

# The PNC Christmas Price Index®

## Suggested Grade & Mastery Level

Middle School and High School – All Levels

## Suggested Time

Four to five class periods

## Teacher Background

Begun 27 years ago as a way to engage clients, The PNC Christmas Price Index has become one of PNC's most popular and anticipated economic reports. PNC is a highly diversified and growing financial services organization spanning the retail, business and corporate markets. The PNC Christmas Price Index is available at: <http://www.pncchristmaspriceindex.com>

In investing, an index measures price changes through a representative group of individual items. The PNC Christmas Price Index is an index of the current costs of the goods and services listed in the classic holiday song, *The Twelve Days of Christmas*. Calculated by PNC Wealth Management, the PNC Christmas Price Index reflects changes in the economy like the Consumer Price Index issued by the US Department of Labor's Bureau of Labor Statistics.

The Consumer Price Index measures the change in the prices of goods and services reflecting the spending habits of the "average" American. It includes goods and services like food, housing, clothing, and utilities. Its percent change is widely used as a measure of inflation. If inflation is higher than expected it may cause the stock market to become bearish.

The purpose of these activities is to use the PNC Christmas Price Index as an investor tool by examining the impact of the cost for goods and services on the performance of securities in The Stock Market Game portfolio.

## Vocabulary

**Consumer Price Index (CPI):** A gauge of inflation that measures changes in the prices of basic goods and services. It is compiled monthly by the U.S. Bureau of Labor Statistics. It tracks housing, food, clothing, transportation, medical care, and education. The CPI is used as a benchmark for making adjustments in Social Security payments, wages, pensions, and tax brackets to keep them in tune with the buying power of the dollar.

**Deflation:** Refers to a widespread decline in prices that also has the potential to undermine the economy by stifling production and increasing unemployment.

**Hyperinflation:** Occurs when prices rise by 100% or more annually. It can destroy economic, and sometimes political, stability by driving the price of necessities higher than people can afford.

**Index:** Is a statistical measure of the changes in a portfolio of stocks representing a portion of the overall market. It is a sample meant to represent the performance of the whole.

**Inflation:** A persistent increase in prices, often triggered when demand for goods is greater than the available supply or when unemployment is low and workers can command higher salaries. The US Federal Reserve Bank and central banks in other nations try to keep inflation in check by decreasing the money supply, making it more difficult to borrow and thus slowing expansion.

## Performance Objectives

The students will be able to:

- Define the term “index.”
- Understand the use of the PNC Christmas Price Index as an investor tool.
- Identify trends on the PNC Christmas Price Index and project their impact on the stock market.

## Subject Areas

Family Consumer Sciences, Language Arts, Mathematics, Economics

## Materials

*Fact Sheet 1: The Twelve Days of Christmas*  
*Fact Sheet 2: The 2009 PNC Christmas Price Index*  
*Fact Sheet 3: CPI Percent Change*  
*Fact Sheet 4: 1995 PNC Press Release*  
*Fact Sheet 5: 2003 PNC Press Release*  
*Activity Sheet 1: The Total Price Christmas Story*  
*Activity Sheet 2: CPI Change*  
*Activity Sheet 3: Comparing CPIs*  
*Activity Sheet 4: Estimate the PNC CPI*

## Springboard Activity

### Ask

What is your favorite flavor of ice cream?  
Was it always your favorite?  
What other flavors do you like?

### Explain

If we organize all your answers into a table we could create an “Ice Cream index.” It would show which flavors were the most popular and measure changes in their popularity. For example, if chocolate is the most popular flavor now, will it be the most popular six months from now?

In investing, an index is used to measure the changes in a portfolio of stocks meant to represent a portion of their overall industry or sector. For example the S&P 500 Index uses 500 large publicly traded companies to measure prices on the stock market. The NYSE Composite Index measures the performance of all companies listed on the New York Stock Exchange. The NASDAQ Composite Index does the same for NASDAQ listed stocks.

## Procedure

### Ask

What do you think an index named the Christmas Price Index would measure?

Answers will vary but students should be directed towards the general idea of the Christmas Price Index measuring the prices of items during Christmas time. They should also be aware that the Christmas Price Index also measures the changes in the prices over time.

### Explain

PNC Wealth Management developed the PNC Christmas Price Index (CPI) to record the current costs of the gifts in *The Twelve Days of Christmas* song. The PNC CPI works like the US Department of Labor's Bureau of Labor Statistic's Consumer Price Index. The Consumer Price Index is often used to measure inflation.

Students will work in their SMG teams to predict pricing for each of the twelve gifts mentioned in the song. They should surf the Web for commercials and classified ads to look up the current prices of poultry, jewelry, and performers (e.g. partridge would be equivalent to modern day turkey and leaping lords and dancing ladies would be magicians, clowns, ballerinas, etc.)

In 2009, the actual total amount of the gifts in song was \$21,465.56.

