

## THE CHANGES IN CONSUMER SPENDING PATTERN OF US ECONOMY OVER THE YEARS

*Dr Sonali Ahuja Dua*

*Associate Professor, Gargi College, University of Delhi, India*

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### **ABSTRACT**

*Consumer spending is a major driving force of short-term economic growth in the United States. The expenditure on goods and services by individuals is referred to as consumer spending. It is often known as personal consumption expenditure (PCE).*

*Personal Consumption Expenditure comprises approximately 66.67% of GDP and thus is a critical feature of short-run economic growth.*

*Consumer spending is a major economic constant that varies from month to month and year to year. However, when interpreted over time, adjusting price levels and emerging opportunities induce significant alterations in consumer spending.*

*Consumer spending dipped to its lowest point post World War II. Responding to the decrease in earnings, capital, and access to credit, households reduced spending, reduced existing debt, and expanded their savings. This study will also look at how spending patterns changed during the recessions of 1991 and 2008.*

*It addresses the country's socioeconomic, sociopolitical, and economic trends that affect consumers.*

*The emphasis is not on behavior. The focus is on broad trends which influence behavior, such as technology, inflation, and so on. The goal is to examine the data on inflows and outflows so as to determine the impact on consumers' economic situation, as well as the repercussions of that change. Other variables including savings rate, interest rate, living standards rate, tax rates, and their relationship to earnings are also investigated over a four-decade period.*

**KEYWORDS:** *Consumer behavior, Per Capita Expenditure, Global crisis, Demographic factors. Inflation.*

### **INTRODUCTION**

Households now have a very different economic and demographic composition than those of a few decades ago. Technological, educational, and institutional advancements have ushered in dramatic improvements that have enhanced and brightened people's material lives. Changes in consumer spending have had an impact on the US economy.

Consumer spending behaviour is complicated and impacted by a variety of factors. A few of these might be contrary to the principle of rationality. The relationship amongst attitudes and behaviour, along with major or sometimes minor impact of cultural influences on consumption are the multiple factors that affect the consumption patterns.

The shift in consumer expenditure can be attributed to a number of variables.

Consumption is primarily backed by what one earns. Although real wages is the key variable, other variables such as rate of interest, savings rates, health, housing, taxes, life expectancy, and financial availability will also influence consumer spending.

Resultantly data on spending by households and income are useful in measuring the financial health of the US economy. Although the spending patterns of no two families are the same, evidence suggests that they do so with some consistency and predictability. Families' consumption habits reveal the importance they place on meeting these essential requirements of food, clothes, shelter, electricity, health and travel.

The shift to a consumer goods based nation in the United States was one of the most notable effects of the increase in consumer expenditure. Advertising and consumer credit have fueled mass consumption. This has been a defining feature of present civilization.

Many common misconceptions regarding the new-age customer were refuted by our research. It has been discovered that the consumer has not changed fundamentally. What has changed is the extent to which the consumer has been influenced by the environmental changes around him.

This is characterized by financial restrictions and the current competing possibilities. They're altering as a result of the budgetary restrictions they're facing. This widens the gap between the

Have and the have not's, along with a substantial rise in other spending areas such as expenditure on education and health.

The research paper examines how, over a 40-year period, spending patterns have changed as the

U.S. economy went through different phases of boom and bust. This also sheds light on how a middle-class family from 1985 allocates its income differently in 2020 . Multidimensional factors that have significantly driven this change in consumer behaviour have also been studied in detail.

