
The Effects of the Corporate Alternative Minimum Tax: Additional Results from Panel Data for 1987-1991

Geraldine Gerardi, Hudson Milner, and Gerald Silverstein,*
Department of the Treasury

Last year we reported that the substantial increases both in the number of corporations that paid corporate alternative minimum tax (AMT) and the amount of AMT paid appeared to represent a sharp break from prior years. We also speculated that corporations' post-1989 experience with the AMT may be fundamentally different from their pre-1990 experience.

Our analysis of recent corporate tax return data for 1991 confirms those prior observations. The number of corporations with AMT liabilities and the amount of AMT paid peaked in 1990. Although the number of AMT taxpayers and the amount of AMT paid decreased in 1991, they were still higher in 1991 than in any other year prior to 1990.

Whereas aggregate data establish general trends in the number of AMT taxpayers and the amount of AMT paid during this period, those data may mask larger shifts in taxpaying status from one year to the next. To examine these shifts in greater detail, we used a panel of corporate tax returns for large corporations for the years 1987 through 1991. We focused on shifts in tax status for 1990 and 1991, the years for which the most recent data are available.

Whereas the total number of AMT taxpayers declined by 16 percent from 1990 to 1991, approximately one-half of the AMT taxpayers in 1990 did not have AMT status in 1991. The remaining one-half were AMT taxpayers both years. In addition, in 1991 42 percent of the AMT taxpayers were not AMT taxpayers in 1990. We examined the net income and AMT status for corporations in 1990 and 1991 to determine possible reasons for these shifts.

We also used corporate panel data for 1987 through 1991 to show the effect of duration of AMT status on tax

liabilities. Most firms had relatively short spells as AMT taxpayers, generally two years or less. Although the amount of AMT paid increases with the duration of AMT status, the AMT accounts for a relatively small fraction of total taxes paid by corporations that were AMT taxpayers during this period. Nevertheless, the AMT continues to affect many corporations that are no longer AMT taxpayers through the limitations on the use of AMT credits and general business credits.

This paper discusses these results in more detail. The next section describes general trends in the AMT using aggregate historical data, and temporal effects of the AMT at the firm level using a panel of tax return data for large corporations for 1987 through 1991. The last section provides our conclusions.

■ Effects of the Corporate AMT: 1987-91

This section briefly summarizes the effects of the corporate AMT on tax liabilities and its distribution among taxpayers by asset size, the contribution of preferences and adjustments to the AMT base, and the use of AMT credits for 1991 compared to prior years. It also describes the temporal aspects of the AMT using a panel of large corporations.

Historical Trends in the Corporate AMT

Corporate AMT liabilities have become an important share of corporate receipts. Between 1987 and 1991 the corporate AMT increased tax receipts by \$22.5 billion, or approximately 5 percent of total corporate receipts. Over one-half of the AMT liabilities were paid in 1990 and 1991.

AMT paid decreased from its high of \$8.1 billion in 1990 to \$5.3 billion in 1991 (Table 1). The number of corporations with AMT liabilities also decreased, from approximately 33 thousand to 30 thousand for the same period. Despite these decreases, both the amount of AMT paid and the number of AMT taxpayers were higher in 1991 than for any other year except 1990.

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The AMT's share of total corporate taxes paid also decreased between 1990 and 1991, but it was higher in 1991 than for 1987 through 1989. The AMT declined from 9 percent of total taxes paid in 1990 to 6 percent in 1991. Prior to 1990, the AMT's share of total taxes paid ranged from 2 percent to 4 percent.

For 1991 and all prior years, most of the AMT was paid by corporations with assets of \$500 million or more (Table 2). Those large corporations accounted for almost 78 percent of AMT paid in 1991, compared to 83 percent for 1990. The portion of corporations with assets of \$500 million or more that paid AMT also fell, from 26 percent in 1990 to 20 percent in 1991.