PNC releases its Christmas Price Index annually on the Monday after Thanksgiving. For the most up to date information, visit <http://www.pncchristmaspriceindex.com>

## Activities

### *Reading the PNC Christmas Price Index (CPI)*

#### Distribute

*Fact Sheet 2.* Inform the students the chart is from the 2009 PNC Christmas Price Index website. It represents the total prices of the PNC Christmas Price Index (or CPI) from 1984 – 2009. Have students review the information on the table and in the chart.

#### Ask

What does the chart tell us about the total prices on the PNC Christmas Price Index?  
When was it at its highest? Its lowest?  
Do you see any patterns in the changes of total prices?

#### Discuss

As a class review the information on *Fact Sheet 2* to answer the questions posed. After collecting five or six responses have students work in their SMG teams to develop and record additional responses on *Activity Sheet 1*.

### Distribute

*Activity Sheet 1.* Answers will vary but should contain statements like: *The PNC Christmas Price Index was lowest in 1995; The PNC Christmas Price Index was highest in 2009; After the 1995 drop, it took five years for the Christmas Price Index to return to where it was in 1994; and so on.*

### Ask

What might cause the price of the same gift purchased each year to rise and fall over the years? How do you think knowing the changes in the Total Price of the PNC Christmas Price Index will help you be a better investor?

Responses will vary but should include inflation and current events items like minimum wage, price of oil, etc. Students will use the information provided by the PNC Christmas Price Index report to learn how to use price indexes as predictors of market trends.

Be sure to explain the difference between the index cost and true value cost of the items:

The **PNC Christmas Price Index** cost is an index of the current costs of the gifts in the song, *The Twelve Days of Christmas*.

The **“True Cost of Christmas”** is the cumulative cost of all the gifts with the repetitions listed in the song. For example, if a partridge in a pear tree cost \$160, its True Cost would be \$160 x 12 (\$1920).

## *Reading the Consumer Price Index (CPI)*

### Distribute

*Fact Sheet 3.* Inform the students that the chart is from the US Department of Labor’s Bureau of Labor Statistics website. It represents the percent change in the Consumer Price Index (or CPI) from 1984 – 2009. Have students review the information on the table and in the chart.

### Ask

How has the Consumer Price Index changed over time?

When did it see its greatest change? Its least?

What do you think it means when there is a large percent change in the CPI? A small percent change?

### Discuss

As a class, review the information on *Fact Sheet 3* to answer the questions posed. After collecting five or six responses, have students work in their SMG teams to develop and record additional responses on *Activity Sheet 2*.

### Distribute

*Activity Sheet 2.* Answers will vary but should contain statements like: 2008 had the least percent change; 1990 had the greatest percent change; 1987 and 1988 saw the same percent change; and so on. Please point out to students that the CPI chart and table do not represent actual prices. They represent the percent change between the current year and the previous year.

The information for *Fact Sheet 3* is the same one the news uses when it mentions the Consumer Price Index. It is taken from the *Consumer Price Index All Urban Consumers (CPI-U), US City Average, All Items, 1982-84=100*.

An FAQ about the Consumer Price Index is available at: <http://www.bls.gov/cpi/cpifaq.htm>.

### Ask

What might cause changes in the CPI from year to year?  
How do you think knowing the percent change of the Consumer Price Index will help you become a better investor?

Answers will vary. They should mention the impact of inflation on the stock market and how much things cost. Inflation raises prices without corresponding value. This means that, while a company's reported earnings may be high, its true value is questionable. Inflation has the greatest impact on fixed-income securities such as bonds.

## *Comparing the Consumer Price Indexes*

### Explain

The PNC Christmas Price Index is an index of the current costs of the gifts in the song, *The Twelve Days of Christmas*. Calculated by PNC Wealth Management, it reflects changes in the economy. The rate of change each year often mirrors the results of the Consumer Price Index published by the US Department of Labor's Bureau of Labor Statistics. The Consumer Price Index measures the average change over time in the prices people pay for items like groceries, homes, and gas. It is also used to predict trends in the economy.

### Distribute

*Activity Sheet 3*. Students will examine how well the PNC Christmas Price Index mirrors the Consumer Price Index by comparing their percent change graphs.

*Fact Sheet 4* and *Fact Sheet 5*. Students will use the *Fact Sheets* to help answer *Activity Sheet 3* questions.

Answers will vary for *Activity Sheet 3*. However, they should mention the impact of domestic productivity, the price of raw materials like gold, inflation, and international competition. The *Fact Sheets* provide examples of the various factors impacting the Christmas Price Index.

If students are having difficulty, refer them to the Department of Labor's Consumer Price Index news archive: [http://www.bls.gov/schedule/archives/cpi\\_nr.htm](http://www.bls.gov/schedule/archives/cpi_nr.htm)

## Assessment

Direct students to review the information on the *Fact Sheets* and completed *Activity Sheets*.

### Ask

Based on what you know, will the PNC Christmas Price Index be higher, relatively the same, or lower this year? By how much? Why?

