## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>About the report</td>
<td>03</td>
</tr>
<tr>
<td>Executive summary</td>
<td>04</td>
</tr>
<tr>
<td>1. Need for a focus on working capital</td>
<td>05</td>
</tr>
<tr>
<td>2. Working capital overview for India</td>
<td>07</td>
</tr>
<tr>
<td>3. Sector insights</td>
<td>12</td>
</tr>
<tr>
<td>4. How EY can help?</td>
<td>19</td>
</tr>
</tbody>
</table>
About the report

EY All-Tied Up is a publication in a series of working capital management reports based on Ernst & Young LLP (EY) research on working capital performance of India’s largest companies.

The EY All Tied Up results for India are based on an analysis of working capital performance of the largest 500 companies as per revenue as listed in the BSE Stock Exchange.

- Companies in the financial and real estate sectors have been excluded from the analysis for comparability reasons.
- The sample constitutes a total revenue of ₹62.4 lakh crores, EBITDA of ₹9.2 lakh crores and Short Term Debt of ₹6.7 lakh crores.
- The sector analysis includes top 12 sectors consisting of over 90% of revenue of the sample.
- For the purpose of size segmentation, the rank ordered data set has been divided into 3 groups as per percentiles, using FY20 revenue as an indicator for each company’s size.

What is the impact of COVID-19 on working capital for India Inc?

What measures were taken by businesses to optimize their working capital?

How to leverage technology for working capital management?

How can businesses approach working capital management in the future?

Author

Naveen Tiwari
Partner and Head, Working Capital Practice, Ernst & Young LLP

Methodology
Executive summary

There is a considerable need for Indian companies to focus on working capital optimization.

- **2 pp**\(^*\) deterioration in working capital as a % of revenue
- **6 days** deterioration in C2C

India Inc observed a delayed collections and supply chain disruption across sectors as a result of the pandemic.

- Large enterprises are able to effectively manage their working capital.
  - **29 days**
  - Difference between C2C of large and small enterprises
  - Large enterprises enjoy better leverage as well as have automated processes in place for better working capital management

Sectors which experienced improvement in C2C:

- **Automobiles**: 13 days
- **Chemicals**: 12 days
- **Cement & Building Products**: 7 days

Sectors which experienced deterioration in C2C:

- **Power**: 34 days
- **Engineering & EPC Services**: 17 days
- **Oil & Gas**: 10 days

Power, Engineering & EPC and Oil & gas were the worst performing sectors in C2C in India.

There is a considerable need for Indian companies to focus on working capital optimization.

Overall Cash Opportunity for India Inc: **₹ 5.2 trillion**

Note: All comparisons are for LTM 30-Sep-20 vs 12 months ended 30-Sep-19

*percentage point
Need for a focus on working capital
Firms must optimize working capital and free-up cash in the wake of the COVID-19 pandemic

**Need for working capital optimization**

- **Revenue growth & EBITDA margin trend**
  - FY17: 15%
  - FY18: 15%
  - FY19: 18%
  - FY18 12 months: 15%
  - LTM 30-Sep-20: -12%

- **Working capital as a % of revenue trend**
  - FY17: 12%
  - FY18: 11%
  - FY19: 11%
  - FY18 12 months: 10%
  - LTM 30-Sep-20: 12%

- **Interest coverage trend**
  - FY17: 5.5
  - FY18: 5.5
  - FY19: 5.4
  - FY18 12 months: 5.0
  - LTM 30-Sep-20: 4.4

- **Short term debt/sales trend**
  - FY17: 11.1%
  - FY18: 10.9%
  - FY19: 10.9%
  - FY18 12 months: 9.8%
  - LTM 30-Sep-20: 10.8%

- **While companies were able to maintain their EBITDA margins, revenue growth declined drastically as a result of the pandemic induced lockdown**

- **Falling revenue was combined with an increase in working capital as a % of revenue, mainly due to substantial impact of lockdown across the value chain**

- **Falling revenues and increasing working capital requirements have pushed up the need for increase in short term debt funding**
Working capital overview for India
The pandemic caused significant challenges in managing working capital due to supply chain disruptions.

