discount-priced cigarettes in the United States and throughout the world resulted in a shift to use of cheaper leaf and stems. To curb the use of imported leaf, the United States enacted legislation (Omnibus Budget Reconciliation Act, OBRA) in 1993 (P.L. 103-66) that limits foreign-grown leaf and stem use to 25 percent of the total during each calendar year beginning in 1994. Although this legislation may increase the use of U.S. leaf in the short run, the longrun consequences are unclear. Some cigarette production is likely to move offshore and leaf exports may fall. Furthermore, the U.S. OBRA domestic content requirement was challenged by several countries relative to its consistency with the General Agreement on Tariffs and Trade (GATT). A GATT panel ruled in mid-August 1994, that the domestic content requirement is inconsistent with U.S. GATT obligations. Legislators are pursuing a GATT-legal tariff rate quota (TRQ), which is intended to replace the domestic marketing assessment provisions of current legislation.³

Some experiments with extracting protein from tobacco have occurred. In addition, tobacco plants are among the easiest to manipulate genetically. Consequently, scientists are studying use of human and animal genes and proteins to genetically produce vaccines, antibodies, enzymes, and other products from tobacco plants. However, tobacco does not offer an

³See pages 6 and 10 for more detail about the OBRA domestic content requirement and proposals for changing it.

economically feasible substitute for current protein sources, and research for medicinal and other purposes is in the early stages. These possible new uses are not likely to be a market factor in the near term.

Loan Programs and Tobacco Stocks⁴

The statutory authority for the tobacco marketing quota and price support programs is the Agricultural Adjustment Act of 1938, as amended, and the Agricultural Adjustment Act of 1949, as amended. After the Secretary of Agriculture proclaims a marketing quota for a kind of tobacco to be eligible for price support, eligible producers must approve the quota in a referendum.

Referendums on whether to continue the program are held every 3 years. Growers are assigned production or marketing quotas in exchange for price support. About 98 percent of the tobacco produced in the United States is under price support programs.

Price support for eligible producers is administered by producer-owned cooperative associations acting under annual loan agreements with the Commodity Credit Corporation (CCC). Under these agreements, the CCC provides loans to these associations in the amounts necessary to pay price supports to the producers, and process and store the tobacco received until it can be sold. The tobacco received by the association becomes collateral for and the means of repaying the CCC loans. Loans are made on a crop-year basis, and it may take a number of years to dispose of the loan receipts of a particular crop.

Beginning with 1982, if the sales proceeds from the collateral securing the loans are insufficient to repay them, the unpaid balance must be made up by growers (and purchasers of flue-cured and burley beginning in 1986) from their contributions to funds or accounts. This constitutes the no-net-cost account, which assures that tobacco program costs, except administrative costs, are borne by growers and purchasers.

As of June 1, 1994, about 552 million pounds of tobacco were under loan, compared with 157 million 3 years earlier. The big increase in loan stocks resulted from a weakening in demand for U.S.-grown leaf because of uncertainty about Federal excise taxes, growing substitution of cheaper foreign-grown tobacco in U.S. blends, and an oversupply of leaf (that is, much lower priced than U.S.-grown) in world markets.

After coming into balance with demand in the late 1980's and early 1990's, excess carryover of tobacco remains in inventories of loan cooperatives. Overall, in relation to annual usage, more than a 2-1/2-year supply of both burley and flue-cured is now available, well above the desired amount. In recent years, manufacturers have reduced their holdings to lower costs. Tobacco usually requires 2-3 years of aging (natural fermentation) before it is ready for manufacture; however, tobacco for overseas manufacturing is usually shipped within 6 to 9 months of purchase.

Trends in the World Tobacco Market

From 1970-74 to 1993, the volume of world tobacco leaf trade increased by 75 percent, from an average of 2.3 billion pounds to 4 billion (appendix table 7). Several factors contributed to this growth. Importing nations, particularly developing countries, experienced rapid population growth, and some nations had large growth in income. This fostered increased demand for cigarettes during the last two decades. However, except for China, total world consumption has been steady in recent years.

Major Importers

During the past 15 years, the European Union (EU) has reduced total leaf tobacco imports, while the United States—second only to the EU in terms of quantity imported—has increased its import share (table 3). EU price policies have encouraged production, while increased taxes on cigarettes have caused EU consumption to decline, thus lowering total use of tobacco.

Likewise, imports in Eastern Europe declined during the last decade. Production rose and stocks were relatively high.

Japan reduced its imports of tobacco from 1975 to 1986. However, Japanese imports started rising in 1987 because barriers to imports of cigarettes into Japan were relaxed in 1987. U.S. cigarette imports have jumped, and demand for better quality leaf for domestic cigarettes is rising. Japan has historically imported high-quality leaf, which is blended with less flavorful domestic leaf. Now, an even greater share is apparently of high-quality imported leaf.

U.S. Imports

The United States has imported Turkish or Oriental tobacco for many decades. However, imports of lower

⁴See (4), (5), (7), and (16) for more detail.

cost flue-cured and burley tobacco have been rising rapidly since the late 1960's.

Flue-cured imports rose steadily during 1970-79 (July-June import years). They varied during the 1980's and early 1990's before jumping by 58 percent in 1992-93 to the highest level on record (appendix table 8). They fell in 1993-94. Prices of U.S.-grown flue-cured tobacco that exceeded those of foreign-grown tobacco have largely caused the growth in flue-cured imports.

On a farm-sales weight basis, estimated U.S. imports of burley tobacco grew steadily during 1970-80, rising from about 3 million pounds in 1970-71 (around 1 percent of U.S. domestic use) to 30-50 million pounds in the mid-1970's (5-8 percent of use). Imports surged in the late 1970's, reaching 137 million pounds by 1980-81. Imports then varied throughout the 1980's before 5 consecutive years of increase resulted in a record high of 200 million pounds in 1993-94 (appendix table 8).

Increased imports of burley and flue-cured tobacco create a dilemma for the tobacco industry. Because of the surge in imports during 1992 and 1993, legislation was enacted to limit use of foreign-grown leaf and stems to 25 percent of the total used in cigarettes manufactured in the United States. The 1993 OBRA domestic content requirement became effective on January 1, 1994. However, the domestic content requirement was challenged relative to its consistency with the General Agreement on Tariffs and Trade (GATT). Under the GATT, countries may request consultations and dispute settlement proceedings if they believe another country has acted inconsistently with GATT obligations. In January 1994, the GATT established a three-member panel to examine complaints regarding the GATT-consistency of the U.S. domestic content requirement. In its final report issued on Au-

gust 12, 1994, the panel found the requirement inconsistent with U.S. GATT obligations.

Implementing legislation for the Uruguay Round contains provisions eliminating the 1993 OBRA domestic content requirement, contingent on the President's proclaiming a tariff-rate quota on tobacco. The United States is in the process of renegotiating its tobacco tariffs under GATT procedures. The negotiations are progressing. The effect of these legislative changes on the U.S. tobacco market will depend on the size and implementation of the tariff-rate quota.

The domestic content requirement became effective in January 1994, and remains in effect as of early February 1995. However, negotiations on a TRQ are expected to be completed soon and the President will likely proclaim a TRQ on certain tobaccos by mid-1995.

