

**State Economic Index (SEI): Odisha
(April and May 2020)**



**Centre of Excellence in Fiscal Policy and Taxation (CEFT),
Xavier University**

State Economic Index (SEI): Odisha

1. Introduction

- COVID-19 has created many economic uncertainties by disrupting both demand and supply side, thereby, hurting lives and livelihoods.
- To understand the overall impact on the Odisha's economy, a composite State Economic Index (SEI) is constructed by taking 9 no. 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, Mining Royalty, Unemployment Rate, Excise Duty and Total Individuals Worked-MGNREGA.
- The SEI is a composite weighted average index that reflects the pulse of the state economy.

2. Objectives of the Study

- The objective of this study is to calculate the SEI for the month April and May 2020.

3. Data and Methodology

- For the construction of the SEI, monthly data of the selected nine 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.

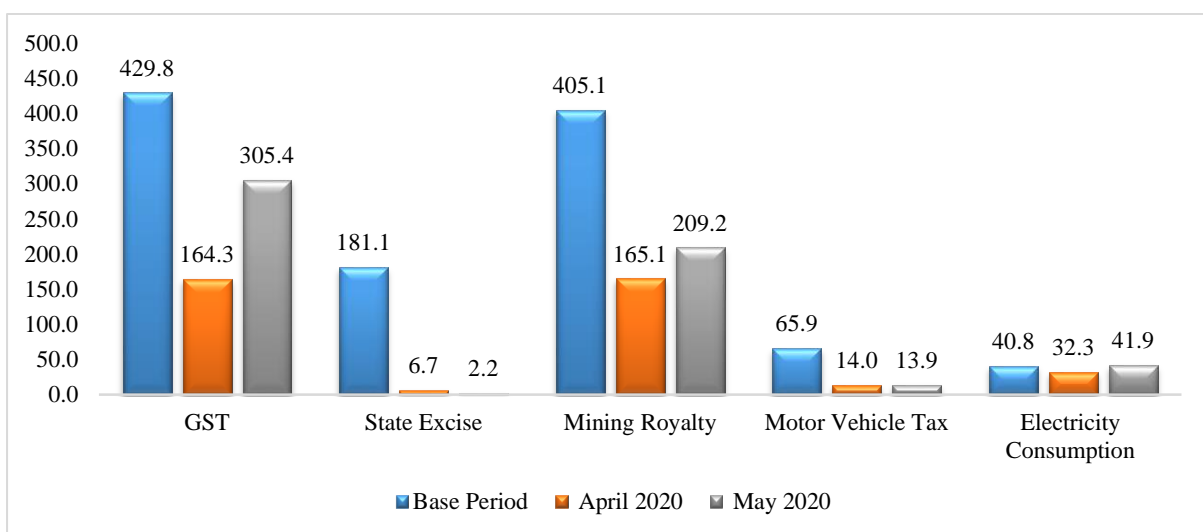
Table 1: Variables and Sources

Sl. No.	Variables	Time Point (April-2017 to May 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	Mining Royalty	Monthly	₹ Crore	CT&GST
7	Unemployment Rate	Monthly	%	CMIE
8	Excise Duty	Monthly	₹ Crore	CT&GST
9	Total Individuals Worked-MGNREGA	Monthly	Crore (no.)	Ministry of Rural Development, GoI.

- Taking the above parameters, Principal Component Analysis (PCA) method is used for construction of the SEI.
- However, parameters on outstanding aggregate bank credit, unemployment rate, total individuals Worked-MGNREGA and assessable value of E-waybill are dropped because of their data inconsistency.
- The monthly average from August 2017 to March 2020 is taken as Base Period.

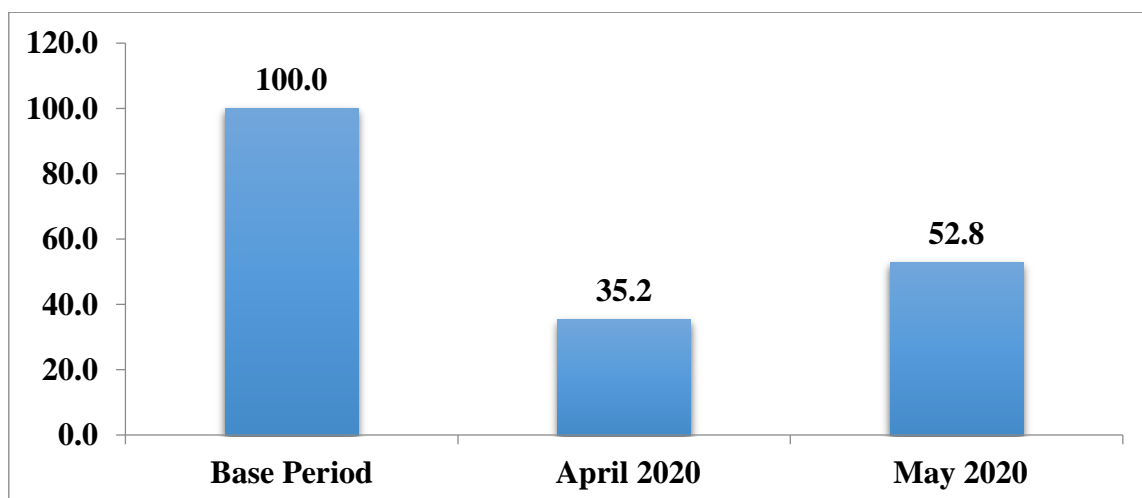
4. Results and Analysis

Figure 1: Actual Values



As compared to the base period (monthly average value from August 2017 to March 2020), the most of the parameters has shown a sharp decline during April 2020, the month of ‘lock-down’, and a moderate recovery (except the state excise duty) in May 2020.

