Economic Implications of COVID – 19 in Ethiopia and Policy Measures

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Outline

- Motivation
- Approach
- Key findings
- Conclusions
Motivation: COVID – 19 in Ethiopia

COVID - 19 cases in Ethiopia as of 20 May 2020

<table>
<thead>
<tr>
<th>Metric</th>
<th>Date</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Case reported</td>
<td>13-Mar-20</td>
<td>1</td>
</tr>
<tr>
<td>Total number of cases</td>
<td>20-May-20</td>
<td>389</td>
</tr>
<tr>
<td>Total recovered</td>
<td>20-May-20</td>
<td>122</td>
</tr>
<tr>
<td>Total lab test</td>
<td>20-May-20</td>
<td>65,760</td>
</tr>
</tbody>
</table>
Motivation: Government’s Public health measures

Public Health Measures:
1. Quarantining:
   - Voluntary self isolation for new arrival (voluntary home quarantining)
   - Forced quarantining of new arrivals from abroad for 14 days in designated hotels.
2. Advising the general public for Social (physical) distancing.
3. Schools and universities are closed.
4. Government offices are manned by 20% of their staff, with the rest working from home.
5. A five-months State of emergency declared
   - Some regional states have closed their borders
   - Travel ban/restrict movement across and within their boundaries
   - Bars and night clubs are closed
   - Some regional state declare total lockdown

Less compliance to social distancing among the public

Economic measures:
- 5 billion ETB (USD $156 M)
- 15 Billion ETB (USD $465 M)

Broad fiscal and monetary policy measures with little knowledge on the short - & long term effect Of COVID - 19
Motivation: Economics of COVID – 19

1. Transmission mechanism of COVID - 19: personal contact
   • Externality
   • Incentive

2. Impact on the economy is due to public health measures taken by governments (both own and others). Public Health measures are to affect $R$, which can be:
   - Containment (e.g. quarantine): reduce $R$ but not less than one
   - Suppression (social distancing): reduce $R$ to be less than one

3. The associated economic impact takes the form of Supply – demand feedback loop system
   - Economic structure

Objective: explore the potential economic impact of COVID – 19 in Ethiopia and policy measures to overcome the economic damages
Approach: Exploratory research design

• COVID – 19 requires *immediate actions* whatsoever the cost:
  • Policy makers require quick scientific evidence so as to make optimal decision

• The *actual economic impact takes time* and depends on kind of public health measures and their effectiveness.

• Secondary information:
  • explore the social and economic issues most important in determining
    • the effectiveness of Public health measures and
    • The extent of the associated economic damages

• Quick qualitative data,
  • estimate the economic damage
Key Risk Factors: demographic and Social setting

Ethiopia’s demographic structure

<table>
<thead>
<tr>
<th>Age (in years)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 15</td>
<td>41</td>
</tr>
<tr>
<td>15 - 29</td>
<td>30</td>
</tr>
<tr>
<td>30 - 64</td>
<td>25.5</td>
</tr>
<tr>
<td>65 and above</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Ethiopia’s Social settings

- Small group gathering for coffee ceremony,
- Community gathering during wedding, burial ceremony,
- Weekly or monthly gathering in idir and Iqub, etc.

A combination of the demographic and social setting of the country is important factor to contain COVID-19.

Old Italians are more connected to the young

### Key risk factors: Economic Status

<table>
<thead>
<tr>
<th>Economic indicator</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty level</td>
<td></td>
</tr>
<tr>
<td>Poverty level</td>
<td>26</td>
</tr>
<tr>
<td>Food poverty</td>
<td>33</td>
</tr>
<tr>
<td>Access to improved water supply</td>
<td>65</td>
</tr>
<tr>
<td>Housing situation (shares a room for 4 to 5 family members)</td>
<td>51</td>
</tr>
<tr>
<td>Malnutrition</td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td></td>
</tr>
<tr>
<td>Stunting (children under 5 years old)</td>
<td>38</td>
</tr>
<tr>
<td>Wasted (acute malnutrition)</td>
<td>10</td>
</tr>
<tr>
<td>Prevalence of disease</td>
<td></td>
</tr>
<tr>
<td>Anemia prevalence</td>
<td></td>
</tr>
<tr>
<td>Children (15 - 49 months)</td>
<td>57</td>
</tr>
<tr>
<td>Women (15 - 49 years old)</td>
<td>23</td>
</tr>
<tr>
<td>Men</td>
<td>15</td>
</tr>
<tr>
<td>Health service</td>
<td></td>
</tr>
<tr>
<td>Problem in health care service</td>
<td>70</td>
</tr>
</tbody>
</table>