Import controls can also be implemented under Section 22 of the Agricultural Adjustment Act of 1933, as amended. Under Section 22, the U.S. International Trade Commission (ITC) reviewed the tobacco situation in 1981 and again in 1985. However, in both instances, the ITC found that tobacco imports did not materially interfere with the tobacco price support program and that a basis did not exist for imposing import restrictions under Section 22. Under the GATT Treaty, the United States has agreed to seek repeal of Section 22 authority.

Major Exporters

Although surpassed by Brazil in 1993, the United States is the world's leading tobacco exporting country. In 1993, U.S. exports of unmanufactured tobacco and tobacco products were valued at \$5.55 billion. Imports were valued at \$1.55 billion, leaving a trade balance of \$4 billion.

Table 3—World tobacco imports, selected countries, 1985-89 average and 1990-93¹

Country	Average 1985-89	1990	1991	1992	1993 ²
	<i>Million pounds</i>				
United States	442.8	440.5	592.6	719.9	796.0
European Union	1,315.9	1,360.4	1,436.0	1,352.3	1,157.1
Eastern Europe and FSU ³	412.8	697.5	729.9	649.7	665.6
Other Europe	120.4	133.6	153.9	145.7	137.5
Japan	151.9	158.1	185.2	233.7	262.3
Others	650.3	775.3	818.7	879.2	820.3
Total	3,094.1	3,565.4	3,916.3	3,980.5	3,838.8

¹General imports (actual arrivals). ²Subject to revision. ³FSU refers to the Former Soviet Union.

U.S. cigarette exports have grown rapidly during the last decade (table 4). The proportion of U.S. cigarettes exported rose from 9 percent in 1984 to 30 percent in 1993. The U.S. share of world exports rose from 19 percent in 1984 to 22 percent in 1993.

Before falling sharply in 1993, U.S. leaf exports had been rising. However, exports from Brazil, Argentina, Zimbabwe, and Malawi all rose faster (table 5). In addition, China has increased its exports dramatically since 1990.

Relative prices and the worldwide shift to cheaper cigarettes have influenced the decline in U.S. exports. U.S. tobacco prices are more than double those of major competitors: Malawi, Brazil, and Zimbabwe.

Brazil, Zimbabwe, Argentina, and China have expanded production of flue-cured tobacco and are boosting exports. Product quality is improving, and prices are lower than in the United States. Malawi, Brazil, and China have boosted production and exports of burley tobacco, which is also lower priced than U.S. burley.

Exports of U.S.-unmanufactured tobacco rose during the 1970's (appendix table 1). However, 1989-92 annual exports were 11 percent below those for 1975-79, 4 percent below those of 1980-84, but 6 percent above 1985-88. Still, exports have accounted for 40-50 percent of total flue-cured use and 15-25 percent of burley use during the last 10 years. Although these shares rose from the 1960's, total disappearance of both flue-cured and burley declined for several years before rebounding in the late 1980's.

World export competition is keen. Ample world supplies at lower prices than in the United States mean that U.S. exports may decline further, especially with the worldwide shift to cheaper cigarettes. Furthermore, declining cigarette consumption in major importing countries, reduced leaf use per cigarette, and quotas and tariffs that discriminate against U.S. tobacco will limit U.S. export prospects.

Foreign Exporters

Tobacco production and cigarette output are controlled by government monopolies or large multinational firms in most foreign countries. Cigarette taxation is an element of government finance in every country. Government support has helped boost foreign production and exports. Argentina subsidizes growers by returning to them part of the taxes on cigarettes. South Korea and some EU countries also provide subsidies to growers. Brazil, a major competitor of the

United States, provides technical assistance to growers. Manufacturers and dealers purchase fertilizer and pesticides at discounts and pass the savings on to growers. Also, seed and transportation to market are furnished by the tobacco purchasers. Furthermore, some multinational tobacco companies assure Brazilian tobacco growers a market for portions of their production.

Some major exporters such as Zimbabwe do not offer significant export subsidies. However, like the United States, countries such as Zimbabwe and Canada have trade missions that travel throughout the world to promote tobacco produced in their country.

High U.S. support prices and the manufacturers' worldwide shift to cheaper cigarettes using lower cost leaf contributed greatly to expanded foreign production and exports in the early 1990's. The high U.S. prices also contributed to the expansion of U.S. imports during the last 20 years. Price supports were lowered in the mid-1980's but have since steadily increased.

Because export growth spurred by competitive prices has been responsible for much of the foreign production increase, a number of foreign countries are affected by U.S. tobacco policy. Any prospect of lower price supports, lower loan stock prices, or U.S. access limitations is of major concern in export-dependent countries such as Zimbabwe and Brazil. These countries compete heavily with the United States in world markets.

Prices, Costs, and Returns

Prices received by growers for all U.S.-grown tobacco rose 148 percent between 1970 and 1984 (appendix table 9). By the mid-1980's, U.S. tobacco price supports were too high for domestic tobacco to compete in world markets. Consequently, legislation enacted in 1986 reduced flue-cured and burley price supports about 26 cents per pound, changed setting of quotas to a more market-oriented approach (except that restrictions were set on how much quotas could be reduced), and provided for orderly movement of surplus stocks into trade channels.

Flue-cured prices fell 16 percent and burley prices fell 17 percent from 1984 to 1986. From 1986 to 1993, flue-cured prices rose 10 percent and burley prices rose 16 percent. During the late 1980's, associations sold their surplus stocks. Both cigarette and leaf exports rose. Leaf production rose annually from 1986 to 1992. However, major changes occurred in the early 1990's. Tobacco shortages gave way to leaf sur-

Table 4—World cigarette exports, 1985-89 average and 1990-93

Country	Average 1985-89	1990	1991	1992	1993
<i>Billion cigarettes</i>					
United States	96.7	164.3	179.4	205.6	195.5
Hong Kong	26.9	65.7	58.3	90.4	77.9
Netherlands	52.9	69.3	76.5	74.1	73.1
United Kingdom	34.0	41.4	46.1	55.5	54.4
Singapore	7.9	29.5	32.4	36.4	53.8
China	3.3	10.4	16.0	30.2	42.2
Bulgaria	72.9	61.2	60.6	39.1	22.6
Other	124.2	240.2	308.6	350.8	356.6
Total	418.8	682.0	777.9	882.1	876.1

Table 5—World tobacco exports, selected countries, 1985-89 average and 1990-93

Country	Average 1985-89	1990 ¹	1991 ²	1992 ²	1993 ²
<i>Million pounds</i>					
United States	486.9	492.5	499.3	574.3	458.0
Brazil	418.0	414.5	418.9	531.3	536.8
Argentina	58.8	100.9	108.6	105.9	89.5
Bulgaria	122.2	74.5	49.4	65.5	33.5
Greece	216.9	284.5	266.7	261.7	261.7
Italy	229.0	303.6	306.1	265.5	274.6
Malawi	141.6	184.6	207.2	209.5	214.9
Zimbabwe	217.7	269.7	300.4	333.4	415.0
China	45.2	70.7	159.9	136.3	163.0
Turkey	214.3	207.9	302.6	168.5	201.4
India	120.8	146.6	158.3	179.2	196.2
Thailand	66.6	75.4	95.6	107.6	91.9
Other	688.1	1,110.3	1,162.7	923.9	1,064.8
Total	3,026.1	3,735.7	4,035.7	3,862.6	4,001.3

¹Subject to revision. ²Preliminary.

pluses and the worldwide cigarette market shifted to cheaper cigarettes using lower cost leaf. These changes, together with uncertainty about Federal excise tax increases, caused a weakening in demand for U.S. leaf. Loan-takings of both flue-cured and burley edged upward in 1992 and then rose sharply in 1993. If not for provisions limiting quota cuts to a maximum 10 percent, the marketing quota reduction would have been substantially greater. Consequently, leaf surpluses built even more in 1994. However, U.S. cigarette manufacturers agreed to purchase about 300 million pounds of flue-cured and 400 million pounds of burley loan stocks during the next 7 years. The agreement covers all loan stocks from the 1990-93 crops. The agreement curtailed a potential quota cut of over 40 percent in 1995 because excess

loan stocks would have been subtracted from 1995 quotas.

