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UPDATE

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Implications of 1997 Federal Income Tax Reform for California Farmers and Ranchers

by Hoy F. Carman

THE Taxpayer Relief Act of 1997 will affect the taxes and operating practices of California farmers and ranchers. Most farm families will pay less federal income tax than would have been due under prior rules and estate tax relief will make it easier for farm families to transfer assets across generations. The U.S. Department of Agriculture estimates that U.S. farmers will save over $1.6 billion annually in federal income taxes and between $150 and $200 million in estate taxes. General income tax provisions of interest include tax relief for households with children, tax incentives for higher education and retirement savings, and changes in the health insurance deduction for the self-employed. More targeted income tax provisions, including lower capital gains taxes and income averaging, will affect taxes, operating practices, and asset values. Federal estate and gift tax law changes in the 1997 act were primarily targeted to farms and small family businesses.

Capital Gains Provisions

New capital gains tax provisions will reduce taxes paid by many farm households, and will also have significant impacts on farm management practices and investment behavior for many farmers and ranchers, as they make decisions to minimize taxes paid.

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We Want to Hear from You

This is the third quarterly issue of the UC Davis *ARE Update* published by the Department of Agricultural and Resource Economics at UC Davis. To assist in our planning for future issues, we request your input.

First, please tell us what you have liked or disliked about our first three issues. Also, tell us what you would like to see in future issues: what topics, regular sections, etc., would interest you.

Second, we are planning a "Question & Answer" page, in which ARE faculty answer questions from readers regarding economic issues related to agricultural or natural resources. Please send us questions that you would like to see addressed in either short answer form or, possibly, in a feature article.

Please direct all of your comments and questions to Julie McNamara. You can contact her at her e-mail address, telephone number or postal address listed on the last page of this *Update*. We look forward to hearing from you.

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Managing Risks in California Agriculture

by Steve Blank

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For capital assets owned at least 18 months and sold after July 28, 1997, the former 28 percent maximum rate is reduced to 20 percent and the 15 percent rate is reduced to 10 percent. For assets acquired beginning in 2001 and held at least 5 years, the maximum tax rate will be reduced to 18 percent. For individuals in the 15 percent bracket, the maximum falls to 8 percent in 2001, regardless of the purchase date.

The major impacts of new, lower capital gains tax rates will be in the livestock sector and the farmland market. Both farm and nonfarm investors will increase investment in land and livestock. Lower capital gains tax rates will likely increase the demand for farmland but the reduction may also increase the availability and turnover of farmland as owners who had been waiting for lower tax rates put their property on the market. The short-run impact on prices is thus difficult to predict, but prices should increase over time in response to increased demand. Increased investment in livestock will lead to increased production and lower prices over time. Lower capital gains tax rates will also affect management decisions and operating practices. For example, the culling decision for beef cattle producers will once again be based as much on tax considerations as on cow productivity. Cows will be culled at a younger age and the availability of these young cows will contribute to expansion of the nation's cow herd and the supply of beef. The "fallacy of composition" may hold; a tax rate reduction appears to benefit the individual rancher, but it may actually work to his disadvantage when the total response is considered.

The new tax law also allows individual taxpayers to exclude up to $250,000 ($500,000 if filing a joint return) of gain on the sale or exchange of a principal residence. This replaces the provision that allowed the rollover of capital gain into the purchase of a new residence and the $125,000 exclusion for taxpayers over 55. The USDA estimates that farm residences that will qualify for the exclusion account for about 12 percent of total farm value.

General Provisions

Several provisions have widespread effects, with farm family benefits based on those households that qualify for each of the tax incentives. The tax credits for households with children and the incentives for higher education and retirement savings are reduced or eliminated for high-income taxpayers.

Tax Credit for Children

This provision permits households with children to reduce their income tax by $400 for each qualifying dependent child under the age of 17 in 1998 ($500 per child after 1998). The credit is reduced if income on joint returns exceeds $110,000. An estimated 1/3 of all farm families will qualify for the credit, with aggregate benefits of some $600 million annually.