**C2C trend for India Inc**

<table>
<thead>
<tr>
<th></th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>12 months 30-Sep-19</th>
<th>LTM 30-Sep-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSO</td>
<td>43</td>
<td>39</td>
<td>40</td>
<td>38</td>
<td>44</td>
</tr>
<tr>
<td>DIO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- There has been a steady improvement in overall Cash to Cash cycle (C2C) between Mar-16 (FY17) and Sep-19.
- However since March 2020, the COVID-19 pandemic has disrupted working capital management for all companies, which has significantly increased the overall Cash to Cash Cycle.
- The deterioration in C2C by Sep-20 has been driven by c.15% increase in DSO and c.9% increase in DIO, partially offset by c.8% increase in DPO.
India Inc balanced its working capital requirements during the pandemic by stretching payables to offset increased inventory balances and reduced collections.

Breakup of working capital for India Inc

- During COVID-19, receivables days increased for more than half of the businesses, as companies sought to preserve cash and extend credit periods, combined with loss of revenues during the period (due to subdued demand).
- c.66% of companies reported significant increase in inventory days (combined with decrease in revenues). This appears to be mainly due to unsold inventory, as well as companies maintaining additional inventory buffer to mitigate the supply disruptions.
- c.69% of the business stretched their payables to maintain acceptable levels of short term liquidity.

During COVID-19, receivables days increased for more than half of the businesses, as companies sought to preserve cash and extend credit periods, combined with loss of revenues during the period (due to subdued demand).

- c.66% of companies reported significant increase in inventory days (combined with decrease in revenues). This appears to be mainly due to unsold inventory, as well as companies maintaining additional inventory buffer to mitigate the supply disruptions.
- c.69% of the business stretched their payables to maintain acceptable levels of short term liquidity.

% companies for which the metric improved in LTM 30-Sep-20 vs 30-Sep-19
% companies for which the metric deteriorated in LTM 30-Sep-20 vs 30-Sep-19
The biggest impact on working capital has been for small companies during the pandemic due to lack of scale, processes and systems.

### Working capital performance as per size

<table>
<thead>
<tr>
<th></th>
<th>LTM 30-Sep-20</th>
<th>12 Months 30-Sep-19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C2C</strong></td>
<td>41</td>
<td>35</td>
</tr>
<tr>
<td><strong>DSO</strong></td>
<td>72</td>
<td>71</td>
</tr>
<tr>
<td><strong>DIO</strong></td>
<td>70</td>
<td>56</td>
</tr>
<tr>
<td><strong>DPO</strong></td>
<td>69</td>
<td>66</td>
</tr>
</tbody>
</table>

- There continues to be a significant difference in overall C2C days between large, medium and small enterprises.
- Larger enterprises are more efficient in managing their working capital as these businesses:
  - can leverage their scale and demand longer credit periods from suppliers
  - use their selling power to have a higher inventory turnover
  - have automated invoicing and collections processes
  - efficient business processes to track and proactively manage overall cash and working capital
- The biggest impact on working capital has been for small enterprises during the pandemic due to lack of the scale, processes and systems

#### Working capital overview for India

- **Large sized companies**: FY20 revenue greater than ₹51 billion
- **Medium sized companies**: FY20 revenue > ₹24 billion and < ₹51 billion
- **Small sized companies**: FY20 revenue lower than ₹24 billion
Indian companies have significant opportunities to implement better working capital practices when compared to advanced economies.

