

Economic Impact of COVID-19 in Sri Lanka

Special Release

16 April 2020

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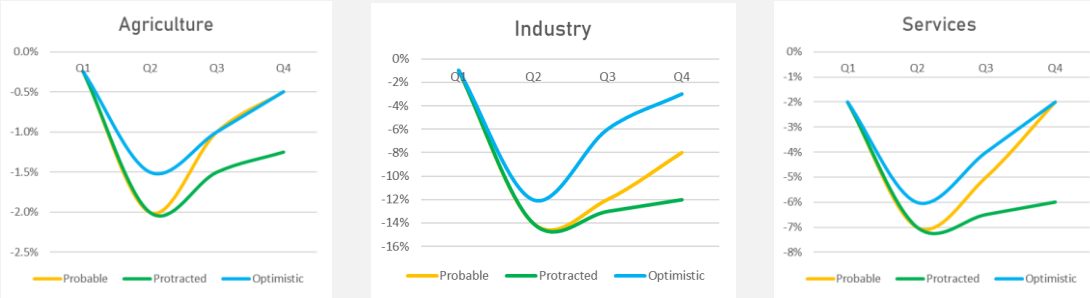
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Key Insights

- ICRA Lanka expects the Sri Lankan economy to face a recession of magnitude -1.9% in 2020 with a U-shape recovery path returning to its pre-crisis level by Q1 of 2021. All alternative scenario simulations point to recessionary outcomes – an escalation of the pandemic leading to a severe L-shape recession of -3.3% while the most optimistic estimations showing a mild V-shape recession of -0.6%. ([page 23](#))
- The expected blow to the revenue collection and heavy fiscal stimuli will come with a hefty price tag. The budget deficit will widen close to 8% of the GDP. ([page 24](#))
- With companies already moving forward with salary cuts, as the crisis deepens, the unemployment could rise to upper single digits. In the more severe case, the unemployment rate can accelerate to the levels before the late 90's where Sri Lanka used to have double digit unemployment rate. ([page 25](#))
- The domestic demand may remain subdued for the remainder of the year amidst weakening demand and therefore inflation is expected to be in the range of 4 to 7%. ([page 25](#))
- The impact of COVID-19 on the agriculture sector will be minimal as the sector is quite resilient to the external shocks. Most of the impact will be felt in services and industry sectors as these sectors are more open to external shocks. ([page 21](#))

Potential Outcomes for Sri Lanka- 2020

	Probable Case	Protracted Case	Optimistic Case
GDP growth	-1.9%	-3.3%	-0.6%
Shock to the economy	LKR 0.9 Tn	LKR 1.1 Tn	LKR 0.7 Tn
Shock as % GDP	5.7%	7.2%	4.4%
Budget deficit (% GDP)	-7.8%	-8.1%	-7.5%
Revenue loss	LKR 181 Bn	LKR 211 Bn	LKR 155 Bn
Unemployment	9.3%	10.5%	8.2%
Inflation rate	4 to 7%	4 to 7%	4 to 7%
Sector shocks			
Return to pre-crisis	2021 Q1	2021 Q4	2020 Q4
Peak	2020 Q2	2020 Q2	2020 Q2

Sector Focus

- [Agricultural exports](#) will experience a decline in demand. This includes fisheries, which is exported as processed food under the industrial sector.
- [Tea](#) prices likely to be affected due to economic-instabilities of the main exporting markets from the COVID-19 pandemic.
- [Textile and apparel](#) sector's heavy dependence on the overseas markets, will have an augmented impact on the sector.
- [Agrochemicals](#) would experience a supply chain disruption as the main agrochemical markets such as US and Japan have also been affected by the global pandemic.
- [Construction](#) sector impact to be medium to high. Due to fiscal constraints, large scale public sector construction activities may be suspended temporarily to facilitate funding to other sectors but other multilateral projects may restart.
- [Real estate](#) is also expected to be affected. The delays in the project-executions will have a negative impact on the real-estate developers. Moreover, with the overall slowdown in the economy, this sector will experience a decline in new sales, in addition to the stretched cash collections from the presale stocks.
- [Power](#) sector impact is relatively low. In fact, the tumbling oil prices may help to improve the balance sheet of Ceylon Electricity Board (CEB).
- [Health](#) sector may face a temporary setback but the performance of this sector will remain strong in the long term.
- [Tourism](#) is expected to take a major blow due to social distancing requirements, travel disruptions/restrictions, and quarantine requirements.
- [Transport](#) sector performance has a strong connection with the manufacturing and tourism industries. The knock-on effect of both these subsectors will be strongly transmitted to the transport sector.
- [Wholesale & retail](#) trade may face significant challenges as it relies heavily on imports given the supply disruptions, worsening exchange rate, import restrictions and declining real incomes. However, food retail segment is better positioned because of its business mix including drugstores and convenience stores.
- [Automotive](#) sector is also highly exposed because of their reliance on international supply chains. The crisis will exacerbate the already dwindling demand for vehicles.
- [Banking & Finance](#) services sector outlook to be quite challenging as the pandemic situation poses a substantial risk for the overall loan growth and asset quality of banks and NBFIs.

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Introduction

Sri Lanka along with the rest of the world is facing the greatest health and economic crisis in the living memory. COVID-19 pandemic has fast escalated to a global crisis and no one can ignore the threat it poses to a country's stability. Assessing the impact of COVID-19 on Sri Lankan economy is by no means an easy task, as Sri Lanka has never faced a crisis of this scale before. To gauge the impact of the said crisis on Sri Lanka, it is therefore warranted a deeper study of historical crisis of a substantial magnitude to be used as a reference point.

Indeed, Sri Lanka has followed the footsteps of countries such as China, Italy and others and has taken extraordinary measures to minimize the impact on human lives. The disruption to the society as a whole and the economy is unprecedented. In this context, the post-crisis economic fallout will be enormous and its magnitude is going to be nothing close to what Sri Lanka has witnessed before. In this extraordinary times, the greatest tool a government can employ is planning. This includes prioritizing key sectors that will have the greatest impact and allocating resources accordingly. ICRA Lanka compiled this report as an independent assessment based on its extensive industry knowledge and years of experience and took it upon itself as a national duty to assist policy makers and industry bodies to formulate recovery strategies.

The main priority in preparing this report was to make the analysis as realistic as possible. Based on the latest available data as of 31st March, 2020, the ensuing analysis has been carried out, and in ICRA Lanka's opinion available data is reasonably sufficient to produce an analysis of substance at this point. Furthermore, ICRA Lanka cautions users to acknowledge the eventuality of the current crisis may/will be different to simulated scenarios as there are many factors and variables that are at play in which their behavior at this point is essentially impossible to predict. Having said that ICRA Lanka would also like to reiterate the fact that it is important to act sooner than later to combat the economic ills triggered by the COVID-19 pandemic.

