

Money 101

Comparison of Traditional Vs Roth IRA - at the end of 20 years

ASSUME SAME TAX BRACKET - while contributing and when with-drawing

Assumptions:

Growth Rate	4%	Tax Rate - while working & contributing	30%
Contribution	\$ 5,000	Tax Rate - when withdrawing	30%

year	Traditional						ROTH					
	Start	Contribution	Growth based on prior year value and growth rate	Tax To be paid on total value	Value	Remember	Start	Contribution from after-tax dollars	Growth based on prior year value and growth rate	Tax To be paid on GROWTH only	Value	Remember
1	\$ -	\$ 5,000.00	\$ -		\$ 5,000.00	tax due on total	\$ -	\$ 3,500.00	\$ -		\$ 3,500.00	
2	\$ 5,000.00	\$ 5,000.00	\$ 200.00		\$ 10,200.00	tax due on total	\$ 3,500.00	\$ 3,500.00	\$ 140.00		\$ 7,140.00	
3	\$ 10,200.00	\$ 5,000.00	\$ 408.00		\$ 15,608.00	tax due on total	\$ 7,140.00	\$ 3,500.00	\$ 285.60		\$ 10,925.60	
4	\$ 15,608.00	\$ 5,000.00	\$ 624.32		\$ 21,232.32	tax due on total	\$ 10,925.60	\$ 3,500.00	\$ 437.02		\$ 14,862.62	
5	\$ 21,232.32	\$ 5,000.00	\$ 849.29		\$ 27,081.61	tax due on total	\$ 14,862.62	\$ 3,500.00	\$ 594.50		\$ 18,957.13	
6	\$ 27,081.61	\$ 5,000.00	\$ 1,083.26		\$ 33,164.88	tax due on total	\$ 18,957.13	\$ 3,500.00	\$ 758.29		\$ 23,215.41	
7	\$ 33,164.88	\$ 5,000.00	\$ 1,326.60		\$ 39,491.47	tax due on total	\$ 23,215.41	\$ 3,500.00	\$ 928.62		\$ 27,644.03	
8	\$ 39,491.47	\$ 5,000.00	\$ 1,579.66		\$ 46,071.13	tax due on total	\$ 27,644.03	\$ 3,500.00	\$ 1,105.76		\$ 32,249.79	
9	\$ 46,071.13	\$ 5,000.00	\$ 1,842.85		\$ 52,913.98	tax due on total	\$ 32,249.79	\$ 3,500.00	\$ 1,289.99		\$ 37,039.78	
10	\$ 52,913.98	\$ 5,000.00	\$ 2,116.56		\$ 60,030.54	tax due on total	\$ 37,039.78	\$ 3,500.00	\$ 1,481.59		\$ 42,021.37	
11	\$ 60,030.54	\$ 5,000.00	\$ 2,401.22		\$ 67,431.76	tax due on total	\$ 42,021.37	\$ 3,500.00	\$ 1,680.85		\$ 47,202.23	
12	\$ 67,431.76	\$ 5,000.00	\$ 2,697.27		\$ 75,129.03	tax due on total	\$ 47,202.23	\$ 3,500.00	\$ 1,888.09		\$ 52,590.32	
13	\$ 75,129.03	\$ 5,000.00	\$ 3,005.16		\$ 83,134.19	tax due on total	\$ 52,590.32	\$ 3,500.00	\$ 2,103.61		\$ 58,193.93	
14	\$ 83,134.19	\$ 5,000.00	\$ 3,325.37		\$ 91,459.56	tax due on total	\$ 58,193.93	\$ 3,500.00	\$ 2,327.76		\$ 64,021.69	
15	\$ 91,459.56	\$ 5,000.00	\$ 3,658.38		\$ 100,117.94	tax due on total	\$ 64,021.69	\$ 3,500.00	\$ 2,560.87		\$ 70,082.56	
16	\$ 100,117.94	\$ 5,000.00	\$ 4,004.72		\$ 109,122.66	tax due on total	\$ 70,082.56	\$ 3,500.00	\$ 2,803.30		\$ 76,385.86	
17	\$ 109,122.66	\$ 5,000.00	\$ 4,364.91		\$ 118,487.56	tax due on total	\$ 76,385.86	\$ 3,500.00	\$ 3,055.43		\$ 82,941.29	
18	\$ 118,487.56	\$ 5,000.00	\$ 4,739.50		\$ 128,227.06	tax due on total	\$ 82,941.29	\$ 3,500.00	\$ 3,317.65		\$ 89,758.95	
19	\$ 128,227.06	\$ 5,000.00	\$ 5,129.08		\$ 138,356.15	tax due on total	\$ 89,758.95	\$ 3,500.00	\$ 3,590.36		\$ 96,849.30	
20	\$ 138,356.15	\$ 5,000.00	\$ 5,534.25		\$ 148,890.39	tax due on total	\$ 96,849.30	\$ 3,500.00	\$ 3,873.97		\$ 104,223.28	
21	\$ 148,890.39			\$ (44,667.12)	\$ 104,223.28	TRUE VALUE	\$ 104,223.28			\$ 104,223.28	TRUE VALUE	
	\$ 100,000.00	\$ 48,890.39	\$ (44,667.12)	\$ 104,223.28			\$ 70,000.00	\$ 34,223.28	\$ -	\$ 104,223.28		

