

**Who Wants to be a Millionaire.**

**Can Low Income Households Invest Their Way to Wealth?**

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#### **Introduction**

The most popular television show in the United States in the 1999-2000 season was "Who wants to be a millionaire," in which contestants try to win a million dollars by guessing at easy multiple choice questions. Example: *The first president of the United States was (A) Lenin (B) Washington (C) Lincoln (D) Clinton*. If they get stumped by such questions, they can use a "lifeline," which includes polling the audience, calling a friend, or asking to have two incorrect answers eliminated. Rarely has becoming rich seemed so painless. This show has become popular at the same time that proposals are increasing for the privatization of the Social Security system, which would require that individuals acquire more personal wealth. At the same time, the inequality of wealth and income has continued to increase. Financial advice on easy ways to get rich is everywhere (Savage, 2000).

By analyzing spending and saving patterns as well as historical investment returns, this paper examines the prospects for low income workers improving their financial status and becoming comfortable through investing. Accumulating a million dollars in terms of today's purchasing power may be a reasonable goal because forty years from now, with increasing life expectancies, a million dollars might only suffice to obtain an annuity that would cover necessities in many urban areas in the U.S. In the absence of Social Security and other defined benefit (formula) pensions, each worker's savings and investment decisions will determine that worker's level of living later in life. What are the prospects for workers?

#### **Literature Review**

##### **American Ideology**

U.S. ideology promotes the concept of "rags to riches," where "the land of opportunity" allows anyone who works hard to become rich. The idea of becoming a millionaire seems not just a possibility, but the American way of life. In 1928, President Herbert Hoover set forth this ideology, stating "Our country has become the land of opportunity to those born without inheritance, not merely because of the wealth of its resources and industry but because of this freedom of initiative and enterprise."<sup>1</sup> Herbert Hoover was not the only advocate of opportunity as the American ideology. Now, even political activist Rev. Jesse L. Jackson (Jackson, Jackson, & Gotschall, 1999) states: "We must learn how to be owners and entrepreneurs, shareholders rather than sharecroppers. We must learn how capitalism works and promote financial literacy among ourselves and our children."<sup>2</sup>

### **Inequality of Income and Wealth**

Whether people actually can move from "rags to riches" is less certain than the messages of the ideology imply. In the last two decades, family income growth has stagnated and incomes have become more unequally distributed. The real incomes of the bottom 60% of American families were lower in the early 1990s than at the end of the 1970s (Danzier & Gottschalk, 1995). The Gini coefficient, a conventional measure of economic inequality, indicated a decline in family income inequality of 7.4% from 1947 to 1968, meaning that during that time, lower income families improved their situation in relative terms. However, from 1968 to 1994, there was a 22.4% increase in income inequality (Weinberg, 1996).

*Demographic Trends in Income Inequality* Maxwell (1990) analyzed the Current Population Survey (CPS) from 1947 to 1985 to estimate the relationship between economic, demographic, and policy changes and income inequality and distribution. Although the aggregate income inequality was less in 1985 than in 1947, the income inequality in 1985 had increased since the 1970s. Maxwell attributed this increase in inequality to the decrease in the proportion of jobs in the manufacturing sector, the increase in the proportion of female-headed households, and the increase in the number of baby boomers. Because income and age have an inverted U relationship (income is lowest at young and old ages) an increase in the proportion of the young and elderly results in an increase in the inequality of income, all other things being equal. The increase in the inequality of income would have been even greater during the time period investigated if not for the increased female labor force participation and increased social-insurance expenditures during the 1947-1985 period.

Some evidence indicates that lower income people in the U.S. have further to go in order to become relatively comfortable than those in other countries. Smeeding (1991) used the Luxembourg Income Study (LIS) from 1979-83 to compare the overall disposable personal income inequality across ten countries and found disposable personal income has the highest degree of inequality in the U.S., followed by Australia and Canada. Factors affecting income inequality were health status, age, gender, marital status, and education. When poverty rates were compared, older couples had lower average poverty rates than single elderly persons living alone. Among the younger elderly (65-74 years), both couples and singles had lower poverty rates than the oldest who were 75 years or older (Smeeding, 1991).

