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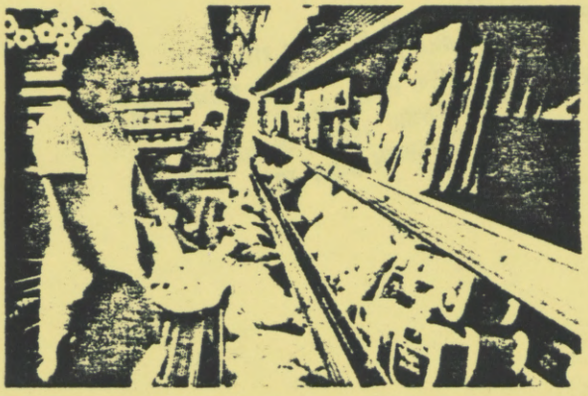

FOOD AND AGRICULTURAL POLICY SIMULATOR (FAPSIM): STRUCTURAL EQUATIONS AND VARIABLE DEFINITIONS

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ABSTRACT

This report provides a detailed description of the structural equations and their statistical attributes in the current version of the Food and Agricultural Policy Simulator (FAPSIM). FAPSIM is an annual econometric model of the U.S. agricultural sector. It estimates a simultaneous price-quantity equilibrium solution for a set of individual commodity models developed for beef, pork, dairy, chickens, eggs, turkeys, corn, oats, barley, grain sorghum, wheat, soybeans, and cotton. It also endogenously estimates farm production expenses, cash receipts, net farm income, Government deficiency and reserve storage payments, consumer price indexes for food products, and farmer participation in Government commodity programs.

Keywords: Agriculture, crops, econometric model, feedgrains, livestock, policy analysis

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INTRODUCTION

The agricultural sector model described in this article is the outgrowth of research by numerous individuals spanning over three decades.1/ In the decades of the 1950's and 60's researchers in the Economic Research Service (ERS) began developing econometric models for selected commodities (22).2/ Such models were generally small (not exceeding ten equations) and recursive, reflecting the lack of computational capability. It was not until the mid-1960's that various researchers in ERS urged that resources be devoted toward the development of a comprehensive model of the U.S. agricultural sector. The motivation for development of such a model was twofold. First, the model would enhance and support the Agency's intermediate-term economic intelligence and forecasting ability. Secondly, the model would provide a means for evaluating and quantifying the impacts of alternative legislative proposals and policies on the agricultural sector.

The decade of the 1970's began with James Matthews as head of the Price Research and Methods Section, ERS. Under his leadership work began on a model that would reflect major components of the total U.S. agricultural industry. Model development was to proceed in two steps. First, models would be developed for individual commodities or commodity groups. Once a model was operational, it would be linked to other commodity models via common variables.

1/ The authors thank Charlotte Tucker and Jim Tannehill for providing statistical assistance and Rosa Pitts for her superb typing of the manuscript. Numerous other individuals have made invaluable contributions towards the development of FAPSIM. The range of contributions precludes identifying all individuals responsible for its development. Unable to provide an exhaustive list of individuals contributing to the model's development, the authors simply wish to gratefully acknowledge the previous research efforts of such individuals.

2/ Underlined numbers in parentheses refer to items in the References listed at the end of this report.

The first phase of the process built on previous research both within and outside of ERS. This phase began with the development of an econometric model of the soybean industry (11). This model underwent several revisions during the decade of the 1970's (16,15,2). Annual econometric models for the major livestock commodities were also developed in the early and mid-1970's and updated and revised in the late 1970's (6,7,8,12,23).

Several problems were encountered in linking the various models. As a result, the process of linking the various models tended to lag behind the development of the individual component models. One problem encountered in linking the various models was the difficulty in maintaining commonality in variable definitions across models. Oftentimes it was necessary to reestimate portions of the various commodity models using common variables prior to including them in the linked system. A more serious and difficult problem manifested itself as more models were added to the linked system. As the size of the system grew, the dynamic properties of the linked system became unstable even though the individual commodity models displayed stable characteristics.

Despite these problems, the initial version of the linked crops-livestock model, known as the Cross Commodity Forecasting System (CCFS), was made operational late in the decade of the 1970's. The CCFS consisted of approximately 160 equations for predicting prices, supplies, utilization, and ending stocks of beef, pork, milk, chickens, turkeys, eggs, corn, oats, barley, grain sorghum, wheat, soybeans, soybean meal and soybean oil (19). Generally, the model's equations were based on annual data prior to 1977.

After ERS's 1979 reorganization, work began on updating the CCFS. Under the direction of Larry Salathe the entire CCFS was updated in 1980-81. The model was also altered in order to enhance its policy analysis capability in preparation for analyzing alternative policies considered during the reauthorization of the 1981 Farm Bill. Respecification of numerous equations in the CCFS became necessary because the inclusion of data for the late 1970's altered equation parameter signs. Major modifications of the model in preparation for the 1981 Farm Bill included adding equations to predict: cotton prices, supplies, and utilization; production, utilization, and government purchases of butter, cheese, nonfat dry milk, fluid milk, frozen milk products, and condensed and evaporated milk; crop yields; consumer food price indexes for major food categories; and government outlays for deficiency and reserve storage payments and dairy price support operations for major farm commodities. In addition, a new approach for predicting crop acreage response was incorporated into the model.

The new model was named the Food and Agricultural Policy Simulator (FAPSIM) to emphasize its policy analysis capability. However, the new model has demonstrated, since it became operational in early 1981, an ability to predict future events with reasonable accuracy. Currently, it contains 360 endogenous and 265 exogenous variables. Our purpose here is to provide an overview and to present the model's structural equations and their statistical attributes.

MODEL OVERVIEW

Prior to solving for equilibrium commodity prices, production, and utilization (consumption, exports, and stock levels) in any particular

year, all of the exogenous variables are initialized. A major subcategory of exogenous variables includes Government policy variables such as individual crop loan rates, target prices, national program yields and acreages, and diversion and set-aside rates. Another major subcategory of exogenous variables includes macroeconomic variables such as population, disposable personal income, food processing wage rates, petroleum prices, and the nonfood consumer price index.

The livestock and crop components of the model are solved simultaneously.3/ In the model livestock slaughter, breeding herd size, and replacement numbers are functions of lagged crop year prices. For example, the number of heifers added to the breeding herd during calendar year 1980 is specified as a function of the price of corn in crop year 1979 (Oct. 1979-Sept. 1980).4/ Crop prices are also affected by livestock prices and livestock numbers. For example, corn feed demand in crop year 1979 is specified as a function of the number of grain-consuming animal units on farms and an index of livestock prices in calendar year 1980.

Farm cash receipts, production expenses, and net farm income are calculated for calendar year 1980 based on crop year prices and production

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3/ A Gauss-Siedel solution algorithm is used to solve the model's simultaneous system of equations. An indepth discussion of this algorithm may be found in (4).

4/ A variety of regression formulations were specified to evaluate the appropriateness of alternative linkages between calendar year livestock and marketing (crop) year crop variables. A comparison of the regression results indicated that models specifying livestock production as a function of lagged crop prices generally had more reasonable parameter values and lower mean square errors than alternative specifications.

in 1979 and 1980 and on livestock prices and production and the prices of farm inputs in calendar year 1980. The consumer price indexes for food and all items (food and nonfood) are computed by weighting individual consumer price indexes for livestock and crop commodities by their relative importance as determined by the Bureau of Labor Statistics. The consumer price index for all items is endogenously computed and is used as a general deflator in all retail demand equations.

A set of general functional relationships is provided below for each major subsector. These relationships are typical of those contained in the model.

LIVESTOCK SUBSECTOR

Livestock commodities contained in FAPSIM include beef, pork, dairy, chickens, eggs, and turkeys. Each individual livestock submodel consists of a set of equations used to estimate production (slaughter), market and retail prices, civilian consumption, and ending stocks. In addition to these variables, the dairy submodel also contains a detailed milk processing component.

Supply

Considerable detail is provided on the stock of breeding animals, additions to the breeding stock, slaughter of the breeding stock, and the size of the livestock crop. The identity given below is used to track changes in the stock of breeding animals:

$$HERD_t = \lambda HERD_{t-1} + ADD_t - SLTR_t \qquad (1)$$

where:

$HERD_t$ = the ending stock of breeding animals on farms in year t,

λ = survival rate,

ADD_t = additions to the breeding herd in year t, and

$SLTR_t$ = slaughter of breeding animals in year t.

Similar accounting identities are employed to track changes in the number of market animals on farms.

Slaughter of breeding animals depends on the profitability of livestock feeding. The number of breeding animals slaughtered is positively related to the stock of breeding animals and negatively related to the ratio of livestock price to feed price. Additions to the breeding herd are a function of the ratio of livestock price to feed price and of the number of animals eligible to enter the breeding herd.

The stock of breeding animals influences the size of the livestock crop. The size of the livestock crop in turn determines future livestock slaughter as well as additions to the breeding herd. Livestock slaughter depends on the ratio of livestock price to feed costs and on the number of market animals on farms. Total livestock production is expressed as a linear function of the number of animals slaughtered. Total supply of livestock equals livestock production plus beginning stocks and imports. Imports are treated as exogenous.

Demand

Civilian consumption of livestock is determined by the identity:

$$CDISAP_t = PROD_t - STOCKS_t + STOCKS_{t-1} + IMPORTS_t - MDISAP_t - EXPORTS_t \quad (2)$$

where:

$CDISAP_t$ = civilian consumption in year t,

$PROD_t$ = production in year t,

$STOCKS_t$ = ending stocks in year t,

$MDISAP_t$ = military consumption in year t,

$EXPORTS_t$ = exports in year t, and

$IMPORTS_t$ = imports in year t.

Military consumption and exports are treated as exogenous. Ending stocks are expressed as a function of total supply and the ratio of current to lagged retail price.

Price

The retail price index for each livestock commodity is determined by an econometric relationship expressing the real retail price as a function of own per capita consumption, real per capita disposable income, and the retail prices of competing livestock products. These price-dependent demand equations are homogenous of degree zero in prices and income. Competing livestock prices are included in each demand equation. For example, the retail price index for pork is a function of the retail prices of beef and poultry (chicken and turkey).

Farm and market prices of each livestock commodity are estimated using the corresponding retail price index and variables reflecting meat processing and marketing costs. The wage rate in each livestock processing industry and a general fuel price index are used as proxies for changes in meat processing and marketing costs.

Each livestock submodel consists of a simultaneous system of equations and is linked to other livestock models through either production or retail demand. Livestock production and prices in turn affect the crops subsector through the demand for feed.

CROPS SUBSECTOR

Crop commodities in FAPSIM include corn, oats, barley, grain sorghum, wheat, soybeans, and cotton. Each crop submodel consists of a set of equations used to estimate production, total supply and demand, price, and ending stocks. The soybean submodel also contains a soybean processing component.

Supply

Total supply of each crop is computed as the sum of production, beginning stocks, and imports. Imports are treated as exogenous. Production is determined by multiplying acreage harvested by yield per harvested acre. Both acreage harvested and yield are determined endogenously. Acreage harvested is expressed as a linear function of acreage planted. Yields are expressed as a linear function of acreage planted, acreage set-aside and diverted, weather, and the ratio of lagged crop price to the price of fertilizer. Time is included to reflect changes in technology, such as hybrid seed, drought-resistant seed varieties, and increases in seeding rates.

A major shortcoming of previous research has been the failure by economist to develop acreage response equations that explicitly predict the level of farmer participation in government commodity programs. For example, Houck and Ryan (10) developed response equations containing Government policy variables such as the effective support price and the effective diversion payment rate. These equations can be used to predict total acreage response, but they cannot predict the level of participation in Government programs.

The acreage response relationships contained in FAPSIM reflect the relative profitability of either participating or not participating in a Government commodity program.5/ The expected net return per acre for a program participant producing crop i is:

$$EPR_i = [(EPP_i * EY_i - VC_i)(1.0 - (SA_i + DIV_i))] + [SR_i * PY_i (1.0 - (SA_i + DIV_i))] ALLOC_i + [DR_i * PN_i * PY_i * DIV_i] \quad (3)$$

where:

EPR_i = expected program return per acre for crop i,

EPP_i = the maximum of the loan rate and the expected market price,

EY_i = expected yield per acre,

VC_i = variable cost per acre,

SR_i = expected deficiency payment rate (announced target price minus the maximum of the expected market price and loan rate) per acre,

PY_i = national program yield,

SA_i = proportion of each acre required to be set-aside,

DIV_i = proportion of each acre required to be diverted,

DR_i = diversion payment rate per bushel,

$ALLOC_i$ = minimum national program allocation factor, and

PN_i = proportion of acreage eligible for diversion payments.

5/ The acreage response equations contained in FAPSIM follow from previous research by Robert Bancroft of the University of Vermont, while he was employed by ERS (1). The authors wish to thank Dr. Bancroft for his valuable assistance.

The expected net return per acre for a Government program nonparticipant producing crop i is given by the identity:

$$EMR_i = EMP_i * EY_i - VC_i \qquad (4)$$

where:

EMR_i = expected market net return per acre for crop i,

EMP_i = expected market price,

VC_i = variable cost per acre, and

EY_i = expected yield per acre.

Central to the development of acreage response equations is the construction of variables that reflect farmers' perceptions of expected prices and yields. There appear to be at least two alternative price mechanisms that farmers might use as the basis for their price expectations. The first is actual market price prior to planting, and the second is the futures market price at harvest. Given the problems in predicting futures market prices, especially in an annual simulation framework, a simple average of monthly crop prices 1 to 5 months prior to planting is assumed to represent farmers' price expectations.6/ The expected price prior to planting is endogenously determined as a function of the season average market price in the previous crop year.

Crop yields are also unknown at the time of planting. Again there appear to be at least two alternative yield estimates that farmers may use as the basis for their planting decision. First, farmers can base future yield perceptions on past or experienced yield levels. Or alternatively, they

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6/ The average of monthly crop prices prior to planting is adjusted to reflect the historical movement in crop prices between planting and harvest.

can discount abnormal weather conditions in past years and base their expected yield perceptions on yields realized under "normal weather" conditions. In FAPSIM, expected yields are generated by regressing actual yields on time, which assumes farmers base their expected yield perceptions on "normal weather" yield trends.

The expected net return variables are used to estimate acreage response by participants and nonparticipants. Total acreage in the program (planted plus diverted and set-aside acreage) for crop i is expressed as a behavioral relationship of the form:

$$PA_i = f\left(\frac{EPR_i}{CPI}, \frac{EMR_i}{CPI}, \frac{APP_i}{CPI}, NP_i(1.0 - SD_i)\right) \qquad (5)$$

where:

PA_i = program acreage for crop i,

APP_i = the average expected net return of competing crops,

NP_i = national program acreage for crop i,

SD_i = set-aside plus diversion rate for crop i, and

CPI = the all item consumer price index lagged one period;

and where EPR_i and EMR_i are defined as above (equations 3 and 4). Program acreage is positively related to the deflated, expected program return (EPR_i/CPI) because this variable represents the profitability of planting crop i and of participating in the Government program. Total program acreage is negatively related to the real, expected, market net return for crop i (EMR_i/CPI), as it measures the attractiveness of nonparticipation, and is negatively related to the average real return for competing crops (APP_i/CPI). Because the announced national program acreage and diversion requirements place an upper limit on total program acreage, an expansion in national program acreage or a reduction in set-aside and diversion rates will expand total program acreage.

Total acreage planted to a particular crop by program participants is a function of total program acreage multiplied by program set-aside and diversion rates. Acreage set-aside and diverted is calculated endogenously as total program acreage minus acreage planted by participants. The participation rate is endogenously computed as acreage planted by participants divided by the sum of acreage planted by participants and nonparticipants.

Acreage planted to crop i by nonparticipants is a function of acreage planted to crop i by program participants, acreage set-aside and diverted, the real expected net return of competing crops, and the real expected market return for planting crop i. Acreage planted in the program, acreage set-aside and diverted, and the real, expected, net return of competing crops all represent the desirability of using land for alternative purposes. Thus, acreage planted to crop i by nonparticipants is inversely related to each of these variables. Acreage planted by nonparticipants is positively related to the real, expected, market net return.

Demand

Total demand is the sum of export, seed, food, and feed demand. Exports of corn, wheat, soybeans, soybean meal, soybean oil, grain sorghum, and cotton are endogenously determined. Exports are generally expressed as a function of domestic price deflated by the exchange rate, the exchange holdings of major importing countries, and grain and livestock production in major grain importing countries. Per capita food demand for crop i is a function of the real price of crop i, the real price of competing crops, and real disposable per capita income. The real price of each crop is the farm price deflated by the all item consumer price index. The farm price is included in these relationships because retail prices for individual crops are not available.

Feed demand for each crop is a function of own crop price and the prices of competing crops deflated by an index of livestock prices, and a livestock production index. This formulation assumes that livestock producers increase feeding rates when crop prices decline relative to livestock prices. The livestock production index is an average of the number of livestock on farms, weighted to reflect the relative amounts of grain fed to different types of livestock.

Seed demand is a function of acreage planted in the following year, current crop price, and a time trend. The time trend is included to reflect increases in seeding rates per acre. Seed demand is positively related to crop price and acreage planted.

Stocks and Price

A common approach to estimate stock levels is to calculate ending stocks as the residual difference between total supply and total demand. The basic model framework using this approach is:

$$S_t = S(P_{t-1}) \tag{7}$$

$$D_t = D(P_t) \tag{8}$$

$$ST_t = S_t - D_t + ST_{t-1} \tag{9}$$

$$P_t = P(ST_t/D_t) \tag{10}$$

where:

S_t = total supply in period t,

D_t = total demand in period t,

P_t = price in period t, and

ST_t = total ending stocks in period t.

Current year price is a function of the ratio of ending stocks to total demand. This is commonly referred to as a "disequilibrium" model stemming from the failure of the price equation (10) to necessarily equate supply and demand. This failure results from the estimation of equation (10) as a structural, rather than a reduced form, equation. The FAPSIM model uses the alternative framework:

$$S_t = S(P_{t-1}) \tag{7'}$$

$$D_t = D(P_t) \tag{8'}$$

$$ST_t = ST(P_t) \tag{9'}$$

$$P_t = F^{-1}[S(P_{t-1}) + ST_{t-1} - D(P_t) - ST(P_t)] \tag{10'}$$

where market price (equation (10')) is determined by substituting equations (7') through (9') into the supply-demand identity and solving for price. Comparison of equations (10) and (10') indicates that equation (10) will not necessarily provide a market clearing price consistent with specified demand and supply functions.

Past theoretical research suggests that the demand for commercial stocks consists of two components: (1) a speculative demand and (2) a transactions demand (14). Transactions demand for stocks is normally expressed as a function of sales whereas the speculative component is normally expressed as a function of expected price. These two stock demand components, suggest that commercial stock levels are a function of own (current) real price, and total crop demand. The level of Government and reserve stocks are also included in the commercial stock equations as they may partially substitute for commercial stock holdings.

Pork, retail price index

PORIR.67 = .028178 .YPD$/.NPC
(1.19)

- .00014152[(PORCC-77)(.PC)/.NPC]
(-12.31)

+ .314552 BEEIR + .285827 .PCPOU
(4.27) (7.07)

+ .013007 .PC
(8.37)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9279
D.W. = 2.0000
S.E.E. = 0.0003

Variable numbers, names and descriptions

YY1	PORIR.67	Pork, retail price index	1967=1.0
Z34	.YPD$	Personal disposable income	bil. dol.
Z1	.NPC	Population, total	mil.
YY14	PORCC-77	Pork, civilian disappearance	mil. lbs.
YY201	.PC	Consumer price index, all items	1967=100
YY38	BEEIR	Beef, retail price index	1967=1.0
YY195	.PCPOU	Consumer price index, poultry	1967=1.0

Farmer-owned reserve (FOR) and Government stock levels are determined by the use of a set of decision rules. We assumed that Government and reserve stocks will accumulate up to the point where crop price equals the designated loan rate. If the initial equilibrium price is above the designated reserve release level, reserve stocks are either released until the equilibrium price falls to the FOR release price or reserve stocks are depleted. Similarly if the initial equilibrium price is above the CCC (Commodity Credit Corporation) release price and reserve stocks are either zero or below their specified minimum, Government stocks are released until the equilibrium price falls to the CCC release price or until such holdings are depleted.

STRUCTURAL EQUATIONS

The remainder of this report provides statistical information on the structural equations currently contained in FAPSIM.7/ The equations are grouped into 4 general categories; livestock, crops, farm income and expenditures, and retail food price indexes. Each of the 4 general categories are further disaggregated into sub-categories. For example, livestock is disaggregated into pork, beef, poultry, and dairy and crops is segmented into soybeans, wheat, corn, sorghum, barley, oats, and cotton. Within each sub-category, the equations are numerically ordered.

The statistical results are generally self explanatory with the numbers in parentheses denoting t-statistics. The endogenous and exogenous variables of FAPSIM are ordered by equation code numbers in the glossary. An alphabetical listing of the endogenous variables is presented in the index.

7/ The model's sensitivity and dynamic properties are examined in (18).

Sows, market price

SOWPM7C = - 3.40984 - 5.81190 DUM76
(-2.56) (-2.77)

- 3.92746 .WRHMP
(-2.40)

- 6.30419 .PWO51*
(-1.47)

+ 40.3308 PORIR.67
(10.44)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9698
D.W. = 2.0704
S.E.E. = 1.8464

Variable numbers, names and descriptions

YY2	SOWPM7C	Sows, market price, seven markets	$/cwt.
	DUM76	Dummy variable, 1976	
Z5	.WRHMP	Wage rate, meat packing industry	$/hr.
Z8	.PWO51*	Fuel and utilities, consumer price index	1967=1.0
YY1	PORIR.67	Pork, retail price index	1967=1.0

Barrows and gilts, market price

$$BAGPM7C = -3.12669 - 3.36076\ .WRHMP \quad (-2.95)\ (-2.58)$$
$$- 7.21051\ .PWO51^{*} - 3.92248\ DUM76 \quad (-2.12)\ (-2.35)$$
$$+ 41.9544\ PORIR.67 \quad (13.64)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9848
D.W. = 1.9228
S.E.E. = 1.4703

Variable numbers, names and descriptions

YY3	BAGPM7C	Barrows and gilts, market price, seven markets	$/cwt.
Z5	.WRHMP	Wage rate, meat packing industry	$/hr.
Z8	.PWO51*	Fuel and utilities, consumer price index	1967=1.0
	DUM76	Dummy variable, 1976 —	
YY1	PORIR.67	Pork, retail price index	1967=1.0

Sows, slaughter

SOWKS = 5.12635 + .377852 HOGSNBR(-1)
(2.80) (2.10)

- 1.21585 DUMPIG - 1.50202 DUM7576
(5.83) (-3.68)

- .124754 BAGPM7C/CORPF(-1)
(-4.61)

Estimation technique = O.L.S.
Sample period = 1956-79
R^2(ADJ) = 0.8977
D.W. = 1.5048
S.E.E. = 0.3968

Variable numbers, names and descriptions

YY4	SOWKS	Sows, slaughter	mil. hd.
YY6	HOGSNBR	Hogs, breeding, number on farms, Dec. 1	mil. hd.
	DUMPIG	Dummy variable for redefinition of the breeding herd	
	DUM7576	Dummy variable, 1975-76	
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY3	BAGPM7C	Barrows and gilts, market price, seven markets	$/cwt.

Pigs, additions to breeding herd

PIGSEBR = 2.76675 - .505553 HOGSNBR(-1)
(1.68) (-2.40)

- 1.12022 DUM74 + 1.08807 SOWKS
(-2.14) (7.88)

+ .0665079 BAGPM7C/CORPF(-1)
(1.78)

Estimation technique = O.L.S.
Sample period = 1956-79
R^2(ADJ) = 0.8191
D.W. = 1.9749
S.E.E. = 0.4920

Variable numbers, names and descriptions

YY5	PIGSEBR	Pigs, additions to breeding herd	mil. hd.
YY6	HOGSNBR	Hogs, breeding, number on farms, Dec. 1	mil. hd.
	DUM74	Dummy variable, 1974	
YY4	SOWKS	Sows, slaughter	mil. hd.
YY3	BAGPM7C	Barrows and gilts, market price, seven markets	$/cwt.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.

Hogs, breeding hogs on farms, Dec. 1

HOGSNBR = PIGSEBR - SOWKS + HOGSNBR(-1)

Variable numbers, names and descriptions

YY6	HOGSNBR	Hogs, breeding, number on farms, Dec. 1	mil. hd.
YY5	PIGSEBR	Hogs, additions to breeding herd	mil. hd.
YY4	SOWKS	Sow, slaughter	mil. hd.

Hogs, pig crop

$$PIGSC = -15.3369 + 14.1343\ HOGSNBR(-1) - 2.89258\ PIGSEBR(-1)$$
$$(-1.62)\quad (10.89)\qquad\qquad (-2.96)$$

$$+ 6.27230\ DUMPIG - 10.1601\ DUM69 - 5.31062\ DUM78$$
$$(3.21)\qquad\quad (-3.58)\qquad\quad (-1.81)$$

$$- 3.96483\ (SOWKS - PIGSEBR)$$
$$(-3.72)$$

Estimation technique = O.L.S.
Sample period = 1958-79
R^2(ADJ) = 0.8704
D.W. = 2.1003
S.E.E. = 2.6101

Variable numbers, names and descriptions

YY7	PIGSC	Hogs, pig crop	mil. hd.
YY6	HOGSNBR	Hogs, breeding, number on farms, Dec. 1	mil. hd.
	DUMPIG	Dummy variable for redefinition of the breeding herd	
YY5	PIGSEBR	Pigs, additions to breeding herd	mil. hd.
	DUM69	Dummy variable, 1969	
	DUM78	Dummy variable, 1978	
YY4	SOWKS	Sows, slaughter	mil. hd.

Barrows and gilts, slaughter

BAGKS = - 9.83595 + .846121 HOGSM(-1)
(-2.40) (10.61)

+ .501662 PIGSC - 1.25661 DUMPIG - 4.43662 DUM73
(11.76) (1.53) (-3.41)

Estimation technique = O.L.S.
Sample period = 1961-80
R^2(ADJ) = 0.9613
D.W. = 2.2766
S.E.E. = 1.2604

Variable numbers, names and descriptions

YY8	BAGKS	Barrows and gilt, slaughter	mil. hd.
YY12	HOGSM	Hogs, market, number on farms, Dec. 1	mil. hd.
YY7	PIGSC	Hogs, crop	mil. hd.
	DUMPIG	Dummy variable for redefinition of the breeding herd	
	DUM73	Dummy variable, 1973	

Pork, production

PORAP-77 = - 2060.69 + 30.0115 .TIME
(-4.79) (7.60)

+ 157.791 (BAGKS + 1.5 SOWKS) + 20.5658 BAGPM7C(-1)/CORPF(-2)
(42.24) (3.03)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9895
D.W. = 1.6763
S.E.E. = 100.29

Variable numbers, names and descriptions

YY9	PORAP-77	Pork, production, carcass weight	mil. lbs.
Z30	.TIME	Year, 1955=55	
YY8	BAGKS	Barrows and gilt, slaughter	mil. hd.
YY4	SOWKS	Sows, slaughter	mil. hd.
YY3	BAGPM7C	Barrows and gilts, market price, seven markets	$/cwt.
YY127	CORPF	Corn, average price received by farmers, Oct.-Sept.	$/bu.

Pork, ending stocks

PORHT1 = - 279.801 + .0361257 PORAS-77
(-1.96) (3.73)

- 70.0842 D60 + 76.3264 D75
(-1.78) (1.71)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.4451
D.W. = 2.4845
S.E.E. = 38.189

Variable numbers, names and descriptions

YY10	PORHT1	Pork, ending stocks	mil. lbs.
YY13	PORAS-77	Pork, supply, carcass weight	mil. lbs.
	D60	Dummy variable, 1960	
	D75	Dummy variable, 1975	

Hogs, total slaughter

HOGKS = SOWKS + BAGKS

Variable numbers, names and descriptions

YY11	HOGKS	Hogs, total slaughter	mil. hd.
YY4	SOWKS	Sow, slaughter	mil. hd.
YY8	BAGKS	Barrow and gilt, slaughter	mil. hd.

Hogs, market, number on farms, Dec. 1

HOGSM = PIGSC(1.- PIGDD) - BAGKS - PIGSEBR

+ HOGSM(-1)*(1.- PIGDD)

Variable numbers, namess and descriptions

YY12	HOGSM	Hogs, market, number on farms, Dec. 1	mil. hd.
YY7	PIGSC	Hogs, pig crop	mil. hd.
YY8	BAGKS	Barrow and gilt, slaughter	mil. hd.
YY5	PIGSEBR	Hogs, additions to breeding herd	mil. hd.
Z6	PIGDD	Hogs, percent death loss	

Pork, total supply

PORAS-77 = PORAP-77 + PORHT1(-1) + PORMI-77

Variable numbers, names and descriptions

YY13	PORAS-77	Pork, total supply	mil. lbs.
YY9	PORAP-77	Pork, production	mil. lbs.
YY10	PORHT1	Pork, ending stocks	mil. lbs.
Z13	PORMI-77	Pork, imports	mil. lbs.

Pork, civilian disappearance

PORCC-77 = PORAS-77 - PORHT1 - PORMX-77 - PORCM-77

Variable numbers, names and descriptions

YY14	PORCC-77	Pork, civilian disappearance	mil. lbs.
YY13	PORAS-77	Pork, total supply	mil. lbs.
YY10	PORHT1	Pork, ending stocks	mil. lbs.
Z12	PORMX-77	Pork, exports	mil. lbs.
Z14	PORCM-77	Pork, military use	mil. lbs.

Beef, cows, number on farms, Jan 1.

COWSNBE = HEISBBE(-1) - COWKSNF(-1) + .98*COWSNBE(-1)

Variable numbers, names and descriptions

YY15	COWSNBE	Beef, cows, number on farms, Jan. 1	mil. hd.
YY24	HEISBBE	Beef, heifers added to breeding herd	mil. hd.
YY25	COWKSNF	Beef, cows, non-fed slaughter	mil. hd.

Calves, number born

CALSC = 7.22846 + .704441 COWSNMC
(1.41) (4.28)

+ .790137 COWSNBE
(9.72)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9350
D.W. = 0.4760
S.E.E. = 1.0230

Variable numbers, names and descriptions

YY17	CALSC	Calves, number born	mil. hd.
YY16	COWSNMC	Cows, dairy, number on farms, Jan. 1	mil. hd.
YY15	COWSNBE	Beef, cows, number on farms, Jan. 1	mil. hd.

Calves, death loss

$$CALDD = -2.31916 + .624473\ CALDD(-1) + .0786695\ CALSC$$
$$(-1.72) \quad (4.34) \quad (2.27)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.7265
D.W. = 2.4990
S.E.E. = 0.3805

Variable numbers, names and descriptions

YY18	CALDD	Calves, death loss	mil. hd.
YY17	CALSC	Calves, number born	mil. hd.

Calves, slaughter

CALKS = 1.09457 - 1.02237 DUM72
(2.34) (-3.60)

+ .322326 (COWSNMC + COWSNMC(-1))
(26.23)

- .187084 CATPFFD(-1)/CORPF(-2)
(-14.19)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9807
D.W. = 2.1539
S.E.E. = 0.2737

Variable numbers, names and descriptions

YY20	CALKS	Calves, slaughter	mil. hd.
	DUM72	Dummy variable, 1972	
YY16	COWSNMC	Cows, dairy, number on farms, Jan. 1	mil. hd.
YY39	CATPFFD	Cattle, price, slaughter steers, Omaha	$/cwt.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.

Veal, commercial production

VEAAT = - 276.774 + 69.5691 (.TIME - 59)**.5
(-8.78) (6.20)

+ 139.395 CALKS
(23.35)

Estimation technique = O.L.S.
Sample period = 1960-80
R^2(ADJ) = 0.9834
D.W. = 1.0526
S.E.E. = 28.160

Variable numbers, names and descriptions

YY21	VEAAT	Veal, commercial production, carcass weight	mil. lbs.
Z30	.TIME	Year, 1960=60	
YY20	CALKS	Calves, slaughter	mil. hd.

Veal, retail price index

$$
\begin{aligned}
VEAIR = {} & 0.230003\ PORIR.67 + .141545\ .PCPOU \\
& \quad (1.62) \qquad\qquad (1.24) \\
& - .0000350665[(BEECT)\ (.PC)/.NPC] \\
& \quad (-1.60) \\
& - .000620987[(VEAAT)(.PC)/.NPC] \\
& \quad (-5.56) \\
& + .00667717\ .PC + .181145\ DUM74 \\
& \quad (3.52) \qquad\qquad (.063) \\
& + .154991\ DUM72 + .222156\ .YPD\$/.NPC \\
& \quad (.061) \qquad\qquad (3.34)
\end{aligned}
$$

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9982
D.W. = 1.3637
S.E.E. = 0.5563

Variable numbers, names and descriptions

YY22	VEAIR	Veal, retail price index	1967=1.0
YY1	PORIR.67	Pork, retail price index	1967=1.0
YY195	.PCPOU	Poultry, retail price index	1967=1.0
YY34	BEECT	Beef, civilian consumption	mil. lbs.
YY201	.PC	Consumer price index, all items	1967=100
Z1	.NPC	Population, total	mil.
YY21	VEAAT	Veal production, commercial, carcass weight	mil. lbs.
	DUM74	Dummy variable, 1974	
	DUM72	Dummy variable, 1972	
Z34	.YPD$	Personal disposable income	bil. dol.

Calves, average price received by farmers

$$CALPF = \underset{(0.55)}{0.453637} + \underset{(54.47)}{1.27957}\ CATPFFE - \underset{(-9.47)}{5.42283}\ CORPF(-1)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9949
D.W. = 1.3006
S.E.E. = 1.3247

Variable numbers, names and descriptions

YY23	CALPF	Calves, average price received by farmers	$/cwt.
YY40	CATPFFE	Beef, price, choice cattle, Kansas City	$/cwt.
YY127	CORPF	Corn, average price received by farmers, Oct.-Sept.	$/bu.

Beef, heifers added to breeding herd

$$HEISBBE = -2.48107 + .256010\,[CALSC(-1) - CALDD(-1) - CALKS(-1)] + .651910\,DD590 - .0402793\,CATPFFD/CORPF(-1)$$
$$(-2.38) \quad (11.55) \quad (5.31) \quad (-1.64)$$

Estimation technique = O.L.S.
Sampe period = 1951-79
R^2(ADJ) = 0.8460
D.W. = 1.3130
S.E.E. = 0.5030

Variable numbers, names and descriptions

YY24	HEISBBE	Beef, heifers added to breeding herd	mil. hd.
YY17	CALSC	Calves, number born	mil. hd.
YY18	CALDD	Calves, death loss	mil. hd.
YY20	CALKS	Calves, slaughter	mil. hd.
YY39	CATPFFD	Cattle, price, slaughter steers, Omaha	$/cwt.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
	DD590	Dummy variable for redefinition of the breeding herd	

Cows, beef, non-fed slaughter

COWKSNF = 9.46535 - 6.53072 CALPF(-1)/CATPFNF(-1)
(5.57) (-6.20)

+ .261895 COWSNBE - 2.78346 CALPF/CATPFNF
(14.15) (-3.16)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9491
D.W. = 1.8982
S.E.E. = 0.4442

Variable numbers, names and descriptions

YY25	COWKSNF	Cows, beef, non-fed slaughter, Omaha	mil. hd.
YY41	CATPFNF	Cattle, utility cow price, Omaha	$/cwt.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/cwt.
YY15	COWSNBE	Cows, beef, number on farms, Jan. 1	mil. hd.
YY23	CALPF	Calves, average price received by farmers	$/cwt.

Beef, steer and heifer slaughter

$$SAHKS = -8.20969 + 0.880105\,[CALSC(-2) - CALDD(-2) - CALKS(-2)] - 4.76905\,DUM73 + 0.195144\,CATPFFD/CORPF(-1)$$

(-5.11) (20.43) (-3.37) (3.68)

Estimation technique = O.L.S.
Sample period = 1950-80
R^2(ADJ) = 0.9462
D.W. = 1.0762
S.E.E. = 1.3200

Variable numbers, names and descriptions

YY27	SAHKS	Beef, steer and heifer slaughter	mil. hd.
YY17	CALSC	Calves, number born	mil. hd.
YY18	CALDD	Calves, death loss	mil. hd.
YY20	CALKS	Calves, slaughter	mil. hd.
	DUM73	Dummy variable; 1973	
YY39	CATPFFD	Cattle, price, slaughter steers, Omaha	$/cwt.
YY127	CORPF	Corn, average farm price, Oct-Sept.	$/bu.

Beef, steer and heifer fed slaughter

$$SAHKSFD = -13.4106 + .327190\ CATPFFD/CORPF(-1) + .814304\ [CALSC(-2) - CALDD(-2) - CALKS(-2)] - 4.18758\ DUM75$$

(-4.09) (4.37) (10.49) (-2.48)

Estimation technique = O.L.S
Sample period = 1960-79
R^2(ADJ) = 0.8757
D.W. = 1.0709
S.E.E. = 1.4336

Variable numbers, names and descriptions

YY28	SAHKSFD	Beef, steer and heifer fed slaughter	mil. hd.
YY39	CATPFFD	Cattle, price, slaughter steers, Omaha	$/cwt.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY17	CALSC	Calves, number born	mil. hd.
YY18	CALDD	Calves, death loss	mil. hd.
YY20	CALKS	Calves, slaughter	mil. hd.
	DUM75	Dummy variable, 1975	

Beef, non-fed cow slaughter

CATKSNF = COWKSMC + COWKSNF + SAHKS - SAHKSFD

Variable numbers, names and descriptions

YY29	CATKSNF	Cattle, non-fed, slaughter	mil. hd.
YY26	COWKSMC	Dairy, cow slaughter	mil. hd.
YY25	COWKSNF	Beef, cow non-fed slaughter	mil. hd.
YY27	SAHKS	Beef, steer and heifer slaughter	mil. hd.
YY28	SAHKSFD	Beef, steer and heifer fed slaughter	mil. hd.

Beef, fed production

BEEAPFD = - 1195.34 + 420.715 (.TIME-59)**.5
(-3.68) (4.16)

+ 563.132 SAHKSFD + 39.2952 CATPFFD/CORPF(-1)
(22.33) (3.05)

+ 30.6628 CATPFFD(-1)/CORPF(-2)
(2.64)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9956
D.W. = 2.4105
S.E.E. = 198.23

Variable numbers, names and description

YY30	BEEAPFD	Beef, fed production	mil. lbs.
Z30	.TIME	Year, 1960=60	
YY28	SAHKSFD	Beef, steer and heifer fed slaughter	mil. hd.
YY127	CORPF	Corn, average price received by farmers	$/bu.
YY39	CATPFFD	Cattle, price, slaughter steers, Omaha	$/cwt.

Beef, non-fed, production

BEEAPNF = - 973.439 + 178.657 (.TIME - 59)**.5
(-3.55) (3.39)

+ 551.417 CATKSNF
(30.28)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9791
D.W. = 1.8272
S.E.E. = 246.81

Variable numbers, names and descriptions

YY31	BEEAPNF	Beef, non-fed, production	mil. lbs.
YY29	CATKSNF	Cattle, non-fed, slaughter	mil. hd.
Z30	.TIME	Year, 1960=60	

Beef, total production

BEEAP = BEEAPFD + BEEAPNF

Variable numbers, names and descriptions

YY32	BEEAP	Beef, total production	mil. lbs.
YY30	BEEAPFD	Beef, fed production	mil. lbs.
YY31	BEEAPNF	Beef, non-fed production	mil. lbs.

Beef, total supply

BEEAS = BEEAP + BEEMI + BEEHT(-1)

Variable numbers, names and descriptions

YY33	BEEAS	Beef, total supply	mil. lbs.
YY32	BEEAP	Beef, total production	mil. lbs.
Z17	BEEMI	Beef, imports	mil. lbs.
YY42	BEEHT	Beef, ending stocks	mil. lbs.

Beef, civilian disappearance

BEECT = BEEAS - BEEHT - BEEMX - BEECM

Variable numbers, names and descriptions

YY34	BEECT	Beef, civilian disappearance	mil. lbs.
YY33	BEEAS	Beef, total supply	mil. lbs.
YY42	BEEHT	Beef, ending stocks	mil. lbs.
Z18	BEEMX	Beef, exports	mil. lbs.
Z19	BEECM	Beef, military use	mil. lbs.

Beef, per capita consumption

BEECP = BEECT/.NPC

Variable numbers, names and descriptions

YY35	BEECP	Beef, per capita consumption	lbs.
YY34	BEECT	Beef, civilian disappearance	mil. lbs.
Z1	.NPC	Population, total	mil.

Beef, average weight fed slaughter

CATKAFD = BEEAPFD/SAHKSFD

Variable numbers, names and descriptions

YY36	CATKAFD	Beef, average weight fed slaughter	lbs.
YY30	BEEAPFD	Beef, fed production	mil. lbs.
YY28	SAHKSFD	Beef, fed steer and heifer slaughter	mil. hd.

Beef, average weight non-fed slaughter

CATKANF = BEEAPNF/CATKSNF

Variable numbers, names and descriptions

YY37	CATKANF	Beef, average weight non-fed slaughter	lbs.
YY31	BEEAPNF	Beef, non-fed production	mil. lbs.
YY29	CATKSNF	Beef, non-fed slaughter	mil. hd.

Beef, retail price index

BEEIR = .0567221 .YPD$/.NPC + .317578 PORIR.67
(1.77) (4.25)

+ .0129931 .PC - .0000649128 [(BEECT)(.PC)/.NPC]
(12.38) (-7.55)

- .000610397 [(VEAAT) (.PC)/.NPC]
(-10.56)

+ .158988 .PCPOU
(2.80)

Estimation technique = O.L.S.
SAMPLE PERIOD = 1960-79
R^2(ADJ) = 0.9994
D.W. = 2.2690
S.E.E. = 0.0319

Variable numbers, names and descriptions

YY38	BEEIR	Beef, retail price index	1967=1.0
Z34	.YPD$	Personal disposable income	bil. dol.
Z1	.NPC	Population, total	mil.
YY1	PORIR.67	Pork, retail price index	1967=1.0
YY201	.PC	Consumer price index, all items	1967=100
YY34	BEECT	Beef, civilian consumption	mil. lbs.
YY21	VEAAT	Veal, commercial production	mil. lbs.
YY195	.PCPOU	Consumer price index, poultry	1967=1.0

Cattle, price, slaughter steers, Omaha

CATPFFD = - 1.58322 - 1.37138 .WRHMP
(-2.15) (-2.48)

- 3.35681 .GASIR
(-3.30)

+ 34.4378 BEEIR
(16.10)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9943
D.W. = 2.5158
S.E.E. = 1.0449

Variable numbers, names and descriptions

YY39	CATPFFD	Cattle, price, slaughter steers, Omaha	$/cwt.
Z5	.WRHMP	Wage rate, meat packing industry	$/hr.
Z15	.GASIR	Gasoline, regular and premium, CPI	1967=1.0
YY38	BEEIR	Beef, retail price index	1967=1.0

Beef, price, choice feeder cattle, Kansas City

CATPFFE = - 1.92250 + 1.41263 CATPFFD
(-1.77) (32.51)

- 7.94038 CORPF(-1)
(-8.66)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9884
D.W. = 2.5301
S.E.E. = 1.7198

Variable numbers, names and descriptions

YY40	CATPFFE	Beef, price, choice cattle, Kansas City	$/cwt.
YY39	CATPFFD	Cattle, price, slaughter steers Omaha	$/cwt.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.

