Consumer Price Index Analysis as Teaching Material for Accounting Students

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ABSTRACT

The Consumer Price Index (CPI) is a crucial economic indicator that measures changes in the average prices of a basket of goods and services purchased by households over time. This paper aims to highlight the significance of incorporating Consumer Price Index analysis into the curriculum of accounting students. This study uses descriptive analysis to explain conditions regarding inflation to students. The incorporation of Consumer Price Index (CPI) analysis as a teaching material for accounting students is of utmost importance. This economic indicator plays a vital role in measuring inflation rates and understanding the macroeconomic environment that businesses operate within. By familiarizing themselves with the CPI and its implications, accounting students can better comprehend the impact of inflation on financial reporting, budgeting, forecasting, and investment decision-making. By incorporating case studies and practical applications of CPI analysis, accounting students can gain hands-on experience and strengthen their analytical skills. This approach not only enriches their learning but also equips them with practical tools to navigate the complexities of the dynamic business world.

Keywords: Consumer Price Index, Teaching Materials, Accounting Students, Inflation, Curriculum

INTRODUCTION

The Consumer Price Index (CPI) is a crucial economic indicator that measures changes in the average prices of a basket of goods and services purchased by households over time. It is widely used by policymakers, economists, and businesses to gauge inflation rates and assess the purchasing power of consumers. Understanding the CPI and its implications is essential for accounting students, as it provides valuable insights into the macroeconomic environment in which businesses operate.

Figure 1. Share and Inflation Rate

Source: Central Bureau of Statistics, 2017

Inflation occurred due to price increases as indicated by increases in all expenditure group indices, namely: the foodstuffs group by 1.45 percent; the processed food, beverage, cigarette, and tobacco group by 0.19 percent; the housing, water, electricity, gas, and fuel group by 0.12 percent; clothing group by 0.15 percent; the health group by 0.25 percent; the education, recreation, and sports group by 0.03 percent; and the transportation, communication and financial services group by 0.28 percent.

Several commodities that experienced price increases in April 2019 included: shallots, garlic, red chilies, house contract rates, air freight rates, purebred chicken eggs, vegetable tomatoes, melons, fruit tomatoes, cayenne pepper, filter clove cigarettes, tariffs rent houses, and cars. Meanwhile, commodities that experienced price reductions included rice, electricity tariffs, purebred chicken meat, and fresh fish.

In April 2019, out of 7 expenditure groups, 6 groups contributed/contributed to inflation, and 1 group did not contribute/contribute to national inflation. Expenditure groups that contribute/contribute to inflation, namely: foodstuffs group 3 by 0.31 percent; the processed food, beverage, cigarette, and tobacco group by 0.03 percent; the housing, water, electricity, gas, and fuel group by 0.03 percent; the clothing group by 0.01 percent; the health group by 0.01 percent; and the transportation, communication and financial services group by 0.05 percent. While the expenditure group that does not contribute/contribute to national inflation, namely the education, recreation, and sports group.

The Short-Term Energy Outlook predicts that world benchmark Brent crude will average $61.5 per barrel(b) in 2019 and $62.9/b in 2020, increasing from late 2018, but overall will remain lower than average. - 2018 average at $60.0/b. Bangkok benchmarks. This inflation target is considered as a benchmark for businesses and the public in carrying out their future economic activities and thereby bringing inflation to a low and stable level. The government and Bank Indonesia are firmly committed to achieving the inflation target set through policy coordination that consistently tracks this target. One measure of inflation control to produce low and stable inflation is to shape and guide public inflation expectations towards the anchor inflation target that has been set.

This paper aims to highlight the significance of incorporating Consumer Price Index analysis into the curriculum of accounting students. By doing so, students can develop a comprehensive understanding of the economic factors that influence financial reporting, budgeting, forecasting, and decision-making processes within organizations.

LITERATURE REVIEW

Inflation (Abdoh et al., 2016; Mirchandani, 2013) is a tendency to increase the prices of goods and services in general which takes place continuously. If the price of goods and services in the country increases, inflation will increase. Rising prices of goods and services cause a decrease in the value of money. Thus, inflation can also be interpreted as a decrease in the value of money against the value of goods and services in general.