Xiao, Malroux, and Yuh (2000) used data from the 1995 Survey of Consumer Finances and the decomposition of Gini coefficients to examine how income sources contribute to inequality among American families with heads aged 65 or older and retired. Differences in investment income accounted for 47% more than its share to income inequality. The study also compared three types of families, couples with one retiree, retired couples, and retired singles, in terms of sources of income inequality. Investment income contributed the most to income inequality, at 58% for retired singles and 53% for retired couples. While work income contributed more than its share to income inequality, the absolute contribution of work income to income inequality varies among the three groups.

### **Who Wants to be Rich?**

Gallup polls have found that desire to be rich differs among people on the basis of sex, education, income, and age. According to surveys in 1990 and 1996, six in ten said they would like to be rich old (Ladd & Bowman, 1998). In both years, men were more likely than women to want to be rich (65% compared to 55%). In both surveys, those with higher levels of formal education and income expressed more interest in wealth than those with lower levels of education. In 1996, 70% of college graduates compared, with only 43% of those who had not finished high school, wanted to be rich. The majority of those earning more than \$75,000 a year expressed a desire to be rich compared to those making less than \$15,000 (71 % compared to 47%). And, being rich was an aspiration for the young far more than for the old (Ladd & Bowman, 1998).

On the actual likelihood of becoming wealthy, the 1990 and 1996 Gallup results are remarkably similar. About 10% in both years said this was very likely, and slightly under 25% called it somewhat likely. The number

answering not very likely was 32% in 1990 and 37% in 1996. And the “not at all likely” response was 35% in 1990, and 27% in 1996. The likelihood of becoming wealthy differed significantly by age, with young people expressing the greatest optimism. Slightly over 60% of 18 to 29 year olds saw at least some likelihood of becoming rich compared with only 13% of those fifty and older (Ladd & Bowman, 1998).

### **Why Some People Are Rich**

In 1986, Kluegel and Smith conducted a national survey in which they investigated why Americans think some people are rich and some are poor. The opinions to a large extent reflect the American ideology referred to earlier - - if you work hard, you will succeed. In selecting very important reasons that there are rich people in the United States, 64% selected personal drive, willingness to take risks, and money inherited from families. Sixty percent selected hard work and initiative, 47% chose political influence or initiative, and 46% great ability or talent. Only 29% selected “the American economic system allows the rich to take unfair advantage of the poor” as a very important reason

### **Debt and Overspending**

A major obstacle to accumulating wealth would logically be debt and overspending. The amount of family debt rose strongly from 1989 to 1995, even though family debt as a proportion of assets held steady at about 16% over the period (Kennickell, Starr-McCluer, & Sundžn, 1997).. The proportion of families with debt rose slightly, from 74% in 1992 to 75% in 1995, while at the same time the median amount of outstanding debt for families with debt rose from \$19,500 to \$22,500. The prevalence of debt tended to increase with family income, but the proportion of those with debt was fairly constant at income levels above \$25,000. The median amount of debt increased with increasing income, because of borrowing associated with the acquisition of nonfinancial assets (Kennickell, et al., 1997).

Overspending is the cause of debt. If a family overspends, it is more difficult to accumulate wealth. Most households with below average income in the United States spend more than their incomes (Bae, Hanna, & Lindamood, 1993). The proportion of households overspending decreases as income increases -- and overall, about 40% of households spend more than aftertax income in a 12 month period.

### **Lotteries as Investments**

While they may not be accumulating wealth, the behavior of lower income households does indicate some

desire, through non-traditional means, to acquire wealth. An analysis of New Jersey lottery data found that the proportion of income spent on lottery tickets was five times as high in zip codes with low income as in zip codes with high incomes (Pulley, 1999). Low income households typically are the least likely to invest in retirement accounts and mutual funds, considering lotteries as more plausible. This pattern persists even though lotteries typically have a 50% payout, and low income consumers focus on "instant" tickets that would not take them out of poverty even if they won.

