Approved January 24, 1984
Date

MINUTES OF THE SENATE COMMITTEE ON ASSESSMENT AND TAXATION.

The meeting was called to order by Senator Paul "Bud" Burke at
Chairperson

11:00 a.m./~~p.m.~~ on January 16, 1984 in room 526-S of the Capitol.

All members were present except:
Senator Hayden (Excused)
Senator Mulich (Excused)

Committee staff present: Tom Severn, Research Dept.
Wayne Morris, Research Dept.
Don Hayward, Revisor's Office

Conferees appearing before the committee:

Philip W. Martin, Director of Division of Property Valuation

The chairman called on Philip Martin to speak to the committee on the use and application of trending factors in the Property Valuation Division's personal property valuation guides. He explained that trending factors are a tool for determining fair market value for miscellaneous personal property. (See Attachment #1)

Mr. Martin responded to questions from committee members.

The chairman adjourned the meeting at 12:05 p.m. The committee will meet at 11:00 a.m. on Tuesday, January 17.

ASSESSMENT AND TAXATION

OBSERVERS
(PLEASE PRINT)

DATE	NAME	ADDRESS	REPRESENTING
JAN. 16			
"	Frances Kastner	Topeka	KFDA
	CHARLES D. BELT	WICHITA	WICHITA CHAMB. OF COMMERCE
	BILL ABBOTT	~	BOEING
	ED MULLINS	TOPEKA	BUDGET OFFICE
	MARSHA HUTCHISON	WICHITA	BEECH AIRCRAFT
	Chip Wheelen	Topeka	KLPG
	RON GACHES	TOPEKA	KACI
	Penny Plamann	Topeka	KIOBA
	Brad Welch	LAKIN, KS.	Kearny Co. Appraiser
	John Eplick	Ulysses, Ks.	Grant Co. Appr.
	Don Gordon	Laurens, Ks.	KCAA.
	Jim Sellers	Topeka	Ks Motor Car Dealers
	Tom Whitaker	Topeka	Ks Motor Carriers Assn
	JOHN COOPER		PVD
	Maxan Harriner	Lawrence	LWVK.
	Harley T Duncan	Topeka	Dept of Revenue
	Fred Allen	Topeka	K. A. C.
	Jim McBride	Topeka	United Way
	Janet Stubbs	"	Home Builders

Kansas
DEPARTMENT OF REVENUE
State Office Building
TOPEKA, KANSAS 66625

January 16, 1984

TO: The Honorable Bud Burke, Chairman Senate Committee on Assessment and Taxation and Committee Members

FROM: Philip W. Martin, Director
Division of Property Valuation

I have been asked to speak to this committee concerning a number of questions which have arisen regarding the use and application of trending factors by the Property Valuation Division. First there seems to be some confusion as to exactly what a "trending factor" is.

What Are Trending Factors?

There is no magic in a trending factor. Trending factors are not devised to "create" high values for machinery. Trending factors are a tool used to determine current market value for machinery and equipment. There are three approaches appraisers may take to determine market value, the income approach, the comparative sales approach, and the cost approach. In many cases, the income approach is inappropriate because it is impossible to determine what portion of total income is contributed by each and every piece of equipment. The comparative sales approach may also be inappropriate if there is not a sufficient number of sales of each type of equipment to establish a market. Therefore, we use the cost approach. Trending factors provide an estimate of what it would cost to replace an item of equipment in todays market after an allowance for depreciation (Fair Market Value). The trending factor prescribed by the Division is the result of several mathematical calculations

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which take into account current replacement cost and physical depreciation; beginning in 1983 a 15% reduction was incorporated to recognize functional and economic obsolescence. In addition, trending factors take into account that all machinery and equipment retain a residual salvage value. The resulting factor, when applied to the original cost of an item of equipment, provides our best estimate of market value for that equipment if it is in average condition.

The attached example illustrates the variables which are considered when developing the factors. As shown on this example, any county appraiser or other interested party, could perform the calculations done in each of the six steps and arrive at market value. However, the Division has calculated a single "trending factor" which when applied to original cost produces virtually the same market value.

As previously stated, the use of trending factors provides the best estimate of market value in a uniform and simple to use form. However, it must be pointed out that in every case if a taxpayer feels that their property has been valued in error or is in other than "average condition" the county appraiser has the authority and the obligation to view the items in question to determine if sufficient reason exists to change that valuation. The Board of Tax Appeals has ruled that there must be documented reasons for changing values which are found in guides or determined by the use of trending factors.

Why Use Trending Factors?

There are three reasons the Division uses trending factors: First the Constitution requires that like property be appraiserd uniformly state-wide.

Second, Kansas statutes require that all property subject to general taxation be valued at its fair market value in money. Third, the statutes further require the Director to prescribe and furnish guides to be used for valuing property.