Grower prices have averaged somewhat higher than price support levels. Over the last 10 years, flue-cured prices have averaged 14 cents a pound above support and burley 13 cents a pound above support. The above-support average reflects the fact that over 100 grades of both burley and flue-cured have individual support rates. Bidding for some grades is keener than for others in a given year, depending on domestic manufacturing and export needs for particular blends of cigarettes. Also, price support increases in recent years have been applied more heavily to the top and most marketed grades. The average difference between auction prices and the average support level

generally reflects available supplies, demand, and quality of the tobacco being marketed.

For most U.S. tobacco, the grower price is determined by auction sales in tobacco warehouses. Most burley and flue-cured is sold by the auction method. However, fire-cured and cigar filler and binder tobacco are commonly sold at the farm (barn door or country sales). Farmers may contract for the sale of their tobacco any time during the growing, curing, or stripping season.

Cigar wrapper, which is not under the price support program, is grown under many kinds of arrangements. These range from cigar manufacturers growing tobacco on their own land to contracting with growers and paying on a grade basis.

Tobacco has a high value per acre. For the 1993 crop, gross receipts from tobacco totaled about \$3 billion or \$3,780 per acre. Total gross receipts fell 8 percent from 1992 to 1993, but were 60 percent above 1986.

With price supports, most tobacco growers are assured of prices above costs of production, excluding management, land, and quota lease or rental charges (table 6). The average margin between price and costs is smaller for burley than for flue-cured. However, actual cash costs are a greater proportion of flue-cured than burley costs. The differences between prices and costs do not reflect returns to management. The spread between costs and prices has resulted in lease or rent charges (currently 40-50 cents per pound in the most concentrated areas) to growers leasing or renting quotas. Many growers now pay one-fifth to one-third of the price received for the right to produce the crop. Generally, as quotas are reduced and price supports increase, lease and rental prices are bid up.

Tobacco production continues to be labor-intensive despite major reductions in labor used to produce flue-cured. In 1991, about 120 hours of labor were used per acre to produce flue-cured tobacco, compared with about 425 hours in 1965. The reduction is attributed to a switch to untied leaf sales, a change-over to labor-saving harvesting devices including bulk barns and mechanical harvesters, and more efficient preharvest operations. Also, improved management has paralleled mechanization and increased farm size.

Similar reductions in labor use have not occurred for burley and other types because of the lack of a feasible harvester that maintains the quality of air-cured

Table 6—Tobacco average prices and costs of production, 1989-93

Year	Flue-cured		Burley	
	Price	Cost ¹	Price	Cost ¹
	<i>Dollars per pound</i>			
1989	1.67	NA	1.67	1.39
1990	1.67	NA	1.75	1.32
1991	1.72	1.07	1.79	1.45
1992	1.73	1.10	1.82	1.45
1993	1.68	1.22	1.82	1.49

NA = Not available for current survey year base.
¹Costs per pound excluding management, land, and quota.

tobacco and the small size of operating units. In 1989, about 267 hours of labor were used to produce an acre of burley, a reduction of about 75 hours from 1976. During that time, there was a nearly complete switch from tied hands to loose-leaf sales in bales. This, and other changes, such as improved management and the adoption of a few harvesting aids, resulted in reduced labor use. Most of the dark and cigar types also require 200-300 hours of labor per acre.

Many of the benefits of labor reductions are apparently being captured by quota holders at the expense of grower profits. When prices exceed an average return to management and production costs, excluding land and quota, the excess return gets capitalized into the value of land and quota. Because tobacco production is limited by quotas, increases in returns due to lower production costs or higher price supports get bid into the rent or lease value of the quota. This aids quota owners but does little for nonowning growers beyond providing price stability.

The Tobacco Price Support and Production Control Program

The Federal Government has operated programs to support and stabilize tobacco prices since the early 1930's. As a result, risks to growers from seasonal and cyclical price changes have been lessened in the face of weather, production, and use variations. Numerous changes have occurred in tobacco programs. However, only legislation enacted during the 1990's will be discussed in detail. Information about earlier tobacco legislation is included in (4), (5), (9), and (16). See appendix II for a compilation of legislation affecting tobacco from 1933 to 1994.

1990 to Present

Three pieces of legislation affecting tobacco were enacted in November 1990. Under the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508), tobacco growers and purchasers of tobacco under marketing quotas will annually be assessed 1 percent of the national loan rate on all marketings during the 1991-95 crop years (0.5 percent each for growers and purchasers). The assessment is targeted to reduce the budget deficit.

The Food, Agriculture, Conservation, and Trade Act of 1990 (P.L. 101-624) included the following provision:

- All exporters of tobacco leaf and products must report sales to the Secretary of Agriculture no later than 60 days after the shipment, including the type and quantity, marketing year of shipment, country of origin, and destinations.

Implementation was delayed because of a 1992 moratorium on new government regulations. A notice of proposed rule making was issued and comments received.

The Farm Poundage Quota Revisions Act of 1990 (P.L. 101-577) was designed to increase utilization of burley quota. Major features of the law were:

- The sale of burley tobacco quota within counties was permitted beginning with the 1991 crop year. The buyer must be an active burley grower and the purchase is annually limited to no more than 30 percent of the existing quota of the buyer's farm, or 20,000 pounds, whichever is greater. Sales of poundage quotas have been permitted for flue-cured tobacco since 1982.
- A farm that purchases a quota is not permitted to sell any quota within 3 years of the last year of purchase. The total tobacco acreage permitted on a receiving farm cannot exceed 50 percent of the cropland in the farm.
- Quota-holders are required to lease, or attempt to grow, their quota 2 out of 3 years or forfeit the quota. This replaces the "1-out-of-5-year" plan.
- Divisions of farm quota cannot be less than 1,000 pounds (except when the division is among family members or pursuant to probate proceedings).

- The amount that could be leased to a receiving farm was increased from 15,000 to 30,000 pounds, thereby permitting individual farms to lease in the larger amount.
- Lease and transfer across county lines was authorized in Tennessee. Tennessee burley producers approved such transfer in a statewide referendum in January 1991.

