Value creation for rapid response and long term resilience in refining
COVID-19 is having a strong effect on the demand for refined products and creating uncertainty around the financial resilience of many refining operations. As a result we believe refiners can benefit from a more aggressive look at ways to manage and identify cost savings in a way that protects cashflow and maintains an eye on long term performance and resilience as markets bounce back.

Market environment

The current environment has created uncertainties in demand across all geographical markets that has put certain companies in need of rapid turn-around or restructuring because of several concurring events:

**Demand shocks:** Regulatory actions across the world involve restrictions on both domestic and international travel, which is greatly reducing the demand for gasoline in the United States, low sulfur diesel in Europe, and jet fuel globally.

**Supply shocks:** While continued OPEC+ commitments to maintain high levels of output are driving crude oversupply and depressed prices, the benefits refiners may typically see are eroded due to the end market demand collapse that is similarly resulting in oversupply and a price crash of refined product.

**Reduced cash flow:** In this environment refiners face depressed product prices with a lower volume of sales of the more valuable products such as gasoline, jet fuel, and low sulfur diesel. As a result, refiners are faced with the challenges of shutting down or cycling product through a loop in the refinery. On top of this, they are delaying capital spending or payments for longer than usual, often because they unsure of recovery.

**Capex collapse:** Central banks primed the economic pumps by cutting interest rates and adopting other stimulus measures as yet another indication that recession fears are growing – with the specter of depressed product prices, reductions in CapEx is almost certain.

Structured response elements

**Active expense management**
- Assess all expense categories and right-size to projected revenue
- Actively manage spend going forward

**Refining operations**
- Assess the risk of operators working in close quarters and potential disruptions if they are infected
- Understand the options and the cost / benefit and risks of shutting down vs. running the refinery on a loop

**Cash / liquidity forecasting**
- Improve CCC (DIO, DPO and DSO)
- Initiate analytics to identify liquidity concerns and improve forecast accuracy
- Measure and report key cash metrics

**Working capital and supply chain**
- Determine key risks (supplier risk, supply chain resilience etc.)
- Prepare responses (working capital inventory, alternate suppliers, capex etc.)

**Scenario planning & management**
- Build potential shut-down scenarios taking in to account volume commitments
- Model actions across production, working capital and cost containment
At the heart of a turn-around is stabilization and value recovery. Our range of capabilities allows us to provide a comprehensive solution.

We believe we could add value across this cycle by bringing...

- Familiarity with, and knowledge of ‘the levers that matter’, having helped address cost and production optimization among numerous operators
- Tools and resources to take a data driven and granular approach to identifying and quantifying actionable opportunities using proven methods
- External perspectives on leading practice procedures to improve refining operations efficiency and effectiveness
- A ‘deal-pace’ approach that works outside-in, with minimal disruption to management at the outset as we look to shine a light on where value may lie
In the current market conditions KPMG’s data-driven approach to improving performance for our clients can be quickly deployed to look at the 4 stress areas and identify meaningful value levers for today and the long-term.

**Data & analytics driven approach to the “4C’s”**

**Cash**
Analysis to determine the level of liquidity and cash needs, as well as tactical working capital actions (AR, AP, inventory) that will quickly optimize cash flow for the business.

**Cost**
Categorization and triage of discretionary expenses for cost control/delay actions.
Leverage forecast scenarios to develop organizational cost models to support level of activity (fixed, variable).

**Customer**
Diagnostic to understand how demand patterns will be impacted.
Analytics to identify potential operational changes e.g. short-term shut-down vs. loop cycling product.

**Capital**
Review Capex plan to test for alignment with medium & long term growth scenarios.
Identify Capex reduction opportunities to redirect based on revised forecast (maintenance, new capacity, turnarounds (TAR), etc.).

**KPMG’s framework to assess business impact and drive cash and contain cost**

- **Refinery unit level, financial, operational and organizational transaction level data pulled from multiple systems across the business regardless of data structure**
- **Proprietary D&A tools and preconfigured analysis**
- **Dedicated data engineers and scientists**
- **External capacity and economic data to augment internal company data**
- **External data from thousands of PI projects**

**Rapid stress test**

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<td>- Cash forecasting</td>
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**Expense alignment**

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<td>- Discretionary expense controls</td>
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**Customer risk**

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<td>- Volume agreement re-forecast</td>
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<td>- Short term shut-ins</td>
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**Capital allocation**

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<td>- Crack-spread alignment with new price forecast</td>
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<td>- Flexibility in deploying maintenance capex</td>
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Cutting across the 4C’s - our refining experience means we can bring in-going perspectives and an ability to prioritize ‘the levers that matter’ for rapid response; while keeping an eye on long term resilience and asset profitability through evaluation and implementation of long-term value creation levers.

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<th>Example areas</th>
<th>Potential analysis based on past experience</th>
<th>Indicative immediacy of impact</th>
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| Working Capital        | — AP / AR triage including supplier payment terms and contract management  
                     — Rationalization of inventory levels / review of min-stock to identify spend deferral opportunities while meeting operational needs  
                     — Recalculating working capital needs to identify release potential                                                                                                               | FASTER / SHORTER TERM           |
| Third party spend      | — Identify opportunities for rapid renegotiation of rates through a one-time category cost-down exercise across  
                     — Analyze spend profile for options to consolidate spend among suppliers to increase leverage and reduce higher cost maverick or off-contract spend |                                |
| Refining OPEX          | — Implementing fit-for-purpose maintenance and equipment strategies  
                     — Improving plant workforce effectiveness (e.g., utilization, time on tools etc.) by removing non value-add activities  
                     — Review of shift structure and patterns to maximize effectiveness in the current environment                                                                                           |                                |
| TAR and Project management | — Detailed review of existing TAR and project schedules to refine work schedules and capital spend including ceasing or deferring activity where not critical  
                     — Implementation of relevant control mechanisms to improve project kill rates                                                                                           |                                |
| Support costs          | — Right-size support organizations through benchmarking, operational analysis, and Zero Based Budgeting (ZBB) approaches  
                     — Challenge central and allocated costs, identify / eliminate shadow activity, review regional and field offices and spans of control                                                                                      |                                |
| Crude selection and margin optimization | — Focusing on yield improvements through the use of optimization tools such LP and back casting analysis  
                     — Reviewing the application of Distributed Control Systems to control operations to reduce plant trips and losses                                                                                             |                                |
| Chemicals and energy management | — Implementing fit for purpose test and dosing strategies for catalysts and water treatment equipment  
                     — Identification of reduced energy consumption through the use of plant process flows and operational data                                                                 |                                |
| Portfolio management   | — Consider short term (and long term) shut-down strategies and on-going refining for negative contribution volumes, enabled by integrated portfolio and asset planning systems creating performance transparency | SLOWER / LONGER TERM            |

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Contact us for more information on how KPMG can help accelerate rapid organizational and financial assessments and develop cost containment plans.

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