Beef, utility cow price, Omaha

$$CATPFNF = \underset{(2.37)}{4.66824} + \underset{(29.22)}{.688152}\ CATPFFD - \underset{(4.66)}{6.83346}\ DUM75 - \underset{(-3.68)}{17.0546}\ BEEAPNF/BEEAP$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9861
D.W. = 1.2222
S.E.E. = 1.1993

Variable numbers, names and descriptions

YY41	CATPFNF	Beef, utility cow price, Omaha	$/cwt.
	DUM75	Dummy variable, 1975	
YY38	BEEIR	Beef, retail price index	1967=1.0
YY32	BEEAP	Beef, total production	mil. lbs.
YY31	BEEAPNF	Beef, non-fed production	mil. lbs.
YY39	CATPFFD	Cattle, price, slaughter steer, Omaha	$/cwt.

Beef, ending stocks

$$BEEHT = -22.1913 - 112.374\ DUM77 + 118.983\ DUM73 + .0197342\ BEEAS - 96.0462\ BEEIR/BEEIR(-1)$$
$$(-1.27) \quad (-3.68) \quad (3.97) \quad (9.43) \quad (-1.10)$$

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.8640
D.W. = 2.4027
S.E.E. = 26.663

Variable numbers, names and descriptions

YY42	BEEHT	Beef, ending stocks	mil. lbs.
	DUM77	Dummy variable, 1977	
	DUM73	Dummy variable, 1973	
YY33	BEEAS	Beef, total supply	mil. lbs.
YY38	BEEIR	Beef, retail price index	1967=1.0

Chickens, other production

$$CHIAPOT = \underset{(0.12)}{24.2672} + \underset{(3.07)}{2.59730}\ CHISVLA - \underset{(-1.03)}{3.14822}\ (EGGPF(-1)/FDE(-1) + EGGPF/FDE) + \underset{(1.07)}{7.5537}\ (CHIPWXB(-1)/FDE(-1) + CHIPWXB/FDE)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.5239
D.W. = 1.9370
S.E.E. = 28.890

Variable numbers, names and descriptions

YY43	CHIAPOT	Chickens, other, production	mil. lbs.
YY61	CHISVLA	Chickens, layers, number on farms	mil. hd.
YY54	CHIPWXB	Chickens, non broiler, wholesale price	cents/lbs.
	FDE	Feed cost index, eggs	
YY68	EGGPF	Eggs, average price received by farmers	cents/doz.

Chickens, young, production

$$CHISPYO = \underset{(-3.33)}{-13852.6} + \underset{(3.17)}{211.806}\ .TIME + \underset{(3.22)}{.570838}\ CHISPYO(-1) + \underset{(2.91)}{94.6545}\ (CHIPWBR9C(-1)/FDC(-1) + CHIPWBR9C/FDC)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9807
D.W. = 1.5530
S.E.E. = 267.09

Variable numbers, names and descriptionns

YY44	CHISPYO	Chickens, young, production	mil. lbs.
Z30	.TIME	Year, 1960=60	
YY53	CHIPWBR9C	Broilers, 9-City wholesale price	cents/lb.
	FDC	Feed cost index, chickens	

Chickens, young, ending stocks

CHIHTYO1 = 62.7349 + 19.9557 DUM6667
(3.62) (3.27)

- 26.9081 CHIIRFR/CHIIRFR(-1)
(-1.62)

Estimation Technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.4170
D.W. = 1.2078
S.E.E. = 8.0944

Variable numbers, names and descriptions

YY45	CHIHTYO1	Chickens, young, ending stocks	mil. lbs.
	DUM6667	Dummy variable, 1966-67	
YY51	CHIIRFR	Chickens, frying, retail price index	1967=1.0

Chicken, other ending stocks

CHIHTOT1 = 93.5894 + .0354460 CHIAPOT
(10.92) (0.37)

- 20.1003 CHIIRFR/CHIIRFR(-1) - 28.7933 DUM6869
(-0.54) (-2.25)

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.1434
D.W. = 2.1149
S.E.E. = 17.043

Variable numbers, names and descriptions

YY46	CHIHTOT1	Chickens, other, ending stocks	mil. lbs.
	DUM6869	Dummy variable, 1968-69	
YY51	CHIIRFR	Chicken, frying, retail price index	1967=1.0
YY43	CHIAPOT	Chickens, other, production	mil. lbs.

Chickens, young, total supply

CHIASYO = CHISPYO + CHIHTYO1(-1)

Variable numbers, names and descriptions

YY47	CHIASYO	Chickens, young, total supply	mil. lbs.
YY44	CHISPYO	Chickens, young, production	mil. lbs.
YY45	CHIHTYO1	Chickens, young, ending stocks	mil. lbs.

Chickens, other, total supply

CHIASOT = CHIAPOT + CHIHTOT1(-1)

Variable numbers, names and descriptions

YY48	CHIASOT	Chickens, other, total supply	mil. lbs.
YY43	CHIAPOT	Chickens, other, production	mil. lbs.
YY46	CHIHTOT1	Chickens, other, ending stocks	mil. lbs.

Chickens, young, civilian disappearance

CHICCYO = CHIASYO - CHIHTYO1 - CHICMYO - CHIMXYO

Variable numbers, names and descriptions

YY49	CHICCYO	Chickens, young, civilian disappearance	mil. lbs.
YY47	CHIASYO	Chickens, young, total supply	mil. lbs.
YY45	CHIHTYO1	Chickens, young, ending stocks	mil. lbs.
Z21	CHICMYO	Chickens, young, military use	mil. lbs.
Z24	CHIMXYO	Chickens, young, exports	mil. lbs.

Chickens, other, civilian disappearance

CHICCOT = CHIASOT - CHIHTOT1 - CHIMXOT - CHICMOT

Variable numbers, names and descriptions

YY50	CHICCOT	Chickens, other, civilian disappearance	mil. lbs.
YY48	CHIASOT	Chickens, other, total supply	mil. lbs.
YY46	CHIHTOT1	Chickens, other, ending stocks	mil. lbs.
Z23	CHIMXOT	Chickens, other, exports	mil. lbs.
Z22	CHICMOT	Chickens, other, military use	mil. lbs.

Chickens, frying, retail price index

$$\begin{aligned} CHIIRFR = {} & .350530\ BEEIR + .227790\ PORIR.67 \\ & (3.37) \qquad\qquad (2.50) \\ & + .00659730\ TURPR + .00428652\ .PC \\ & (2.49) \qquad\qquad (2.99) \\ & - .000207805[(CHICCYO + CHICCOT)\ (.PC)/.NPC] \\ & (-4.40) \\ & + .160750\ .YPD\$/.NPC \\ & (2.11) \\ & - .0979468\ DUM72 - .0869418\ DUM74 \\ & (-2.91) \qquad\qquad (-2.43) \end{aligned}$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9995
D.W. = 1.7641
S.E.E. = 0.0301

Variable numbers, names and descriptions

YY51	CHIIRFR	Chickens, frying, retail price index	1967=1.0
YY38	BEEIR	Beef, retail price index	1967=1.0
YY1	PORIR.67	Pork, retail price index	1967=1.0
YY59	TURPR	Turkey, retail price	cents/lb.
YY201	.PC	Consumer price index, all items	1967=100
YY49	CHICCYO	Chicken, young, civilian disappearance	mil. lbs.
YY50	CHICCOT	Chicken, other, civilian disappearance	mil. lbs.
Z1	.NPC	Population, total	mil.
Z34	.YPD$	Personal disposable income	bil. dol.
	DUM72	Dummy variable, 1972	
	DUM74	Dummy variable, 1974	

Chickens, retail price

CHIPR = 2.100 + 36.5252 CHIIRFR
(2.87) (62.45)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9950
D.W. = 0.3860
S.E.E. = 0.6850

Variable numbers, names and descriptions

YY52	CHIPR	Chickens, retail price	cents/lb.
YY51	CHIIRFR	Chickens, frying, retail price index	1967=1.0

Broilers, 9-City wholesale price

CHIPWBR9C = - 2.87217 - 1.17604 .WRHPP
(-3.96) (-2.57)

- 1.45386 .GASIR
(-3.20)

+ .834765 CHIPR
(28.39)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9947
D.W. = 2.1965
S.E.E. = 0.5545

Variable numbers, names and descriptions

YY53	CHIPWBR9C	Broilers, 9-city wholesale price	cents/lb.
Z10	.WRHPP	Wage rate, poultry processing industry	$/hr.
Z15	.GASIR	Gasoline, regular and premium, retail price index	1967=1.0
YY52	CHIPR	Chickens, retail price	cents/lb.

Chickens, non broilers, wholesale price

CHIPWXB = 17.7720 - 3.19743 (.TIME-59)**.5
(2.32) (-2.83)

- 2.89117 DUM75 + .326075 CHIPWBR9C
(-2.40) (6.89)

- 82.2282 CHICCOT/(CHICCOT + CHICCYO)
(-1.91)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.7435
D.W. = 2.2109
S.E.E. = 1.0287

Variable numbers, names and descriptions

YY54	CHIPWXB	Chickens, non broilers, wholesale price	cents/lb.
Z30	.TIME	Year, 1960=60	
YY53	CHIPWBR9C	Broilers, 9 city wholesale price	cents/lb.
YY50	CHICCOT	Chickens, other, civilian disappearance	mil. lbs.
	DUM75	Dummy variable, 1975	
YY49	CHICCYO	Chickens, young, civilian disapearance	mil. lbs.

Turkey, production

$$TURAP = \underset{(-3.44)}{-2594.40} + \underset{(4.13)}{49.6344}\ .TIME + \underset{(0.89)}{.210301}\ TURAP(-1) + \underset{(1.96)}{48.4389}\ (TURPF(-1)/FDT(-1) + TURPF/FDT)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.8759
D.W. = 1.8376
S.E.E. = 106.97

Variable numbers, names and descriptions

YY55	TURAP	Turkey, production	mil. lbs.
Z30	.TIME	Year, 1960=60	
YY340	FDT	Feed cost index, turkeys	
YY60	TURPF	Turkeys, average price received by farmers	cents/lb.

Turkey, ending stocks

TURHT1 = 341.184 + .225232 TURHT1(-1)
(2.72) (1.38)

+ 127.497 DUM67
(3.32)

+ 115.976 DUM73
(2.24)

- 167.787 TURPR/TURPR(-1)
(-1.46)

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.4903
D.W. = 2.3865
S.E.E. = 36.342

Variable numbers, names and descriptions

YY56	TURHT1	Turkeys, ending stocks	mil. lbs.
	DUM67	Dummy variable, 1967	
	DUM73	Dummy variable, 1973	
YY59	TURPR	Turkey, retail price	cents/lb.

Turkey, total supply

TURAS = TURAP + TURHT1(-1)

Variable numbers, names and descriptions

YY57	TURAS	Turkey, total supply	mil. lbs.
YY55	TURAP	Turkey, production	mil. lbs.
YY56	TURHT1	Turkey, ending stocks	mil. lbs.

Turkey, civilian disappearance

TURCC = TURAS - TURHT1 - TURCM - TURMX

Variable numbers, names and descriptions

YY58	TURCC	Turkey, civilian disappearance	mil. lbs.
YY57	TURAS	Turkey, total supply	mil. lbs.
YY56	TURHT1	Turkey, ending stocks	mil. lbs.
Z25	TURCM	Turkey, military use	mil. lbs.
Z26	TURMX	Turkey, exports	mil. lbs.

Turkey, retail price

TURPR = .621100 .YPD$/.NPC
(0.25)

+ 3.00684 PORIR.67 + 17.1236 BEEIR
(0.43) (3.75)

+ 22.0145 CHIIRFR + .348050 .PC
(2.37) (3.31)

- .0383407 [(TURCC)*(.PC)/.NPC]
(-2.91)

- 6.62700 DUM75 - 4.60619 DUM6869
(-3.30) (-4.02)

Estimtion technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9994
D.W. = 2.2069
S.E.E. = 1.4869

Variable numbers, names and descriptions

YY59	TURPR	Turkey, retail price	cents/lb.
Z34	.YPD$	Personal disposable income	bil. dol.
YY201	.PC	Consumer price index, all items	1967=100
YY58	TURCC	Turkey, civilian disappearance	mil. lbs.
	DUM75	Dummy variable, 1975	
	DUM6869	Dummy variable, 1968-69	
YY1	PORIR.67	Pork, retail price index	1967=1.0
YY38	BEEIR	Beef, retail price index	1967=1.0
YY51	CHIIRFR	Chickens, frying, retail prics index	1967=1.0

Turkeys, average price received by farmers

$$TURPF = -7.97843 - 1.09233\ .WRHPP - 3.11445\ .GASIR - 6.49930\ DUM74 + .693958\ TURPR + 5.27449\ DUM78$$
$$(-3.05)\quad (-0.72)\quad (-2.61)\quad (-3.43)\quad (7.81)\quad (2.61)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9548
D.W. = 2.2703
S.E.E. = 1.7360

Variable numbers, names and descriptions

YY60	TURPF	Turkeys, average price received by farmers	cents/lb.
Z10	.WRHPP	Wage rate, poultry processing industry	$/hr.
	DUM78	Dummy variable, 1978	
	DUM74	Dummy variable, 1974	
YY59	TURPR	Turkeys, retail price	cents/lb.
Z15	.GASIR	Gasoline, regular and premium, retail price index	1967=1.0

Chickens, layers, number on farms

$$CHISVLA = \underset{(2.54)}{66.8733} + \underset{(2.84)}{11.6888}\ DUM67 + \underset{(6.81)}{.679571}\ CHISVLA(-1)$$
$$- \underset{(-1.47)}{1.45308}\ (CHIPWXB(-1)/FDE(-1) + CHIPWXB/FDE)$$
$$+ \underset{(2.90)}{1.10264}\ (EGGPF(-1)/FDE(-1) + EGGPF/FDE)$$

Estimationn technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9092
D.W. = 1.0999
S.E.E. = 3.9701

Variable numbers, names and descriptions

YY61	CHISVLA	Chickens, layers, numbers on farms	mil. hd.
YY68	EGGPF	Eggs, average price received by by farmers	cents/doz.
YY54	CHIPWXB	Chickens, non broilers, wholesale price	cents/lb.
	FDE	Feed cost index, eggs	
	DUM67	Dummy variable, 1967	

Eggs, used for hatching

EGGBB = 435.293 - 8.74153 .TIME
(2.64) (-3.51)

+ .374997 CHISVLA + .0596407 CHISPYO
(1.73) (7.62)

Estimation technique = O.L.S.
Sample period = 1957-79
R^2(ADJ) = 0.9783
D.W. = 2.1301
S.E.E. = 8.0557

Variable numbers, names and descriptions

YY62	EGGBB	Eggs, used for hatching	mil. doz.
Z30	.TIME	Year, 1957=57	
YY61	CHISVLA	Chickens, layers, number on farms	mil. hd.
YY44	CHISPYO	Chickens, young, production	mil. lbs.

Eggs, production

EGGAP = (CHISVLA)*(EGGAA)/12.0

Variable numbers, names and descriptions

YY63	EGGAP	Eggs, production	mil. doz.
YY61	CHISVLA	Chickens, number of layers on farms	mil. hd.
YY203	EGGAA	Eggs, production per layer	

Eggs, ending stocks

EGGHT = - 28.7092 + .693292 EGGHT(-1)
(-0.38) (3.81)

+ .0184625 EGGAS
(1.44)

- 61.3829 EGGIR.67/EGGIR.67(-1)
(-3.42)

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.5152
D.W. = 2.0069
S.E.E. = 10.048

Variable numbers, names and descriptions

YY64	EGGHT	Eggs, ending stocks	mil. doz.
YY65	EGGAS	Eggs, total supply	mil. doz.
YY67	EGGIR.67	Eggs, retail price index	1967=1.0

Eggs, total supply

EGGAS = EGGAP + EGGHT(-1) + EGGMI

Variable numbers, names and descriptions

YY65	EGGAS	Eggs, total supply	mil. doz.
YY63	EGGAP	Eggs, production	mil. doz.
YY64	EGGHT	Eggs, ending stocks	mil. doz.
Z27	EGGMI	Eggs, imports	mil. doz.

Eggs, civilian disappearance

EGGCC = EGGAS - EGGHT - EGGBB - EGGCM - EGGMX

Variable numbers, names and descriptions

YY66	EGGCC	Eggs, civilian disapearance	mil. doz.
YY65	EGGAS	Eggs, total supply	mil. doz.
YY64	EGGHT	Eggs, ending stocks	mil. doz.
YY62	EGGBB	Eggs, hatching use	mil. doz.
Z28	EGGCM	Eggs, military use	mil. doz
Z29	EGGMX	Eggs, exports	mil. doz.

Eggs, retail price index

$$EGGIR.67 = \underset{(6.28)}{.0614617}\ .PC - \underset{(-3.44)}{.000799868}\ [(EGGCC)*(.PC)/.NPC]$$

$$- \underset{(-1.41)}{.000449893}\ (.TIME)(.PC)$$

$$+ \underset{(4.18)}{.271316}\ DUM7374$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9966
D.W. = 1.7378
S.E.E. = 0.0869

Variable numbers, names and descriptions

YY67	EGGI.67	Eggs, retail price index	1967=1.0
YY201	.PC	Consumer price index, all items	1967=100
YY66	EGGCC	Eggs, civilian disappearance	mil. doz.
Z1	.NPC	Population, total	mil.
Z30	.TIME	Year, 1960=60	
	DUM7374	Dummy variable, 1973-74	

Eggs, average price received by farmers

$$EGGPF = -9.77410 - .259020\ .WRHPP - .398191\ .GASIR + .821078\ EGGPRAL$$
$$(7.85) \quad (-0.39) \quad (-0.55) \quad (26.79)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9927
D.W. = 0.9759
S.E.E. = 0.8839

Variable numbers, names and descriptions

YY68	EGGPF	Eggs, average price received by farmers	cents/doz.
Z10	.WRHPP	Wage rate, poultry processing industry	$/hr.
YY69	EGGPRAL	Eggs, large grade A, retail price	cents/doz.
Z15	.GASIR	Gasoline, regular and premium, retail price index	1967=1.0

Eggs, large grade A, retail price

EGGPRAL = 2.9118 + 47.0872 EGGIR.67
(3.11) (65.34)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9950
D.W. = 0.6110
S.E.E. = 0.7950

Variable numbers, names and descriptions

YY69	EGGPRAL	Eggs, large grade A, retail price	cents/doz.
YY67	EGGIR.67	Eggs, retail price index	1967=1.0

Eggs, number produced per layer

EGGAA = 51.2774 + .552840 EGGAA(-1)
(1.86) (2.43)

+ .709783 .TIME
(2.05)

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.9540
D.W. = 1.9230
S.E.E. = 1.8000

Variable numbers, names and descriptions

YY203	EGGAA	Eggs, number produced per layer
Z30	.TIME	Year, 1961=61

Feed cost index, chickens

FDC = .6081 CORPF(-1) + .0513 SORPF*(-1)

+ .0173 OATPF(-1) + .0044 BARPF(-1)

+ .0031 WHEPF(-1) + .3157 SOMPF(-1)

Variable numbers, names and descriptions

YY345	FDC	Feed cost index, chickens	$/bu.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.
YY128	OATPF	Oats, average farm price, June-May	$/bu.
YY130	BARPF	Barley, average farm price, June-May	$/bu.
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
YY102	SOMPF	Soybeans, meal price, Oct.-Sept.	cents/lb.

Feed cost index, eggs

FDE = .4838 CORPF(-1) + .0852 SORPF*(-1)

+ .1263 OATPF(-1) + .0320 BARPF(-1)

+ .0227 WHEPF(-1) + .2500 SOMPF(-1)

Variable numbers, names and descriptions

YY346	FDE	Feed cost index, eggs	$/bu.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.
YY128	OATPF	Oats, average farm price, June-May	$/bu.
YY130	BARPF	Barley, average farm price, June-May	$/bu.
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
YY102	SOMPF	Soybeans, meal price, Oct.-Sept.	cents/lb.

Cows, dairy, number on farms

COWSNMC(+1) = .98 COWSNMC + COWSEMC

- COWKSMC

Variable numbers, names and descriptions

YY16	COWSNMC	Cows, dairy, number on farms, Jan. 1	mil. hd.
YY75	COWSEMC	Cows, dairy, additions to herd	mil. hd.
YY26	COWKSMC	Cows, dairy, slaughter	mil. hd.

Cows, dairy, slaughter

COWKSMC = 0.738171 + .326629 DUM6569 + .479213 DUM5758
(2.41) (5.59) (6.21)

+ .102808 COWSNMC + .501987 COWSEMC
(2.85) (2.33)

- .149505 MILPF/FDD
(-3.50)

- .754813 MILPF/CATPFNF
(-1.61)

Where

FDD = .5563 CORPF(-1) + .0469 SORPF(-1)

+ .2565 OATPF(-1) + .0462 BARPF(-1)

+ .0102 WHEPF(-1) + .0839 SOMPF(-1)

Estimation technique = O.L.S.
Sample period = 1955-80
R^2(ADJ) = 0.9870
D.W. = 1.4830
S.E.E. = 0.0880

Variable numbers, names and descriptions

YY26	COWKSMC	Cows, dairy, slaughter	mil. hd.
	DUM6569	Dummy variable, 1965-69	
	DUM5758	Dummy variable, 1957-58	
YY74	MILPF	Milk, all sold to plants, average wholesale price received by farmers	$/cwt.
	FDD	Dairy, feed cost index	
YY41	CATPFNF	Cattle, utility cow price, Omaha	$/cwt.
YY75	COWSEMC	Cows, dairy, additions to herd	mil. hd.
YY16	COWSNMC	Cows, dairy, number on farms, Jan. 1	mil. hd.

Milk, fed to Calves

MILBC = - .381728 + .167949 COWSNMC
(-5.87) (42.31)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9840
D.W. = 0.3380
S.E.E. = 0.0880

Variable numbers, names and descriptions

YY72	MILBC	Milk, fed to calves	bil. lbs.
YY16	COWSNMC	Cows, dairy, number on farm, Jan. 1	mil. hd.

Milk, total production

$$MILAP = (COWSNMC(+1) + COWSNMC)/2)$$
$$[-3.92481 + .135732\ MILPF/FDD$$
$$(-2.61) \quad (2.38)$$
$$+ .127848\ .TIME + .424017\ MILAP(-1)/$$
$$(2.83) \quad (2.20)$$
$$(COWSNMC + COWSNMC(-1))/2]$$

where

$$FDD = .5563\ CORPF(-1) + .0469\ SORPF*(-1)$$
$$+ .2565\ OATPF(-1) + .0462\ BARPF(-1)$$
$$+ .0102\ WHEPF(-1) + .0839\ SOMPF(-1)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9910
D.W. = 1.7200
S.E.E. = 0.1260

Variable numbers, names and descriptions

YY73	MILAP	Milk, total production	bil. lbs.
YY16	COWSNMC	Cows, dairy, number on farms, Jan 1	mil. hd.
YY74	MILPF	Milk, all sold to plants, average wholesale price received by farmers	$/cwt.
	FDD	Dairy, feed cost index	
Z30	.TIME	Year, 1960=60	

Milk, average price received by farmers

MILPF = [(MILPPFEMAT)(MILASFM) + (MILPPMAT)(MILSPPLTS - MILASFM)]/MILSPPLTS

Variable numbers, names and descriptions

YY74	MILPF	Milk, all sold to plants, average wholesale price received by farmers	$/cwt.
YY220	MILPPFEMAT	Milk, fluid eligible, producer price	$/cwt.
YY212	MILASFM	Milk, production for eligible fluid consumption	bil. lbs.
YY221	MILPPMAT	Milk, producer price, manufacturing grade milk	$/cwt.
YY223	MILSPPLTS	Milk, total sold to plants and dealers	bil. lbs.

Cows, dairy, additions to herd

$$\begin{aligned} COWSEMC = {} & 0.203916 + 1.09718\ MILPF(-1)/CALPF(-1) + .0841727\ MILPF(-1)/FDD(-1) \\ & (0.52) \qquad (1.74) \qquad\qquad\qquad\qquad (1.41) \\ & + 0.142653\ COWSNMC(-2) - .318917\ DUM6571 \\ & (18.82) \qquad\qquad\qquad (-6.02) \end{aligned}$$

Estimation technique = O.L.S.
Sample period = 1956-79
R^2(ADJ) = 0.9610
D.W. = 1.0620
S.E.E. = 0.1170

Variable numbers, names and descriptions

YY75	COWSEMC	Cows, dairy, additions to herd	mil. hd.
YY74	MILPF	Milk, all sold to plants, av. wholesale price received by farmers	$/cwt.
YY23	CALPF	Calves, average price received by farmers	$/cwt.
YY16	COWSNMC	Cows, dairy, number on farms, Jan. 1	mil. hd.
	FDD	Dairy, feed cost index	
	DUM6571	Dummy variable, 1965-71	

Milk, evaporated, retail price index

$$MILIREV = (-MILSPEC + MILCCEC + MILHTEV(+1) - MILMIEC + MILMXEC + MILCMEC - MILHTEV)^{-1}$$

Variable numbers, names and descriptions

YY76	MILIREV	Milk, evaporated, retail price index	1967=1.0
YY217	MILHTEV	Milk, condensed and evaporated, total beginning stocks	bil. lbs.
YY84	MILCCEC	Milk, condensed and evaporated, civilian disappearance	bil. lbs.
Z224	MILMIEC	Milk, condensed and evaporated, imports	bil. lbs.
Z220	MILCMEC	Milk, condensed and evaporated, military disappearance	bil. lbs.
Z227	MILMXEC	Milk, condensed and evaporated, exports	bil. lbs.
YY88	MILSPEC	MIlk, condensed and evaporated, production	bil. lbs.

Milk, fluid, retail price index

MILIR = .221189 + .0491676 .WRHD
(14.85) (3.37)

+ .105076 MILECLOP
(13.24)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9970
D.W. = 1.2690
S.E.E. = 0.0180

Variable numbers, names and descriptions

YY77	MILIR	Milk, fluid, retail price index	1967=1.0
Z4	.WRHD	Wage rate, dairy industry	$/hr.
YY215	MILECLOP	Milk, effective class I price paid by dealers	$/cwt.

Milk, ice cream, retail price index

MILIRIC = 2.35231 + .335003 .WRHD
(9.32) (5.50)

- .0382222 .TIME
(-8.44)

+ .0423319 MILECLOP
(1.79)

Estimationn technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9820
D.W. = 0.7260
S.E.E. = 0.0410

Variable numbers, names and descriptions

YY78	MILIRIC	Milk, ice cream, retail price index	1967=1.0
Z4	.WRHD	Wage rate, dairy industry	$/hr.
Z30	.TIME	Year, 1955=55	
YY215	MILECLOP	Milk, effective class I price paid by dealers	$/cwt.

Butter, retail price index

$$BUTIR = -.0858682 + .0130207\ MILBUT \quad (-3.36) \quad (16.24)$$

$$+ .0413876\ .WRHD + .101378\ .GASIR \quad (4.12) \quad (2.95)$$

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9960
D.W. = 2.9250
S.E.E. = 0.0200

Variable numbers, names and descriptions

YY80	BUTIR	Butter, retail price index	1967=1.0
YY214	MILBUT	Butter, wholesale price, grade A, Chicago	cents/lb.
Z4	.WRHD	Wage rate, all dairy industry	$/hr.
Z15	.GASIR	Gasoline, regular and premium, consumer price index	1967=1.0

Cheese, American, retail price index

$$\begin{aligned} \text{CHEIRAM} = {} & .0391632 + .0138097\ \text{MILAMCHEE} \\ & (1.00) \qquad (4.20) \\ & + .0832134\ .\text{WRHD} + .0832052\ .\text{GASIR} \\ & (1.59) \qquad (1.13) \end{aligned}$$

Estimation technique	= O.L.S.
Sample period	= 1955-79
R^2((ADJ)	= 0.9950
D.W.	= 1.8430
S.E.E.	= 0.0380

Variable numbers, names and descriptions

YY81	CHEIRAM	Cheese, American, retail price index	1967=1.0
YY211	MILAMCHEE	American Cheese, wholesale price, Wisc. assbly. pts.	cents/lb.
Z4	.WRHD	Wage rate, all dairy industry	$/hr.
Z15	.GASIR	Gasoline, regular and premium, consumer price index	1967=1.0

Frozen dairy products, civilian disappearance

$$MILCCFZ = .NPC\ [.0730505 - 1.90300\ MILIRIC/.PC \quad (7.28) \quad (-3.46)$$

$$-.093076\ .YPD\$/(.NPC)(.PC)] \quad (-0.61)$$

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.7400
D.W. = 0.8240
S.E.E. = 0.0010

Variable numbers, names and descriptions

YY82	MILCCFZ	Frozen dairy products, civilian disappearance	bil. lbs.
Z1	.NPC	Population, total	mil.
YY78	MILIRIC	Milk, ice cream, retail price index	1967=1.0
YY201	.PC	Consumer price index, all items	1967=100
Z34	.YPD$	Personal disposable income	bil. dol.

Milk, condensed and evaporated, civilian disappearance

$$MILCCEC = .NPC\ [.0230599 + .00121912\ DUM6568 - .00241843\ MILIREV/\ MILIR - .459281\ .YPD\$/(.NPC)(.PC)]$$
$$(13.12) \quad (4.06) \quad (-2.15) \quad (-5.37)$$

Estimation technique	= O.L.S.
Sample period	= 1965-79
R^2(ADJ)	= 0.9800
D.W.	= 1.6660
S.E.E.	= 0.0003

Variable numbers, names and descriptions

YY84	MILCCEC	Milk, condensed and evaporated, civilian disappearance	bil. lbs.
Z1	.NPC	Population, total	mil.
YY201	.PC	Consumer price index, all items	1967=100
YY76	MILIREV	Milk, evaporated, retail price index	1967=1.0
YY77	MILIR	Milk, fluid, retail price index	1967=1.0
Z34	.YPD$	Personal disposable income	bil. dol.
	DUM6568	Dummy variable, 1965-68	

Milk, fluid plus cream, civilian disappearance

$$\begin{aligned} MILCCMC = {} & .NPC\ [2.45628 - .0915642\ MILIR/.PCNAL \\ & \quad (10.67) \qquad (-7.86) \\ & - .0470187\ MILIR/MILPWDR] \\ & \quad (-2.54) \\ & - 6.02686\ .TIME \\ & \quad (-9.75) \end{aligned}$$

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9600
D.W. = 0.9890
S.E.E. = 0.0070

Variable numbers, names and descriptions

YY85	MILCCMC	Milk, fluid plus cream, civilian disappearance	bil. lbs.
YY205	MILPWDR	Milk, non-fat dry, wholesale price index	1967=1.0
YY77	MILIR	Milk, fluid, retail price index	1967=1.0
YY326	.PCNAL	Consumer price index, non-alcoholic beverages	1967=1.0
Z30	.TIME	Year, 1955=55	
Z1	.NPC	Population, total	mil.

Cheese, civilian disappearance

$$CHECT = .NPC\ [.00307155\ \underset{(1.11)}{} - .955747\ CHEIRAM/.PC \underset{(-2.02)}{}$$

$$+ .609481\ .YPD\$/(.NPC)(.PC) \underset{(7.68)}{} + .00368518\ DUM7480] \underset{(6.90)}{}$$

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9900
D.W. = 1.0790
S.E.E. = 0.0003

Variable numbers, names and descriptions

YY86	CHECT	Cheese, civilian disappearance	bil. lbs.
Z1	.NPC	Population, total	mil.
YY81	CHEIRAM	Cheese, American, retail price index	1967=1.0
Z34	.YPD$	Personal disposable income	bil. dol.
Z30	.TIME	Year, 1955=55	—
YY201	.PC	Consumer price index, all items	1967=1.0
	DUM7480	Dummy variable, 1974-1980	

Butter, civilian disappearance

$$BUTCC = .NPC\ [.0600122 - .00274512\ BUTIR/MARIR + .00114400\ DUM7879 - .00080432\ DUM74] - .152247\ .TIME$$
$$(9.17)\quad (-2.46)\quad (3.12)\quad (-1.61)\quad (-8.93)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.8690
D.W. = 1.0220
S.E.E. = 0.0004

Variable numbers, names and descriptions

YY87	BUTCC	Butter, civilian disappearance	bil. lbs.
Z1	.NPC	Population, total	mil.
YY80	BUTIR	Butter, retail price index	1967=1.0
YY327	MARIR	Consumer price index, margarine	1967=1.0
Z30	.TIME	Year, 1960=60	
	DUM74	Dummy variable, 1974	
	DUM7879	Dummy variable, 1978-79	

Milk, evaporated and condensed production, milk equivalent

MILSPEC* = .313912 + 1.96209 MILSPEC
(6.63) (75.60)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9970
D.W. = 1.1870
S.E.E. = 0.0640

Variable numbers, names and descriptions

YY88	MILSPEC	Evaporated and condensed milk production	bil. lbs.
	MILSPEC*	Milk, evaporated and condensed production, milk equivalent	bil. lbs.

Milk, frozen products, production

MILSPFZ = MILCMFZ - MILMIFZ + MILCCFZ

Variable numbers, names and descriptions

YY89	MILSPFZ	Milk, frozen products, production	bil. lbs.
Z221	MILCMFZ	Milk, frozen products, military disappearance	bil. lbs.
Z225	MILMIFZ	Milk, frozen dairy products, imports	bil. lbs.
YY82	MILCCFZ	Milk, frozen dairy products, civilian disappearance	bil. lbs.

Cheese, total production

$$CHESP = \underset{(-3.74)}{-6.07091} + \underset{(10.79)}{.111475}\ MILMFG + \underset{(3.74)}{3.12002}\ MILAMCHEE/MILBUT + \underset{(0.60)}{.0101392}\ MILAMCHEE/MILPWDR - \underset{(-3.22)}{.517856}\ DUM74 + \underset{(2.15)}{.288983}\ DUM68$$

Estimation technique	= O.L.S.
Sample period	= 1965-79
R^2(ADJ)	= 0.9660
D.W.	= 1.6160
S.E.E.	= 0.1210

Variable numbers, names, and descriptions

YY90	CHESP	Cheese, total production	bil. lbs.
YY211	MILAMCHEE	American cheese, wholesale price, Wisc. assbly pts, 40-lb. blks.	cents/lb.
YY214	MILBUT	Butter, wholesale price, grade A, Chicago	cents/lb.
YY210	MILMFG	Milk, available for manufacturing	bil. lbs.
YY205	MILPWDR	Milk, non-fat dry, wholesale price index	1967=1.0
	DUM74	Dummy variable, 1974	
	DUM68	Dummy variable, 1968	

Dairy, retail price index

$$\begin{aligned} DARCPI = &- .039374 + .671257\ MILIR \\ &\quad (-4.80) \quad (39.59) \\ &+ .0775998\ MILIRIC \\ &\quad (10.26) \\ &+ .102841\ BUTIR + .190153\ CHEIRAM \\ &\quad (11.69) \qquad (14.60) \end{aligned}$$

Estimation technique	= O.L.S.
Sample period	= 1955-79
R^2(ADJ)	= 0.9990
D.W.	= 1.8380
S.E.E.	= 0.0030

Variable numbers, names and descriptions

YY91	DARCPI	Dairy, retail price index	1967=1.0
YY77	MILIR	Milk, fluid, retail price index	1967=1.0
YY78	MILIRIC	Ice cream, retail price index	1967=1.0
YY80	BUTIR	Butter, retail price index	1967=1.0
YY81	CHEIRAM	Cheese, American, retail price index	1967=1.0

Milk, non-fat dry, civilian disappearance

$$MILCCND = .NPC \left[-\underset{(-10.95)}{.00243915}\ MILPWDR/MILIR + \underset{(2.08)}{.0515417}\ .YPD\$/(.NPC)(.PC) + \underset{(14.99)}{.00667157} + \underset{(5.07)}{.00140079}\ DUM73 \right]$$

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9370
D.W. = 1.5090
S.E.E. = 0.0003

Variable numbers, names and descriptions

YY204	MILCCND	Milk, non-fat dry, civilian disappearance	bil. lbs.
Z1	.NPC	Population, total	mil.
YY77	MILIR	Milk, fluid, retial price index	1967=1.0
YY201	.PC	Consumer price index, all items	1967=100
Z34	.YPD$	Personal disposable income	bil. dol.
YY205	MILPWDR	Milk, non-fat dry, wholesale price index	1967=1.0
	DUM73	Dummy variable, 1973	

Milk, non-fat dry, wholesale price index

$$MILPWDR = (- MILSPND + MILCCND + MILHGND(+1) - MILHGND - MILMIND + MILHBND(+1) - MILHBND + MILMXND + MILBCND + MILCMND)^{-1}$$

Variable numbers, names and descriptions

YY205	MILPWDR	Milk, non-fat dry, wholesale price index	1967=1.0
YY222	MILSPND	Milk, non-fat dry, production	bil. lbs.
YY204	MILCCND	Milk, non-fat dry, civilian disappearance	bil. lbs.
YY216	MILHGND	Milk, non-fat dry, beginning government stocks	bil. lbs.
Z226	MILMIND	Milk, non-fat dry, imports	bil. lbs.
Z228	MILMXND	Milk, non-fat dry, exports	bil. lbs.
YY213	MILBCND	Milk, non-fat dry, fed to calves	bil. lbs.
Z222	MILCMND	Milk, non-fat dry, military disappearance	bil. lbs.

Butter, government stocks

BUTHG(+1) = BUTSP - BUTCC + BUTHG

- BUTHB(+1) + BUTHB - BUTMX

- BUTCM + BUTMI

Variable numbers, names and descriptions

YY206	BUTHG	Butter, beginning stocks, government	bil. lbs.
YY207	BUTSP	Butter, total production	bil. lbs.
YY87	BUTCC	Butter, civilian disappearance	bil. lbs.
Z213	BUTHB	Butter, beginning stocks, commercial	bil. lbs.
Z215	BUTMX	Butter, exports	bil. lbs.
Z212	BUTCM	Butter, military disappearance	bil. lbs.
Z214	BUTMI	Butter, imports	bil. lbs.

Butter, total production

BUTSP= - .350572 + 1.22365 MILBUT/MILAMCHEE + .0116949 MILMFG
(-1.30) (6.31) (2.40)

- .0152769 MILAMCHEE/MILPWDR + .153427 DUM74
(-2.42) (2.40)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9260
D.W. = 0.8990
S.E.E. = 0.0570

Variable numbers, names and descriptions

YY207	BUTSP	Butter, total production	bil. lbs.
YY214	MILBUT	Butter, wholesale price, Grade A, Chicago	cents/lb.
YY211	MILAMCHEE	American cheese, wholesale price, Wisc. assembly pts.	cents/lb.
YY210	MILMFG	Milk, available for manufacturing	bil. lbs.
YY205	MILPWDR	Milk, non-fat dry, wholesale price index	1967=1.0
	DUM74	Dummy variable, 1974	

Cheese, commercial stocks

$$CHEHB(+1) = -0.139726 + .260058\ CHEHB + .0556479\ CHESP$$
$$(3.23) \quad (1.48) \quad (3.06)$$

Estimation technique = O.L.S.
Sample period = 1956-79
R^2(ADJ) = 0.5810
D.W. = 2.0450
S.E.E. = 0.0440

Variable numbers, names and descriptions

YY208	CHEHB	Cheese, beginning stocks, commercial	bil. lbs.
YY90	CHESP	Cheese, total production	bil. lbs.

Cheese, government stocks

CHEHG(+1) = CHESP - CHEHB(+1) - CHECT

- CHEMX - CHECM + CHEMI

+ CHEHB + CHEHG

Variable numbers, names and descriptions

YY209	CHEHG	Cheese, beginning stocks, government	bil. lbs.
YY90	CHESP	Cheese, total production	bil. lbs.
YY208	CHEHB	Cheese, beginning stocks, commercial	bil. lbs.
YY86	CHECT	Cheese, civilian disappearance	bil. lbs.
Z217	CHEMX	Cheese, total exports	bil. lbs.
Z216	CHECM	Cheese, military disappearance	bil. lbs.
Z233	CHEMI	Cheese, imports	bil. lbs.

Milk, available for manufacturing

MILMFG = MILAP - MILBC - MILCCMC - MILSPFZ - MILSPEC*

Variable numbers, names and descriptions

YY210	MILMFG	Milk, available for manufacturing	bil. lbs.
YY73	MILAP	Milk, total production	bil. lbs.
YY72	MILBC	Milk, fed to calves	bil. lbs.
YY85	MILCCMC	Milk, fluid plus cream, civilian disappearance	bil. lbs.
YY89	MILSPFZ	Milk, frozen products, production	bil. lbs.
YY361	MILSPEC*	Milk, evaporated and condensed production, milk equivalent	bil. lbs.

American cheese, wholesale price, Wisc. assemble pts.

$$MILAMCHEE = (- CHESP + CHECT + CHEHB(+1) - CHEHB + CHEMX + CHECM - CHEMI + CHEHG(+1) - CHEHG)^{-1}$$

Variable numbers, names and descriptions

YY211	MILAMCHEE	American cheese, wholesale price, Wis. assemble pts.	cents/lbs.
YY90	CHESP	Cheese, total production	bil. lbs.
YY86	CHECT	Cheese, civilian disappearance	bil. lbs.
YY208	CHEHB	Cheese, beginning stocks, commercial	bil. lbs.
Z217	CHEMX	Cheese, total exports	bil. lbs.
Z216	CHECM	Cheese, military disappearance	bil. lbs.
Z233	CHEMI	Cheese, imports	bil. lbs.
YY209	CHEHG	Cheese, beginning stocks, government	bil. lbs.

Milk, production eligible for fluid consumption

$$MILASFM = (MILSPPLTS)(-.0433665 + 1.02736\ MILASFM(-1)/MILSPPLTS(-1)) + .0236661\ (MILPPFEMAT(-1) - MILPPMAT(-1))$$
$$(-1.24) \quad (38.61) \qquad\qquad (1.38)$$

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9860
D.W. = 2.7270
S.E.E. = 0.0080

Variable numbers, names and descriptions

YY212	MILASFM	Milk, production eligible for fluid consumption	bil. lbs.
YY223	MILSPPLTS	Milk, total sold to plants and dealers	bil. lbs.
YY220	MILPPFEMAT	Milk, producer price, fluid eligible	$/cwt.
YY221	MILPPMAT	Milk, producer price, manufacturing grade	$/cwt.

Milk, non-fat dry, fed to calves

$$\begin{aligned} MILBCND = & -1.14712 - 0.541445\ MILPWDR/MILPF \\ & (-5.54) \quad (-5.18) \\ & + .0223521\ COWSNMC \\ & (5.49) \\ & - 0.0145329\ .TIME \\ & (5.83) \end{aligned}$$

Estimation technique	= O.L.S.
Sample period	= 1955-1979
R^2(ADJ)	= 0.578
D.W.	= 2.213
S.E.E.	= 0.013

Variable numbers, names and descriptions

YY213	MILBCND	Milk, non-fat dry, fed to calves	bil. lbs.
YY205	MILPWDR	Milk, non-dry wholesale price index index	1967=1.0
YY74	MILPF	Milk, all sold to plants, average wholesale price received by farmers	$/cwt.
YY16	COWSNMC	Cows, dairy, number on farms, Jan. 1	mil. hd.
Z30	.TIME	Year, 1955=55	

Butter, wholesale price, grade A, Chicago

$$MILBUT = (-BUTSP + BUTCC + BUTHB(+1) - BUTHB + BUTMX + BUTCM - BUTMI + BUTHG(+1) - BUTHG)^{-1}$$

Variable numbers, names and descriptions

YY214	MILBUT	Butter, wholesale price, grade A, Chicago	cents/lb.
YY207	BUTSP	Butter, total production	bil. lbs.
YY87	BUTCC	Butter, civilian disappearance	bil. lbs.
Z213	BUTHB	Butter, beginning stocks, commercial	bil. lbs.
Z215	BUTMX	Butter, exports	bil. lbs.
Z212	BUTCM	Butter, military disappearance	bil. lbs.
Z214	BUTMI	Butter, imports	bil. lbs.
YY206	BUTHG	Butter, beginning stocks, government	bil. lbs.