Prior to 1990, the most important upward adjustments for computing alternative minimum taxable income (AMTI) were the adjustments for depreciation of post-1986 property, depletion, and the book income adjustment (Table 4). For 1990 and 1991, the ACE adjustment was the most important upward adjustment, although its relative importance decreased in 1991 largely because of the decline in depreciation preferences attributable to property placed in service between 1981 and 1989. The depletion preference continued to be the most significant preference for computing AMTI.

AMT paid by a corporation in one year is available as a credit against its regular tax liability in a future year. Total AMT credits claimed from 1988 through 1991 were \$3.4 billion (Table 5). Although AMT credit use doubled in 1991, only 20 percent of the total AMT paid prior to 1991 was claimed as credits by the end of 1991. AMT credits accumulated faster than corporations could use them, so that by the end of 1991 unused AMT credits totalled \$19.1 billion. The reasons for this relatively slow use of AMT credits are discussed below.

Temporal Aspects of the Corporate AMT

To examine the temporal aspects of the corporate AMT, we constructed a panel of corporate tax returns that covers the years 1987 through 1991. The panel contains 9,254 corporate tax returns, which account for 72 percent of the AMT paid and 67 percent of total taxes paid by all corporations (except S corporations) during the five-year period. Thus, these corporations account for significant portions of both AMT and total taxes paid during this period.

Approximately 54 percent of those tax returns (4,974 returns) were AMT taxpayers for at least one year during the period 1987 through 1991 (Table 6). The remaining 46 percent (4,280 returns) were regular taxpayers for the entire period. Corporations that paid AMT for at least one year accounted for almost 44 percent of total taxes paid by corporations in the panel during that period (Table 6). AMT paid averaged 5 percent of total taxes paid by corporations in the panel during the period, although it ranged from 3 percent in 1987 to 10 percent in 1990.

Effect of Duration of AMT Status

The duration of AMT status was relatively short for most AMT taxpayers. Approximately 71 percent of the AMT taxpayers were AMT taxpayers for two years or less (Table 7). Only three percent were AMT taxpayers every year from 1987 through 1991. Most of the AMT liabilities during the period (78 percent) were paid by corporations that were AMT taxpayers from 2 to 4 years (55 percent of the AMT taxpayers).

AMT paid as a share of total taxes paid for AMT taxpayers increases the longer the duration of AMT status. For example, AMT accounted for 10 percent or less of total taxes paid by AMT corporations that were AMT taxpayers for two years or less, and over one-half of total taxes for corporations that were AMT taxpayers for four years or more. Nevertheless, the AMT accounts for a relatively small percentage of total taxes paid by AMT taxpayers, i.e., less than one-third for corporations that were AMT taxpayers for three years or more.

The number of AMT taxpayers and the amount of AMT paid increased significantly in 1990. Approximately 47 percent of firms with AMT liability were AMT taxpayers in 1990, compared to 38 to 40 percent for the other years (Table 8). The percentage of total AMT paid in 1990 is much higher than that paid in any other year regardless of the number of years a firm is an AMT taxpayer. AMT liabilities for 1990 and 1991 greatly exceeded that for the three prior years. Nearly 62 percent of the AMT paid during this period was paid in 1990 and 1991 (Table 9).

Although on balance the total number of AMT taxpayers declined approximately 16 percent from 1990 to 1991 (from 2,326 corporations to 1,964 corporations, respectively), some corporations that were AMT taxpayers

in 1990 continued to be AMT taxpayers in 1991, others became AMT taxpayers for the first time or returned to AMT status. Approximately one-half of the corporations that were AMT taxpayers in 1990 did not have AMT status in 1991 (1,192 corporations). One explanation for this change may be the decline in ACE preferences in 1991 because of a reduction in ACE depreciation preferences for property placed in service from 1981 through 1989. The remaining one-half of the corporations were AMT taxpayers both in 1990 and 1991 (1,131). An additional 833 corporations that were not AMT taxpayers in 1990 became AMT taxpayers in 1991. Thus, in 1991, 58 percent of the AMT taxpayers were also AMT taxpayers in 1990 and 42 percent were not AMT taxpayers in 1990.