It is our opinion that the trending factors published by the Division fulfills all of the above requirements.

The Board of Tax Appeals ruled in the Capital City Rentals Inc. case that use of trending factors insures uniformity and equality. The Board stated:

> ". . .use of the trending factors other than those prescribed by the Director, is arbitrary and contrary to the ad valorem tax statutes of this State. The purpose of the Guides prescribed by the Director is to insure uniformity and equality of assessment of personal property, irrespective of its physical location in this State. Disregard of these Guides destroys that goal."

As we previously stated, there are three approaches to value an appraiser must consider when determining market value; income, comparative sales, and cost. In many cases involving machinery and equipment neither the income nor the comparative sales approach will produce market value. Therefore the only tool left for determining market value is replacement cost as determined by the trending factor.

Finally, as shown in the trending factor example, trending factors are relatively simple to use. When one considers the sheer volume of machinery and equipment

that exists in each county you could not reasonably expect a single county appraiser to view each individual piece of property and attempt to establish a market value. This would be unreasonable even if we could assume that each county appraiser had at their command a thorough and complete knowledge of all the variables affecting the value of each and every type of machinery and equipment. Further, meeting the uniform and equal requirements in such a scheme would be virtually impossible.

How Was Machinery and Equipment Valued Before?

Prior to the Board of Tax Appeals order mandating that all counties determine market value by the use of the trending factors, counties used many different methods for determining value. The more common practice was to accept the taxpayers IRS Depreciation Schedule as evidence of both the items of personal property to be taxed and the valuation upon which those items were to be taxed; however, some other forms of original cost less straight-line depreciation rendered by the taxpayer were also used.

The IRS Depreciation Schedule and other taxpayer rendered depreciation listings may well provide much useful information relating to the types of property owned and the year it was purchased; however, it certainly does not provide fair market value. In Opinion Number 79-50, dated April 13, 1979, Attorney General Robert Stephan stated: ". . .it is obvious that 'original price less straight-line depreciation' and 'fair market value' are not equivalent bases on which to assess property." This position was restated in Opinion Number 80-82, dated March 31, 1980, in the following words:

> ". . .original price less straight-line depreciation very frequently will yield a significantly different valuation than that based on "fair market value." We again indicate that straight-line depreciation does not take into account many of the factors implicit in "fair market value," as defined in K.S.A. 79-503."

This problem is compounded by the fact that the IRS schedule does not always use straight-line depreciation. Rather, depreciation schedules are often accelerated to allow more depreciation in the early years an asset is placed in service so that an income taxpayer may recover the investment more rapidly, thereby stimulating further investment. In addition, the 1981 Economic Recovery Tax Act reduced the economic life of many assets in a fashion that is not consistent with the length of time an asset can reasonably be expected to perform and even within these shortened depreciation periods, depreciation is computed on an accelerated basis. Finally, an asset can be depreciated to zero value for income tax purposes.

Obviously, even though an item of equipment has been fully depreciated for federal income tax purposes, if that item remains under the taxpayers control it has a value. This value was not being reported or taxed as long as county appraisers were relying solely upon IRS schedules for valuation.

What Is Our Opinion of a Bill Which Would Prohibit Factoring?

It is our opinion that any bill which would disallow one of the accepted methods of appraisal for one class of property would have serious constitutional questions.

We realize that the bill under consideration, unlike some of its predecessors dealing with farm machinery, does not overtly define fair market value as something other than fair market value. However, by statutorily removing the only tool this Division has for determining fair market value for a particular class of property the ultimate impact is the same. It is our opinion that in this event the courts may find that an unconstitutional classification has been created.

In addition, if each county is placed on its own with the assignment to determine market value any semblance of uniformity among counties is destroyed. Obviously, this creates another serious constitutional question.

To reiterate, it is our position that current procedures are fulfilling both the constitutional and statutory mandates of uniformity and fair market value. Any legislation which is designed to substantially alter those procedures could only be taken as an attempt to force the Division to violate one or both of those mandates.

PWM:b/1076/S269

TRENDING FACTOR EXAMPLE

Assume a piece of equipment was purchase new in 1975; has an economic life of 10 years; and the original purchase price was $15,000.

STEP I Consumer price index in 1975 = 156.1
Consumer price index in 1984 = 308.0

This is an increase of 97% from 1975 to 1984.

STEP II Therefore: The machine which cost $15,000 in 1975 would cost $29,550 in 1984.

[$15,000 X 1.97 = $29,550]

STEP III However: The subject machine is now 9 years old to adjust for this the present cost is first reduced by 10% to reflect salvage value.

[$29,550 - 10% = $26,595]

The $26,595, non salvage value is divided by the 10 year economic life to determine yearly depreciation.

[$26,595 ÷ 10 = $2,659]

STEP IV As this machine is 9 years old total depreciation can be calculated by multiplying 9 times the annual depreciation calculated above.