Higher Education Incentives

Income tax incentives for higher education include a Hope Scholarship Credit of up to $1,500 during each student's first 2 years of college and a 20% Lifetime Learning Credit of up to $2,000 annually (by 2003) for each taxpayer. In 1998, up to $1,000 of student loan interest becomes deductible (increasing $500 per year and reaching a maximum of $2,500 for 2001 and later years), and new education IRA's will allow $500 annual nondeductible contributions per child. Tax free distributions from these IRA's will be allowed for qualified education expenses. All of these incentives are reduced or eliminated for high-income taxpayers, with restrictions varying by provision.

Health Insurance Deduction

Currently, self-employed taxpayers are allowed to deduct 40 percent of family health insurance costs. The new law has phased increases of the deduction to 100 percent in 2007, up from the 80 percent scheduled under prior law. The USDA estimates that about 400,000 farmers currently pay over $1.2 billion annually for health insurance. This change, designed to bring small business owners into line with employees receiving employer-deductible health insurance, will reduce farmers' net cost of buying health insurance.

Agricultural Provisions

Three provisions in the new tax law that apply

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Asia's Financial Crisis: California's Agriculture has Weathered Similar Storms

by Colin Carter

Recently, the Asian financial crisis and El Niño have been competing for newspaper headlines. The contest is over which phenomenon is having the greatest impact on California agriculture. The headlines have been eye-catching but pessimistic. It is very unusual for economic issues to receive as much public attention as the weather. I am not an expert on the weather or El Niño, so I will not comment any further on that topic. However, I do believe the press has largely overstated the situation with regard to Asia's economic problems and the implications for California agriculture. Often the media focuses on the exceptional pessimistic cases (such as the fall in Korean imports of cowhides) and overlooks less exciting generalizations, such as "export business as usual" for many products. However, I take the constructive view that the press has laid out the worst-case scenario due to Asia's woes and this is informative because we can compare it against the best-case scenario. In this article, I take a balanced view of the most probable impact of the so-called Asian crisis on California agriculture and I argue that the impact will be significant for only some commodities, insignificant for most and generally short-lived.

International trade is indeed important to California agriculture because 25% of California's agricultural production is exported abroad. Of these foreign exports, over 70% are sold into the Asian-Pacific region. For California, the top six export destinations are Japan, Canada, European Union (EU), South Korea, Hong Kong (with considerable smuggling into China), and Mexico - all in the Asian-Pacific region, except for the EU. Within Asia, Japan is by far the largest market, accounting for about 27% of California's agricultural exports. The second largest market in the region is South Korea (9%), followed by Hong Kong (6%) (without adjusting for smuggling into China).

In the 1990s, growing demand and freer trade in several Asian economies stimulated growth of California's agricultural exports. Has the import demand bubble now burst, given Asia's current economic problems? The financial crisis in Asia is expected to harm their growth prospects due to a mix of overvalued currencies, large current account deficits, and unfavorable bank loans. Weaker Asian currencies will discourage U.S. exports but encourage U.S. imports from Asia, to the benefit of U.S. consumers - a fact often overlooked.

With the economic crisis in Asia, the margin of uncertainty over trade prospects has clearly increased - but just how much alarm is justified? The five countries most affected by the crisis include Thailand, the Philippines, Malaysia, Indonesia, and South Korea. Of these countries, only South Korea is a significant importer of California food. Indonesia (3% share) is much less important to California agriculture, and the other three countries are insignificant importers from California's perspective.

I would be quick to agree that some concern over the poor health of the Asian economies is warranted because exports into that region have been growing quite rapidly in the past five years and this growth may well slow down in the short-term. California tends to export several high-valued agricultural commodities (such as fruits, horticultural products, and processed foods) and there is reason to believe that the Asian demand for these commodities will be hardest hit. Of course, California also exports bulk commodities such as rice and cotton, and that trade should not suffer too greatly.