Table 10 shows the regular net income and AMT status for firms in the panel. This information suggests reasons for the large shifts in AMT status between 1990 and 1991. Nearly two-thirds of the corporations in the panel were not AMT taxpayers in 1990 and 1991. Although most of these corporations had positive net income for both years, nearly one-fifth had losses in both years, and had no regular taxable income or AMTI.

Most firms that became AMT taxpayers in 1991 had positive regular net income both years and likely positive AMTI. These taxpayers may have had lower regular net income in 1991 or larger adjustments and preferences. Approximately one-third of the corporations that became AMT taxpayers in 1991 (but were not AMT taxpayers in 1990) were subject to the AMT's 90 percent limitation on the use of NOLs and the foreign tax credit. Most of those corporations had losses in 1990 and therefore carried forward NOLs that they could use in 1991 to eliminate regular tax, but not AMT.

Approximately one-half of the corporations that were AMT taxpayers in 1990, but not in 1991, had positive net income in 1991. Firms with increases in net income and reductions in preferences and adjustments (such as ACE) are more likely to leave AMT status.

Most of the firms that stayed on the AMT had positive AMTI for both years. Approximately 27 percent were AMT taxpayers in both years because of limitations on the use of NOLs and foreign tax credits.

Use of AMT Credits

Many corporations will continue to be affected by the AMT through their use of AMT credits. The AMT credit provides an offset against regular tax in a subsequent year for the prepayment of tax under the AMT. However, AMT credits that may be used in a particular year are limited--they cannot reduce regular tax after other credits below tentative AMT.

This limitation may also indirectly affect a corporation's incentive to invest. For example, an increase in investment can reduce regular taxable income more than AMTI because depreciation allowances are more accelerated under the regular tax. This will reduce the difference between regular tax after credits and tentative minimum tax, and thus the firm's ability to use AMT credits.

Firms in the panel paid \$16.2 billion in AMT during the period 1987 through 1990 and used \$2.4 billion in AMT credits (Table 11). The balance, \$13.7 billion, is available as credits for later years. Although credit usage doubled for firms in the panel between 1990 and 1991, firms were still accumulating credits faster than they could use them.

Table 12 shows how quickly AMT credits generated in a particular year are used. Approximately 62 percent of the credits generated in 1987 were used after four years and roughly one-quarter of the AMT credits generated in 1988 and 1989 were used by 1991. Regardless of the year AMT was generated, AMT credit usage slowed substantially in 1990.

Effect on the General Business Credit

Regular taxpayers also may continue to be affected by the AMT through its effect on the use of general business credits (GBCs). A corporation cannot use its general business credits to reduce its net regular tax below the greater of its tentative minimum tax or 25 percent of its net regular tax in excess of \$25,000.

To determine the degree to which the alternative minimum tax limits the use of GBCs, we examined corpo-

rate tax returns that were subject to the tentative minimum tax limitation on their GBCs in 1990 and 1991. For those corporations, we calculated the amount of GBCs they would have been able to use absent the tentative alternative minimum tax limitation. For 1990 and 1991, an additional \$540 million of GBCs were deferred because of the tentative minimum tax limitation (Table 13). These deferred GBCs account for roughly one-fifth of total GBCs before the limitation for 1990 and 1991 for corporations in the panel.

■ Conclusions

The number of AMT taxpayers and the amount of AMT paid were lower in 1991 than in 1990, when they reached their peaks. Nevertheless, both the number of AMT taxpayers and the amount of AMT paid were higher in 1991 than for any year prior to 1990.

Part of the decline may reflect the decrease in the ACE preference adjustment. Changes in corporations' tax status also reflect changes in their specific net income situation. Generally, increases in regular net income cause firms to go off the AMT and decreases cause firms to go on the AMT. However, some firms with increases in regular net income became AMT taxpayers because of the AMT's limitation on the use of losses.

Although the number of firms on the AMT appears to be declining, many firms will continue to be affected by their prior AMT status through limitations on the use of AMT credits. Approximately 85 percent of corporations in the panel that had AMT status for at least one year from 1987 through 1991 either had AMT status in 1991 or unused AMT credits at the end of 1991. Those corporations account for 46 percent of corporations in the panel. In addition, the AMT limits the use of general business credits, even for firms with no prior AMT status.