## **RATIONALE OF THE STUDY**

### **The aim of the Research is**

- The study focuses on finding the factors accountable for the change in the consumer spending pattern in the United States as dynamics of market changed over decades.
- To analyze the demographic, social and financial tendencies pertaining to the user in the said country
- To emphasise on understanding the broad tendencies that influence the behaviour of consumers, like technology, inflation etc rather than studying behaviour patterns in isolation. The aim is to look at the impact of change in earnings and expenses so as to examine the correlation between them.
- Examining factors such as savings rate, interest rate, life expectancy rate, taxes and their correlation with income. How has the percentage of each changed with respect to income in the last few decades? How has the overall GDP of the economy got impacted by the changes?
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## LITERATURE REVIEW

Birari & Patil (2014), carried out a study on three different group of students- i.e. undergraduates, graduates, and Post-graduates in Aurangabad, India Data on money spent on different things was collected

Expenses on shopping, entertainment, eating out etc. was gathered and examined. It was found the findings showed that students with different educational backgrounds spent differently. It was also brought to light that there was a difference in the expenditure pattern between male and female students with very little similarity.

A study conducted in Malaysia by Razak, et.al. (2014) revealed the spending pattern of youngster's .They distributed 50 questionnaires to the youth in the age bracket of 18 - 30 years. Only four variables that best represented the spending pattern were taken. These were food, travel expenses, entertainment and sports activities and electronics and gadgets. The results of this study revealed that the youth spent a major percentage of their income on food and transportation. It was also seen that there was a difference between the spending pattern of teens and young adults. The teens spent most on entertainment and sports activities along with electronics and gadgets.

The paper analyses the relationship between consumption pattern, human quality of life and its influence on the economic growth of an economy by taking the case of the economy of the USA. Analysis of literature of studies done by researchers in several parts of the world bring out that expenditure on consumption has been a pertinent criteria in the evaluation of growth of the economy.

The economic growth of any country can be primarily evaluated on the basis of levels of consumption. The level of consumption of goods and services is accounted for. Nordhaus (2005)

Goods and services are consumed by every individual in the country. The increase in individual consumption leads to an increase in aggregate demand. The upward change in demand leads to a rise in production of goods. This returns to the user in the shape of higher salaries. In a closed economy, the inhabitants of the country spend their income on consumer goods.

Consumption(C) is the only component of total demand . In an economy which is connected with other economies through trade and spending by the government, it also constitutes the aggregate demand, (ICMR, 2006).

## RESEARCH QUESTION AND HYPOTHESES

The purpose of this study is to find out whether the consumer spending patterns have changed over a span of 40 years with respect to variables such as income, interest rates, savings rates, technology, taxes and few demographic factors. The aim is to ascertain the attitude of people when the variables are taken into consideration.

### The Basic Hypothesis Are-

- HO1: Many other factors such as per capita GDP, inflation rate, savings rate, and age of the consumer influence the expenditure pattern.
- HO2: Economic Recession affects the disposable income of the consumer.
- HO3: Factors such as housing, healthcare and transportation impact the CPI rate.
- HO4: The mass behaviour of people does not imply that an individual will have a similar expenditure pattern.

## DATA AND METHODOLOGY

The secondary research method has been used to examine the research topic using existing and reputable literary sources in this study. The secondary data used for the correlation analysis has been taken from the reports of the year 1980-2021 from OECD reports, World Bank reports, IMF, WTO reports, etc. Other than these secondary resources, information is also taken from various reports published by OECD, World Bank and others on the expenditure pattern and factors affecting it in connection with the US economy.

The concepts of dependent and independent variables and correlation between them have been used in the research paper. Independent variables are the variables that impact the dependent variables. A dependent variable on the other hand is the outcome of the independent variable. When the effect of increased earnings, rise in recession, rise in prices on Per Capita Expenditure is to be analysed then the former variables are the non dependent variables and the PCE is the Dependent variable. The correlation between non dependent variables and dependent variables can either be positive or negative.

There is a positive correlation between the two variables when the coefficient of correlation is more than 0. This signifies that both variables are going in the same direction. When the coefficient of correlation is lesser than zero, inverse correlation occurs. This indicates that both variables move in different directions.

