

Innovations

Impact of Covid 19 on Household Income and Consumption: A Study of Somali Regional State, Ethiopia

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Abstract

The COVID-19 pandemic has a huge shock for virtually all sectors of the Ethiopian economy barring high-end services that could switch to online working mode. As contact-intensive sectors were forced to cut back operations, their employees and vendors suffered a loss of income. Against that backdrop, this study looks at the impact of the pandemic on the income, saving and consumption patterns of households within the Somali Regional state of Ethiopia. Its major finding is that while the overall household income has decreased, average consumption has actually also declined. Both income and consumption also has affected on the savings and savings also declined in the post pandemic period. There is a possibility that it rise in borrowing which could have contrary economic effects among households in the near future.

Key words: - 1.Covid-19, 2.Saving pattern, 3.Consumption expenditure, 4.Income and Households

1. Introduction

The Covid-19 pandemic has formed one of the deepest global economic disasters in decades with the world economy potentially taking a few years to recover to its pre-2020 levels. It is declared as a pandemic by the WHO in mid-March 2020, the economic effects of Covid-19 on the African continent may have been felt sooner than the occurrence of the first cases. The strict lockdown measures taken in China, followed by the further restrictions in Europe and the USA, have taken their toll on the international movement of goods and people, with significant impacts on international trade and tourism.

This research mainly focuses on the impact of the Covid-19 pandemic on the income, consumption and saving patterns of households in Somali Regional State, Ethiopia. Economic theory assumes that a decline in income causes a fall in consumption expenditure and therefore we should expect to see a decline in consumption due to the loss of jobs that many people suffered in the Covid-19 period. In modern economies, consumption habits are shaped by a wide range of factors and it is often difficult to isolate the influence of any one factor. However, given the massive impact of the pandemic, its effect on consumption was obvious and significant. Against this background, the study attempts to establish if the Covid-19's impact on income and consumption spending was statistically significant for the consumers of Somali Regional State, Ethiopia. For analytical purposes, the study treats 31st March 2020, as the date that separates the "pre-pandemic period" from the "post-pandemic period" because this was the period when Covid-19 has start its impact all over the world.

1.1. Statement of Problem

Prior to the start of Covid-19, Ethiopia was one of the Sub-Saharan African nations with remarkable economic growth as the country achieved an average annual GDP growth 10.4% in the last decade. Furthermore, the country has been witnessing high investment (both domestic and FDI), rising tax revenue which accounts for nearly 80% of the government expenditure in the last five years, and a reduction in poverty incidence by extending safety net programs to support chronically food insecure people (FDRE MoF, 2020). However, the country has been challenged by the Covid-19 pandemic since it costs lives, limits movement of people and forces closure or reduction in firms' production capacity. Moreover, the inflationary macroeconomic situation of the country tends to exacerbate welfare impacts of the pandemic especially on those food poor households.

In order to minimize the societal and economic costs of the pandemic, the government has introduced, on the one hand, a number of restrictions/safety measures to limit the spread of the virus and, on the other hand, arrays of economic stimulus packages in the forms of wage subsidies to protect jobs, increasing food and health related emergent costs, tax waivers and direct business supports (FDRE MoF, 2020). It is very important to study the impact of Covid-19 on income, consumption expenditures and saving pattern of households in Somali Regional State, Ethiopia so that suitable measures could be suggested to overcome the problem.

1.2. Research Questions

This study intends to provide answers to the following research questions:

1. What is the impact of Covid-19 on the income and consumption expenditure of households in Somali Regional State, Ethiopia?
2. What is the impact of Covid-19 on the saving patterns of households in Somali Regional State, Ethiopia?

1.3. Objective of the Study

The main research objectives of this research are:

1. To study the impact of Covid-19 on the income and consumption expenditure of households in Somali Regional State, Ethiopia.
2. To study the impact of Covid-19 on the saving patterns of households in Somali Regional State, Ethiopia?

2. Literature Review

Empirical studies related to Covid-19 and its Impact on Income, Consumption Expenditure and Saving of households

Rashid N.K. & et. al, (2011). He has analyzed the expenditure and income patterns of households in Malaysia. His has focused on income, expenditure, loan, and saving. This study was based on the post global economic crisis and what was the impact on the income and expenditure patterns of Malaysian households. The study recognizes major components of a household's expenditure on food, education, and health; as well as saving and loans, in relation to household income.

Binder & Carola (2020). In this research paper he shows that 30 to 40 percent of Americans are very concerned about the corona crisis, postponed travel, and delayed purchases of large ticket items as early as March 2020 but became more optimistic about the unemployment situation and revised downward their inflation. He has analyzed the household spending response in the Covid-19 pandemic period and also analyses utilizing transaction-level household financial data. The researcher has concluded that in the initial stage of Covid – 19 the household's spending increased sharply, particularly in retail, credit card spending, and food item. However, overall household spending was decreased.