■ Endnotes

[1] As a result of recent changes under the Omnibus Budget Reconciliation Act of 1993, the importance

of the corporate AMT is likely to decrease in the future. The Omnibus Budget Reconciliation Act of 1993 repealed the adjusted current earnings depreciation adjustment for property placed in service after December 31, 1993.

- [2] The operation of the AMT is discussed in Gerardi, Milner, and Silverstein (1993), pp. 118-19.
- [3] AMT paid in 1991 is not creditable until later years.
- [4] For a description of the characteristics of the panel and its limitations, see Gerardi, Milner, and Silverstein (1993), p. 122.
- [5] Approximately 56 percent of that later group (463 corporations) became AMT taxpayers for the first time in 1991.
- [6] The alternative tax net operating loss deduction is limited to 90 percent of alternative minimum taxable income before the exemption. The AMT foreign tax credit is also subject to a 90 percent limit. The credit cannot reduce AMT below 10 percent of what AMT would be if it were calculated before AMT NOLs.
- [7] The difference between depreciation under the regular tax and the AMT must be sufficient to offset the effect of the lower AMT tax rate.
- [8] General business credits include the investment credit, jobs credit, credit for alcohol used as fuel, research tax credit, low-income housing credit, enhanced oil recovery credit, disabled access credit, passive activity credits, and certain credit carryforwards and carrybacks.
- [9] A corporation's net regular tax is its regular tax before credits less the foreign tax credit, possessions tax credit, credit for fuel from a non-conventional source, and orphan drug credit. ■

Table 1.--Number of Corporate Returns and Taxes Paid by Corporations with Alternative Minimum Tax: 1987-91¹

	1987	1988	1989	1990	1991 ²
Number of returns with AMT (thousands)	17.4	25.2	25.2	32.5	30.4
Taxes paid by AMT taxpayers (\$ billions) ³	5.6	6.1	7.7	20.4	12.8
Alternative minimum tax (\$ billions)	2.2	3.4	3.5	8.1	5.3
AMT returns as a percent of total returns (percent)	0.8	1.1	1.0	1.5	1.4
Taxes paid by AMT taxpayers as a percent of total taxes paid (percent)	6.5	6.4	8.1	21.4	14.2
AMT paid as a percent of total taxes paid (percent)	2.6	3.6	3.7	8.5	5.9

¹Excludes S Corporations.²Preliminary data.³Excludes the environmental tax, personal holding company tax and recapture taxes.Source: Internal Revenue Service, *Statistics of Income*, 1987-91.**Table 2.--Distribution of Corporate AMT Liabilities by Asset Size Class for 1987-90¹**

Asset Size Class (\$ thousands)	Year				
	1987	1988	1989	1990	1991 ²
	(Percent)				
0 - 1,000	2.6	2.0	3.1	1.0	1.4
1,000 - 10,000	5.2	5.0	5.1	2.8	4.4
10,000 - 50,000	5.8	5.6	5.7	3.3	4.5
50,000 - 100,000	3.3	2.9	3.1	2.2	2.6
100,000 - 250,000	5.4	5.2	5.3	3.3	4.8
250,000 - 500,000	5.3	4.1	5.9	4.1	4.5
500,000 or more	72.3	75.2	71.8	83.3	77.8
Total	100.0	100.0	100.0	100.0	100.0
	(\$ billions)				
Total AMT liabilities	2.2	3.4	3.5	8.1	5.3

¹Excludes S Corporations.²Preliminary dataSource: Internal Revenue Service, *Statistics of Income*, 1987-90.