Figure 2: State Economic Index (SEI): Odisha



- The base period is pegged at 100 by taking monthly average from August 2017 to March 2020.
- State Economic Index (SEI) for April 2020 witnessed a sharp deterioration to 35.2, spread across all indicators. In May 2020, SEI recovered moderately to 52.8 (Figure 7).
- The weighted Index of individual parameters is given in Figure 3 to Figure 7.

Figure 3: GST Index

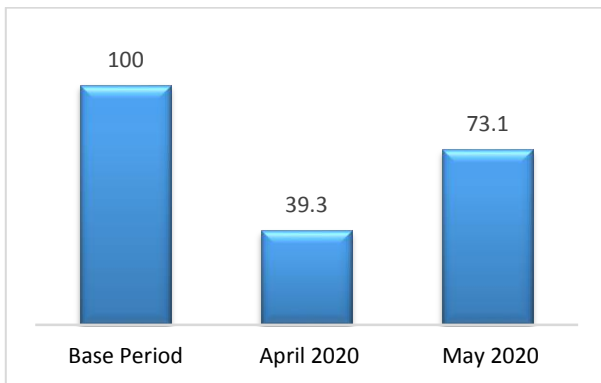


Figure 4: State Excise Index

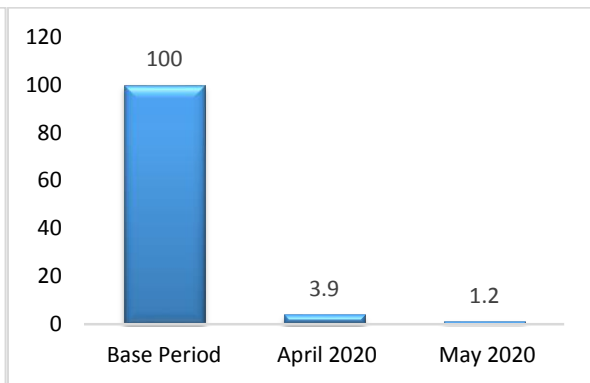


Figure 5: Mining Royalty Index

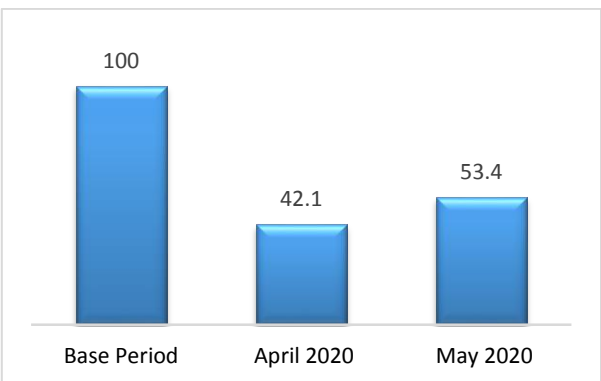


Figure 6: Motor Vehicle Tax Index

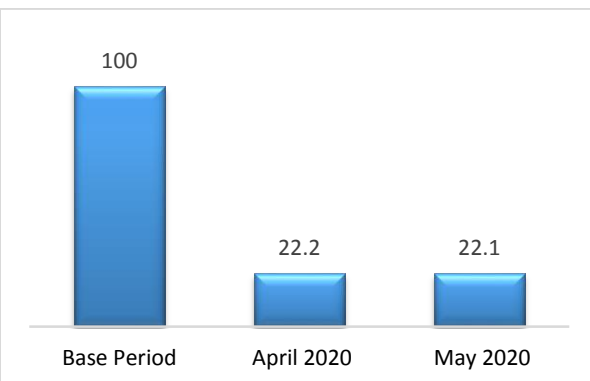
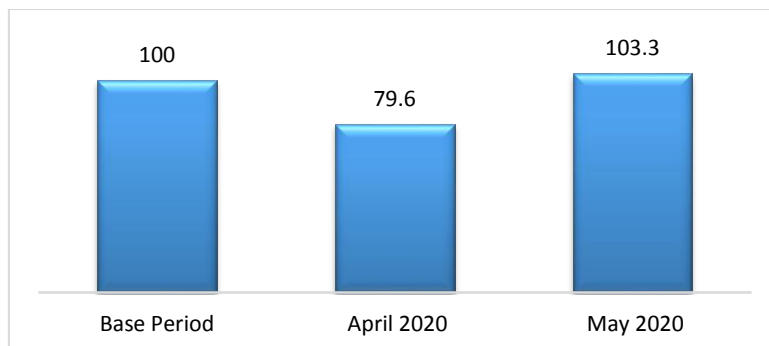


Figure 7: Electricity Consumption Index



With gradual relaxation in lock-down restrictions in May 2020, the Index of all five indicators moderately recovered and shown an uptick excepting, state excise duty and MV tax.