A factor to always consider is your tax bracket while working, and when withdrawing
 The above illustration assumes they are different
 Looking at a Traditional IRA balance can be deceiving, because the tax is still due on all or a part of it

Money 101

Comparison of Traditional Vs Roth IRA - at the end of 20 years - if in different tax brackets

Higher tax bracket at retirement

Assumptions:

Growth Rate	4%	Tax Rate - while working & contributing	20%
Contribution	\$ 5,000	Tax Rate - when withdrawing	30%

year	Traditional						ROTH					
	Start	Contribution	Growth based on prior year value and growth rate	Tax To be paid on total value	Value	Remember	Start	Contribution from after-tax dollars	Growth based on prior year value and growth rate	Tax To be paid on GROWTH only	Value	Remember
1	\$ -	\$ 5,000.00	\$ -		\$ 5,000.00	tax due on total	\$ -	\$ 4,000.00	\$ -		\$ 4,000.00	
2	\$ 5,000.00	\$ 5,000.00	\$ 200.00		\$ 10,200.00	tax due on total	\$ 4,000.00	\$ 4,000.00	\$ 160.00		\$ 8,160.00	
3	\$ 10,200.00	\$ 5,000.00	\$ 408.00		\$ 15,608.00	tax due on total	\$ 8,160.00	\$ 4,000.00	\$ 326.40		\$ 12,486.40	
4	\$ 15,608.00	\$ 5,000.00	\$ 624.32		\$ 21,232.32	tax due on total	\$ 12,486.40	\$ 4,000.00	\$ 499.46		\$ 16,985.86	
5	\$ 21,232.32	\$ 5,000.00	\$ 849.29		\$ 27,081.61	tax due on total	\$ 16,985.86	\$ 4,000.00	\$ 679.43		\$ 21,665.29	
6	\$ 27,081.61	\$ 5,000.00	\$ 1,083.26		\$ 33,164.88	tax due on total	\$ 21,665.29	\$ 4,000.00	\$ 866.61		\$ 26,531.90	
7	\$ 33,164.88	\$ 5,000.00	\$ 1,326.60		\$ 39,491.47	tax due on total	\$ 26,531.90	\$ 4,000.00	\$ 1,061.28		\$ 31,593.18	
8	\$ 39,491.47	\$ 5,000.00	\$ 1,579.66		\$ 46,071.13	tax due on total	\$ 31,593.18	\$ 4,000.00	\$ 1,263.73		\$ 36,856.91	
9	\$ 46,071.13	\$ 5,000.00	\$ 1,842.85		\$ 52,913.98	tax due on total	\$ 36,856.91	\$ 4,000.00	\$ 1,474.28		\$ 42,331.18	
10	\$ 52,913.98	\$ 5,000.00	\$ 2,116.56		\$ 60,030.54	tax due on total	\$ 42,331.18	\$ 4,000.00	\$ 1,693.25		\$ 48,024.43	