The Consumer Price Index (CPI) is an economic indicator that is often used to measure the level of price changes (inflation/deflation) at the consumer level, especially in urban areas. Changes in the CPI from time to time show the price movements of the commodity packages consumed by households. In Indonesia, the inflation rate is measured by the percentage change in the CPI and is announced to the public at the beginning of each month (first working day) by the Central Bureau of Statistics.

The CPI plays a central role in tracking the overall economic health of a country or region. Its influence extends to various aspects of financial management, such as cost accounting, inventory valuation, and monetary policy analysis. As accounting professionals, students need to be aware of the CPI's relevance and implications on businesses' financial performance (Bane, 2018; Islam et al., 2017; Topan et al., 2020).

In economics, the inflation function is a mathematical representation that describes the relationship between inflation and various determinants or factors that contribute to changes in the general price level of goods and services in an economy over time. It is essential for policymakers, economists, and businesses to understand and model inflation to make informed decisions and implement appropriate economic policies (Alimi & Chakroun, 2022; Nasir et al., 2020; Walettina & Anton, 2022).

METHODOLOGY

Research Design

This study uses descriptive analysis to explain conditions regarding inflation to students. This method describes data conditions based on facts (Lind et al., 2018). This method is the easiest for students to understand (Sekaran & Bougie, 2016).

Data Types and Sources

This type of research data is secondary data. The data source is taken from the central statistics agency. This study takes the available data and then analyzes it.

After development, the teaching materials that have been developed will be evaluated for their effectiveness (Renaldo, Andi, et al., 2023; Renaldo, Suhardjo, et al., 2023; Sevendy et al., 2023). The evaluation will involve collecting data from students who use the teaching materials. This data will be analyzed qualitatively and quantitatively to evaluate the effectiveness of teaching materials in increasing students' understanding of consumer price index and inflation.

RESULTS AND DISCUSSION

Consumer Price Index and Intercity Inflation

Figure 2. Comparison of Inflation Rates

Source: Central Bureau of Statistics, 2019

In April 2019 there was inflation of 0.44 percent with a Consumer Price Index (CPI) of 136.47. Of the 82 CPI cities, 77 cities experienced inflation and 5 cities experienced deflation. The highest inflation occurred in Medan at 1.30 percent with a CPI of 140.66 and the lowest occurred in Pare-Pare at 0.03 percent with a CPI of 129.45. While the highest deflation occurred in Manado at 1.27 percent with a CPI of 131.74 and the lowest occurred in Maumere at 0.04 percent.

Sumatera Island

In April 2019, all CPI cities in the Sumatra Island region, totaling 23 cities, experienced inflation. The highest inflation occurred in Medan at 1.30 percent with a CPI of 140.66 and the lowest occurred in Tanjung Pinang at 0.16 percent with a CPI of 133.84.

Table 1. Comparison of April 2019 Index and Inflation Rate (Cities in Java Island and National (2012=100))

April 2019	
CPI	Inflation Rate (%)
134.10	0.18
127.96	0.36
130.69	0.64
141.43	1.15
140.49	1.03
140.66	1.30
133.86	0.36
140.56	0.44
131.51	0.51
140.76	1.06
136.77	0.51
136.39	0.35

April 2019	
CPI	**Inflation Rate (%)**
134.00	0.45
134.76	0.61
132.67	0.55
132.24	0.36
144.43	0.54
136.42	0.69
140.52	0.52
145.97	1.14
142.26	0.74
137.73	0.18
133.84	0.16
136.47	0.44

Source: Central Bureau of Statistics, 2019

Java Island

In April 2019, all CPI cities in the Java Island region, totaling 26 cities, experienced inflation. The highest inflation occurred in Surakarta at 0.68 percent with a CPI of 130.93 and the lowest occurred in Banyuwangi of 0.15 percent with a CPI of 129.78.