The crisis has affected some Asian economies more than others. For instance, China's economy has been little affected and growth remains above 8% per year. In addition, China's foreign reserves stand at about $136 billion, up from $97 billion a year ago, so there is little pressure to devalue. South Korea is at the other end of the spectrum, and its currency (the won) has fallen over 90% in the past year (see Table 1). At the same time, the depreciation has been much lower for the Japanese Yen

Continued on pages 4 and 5

Table 1. Percent change in key Asian currencies over the past year (Mar.'97 - Mar.'98)

Country	% of CA.'s Ag.Exports	% change in Currency
China	3-5	0
Hong Kong	3-5	0
Japan	27	-6
South Korea	9	-91
Taiwan	4	-20
Thailand	1	-70

Table 2. Summary Economic Statistics for Key California Markets

	Real GDP Growth Rate %	U.S. Agric. Exports $Billions	Exchange Rate Foreign Currency/ $ U.S.
Japan			
1990	5.4	8.06	134.4
1991	3.8	7.73	125.2
1992	1.0	8.44	124.7
1993	0.3	8.74	111.8
1994	0.6	9.46	99.7
1995	1.4	11.17	102.8
1996	3.5	11.70	116.0
South Korea			
1990	9.5	2.64	716.4
1991	9.1	2.10	760.8
1992	5.1	2.22	788.4
1993	5.5	1.93	808.1
1994	8.8	2.33	788.7
1995	8.9	3.75	774.7
1996	7.1	3.87	844.2
Mexico			
1990	5.7	2.55	2.95
1991	4.2	3.00	3.07
1992	3.6	3.79	3.11
1993	1.9	3.60	3.11
1994	4.5	4.59	5.33
1995	-6.2	3.54	7.64
1996	5.1	5.45	7.85
Canada			
1990	-0.2	4.20	1.16
1991	-1.8	4.55	1.15
1992	0.8	4.90	1.27
1993	2.2	5.27	1.32
1994	4.1	5.58	1.40
1995	2.3	5.81	1.36
1996	1.5	6.15	1.37

Note: data are on a calendar year basis.
Sources: USDA, International Monetary Fund

ASIA - ***continued from page 3***

(6%), California's biggest market.

In agriculture, fluctuating currencies impact export prices more than export volume. This is important to keep in mind because the most apparent impact of the Asian crisis may show up in export prices received by Californians.

This recent economic downturn in Asia is not exactly unprecedented in the history of California's agricultural trade. Fluctuating currencies and stagnant income growth have affected California agriculture in the past. California agriculture experienced first hand the Latin American debt crisis in the early 1980s. At that time, the U.S. dollar also appreciated rapidly and both events led to reduced agricultural exports. Table 2 illustrates that from 1993 to 1995, the Mexican Peso fell from 3.1 Peso per dollar to 7.6 Peso per dollar (a 145% fall). Doom and gloom was predicted, and in fact U.S. agricultural exports to Mexico subsequently fell in the short-term from $4.6 billion in 1994 to $3.5 billion in 1995. Despite severe criticism, the U.S. government offered Mexico a $50 billion package of loans to facilitate economic recovery. The Mexican "crisis" was truly short-lived and U.S. agricultural exports recovered quickly to $5.4 billion in 1996 (see Table 2) approximately 20% higher than before the crisis began.

The U.S. Department of Agriculture has forecast a slowdown in U.S. farm exports to Asian countries this fiscal year (1997-98). The USDA forecasts exports to those countries at over $22 billion, reflecting a downward adjustment ranging from $500-million to $1.5-billion due to the financial crisis - a 2 to 6% adjustment. This type of adjustment is possible, but the lower end (i.e., $500 million) is most plausible.

The data in Table 2 suggest there are some important lessons to be learned from past experiences with California's most important trading partners. First, the Mexican recovery was quite rapid after the 1994 financial fiasco, often described as a V-shaped recovery. Second, the data in Table 2 for Japan show income growth was almost stagnant from 1992 to 1995, growing only about 1% per year, on average. Despite this slow growth, U.S. agricultural exports to Japan expanded from $8.4 billion in 1992 to $11.1 billion in 1995, a 32% increase in just three years. Third, the Canadian dollar fell by about 18% from 1990 to 1996 (from 1.16 $Cdn/$U.S. to 1.37 $Cdn/$U.S.), making imports into Canada from the U.S. more expensive. Despite this adverse move in the currency from a U.S. perspective, U.S. agricultural exports to Canada expanded by 46%. These data suggest the impact of fluctuating foreign incomes and currencies on agricultural export growth are easily overstated.

In conclusion, some believe that Asia's economic problems will dramatically cut California's agricultural exports. I believe the situation will be much less traumatic and temporary. The Asian countries most affected by the financial crisis (Thailand, the Philippines, Malaysia, and Indonesia) are not very important importers from California's perspective. Japan, Canada, and Mexico combined account for one-half of California's agricultural exports, and sales to those countries have continued to grow despite bouts of unstable currencies and periods of stagnant income growth.