Milk, effective class I price paid by dealers

MILECLOP = MILOOP + MILOMP

Variable numbers, names and descriptions

YY215	MILECLOP	Milk, effective class I price paid by dealers	$/cwt.
Z230	MILOOP	Milk, class I over order payments	$/cwt.
YY219	MILOMP	Milk, class I minimum federal order price	$/cwt.

Milk, non-fat dry, government stocks

MILHGND(+1) = MILCCND + MILSPND
+ MILHGND - MILBCND
+ MILMIND - MILHBND(+1)
+ MILHBND - MILMXND
- MILCMND

Variable numbers, names and descriptions

YY216	MILHGND	Milk, non-fat dry, beginning government stocks	bil. lbs.
YY204	MILCCND	Milk, non-fat dry, civilian disappearance	bil. lbs.
YY222	MILSPND	Milk, non-fat dry, production	bil. lbs.
YY213	MILBCND	Milk, non-fat dry, fed to calves	bil. lbs.
Z226	MILMIND	Milk, non-fat dry, imports	bil. lbs.
Z223	MILHBND	Milk, non-fat dry, beginning stocks, commercial	bil. lbs.
Z228	MILMXND	Milk, non-fat dry, exports	bil. lbs.
Z222	MILCMND	Milk, non-fat dry, military disappearance	bil. lbs.

Milk, condensed and evaporated, total ending stocks

$$MILHTEV(+1) = -.0291461 + .0862268\ MILSPEC + .0546571\ DUM6667$$
$$(-1.82) \quad (9.68) \quad (3.35)$$

Estimation technique = O.L.S.
Sample period = 1956-79
R^2(ADJ) = 0.8620
D.W. = 1.6630
S.E.E. = 0.0220

Variable numbers, names and descriptions

YY217	MILHTEV	Milk, condensed and evaporated, total beginning stocks	bil. lbs.
	DUM6667	Dummy variable, 1966-67	
YY88	MILSPEC	Milk, condensed and evaporated, production	bil. lbs.

Milk, Minnesota-Wisconsin manufacturing price

$$\underset{(-3.15)}{-.226964} + \underset{(3.34)}{.0114579}\ \text{MILBUT} + \underset{(3.52)}{.449113}\ \text{MILPWDR} + \underset{(9.31)}{.0663590}\ \text{MILAMCHEE}$$

MILMWAT =

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9990
D.W. = 1.5170
S.E.E. = 0.0530

Variable numbers, names and descriptions

YY218	MILMWAT	Milk, Minnesota-Wisconsin manufacturing price	$/cwt.
YY214	MILBUT	Butter, wholesale price, grade A, Chicage	cents/lb.
YY211	MILAMCHEE	American cheese, wholesale price, Wisconsin assembly points	cents/lb.
YY205	MILPWDR	Milk, non-fat dry, wholesale price index	1967=1.0

Milk, class I minimun federal price

MILOMP = MILCIDF + MILMWAT

Variable numbers, names and descriptions

YY219	MILOMP	Milk, class I minimum federal order price	$/cwt.
Z219	MILCIDF	Difference between class one federal order minimum price and Minn-Wisc. manufacturing grade price (class I differential)	$/cwt.
YY218	MILMWAT	Milk, Minn.-Wisc. manufacturing grade price	$/cwt.

Milk, producer price, fluid eligible

```
MILPPFEMAT = MILPFDIF + [(MILECLOP)
             (MILCCMC)(MILSPPLTS)/(MILAP -
              MILBC) + (MILMWAT)((MILASFM -
              MILCCMC)(MILSPPLTS))/(MILAP -
              MILBC)]/MILASFM
```

Variable numbers, names and descriptions

YY220	MILPPFEMAT	Milk, producer price, fluid eligible	$/cwt.
Z231	MILPFDIF	Difference between actual producer price and computed federal order price	$/cwt.
YY215	MILECLOP	Milk, effective Class I price paid by dealers	$/cwt.
YY85	MILCCMC	Milk, fluid plus cream, civilian disappearance	bil. lbs.
YY223	MILSPPLTS	Milk, total sold to plants and dealers	bil. lbs.
YY73	MILAP	Milk, total production	bil. lbs.
YY212	MILASFM	Milk, production eligible for fluid consumption	bil. lbs.
YY218	MILMWAT	Milk, Minnesota-Wisconsin manufacturing grade price	$/cwt.
YY72	MILBC	Milk, fed to calves	bil. lbs.

Milk, producer price, manufacturing grade

MILPPMAT = - .283616 + .0178284 MILBUT + .599078 MILPWDR
(-1.31) (1.77) (3.15)

+ .0543683 MILAMCHEE
(5.13)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9990
D.W. = 2.3930
S.E.E. = 0.0790

Variable numbers, names and descriptions

YY221	MILPPMAT	Milk, producer price, manufacturing grade	$/cwt.
YY214	MILBUT	Butter, wholesale price, grade A, Chicago	cents/lb.
YY211	MILAMCHEE	American cheese, wholesale price, Wisc. assembly pts.	cents/lb.
YY205	MILPWDR	Milk, non-fat dry, wholesale price index	1967=1.0

Milk, non-fat dry, production

MILSPND = .220950 + 1.50162 BUTSP
(0.71) (8.62)

- .225588 CHESP
(-4.44)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9610
D.W. = 0.5100
S.E.E. = 0.0910

Variable numbers, names and descriptions

YY222	MILSPND	Milk, non-fat dry, production	bil. lbs.
YY207	BUTSP	Butter, total production	bil. lbs.
YY90	CHESP	Cheese, total production	bil. lbs.

Milk, total sold to plants and dealers

$$MILSPPLTS = (MILAP - MILBC)(-1.73964 + .0717014\ .TIME - .000473564\ .TIME^{**2})$$
$$(-17.00) \quad (23.28) \quad (-20.63)$$

Estimation Technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9930
D.W. = 0.2890
S.E.E. = 0.0050

Variable numbers, names and descriptions

YY223	MILSPPLTS	Milk, total sold to plants and dealers	bil. lbs.
YY73	MILAP	Milk, total production	bil. lbs.
YY72	MILBC	Milk, fed to calves	bil. lbs.
Z30	.TIME	Year, 1955=55	

Cheese, cheddar, U.S.D.A purchases

CHEGU = CHEHG(+1) - CHEHG + CHEGG

+ CHEMG - CHEDV

Variable numbers, names and descriptions

YY224	CHEGU	Cheese, cheddar, U.S.D.A. purchases	bil. lbs.
YY209	CHEHG	Cheese, beginning stocks, government	bil. lbs.
Z236	CHEGG	Cheese, government donations	bil. lbs.
Z239	CHEMG	Cheese, government exports	bil. lbs.
Z242	CHEDV	Cheese, unaccounted government residual	bil. lbs.

Butter, U.S.D.A. purchases

BUTGU = BUTHG(+1) - BUTHG + BUTGG + BUTMG

- BUTDV

Variable numbers, names and descriptions

YY225	BUTGU	Butter, U.S.D.A. purchases	bil. lbs.
YY206	BUTHG	Butter, beginning stocks, government	bil. lbs.
Z235	BUTGG	Butter, government donations	bil. lbs.
Z238	BUTMG	Butter, government exports	bil. lbs.
Z241	BUTDV	Butter, unaccounted government residual	bil. lbs.

Milk, non-fat dry, U.S.D.A. purchases

MILGUND = MILHGND(+1) - MILHGND

+ MILGGND + MILMGND

- MILDVND

Variable numbers, names and descriptions

YY226	MILGUND	Milk, non-fat dry, U.S.D.A. purchases	bil. lbs.
YY216	MILHGND	Milk, non-fat dry, beginning stocks, government	bil. lbs.
Z237	MILGGND	Milk, non-fat dry, government donations	bil. lbs.
Z240	MILMGND	Milk, non-fat dry, government exports	bil. lbs.
Z243	MILDVND	Milk, non-fat dry, unaccounted government residual	bil. lbs.

Butter, commercial stocks

$$BUTHB(+1) = \underset{(0.32)}{.0036095} + \underset{(2.49)}{.0162062}\ BUTSP + \underset{(2.49)}{.0156486}\ DUM7374$$

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.2030
D.W. = 2.0440
S.E.E. = 0.0080

Variable numbers, names and descriptions

YY331	BUTHB	Butter, beginning stocks, commercial	bil. lbs.
YY207	BUTSP	Butter, total production	bil. lbs.
	DUM7374	Dummy variable, 1973-74	

Milk, non-fat dry, commercial stocks

$$MILHBND(+1) = \underset{(2.27)}{.0420496} + \underset{(2.35)}{.0276756}\ MILSPND + \underset{(2.65)}{.0647213}\ DUM74$$

Estimation technique	= O.L.S.
Sample period	= 1961-79
R^2(ADJ)	= 0.3010
D.W.	= 2.5130
S.E.E.	= 0.0230

Variable number, names and descriptions

YY332	MILHBND	Milk, non-fat dry, beginning commercial stocks	bil. lbs.
YY222	MILSPND	Milk, non-fat dry, production	bil. lbs.
	DUM74	Dummy variable, 1974	

Feed cost index, dairy

FDD = .5563 CORPF(-1) + .0469 SORPF*(-1)

+ .2565 OATPF(-1) + .0462 BARPF(-1)

+ .0102 WHEPF(-1) + .0839 SOMPF(-1)

YY347	FDD	Feed cost index, dairy	$/bu.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.
YY128	OATPF	Oats, average farm price, June-May	$/bu.
YY130	BARPF	Barley, average farm price, June-May	$/bu.
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
YY102	SOMPF	Soybean meal price, Oct.-Sept.	cents/lb.

Butter, government support payments

BUTGP = (BUGU) (MILSPPBUT)/.10

Variable number, names and descriptions

YY350	BUTGP	Butter, government support payments	mil. dol.
YY225	BUTGU	Butter, USDA purchases	bil. lbs.
Z232	MILSPPBUT	Butter, support price	cents/lbs

Cheese, government support payments

CHEGP = (CHEGU)(MILCHCHSPP)/.10

Variable numbers, names and descriptions

YY351	CHEGP	Cheese, government support payments	mil. dol.
YY224	CHEGU	Cheese, cheddar, USDA purchases	bil. lbs.
Z218	MILCHCHSPP	Cheese, cheddar, support price	cents/lb.

Non-fat dry milk government support payments

NFDGP = (MILGUND) (MILNFDSPP)/.10

Variable numbers, names and descriptions

YY352	NFDGP	Non-fat dry milk, government support payments	mil. dol.
YY226	MILGUND	Non-fat dry milk, USDA purchases	bil. lbs.
Z229	MILNFDSPP	Non-fat dry milk, support price	cents/lb.

Dairy, total Government support payments

DAIGP = BUTGP + CHEGP + NFDGP

Variable numbers, names and descriptions

YY353	DAIGP	Dairy, total government support payments	bil. cents
YY350	BUTGP	Butter, government support payments	bil. cents
YY351	CHEGP	Cheese, government support payments	bil. cents
YY352	NFDGP	Non-fat dry milk, government support	bil. cents

Soybeans, CCC ending stocks

SOYHH = SOYHT - SOYHCC - SOYHF - SOYHR

Variable names, numbers and descriptions

YY70	SOYHH	Soybeans, CCC ending stocks	mil. bu.
YY97	SOYHT	Soybeans, total ending stocks	mil. bu.
YY152	SOYHCC	Soybeans, commercial ending stocks	mil. bu.
Z94	SOYHF	Soybeans, ending stocks under loan	mil. bu.
Z96	SOYHR	Soybeans, ending stocks under reseal	mil. bu.

Soybean, exports

SOYMX = - 283.930 + 514.492 LIVJP*EC
(-4.18) (7.67)

- 83.3499 D71 - 88.1920 D74
(-2.49) (-2.77)

+ 1.99043 [.FEHJN + .FEHEC9]
(2.64)

- 20.7035 SOYPM/.SDR*OCT
(-1.68)

Estimation technique = O.L.S.
Sample period = 1962-79
R^2(ADJ) = 0.9717
D.W. = 2.2846
S.E.E. = 29.269

Variable numbers, names and descriptions

YY96	SOYMX	Soybean, exports, Oct.-Sept.	mil. bu.
Z79	LIVJP*EC	Livestock, EEC production index	1964=1.0
	D71	Dummy variable, 1971	
	D74	Dummy variable, 1974	
Z103	.FEHJN	Foreign exchange holdings of Japan	bil. SDR
Z104	.FEHEC9	Foreign exchange holdings of EEC-9 countries	bil. SDR
YY107	SOYPM	Soybean, mkt. price, #1 yellow Ill. pts.	$/bu.
Z102	.SDR*OCT	U.S. $/SDR: Average of quarterly means	$/SDR

Soybeans, total ending stocks

SOYHT = SOYSP + SOYHT(-1) - SOYDV - SOYMX - SOYSC

Variable numbers, names and descriptions

YY97	SOYHT	Soybeans, total ending stocks	mil. bu.
YY142	SOYSP	Soybeans, production	mil. bu.
YY330	SOYDV	Soybeans, feed, seed, and residual use	mil. bu.
YY96	SOYMX	Soybeans, exports	mil. bu.
YY98	SOYSC	Soybeans, quantity crushed	mil. bu.

Soybeans, quantity crushed

SOYSC = 3072.24 - 191.293 SOYPM
(3.85) (-6.01)

+ 64.2088 SOMPF + 16.3838 SOOPM
(4.93) (4.73)

- 109.178 .TIME + 1.10329 .TIME**2
(-4.40) (5.64)

Estimation technique = O.L.S.
Sample Period = 1955-79
R^2(ADJ) = 0.9820
D.W. = 2.2590
S.E.E. = 27.428

Variable numbers, names and descriptions

YY98	SOYSC	Soybeans, quantity crushed, Oct.-Sept.	mil. bu.
YY107	SOYPM	Soybeans, mkt. price, #1 yellow Ill. pts.	$/bu.
YY102	SOMPF	Soybean meal, price	cents/lb.
YY106	SOOPM	Soybean oil, price	cents/lb.
Z30	.TIME	Year, 1955=55	Index

Soybean meal, production

SOMSP* = - 64.5070 + 100.305 (SOMSC*) (SOYSC)
(-1.54) (679.51)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 1.0000
D.W. = 1.1085
S.E.E. = 67.010

Variable numbers, names and descriptions

YY99	SOMSP*	Soybean meal, production Oct.-Sept.	mil. lbs.
YY98	SOYSC	Soybeans, quantity crushed	mil. bu.
Z87	SOMSC*	Soybean meal, crushing yield	cwt.

Soybean meal, domestic disappearance

SOMDD*/HPAU71(+1) = - 28961.6
(-9.44)

- 4189.71 D74 + 824.613 .TIME
(-3.29) (17.93)

- 1435.11 SOMPF/LIVIF(+1)
(-4.21)

+ 3072.11 CORPF/LIVIF(+1)
(2.36)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(AdJ) = 0.9500
D.W. = 1.7623
S.E.E. = 1004.9

Variable numbers, names and descriptions

YY100	SOMDD*	Soybean meal, domestic disappearance	mil. lbs.
	D74	Dummy variable, 1974	
YY102	SOMPF	Soybean meal, price	cents/lb.
YY92	LIVIF	Livestock, price index	1967=1.0
YY127	CORPF	Corn, average farm price	$/bu.
YY361	HPAU71	High protein animal units	1971=1.0
Z30	.TIME	Year, 1955=55	

Soybean meal, exports

$$SOMMX^* = \underset{(-7.25)}{-8650.02} + \underset{(1.90)}{11.6631}\ FIMPW + \underset{(12.40)}{13347.4}\ LIVJP^*EC$$

$$- \underset{(-3.11)}{.495395}\ SOMMXBR - \underset{(-2.18)}{757.554}\ SOMPF/.SDR^*OCT - \underset{(-2.37)}{1645.12}\ D71$$

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.9698
D.W. = 2.1231
S.E.E. = 613.05

Variable numbers, names and descriptions

YY101	SOMMX*	Soybean meal, exports, Oct.-Sept.	mil. lbs.
Z78	FIMPW	Fishmeal price at European ports 65%, adjusted for exchange rates	$/short ton
Z79	LIVJP*EC	Livestock, EEC production index	1964=1.0
Z85	SOMMXBR	Soybean meal, Brazil, total exports	thou. met. tons
YY102	SOMPF	Soybean meal price	cents/lb.
Z102	.SDR*OCT	U.S. $/SDR	$/SDR
	D71	Dummy variable, 1971	

Soybean meal, price

$$SOMPF = (SOMSP^* + SOMHT^*(-1) - SOMHT^* - SOMMX^* - SOMDD^*)^{-1}$$

Variable numbers, names and descriptions

YY102	SOMPF	Soybean meal, price	cents/lb.
YY99	SOMSP*	Soybean meal, production	mil. lbs.
YY328	SOMHT*	Soybean meal, ending stocks	mil. lbs.
YY101	SOMMX*	Soybean meal, exports	mil. lbs.
YY100	SOMDD*	Soybean meal, domestic disappearance	mil. lbs.

Soybean oil, production

SOOSP= - 29.3863 + 100.616 (SOOSC*)(SOYSC)
(-1.25) (279.61)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9990
D.W. = 1.5340
S.E.E. = 37.360

Variable number, names and descriptions

YY103	SOOSP	Soybean oil, production Oct.-Sept.	mil. lbs.
YY98	SOYSC	Soybeans, quantity crushed	mil. bu.
Z91	SOOSC*	Soybean oil, crushing yield	cwt.

Soybean oil, total ending stocks

SOOHT = 1397.86
(6.00)

- 3718.60 SOOPM/.PC(+1) - 457.089 D6172
(-2.37) (-4.21)

+ SOOHH

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.4662
D.W. = 1.9557
S.E.E. = 183.78

Variable numbers, names and descriptions

YY104	SOOHT	Soybean oil, total ending stocks	mil. lbs.
YY106	SOOPM	Soybean oil, price	cents/lb.
Z88	SOOHH	Soybean oil, government ending stocks	mil. lbs.
YY201	.PC	Consumer price index, all items	1967=100
	D6172	Dummy variable, 1961-72	

Soybean oil, domestic demand

$$SOODD/.NPC(+1) = \underset{(-9.75)}{-46.0157} + \underset{(5.46)}{.985179}\ .TIME + \underset{(3.37)}{5.55169}\ D73 - \underset{(-2.97)}{55.4644}\ SOOPM/.PC(+1) + \underset{(1.20)}{359.367}\ .YPD\$(+1)/(.PC(+1)\ NPC(+1)) + \underset{(.98)}{11.4348}\ PIPMKSE/.PC(+1)$$

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.9706
D.W. = 2.1013
S.E.E. = 1.1222

Variable numbers, names and descriptions

YY105	SOODD	Soybean oil, domestic demand	mil. lbs.
Z1	.NPC	Population, total	mil.
Z30	.TIME	Year; 1955=55	
	D73	Dummy variable, 1973	
YY106	SOOPM	Soybean oil, price	cents/lb.
YY201	.PC	Consumer price index, all items	1967=100
Z34	.YPD$	Personal disposable income, current dollars	bil. dol.
Z83	PIPMKSE	Peanuts, wholesale prize of oil at southeastern mills	cents/lb.

Soybean oil, price

SOOPM = (SOOSP + SOOHT(-1) - SOOHT - SOODD

- SOOMC**+PL)$^{-1}$

Variable numbers, names and descriptions

YY106	SOOPM	Soybean oil, price	cents/lb.
YY103	SOOSP	Soybean oil, production	mil. lbs.
YY104	SOOHT	Soybean oil, ending stocks	mil. lbs.
YY105	SOODD	Soybean oil, domestic disappearance	mil. lbs.
YY329	SOOMC**+PL	Soybean oil, exports	mil. lbs.

Soybeans, market price

$$SOYPM = (SOYSP + SOYHH(-1) + SOYHCC(-1) + SOYHF(-1) + SOYHR(-1) - SOYDV - SOYMX - SOYSC - SOYHH - SOYHCC - SOYHF - SOYHR)^{-1}$$

Variable numbers, names and descriptions

YY107	SOYPM	Soybeans, market price, #1 yellow, Ill. pts.	$/bu.
YY142	SOYSP	Soybeans, production	mil. bu.
YY70	SOYHH	Soybeans, CCC ending stocks	mil. bu.
YY152	SOYHCC	Soybeans, commercial ending stocks	mil. bu.
Z94	SOYHF	Soybeans, ending stocks under loan	mil. bu.
Z96	SOYHR	Soybeans, ending stocks under reseal	mil. bu.
YY330	SOYDV	Soybeans, feed, seed, and residual use	mil. bu.
YY98	SOYSC	Soybeans, quantity crushed	mil. bu.

Soybeans, average farm price

SOYPF = - .0419478 + .940560 SOYPM
(-0.79) (65.43)

- 1.43834 D72 + .737607 D74
(-11.74) (6.00)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9940
D.W. = 1.7790
S.E.E. = 175.22

Variable numbers, names and descriptions

YY108	SOYPF	Soybeans, average farm price, Oct-Sept.	$/bu.
YY107	SOYPM	Soybeans market price, #1 yellow Ill. pts.	$/bu.
	D72	Dummy variable, 1972	
	D74	Dummy variable, 1974	

Soybeans, total acreage planted

$$SOYSA = \underset{(-16.70)}{-116.617} + \underset{(8.50)}{28.0548}\ SOYFEXNR/.PC(-1)$$

$$- \underset{(-4.37)}{14.1008}\ [.5(CORFEMNR + Max(CORFNRNL\ CORFNRXL))]/.PC(-1)$$

$$+ \underset{(21.73)}{2.20132}\ .TIME + \underset{(3.43)}{101.331}\ SOYWRFMY$$

$$- \underset{(-4.04)}{7.29301}\ [.5(COLNRXP + COLNRM)]DCOT/.PC(-1)$$

$$- \underset{(-1.14)}{5.80754}\ [.5(WHEFEMNR + Max(WHEFNRNL, WHEFNRXL))]/.PC(-1)$$

Estimation technique	= O.L.S.
Sample period	= 1959-79
R^2(ADJ)	= 0.9170
D.W.	= 2.5228
S.E.E.	= 1.2214

Variable numbers, names and descriptions

YY140	SOYSA	Soybeans, total acreage planted	mil. ac.
YY311	SOYFEXNR	Soybeans, expected net return	$/ac.
YY201	.PC	Consumer price index, all items	1967=100
YY262	CORFEMNR	Corn, expected market net return	$/ac.
YY270	CORFNRNL	Corn, expected program net return at the minimum level of participation	$/ac.
YY261	CORFNRXL	Corn, expected program net return at the maximum level of participation	$/ac.
YY263	WHEFNRNL	Wheat, expected program net return at minimum level of participation	$/ac.
YY264	WHEFNRXL	Wheat, expected program net return at maximum level of participation	$/ac.
YY272	WHEFEMNR	Wheat, expected market net return	$/ac.
Z30	.TIME	Year, 1959=59	
Z125	SOYWRFMY	Soybeans, rainfall in May	inches
YY356	COLNRXP	Cotton, expected net return at the maximum level of participation	$/ac.
YY360	COLNRM	Cotton, expected market net return	$/ac.
Z276	DCOT	Cotton, dummy variable for years when there were no marketing orders	

Soybean, yield per acre harvested

$$SOYSY = -0.587870 + 23.0783\ SOYPF(-1)/FERTM \quad (-2.20) \quad (0.40)$$

$$+ 3.97317\ INDEXJA + 0.320408\ .TIME \quad (4.12) \quad (5.83)$$

$$- 3.88404\ D74 \quad (-4.21)$$

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.8835
D.W. = 1.7301
S.E.E. = 0.8499

Variable numbers, names and description

YY141	SOYSY	Soybeans, yield per acre harvested	bu.
YY108	SOYPF	Soybeans, average farm price	$/bu.
Z32	FERTM	Fertilizer price index	1967=100
Z33	INDEXJA	Weather variable, July-Aug., prec. (IA, IL, IN, NEB, and OH.)	index
Z30	.TIME	Year, 1961=61	
	D74	Dummy variable, 1974	

Soybean, total production

SOYSP = (SOYSH)(SOYSY)

Variable numbers, names and descriptions

YY142	SOYSP	Soybeans, total production	mil. bu.
YY253	SOYSH	Soybeans, harvested acreage	mil. ac.
YY141	SOYSY	Soybeans, yield per acre harvested	bu.

Soybeans, commercial stocks

$$SOYHCC = \underset{(3.23)}{429.365} - \underset{(-1.64)}{56.9842}\ D6172$$

$$+ \underset{(3.41)}{.115381}\ (SOYSC + SOYMX + SOYDV) - \underset{(-.45)}{816.573}\ SOYPM/.PC(+1)$$

$$- \underset{(-2.55)}{.294908}\ (SOYHR + SOYHF + SOYHH)$$

$$- \underset{(-2.55)}{372.591}\ SOYSA(+1)/SOYSA$$

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.8557
D.W. = 2.0529
S.E.E. = 35.226

Variable numbers, names and descriptions

YY152	SOYHCC	Soybeans, ending commercial stocks	mil. bu.
	D6172	Dummy variable, 1961-72	
YY107	SOYPM	Soybeans, market price, #1 yellow, Ill. pts.	$/bu.
Z94	SOYHF	Soybeans, ending stocks, under loan	mil. bu.
YY70	SOYHH	Soybeans, ending government stocks	mil. bu.
Z96	SOYHR	Soybeans, ending stocks, reseal	mil. bu.
YY98	SOYSC	Soybeans, quantity crushed	mil. bu.
YY96	SOYMX	Soybeans, exports	mil. bu.
YY330	SOYDV	Soybeans, feed, seed and residual use	mil. bu.
YY140	SOYSA	Soybeans, total planted acreage	mil. ac.
YY201	.PC	Consumers price index, all items	1967-1.0

Soybeans, harvested acreage

SOYSH = - 1.06242 + .999651 SOYSA
(-7.33) (279.53)

Estimation technique = O.L.S.
Sample period = 1950-80
R^2(ADJ) = 0.9996
D.W. = 0.8325
S.E.E. = 0.3309

Variable numbers, names and descriptions

YY253	SOYSH	Soybeans, harvested acreage	mil. ac.
YY140	SOYSA	Soybeans, planted acreage	mil. ac.

Soybeans, expected farm price

$$SOYPEXP^{*} = -.0268319 + 1.00357\ SOYPF(-1)$$
$$(-0.48) \quad (72.06)$$

Estimation technique	= O.L.S.
Sample period	= 1959-79
R^2(ADJ)	= 0.9962
D.W.	= 2.2033
S.E.E.	= 0.1083

Variable numbers, names and descriptions

YY285	SOYPEXP	Soybean, expected farm price	$/bu.
YY108	SOYPF	Soybeans, average farm price, Sept.-Aug.	$/bu.

* Average farm price 5 months prior to planting adjusted to reflect the average difference in this price and the average crop year price during the previous 3 years.

Soybeans, expected yield per harvested acre, Sept. - Aug.

SOYYEXP* = 21.3740 + .331538 (.TIME - 54)
(35.30) (8.14)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.7312
D.W. = 1.9852
S.E.E. = 1.4682

Variable numbers, names and descriptions

YY291	SOYYEXP	Soybeans, expected yield per harvested acre	bu./ac.
YY141	SOYSY	Soybeans, yield per harvested acre	bu./ac.
Z30	.TIME	Year, 1955=55	

* Regression parameters obtained by regressing SOYSY on (.TIME - 54)

Soybeans, expected net returns

SOYFEXNR = Max(SOYPEXP,SOYLRPP) SOYYEXP - SOYVC**

Variable numbers, names and descriptions

YY311	SOYFEXNR	Soybeans, expected net returns	$/ac.
YY285	SOYPEXP	Soybeans, expected farm price	$/bu.
YY291	SOYYEXP	Soybeans, expected yield per harvested acre	bu./ac.
Z120	SOYLRPP	Soybeans, loan rate prior to planting	$/bu.
Z119	SOYVC**	Soybeans, variable cost	$/ac.

Soybean meal, total ending stocks

$$SOMHT^* = \underset{(.26)}{27.7461} + \underset{(3.46)}{.0105644}(SOMDD^* + SOMMX^*) + \underset{(7.38)}{577.410}\ D73$$

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.6677
D.W. = 0.9663
S.E.E. = 121.21

Variable numbers, names and descriptions

YY328	SOMHT*	Soybean meal, total ending stocks	mil. lbs.
	D73	Dummy variable, 1973	
YY100	SOMDD*	Soybean meal, domestic disappearance	mil. lbs.
YY101	SOMMX*	Soybean meal, exports	mil. lbs.

Soybean oil, exports

SOOMC**+PL = 1142.56 - 23.2683 SOOPM/.SDR*OCT
(8.87) (-1.96)

+ 18.4054 (.FEHJN + .FEHEC9)
(6.53)

- 561.568 D72 + 487.597 D6970
(-2.87) (3.43)

- 583.697 D75
(-3.02)

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.8017
D.W. = 1.8920
S.E.E. = 184.22

Variable numbers, names and descriptions

YY329	SOOMC**+PL	Soybean oil, exports	mil. lbs.
YY106	SOOPM	Soybean oil, price, Sept.-Aug.	cents/lb.
Z102	.SDR*OCT	U.S. dol./SDR, average of quarterly means, Oct. basis	$/SDR
Z103	.FEHJN	Foreign exchange holdings of Japan	bil. SDR
Z104	.FEHEC9	Foreign exchange holdings of EC-9 countries	bil. SDR
	D75	Dummy variable, 1975	
	D72	Dummy variable, 1972	
	D6970	Dummy variable, 1969-70	

Soybeans, feed, seed and residual use

SOYDV = 6.48962 + 1.26604 SOYSA(+1)
(1.63) (14.53)

- 11.5011 D77
(-2.44)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9327
D.W. = 1.3011
S.E.E. = 4.2433

Variable numbers, names and descriptions

YY330	SOYDV	Soybeans, feed, seed and residual use	mil. bu.
YY140	SOYSA	Soybeans, total planted acreage	mil. ac.
	D77	Dummy variable, 1977	

Wheat, seed use

$$WHEDS = \underset{(-7.27)}{-15.5141} + \underset{(7.39)}{.190536}\ .TIME + \underset{(4.08)}{1.57338}\ WHEPF + \underset{(42.30)}{1.15864}\ WHESA(+1)$$

Estimation teachnique	= O.L.S.
Sample period	= 1950-79
R^2(ADJ)	= 0.9930
D.W.	= 1.1320
S.E.E.	= 1.0670

Variable numbers, names and descriptions

YY131	WHEDS	Wheat, seed use	mil. bu.
Z30	.TIME	Year, 1950=50	
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
YY153	WHESA	Wheat, total acreage planted	mil. ac.

Wheat, CCC stocks

WHEHH*JM = WHEHT*JM - WHEHCC*JM - WHEHPRRE

Variable numbers, names and descriptions

YY132	WHEHH*JM	Wheat, CCC stocks, end of crop year	mil. bu.
YY138	WHEHT*JM	Wheat, total ending stocks	mil. bu.
YY243	WHEHCC*JM	Wheat, commercial stocks, end of crop year	mil. bu.
YY151	WHEHPRRE	Wheat, farmer owned reserve stocks, end of crop year	mil. bu.

Wheat, food use

$$\frac{\text{WHEDH*JM}}{\text{.NPC}} = 4.09427 + .309491\ \text{DUM7579}\ (0.12)\ (11.38)$$

$$- .0251026\ \text{.TIME}\ (-16.76)$$

$$+ 3.57741\ \text{BARPF/.PC}\ (0.42)$$

$$- 9.93612\ \text{WHEPF/.PC}\ (-3.25)$$

$$+ 26.4757\ \text{CORPF/.PC}\ (3.23)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9580
D.W. = 1.3200
S.E.E. = 0.0410

Variable numbers, names and descriptions

YY133	WHEDH*JM	Wheat, food use, May-June	mil. bu.
YY201	.PC	Consumer price index, all items	1967=10
Z30	.TIME	Year, 1950=50	
Z1	.NPC	Population, total	mil.
	DUM7579	Dummy variable, 1975-79	
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
YY127	CORPF	Corn, average farm price, Oct-Sept.	$/bu.
YY130	BARPF	Barley, average farm price, June-May	$/bu.

Wheat, total exports

$$WHEMX*JM = \underset{(2.75)}{1212.49} - \underset{(-2.88)}{8.67830}\ WHESP{+}HWME + \underset{(1.16)}{.462792}\ (.POPW-CPE - .NPC)$$

$$+ \underset{(5.73)}{538.487}\ DUM72F + \underset{(3.60)}{330.478}\ DUM78$$

$$- \underset{(-1.98)}{105.961}\ (WHEPF - WHEPX)/.SDR\ *OCT$$

$$+ \underset{(1.11)}{10.2264}\ (RICPSMGHO - RICPXMG)/.SDR*OCT$$

Estimation technique	= O.L.S.
Sample period	= 1963-79
R^2(ADJ)	= 0.9075
D.W.	= 2.3147
S.E.E.	= 69.282

Variable numbers, names and descriptions

YY136	WHEMX*JM	Wheat, total exports	mil. bu.
Z249	WHESP+HWME	Wheat, production plus beginning stocks, LDC, Canada, EEC-9 and other Western European countries	mil. met. tons
Z248	.POPW-CPE	Population, world less USSR, PRC, Eastern Europe	mil.
Z1	.NPC	Population, total US	mil.
Z53	WHEPX	Wheat, average export payment rate	$/bu.
Z35	RICPSMGHO	Rice, medium grain price, FOB Houston	$/cwt.
Z36	RICPXMG	Rice, season average export payment rate	$/cwt.
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
	DUM72F	Dummy variable, equals one after 1971	
	DUM78	Dummy variable, 1978	
Z102	.SDR*OCT	U.S. $/SDR: Average of quarterly means	$/SDR

Wheat, feed use

WHEDF*JM = 233.210 + 4.15107 SAHKSFD
(5.04) (2.19)

- 34.8630 DUM581 + 70.3499 DUM73
(-1.39) (1.97)

- 82.8267 DUM6467
(-3.54)

- 162.213 WHEPF/LIVIF
(-4.89)

+ 69.4171 CORPF/LIVIF
(1.21)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.7863
D.W. = 1.6362
S.E.E. = 30.250

Variable numbers, names and descriptions

YY137	WHEDF*JM	Wheat, feed use, June-May	mil. bu.
YY28	SAHKSFD	Steer and heifer fed slaughter plus slaughter	mil. hd.
	DUM581	Dummy variable to splice data	
	DUM6467	Dummy variable, 1964 and 1967	
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
YY92	LIVIF	Livestock price index	1967=1.0
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
	DUM73	Dummy variable, 1973	

Wheat, total ending stocks

WHEHT*JM = WHEST*JM - WHEDT*JM

Variable numbers, names and descriptions

YY138	WHEHT*JM	Wheat, total ending stocks	mil. bu.
YY244	WHEST*JM	Wheat, total supply	mil. bu.
YY246	WHEDT*JM	Wheat, total demand	mil. bu.

Wheat, farmer owned reserve stocks

WHEHPRRE = WHEHT*JM - WHEHCC*JM - WHEHH*JM

Variable numbers, names and descriptions

YY151	WHEHPRRE	Wheat, farmer owned reserve stocks, end of crop year	mil. bu.
YY138	WHEHT*JM	Wheat, total ending stocks	mil. bu.
YY243	WHEHCC*JM	Wheat, commercial stocks, end of crop year	mil. bu.
YY132	WHEHH*JM	Wheat, CCC stocks, end of crop year	mil. bu.

Wheat, total planted acreage

WHESA = WHESAINP + WHESAOSP

Variable numbers, names and descriptions

YY153	WHESA	Wheat, total planted acreage	mil. ac.
YY305	WHESAINP	Wheat, total acreage planted by government program participants	mil. ac.
YY306	WHESAOSP	Wheat, total acreage planted by government program nonparticipants	mil. ac.

Wheat, yield per acre harvested

$$WHESY = -9.85935 + .584274\ .TIME \quad (-6.29)\ (28.61)$$
$$+ .131197\ (WHESDINP - WHESAINP) + 5.4787\ DUM58 \quad (3.53)\ (6.85)$$
$$+ 3.42366\ DUM60 - 2.81527\ DUM74 \quad (4.20)\ (-3.48)$$
$$- .0459109\ WHESA + 2.97571\ DUM71 - 2.33171\ DUM78 \quad (-2.26)\ (3.71)\ (-2.85)$$

Estimation technique = O.L.S.
Sample period = 1951-79
R^2(ADJ) = 0.9793
D.W. = 1.7859
S.E.E. = 0.7513

Variable numbers, names and descriptions

YY154	WHESY	Wheat, yield per acre harvested	bu.
Z30	.TIME	Year, 1951=51	
YY153	WHESA	Wheat, total acreage planted	mil. ac.
	DUM58	Dummy variable, 1958	
	DUM60	Dummy variable, 1960	
	DUM74	Dummy variable, 1974	
	DUM71	Dummy variable, 1971	
	DUM78	Dummy variable, 1978	
YY304	WHESDINP	Wheat, total government program acreage	mil. ac.
YY305	WHESAINP	Wheat, total acreage planted by government program participants	mil. ac.

Wheat, production

WHESP*JM = (WHESH)(WHESY)

Variable numbers, names and descriptions

YY155	WHESP*JM	Wheat, production	mil. bu.
YY251	WHESH	Wheat, harvested acreage	mil. ac.
YY154	WHESY	Wheat, yield per harvested acre	bu.

Wheat, program participation rate

WHEPICP = WHESAINP/WHESA

Variable numbers, names and descriptions

YY193	WHEPICP	Wheat, program participation rate	
YY305	WHESAINP	Wheat, total acreage planted by government program participants	mil. ac.
YY153	WHESA	Wheat, total acreage planted	mil. ac.

Wheat, commercial stocks, end of crop year

$$\begin{aligned} WHEHCC*JM = {} & 844.590 - .553116\ WHEHPRRE \\ & (10.26) \quad (-3.53) \\ & - 14273.7\ WHEPF/.PC + 407.536\ DUM7677 - 211.156\ DUM70 \\ & (-3.32) \quad (5.90) \quad (-2.19) \\ & - 246.902\ DUM6566 \\ & (-3.56) \end{aligned}$$

Estimation technique	= O.L.S.
Sample period	= 1965-80
R^2(ADJ)	= 0.8135
D.W.	= 2.2134
S.E.E.	= 87.375

Variable numbers, names and descriptions

YY243	WHEHCC*JM	Wheat, commercial stocks, end of crop year	mil. bu.
YY139	WHEPF	Wheat, average price received by farmers.	$/bu.
YY151	WHEHPRRE	Wheat, farmer-owned reserve stocks	mil. bu.
YY201	.PC	Consumer price index, all items	1967=100
	DUM70	Dummy variable, 1970	
	DUM7677	Dummy variable, 1976 and 1977	
	DUM6566	Dummy variable, 1965 and 1966	

wheat, total supply

WHEST*JM = WHESP*JM + WHEHH*JM(-1) + WHEHPRRE(-1)
+ WHEHCC*JM(-1) + WHEMI*JM

Variable numbers, names and descriptions

YY244	WHEST*JM	Wheat, total supply	mil. bu.
YY155	WHESP*JM	Wheat, production	mil. bu.
YY132	WHEHH*JM	Wheat, CCC stocks, end of crop year	mil. bu.
YY151	WHEHPRRE	Wheat, farmer owned reserve stocks, end of crop year	mil. bu.
YY243	WHEHCC*JM	Wheat, commercial stocks, end of crop year	mil. bu.
Z61	WHEMI*JM	Wheat, imports	mil. bu.

Wheat, domestic demand

WHEDD*JM = WHEDH*JM + WHEDS + WHEDF*JM

Variable numbers, names and descriptions

YY245	WHEDD*JM	Wheat, domestic demand	mil. bu.
YY133	WHEDH*JM	Wheat, food use	mil. bu.
YY131	WHEDS	Wheat, seed use	mil. bu.
YY137	WHEDF*JM	Wheat, feed use	mil. bu.

Wheat, total demand

WHEDT*JM = WHEDD*JM + WHEMX*JM

Variable numbers, names and descriptions

YY246	WHEDT*JM	Wheat, total demand	mil. bu.
YY245	WHEDD*JM	Wheat, domestic demand	mil. bu.
YY136	WHEMX*JM	Wheat, exports	mil. bu.

Wheat, harvested acreage

WHESH = -.0537433 + .892091 WHESA
(-0.02) (22.72)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9644
D.W. = 1.3597
S.E.E. = 1.6124

Variable numbers, names and descriptions

YY251	WHESH	Wheat, harvested acreage	mil. ac.
YY153	WHESA	Wheat, planted acreage	mil. ac.

Wheat, deficiency payments

WHEPF = (.001) Max(WHPT - Max(WHEPFWG,WHEPL),0)

(.01)(WHEPICP) (WHESA) (WHYGVUS)(WHAALUS/WHESH)

Variable numbers, names and descriptions

YY260	WHEFP	Wheat, deficiency payments	mil. dol.
Z65	WHPT	Wheat, target price	$/bu.
YY276	WHEPFWG	Wheat, farm price weighted by market, Je.-Oct.	$/bu.
Z52	WHEPL	Wheat, loan rate	$/bu.
YY153	WHESA	Wheat, planted acreage	mil. ac.
Z55	WHYGVUS	Wheat, administrative yield	bu./ac.
Z69	WHAALUS	Wheat, allotted acreage	thous. ac.
YY251	WHESH	Wheat, harvested acreage	mil. ac.
YY193	WHEPICP	Wheat, program participation rate	percent

Wheat, expected program net return at the minimum level of participation

```
WHEFNRNL = [Max(WHEPEXP,WHELRPP) (WHEYEXP)
         - WHEVC**] (WHESAPMP)
         + [(WHESPEMP)[(DUM5970)(WHEPGMLP) + (1 - DUM5970)[(DUM7173)
            Max(WHEPGMLP - WHEPEXP,0)
         + (1 - DUM7173) Max(WHEPGMLP - Max(WHEPEXP,WHELRPP),0)]]]
         + WHEPDMLP
```

Variable numbers, names and descriptions

YY263	WHEFNRNL	Wheat, expected program net return at the minimum level of participation	$/ac.
YY281	WHEPEXP	Wheat, expected farm price	$/bu.
Z117	WHELRPP	Wheat, loan rate prior to planting	$/bu.
YY288	WHEYEXP	Wheat, expected yield per harvested acre	bu./ac.
Z38	WHEVC**	Wheat, variable cost	$/ac.
Z39	WHESAPMP	Wheat, fraction of each acre planted at minimum level of program participation	
Z54	WHESPEMP	Wheat, production eligible for support at the minimum level of program participation	bu./ac.
Z44	WHEPGMLP	Wheat, support payment rate basis at minimum level of program participation	$/bu.
Z99	WHEPDMLP	Wheat, export certificate payments and diversion payments at the minimum level of program participation	$/ac.
	DUM5970	Dummy variable for years when the support rate was not computed as a function of farm price 1959-70	
	DUM7173	Dummy variable for years when the support rate was computed as the difference between farm price and 100% parity, 1971-73	

Wheat, expected program net returns at the maximum level of participation

```
WHEFNRXL = [Max(WHEPEXP,WHELRPP)(WHEYEXP)
         - WHEVC**] (WHESAPXP)
         + [(WHESPEXP) [(DUM5970)(WHEPGXLP)
         + (1 - DUM5970)[(DUM7173) Max(WHEPGXLP - WHEPEXP), 0)
         + (1 - DUM7173) Max(WHEPGXLP - Max(WHEPEXP, WHELRPP), 0)]]]
         + WHEPDXLP
```

Variable numbers, names and descriptions

YY264	WHEFNRXL	Wheat, expected net returns at the the maximum level of participation	$/ac.
YY281	WHEPEXP	Wheat, expected farm price	$/bu.
Z117	WHELRPP	Wheat, loan rate prior to planting	$/bu.
YY288	WHEYEXP	Wheat, expected yield per harvested acre	bu/.ac.
Z38	WHEVC**	Wheat, variable cost	$/ac.
Z43	WHESAPXP	Wheat, fraction of each acre planted at the maximum level of participation	
Z80	WHESPEXP	Wheat, production eligible for support at the maximum level of program participation	bu./ac.
Z48	WHEPGXLP	Wheat, support payment rate basis at maximum level of program participation	$/bu.
Z51	WHEPDXLP	Wheat, export certificate payments and diversion payments at the maximum level of program participation	$/ac.
	DUM5970	Dummy variable for years when the support rate was not computed as a function of farm price, 1959-70	
	DUM7173	Dummy variable for years when the support rate was computed as the difference between farm price and 100% parity, 1971-73	

wheat, total farmer owned reserve storage payments

WHEFS = .5 [(WHPSRUS)(WHEHPRRE) + (WHPSRUS(-1))(WHEHPRUS(-1))]

Variable numbers, names and descriptions

YY269	WHEFS	Wheat, total farmer owned reserve storage payments	mil. dol.
YY151	WHEHPRRE	Wheat, farmer owned reserve stocks, end of crop year	mil. bu.
Z74	WHPSRUS	Wheat, farmer owned reserve storage payment rate	$/bu.