[9 X $2,659 = $23,931]

STEP V Current Value is calculated by subtracting depreciation from current replacement cost.

[$29,550 - $23,931 = $5,619]

STEP VI The Division recognizes that much, if not most, business machinery is not sold to another direct user but is instead used as a trade-in, or sold at wholesale. Therefore, a 15% reduction in the value calculated above is made both in the printed guides and in the trending factors to recognize these factors of functional and economic depreciation.

[$5,619 - 15% = $4,776 Market Value]

(Continued)

COMPARISON

1984
TRENDING FACTORS

Purchase Year	Economic Life 3 Years	5 Years	7 Years	10 Years	12 Years	15 Years	20 Years	25 Years	30 Years	Purchase Year
1984	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1984
1983	.63	.73	.78	.81	.83	.84	.85	.86	.87	1983
1982	.37	.60	.69	.76	.79	.82	.84	.86	.87	1982
1981	.10	.46	.62	.73	.78	.82	.87	.90	.91	1981
1980		.32	.55	.72	.79	.85	.92	.96	1.00	1980
1979		.13	.46	.71	.80	.90	1.00	1.05	1.09	1979
1978			.32	.65	.77	.90	1.02	1.10	1.15	1978
1977			.15	.55	.71	.87	1.03	1.12	1.18	1977
1976				.44	.63	.82	1.01	1.12	1.20	1976
1975				.32	.54	.77	1.00	1.13	1.22	1975
1974				.19	.47	.75	1.03	1.20	1.32	1974
1973					.36	.70	1.03	1.24	1.37	1973
1972					.21	.60	.98	1.21	1.36	1972
1971						.48	.91	1.17	1.34	1971
1970						.37	.86	1.15	1.34	1970
1969						.25	.80	1.13	1.35	1969
1968							.72	1.09	1.34	1968
1967							.62	1.03	1.30	1967
1966							.52	.97	1.26	1966
1965							.41	.88	1.20	1965
1964							.28	.79	1.13	1964
1963								.70	1.06	1963
1962								.61	.99	1962
1961								.50	.91	1961
1960								.41	.83	1960
1959								.30	.76	1959
1958									.67	1958
1957									.60	1957
1956									.52	1956
1955									.43	1955
1954									.33	1954

STEP I Trending Factor from the 1984 Guide for machinery purchased in 1975 with an economic life of 10 years = .32.

[Original Cost = $15,000 X .32 factor = $4,800 Market Value]

Kansas
DEPARTMENT OF REVENUE
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TOPEKA, KANSAS 66625

MEMORANDUM

January 12, 1984

ALTERNATIVE INDICES

The Division has been asked, on several occasions, if we have considered the use of indices other than the Consumer Price Index (CPI) for use in computation of the trending factor; and if we believe that CPI is the most appropriate index to use. We believe this memorandum will address both of these questions.

When evaluating the various possible indices a decision must first be made as to whether we want to use an aggregate index applied to all property or use multiple indexes. The decision was made that for many reasons it is preferrable to remain with a single index.

Table I lists eight such aggregate indices which have been considered and their relationship to the CPI-U after the Division's 15% reduction.

Table II lists various equipment cost indices taken from Marshall Swift. This approach has been considered, but rejected. Using multiple indices would make county appraiser's work extremely difficult; in addition, a quick review of this list reveals that many types of businesses and industries do not appear. This fact would lead to extensive debate over which category particular businesses should be grouped with. Additionally, this approach would result in identical equipment being valued differently depending upon which type of business is using it.

It can be seen that in virtually every case on both Table I and Table II the CPI as reduced under current procedures, results in the most conservative estimate of market value.

TABLE I

PRESENT INDEX	
CPI-U	
January, 1983:	292.1
Effective CPI (After 15% reduction)	248.3

ALTERNATIVE INDICES TO CPI-U:		ALTERNATIVE INDICES AS % OF EFFECTIVE CPI-U
Gross National Product (GNP), converted to 1967 base		
1st Quarter, 1983:		
-Implicit Price Deflator	269.20	108.4
-Fixed Weight Price Index	276.4	111.3
Gross Private Domestic Inv., converted to 1967 base		
Non-residential, 1st Qtr., 1983:		
-Implicit Price Deflator	261.3	105.3
-Fixed Weight Price Index	286.3	115.3
Producer's Durable Equipment: converted to 1967 base		
-Implicit Price Deflator	215.7	86.9
-Fixed Weight Price Index	258.1	103.9
Producer Prices		
January, 1983:		
All Commodities	299.9	120.8
Finished Goods, Capital Equipment	285.2	114.9
Durable Goods	282.6	113.8

TABLE II

EQUIPMENT COST INDEXES
(Converted to 1967 Base)
& CPI-U for 1/83 in Order of Size

