

CDs: A Better Value than Ever

**Prepared for the
Recording Industry Association of America, Inc.**

by

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I. Introduction and Summary

Even without taking into account substantial improvements in product quality, the cost of recorded music to consumers has fallen dramatically since CDs were introduced in 1983. Between 1983 and 2001, the average retail price of a CD fell by 32%. Over this same period, consumer prices (measured by the CPI) rose 77.8%. If CD prices had risen at the same rate as the CPI over this period, the average retail price of a CD in 2001 would have been \$38.23 instead of \$14.64. While the price of CDs has fallen, the amount of music provided on a typical CD has increased substantially and enhanced CDs offer video entertainment in addition to music.

Relative to competing sources of entertainment, CDs have become an even better value. While CD prices have fallen, the prices of other forms of entertainment have risen, on average, more rapidly than has the CPI. Over the 1983 to 2001 period, the price of admissions to entertainment and sporting events increased by 142.4%.

Finally, at these significantly lower absolute and relative prices consumers are getting far better quality than ever before in terms of fidelity, length, durability, ease of use at home and on the road, range of choice, etc.

By all measures, CDs truly are a better value than ever.

II. CD Prices Have Fallen Substantially Over Time

A. CD Prices are Lower Today Than They Were When CDs Were Introduced in 1983

In 2001, the average retail list price for a CD was \$14.64. When CDs were introduced in 1983, the average retail price was \$21.50. The CD price dropped by 32% between 1983 and 2001. CD prices fell steadily from 1983 through 1990. Since 1990, prices, on average, have risen slightly but have not exhibited a constant upward trend. In 1996, CD prices had fallen to their lowest level since 1990. During the 1997 through 2001 period, prices rose at a modest average annual rate of 2.8%, after having declined every prior year since 1994.

B. CD Prices Have Fallen While Consumer Prices Have Risen

The Consumer Price Index (“CPI”)¹ in 2001 was 177.1, while in 1983 it was 99.6. Therefore, between 1983 and 2001, the CPI increased by 77.8%. If CD prices had risen at the same rate as inflation (as measured by the CPI) since 1983, the CD price in 2001 would be \$38.23 instead of \$14.64 (i.e., it would be 261% of its actual 2001 value).

The CD price can be adjusted to remove the effects of the overall rate of inflation, as measured by the CPI, since the CD’s 1983 introduction. The percentage change in the inflation-adjusted CD price essentially equals the percentage change in the CD price less the percentage change in the CPI.² For example, if the CD price were to increase by 1% and the CPI increased by 2%, then the inflation-

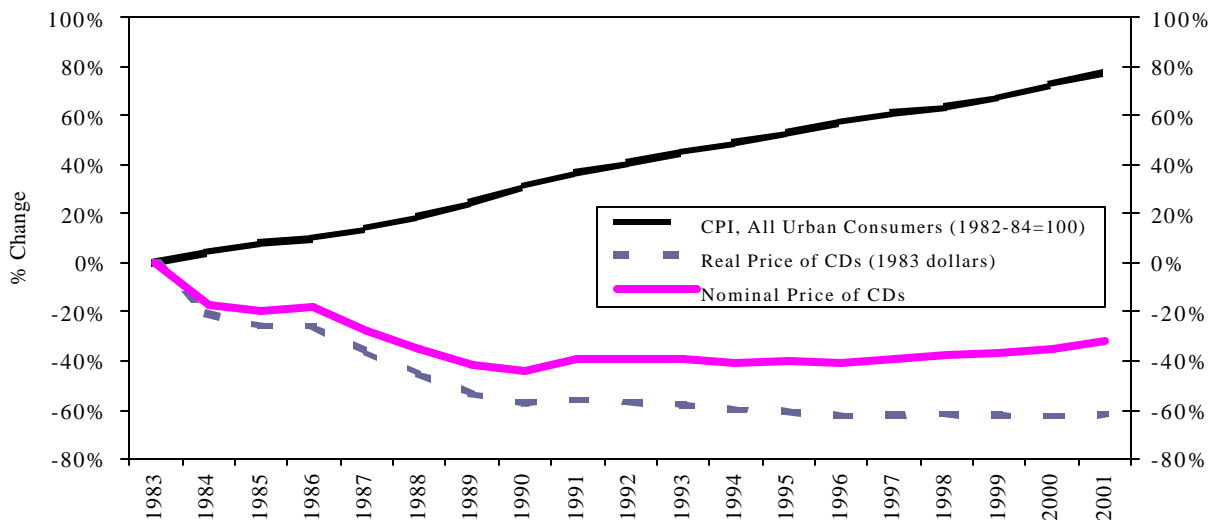
¹ The Consumer Price Index, All Urban Consumers, (1982-84 = 100), Bureau of Labor Statistics, U.S. Department of Labor.