In December 1991, legislation was enacted to correct technical errors and to clarify various provisions of the Food, Agriculture, Conservation, and Trade Act of 1990. The new legislation contained a number of provisions, including the repeal of the Tobacco Seed and Plant Exportation Act. This repeal lifted constraints on U.S. exports of tobacco seeds and plants. Another provision permits lease and transfer of burley quotas across county lines in Virginia. However, growers did not approve statewide lease and transfer in a referendum. Finally, the Dairy and Tobacco Adjustment Act of 1983 (P.L. 98-180) was amended to exempt reporting requirements for tobacco used in cigars, pipes, and chewing tobacco and snuff in retail packages.

In October 1992, an amendment to the Agricultural Adjustment Act of 1938 required that the sale or lease of allotments between farms by producers of fire-cured, dark air-cured, and Virginia sun-cured tobacco be approved on an acre-for-acre basis. Previously, the law required a reduction in the allotment transferred when the normal yield for the farm getting the allotment exceeded by more than 10 percent the normal yield of the farm releasing the allotment.

The most recent and far-reaching legislation affecting tobacco since 1986 was a provision in the Omnibus Budget Reconciliation Act (OBRA) of 1993 (P.L. 103-66) that requires U.S.-manufactured cigarettes to contain at least 75 percent U.S.-grown tobacco.

- U.S. manufacturers must use at least 75 percent U.S.-grown tobacco during each calendar year in producing cigarettes, whether for domestic consumption or export, or be subject to severe penalties.
- The domestic content level can be temporarily below 75 percent if the Secretary of Agriculture determines that certain natural disasters have reduced domestic tobacco production.

- Manufacturers who use less than 75 percent U.S.-produced tobacco, or fail to certify the percentage of U.S.-grown tobacco used, are subject to a penalty equivalent to what the manufacturer would have paid for U.S.-grown tobacco.
- Violators also must purchase one-half pound of flue-cured and one-half pound of burley from the loan associations for each pound of imported tobacco they used in excess of the 25 percent permitted by law. Failure to purchase the required amounts of flue-cured and burley from the associations would result in a penalty equal to the purchase shortfall times 75 percent of the average market price of the tobacco. To ensure the stability of flue-cured and burley pool inventories, the penalties will be waived if the inventories fall below the reserve stock level.

In addition to the minimum content requirement, the 1993 legislation imposes budget-deficit and no-net-cost assessments on importers. (The rate for the budget deficit assessment is the same as for purchasers of domestic leaf and the rate for the no-net-cost assessment is equal to the combined rates of fees collected from producers and purchasers of U.S.-grown flue-cured and burley leaf.) Also, fees for inspecting imported burley, flue-cured, fire-cured, and dark air-cured tobacco will be comparable with fees and charges fixed and collected for services provided in connection with tobacco produced in the United States.

U.S. growers and purchasers of domestic leaf have paid special assessments totaling 1 percent of the average price support since 1991 to help reduce the Federal budget deficit. The budget deficit assessment on importers applies to the 1994-98 crops and applies to all tobacco imported, including Oriental. Failure to remit the budget deficit fee will result in a penalty equal to 37.5 percent of the sum of the average price of flue-cured and burley tobacco for the immediately preceding year on the quantity of tobacco on which the failure occurs.

The no-net-cost assessments cover projected losses in operating the tobacco price support program. U.S. flue-cured and burley growers have paid no-net-cost fees since 1982, while purchasers have paid fees on U.S.-grown tobacco since 1986. Since 1994, no-net-cost assessments have been levied on importers of flue-cured and burley tobacco. Importers' noncompliance with no-net-cost assessments results in a penalty on the tobacco involved for the preceding year times the quantity of tobacco for which the failure occurs.

The 1993 Act extended to 1996 a provision in previous law that limited the reduction in the national marketing quota for flue-cured and burley tobacco to no more than 10 percent of the amount of each quota in the preceding year. However, when determining the marketing quota for the 1995 and 1996 crop years, the Secretary of Agriculture can waive the 10-percent quota reduction limit if loan stocks exceed 150 percent of the reserve stock level.

Effects of the Tobacco Program

The major aims of the tobacco program are to stabilize prices and to assure a balanced flow of tobacco. Tobacco product processors are assured adequate supplies of the types and qualities of leaf needed for their products. Program benefits accrue to growers through prices that are higher than they would have been without a tobacco price support and production control program. Consumers, taxpayers, and resource use are also affected by the program.

Farmers and Quota Owners

About 124,000 growers and an additional 236,000 quota holders benefit from the tobacco price support program. Growers are assured a minimum price and a more stable income than they would obtain without a program. Many growers who have small quotas are able to continue farming because of the support program. Quota holders receive income by growing the crop, renting their farm (with quota), or leasing and transferring the quota to others. In fact, much of the difference (around 40-50 cents a pound) between support prices and costs, excluding land and quota, has been bid into production sales rights.

The capitalized value of quota has varied considerably during the last 20 years depending on price support and no-net-cost levels and the prospects for the future of the price support-production control program. Average quota values probably exceeded \$4.50 per pound in North Carolina in 1977, but fell to below \$1.50 per pound in 1985 as leaf surpluses accumulated, quotas were reduced, and no-net-cost assessments rose. Concerns grew about the future of the program in the mid-1980's, but these concerns subsided during the late 1980's as new legislation resulted in orderly reductions in surpluses and quotas were increased. During the early 1990's, uncertainty again increased and the capitalized value time horizon was shortened; that is, capitalized value declined. Annual lease and rental rates were bid up somewhat more than the capitalized value of quotas.

Recent commitments by U.S. cigarette manufacturers may lengthen the capitalized value time horizon. In addition to agreeing to purchase 1990-93 flue-cured and burley loan stocks, manufacturers received incentives which should stabilize purchase intentions during the next 7 years.

Taxpayers

From loans totaling \$10.4 billion, realized losses on the sale of tobacco loan stocks have been about \$680 million on principal since the beginning of the program in the 1930's. Since 1985, losses on 1976-81 crops have totaled \$248 million. Also, an estimated \$700 million in interest cost has been written off. However, unlike other farm commodity programs, beginning in 1982, the tobacco program was required to operate at no net cost to U.S. taxpayers.

Since April 1982, loans have been made at prevailing U.S. Treasury borrowing costs (before April 1982, CCC charged below-market interest rates to producer associations for nonrecourse loans). Also, beginning in January 1984, loan repayments have been applied to both outstanding principal and interest (before January 1984, payments were first applied to principal and then to interest). Administrative costs of the tobacco program amounting to \$15-\$18 million a year are borne by taxpayers. Annual (fiscal year) costs of the tobacco price support program are detailed in appendix table 11.

Outstanding loans to producer cooperatives to operate the tobacco price support program totaled about \$1.5 billion as of July 1, 1994. These loans are outstanding on 1984-93 crops. For these crops, any losses will have to be made up from grower and manufacturer assessments. So, there is no government liability as long as the current program remains in place.