		% of Effective CPI-U
Petroleum	315.6	127.1
Contractor's Equipment	312.3	125.8
Rubber	306.3	123.4
Shipbuilding	304.9	122.8
Logging Equipment	304.0	122.4
Cement Manufacturing	302.7	121.9
Clay Products	302.1	121.7
Metal Working	300.5	121.0
Mining & Milling	300.3	120.9
Paint Manufacturing	299.7	120.7
Brewing & Distilling	299.1	120.5
Steam Power	298.5	120.2
Candy & Confectionery	298.0	120.0
Refrigeration	296.2	119.3
Creamery & Diary	293.2	118.1
Airplane Manufacturing	292.4	117.8
*CPI-U	292.1	--
Chemical	291.9	117.6
Packing (Meat)	291.6	117.4
Flour, Cereal & Feed	290.4	117.0
Glass Manufacturing	289.8	116.7
Cannery (fish)	288.0	116.0
Paper Manufacturing	287.9	115.9
Cannery (fruit)	287.2	115.7
Hospital	286.1	115.2
Bakery	285.8	115.1
Bottling	285.4	114.9
*Average of All	284.3	114.5
Garage	284.1	114.4
Printing	282.0	113.6
Elec. Power Equipment	281.1	113.2
Laundry & Cleaning	279.8	112.7
Textile	278.4	112.1
Motion Picture	276.2	111.2
School	274.7	110.6
Woodworking	274.4	110.5
Elec. Equipment Manufacturing	274.1	110.4
Library	274.0	110.4
Packing (fruit)	273.2	110.0
Theater	271.7	109.4
Restaurant	270.5	108.9
Warehousing	267.9	107.9
Store	267.7	107.8
Hotel	265.3	106.8
Banking	264.2	106.4
Church	259.8	104.6
Office Equipment	257.4	103.7
Apartment	238.0	95.9
Dwelling	235.6	94.9

As reported by Marshall Swift

DEFINITIONS

GROSS NATIONAL PRODUCT

GNP is the market value of the goods and services produced by labor and property supplied by residents of the United States, before deduction of depreciation charges and other allowances for business and institutional consumption of fixed capital goods and after deduction of products changed to expense by business. GNP consists of the purchases of goods and services by persons and government, gross private domestic investment (including the change in business inventories, and net exports (exports less imports).

GROSS PRIVATE DOMESTIC INVESTMENT

Gross private domestic investment is fixed capital goods purchased by private business and nonprofit institutions, and the value of the change in the physical volume of inventories held by private business. The former include private purchases of new residential structures whether purchased for tenant or owner occupancy. Net purchases of used goods are also included.

IMPLICIT PRICE DEFLATOR

The inplicit price deflator is the ratio of a current-dollar estimate to the corresponding constant-dollar estimate. It represents a weighted average of component price indexes used to obtain the constant-dollar estimates where the weights are proportional to the composition of the constant-dollar product in each period. In other words, changes in an implicit price deflator reflect both changes in prices and changes in composition. It is not a pure measure of price change.

CPI-U

The Consumer Price Index for All Urban Consumers is a measure of the average change in prices overtime in a fixed market basket of goods and services, covering about 80% of the total noninstitutional civilian population. The index is based on prices of food, clothing, shelter, fuels, transportation fares, charges for doctors' and dentists' services, drugs, and other goods and services that people buy for day-to-day living. Prices are collected in 85 urban areas across the country. In calculating the index, price changes for the various items in each location are averaged together with weights which represent their importance in the spending of the group.

PRODUCER PRICES

Producer price indexes measure average changes in prices received in primary markets of the United States by producers of commodities in all stages of processing. The indexes contain nearly 3,400 commodities and about 26,000 quotations selected to represent the movement of prices of all commodities produced in the manufacturing, agriculture, forestry, fishing, mining, gas and electricity, and public utilities sectors.

Finished goods are commodities that will not undergo further processing and are ready for sale to the ultimate user. Capital equipment includes commodities such as motor trucks, farm equipment, and machine tools.

Durable goods include automobiles, household furniture, and jewelry.

In calculating producer price indexes, price changes for the various commodities are averaged together with weights representing their importance in the total net selling value of all commodities.

FIXED-WEIGHT PRICE INDEX

The fixed-weighted price index uses weights that are proportional to the composition of product in 1972. Therefore, changes in it reflect only changes in prices.

SOURCES:

CPI Detailed Report, July, 1983
U.S. Department of Labor
Bureau of Labor Statistics

Producer Prices and Price Indexes, Data for May, 1983
U.S. Department of Labor
Bureau of Labor Statistics

The National Income and Product Accounts of the United States, 1929-1976 Statistical Tables
U.S. Department of Commerce
Bureau of Economic Analysis