11	\$ 60,030.54	\$ 5,000.00	\$ 2,401.22		\$ 67,431.76	tax due on total	\$ 48,024.43	\$ 4,000.00	\$ 1,920.98		\$ 53,945.41	
12	\$ 67,431.76	\$ 5,000.00	\$ 2,697.27		\$ 75,129.03	tax due on total	\$ 53,945.41	\$ 4,000.00	\$ 2,157.82		\$ 60,103.22	
13	\$ 75,129.03	\$ 5,000.00	\$ 3,005.16		\$ 83,134.19	tax due on total	\$ 60,103.22	\$ 4,000.00	\$ 2,404.13		\$ 66,507.35	
14	\$ 83,134.19	\$ 5,000.00	\$ 3,325.37		\$ 91,459.56	tax due on total	\$ 66,507.35	\$ 4,000.00	\$ 2,660.29		\$ 73,167.64	
15	\$ 91,459.56	\$ 5,000.00	\$ 3,658.38		\$ 100,117.94	tax due on total	\$ 73,167.64	\$ 4,000.00	\$ 2,926.71		\$ 80,094.35	
16	\$ 100,117.94	\$ 5,000.00	\$ 4,004.72		\$ 109,122.66	tax due on total	\$ 80,094.35	\$ 4,000.00	\$ 3,203.77		\$ 87,298.12	
17	\$ 109,122.66	\$ 5,000.00	\$ 4,364.91		\$ 118,487.56	tax due on total	\$ 87,298.12	\$ 4,000.00	\$ 3,491.92		\$ 94,790.05	
18	\$ 118,487.56	\$ 5,000.00	\$ 4,739.50		\$ 128,227.06	tax due on total	\$ 94,790.05	\$ 4,000.00	\$ 3,791.60		\$ 102,581.65	
19	\$ 128,227.06	\$ 5,000.00	\$ 5,129.08		\$ 138,356.15	tax due on total	\$ 102,581.65	\$ 4,000.00	\$ 4,103.27		\$ 110,684.92	
20	\$ 138,356.15	\$ 5,000.00	\$ 5,534.25		\$ 148,890.39	tax due on total	\$ 110,684.92	\$ 4,000.00	\$ 4,427.40		\$ 119,112.31	
21	\$ 148,890.39			\$ (44,667.12)	\$ 104,223.28	TRUE VALUE	\$ 119,112.31			\$ 119,112.31	TRUE VALUE	
	\$ 100,000.00	\$ 48,890.39	\$ (44,667.12)	\$ 104,223.28			\$ 80,000.00	\$ 39,112.31	\$ -	\$ 119,112.31		

A factor to always consider is your tax bracket while working, and when withdrawing
 The above illustration assumes they are different
 Looking at a Traditional IRA balance can be deceiving, because the tax is still due on all or a part of it

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Comparison of Traditional Vs Roth IRA - at the end of 20 years - if in different tax brackets

Lower tax bracket at retirement

Assumptions:

Growth Rate	4%	Tax Rate - while working & contributing	30%
Contribution	\$ 5,000	Tax Rate - when withdrawing	20%