Based on the PNC Christmas Price Index performance over the last 25 years, what do you think will happen to the index this year? Why? What will that tell consumers about the economy near the end of the year? Explain?

Using *Activity Sheet 4* as a guide, students will write an essay on why they believe this year's PNC Christmas Price Index will rise, remain somewhat the same, or fall. They should document their reasons with at least three sources.

## Enrichment

The Consumer Price Index looks at average change over time in the prices paid for consumer goods and services. It includes the following categories:

- FOOD AND BEVERAGES (breakfast cereal, milk, coffee, chicken, wine, full service meals, snacks);
- HOUSING (rent of primary residence, owners' equivalent rent, fuel oil, bedroom furniture);
- APPAREL (men's shirts and sweaters, women's dresses, jewelry);
- TRANSPORTATION (new vehicles, airline fares, gasoline, motor vehicle insurance);
- MEDICAL CARE (prescription drugs and medical supplies, physicians' services, eyeglasses and eye care, hospital services);
- RECREATION (televisions, toys, pets and pet products, sports equipment, admissions);
- EDUCATION AND COMMUNICATION (college tuition, postage, telephone services, computer software and accessories);
- OTHER GOODS AND SERVICES (tobacco and smoking products, haircuts and other personal services, funeral expenses).

(The above definitions were taken from [http://www.bls.gov/cpi/cpifaq.htm#Question\\_6](http://www.bls.gov/cpi/cpifaq.htm#Question_6))

### Ask

Is your Stock Market Game team invested in a company that provides goods or services used to calculate the Consumer Price Index?

How do you think the latest Consumer Price Index report will impact the price of your stock?

Instruct students to use the *CPI News Releases* section of the Consumer Price Index (<http://www.bls.gov/cpi/news.htm>) website and the historical price charts from the NYSE Euronext website (<http://nyse.com>) or another exchange or financial reporting website to substantiate their belief.

## Fact Sheet 1: The Twelve Days of Christmas



On the first day of Christmas,  
my true love sent to me  
A partridge in a pear tree.

On the second day of Christmas,  
my true love sent to me  
Two turtle doves,  
And a partridge in a pear tree.

On the third day of Christmas,  
my true love sent to me  
Three French hens,  
Two turtle doves,  
And a partridge in a pear tree.

On the fourth day of Christmas,  
my true love sent to me  
Four calling birds,  
Three French hens,  
Two turtle doves,  
And a partridge in a pear tree.

On the fifth day of Christmas,  
my true love sent to me  
Five golden rings,  
Four calling birds,  
Three French hens,  
Two turtle doves,  
And a partridge in a pear tree.

On the sixth day of Christmas,  
my true love sent to me  
Six geese a-laying,  
Five golden rings,  
Four calling birds,  
Three French hens,  
Two turtle doves,  
And a partridge in a pear tree.

On the seventh day of Christmas,  
my true love sent to me  
Seven swans a-swimming,  
Six geese a-laying,  
Five golden rings,  
Four calling birds,  
Three French hens,  
Two turtle doves,  
And a partridge in a pear tree.

On the eighth day of Christmas,  
my true love sent to me  
Eight maids a-milking,  
Seven swans a-swimming,  
Six geese a-laying,  
Five golden rings,  
Four calling birds,  
Three French hens,  
Two turtle doves,  
And a partridge in a pear tree.

On the ninth day of Christmas,  
my true love sent to me  
Nine ladies dancing,  
Eight maids a-milking,  
Seven swans a-swimming,  
Six geese a-laying,  
Five golden rings,  
Four calling birds,  
Three French hens,  
Two turtle doves,  
And a partridge in a pear tree.