Wheat, expected market net return

WHEFEMNR = Max[(WHEPEXP) (WHEYEXP) - WHEVC**,

(DUMWHE)(WHEFNRNL)]

Variable numbers, names and descriptions

YY272	WHEFEMNR	Wheat, expected market net return	$/ac.
YY281	WHEPEXP	Wheat, expected farm price	$/bu.
YY288	WHEYEXP	Wheat, expected yield per harvested acre	bu./ac.
YY263	WHEFNRNL	Wheat, expected program net return at the minimum level of participation	$/ac.
Z38	WHEVC**	Wheat, variable cost	$/ac.
	DUMWHE	Dummy variable for years when there was no program, 1973-1977	

Wheat, farm price weighted by marketings, June-Oct.

WHEPFWG = .138239 + .977557 WHEPF
(1.23) (32.19)

- .127619 WHEHCC*JM(-1)/WHEHCC*JM
(-2.21)

+ .382371 DUM76 - .247762 DUM7273
(4.05) (-3.33)

+ .188155 DUM74
(1.84)

Estimation technique	= O.L.S.
Sample period	= 1970-79
R^2(ADJ)	= 0.9940
D.W.	= 2.4376
S.E.E.	= 0.0848

Variable numbers, names and descriptions

YY276	WHEPFWG	Wheat, farm price weighted by marketings, June-Oct.	$/bu.
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
YY243	WHEHCC*JM	Wheat, commercial stocks, end of crop year	mil. bu.
	DUM76	Dummy variable, 1976	
	DUM7273	Dummy variable, 1972-73	
	Dum74	Dummy variable, 1974	

Wheat, expected farm price

$$\begin{aligned} \text{WHEPEXP}^* = &- .140248 + 1.08460\ \text{WHEPF}(-1) \\ &\quad (-3.43) \quad (57.94) \\ &- .483534\ \text{DUM78} - .297690\ \text{DUM79} \\ &\quad (-6.52) \quad\quad (-3.92) \end{aligned}$$

Estimation technique = O.L.S.
Sample period = 1959-79
$R^{(ADJ)}$ = 0.9909
D.W. = 1.7334
S.E.E. = 0.0720

Variable numbers, names and descriptions

YY281	WHEPEXP	Wheat, expected farm price	$/bu.
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
	DUM78	Dummy variable, 1978	
	DUM79	Dummy variable, 1979	

*Average farm price 5 months prior to planting adjusted by the average difference in this price and the average crop price during the previous 3 years.

Wheat, expected yield per harvested acre

WHESYEXP* = 16.6248 + 3.18426 (.TIME - 54)
(13.14) (9.07)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(AdJ) = 0.7723
D.W. = 1.6573
S.E.E. = 1.9743

Variable numbers, names and descriptions

YY288	WHEYEXP	Wheat, expected yield per harvested acre	bu./ac.
YY154	WHESY	Wheat, yield per harvested acre	bu./ac.
Z30	.TIME	Year, 1955=55	

* Regression parameters obtain by regressing WHEYEXP On (.TIME - 54).

Wheat, total government program acreage

$$
\begin{aligned}
\text{WHESDINP} = {} & 65.1077 - 31.2244\ \text{WHEFEMNR}/.\text{PC}(-1) \\
& \quad (7.81) \quad\ (-1.53) \\
& + 57.7378\ \text{Max}(\text{WHEFNRNL},\text{WHEFNRXL})/.\text{PC}(-1) \\
& \quad (5.79) \\
& - 18.9346\ \text{COLFVNR}/.\text{PC}(-1) \\
& \quad (-2.25) \\
& - 25.2172\ \text{SOYFEXNR}/.\text{PC}(-1) \\
& \quad (-2.75) \\
& + .0000855956\ (\text{WHAALUS})(1 - \text{Min}(\text{WHESAPMP},\text{WHESAPXP})) \\
& \quad (1.13) \\
& - 9.18484\ \text{DUM6264} - 17.3175\ \text{DUM63} \\
& \quad (-2.75) \qquad\quad (-6.09)
\end{aligned}
$$

Estimation technique = O.L.S.
Sample period = 1957-79
R^2(ADJ) = 0.9513
D.W. = 1.8341
S.E.E. = 2.1356

Variable numbers, names and descriptions

YY304	WHESDINP	Wheat, total government program acreage	mil. ac.
YY272	WHEFEMNR	Wheat, expected market net return	$/ac.
YY263	WHEFNRNL	Wheat, expected program net return at the minimum level of participation	$/ac.
YY264	WHEFNRXL	Wheat, expected program net return at maximum level of participation	$/ac.
Z134	COLFVNR	Cotton, expected net return	$/ac.
YY201	.PC	Consumer price index, all items	1967=100
YY311	SOYFEXNR	Soybeans, expected net return	$/ac.
Z69	WHAALUS	Wheat, allotted acreage	mil. ac.
Z39	WHESAPMP	Wheat, fraction of each acre planted at minimum level of participation	
Z43	WHESAPXP	Wheat, fraction of each acre planted at maximum level of participation	
	DUM6264	Dummy variable, 1962-1964	
	DUM63	Dummy variable, 1963	

Wheat, total acreage planted by government program participants

$$WHESAINP = (WHESDINP)(WHESAPMP)$$

$$- \underset{(-3.55)}{.166363}\ [(WHESAPXP/WHESAPMP)$$

$$(WHESAPMP - Min(WHESAPMP,WHESAPXP))\ (WHESDINP)]$$

$$+ \underset{(1.35)}{6.53259}\ DUM7173 + \underset{(2.47)}{12.5417}\ DUM73$$

Estimation technique = O.L.S.
Sample period = 1962-73,1978-79
R^2(ADJ) = 0.8566
D.W. = 1.1550
S.E.E. = 1.7499

Variable numbers, names and descriptions

YY305	WHESAINP	Wheat, total acreage planted in the program	mil. ac.
YY304	WHESDINP	Wheat, total acreage in the program	mil. ac.
Z39	WHESAPMP	Wheat, fraction of each acre planted at minimum level of participation	
Z43	WHESAPXP	Wheat, fraction of each acre planted at maximum level of participation	
	DUM7173	Dummy variable, 1971-73	
	DUM73	Dummy variable, 1973	

Wheat, total acreage planted by government program nonparticipants

WHESAOSP = 46.6158 + 37.3868 WHEFEMNR/.PC(-1)
(19.38) (7.90)

- .672425 (WHESDINP - WHESAINP)
(-5.32)

- .844038 WHESAINP
(-23.52)

+ 15.5355 DUM7679
(11.69)

+ 8.59396 DUM72
(3.11)

- 6.50448 DUM6164
(-4.95)

Estimation technique = O.L.S.
Sample period = 1959-79
R_2(ADJ) = 0.9914
D.W. = 1.8385
S.E.E. = 2.4221

Variable numbers, names and descriptions

YY306	WHESAOSP	Wheat, total acreage planted by government program nonparticipants	mil. ac.
YY272	WHEFEMNR	Wheat, expected market net return	$/ac.
YY201	.PC	Consumer price index, all items	1967=100
YY304	WHESDINP	Wheat, total government program acreage	mil. ac.
YY305	WHESAINP	Wheat, total acreage planted by government program participants	mil. ac.
	DUM6164	Dummy variable, 1961-64	
	DUM72	Dummy variable, 1972	
	DUM7679	Dummy variable, 1976-79	

Corn, program participation rate

CORPICP = CORSAINP/CORSA

Variable numbers, names and descriptions

YY19	CORPICP	Corn, program participation rate	
YY297	CORSAINP	Corn, total acreage planted by government program participants	mil. ac.
YY143	CORSA	Corn, total acreage planted	mil. ac.

Corn, total demand

CORDT = CORDD + CORMX

Variable numbers, names and descriptions

YY79	CORDT	Corn, total demand	mil. bu.
YY247	CORDD	Corn, domestic demand	mil. bu.
YY121	CORMX	Corn, exports	mil. bu.

Corn, CCC stocks

CORHHUN(+1) = CORHT - CORHPRRE - CORHCC1*

Variable numbers, names and descriptions

YY110	CORHHUN	Corn, CCC stocks, beginning of crop year	mil. bu.
YY114	CORHT	Corn, total ending stocks	mil. bu.
YY229	CORHPRRE	Corn, farmer owned reserve stocks, end of crop year	mil. bu.
YY228	CORHCC1*	Corn, commercial stocks, end of crop year	mil. bu.

Corn, total ending stocks

CORHT = CORST - CORDT

Variable numbers, names and descriptions

YY114	CORHT	Corn, total ending stocks	mil. bu.
YY171	CORST	Corn, total supply	mil. bu.
YY79	CORDT	Corn, total demand	mil. bu.

Corn, food use

$$CORDH^* = -.590557\ .NPC(+1) \quad (-2.18)$$
$$- 76.6986\ (CORPF)(.NPC(+1))/.PC(+1) \quad (-3.23)$$
$$+ 136.123\ (.PCSS(+1))(.NPC(+1))/.PC(+1) \quad (4.81)$$
$$+ 19.5667\ (WHEPF)(.NPC(+1))/.PC(+1) \quad (1.34)$$
$$+ 56.6381\ .YPD\$(+1)/.PC(+1) + COUGSUS \quad (4.04)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9971
D.W. = 1.6572
S.E.E. = 24.265

Variable numbers, names and descriptions

YY118	CORDH*	Corn, food use, Oct-Sept.	mil. bu.
Z1	.NPC	Population, total —	mil.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY201	.PC	Consumer price index, all items	1967=100
YY325	.PCSS	Consumer price index, sugar and sweets	1967=1.0
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
Z34	.YPD$	Personal disposable income in current dollars	bil. dol.
Z114	COUGSUS	Corn, gasohol use, Oct.-Sept.	mil. bu.

Corn, total U.S. exports

$$\begin{aligned} CORMX = &- 871.220 + 1687.47\ LIVJP*EC \\ &(-1.78) \quad (4.07) \\ &+ .175520\ CORME*USSR + 580.778\ DUM72F + 303.117\ DUM65 \\ &(2.97) \quad (3.35) \quad (1.96) \\ &- .0415394\ CORSP+HE6 \\ &(-1.79) \\ &- 216.543\ CORPF/.SDR*OCT \\ &(-1.52) \end{aligned}$$

Estimation technique = O.L.S.
Sample period = 1967-80
R^2(ADJ) = 0.9540
D.W. = 1.9774
S.E.E. = 123.45

Variable numbers, names and descriptions

YY121	CORMX	Corn, total exports, Oct.-Sept.	mil. bu.
Z79	LIVJP*EC	Livestock, EEC production index	1964=1.0
Z100	CORME*USSR	Soviet Union net exports from non-U.S. sources	1000 met. tons
Z45	CORSP+HE6	Corn production plus beginning stocks in EEC-6 countries	1000 met. tons
Z102	.SDR*OCT	U.S. $/SDR; average of quarterly means	$/SDR
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
	DUM72F	Dummy variable, equals one after 1971	
	DUM65	Dummy variable, 1965	

Corn, feed use

CORDF = - 211.072 + 486.942 DUM74 + 973.602 DUM73
(-4.09) (2.70) (5.43)

+ 617.918 DUM7879
(5.29)

+ 148.927 SOMPF/LIVIF(+1)
(3.48)

+ 29.8186 GCAU*(+1)
(9.05)

- 842.851 CORPF/LIVIF(+1)
(-4.09)

Estimation technique = O.L.S.
Sample period = 1951-80
R^2(ADJ) = 0.9486
D.W. = 1.7654
S.E.E. = 149.27

Variable numbers, names and descriptions

YY123	CORDF	Corn, feed use, Oct-Sept.	mil. bu.
	DUM74	Dummy variable, 1974	
	DUM73	Dummy variable, 1973	
	DUM7879	Dummy variable, 1978-79	
YY102	SOMPF	Soybeans, meal price	cents/lb.
YY92	LIVIF	Livestock price index	1967=1.0
YY95	GCAU*	Livestock, number of grain consuming animal units	
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.

Corn, total acreage planted

CORSA = CORSAOSP + CORSAINP

Variable numbers, names and descriptions

YY143	CORSA	Corn, total acreage planted	mil. ac.
YY298	CORSAOSP	Corn, total acreage planted by government program participants	mil. ac.
YY297	CORSAINP	Corn, total acreage planted by government program nonparticipants	mil. ac.

Corn, production

CORSPGR = - 40.5969 + .878697 (CORSH)(CORSYGR)
(-0.92) (89.21)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9965
D.W. = 0.7741
S.E.E. = 75.445

Variable numbers, names and descriptions

YY147	CORSPGR	Corn, production	mil. bu.
YY230	CORSYGR	Corn, yield per harvested acre	bu.
YY252	CORSH	Corn, total acreage harvested	mil. ac.

Corn, total supply

CORST = CORSPGR + CORHHUN + CORHPRRE(-1) + CORHCC1*(-1) + CORMI

Variable numbers, names and descriptions

YY171	CORST	Corn, total supply	mil. bu.
YY147	CORSPGR	Corn, production for grain	mil. bu.
YY110	CORHHUN	Corn, CCC stocks, beginning of crop year	mil. bu.
YY229	CORHPRRE	Corn, farmer owned reserve stocks, end of crop year	mil. bu.
YY228	CORHCC1*	Corn, commercial stocks, end of crop year	mil. bu.
Z167	CORMI	Corn, imports	mil. bu.

Corn, seed use

CORDS = - 18.4512 + .971593 CORPF
(-7.06) (2.30)

+ .178895 CORSA(+1)
(6.50)

+ .272890 .TIME
(12.51)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9500
D.W. = 1.0230
S.E.E. = 0.6700

Variable numbers, names and descriptions

YY227	CORDS	Corn, seed use, Oct.-Sept.	mil. bu.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY143	CORSA	Corn, total acreage planted	mil. ac.
Z30	.TIME	Year, 1950=50	

Corn, commercial stocks, end of crop year

CORHCC1* = 1328.35 + .0258677 CORDT
(9.89) (1.02)

- 238.734 DUM70 - 215.067 DUM75
(-3.15) (-2.62)

- 57985.3 CORPF/.PC(+1)
(-7.77)

- .376267 CORHPRRE
(-2.43)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.8100
D.W. = 2.1008
S.E.E. = 72.836

Variable numbers, names and descriptions

YY228	CORHCC1*	Corn, commercial stocks, end of crop year	mil. bu.
YY79	CORDT	Corn, total demand	mil. bu.
	DUM70	Dummy variable, 1970	
	DUM75	Dummy variable, 1975	
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY229	CORHPRRE	Corn, farmer owned reserve stocks, end of crop year	mil. bu.
YY201	.PC	Consumer price index, all items	1967=100.

Corn, farmer owned reserve stocks

CORHPRRE = CORHT - CORHCC1* - CORHHUN(+1)

Variable numbers, names and descriptions

YY229	CORHPRRE	Corn, farmer owned reserve stocks, end of crop year	mil. bu.
YY114	CORHT	Corn, total ending stocks	mil. bu.
YY228	CORHCC1*	Corn, commercial stocks, end of crop year	mil. bu.
YY110	CORHHUN	Corn, CCC stocks, beginning of crop year	mil. bu.

Corn, yield per harvested acre

CORSYGR = - 137.652 - 13.7286 DUM70
(-7.67) (-3.49)

- 8.70058 DUM74 + 7.88956 DUM67
(-2.00) (2.24)

+ 3.19986 JULPRCP + 2.78384 .TIME
(3.24) (12.65)

+ 469.556 CORPF/FERTM
(0.72)

+ .473039 (CORSDINP - CORSAINP)
(3.57)

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.9401
D.W. = 2.0745
S.E.E. = 3.2534

Variable numbers, names and descriptions

YY230	CORSYGR	Corn, yield per harvested acre	bu.
	DUM70	Dummy variable, 1970	
	DUM74	Dummy variable, 1974	
	DUM67	Dummy variable, 1967	
Z16	JULPRCP	Index, precipitation, July, (ILL, IN, IO, OH)	
Z30	.TIME	Year, 1961=61	
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
Z32	FERTM	Fertilizer index	
YY296	CORSDINP	Corn, total government program acreage	mil. ac.
YY297	CORSAINP	Corn, acreage planted by government program participants	mil. ac.

Corn, domestic demand

CORDD = CORDH* + CORDF + CORDS

Variable numbers, names and descriptions

YY247	CORDD	Corn, domestic demand	mil. bu.
YY118	CORDH*	Corn, food use	mil. bu.
YY123	CORDF	Corn, feed use	mil. bu.
YY227	CORDS	Corn, seed use	mil. bu.

Corn, harvested acreage

CORSH = 2.54042 + .952060 CORSA
(2.32) (65.42)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9933
D.W. = 1.9473
S.E.E. = 0.5637

Variable numbers, names and descriptions

YY252	CORSH	Corn, harvested acreage	mil. ac.
YY143	CORSA	Corn, planted acreage	mil. ac.

Corn, deficiency payments

CORFP = (.001)Max(COPT - Max(CORPFWG,CORPL),0)

(.01)(CORPICP) (CORSA) (COYGVUS) (COAALUS/CORSH)

Variable number, names and descriptions

YY257	CORFP	Corn, deficiency payments	mil. dol.
Z62	COPT	Corn, target price	$/bu.
YY273	CORPFWG	Corn, farm price weighted by marketings, Oct.-Feb.	$/bu.
Z110	CORPL	Corn, loan rate	$/bu.
YY19	CORPICP	Corn, program participation rate	percent
YY143	CORSA	Corn, planted acreage	mil. ac.
Z58	COYGVUS	Corn, administrative yield	bu./ac.
Z66	COAALUS	Corn, allotted acreage	thous. ac.
YY252	CORSH	Corn, harvested acreage	mil. ac.

Corn, expected program net returns at the maximum level of participation

```
CORFNRXL = [(1 - DUM6162) Max(CORPEXP,CORLRPP)(CORYEXP)
         + (DUM6162)[(DUMCP)(CORPEXP)(CORYEXP)
         + (1 - DUMCP)[(CORLRPP) Min(CORYEXP,COYGVUS)
         + (CORPEXP) Max(CORYEXP - COYGVUS,0)]]
         - CORVC**](CORSAPXP)
         + [(CORSPEXP)[(DUM5973)(CORPGXLP)
         + (1 - DUM5973) Max(CORPGXLP - Max(CORPEXP,CORLRPP),0)]]
         + CORPDXLP
```

Variable numbers, names and descriptions

YY261	CORFNRXL	Corn, expected program net return at the maximum level of program participation	$/ac.
YY282	CORPEXP	Corn, expected farm price	$/bu.
Z142	CORLRPP	Corn, loan rate prior to planting	$/bu.
YY289	CORYEXP	Corn, expected yield per harvested acre	bu./ac.
Z58	COYGVUS	Corn, administrative yield	bu./ac.
Z121	CORVC**	Corn, variable cost	$/ac.
Z124	CORSAPXP	Corn, fraction of each acre planted at the minimum level of participation	
Z137	CORSPEXP	Corn, production eligible for support at the maximum level of program participation	bu./ac.
Z133	CORPGXLP	Corn, support payment rate at the maximum level of program participation	$/bu.
Z141	CORPDXLP	Corn, diversion payments at the maximum level of program participation	$/ac.
	DUM6162	Dummy variable for years when the loan rate applied to at most normal production on harvested acreage, 1961-62=1	
	DUMCP	Dummy variable, if COREXP > CORLRPP, DUMCP=1	
	DUM5973	Dummy variable for years when the support rate was not computed as a function of farm price, 1959-73=1	

Corn, expected market net returns

CORFEMNR = Max[(CORPEXP)(CORYEXP) - CORVC**,

(DUMCOR)(CORFNRNL)]

Variable numbers, names and descriptions

YY262	CORFEMNR	Corn, expected market net returns	$/ac.
YY282	CORPEXP	Corn, expected farm price	$/bu.
YY289	CORYEXP	Corn, expected yield per harvested acre	bu./ac.
YY261	CORFNRNL	Corn, expected program net return at the minimim level of participation	$/ac.
Z121	CORVC**	Corn, variable cost	$/ac.
	DUMCOR	Dummy variable for year when there was no program, 1959-60, 1973-77	

Corn, farmer-owned reserve storage payments

CORFS = .5[(COPSRUS)(CORHPRRE) + (COPSRUS(-1))(CORHPRRE(-1))]

Variable numbers, names and descriptions

YY265	CORFS	Corn, farmer-owned reserve storage payments	mil. dol.
YY229	CORHPRRE	Corn, farmer-owned reserve stocks, end of crop year	mil. bu.
Z71	COPSRUS	Corn, farmer-owned reserve storage payment rate	$/bu.

Corn, expected program net returns at the mimimum level of participation

```
CORFNRNL = [(1 - DUM6162) Max(CORPEXP,CORLRPP)(CORYEXP)
         + (DUM6162)[(DUMCP)(CORPEXP)(CORYEXP)
         + (1 - DUMCP)[(CORLRPP) Min(CORYEXP,COYGVUS)
         + (CORPEXP) Max(CORYEXP - COYGVUS,0)]]
         - CORVC**](CORSAPMP)
         + [(CORSPEMP)[(DUM5973)(CORPGMLP)
         + (1 - DUM5973) Max(CORPGMLP - Max(CORPEXP,CORLRPP),0)]]
         + CORPDMLP
```

Variable numbers, names and descriptions

YY270	CORFNRNL	Corn, expected program net returns at the minimum level of participtation	$/ac.
YY282	CORPEXP	Corn, expected farm price	$/bu.
Z142	CORLRPP	Corn, loan rate prior to planting	$/bu.
YY289	CORYEXP	Corn, expected yield per harvested acre	bu./ac.
Z58	COYGVUS	Corn, administrative yield —	bu./ac.
Z121	CORVC**	Corn, variable cost	$./ac.
Z123	CORSAPMP	Corn, fraction of each acre planted at minimum level of program participation	
Z135	CORSPEMP	Corn, production eligible for support at at the minimum level of program participation	bu./ac
Z131	CORPGMLP	Corn, support payment rate basis at the minimum level of program participation	$/bu.
Z140	CORPDMLP	Corn, diversion payments at the minimum level of program participation	$/ac.
	DUM6162	Dummy variable for years when the loan rate applied to at most normal production on harvested acreage, 1961-62=1	
	DUMCP	Dummy variable, it CORPEXP > CORLRPP, DUMCP=1	
	DUM5973	Dummy variable for years when the support rate was not computed as a function of farm price, 1959-73=1	

Corn, farm price weighted by marketings, Oct.-Feb.

CORPFWG = .0556593 + 1.06670 CORPF
(0.87) (35.57)

- .296180 CORHCC1*(-1)/CORHCC1*
(-7.12)

+ .300710 DUM70 + .143467 DUM74
(6.00) (2.92)

Estimation technique = O.L.S.
Sample period = 1970-79
R^2(ADJ) = 0.9966
D.W. = 2.3035
S.E.E. = 0.0372

Variable numbers, names and descriptions

YY273	CORPFWG	Corn, farm price weighted by marketings, Oct.-Feb.	$/bu.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY228	CORHCC1*	Corn, ending commercial stocks, end of crop year	mil. bu.
	DUM70	Dummy variable, 1970	
	DUM74	Dummy variable, 1974	

Corn, expected farm price

$$CORPEXP^{*} = .4132323 + 1.03241\ CORPF(-1)$$
$$(2.47) \quad (37.54)$$
$$- .00665539\ .TIME - .219969\ DUM73$$
$$(-2.32) \quad (-4.29)$$
$$+ .239555\ DUM77$$
$$(4.56)$$

Estimation technique = O.L.S.
Sample period = 1959-79
R^2(ADJ) = 0.9941
D.W. = 1.6474
S.E.E. = 0.4866

Variable numbers, names and descriptions

YY282	CORPEXP	Corn, expected farm price	$/bu.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
Z30	.TIME	Year, 1959=59	
	DUM73	Dummy variable, 1973	
	DUM77	Dummy variable, 1977	

* Average farm price 5 months prior to planting adjusted by the average difference in that price and the average crop year farm price during the 3 previous years.

Corn, expected yield per harvested acre

CORSYGR* = 43.8250 + 2.30485 (.TIME - 54)
(16.44) (12.83)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.8722
D.W. = 1.5529
S.E.E. = 6.4736

Variable numbers, names and descriptions

YY289	CORYEXP	Corn, expected yield per harvested acre	bu./ac.
YY230	CORSYGR	Corn, yield per harvested acre	bu./ac.
Z30	.TIME	Year, 1955-55	

* Regression parameters obtained by regressing CORSYGR on (.TIME - 54).

Corn, total government program acreage

$$
\begin{aligned}
CORSDINP = {} & 34.8847 - 13.3523\ SOYFEXNR/.PC(-1) \\
& \quad (4.57) \quad (-1.89) \\
& + 16.5632\ [.5(CORFNRNL + CORFNFXL)]/.PC(-1) \\
& \quad (1.69) \\
& - 10.3249\ [.5(WHEFEMNR + .5(WHEFNRNL + WHEFNRXL))]/.PC(-1) \\
& \quad (-1.65) \\
& + 5.01181\ DUM6770 + 27.9041\ DUM7173 \\
& \quad (5.58) \qquad\qquad (25.35) \\
& - 16.8024)\ DUM79 \\
& \quad (-8.99) \\
& + .000355764\ [(COAALUS)\ (1 - \min(CORSAPMP, CORSAPXP))] \\
& \quad (6.77)
\end{aligned}
$$

Estimation technique = O.L.S.
Sample period = 1961-73, 1978-79
R^2(ADJ) = 0.9903
D.W. = 3.2191
S.E.E. = 1.2505

Variable numbers, names and descriptions

YY296	CORSDINP	Corn, total government program acreage	mil. ac.
YY311	SOYFEXNR	Soybeans, expected net returns	$/ac.
YY270	CORFNRNL	Corn, expected program net return at the minimum level of participation	$/ac.
YY261	CORFNRXL	Corn, expected program net return at the maximum level of participation	$/ac.
YY272	WHEFEMNR	Wheat, expected market net return	$/ac.
YY263	WHEFNRNL	Wheat, expected program net return at the minimum level of participation	$/ac.
YY264	WHEFNRXL	Wheat, expected program net return at the maximum level of participation	$/ac.
YY201	.PC	Consumer price index, all items	1967=1.0
	DUM6770	Dummy variable, 1967-70	
	DUM7173	Dummy variable, 1971-73	
	DUM79	Dummy variable, 1979	
Z66	COAALUS	Corn, alloted acreage	
Z123	CORSAPMP	Corn, fraction of each acre planted at the minimum level of program participation	
Z124	CORSAPXP	Corn, fraction of each acre planted at the maximum level of program participation	

Corn, total acreage planted by government program participants

CORSAINP = (CORSDINP)(CORSAPMP)

$$
\begin{aligned}
&-.421504\ (CORFNRXL/CORFNRNL)\ (CORSDINP) \\
&\quad (-4.97) \\
&\quad (CORSAPMP - Min(CORSAPMP, CORSAPXP)) \\
&- 1.15223\ DCORN - .993390\ DUM6770 \\
&\quad (-1.25) \qquad\qquad (-1.09) \\
&- 5.86686\ DUM6170 \\
&\quad (-7.12)
\end{aligned}
$$

Estimation technique = O.L.S.
Sample period = 1961-73, 1978-79
R^2(ADJ) = 0.9866
D.W. = 2.5471
S.E.E. = 1.2763

Variable numbers, names and descriptions

YY297	CORSAINP	Corn, total acreage planted by government program participants	mil. ac.
YY296	CORSDINP	Corn, total government program acreage	mil. ac.
Z123	CORSAPMP	Corn, fraction of each acre planted at the minimum level of program participation	$/ac.
YY270	CORFNRNL	Corn, expected program net return at the minimum level of participation	$/ac.
YY261	CORFNRXL	Corn, expected program net return at the maximum level of participation	$/ac.
Z124	CORSAPXP	Corn, fraction of each acre planted at the maximum level of program participation	
	DCORN	Dummy variable, 1967,1971	
	DUM6770	Dummy variable, 1967-70	
	DUM6170	Dummy variable, 1961-70	

Corn, total acreage planted by government program nonparticipants

```
CORSAOSP = 87.4462 - .600503 (CORSDINP - CORSAINP)
           (53.16)   (-12.09)

         - 1.03948 CORSAINP + 2.87836 DUM72 + .840516 (TIME-58)**.5
           (-39.16)          (2.18)          (1.44)

         + 16.5491 CORFEMNR/.PC(-1)
           (2.77)

         - 13.4840 SOYFEXNR/.PC(-1)
           (-4.55)

         - 14.8203 [.5(SORFEMNR + Max(SORFNRNL, SORFNRXL))]/.PC(-1)
           (-1.49)

         - 14.1000 [.5(WHEFEMNR + Max(WHEFNRNL, WHEFNRXL))]/.PC(-1)
           (-3.05)
```

Estimation technique = O.L.S.
Sample period = 1959-79
R^2(ADJ) = 0.9977
D.W. = 1.6009
S.E.E. = 1.0939

Variable numbers, names and descriptions

YY298	CORSAOSP	Corn, total acreage planted by government program nonparticipants	mil. ac.
YY296	CORSDINP	Corn, total government program acreage	mil. ac.
YY297	CORSAINP	Corn, total acreage planted by government program participants	mil. ac.
YY262	CORFEMNR	Corn, expected market net returns	$/ac.
YY311	SOYFEXNR	Soybeans, expected net return	$/ac.
YY309	SORFEMNR	Sorghum, expected market net return	$/ac.
YY307	SORFNRNL	Sorghum, expected program net return at the minimum level of participation	$/ac.
YY308	SORFNRXL	Sorghum, expected program net return at the maximum level of participation	$/ac.
YY272	WHEFEMNR	Wheat, expected market net return	$/ac.
YY201	.PC	Consumer price index, all items	1967=1.0

Corn, total acreage planted by government program nonparticipants (cont.)

	DUM72	Dummy variable, 1972	
YY263	WHEFNRNL	Wheat, expected program net return at the minimum level of participation	$/bu.
YY264	WHEFNRXL	Wheat, expected program net return at the maximum level of participation	$/bu.
Z30.	.TIME	Year, 1959=59	

Sorghum, exports to all importing regions except PRC & USSR

SORMC = 64.3294 + 56.5487 LIVJP*EC + 62.6119 DUM65
(1.22) (1.10) (3.24)

- .00608365 CORSP+HE6 + .0103404 CORME*USSR
(-1.96) (1.28)

- 147.621 SORPF*/.SDR*OCT + 62.0757 DUM72F
(-1.82) (2.90)

+ 175.849 CORPF/.SDR*OCT
(2.26)

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.8958
D.W. = 1.7710
S.E.E. = 16.515

Variable numbers, names and descriptions

YY83	SORMC	Sorghum, exports, all importing regions, except PRC and USSR, Oct.-Sept.	mil. bu.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
Z45	CORSP+HE6	Corn production plus beginning stocks in EEC-6 countries	1000 m.t.
Z79	LIVJP*EC	Livestock, EEC production index	1964=1.0
Z102	.SDR*OCT	U.S. $/SDR; average of quarterly means,	$/SDR
YY129	SORPF*	Sorghum, average farm price. Oct.-Sept.	$/bu.
Z100	CORME*USSR	Soviet Union net exports from non-U.S. sources	1000 net. tons
	DUM65	Dummy variable, 1965	
	DUM72F	Dummy variable, equals one after 1971.	

Sorghum, program participation rate

SORPICP = SORSAINP/SORSA

Variable numbers, names and descriptions

YY109	SORPICP	Sorghum, program participation rate	
YY294	SORSAINP	Sorghum, total acreage planted by government program participants	mil. ac.
YY144	SORSA	Sorghum, total planted acreage	mil. ac.

Sorghum, CCC stocks

SORHHUN(+1) = SORHT - SORHPRRE - SORHCC1*

Variable numbers, names and descriptions

YY111	SORHHUN	Sorghum, CCC stocks, beginning of crop year	mil. bu.
YY115	SORHT	Sorghum, total ending stocks	mil. bu.
YY242	SORHPRRE	Sorghum, farmer owned reserve stocks, end of crop year	mil. bu.
YY240	SORHCC1*	Sorghum, commercial stocks, end of crop year	mil. bu.

Sorghum, total ending stocks

SORHT = SORST - SORDT

Variable numbers, names and desriptions

YY115	SORHT	Sorghum, total ending stocks	mil. bu.
YY165	SORST	Sorghum, total supply	mil. bu.
YY161	SORDT	Sorghum, total use	mil. bu.

Sorghum, total exports

SORMX = SORMC + SORMG + SORMI

Variable numbers, names and descriptions

YY122	SORMX	Sorghum, total exports	mil. bu.
YY83	SORMC	Sorghum, exports to all regions except PRC and USSR	mil. bu.
Z40	SORMG	Sorghum, net exports minus SORMC	mil. bu.
Z159	SORMI	Sorghum, imports	mil. bu.

Sorghum, utilized for feed

SORDF = -930.027 - 164.224 DUM7678
(-6.01) (-6.73)

+ 748.230 CORPF/LIVIF(+1)
(4.70)

- 828.341 SORPF*/LIVIF(+1)
(-4.75)

+ 12.2446 GCAU*(+1)
(10.97)

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.8947
D.W. = 2.6966
S.E.E. = 34.679

Variable numbers, names and descriptions

YY124	SORDF	Sorghum, feed use, Oct.-Sept.	mil. bu.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY92	LIVIF	Livestock, price index	1967=1.0
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.
YY95	GCAU*	Livestock, grain consuming animal units	mil. hd.
	DUM7678	Dummy variable 1976-78	

Sorghum, total planted acreage

SORSA = SORSAINP + SORSAOSP

Variable numbers, names and descriptions

YY144	SORSA	Sorghum, total planted acreage	mil. ac.
YY294	SORSAINP	Sorghum, total acreage planted by government program participants	mil. ac.
YY292	SORSAOSP	Sorghum, total acreage planted by government program nonparticipants	mil. ac.

Sorghum, production

$$SORSPGR = -89.6409 + .924377\ (SORSYGR)(SORSH)$$
$$\qquad\qquad (-2.63) \qquad (24.10)$$

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9683
D.W. = 0.7766
S.E.E. = 21.274

Variable numbers, names and descriptions

YY148	SORSPGR	Sorghum, production, Oct.-Sept.	mil. bu.
YY241	SORSYGR	Sorghum, yield per harvested acre, Oct.-Sept.	bu.
YY255	SORSH	Sorghum, total acreage harvested, Oct.-Sept.	mil. ac.

Sorghum, total demand

SORDT = SORDF + SORDS + SORMX + SORDU

Variable numbers, names and descriptions

YY161	SORDT	Sorghum, total use	mil. bu.
YY124	SORDF	Sorghum, feed use	mil. bu.
YY239	SORDS	Sorghum, seed use	mil. bu.
YY122	SORMX	Sorghum, total exports	mil. bu.
Z49	SORDU	Sorghum, utilized for food and industry	mil. bu.

Sorghum, total supply

SORST = SORSPGR + SORHHUN + SORHCC1*(-1) + SORHPRRE(-1)

+ SORMI

Variable numbers, names and descriptions

YY165	SORST	Sorghum, total supply	mil. bu.
YY148	SORSPGR	Sorghum, grain production	mil. bu.
YY111	SORHHUN	Sorghum, CCC stocks, beginning of crop year	mil. bu.
YY240	SORHCC1*	Sorghum, commercial stocks, end of crop year	mil. bu.
YY242	SORHPRRE	Sorghum, farmer owned reserve stocks, end of crop year	mil. bu.
Z159	SORMI	Sorghum, imports	mil. bu.

Sorghum, domestic demand

SORDD = SORDF + SORDS + SORDU

Variable numbers, names and descriptions

YY194	SORDD	Sorghum, domestic use	mil. bu.
YY124	SORDF	Sorghum, feed use	mil. bu.
YY239	SORDS	Sorghum, seed use	mil. bu.
Z49	SORDU	Sorghum, utilized for food and industry	mil. bu.

Sorghum, seed use

$$SORDS = -.0950405 + .128923\ SORSA(+1) + 0.458085\ SORPF^{*}$$
$$(-0.55) \quad (14.50) \quad (1.14)$$

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9050
D.W. = 0.7430
S.E.E. = 0.1050

Variable numbers, names and descriptions

YY239	SORDS	Sorghum, seed use, Oct.-Sept.	mil. bu.
YY144	SORSA	Sorghum, total acreage planted	mil. ac.
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.

Sorghum, commercial stocks, end of crop year

SORHCC1* = 60.4770 - 4340.30 SORPF*/.PC(+1)
(1.51) (-1.84)

+ .0693073 SORDT + 85.8559 DUM65
(1.72) (3.67)

+ 61.1236 DUM77
(2.65)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.5978
D.W. = 2.3128
S.E.E. = 22.133

Variable numbers, names and descriptions

YY240	SORHCC1*	Sorghum, commercial stocks, end of crop year	mil. bu.
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.
YY161	SORDT	Sorghum, total demand	mil. bu.
	DUM65	Dummy variable, 1965	
	DUM77	Dummy variable, 1977	
YY201	.PC	Consumer price index, all items	1967=100

Sorghum, yield per acre

SORSYGR = - 56.7858 + 1.73464 SORWRJUNAUG
(-14.14) (6.71)

+ 1.22965 .TIME + 4.50025 DUM66
(19.79) (1.72)

+ 7.26135 DUM73 - 8.22017 DUM51
(2.84) (-2.81)

+ 1.33179 [SORSDINP - SORAINP]
(8.10)

Estimation technique = O.L.S.
Sample period = 1951-79
R^2(ADJ) = 0.9713
D.W. = 2.1156
S.E.E. = 133.08

Variable numbers, names and descriptions

YY241	SORSYGR	Sorghum, yield per acre	bu.
Z186	SORWRJUNAUG	Sorghum, precipitation, Jun.-Aug., (TX, KS, NE, MO,OK)	inches
Z30	.TIME	Year, 1951=51	
	DUM66	Dummy variable, 1966	
	DUM73	Dummy variable, 1973	
	DUM51	Dummy variable, 1951	
YY293	SORSDINP	Sorghum, total government program acreage	mil. ac.
YY294	SORSAINP	Sorghum, total acreage planted by government program participants	mil. ac.

Sorghum, farmer owned reserve stocks

SORHPRRE = SORHT - SORHHUN(+1) - SORHCC1*

Variable numbers, names and descriptions

YY242	SORHPRRE	Sorghum, farmer owned reserve stocks, end of crop year	mil. bu.
YY115	SORHT	Sorghum, total ending stocks	mil. bu.
YY111	SORHHUN	Sorghum, CCC stocks, beginning of crop year	mil. bu.
YY240	SORHCC1*	Sorghum, commercial stocks, end of crop year	mil. bu.

Sorghum, harvested acreage

SORSH = .948592 + .912386 SORSA
(1.51) (25.40)

Estimation teachnique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9714
D.W. = 2.5095
S.E.E. = 0.2366

Variable numbers, names and descriptions

YY255	SORSH	Sorghum, harvested acreage	mil. ac.
YY144	SORSA	Sorghum, planted acreage	mil. ac.

Sorghum, deficiency payments

SORFP = (.001) Max(SGPT - Max(SORPFWG/1.7857,SORPL*),0)

(.01)(SORPICP)(SORSA)(SGYGVUS)(SGAALUS/SORSH)

Variable numbers, names and descriptions

YY258	SORFP	Sorghum, deficiency payments	mil. dol.
Z63	SGPT	Sorghum, target price	$/bu.
YY275	SORPFWG	Sorghum, farm price weighted by marketings, Oct.-Feb.	$/cwt.
Z111	SORPL*	Sorghum, loan rate	$/bu.
YY109	SORPICP	Sorghum, program participation rate	percent
YY144	SORSA	Sorghum, planted acreage	mil. ac.
Z57	SGYGVUS	Sorghum, administrative yield	bu./ac.
Z67	SGAALUS	Sorghum, allotted acreage	thous. ac.
YY255	SORSH	Sorghum, harvested acreage	mil. ac.

Sorghum, total farmer owned reserve storage payments

Variable numbers, names and descriptions

SORFS = .5[(SGPSRUS)(SORHPRRE) + (SGPSRUS(-1))(SORHPRRE(-1))]

YY267	SORFS	Sorghum, total farmer owned reserve storage payments	mil. dol.
YY242	SORHPRRE	Sorghum, farmer owned reserve stocks, end of crop year	mil. bu.
Z72	SGPSRUS	Sorghum, farmer owned reserve storage payment rate	$/bu.

Sorghum, farm price weighted by marketings, Oct.-Feb.

SORPFWG = - .0397488 + 1.72206 SORPF* + .592703 DUM74
(-0.32) (5.05)

Estimation technique = O.L.S.
Sample period = 1970-79
R^2(ADJ) = 0.9938
D.W. = 1.4577
S.E.E. = 0.0886

Variable numbers, names and descriptions

YY275	SORPFWG	Sorghum, farm price weighted by marketings, Oct.-Sept.	$/bu.
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.
	DUM74	Dummy variable, 1974	

Sorghum, expected farm price

SORPEXP* = .0274363 + .976225 SORPF*(-1)
(1.00) (52.34)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9927
D.W. = 1.4283
S.E.E. = 0.0481

Variable numbers, names and descriptions

YY284	SORPEXP	Sorghum, expected farm price	$/bu.
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.

*Average farm price 5 months prior to planting adjusted by the average difference in that price and the average crop year farm price during the 3 previous years.