Coibion O. & et.al, (2020).He has conducted a study that how the differential timing of local lockdowns due to Covid-19 causally affects households' spending and macroeconomic expectations at the local level using several waves of a customized survey with more than 10,000 respondents. His findings were that about 50% of survey participants report income and wealth losses due to the coronavirus, with the average losses being \$5,293 and \$33,482 respectively. Aggregate consumer spending dropped by 31 percentage points with the largest drops in travel and clothing.

Stephen B. & et. al, (2020).He has conducted a study and highlighted the impact of a pandemic on private consumption, which accounts for just over half of national income GNP. The impact of the pandemic has varied across income groups with low-income households more likely to see spending falls. While there may be significant forced savings accumulated as a result of the pandemic, this has largely been concentrated in higher-income households. These households spend relatively less of each euro of additional income in normal times, meaning that the boost to consumption when the pandemic is over is likely to be lower than would be the case if the shock had been equally distributed.

Singh I. & et. al, (2020). His finding was that the income and employment changes through various phases of the lockdown in Panjab. The study is conducted on primary data collected in various phases of lockdown. They conclude that there was a large drop in income and employment with the announcement of lockdown

3. Research Design and Methodology

3.1 Description of the Study area

The study area for this study is the capital city of Somali Regional State. Jigjiga is the capital city of Somali regional state, Ethiopia.

3.2. Research Design

This research is survey research. It is used descriptive research design. Online Structured questionnaires were used to collect data from the different households. The data has analyzed through descriptive statistics method and paired t-test is used to analyze the data by using SPSS software package

3.3. Target Population

Population of this study is 75 households from Jigjiga.

3.4. Sampling Technique

The sampling techniques used for the selection of the sample for the study was non-probabilistic sampling techniques. Researcher used non-probabilistic sampling techniques due to lack of resources and time constraint. 75 households selected randomly for the study. The researcher has distributed 75 questionnaires among those 72 questionnaires were correctly managed and returned back but the remaining 3 questionnaires did not return. The response rate was 96%.

3.5. Data Analysis Method

Descriptive statistics such as mean, median and standard deviation methods were used. For inferential statistics, paired t-test has used to find out the impact of covid-19 pandemic on households' income, consumption and saving.

4. Results and Discussion

4.1. Impact of Covid-19 Pandemic on Income of Households

Tables 1. present descriptive statistics pertaining to the monthly household income of respondents in the pre-pandemic and post-pandemic periods. In the study area, the average income was ETB 14506.9444 in the pre-pandemic period which has reduced to ETB. 12536.1111 in the post-pandemic period. There are no respondents in the ETB 50,000 to ETB 60,000 categories in the post-pandemic period, clearly indicating loss of income due to the pandemic.

Table 1.: Summary statistic of monthly household income pre-pandemic period and post-pandemic period

Total monthly household income in pre-pandemic period (in ETB)		Total monthly household income in post-pandemic period (in ETB)	
Mean	14506.9444	Mean	12536.1111
Std. Error	1468.75961	Std. Error	1305.39435
Median	11500.0000	Median	11000.0000
Std. Deviation	12462.83858	Std. Deviation	11076.63835
Minimum	1500.00	Minimum	2000.00
Maximum	51000.00	Maximum	41000.00
Count	72	Count	72

Source: Survey Data and Author's Computation

Table-2: Result of Paired- Samples T Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MONTHLY HOUSEHOLD INCOME PRE- COVID-19 PANDEMIC PERIOD	14506.9444	72	12462.83858	1468.75961
	MONTHLY HOUSEHOLD INCOME POST- COVID-19 PANDEMIC PERIOD	12536.1111	72	11076.63835	1305.39435

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	MONTHLY HOUSEHOLD INCOME PRE- COVID-19 PANDEMIC PERIOD & MONTHLY HOUSEHOLD INCOME POST- COVID-19 PANDEMIC PERIOD	72	.547	.000

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	MONTHLY HOUSEHOLD INCOME PRE- COVID-19 PANDEMIC PERIOD - MONTHLY HOUSEHOLD INCOME POST- COVID-19 PANDEMIC PERIOD		11273.80658		-678.38133	4620.04800	1.483	71	.142

Source: Survey Data and Author’s Computation

This result also supported by the results of paired t-tests and accordingly, there exists a statistically significant difference in many households in terms of monthly income of households pre-covid-19 pandemic period and post covid-19 pandemic period. Average monthly income decreases afterpost covid-19 pandemic period. (M=12536.1111, SE=1305.39435) compare to pre covid-19 pandemic periodhouseholds’ income (M=14506.9444, SE=1468.75961) $t = 1.483$, $df = 71$, $p < .05$ Sig. (2-tailed) .142. The findings are also consistent with earlier studies which argue that Covid-19 has reduced the income of the households.

