Sales and Excise Taxes: Estimating Agricultural Payments and Subsidies

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Abstract

The GATT agreement clarified many issues concerning direct farm payments and whether they should be considered subsidies. Not directly addressed in the GATT agreement are tax subsidies, where the benefit is harder to identify and measure. This paper focusses on sales and excise taxes as a subsidy source to U.S. farmers.

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The recent adoption of the GATT treaty represents a fundamental shift in the treatment of subsidies worldwide. Tariffs on trade were eliminated for many sectors of the world economy and tougher sanctions imposed when countries dumped products on the world market. The agricultural sector was a major target of the new treaty, with specific efforts focused on reducing direct support to agricultural producers.

The GATT agreement divided agricultural subsidies into two categories: Those directly used to enhance exports and those used to provide domestic support. Member countries agreed to reduce export subsidies by 36 percent from the 1986-1990 base period. Domestic support levels were to be reduced 20 percent from the 1986-88 period.

Much of the focus on agricultural subsidies has been on direct subsidies to agriculture (such as the Export Enhancement Program) or on laws clearly designed to impede trade (such as import quotas). Given less emphasis are tax benefits that accrue to the agricultural sector. The limited amount of research in the tax subsidy area suggests the agricultural sectors in some countries receive significant tax benefits from federal, state/provincial and (or) local governments (Perry; Knerr). Despite this information, the World Trade Organization (WTO) has failed to include tax subsidies in calculations of agricultural subsidies. This decision may be the result of complexities related to the issue or perhaps a the perception that tax subsidies are relatively unimportant. Researching these issues could help sort out the complexities and aid in determining the size of agriculture tax subsidies.

The objectives of this paper are twofold. First, to review the policies outlined in the recent GATT treaty, as well as subsequent clarifications provided by the World Trade Organization (WTO) as they apply to tax subsidies. This review should shed light on determining what kind of tax benefits are actionable under the GATT treaty. Second, to examine sales and excise taxes as one source of tax subsidy received by U.S. farmers. In this study, an estimate is made of the total sales and excise taxes paid by U.S. farmers, as well as the amount of subsidies received.

Defining Subsidies Under GATT

The Agreement on Subsidies and Countervailing Measures within GATT defines what a subsidy is and introduces the concept of a "specific" subsidy. A subsidy is considered "specific" if "...available only to an enterprise or industry or group of enterprises or industries within the jurisdiction of the authority granting the subsidy. Only specific subsidies are subject to the disciplines set out in the agreement" (World Trade Organization).

The GATT establishes three categories of subsidies: (1) Those that are prohibited, (2) those which are actionable and (3) those which are nonactionable. In agriculture, no subsidies were immediately prohibited, but (as noted in the paper's introduction) export subsidies and domestic support programs were to be significantly reduced over time. Nonactionable subsidies (called "green box" policies) were specifically defined within GATT to include general services to the agriculture sector (research, extension and inspection), public food stocks held for security purposes, domestic food support, farm income support that is decoupled from production, natural disaster payments, environmental or conservation programs, and payments given to producers in disadvantaged areas.

In addition to green box policies, other policies are excluded from the subsidy reduction commitments. These excluded policies include production-limiting programs, certain programs designed to encourage agricultural and rural development in developing countries, and other support which makes up a low proportion of the value of individual products or the total value of agricultural production. This "other support" category must be less than 5 percent of the value of production in developed countries or 10 percent in developing countries.

There are several possible explanations as to why agricultural tax subsidies have been ignored by the WTO. One reason is that much of the focus during the early implementation of GATT has been on policies that have clear and obvious benefits to agriculture. Tax subsidies, while generally reducing production costs for agriculture, are less obvious than other subsidies. Each tax break is, by itself, small, thereby attracting less attention. Further, it is often questionable whether a particular tax benefit can be defined as a "specific" subsidy subject to the GATT. According to an anonymous source within the WTO, a subsidy available to all agricultural activities is not at present considered a specific subsidy. This interpretation seems to run counter to the decision to ignore subsidies in GATT that represent less than 5 percent of agricultural production value. In other words, subsidies that are outside the green box category and benefit the entire agricultural sector are to be considered "specific" subsidies subject to action so long as they represent more than 5 percent of production value. Even if agricultural tax subsidies were to be identified as "specific", its not clear that they would be sufficiently large to exceed the 5 percent threshold needed to move them into the actionable category.