Sorghum, expected yield per harvested acre

SORYEXP* = - 4.68127 - 2.41619 (.TIME - 54)
(-0.72) (-3.55)

+ 24.0815 (.TIME - 54)**.5
(5.52)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.8603
D.W. = 1.4653
S.E.E. = 4.2453

Variable numbers, names and descriptions

YY290	SORYEXP	Sorghum, expected yield per harvested acre	bu./ac.
YY241	SORSYGR	Sorghum, yield per harvested acre	bu./ac.
Z30	.TIME	Year, 1955=55	

* Regression parameters obtained by regression SORSYGR on (.TIME - 54) and (.TIME - 54)**.5.

Sorghum, total acreage planted by government nonparticipants

SORSAOSP = 15.4314 - .651856 SORSAINP
(11.33) (-12.59)

- .354187 (SORSDINP - SORSAINP)
(-3.78)

+ 18.2686 SORFEMNR/.PC(-1)
(7.69)

- 9.65890 SOYFEXNR/.PC(-1)
(-4.92)

+ 4.38708 DUM5960 + 3.92383 DUM77
(4.47) (4.30)

Estimation technique = O.L.S.
Sample period = 1959-79
R^2(ADJ) = 0.9844
D.W. = 1.6789
S.E.E. = 0.6502

Variable numbers, names and descriptions

YY292	SORSAOSP	Sorghum, total acreage planted by government program nonparticipants	mil. ac.
YY294	SORSAINP	Sorghum, total acreage planted by government program participants	mil. ac.
YY293	SORSDINP	Sorghum, total government program acreage	mil. ac.
YY309	SORFEMNR	Sorghum, expected market net returns	$/ac.
YY311	SOYFEXNR	Soybeans, expected net returns	$/ac.
YY201	.PC	Consumer price index, all items	1967=1.0
	DUM5960	Dummy variable, 1959-60	
	DUM77	Dummy variable, 1977	

Sorghum, total government program acreage

$$
\begin{aligned}
SORSDINP = {} & 8.61281 - 8.75317\ SOYFEXNR/.PC(-1) \\
& (1.93) \quad (-2.77) \\
& - 12.9320\ SORFEMNR/.PC(-1) \\
& (-1.25) \\
& + 22.7022\ [.5(SORFNRNL + SORFNRXL)]/.PC(-1) \\
& (1.49) \\
& + .000986077\ (SGAALUS)(1 - Min(SORSAPMP, SORSAPXP)) \\
& (1.14) \\
& + .000270838\ SGAALUS - 1.68398\ DUM6164 \\
& (2.47) \qquad\qquad (-3.65) \\
& + 3.78787\ DUM7173 \\
& (7.29)
\end{aligned}
$$

Estimation technique = O.L.S.
Sample period = 1961-73,1978-79
R^2(ADJ) = 0.9350
D.W. = 2.2091
S.E.E. = 0.6342

Variable numbers, names and descriptions

YY293	SORSDINP	Sorghum, total government program acreage	mil. ac.
YY311	SOYFEXNR	Soybeans, expected net return	$/ac.
YY309	SORFEMNR	Sorghum, expected market net returns	$/ac.
YY307	SORFNRNL	Sorghum, expected program net returns of the minimum level of participation	$/ac.
YY308	SORFNRXL	Sorghum, expected program net returns at the maximum level of participation	$/ac.
YY201	.PC	Consumer price index, all items	1967=1.0
Z67	SGAALUS	Sorghum, allotted acreage	thous. ac.
Z177	SORSAPMP	Sorghum, fraction of each acre planted at the minimum level of program participation	
Z182	SORSAPXP	Sorghum, fraction of each acre planted at the maximum level of program participation	
	DUM6164	Dummy variable, 1961-64	
	DUM7173	Dummy variable, 1971-73	

Sorghum, total acreage planted by government program participants

$$SORSAINP = (SORSDINP)(SORSAPMP) - \underset{(-10.35)}{.691261}\ [(SORFNRXL/SORFNRNL)(SORSDINP)(SORSAPMP - Min(SORSAPMP,SORSAPXP))] - \underset{(-3.83)}{1.01259}\ DUM6170$$

Estimation technique = O.L.S.
Sample period = 1961-73,1978-79
R^2(ADJ) = 0.9815
D.W. = 2.1139
S.E.E. = 0.4218

Variable number, names and descriptions

YY294	SORSAINP	Sorghum, total acreage planted by government program participants	mil. ac.
YY293	SORSDINP	Sorghum, total government program acreage	mil. ac.
YY307	SORFNRNL	Sorghum, expected program net returns at the minimum level of participation	$/ac.
YY308	SORFNRXL	Sorghum, expected program net returns at the maximum level of participation	$/ac.
Z177	SORSAPMP	Sorghum, fraction of each acre planted at the minimum level of program participation	
Z182	SORSAPXP	Sorghum, fraction of each acre planted at the maximum level of program participation	
	DUM6170	Dummy variable, 1961-70	

Sorghum, expected program net returns at the minimum level of participation

SORFNRNL = [(1 - DUM6162) Max(SORPEXP,SORLRPP)(SORYEXP)

+ (DUM6162)[(DUMSP)SORPEXP)(SORYEXP)

+ (1 - DUMSP)[(SORLRPP) Min(SORYEXP,SGYGVUS)

+ (SORPEXP) Max(SORYEXP - SGYGVUS,0)]]

- SORVC**](SORSAPMP)

+ [(SORSPEMP)[(DUM5973)(SORPGMLP)

+ (1 - DUM5973) Max(SORPGMLP - Max(SORPEXP,SORLRPP),0)]]

+ SORPDMLP

Variable numbers, names and descriptions

YY307	SORFNRNL	Sorghum, expected program net returns at the minimum level of participation	$/ac.
YY284	SORPEXP	Sorghum, expected farm price	$/bu.
Z250	SORLRPP	Sorghum, loan rate prior to planting	$/bu.
YY290	SORYEXP	Sorghum, expected yield per harvested acre	bu./ac.
Z57	SGYGVUS	Sorghum, administrative yield	bu./ac.
Z176	SORVC**	Sorghum, variable cost	$/ac.
Z177	SORSAPMP	Sorghum, fraction of each acre planted at the minimum level of program participation	
Z189	SORSPEMP	Sorghum, production eligible for support at the minimum level of program participation	bu./ac.
Z183	SORPGMLP	Sorghum, support payment rate basis of minimum level of program participation	$/bu.
Z196	SORPDMLP	Sorghum, diversion payments at the minimum level of program participation	$/bu.
	DUM6162	Dummy variable for years when the loan rate applied to at most normal production on harvested acres, 1961-62=1	
	DUMSP	Dummy variable, if SORPEXP > SORLRPP, DUMSP=1	
	DUM5973	Dummy variable for years when the support rate was not computed as a function of farm price, 1959-73=1	

Sorghum, expected program net returns at the maximum level of participation

SORFNRXL = [(1 - DUM6162) Max(SORPEXP,SORLRPP)(SORYEXP)

+ (DUM6162)[(DUMSP))(SORPEXP)(SORYEXP)

+ (1 - DUMSP)[(SORLRPP) Min(SORYEXP,SGYGVUS)

+ (SORPEXP) Max(SORYEXP - SGYGVUS,0)]]

- SORVC**](SORSAPXP)

+ [(SORSPEXP)[(DUM5973)(SORPGXLP)

+ (1 - DUM5973) Max(SORPGXLP - Max(SORPEXP,SORLRPP),0)]]

+ SORPDXLP

Variable numbers, names and descriptions

YY308	SORFNRXL	Sorghum, expected program net return at the maximum level of participation	$/ac.
YY284	SORPEXP	Sorghum, expected farm price	$/bu.
Z250	SORLRPP	Sorghum, loan rate prior to planting	$/bu.
YY290	SORYEXP	Sorghum, expected yield per harvested acre	bu./ac.
Z57	SGYGVUS	Sorghum, administrative yield	bu./ac.
Z176	SORVC**	Sorghum, variable cost	$/ac.
Z182	SORSAPXP	Sorghum, fraction of each acre planted at the maximum level of program participation	
Z192	SORSPEXP	Sorghum, production eligible for support at the maximum level of program participation	bu./ac.
Z188	SORPGXLP	Sorghum, support payment rate basis at the maximum level of program participation	$/bu.
Z200	SORPDXLP	Sorghum, diversion payments at the maximum level of program participation	$/ac.
	DUM6162	Dummy variable for years when the loan rate applied to at most normal production on harvested acre, 1961-62=1	
	DUMSP	Dummy variable, it SORSPEXP > SORLRPP, DUMSP=1	
	DUM5973	Dummy variable for years when the support rate was not computed as a function of farm price, 1959-73=1	

Sorghum, expected market net returns

SORFEMNR = Max[(SORPEXP)(SORYEXP) -SORVC**,

(DUMSOR)(SORFNRNL)]

Variable numbers, names and descriptions

YY309	SORFEMNR	Sorghum, expected market net returns	$/ac.
YY284	SORPEXP	Sorghum, expected farm price	$/bu.
YY290	SORYEXP	Sorghum, expected yield per harvested acre	bu./ac.
YY307	SORFNRNL	Sorghum, expected program net return at the minimum level of participation	$/ac.
Z176	SORVC**	Sorghum, variable cost	$/ac.
	DUMSOR	Dummy variable for year when there is no program, 1959-60, 1974-1977	$/ac.

Barley, CCC stocks

BARHH1*JM = BARHT*JM - BARHPRRE - BARHCC1*JM

Variable numbers, names and descriptions

YY113	BARHH1*JM	Barley, CCC stocks, end of crop year	mil. bu.
YY117	BARHT*JM	Barley, total ending stocks	mil. bu.
YY234	BARHPRRE	Barley, farmer-owned reserve stocks, end of crop year	mil. bu.
YY232	BARHCC1*JM	Barley, commercial stocks, end of crop year	mil. bu.

Barley, total ending stocks

BARHT*JM = BARST*JM - BARDT*JM

Variable numbers, names and descriptions

YY117	BARHT*JM	Barley, total ending stocks	mil. bu.
YY249	BARST*JM	Barley, total supply	mil. bu.
YY248	BARDT*JM	Barley, total demand	mil. bu.

Barley, domestic use for food & alc. bev.

BARDH*JM = .106584 .NPC
(1.46)

+ 13.0242 .YPD$/.PC
(6.48)

- 23.3271 (.NPC)(BARPF)/.PC
(-2.17)

+ 14.9892 (.NPC)(CORPF)/.PC
(2.65)

+ 26.5748 (.NPC)(OATPF)/.PC
(1.93)

Estimation technique = O.L.S.
Sample period = 1950-78
R^2(ADJ) = 0.9250
D.W. = 0.7920
S.E.E. = 6.0200

Variable numbers, names and description

YY120	BARDH*JM	Barley, domestic use for food & alc. bev., June-May	mil. bu.
Z1	.NPC	Population, total	mil.
Z34	.YPD$	Personal disposable income, current dollars	bil. dol.
YY201	.PC	Consumer price index, all items	1967=1.0
YY130	BARPF	Barley, average farm price, June-May	$/bu.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY128	OATPF	Oats, average farm price, June-May	$/bu.

Barley, domestic feed use

BARDF*JM = 347.710 + 1.35012 SAHKSFD(-1) + 57.2118 DUM71 - 2.21785..TIME(-1)
(5.04) (0.69) (2.87) (-1.45)

- 214.598 BARPF/LIVIF
(-3.81)

+ 183.720 CORPF/LIVIF
(3.23)

Estimation technique = O.L.S.
Sample period = 1960-80
R^2(ADJ) = 0.7863
D.W. = 2.0023
S.E.E. = 17.059

Variable numbers, names and descriptions

YY126	BARDF*JM	Barley, domestic feed use, June-May	mil. bu.
YY28	SAHKSFD	Beef, steer and heifer, fed, slaughter	mil. hd.
YY130	BARPF	Barley, average farm price, June-May	$/bu.
YY92	LIVIF	Livestock price index	1967=1.0
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
	DUM71	Dummy variable, 1971	
Z30	.TIME	Year, 1960=60	

Barley, total acreage planted

BARSA = BARSAOSP + BARSAINP

Variable numbers, names and descriptions

YY146	BARSA	Barley, total acreage planted	mil. ac.
YY301	BARSAINP	Barley, total acreage planted in the program,	mil. ac.
YY302	BARSAOSP	Barley, total acreage planted outside the program,	mil. ac.

Barley, production

BARSP = BARSH* BARSY

Variable numbers, names and descriptions

YY150	BARSP	Barley, production	mil. bu.
YY254	BARSH	Barley, harvested acreage	mil. ac.
YY233	BARSY	Barley, yield per harvested acre	bu.

Barley, program participation rate

BARPICP = BARSAINP/BARSA

Variable numbers, names and descriptions

YY191	BARPICP	Barley, program participation rate	
YY146	BARSA	Barley, total acreage planted	mil. ac.
YY301	BARSAINP	Barley, total program acreage planted	mil. ac.

Barley, domestic seed use

$$BARDS*JM = -.275488 + 1.57235\ BARSA(+1) + .604765\ BARPF$$
$$(-0.56) \quad (52.47) \quad (3.97)$$

Estimation technique	= O.L.S.
Sample period	= 1950-79
R^2(ADJ)	= 0.9930
D.W.	= 1.2620
S.E.E.	= 0.3610

Variable numbers, names and descriptions

YY231	BARDS*JM	Barley, domestic seed use, June-May	mil. bu.
YY146	BARSA	Barley, total acreage planted	mil. ac.
YY130	BARPF	Barley, average farm price, June-May	$/bu.

Barley, commercial stocks, end of crop year

BARHCC1*JM = 137.077 + .214386 BARDT*JM
(1.97) (1.55)

+ 70.6860 DUM6869 - 6375.91 BARPF/.PC
(4.00) (-3.29)

Estimationn technique = O.L.S.
Sample period = 1965-80
R^2(ADJ) = 0.7689
D.W. = 2.2036
S.E.E. = 20.222

Variable numbers, names and descriptions

YY232	BARHCC1*JM	Barley, commercial stocks, end of crop year	mil. bu.
YY248	BARDT*JM	Barley, total demand	mil. bu.
	DUM6869	Dummy variable, 1968-69	
YY201	.PC	Consumer price index, all items	1967=100.
YY130	BARPF	Barley, average farm price, June-May	$/bu.

Barley, yield per harvested acre

$$BARSY = \underset{(2.42)}{29.8541} + \underset{(0.71)}{1.70842}\ BARPF(-1)/FERIW + \underset{(1.71)}{344312}\ (BARSAIPT - BARSAINP)$$

$$- \underset{(-4.18)}{0.748330}\ JNJLTEM + \underset{(21.84)}{0.842869}\ .TIME - \underset{(-2.47)}{4.10566}\ DUM73$$

$$- \underset{(-3.22)}{5.65520}\ DUM74 + \underset{(2.36)}{4.00810}\ DUM65$$

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9538
D.W. = 1.4216
S.E.E. = 1.5766

Variable numbers, names and descriptions

YY233	BARSY	Barley, yield per acre harvested	bu./ac.
Z184	FERIW	Fertilizer price index	1967=1.0
Z31	JNJLTEM	Weather variable, STD, WGHTD., precip. July, (IN., IA., IL., and OH.)	index
Z30	.TIME	Year, 1950=50	
	DUM74	Dummy variable, 1974	
YY130	BARPF	Barley, average farm price, June-May	$/bu.
YY300	BARSAIPT	Barley, total program acreage	mil. ac.
YY301	BARSAINP	Barley, total program acreage planted	mil. ac.
	DUM73	Dummy variable, 1973	
	DUM65	Dummy variable, 1965	

Barley, producer held reserve stocks

BARHPRRE = BARHT*JM - BARHCCC1*JM - BARHH1*JM

Variable numbers, names and descriptions

YY234	BARHPRRE	Barley, farmer-owned reserve stocks, end of crop year	mil. bu.
YY117	BARHT*JM	Barley, total ending stocks	mil. bu.
YY232	BARHCC1*JM	Barley, commercial stocks, end of crop year	mil. bu.
YY113	BARHH1*JM	Barley, CCC stocks, end of crop year	mil. bu.

Barley, total demand

BARDT*JM = BARDF*JM + BARDH*JM + BARDS*JM + BARMX*JM

Variable numbers, names and descriptions

YY248	BARDT*JM	Barley, total demand	mil. bu.
YY126	BARDF*JM	Barley, domestic feed use	mil. bu.
YY120	BARDH*JM	Barley, domestic food use	mil. bu.
YY231	BARDS*JM	Barley, domestic seed use	mil. bu.
Z42	BARMX*JM	Barley, total exports	mil. bu.

Barley, total supply

BARST*JM = BARSP + BARHCC1*JM(-1) + BARHH1*JM(-1)

+ BARHPRRE(-1) + BARMI*JM

Variable numbers, names and descriptions

YY249	BARST*JM	Barley, total supply	mil. bu.
YY150	BARSP	Barley, production	mil. bu.
YY232	BARHCC1*JM	Barley, commercial stocks, end of crop year	mil. bu.
YY234	BARHPRRE	Barley, farmer-owned reserve stocks	mil. bu.
Z46	BARMI*JM	Barley, imports	mil. bu.
YY113	BARHH1*JM	Barley, CCC stocks, end of crop year	mil. bu.

Barley, domestic demand

BARDD*JM = BARDF*JM + BARDH*JM + BARDS*JM

Variable numbers, names and descriptions

YY250	BARDD*JM	Barley, domestic demand	mil. bu.
YY126	BARDF*JM	Barley, domestic feed use	mil. bu.
YY120	BARDH*JM	Barley, domestic food use	mil. bu.
YY231	BARDS*JM	Barley, domestic seed use	mil. bu.

Barley, harvested acreage

BARSH = .443535 + .865974 BARSA - .901840 DUM6163
(2.33) (54.59) (-6.46)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9908
D.W. = 1.2731
S.E.E. = 0.2176

Variable numbers, names and descriptions

YY254	BARSH	Barley, harvested acreage	mil. ac.
YY146	BARSA	Barley, planted acreage	mil. ac.
	DUM6163	Dummy variable, 1961-63	

Barley, deficiency payments

BARFP = (.001) Max(BAPT - Max(BARPFWG,BARPL), 0)

(.01) (BARPICP) (BARSA) (BAYGVUS) (BAAALUS/BARSH)

Variable numbers, names and descriptions

YY259	BARFP	Barley, deficiency payments	mil. dol.
Z64	BAPT	Barley, target price	$/bu.
YY274	BARPFWG	Barley, farm price weighted by marketings, Je.-Oct.	$/bu.
Z113	BARPL	Barley, loan rate	$/bu.
YY191	BARPICP	Barley, program participation rate	percent
YY146	BARSA	Barley, planted acreage	mil. ac.
Z56	BAYGVUS	Barley, administrative yield	bu./ac
Z68	BAAALUS	Barley, allotted acreage	thous. ac.
YY254	BARSH	Barley, harvested-acreage	mil. ac.

Barley, total farmer-owned reserve storage payments

BARFS = .5[(BAPSRUS) (BARHPRRE) + (BAPSRUS(-1)) (BARHPRRE(-1))]

Variable numbers, names and descriptions

YY268	BARFS	Barley, farmer-owned reserve storage payments	mil. dol.
YY234	BARHPRRE	Barley, farmer-owned reserve stocks, end of crop year	mil. bu.
Z73	BARSRUS	Barley, farmer-owned reserve storage payment rate	$/bu.

Barley, farm price weighted by marketings, June-Oct.

BARPFWG = .135443 + 1.00260 BARPF
(1.01) (21.50)

- .189210 BARHCC1*JM(-1)/BARHCC1*JM
(-2.01)

+ .198236 DUM76 - .137906 DUM77
(2.01) (-1.44)

Estimatin technique = O.L.S.
Sample period = 1970-79
R^2(ADJ) = 0.9827
D.W. = 1.3056
S.E.E. = 0.0864

Variable numbers, names and descriptions

YY274	BARPFWG	Barley, farm price weighted by marketings, June-Oct.	$/bu.
YY130	BARPF	Barley, average farm price received, June-May	$/bu.
YY232	BARHCC1*JM	Barley, commercial stocks, end of crop year	mil. bu.
	DUM76	Dummy variable, 1976	
	DUM77	Dummy variable, 1977	

Barley, expected farm price

BARPEXP = .0286550 + .968911 BARPF(-1)
(1.64) (75.00)

+ .233705 DUM75
(6.40)

Estimation technique = O.L.S.
Sample period = 1959-79
R^2(ADJ) = 0.9978
D.W. = 1.8275
S.E.E. = 0.2964

Variable numbers, names and descriptions

YY283	BARPEXP	Barley, expected farm price*	$/bu.
YY130	BARPF	Barley, average farm price, June-May	$/bu.
	DUM75	Dummy variable, 1975	

*Weighted farm price 5 months prior to planting adjusted by the average difference between this price and the average crop year price for the previous three years.

Barley, expected yield per harvested acre, Jul.-Je.

BARSYEXP[1]/ = 20.3553 + 5.37658 (.TIME-54)**.5
(11.20) (10.67)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.8247
D.W. = 1.1249
S.E.E. = 2.8352

Variable numbers, names and descriptions

YY287	BARYEXP	Barley, expected yield per harvested acre	bu./ac.
YY233	BARSY	Barley, yield per harvested acre	bu./ac.
Z30	.TIME	Year, 1955=55	

1/ Regression parameters obtained by regressing BARSY against the square root of (.TIME-54).

Barley, expected program net returns at the minimum level of participation

```
BARFNRNL = [(1 - DUM6162) Max(BARPEXP,BARLRPP) (BARYEXP)
         + (DUM6162) [(DUMBP) (BARPEXP) (BARYEXP)
         + (1 - DUMBP) [(BARLRPP) Min(BARYEXP,BAYGVUS)
         + (BARPEXP) Max(BARYEXP - BAYGVUS,0)]]
         - BARVC**] (BARSAPMP)
         + [(BARSPEMP) [(DUM5973) (BARPGMLP)
         + (1 - DUM5973) Max(BARPGMLP - Max(BARPEXP,BARLRPP),0)]]
         + BARPDMLP
```

Variable numbers, names and descriptions

YY295	BARFNRNL	Barley, expected program net returns at the minimum level of participation	$/ac.
YY283	BARPEXP	Barley, expected farm price	$/bu.
Z175	BARLRPP	Barley, loan rate prior to planting	$/bu.
YY287	BARYEXP	Barley, expected yield per harvested acre	bu./ac.
Z56	BAYGVUS	Barley, administrative yield	bu/ac.
Z143	BARVC**	Barley, variable cost	$/ac.
Z149	BARSAPMP	Barley, fraction of each acre planted at the minimum level of program participation	
Z155	BARSPEMP	Barley, production eligible for support at the minimum level of program participation	bu./ac.
Z152	BARPGMLP	Barley, support payment rate basis at the minimum level of program participation	$/bu.
Z173	BARPDMLP	Barley, diversion payments at the minimum level of program participation	$/ac.
	DUM6162	Dummy variable for years when the loan rate applied to at most normal production on harvested acres, 1961-62	
	DUMBP	Dummy variable, if BARPEXP > BARLRPP, DUMBP=1	
	DUM5973	Dummy variable for years when the support rate was not computed as a function of farm price, 1959-73	

Barley, expected program net returns at the minimum level of participation

```
BARFNRNL = [(1 - DUM6162) Max(BARPEXP,BARLRPP) (BARYEXP)
         + (DUM6162) [(DUMBP) (BARPEXP) (BARYEXP)
         + (1 - DUMBP) [(BARLRPP) Min(BARYEXP,BAYGVUS)
         + (BARPEXP) Max(BARYEXP - BAYGVUS,0)]]
         - BARVC**] (BARSAPMP)
         + [(BARSPEMP) [(DUM5973) (BARPGMLP)
         + (1 - DUM5973) Max(BARPGMLP - Max(BARPEXP,BARLRPP),0)]]
         + BARPDMLP
```

Variable numbers, names and descriptions

YY295	BARFNRNL	Barley, expected program net returns at the minimum level of participation	$/ac.
YY283	BARPEXP	Barley, expected farm price	$/bu.
Z175	BARLRPP	Barley, loan rate prior to planting	$/bu.
YY287	BARYEXP	Barley, expected yield per harvested acre	bu./ac.
Z56	BAYGVUS	Barley, administrative yield	bu/ac.
Z143	BARVC**	Barley, variable cost	$/ac.
Z149	BARSAPMP	Barley, fraction of each acre planted at the minimum level of program participation	
Z155	BARSPEMP	Barley, production eligible for support at the minimum level of program participation	bu./ac.
Z152	BARPGMLP	Barley, support payment rate basis at the minimum level of program participation	$/bu.
Z173	BARPDMLP	Barley, diversion payments at the minimum level of program participation	$/ac.
	DUM6162	Dummy variable for years when the loan rate applied to at most normal production on harvested acres, 1961-62	
	DUMBP	Dummy variable, if BARPEXP > BARLRPP, DUMBP=1	
	DUM5973	Dummy variable for years when the support rate was not computed as a function of farm price, 1959-73	

Barley, total program acreage

BARSAIPT = 4.32228 - 36.5190 BARFEMNR/.PC(-1)
(1.24) (-2.33)

- 3.77914 [.5(WHEFEMNR + .5(WHEFNRNL + WHEFNRXL))]/.PC(-1)
(-0.97)

+ 31.0948 [.5(BARFNRNL + BARFNRXL)]/.PC(-1)
(2.00)

+ 6.98606 DUM7273
(10.28)

+ .000591175 (BAAALUS) (1.- MIN(BARSAPMP,BARSAPXP))
(4.37)

Estimation technique = O.L.S.
Sample period = 1962-66 1969-73, 1978-79
R^2(ADJ) = 0.9262
D.W. = 2.4779
S.E.E. = 0.7040

Variable numbers, names and descriptions

YY300	BARSAIPT	Barley, total program acreage	mil. ac.
YY303	BARFEMNR	Barley, expected market net returns	$/ac.
YY272	WHEFEMNR	Wheat, expected market net returns	$/ac.
YY263	WHEFNRNL	Wheat, expected program net returns at the minimum level of participation	$/ac.
YY264	WHEFNRXL	Wheat, expected program net returns at the maximum level of participation	$/ac.
YY295	BARFNRNL	Barley, expected program net returns at the maximum level of participation	$/ac.
YY201	.PC	Consumer price index, all items	1967=1.0
Z68	BAAALUS	Barley, allotted acreage	thous. ac.
Z149	BARSAPMP	Barley, fraction of each acre planted at the minimum program participation level	
Z150	BARSAPXP	Barley, fraction of each acre planted at the maximum program participation level	
	DUM7273	Dummy variable, 1972-73	
YY299	BARFNRXL	Barley, expected program net returns at the maximum level of participation	$/ac.

Barley, total program acreage planted

BARSAINP = (BARSAIPT) (BARSAPMP)

$$- \underset{(-7.73)}{.729575}\ (BARFNRXL/BARFNRNL)\ (BARSAIPT)$$

$$(BARSAPMP - MIN(BARSAPMP, BARSAPXP))$$

$$- \underset{(-3.11)}{.669470}\ DUM6270$$

Estimation technique = O.L.S.
Sample period = 1962-66, 1969-73, 1978-79
R^2(ADJ) = 0.9756
D.W. = 2.9414
S.E.E. = 0.2986

Variable numbers, names and descriptions

YY301	BARSAINP	Barley, total program acreage planted	mil. ac.
YY300	BARSAIPT	Barley, total program acreage	mil. ac.
Z149	BARSAPMP	Barley, fraction of each acre planted at the minimum program participation level	
Z150	BARSAPXP	Barley, fraction of each acre planted at the maximum program participation level	
YY295	BARFNRNL	Barley, expected program net returns at the minimum level of participation	$/ac.
YY299	BARFNRXL	Barley, expected program net returns at the maximum level of participation	$/ac.
	DUM6270	Dummy variable, 1962-70	

Barley, total acreage planted outside the program

BARSAOSP = 20.9210 - .354127 (BARSAIPT - BARSAINP)
(59.72) (-6.43)

- .852341 BARSAINP + 5.07896 BARFEMNR/.PC(-1)
(-25.39) (3.22)

- 9.32885 WHEFEMNR/.PC(-1)
(-7.57)

- 1.72159 DUMBAR + 2.37581 DUM6164
(-6.11) (8.69)

- 1.06801 DUM6768 - 1.45698 DUM6465
(-3.92) (-6.60)

- 2.11910 (.TIME - 58)**.5
(-18.92)

Estimation technique = O.L.S.
Sample period = 1959-79
R^2(AdJ) = 0.9960
D.W. = 1.2870
S.E.E. = 0.2566

Variable numbers, names and descriptions

YY302	BARSAOSP	Barley, total acreage planted outside of the program	mil. ac.
YY300	BARSAIPT	Barley, total program acreage	mil. ac.
YY301	BARSAINP	Barley, total program acreage planted	mil. ac.
YY303	BARFEMNR	Barley, expected market net returns	$/ac.
YY272	WHEFEMNR	Wheat, expected market net returns	$/ac.
YY201	.PC	Consumer price index, all items	1967=1.0
	DUM6164	Dummy variable, 1961-64	
	DUM6768	Dummy variable, 1967-68	
	DUM6465	Dummy variable, 1964-65	
Z30	.TIME	Year, 1959=59	
	DUMBAR	Dummy variable, for years when there was either a wheat or a feed grain program	

Barley, expected market net returns

BARFEMNR = MAX[(BARPEXP)(BARYEXP) - BARVC**,

(DUMBAR)(BARFNRNL)]

Variable numbers, names and descriptions

YY303	BARFEMNR	Barley, expected market net returns	$/ac.
YY283	BARPEXP	Barley, expected farm price	$/bu.
YY287	BARYEXP	Barley, expected yield per acre	bu./ac.
YY295	BARFNRNL	Barley, expected program net return at the minimum level of participation	$/bu.
Z143	BARVC**	Barley, variable production cost	$/ac.
	DUMBAR	Dummy variable for years when there is no program 1959-61, 1967-68, 1971, 1974-77	

Grain consuming animal units

GCAU* = .2285 (HOGSNBR(-1) + HOGSM(-1) + PIGSC)

+ 1.0475 (COWSNMC + COWSEMC/.6)

+ 1.5323 (1.5(SAHKSFD))

+ .0547 (COWSNBE + HEISBBE)

+ .0217 CHISVLA + .002 CHISPYO/2.7

+ .0054 CHIAPOT/2.7

+ .0015 TURAP/14.4

Variable numbers, names and descriptions

YY95	GCAU*	Grain consuming animals units	animal un
YY6	HOGSNBR	Hogs, breeding, numbers on farms, Dec. 1	mil. hd.
YY12	HOGSM	Hogs, market, number on farms, Dec. 1	mil. hd.
YY7	PIGSC	Pigs, crop	mil.
YY16	COWSNMC	Cows, dairy, number on farms, Jan. 1	mil. hd.
YY75	COWSEMC	Cows, dairy, additions to herd	mil. hd.
YY28	SAHKSFD	Steer and heifer, fed slaughter plus farm slaughter	mil. hd.
YY15	COWSNBE	Cows, beef, number on farms, Jan. 1	mil.
YY24	HEISBBE	Beef, heifer, added to breeding herd	mil. hd.
YY61	CHISVLA	Chickens, layers, number on farms	mil. hd.
YY44	CHISPYO	Chickens, young, production	mil. lbs.
YY43	CHIAPOT	Chickens, other, production	mil. lbs.
YY55	TURAP	Turkey, production	mil. lbs.

Oats, CCC stocks

OATHH1*JM = OATHT*JM - OATHCC1*JM - OATHPRRE

Variable numbers, names and descriptions

YY112	OATHH1*JM	Oats, CCC stocks, end of crop year	mil. bu.
YY116	OATHT*JM	Oats, total ending stocks	mil. bu.
YY236	OATHCC1*JM	Oats, commercial stocks, end of crop year	mil. bu.
YY238	OATHPRRE	Oats, farmer owned reserve stocks, end of crop year	mil. bu.

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Oats, total ending stocks

OATHT*JM = OATST*JM - OATDT*JM

Variable numbers, names and descriptions

YY116	OATHT*JM	Oats, total ending stocks	mil. bu.
YY174	OATST*JM	Oats, total supply	mil. bu.
YY169	OATDT*JM	Oats, total demand	mil. bu.

Oats, domestic food use

OATDH*JM = .307843 .NPC
(17.87)

- 2.77079 .YPD$/.PC
(-6.27)

- 3.09033 (.NPC)(OATPF)/.PC
(-2.30)

Estimation technique = O.L.S.
Sample period = 1950-78
R^2(ADJ) = 0.7140
D.W. = 0.4950
S.E.E. = 2.1560

Variable numbers, names and descriptions

YY119	OATDH*JM	Oats, domestic food use, June-May	mil. bu.
Z1	.NPC	Population, total U.S.	mil.
Z34	.YPD$	Personal disposable income, current dollars	bil. dol.
YY201	.PC	Consumer Price Index, all items	1967=1.0
YY128	OATPF	Oats, average farm price, June-May	$/bu.

Oats, domestic feed use

$$OATDF*JM = -122.327 - 3679.59\ OATPF/MILPF + 1161.15\ CORPF/MILPF + 36.9291\ (COWSNMC + COWSEMC/.6) + 1.78818\ PIGSC - 169.19\ DUM7779$$

(-0.84) (-5.78) (4.31) (13.38) (1.43) (-6.64)

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9500
D.W. = 0.8640
S.E.E. = 30.850

Variable numbers, names, and descriptions

YY125	OATDF*JM	Oats, domestic feed use, June-May	mil. bu.
YY128	OATPF	Oats, average farm price, June-May	$/bu.
YY74	MILPF	Milk, all sold to plants, average wholeseale price received by farmers	$/cwt.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY16	COWSNMC	Cows, dairy, number on farms, Jan.1	mil. hd.
YY7	PIGSC	Hogs, pig crop	mil. hd.
YY75	COWSEMC	Cows, dairy, additions to herd	mil. hd.
	DUM7779	Dummy variable 1977-79	

Oats, domestic demand

OATDD*JM = OATDF*JM + OATDH*JM + OATDS*JM

Variable numbers, names and descriptions

YY135	OATDD*JM	Oats, domestic demand	mil. bu.
YY125	OATDF*JM	Oats, domestic feed use	mil. bu.
YY119	OATDH*JM	Oats, domestic food use	mil. bu.
YY235	OATDS*JM	Oats, domestic seed use	mil. bu.

Oats, total planted acreage

OATSA = 41.8755 + 6.70449 OATFEXNR/.PC(-1)
(35.17) (0.89)

- 7.96613 [.5(WHEFEMNR + .5(WHEFNRNL + WHEFNRXL))]/.PC(-1)
(-2.21)

- 2.19819 DUM6566
(-2.24)

- 5.50613 (.TIME - 58)**.5
(-18.74)

Estimation technique = O.L.S.
Sample period = 1959-79
R^2(ADJ) = 0.9537
D.W. = 1.6483
S.E.E. = 1.2607

Variable numbers, names and descriptions

YY145	OATSA	Oats, total planted acreage	mil. ac.
YY310	OATFEXNR	Oats, expected net return	$/ac.
YY272	WHEFEMNR	Wheat, expected market net return	$/ac.
YY263	WHEFNRNL	Wheat, expected program net return at the minimum level of participation	$/ac.
YY264	WHEFNRXL	Wheat, expected program net return at the maximum level of participation	$/ac.
	DUM6566	Dummy variable, 1965-66	
Z30	.TIME	Year, 1959=59	
YY201	.PC	Consumer price index, all items	1967=100

Oats, production

OATSP = (OATSH)(OATSY)

Variable numbers, names and descriptions

YY149	OATSP	Oats, production	mil. bu.
YY237	OATSY	Oats, yield per harvested acre	bu.
YY256	OATSH	Oats, harvested acreage	mil. ac.

Oats, total disappearance

OATDT*JM = OATDF*JM + OATDH*JM + OATDS*JM + OATMX*JM

Variable numbers, names and descriptions

YY169	OATDT*JM	Oats, total disappearance	mil. bu.
YY125	OATDF*JM	Oats, domestic feed use	mil. bu.
YY119	OATDH*JM	Oats, domestic food use	mil. bu.
YY235	OATDS*JM	Oats, domestic seed use	mil. bu.
Z41	OATMX*JM	Oats, total exports	mil. bu.

Oats, total supply

OATST*JM = OATSP + OATHH1*JM(-1) + OATHCC1*JM(-1) +

OATHPRRE(-1) + OATMI*JM

Variable names, numbers and descriptions

YY174	OATST*JM	Oats, total supply	mil. bu.
YY149	OATSP	Oats, production	mil. bu.
YY112	OATHH1*JM	Oats, CCC stocks end of crop year	mil. bu.
YY238	OATHPRRE	Oats, farmer owned reserve stocks, end of crop year	mil. bu.
Z50	OATMI*JM	Oats, imports	mil. bu.
YY236	OATHCC1*JM	Oats, commercial stocks, end of crop year	mil. bu.

Oats, domestic seed use

OATDS*JM = - 5.54071 + 2.51841 OATSA(+1)
(-1.28) (63.02)

+ .0908489 .TIME
(1.80)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2 (ADJ) = 0.9999
D.W. = 0.6630
S.E.E. = 0.6630

Variable numbers, names and descriptions

YY235	OATDS*JM	Oats, domestic seed use, June-May	mil. bu.
YY145	OATSA	Oats, total acreage planted	mil. ac.
Z30	.TIME	Year, 1950=50	

Oats, commercial stocks, end of crop year.

$$\begin{aligned} \text{OATHCC1*JM} = {} & 285.484 + .261164\ \text{OATDT*JM} \\ & (3.78) \quad (4.42) \\ & - 28477.8\ \text{OATPF/.PC} + 113.230\ \text{DUM69} \\ & (-4.28) \qquad\qquad (2.77) \end{aligned}$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.7773
D.W. = 1.1848
S.E.E. = 38.506

Variable numbers, names and descriptions

YY236	OATHCC1*JM	Oats, commercial stocks, end of crop year	mil. bu.
YY169	OATDT*JM	Oats, total disappearance	mil. bu.
YY128	OATPF	Oats, average farm price, June-May	$/bu.
	DUM69	Dummy variable, 1969	
YY201	.PC	Consumer price index, all items	1967=100

Oats, yield per acre harvested

$$
\begin{aligned}
OATSY = {} & 45.3886 + .248163\ (.TIME - 54) \\
& \quad (5.52) \qquad (1.03) \\
& + 5.73592\ D6869 \\
& \quad (2.92) \\
& - 7.10991\ DUM76 + 6.89330\ DUM71 \\
& \quad (-2.92) \qquad\quad (2.58) \\
& - .314783\ OATSA \\
& \quad (-1.75) \\
& + 916.038\ OATPF(-1)/FERTM \\
& \quad (0.87)
\end{aligned}
$$

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.8103
D.W. = 2.3722
S.E.E. = 2.5777

Variable numbers, names and descriptions

YY237	OATSY	Oats, yield per acre harvested	bu.
Z30	.TIME	Year, 1955=55	
	D6869	Dummy variable, 1968 and 1969	
	DUM76	Dummy variable, 1976	
	DUM71	Dummy variable, 1971	
YY145	OATSA	Oats, total acreage planted	mil. ac.
YY128	OATPF	Oats, average farm price, June-May	$/bu.
Z32	FERTM	Fertilizer price index	1967=100

Oats, farmer owned reserve stocks

OATHPRRE = OATHT*JM - OATHCC1*JM - OATHH1*JM

Variable numbers, names and descriptions

YY238	OATHPRRE	Oats, farmer owned reserve stocks, end of crop year	mil. bu.
YY116	OATHT*JM	Oats, total ending stocks	mil. bu.
YY236	OATHCC1*JM	Oats, commercial stocks, end of crop year	mil. bu.
YY112	OATHH1*JM	Oats, CCC stocks, end of crop year	mil. bu.

Oats, harvested acreage

$$OATSH = -.962472 + .795007\ OATSA \quad (-2.13)\ (40.12)$$
$$+ 2.57216\ DUM60 - .688317\ DUM71 \quad (5.71)\ (-1.67)$$
$$- 1.51971\ DUM72 + .947993\ DUM75 \quad (-3.66)\ (2.21)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9921
D.W. = 1.4145
S.E.E. = 0.3995

Variable numbers, names and descriptions

YY256	OATSH	Oats, harvested acreage	mil. ac.
YY145	OATSA	Oats, planted acreage	mil. ac.
	DUM60	Dummy variable, 1960	
	DUM71	Dummy variable, 1971	
	DUM72	Dummy variable, 1972	
	DUM75	Dummy variable, 1975	

Oats, total farmer owned reserve storage payments

OATFS = .5[(OAPSRUS)(OATHPRRE) + (OAPSRUS(-1))(OATHPRRE(-1))]

Variable numbers, names and descriptions

YY266	OATFS	Oats, total farmer owned reserve storage payments	mil. dol.
YY238	OATHPRRE	Oats, farmer owned reserve stocks, end of crop year	mil. bu.
Z75	OAPSRUS	Oats, farmer-owned reserve storage payment rate	$/bu.

Oats, expected farm price

OATPEXP = .0239690 + .958258 OATPF(-1)
(5.25) (179.322)

+ .116397 DUM75
(13.77)

Estimation technique = O.L.S.
Sample period = 1959-79
R^2(ADJ) = 0.9995
D.W. = 2.0694
S.E.E. = 0.0073

Variable numbers, names and descriptions

YY280	OATPEXP	Oats, expected farm price*	$/bu.
YY128	OATPF	Oats, average farm price, Jul.-Je.	$/bu.
	DUM75	Dummy variable, 1975	

*Price 5 months prior to planting adjusted by the average difference in this price and the average crop year price over the previous three years.

Oats, expected yield per harvested acre

OATSYEXP* = 32.2910 + 4.27780 (.TIME - 54.)**5
(14.96) (7.14)

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.6760
D.W. = 1.9539
S.E.E. = 3.3689

Variable numbers, names and descriptions

YY286	OATYEXP	Oats, expected yield per harvested acre	bu./ac.
YY237	OATSY	Oats, yield per harvested acre	bu./ac.
Z30	.TIME	Year, 1955=55	

* Regression parameters obtained by regressing OATSY on (.TIME - 54)**.5.

Oats, expected net return

OATFEXNR = .5[OATPEXP + Max(OATPEXP,OATLRPP)]OATYEXP - OATVC**

Variable numbers, names and descriptions

YY310	OATFEXNR	Oats, expected net return	$/ac.
YY280	OATPEXP	Oats, expected farm price	$/bu.
YY286	OATYEXP	Oats, expected yield per acre	bu./ac.
Z20	OATLRPP	Oats, loan rate prior to planting	$/bu.
Z11	OATVC**	Oats, variable cost	$/ac.

Cotton, total production

COLSP = (COLSH) (COLSY)/480

Variable numbers, names and descriptions

YY315	COLSP	Cotton, total production	mil. bales
YY333	COLSH	Cotton, total acreage harvested	mil. ac.
YY334	COLSY	Cotton, yield per harvested acre	lbs./ac.