Table 3.--Corporate Tax Returns with AMT as a Percent of Total Returns in Asset Size Class for 1987-91¹

Asset Size Class (\$ thousands)	Year				
	1987	1988	1989	1990	1991 ²
	(Percent)				
0 - 1,000	0.2	0.4	0.8	0.5	0.4
1,000 - 10,000	3.7	5.3	15.1	7.7	7.7
10,000 - 50,000	12.1	15.2	16.4	16.7	16.3
50,000 - 100,000	17.3	17.9	16.9	20.0	16.7
100,000 - 250,000	18.5	18.2	18.1	20.0	16.9
250,000 - 500,000	17.8	18.4	18.1	20.8	16.5
500,000 or more	21.2	21.1	19.7	25.6	20.4
Total	0.7	1.1	1.1	1.5	1.4
	(Thousands)				
Number of returns with AMT	17.4	25.2	25.3	32.5	30.4

¹Excludes S Corporations.²Preliminary data.Source: Internal Revenue Service, *Statistics of Income*, 1987-91.**Table 4.--Adjustments and Preferences as a Percent of Taxable Income Before NOLs: 1987-91¹**

	Year				
	1987	1988	1989	1990	1991 ²
	(Percent)				
Total adjustments	13.8	16.5	27.1	26.1	30.3
Depreciation (post-1986 property)	8.9	16.3	26.8	28.1	32.1
Total preferences	6.8	4.3	4.8	2.6	2.7
Depletion	3.0	2.9	3.7	1.4	1.3
Book income or ACE adjustments ³	58.3	35.4	26.2	48.9	36.3

¹Excludes S Corporations.²Preliminary data.³Book income adjustment for 1987-9; ACE adjustment for 1991. Only positive book income and ACE adjustments are included, since the negative adjustments do not contribute to AMTI for the period 1987-1990.Source: Internal Revenue Service, *Statistics of Income*, 1987-91.

Table 5.--AMT Credit Use: 1987-91¹
(\$ billions)

	Year					
	1987	1988	1989	1990	1991 ²	Total
AMT credit balance, beginning of year	--	2.2	5.1	7.8	15.2	--
AMT paid	2.2	3.4	3.5	8.1	5.3	22.5
AMT credit used	--	.5	.8	.7	1.4	3.4
AMT credit balance, end of year	2.2	5.1	7.8	15.2	19.1	--

¹Excludes S Corporations.²Preliminary data.Source: Internal Revenue Service, *Statistics of Income*, 1987-91.**Table 6.--Number of Corporate Returns and Taxes Paid by Corporations in Panel With Alternative Minimum Tax: 1987-91**

	Year					
	1987	1988	1989	1990	1991	Total
Number of returns with AMT (thousands)	1.9	2.0	1.9	2.3	2.0	5.0
Taxes paid (\$ billions)	22.4	29.6	28.3	27.0	28.5	135.8
Alternative minimum tax (\$ billions)	1.4	2.4	2.4	6.3	3.7	16.2
Number of returns with AMT as a percent of total returns in panel (percent)	20.4	21.7	20.4	25.1	21.2	53.7
Taxes paid by AMT taxpayers as a percent of total taxes paid by corporations in panel (percent)	42.1	46.5	43.5	42.6	43.9	43.7
AMT paid as a percent of total taxes paid by corporations in panel (percent)	2.6	3.8	3.6	9.9	5.7	5.2

Source: Internal Revenue Service, *Statistics of Income*, 1987-91.

Table 7.--Percent of Returns with AMT and Percent of AMT Paid and AMT As a Percent of Total Tax Paid by Corporations in Panel by Number of Years with AMT Liability: 1987-91

Number of Years with AMT Liability	Percent of AMT Returns in Panel	Percent of AMT Paid	AMT Paid as a Percent of Total Tax Paid	Percent of Total Tax Paid by AMT Taxpayers
1	41.8	14.3	3.4	50.2
2	28.9	26.6	10.2	31.1
3	17.3	25.7	26.5	11.6
4	8.8	26.6	51.2	6.2
5	3.2	6.7	80.4	1.0
Total	100.0	100.0	11.9	100.0

Source: Internal Revenue Service, *Statistics of Income*, 1987-91.

