IMPACT OF THE ECONOMIC RECOVERY TAX ACT OF 1981 ON REAL ESTATE TAX SHELTERS

by Ronald E. Copley

Passage of the Economic Recovery Tax Act of 1981 will directly affect investments in real estate tax shelters in contrasting ways [Hall, Meagher, 1981]. On the one hand, the Act should enhance investment because of substantially faster write-offs. Fixed recovery allowances are based on a 175 percent declining balance method over a 15 year period. The Act also reduces the maximum capital gains rate from 28 to 20 percent. Thus, taxes paid at time of sale will be considerably lower for high-bracket taxpayers.

On the other hand, the Act should diminish investment because of a reduction in tax rates. Individual tax rates will drop approximately 23 percent over the period from 1981 to '84 and the maximum tax rate decreases from 70 to 50 percent effective January 1, 1981. Thus, some marginal investors may no longer have an incentive to shelter income.

This paper examines these contrasting effects of the 1981 Act. Simulation analysis is employed in order to compare internal rates of return (IRRs) based on various assumptions of the old and new laws. The results show that the Act should increase investment for every tax bracket observed. Furthermore, the analysis indicates that the incentive to invest is more evenly distributed across all tax brackets and away from favoring only high income taxpayers.

The Model And Results

The model used to calculate after-tax flows necessary for determining the IRR of an investment is presented in Kau and Sirmans [1980] and discussed in Wendt and Cerf [1979]. Assumptions of the analysis are contained in Table 1. IRRs are calculated assuming marginal tax rates for married individuals filing joint returns according to the schedule presented in Table 2.

The analysis for the old law assumes constant 1980 rates throughout the life of the investment. According to the new law, these rates were reduced by 1.25 percent for 1981, 10 percent for 1982, 19 percent for 1983, and 23 percent for 1984. Tax rates after 1984 are assumed constant at the 1984 rate throughout the remaining life of the investment.

For both the old and new laws, IRRs for the four different tax brackets are presented in Table 2. Three different capitalization and interest rates, and two different holding periods are presented in Tables 3 through 8. Data in all six tables indicate that the new law should greatly enhance investment for taxpayers in all four brackets and at every rate of interest. For example, in Table 3 where a five year holding period and a 16 percent capitalization rate are assumed, IRRs based on the new law exceed those based on the old law by significant amounts. In all the tables, the differential appears to be higher at lower interest rates and the longer holding period. Overall, the new tax law should enable higher rates of return under every set of assumptions.

Another interesting observation is derived from the data: Whereas the old law tended to encourage investment for higher income taxpayers, the new law tends to spread out that incentive to taxpayers in all brackets, as portrayed by Figures 1 and 2 that have been constructed from data contained in Tables 3 through 8. In both figures, dashed lines represent the old law and solid lines represent the new. Figure 1(a), which assumes a period of 10 years and a capitalization rate of 16 percent, shows that significantly higher rates of return are possible for higher brackets than for lower brackets under the old law. The steepness of the dashed lines should be noted.

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For the new law, however, this preferential treatment afforded to higher income taxpayers is smoothed out across all lower brackets. The solid lines are not as steep as the dashed lines. This observation is generally present in Figures 1(b) and 1(c) as well as throughout Figure 2. In fact, it appears to be more prevalent for the longer 10 year holding period and higher capitalization rates.

Summary And Conclusions

Results of this analysis have important implications for both shelter investors and promoters. Evidence presented clearly shows that the Economic Recovery Tax Act of 1981 should make tax shelters more attractive to investors, owing to faster write-off allowances and lower capital gains rates at time of sale. This incentive to invest more than compensates for any disincentive to invest caused by lower tax rates on ordinary income which means lower tax savings over the life of the investment.

In addition, the data indicate that the new law should more evenly distribute the incentive to invest over all tax brackets, instead of mainly the high tax brackets favored by the old law. This result should prove beneficial to the marketing efforts of shelter promoters.

BIBLIOGRAPHY

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TABLE 1
Assumptions of the Analysis

1. No amortized financing costs or mortgage prepayment penalties.
2. Mortgage payments made annually on a 25 year mortgage.
3. For the old law, depreciation is calculated using 200 percent declining balance over a 30 year useful life. Of the total value, 80 percent is depreciable.
4. For the new law, depreciation is calculated using 175 percent declining balance over a 15 year useful life. Of the total value, 80 percent is depreciable.
5. The loan-to-value ratio equals .7.
6. Selling price of the property at time of purchase and time of sale equals $225,000. Net operating income is constant and calculated as a fixed percentage (capitalization rate) of total value.
7. Equity equals .3(1−.7) of total value.
8. No preference items, no alternative minimum tax, and no investment tax credit.
9. Taxes due-on-sale were calculated by dividing the total gain-on-sale (selling expenses equal 5 percent of sales price) into excess depreciation recapture and capital gains with both being taxed at the individual's marginal tax rate in year of sale.

