

What is the Rate of Return on a Stradivari Violin? A Preliminary Report

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Price histories and corresponding long-run rates of return on Stradivari violins have defied past inquiry. Partly the difficulty has been in obtaining meaningful sales data from the market. To date, the most visible attempt to evaluate the long-run rate of return on Stradivari violins, "Capital Gains and the Rate of Return on a Stradivarius" (*Economic Inquiry*, July 1989) is based on auction data from ambiguous sales conditions, lacking real retail sales data. In the creation of this report we have used insider market information that is not readily available to researchers outside of the business.

The market for Stradivari violins is thin, highly inefficient, and carefully controlled by just a few dealers worldwide. These market conditions have historically made information scarce to those outside the trade. The controlled nature of the market, combined with the definitely limited and known supply of genuine Stradivari instruments to trade, exerts worldwide a persistent upward pressure on the price of Stradivari instruments. This upward pressure has been such that the rate of return on Stradivari's work has historically outstripped general price inflation (measured by the Implicit GDP Price Deflator), gold, interest rates on U.S. long-maturing bonds, and other alternative investments.

We offer here eight instances of retail sales transactions of Stradivari violins. In each of the eight instances we employ unique inside knowledge of the precise sales conditions.

The table below tracks real sales prices for eight pairs of transactions involving Stradivari violins. For each time interval making up a pair of transactions, the table compares the rate of return on the Stradivari with the rate of return on gold and U.S. long-term bonds. Because of the specific and individual nature of the objects in question, only instances where multiple sales prices for the same instrument could be confirmed were used. In one instance (1945 to 1955), the data reflect a relative depression in the market for rare violins and the consequent return is lower than in other instances. Two instances reflect subsequent sales event prices under less favorable conditions of sale than the initial sales prices and this minimizes actual return. But even in these instances the prices of violins rose over the periods in question. The data are adjusted for inflation and are reported here in both compounded and non-compounded comparative rates.

Based on this sample we conclude that returns on Stradivari violins have usually risen dramatically ahead of those of gold and U.S. bonds. The long run result—a 5.81% inflation-adjusted, compounded annual average rate of return on Stradivari violins—while inconclusive on its own, is consistent with what we believe will emerge as a general pattern in our larger sample: that the investment power of Stradivari violins is more predictably strong, and less volatile, where the interval between sale events is known and longer. And our results suggests that the long-run rate of return on the Strad will continue to sizably dominate traditional assets, such as gold, government bonds, and even the inflation-adjusted and annually compounded S&P 500 index.

We would like to comment on a couple of details of this report. We have here three recorded sale events for the 1709 La Pucelle. The measurement that excludes the middle sale event is not included in the summary table so as to avoid skewing the results with duplicate data. In the two instances where violins failed to outstrip gold, it is important to recognize that the second sale event was undertaken in less favorable conditions than existed under the first, coupled with a simultaneous and anomalous spike in the price of gold. In most instances, however, the nominal and inflation-adjusted rate of return on Stradivari violins outstripped gold and bond inflation by substantial and even profound margins.

We would suggest that under similar market conditions this trend could be extrapolated to a broader segment of the violin market. Future research on our large and rich data set will be used to test this theory.

| Stradivari Violins Dominate Gold and Bonds in Rate of Return 1920s to the Present (Inflation-adjusted U.S. dollars, simple and compounded annual averages) | | | | | |
|--|-----------------------------|-------------------------------|---------------------------|-----------------------------|-------------------|
| Violin Sale Year Ranges | Violin Simple Annual Return | Violin Compound Annual Return | Gold Simple Annual Return | Gold Compound Annual Return | US Long-Term Bond |
| 1921-1954 | -0.96% | -1.09% | 0.46% | 0.43% | 2.68% |
| 1945-1955 | 1.08% | 1.02% | -2.39% | -2.73% | -1.20% |
| 1955-2001 | 44.58% | 6.67% | 0.96% | 0.80% | 3.44% |
| 1971-1999 | 76.79% | 11.12% | 3.37% | 2.37% | 3.94% |
| 1985-2000 | 104.44% | 18.76% | -3.85% | -7.37% | 5.20% |
| 1991-2005 | 2.80% | 2.37% | -0.49% | -0.50% | 4.70%* |
| 1998-2004 | 2.94% | 2.71% | 6.64% | 5.59% | 4.58%* |
| 2000-2004 | 4.48% | 4.12% | 13.30% | 10.70% | N.A. |

Sources: U.S. Bureau of Economic Analysis; EH-Net (an on-line service of the Economic History Association); Economagic.com; Hersh Consulting; author calculations

* Based on most recent available data, the 2003 estimate

N.A.=not available