### **Can the Poor Escape Poverty?**

Using data from the 1979-1991 Panel Study of Income Dynamics, Blank (1997) studied how people move in and out of poverty. She found that blacks are not only more likely to be poor at any point in time, but they are much more likely to be poor for long periods, suffering the cumulative effects of continuing poverty. Blank found that blacks were more likely than whites to be trapped in long term poverty, with only 18% of whites remaining in poverty for 10 years or longer compared to 16.7% of blacks.

There are two main reasons why people become poor: either their families change composition in ways that harms their economic well-being, or there is a major economic loss (usually in earnings). Among these two reasons, changes in economics creates more poverty than changes in family composition. The same two factors that lead to poverty -- family change and economic change -- also enable people to move out of poverty. Most people leave poverty when they or the head of their family receives more earnings. However, change in family composition is less important in escaping poverty than they are in causing poverty. For example, a woman and her children are more likely to become poor by leaving a marriage than they are likely to escape poverty by remarrying.

### **Simulations of Investment Strategies**

#### **Theoretical Case for Investing Out of Poverty**

The idea that investing is a way to become rich can be illustrating by examining historical data on financial asset returns. The Appendix shows the results of investing one dollar per year in the Ibbotson (1999) assets categories of small stocks, large stocks (S&P 500) and corporate bonds. These results are in effect a non-parametric (Monte Carlo) projection -- simply the mean and minimum real accumulation for each holding period. However, similar results could

be obtained for mean projections assuming some parametric projection, for instance, a lognormal distribution (Ibbotson, 1999, pp. 174-177) Pessimistic projections using a parametric projection could be much worse than the minimum projections shown in the Appendix, depending on how low one sets the probability, since, for instance, the minimum accumulation for all 40 year holding periods between 1926 and 1998 represents one out of 34 holding periods, or a 2.9% probability.

As an example of using this table to project wealth accumulation, consider the case of a 20 year old planning to retire in 40 years. If this person wanted to accumulate \$1,000,000 in terms of today's dollars, the required contribution to a stock fund that matched the Ibbotson small stock category would require  $1,000,000/641.0922$ , which works out to be \$1,560 per year, or about \$130 per month. Based on the assumptions used to create the table, the contribution would have to be increased each year to match inflation. The amount that would have to be contributed each year would be far higher if the next 40 years matched the worst 40 years for small stocks, which would result in a needed annual investment amount of  $1,000,000/268.1322$ , or \$3,730. However, it might be more reasonable for a person to start contributing \$1,560 per year, then recalculate the required amount later on. If the first 10 years had poor returns, then the real contribution could be increased.

### **Would Stock Investing Work for Poor Families?**

There are several problems with the rosy scenario for wealth accumulation by that 20 year old presented above. The major problem is that low income households in the United States typically have no income left for investing. It is possible that an intense educational campaign could switch some people from using discretionary income for lottery tickets to using discretionary income for stocks, but the immediacy of lottery tickets would be difficult to overcome. Low income households tend to have variable incomes, and the temptation of withdrawing from investment accounts, even when the market is down, would be very strong. Furthermore, what is left of the social safety net in the United States imposes asset requirements that might result in a substantial risk of losing benefits. For example, a worker might not be able to qualify for Medicaid if an investment fund were over a specified limit and the only other medical access might be the emergency room of a hospital.

### **Conclusions and Implications**

The decline of the social safety net in the United States and the decreasing importance of defined benefit pensions have resulted in a greater need for low income households to make choices about saving and investing in order to provide for a comfortable retirement. However, evidence on the behavior of low income households suggests that substantial wealth accumulation is unlikely. In the past, inequality has decreased when financial markets slump for extended periods of time. Educating low income households on investing, Jackson, et al. (1999) suggest, might benefit the exceptionally disciplined and thrifty ones, and has the potential of increasing the wealth levels and levels of living of some households. However, it is unlikely to help close the gap between the rich and the poor in the United States.