year	Traditional						ROTH					
	Start	Contribution	Growth based on prior year value and growth rate	Tax To be paid on total value	Value	Remember	Start	Contribution from after-tax dollars	Growth based on prior year value and growth rate	Tax To be paid on GROWTH only	Value	Remember
1	\$ -	\$ 5,000.00	\$ -		\$ 5,000.00	tax due on total	\$ -	\$ 3,500.00	\$ -		\$ 3,500.00	
2	\$ 5,000.00	\$ 5,000.00	\$ 200.00		\$ 10,200.00	tax due on total	\$ 3,500.00	\$ 3,500.00	\$ 140.00		\$ 7,140.00	
3	\$ 10,200.00	\$ 5,000.00	\$ 408.00		\$ 15,608.00	tax due on total	\$ 7,140.00	\$ 3,500.00	\$ 285.60		\$ 10,925.60	
4	\$ 15,608.00	\$ 5,000.00	\$ 624.32		\$ 21,232.32	tax due on total	\$ 10,925.60	\$ 3,500.00	\$ 437.02		\$ 14,862.62	
5	\$ 21,232.32	\$ 5,000.00	\$ 849.29		\$ 27,081.61	tax due on total	\$ 14,862.62	\$ 3,500.00	\$ 594.50		\$ 18,957.13	
6	\$ 27,081.61	\$ 5,000.00	\$ 1,083.26		\$ 33,164.88	tax due on total	\$ 18,957.13	\$ 3,500.00	\$ 758.29		\$ 23,215.41	
7	\$ 33,164.88	\$ 5,000.00	\$ 1,326.60		\$ 39,491.47	tax due on total	\$ 23,215.41	\$ 3,500.00	\$ 928.62		\$ 27,644.03	
8	\$ 39,491.47	\$ 5,000.00	\$ 1,579.66		\$ 46,071.13	tax due on total	\$ 27,644.03	\$ 3,500.00	\$ 1,105.76		\$ 32,249.79	
9	\$ 46,071.13	\$ 5,000.00	\$ 1,842.85		\$ 52,913.98	tax due on total	\$ 32,249.79	\$ 3,500.00	\$ 1,289.99		\$ 37,039.78	
10	\$ 52,913.98	\$ 5,000.00	\$ 2,116.56		\$ 60,030.54	tax due on total	\$ 37,039.78	\$ 3,500.00	\$ 1,481.59		\$ 42,021.37	
11	\$ 60,030.54	\$ 5,000.00	\$ 2,401.22		\$ 67,431.76	tax due on total	\$ 42,021.37	\$ 3,500.00	\$ 1,680.85		\$ 47,202.23	
12	\$ 67,431.76	\$ 5,000.00	\$ 2,697.27		\$ 75,129.03	tax due on total	\$ 47,202.23	\$ 3,500.00	\$ 1,888.09		\$ 52,590.32	
13	\$ 75,129.03	\$ 5,000.00	\$ 3,005.16		\$ 83,134.19	tax due on total	\$ 52,590.32	\$ 3,500.00	\$ 2,103.61		\$ 58,193.93	
14	\$ 83,134.19	\$ 5,000.00	\$ 3,325.37		\$ 91,459.56	tax due on total	\$ 58,193.93	\$ 3,500.00	\$ 2,327.76		\$ 64,021.69	
15	\$ 91,459.56	\$ 5,000.00	\$ 3,658.38		\$ 100,117.94	tax due on total	\$ 64,021.69	\$ 3,500.00	\$ 2,560.87		\$ 70,082.56	
16	\$ 100,117.94	\$ 5,000.00	\$ 4,004.72		\$ 109,122.66	tax due on total	\$ 70,082.56	\$ 3,500.00	\$ 2,803.30		\$ 76,385.86	
17	\$ 109,122.66	\$ 5,000.00	\$ 4,364.91		\$ 118,487.56	tax due on total	\$ 76,385.86	\$ 3,500.00	\$ 3,055.43		\$ 82,941.29	
18	\$ 118,487.56	\$ 5,000.00	\$ 4,739.50		\$ 128,227.06	tax due on total	\$ 82,941.29	\$ 3,500.00	\$ 3,317.65		\$ 89,758.95	
19	\$ 128,227.06	\$ 5,000.00	\$ 5,129.08		\$ 138,356.15	tax due on total	\$ 89,758.95	\$ 3,500.00	\$ 3,590.36		\$ 96,849.30	
20	\$ 138,356.15	\$ 5,000.00	\$ 5,534.25		\$ 148,890.39	tax due on total	\$ 96,849.30	\$ 3,500.00	\$ 3,873.97		\$ 104,223.28	
21	\$ 148,890.39			\$ (29,778.08)	\$ 119,112.31	TRUE VALUE	\$ 104,223.28			\$ 104,223.28	TRUE VALUE	
	\$ 100,000.00	\$ 48,890.39	\$ (29,778.08)	\$ 119,112.31			\$ 70,000.00	\$ 34,223.28	\$ -	\$ 104,223.28		

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 The above illustration assumes they are different
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