4.2. Impact of Covid-19 on Consumption Expenditure of Households

Table 3: Summary statistic of monthly household consumption expenditure in pre-pandemic and post-pandemic period

Total monthly household expenditure pre-pandemic (in ETB)		Total monthly household expenditure post-pandemic (in ETB)	
Mean	11886.1111	Mean	10241.6667
Std. Error	1115.19472	Std. Error	907.10280
Median	9500.0000	Median	8000.0000
Std. Deviation	9462.74095	Std. Deviation	7697.02247
Minimum	2000.00	Minimum	3000.00
Maximum	41000.00	Maximum	35000.00
Count	72	Count	72

Source: Survey Data and Author’s Computation

Tables 3 present descriptive statistics pertaining to the monthly household consumption expenditure in the pre-pandemic and post-pandemic periods. In this study, average monthly consumption expenditure in the pre-covid-19 pandemic period was ETB11886.1111. It was reduced to ETB10241.6667 in the post covid-19 pandemic period. It was decreased because the income of the households has also decreased after the pandemic.

Table-4: Result of Paired- Samples T Test

Paired Samples Statistics					
Pair		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MONTHLY HOUSEHOLD CONSUMPTION EXPENDITURE PRE-COVID-19 PANDEMIC PERIOD	11886.1111	72	9462.74095	1115.19472
	MONTHLY HOUSEHOLD CONSUMPTION EXPENDITURE POST-COVID-19 PANDEMIC PERIOD	10241.6667	72	7697.02247	907.10280

Paired Samples Correlations				
Pair		N	Correlation	Sig.
Pair 1	MONTHLY HOUSEHOLD CONSUMPTION EXPENDITURE PRE-COVID-19 PANDEMIC PERIOD & MONTHLY HOUSEHOLD CONSUMPTION EXPENDITURE POST-COVID-19 PANDEMIC PERIOD	72	.989	.000

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MONTHLY HOUSEHOLD CONSUMPTION EXPENDITURE PRE-COVID-19 PANDEMIC PERIOD - MONTHLY HOUSEHOLD CONSUMPTION EXPENDITURE POST-COVID-19 PANDEMIC PERIOD	1644.44444	2162.15131	254.81198	1136.36380	2152.52509	6.454	71	.000

Source: Survey Data and Author’s Computation

This result of Paired Samples T Test also supported and accordingly, there exists a statistically significant difference in many households in terms of monthly consumption expenditure of households pre-covid-19 pandemic period and post covid-19 pandemic period. Average monthly consumption expenditures decrease after post covid-19 pandemic period. (M=10241.6667, SE=907.10280) compare to pre covid-19 pandemic period households’ income (M=11886.1111, SE=1115.19472) t=6.454, df=71, p<.05 Sig. (2-tailed) .000.

4.3. Impact of Covid-19 on Saving of Households

Table 5: Monthly households Saving in pre-pandemic and post-pandemic period

Monthly households Saving in pre-pandemic period (In ETB)		Monthly household saving in post-pandemic (In ETB)	
Mean	2668.0556	Mean	2169.4444
Std. Error	444.03905	Std. Error	676.03349
Median	1350.0000	Median	1050.0000
Std. Deviation	3767.79632	Std. Deviation	5736.33438
Minimum	-1300.00	Minimum	-27400.00
Maximum	16000.00	Maximum	27500.00
Count	72	Count	72

Source: Survey Data and Author’s Computation

In table 6 researcher present descriptive statistics pertaining to the monthly household saving in the pre-pandemic and post-pandemic periods. The average household monthly saving is ETB2668.0556 per month in the pre-pandemic period but in the post-pandemic period the average decreased to ETB 2169.4444 per month, indicating a fall of ETB 498.6112 in average saving per month due to the pandemic.

Table-6: Result of Paired- Samples T Test

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MONTHLY HOUSEHOLD SAVING IN PRE-PANDEMIC PERIOD	2668.0556	72	3767.79632	444.03905
	MONTHLY HOUSEHOLD SAVING IN POST-PANDEMIC PERIOD	2169.4444	72	5736.33438	676.03349

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	MONTHLY HOUSEHOLD SAVING IN PRE-PANDEMIC PERIOD & MONTHLY HOUSEHOLD SAVING IN POST-PANDEMIC PERIOD	72	.183	.124

Paired Samples Test									
		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	MONTHLY HOUSEHOLD SAVING IN PRE-PANDEMIC PERIOD - MONTHLY HOUSEHOLD SAVING IN POST-PANDEMIC PERIOD	498.61111	6261.15890	737.88465	-972.68910	1969.91132	.676	71	.501

Source: Survey Data and Author’s Computation

This result also supported by the results of paired t-tests and accordingly, there exists a statistically significant difference in many households in terms of monthly saving of households pre-covid-19 pandemic period and post covid-19 pandemic period. Average monthly saving decrease after post covid-19 pandemic period. (M=2169.4444, SE=676.03349) compare to pre covid-19 pandemic period households’ saving (M=2668.0556, SE=444.03905) $t = .676, df = 71, p < .05$ Sig. (2-tailed) .501.

5. Conclusion

As per the data analysis, it can conclude that the income of the respondents has decreased in the post-pandemic period as compared to the pre-pandemic period. On the other, consumption expenditure also significantly decreases due to the pandemic. Savings of the households also decreased due pandemic. It is because of the medical expenses increases and other hand income decreases. It is reduced the saving. This would increase debt burden of

households. It may continue to cast a shadow on consumer sentiment and spending going forward and it may require substantial policy interventions to restore pre-pandemic income, consumption and saving trends.

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