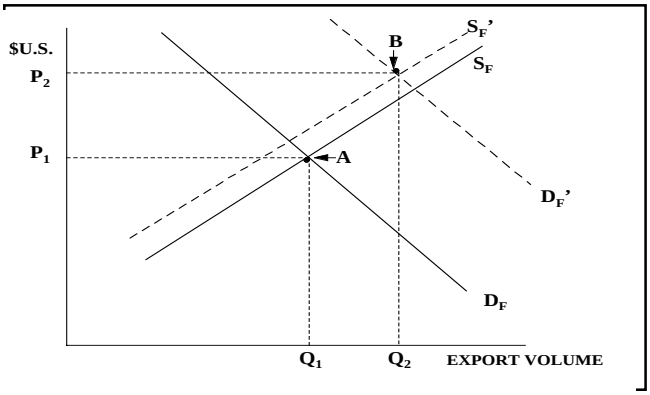
How Do Exchange Rates Affect California Agriculture?

A swing in the value of the U.S. dollar vis-a-vis foreign currencies is one of the most important factors determining the economic environment for California agriculture. Just like the price of any commodity or asset, demand and supply establish the exchange rate. Exchange rates are important determinants of both trade volumes and prices.

For instance, we can think of the exchange rate between the Japanese yen and the dollar as being equal to the number of yen required to purchase one dollar. Suppose the yen/$ exchange rate moves from 120 ψεν per dollar to 100 yen per dollar. In this case the yen has appreciated, since an appreciation refers to a decline in the domestic price of a foreign currency. At the same time, the U.S. dollar has depreciated relative to the yen, since a depreciation refers to an increase in the domestic price of the foreign currency.

The international market for California agricultural exports is demonstrated in the accompanying graph. It shows the demand (D_F) and supply (S_F) of California's agricultural exports. An appreciation of the foreign importer's currency is shown as a rightward shift in the demand curve, which shifts from D_F to D_F'. Due to the foreign currency's appreciation, the importer can now purchase more U.S. goods than before at any price level, measured in $U.S. There may also be a small leftward shift in S_F if some of the inputs in California agriculture are imported from abroad. The supply and demand equilibrium shifts from point A to point B in the representative graph.

The upshot is that the export price in U.S. dollars rises and the volume and price impacts depend on the shape of the supply and demand curve and the extent of the shifts in the supply and demand curves. If instead the foreign currency depreciated, the process is reversed and the impact would be represented as a movement from Point B to Point A. In this case, California's export volume and price would decline.



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A Time to Act

by Desmond Jolly

I was appointed by Secretary of Agriculture Glickman to the National Commission on Small Farms. *Time to Act*, the report of the National Commission on Small Farms was released in January, 1998. The report is the culmination of the commission's work based on several months of hearings and deliberations on the status of small farms in the U.S. *A Time to Act* makes recommendations to USDA, its land grant research and outreach partners, as well as to private agencies and institutions with respect to the adoption and implementation of policies, programs and practices that can contribute to the maintenance of a healthy diversity in production agriculture into the next century.

The report makes over 100 recommendations and references not only the economic prospects for, and contributions of, small farms, but also notes the several types of public-interest values that derive from a structurally diversified ownership and operation of production in the agricultural sector. These include: stewardship of natural resources; contributing to the social and economic vibrancy of rural communities, promoting positive links between consumers and farmers, and providing entry into opportunities for entrepreneurship and self-employment free enterprise in the historical sense.

Principal findings include a serious level of erosion in the competitiveness of markets, particularly in inputs and processor/packer systems. The commission notes as well that many intervention programs are not, in effect, size neutral, even though their conceptual design makes this assumption.

A Time to Act defines small farms for purposes of setting the boundaries for its agenda. The commission's recommendations emanate from its various committees which focused on credit and finance, marketing, research and extension, and environmental issues, and its recommendations embrace these areas, although the format is somewhat different. I chaired the committee on research and extension and served as Vice Chair of the Commission. The report advocates more vigorous enforcement of antitrust laws and promotion of marketing alternatives. It strongly encourages USDA to revisit its mission, purpose, policies, programs and practices and proposes specific articulation of objectives with respect to research, extension, risk management, environmental programs, and program administration.