Cotton, average farm price, American upland, Aug.-Jul.

$$\begin{aligned} COLPFAU = &- 6.02106 + 1.00924(COLPCM + COLPCMEQ)\ (DUM6169) \\ &\quad (-2.82) \quad (5.79) \\ &+ .889805\ (1-COLCRT)(COLPCM + COLPCMEQ)\ (DUM7079) \\ &\quad (22.44) \\ &+ .0182948\ (COLPCM(-1) + COLPCMEQ(-1))\ (DUM6169) \\ &\quad (.10) \\ &+ 1.13728\ (COLCRT)\ (COLPCM(-1)COLPCMEQ(-1))\ (DUM6169) \\ &\quad (15.12) \end{aligned}$$

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.9822
D.W. = 2.1431
S.E.E. = 1.8988

Variable numbers, names and descriptions

YY316	COLPFAU	Cotton, average farm price, American upland, Aug.-Jul.	cents/lb.
YY339	COLPCM	Cotton, average mill price	cents/lb.
Z197	COLPCMEQ	Cotton, equilization payments	cents/lb.
Z146	COLCRT	Cotton, share of crop forward traded	
	DUM6169	Dummy variable, 1961-69	
	DUM7079	Dummy variable, 1970-79	

Cotton, total acreage planted

$$COLSA = \underset{(8.49)}{11.8614} + \underset{(4.28)}{.346331}\ COLMAX(1-DUM7179) + \underset{(2.53)}{2.63796}\ DUM79$$

$$- \underset{(-5.01)}{3.69992}\ DUM6668 - \underset{(-2.98)}{2.37409}\ DUM6970$$

$$+ \underset{(.91)}{.623135}\ COLNRMP/.PC(-1)$$

$$+ \underset{(2.66)}{6.16381}\ [(.5)\ DUM7179(COLNRM + COLNRXP)/.PC(-1)]$$

$$- \underset{(-2.32)}{4.06173}\ SOYFEXNR/.PC(-1)$$

Estimation technique = O.L.S.
Sample period = 1959-79
R^2(ADJ) = 0.8233
D.W. = 2.1565
S.E.E. = 0.9044

Variable numbers, names and descriptions

YY317	COLSA	Cotton, total acreage planted	mil. ac.
YY360	COLNRM	Cotton, expected market net return	$/ac.
YY359	COLNRMP	Cotton, marginal net return for planting the additional allotment	$/ac.
YY356	COLNRXP	Cotton, expected net return of the maximum level of program participation	$/ac.
YY311	SOYFEXNR	Soybeans, expected net return	$/ac.
YY201	.PC	Consumer price index, all items	1967=100
Z275	COLMAX	Cotton, maximum acreage that could be planted and stay within the minimum effective allotment	mil. ac.
	DUM79	Dummy variable, 1979	
	DUM6970	Dummy variable, 1969-70	
	DUM6668	Dummy variable for years when there was a diversion program; 1966-68	
	DUM7179	Dummy variable for years when there were no marketing quotas, 1971-79	

Cotton, total acreage harvested

$$COLSH = .428909 + .909778\ COLSA - 1.02749\ DUM69$$
$$(-2.46) \quad (85.72) \quad (-3.51)$$

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9966
D.W. = 1.9039
S.E.E. = 0.2797

Variable numbers, names and descriptions

YY333	COLSH	Cotton, total acreage harvested	mil. ac.
YY317	COLSA	Cotton, total planted acreage	mil. ac.
	DUM69	Dummy variable, 1969	

Cotton, yield per harvested acre

$$COLSY = \underset{(1.64)}{144.217} + \underset{(3.72)}{7.36917}\ (COLPFAU(-1)/FERIW) - \underset{(-2.40)}{9.29151}\ COLSA + \underset{(3.83)}{3.42448}\ .TIME - \underset{(-2.44)}{63.7171}\ DUM57 + \underset{(15.15)}{54.1624}\ DUM6365 - \underset{(-3.05)}{79.1699}\ DUM78$$

Estimation technique	= O.L.S.
Sample period	= 1955-79
R^2(ADJ)	= 0.6996
D.W.	= 1.8525
S.E.E.	= 23.604

Variable numbers, names and descriptions

YY334	COLSY	Cotton, yield per harvested acre	lbs./ac.
YY316	COLPFAU	Cotton, average farm price, American upland, Aug.-Jul.	cents/lb.
YY317	COLSA	Cotton, total acreage planted	mil. ac.
Z184	FERIW	Fertilizer price index	1967=1.0
Z30	.TIME	Year, 1955-55	
	DUM57	Dummy variable, 1957	
	DUM6365	Dummy variable, 1963-65	
	DUM78	Dummy variable, 1978	

Cotton, mill demand

$$COLDM = 4.80274 - 3.55452(COLPCM/.PC) + .978713(MMFPW/.PC) + 165.669(.YPD\$/((.PC)(.NPC)) + 2.09728\ COLMXREQ - 406443\ TREND - .684999\ DUM6869 - 1.68211\ DUM74$$

(2.57) (-3.89) (1.15) (2.85) (2.70) (-8.99) (-4.21) (-8.72)

Estimation techniques = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.9756
D.W. = 2.1247
S.E.E. = 0.1807

Variable numbers, names and descriptions

YY335	COLDM	Cotton, mill demand	mil. bales
YY339	COLPCM	Cotton, average mill price	cents/lb.
YY201	.PC	Consumer price index, all items	1967=1.0
Z9	MMFPW	Man made fiber price	index
Z34	.YPD$	Personal disposable income, calendar year, current dollars	bil. dol.
Z1	.NPC	Population, total	mil.
Z106	COLMXREQ	Raw cotton, equivalence in textile exports	mil. bales
	TREND	Trend; if $t \leq 1966$, 0, and if $t > 1966$, $t-1966$	
	DUM6869	Dummy variable, 1968-69	
	DUM74	Dummy variable, 1974	

Cotton, total ending stocks

COLHT*(.001) = 7.67821 - 1.74566 COLPCMEQ/COLPCM
(4.37) (-1.76)

+ 7.81843 DUM65 + 2.33256 DUM66 + .384820 COLHT*(-1)
(5.04) (1.54) (3.80)

- 3.07443 COLSA(+1)/COLSA
(-1.34)

Estimation technique = O.L.S.
Sample period = 1965-80
R^2(ADJ) = 0.9591
D.W. = 1.9194
S.E.E. = 0.7829

Variable numbers, names and descriptions

YY336	COLHT*	Cotton, total ending stocks, Jul. 31	thous. bales
YY339	COLPCM	Cotton, average mill price	cents/lb.
Z197	COLPCMEQ	Cotton, equalization payment	cents/lb.
	DUM65	Dummy variable, 1965	
	DUM66	Dummy Variable, 1966	
YY317	COLSA	Cotton, total acreage planted	mil. ac.

Cotton, total supply

COLST = COLSP + COLHT*(-1)

Variable numbers, names and descriptions

YY337	COLST	Cotton, total supply	mil. bales
YY315	COLSP	Cotton, total production	mil. bales
YY336	COLHT*	Cotton, total ending stocks	mil. bales

Cotton, average calendar year farm price

$$COLPF^* = -1.00595 + .422299\ COLPFAU \quad (-0.43)\ (5.67)$$
$$+ .609561\ COLPFAU(-1) \quad (7.18)$$
$$- 1.01089\ (COLMT^*(-1)/COLHT^*) \quad (-0.64)$$
$$+ 7.83369\ DUM74 \quad (3.87)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9812
D.W. = 2.2754
S.E.E. = 1.8632

Variable numbers, names and descriptions

YY338	COLPF*	Cotton, average calendar year farm price	cents/lb.
YY316	COLPFAU	Cotton, average farm price of American upland, Aug.-Jul.	cents/lb.
YY336	COLHT*	Cotton, total ending stocks	mil. bales
	DUM74	Dummy variable, 1974	

Cotton, total disappearance

COLDT = COLDM + COLMX

Variable numbers, names and descriptions

YY341	COLDT	Cotton, total disappearance	mil. bales
YY335	COLDM	Cotton, mill use	mil. bales
YY343	COLMX	Cotton, total US. exports	mil. bales

Cotton, Foreign, non-Communist imports, less India

COLMIF-I = 13.5837 - .0345475 (COLPCM(-1) .EXCICTW(-1))
(5.43) (-1.54)

- .120513 MMFSPFOR - .832128 COLSPHIC
(-0.65) (-2.58)

+ 7.35409 .YDDC
(1.60)

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.7100
D.W. = 2.1508
S.E.E. = 0.4614

Variable numbers, names and descriptions

YY342	COLMIF-I	Cotton, foreign non-communist imports, less India	mil. bales
YY339	COLPCM	Cotton, mill price	cents/lb.
Z107	.EXCICTW	Exchange rate of importing countries	index
Z108	MMFSPFOR	Man made fiber production, world minus U.S.	bil. lbs.
Z127	COLSPHIC	Cotton, total supply in importing countries, less India	mil. bales
Z128	.YDDC	Real gross disposable income in developed countries	1970=1.0

Cotton, total US exports

COLMX = COLMIF-I - COLMXF + COLMICC

+ COLMIIND + COLADJF

Variable numbers, names and descriptions

YY343	COLMX	Cotton, total US exports	mil. bales
YY342	COLMIF-I	Cotton, imports, foreign non-communist countries less net India imports	mil. bales
YY348	COLMXF	Cotton, exports, foreign non-communist countries	mil. bales
Z201	COLMICC	Cotton, net imports, Communist countries	mil. bales
Z202	COLMIIND	Cotton, net imports, India	mil. bales
Z203	COLADJF	Cotton, adjustment factor in US export identity	mil. bales

Cotton, non-communist foreign exports

COLMXF-I = .545967 + .0398122 (COLPCM) (ERX)
(1.10) (2.79)

+ .532474 COLSPHEC
(10.16)

- 4.90640 .YDLDC
(-10.25)

- 2.84167 DUM7374 - 1.84312 DUM76
(-10.34) (-4.58)

Estimation technique = O.L.S.
Sample period = 1962-79
R^2(ADJ) = 0.9619
D.W. = 2.4664
S.E.E. = 0.2600

Variable numbers, names and descriptions

YY348	COLMXF-I	Cotton, non-communist foreign exports	mil. bales
YY339	COLPCM	Cotton, mill price	cents/lb.
Z129	ERX	Exchange rate, cotton exporting countries	1970=1.0
Z130	COLSPHEC	Cotton, supply in foreign exporting countries	mil. bales
Z132	.YDLDC	Real gross disposable income, LDC's	1970=1.0
	DUM7374	Dummy variable, 1973-74	
	DUM76	Dummy variable, 1976	

Cotton, deficiency payments

COLPDEF = (.01) Max(100.CTPT - Max(COLPF*, COLPL), 0)

(.01)(COLPICP)(COLSA)(COLSYG)(COLSL/COLSH)(.001)

Variable numbers, names and descriptions

YY349	COLPDEF	Cotton, deficiency payments	mil. dol.
Z259	CTPT	Cotton, American upland, target price	$/lb.
YY338	COLPF*	Cotton, calendar year, farm price	cents/lb.
Z126	COLPL	Cotton, American upland, loan rate	cents/lb.
Z260	COLPICP	Cotton, program participation rate	percent
YY317	COLSA	Cotton, total acreage planted	mil. ac.
Z261	COLSYG	Cotton, administrative yield	lbs./ac.
YY333	COLSH	Cotton, total harvested acres	mil. ac.
Z258	COLSL	Cotton, total acreage allotted	thous. ac.

Cotton, expected farm price

COLPFEX = -.593218 + 1.00664 COLPFAU(-1)
(-.70) (44.80)

Estimation technique = O.L.S.
Sample period = 1959-79
R^2(ADJ) = 0.9901
D.W. = 2.0012
S.E.E. = 1.2228

Variable numbers, names and descriptions

YY354	COLPFEX	Cotton, expected farm price	cents/lb.
YY316	COLPFAU	Cotton, average farm price, American upland, Aug.-Jul.	cents/lb.

Cotton, expected yield per harvested acre

$$\text{COLSYEXP}^{1/} = \underset{(26.14)}{437.410} + \underset{(2.00)}{2.26077}\ (.\text{TIME}-54)$$

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.1123
D.W. = 1.7356
S.E.E. = 40.578

Variable numbers, names and descriptions

YY355	COLSYEXP	Cotton, expected yield per harvested acre	lbs./ac.
YY334	COLSY	Cotton, yield per harvested acre	lbs./ac.
Z30	.TIME	Year, 1954=54	

1/ Regression parameters obtained by regressing COLSY on (.TIME-54)

Cotton, expected net returns at the maximum level of program participation

```
COLNRXP = [(.01)(DUM5960 Max(COLPFEX, COLPLMD)
        + (1 - DUM5960) Max(COLPFEX, COLPLPP))
          COLSYEXP - COLVC*] COLSAXLP
        + COLSEXLP [(.01) (DUM5973)(COLSUPXL)
        + (1 - DUM5973) Max(COLSUPXL - Max(COLPFEX, COLPLPP),0))]
        + COLDPXLP
```

Variable numbers, names and descriptions

YY356	COLNRXP	Cotton, net returns at the maximumn level of program participation	$/ac.
YY354	COLPFEX	Cotton, expected farm price	cents/lb.
Z263	COLPLMD	Cotton, special loan rate for maximum level of program participation	cents/lb.
Z262	COLPLPP	Cotton, loan rate prior to planting	cents/lb.
YY355	COLSYEXP	Cotton, expected yield per harvested acre	lbs./ac.
Z266	COLVC*	Cotton, variable cost	$/ac.
Z270	COLSAXLP	Cotton, fraction of acre planted with maximum level of program participation	
Z271	COLSEXLP	Cotton, production eligible for support payments at the maximum level of program participation	lbs./ac.
Z272	COLDPXLP	Cotton, diversion payments at the maximum level of program participation	$/ac.
	DUM5960	Dummy for years when there were special loan rates, 1959-60	
	DUM5973	Dummy for years when there were no target prices, 1959-73	
Z265	COLSUPXL	Cotton, basis for support payment rate at the maximum level of program participation	cents/lb.

Cotton, expected net returns at the minimum level of program participation

```
COLNRNP = [(.01) Max(COLPFEX, COLPLPP)
          COLSYEXP - COLVC*] COLSANLP
        + COLSENLP [(.01)((DUM5973)(COLSUPNL)
        + (1-DUM5973)Max(COLSUPNL-Max(COLPFEX, COLPLPP), 0))]
        + COLDPNLP
```

Variable numbers, names and descriptions

YY358	COLNRNP	Cotton, expected net returns at the minimum level of program participation	$/ac.
YY354	COLPFEX	Cotton, expected farm price	cents/lb.
Z262	COLPLPP	Cotton, loan rate prior to planting	cents/lb.
YY355	COLSYEXP	Cotton, expected yield per harvested acre	lbs./ac.
Z266	COLVC*	Cotton, variable cost	$/ac.
Z267	COLSANLP	Cotton, fraction of acre planted with with minimum level of program participation	
Z268	COLSENLP	Cotton, production eligible for support payments at the minimum level of program participation	lbs./ac.
Z264	COLSUPNL	Cotton, basis for support payment rate at the minimum level of program participation	cents/lb.
Z269	COLDPNLP	Cotton, diversion payments at the minimum level of program participation	$/ac.
	DUM5973	Dummy variable for years when there were no target prices, 1959-73	

Cotton, marginal net return for planting the additional allotment

COLNRMP = (1-DUM6668)[COLNRNP(COLMAX + COLMAXAD)

- (COLNRXP)(COLMAX)]/COLMAXAD

+ DUM6668[(COLNRNP - COLDPNLP)

- (COLNRXP - COLDPXLP)]/(COLSANLP - COLSAXLP)

Variable numbers, names and descriptions

YY359	COLNRMP	Cotton, marginal net return for planting the additional allotment	dol./ac.
YY358	COLNRNP	Cotton, expected net return at the minimum level of program participation	dol./ac.
Z275	COLMAX	Cotton, total acreage that could be planted to stay within minimum effective allotment	mil. ac.
Z274	COLMAXAD	Cotton, additional acreage that could be planted to stay within total allotment	mil. ac.
Z269	COLDPNLP	Cotton, deficiency payments at the minimum level of program participation	dol. ac.
Z272	COLDPXLP	Cotton, deficiency payments at the maximum level of program participation	dol. ac.
Z267	COLSANLP	Cotton, fraction of each acre planted at minimum level of program participation	
Z270	COLSAXLP	Cotton, fraction of each acre planted at the maximum level of program participation	
	DUM6668	Dummy variable for years when there was a diversion program, 1966-69	
YY356	COLNRXP	Cotton, expected net return at the maximum level of program participation	dol./ac.

Cotton, expected market net returns

COLNRM = DUM7179 Max((.01)(COLPFEX)

(COLSYEXP) - COLVC*, DUM7479 COLNRXP)

Variable numbers, names and descriptions

YY360	COLNRM	Cotton, expected market net returns	$/ac.
YY355	COLSYEXP	Cotton, expected yield per planted acre	lbs./ac.
YY354	COLPFEX	Cotton, expected farm price	cents/lb.
YY356	COLNRXP	Cotton, expected net returns at the minimum level of program participation	$/ac.
Z266	COLVC*	Cotton, variable cost	$/ac.
	DUM7179	Dummy variable for years when there were no marketing quotes in effect; 1971-79	
	DUM7479	Dummy variable for years when there are no requirements for program eligibility; 1974-79	

Total acreage planted, seven major crops

TOTACRE = CORSA + SORSA + BARSA + OATSA

+ SOYSA + WHESA + COLSA

Variable numbers, names and descriptions

YY320	TOTACRE	Total acreage planted, seven major crops	mil. ac.
YY143	CORSA	Corn, total acreage planted	mil. ac.
YY144	SORSA	Sorghum, total acreage planted	mil. ac.
YY146	BARSA	Barley, total acreage planted	mil. ac.
YY145	OATSA	Oats, total acreage planted	mil. ac.
YY140	SOYSA	Soybeans, total acreage planted	mil. ac.
YY153	WHESA	Wheat, total acreage planted	mil. ac.
YY317	COLSA	Cotton, total acreage planted	mil. ac.

Crops, deficiency payments

CROFP = RICFP + CORFP + SORFP + BARFP

+ WHEFP + COLPDEF

Variable numbers, names and descriptions

YY71	CROFP	Crops, deficiency payments	mil. dol.
Z81	RICFP	Rice, deficiency payments	mil. dol.
YY257	CORFP	Corn, deficiency payments	mil. dol.
YY258	SORFP	Sorghum, deficiency payments	mil. dol.
YY259	BARFP	Barley, deficiency payments	mil. dol.
YY260	WHEFP	Wheat, deficiency payments	mil. dol.
YY349	COLPDEF	Cotton, deficiency payments	mil. dol.

Cash receipts, cattle and calves

CACFC = - 2034.66 + .0173436 (BEEAPFD)(CATPFFD)
(-8.36) (12.16)

+ .00718393 (BEEAPNF)(CATPFNF)
(4.67)

+ 5.14618 [(CALSC(-1) - CALDD(-1)
(6.56)

- CALKS(-1) - HEISBBE

- COWSEMC) (CATPFFE)]

+ 13.3990 (CALKS)(CALPF)
(10.10)

Estimation technique = O.L.S.
Sample period = 1955-80
R^2(ADJ) = 0.9993
D.W. = 2.0292
S.E.E. = 238.39

Variable numbers, names and descriptions

YY156	CACFC	Cash receipts, cattle and calves	mil. dol.
YY30	BEEAPFD	Beef fed production	mil. lbs.
YY39	CATPFFD	Cattle, price, slaughter steers, Omaha	$/cwt.
YY31	BEEAPNF	Ben, non-fed production	mil. lbs.
YY41	CATPFNF	Beef, utility cow price, Omaha	$/cwt.
YY17	CALSC	Calves, number born	mil. hd.
YY18	CALDD	Calves, death loss	mil. hd.
YY20	CALKS	Calves, slaughter	mil. hd.
YY24	HEISBBE	Beef, heifers added to breeding herd	mil. hd.
YY75	COWSEMC	Cows, dairy, additions to herd	mil. hd.
YY40	CATPFFE	Beef, price, choice feeder cattle, Kansas City	$/cwt.
YY23	CALPF	Calves, average price received by farmers	$/cwt.

Cash receipts, cattle and calves cont.

Z30	.TIME	Year, 1950=50
	D69	Dummy variable, 1969
	D50	Dummy variable, 1950
	D53	Dummy variable, 1953
	D74	Dummy variable, 1974

Cash receipts, hogs

$$HOGFC = -198.515 + 4.83679\ (SOWKS)(SOWPM7C) + 2.26901\ (BAGPM7C)(BAGKS)$$
$$(-1.60) \quad (1.95) \quad (17.42)$$

Estimation technique = O.L.S.
SAmple period = 1960-80
R^2(ADJ) = 0.9956
D.W. = 1.0948
S.E.E. = 146.12

Variable numbers, names and descriptions

YY157	HOGFC	Cash receipts, hogs	mil. dol.
YY4	SOWKS	Sows, slaughter	mil. hd.
YY2	SOWPM7C	Sows, market price, seven markets	$/cwt.
YY3	BAGPM7C	Barrows and gilts, market price, seven markets	$/cwt.
YY8	BAGKS	Barrows and gilts, slaughter	mil. hd.

Cash receipts, poultry and eggs

$$POUFC = -201.215 + .00810359\ (CHISPYO)(CHIPWBR9C)$$
$$(-2.14) \quad (9.56)$$
$$+ .00330590\ (CHIAPOT)(CHIPWXB)$$
$$(1.47)$$
$$+ .0227709\ (TURAP)(TURPF)$$
$$(7.38)$$
$$+ .00959384\ (EGGAP)(EGGPF)$$
$$(17.13)$$
$$- 6.08587\ (.TIME - 49)$$
$$(-1.03)$$

Estimation technique = O.L.S.
SAmple period = 1950-79
R^2(ADJ) = 0.9998
D.W. = 1.0167
S.E.E. = 51.065

Variable numbers, names and descriptions

YY158	POUFC	Cash receipts, poultry and eggs	mil. dol.
YY53	CHIPWBR9C	Broilers, 9 city wholesale price	cents/lb.
YY43	CHIAPOT	Chickens, other, production	mil. lbs.
YY54	CHIPWXB	Chickens, non-broiler wholesale price	cents/lb.
YY55	TURAP	Turkey, production	mil. lbs.
YY60	TURPF	Turkey, average price received by farmers	cents/lb.
YY63	EGGAP	Eggs, production	mil. doz.
YY68	EGGPF	Eggs, average price received by farmers	cents/doz.
Z30	.TIME	Year, 1950=50	
YY44	CHISPYO	Chickens, young, production	mil. lbs.

Cash receipts, dairy products

DAIFC = 290.148 + 9.97787 (MILPF)(MILSPPLTS)
(10.42) (282.07)

Estimation technque = O.L.S.
Sample period = 1970-79
R^2(ADJ) = 0.9999
D.W. = 0.2305
S.E.E. = 46.831

Variable numbers, names and descriptions

YY159	DAIFC	Cash receipts, dairy products	mil. dol.
YY73	MILAP	Milk, total production	bil. lbs.
YY223	MILSPPLTS	Milk, total sold to plants and dealers	bil. lbs.
YY74	MILPF	Milk, all sold to plants, average wholesale price received by farmers	$/cwt.

Cash receipts, sheep, lamb, other livestok

$$LIVFCO = -140.488 + .105613\ (LBPFMUS)(MLSCPUS) \quad (-1.39) \quad (17.94)$$

$$- 5.8669\ GCAU^{*}(-1) \quad (-5.66)$$

Estimation technique = O.L.S.
Sample period = 1952-79
R^2(ADJ) = 0.9517
D.W. = 1.4222
S.E.E. = 34.241

Variable numbers, names and descriptions

YY160	LIVFCO	Cash receipts, sheep, lamb, other livestock	mil. dol.
Z154	LBPFMUS	Lamb, season average price received by farmers	$/cwt.
Z157	MLSCPUS	Mutton and lamb, commercial production	mil. lbs.
YY95	GCAU*	Grain consuming animal units	

Cash receipts, food grains

FOGFC = FIRWH + .001 (RIPFMUS)(RISPRUS)

Variable names, numbers and descriptions

YY162	FOGFC	Cash receipts, food grains	mil. dol.
Z165	RIPFMUS	Rice, rough, average price received by farmers	$/cwt.
Z166	RISPRUS	Rice, rough, production	thou. cwt.
YY187	FIRWH	Cash receipts from marketings, wheat	mil. dol.

Cash receipts, feed grains

FEGFC = FIRCO + FIRSG + FIRBA + FIROA + HAYFCCAL

Variable numbers, names and descriptions

YY163	FEGFC	Cash receipts, feed grains	mil. dol.
YY183	FIRCO	Cash receipts, corn	mil. dol.
YY186	FIRSG	Cash receipts, sorghum	mil. dol.
YY182	FIRBA	Cash receipts, barley	mil. dol.
YY184	FIROA	Cash reciepts, oats	mil. dol.
Z193	HAYFCCAL	Cash receipts, hay	mil. dol.

Cash receipts, oil-bearing crops

OISFC = FIRSB + PEAFC

Variable numbers, names and descriptions

YY164	OISFC	Cash receipts, oil-bearing crops	mil. dol.
YY185	FIRSB	Cash receipts, soybeans	mil. dol.
Z194	PEAFC	Cash receipts, peanuts	mil. dol.

Cash receipts, all livestock

LIVFCT = CACFC + DAIFC + HOGFC + LIVFCO + POUFC

Variable numbers, naems and descriptions

YY177	LIVFCT	Cash receipts, all livestock	mil. dol.
YY156	CACFC	Cash receipts, cattle and calves	mil. dol.
YY159	DAIFC	Cash rceipts, dairy products	mil. dol.
YY157	HOGFC	Cash receipts, hogs	mil. dol.
YY160	LIVFCO	Cash receipts, sheep, lamb, other livestock	mil. dol.
YY158	POUFC	Cash receipts, poultry and eggs	mil. dol.

Cash receipts, all crops

CROFCT = FEGFC + FOGFC + OISFC + CROFCO + COLSFC

Variable numbers, names and descriptions

YY178	CROFCT	Cash receipts, all crops	mil. dol.
YY163	FEGFC	Cash receipts, feed grains	mil. dol.
YY162	FOGFC	Cash receipts, food grains	mil. dol.
YY164	OISFC	Cash receipts, oil-bearing crops	mil. dol.
Z70	CROFCO	Cash receipts, fruits, vegetables, other crops	mil. dol.
YY357	COLSFC	Cash receipts, cotton	mil. dol.

Cash receipts, total

LACFCT = LIVFCT + CROFCT

Variable numbers, names and descriptions

YY179	LACFCT	Cash recipts, total	mil. dol.
YY177	LIVFCT	Cash receipts, livestock	mil. dol.
YY178	CROFCT	Cash receipts, crops	mil. dol.

Cash receipts from marketings, barley

$$FIRBA = 8.19844 + .0100958\ [(BARPF(-1))\ (BARSP(-1))\ (FIMBA(-1))\ (1.-BARSSDEC(-1)) + (BARPF)(BARSP)(FIMBA)(BARSSDEC)] + 97.9771\ D74$$

(0.59) (31.40) (5.03)

Estimation technique	= O.L.S.
Sample period	= 1966-79
R^2(ADJ)	= 0.9913
D.W.	= 2.3810
S.E.E.	= 16.611

Variable numbers, names and descriptions

YY182	FIRBA	Cash receipts from marketings, barley	mil. dol.
YY130	BARPF	Barley, average farm price, June-May	$/bu.
YY150	BARSP	Barley, total production	mil. bu.
Z195	FIMBA	Barley, percent of crop marketed	%
Z187	BARSSDEC	Barley, percent sold by Dec. 31	%
	D74	Dummy variable, 1974	

Cash receipts from marketings, corn

$$
\begin{aligned}
FIRCO = &- 556.295 + .548419\ [(CORPF(-1)) \\
&\quad (-3.82) \quad (12.88) \\
&(CORSPGR(-1))] + .110991\ [(CORPF) \\
&\qquad\qquad\qquad (2.59) \\
&(CORSPGR)] - 379.407\ D6062 \\
&\qquad\qquad (-2.21) \\
&+ 1181.05\ D7374 + 447.142\ D71 \\
&\quad (5.22) \qquad\quad (1.73)
\end{aligned}
$$

Estimation technique = O.L.S.
Sample period = 1961-79
R_2(ADJ) = 0.9933
D.W. = 1.8749
S.E.E. = 247.31

Variable numbers, names and descriptions

YY183	FIRCO	Cash receipts from marketing, corn	mil. dol.
YY127	CORPF	Corn, average farm price, Oct.-Sep.	$/bu.
YY147	CORSPGR	Corn, production for grain	mil. bu.
	DUM7374	Dummy variable, 1973 and 1974	
	D71	Dummy variable, 1971	
	D6062	Dummy variable, 1960 through 1962	

Cash receipts from marketing, oats

$$\underset{(1.48)}{\text{FIROA} = 16.4853} + \underset{(11.57)}{5.06439}\ (.\text{TIME} - 59) + \underset{(13.25)}{.258271}\ (\text{OATPF})$$

$$+ \underset{(5.84)}{54.2354}\ \text{D73}\ (\text{OATSP})$$

$$+ \underset{(11.91)}{120.998}\ \text{D74}$$

Estimation technique = O.L.S.
SAmple period = 1961-79
R^2(ADJ) = 0.9869
D.W. = 1.8755
S.E.E. = 8.6991

Variable numbers, names and descriptions

YY184	FIROA	Cash receipts from marketings, oats	mil. dol.
Z30	.TIME	Year, 1961=61	
YY128	OATPF	Oats, average farm price, June-May	$/bu.
YY149	OATSP	Oats, total production	mil. bu.
	D73	Dummy variable, 1973	
	D74	Dummy variable, 1974	

Cash receipts from marketing, soybeans

$$FIRSB = \underset{(0.78)}{105.419} + \underset{(45.41)}{.0100905}\ [(SOYPF(-1))(SOYSP(-1))$$

$$(FIMSB(-1))\ (1.- SOYSSDEC(-1))$$

$$+ (SOYPF)(SOYSP)(FIMSB)$$

$$(SOYSSDEC)]$$

$$- \underset{(-2.93)}{778.490}\ D72 - \underset{(-3.93)}{1060.86}\ D75$$

Estimation technique = O.L.S.
Sample period = 1966-79
R^2(ADJ) = 0.9939
D.W. = 2.2540
S.E.E. = 255.01

Variable numbers, names and descriptions

YY185	FIRSB	Cash receipts from marketing, soybeans	mil. dol.
YY108	SOYPF	Soybeans, average farm price, Oct.-Sept.	$/bu.
YY142	SOYSP	Soybeans, total production	mil. bu.
Z198	FIMSB	Soybeans, percent of crop marketed	%
Z191	SOYSSDEC	Soybeans, percent sold by Dec. 31	%
	D72	Dummy variable, 1972	
	D75	Dummy variable, 1975	

Cash receipts from marketing, sorghum

$$FIRSG = \underset{(0.59)}{19.5284} + \underset{(27.86)}{.00996356}\ [(SORPF^*)(SORSPGR(-1))\ FIMSG(-1))$$

$$(1.- SORSSDEC(-1)) + (SORPF^*)$$

$$(SORSPGR)(FIMSG)(SORSSDEC)]$$

Estimation technique = O.L.S.
Sample period = 1966-79
R^2(ADJ) = 0.9835
D.W. = 1.7801
S.E.E. = 43.552

Variable numbers, names and descriptions

YY186	FIRSG	Cash receipts from marketing, sorghum	mil. dol.
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.
YY148	SORSPGR	Sorghum, production of grain	mil. bu.
Z199	FIMSG	Sorghum, percent of crop marketed	%
Z190	SORSSDEC	Sorghum, percent sold by Dec. 31.	%

Cash receipts from marketings, wheat

FIRWH = 64.2221 + .0842717 (WHEPF(-1))
(0.76) (1.90)

(WHESP*JM(-1))] + .831228 [(WHEPF)

(WHESP*JM)] + 508.414 D7274
(3.53)

+ 560.741 D77
(2.72)

Estimation technique = O.L.S.
Sample period = 1962-79
R^2(ADJ) = 0.9912
D.W. = 2.1919
S.E.E. = 184.29

Variable numbers, names and descriptions

YY187	FIRWH	Cash receipts from marketings, wheat	mil. dol.
YY139	WHEPF	Wheat, average farm price, Jul.-Je.	$/bu.
YY155	WHESP*JM	Wheat, total production	mil. bu.
	D7274	Dummy variable, 1972 and 1974	
	D77	Dummy variable, 1977	

Farm income, other receipts

FIFOT = (LACFIHC + LACFIIR + LACFIO
+ LACFPG)/1000

Variable numbers, names and descriptions

YY188	FIFOT	Farm income, other receipts	bil. dol.
Z151	LACFIHC	Farm income, from home consumption	mil. dol.
Z234	LACFIO	Farm income, other sources	mil. dol.
Z206	LACFIIR	Farm income, from imputed rent	mil. dol.
YY271	LACFPG	Farm income, government payments	mil. dol.

Farm income, gross

FIF = FIFOT + LACFCT/1000

Variable numbers, names and descriptions			
YY189	FIF	Farm income, gross	bil. dol.
YY188	FIFOT	Farm income, other receipts excluding farm marketings	bil. dol.
YY179	LACFCT	Cash receipts, total	mil. dol.

Farm income, realized net

FIYRN = FIF - LACET/1000

Variable numbers, names and descriptions

YY190	FIYRN	Farm income, realized net	bil. dol.
YY189	FIF	Farm income, gross	bil. dol.
YY180	LACET	Production expenses, total	mil. dol.

Farm income, net

FIYTN = FIYRN + FIYINV

Variable numbers, names and descriptions

YY192	FIYTN	Farm income, net	bil. dol.
YY190	FIYRN	Farm income, realized net	bil. dol.
YY314	FIYINV	Farm income, change in value of farm inventories	bil. dol.

Total government payments

LACFPG = CROFP + LACFPG*

Variable numbers, names and descriptions

YY271	LACFPG	Total government payments	mil. dol.
YY71	CROFP	Total deficiency payments	mil. dol.
Z59	LACFPG*	Total government payments less deficiency payments	mil. dol.

Farm income, change in farm inventory

$$
\begin{aligned}
FIYINV = {} & .311008 - 1.84070\ DUM74 + 2.91009\ DUM75 \\
& \quad (2.40) \quad (-3.68) \qquad\quad (5.86) \\
& - 2.12312\ DUM76 + 2.10198\ DUM79 \\
& \quad (-4.12) \qquad\quad (3.86) \\
& + .000240053[(CORSPGR)(CORPF) \\
& \quad (6.23) \\
& + (SORSPGR)(SORPF^*) + (BARSP)(BARPF) \\
& + (OATSP)(OATPF) + (SOYSP)(SOYPF) \\
& + (WHESP+JM)(WHEPF) + (4.8)(COLSP)(COLSPFAU) \\
& - (CORSPGR(-1)CORPF(-1)) - (SORSPGR(-1)SORPF^*(-1)) \\
& - (BARSP(-1)BARPF(-1)) - (OATSP(-1)OATPF(-1)) \\
& - (SOYSP(-1)\ SOYPF(-1)) - (WHESP^*JM(-1)WHEPF(-1)) \\
& - (4.8)\ (COLSP(-1))\ (COLSPFAU(-1))]
\end{aligned}
$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9041
D.W. = 3.0976
S.E.E. = 0.4814

Variable numbers, names and descriptions

YY314	FIYINV	Farm income, change in farm inventory	bil. dol.
YY147	CORSPGR	Corn, production for grain	mil. bu.
Y127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY148	SORSPGR	Sorghum, production for grain	mil. bu.
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.
YY150	BARSP	Barley, total production	mil. bu.
YY130	BARPF	Barley, average farm price, June-May	$/bu.
YY149	OATSP	Oats, total production	mil. bu.
YY128	OATPF	Oats, average farm price, June-May	$/bu.
YY155	WHESP*JM	Wheat, total production	mil. bu.
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
YY142	SOYSP	Soybeans, total production	mil. bu.
YY108	SOYPF	Soybeans, average farm price, Oct.-Sept.	$/bu.

Farm income, change in farm inventory cont.

YY315	COLSP	Cotton, total production, Aug.-Jul.	mil. bales
YY316	COLPFAU	Cotton, average farm price, American upland, Aug.-Jul.	cents/lb.
	DUM74	Dummy variable, 1974	
	DUM75	Dummy variable, 1975	
	DUM76	Dummy variable, 1976	
	DUM79	Dummy variable, 1979	

Cash receipts, cotton, seed and lint

$$\begin{aligned} COLSFC = {} & 238.846 + 2.96022\ (COLSP)(COLPFAU) \\ & (3.38) \quad (13.31) \\ & + 1.76446\ (COLSP(-1))(COLPFAU(-1)) \\ & (6.79) \\ & + 491.263\ DUM76 \\ & (4.04) \end{aligned}$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9843
D.W. = 1.6666
S.E.E. = 106.21

Variable numbers, names and descriptions

YY357	COLSFC	Cash receipts, cotton, seed and lint	mil. dol.
YY315	COLSP	Cotton, total production	mil. bales
YY316	COLPFAU	Cotton, average American upland farm price, Aug.-Jul.	cents/lb.
	DUM76	Dummy variable, 1976	

Production expenses, purchased livestock

$$\begin{aligned} LACELIV = {} & 517.867 + 5.72621\ (SAHKSFD)\ (CATPFFE) \\ & \quad (2.99) \qquad (13.89) \\ & + .365442\ (BAGKS)\ (BAGPM7C) \\ & \quad (2.33) \\ & - 37.1051\ (.TIME - 49) \\ & \quad (-2.41) \end{aligned}$$

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9814
D.W. = 1.1823
S.E.E. = 295.74

Variable numbers names and descriptions

YY166	LACELIV	Production expenses, purchased livestock	mil. dol.
YY28	SAHKSFD	Steer and heifer, fed slaughter plus farm slaughter	mil. hd.
YY40	CATPFFE	Beef, choice feeder cattle price, Kansas City	$/cwt.
YY8	BAGKS	Barrow and gilts, slaughter	mil. hd.
YY3	BAGPM7C	Barrows and gilts, market price	$/cwt.
Z30	.TIME	Year, 1950=50	

Production expenses, purchased feed

$$LACEF = \underset{(6.64)}{762.945} + \underset{(18.37)}{.507330}\ [(CORDF(-1))(CORPF(-1)) + (SORDF(-1))(SORPF(-1)) + (OATDF*JM(-1))(OATPF(-1)) + (BARDF*JM(-1))(BARPF(-1)) + (WHEDF*JM(-1))(WHEPF(-1))] + \underset{(19.72)}{.0227597}\ (SOMDD*(-1))(*SOMPF(-1)) + \underset{(7.62)}{98.5877}\ (.TIME - 54)$$

Estimation technique = O.L.S.
Sample period = 1955-79
R^2(ADJ) = 0.9987
D.W. = 2.6503
S.E.E. = 205.78

Variable numbers, names and descriptions

YY167	LACEF	Production expenses, purchased seed	mil. dol.
YY123	CORDF	Corn, feed use	mil. bu.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY124	SORDF	Sorghum, feed use	mil. bu.
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.
YY128	OATPF	Oats, average farm price, June-May	$/bu.
YY126	BARDF*JM	Barley, feed use	mil. bu.
YY130	BARPF	Barley, average farm price, June-May	$/bu.
YY137	WHEDF*JM	Wheat, feed use	mil. bu.
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
YY100	SOMDD*	Soybean meal, domestic disappearance	mil. bu.
YY102	SOMPF	Soybean meal price, Oct.-Sept.	cents/lb.
Z30	.TIME	Year, 1955=55	

Production expenses, depreciation

$$
\begin{aligned}
LACEDPR = &- 4413.58 + 57.5430\ PP7PT \\
&\quad (-4.17) \quad (38.41) \\
&+ 41.2231\ MPOWM \\
&\quad (3.36) \\
&+ .0348924[(CORSPGR)\ (CORPF) \\
&\quad (8.51) \\
&+ (SORSPGR)\ (SORPF^*) \\
&+ (BARSP)\ (BARPF) + (OATSP) \\
&\quad (OATPF) + (SOYSP)\ (SOYPF) \\
&+ (WHESP^*JM)\ (WHEPF) \\
&+ (COLSP)\ (COLPFAU)(4.8)]
\end{aligned}
$$

Estimation technique = O.L.S.
Sample period = 1965-79
R^2(ADJ) = 0.9996
D.W. = 1.9230
S.E.E. = 74.444

Variable numbers, names and descriptions

YY168	LACEDPR	Production expenses, depreciation	mil. dol.
Z164	PP7PT	Prices paid by farmers, tractors and services	1967=100
Z158	MPOWN	Index of farm inputs, machinery	1967=1.0
YY147	CORSPGR	Corn, production for grain	mil. bu.
YY127	CORPF	Corn, average farm price, Oct.-Sept.	$/bu.
YY148	SORSPGR	Sorghum, production for grain	mil. bu.
YY129	SORPF*	Sorghum, average farm price, Oct.-Sept.	$/bu.
YY150	BARSP	Barley, total production	mil. bu.
YY149	OATSP	Oats, total production	mil. bu.
YY142	SOYSP	Soybeans, total production	mil. bu.
YY108	SOYPF	Soybeans, average price, Oct.-Sept.	$/bu.

Production expenses, depreciation cont.

YY155	WHESP*JM	Wheat, total production	mil. bu.
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.
YY315	COLSP	Cotton, total production	mil. bales
YY316	COLPFAU	Cotton, upland, average farm price, Aug.-Jul.	cents/lb.
YY130	BARPF	Barley, average farm price, June-May	$/bu.
YY128	OATPF	Oats, average farm price, June-May	$/bu.

Crops, total farmer-owned reserve storage payments

CROFS = RICFS + CORFS + OATFS + SORFS

+ BARFS + WHEFS

Variable numbers, names and descriptions

YY170	CROFS	Crops, total farmer owned reserve storage payments	mil. dol.
Z76	RICFS	Rice, farmer-owned reserve storage payments	mil. dol.
YY265	CORFS	Corn, farmer-owned reserve storage payments	mil. dol.
YY266	OATFS	Oats, farmer-owned reserve storage payments	mil. dol.
YY267	SORFS	Sorghum, farmer-owned reserve storage payments	mil. dol.
YY268	BARFS	Barley, farmer-owned reserve storage payments	mil. dol.
YY269	WHEFS	Wheat, farmer-owned reserve storage payments	mil. dol.

Production expenses, net rent

```
LACERNT = 1857.79 - 7.85972 FERTM(-1)
          (4.39)     (-7.62)

        - 10.8915 PP7PC(-1) + 584.269 D75F
          (-6.14)             (2.15)

        - 977.674 D79F + .157527[(CORSPGR(-1))
          (-1.78)         (3.11)

          (CORPF) + (SORSPGR(-1)) (SORPF*)

        + (BARSP(-1)) (BARPF) + (OATSP(-1)

          (OATPF) + (SOYSP(-1)) (SOYPF)

        + (WHESP*JM(-1)) (WHEPF)

        + (COLSP(-1)) (COLPFAU) *4.8]
```

Estimation technique = O.L.S.
Sample period = 1965-79
R^2(ADJ) = 0.9214
D.W. = 1.9631
S.E.E. = 0.0437

Variable numbers, names and descriptions

YY172	LACERNT	Production expenses, net rent	mil. dol.
Z32	FERTM	Fertilizer index	Index
Z163	PP7PC	Index of prices paid by farmers, production items, agricultural chemicals	1967=100
	D75F	Dummy variable, 1975	
	D79F	Dummy variable, 1979	
YY147	CORSPGR	Corn, production for grain	mil. bu.
YY127	CORPF	Corn, average price received by farmers, Oct.-Sept.	$/bu.
YY148	SORSPGR	Sorghum, production for grain	mil. bu.
YY129	SORPF*	Sorghum, average price received by farmers, Oct.-Sept.	$/bu.
YY150	BARSP	Barley, total production	mil. bu.
YY130	BARPF	Barley, average price received by farmers, June-May	$/bu.
YY149	OATSP	Oats, production	mil. bu.
YY128	OATPF	Oats, average price received by farmers, June-May	$/bu.