## ANALYSIS AND INTERPRETATION

Consumer behaviour can be analysed by looking at the rate of change in different parameters such as income and savings. The time span of 40 years, from 1980 to 2020 has been considered. The graph below depicts the change in per capita income of an average US Household. It can be clearly seen below that as the US economy prospered, the average income of people increased leading to more disposable income. The rise in disposable income has been a major fuel to the growth of the US Economy.

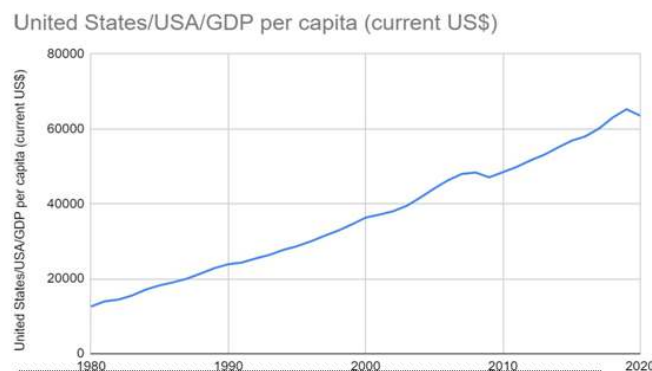


Figure 1:

Source: <https://www.worldbank.org/>

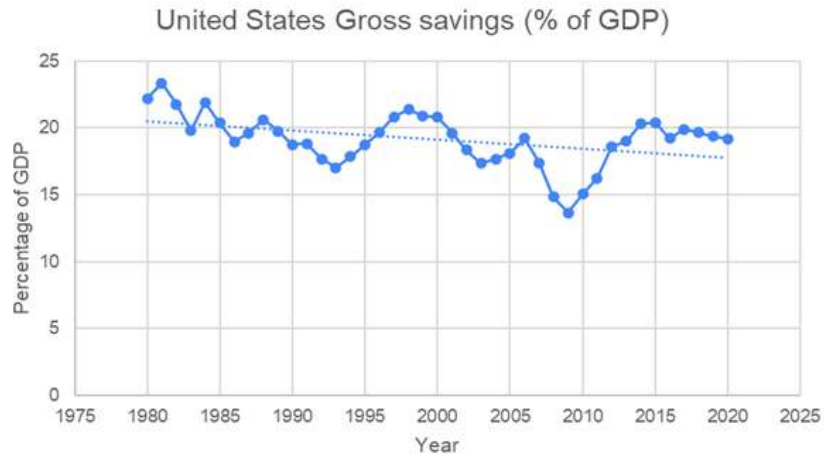


Figure 2:

Source: <https://www.worldbank.org/>

The out-of-pocket expenditure has been analysed per capita for 20 years (1998-2018) which also showed an increasing trend. In 1998 the average out-of-pocket expenditure was about \$705 which increased to \$1150 (approx.) showing an increased percentage of 62.65% in total.

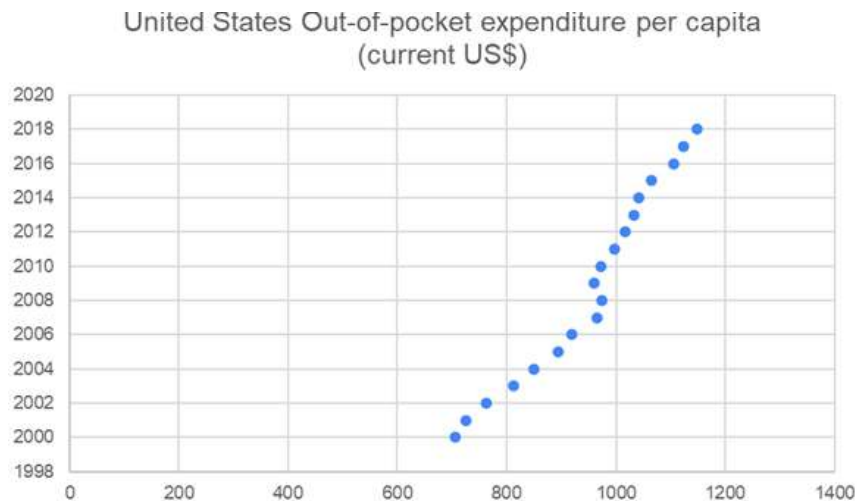


Figure 3:

Source: <https://www.worldbank.org/>

The relation between out-of-pocket expenditure per capita and average income can also be viewed by looking at the correlation coefficient between them which comes out to be 1. The correlation of  $r = 1$  suggests a strong, positive association between out-of-pocket expenditure per capita and average income.

Analyzing the inflation rate also plays an instrumental role in studying consumer spending patterns. Below is a graphical representation of the rate of change in the inflation rate over the years. The inflation rate was around 7.63% in the year 1980 which has come down to 1.23%. Does this indicate the positive behaviour of the consumer towards the market? It is often claimed that the rate of inflation affects the time distribution of expenditures



**Figure 4:**

**Source:** <https://www.worldbank.org/>

Any change in the expected rate of inflation can alter the consumer's expenditure programmes. The funds available will have to be reallocated. The focus of the consumer shifts on all types of consumer goods. As the rate of inflation increases, the real rate on financial savings reduces.

### **IMPACT OF DEMOGRAPHIC FACTORS ON THE SPENDING PATTERN OF CONSUMERS**

Even though the process of making decisions seems to be quite standardized, but no two individuals decide in precisely the same manner. As human beings we have inherited and adopted many behavioural habits. Some of these tendencies are controllable and some are totally beyond one's capacity to control. There are several socio- cultural, individual perceptions and psychological factors that impact consumers in the decision-making process. Some of these

Demographics factors such as age of the individual, gender, income and occupation and many more, have a substantial impact on the behaviour of a consumer. These factors should be given due impowhile understanding consumer behaviour

#### **Age**

Consumer expenditures vary by age, the difference in the allocation of PCE on different items and services by different age groups can be observed by analysing the data of different age groups as given in the Consumer Expenditure report for the year 2013 as shown below:

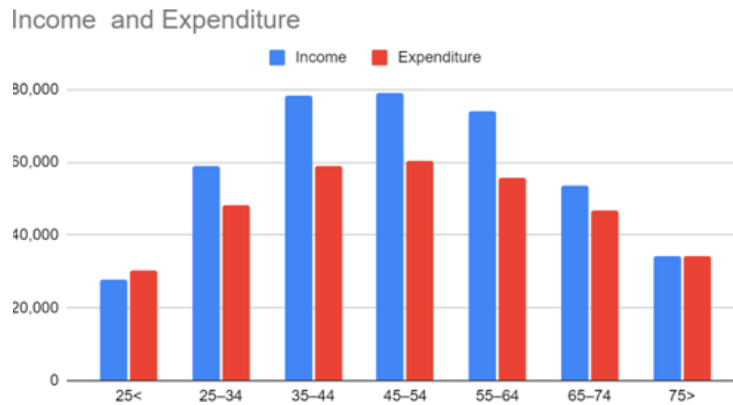


Figure 5.

Data on household purchases broken down by age of the reference individual demonstrate that annual expenses and pretax income follow an inverted U shaped pattern throughout the life cycle, with the lowest levels for the below 25 age group, along with the increase to their maximum levels for the age group of 45–54, and a fall for the other categories.

### Gender

Another demographic aspect that has been researched is gender, specifically how it connects to different product categories and how it may influence customer purchasing behaviour. According to a study, women are more affected by music in restaurants than men are (Wilson, 2003).

Additionally, other research has shown that males rely more on themselves than women when making decisions about purchases and take more risks than women do (Syed, 2003).