Table 8.--Corporations in Panel with AMT Liabilities as a Percent of Total Corporations in Panel with AMT Liabilities by Number of Years with AMT Liability and Year of AMT Liability: 1987-91

Number of Years with AMT Liabilities	Year					
	1987	1988	1989	1990	1991	Total
	(Percent)					
1	10.7	7.3	5.7	8.8	9.3	41.8
2	10.0	11.8	10.1	14.4	11.6	28.9
3	8.4	10.6	11.3	12.3	9.2	17.3
4	5.7	7.6	7.7	8.1	6.3	8.8
5	3.2	3.2	3.2	3.2	3.2	3.2
Total	37.9	40.4	38.0	46.8	39.5	100.0

Table 9.--AMT Paid by Year as Percentage of Total AMT Paid by Corporations in Panel by Number of Years with AMT Liabilities and Year of AMT Liability: 1987-91

Number of Years with AMT Liabilities	Year					
	1987	1988	1989	1990	1991	Total
	(Percent)					
1	1.4	1.6	1.7	6.9	2.7	14.3
2	2.3	2.6	3.5	11.6	6.5	26.6
3	1.8	3.9	3.9	9.3	6.9	25.8
4	2.5	4.4	4.6	9.2	5.8	26.6
5	0.5	2.4	1.0	1.7	1.2	6.7
Total	8.7	14.8	14.7	38.7	23.1	100.0

Table 10.--Number of Corporations in Panel by Income and Tax Status for 1990 and 1991

AMT Status		AMTI Status		Net Income Status										Total All Firms			
				Positive 1990			Zero 1990			Negative 1990			Positive 1991			Negative 1991	
1990	1991	1990	1991	Positive 1991	Positive, Zero Tax * 1991	Negative 1991	Positive 1991	Positive, Zero Tax* 1991	Negative 1991	Positive 1991	Positive, Zero tax* 1991	Negative 1991	Positive 1991	Positive, Zero tax* 1991	Negative 1991		
Off	Off	n/a	n/a	4,193	9	279	20	95	28	201	84	1,189	201	84	1,189	6,098	
Off	On	n/a	Positive	331	12	70	6	4	1	53	33	35	53	33	35	545	
			90% limit	14	8	0	4	20	0	66	141	35	288				
On	Off	Positive	n/a	574	4	133	29	2	29	54	3	71	54	3	71	899	
		90% limit	n/a	44	9	52	52	14	91	3	2	26	3	2	26	293	
On	On	Positive	Positive	397	17	76	53	25	9	79	10	39	79	10	39	705	
			90% limit		2	2	1	0	2	0	0	1	15				
		90% limit	Positive	23	12	2	27	22	2	2	8	6	4	8	6	4	106
			90% limit	49	51	5	44	110	7	12	12	11	16	12	11	16	305
		Total		5,632	124	619	236	292	169	476	290	1,416	476	290	1,416	9,254	

Table 11.--AMT Credit Use for Corporations in the Panel: 1987-91

	Year					
	1987	1988	1989	1990	1991	Total
AMT credit balance, beginning of year	--	1,400	3,489	5,239	11,069	--
AMT paid	1,400	2,399	2,370	6,262	3,741	16,172
AMT credits used	--	310	620	432	1,071	2,433
AMT credit balance, end of year	1,400	3,489	5,239	11,069	13,739	--

Source: Internal Revenue Service, *Statistics of Income*, 1987-91.

Table 12.--Pattern of AMT Credit Use for Corporations in Panel¹

Year of AMT Liability	AMT Paid	Credit Use as a Percent of AMT Liability After:				
		1 year	2 years	3 years	4 years	Total
1987	1,400	22.1	19.3	8.2	16.2	65.8
1988	2,399	14.0	3.9	7.4		25.3
1989	2,370	9.5	13.6			23.1
1990	6,262	5.5				5.5
1991	3,741					0.0
Total	16,172					14.7
Total pre-91	12,431					19.1

¹Assumes that credits used in a particular year are attributable first to the earliest year of AMT liability and then to subsequent years.

Table 13.--Number of Corporations with General Business Credits and Amount Deferred Because of AMT Limitation

	1990	1991
Number of corporations	220	207
Additional GBCs permitted in absence of AMT limitation (\$ millions)	\$277	\$263
Percent of GBCs deferred	20.7%	16.0%