People with **poor nutrition status and high rate of illness prevalence** appear to develop **serious illness and thus more likely to be affected by the coronavirus**.
Closure of business and mobility restriction may result in
  - loss/decline in income and
  - reduces demand (consumer spending and precautionary saving)
Those engaged in Micro enterprises and informal sector, are most vulnerable to COVID – 19 crisis due to business closure and restriction of mobility which reduces daily income, loss of employment and lack of demand

The magnitude of the economic damage is huge considering
- 77% are temporary workers in micro enterprises
- 149 dependency ratio

Complete lockdown in Mekele costs about 1.4 Billion Birr (41.8 million USD) assuming these measures stay only for one month (authors estimation).
### Economic structure: Service sector (Tourism)

#### Sectoral Share of GDP (Value add, % in 2016)

- **Agriculture**: 37.23%
- **Industry**: 21.31%
- **Services**: 41.46%

#### Tourism industry: number of arrivals and Expenditure ('000 USD)

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue ('000 USD)</th>
<th>Number of Arrivals ('000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>2107</td>
<td>770</td>
</tr>
<tr>
<td>2015</td>
<td>2279</td>
<td>864</td>
</tr>
<tr>
<td>2016</td>
<td>2138</td>
<td>871</td>
</tr>
<tr>
<td>2017</td>
<td>2505</td>
<td>933</td>
</tr>
<tr>
<td>2018</td>
<td>3548</td>
<td>849</td>
</tr>
</tbody>
</table>

#### COVID – 19 effect on Tourism:
- Loss of job in the hotel and restaurant
  - (56% of hotels in AA total closure & 32% partially closed)
- Loss of revenue due to absence of tourists associated with restriction in international flight
  - Loss of USD $ 3.6 B
Economic structure: service sector (Remittances & Export Market)

- COVID – 19 effect on Remittance:
  - Loss of job from the Ethiopian diaspora
  - Deporting of Ethiopian diaspora particularly from the Middle east Arab countries

Remittance (MUSD)

<table>
<thead>
<tr>
<th>Year</th>
<th>2015/16</th>
<th>2016/17</th>
<th>2017/18</th>
<th>2018/19</th>
</tr>
</thead>
</table>

Earning from Export (in M USD)

<table>
<thead>
<tr>
<th>Year</th>
<th>2015/16</th>
<th>2016/17</th>
<th>2017/18</th>
<th>2018/19</th>
</tr>
</thead>
</table>

Export Share by Destination (%)

- Asia: 40%
- Africa: 29%
- Europe: 21%
- USA: 10%
COVID-19 effects on the Manufacturing sector (hire 12% of urban employment) are:
- Decrease in production due to effect of COVID-19 on reduction in supply of raw materials from importing countries
- Reduction in demand for products due to reduced consumers’ spending (reduced income & precautionary saving)
  - food and beverage,
  - Textile and
  - Furniture
- Finally, loss of job for currently employed workers
The effect of COVID – 19 on the agriculture sector is majorly due to the public health measures that ban/restrict mobility:

- Reduces labor supply particularly off – farm labor supply during agricultural pick season
  - Most affected are female – headed and widowed households

- Affect supply of input such as improved seed, fertilizer

- Reduces sale of agricultural output and income of smallholder farm households

- Reduce in productivity & growth in agricultural GDP, which
  - Reduces overall growth in GDP due to the sector’s role in the national economy (linkage with other sectors (service, manufacturing))
  - Reduces rate of decline in poverty (For every 1% growth in agriculture output, poverty reduces by 0.9%)
Targeted and combined public health measures may be more effective in containing the spread of COVID-19 than just telling the general public for social distancing.

- For e.g. measures targeted to the youth may be more effective if they combine incentive – based interventions with regulatory measures in containing the spread of the coronavirus.

Public health measures should also consider the anticipated economic damages, which determine their effectiveness.

- the occupational structure (and economic status) of individuals affects the effectiveness of the public health measures (Trade-off).
- Complete lock down for an extended time is not optimal in poor economic settings and in the absence of alternatives for ‘means of survival’.
  - At some point in time, “Trade-off” disappears and people tend to prefer “today” than “tomorrow” in such situation.
Targeted economic measures that aim to minimize the short–term economic damage should also consider the long–term effect of COVID-19 crisis.

- Credit support at low interest rate to large manufacturing and businesses firms is an effective measure to overcome the short– and long–term economic damages

- Direct transfers to SMEs in the form of paying workplace rent and tax exemption can avoid irreparable damage to the economy

- Use of the existing interventions that already proved to be effective is more effective & efficient way to overcome COVID-19 crisis
  - as a mechanism to reach to the local community (Health extension workers)
  - To reach to the most affected part of the society such as those engaged in informal sector, MSE, etc (Social Protection programs)
Thank You