What can we learn from past crises?

When looking back at the past decade, there has been two crisis situations in which Sri Lankan economy had profound impact. In 2001, LTTE terrorist attacks on the Bandaranaike International Airport (BIA) shook the country to its foundation. Sri Lanka's growth turned negative for the first time on record. The second and the most recent is the Easter attacks, which essentially crippled the tourism sector for months. Closer examination of these crises can provide valuable insight to predict the likely outcomes for COVID-19 crisis.

Closer examination of these past crises can provide valuable insight to predict the likely outcomes for COVID-19 crisis.

Three broad parameters can be used to qualitatively describe an economic crisis. Depth refers to how deep the reduction in demand internally and externally. Length refers to the duration it takes the crisis to peak. Shape of the recovery means how strong the bounce back is. V-shape recovery implies a strong abrupt rebound while U-shape recovery implies a smoother and longer rebound. Apart from these there could be an L-shape recovery where the shock sets in quickly and sustains or gradually diminishes over a longer time horizon. Impact from a V-shape crisis can be low to moderate while the same for a U-shape crisis can be moderate to high. US economic recovery after 2008 financial crisis is an archetypical example for a L-shape crisis and it can cause severe pain to the economy.

ICRA Lanka's analysis of the crises indicates the aftermath of Easter attacks was a crisis with a faster recovery. It had its most impact during Q2. Impact on agriculture was minimal. Manufacturing sector recovered in Q3 while Services made a near complete recovery in Q4. Nevertheless, the total impact of the 2001 crisis far outweighs the Easter attacks. Figure 1 provides a comparison of two crises along the aforementioned parameters. The rest of this chapter is dedicated to understanding the impact of each crisis on the three sectors of the economy and to break down the economic shocks by crisis and sector.

Figure 1: Easter Attacks vs. 2001 Crisis

	2001 Crisis	Easter Attacks
Depth of shock	High	Moderate
Length of shock	1 year	3 months
Shape of recovery	U- shape	V- shape

Source: ICRA Lanka

2001 Crisis

Table 1: Selected Economic Indicators (Y-o-Y), 2000–2004, Constant (1996) Prices

	2000	2001	2002	2003	2004
<i>GDP</i>	6.0%	-1.5%	4.0%	6.0%	5.4%
<i>Gross investment</i>	9.9%	-17.5%	4.4%	16.9%	12.2%
<i>Aggregate demand</i>	9.0%	-4.3%	6.4%	7.5%	6.8%
<i>Exports of goods and nonfactor services</i>	18.0%	-5.3%	6.3%	5.4%	7.8%
<i>Imports of goods and nonfactor services</i>	14.9%	-9.5%	11.2%	10.2%	9.3%

Source: IMF

The attack on the Central Bank in 1996 paralyzed the economy. But following year the economy rebounded with a nearly 4% growth rate and Sri Lanka was able to maintain a modest recovery between 1996 and 2001. In 2001 Sri Lanka suffered a recession (-1.5%) due to multiple shocks originating internally and externally. According to ICRA Lanka's econometric modeling, Sri Lanka would have grown by 4.7% in 2001 in the absence these shocks.

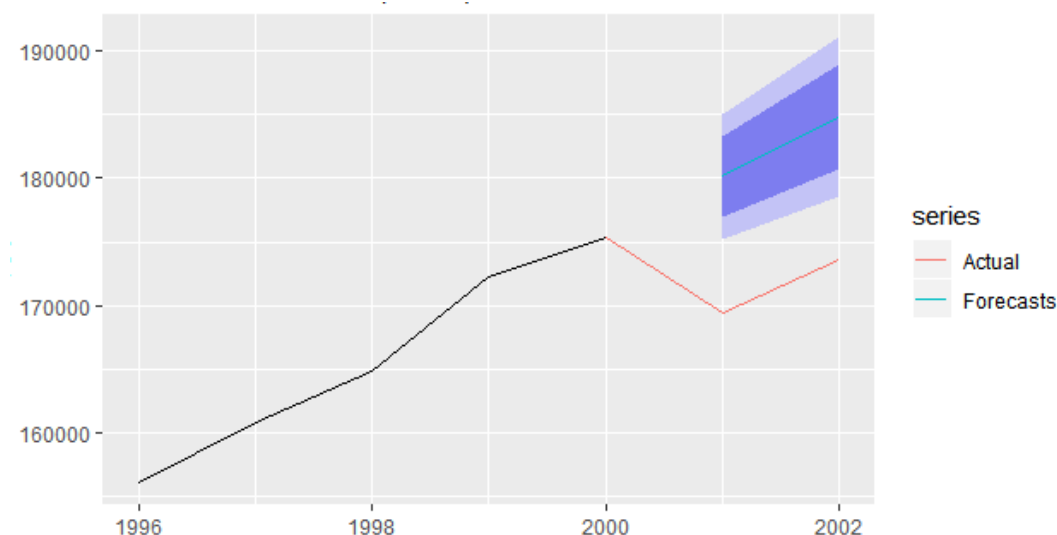
The biggest blow to the economy came from the terrorist attacks on the country's main airport on 24th July 2001. Sri Lanka's woes at that time were not only limited to the terrorist attacks. With increasing oil prices and continuous importation of military equipment, the country was on the brink of a foreign exchange crisis [1]. Consequently, Sri Lankan rupee experienced almost 18% depreciation against US dollar. The global economic slowdown intensified following 9/11 attacks and affected the exports sector. In addition, on the domestic front, the country suffered from a severe drought and a power crisis. As per Table 1, investment and demand shrunk markedly in 2001. In addition, both imports and exports slid by 5.3% and 9.5% respectively. The impact of the crisis lasted for several quarters.

Most shocks occurred during 2001 above can be considered a weaker form of the conditions that exist presently due to the COVID-19 pandemic.

Most shocks described above can be considered a weaker form of the conditions that exist presently due to the COVID-19 pandemic. For example, effect of war risk surcharge is comparable to the much lower level of limited movement of goods between countries or the import restrictions.

Agriculture Sector

Figure 2: Predicted and Actual GDP Figures – Agriculture Sector, Constant (1996) Prices (LKR Mn)



Lackluster performance of the agriculture sector can be attributed to the yearlong drought that prevailed in 2001 and had little to do with the actual crisis.

Source: ICRA Lanka Research

Note: Bands indicate 80% and 90% confidence intervals

Figure 2 shows the predicted as opposed to actual sectoral real GDP figures for 2001. There is a clear deviation of the GDP from its original course triggered by the crisis. These deviations set the foundation for determining the respective economic shocks.