Even though the No-Net-Cost Tobacco Act of 1982 prohibited any net expenditures of taxpayer funds to operate the tobacco price support and loan program for crops beginning in 1982, most of the costs of operating the program have been incurred since 1982. Only around \$60 million in losses on principal had been incurred at the end of fiscal year 1982. But, over \$600 million in losses on principal were incurred in fiscal years from 1983 to 1993. About 60 percent of the losses were from heavily discounted sales of poor-quality 1983 burley tobacco loan stocks. The Budget Reconciliation Act of 1986 required the CCC to take title to 1983 burley loan stocks and offer them for sale at market-established prices. Heavy losses were incurred on the loan principal but growers paid interest charges through their assessments to no-net-cost

accounts. Under the 1986 legislation, the shortfall (about \$373 million) was exempted from no-net-cost assessments.

Losses on sales of loan stocks from the 1976-81 crops were also absorbed by the U.S. Treasury. However, under legislation now in effect, net U.S. Treasury outlays for current tobacco crops or any crop produced after 1983 can occur only for the administrative costs (\$15-\$18 million per year) of operating the program.

Consumers

The tobacco farm program has probably caused cigarette and other tobacco product prices to be a little higher than they would be otherwise. It is estimated that the price support program has boosted leaf prices 40-50 cents a pound. However, only about 3 percent of the price of a pack of cigarettes reflects the cost of domestic leaf in the cigarette. The program probably increases the price of a pack of cigarettes only 1-2 cents a pack or 1-2 percent.

Supply and Use

Since 1938, the Federal Government has operated tobacco production controls through acreage allotments and marketing quotas. Rapid yield increases made acreage controls ineffective in controlling supply because producers attempted to maximize returns from their allotments. The program was consequently changed to poundage quotas for flue-cured in 1965 and for burley in 1971, an effort to more effectively control supply.

The program has generally been effective in keeping supply and demand in balance. However, in the mid-1980's and again during the last several years, domestic and export use fell more rapidly than anticipated. The big drop in demand, together with limitations on the amount the quota could be cut in a given year, hindered adjusting quotas to balance supply and demand in both periods.

With the combination of marketing quotas and price supports, the farm program for tobacco has probably helped reduce domestic use because of the higher leaf prices. The program has reduced exports and increased imports.

Indirect

Areas with quotas have a higher tax base because the value of quotas and allotments is capitalized into production sales rights. Also, since quotas freeze production according to historical regional patterns, lo-

cal input suppliers and tobacco warehouses are assured business as long as the program is in effect. The program may have impeded mechanization to some extent, but lease and transfer and flue-cured quota sales have permitted substantial mechanization of flue-cured tobacco harvest. Little burley harvest mechanization has occurred, but this is probably related more to the unavailability of a feasible harvester that maintains the essential air-cured qualities of burley than to the tobacco program.

Effects of Trade Regulation and Liberalization

As domestic cigarette consumption declines, U.S. tobacco trade becomes increasingly important. U.S. tobacco is of the best quality in the world, but it is the most expensive. Responses to competitive world market forces are described below.

Domestic Content Requirement

In response to surging U.S. imports of tobacco, a provision in the Omnibus Budget Reconciliation Act of 1993 required U.S.-manufactured cigarettes to contain at least 75 percent U.S.-grown tobacco. In addition to the minimum content requirement, the legislation imposed budget-deficit and no-net-cost assessments on importers and required importers to pay inspection fees. Legislation requiring U.S. manufacturers to use 75 percent U.S.-grown tobacco during each calendar year in producing cigarettes is expected to boost the use of U.S.-grown tobacco in the short run as manufacturers reduce foreign-grown leaf content in cigarettes. However, U.S. leaf exports may decline because tobacco that would have been shipped to the United States will now displace U.S. tobacco in other foreign markets. In addition, some customers who both buy and sell leaf with U.S. companies may retaliate against the restrictions on foreign-grown tobacco by purchasing from other sources. Over the long run, U.S. cigarette companies may also avoid the restrictions by moving some of their manufacturing operations to offshore locations. Such a development could further reduce the use of U.S.-grown leaf. In addition, several countries successfully challenged the U.S. domestic content legislation relative to its consistency with U.S. GATT obligations. Consequently, as discussed earlier, the implementing legislation for the Uruguay Round contains provisions eliminating the 1993 OBRA domestic content requirement, contingent on the President's proclaiming a tariff rate quota on tobacco.

North American Free Trade Agreement

The North American Free Trade Agreement (NAFTA) is expected to increase U.S. exports since it has removed restrictive barriers to U.S. exports and should help increase Mexican incomes. Under NAFTA, Mexico has eliminated licensing requirements for tobacco and applied a tariff of 50 percent that will be phased out over a 10-year period.

Under NAFTA, increased demand in Mexico for higher quality cigarettes is of particular importance. U.S. licensees have traditionally had a large share of the Mexican cigarette market, but most of the leaf used was grown in Mexico or elsewhere outside the United States. Under NAFTA, Mexican manufacturers will have access to U.S. leaf, but initially at higher tariff rates before the phaseout. The agreement is expected to have little impact on U.S.-Canadian tobacco trade.

Potential Effects of a Global Trade Treaty

In April 1994, a global trade treaty was signed by representatives of over 115 countries in Marrakesh, Morocco. The treaty creates a new World Trade Organization (WTO) to replace the General Agreement on Tariffs and Trade (GATT). The President signed legislation approving U.S. membership in the WTO on December 8, 1994.

Under a WTO agreement, U.S. leaf exports would probably increase a little because of increased market access. Repeal of the OBRA domestic content requirement and a return to less stringent U.S. import restrictions would further increase leaf exports under a WTO.

Tobacco Issues and Potential Program Changes

Without a doubt, because of the health issue, tobacco is the most controversial legal crop grown in the United States and in the world. Discussion ranges from making small changes in the current program to declaring tobacco a drug and banning its use.

Obviously, prohibition of a product worth \$49 billion, used by one-fourth of the U.S. adult population, grown on 124,000 farms, and contributing \$13 billion in excise taxes would create numerous economic and law enforcement problems. Banning all tobacco use would not appear to be feasible but the Commissioner of the Food and Drug Administration (FDA) has indicated an interest in exploring expansion of its

regulations to include nicotine as an addictive drug. FDA could regulate nicotine and tar levels and stipulate how and where cigarettes are sold. However, if, when, and how FDA would regulate tobacco products are unclear, so discussion of the impact would be purely speculative at this point.

Perhaps of greatest immediate concern to growers, warehouse operators, and manufacturers are when and how much Federal excise taxes will increase, increasing State excise taxes, growing restrictions and prohibitions on where people can smoke in the United States, and foreign competition in supplying leaf and products. All portend reduced use of U.S.-grown leaf and a declining industry in the United States and have ramifications for the configuration and/or continuation of the U.S. tobacco price support-production control program.

The Clinton Administration proposed increasing Federal excise taxes by 75 cents from 24 cents to 99 cents a pack to help finance health care reform. Other proposals would have increased the Federal excise tax \$0.45-\$1.76 per pack. By itself, a tax increase of this magnitude could reduce domestic cigarette consumption by up to 20 percent. In addition, growing restrictions and prohibitions on smoking in workplaces and other public places will continue to lower consumption. These factors, coupled with increased competition for foreign sales of U.S. leaf and products, likely mean U.S. production will decline during the next few years. The production declines, together with strong anti-tobacco sentiment throughout the country and by some within the U.S. Congress, mean that additional changes could occur in U.S. tobacco programs and policies. What measures might be taken and what are their effects?

