



# **State Economic Index: Odisha (April – July 2020)**

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## 1. Introduction

- COVID-19 has created many economic uncertainties by disrupting both demand and supply side, thereby, hurting lives and livelihoods.
- To understand its overall impact on Odisha's economy, a composite State Economic Index is constructed by taking 10 nos. of state specific high frequency (monthly) indicators.
- These high frequency monthly indicators are assessable value of E-waybill, Electricity Consumption, Aggregate outstanding Bank Credit, GST, MV Tax, VAT on Non-GST Goods, Mining Royalty, Unemployment Rate, Excise Duty and Total Active workers in MGNREGA.

## 2. Objectives of the Study

- The objective of this study is to calculate the Monthly Economic Index of Odisha.

## 3. Data and Methodology

- To construct the Index, monthly data on the selected ten economic indicators is taken for the period from August 2017 to March 2020 (32 months-datapoints).
- These indicators and their sources are listed in Table 1.

**Table 1: Variables and Sources**

Sl. No.	Variables	Time Point (April-2017 to July 2020)	Units	Source
1	Assessable value of E-waybill	Monthly	₹ Crore	CT&GST
2	Electricity Consumption	Monthly	MU	GRIDCO/OERC
3	Aggregate Bank Credit	Monthly	₹ Crore	RBI & SLBC
4	GST	Monthly	₹ Crore	CT&GST
5	MV Tax	Monthly	₹ Crore	CT&GST
6	VAT on Non-GST Goods	Monthly	₹ Crore	CT&GST
7	Mining Royalty	Monthly	₹ Crore	CT&GST
8	Unemployment Rate	Monthly	%	CMIE
9	Excise Duty	Monthly	₹ Crore	CT&GST
10	Total Active Workers in MGNREGA	Monthly	Crore (no.)	Ministry of Rural Development, GoI.

- However, parameters on outstanding aggregate Bank Credit, Unemployment Rate, Total no. of Active Workers in MGNREGA and Assessable Value of E-waybill are dropped owing to inconsistencies in data.
- Taking the above parameters, Principal Component Analysis (PCA) method is used for construction of the Index.
- The monthly average from August 2017 to March 2020 is taken as Base Period.

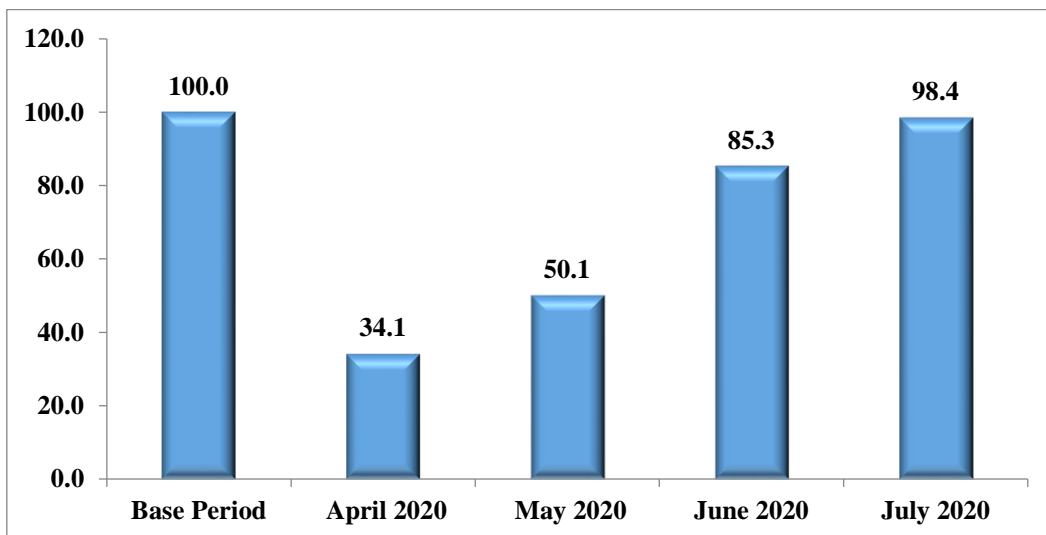
#### 4. Results and Analysis

**Table 2: Weights**

Parameters	Weights
GST	0.4314
State Excise	0.5306
Mining Royalty	0.4933
Motor Vehicle Tax	0.4297
Electricity Consumption	0.2791
VAT on Non-GST Goods	0.1627

The index is constructed by combining the above six parameters. The factor loadings, the weights of parameters in the index, on the parameters in PCA are provided in Table 2.

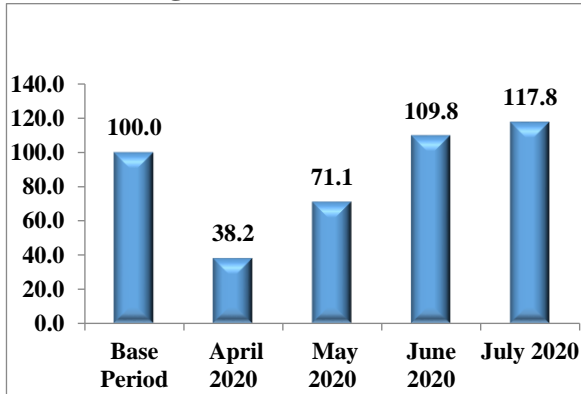
**Figure 1: State Economic Index: Odisha**