TABLE 2
Tax Rate Schedule for Married Individuals
Filing Joint Returns

Tax Bracket	Taxable Income	Marginal Tax Brackets (%)						
		1980	1981	1982	1983	1984	1985	(and beyond)
A	29,900-35,200	37	36	33	30	28	28	
B	45,800-60,000	49	48	44	40	38	38	
C	85,600-109,400	59	58	50	48	45	45	
D	215,400-	70	69	50	50	50	50	

Source: "Explanation of Economic Recovery Tax Act of 1981" (Chicago: Commerce Clearing House, Inc., 1981), 4.

TABLE 3

IRRs for Old Law vs. New Law

Holding period = 5 years; Capitalization rate = .16

Tax Bracket	IRR Old Law	IRR New Law
Panel A (interest rate = .10)		
A (lowest)	.1970	.2390
B	.1710	.2250
C	.1480	.2150
D (highest)	.1210	.1790
Panel B (interest rate = .13)		
A (lowest)	.1500	.1900
B	.1340	.1840
C	.1180	.1790
D (highest)	.0990	.1560
Panel C (interest rate = .16)		
A (lowest)	.1050	.1385
B	.0950	.1390
C	.0860	.1400
D (highest)	.0750	.1300

TABLE 4

IRRs for Old Law vs. New Law

Holding period = 5 years; Capitalization rate = .13

Tax Bracket	IRR Old Law	IRR New Law
Panel A (interest rate = .10)		
A (lowest)	.0870	.1420
B	.1020	.1594
C	.1150	.1620
D (highest)	.1300	.1650
Panel B (interest rate = .13)		
A (lowest)	.0640	.1170
B	.0710	.1210
C	.0768	.1180
D (highest)	.0843	.1150
Panel C (interest rate = .16)		
A (lowest)	.0390	.0910
B	.0380	.0800
C	.0364	.0720
D (highest)	.0350	.0610

TABLE 5

IRRs for Old Law vs. New Law

Holding period = 5 years; Capitalization rate = .10

Tax Bracket	IRR Old Law	IRR New Law
Panel A (interest rate = .10)		
A (lowest)	.0523	.1040
B	.0558	.1021
C	.0588	.0970
D (highest)	.0624	.0910
Panel B (interest rate = .13)		
A (lowest)	.0283	.0780
B	.0233	.0620
C	.0191	.0510
D (highest)	.0148	.0375
Panel C (interest rate = .16)		
A (lowest)	.0029	.0510
B	−.0110	.0185
C	−.0225	.0019
D (highest)	−.0360	−.0190

TABLE 6

IRRs for Old Law vs. New Law

Holding period = 10 years; Capitalization rate = .16

Tax Bracket	IRR Old Law	IRR New Law
Panel A (interest rate = .10)		
A (lowest)	.1440	.2310
B	.1690	.2360
C	.1900	.2440
D (highest)	.2140	.2540
Panel B (interest rate = .13)		
A (lowest)	.1240	.2000
B	.1415	.2020
C	.1565	.2050
D (highest)	.1730	.2090
Panel C (interest rate = .16)		
A (lowest)	.1010	.1658
B	.1110	.1640
C	.1190	.1620
D (highest)	.1280	.1595

TABLE 7

IRRs for Old Law vs. New Law

Holding period = 10 years; Capitalization rate = .13

Tax Bracket	IRR Old Law	IRR New Law
Panel A (interest rate = .10)		
A (lowest)	.1090	.1780
B	.1230	.1790
C	.1350	.1800
D (highest)	.1485	.1820
Panel B (interest rate = .13)		
A (lowest)	.0875	.1450
B	.0940	.1425
C	.0995	.1386
D (highest)	.1055	.1340
Panel C (interest rate = .16)		
A (lowest)	.0627	.1070
B	.0607	.1010
C	.0590	.0920
D (highest)	.0525	.0805

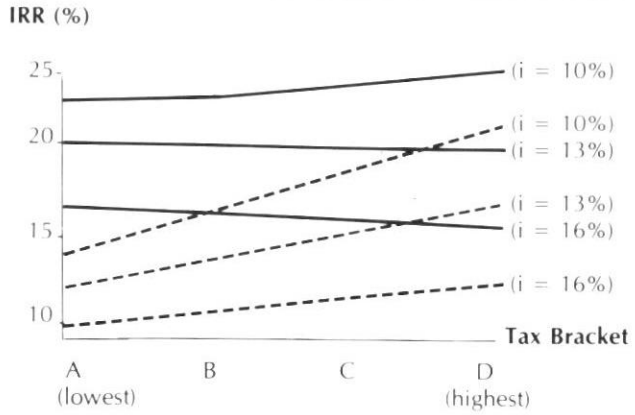
TABLE 8

IRRs for Old Law vs. New Law

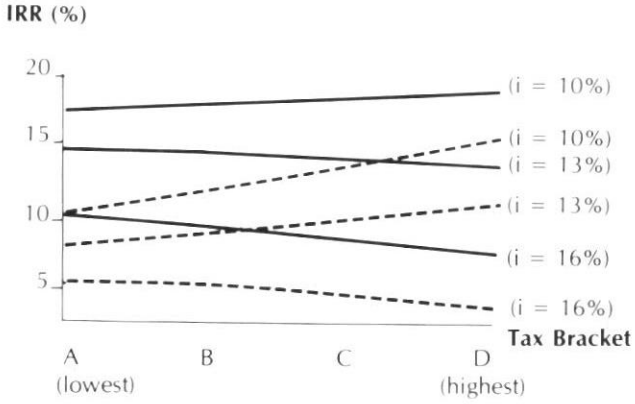
Holding period = 10 years; Capitalization rate = .10