**Appendix: Real Accumulation from Investing \$1 Per Year**

Holding period	# of periods*	Small stocks		Large stocks		Corporate bonds	
		mean	minimum	mean	minimum	mean	minimum
1	73	1.1389	0.4073	1.0989	0.6263	1.0310	0.8457
2	72	2.4491	0.9210	2.3030	1.1268	2.0935	1.5969
3	71	3.9317	1.0984	3.5954	1.5844	3.1867	2.2676
4	70	5.5901	1.3487	4.9629	2.2479	4.3145	2.9065
5	69	7.4745	1.6608	6.4382	3.0601	5.4769	3.5416
6	68	9.5679	1.9785	8.0543	3.6162	6.6653	4.1973
7	67	11.9106	3.1414	9.8593	4.2060	7.8832	4.8997
8	66	14.5095	3.8587	11.8369	4.9156	9.1048	5.5066
9	65	17.2520	4.4521	13.9258	5.5331	10.3377	6.0707
10	64	20.2711	5.2774	16.2274	6.2144	11.5737	6.6559
11	63	23.5910	6.2849	18.6657	6.9986	12.8179	7.2843
12	62	27.1385	7.5096	21.2345	7.9461	14.0683	7.9895
13	61	31.5653	8.5754	24.2098	8.8004	15.3433	8.6004
14	60	36.4494	9.9739	27.3623	9.8772	16.6027	9.1987
15	59	41.8338	11.3066	30.7695	10.9433	17.8461	9.7506
16	58	47.7914	12.8350	34.4993	12.1192	19.0725	10.2857
17	57	54.5570	15.3114	38.6347	13.7759	20.3255	10.8083
18	56	62.0878	17.3649	43.0657	15.2105	21.5798	11.3494
19	55	70.1800	19.4467	47.7773	16.6967	22.8114	11.8934
20	54	78.7185	21.9447	52.7496	18.6446	24.0115	12.4735
21	53	87.1987	25.9759	57.8733	21.0695	25.1905	13.0775
22	52	97.4250	29.7221	63.5935	22.5446	26.4546	13.7267
23	51	109.2215	33.5481	69.8331	24.1716	27.7898	14.3602
24	50	122.5992	37.4438	76.5508	26.4638	29.1272	14.9688
25	49	136.9805	42.5529	83.4709	28.4488	30.4355	15.6111
26	48	152.7450	48.7835	90.6665	30.5051	31.7772	16.1930
27	47	170.7337	54.7218	98.2567	33.2003	33.1901	16.7755
28	46	190.7297	60.2196	106.1903	37.3345	34.6094	17.3925
29	45	213.2407	64.3313	114.8548	41.4025	36.0279	18.0266
30	44	236.4589	71.3127	123.1930	46.1755	37.4088	18.6774
31	43	261.0987	81.8231	131.2422	51.7666	38.8028	19.2754
32	42	288.2202	101.0152	139.8312	58.7275	40.3003	19.8528
33	41	320.3604	126.3928	149.8328	67.1481	41.7852	20.4601
34	40	353.4447	147.4410	159.1358	75.7977	43.3439	21.0759
35	39	390.4998	167.2159	168.7228	84.1853	44.9715	21.6276
36	38	434.5058	187.1548	179.3168	90.7108	46.5716	22.1025
37	37	479.8684	214.3894	189.0785	99.4178	48.1679	22.5860
38	36	531.4364	225.4820	200.8357	109.6294	49.7173	23.0819
39	35	585.0794	243.5442	212.0847	122.0916	51.2870	23.5761
40	34	641.0922	268.1322	222.9609	135.8137	52.8236	24.0402
41	33	694.9422	298.0681	233.7586	146.8710	54.4136	24.4747
42	32	758.0695	370.4023	247.3673	156.7518	56.0780	24.9196
43	31	806.0827	419.1724	259.9353	166.6395	57.8961	25.3844
44	30	846.8135	457.9887	273.2412	179.9750	59.7982	25.8918

45      29      918.8893      487.0194      290.8112      188.3791      61.9855      26.3975  
Calculated by author, based on 1926-1998 data in Ibbotson, 1999. \*# of periods, e.g., there were 45 different (but overlapping) 45  
year periods

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<sup>1</sup> Herbert Hoover, 1928, "Rugged Individualism", in The New Day: Campaign Speeches of Herbert Hoover, Palo Alto, Stanford University. (Excerpted in Annals of America, Volume 14, Encyclopaedia Britannica.)

<sup>2</sup> Forward to Jackson, Jackson and Gotschall, It's About the Money! 1999, Random House.