Agriculture at the time accounted for around 20% of the GDP. Contraction of the agriculture sector was the main cause for the decelerated economic growth. Lackluster performance of the agriculture sector can be attributed to the yearlong drought that prevailed in 2001. Impact of this on the production of paddy and coconut were especially acute.

Higher oil prices and import cost triggered the prices of agrochemicals¹ to bid up which in effect increased the cost of production of commercial crops (tea by 9.7%, rubber by 7.9%, and coconut by 11.6%). Concurrently, the price of tea only went up by 6.2% while the price of rubber and coconut fell.

Lower production of the *Maha*² season due to adverse weather combined with higher agrochemical cost were the reasons for decline in paddy production during 2001.

¹ Chemicals and Chemical Products subcategory of the Wholesale Price Index (1974=100) went up by 17.7 index points in August.

² Maha Season is the principle season in Sri Lanka and it starts by September and ends by March during North-east monsoon.

Agriculture exports may have also got affected due to the war risk surcharge, as tea exports accounted for 12% of the exports³. In addition, there has been a notable decline in fisheries production as well. Fisheries is an input to export of manufactured food products. Reduction in export manufacturing sector, consequently, spilt over to the fisheries sector.

Agriculture exports sector may have also got affected due to the war risk surcharge, as tea exports accounted for 12% of the exports

Table 2: Estimated Shocks, Agriculture Sector- 2001

Quarter	Growth	Shock	Shock (Adjusted)
Q1	-3.4%	-5.5%	-
Q2	-2.8%	-3.9%	-
Q3	-0.9%	-5.6%	-1.0%
Q4	-5.9%	-8.3%	-2.0%

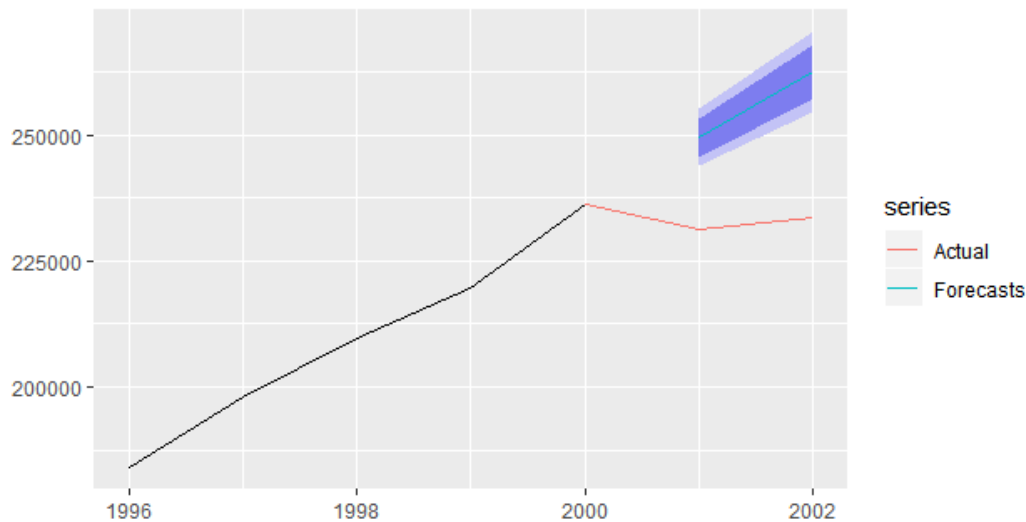
Note: Values used are in constant (1996) prices.

Source: ICRA Lanka Research calculations based on CBSL

Given these facts, the original shocks were amended to isolate the impact of the BIA attacks in Q3. Based on the above, ICRA Lanka estimates suggest the peak shock for the agriculture sector to be no more than -2%.

Industry Sector

Figure 3: Predicted and Actual GDP Figures – Industry Sector, Constant (1996) Prices (LKR Mn)



Source: ICRA Lanka Research

Note: Bands indicate 80% and 90% confidence intervals

Industry sector which accounted for around 27% of the GDP, contracted by around 2% owing to the contraction in manufacturing activities in 2001. The extended

³ According to Central Bank Trade Index (1997 = 100), the value of tea exports fell by 8.8 index points in Q3 and 25.3 index points in Q4 [17].

power cuts⁴ and high fuel cost had a negative effect on the manufacturing activities in Q3 and Q4. This is evident by the reduction of 36 GWh in electricity consumption by the industrial sector.

Exports comprised of 37.3% of the GDP and the textiles accounted for nearly 60% of the exports in 2001. US was the main export destination followed by UK. Low product diversification and high reliance on few trading partners for exports made Sri Lanka highly vulnerable to a global slowdown. Export volumes of textile & garments sector continued to decline over the quarter on point-to-point basis. By the end of the year, 25% of the plant capacity in the textile and apparel sector was idle as opposed to 12% in the previous year.

Following the LTTE attacks, London based insurance underwriter Lloyds listed Sri Lanka in its cargo war risk list which resulted in a war risk surcharge on Sri Lanka's sea ports and the airport⁵. This had a crippling effect on country's international trade. Prices of intermediate goods such as oil, chemicals, wheat, and textiles, which are essential as the input for production in the industrial sector, saw substantial increases. As a result, there was a massive drop in volumes of these imports. However, contraction in imports helped to somewhat setoff the effect of worsening external position.

With higher input prices, Sri Lankan exports soon lost their competitiveness. Export earnings experienced a contraction (-4.8% on f.o.b. basis) while apparel exports which accounted for half of the merchandise trade earnings saw about 1% drop [2]. The FDIs and remittances also declined (in USD terms). Fisheries related export manufacturing lost LKR 1.3 Bn compared to the year earlier and as mentioned earlier under the Agricultural Sector segment, this caused the fishing related activities to drop by 3.9%.

Prices of intermediate goods such as oil, chemicals, wheat, and textiles, which are essential as the input for production in the industrial sector, saw substantial increases due to the surcharge.

Table 3: Estimated Shocks, Industry Sector- 2001

Quarter	Growth	Shock	Shock (Adjusted)
Q1	3.8%	1.0%	-
Q2	0.9%	-2.4%	-
Q3	-6.6%	-12.1%	-10%
Q4	-5.6%	-13.5%	-11%

Note: Values used are in constant (1996) prices.