Production expenses, net rent (cont.)

YY142	SOYSP	Soybeans, total production	mil. bu.
YY108	SOYPF	Soybeans, average farm price, Oct.-Sept.	$/bu.
YY155	WHESP*JM	Wheat, production	mil. bu
YY139	WHEPF	Wheat, average price received by farmers, Jul.-Jun.	$/bu.
YY315	COLSP	Cotton, total production	mil. bales
YY316	COLPFAU	Cotton, average farm price, American upland, Aug.-Jul.	cents/lb.

Production expenses, miscellaneous

LACEMSC = - 11908.2 + 53.6370 GCAU*
(-9.2) (6.84)

+ 179.355 .FRMCP4M + 8641.28 .PWO51*
(3.87) (37.24)

+ 5.49789 TOTACRES + 1891.74 DUM79
(1.55) (5.66)

- 621.299 DUM74
(-1.98)

Estimation technique = O.L.S.
Sample period = 1951-79
R^2(ADJ) = 0.9975
D.W. = 1.4376
S.E.E. = 239.48

Variable numbers, names and descriptions

YY173	LACEMSC	Production expenses	mil. dol.
YY320	TOTACRES	Total acreage planted, seven major crops	mil. ac.
YY95	GCAU*	Grain consuming animal units, calendar year	animal units
Z7	.FRMCP4M	Interest rate, prime commercial paper, 4-6 months	percent
Z8	.PWO51*	Fuel and utilities, consumer price index	1967=1.0
	DUM74	Dummy variable, 1974	
	DUM79	Dummy variable, 1979	

Production expenses, fertilizer and lime

$$LACEU = \underset{(-8.02)}{-\ 10967.7} + \underset{(8.86)}{22.9151}\ FERTM$$

$$+\ \underset{(3.78)}{115.096}\ .TIME + \underset{(3.11)}{685.108}\ D74$$

$$+\ \underset{(1.72)}{14.4968}[CORSA + SORSA +$$

$$BARSA + OATSA + SOYSA +$$

$$COLSA + WHESA]$$

Estimation technique = O.L.S.
Sample period = 1965-79
R^2(ADJ) = 0.9879
D.W. = 1.9883
S.E.E. = 207.83

Variable numbers, names and descriptions

YY175	LACEU	Production expenses, fertilizer and lime	mil. dol.
Z32	FERTM	Fertilizer, price index	1967=100
Z30	.TIME	Year, 1965=65	
	D74	Dummy variable, 1974	
YY143	CORSA	Corn, total acreage planted	mil. ac.
YY144	SORSA	Sorghum, total acreage planted	mil. ac.
YY146	BARSA	Barley, total acreage planted	mil. ac.
YY145	OATSA	Oats, total acreage planted	mil. ac.
YY140	SOYSA	Soybeans, total acreage planted	mil. ac.
YY317	COLSA	Cotton, total acreage planted	mil. ac.
YY153	WHESA	Wheat, total acreage planted	mil. ac.

Production expenses, purchased seeds

$$LACESD = -1577.15 + 1.06806 \quad \begin{matrix} (-3.68) & (15.55) \end{matrix}$$

$$[(CORRS)(CORSA)(CORPSD)/56)$$

$$+ (COLSA)(COLRS)(COLPSD)/100$$

$$(SORSA)(SORRS)(SORPSD)/100$$

$$+ (BARSA)(BARRS)(BARPSD)$$

$$+ (OATSA)(OATRS)(OATPSD)$$

$$+ (SOYSA)(SOYRS)(SOYPSD)$$

$$+ (WHESA)\ (.5)\ [(WHESRS)\ (WHESPSD)$$

$$+ (WHEWRS)(WHEWPDS)]] + \underset{(3.27)}{23.5958}\ .TIME - \underset{(-3.28)}{386.830}\ D75$$

Estimation technique = O.L.S.
Sample period = 1959-79
R^2(ADJ) = 0.9756
D.W. = 1.0392
S.E.E. = 103.94

Variable numbers, names and descriptions

YY176	LACESD	Production expenses, purchased seeds	mil. dol.
YY143	CORSA	Corn, total acreage planted	mil. ac.
Z148	CORRS	Seeding rate, corn	lbs./ac.
Z147	CORPSD	Price of hybrid corn seed	$/bu.
YY317	COLSA	Cotton, total acreage planted	mil. ac.
Z145	COLRS	Seeding rate, cotton	lbs./ac.
Z144	COLPSD	Price of cotton seeds	$/cwt.
Z169	SORRS	Seeding rate, sorghum	lbs./ac.
Z168	SORPSD	Price of hybrid sorghum seed	$/cwt.
YY146	BARSA	Barley, total acreage planted	mil. ac.
Z139	BARRS	Seeding rate, barley	bu./ac.
Z138	BARPSD	Price of spring barley seed	$/bu.
YY145	OATSA	Oats, total acreage planted	mil. ac.
Z161	OATRS	Seeding rate, oats	bu./ac.
Z160	OATPSD	Price of spring oats seed	$/bu.

Production expenses, purchased seeds cont.

Z139	BARRS	Barley, seeding rate	mil.ac.
Z171	SOYRS	Seeding rate, soybeans	bu./ac.
Z170	SOYPSD	Price of soybean seed	$/bu.
YY153	WHESA	Wheat, total acreage planted	mil. ac.
Z179	WHESRS	Seeding rate, spring wheat	bu./ac.
Z178	WHESPSD	Price of spring wheat seed	$/bu.
Z181	WHEWRS	Seeding rate, winter wheat	bu./ac.
Z30	.TIME	Year, 1959=59	
	D75	Dummy variable, 1975	
YY140	SOYSA	Soybeans, total acreage planted	mil. ac.
YY144	SORSA	Sorghum, total acreage planted	mil. ac.
Z180	WHEWPDS	Price of winter wheat seed	$/bu.

Production expenses, total

LACET = LACEDPR + LACEF + LACELIV + LACEMSC + LACERNT
+ LACESD + LACEU + LACEHLB + LACEINT + LACERCO
+ LACETAX

Variable numbers, names and descriptions

YY180	LACET	Production expenses, total	mil. dol.
YY168	LACEDPR	Production expenses, depreciation	mil. dol.
YY167	LACEF	Production expenses, purchased feed	mil. dol.
YY166	LACELIV	Production expenses, livestock	mil. dol.
YY173	LACEMSC	Production expenses, miscellaneaous	mil. dol.
YY172	LACERNT	Production expenses, net rent	mil. dol.
YY176	LACESD	Production expenses, seed	mil. dol.
YY175	LACEU	Production expenses, fertilizer and lime	mil. dol.
YY318	LACEHLB	Production expenses, hired labor	mil. dol.
YY321	LACEINT	Production expenses, interest on farm mortgage	mil. dol.
YY319	LACERCO	Production expenses, repair and operation of capital	mil. dol.
YY312	LACETAX	Production expenses, tax on property	mil. dol.

Production expenses, taxes on property

LACETAX = - 615.899 + .841418 LACETAX(-1)
(-1.73) (6.60)

+ 129.201 VLAND(-1) + 14.0881 .TIME
(1.58) (1.72)

Estimation technique = O.L.S.
Sample period = 1951-79
R^2(ADJ) = 0.9927
D.W. = 1.8014
S.E.E. = 51.768

Variable numbers, names and descriptions

YY312	LACETAX	Production expenses, taxes on property	mil. dol.
YY313	VLAND	Index of farm real estate value	1967=1.0
Z30	.TIME	Year, 1951=51	

Production expenses, hired labor

LACEHLB = 108.825 + 2.75061 TOTACRES + 29.9802 .WRAHFI
(0.16) (0.95) (33.21)

Estimation technique = O.L.S.
Sample period = 1954-79
R^2(ADJ) = 0.9852
D.W. = 0.4862
S.E.E. = 228.13

Variable numbers, names and descriptions

YY318	LACEHLB	Production expenses, hired labor	mil. dol.
YY320	TOTACRES	Total acreage planted	mil. ac.
Z2	.WRAHFI	Wage index, all hired farm labor	1967=1.0

Production expenses, repair, operation of capital

LACERCO = - 3058.19 + 8.19318 TOTACRES
(-7.57) (4.70)

+ 5537.75 .GASIR - 1255.21 DUM74
(65.75) (-7.30)

- 735.099 DUM75 + 1256.03 DUM78
(-4.22) (6.93)

Estimation technique = O.L.S.
Sample period = 1951-79
R^2(ADJ) = 0.9961
D.W. = 1.4297
S.E.E. = 163.51

Variable numbers, names and descriptions

YY319	LACERCO	Production expenses, repair, operation of capital	mil. dol.
YY320	TOTACRES	Total acreage planted, seven major major crops	mil. ac.
Z15	.GASIR	Gasoline, regular and premium, consumer price price index	1967=1.0
	DUM74	Dummy variable, 1974	
	DUM75	Dummy variable, 1975	
	DUM78	Dummy variable, 1978	

Production expenses, interest on farm mortgages

LACEINT = - 331.479 + .721361 LACEINT(-1)
(-4.31) (5.13)

+ 673.910 VLAND + 29.0819 .FRMCP4M
(3.15) (2.98)

Estimation technique = O.L.S.
Sampel period = 1951-79
R^2(ADJ) = 0.9981
D.W. = 0.9364
S.E.E. = 69.301

Variable numbers, names and descriptions

YY321	LACEINT	Production expenses, interest on farm mortages	mil. dol.
YY313	VLAND	Index of farm real estate, value per acre	bil. dol.
Z7	.FRMCP4M	Interest rate, prime commercial paper, 4-6 months	percent

Livestock, market price index

LIVIF = (14075.0 CATPFFD + 6144.0 CATPFNF
+ 11612.0 BAGPM7C + 969.0 SOWPM7C)
+ 6552.0 CHIPWBR9C + 827.0 CHIPWXB
+ 5777.0 EGGPF + 1870.0 TURPF)/1086142.1

Variable numbers, names and descriptions

YY92	LIVIF	Livestock, market price index	1967=1.0
YY39	CATPFFD	Cattle, price, slaughter steers, Omaha	$/cwt.
YY41	CATPFNF	Cattle, utility cow price, Omaha	$/cwt.
YY3	BAGPM7C	Barrows and gilt, market price	$/cwt.
YY2	SOWPM7C	Sows, market price	$/cwt.
YY53	CHIPWBR9C	Broilers, wholesale price	cents/lb.
YY54	CHIPWXB	Chickens, non-broiler, wholesale price	cents/lb.
YY68	EGGPF	Eggs, average price received by farmers	cents/lb.
YY60	TURPF	Turkeys, average price received by farmers	cents/lb.

Livestock, output index

LIVJF = .2488 BEEAPFD + .1722 BEEAPNF

+ .1920 PORAP-77 + .2515 CHISPYO

+ .0790 CHIAPOT + .3130 EGGAP

+ .1950 TURAP

+ .0502 [(MILAP - MILBC)(1000)]/16726.421

Variable numbers, names and descriptions

YY93	LIVJF	Livestock output index	1967=1.0
YY31	BEEAPNF	Beef, non-fed production	mil. lbs.
YY30	BEEAPFD	Beef, fed production	mil. lbs.
YY9	PORAP-77	Pork, production, carcass weight	mil. lbs.
YY44	CHISPYO	Chickens, young, production	mil. lbs.
YY43	CHIAPOT	Chickens, other, production	mil. lbs.
YY63	EGGAP	Eggs, production	mil. lbs.
YY55	TURAP	Turkeys, production	mil. lbs.
YY73	MILAP	Milk, total production	bil. lbs.
YY72	MILBC	Milk, fed to calves	bil. lbs.

Meat, retail price index

LIVIR =[.0805 PORIR.67 + .1245 BEEIR

+ .0294 CHIIRFR + .0057 TURPR/48.8]/.24

Variable numbers, names and descriptions

YY94	LIVIR	Meat, retail price index	1967=1.0
YY1	PORIR.67	Pork, retail price index	1967=1.0
YY38	BEEIR	Beef, retail price index	1967=1.0
YY51	CHIIRFR	Chickens, frying, retail price index	1967=1.0
YY59	TURPR	Turkeys, retail price	cents/lb.

Consumer price index, poultry

.PCPOU = .030092 + .896133 CHIIRFR
(3.85) (41.44)

+ .001477 TURPR
(3.21)

Estimation technique = O.L.S.
Sample period = 1956-79
R^2(ADJ) = 0.9999
D.W. = 1.8170
S.E.E. = 0.0074

Variable numbers, names and descriptions

YY195	.PCPOU	Consumer price index, poultry	1967=1.0
YY51	CHIIRFR	Chickens, frying, retail price index	1967=1.0
YY59	TURPR	Turkeys, retail price	cents/lb.

Consumer price index, cereal and baking products

$$.PCCB = \underset{(1.55)}{.0449896} + \underset{(8.57)}{.183503}\ .WRHLBP + \underset{(3.47)}{.327797}\ .PPIP + \underset{(4.97)}{.0771631}\ WHEPF(-1)$$

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9940
D.W. = 1.3900
S.E.E. = 0.0329

Variable numbers, names and descriptions

YY196	.PCCB	Consumer price index, cereal and baking products	1967=1.0
Z209	.WRHLBP	Average earnings, baking product industry	$/hr.
Z210	.PPIP	Producer price index, paper and pulp products	1967=1.0
YY139	WHEPF	Wheat, average farm price, June-May	$/bu.

Consumer price index, fats and oils

.PCFO = .151466 + .533934 .PPIGL
(3.11) (12.31)

+ .02663061 SOOPM
(11.35)

Estimation technique = O.L.S.
Sample period = 1967-79
R^2(ADJ) = 0.9890
D.W. = 1.1520
S.E.E. = 0.0450

Variable numbers, names and descriptions

YY197	.PCFO	Consumer price index, fats and oils	1967=1.0
Z211	.PPIGL	Producer price index, glass containers	1967=1.0
YY106	SOOPM	Soybean oil, price	cents/lb.

Consumer price index, food at home

```
.PCH = [.395 FISIR + 1.701 .PCFV
      + .439 .PCSS + 1.375 .PCNAL
      + 1.013 .PCPF]
      + 1.814 BEEIR + .826 PORIR.67
      + .535 .PCOM + .392 .PCPOU
      + .226 EGGIR.67 + .346 .PCFO
      + 1.641 DARCPI + 1.517 .PCCB]
```

Variable numbers, names and descriptions

YY198	.PCH	Consumer price index, food at home	1967=1.0
YY323	.PCFV	Consumer price index, fruits and vegetables	1967=1.0
YY325	.PCSS	Consumer price index, sugar and sweets	1967=1.0
YY326	.PCNAL	Consumer price index, non-alcoholic beverages	1967=1.0
YY324	.PCPF	Consumer price index, prepared or partially prepared foods	1967=1.0
YY38	BEEIR	Beef, retail price index	1967=1.0
YY1	PORIR.67	Pork, retail price index	1967=1.0
YY202	.PCOM	Consumer price index, other meats	1967=1.0
YY195	.PCPOU	Consumer price index, poultry	1967=1.0
YY67	EGGIR.67	Eggs, retail price index	1967=1.0
YY197	.PCFO	Consumer price index, fats and oils	1967=1.0
YY91	DARCPI	Dairy, retail price index	1967=1.0
YY196	.PCCB	Consumer price index, cereal and baking products	1967=1.0
YY322	FISIR	Fish, retail price index	1967=1.0

Consumer price index, food away from home

$$.PC\text{-}U = -.078009 + .366250\ .WEDPL + .520488\ .PCH$$
$$(-3.93) \quad (7.22) \quad (6.79)$$

Estimation technique = O.L.S.
Sample period = 1964-79
R^2(ADJ) = 0.9988
D.W. = 1.0530
S.E.E. = 2.3500

Variable numbers, names and descriptions

YY199	.PC-U	Consumer price index, food away from home	1967=1.0
Z208	.WEDPL	Wage rate, eating and drinking establishments	$/hr.
YY198	.PCH	Consumer pirce index food at home	1967=1.0

Consumer price index, all food

.PCF = (12.210 .PCH + 5.450 .PC-U)/.17660

Variable numbers, names and descriptions

YY200	.PCF	Consumer price index, all food	1967=100
YY198	.PCH	Consumer price index, food at home	1967=1.0
YY199	.PC-U	Consumer price index, food away from home	1967=1.0

Consumer price index, all items

.PC = 82.340 .PCALL-F + .17660 .PCF

Variable numbers, names and descriptions

YY201	.PC	Consumer price index, all items	1967=100
Z204	.PCALL-F	Consumer price index, all items less food	1967=100
YY200	.PCF	Consumer price index, all food	1967=100

Consumer price index, other meats

.PCOM = - .0274802 + .596414 BEEIR
(-1.50) (13.65)

+ .404264 PORIR.67
(9.47)

Estimation technique = O.L.S.
Sample period = 1953-79
R^2(ADJ) = 0.9944
D.W. = 1.1180
S.E.E. = 0.0260

Variable numbers, names and descriptions

YY202	.PCOM	Consumer price index, other meats	1967=1.0
YY38	BEEIR	Beef, retail price index	1967=1.0
YY1	PORIR.67	Pork, retail price index	1967=1.0

Index of farm real estate value

$$VLAND - VLAND(-1) = -.142689 + .0158652\ FIYTN(-1) + .175064\ DUM7779$$
$$(-6.41) \quad (12.22) \quad (7.83)$$

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.9414
D.W. = 1.9905
S.E.E. = 0.0340

Variable numbers, names and descriptions

YY313	VLAND	Index of farm real estate	1967=1.0
YY192	FIYTN	Farm income, total net	bil. dol.
	DUM7779	Dummy variable, 1977-79	

Fish, retail price index

$$.FISIR = -.000109180\ .PC \quad (-0.11)$$
$$+ .409634\ (.YPD\$/.NPC) \quad (13.65)$$
$$- .167060\ DUM6872 \quad (-5.23)$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9986
D.W. = 0.9018
S.E.E. = 0.0630

Variable numbers, names and descriptions

YY322	.FISIR	Fish, retail price index	1967=1.0
YY201	.PC	Consumer price index, all items	1967=1.0
Z34	.YPD$	Personal disposable income in current dollars	bil. dol.
Z1	.NPC	Population, total	mil.
	DUM6872	Dummy variable, 1968-72	

Consumer price index, fruits and vegetables

.PCFV = .00856799 .PC + .0611471 (.YPD$/.NPC)
(25.81) (5.40)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9991
D.W. = 0.1317
S.E.E. = 0.0368

Variable numbers, names and descriptions

YY323	.PCFV	Consumer price index, fruits and vegetables	1967=1.0
YY201	.PC	Consumer price index, all items	1967=1.0
Z34	.YPD$	Personal disposable income, calendar year, current dol.	bil. dol.
Z1	.NPC	Population, total	mil.

Consumer price index, prepared or partially prepared foods

.PCPF = .0114430 .PC - .0552175 (.YPD$/.NPC)
(10.70) (-1.62)

Estimation technique = O.L.S.
Sample period = 1965-79
R^2(ADJ) = 0.9987
D.W. = 0.5568
S.E.E. = 0.0504

Variable numbers, names and descriptions

YY324	.PCPF	Consumer price index, prepared and partially prepared foods	1967=1.0
YY201	.PC	Consumer price index, all items	1967=1.0
Z34	.YPD$	Personal disposable income in current dollars	bil. dol.
Z1	.NPC	Population, total	mil.

Consumer price index, sugar and sweets

.PCSS = .00546836 .PC + .203285(.YPD$/.NPC)
(5.73) (6.15)

- .315968 DUM73 + .199727 DUM74
(-2.91) (1.83)

+ .546116 DUM75
(4.98)

Estimation technique = O.L.S.
Sample period = 1950-79
R^2(ADJ) = 0.9944
D.W. = 0.4296
S.E.E. = 0.1044

Variable numbers, names and descriptions

YY325	.PCSS	Consumer price index, sugar and sweets	1967=1.0
YY201	.PC	Consumer price index, all items	1967=1.0
Z34	.YPD$	Personal disposable income, calendar year, current dol.	bil. dol.
Z1	.NPC	Population, total	mil.
	DUM73	Dummy variable, 1973	
	DUM74	Dummy variable, 1974	
	DUM75	Dummy variable, 1975	

Consumer price index, non-alcoholic beverages

$$
\begin{aligned}
.PCNAL = &- .529311 + 1.52546\ .PCSS \\
&\quad (-8.99) \quad (37.17) \\
&- .892389\ DUM74 - 1.43737\ DUM75 \\
&\quad (-8.39) \quad (12.67) \\
&- .659245\ DUM76 \\
&\quad (-6.04)
\end{aligned}
$$

Estimation technique = O.L.S.
Sample period = 1960-79
R^2(ADJ) = 0.9869
D.W. = 1.2246
S.E.E. = 0.1008

Variable numbers, names and descriptions

YY326	.PCNAL	Consumer price index, non-alcoholic beverages	1967=1.0
YY201	.PC	Consumer price index, all items	1967=1.0
	DUM74	Dummy variable, 1974	
	DUM75	Dummy variable, 1974	
	DUM76	Dummy variable, 1976	

Consumer price index, margarine

MARIR = .092302 + .0354703 SOOPM(-1)
(.40) (9.85)

+ .235860 .GASIR
(2.09)

+ .140260 .WRHD
(3.38)

Estimation technique = O.L.S.
Sample period = 1961-79
R^2(ADJ) = 0.9861
D.W. = 1.5624
S.E.E. = 0.0653

Variable numbers, names and descriptions

YY327	MARIR	Consumer price index, margarine	1967=1.0
YY106	SOOPM	Soybean oil price, crop year	cents/lb.
Z15	.GASIR	Gasoline, regular and premium, consumer price index	1967=1.0
Z4	.WRHD	Wage rate, dairy industry	$/hr.

GLOSSARY

-- ENDOGENOUS VARIABLES --

	NUMBER & NAME	DESCRIPTION	UNITS	PAGE
1	PURIR.67	PORK, RETAIL PRICE INDEX	1967=1.0	16
2	SOWPM7C	SOWS, MARKET PRICE, SEVEN MARKETS	$/CWT.	17
3	BAGPM7C	BARROWS AND GILTS, MARKET PRICE, SEVEN MARKETS	$/CWT.	18
4	SOWKS	SOWS, SLAUGHTER	MIL. HD.	19
5	PIGSEBR	PIGS, ADDITIONS TO BREEDING HERD	MIL. HD.	20
6	HOGSNBR	HOGS, BREEDING, NUMBER ON FARMS, DEC 1	MIL. HD.	21
7	PIGSC	PIGS, CROP	MIL.	22
8	BAGKS	BARROWS AND GILTS, SLAUGHTER	MIL. HD.	23
9	PORAP=77	PORK, PRODUCTION, CARCASS WT.	MIL. LBS.	24
10	PORHT1	PORK, ENDING STOCKS,	MIL. LBS.	25
11	HOGKS	HOGS, TOTAL SLAUGHTER	MIL. HD.	26
12	HOGSM	HOGS, MARKET, NUMBER ON FARMS, DEC. 1	MIL. HD.	27
13	PORAS=77	PORK, TOTAL SUPPLY	MIL. LBS.	28
14	PURCC=77	PORK, CIVILIAN DISAPPEARANCE	MIL. LBS.	29
15	COWSNBE	COWS, BEEF, NUMBER ON FARMS, JAN 1	MIL. HD.	30
16	COWSNMC	COWS, DAIRY, NUMBER ON FARMS, JAN 1	MIL. HD.	85
17	CALSC	CALVES, NUMBER BORN	MIL. HD.	31
18	CALDD	CALVES, DEATH LOSS	MIL. HD.	32
19	CORPICP	CORN, PROGRAM PARTICIPATION RATE	PERCENT	187
20	CALKS	CALVES, SLAUGHTER	MIL. HD.	33
21	VEAAT	VEAL, COMMERCIAL PRODUCTION, CARCASS WEIGHT	MIL. LBS.	34
22	VEAIR	VEAL, RETAIL PRICE INDEX	1967=1.0	35
23	CALPF	CALVES, AVERAGE PRICE RECEIVED BY FARMERS	$/CWT.	36
24	HEISBBE	BEEF, HEIFERS ADDED TO BREEDING HERD	MIL. HD.	37
25	COWKSNF	COWS, BEEF, NON-FED SLAUGHTER	MIL. HD.	38
26	COWKSMC	COWS, DAIRY, SLAUGHTER	MIL. HD.	86
27	SAHKS	BEEF, STEER AND HEIFER SLAUGHTER	MIL. HD.	39
28	SAHKSFD	BEEF, STEER AND HEIFER, FED, SLAUGHTER	MIL. HD.	40
29	CATKSNF	BEEF, NON-FED CATTLE SLAUGHTER	MIL. HD.	41
30	BEEAPFD	BEEF, FED, PRODUCTION	MIL. LBS.	42
31	BEEAPNF	BEEF, NON-FED, PRODUCTION	MIL. LBS.	43
32	BEEAP	BEEF, TOTAL PRODUCTION	MIL. LBS.	44
33	BEEAS	BEEF, TOTAL SUPPLY	MIL. LBS.	45
34	BEECT	BEEF, CIVILIAN DISAPPEARANCE	MIL. LBS.	46
35	BEECP	BEEF, CONSUMPTION PER CAPITA	LBS.	47
36	CATKAFD	BEEF, AVERAGE WEIGHT, FED SLAUGHTER	LBS.	48
37	CATKANF	BEEF, AVERAGE WEIGHT, NON-FED SLAUGHTER	LBS.	49
38	BEEIR	BEEF, RETAIL PRICE INDEX	1967=1.0	50

NUMBER & NAME	DESCRIPTION	UNITS	PAGE
39 CATPFFD	CATTLE, PRICE, SLAUGHTER STEERS, OMAHA	$/CWT.	51
40 CATPFFE	BEEF, PRICE, CHOICE, CATTLE, KANSAS CITY	$/CWT.	52
41 CATPFNF	BEEF, UTILITY COW PRICE, OMAHA	$/CWT.	53
42 BEEHT	BEEF, ENDING STOCKS	MIL. LBS.	54
43 CHIAPOT	CHICKENS, OTHER, PRODUCTION	MIL. LBS.	55
44 CHISPYO	CHICKENS, YOUNG, PRODUCTION	MIL. LBS.	56
45 CHIHTYO1	CHICKENS, YOUNG, ENDING STOCKS	MIL. LBS.	57
46 CHIHTOT1	CHICKENS, OTHER, ENDING STOCKS	MIL. LBS.	58
47 CHIASYO	CHICKENS, YOUNG, TOTAL SUPPLY	MIL. LBS.	59
48 CHIASOT	CHICKENS, OTHER, TOTAL SUPPLY	MIL. LBS.	60
49 CHICCYO	CHICKENS, YOUNG, CIVILIAN DISAPPEARANCE	MIL. LBS.	61
50 CHICCOT	CHICKENS, OTHER, CIVILIAN DISAPPEARANCE	MIL. LBS.	62
51 CHIIRFR	CHICKENS, FRYING, RETAIL PRICE INDEX	1967=1.0	63
52 CHIPR	CHICKENS, RETAIL PRICE	CENTS/LB.	64
53 CHIPWBR9C	CHICKENS, 9-CITY WHOLESALE PRICE	CENTS/LB.	65
54 CHIPWXB	CHICKENS, NONBROILER, WHOLESALE PRICE	CENTS/LB.	66
55 TURAP	TURKEY, PRODUCTION	MIL. LBS.	67
56 TURHT1	TURKEY, ENDING STOCKS	MIL. LBS.	68
57 TURAS	TURKEY, TOTAL SUPPLY	MIL. LBS.	69
58 TURCC	TURKEY, CIVILIAN DISAPPEARANCE	MIL. LBS.	70
59 TURPR	TURKEY, RETAIL PRICE	CENTS/LB.	71
60 TURPF	TURKEYS, AVERAGE PRICE RECEIVED BY FARMERS	CENTS/LB.	72
61 CHISVLA	CHICKENS, LAYERS, NUMBER ON FARMS	MIL. NO.	73
62 EGGBB	EGGS, USED FOR HATCHING	MIL. DOZ.	74
63 EGGAP	EGGS, PRODUCTION	MIL. DOZ.	75
64 EGGHT	EGGS, ENDING STOCKS	MIL. DOZ.	76
65 EGGAS	EGGS, TOTAL SUPPLY	MIL. DOZ.	77
66 EGGCC	EGGS, CIVILIAN DISAPPEARANCE	MIL. DOZ.	78
67 EGGIR.67	EGGS, RETAIL PRICE INDEX	1967=1.0	79
68 EGGPF	EGGS, AVERAGE PRICE RECEIVED BY FARMERS	CENTS/DOZ.	80
69 EGGPRAL	EGGS, LARGE GRADE A, RETAIL PRICE	CENTS/DOZ.	81
70 SOYHH	SOYBEANS, CCC ENDING STOCKS	MIL. BU.	135
71 CROFP	CROPS, DEFICIENCY PAYMENTS	MIL. DOL.	308
72 MILBC	MILK, FED TO CALVES	BIL. LBS.	87
73 MILAP	MILK, TOTAL PRODUCTION	BIL. LBS.	88
74 MILPF	MILK, SOLD TO PLANTS, AVERAGE WHOLESALE PRICE RECEIVED BY FARMERS	$/CWT.	89
75 COWSEMC	COWS, DAIRY, ADDITIONS TO HERD	MIL. NO.	90
76 MILIREV	MILK, EVAPORATED, RETAIL PRICE INDEX	1967=1.0	91
77 MILIR	MILK, FLUID, RETAIL PRICE INDEX	1967=1.0	92
78 MILIRIC	MILK, ICE CREAM, RETAIL PRICE INDEX	1967=1.0	93
79 CURDT	CORN, TOTAL DEMAND	MIL. BU.	188
80 BUTIR	BUTTER, RETAIL PRICE INDEX	1967=1.0	94
81 CHEIRAM	CHEESE, AMERICAN, RETAIL PRICE INDEX	1967=1.0	95
82 MILCCFZ	MILK, FROZEN DAIRY PRODUCTS, CIVILIAN DISAPPEARANCE	BIL. LBS	96
83 SORHC	SORGHUM, EXPORTS TO ALL IMPORTING REGIONS, EXCEPT PRC AND U.S.S.R, OCT.-SEPT.	MIL. BU.	215

NUMBER & NAME	DESCRIPTION	UNITS	PAGE

NUMBER & NAME		DESCRIPTION	UNITS	PAGE
84	MILCCEC	MILK, CONDENSED AND EVAPORATED, CIVILIAN DISAPPEARANCE	BIL. LBS.	97
85	MILCCMC	MILK, FLUID PLUS CREAM, CIVILIAN DISAPPEARANCE	BIL. LBS.	98
86	CHECT	CHEESE, CIVILIAN DISAPPEARANCE	BIL. LBS.	99
87	BUTCC	BUTTER, CIVILIAN DISAPPEARANCE	BIL. LBS.	100
88	MILSPEC	EVAPORATED AND CONDENSED MILK PRODUCTION	BIL. LBS.	101
89	MILSPFZ	MILK, FROZEN PRODUCTS, PRODUCTION	BIL. LBS.	102
90	CHESP	CHEESE, TOTAL PRODUCTION	BIL. LBS.	103
91	DARCPI	DAIRY, RETAIL PRICE INDEX	1967=1.0	104
92	LIVIF	LIVESTOCK, MARKET PRICE INDEX	1967=1.0	351
93	LIVJF	LIVESTOCK, OUTPUT INDEX	1967=1.0	352
94	LIVIR	MEAT, RETAIL PRICE INDEX	1967=1.0	353
95	GCAU*	GRAIN CONSUMING ANIMAL UNITS	ANIMAL UNITS	268
96	SOYHX	SOYBEANS, EXPORTS	MIL. BU.	136
97	SOYHT	SOYBEANS, TOTAL ENDING STOCKS	MIL. BU.	137
98	SOYSC	SOYBEANS, QUANTITY CRUSHED, OCT.-SEPT.	MIL. BU.	138
99	SOMSP*	SOYBEAN MEAL, PRODUCTION, OCT.-SEPT.	MIL. LBS.	139
100	SOMDD*	SOYBEAN MEAL, DOMESTIC DISAPPEARANCE	MIL. LBS.	140
101	SOMHX*	SOYBEAN MEAL, EXPORTS, OCT.-SEPT.	MIL. LBS.	141
102	SOMPF	SOYBEAN MEAL, PRICE	CENTS/LB.	142
103	SOOSP	SOYBEAN OIL, PRODUCTION	MIL. LBS.	143
104	SOOHT	SOYBEAN OIL, TOTAL ENDING STOCKS	MIL. LBS.	144
105	SOODD	SOYBEAN OIL, DOMESTIC DEMAND	MIL. LBS.	145
106	SOOPM	SOYBEAN OIL, PRICE	CENTS/LB.	146
107	SOYPM	SOYBEANS, MARKET PRICE,#1 YELLOW, ILL. PTS.	$/BU.	147
108	SOYPF	SOYBEANS, AVERAGE FARM PRICE , OCT.-SEPT.	$/BU.	148
109	SORPICP	SORGHUM, PROGRAM PARTICIPATION RATE	PERCENT	216
110	CORHHUN	CORN, CCC STOCKS, BEGINNING OF CROP YEAR	MIL. BU.	189
111	SORHHUN	SORGHUM, CCC STOCKS, BEGINNING OF CROP YEAR	MIL. BU.	217
112	OATHH1*JM	OATS, CCC STOCKS, END OF CROP YEAR	MIL. BU.	269
113	BARHH1*JM	BARLEY, CCC STOCKS, END OF CROP YEAR	MIL. BU.	242
114	CORHT	CORN, TOTAL ENDING STOCKS, BEGINNING OF CROP YEAR	MIL. BU.	190
115	SORHT	SORGHUM, TOTAL ENDING STOCKS	MIL. BU.	218
116	OATHT*JM	OATS, TOTAL ENDING STOCKS	MIL. BU.	270
117	BARHT*JM	BARLEY, TOTAL ENDING STOCKS	MIL. BU.	243
118	CORDH*	CORN, FOOD USE, OCT.-SEPT.	MIL. BU.	191
119	OATDH*JM	OATS, DOMESTIC FOOD USE, JUNE-MAY	MIL. BU.	271
120	BARDH*JM	BARLEY, DOMESTIC USE FOR FOOD AND ALC. BEV., JUNE-MAY	MIL. BU.	244
121	CORHX	CORN, TOTAL EXPORTS, OCT.-SEPT.	MIL. BU.	192
122	SORHX	SORGHUM, TOTAL EXPORTS, OCT.-SEPT.	MIL. BU.	219
123	CORDF	CORN, FEED USE, OCT.-SEPT.	MIL. BU.	193
124	SORDF	SORGHUM, FEED USE, OCT.-SEPT.	MIL. BU.	220
125	OATDF*JM	OATS, FEED USE, JUNE-MAY	MIL. BU.	272
126	BARDF*JM	BARLEY, FEED USE, JUNE-MAY	MIL. BU.	245
127	CORPF	CORN, AVERAGE PRICE RECEIVED BY FARMERS, OCT.-SEPT.	$/BU.	*
128	OATPF	OATS, AVERAGE PRICE RECEIVED BY FARMERS, JUNE-MAY	$/BU.	*
129	SORPF*	SORGHUM, AVERAGE PRICE RECIEVED BY FARMERS, OCT.-SEPT.	$/BU.	*
130	BARPF	BARLEY, AVERAGE PRICE RECEIVED BY FARMERS, JUNE-MAY	$/BU.	*

NUMBER	NAME	DESCRIPTION	UNITS	PAGE
131	WHEDS	WHEAT, SEED USE	MIL. BU.	160
132	WHEHH*JM	WHEAT, CCC STOCKS, END OF CROP YEAR	MIL. BU.	161
133	WHEDH*JM	WHEAT, FOOD USE	MIL. BU.	162
135	OATDD*JM	OATS, DOMESTIC DEMAND	MIL. BU.	273
136	WHEMX*JM	WHEAT, TOTAL EXPORTS, JUNE-MAY	MIL. BU.	163
137	WHEDF*JM	WHEAT, FEED USE, JUNE-MAY	MIL. BU.	164
138	WHEHT*JM	WHEAT, TOTAL ENDING STOCKS	MIL. BU.	165
139	WHEPF	WHEAT, AVERAGE PRICE RECEIVED BY FARMERS, JUNE-MAY	$/BU.	*
140	SOYSA	SOYBEANS, TOTAL ACREAGE PLANTED	MIL. AC.	149
141	SOYSY	SOYBEANS, YIELD PER ACRE HARVESTED	BU.	150
142	SOYSP	SOYBEANS, TOTAL PRODUCTION	MIL. BU.	151
143	CORSA	CORN, TOTAL PLANTED ACREAGE	MIL. AC.	194
144	SORSA	SORGHUM, TOTAL PLANTED ACREAGE	MIL. AC.	221
145	OATSA	OATS, TOTAL PLANTED ACREAGE	MIL. AC.	274
146	BARSA	BARLEY, TOTAL PLANTED ACREAGE	MIL. AC.	246
147	CORSPGR	CORN, PRODUCTION, OCT.-SEPT.	MIL. BU.	195
148	SORSPGR	SORGHUM, PRODUCTION	MIL. BU.	222
149	OATSP	OATS, PRODUCTION	MIL. BU.	275
150	BARSP	BARLEY, TOTAL PRODUCTION	MIL. BU.	247
151	WHEHPRRE	WHEAT, FARMER OWNED RESERVE STOCKS, END OF CROP YEAR	MIL. BU.	166
152	SOYHCC	SOYBEANS, ENDING COMMEPICAL STOCKS	MIL. BU.	152
153	WHESA	WHEAT, TOTAL PLANTED ACREAGE	MIL. AC.	167
154	WHEGY	WHEAT, YIELD PER ACRE HARVESTED	BU.	168
155	WHESP*JM	WHEAT, PRODUCTION	MIL. BU.	169
156	CACFC	CASH RECEIPTS, CATTLE AND CALVES	MIL. DOL.	309
157	HOGFC	CASH RECEIPTS, HOGS	MIL. DOL.	311
158	POUFC	CASH RECEIPTS, POULTRY AND EGGS	MIL. DOL.	312
159	DAIFC	CASH RECEIPTS, DAIRY PRODUCTS	MIL. DOL.	313
160	LIVFCO	CASH RECEIPTS, SHEEP, LAMB, OTHER LIVESTOCK	MIL. DOL.	314
161	SORDT	SORGHUM, TOTAL DEMAND	MIL. BU.	223
162	FOGFC	CASH RECEIPTS, FOOD GRAINS	MIL. DOL.	315
163	FEGFC	CASH RECEIPTS, FEED GRAINS	MIL. DOL.	316
164	OISFC	CASH RECEIPTS, OIL-BEARING CROPS	MIL. DOL.	317
165	SORST	SORGHUM, TOTAL SUPPLY	MIL. BU.	224
166	LACELIV	PRODUCTION EXPENSES, PURCHASED LIVESTOCK	MIL. DOL.	335
167	LACEF	PRODUCTION EXPENSES, PURCHASED FEED	MIL. DOL.	336
168	LACEDPR	PRODUCTION EXPENSES, DEPRECIATION	MIL. DOL.	337
169	OATDT*JM	OATS, TOTAL DISAPPERANCE	MIL. BU.	276
170	CROFS	CROPS, TOTAL FARMER-OWNED RESERVE PAYMENTS	MIL. DOL.	339
171	CORST	CORN, TOTAL SUPPLY	MIL. BU.	196
172	LACERNT	PRODUCTION EXPENSES, NET RENT	MIL. DOL.	340
173	LACEMSC	PRODUCTION EXPENSES, MISCELLANEOUS	MIL. DOL.	342
174	OATST*JM	OATS, TOTAL SUPPLY	MIL. BU.	277
175	LACEU	PRODUCTION EXPENSES, FERTILIZER AND LIME	MIL. DOL.	343
176	LACESD	PRODUCTION EXPENSES, PURCHASED SEEDS	MIL. DOL.	344
177	LIVFCT	CASH RECEIPTS, ALL LIVESTOCK	MIL. DOL.	318
178	CROFCT	CASH RECEIPTS, ALL CROPS	MIL. DOL.	319

NUMBER	NAME	DESCRIPTION	UNITS	PAGE

NUMBER & NAME		DESCRIPTION	UNITS	PAGE
179	LACFCT	CASH RECEIPTS, TOTAL	MIL. DOL.	320
180	LACET	PRODUCTION EXPENSES, TOTAL	MIL. DOL.	346
182	FIRBA	CASH RECEIPTS FROM MARKETINGS, BARLEY	MIL. DOL.	321
183	FIRCO	CASH RECEIPTS FROM MARKETINGS, CORN	MIL. DOL.	322
184	FIROA	CASH RECEIPTS FROM MARKETINGS, OATS	MIL. DOL.	323
185	FIRSB	CASH RECEIPTS FROM MARKETINGS, SOYBEANS	MIL. DOL.	324
186	FIRSG	CASH RECEIPTS FROM MARKETINGS, SORGHUM	MIL. DOL.	325
187	FIRWH	CASH RECEIPTS FROM MARKETINGS, WHEAT	MIL. DOL.	326
188	FIFOT	FARM INCOME, OTHER RECEIPTS	BIL. DOL.	327
189	FIF	FARM INCOME, GROSS	BIL. DOL.	328
190	FIYRN	FARM INCOME, REALIZED NET	BIL. DOL.	329
191	BARPICP	BARLEY, PROGRAM PARTICIPATION RATE	PERCENT	248
192	FIYTN	FARM INCOME, NET	BIL. DOL.	330
193	WHEPICP	WHEAT, PROGRAM PARTICIPATION RATE	PERCENT	170
194	SORDD	SORGHUM, DOMESTIC DEMAND	MIL. BU.	225
195	.PCPOU	CONSUMER PRICE INDEX, POULTRY	1967=1.0	354
196	.PCCB	CONSUMER PRICE INDEX, CEREAL AND BAKERY PRODUCTS	1967=1.0	355
197	.PCFO	CONSUMER PRICE INDEX, FATS AND OILS	1967=1.0	356
198	.PCH	CONSUMER PRICE INDEX, FOOD AT HOME	1967=1.0	357
199	.PC-U	CONSUMER PRICE INDEX, FOOD AWAY FROM HOME	1967=1.0	358
200	.PCF	CONSUMER PRICE INDEX, ALL FOOD	1967=1.0	359
201	.PC	CONSUMER PRICE INDEX, ALL ITEMS	1967=1.0	360
202	.PCOM	CONSUMER PRICE INDEX, OTHER MEATS	1967=1.0	361
203	EGGAA	EGGS, NUMBER PRODUCED PER LAYER	NUMBER	82
204	MILCCND	MILK, NON-FAT DRY, CIVILIAN DISAPPEARANCE	BIL. LBS.	105
205	MILPWDR	MILK, NON-FAT DRY, WHOLESALE PRICE INDEX	1967=1.0	106
206	BUTHG	BUTTER, BEGINNING STOCKS, GOVERNMENT	BIL. LBS.	107
207	BUTSP	BUTTER, TOTAL PRODUCTION	BIL. LBS.	108
208	CHEHB	CHEESE, COMMERCIAL STOCKS	BIL. LBS.	109
209	CHEHG	CHEESE, BEGINNING STOCKS, GOVERNMENT	BIL. LBS.	110
210	MILMFG	MILK, AVAILABLE FOR MANUFACTURING	BIL. LBS.	111
211	MILAMCHEE	AMERICAN CHEESE, WHOLESALE PRICE, WISC. ASSEMBLY PTS.	CENTS/LB.	112
212	MILASFM	MILK, PRODUCTION ELIGIBLE FOR FLUID CONSUMPTION	BIL. LBS.	113
213	MILBCND	MILK, NON-FAT DRY, FED TO CALVES	BIL. LBS.	114
214	MILBUT	BUTTER, WHOLESALE PRICE, GRADE A, CHICAGO	CENTS/LB.	115
215	MILECLOP	MILK, EFFECTIVE CLASS 1 PRICE PAID BY DEALERS	$/CWT.	116
216	MILHGND	MILK, NON-FAT DRY, BEGINNING GOVERNMENT STOCKS	BIL. LBS.	117
217	MILHTEV	MILK, CONDENSED AND EVAPORATED, TOTAL ENDING STOCKS	BIL. LBS.	118
218	MILMWAT	MILK, MINNESOTA-WISCONSIN MANUFACTURING PRICE	$/CWT.	119
219	MILOMP	MILK, CLASS 1 MINIMUM FEDERAL ORDER PRICE	$/CWT.	120
220	MILPPFEMAT	MILK, PRODUCER PRICE, FLUID ELIGIBLE	$/CWT.	121
221	MILPPMAT	MILK, PRODUCER PRICE, MANUFACTURING GRADE	$/CWT.	122
222	MILSPND	MILK, NON-FAT DRY, PRODUCTION	BIL. LBS.	123
223	MILSPPLTS	MILK, TOTAL SOLD TO PLANTS AND DEALERS	BIL. LBS.	124
224	CHEGU	CHEESE, CHEDDAR, U.S.D.A. PURCHASES	BIL. LBS.	125
225	BUTGU	BUTTER, U.S.D.A. PURCHASES	BIL. LBS.	126

