

the following five projection methods for net income:

- Using a simple average of 1997, 1998, and 1999 net income projected over the 15 year project life to provide an unsophisticated baseline;
- Using 1999 net income as the start point for projections using Cycle 1 in Table VI.A.1 (index initial value is 1999);
- Projecting three different net income time series, all using Cycle 2 in Table VI.A.1 (index initial value is the largest margin in the 1995 and 2002 period), but starting from different

detailed survey data points: maximum, average, and minimum facility net income.

As described in the proposal EA (Section 3.2.2), EPA uses the preponderance of evidence under different forecasting methods to determine if a facility is projected to close. Because EPA intends to use five forecasting methods for the final rule, a facility is projected to close if the present value (PV) of future compliance costs exceeds the forecast PV of net income under three of the five forecasting methods. EPA notes that the

results of these five methods are not independent and is considering basing its closure analysis for the final rule on a subset of these methods. EPA solicits comment on this forecasting model for future facility income in the MPP industry.

As a sensitivity analysis, EPA also projected closures if the PV of future compliance costs exceeds the forecast PV of net income under one of the five forecasting methods. The results of this sensitivity analysis can be found in the docket at DCN 125607.

TABLE VI.A.1.—BUSINESS CYCLE INDICES FOR FORECASTING NET INCOME

Cycle 1				Cycle 2		
Year 1 of Cycle Equals 1999				Year 1 of Cycle Equals High Point of 1995–2001		
Year	Beef	Pork	Broilers	Beef	Pork	Broilers
1	1.00	1.00	1.00	1.00	1.00	1.00
2	1.05	0.84	0.79	0.96	0.84	0.81
3	1.05	0.84	1.64	0.94	0.84	0.63
4	1.01	0.83	1.15	0.98	0.83	0.95
5	0.99	0.87	1.04	0.86	0.87	0.61
6	1.03	0.79	1.61	0.83	0.79	0.48
7	0.91	0.67	1.20	0.86	0.67	0.99
8	0.88	0.66	1.04	0.91	0.66	0.70
9	0.90	0.79	1.61	0.80	0.79	0.63
10	0.96	0.77	1.20	0.76	0.77	0.97
11	0.85	0.65	1.04	0.78	0.65	0.73
12	0.80	0.60	1.61	0.83	0.60	0.63
13	0.82	0.70	1.20	0.75	0.70	0.97
14	0.88	0.75	1.04	0.70	0.75	0.73
15	0.79	0.63	1.61	0.70	0.63	0.63
16	0.73	0.56	1.20	0.75	0.56	0.97

2. Tax Shields

EPA received comments on its methodology for estimating investment tax shields on new wastewater treatment technology. One comment pointed out that EPA's methodology apparently failed to deduct interest payments from the revenue base used to determine the tax rate applicable to tax shields, though it did subsequently subtract out interest payments to yield net income. This could produce an overestimate of the tax shields the company accrues on its investment in wastewater treatment equipment. EPA agrees with this commenter, and for the analysis supporting this notice has subtracted interest payments from earnings before interest and taxes (EBIT) to determine both taxable income and the applicable tax rate.

A second comment on EPA's method for estimating tax shields stated that EPA's methodology would overestimate tax shields if incremental compliance costs decrease earnings before taxes to such an extent that a facility's marginal tax rate changes. EPA examined

estimated compliance costs and net income for each facility, and found that in practice there would be no effect on estimated tax shields. In the vast majority of cases, no change in tax rates would result given the magnitude of projected compliance costs. For one facility where the tax rate could have changed due to the incremental compliance costs, EPA's method of limiting estimated tax shields so they cannot exceed taxes actually paid resulted in a smaller estimated tax shield than if EPA estimated its tax shield by incorporating the change in rates.

3. Aggregation of Company Level Costs and Company Level Closure Analysis

Following proposal, EPA completed review of the detailed surveys (see Section II for discussion on completion of survey review). Less than 40 percent of direct discharging facilities provided facility level financial data in the detailed survey. Industry has stated that many companies in the MPP industry do not maintain financial records at the

facility level. Instead they maintain their financial records at, for example, the company level, division level or product line level. As a result, EPA was unable to scale up its facility level closure analysis to produce a national-level projection of closures. Rather, for each facility for which there was sufficient data, EPA recorded the closure status of the associated number of facilities as "unknown."

EPA did collect company level financial data and when necessary this data can be supplemented using publicly available data. Therefore, EPA is considering a closure analysis at the company level in addition to the facility level analysis and has performed that analysis for today's notice (see Section VI for estimated economic impacts). This requires EPA to estimate compliance costs at the company level as well as the facility level. The Altman Z' analysis, described in the proposal EA (Section 3.1.3.2) document, is also a company level analysis and so EPA used the same method for estimating company level costs for both models.