Source: ICRA Lanka Research calculations based on CBSL

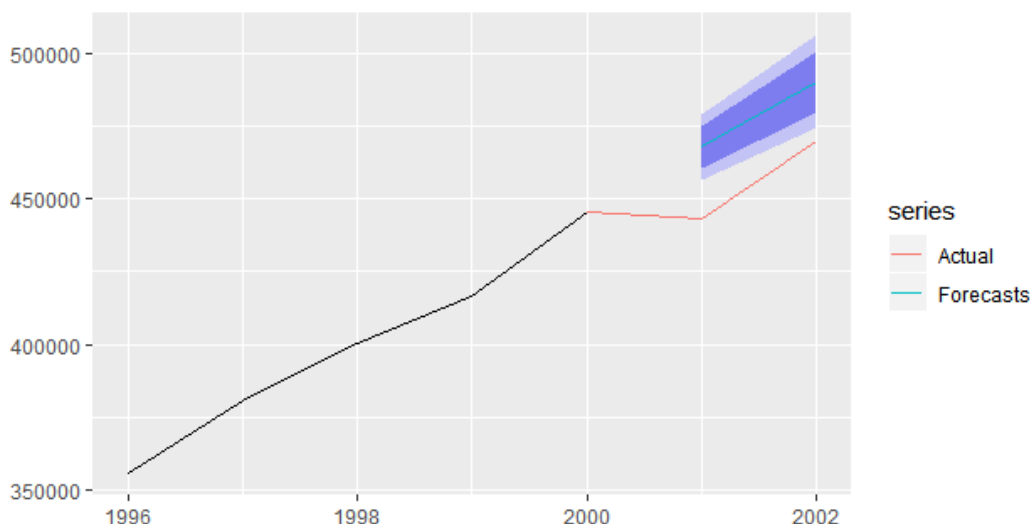
After reevaluating the original shocks estimated by the model, ICRA Lanka modified initial shocks to nullify the pre-crisis effects. Hence the peak shock assigned is amended as -11%.

⁴ The power cuts started with 1 hour cuts in July 2001 increased to 8 hours in September and were subsequently lifted before the General Election of 2001 when there was only a marginal improvement in weather conditions. A power cut of 1 hour duration was reintroduced in mid-December 2001 and further extended to 2 1/2 hours in early 2002 [18].

⁵ Number of vessels arrived to Sri Lankan ports dropped to 4,014 in 2001 from 4,232 in 2000.

Service Sector

Figure 4: Predicted and Actual GDP Figures – Services Sector, Constant (1996) Prices (LKR Mn)



Source: ICRA Lanka Research

Note: Bands indicate 80% and 90% confidence intervals

Though the impact of the 2001 crisis on the services sector was relatively low, wholesale and retail trade, which is the main component of the services sector and the largest subsector of the economy at the time, was the hardest hit. Heightened import prices costed a great deal to the wholesale and retail subsector.

Deteriorating consumer purchasing power shaved off over 17% of the aggregate demand in 2001. Inflation pushed to double digits throughout the year due to increasing oil prices caused by a phenomenon later came to be known as the *commodity supercycle*. As the economic crisis escalated with inflation having a compounding effect, the real wages started to deteriorate and remained subdued for the next two years. In addition, the unemployment rose and continued to rise for several years post 2001 crisis.

Tourist arrivals and the USD receipts from tourists slumped by 16% while over 4,000 individuals directly employed in tourism lost their jobs in 2001 [3]. But with the ceasefire agreement, tourism sector made a strong comeback in succeeding years.

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Table 4: Estimated Shocks, Services Sector – 2001

Quarter	Growth	Shock	Shock (Adjusted)
Q1	3.1%	-2.2%	-
Q2	0.4%	-4.0%	-
Q3	-3.5%	-8.2%	-5%
Q4	-1.7%	-6.3%	-3%

Note: Values used are in constant (2010) prices.

Source: ICRA Lanka Research calculations based on CBSL

Considering the above mentioned factors, ICRA Lanka assigns the initial shock figures to isolate the impact of the terror attack and the events that followed. Thus the peak shock value assigned is -5%.

2019 Easter Attacks

Table 5: GDP Growth, 2015–2019

	2015	2016	2017	2018	2019
GDP	5%	4.5%	3.4%	3.2%	2.3%

Source: CBSL

The Easter attacks disrupted the Sri Lanka's economy. Tourism was the most affected sector of all. Arrivals dropped by over 70% immediately following the incident. Rupee depreciated just over 1% between April 21 to end June. In April, The Hotels Association of Sri Lanka (THASL) said it was expecting USD 1.5 Bn revenue loss for 2019 [4]. According to a report released by the CBSL in June 2019, the total revenue loss expected from VAT and NBT alone was approximately Rs.26 billion at that time [5]. Industry sector production fell in Q3. The dismal performance of agriculture sector was due to unfavorable weather condition and Easter attacks had only a minor impact on the sector.

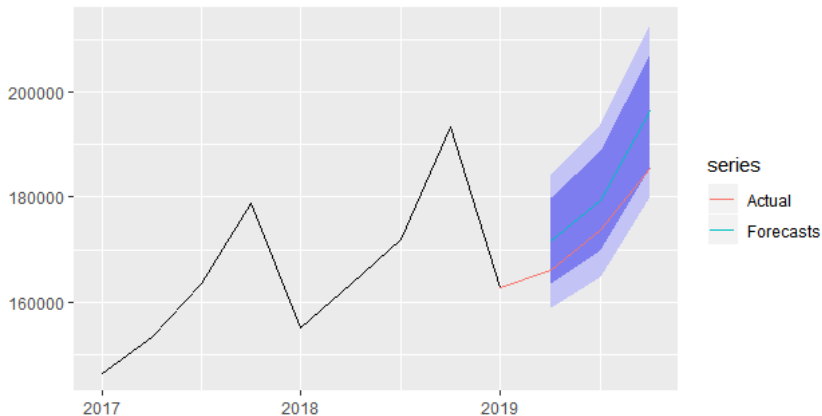
Agriculture Sector

In Q2 of 2019, the agriculture sector growth decelerated. Main contributors to this are fishing, forestry and logging, growing of spices, and vegetables. Fisheries is the largest component in agriculture sector (15% in 2018). Therefore, decline in fisheries production can affect the growth of the overall sector. As the most affected areas of the Easter attack were connected to fishing communities, it is plausible the decline in fishing was due to the Easter attacks. Slowdown in other subsectors which had no apparent connection to the incident are likely to have been a result of erratic weather conditions.

Fisheries sector was probably the only sector that was directly impacted from the Easter attacks.

Overall performance of the agriculture sector did not improve appreciably in Q3. Marine fishing sector showed a slight recovery while growing rubber and animal production deteriorated. Once again apart from the marine fishing these changes have no apparent connection to Easter attack shocks.