² The actual process of calculating the inflation-adjusted CD price is somewhat more complicated, but the process described in the text is highly accurate for relatively small percentage changes such as those used in the example.

adjusted CD price would decrease by 1%. The inflation-adjusted CD price also is referred to as the real CD price.³

Figure 1 compares the cumulative percentage changes in CD prices since 1983 with those of the CPI. Between 1983 and 2001, CD prices fell by more than 31% while the CPI rose by more than 77%. As a result, the inflation-adjusted CD price fell by more than 60%⁴ between 1983 and 2001.⁵

Figure 1: Percent Change in CD Prices and the CPI Since 1983



Sources: Recording Industry Association of America, Bureau of Labor Statistics

³ More specifically, it is the CD price restated in 1983 dollars.

⁴ For percentage changes this large, the approximate formula given in the text is not accurate. The real CD price in 2001 is 38.3% of its 1983 value (or 61.6% less than its 1983 value). The 38.3% equals 68.1% (the nominal CD price in 2001 as a percentage of its 1983 value) divided by 1.778 to reflect the fact that the CPI increased by 77.8% between 1983 and 2001.

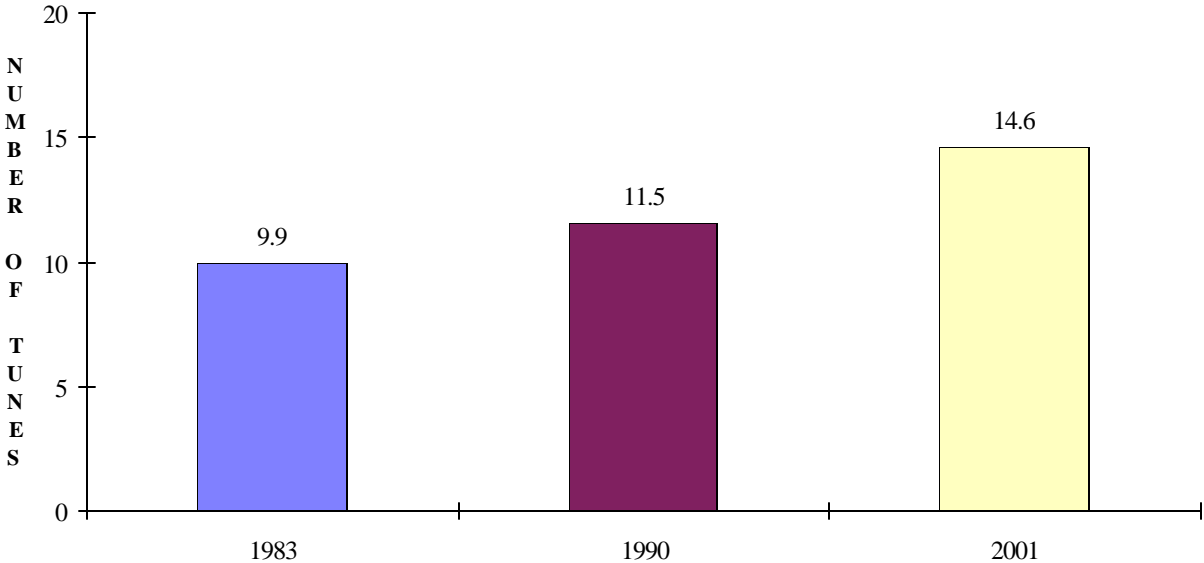
⁵ This decline in real CD prices has continued in the 1990s despite the fact that nominal CD prices have risen somewhat since reaching their all-time low in 1990. Between 1990 and 2001, CD prices increased by 21.5% while inflation (as measured by the CPI increase) was 35.5%.