Table 2. Comparison of April 2019 Index and Inflation Rate (Cities in Java Island and National (2012=100))

No	City	April 2019	
		CPI	**Inflation Rate (%)**
1	JAKARTA	136.67	0.40
2	BOGOR	137.77	0.50
3	SUKABUMI	134.97	0.46
4	BANDUNG	135.11	0.43
5	CIREBON	130.62	0.27
6	BEKASI	133.72	0.35
7	DEPOK	134.11	0.49
8	TASIKMALAYA	132.95	0.21
9	CILACAP	138.63	0.26
10	PURWOKERTO	132.27	0.21
11	KUDUS	141.58	0.21
12	SURAKARTA	130.93	0.68
13	SEMARANG	133.58	0.47
14	TEGAL	132.05	0.46
15	YOGYAKARTA	133.21	0.46
16	JEMBER	131.12	0.45
17	BANYUWANGI	129.78	0.15
18	SUMENEP	131.10	0.37
19	KEDIRI	130.03	0.36
20	MALANG	136.23	0.44
21	PROBOLINGGO	129.84	0.19
22	MADIUN	133.13	0.41
23	SURABAYA	136.33	0.44
24	TANGERANG	144.18	0.43
25	CILEGON	143.16	0.40
26	SERANG	147.06	0.66
	NATIONAL	**136.47**	**0.44**

Source: Central Bureau of Statistics, 2019

Outside Java Island and Sumatra Island

In April 2019 of the CPI cities outside Java and Sumatra, totaling 33 cities, 28 cities experienced inflation and 5 cities experienced deflation. The highest inflation occurred in Merauke at 1.20 percent with a CPI of 140.12 and the lowest occurred in Pare-Pare at 0.03 percent with a CPI of 129.45. Meanwhile, the highest deflation

occurred in Manado at 1.27 percent with a CPI of 131.74 and the lowest occurred in Maumere at 0.04 percent with a CPI of 126.03.

Table 3. Comparison of April 2019 Index and Inflation Rate (Cities Outside Java Island and Sumatra Island and Nationally (2012=100))

No	City	April 2019	
		CPI	Inflation Rate (%)
1	SINGARAJA	143.68	0.39
2	DENPASAR	132.39	0.26
3	MATARAM	133.29	0.33
4	BIMA	139.19	0.67
5	MAUMERE	126.03	-0.04
6	KUPANG	135.88	0.58
7	PONTIANAK	147.18	0.21
8	SINGKAWANG	138.08	0.23
9	SAMPIT	139.52	0.66
10	PALANGKA RAYA	132.98	0.32
11	TANJUNG	134.76	0.47
12	BANJARMASIN	137.24	0.97
13	BALIKPAPAN	139.96	0.25
14	SAMARINDA	138.54	0.07
15	TARAKAN	148.72	0.60
16	MANADO	131.74	-1.27
17	PALU	141.41	0.72
18	BULUKUMBA	142.77	0.33
19	WATAMPONE	132.35	0.39
20	MAKASSAR	138.30	0.45
21	PARE-PARE	129.45	0.03
22	PALOPO	134.66	0.50
23	KENDARI	129.65	0.46
24	BAU-BAU	136.83	0.28
25	GORONTALO	129.92	0.50
26	MAMUJU	132.05	0.17
27	AMBON	131.96	-0.16
28	TUAL	154.51	0.18
29	TERNATE	139.46	0.34
30	MANOKWARI	132.65	-0.55
31	SORONG	133.52	0.13
32	MERAUKE	140.12	1.20
33	JAYAPURA	140.90	-0.26
	NASIONAL	**136.47**	**0.44**

Source: Central Bureau of Statistics, 2019

Core Component Inflation

The core component in April 2019 experienced inflation of 0.17 percent or an increase in the index from 127.43 in March 2019 to 127.65 in April 2019. Components whose prices were regulated by the government and components whose prices were volatile experienced inflation of 0.16 each percent and 1.59 percent. Core component inflation, components whose prices are regulated by the government, and volatile components for the 2019 calendar year inflation (January–April) were each 0.89 percent; 0.18 percent; and 1.22 percent, as well as year-on-year inflation (April 2019 to April 2018) of 3.05 percent each; 3.17 percent; and 2.05 percent. In April 2019, the core components, components whose prices were regulated by the government, and components whose prices were volatile contributed to inflation by 0.10 percent each; 0.04 percent; and 0.30 percent.