In modern society, women have begun making the majority of purchases for themselves and their homes without consulting their husbands. The majority of purchases for consumer durables like cars, TVs, refrigerators, cameras, and other items are still made by men. Thus, the study of customer behaviour is influenced by who will buy the goods.

### Marital Status

Married individuals always represent a larger market than single people for housing, life insurance, durable goods, and children's clothing. As a result, a widow's life and shopping preferences differ greatly from those of a typical married woman her age. Therefore, before examining a consumer's purchasing behaviour, it is crucial to take into account their marital status.

### Ethnic Factor

Everywhere, minorities have historically had lower levels of education, less cultural opportunities, and lower wages than others. Despite the fact that these people's circumstances are undoubtedly improving, minority group members still have different consumption habits than others when it comes to the "kind and quality" of the things they buy.

### Education

Studies have shown that preferences for entertainment, food, clothing, automobiles & other items are impacted by the level of one's education. This is true regardless of one's literacy level, level of education beyond elementary school, college education, university education, professional education, etc.

### Occupation

White-collar workers typically have quite distinct product preferences than blue-collar workers. Thus, knowing a consumer's actual vocation makes it easier to research and anticipate his behaviour.

### Family Size

If the family is small, it will buy necessities in little amounts, but if the family is large, it will buy necessities like food, clothing, etc. in huge quantities to meet the needs of every member of the household.

## EXPENDITURE ON HOUSING

Expenditure on housing outlays did not follow the hump-shaped pattern described earlier. For the people below the age of 25 was \$10,379. For the age group between 35–44 it peaked at

\$20,619, and then remained flat until it reached \$12,314 for the people 75 years old and above. Non-Housing expenses (total expenditures less housing expenditures) formed the hump-shaped pattern. This has been depicted below:

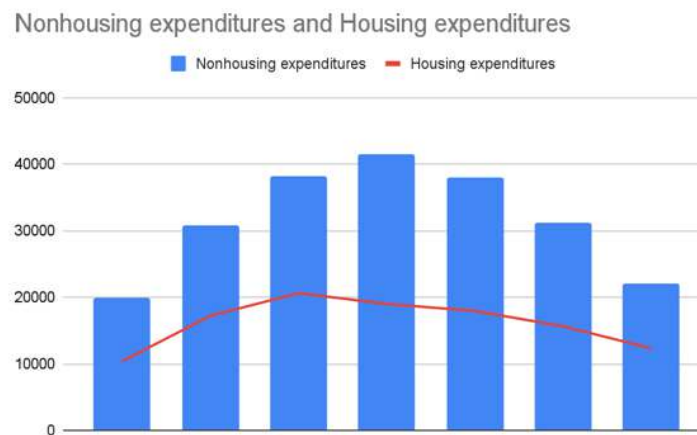
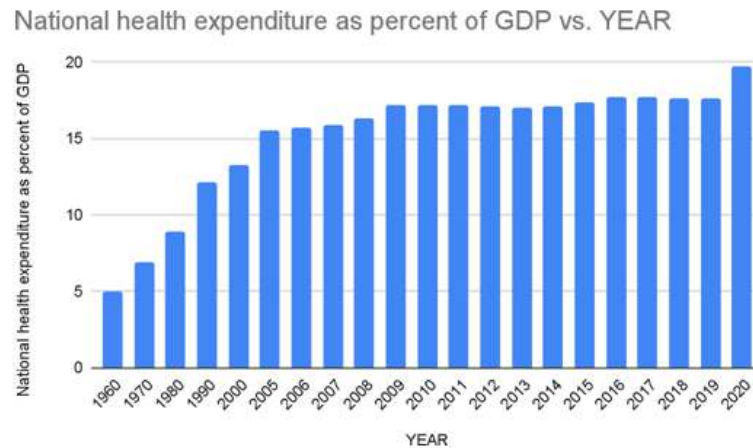


Figure 6.



## EXPENDITURE ON HEALTHCARE



**Figure 7**

The term "health expenditures" includes not just those associated with providing medical care but also those associated with managing insurance, funding research, and promoting public health.