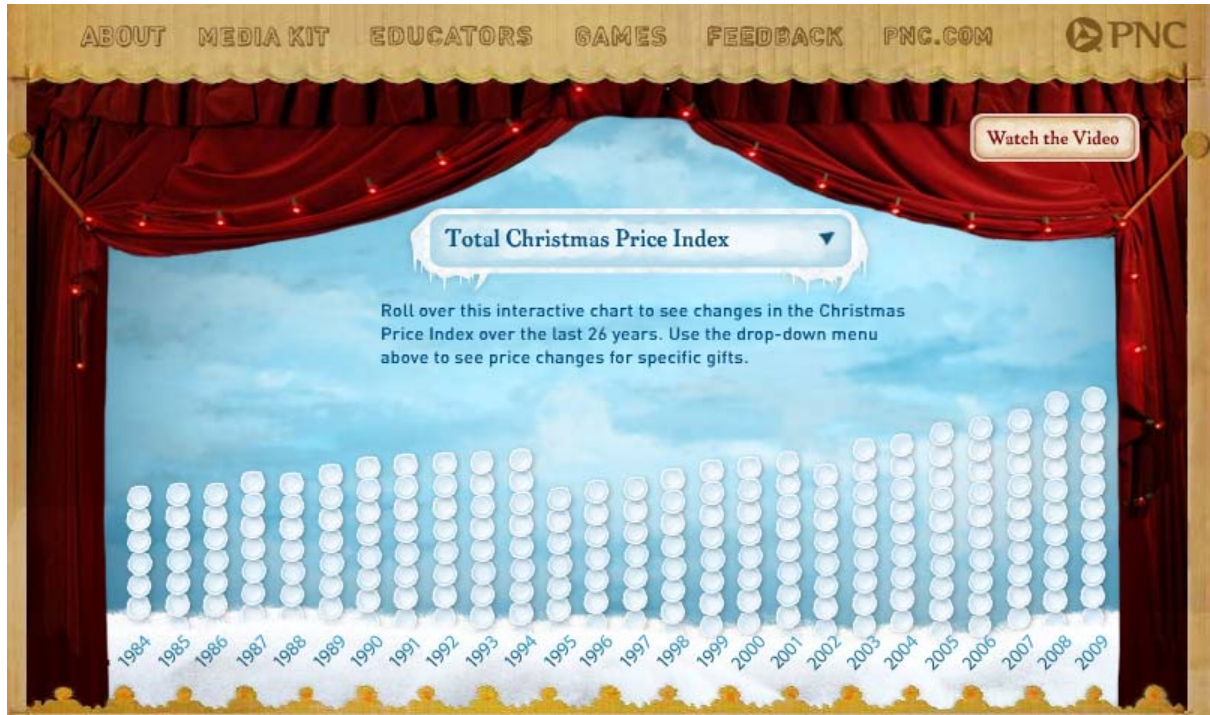
On the tenth day of Christmas,  
my true love sent to me  
Ten lords a-leaping,  
Nine ladies dancing,  
Eight maids a-milking,  
Seven swans a-swimming,  
Six geese a-laying,  
Five golden rings,  
Four calling birds,  
Three French hens,  
Two turtle doves,  
And a partridge in a pear tree.

On the eleventh day of Christmas,  
my true love sent to me  
Eleven pipers piping,  
Ten lords a-leaping,  
Nine ladies dancing,  
Eight maids a-milking,  
Seven swans a-swimming,  
Six geese a-laying,  
Five golden rings,  
Four calling birds,  
Three French hens,  
Two turtle doves,  
And a partridge in a pear tree.

On the twelfth day of Christmas,  
my true love sent to me  
Twelve drummers drumming,  
Eleven pipers piping,  
Ten lords a-leaping,  
Nine ladies dancing,  
Eight maids a-milking,  
Seven swans a-swimming,  
Six geese a-laying,  
Five golden rings,  
Four calling birds,  
Three French hens,  
Two turtle doves,  
And a partridge in a pear tree!



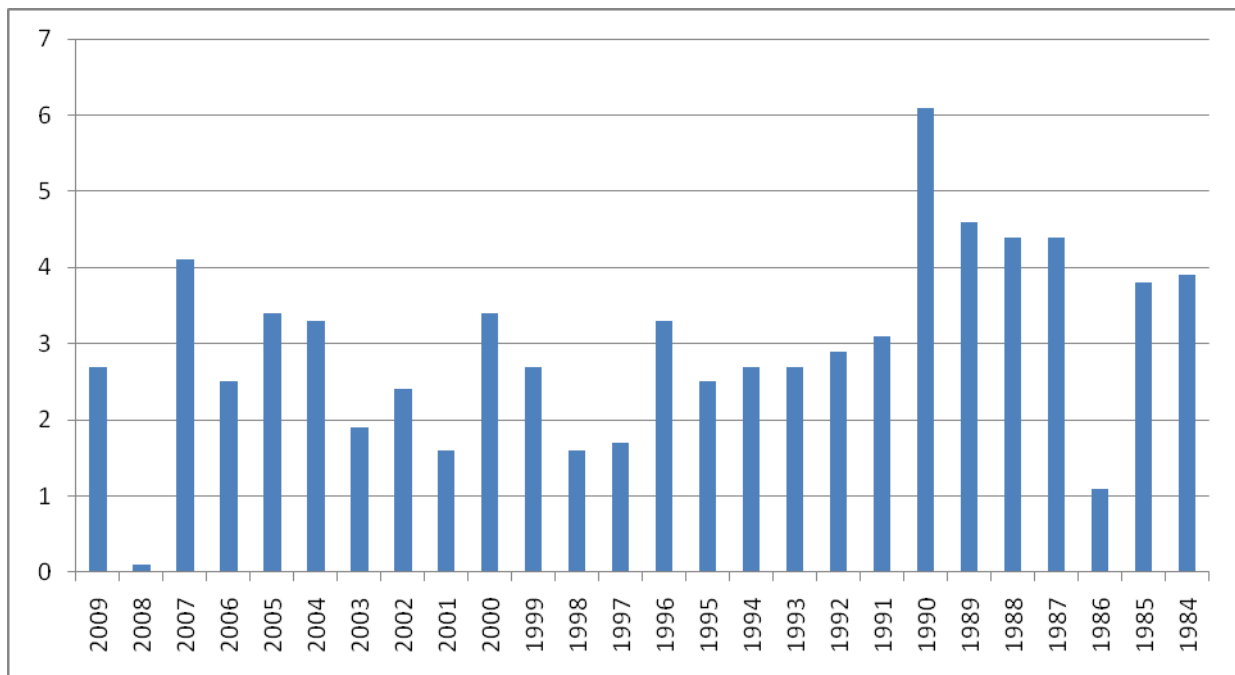
## Fact Sheet 2: The 2009 PNC Christmas Price Index