Energy Component Inflation

The energy component in April 2019 experienced a deflation of 0.19 percent or an index decrease from 161.37 in March 2019 to 161.07 in April 2019. Energy component inflation for the 2019 calendar year (January–April) was -1.09 percent and year-on-year inflation (April 2019 to April 2018) was 0.61 percent. The energy component in April 2019 contributed 0.02 percent to deflation.

Discussion

Indonesia's inflation rate according to expenditure has decreased since 2017. The reduction in the inflation rate can indirectly increase public consumption because the increase in the price of goods is not high. Inflation is a tendency to increase prices of goods and services in general which takes place continuously. If the price of goods and services in the country increases, inflation will increase. Rising prices of goods and services cause a decrease in the value of money. Thus, inflation can also be interpreted as a decrease in the value of money against the value of goods

An index that calculates the average price change of a package of goods and services consumed by households in a certain period of time. CPI is an indicator used to measure the inflation rate. Changes in the CPI from time to time reflect the rate of increase (inflation) or rate of decline (deflation) of goods and services.

The central bank of Indonesia, Bank Indonesia (BI), plays a crucial role in controlling inflation through its monetary policy. BI uses tools such as the benchmark interest rate (BI 7-day Reverse Repo Rate) and reserve requirement ratio to influence money supply and credit growth in the economy, which, in turn, affects inflationary pressures. Inflation can be influenced by demand-pull and cost-push factors. Demand-pull inflation occurs when aggregate demand exceeds aggregate supply, leading to upward pressure on prices. On the other hand, cost-push inflation results from increases in production costs, such as rising wages or input prices.

As Indonesia is an import-dependent country, fluctuations in exchange rates can affect inflation. A depreciation of the Indonesian rupiah can lead to higher import costs, resulting in increased prices for imported goods and services. Government policies, such as changes in fuel and energy prices, can have a direct impact on inflation. Subsidy adjustments and changes in tax rates can influence the overall price level in the economy.

Historically, Indonesia has experienced varying levels of inflation. In the past, high inflation rates were a concern for the economy, eroding purchasing power and impacting economic stability. However, in recent years, the country has managed to keep inflation relatively stable. Efforts to control inflation have been successful through prudent monetary policies and fiscal measures. Bank Indonesia's commitment to maintaining price stability and anchoring inflation expectations has contributed to the moderation of inflation rates.

CONCLUSION

Conclusion

The incorporation of Consumer Price Index (CPI) analysis as a teaching material for accounting students is of utmost importance. This economic indicator plays a vital role in measuring inflation rates and understanding the macroeconomic environment that businesses operate within. By familiarizing themselves with the CPI and its implications, accounting students can better comprehend the impact of inflation on financial reporting, budgeting, forecasting, and investment decision-making.

Understanding the CPI calculation and its components enables students to gain insights into the basket of goods and services that influence consumer spending patterns. This knowledge can be leveraged in financial reporting to adjust revenues and expenses accurately, thereby presenting a more realistic picture of a business's performance.

Implication

Students can use CPI data to forecast future costs and effectively plan budgets, considering the inflationary pressures on prices. This skill empowers them to implement robust cost control strategies that align with economic conditions, fostering sound financial management practices.

Furthermore, the relationship between the CPI and investment decisions emphasizes the significance of monitoring inflation trends when assessing investment opportunities. Accounting students who are well-versed in CPI analysis can better evaluate the risks and returns associated with various investments and make informed decisions that align with their organization's objectives.

Finally, understanding the CPI's impact on monetary policy sheds light on how central banks and policymakers use this indicator to regulate interest rates and shape the economic landscape. Accounting students with this knowledge can appreciate the broader economic implications of their organization's financial decisions and contribute to well-informed strategies that respond effectively to changing economic conditions.

Recommendation

By incorporating case studies and practical applications of CPI analysis, accounting students can gain hands-on experience and strengthen their analytical skills. This approach not only enriches their learning but also equips them with practical tools to navigate the complexities of the dynamic business world.

Consumer Price Index analysis is an essential teaching material for accounting students as it bridges the gap between theoretical knowledge and real-world application. Armed with an understanding of the CPI's significance, calculation, and impact, students are better prepared to become competent accounting professionals capable of making informed financial decisions that support organizational success in the face of evolving economic landscapes.

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