Between 1960 and 1980, the share of the GDP towards health care increased from 5% to 6.9%. Even though expenditure on health-care has recently eased, it still surpasses economic growth.

The share of the GDP in the year 2020 towards health care increased to 19.7%, clearly depicting an increase from the previous share. The GDP reduced to 2.2% in 2020.

Earlier research studies using CE data from the Interview Surveys of 1998, 2003, and 2008 also suggested an affirmative relationship between spending on healthcare and age among households. Expenditure on nursing at home is not included.

Data from the National Health Expenditure Accounts (NHEA), covers the population which has been institutionalised. This shows that in 2013, out-of-pocket expenditure by households on nursing at home was 29.4 per cent (\$45.8 billion) of the \$155.8 billion. In the case where institutionalized population is included in the consumer expenditure, it is likely that healthcare expenses for the individuals in the age group of 65–74 and 75-and-older age groups would be much higher than the other age groups.

## EXPENDITURE ON TRANSPORTATION

In the USA, households end up spending almost thirteen percent of their total household expenditure towards commuting. Around 35 percent of American households own three or more than three vehicles.

In 2016, the individuals earning an average of approximately \$12000 spent an average of \$3500 approx. on travel. Individuals in this income group get severely impacted by an inadequate public transport system. Personal vehicles are to be used in such situations. Buying personal vehicles is expensive.

For those whose income falls in the range of \$30,000 per annual their expenses on travel was nearly twenty two percent. As they move from lower to higher income groups the proportion of expenses towards transportation reduces. Vehicles owned for individual use comprised approximately 90% of the entire spending on transportation in 2017. The average expenditure on transportation for an average citizen was approximately \$9,737.

The spending on travel in 2013 averaged to \$5,672 for the below 25 age group. This increased to a total of \$10,519 for the people between the age bracket of 35–54. The sum spent by individuals between 45-54 years of age was about \$10,782. These expenses reduced to \$9,482 for the age group of 55–64 and decreased even further for the 75-and-older group to \$5,149.

At least one vehicle was owned by eighty seven percent of households. Only sixty seven percent of the individuals in the below twenty five age group possess one vehicle, in contrast with seventy eight percent of the individuals in the seventy five and above age group. Share on travel of the total expenditure of the household was the lowest (15%) for the people in the age group of 75 and above, This was more for other age groups since the travel requirements for other age groups is more. Transportation, expenditure on clothes is also considered a work-related expense. Expenses on this also tend to decrease with the increase in age of the person in reference.

#### **IMPACT OF RECESSION ON THE SPENDING PATTERN OF CONSUMERS**

An economic downturn is characterized by a decrease in corporate activity. The outcome of this meltdown is low disposable income, rise in inflation, increase in prices of goods and services, reduced savings. During this phase, there is no increase in gross domestic product (GDP) of the country. Thus the mean expected quality of life substantially reduced. Due to a lack of and uncertainty about financial resources, consumer purchasing behavior becomes more complicated during a recession. Consumers behave rationally throughout this time period. They would rather expend their limited financial resources on essentials rather than on superior goods.

Valoskova & Klielstle (2015) concluded that when an economy is on the growth path there is always an upward trend in the purchase of superior goods and consumer durable products.

During the period of slowdown in the economy, the income of the consumer reduces. This reduction in income adversely impacts the confidence of the consumer.

According to the study done by Saurabli & Devika (2013) it was concluded that during the phase of recession, there is an overall increase in purchase price of commodities. This rise is because of an increase in inflation. This leads to decrease in employment, and how GDP creates a

pre-recessionary situation that gradually impacts the buying decisions of the consumer.