Continue Program As Is

Leaving the program as it is probably means tobacco quotas will fall by 2000. U.S. prices, already higher than most competitors' prices, will continue to increase and further erode U.S. export prospects and market share. Levels of imports will depend on whether import restrictions remain in effect, if substitute controls limit imports at a higher level, or if no controls are in effect. However, tight import controls will likely cause some current U.S. cigarette production to move overseas where cheaper foreign leaf can be used.

Shift USDA Tobacco Costs to Tobacco Users or the Industry

Under this scenario, the current program would remain or be modified as described later except that all tobacco-related costs would be covered by revenues collected from tobacco excise taxes. No general tax revenues would be used for USDA tobacco production or marketing programs, research, or information activities. Already, fiscal year 1995 USDA appropriations exclude funding for some longtime tobacco research projects.

Under an alternative scenario, the administrative costs of operating the program and crop insurance subsidies would be absorbed by growers and manufacturers. In addition, research that mainly benefits tobacco growers and manufacturers would be absorbed by the industry as well. However, expenditures that benefit the general public, the health industry, or that help the farmers shift from tobacco to other endeavors would continue to be government funded from general tax revenues. Included in these expenditures would be research on new uses for tobacco, and the economic and statistical reports needed to assess consumption and production trends, production from legal farming activities, and the impact of the changing tobacco economy. These expenditures would total less than \$5 million annually compared with total USDA expenditures on tobacco of \$45 million in fiscal year 1993 (15).

Marketing Orders and Marketing Boards

Price support-supply control mechanisms requiring less Federal Government involvement are being discussed as a substitute for the current U.S. tobacco price support-production control program. Marketing agreements, orders, or a Federal marketing board offer potential. Legislation for establishing marketing agreements already exists but legislation for a Federal marketing board does not exist.

Under provisions of the Agricultural Marketing Agreement Act of 1937, as amended, the U.S. Secretary of Agriculture is authorized to enter into agreements with producers and handlers of specified commodities, including tobacco. Provisions of marketing orders which might be used for tobacco include: (1) regulating the flow of leaf to market, (2) prescribing regulations by grade, size, package, and other characteristics, for both domestic production and imports, (3) providing a means of surplus disposal, (4) providing for "check-off" funds for research and promotion, and (5) gathering and reporting marketing information.

Given legislative authority, a Federal marketing board(s) could provide the mechanism for a comprehensive marketing and price support program. Conceptually, such a board would be a producer organization with essentially full producer control over both the tobacco marketing system and price support functions. This differs substantially from the marketing boards offered by most States. In general, State marketing boards in the individual tobacco-producing States could not control aggregate production since they have no authority in other States.

Operation of a marketing board could retain the existing stabilization cooperatives and some other parts of the current marketing system. The effects of some price support features could continue being achieved through assessments on growers and manufacturers to cover losses on pool stocks.

Stabilization cooperatives could logically perform many operations comparable with the present government-financed price support program. The most critical problem would be a source of financing to operate a marketing pool similar to the current management of loan stocks under the CCC loan program. A nongovernment source of financing would be required. Under an alternative financing arrangement, growers would likely receive partial payment when tobacco is received by the cooperative instead of 100 percent under the current program.

Change Price Supports

U.S. price support levels are too high for U.S. tobacco to be fully competitive in world markets. How much of a reduction in price supports is needed? The answer is not clear.

Price supports could be reduced by a specified amount as burley and flue-cured supports were in 1986. Some analysts have suggested adopting a price support program similar to the current feed grain program (target price and deficiency payments). However, these programs have required considerable Federal expenditures and involve sending government checks to producers. Neither appears feasible for tobacco. A price support index based on world prices has also been suggested. However, because of the variations of tobacco quality throughout the world and the difficulty in obtaining comparable prices, this procedure might be difficult to implement. Still, an index of some major competitor prices with some preconceived U.S. quality adjustment factor might offer an acceptable alternative for establishing price supports.

Since manufacturers want lower prices and growers want production guarantees, lowering of price supports could be tied to increased use of U.S.-grown leaf by U.S. tobacco product manufacturers. Under this scenario, support would decline if purchase intentions go above a certain base period level (with severe penalties if a firm fails to fulfill its intentions).

Price Support-Quota Elimination

Another alternative would be to eliminate support prices but maintain quotas. Or, both price supports and quotas could be eliminated. Keeping quotas would continue to afford some price protection. If the program were completely eliminated, short-term production would likely increase and prices would fall. There would be considerable instability in production and prices, and contract production might become prevalent. U.S. production would likely expand but the number of growers would decline. Land prices would decline because quota values would be lost. The tax base of local communities would decline accordingly. Leaf costs would decline and cigarette and other tobacco product prices would likely be slightly lower. Imports would fall and exports would rise. Consumer prices might decrease and consumption of tobacco products would increase.

Eliminating the tobacco price support-production control program would cause production to shift to lower cost areas. Flue-cured production would move away from the Piedmont of North Carolina and Virginia and concentrate in the Coastal Plains of North Carolina, South Carolina, Georgia, and Florida. Burley production would tend to concentrate in the Bluegrass and South Central areas of Kentucky and middle Tennessee. The shift in production, together with a potential change in the method of selling tobacco, could result in lost business for some input suppliers and lost revenue for providers of other services.

Quota Setting Changes

The structure of the current quota formula effectively addresses changes in demand for leaf, if the formula is permitted to operate unimpeded. However, unimpeded operation of the formula can result in quota instability and thus grower economic hardship. To even out reductions, several suggestions have been made to fine-tune the quota setting formula. These include: (1) continuing to limit quota reductions, and (2) increasing the reserve supply level. Both of these suggestions would result in larger production in the short run but would increase the oversupply of leaf; thus, no-net-cost assessments.

Other suggestions have included requiring manufacturers to purchase more than 90 percent of stated intentions or face penalties. It is not clear that this would add stability, because manufacturers could submit lower purchase intentions to hedge against unexpected demand changes.

Eliminating quota carry-forward might have the greatest potential for reducing fluctuations. This would reduce uncertainty about potential marketings because the basic and effective quotas would be virtually the same.

Changes in Leasing Arrangements

Lease and transfer of quotas refers to the right to move the quota from the farm to which it is assigned to another farm. Leasing is permitted for burley within counties except that it can occur statewide in Tennessee. Since 1987, it has not been permitted for other burley States or for flue-cured (except when a farm experiences a federally designated natural disaster).

Changing leasing procedures could get more quota into the hands of actual growers and cause movement of quota to more efficient production areas. Eliminating lease and transfer of burley quota would force more sales of quota to actual growers. It would reduce quota sales prices and improve the producer share in crop-share arrangements.

If leasing remains for burley tobacco, permitting cross-county or cross Burley-Belt quota movement would result in movement of quota to more efficient production areas. Less efficient areas would lose tobacco-based economic activity and more efficient areas would gain. Tobacco production would become more efficient and prices could be lowered or profits increased.

Financial Assistance for Tobacco Farming Areas

Because of declining demand for tobacco, several government officials have discussed how to provide economic assistance to tobacco growers and tobacco production areas. Some have debated whether to provide assistance only for the decline in production that may occur if Federal cigarette excise taxes are increased in connection with health care reform. Others have asked if assistance should cover the entire decline, including the effect of smoking restrictions and competition from foreign producers?

