RAILROAD COST RECOVERY INDEX

Coverage

The Railroad Cost Recovery Index (RCR), published by the Association of American Railroads (AAR), measures changes in railroad inflation, *i.e.*, changes in the price level of inputs to rail operations. The RCR is comprised of 10 components — fixed charges (interest), plus freight operating expense classified into nine categories (wages, wage supplements, fuel, materials and supplies, equipment rents, purchased services, depreciation, taxes (other than income and payroll), and other). The RCR, which is available from 1977 to the present, is based on data from all Class I railroads in the United States, and is published for the Eastern District and the Western District railroads, as well as for the entire United States. Indexes for the 10 components, as well as 12 composite indexes besides the RCR, are also published.

Base Period

The base period of the RCR is 2003. In accordance with a policy of updating the base period every five years, the change to a base of 2003 from 1998 was made in the first quarter 2005 (the beginning of the first full year after the 2003 data were available). The update policy provides for the possibility of an exception if there is a major shift in weights that would make an earlier change desirable. The reference base on which the indexes are published is 1977.

Weights

The weights used to calculate the RCR are based on freight operating expenses plus fixed charges for all Class I railroads. Since the first quarter 2005, the weights have been based on 2003 data. Weight changes are expected to take place every five years; thus, 2008 weights will be incorporated beginning with the first quarter 2010 (unless an extreme change in weights makes an earlier update desirable). The data on operating expenses and fixed charges are supplied to the Surface Transportation Board (STB) by each Class I railroad in Annual Report Form R-1.

Frequency and Source of Data

The price data are collected and the RCR is published quarterly. An annual index is also calculated. Data are collected from the railroads in quarterly surveys, with the exception of wage and wage supplements data, which are available only annually. Quarterly estimates of the wage and wage supplements components are based on provisions in labor contracts and on payroll tax changes and health and welfare contribution changes that occur on fixed dates. Wage and wage supplements data are benchmarked annually to the 112-Class Wage Statistics which match the more-abbreviated version (Wage Form A&B) that the Class I railroads are required to submit to the STB. These annual wage and wage supplements data are the basis for the annual wage and wage supplements components of the RCR, while the annual indexes for the remaining components of the RCR are the average of the four quarterly indexes.

Timing of Revisions

The RCR is not subject to periodic revision. Only in the rare instance that a railroad supplies a significant correction to reported data that has been used in the RCR is a revision made to the previously published index. Much of the data provided by the railroads is supplied far enough in advance that corrections are made before the RCR is published.

Presentation Format

The RCR is included in a quarterly AAR publication, *AAR Railroad Cost Indexes*, that is available at the end of each quarter. The publication of the RCR itself is lagged one quarter, i.e., the first quarter RCR is available at the end of the second quarter. However, some of the component indexes — wages, wage supplements, fuel, and materials and supplies — and composite indexes comprised of those four components are available without a lag, i.e., first quarter indexes are available at the end of the first quarter. (These indexes are known as the QMPW (Quarterly Material Prices and Wage Rates) indexes, and the composite which contains all four components is known as the Index of Material Prices, Wage Rates and Supplements Combined, including Fuel, or "the QMPW.")

The annual RCR is available at the end of the first quarter of the following year, as are the final annual QMPW indexes. Preliminary annual QMPW indexes are published at the end of the fourth quarter. The differences between the preliminary and final QMPW indexes are due to the incorporation of the annual wage and wage supplements data in the final indexes.

Methodology

The RCR is calculated on the basis of unit prices for each of the 10 components, as described below, and these component indexes are combined into the RCR using the 2003 weights as described above. The RCR is rebased to 1977 for publication in *AAR Railroad Cost Indexes.*

Wages and Wage Supplements: The labor indexes reflect changes in the average unit price of wages and wage supplements (fringe benefits). The unit price of wages consists of two major components: the hourly rate for straight time compensation (STHR), which is straight time compensation divided by straight time hours paid for, and the hourly rate for pay for time not worked (PFTNW) (vacation, holidays, etc.), which is PFTNW compensation divided by straight time hours paid for. The wage index is the sum of the two rates for the current period divided by the sum of the two rates in the base period. When back pay, lump sums, and other forms of compensation, such as profit sharing, are paid to employees as part of labor contracts, those items are also factored into the wage index.

The wage supplements component is comprised of contributions for health and welfare benefits, payroll taxes for Railroad Retirement and Medicare, supplemental annuities, unemployment insurance, and other wage supplements. The index includes the employer portion of these payments on a per straight-time-hour-paid basis.

Fuel: The fuel index represents the change in the average price per gallon of No. 2 diesel fuel paid by the four largest railroads. Beginning in February 1991, the price includes federal excise taxes, transportation, and handling charges. The index reflects the original purchase price of fuel charged to railroad operating expenses during the middle month of the quarter. In order to reflect an average inventory holding period of one month before being charged to expense, the purchase price is measured in the first month of the quarter.

Materials and Supplies: The materials and supplies index measures changes in the prices of a market basket of 38 items that represent the preponderance of purchases by the six largest railroads. The price of each item at each railroad is converted to an index, and these individual railroad item indexes are weighted together to form an overall index for the item. Next, item indexes are weighted to form indexes by category (forest products, metal products, and other products) and these are weighted to derive the overall materials and supplies index. Weights at each stage are based on purchases for the most recent year. As with fuel, the index reflects the original purchase price of materials charged to railroad operating expenses during the quarter. In contrast to the one-month lag for fuel, a three-month lag is assumed for the average time a material or supply item is in inventory before it is charged to expenses; thus, the previous quarter's spot price is the current quarter's chargeout price.

Equipment Rents: Equipment rents has two components — car hire and lease rentals. The car hire index is a weighted average of car hire rates for various car types obtained from the Car Hire Accounting Rate Master (CHARM) file. The lease rentals component is indexed by the change in the Producer Price Index for Rail Equipment (PPI-RE).

Purchased Services: Purchased services are indexed by the change in one of the composite indexes for railroad inputs — the Index of Material Prices, Wage Rates and Supplements Combined, excluding Fuel.

Depreciation: The depreciation index is a weighted average of four component depreciation indexes (road, locomotive, freight car, and other equipment) calculated from quarterly Class I railroad data on depreciation expense and physical units. The indexes reflect expenses per physical unit, such as locomotive depreciation per horsepower.

Interest: The interest index is calculated as an index of fixed charges (interest) divided by an index of physical plant (miles of track, locomotive horsepower, and freight car capacity), thus representing the change in interest expense per unit of property. The data are supplied by the Class I railroads in quarterly surveys.

Taxes, Other Than Income and Payroll: The taxes index, which primarily reflects the price change in property taxes, is calculated as the amount of such taxes per mile of track operated. As with depreciation, interest, and physical units data, the tax data are supplied by all Class I railroads.

Other Expenses: Other expenses, which include casualties and insurance, loss and damage, and general and administrative expense, are indexed by the change in a surrogate — the Producer Price Index (PPI) for All Commodities. The quarterly index used by the AAR is a simple average of the three monthly PPI indexes.