Tax subsidies come in many forms, from a waiver of sales taxes on goods purchased for farm use to lower valuation for farm land (resulting in lower property taxes). If the U.S. sales tax exemptions on fertilizer were to be considered a specific subsidy item, the total subsidy value would be much less than 5 percent of total production value. If, on the other hand, these and all other tax subsidies are lumped together, they may well exceed this threshold. How tax subsidies are to be handled apparently has not been addressed by the WTO.

Another reason why agricultural tax subsidies may be ignored is because the WTO tends to focus more on federal or, in the case of Europe, EU policies. A cursory analysis of tax subsidies in the United States suggests most benefits are provided by state and local governments (Perry). Tax benefits in Europe are not conferred by the EU but by its member countries. In both cases, tax benefits are conferred at a level below that of closest scrutiny by the WTO.

Sales and Excise Taxes

Sales and excise taxes were chosen for this study to illustrate the complex issues faced when estimating agricultural tax subsidies. These taxes represent one of three major tax types of taxes used by government bodies in the United States (the others being income and property taxes). Sales and excise taxes were chosen for this analysis because of data availability.

Two major sources of data were used in the analysis. The first is Commerce Clearing House's (CCH) tax guides, which contain a summary of all state and local tax regulations. The CCH guides provided information on tax rates and a description of items taxed in each state. When descriptive information was not specific enough to determine whether a particular category of goods was taxed, a followup phone call clarified the information.

The other major data used were the 1994 State Income Accounts, which contain a summary by state of farm business expenses by major expense category (USDA-ERS). Most of these expense categories contained a mixture of items that are (or potentially could be) taxed or untaxed. To increase the study's accuracy, these cost categories were further subdivided using unpublished data obtained from the Farm Cost and Returns Survey, which also served as the source data for each state estimate.

The survey data generally do not separate tax expenditures from total expenditures on different farm inputs. Estimates of the tax portion of each farm input were calculated using the CCH data, assuming that farm operators could not avoid these taxes. Because a number of states have different local sales tax rates, a range for taxes paid was estimated based on the minimum and maximum tax payable in these states.

In 1992, 46 states levied sales taxes, representing $108 Billion of tax revenue. Overall, the state sales tax was the biggest source of revenue to these governments. Local governments also collected $23 Billion in sales taxes. In most states, sales taxes are levied on many consumer goods and business inputs, but generally do not extend to services.

All 50 states impose excise and other selective taxes, representing over $65 Billion in tax revenue. Motor fuel sales are the biggest source of excise tax revenue. Selective taxes are also levied on tobacco, alcohol, public utilities and insurance. In addition, motor vehicle fees and payroll taxes are of sufficient importance to merit consideration in this analysis.

On the surface, it may appear that identifying sales and excise tax subsidies would be a relatively simple process. For example, if a particular item is taxed, but certain businesses are exempt from this tax, one may conclude that the these businesses are receiving a tax subsidy. However, it is the scope of the benefit that is critical in determining whether or not a tax subsidy exists.

Examples of sales tax exemptions from the agricultural sector help illustrate how difficult it can be to determine whether or not a tax exemption is a subsidy. Many states exempt farm equipment from sales tax, but tax the same equipment when sold to a road construction business. The same state may, however, exempt manufacturing equipment from sales tax. If the farm equipment is viewed as manufacturing equipment, the subsidy is not unique to agriculture and so should not be considered a tax subsidy. On the other hand, taxing the same equipment in one use but not another seems a clear case of tax subsidization. Which interpretation applies?

A number of major farm inputs are used almost exclusively in the agricultural sector. Examples include livestock, feed and seed. Generally speaking, these inputs are not subject to sales tax. Do these sales tax exclusions represent a subsidy?

The agricultural production costs for each state were partitioned as narrowly as possible using both published and unpublished data from the farm cost and returns survey. Once the narrowest partition was obtained, the CCH data base was searched to see if this particular category of goods was subject to state sales or excise taxes. In addition, guidelines were established to determine whether or not failure to levy a tax was a tax subsidy. The general rule used was that a subsidy existed if a particular item was taxed when used outside the farm sector but was exempt or taxed at a reduced rate within the sector. Because these interpretations are an important focus of the paper, a brief summary is provided in the appendix for each cost category.