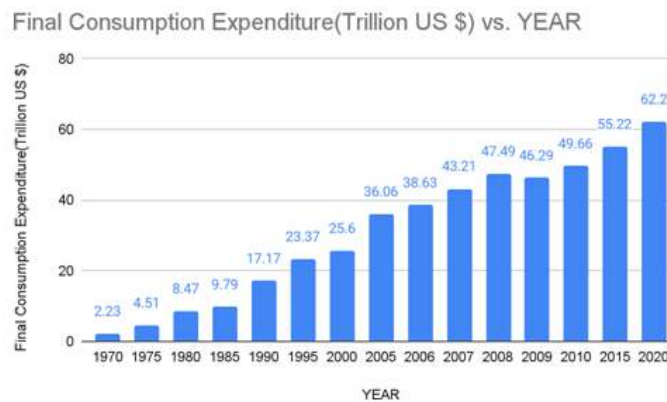
There is not much change in the requirement for basic goods when compared with the demand for non-essential goods which reduces substantially.

Individuals behave rationally while making purchases during the downturn. Their preference is to continue to buy known brands of products that fulfill their requirements. During this phase they refrain from using unused brands. Thus, it becomes tough for marketers to position new products during this phase of economic slowdown. Thus adversely impacting the sales target for the new product.

The Economic Recession of 2008 culminated in the biggest YOY fall in expenditure since 1945. The drop in demand was substantial and prolonged. Real Personal Consumption Expenditures in Total (PCE) did not return to its former peak that was achieved in the fourth quarter of 2007 for almost 12 quarters. The aggregate consumption fell at its sharpest and longest-lasting rate since World War II during the Great Recession. During this time, consumption in all of its components fell. When compared to prior recessions, the significant decline in the consumption of services stands out the most for the recession of 1945.

Figure 8 exhibits the level Final Consumption Expenditure(Trillion US \$) from 1970 to 2020. As can be clearly observed throughout the given time period, the graph displays the rate of growth of consumption levelling off in 2008. The Final Consumption Expenditure(Trillion US \$) fell from \$ 47.49 Trillion to \$ 46.29 trillion and then increased by a mere \$ 3 trillion as compared to previous annual increase rates of \$ 4-5 trillion annually.

**Figure 8: Final Consumption Expenditure(Trillion Us \$)**



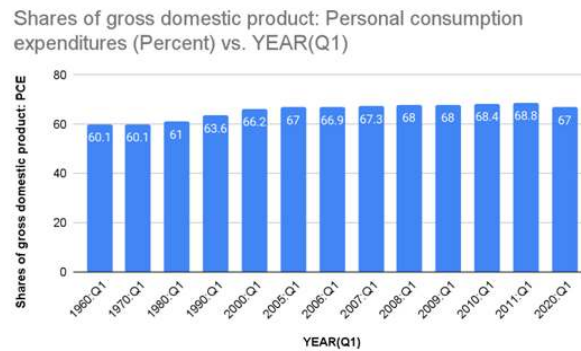
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**Figure 9:** below shows personal consumption expenditure as a share of domestic product from 1960 to 2020.

In prior recessions, consumption growth exceeded GDP growth. Since 1960, there has been an increase in the share of GDP to PCE ratio. In contrast, it increased slowly during the Recession in 2008. This ratio has either decreased or remained unchanged even after the recession.

Consumption has thus been affected more severely than in past recessions as a percentage of GDP.