### Working capital performance as per geography

<table>
<thead>
<tr>
<th></th>
<th>India</th>
<th>US</th>
<th>UK</th>
<th>China</th>
<th>Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSO</td>
<td>42</td>
<td>38</td>
<td>38</td>
<td>57</td>
<td>53</td>
</tr>
<tr>
<td>DIO</td>
<td>43</td>
<td>32</td>
<td>33</td>
<td>58</td>
<td>36</td>
</tr>
<tr>
<td>DPO</td>
<td>47</td>
<td>38</td>
<td>38</td>
<td>72</td>
<td>43</td>
</tr>
<tr>
<td>C2C</td>
<td>38</td>
<td>32</td>
<td>32</td>
<td>43</td>
<td>46</td>
</tr>
</tbody>
</table>

*Year ending December 2019 / March 2020

Source: EY analysis

- Compared to developed economies, Indian companies have significant opportunities to implement better working capital practices.
- Improvement in working capital will release cash in several sectors including Power, Technology and Consumer & Retail with highest C2C as compared with the advanced economies.
- DSO for the Power sector was more than 5 times higher than the other 4 countries, leading to the highest C2C.
- C2C for the Technology sector, mainly driven by a high DSO, is the highest compared to advanced as well as emerging markets.
- In addition, higher levels of inventory by Indian Retail & Consumer companies have driven higher working capital needs as compared to the US, Europe and China.
Sector insights
Deterioration in C2C days was led by reduced collections for the Power sector and inventory build-up for the Pharma sector due to supply chain disruptions.

### Working capital performance as per sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>C2C 12 Months 30-Sep-19</th>
<th>C2C LTM 30-Sep-20</th>
<th>DSO 12 Months 30-Sep-19</th>
<th>DSO LTM 30-Sep-20</th>
<th>DIO 12 Months 30-Sep-19</th>
<th>DIO LTM 30-Sep-20</th>
<th>DPO 12 Months 30-Sep-19</th>
<th>DPO LTM 30-Sep-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>81</td>
<td>115</td>
<td>100</td>
<td>122</td>
<td>26</td>
<td>30</td>
<td>45</td>
<td>37</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>110</td>
<td>114</td>
<td>76</td>
<td>78</td>
<td>83</td>
<td>88</td>
<td>49</td>
<td>52</td>
</tr>
</tbody>
</table>

- **Being an essential service, plant operations in the sector were not significantly impacted during COVID.**
- **However, for c.78% of the companies there was a deterioration in receivables predominantly driven by decrease in bill collections from end consumers.**

- **Being essential services, the sector remained largely operational. Though c.72% of the companies experienced increase in C2C days.**
- **Intermediates, API and FDF manufacturing business experienced inventory build-up, supply chain, transport and labour disruptions.**
Auto OEMs extended payables to offset significant reduction in sales and a diversified product portfolio helped the Chemicals sector increase its resilience

Despite significant reduction in sales/revenues due to lockdown and disruptions in distribution network, Auto OEMs improved their C2C days by extending supplier payments.

Post lockdown and reopening of production facilities, companies realigned their production levels to compensate for the loss of sales volume.

c.53% experienced an improvement in C2C days mainly driven by increased demand in some end use sectors such as pharma, food packaging, sanitary and medical applications (e.g. sanitizers etc.)

Further, short term supply disruptions from China led to increased order inflows from global companies which had a positive impact on the DIO
A shift to online sales channels and digital investments by businesses drove improvement in C2C days across Retail and Technology sectors respectively

**Technology**

- C2C: 65 vs 61, improvement of 6%
- DSO: 84 vs 80, slight decrease
- DIO: 4 vs 3, decrease of 19%
- DPO: 63 vs 63, no significant change

**Retail & Consumer Products**

- C2C: 36 vs 35, slight increase
- DSO: 33 vs 29, decrease of 12%
- DIO: 49 vs 50, slight increase
- DPO: 53 vs 47, increase of 53%

**Working capital performance as per sector**

- **Technology**
  - Technology sector saw increased activity as companies accelerated digital investments to support business continuity during the pandemic.
  - The accelerated digitization by businesses led overall increase in revenues for the Technology sector, thus driving down the C2C for majority of companies (c.63%).
  - Increased sales through e-commerce and MT channels complemented by focused initiatives has resulted in an improved DSO days.
  - DIO in the sector remained broadly stable as decrease in sales of non essentials was largely offset by increase in sales of essential products.