Desmond Jolly is an Extension Agricultural and Consumer Economist and Lecturer in Agricultural and Resource Economics, and Vice Chair of the National Commission on Small Farms. To obtain a copy of A Time to Act contact Dr. Jolly by phone at (530) 752-7774 or FAX (530) 752-7716.

Econometrics and Research in Agricultural and Resource Economics

by James A. Chalfant

Econometrics is usually defined as "economic measurement" in textbooks. Typical uses listed are: 1. describing some aspect of the economy; 2. testing hypotheses about some aspect of the economy or from economic theory; and 3. forecasting the economy's future. This note describes some applications of econometrics, and its role in research in the Department of Agricultural and Resource Economics.

A student in the Department of Agricultural and Resource Economics is required to learn econometrics, with courses in statistics as prerequisites. Effectively, econometrics has an operational definition as "applying statistics to problems in economics." Students in the biological sciences would instead typically learn biometrics, students in sociology would learn sociometrics, etc. While the techniques used are generally similar, if not the same, the particular emphasis in econometrics, and the reason that it exists as a distinct field of study within economics or agricultural and resource economics, has to do with the particular types of problems of estimation and inference that occur with economic data. Training in econometrics is therefore considered as fundamental to conducting and interpreting research as is training in economic theory.

Work in econometrics spans a wide spectrum of activities, from data collection and improvement to the theoretical analysis of the properties of new estimation techniques. Usually, agricultural economists depend on both the collectors of primary data and those working on the theoretical properties of new techniques, in carrying out their research. However, faculty and students sometimes are involved in collecting data, and also sometimes must develop new statistical or econometric methods appropriate for their particular research problem. Economic models might generate predictions such as these:

- As wage rates rise in the United States, relative to those in Mexico, increased immigration will occur.
- As taxes on alcoholic beverages rise, quantities consumed will fall.
- Promotion of an agricultural commodity increases the demand for that commodity, as does an increase in the perceived health benefits of consuming it.
- Research into new crop varieties or production practices leads to increased yields.

For all of these rather common-sense outcomes, it is not enough for policymakers and those in the industry to know these effects, in order to make informed decisions; they need answers to this question: *by how much?* For instance, in deciding on levels of funding for agricultural research, legislators would benefit from measures of the rate of return to that spending; similarly, commodity groups promoting agricultural commodities need to know the effects of promotional expenditures, to decide whether to increase expenditures on particular types of promotions. Obtaining such estimates typically requires econometric analysis.

Most of us are familiar with the typical medical experiment, in which some patients are given a placebo, others a new drug, and the experiment is *double-blind,* meaning that even those giving the medication do not know which patients are in which group. The dosage levels and other drugs taken are chosen as part of the experimental design, and do not vary with the individual participants. Such experiments are designed to hold *every other factor constant,* meaning that there are no other differences between the treatment and control groups. If successfully designed and carried out, such experiments can give the researcher an accurate estimate of the effects of the drug, and these effects are not *confounded* with some other effect.

With virtually every economic data set and every econometrically estimated effect, there is no such control. Economists rarely get to design their own experiments, but instead use data generated by markets and by the behavior of producers and consumers. For instance, in determining the effects of a change in the tax on wine, we could simply look at the change in consumption of wine from last year to this year, and the change in average prices, to learn about the price-sensitivity of wine demand. However, if we fail to recognize that some consumers may be increasing wine consumption due to increases in the price of a substitute beverage, or news about red wine's beneficial health effects, we'll misstate the own-price effect. What characterizes economic experiments (and therefore econometrics) as an area of study distinct from other experiments is that *other things are not held constant*. Economic variables are interrelated in complex and unknown ways, and it is the objective of research to discover the nature of these interrelationships.