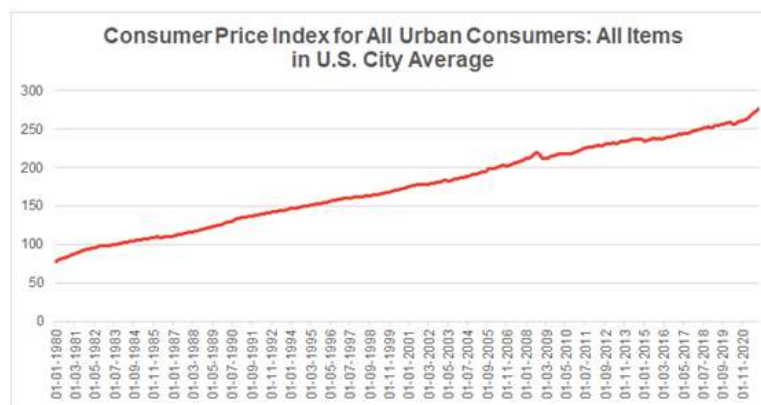


**Figure 9: Personal Consumption Expenditure as a Share of Domestic Product Since 1960 to 2020.**

### Consumer Price Index

The average costs for the goods and services used by the consumers including transportation, dining out, and health care, is examined by the Consumer Price Index (CPI). It is calculated by aggregating the price fluctuations for all items in the selected product basket. To determine the economy's inflation rate, one might analyse the trends in the US CPI.

The CPI, which is used to assess these average variations in prices over time that consumers pay for goods and services, forms the basis of the consumer's choice. The index basically aims to quantify the overall level of prices in an economy and hence gauge the buying power of a nation's currency.



**Figure 10**

Source: <https://www.worldbank.org/>

Here the increasing trends in CPI are a testimonial to the increase in average prices of goods and services leading to an increase in average consumer spending.

### CONCLUSIONS

The above analysis is a testimonial for the dynamic behaviour of a consumer and how changes in the external environment affect consumer behaviour.

**Hypothesis 1 states** “ Many other factors such as per capita GDP, inflation rate, savings rate and age of the consumer influence the expenditure pattern.” this stands true as in the result analysis above it can be seen that the consumer has always adjusted its monthly expense with respect to the ongoing market trends.

As the per capita income of an average US household rose the out-of-pocket expenses also grew accordingly. A strong correlation coefficient justifies how the two variables have a positive relation and are closely impacted with every change.

An average US consumer’s decision is also impacted by the inflation rate in the market. As soon as the rate of inflation increases the purchasing power decreases. An individual will be required to spend more in order to purchase the goods and services as before. As the inflation rose with the continuous rise in CPI the average expenditure increased gradually.

It has been observed that there is an increasing trend both in the household expenditure and household income for the individuals falling in the age under 25 age group to the 35–44 group and 45-54 group. The increase in expenditure can be attributed to increase in the family size.

In the following age group there a decline in the family size and expenses has been observed especially in the age group of 75 and above.

**Hypothesis 2 stating** “Economic Recession affects the disposable income of the consumer” stands true as the analysis of the study research establishes that, economic recession has an adverse impact on the disposable income of consumers. This is justified on the basis of the findings, during the phase of recession, consumers respond differently towards the new economic conditions. They change their consumption behaviour towards different goods and services available in the market. There is a decrease in the consumption of goods and services. The gross domestic product (GDP) is adversely impacted.

**Hypothesis 3 stating** “Factors such as housing, healthcare and transportation impact the CPI rate.” is also proved true through the result analysis. Housing has seen an increase, and healthcare and transportation have all seen trends.

For individuals in the age group of 65–74 years and 75 years and older, the expenses on healthcare increased in dollars and also its shares in the household budget also increased. This analysis is based on comparison with the sample as a whole. On one hand there was an increase in the healthcare expenditure on healthcare and on the other there was a decrease in the amount spent on transportation.

Through the analysis, it has also been observed that the national health expenditure as per cent of GDP has increased significantly from 1960 to 2020 from a level of 5% to 19.7% . The most significant increase was observed between the period of 1960 to 2000 and between 2019 to 2020

**Hypothesis 4 states** “The mass behaviour of people does not imply that an individual will have a similar expenditure pattern.” this is true because the data above represents the choices of the masses. Hence, this research paper includes averages and not extreme values.

For example, The expenditure pattern among varied sectors such as healthcare, housing and transportation differ from age group to age group as seen in the analysis of how demographic factors affect the consumer spending pattern.

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