Figure 5: Predicted and Actual GDP Figures – Agriculture Sector, Constant (2010) Prices



Note: Bands indicate 80% and 90% confidence intervals

Source: ICRA Lanka Research

Agriculture sector had its worst quarter for 2019 in Q4 and can be fully attributed to unfavorable weather conditions that prevailed during the said quarter. All subsectors with the exception of fruits, vegetables, and animal production, performed poorly during the Q4.

Table 6: Estimated Shocks, Agriculture Sector– 2019

Quarter	Growth	Shock	Shock (Adjusted)
Q1	5%	-	-
Q2	1.5%	-3.3%	-1.0%
Q3	1%	-3.2%	-0.8%
Q4	-4.1%	-5.6%	0

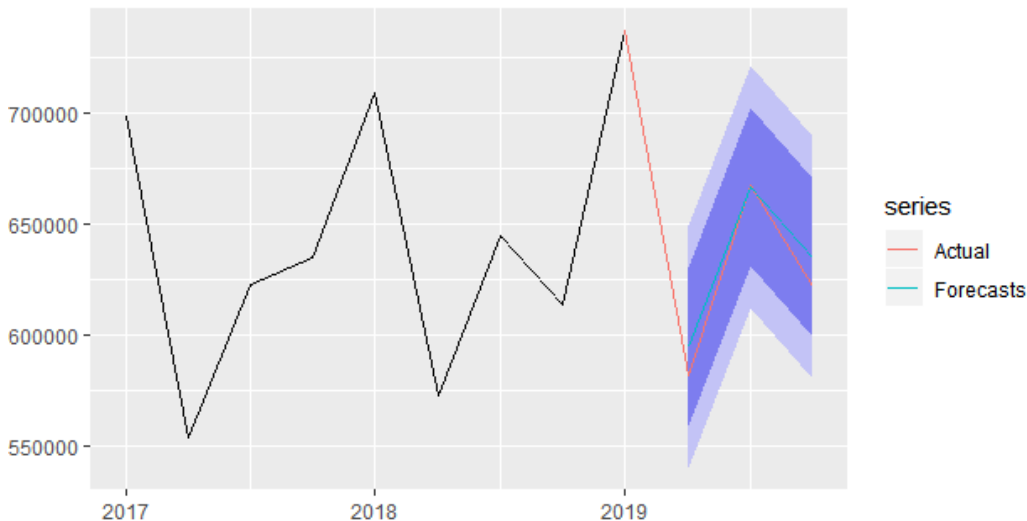
Note: Values used are in constant (2010) prices.

Source: ICRA Lanka Research calculations based on CSD

ICRA Lanka's econometric models show initial quarterly adjusted shock predictions ranging from -3 to -6% for the agricultural sector (excluding Q1). However, the impact of Easter attacks on agriculture sector is minimal. Therefore, ICRA Lanka moderated the contribution of Easter attacks peak shock in agriculture sector to -1%.

Industry Sector

Figure 6: Predicted and Actual GDP Figures – Industry Sector, Constant (2010) Prices



Note: Bands indicate 80% and 90% confidence intervals

Source: ICRA Lanka Research

Industry sector had a modest growth in Q1, but few subsectors performed poorly. Performance of some of these sectors remained subdued through all 4 quarters of the year.

Following the Easter attacks, the industry sector activities plunged across the board immediately. In the last week of April, due to security concerns and supply disruptions there was a significant drop in production activities. In the subsequent months, the manufacturing sector functioned overtime and on weekends to clear the backlogs and to supply new orders, which led to a fast recovery of the industrial sector.

Early Q3, manufacturing sector expanded at a higher phase due to increasing demand especially in the textiles & wearing apparel (12% of the industry sector in 2018), and food & beverages (22% of the industry sector in 2018) subsectors. The largest component of the industry sector, construction (26% in 2018), performed relatively well and helped to gain momentum. Employment in the industry sector improved in the process of increasing the production. Supply also started to normalize. But towards the quarter end, the growth slowed down as the manufacturers reduced the production level ahead of the Presidential election.

By Q4, most of the manufacturing activities recovered to a greater extent but textile & apparel sector experienced a slowdown along with Construction.

Following the Easter attacks, the industry sector activities plunged across the board immediately. In the last week of April, due to security concerns and supply disruptions there was a significant drop in production activities.

Table 7: Estimated Shocks, Industry Sector- 2019

Quarter	Growth	Shock	Shock (Adjusted)
Q1	3.9%	-	-
Q2	1.6%	-2.1%	-2.0%
Q3	3.5%	0.2%	-
Q4	1.4%	-2.1%	-

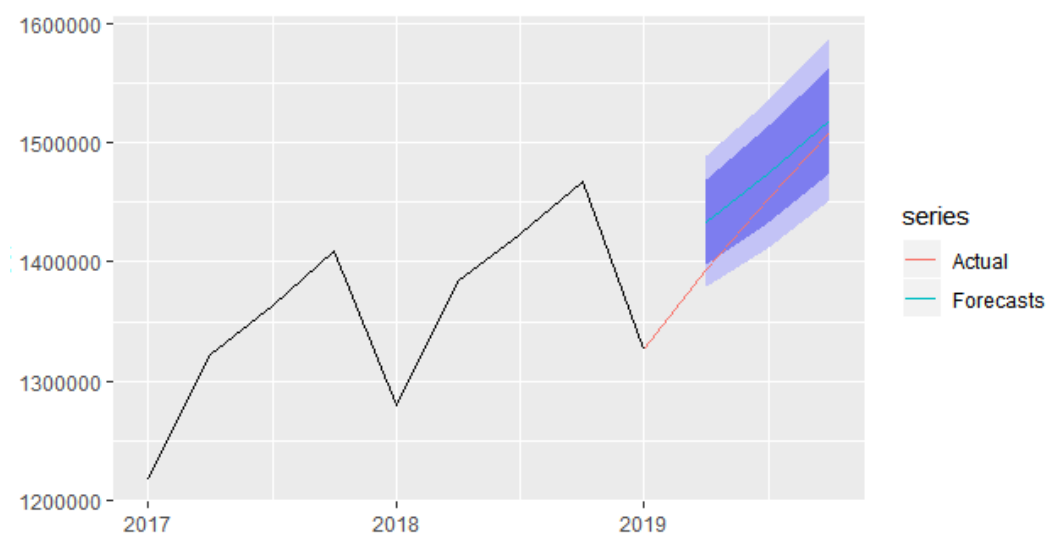
Note: Values used are in constant (2010) prices.

Source: ICRA Lanka Research calculations based on CSD

Given the relatively neutral external environment and absence of external shocks, it is reasonable to assume the most of the impact of the Easter attacks is reflected in the estimated shock of -2.1% and the sector returned to its pre-crisis level towards the end of Q2. Therefore, the shock was moderated to -2%.