Tax Bracket	IRR Old Law	IRR New Law
Panel A (interest rate = .10)		
A (lowest)	.0734	.1235
B	.0764	.1200
C	.0795	.1144
D (highest)	.0825	.1076
Panel B (interest rate = .13)		
A (lowest)	.0500	.0870
B	.0450	.0800
C	.0405	.0695
D (highest)	.0363	.0560
Panel C (interest rate = .16)		
A (lowest)	.0227	.0445
B	.0009	.0335
C	−.0027	.0180
D (highest)	−.0150	−.0015

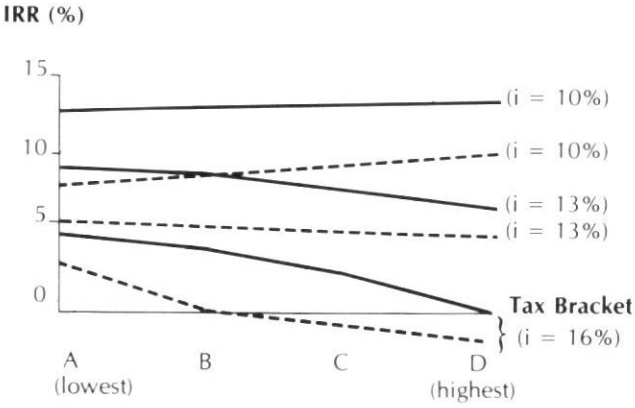
FIGURE 1*
Holding period = 10 years



(a) capitalization rate = 16%



(b) capitalization rate = 13%

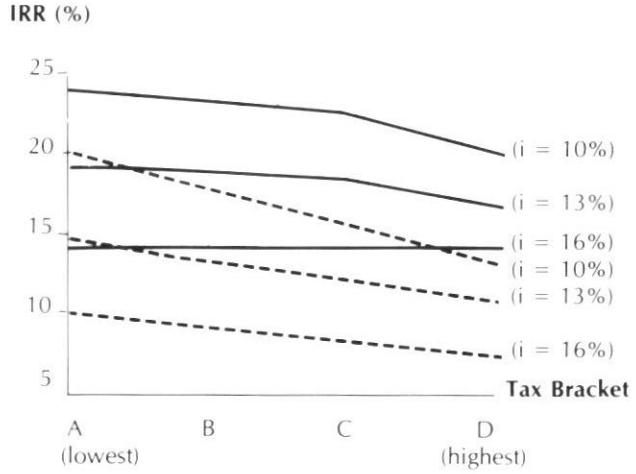


(c) capitalization rate = 10%

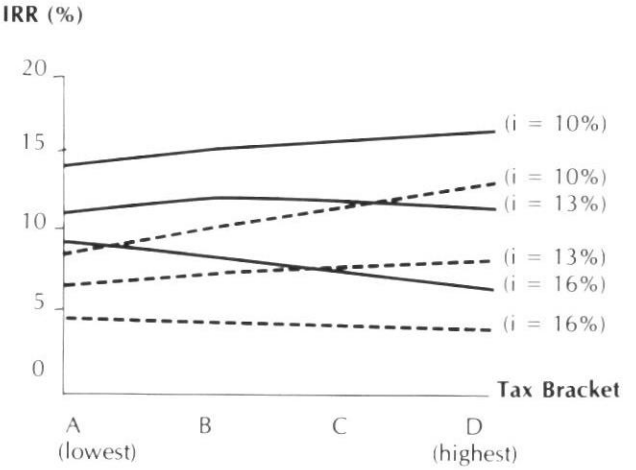
New Law _____

Old Law - - - - - - - - - - -

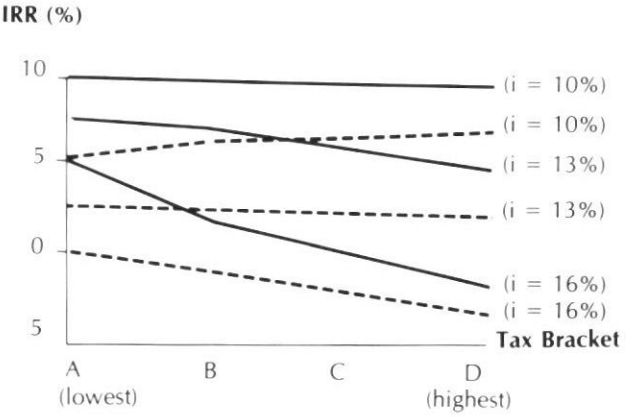
FIGURE 2*
Holding period = 5 years



(a) capitalization rate = 16%



(b) capitalization rate = 13%



(c) capitalization rate = 10%

*Lines in these figures are approximately linear