Results and Analysis

The estimated sales and excise taxes paid and subsidies received in 1994 are reported in Table 1. Also reported in the table are estimates of real and personal property taxes paid, based on the farm cost and returns survey. The minimum (maximum) taxes paid category represents the minimum (maximum) sales and excise taxes paid in each state, assuming all farm operations paid the lowest (highest) combined state and local tax available. Total sales and excise taxes paid were estimated at between $1.7 Billion and 2.0 Billion in 1994.

Given that farm economies vary from state to state, each state estimate was also calculated as a percentage of total cash expenses. Farm operations in Washington, Nevada, New Mexico, Tennessee and California paid the highest proportion of their expenses in sales taxes. All of these states but California are heavily dependent on sales and excise taxes to fund state government. In fact, Washington, Nevada and Tennessee do not levy a general income tax.

The lowest sales and excise tax states are Delaware, Oregon, New Hampshire, Alaska and Connecticut. All of these states but Connecticut levy no state sales tax. Connecticut exempts farm operations from virtually all sales and excise taxes.

Sales and excise tax subsidies were between $2.6 and $3.3 Billion in 1994, or roughly 150 percent of taxes paid. Maximum tax subsidies were largest (as a percent of cash expenses) in Minnesota, Rhode Island, Arkansas, Missouri and Nebraska. Farm operators in the four states without a state sales tax received no sales and excise tax subsidies. Other states receiving maximum subsidies that were less than one percent of cash expenses were Arizona, California, Colorado, Hawaii, Vermont, and Wyoming.

The general trends reported here suggest the western states tend to levy the highest sales and excise taxes on farm operations, while providing the fewest subsidies. This pattern is borne out in comparing results between regions. The Pacific states paid the largest percentage of cash expenses on sales and excise taxes. The New England states paid the smallest percentage, although they were closely followed by the Lake and Northern Plains states.

Which inputs are taxed the heaviest and which receive the largest subsidies? In 1994, farmers were estimated to pay $434 Million in fuel taxes and $329 Million in taxes on capital investments. The largest tax subsidies were for feed ($462 Million), fertilizer ($450 Million) and livestock ($314 Million).

The results reported here represent the first step in estimating the effect of sales and excise taxes paid and subsidies received on agricultural production costs. Additional refinement is needed regarding the assumptions used in calculating these subsidies. The WTO also needs to focus more attention on defining the nature of tax subsidies. Failure to clearly delineate the scope of tax subsidies may invite countries to create on enhance tax subsidies in order to subsidize their agricultural sector.

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Appendix
Criteria Used to Identify Agricultural Sales and Excise Tax Subsidies