| Year | Total (\$) | Percent Change |
|------|------------|----------------|
| 2009 | 21,465.56  | 1.8            |
| 2008 | 21,080.10  | 8.1            |
| 2007 | 19,507.25  | 3.1            |
| 2006 | 18,920.59  | 3.1            |
| 2005 | 18,348.87  | 6.1            |
| 2004 | 17,296.91  | 2.4            |
| 2003 | 16,885.28  | 16.0           |
| 2002 | 14,558.05  | -7.5           |
| 2001 | 15,748.81  | 3.5            |
| 2000 | 15,210.22  | 1.8            |
| 1999 | 14,940.17  | 5.1            |
| 1998 | 14,214.90  | 11.97          |
| 1997 | 13,343.86  | 1.13           |

| Year | Total (\$) | Percent Change |
|------|------------|----------------|
| 1996 | 13,195.86  | 5.7            |
| 1995 | 12,481.65  | -21.7          |
| 1994 | 15,944.20  | 1.17           |
| 1993 | 15,760.70  | 11.3           |
| 1992 | 15,581.96  | 0.8            |
| 1991 | 15,455.79  | 1.5            |
| 1990 | 15,231.72  | 4.3            |
| 1989 | 14,598.78  | 5.2            |
| 1988 | 13,875.63  | .03            |
| 1987 | 13,871.75  | 7.4            |
| 1986 | 12,920.25  | 0.8            |
| 1985 | 12,816.03  | 1.1            |
| 1984 | 12,673.56  | NA             |

## Fact Sheet 3: CPI Percent Change



| Year | Percent Change |
|------|----------------|
| 2009 | 2.7            |
| 2008 | 0.1            |
| 2007 | 4.1            |
| 2006 | 2.5            |
| 2005 | 3.4            |
| 2004 | 3.3            |
| 2003 | 1.9            |
| 2002 | 2.4            |
| 2001 | 1.6            |
| 2000 | 3.4            |
| 1999 | 2.7            |
| 1998 | 1.6            |
| 1997 | 1.7            |

| Year | Percent Change |
|------|----------------|
| 1996 | 3.3            |
| 1995 | 2.5            |
| 1994 | 2.7            |
| 1993 | 2.7            |
| 1992 | 2.9            |
| 1991 | 3.1            |
| 1990 | 6.1            |
| 1989 | 4.6            |
| 1988 | 4.4            |
| 1987 | 4.4            |
| 1986 | 1.1            |
| 1985 | 3.8            |
| 1984 | 3.9            |

## Fact Sheet 4: 1995 PNC Press Release

### PNC BANK'S CHRISTMAS PRICE INDEX:

#### **"12 DAYS OF CHRISTMAS" GIFTS COST \$12,481.64**

Philadelphia (Nov. 27, 1995) – Looking for a holiday gift that is guaranteed to be a conventional piece for years to come? Give the gifts in the "The 12 Days of Christmas." Which, according to PNC Bank's annual Christmas Price Index, will cost a bit less this year -- \$12, 481.64, to be exact.

Economists at PNC Bank have been calculating the price of the items listed in the song since 1984. This year's total of \$12, 481.64 for all of the single items in the song represents a 21.72 percent decrease over last year's PNC Bank Christmas Price Index. That total though, is significantly less than the song's "true cost of Christmas" which represents all of the gifts listed when the song is sung in its entirety. At the end of 12 days, carolers have listed 364 presents – including 12 partridges in a pear tree, 36 calling birds, 40 maids-a-milking, 22 pipers piping and so, on – for a grand total of \$51,764.94, down 29.42 percent from 1994.

"This year's costs for the song are the first significant decline since PNC Bank began the index, and were led by a 50 percent drop in the cost of seven swans-a-swimming," said J. Patrick Bradley, director of economic and equity research for PNC Asset Management Group. "The price for the swans dropped due to a function of supply and demand. We also found that the cost of consumer goods in the song were flat or declining, and that the cost of services were either flat or rose, indicating that we're seeing more inflation in services than goods. The PNC Bank Christmas Price Index is reflective of fundamental economic forces."