For example, a study of red wine consumption might begin like this. Using aggregate data on *per capita* consumption of red wine, and an index of red wine prices, a simple model relating quantity consumed to price may be constructed. The Law of Demand implies a negative correlation between price and quantity consumed. A complicating factor is that the Law of Supply implies a *positive* correlation between prices and quantities supplied. Because observed quantities are actually market equilibrium quantities that reflect both consumers' and producers' responses to price changes, observed changes in price and quantity together need not correspond to demand changes alone or supply changes alone, and the estimation techniques used must take this problem into account. In short, even after accounting for the various other factors causing a change in consumption, other than the one of particular interest, the researcher must account for the fact that it is not always clear which variable causes another variable to change. Do prices change first and then quantities respond, or do prices change because quantities change? In reality, they both are changing together over time.

Econometrics therefore involves the study of *simultaneous equations models*, for instance, the joint modeling of both the supply and demand of a particular product (and perhaps the supply and demand of products that are related on either the supply side or the demand side). In the red wine example, the use of such models is necessary because the price may have changed not only because of a change in the tax on wine, but because of demand shifts. Biased estimates of the price sensitivity of red wine demand would result, if this were not recognized. To relate this problem to the drug trial described earlier, if patients who took the drug also engaged in some other beneficial activity, the measured response would capture not only the effects of the drug, but the effects of the other behavior, and the result would be a predicted effect of the drug that would not describe its true effects, in the absence of the other behavior. The result would be erroneous predictions about the drug's effectiveness.

Further complications include the fact that the effect predicted probably will happen only over time—for instance, an increase in the tax on wine may lead to reduced consumption, but presumably only gradually. Most agricultural economists would expect there to be a short-run effect on consumption that is relatively smaller than the ultimate, long-run effect on consumption. However, during the adjustment period, there will likely be other changes, in prices, income, etc., that also affect the demand for wine. Measuring a single phenomenon such as the sensitivity of wine consumption to taxes is complicated by the fact that the "experiment" of raising the tax is not a controlled one, in which all other determinants of wine consumption are held constant. Econometricians have resorted to more sophisticated modeling of the time-series properties of the data, as a result.

A final set of concerns could be grouped in the general category called *structural change*. Since per capita consumption is observed only annually or perhaps quarterly, in the typical demand study, the effects of taste changes, changes in product characteristics, etc., must be accounted for somehow, if the nature of the demand for the product in question is changing over time. Red wine is a good example of a product where structural change may have occurred; if there are consumers who have increased their red wine consumption due to perceived beneficial health effects, they may be less price-sensitive than other wine consumers without such perceptions, or less price-sensitive than they were in the past. This would cause a change in the relationship between price and quantity, leaving the researcher in the difficult position of using the same data set to estimate the nature of the relationship *and* detect how the relationship is changing over time. Other examples of agricultural products where demand has changed over time, for reasons other than relative prices of commodities or income, might include pork, which has become leaner over time; eggs, where both health concerns and the evolution of breakfast habits over time both appear to have played a role; and any commodity where promotion, health concerns, or quality change has occurred.

Thinking about the complications of even a relatively simple problem like the wine-demand example described above shows that econometric analysis is a challenging and difficult task. Therefore, it is understandable why the popular press (like economists) jokes about how bad economists are at forecasting or reaching agreement on the effects of complex events such as NAFTA, the Kyoto agreement concerning global warming, or the latest Farm Bill. However, it is important to understand econometrics to appreciate both the power and the limitations of the research tool.

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mainly to farmers' problems of increased tax burdens related to fluctuating income will have relatively minor impacts in California.

Deferred Payment Contracts

The 1997 act restores farmers' ability to use deferred payment contracts without being subject to the alternative minimum tax (AMT). Farmers are allowed to defer income taxes by selling assets in one year and waiting until the next (or another) year to receive the income, but the Tax Reform Act of 1986 did not permit farmers to defer such income when computing AMT.

Disaster Livestock Sales

The 1997 act expands the existing special treatment of livestock sales due to drought to include floods and other weather-related conditions. Farmers who are forced to prematurely sell livestock because of weather conditions may defer declaring such income for taxes until the following year. The farmer must demonstrate that the sales were made earlier than usual and that he was located in an area eligible for Federal assistance due to weather conditions.

Income Averaging

The Tax Reform Act of 1986 terminated income averaging for all taxpayers, but the impact on farmers was relatively minor. Given the new rate structure effective at that time (with only two marginal tax rates, 15 and 28%), the tax impact of fluctuating income was small. With the addition of new tax rates over time (a 33% bracket was added in 1990 and 36% and 39.6% brackets were added in 1993), large year-to-year income fluctuations have become more of a tax burden. The 1997 act allows farmers to average income from farming during the tax years 1998-2000.

