Background

Food and farm industries add 4.9 percent to the value produced by the employment of capital in domestic (nonresidential) industry. Yet in some regions, such as the Appalachian (9.5 percent), Corn Belt (6.7 percent), Lake States (8.0 percent), and Northern Plains (10.5 percent), the productive capital in food and farm industries contributes significantly to the returns from regional investment in business capital (fig. 2). Capital intensity, measured as the value-added ratios of capital to labor (U.S. Department of Commerce, Bureau of Economic Analysis, 1994), is higher in farming (1.0) and food manufacturing (1.4) than in other manufacturing (0.6) and all other nonresidential industry (0.8).

Since the work of Harberger, it has been widely understood that taxation of capital income creates significant distortionary effects. Studies since 1981 (Goulder and Thalmann; Fullterton and Henderson; and Summers) found comparable burdens from the non-neutral tax treatment of heterogeneous capital. Other factors, such as inflation (Feldstein) and real interest rates (Boadway, Bruce, and Mintz; and Gravelle), have also been shown to have distortionary effects on relative prices in factor markets. Fiscal policy instruments significant in farming and rural areas, including cost-share policy for specific investments and the rural development programs, which may include cost-share arrangements and subsidized credit, have direct consequences on factor-use decisions that relate to the tax-inclusive cost of capital.

Evidence of real effects from taxation in agriculture has been extensively documented in the applied research literature (Carman). This evidence indicates significant incentive effects from the income tax system on investment (LeBlanc and Hrubovcak; and Sisson), while general equilibrium accounts of farm and food tax incidence (Boyd and Newman; and Hertel and Tsigas) have found substantial effects on agriculture and food prices. The Tax Reform Act of 1986 generally created substantial efficiency benefits from a leveling of tax wedges on heterogeneous capital factor markets.

Figure 2
USDA farm production regions

However, in agriculture, this leveling reduced investment incentives, particularly in the use of farm machinery, primarily due to the repeal of the investment tax credit (LeBlanc, Hrubovcak, Durst, and Conway). Macroeconomic factors affecting the tax system have produced significant structural change in the factor portfolios of farmers (Canning and Leathers).

Calls for fundamental reform, ranging from a flat income tax to a national retail sales tax, have gained important political allies. Along with goals such as simplicity and fairness, many elements of these proposals are intended to rectify inefficiencies of taxation on industrial factor incomes. If effects of these policy reforms are comparable to those found in past reforms, it would be of considerable value to trace out these effects among the many economic entities that comprise the national economy, such as those measured by geographic, demographic, sectoral, and industrial disaggregation. Such an effort would provide a richer economic context to an is of targeted Federal program initiatives, and allow for an assessment of the relative effects in the farm and food economy from a fundamental reform of the tax system.

Comprehensive reform of the Federal tax code does not necessarily imply a harmonized reform of regional fiscal policies. Economists have observed (Nechyba) that a combination of logistic and strategic advantage requires regional and subregional governments to rely on different tax instruments to finance localized budget demands. The data support this finding. The importance of this is that economic simulation of tax policy reform not incorporating these salient features of fiscal federalism imposes a *de facto* harmonization of Federal and regional tax policy. Empirical work, however, indicates such harmonization may be infeasible, or at the very least, not a foregone conclusion. As data in this report show, the difference between unilateral and harmonized tax reform on tax incidence is not trivial.