1. Livestock Feed - Subsidy occurs if (a) commercial agriculture is specifically exempted in the law or (b) horse feed is taxed and building supplies are also taxed. The rationale for (b) is that building supplies are an intermediate input to a final product (a finished building). Horse feed is also an intermediate input to the final output from horses (pleasure riding or racing). If these two items are taxed, livestock feed should also be taxed. Failure to do so constitutes a subsidy.
2. Livestock Purchases - Subsidy occurs if (a) commercial agriculture is specifically exempted or (b) purchases of horse breeding stock are taxed and building supplies are taxed, but livestock breeding stock is exempt. The rationale here is the same as #1.
3. Seed - Subsidy occurs if seed purchased by a landscaping business or golf course is subject to tax. Expenditures in this category also include shrubs, trees and transplants. In states that do not tax seed but tax these other items, it was assumed that the tax paid was zero.
4. Fertilizer - Subsidy occurs if fertilizer purchased by a landscaping business or golf course is subject to tax.
5. Pesticides - Subsidy occurs if pesticides purchased by a landscaping business or golf course is subject to tax.
6. Fertilizer and Pesticide Application - As a service, this category would seldom be subject to tax regardless of who receives the service. Subsidy occurs if commercial agriculture is specifically exempted from the tax.
7. Off-road diesel and gasoline - Subsidy occurs if farm machinery is exempt from sales and (or) excise tax and fuel used by the same machinery for another off-road use (such as road construction) is taxed.
8. On-road diesel and gasoline - Subsidy occurs if commercial agriculture use is specifically exempted.
9. LP Gas - Data did not permit this category to be divided into on road and off road use. The assumption was that all use was off-road. A subsidy existed if commercial agricultural use was specifically exempted.
10. Natural Gas - A subsidy existed if sales or utility taxes were waived for commercial agriculture use.
11. Oil and Grease - A subsidy occurred if sales for commercial agricultural use were exempted.
12. Repairs and Maintenance - The data did not permit this category to be divided into parts and labor services to perform the repairs and maintenance. The assumption was that all costs in this category were for parts. A subsidy occurs if equipment parts purchased for commercial agriculture use are tax-exempt but the same parts purchased for a non-agricultural use are taxed.
13. Crop Custom Work - Treated as a service by the states and thus is seldom subject to tax. A subsidy occurs when similar services are taxed but agriculture is specifically exempted.
14. Equipment Leasing - Equipment leases are treated the same as equipment purchases, i.e., if purchases are taxed, leases are also taxed. Therefore, a subsidy occurs if farm equipment purchases are subsidized.
15. Custom Hauling - A subsidy occurs if hauling expenses are specifically exempted for agriculture.
16. Containers - This category includes boxes, crates and the like used to facilitate shipping products (particularly fresh fruits and vegetables) to market. A subsidy occurs if commercial agriculture is specifically exempted.
17. Marketing Expenses - These expenses are never taxed in any sector of the economy or are taxed for all sectors.
18. Storage Expenses - Commercial storage is seldom taxed by any state. A subsidy occurs when commercial storage is taxed and agriculture is specifically exempted.
19. Veterinarian and Medicine - This category includes livestock medicine and veterinarian services. Because these two categories could not be separated, it was assumed that the entire cost fell into the services category. A subsidy occurred if veterinarian services for commercial agriculture were specifically exempted from tax.
20. Livestock Chemicals - Included here are powders, sprays and ointments used in connection with livestock production. A subsidy occurred if (a) commercial agriculture is specifically exempted or (b) the product is taxed for pets and is not taxed for livestock.
21. Livestock Feeding - This category represents contracting to raise livestock for another farm business. As a service, this category was seldom subject to tax unless similar services were taxed in all sectors of the economy.
22. Production Fees - This category consists of dairy program fees which, as a government service, are not subject to tax.
23. General Production Expenses - This category is mostly farm tools, but also includes miscellaneous other goods used (excluding office expenses). A subsidy occurs only if agricultural purchases are specifically exempted.
24. Insurance - Subject to insurance tax in all states. All businesses are treated alike under this tax. Insurance is never subject to sales or excise tax.

25. Irrigation Electricity - A subsidy occurs if electricity is specifically exempted when used for irrigation purposes.
26. Other Electricity - A subsidy occurs if farm electricity is specifically exempted from sales or excise tax.
27. Telephone - Agriculture is never exempted from telephone utility or sales taxes.
28. Irrigation Water - Not subject to a sales tax in any state.
29. Office Furniture - A subsidy occurs if furniture sold to an agricultural concern is specifically exempted.
30. Miscellaneous General Management Expenses - This category includes mostly services (such as lawyer and accounting fees), but also includes office supplies and some miscellaneous goods. The entire expenditure was treated as services. These services receive uniform tax treatment, so no subsidies occurred.
31. Interest - This category is not taxed in any state.
32. Contract & Hired Labor - Again, a category that is never subject to sales and excise taxes.
33. Insurance & Pension Benefits - Treated the same as the insurance category (#24).
34. Payroll Taxes - Counted as part of total taxes paid.
35. Vehicle Registration Fees - Counted as part of total sales and excise taxes paid.
36. Real Estate Rent - A subsidy occurs if farm land is exempt from tax but commercial real estate is taxed.
37. Farm Equipment - A subsidy occurs if farm equipment is tax-exempt but the same equipment purchased for another use is taxed. Farm vehicles were treated the same as equipment.
38. Building Supplies - A subsidy occurs if supplies for farm buildings are exempt but supplies for commercial buildings are taxed.
39. Fencing - A subsidy occurs if commercial agriculture is specifically exempted from sales tax.
40. Land Improvements - This category includes leveling, drilling wells, water delivery systems, land conservation expenses and so forth. It was assumed that expenses were all service related, so were generally exempt from tax.
41. Irrigation Improvements - This category includes sprinkler and drip irrigation systems. A subsidy occurs if commercial agriculture is specifically exempted from this tax.