- **Retail & Consumer Products**
  - % companies for which C2C improved in LTM 30-Sep-20 vs 30-Sep-19
  - % companies for which C2C deteriorated in LTM 30-Sep-20 vs 30-Sep-19
Inventory pile-up drove significant deterioration in C2C days for Metals & Mining while Cement businesses stretched their payables to preserve working capital.

### Working capital performance as per sector

**Metals & Mining**

- C2C: 40 → 41
- DSO: 29 → 39
- DIO: 66 → 75
- DPO: 55 → 73

62% of Metals & Mining businesses experienced a deterioration in C2C days primarily driven by muted demand across infrastructure and automobiles sectors.

DIO across the sector decreased due to lower inventory valuations driven by drastic decline in prices of petroleum coke.

**Cement & Building Products**

- C2C: 47 → 40
- DSO: 35 → 33
- DIO: 54 → 53
- DPO: 42 → 46

Post lockdown government projects, rural/sub-urban areas and North India, led demand recovery due to labour availability.

Businesses preserved cash through focused collections, offering stricter credit terms to customers and delayed payments to suppliers.

DIO across the sector decreased due to lower inventory valuations driven by drastic decline in prices of petroleum coke.
Auto Parts companies stretched their payables to offset reduction in demand and inventory pile-up drove significant deterioration in C2C days for Oil & Gas

<table>
<thead>
<tr>
<th>Working capital performance as per sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="chart.png" alt="Chart" /></td>
</tr>
</tbody>
</table>

- **Auto Parts**
  - C2C: 33 (12 Months) 27 (LTM)
  - DSO: 41 (12 Months) 49 (LTM)
  - DIO: 42 (12 Months) 46 (LTM)
  - DPO: 50 (12 Months) 68 (LTM)

- **Oil & Gas**
  - C2C: 18 (12 Months) 28 (LTM)
  - DSO: 11 (12 Months) 11 (LTM)
  - DIO: 41 (12 Months) 48 (LTM)
  - DPO: 34 (12 Months) 31 (LTM)

- **Working capital across the Auto Parts sector was severely impacted by drop in end customer demand**
- **However, a large number of businesses managed their short term liquidity by stretching payables considerably**

- **89% of O&G businesses suffered significant increase in C2C days, mainly due to collapse of demand for crude oil, leading to crude & product inventory pile-up**
- **Unlike other sectors, extending supplier payments has not been possible as majority of payments (e.g. for crude oil) are bound by global contractual terms**
Across the utilities sector, impact of reduced collections was offset by stretching payables while project delays due to lockdown resulted in a high C2C in EPC

Working capital performance as per sector

Utilities

<table>
<thead>
<tr>
<th></th>
<th>C2C</th>
<th>DSO</th>
<th>DIO</th>
<th>DPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Mos 30-Sep-19</td>
<td>54</td>
<td>64</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>LTM 30-Sep-20</td>
<td>66</td>
<td>81</td>
<td>62%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Engineering & EPC Services

<table>
<thead>
<tr>
<th></th>
<th>C2C</th>
<th>DSO</th>
<th>DIO</th>
<th>DPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Mos 30-Sep-19</td>
<td>100</td>
<td>161</td>
<td>88</td>
<td>101</td>
</tr>
<tr>
<td>LTM 30-Sep-20</td>
<td>117</td>
<td>189</td>
<td>27</td>
<td>29</td>
</tr>
</tbody>
</table>

While the household consumption of gas, power and water increased during the lockdown, billings and collections reduced considerably.

In turn, majority of the Utilities sector (62%) stretched supplier payments (e.g. to power companies) to fund short term liquidity needs.

60% of the companies in the sector experienced increase in C2C due to delayed collections driven by issues such as work stoppages, delays in claims settlement, agreement on extension of time, inability to complete project milestones, delay in arbitration awards etc.
It is imperative for firms to have a structured approach to mitigate working capital management issues, especially during the current economic scenario.