Services Sector

Figure 7: Predicted and Actual GDP Figures – Service Sector, Constant (2010) Prices



Note: Bands indicate 80% and 90% confidence intervals

Source: ICRA Lanka Research

Services sector enjoyed a solid growth over the years (averaging 5.6% per quarter for last 10 years), but lost the momentum after the Easter attacks.

Services sector enjoyed a solid growth over the years (averaging 5.6% per quarter for last 10 years), but lost the momentum after the Easter attacks. In Q2 it only grew by 0.7%. The sector started recovering in subsequent quarters and by Q4, with improving tourist arrivals, the sector saw almost a full recovery.

The sector recorded a modest growth in Q1 but experienced a deterioration in activities weeks following the Easter attacks in Q2. Sectors related to tourism, especially accommodation (2018 sector share = 3%) had the most impact (10% decline on Q/Q) of the Easter attacks. Education sector, which is comparable in size to accommodations sector also had a considerable impact (4% decline on Q/Q). The largest component of the sector, wholesale and retail trade (2018 sector share

=19%) activities also decelerated as normal day-to-day lives of the people were disrupted. Transport & warehousing sector, which is similar in size to wholesale and retail trade, also had a significant impact (1.3% decline on Q/Q). This is mainly due to the drop in tourism where many vehicles were deployed in the tourism sector. Health sector activities were also subdued as the fear was driving people to avoid public places such as hospitals (0.9% decline Q/Q). Overall productivity of the sector declined due to weakened sentiment and stringent security measures that prevailed following the Easter attacks.

Employers in accommodation, food & beverage, and other personal services sectors laid off portion of their workforce to minimize their losses. By the end of Q2, the sector was showing signs of recovery. The government announced a one-year debt moratorium and subsidized working capital for the tourism sector as a slew of measures to help revive the tourism industry [6]. The effect of this measure could be moderate and may have helped to speed up the recovery in the subsequent quarters.

Services sector started to recover in Q3. Business activities improved in wholesale & retail, accommodation, food & beverage, financial services, and transportation sectors in early Q3 but remained subpar with the sector capacity. Consumer sentiments also started to improve. Towards the end of Q3, activities especially in accommodation and food & beverage services improved in expectation of higher demand in December.

Services sector recorded a solid growth in Q4 with tourism and trade picking up. Excess capacity of the sector started to diminish. Banks and Non-Banking Finance Institutes (NBFIs) experienced renewed demand in early Q4. Advertising campaigns ahead of the presidential election and increased promotional activities of the banks have contributed to the observed increase in business activities. Presidential election was concluded in November and with the expectation of political stability, business sentiment improved. The government's fiscal stimulus also helped to further accelerate the business activities.

Overall productivity of the sector declined due to weakened sentiment and stringent security measures that prevailed following the Easter attacks.

Table 8: Estimated Shocks, Services Sector - 2019

Quarter	Growth	Shock	Shock (Adjusted)
Q1	3.7%	-	-
Q2	0.7%	-2.8%	-2.8%
Q3	2.1%	-1.4%	-1.4%
Q4	2.7%	-0.7%	-0.7%

Note: Values used are in constant (2010) prices.

Source: ICRA Lanka Research calculations based on CSD

Given the relatively neutral external environment and absence of outside shocks, the initial estimates reasonably reflect the full impact of the Easter attacks. Therefore, no modifications were made to original shocks which indicates, at the peak of the crisis the shock was -2.8%.

What about 2008 Financial Crisis?

When talk about the economic fallout from the COVID-19 crisis, inevitably, at a global scale, the most recent reference point is the 2008 Financial Crisis. Many express the COVID-19 recession could be far worse than 2008 crisis [7]. However, in 2008-09 period Sri Lanka did not experience a major disruption to the economy. One reason is that the capital account has not been fully liberalized and many local banks did not deal with complex financial instruments [8]. Since 2009, over the years Sri Lanka has made progress in financial liberalization [9]. Due to this Sri Lanka has become more vulnerable to external shocks now than in 2008-09.

What's at stake now?

The growth disruption due to COVID-19 is expected to be driven by three factors; (1) demand shock, (2) supply shock, and (3) export shock. Demand shock results initially from temporary drop in demand from the confinement and then from loss of real incomes of consumers once the recession is in motion. The supply shock also initially results from the confinement. Thereafter, input scarcity could lead to a drop in supply. The key export markets are also battling the COVID crisis and those economies are set to take a blow. In the process, they may cut down on the imports, which could lead to a dip in the export demand.

Based on the learning from the past crises now it is possible to evaluate at least at a very granular level, the impact of COVID crisis in Sri Lanka.

Agriculture Sector

Sri Lanka's agriculture industry is a key sector in the country's economy. Although, the agriculture sector accounts for less than 10% of the national production, this sector employs more than one third of the total work force of the country. The performance of the agriculture sector generally gets affected by the vagaries of the weather. The outbreak of COVID-19 virus is expected to affect the Sri Lankan agriculture sector to a certain extent as a result of supply disruptions. However, due to the loose integration with the global supply chains, this sector is expected to largely remain resilient. The main agricultural farm lands are located in the areas that have not been under confinement. Presently, the GoSL has encouraged the farming communities to continue their activities. The GoSL is also likely intervene in ensuring there is an adequate supply of fertilizer coming into the country. In addition, agriculture sector may benefit from the fall in the prices of agrochemicals due to low oil prices. But the supply chain disruption may increase the scarcity of inputs ultimately raising the import prices.

Agricultural exports will experience a decline in demand. This includes fisheries, which is exported as processed food under the industrial sector. However, demand for commodities such as rubber may increase driven by the heavy use of surgeons' gloves etc. which may benefit the sector.

Plantation industry is one of Sri Lanka's major foreign currency earners. Currently, the plantation sector is functional at the estate-levels. This industry (especially tea segment) was impacted over the past two years due to subdued market conditions. The prices of this sector (including tea market) is likely to be affected due to economic instabilities of the main exporting markets.

Due to the above stated reasons ICRA Lanka do not expect the agriculture sector shock to be over -2% at its peak in the base case.

Agro Exports

Fisheries will experience decline in demand.

Plantations

Demand for tea may fall while demand for rubber may surge.

Industry Sector

The manufacturing and the export related businesses are the key industries of the industrial sector. It has broadly performed well during 2018/19 amidst the recovery of the agricultural production. The petroleum product subsector has also expanded during past two years after commissioning of the Sapugaskanda oil refinery facility in 2017. Moreover, the reinstatement of GSP+ concessions in 2017, had also helped the apparel & textile sector to perform well during this period. The apparel & textile industry which is a major source of foreign exchange revenue relies on the demand coming from the EU and US markets. Furthermore, most manufacturing and export oriented industries largely depend on imported raw materials for their value addition process, therefore the stability of the exchange rate is an important concern.