Ideas about economic assistance are broad-based. However, a key element has included buyout or retire-

ment of quota. Quota buyout proposals have engendered strong negative reactions from some tobacco farmers and farm groups, especially since it has been proposed that funds for the buyout be generated from taxes on tobacco products.

Tobacco allotments or quotas have been in existence for about 55 years. The quotas have been capitalized into production sales rights. They have become an asset like the appreciated value of land and buildings and represent an income stream to their owners.

Despite the negative reaction to a quota buyout, tobacco quotas could decline. Resources that have been devoted to tobacco will likely not be needed for tobacco production. Consequently, economic assistance will be beneficial to the tobacco-growing areas. However, key questions arise: (1) who are the legitimate claimants for assistance? and (2) how much should the claimants receive? Consensus is not readily apparent.

To be acceptable in tobacco-growing areas, an economic assistance program would likely need to: (1) recognize quota owners' legitimate claim for a continued, though finite, income stream from the capitalized value of quotas, (2) move quotas into the hands of actual growers and reduce price supports (as discussed previously) to make U.S. production more competitive in world markets, and (3) compensate legitimate stakeholders for losses from reduced tobacco production.

One possible scenario is to offer a tobacco quota retirement phaseout initiative using Federal tax revenues. Under this proposal, quota owners who no longer grow or who plan to discontinue growing tobacco within a specified period would be paid a rate equivalent to at least the current quota lease or rental rate for a specified period for retiring quota. Or, the Federal Government could purchase excess quota on a voluntary bid basis. The quota history for these quota holders would permanently be removed.

Under the quota retirement phaseout initiative, actual growers would be allocated all quota based on the previous year's or several years' production. All quota would be assigned to individual growers and would be nontransferable. When a person discontinued growing tobacco, the quota would be reassigned to new or existing growers, based on some predetermined criteria.

In conjunction with quota retirement, price supports would be ratcheted down to more competitive world

price levels. Loan stocks would have to be repriced to move them into the trade. Making up losses on loan repayments for higher priced leaf would be a problem, and might require higher grower and buyer assessments and/or agreements by manufacturers to purchase the loan stocks at prices that cover stabilization costs. Lower prices should increase demand for U.S.-grown leaf, so actual growers' quota would increase after excess loan stocks were depleted.

In addition to the quota retirement phaseout, some Federal revenues could be targeted for tenants, farmworkers, and others who lose their source of livelihood because of reduced tobacco production. This revenue could be used to provide job training, or to provide aid to small businesses and cash grants to communities to build up economic development capacities.

Another concept is to establish a tobacco revenue community-development trust fund. Under this concept, States would have considerable flexibility to devise rural development strategies. Although some funds could be used to develop markets for other crops, this concept would need to recognize the fact that much of the adjustment to reduced demand for tobacco cannot be from alternative crops. In fact, part of any strategy of economic assistance would likely benefit from efforts to make the U.S. tobacco industry more competitive.

How much would tobacco economic assistance cost? For illustrative purposes, assume that one-half of 1994 flue-cured and burley quota is retired—670 million pounds (adding retirement of other tobacco type quotas might bring the total to 700 million pounds). If 50 cents per pound were paid for 5 years (\$2.50 per pound total), the cost would amount to \$1.75 billion (\$350 million per year). Perhaps other assistance would total a similar amount. But even if other assistance were about double this amount, the funds would represent less than 10 percent of those generated from a Federal tax of as little as 50 cents per pack.

An alternative approach would be a Federal purchase of all tobacco quota in 1 year. The CCC would no longer support tobacco production. Similar to the scenario presented above, a retraining and economic diversification program would be implemented. Tobacco production would either become free-market or an alternative privatized system would replace the current system.

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Appendix I: Glossary

Acreage allotment -- The individual farm's share of the national acreage based on its production history; considered desirable as a means of adjusting supplies of a particular crop to national needs. Production of some kinds of tobacco is controlled by acreage allotments only. However, for the major kind—flue-cured—allotments are used in conjunction with marketing quotas, while for burley, marketing quotas are in effect but acreage allotments are not.

Aging -- A process applied to cigarette tobaccos whereby the leaf is compressed in hogsheads (see definition below) or other containers at a moisture content of 10-13 percent to mildly ferment the tobacco.

Agricultural Marketing Service (AMS) -- The USDA agency that carries out several programs related to marketing of tobacco including inspection and grading, market news, stocks reports, and others.

Air-cured tobacco -- A class of tobacco that is cured under natural atmospheric conditions, usually without the use of supplementary heat. The air-cured class includes light air-cured burley and Maryland tobacco used mainly in cigarettes and dark air-cured leaf used mainly in snuff and chewing tobacco.

Auction -- A warehouse sale where tobacco farmers sell their leaf to the highest bidder. The bidders are buyers for manufacturers, dealers, and exporters, as well as independent dealers or speculators.

Basic commodities -- Agricultural commodities including corn, wheat, tobacco, cotton, rice, and peanuts that are designated by legislation as price-supported commodities.

Binder tobacco -- A class of cigar tobacco that was originally used for binding bunched filler tobacco into the form and shape of the cigar. However, most cigars now use reconstituted sheet for the inner binder. As a result, loose leaf chewing tobacco is now the principal use of binder tobacco.

Bulk curing -- A curing process used for flue-cured tobacco. Leaf is suspended in the curing atmosphere in bulk (loose armfuls are held in place by racks). Humidity and temperature control are made precise through the use of a forced draft which passes the heated air in a vertical plane through the tightly packed leaves in a completely closed system.

Burley tobacco -- The major type of air-cured tobacco. Burley is light in body and neutral in flavor, with a low sugar content and high alkaloid content. It is used chiefly in cigarettes.

Carryover stocks -- The quantity of a commodity which is on hand at the beginning of a marketing year or crop year. "Beginning stocks" of tobacco are frequently reported for the marketing year beginning July 1 for flue-cured and October 1 for most other kinds of tobacco. Ending stocks reflect supply (beginning stocks plus production/or marketings) minus disappearance for the year ending June 30 or September 30.

Chewing tobacco -- One of several products made from tobacco leaf. Three types of chewing tobacco are produced in the United States. These include: (1) plug--the leaf is pressed into flat cakes after the stems have been removed, (2) twist--the leaf is stemmed and twisted into small rolls, and (3) loose leaf--made almost entirely from cigar-leaf tobacco.

Cigarettes -- The primary product made from tobacco. U.S. cigarettes are a blend of flue-cured, burley, Maryland, and Oriental tobaccos. Great care is used in blending these tobaccos to keep the product consistent in smoking quality and taste.

Cigars -- A tobacco product made with three components: filler, binder, and wrapper. "Reconstituted sheet" is now used as a substitute for natural binders for most cigars, and an increasing percentage also has reconstituted wrappers. Those with reconstituted wrappers often do not have the inner binder.

Cigar classes of tobacco -- These include filler, binder, and wrapper classified according to their traditional use in cigars.