**Scenario planning**
- Evaluation of impact on business plan and re-forecast
- Assess demand shifts / channel shifts and adjust plan
- Identification of potential production shift to high-demand products

**Set up “collection cells”**
- Dedicated cash management team to drive collections
- Review credit limits and credit periods for customers with respect to revised sales plan and criticality of customer
- Consider use of early payment discounts, bill discounting
- Assess customer liquidity

**Spend management**
- Review direct / indirect expenditures criticality, ability to defer or cancel
- Identify opportunities for “stagger and delay”
- Assessment of open orders to identify critical supplies
- Vendor financial assessment to flag potential risk of vendor’s non-performance

**Short-term cash flow forecast**
- Undertaking short and medium term cash forecasting under crisis scenario
- Centralize all decision making linked to cash and burn rate monitoring
- Implement daily/weekly rolling forecast on a quarterly basis

**Governance and incentives**
- Define incentive mechanism and KPI’s, more inclined towards cash
- Introduce “collection reward programs” to incentivise timely customer payments
- Establish robust governance and monitoring structure
Businesses are leveraging technology and data analytics to drive business decisions and improve working capital management.

Examples of emerging technology solutions

- **Source-to-contract**
  - Rate and contract finalization
    - Smart contracts
    - Online negotiation tools

- **Procure-to-pay**
  - PO release and invoice processing
    - Robotic process automation for invoice processing
    - Vendor managed inventory

- **Manufacturing**
  - Manufacturing and asset maintenance
    - IO/OT convergence
    - Predictive asset and maintenance management

- **Warehouse**
  - Depot norms
    - Warehouse digital twin
    - Automation and carton packaging and palletization of products

- **Distributor**
  - Distributor delivery and stocking
    - Direct to Retail with financing and last mile logistics
    - Uberization of trucks
    - AI network optimization
EY’s working capital team can help identify, evaluate and prioritize realizable process improvements to release significant cash tied up in working capital.

**Illustrative initiatives**

- **Agile supply chain:** conduct robust sales and operations planning combined with flexible supply chain to meet dynamic demand requirements.
- **Customer engagement:** facilitate greater collaboration with customers, resulting in better payment terms and collection efficiencies.
- **Supplier management:** leverage “timely payments” as a tool to develop better supplier relationship and reduce sourcing costs.
- **Analytics:** use big data to enhance control through improved visibility and decision support.
- **Robotic Process Automation (RPA):** use emerging technologies such as RPA for automating repetitive transactional processing.
- **Automation in supply chain:** leverage upcoming advances such as drone technology in warehousing and logistics.
- **Digitization:** implement an end-to-end integration application to eliminate manual processes.
- **Enhanced role of finance:** move from a “transactional” approach to business partnering to help functions manage trade-offs between cost and cash.
- **Cash culture:** embed a Cash Culture in the organization across functions.
- **Organization structure:** establish adequate role definitions and clearly defined RACI.
- **Management focus:** strike a balance between competing priorities and appropriate incentives for “cash” focus.
- **Governance:** establish a robust governance structure, metrics and regular reporting.

**How EY can help?**

Working Capital Management Report 2021 — India
EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. EYG member firms do not practice law where prohibited by local laws. For more information about our organization, please visit ey.com.

Ernst & Young LLP is one of the Indian client serving member firms of EYGM Limited. For more information about our organization, please visit www.ey.com/en_in.

Ernst & Young LLP is a Limited Liability Partnership, registered under the Limited Liability Partnership Act, 2008 in India, having its registered office at 22 Camac Street, 3rd Floor, Block C, Kolkata - 700016

© 2021 Ernst & Young LLP. Published in India. All Rights Reserved.

This publication contains information in summary form and is therefore intended for general guidance only. It is not intended to be a substitute for detailed research or the exercise of professional judgment. Neither EYGM Limited nor any other member of the global Ernst & Young organization can accept any responsibility for loss occasioned to any person acting or refraining from action as a result of any material in this publication. On any specific matter, reference should be made to the appropriate advisor.

A.J.