NUMBER & NAME		DESCRIPTION	UNITS	PAGE
226	MILGUND	MILK, NON-FAT DRY, U.S.D.A. PURCHASES	BIL. LBS.	127
227	CORDS	CORN, SEED USE, OCT.-SEPT.	MIL. BU.	197
228	CORHCC1*	CORN, COMMERCIAL STOCK, END OF CROP YEAR	MIL. BU.	198
229	CORHPRE	CORN, FARMER-OWNED RESERVE STOCKS, END OF CROP YEAR	MIL. BU.	199
230	CORSYGR	CORN, YIELD PER HARVESTED ACRE	BU./AC.	200
231	BARDS*JM	BARLEY, DOMESTIC SEED USE, JUNE-MAY	MIL. BU.	249
232	BARHCC1*JM	BARLEY, COMMERCIAL STOCKS, END OF CROP YEAR	MIL. BU.	250
233	BARSY	BARLEY, YIELD PER ACRE HARVESTED	BU.	251
234	BARHPRRE	BARLEY, FARMER-OWNED RESERVE STOCKS, END OF CROP YEAR	MIL. BU.	252
235	OATDS*JM	OATS, DOMESTIC SEED USE, JUNE-MAY	MIL. BU.	278
236	OATHCC1*JM	OATS, COMMERCIAL STOCKS, END OF CROP YEAR	MIL. BU.	279
237	OATSY	OATS, YIELD PER ACRE HARVESTED	BU.	280
238	OATHPRRE	OATS, FARMER OWNED RESERVE STOCKS, END OF CROP YEAR	MIL. BU.	281
239	SORDS	SORGHUM, SEED USE, OCT.-SEPT.	MIL. BU.	226
240	SORHCC1*	SORGHUM, COMMERCIAL STOCKS, END OF CROP YEAR	MIL. LBS.	227
241	SORSYGR	SORGHUM, YIELD PER ACRE	BU.	228
242	SORHPRRE	SORGHUM, FARMER-OWNED STOCKS, END OF CROP YEAR	MIL. BU.	229
243	WHEHCC*JM	WHEAT, COMMERCIAL STOCKS, END OF CROP YEAR	MIL. BU.	171
244	WHEST*JM	WHEAT, TOTAL SUPPLY	MIL. BU.	172
245	WHEDD*JM	WHEAT, DOMESTIC DEMAND	MIL. BU.	173
246	WHEDT*JM	WHEAT, TOTAL DEMAND	MIL. BU.	174
247	CORDD	CORN, DOMESTIC DEMAND	MIL. BU.	201
248	BARDT*JM	BARLEY, TOTAL DEMAND	MIL. BU.	253
249	BARST*JM	BARLEY, TOTAL SUPPLY	MIL. BU.	254
250	BARDD*JM	BARLEY, DOMESTIC DEMAND	MIL. BU.	255
251	WHESH	WHEAT, TOTAL ACREAGE HARVESTED,	MIL. AC.	175
252	CORSH	CORN, HARVESTED ACREAGE	MIL. AC.	202
253	SOYSH	SOYBEANS, HARVESTED ACREAGE	MIL. AC.	153
254	BARSH	BARLEY, ACREAGE HARVESTED,	MIL. AC.	256
255	SORSH	SORGHUM, HARVESTED ACREAGE	MIL. AC.	230
256	OATSH	OATS, HARVESTED ACREAGE	MIL. AC.	282
257	CORFP	CORN, DEFICIENCY PAYMENTS	MIL. DOL.	203
258	SORFP	SORGHUM, DEFICIENCY PAYMENTS	MIL. DOL.	231
259	BARFP	BARLEY, DEFICIENCY PAYMENTS	MIL. DOL.	257
260	WHEFP	WHEAT, DEFICIENCY PAYMENTS	MIL. DOL.	176
261	CORFNRXL	CORN, EXPECTED PROGRAM NET RETURN AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.	204
262	CORFEMNR	CORN, EXPECTED MARKET NET RETURNS	$/AC.	205
263	WHEFNRNL	WHEAT, EXPECTED PROGRAM NET RETURN AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.	177
264	WHEFNRXL	WHEAT, EXPECTED PROGRAM NET RETURN AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.	178
265	CORFS	CORN, FARMER-OWNED RESERVE STORAGE PAYMENTS	MIL. DOL.	206
266	OATFS	OATS, FARMER-OWNED RESERVE STORAGE PAYMENTS	MIL. DOL.	283
267	SORFS	SORGHUM, FARMER-OWNED RESERVE STORAGE PAYMENTS	MIL. DOL.	232
268	BARFS	BARLEY, FARMER-OWNED RESERVE STORAGE PAYMENTS	MIL. DOL.	258
269	WHEFS	WHEAT, FARMER-OWNED RESERVE STORAGE PAYMENTS	MIL. DOL.	179

NUMBER & NAME	DESCRIPTION	UNITS	PAGE

NUMBER & NAME		DESCRIPTION	UNITS	PAGE
270	CORFNRNL	CORN, EXPECTED PROGRAM NET RETURN AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.	207
271	LACFPG	TOTAL GOVERNMENT PAYMENTS	MIL. DOL.	331
272	WHEFEMNR	WHEAT, EXPECTED MARKET NET RETURN	$/AC.	180
273	CORPFMG	CORN, FARM PRICE WEIGHTED BY MARKETINGS, OCT.-FEB.	DOL./BU.	208
274	BARPFMG	BARLEY, FARM PRICE WEIGHTED BY MARKETINGS, JUN.-OCT.	DOL./BU.	259
275	SORPFMG	SORGHUM, FARM PRICE WEIGHTED BY MARKETINGS, OCT.-FEB.	DOL./CWT.	233
276	WHEPFMG	WHEAT, FARM PRICE WEIGHTED BY MARKETINGS, JUN.-OCT.	DOL./BU.	181
280	OATPEXP	OATS, EXPECTED FARM PRICE	$/BU.	284
281	WHEPEXP	WHEAT, EXPECTED FARM PRICE	$/BU.	182
282	CORPEXP	CORN, EXPECTED FARM PRICE	$/BU.	209
283	BARPEXP	BARLEY, EXPECTED FARM PRICE	$/BU.	260
284	SORPEXP	SORGHUM, EXPECTED FARM PRICE	$/BU.	234
285	SOYPEXP	SOYBEANS, EXPECTED FARM PRICE	$/BU.	154
286	OATYEXP	OATS, EXPECTED YIELD PER HARVESTED ACRE	BU./AC.	285
287	BARYEXP	BARLEY, EXPECTED YIELD PER HARVESTED ACRE	BU./AC.	261
288	WHEYEXP	WHEAT, EXPECTED YIELD PER HARVESTED ACRE	BU./AC.	183
289	CORYEXP	CORN, EXPECTED YIELD PER HARVESTED ACRE	BU./AC.	210
290	SORYEXP	SORGHUM, EXPECTED YIELD PER HARVESTED ACRE	BU./AC.	235
291	SOYYEXP	SOYBEANS, EXPECTED YIELD PER HARVESTED ACRE	BU./AC.	155
292	SORSAOSP	SORGHUM, TOTAL ACRES PLANTED BY GOVERNMENT PROGRAM NON-PARTICIPANTS	MIL. AC.	236
293	SORSDINP	SORGHUM, TOTAL GOVERNMENT PROGRAM ACREAGE	MIL. AC.	237
294	SORSAINP	SORGHUM, ACRES PLANTED BY GOVERNMENT PROGRAM PARTICIPANTS	MIL. AC.	238
295	BARFNRNL	BARLEY, EXPECTED PROGRAM NET RETURN AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.	262
296	CORSDINP	CORN, TOTAL GOVERNMENT PROGRAM ACREAGE	MIL. AC.	211
297	CORSAINP	CORN, TOTAL ACREAGE PLANTED BY GOVERNMENT PROGRAM PARTICIPANTS	MIL. AC.	212
298	CORSAOSP	CORN, TOTAL ACREAGE PLANTED BY GOVERNMENT PROGRAM NON-PARTICIPANTS	MIL. AC.	213
299	BARFNRXL	BARLEY, EXPECTED PROGRAM NET RETURN AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.	263
300	BARSAIPT	BARLEY, TOTAL PROGRAM ACREAGE	MIL. AC.	264
301	BARSAINP	BARLEY, TOTAL PROGRAM ACREAGE PLANTED	MIL. AC.	265
302	BARSAOSP	BARLEY, TOTAL ACREAGE PLANTED OUTSIDE OF THE PROGRAM	MIL. AC.	266
303	BARFEMNR	BARLEY, EXPECTED MARKET NET RETURNS	$/AC.	267
304	WHESDINP	WHEAT, TOTAL GOVERNMENT PROGRAM ACREAGE	MIL. AC.	184
305	WHESAINP	WHEAT, TOTAL ACREAGE PLANTED BY GOVERNMENT PROGRAM PARTICIPANTS	MIL. AC.	185
306	WHESAOSP	WHEAT, TOTAL ACREAGE PLANTED BY GOVERNMENT PROGRAM NON-PARTICIPANTS	MIL. AC.	186
307	SORFNRNL	SORGHUM, EXPECTED PROGRAM NET RETURNS AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.	239
308	SORFNRXL	SORGHUM, EXPECTED PROGRAM NET RETURNS AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.	240
309	SORFEMNR	SORGHUM, EXPECTED MARKET NET RETURNS	$/AC.	241

NUMBER & NAME		DESCRIPTION	UNITS	PAGE
310	OATFEXNR	OATS, EXPECTED NET RETURNS	$/AC.	286
311	SOYFEXNR	SOYBEANS, EXPECTED NET RETURNS	$/AC.	156
312	LACETAX	PRODUCTION EXPENSES, TAX ON PROPERTY	MIL. DOL.	347
313	VLAND	INDEX OF FARM REAL ESTATE	1967=1.0	362
314	FIYINV	FARM INCOME, CHANGE IN FARM INVENTORY	BIL. DOL.	332
315	COLSP	COTTON, TOTAL PRODUCTION	MIL. BALES	287
316	COLPFAU	COTTON, AVERAGE FARM PRICE, AMERICAN UPLAND, AUG-JULY	CENTS/LB.	288
317	COLSA	COTTON, TOTAL PLANTED ACREAGE	MIL. AC.	289
318	LACEHLB	PRODUCTION EXPENSES, HIRED LABOR	MIL. DOL.	348
319	LACERCO	PRODUCTION EXPENSES, REPAIR, OPERATION OF CAPITAL	MIL. DOL.	349
320	TOTACRE	TOTAL ACREAGE PLANTED, SEVEN MAJOR CROPS	MIL. AC.	307
321	LACEINT	PRODUCTION EXPENSES, INTEREST ON FARM MORTGAGE	MIL. DOL.	350
322	FISIR	FISH, RETAIL PRICE INDEX	1967=1.0	363
323	.PCFV	CONSUMER PRICE INDEX, FRUITS AND VEGETABLES	1967=1.0	364
324	.PCPF	CONSUMER PRICE INDEX, PREPARED AND PARTIALLY PREPARED FOODS	1967=1.0	365
325	.PCSS	CONSUMER PRICE INDEX, SUGAR AND SWEETS	1967=1.0	366
326	.PCNAL	CONSUMER PRICE INDEX, NON-ALCOHOLIC BEVERAGES	1967=1.0	367
327	MARIR	CONSUMER PRICE INDEX, MARGARINE	1967=1.0	368
328	SOMHT*	SOYBEAN MEAL, TOTAL ENDING STOCKS	MIL. LBS.	157
329	SOOMC***+PL	SOYBEAN OIL, EXPORTS	MIL. LBS.	158
330	SOYDV	SOYBEANS, FEED, SEED, AND RESIDUAL USE	MIL. BU.	159
331	BUTHB	BUTTER, BEGINNING STOCKS, COMMERCIAL	BIL. LBS.	128
332	MILHBND	MILK, NONFAT DRY, BEGINNING COMMERCIAL STOCKS	BIL. LBS.	129
333	COLSH	COTTON, TOTAL ACREAGE HARVESTED	MIL. AC.	290
334	COLSY	COTTON, YIELD PER HARVESTED ACRE	LBS./AC.	291
335	COLDM	COTTON, MILL CONSUMPTION	MIL. BALES	292
336	COLHT*	COTTON, TOTAL ENDING STOCKS	MIL. BALES	293
337	COLST	COTTON, TOTAL SUPPLY	MIL. BALES	294
338	COLPF*	COTTON, AVERAGE CALENDAR YEAR FARM PRICE	CENTS/LB.	295
339	COLPCM	COTTON, SLM. PRICE, GROUP MILL PTS.	CENTS/LB.	*
341	COLDT	COTTON, TOTAL DISAPPEARANCE	MIL. BALES	296
342	COLMIF=I	COTTON, FOREIGN, NON-COMMUNIST IMPORTS, LESS INDIA	MIL. TONS	297
343	COLMX	COTTON, TOTAL U.S. EXPORTS	MIL. BALES	298
345	FDC	FEED COST INDEX, CHICKENS	$/BU.	83
346	FDE	FEED COST INDEX, EGGS	$/BU.	84
347	FDD	FEED COST INDEX, DAIRY	$/BU.	130
348	COLMXF=I	COTTON, NON-COMMUNNIST FOREIGN PAYMENTS	MIL. TONS	299
349	COLPDEF	COTTON, DEFICIENCY PAYMENTS	MIL. DOL.	300
350	BUTGP	BUTTER, GOVERNMENT SUPPORT PAYMENTS	MIL. DOL.	131
351	CHEGP	CHEESE, GOVERNMENT SUPPORT PAYMENTS	MIL. DOL.	132
352	NFDGP	NON-FAT DRY MILK, GOVERNMENT SUPPORT PAYMENTS	MIL. DOL.	133
353	DAIGP	DAIRY, TOTAL GOVERNMENT SUPPORT PAYMENTS	MIL. DOL.	134
354	COLPFEX	COTTON, EXPECTED FARM PRICE	CENTS/LB.	303
355	COLSYEXP	COTTON, EXPECTED YIELD PER HARVESTED ACRE	LBS./AC.	304

NUMBER & NAME		DESCRIPTION	UNITS	PAGE
356	COLNRXP	COTTON, EXPECTED NET RETURN AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	DOL./AC.	303
357	COL6FC	CASH RECEIPTS, COTTON, SEED AND LINT	MIL. DOL.	334
358	COLNRNP	COTTON, EXPECTED NET RETURN AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.	304
359	COLNRMP	COTTON, MARGINAL NET RETURNS FOR PLANTING ADDITIONAL ALLOTMENT	$/AC.	305
360	COLNRM	COTTON, EXPECTED MARKET NET RETURNS	$/AC.	306

* VARIABLE IS SOLVED FOR BY INVERTING SUPPLY-DEMAND IDENTITY (SEE PAGE 14).

-- EXOGENOUS VARIABLES --

NUMBER & NAME	DESCRIPTIONS	UNITS
1 .NPC	POPULATION, TOTAL	MIL.
2 .WRAHFI	WAGE INDEX, ALL HIRED FARM HANDS	1967=1.0
3 .IPD*	IMPLICIT PRICE DEFLATOR	INDEX
4 .WRHD	WAGE RATE, DAIRY INDUSTRY	$/HR.
5 .WRHMP	WAGE RATE, MEAT PACKING INDUSTRY	$/HR.
6 PIGDD	HOGS, DEATH LOSS	PERCENT
7 .FRMCP4M	INTEREST RATE, PRIME COMMERCIAL PAPER, 4-6 MONTHS	PERCENT
8 .PW051*	CONSUMER PRICE INDEX, FUEL AND UTILITIES	1967=1.0
9 MMFPW	MAN MADE FIBER PRICE	INDEX
10 .WRHPP	WAGE RATE, POULTRY PROCESSING INDUSTRY	$/HR.
11 OATVC	OATS, VARIABLE COST	DOL.
12 PORMX-77	PORK, EXPORTS	MIL. LBS.
13 PORMI-77	PORK, IMPORTS	MIL. LBS.
14 PORCM-77	PORK, MILITARY USE	MIL. LBS.
15 .GASIR	CONSUMER PRICE INDEX, GASOLINE, REGULAR AND PREMIUM	1967=1.0
16 JULPRCP	INDEX, PRECIPITATION, JULY(ILL.,IN.,IO.,OH.)	INDEX
17 BEEMI	BEEF, IMPORTS	MIL. LBS.
18 BEEMX	BEEF, EXPORTS	MIL. LBS.
19 BEECM	BEEF, MILITARY USE	MIL. LBS.
20 OATLRPP	OATS, LOAN RATE PRIOR TO PLANTING	$/BU.
21 CHICMYO	CHICKEN, YOUNG, MILITARY USE	MIL. LBS.
22 CHICMOT	CHICKEN, OTHER, MILITARY USE	MIL. LBS.
23 CHIMXOT	CHICKENS, OTHER, EXPORTS	MIL. LBS.
24 CHIMXYO	CHICKENS, YOUNG, EXPORTS	MIL. LBS.
25 TURCM	TURKEY, MILITARY USE	MIL. LBS.
26 TURMX	TURKEY, EXPORTS	MIL. LBS.
27 EGGMI	EGGS, IMPORTS	MIL. DOZ.
28 EGGCM	EGGS, MILITARY USE	MIL. DOZ.
29 EGGMX	EGGS, EXPORTS	MIL. DOZ.
30 .TIME	YEAR	INDEX
31 JNJLTEM	WEATHER VARIABLE, JUNE-JULY AVERAGE TEMPERATURE (MONT., MINN., AND OH)	DEGS.
32 FERTM	FERTILIZER INDEX	1967=100
33 INDEXJA	WHEATHER VARIABLE, JULY-AUG., PRECIP. (IA., IL., NB.,ON)	INDEX
34 .YPDS	PERSONAL DISPOSABLE INCOME IN CURRENT DOLLARS	BIL. DOL.
35 RICSMGHO	RICE, MEDIUM GRAIN PRICE, FOB-HOUSTON, DOLLARS AUG.-SEPT.	$/CWT.
36 RICPXMG	RICE, SEASON AVERAGE EXPORT PAYMENT RATE	$/CWT.
37 .YPD**	PERSONAL REAL DISPOSABLE INCOME, JUL.-JE.	BIL. DOL.
38 WHEVC*	WHEAT, VARIABLE COST	DOL.

NUMBER & NAME	DESCRIPTION	UNITS

NUMBER & NAME		DESCRIPTION	UNITS
39	WHESAPMP	WHEAT, FRACTION OF EACH ACRE PLANTED AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	PERCENT
40	SORMG	SORGHUM, NET EXPORTS MINUS SORMC	MIL. BU.
41	OATMX*JM	OATS, TOTAL EXPORTS	MIL. BU.
42	BARMX*JM	BARLEY, TOTAL EXPORTS	MIL. BU.
43	WHESAPXP	WHEAT, FRACTION OF EACH ACRE PLANTED AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	PERCENT
44	WHEPGMLP	WHEAT, SUPPORT PAYMENT RATE BASIS AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	$/BU.
45	CORSP+HE6	CORN, PRODUCTION PLUS BEGINNING STOCKS IN ECC-6 COUNTRIES	THOU. MET. TON
46	BARMI*JM	BARLEY, TOTAL IMPORTS	MIL. BU.
47	CORSP+HCC	CORN, PODUCTION PLUS BEGINNING STOCKS IN COMPETITIVE COUNTRIES	THOU. MET. TON
48	WHEPGXLP	WHEAT, SUPPORT PAYMENT RATE BASIS AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/BU.
49	SORDU	SORGHUM, UTILIZED FOR FOOD AND INDUSTRY, OCT.-SEPT.	MIL. BU.
50	OATMI*JM	OATS, TOTAL IMPORTS	MIL. BU.
51	WHEPDXLP	WHEAT, EXPORT CERTIFICATE AND DIVERSION PAYMENT AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.
52	WHEPL	WHEAT, LOAN RATE	$/BU.
53	WHEPX	WHEAT, AVERAGE EXPORT PAYMENT RATE	$/BU.
54	WHESPEMP	WHEAT, PRODUCTION, ELIGIBLE FOR SUPPORT AT THE MINIMUN LEVEL OF PROGRAM PARTICIPATION	BU./AC.
55	WHYGVUS	WHEAT, ADMINISTRATIVE YIELD	BU./AC.
56	BAYGVUS	BARLEY, ADMINISTRATIVE YIELD	BU./AC.
57	SGYGVUS	SORGHUM, ADMINISTRATIVE YIELD	BU./AC.
58	COYGVUS	CORN, ADMINISTRATIVE YIELD	BU./AC.
59	LACFPG*	TOTAL GOVERNMENT PAYMENTS LESS DEFICIENCY PAYMENTS	MIL. DOL.
60	SBPL	SOYBEANS, LOAN RATE	DOL./BU.
61	WHEMI*JM	WHEAT, IMPORTS	MIL. BU.
62	COPT	CORN, TARGET PRICE	DOL./BU.
63	SGPT	SORGHUM, TARGET PRICE	DOL./BU.
64	BAPT	BARLEY, TARGET PRICE	DOL./BU.
65	WHPT	WHEAT, TARGET PRICE	DOL./BU.
66	COAALUS	CORN, ALLOTTED ACREAGE	THOU. AC.
67	SGAALUS	SORGHUM, ALLOTTED ACREAGE	THOU. AC.
68	BAAALUS	BARLEY, ALLOTTED ACREAGE	THOU. AC.
69	WHAALUS	WHEAT, ALLOTTED ACREAGE	THOU. AC.
70	CROFCO	CASH RECEIPTS, FRUIT, VEGETABLE, OTHER CROPS	MIL. DOL.
71	COPSRUS	CORN, FARMER-OWNED RESERVE STORAGE PAYMENT RATE	DOL./BU.
72	SGPSRUS	SORGHUM, FARMER-OWNED RESERVE STORAGE PAYMENT RATE	$/BU.
73	BAPSRUS	BARLEY, FARMER-OWNED RESERVE STORAGE PAYMENT RATE	$/BU.
74	WHPSRUS	WHEAT, FARMER-OWNED RESERVE STORAGE PAYMENT RATE	$/BU.
75	OAPSRUS	OATS, FARMER-OWNED RESERVE STORAGE PAYMENT RATE	$/BU.
76	RICFS	RICE, FARMER-OWNED RESERVE PAYMENTS	MIL. DOL.
77	FEEDHP-8	FEED, HIGH PROTEIN	THOU. TONS
78	FIMPW	FISHMEAL PRICE AT EUROPEAN PORTS 65%, ADJ. FOR EXCHANGE RATES	$/SHORT TON
79	LIVJP*EC	LIVESTOCK, EEC PRODUCTION INDEX	1964=1.0

NUMBER & NAME		DESCRIPTION	UNITS
80	WHESPEXP	WHEAT, PRODUCTION ELIGIBLE FOR SUPPORT AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	BU./AC.
81	RICFP	RICE, DEFICIENCY PAYMENTS	MIL.DOL.
82	CUPGRUS	CORN, FARMER-OWNED RESERVE STOCK RELEASE PRICE	% OF LOAN RATE
83	.YPD*D	.YPD** PERCENTAGE CHANGE	BIL. DOL.
84	CUPCRUS	CORN, FARMER-OWNED RESERVE CCC STOCK RELEASE PRICE	% OF LOAN RATE
85	SUMMXBR	SOYBEAN MEAL, BRAZIL, TOTAL EXPORTS	THOU.MET.TONS
86	SGPGRUS	SORGHUM, FARMER-OWNED RESERVE STOCK RELEASE PRICE	% OF LOAN RATE
87	SUMSC*	SOYBEAN MEAL, CRUSHING YIELD	CWT.
88	SUOHH	SOYBEAN OIL, GOVERNMENT ENDING STOCKS	MIL. LBS.
89	SGPCRUS	SORGHUM, FARMER-OWNED RESERVE CCC STOCK RELEASE PRICE	% OF LOAN RATE
90	BAPGRUS	BARLEY, FARMER-OWNED RESERVE STOCK RELEASE PRICE	% OF LOAN RATE
91	SUOSC*	SOYBEAN OIL, CRUSHING YIELD	CWT.
92	COLMIREQ	COTTON, RAW EQUIVALENT OF U.S. IMPORTS FOR CONS. OF CT. MANUF.,(JUL.-JE.)	MIL. BALES
93	BAPCRUS	BARLEY, FARMER-OWNED RESERVE CCC STOCK RELEASE PRICE	% OF LOAN RATE
94	SOYHF	SOYBEANS, ENDING STOCKS UNDER LOAN	MIL. BU.
95	OAPGRUS	OATS, FARMER-OWNED RESERVE STOCK RELEASE PRICE	% OF LOAN RATE
96	SOYHR	SOYBEANS, ENDING STOCKS UNDER RESEAL	MIL. BU.
97	SOYMXBR	SOYBEANS, BRAZIL, TOTAL EXPORTS	THOU. MET. TONS
98	OAPCRUS	OATS, FARMER-OWNED RESERVE CCC STOCK RELEASE PRICE	% OF LOAN RATE
99	WHEPDHLP	WHEAT, EXPORT CERTIFICATE PAYMENT AND DIVERSION PAYMENT	$/AC.
100	CORME*USSR	SOVIET UNION NET EXPORTS FROM NON-US SOURCES	THOU. MET. TONS
101	SUOMXPL	SOYBEAN OIL, US EXPORTS, PL480	MIL. LBS.
102	.SDR*OCT	U.S. $/SDR, AVERAGE OF QUARTERLY MEANS, OCT. BASIS	$/SDR
103	.FEHJN	FOREIGN EXCHANGE HOLDINGS OF JAPAN	BIL. SDR
104	.FEHEC9	FOREIGN EXCHANGE HOLDINGS OF EEC-9 COUNTRIES	BIL. SDR
105	WHPGRUS	WHEAT, FARMER-OWNED RESERVE STOCK RELEASE PRICE	% OF LOAN RATE
106	COLMXREQ	RAW COTTON, EQUIVALENCE IN TEXTILE EXPORTS	MIL. BALES
107	.EXCICTW	EXCHANGE RATES OF IMPORTING COUNTRIES	INDEX
108	MMFSPFOR	MAN MADE FIBER PRODUCTION, WORLD MINUS U.S.	BIL. LBS.
110	CORPL	CORN, LOAN RATE	$/BU.
111	SURPL*	SURGHUM, LOAN RATE	$/BU.
112	OATPL	OATS, LOAN RATE	$/BU.
113	BARPL	BARLEY, LOAN RATE	$/BU.
114	COUGSUB	CORN, UTILIZED FOR GASOHOL, OCT.-SEPT.	MIL. BU.
115	WHPCRUS	WHEAT, FARMER-HELD RESERVE CCC STOCK RELEASE PRICE	% OF LOAN RATE
116	SBPCLUS	SOYBEANS, CCC STOCK RELEASE PRICE UNDER LOAN POLICY	% OF LOAN RATE
117	WHELRPP	WHEAT, LOAN RATE PRIOR TO PLANTING	$/BU.
119	SOYVC*	SOYBEANS, VARIABLE COSTS	DOL.
120	SOYLRPP	SOYBEANS, LOAN RATE PRIOR TO PLANTING	$/BU.
121	CORVC*	CORN, VARIABLE COST	$/AC.
123	CORSAPMP	CORN, FRACTION OF EACH ACRE PLANTED AT THE MINIMUN LEVEL OF PROGRAM PARTICIPATION	PERCENT

			UNITS

NUMBER & NAMES		DESCRIPTION	UNITS
124	CORSAPXP	CORN, FRACTION OF EACH ACRE PLANTED AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	PERCENT
125	SOUHRFMY	AVERAGE RAINFALL IN MAY, MIDWEST STATES	INCHES
126	COLPL	COTTON, AMERICAN UPLAND, LOAN RATE	$/LB.
127	COLSPHIC	COTTON, TOTAL SUPPLY IN IMPORTING COUNTRIES, LESS INDIA	MIL. BALES
128	.YDDC	REAL GROSS DISPOSABLE INCOME, DEVELOPED COUNTRIES	1970=1.0
129	ERX	EXCHANGE RATE, COTTON EXPORTING COUNTRIES	1970=1.0
130	COLSPHEC	COTTON, SUPPLY IN FOREIGN EXPORTING COUNTRIES	MIL. BALES
131	CORPGMLP	CORN.SUPPORT PAYMENT RATE AT MIN.LEVEL OF PROGRAM PARTICIPATION	$/BU.
132	.YDLDC	REAL GROSS DISPOSABLE INCOME, LESS DEVELOPED COUNTRIES	INDEX
133	CORPGXLP	CORN, SUPPORT PAYMENT RATE BASIS AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/BU.
135	CORSPEMP	CORN, PRODUCTION ELIGIBLE FOR SUPPORT AT THE MIMIMUM LEVEL OF PROGRAM PARTICIPATION	BU./AC.
137	CORSPEXP	CORN, PRODUCTION ELIGIBLE FOR SUPPORT AT THE MAXIMUM LEVEL OF PROGRAM PARTICITIPATION	BU./AC.
138	BARPSD	PRICE OF SPRING BARLEY SEED	$/BU.
139	BARRS	SEEDING RATE, BARLEY	BU./AC.
140	CORPDMLP	CORN, DIVERSION PAYMENTS AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.
141	CORPDXLP	CORN, DIVERSION PAYMENTS AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.
142	CORLRPP	CORN, LOAN RATE PRIOR TO PLANTING	$/BU.
143	BARVC*	BARLEY, VARIABLE PRODUCTION COSTS	DOL./AC.
144	COLPSD	PRICE OF COTTON SEEDS	$/CWT.
145	COLRS	SEEDING RATE, COTTON	LBS./AC.
146	COLCRT	COTTON, SHARE OF CROP FORWARD TRADED	PERCENT
147	CORPSD	PRICE OF HYBRID CORN SEED	$/BU.
148	CORRS	SEEDING RATE, CORN	LBS./AC.
149	BARSAPMP	BARLEY, FRACTION OF EACH ACRE PLANTED AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	PERCENT
150	BARSAPXP	BARLEY, FRACTION OF EACH ACRE PLANTED AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	PERCENT
151	LACFIHC	FARM INCOME, FROM HOME CONSUMPTION	MIL. DOL.
152	BARPGMLP	BARLEY, SUPPORT PAYMENT RATE AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	$/BU.
153	BARPGXLP	BARLEY, SUPPORT PAYMENT RATE AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/BU.
154	LBPFMUS	LAMB, SEASON AVERAGE PRICE RECEIVED BY FARMERS	DOL./CWT.
155	BARSPEMP	BARLEY, PRODUCTION ELIGIBLE FOR SUPPORT AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	BU./AC.
156	MILBU	TOTAL MILK USED ON FARMS WHERE PRODUCED	BIL. LBS.
157	MLSCPUS	MUTTON AND LAMB, COMMERCIAL PRODUCTION	MIL. LBS.
158	MPOWM	INDEX OF FARM INPUTS, MACHINERY	1967=1.0
159	SORMI	SORGHUM, IMPORTS	MIL. BU.
160	OATPSD	PRICE OF SPRING OATS SEED	$/BU.

NUMBER & NAMES		DESCRIPTION	UNITS
161	OATRS	SEEDING RATE, OATS	BU. AC.
163	PP7PC	INDEX OF PRICES PAID BY FARMERS, PRODUCTION ITEMS, AGRICULTURAL CHEMICALS	1967=100
164	PP7PT	INDEX OF PRICES PAID BY FARMERS, PRODUCTION ITEMS, TRACTORS AND SEEDS	1967=100
165	RIPFMUS	RICE, ROUGH, AVERAGE PRICE RECEIVED BY FARMERS	$/CWT.
166	RISPRUS	RICE, ROUGH, PRODUCTION	THOU. CWT.
167	CORMI	CORN, IMPORTS	MIL. BU.
168	SORPSD	PRICE OF HYBRID SORGHUM SEED	$/CWT.
169	SORRS	SEEDING RATE, SORGHUM	LBS./AC.
170	SOYPSD	PRICE OF SOYBEAN SEED	$/BU.
171	SOYRS	SEEDING RATE, SOYBEANS	BU./AC.
172	BARSPEXP	BARLEY, PRODUCTION ELIGIBLE FOR SUPPORT AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	BU./AC.
173	BARPDMLP	BARLEY, DIVERSION PAYMENTS AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.
174	BARPDXLP	BARLEY, DIVERSION PAYMENTS AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.
175	BARLRPP	BARLEY, LOAN RATE PRIOR TO PLANTING	$/BU.
176	SORVC*	SORGHUM, VARIABLE COST	DOL./AC.
177	SORSAPMP	SORGHUM, FRACTION OF EACH ACRE PLANTED AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	PERCENT
178	WHESPSD	PRICE OF SPRING WHEAT SEED	$/BU.
179	WHESRS	SEEDING RATE, SPRING WHEAT	BU./AC.
180	WHEWPSD	PRICE OF WINTER WHEAT SEED	$/BU.
181	WHEWRS	SEEDING RATE, WINTER WHEAT	BU./AC.
182	SORSAPXP	SORGHUM, FRACTION OF EACH ACRE PLANTED AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	PERCENT
183	SORPGMLP	SORGHUM, SUPPORT PAYMENT RATE AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	$/BU.
184	FERIW	FERTILIZER PRICE INDEX	1967=1.0
186	SORWRJUNAUG	SORGHUM PRECIPITATION, JUN.-AUG.(TX.,KS.,NE.,MO., OK.)	INCHES
187	BARSSDEC	BARLEY, PERCENT SOLD BY DEC 31	PERCENT
188	SORPGXLP	SORGHUM, SUPPORT PAYMENT RATE AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/BU.
189	SORSPEMP	SORGHUM, PRODUCTION ELIGIBLE FOR SUPPORT AT THE MIMIMUM LEVEL OF PROGRAM PARTICIPATION	BU./AC.
190	SORSSDEC	SORGHUM, PERCENT SOLD BY DEC 31	PERCENT
191	SOYSSDEC	SOYBEANS, PERCENT SOLD BY DEC 31	PERCENT
192	SORSPEXP	SORGHUM, PRODUCTION ELIGIBLE FOR SUPPORT AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	BU./AC.
193	HAYFCCAL	CASH RECEIPTS, HAY	MIL. DOL.
194	PEAFC	CASH RECEIPTS, PEANUTS	MIL. DOL.
195	FIMBA	BARLEY, PERCENT OF CROP MARKETED	PERCENT
196	SORPDMLP	SORGHUM, DIVERSION PAYMENTS AT THE MINIMUM LEVEL	$/AC.

NUMBER & NAMES		DESCRIPTION	UNITS
		OF PROGRAM PARTICIPATION	
197	COLPCHEQ	COTTON, EQUILIZATION PAYMENT	CENTS/LB.
198	FIMSB	SOYBEANS, PERCENT OF CROP MARKETED	PERCENT
199	FIMSG	SORGHUM, PERCENT OF CROP MARKETED	PERCENT
200	SORPDXLP	SORGHUM, DIVERSION PAYMENTS AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.
201	COLMICC	COTTON, NET IMPORTS, COMMUNIST COUNTRIES	MIL. BALES
202	COLMIIND	COTTON, NET IMPORTS, INDIA	MIL. BALES
203	COLADJF	COTTON, ADJUSTMENT FACTOR IN US EXPORT IDENITY	MIL. BALES
204	.PCALL-F	CONSUMER PRICE INDEX, ALL ITEMS LESS FOOD	1967=1.0
205	COLADJF1	COTTON, ADJUSTMENT FACTOR FOR SUPPLY DEMAND IDENTITY	MIL. BALES
206	LACFIIR	FARM INCOME, FROM IMPUTED RENTS	MIL. DOL.
208	.WEDPL	WAGE RATE, EATING AND DRINKING ESTABLISHMENTS	$/HR.
209	.WRHLBP	AVERAGE HOURLY EARNINGS, BAKERY PRODUCT INDUSTRY	$/HR.
210	.PPIP	PRODUCER PRICE INDEX, PAPER AND PULP PRODUCTS	1967=1.0
211	.PPIGL	PRODUCER PRICE INDEX, GLASS CONTAINERS	1967=1.0
212	BUTCM	BUTTER, DISAPPEARANCE, MILITARY	BIL. LBS.
213	NOVAR	VECTOR OF ZEROS NOT IN MODEL	NONE
214	BUTMI	BUTTER, IMPORTS	BIL. LBS.
215	BUTMX	BUTTER, EXPORTS	BIL. LBS.
216	CHECM	CHEESE, MILITARY DISAPPEARANCE	BIL. LBS.
217	CHEMX	CHEESE, TOTAL EXPORTS	BIL. LBS.
218	MILCHCHSPP	CHEESE, CHEDDAR, SUPPORT PRICE	CENTS/LB.
219	MILCIDF	DIFFERENCE BETWEEN CLASS 1 FEDERAL ORDER MINIMUM PRICE AND MINNESOTA-WISCONSIN MANUFACTURING GRADE PRICE	$/CWT.
220	MILCMEC	MILK, CONDENSED AND EVAPORATED, MILITARY DISAPPEARANCE	BIL. LBS.
221	MILCMFZ	MILK, FROZEN PRODUCTS, MILITARY DISAPPEARANCE	BIL. LBS.
222	MILCMND	MILK, NON-FAT DRY, MILITARY DISAPPEARANCE	BIL. LBS.
224	MILMIEC	MILK, CONDENSED AND EVAPORATED, IMPORTS	BIL. LBS.
225	MILMIFZ	MILK, FROZEN DAIRY PRODUCTS, IMPORTS	BIL. LBS.
226	MILMIND	MILK, NONFAT DRY, IMPORTS	BIL. LBS.
227	MILMXEC	MILK, CONDENSED AND EVAPORATED, EXPORTS	BIL. LBS.
228	MILMXND	MILK, NON-FAT DRY, EXPORTS	BIL. LBS.
229	MILNFDSPP	NON-FAT DRY MILK, SUPPORT PRICE	CENTS/LB.
230	MILOOP	MILK, CLASS 1 ORDER PAYMENTS	$/CWT.
231	MILPFDIF	DIFFERANCE BETWEEN ACTUAL PRODUCER PRICE OF FLUID ELIGIBLE MILK AND COMPUTED FEDERAL ORDER PRICE	$/CWT.
232	MILSPPBUT	BUTTER, SUPPORT PRICE	CENTS/LB.
233	CHEMI	CHEESE, IMPORTS	BIL. LBS.
234	LACFIU	FARM INCOME, FROM OTHER SOURCES	MIL. DOL.
235	BUTGG	BUTTER, GOVERNMENT DONATIONS	BIL. LBS.
236	CHEGG	CHEESE, GOVERNMENT DONATIONS	BIL. LBS.
237	MILGGND	MILK, NON-FAT DRY, GOVERNMENT DONATIONS	BIL. LBS.
238	BUTMG	BUTTER, GOVERNMENT EXPORTS	BIL. LBS.
239	CHEMG	CHEESE, GOVERNMENT EXPORTS	BIL. LBS.

NUMBER & NAME		DESCRIPTION	UNITS
240	MILMGND	MILK, NON-FAT DRY, GOVERNMENT EXPORTS	BIL. LBS.
241	BUTDV	BUTTER, UNALCOUNTED GOVERNMENT RESIDUAL	BIL. LBS.
242	CHEDV	CHEESE, UNALCOUNTED GOVERNMENT RESIDUAL	BIL. LBS.
243	MILDVND	MILK, NON-FAT DRY, UNACCOUNTED GOVERNMENT RESIDUAL	BIL. LBS.
248	.POPW-CPE	POPULATION,WORLD LESS USSR,PRC,EA EUR,JULY 1	MIL.
249	WHESP+HWME	WHEAT,PROD +BEG.STOCKS IN LDC,CAN.AUST., EC9,OTH.WE.EUR NAT.	MIL. MET. TONS
250	SORLRPP	SORGHUM, LOAN RATE PRIOR TO PLANTING	$/BU.
258	COLSL	COTTON, TOTAL ALLOTTED ACREAGE	THOU. AC.
259	CTPT	COTTON, AMERICAN UPLAND, TARGET PRICE	$/LB.
261	COLSYG	COTTON, ADMINISTRATIVE YIELD	LB./AC.
262	COLPLPP	COTTON, LOAN RATE PRIOR TO PLANTING	CENTS/LB.
263	COLPLMD	COTTON, SPECIAL LOAN RATE FOR MAXIMUM DIVERSION	CENTS/LB.
264	COLSUPNL	COTTON, SUPPORT PAYMENT RATE BASIS AT THE MIMIMUM LEVEL OF PROGRAM PARTICIPATION	CENTS/LB.
265	COLSUPXL	COTTON, SUPPORT PAYMENT RATE BASIS AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	CENTS/LB.
266	COLVC*	COTTON, VARIABLE COSTS	$/AC.
267	COLSANLP	COTTON, FRACTION OF EACH ACRE PLANTED AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	FRACTION
268	COLSENLP	COTTON, PRODUCTION ELIGIBLE FOR SUPPORT AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	LBS./AC.
269	COLDPNLP	COTTON, DIVERSION PAYMENTS AT THE MINIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.
270	COLSAXLP	COTTON, FRACTION OF EACH ACRE PLANTED AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	FRACTION
271	COLSEXLP	COTTON, PRODUCTION ELIGIBLE FOR SUPPORTPAYMENTS AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	LBS./AC.
272	COLDPXLP	COTTON, DIVERSION PAYMENTS AT THE MAXIMUM LEVEL OF PROGRAM PARTICIPATION	$/AC.
273	COLD	COTTON, DUMMY FOR YEARS WHEN NO ELIGIBLITY REQUIREMENT	NONE
274	COLMAXAD	COTTON, ADDITIONAL ACRES THAT COULD BE PLANTED AND STAY WITHIN TOTAL ALLOTMENT	MIL. AC.
275	COLMAX	COTTON, MINIMUM ALLOTMENT	MIL. AC.
276	COLDD	COTTON, DUMMY FOR YEARS WHEN NO MARKETING ORDERS	

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ENDOGENOUS VARIABLES

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* VARIABLE IS SOLVED FOR BY INVERTING SUPPLY-DEMAND IDENTITY (SEE PAGE 14).

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