Most items in the song remained unchanged from 1994. For \$15, consumers can still buy either one partridge or three French hens. The cost of two turtle doves was the same, at \$50. Four calling birds still fetch \$280. Six geese-a-laying still run \$150. The unchanged minimum wage of \$4.25 kept the cost of eight maids-a-milking at \$34. The cost for nine ladies dancing was flat, at \$2,606.83. And for the first time since PNC Bank began tracking the price of the items. Local 77 of the

Musicians Union reported no change in the cost of 11 pipers piping and 12 drummers drumming; They were priced \$1,109.16 and \$1,201.59, respectively.

The only increase came from the 10 lords-a-leaping, which now cost \$3,182.57.

A price decrease was seen in five gold rings, which costs \$325 vs. \$450 last year. The price of a pear tree dropped to \$12.50 from last year's \$19.99 due to a sale at the nursery that provides PNC Bank with the cost. The tree's lower cost brings the total cost for a partridge in a pear tree down \$27.50 from last year's \$34.99.

The decrease in the cost of seven swans-a-swimming – they went from \$7,000 last year to \$3,500 in 1995 – was the first time the price had changed since 1984. The Philadelphia Zoo, which provides the numbers to PNC Bank, said the price decline was due to supply and demand. In 1935, there were 73 trumpeter swans in North America and breeders stepped up in their efforts so much that now there are more than 14,000 of the birds. The greater supply caused the reduction in price. In fact, the government is close to removing the birds from the endangered species list and putting them on the threatened list.

The general flatness in the cost of most of the items in the song reflect the low inflation rate. Typically, the PNC Bank Christmas Price Index indicates similar trends to the Consumer Price Index, the measure of the U.S. inflation rate. The Consumer Price Index isn't down as dramatically as the PNC Christmas Price Index – because of the decrease in the cost of the swans, not a big component of the Consumer Price Index – but Bradley nevertheless continues to believe his index is a good tool for forecasting inflation. "We forecast that inflation will remain under control in 1996," Bradley said. "We don't understand why the Federal Reserve has lowered interest rates again. Perhaps before the next federal Open Markets Committee meeting, Fed. Chairman Alan Greenspan should ask us to send him a copy of our indicator – the PNC Bank Christmas Price Index."

Here is the complete list of the gifts with prices:

### PNC Bank Christmas Price Index

| Item in Song                   | 1993        | 1994        | Change<br>1994/93 | 1995        | Change<br>1995/94 |
|--------------------------------|-------------|-------------|-------------------|-------------|-------------------|
| One Partridge in a Pear Tree   | \$34.99     | \$34.99     | 0.00%             | \$27.50     | (21.41)%          |
| Partridge                      | 15.00       | 15.00       | 0.00              | 15.00       | 0.00              |
| Pear Tree                      | 19.99       | 19.99       | 0.00              | 12.50       | (37.47)           |
| Two Turtle Doves               | 50.00       | 50.00       | 0.00              | 50.00       | 0.00              |
| Three French Hens              | 15.00       | 15.00       | 0.00              | 15.00       | 0.00              |
| Four Calling Birds             | 280.00      | 280.00      | 0.00              | 280.00      | 0.00              |
| Five Gold Rings                | 325.00      | 450.00      | 38.46             | 325.00      | (27.78)           |
| Six Geese-a-Laying             | 150.00      | 150.00      | 0.00              | 150.00      | 0.00              |
| Seven Swans-a-Swimming         | 7,000.00    | 7,000.00    | 0.00              | 3,500.00    | (50.00)           |
| Eight Maids-a-Milking          | 34.00       | 34.00       | 0.00              | 34.00       | 0.00              |
| Nine Ladies Dancing            | 2,606.83    | 2,606.83    | 0.00              | 2,606.83    | 0.00              |
| 10 Lords-a-Leaping             | 3,012.63    | 3,012.63    | 0.00              | 3,182.57    | 5.64              |
| 11 Pipers Piping               | 1,081.08    | 1,109.16    | 2.60              | 1,109.16    | 0.00              |
| 12 Drummers Drumming           | 1,171.17    | 1,201.59    | 2.60              | 1,201.59    | 0.00              |
| Total Christmas Price Index    | \$15,760.70 | \$15,944.20 | 1.16%             | \$12,481.65 | (21.72)%          |
| True Cost of Christmas in Song | \$72,258.42 | \$73,345.00 | 1.50%             | \$51,764.94 | (29.42)%          |

## Fact Sheet 5: 2003 PNC Press Release

### ***PNC ADVISORS REPORTS RECORD INCREASE IN THE 19<sup>th</sup> ANNUAL 'CHRISTMAS PRICE INDEX'***

***Reflects Trend Toward Sustainable Economic Recovery in the United States***

PITTSBURGH, Dec. 8, 2003 – While stiff import competition is driving deeper discounts on merchandise sold in the United States, skilled labor cost is on the rise, resulting in a 16 percent increase in this year’s PNC Advisors Christmas Price Index – the biggest jump the Index has seen in its 19-year history.