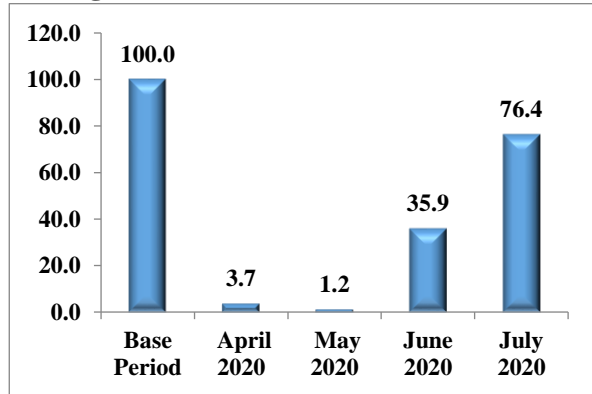
- The base period is pegged at 100 by taking monthly average from August 2017 to March 2020.

- State Economic Index for April 2020 witnessed a sharp deterioration to 34.1, spreading across all indicators. In May 2020 and June 2020, State Economic Index recovered moderately to 50.1 & 85.3 respectively and further to 98.4 in July 2020 (Figure 1).
- The weighted Index of individual parameters is given below (Figure 2 to Figure 7).

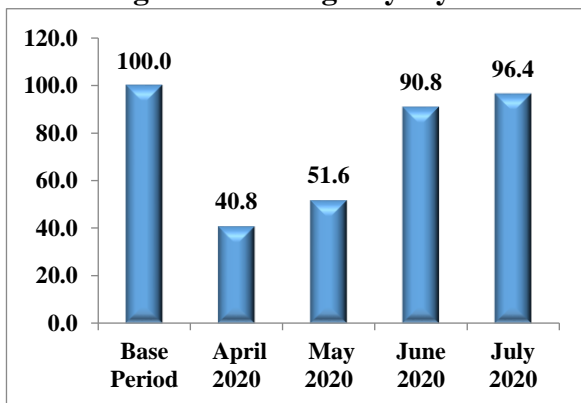
**Figure 2: GST Index**



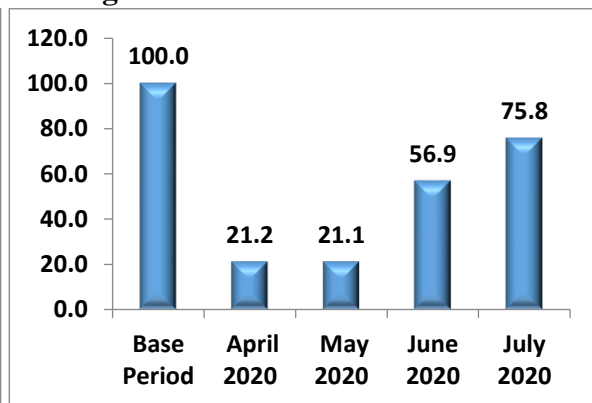
**Figure 3: State Excise Index**



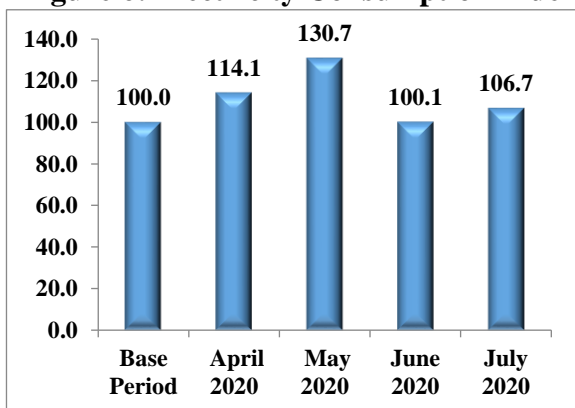
**Figure 4: Mining Royalty Index<sup>1</sup>**



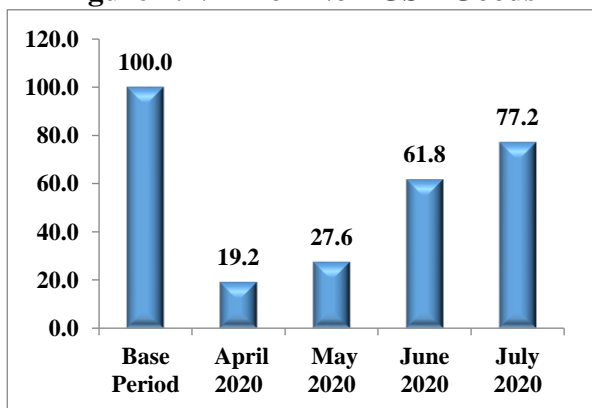
**Figure 5: Motor Vehicle Tax Index**



**Figure 6: Electricity Consumption Index**



**Figure 7: VAT on Non-GST Goods**



<sup>1</sup> Out of total collection of Rs.1272.81 crore in case of Mining Royalty in July 2020, upfront collection amounting to Rs. 449 crore is not considered for construction of Index.

**Observation:** Early into the lockdown, all economic activities were temporarily suspended. This explains the precipitous decline that the index has witnessed in the month of April. Subsequently, the state entered into a phase of calibrated easing of the lockdown. Owing to the measures taken then, the economy has shown signs of revival. This explains the upward trend seen in the months after April.