Commodity Credit Corporation (CCC) -- The USDA agency responsible for directing and financing major USDA "action programs," including price support, production stabilization, commodity distribution, and related programs. CCC also directs and finances certain agricultural export activities. CCC activities are implemented by CFSA (formerly ASCS).

Consolidated Farm Service Agency (CFSA) -- The USDA agency that carries out price support and production adjustment programs on major U.S. commodities through U.S. Treasury borrowing authorities of the Commodity Credit Corporation (CCC), and also administers certain conservation and disaster programs (formerly the Agricultural Stabilization and Conservation Service—ASCS). Under a USDA reorganization law enacted in the fall of 1994, ASCS authorities were combined with those of the Federal Crop Insurance Corporation (FCIC) as well as the farm lending activities of the Farmers Home Administration (FHA) and a new agency, the Consolidated Farm Service Agency (CFSA), was created.

Curing -- The process of drying newly harvested tobacco. Three basic methods of curing include: air-curing, flue-curing, and fire-curing.

Dark air-cured tobacco -- A medium- to heavy-bodied tobacco used mostly for manufacturing chewing tobacco and snuff.

Disappearance -- U.S. domestic manufacturers' use of U.S.-grown leaf plus leaf exports. Disappearance and use are often used interchangeably. Disappearance is a little broader concept in that it accounts for use in products as well as any lost leaf resulting from fire, floods, and other problems.

Domestic disappearance -- Total quantity of U.S.-grown leaf used or lost during a marketing year.

Exports -- Shipments of a product from the United States to another country. The United States is a major exporter of both leaf tobacco and manufactured cigarettes.

Filler tobacco -- A class of cigar tobacco used mainly in the core or body of a cigar. Filler tobaccos are medium to heavy in body.

Fire-cured tobacco -- A medium- to heavy-bodied tobacco, light to brown in color, and strong in flavor. It acquired the name because of the smoky flavor and aroma acquired from smoking or "firing" over open fires in the curing barns. It is used for making snuff,

roll and plug chewing tobacco, strong cigars, and heavy smoking tobacco.

Flue-cured tobacco -- The principal class of tobacco grown in the United States. Its name comes from the metal flues of the heating apparatus originally used in curing barns. It is yellow to reddish-orange in color, thin to medium in body, and mild in flavor. It is used mainly in cigarettes.

Hogshead -- A large, round wooden cask used for storing and aging tobacco. About 1,000 pounds of leaf can be stored in each hogshead.

Imports (arrivals of tobacco) -- Quantities of tobacco that enter the United States from another country. Arrivals may be used soon after entering or stored for later use.

Imports (tobacco for consumption) -- Quantities of tobacco that enter the United States from another country and are immediately used in the manufacture of tobacco products.

Leasing of quota -- Payment for the right to grow and sell a specified quantity of tobacco. Quota can be grown on farms other than the farm to which it is assigned if the farms are in the same county (in Tennessee cross-county leasing is permitted for burley). Leasing is permitted for burley and some other types, but is generally no longer permitted for flue-cured.

Light air-cured tobacco -- A thin, medium bodied tobacco that is light tan shaded toward red to reddish brown in color, mild in flavor, and used chiefly in making cigarettes. Burley and Maryland are the two types of light air-cured tobacco grown in the United States.

Maryland tobacco -- A light air-cured tobacco usually considered to have ideal burning qualities for use in cigarette blends. Maryland tobacco is similar to burley but is somewhat milder and lighter in taste.

Mechanical harvester -- A machine that automatically strips the leaves from the tobacco stalk by rotating spiraled rubber wipers attached to a movable head. These machines are used primarily for harvesting flue-cured tobacco.

No-Net-Cost Act of 1982 -- A law requiring that to be eligible for price support, producers of all kinds of tobacco, beginning with the 1982 crop of tobacco, must pay assessments to an account established by the

cooperative association that makes Federal support loans available to producers. The funds are collected to cover potential losses in operating the price support program.

Operator (farm) -- The person who is in general control of the farming operation on the farm during the marketing year.

Price supports -- Government price support programs for tobacco and other farm commodities are administered by USDA's Consolidated Farm Service Agency, formerly Agricultural Stabilization and Conservation Service. Tobacco growers are assured a minimum price through loans from the Commodity Credit Corporation (CCC) to farmer-owned cooperatives. The price support program for tobacco is operated through nine producer associations under contracts with the CCC.

Priming -- The process of removing ripened leaves from the plant by hand (also referred to as cropping). Flue-cured and cigar wrapper are harvested by the priming method.

Priming aid -- A machine that permits workers to ride as they manually break off tobacco leaves.

Prizing -- Packing of tobacco into hogsheads.

Quotas -- A production control device that sets limits on the pounds of tobacco growers can market and receive price support for; overquota sales are subject to prohibitive penalties.

Redrying -- The process of preparing tobacco for storage in hogsheads. Redrying involves the removal from tobacco of moisture below a critical level, followed by an application of a uniform moisture content throughout all the leaf.

Referendum -- The referral of a question to voters to be resolved by balloting; for example, whether to accept marketing quotas for a specific type of tobacco and be eligible for price support.

Renting quota -- Payment for the right to grow and sell a specified quantity of tobacco. Generally, the tobacco is grown on the farm to which the quota is assigned.

Stalk cutting -- A harvest method in which the entire stalk or plant is cut. Light air-cured, dark air-cured, fire-cured, and cigar filler and binder are usually stalk cut.

Smoking tobacco -- Commonly refers to pipe tobacco, but also includes tobacco used for roll-your-own cigarettes. Smoking tobacco is manufactured in several forms such as granulated, plug cut, long cut, cube cut, and others. Burley and other types of tobacco are used in smoking tobacco.

Snuff -- Finely cut or pulverized tobacco. Users tuck a small quantity of snuff between the lower lip and gum, and then pack the finely ground or cut tobacco with the tongue. The United States produces three basic types of snuff: dry, moist, and semi-moist. These products are: fine or coarse, flavored or toasted, and plain scented.

Stemming -- Removing the stem or midrib from the tobacco leaf at the stemmery. Also called threshing.

Tippling -- Removing the top one-third of the leaf that does not contain objectionable stem; the remaining two-thirds of the leaf is threshed.

Topping -- Removing blossoms and sometimes top leaves of tobacco plants; tends to increase size, thickness, body, and nicotine content of leaves.

Warehouse -- Large buildings with skylights used for displaying tobacco for auction sales.

Wrapper tobacco -- The class of tobacco grown for the outside cover of cigars. This is the most difficult and expensive of all tobacco to grow. Leaves must be elastic, uniform, free of injury, uniform in color, and have good burning qualities.

Appendix II: Agricultural Legislation Affecting Tobacco from 1933 to 1994

Agricultural Adjustment Act of 1933 (P.L. 73-10). This law introduced the price support programs and the incorporation of the Commodity Credit Corporation (CCC) under the laws of the State of Delaware on October 17, 1933. Commodity loan programs carried out by the CCC from 1933 through 1937 included a program for tobacco.

Agricultural Marketing Agreement Act of 1937 (P.L. 75-137). This law provided authority for Federal marketing orders and agreements where the Secretary of Agriculture is authorized to enter into agreements with producers and handlers of specified commodities including tobacco.