CDs Have Offered Increasing Amounts of Entertainment Over Time

C. There are More Tunes Per CD

As shown in Figure 2, the average number of tunes per CD rose from 9.9 in 1983 to about 14.6 in 2001. Therefore, CD buyers received, on average, more than 4 additional songs per CD in 2001 than they did in 1983.

Figure 2: The Number of Tunes Per CD Has Increased Substantially



Sources: Billboard, All-Music Guide (www.allmusic.com), Tunes.com (www.tunes.com)

D. There are More Minutes of Music per CD

In 2001, a typical CD contained about 55.0 minutes of music while, in 1983, a typical CD contained only 41.6 minutes of music (see Figure 3). A CD's listening time in 2001 was about 32% more than it was in 1983.

Figure 3: The Minutes of Music Per CD Has Risen Substantially

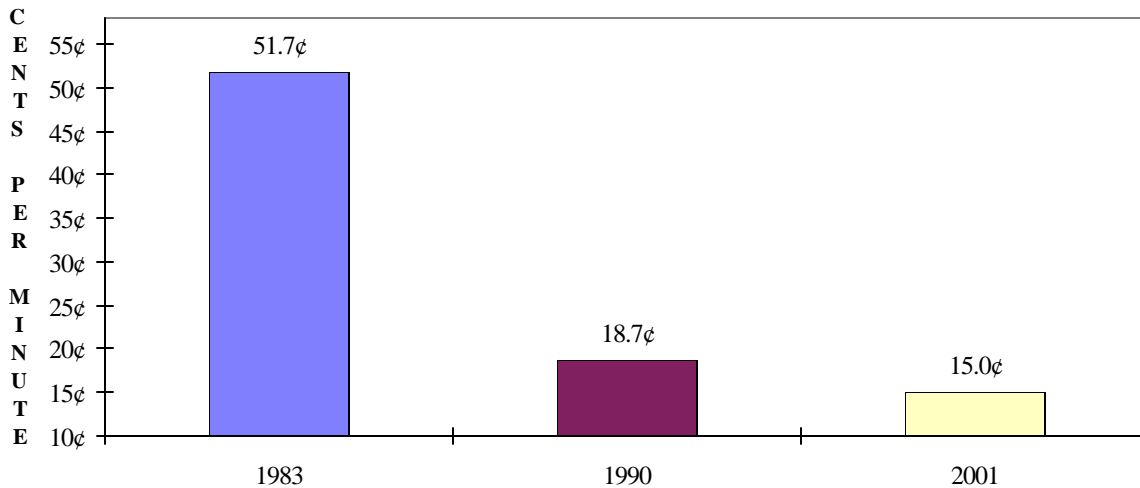


Sources: Billboard, All-Music Guide, Tunes.com

E. The Inflation-Adjusted Cost of Music per Minute Has Fallen Sharply

In 1983, a minute of music on a CD cost 51.7 cents (1983 \$). As shown in Figure 4, by 2001, the cost of a minute of music on a CD had fallen to about 15.0 cents (1983 \$). This represents a 71% drop in the cost of music per minute.