Each year since 1984, PNC Advisors has provided a tongue-in-cheek economic analysis, based on the cost of the goods and services purchased by the True Love in the holiday classic, “*The Twelve Days of Christmas*.”

Indeed, the cost of the five gold rings dropped by 5.6 percent, and the pear tree is down a full 28.6 percent from last year. However, these discounts were offset by the dancers, pipers and drummers who have seen significant increases in the cost of their services over 2002.

“The Index reflects the broader trend of productivity growth in the U.S. economy that has driven prices lower on goods while allowing prices for services to rise modestly,” said Jeff Kleintop, chief investment strategist for PNC Advisors. “Whereas in the mid-1980s the cost of the goods in the song dominated the Index, the trend over time has been toward lower goods prices, such as the pear tree, and higher prices for skilled labor, such as the pipers,” he said. “The abundance of cheap labor in countries such as China have contributed toward increased pressure on U.S. manufacturers to outsource their unskilled labor overseas, and evolve toward higher-skilled areas, to maintain profitability. Unfortunately, the unskilled Maids haven’t managed an increase in price for their services in many years,” he added.

Two exceptions to this trend, however, are the swans and the calling birds, which cost significantly more this year. Unlike 2002, when swans took a significant dive in price, these graceful feathered friends have bounced back to their 2001 level of \$500 a piece, up from \$300 last year, according to the Philadelphia Zoo. The four calling birds

are also flying high at \$400, more than a 26 percent increase from last year. “The bird prices tend to be stable, except when supply and demand get out of sync, causing the prices to move dramatically,” said Rebekah McCahan, investment strategist who provides the research for the Christmas Price Index. “The low inventory of calling birds and swans this year, combined with a resurgence in demand, has boosted prices – a sign of consumer confidence returning,” she added. All told, the swans, geese, calling birds, French hens, turtle doves, and partridges cost over \$4,100, representing about 25 percent of the overall Index.

As in the past, most items are more expensive to buy over the Internet, primarily due to the cost of shipping, which has gone up this year.

As part of its annual tradition, PNC Advisors also tabulates the “true cost of Christmas,” which is the total cost of all of the items in the famous carol, including all of the repetitions. The price tag for the 364 items this holiday season is \$65,264, up from 2002’s true cost of \$54,951. This increase of nearly 19 percent shatters the previous record increase of 8.4 percent that was achieved in 1987.

“We have seen a record increase in the 2003 Index, possibly indicating that the fears over deflation that we saw last year may begin to recede, as general price levels begin to pick up and the outlook returns to one suggesting the economic recovery may be sustainable,” said Kleintop.

PNC Advisors provides a full range of wealth management services to affluent individuals and families, including full-service brokerage through PNC Investments and Hilliard Lyons. Additionally, PNC Advisors' family office and investment consulting division, known as Hawthorn, serves more than 200 of this country's wealthiest families. PNC Advisors also serves as investment manager and trustee for employee benefit plans and charitable and endowment assets, and provides defined contribution plan services to organizations nationwide. With \$50.9 billion in assets under management as of September 30, 2003, PNC Advisors is one of the largest wealth managers in the U.S.

The PNC Financial Services Group, Inc., (NYSE: PNC) headquartered in Pittsburgh, is one of the nation's largest diversified financial services organizations, providing regional community banking; wholesale banking, including corporate banking,

real estate finance and asset-based lending; wealth management; asset management and global fund processing services.