A great number of export-oriented and manufacturing industries in Sri Lanka have been, affected due to operational and supply chain disruptions. Most major manufacturing plants are located in the Western Province, which has been undergoing continuous curfew. The import restrictions, introduced by the GoSL are also expected to affect this sector. The impact on the textile and apparel sector is going to be particularly considerable. This together with the slowdown/cancellation of export orders from the key export markets, would exacerbate the impact on export oriented businesses. Since these industries are largely dependent on the overseas export markets, the recovery of this sector will take relatively longer time as most overseas markets have been adversely affected from the same.

Although, the local manufacturing business are expected to benefit from the reducing global base-raw material prices in the future, the sharp depreciation of Sri Lankan rupee may cancel off the potential gain from such a situation. Agrochemical segment in Sri Lanka (including weedicide segment) would experience a supply chain disruption as the main agrochemical markets such as US and Japan have also been affected by this global pandemic.

In ICRA Lanka's opinion, the impact from the outbreak of COVID-19 on the local construction sector is to be moderate to high. Most construction projects are currently suspended due to operational challenges such as labour and raw material deployment amidst the uninterrupted curfews. The import restrictions will also affect this sector due to supply chain disruptions. Given the fiscal constraints, large scale public sector construction activities may be suspended temporarily to facilitate funding to other sectors. However, the large and medium scale construction projects that are funded by the developers and multilateral funding agencies are expected to recover immediately after this crisis.

In tandem with the construction sector, the real estate sector is also expected to be affected from this crisis. The delays in the project executions will have a negative impact on the real estate developers. Moreover, with the overall slowdown in the economy, this sector will experience a decline in new sales, in addition to the stretched cash collections from the presale stocks.

Apparel/textile

Impact on apparel/textile will be considerable.

Agrochemicals

With the key source markets in disarray, this sector will be affected.

Construction

Impact on this industry will be medium to high.

Real Estate

With already rampant liquidity shortage, this sector to be further affected.

The impact from the current outbreak of COVID-19, on the local power sector is relatively low. Most power plants continue to function as an essential service during this crisis period. Given the slowdown of the overall economic activities, the overall power consumption in Sri Lanka is expected to decline. This will help Ceylon Electricity Board (CEB) to reduce its financial losses to a larger extent by limiting its higher cost energy sources. The reduction in the global oil prices would further help CEB to reduce its cost of energy production going forward. Most private sector renewable energy producers have recently diversified their operations into overseas markets (mainly to African countries), which have not been significantly affected by this pandemic so far.

Considering the above factors ICRA Lanka expects the peak shock to be -14% for the base case.

Service Sector

Tourism holds a greater significance in services sector and has been a driver of growth for the economy. Retail and consumer durable industry accounts for a larger share of the national output and therefore is a key sector of the country's economy. The demand for the retail & consumer durable sector was largely driven by the increases in disposable income of the consumers. Since one third of the island's workforce has been employed in the agriculture sector, during good harvesting seasons, the consumer durable sector has performed well. Similarly, subsequent to public sector salary hikes, the sector performance improved. The tourism sector is also another segment that has fueled the demand of this industry.

Tourism is the most vulnerable sector to the COVID crisis. The social distancing requirements, travel disruptions/restrictions, quarantine requirements, will inevitably affect the global tourism industry and hence the local industry. This industry in Sri Lanka has been currently grounded to halt. The recovery of this industry will hinge largely on the recovery of the key source markets. Thousands of direct and indirect jobs are at risk in coming months.

Wholesale & retail trade may face significant challenges as it relies heavily on imports. Unprecedented supply disruptions, a worsening exchange rate, import restrictions and declining real incomes can create pressure on the cash flows. The nonfood retail is also subjected to supply chain disruptions due to import restrictions. This is expected to be further exacerbated by the slowdown in the tourism sector. However, food retail segment is better positioned because of its business mix, includes drugstores and convenience stores.

As a significant constituent of the services sector, ICRA Lanka expects the Banking and Financial services sector outlook to be quite challenging as the pandemic situation poses a substantial risk for the overall loan growth and asset quality of banks and NBFIs. ICRA Lanka expects the same muted growth overlook to prevail in the immediate to short term in the sector, driven by the trajectory of the overall economy.

Economic fallout of COVID-19 can hit the already weakened NBFi sector. Finance companies primarily channel their funds to the informal and vulnerable sectors of

Power

Impact will be minimum as the sector functions uninterrupted.

Tourism

Tourism and related sectors are expected to take a major blow.

Trade

Depreciation and import restrictions can hinder the growth of this sector.

Finance

Funding and liquidity is the most significant vulnerability for finance companies.

the economy. Aftermath of the COVID-19 crisis will leave some of these sectors cash-strapped leading to higher Non-Performing Loans (NPLs) and defaults. As the data indicates, asset quality indicators of the Licensed Finance Companies (LFCs), unlike the banking sector, did not recover following the Easter attacks. Funding and liquidity is the most significant vulnerability for finance companies, as the typical 'flight to quality' mentality kicks-in during a crisis.

On the other hand, ICRA Lanka expects the asset quality indicators of the sector to weaken further, while the impact for the NBFI sector is expected to be more severe compared to that of the banking sector. The gross Non-Performing Asset (NPA) ratio of the banking sector was 4.7% in December 2019 vis-à-vis 3.4% in December 2018; gross NPA in the NBFI sector was 10.6% in December 2019 vis-à-vis 7.7% in December 2018. ICRA Lanka expects these numbers to weaken further, due to the COVID-19 pandemic situation and the economic aftermath; at the same time, the impact for the NBFI sector will be higher than for the banking sector. ICRA Lanka takes cognizance of the CBSL debt moratorium that will prevent a larger portion of these facilities being classified as non-performing. Regardless of the NPA classification, the fundamental asset quality of the segment will significantly deteriorate as a result of the crisis.

Transport sector performance has a strong connection with the manufacturing and tourism industries. The net impact of these will have a spillover effect on the transport sector.

Although, Sri Lanka's healthcare system could have a short term impact from the outbreak of COVID-19, ICRA Lanka believes the performance of this sector will remain strong in the long term.

Automotive dealers are also highly exposed because of their reliance on international supply chains. The crisis will exacerbate the already dwindling demand for vehicles.

Considering the above factors ICRA Lanka feels the impact of the COVID-19 on the services sector will be much greater than the Easter attacks and sets the peak shock to be -7%.