Estate Tax Changes

Changes to federal estate and gift tax laws in the 1997 Taxpayer Relief Act were targeted primarily to small businesses and farms. Prior to the 1997 act, the unified credit would offset the tax on the first $600,000 of an individual's estate. The 1997 act increases the credit to offset the tax on $1 million of an estate by 2006, with most of the phased increase taking place during the last three years. Beginning in 1998, the act includes an additional exclusion for farms and other family-held businesses that will exempt $675,000 of the value of a qualified family-owned business from estate taxes. However, the total amount excluded by this provision and the unified credit is limited to $1.3 million. The USDA estimates that the new exclusion will reduce the number of taxable farm estates by about 40% and reduce Federal estate taxes due on farm estates by $150 to $200 million annually. The 1997 act includes several other changes:

- It will index the $1 million value for inflation beginning in 1999
- It changes the installment payment provisions for qualifying farms or businesses
- It indexes the cap on the special use valuation provision
- It refines the requirement that farmland benefiting from the special use provision be used in farming by the heir for a period of 10 years
- It expands the estate tax benefits available to land owners who donate a qualifying conservation easement.

Concluding Comments

The Taxpayer Relief Act of 1997 may be important to farmers and ranchers. Since there is a substantial amount of "fine print" in the new tax law, the usual caveat that "farm taxpayers should consult with their accountant and/or lawyer" applies. Several of the provisions are phased-in over time and there may be income or other tests to satisfy in order to be eligible to use several of the provisions. One will find little in the way of "simplification" in the Taxpayer Relief Act of 1997.

Note:
Readers interested in the effect of Federal income taxes on agriculture can obtain a copy of Professor Carman's recently published book. The reference is Hoy F. Carman, U.S. Agricultural Response to Income Taxation, Ames, Iowa: Iowa State University Press, September, 1997, 220 pp.

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ARE Faculty Profile

COOPERATIVE Extension Specialist Karen Klonsky joined the UC Davis Department of Agricultural and Resource Economics in 1981, having earned her Ph.D. in Agricultural Economics from Michigan State University. She works in the areas of farm and financial management.

Her primary interest is in decision-making at the farm level, with an emphasis on sustainable and organic farming systems. Dr. Klonsky is involved in several interdisciplinary research projects studying the feasibility of alternative farming practices. These include the Sustainable Agriculture Farming Systems (SAFS) project located on the Davis campus, the Long-Term Research on Agricultural Systems (LTRAS) project located in Davis, the Lodi-Woodbridge Winegrape Commission, and the Biologically Integrated Orchard Systems (BIOS) program in Merced County.

A fundamental goal of alternative agriculture is to reduce non-renewable resource use and environmental degradation while maintaining productivity and profitability. Dr. Klonsky's research addresses the question of relative resource use and profitability of alternative farming systems from two perspectives. In one line of research she develops farm simulation models from field trial data. The models use the same practices and yield results as the field trial, simulating the labor, capital and material requirements that would be required at the farm level. The models estimate the profitability and risks associated with adopting the experimental practices. Second, she works from the business records of operating farms to develop case studies in the adoption of alternative practices.

From the results of these studies, it is clear that the potential and challenges in adoption of alternative farming practices varies for different crops. In the SAFS project, now beginning its tenth growing season, corn and beans have been successfully grown with reduced inputs while maintaining yields. Safflower showed less potential due to pest and weed problems that reduced yields compared to the conventional system. The cost of growing processing tomatoes without synthetic inputs proved to be much higher than for conventional tomatoes mostly due to higher costs associated with hand hoeing and alternative nitrogen sources. Tomato yields were comparable for all systems in most years. However, the price premium for organic tomatoes makes this a profitable crop.

Dr. Klonsky's research on production practices fostered her interest in growers' motivation for adopting sustainable practices. Her current research involves a three year study of farmers, linking goals and management styles to the choice of production practices.