|                                | TRADITIONAL |           |              | INTERNET |              |    |            |         |
|--------------------------------|-------------|-----------|--------------|----------|--------------|----|------------|---------|
|                                |             |           | % Change     |          |              |    | % Change   |         |
|                                |             | 2002      | 2003         | 2003/02  | 2002         |    | 2003       | 2003/02 |
| One Partridge in a Pear Tree   | \$          | 102.50    | 77.50        | -24.4%   | 201.66       | \$ | 171.67     | -14.9%  |
| Partridge                      |             | 15.00     | 15.00        | 0.0%     | 66.67        |    | 66.67      | 0.0%    |
| Pear Tree                      |             | 87.50     | 62.50        | -28.6%   | 134.99       |    | 105.00     | -22.2%  |
| Two Turtle Doves               |             | 58.00     | 58.00        | 0.0%     | 100.00       |    | 100.00     | 0.0%    |
| Three French Hen               |             | 15.00     | 15.00        | 0.0%     | 172.50       |    | 172.50     | 0.0%    |
| Four Calling Birds             |             | 316.00    | 400.00       | 26.6%    | 330.00       |    | 330.00     | 0.0%    |
| Five Gold Rings                |             | 382.50    | 361.25       | -5.6%    | 171.50       |    | 183.75     | 7.1%    |
| Six Geese-a-Laying             |             | 150.00    | 150.00       | 0.0%     | 375.00       |    | 375.00     | 0.0%    |
| Seven Swans-a-Swimming         |             | 2100.00   | 3500.00      | 66.7%    | 4620.00      |    | 4620.00    | 0.0%    |
| Eight Maids-a-Milking          |             | 41.20     | 41.20        | 0.0%     | 296.32       |    | 296.00     | -0.1%   |
| Nine Ladies Dancing            |             | 4107.66   | 4230.89      | 3.0%     | 6450.00      |    | 6450.00    | 0.0%    |
| 10 Lords-a-Leaping             |             | 3921.44   | 3921.44      | 0.0%     | 9640.80      |    | 10122.85   | 5.0%    |
| 11 Pipers Piping               |             | 1614.60   | 1982.40      | 22.8%    | 1550.00      |    | 1600.00    | 3.2%    |
| 12 Drummers Drumming           |             | 1749.15   | 2147.60      | 22.8%    | 687.50       |    | 687.50     | 0.0%    |
| Total Christmas Price Index    | \$          | 14,558.05 | \$ 16,885.28 | 16.0%    | \$ 24,595.28 | \$ | 25,109.27  | 2.1%    |
| % Change                       |             |           |              |          |              |    |            |         |
| True cost of Christmas in song | \$          | 54,951.31 | \$ 65,264.28 | 18.8%    | \$ 99,923.42 | \$ | 101,206.09 | 1.3%    |
| % Change                       |             |           |              |          |              |    |            |         |
| "Core" Index, Excluding Swans  | \$          | 12,458.06 | \$ 13,385.28 | 7.4%     | \$ 19,975.28 | \$ | 20,489.27  | 2.6%    |

# Activity Sheet 1: The Total Price Christmas Story

Please write down 10 true statements based on the information on the PNC Christmas Price Index chart.

|    |  |
|----|--|
| 1  |  |
| 2  |  |
| 3  |  |
| 4  |  |
| 5  |  |
| 6  |  |
| 7  |  |
| 8  |  |
| 9  |  |
| 10 |  |

## Activity Sheet 2: CPI Change

Please write down 10 true statements based on the information on the Consumer Price Index chart and table.

|           |  |
|-----------|--|
| <b>1</b>  |  |
| <b>2</b>  |  |
| <b>3</b>  |  |
| <b>4</b>  |  |
| <b>5</b>  |  |
| <b>6</b>  |  |
| <b>7</b>  |  |
| <b>8</b>  |  |
| <b>9</b>  |  |
| <b>10</b> |  |

## Activity Sheet 3: Comparing CPIs



Cite five conclusions you can draw from the chart:

|          |  |
|----------|--|
| <b>1</b> |  |
| <b>2</b> |  |
| <b>3</b> |  |
| <b>4</b> |  |
| <b>5</b> |  |



## Activity Sheet 4: Estimate the PNC CPI

Estimate the prices of the individual gifts mentioned in the *Twelve Days of Christmas* song and the total cost of this year's PNC Christmas Price Index. You must submit your answers on this worksheet.

HINT: The average percent change of the PNC CPI over the last 25 years is 5.3%. As you form your estimate consider the impact of wages and prices for goods and services on the PNC CPI.

HINT: Use the charts at the PNC CPI site (<http://www.pncchristmaspriceindex.com>) to view prices of each gift over the years. Looking at the difference in prices over a longer period of time could potentially provide a more accurate estimate of the price changes. Complete the table to help make your estimate.

### Part 1: The Gifts

|   | Gift                    | 2005 | 2006 | 2007    | 2008    | 2009    | 2010 |
|---|-------------------------|------|------|---------|---------|---------|------|
| A | Partridge and Pear Tree |      |      | 164.99  | 219.99  | 159.99  |      |
| B | 2 Turtle Doves          |      |      | 40.00   | 55.00   | 55.98   |      |
| C | 3 French Hens           |      |      | 45.00   | 30.00   | 45.00   |      |
| D | 4 Calling Birds         |      |      | 599.96  | 599.96  | 599.96  |      |
| E | 5 Golden Rings          |      |      | 395.00  | 349.95  | 499.95  |      |
| F | 6 Geese                 |      |      | 360.00  | 240.00  | 150.00  |      |
| G | 7 Swans                 |      |      | 4200.00 | 5600.00 | 5250.00 |      |
| H | 8 Maids                 |      |      | 46.80   | 52.40   | 58.00   |      |
| I | 9 Ladies                |      |      | 4759.19 | 4759.19 | 5473.07 |      |
| J | 10 Lords                |      |      | 4285.06 | 4413.61 | 4413.61 |      |
| K | 11 Pipers               |      |      | 2213.40 | 2284.80 | 2284.80 |      |
| L | 12 Drummers             |      |      | 2397.85 | 2475.20 | 2475.20 |      |

### Part 2: Total PNC CPI

|   | 2005 | 2006 | 2007     | 2008     | 2009     | 2010 |
|---|------|------|----------|----------|----------|------|
| M |      |      | 19507.25 | 21080.10 | 21465.56 |      |