Figure 4: The Inflation Adjusted Cost of Music Per Minute Has Fallen Sharply

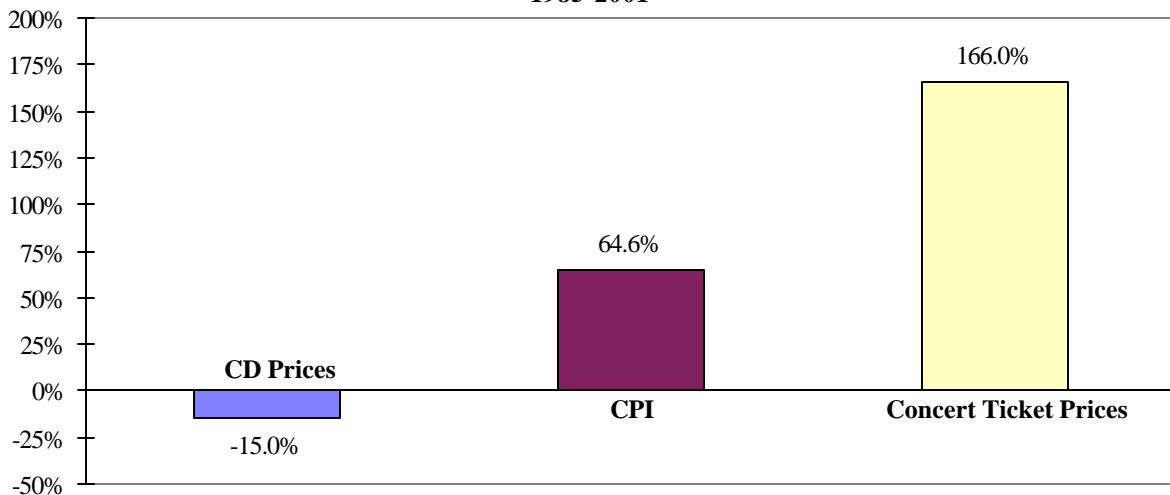


Sources: RIAA, Billboard, All-Music Guide, Tunes.com

III. CD Prices Are a Bargain Compared to the Prices of Competing Entertainment

The cost of attending a popular music concert has risen rapidly since the mid-1980s. Based on a tabulation of thousands of concerts in the United States by the newsweekly *Amusement Business*, the average cost of admission to a concert rose from \$14.79 in 1985 to \$39.34 in 2001 -- a 166% increase.⁶ Over this same period, CD prices fell from \$17.23 in 1985 to \$14.64 in 1997 -- a 15% decline. Figure 5 contrasts the percentage changes in CD prices, the CPI, and concert ticket prices between 1985 and 2001.

**Figure 5: Percent Changes in CD Prices, the CPI, and Concert Ticket Prices
1985-2001**



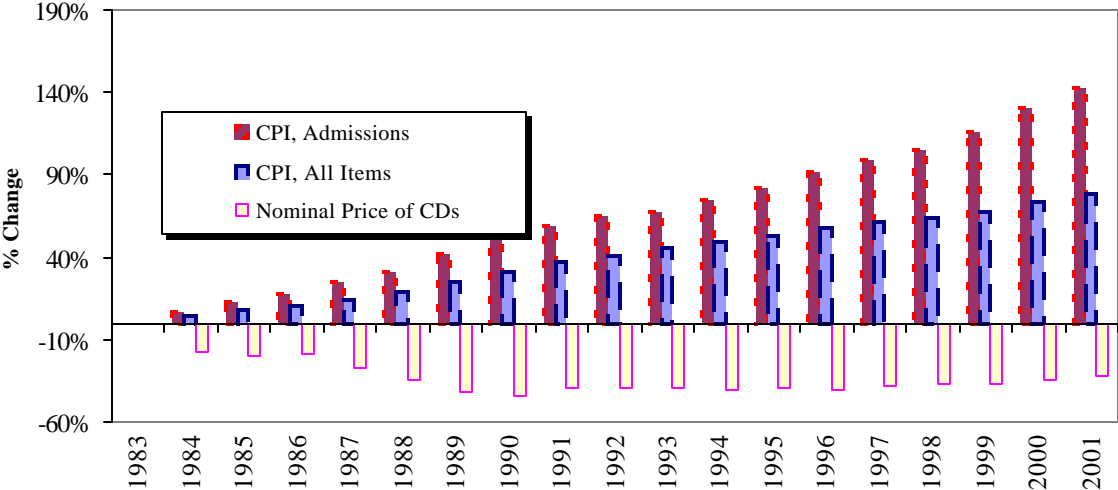
Sources: RIAA, Bureau of Labor Statistics, Amusement Business

CDs compete with a broad range of entertainment in addition to music concerts including movies, plays, and sporting events. The Consumer Price Index (CPI) for admissions produces a measure of the increase in prices for admissions to all types of entertainment. As illustrated in Figure 6, the CPI for admissions increased more rapidly than did the overall CPI. From 1983 to 2001, the CPI

⁶ The starting year for this comparison is 1985 because *Amusement Business* started collecting concert ticket price data in 1985.

for admissions increased by 142.4% while the overall CPI increased by 77.8%. Over this same period, the price of CDs fell by 31.9%.

Figure 6: Percent Change in CD Prices, the CPI for Admissions, and the CPI for All Items Since 1983



Sources: RIAA, Bureau of Labor Statistics