Karen Klonsky
Extension Economist

Dr. Klonsky works with county-based UC Farm Advisors to develop cost and return studies for the major crops in California. She has also collaborated on a series of cost and return studies for organic production. The studies include information about current best farming practices, resource requirements for crop production, monthly costs and investment requirements. Studies of perennial crops include detailed costs for orchard and vineyard development. They serve as a valuable resource for growers, bankers, appraisers, industry, policy makers and other researchers.

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Her list of publications and the index of available cost of production studies can be accessed through her Web page at: http://www.agecon.ucdavis.edu/Faculty/Karen.K/Klonsky.html

Recent Books by ARE Faculty

***Poverty Amid Prosperity: Immigration and the Changing Face of Rural California* , J. Edward Taylor, Philip L. Martin and Michael Fix. Lanham, MD: The Urban Institute, 1997.**

Poverty Amid Prosperity synthesizes the views of California's preeminent rural development researchers on how immigration is transforming rural communities. It is based on a series of papers prepared by leading academic and policy researchers, community leaders, and activists who met several times over two years to consider how immigration is affecting communities in three California regions: the San Joaquin Valley; the Central Coast; and Southern California. The empirical analysis is based on a unique underclass data base developed by the Urban Institute that permits the monitoring of poverty trends for individual census tracts over time.

The first part of the book is a history of immigration patterns and immigrant policies; the second reports and discusses the findings of community fieldwork by researchers who provide a ground-level view of demographic, social, economic, and political changes related to immigration in seven rural towns. The final section explores immigrant or integration policies, drawing from the findings on immigration patterns, impacts, and community studies reported in the first two parts of the book.

The Urban Institute is a nonprofit, nonpartisan policy and research organization that investigates social and economic problems confronting the nation and private and public means to alleviate them. **Poverty Amid Prosperity** *is available from the Urban Institute Publications Office. Please call (202) 857-8687.*

***Applications of Computer Aided Time Series Modeling,* Masanao Aoki and Arthur M. Havenner, editors. Berlin : Springer-Verlag, 1997.**

Applications of Computer Aided Time Series Modeling presents applications of the state-space algorithm for multivariate time series in a variety of contexts ranging from commodity prices and finance to natural resources. In addition, it reports on new methods and includes introductory material and practical tips for those just learning vector-valued time series modeling. This book will be useful to those who are disappointed by the performance of ARMA methodology in a multivariate setting and would lie to learn more powerful state-space methods through actual applications.

***The End of Agriculture in the American Portfolio,* Steven Blank. Westport, CT: Quorum Books, 1998.**

American agricultural production is destined to end, argues Steve Blank, but this should be no cause for alarm. In this work, he shows that the changes leading to the end of American agricultural production are part of a natural process that is making us all better off. Beginning with broad observations from history and the current status of agriculture around the world, Blank explores how the decisions of individuals combine to make the end of American agricultural production predictable and rational. The inevitable creeping of international economic development is shown to be the sum of individual struggles facing producers across America and around the world. Also, decisions regarding operating an agricultural business derive from many interrelated peculiarities of the industry, both in America and elsewhere. The story is fascinating in its global scope and is relevant to everyone because the simple economic decision-making processes involved will be repeated in the story of other industries.

***U.S. Agricultural Response to Income Taxation,* Hoy F. Carman. Ames : Iowa State University Press, 1997.**

U.S. Agricultural Response to Income Taxation is the first extensive examination of research on how income tax policy affects agriculture in the United States. This book outlines, documents, and provides empirical evidence, where possible, on the effects of the federal income tax on production and investment decisions in agriculture and the effects of major income tax incentives for agricultural investments over the past 25 to 30 years. Included are the effects of income taxes on land prices; decisions concerning machinery, equipment, orchards, and livestock investments; management practices that take advantage of cash accounting, capital gains tax provisions, and depreciation provisions; the effects of tax rules on output, especially when tax sheltering is profitable; the effects of income taxes on farm size and growth; interactions of income taxes with social security taxes, estate and gift taxes, and corporate income taxes. There is also a review of how various tax proposals, ranging from revisions to current law and replacement of the income tax with some form of a consumption tax, might affect farm taxpayers and U.S. Agriculture.

Department of Agricultural and Resource Economics Faculty

NAME	Telephone No. Area Code (530)	FIELDS OF INTEREST
Alston, Julian M.	752-3283	Demand analysis, economics of agricultural research and technical change, agricultural policy
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