Transport

The net impact of tourism and manufacturing will have a spillover effect on the transport sector.

Health

The sector will experience a temporary setback

Automotive

The crisis will exacerbate the already dwindling demand for vehicles.

Global Scenario

Many experts have already prophesized a full blown global recession that may or may not extend beyond this year. All economies are expected to feel the impact. When it comes to Sri Lankan context, the recession will be transmitted through the economic shock waves emanating from the key trading partners. The ability of the Sri Lankan economy to recover to a greater degree depends on how soon the trading partners can recover. Following section is a status update of expected recoveries of such economies.

The ability of the Sri Lankan economy to recover to a greater degree depends on how soon the trading partners can recover.

Sri Lanka imports 17%(2017) of its imports from China. In December 2019, China was at the epicentre of the Corona virus. By the time of writing this report, it has started to gradually restart the economy. ADB's expectation about China is a sharp contraction of GDP in Q1 of 2020 and a recovery period for the remainder of the year [10]. In contrast, in its most optimistic scenario, McKinsey & Company predicts the China recovery to start in Q2 of 2020 and to return to pre-crisis level by Q4 of 2020 [11].

India accounts for 20%(2017) of Sri Lanka's imports. It is also undergoing a 21-day lockdown. Knock-on effect is expected to slow down the economy. GDP growth is forecast to slow further to 2% in 2020. Based on developing implications, ICRA has sharply revised its forecast for India's growth in the current fiscal to 2%, down from a range of 4.7% to 5.2% earlier [12].

25%(2017) of Sri Lanka's exports end up in US. At the time of writing this report, US has emerged as the epicentre of the pandemic and has recorded more cases and deaths than any other country in the world. According to one prediction, US is expected to reach its pre-crisis level by Q4 of 2020 [11].

Europe accounts for 36%(2017) of the exports. With the rapid spread of COVID-19 in Italy and Spain, the entire situation in Europe took a dramatic turn. Europe is predicted to take a massive hit to the economy and will only return to pre-crisis level by Q1 of 2021 [11].

Figure 8: Expected economic impact and recovery timeline of key trading partners

	Crisis Peak	GDP growth at the peak of the crisis	Recovery Point	Return to Pre-crisis
US	2020 Q2 ^{a, b, c, f}	-34% ^a -30% ^f -14% ^d -12% ^c -8% ^b	2020 Q3 ^{b, f}	2020 Q4 ^b
Europe	2020 Q2 ^b	-11.4% ^a	2020 Q3 ^b	2021 Q1 ^b
UK	2020 Q2 ^f	-5.1%(2020) ^f	2020 Q3	2021 ^f
China	2020 Q1 ^{b, c}	-10% ^b	2020 Q2 ^b	2020 Q4 ^b
India	n/a	4%(2020) ^e 2.5%(2020) ^h 2%(2020) ^g 1.6%(2020-21) ^a	n/a	n/a

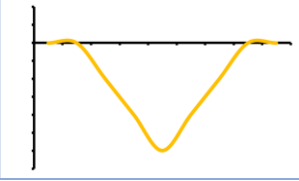
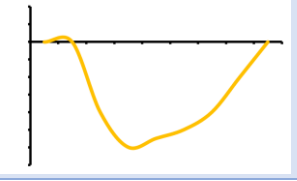
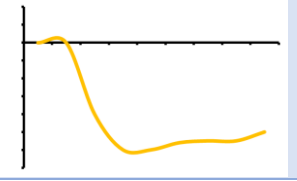
Sources: a- Goldman Sachs, b- McKinsey & Company, c- Oxford Economics, d- JPMorgan Chase, e- Asian Development Bank, f- Morgan Stanley, g- ICRA, h- Moody's

From the Figure 8, it is evident that anticipation of a recession in 2020 is widespread in US and Europe. The experts also expect a quick rebound by the end of the year. China will be first to come out of the recession. Growth prospects for India have also become gloomy in 2020.

Considering above ICRA Lanka expects the external sector to return to normalcy in 2021.

Three Scenarios for Sri Lanka

Figure 9: Potential outcomes for economic recovery

	Scenario 1: Optimistic case	Scenario 2: Probable case	Scenario 3: Protracted case
Shape of the recovery	V-shape 	U-shape 	L-Shape 
Virus spread	Virus contained within 2 months	Virus contained within 2 months	Resurgence of the second wave
Crisis peak	2020 Q2	2020 Q2	2020 Q2
Crisis depth	Moderate	High	High
Overall impact	Moderate	High	Very high
Recovery point	2020 Q3	2020 Q3	2021 Q1
Return to pre-crisis	2020 Q4	2021 Q1	2021 Q3
Global rebound	Strong	Moderate	Muted/Moderate

Source: ICRA Lanka Research

Given the uncertainties surrounding the pandemic, it is quite difficult to chart the course of the crisis precisely at this point. Considering all the relevant up-to-date information, ICRA Lanka sees three outcomes for Sri Lankan economy (see Figure 9). These scenarios depend on how the global and the domestic situation evolves in next few months and ICRA Lanka continues to monitor the situation and may revise the prediction when more information is available.

- **Scenario 1:** In ICRA Lanka's most optimistic modeling, virus is assumed to have been contained within 2 months from mid-March. Here the overall impact is moderate and the economy bounces back strongly on the back of strong global rebound to return to pre-crisis level by end of the year.
- **Scenario 2:** This is the most probable scenario for Sri Lanka in ICRA Lanka's opinion. It is also the most conservative estimate and acts as the base case for the remainder of the report. In this scenario, global recovery is moderate and the overall impact on the Sri Lankan economy would be high. As per this, Sri Lanka will return to pre-crisis level by Q1 of 2021.

ICRA Lanka sees three outcomes for Sri Lankan economy. These scenarios depend on how the global and the domestic situation evolves in next few months.

- **Scenario 3:** If Sri Lanka could not contain the virus within 2 months amidst a muted/moderate global rebound, this scenario can occur. Here the initial shock will sustain or decline slowly overtime through a better part of 2021 as well. The overall impact on the economy can be devastating.

What is most likely to happen?

Sector Shocks

Figure 10: Deviation from Initial Trajectory of the Real GDP by Sector- Probable (Base) Case



Source: ICRA Lanka Research

Figure 10 illustrates the impact on sector real GDP figures across the quarters of 2020 most probable scenario. Agriculture sector, due to its low sophistication is

expected to be quite resilient and will have a shallow shock whereas in 2001, agriculture sector sustained the shock much longer.

Industry sector is comprised of a sizable segment of manufacturing. This segment is the most vulnerable to global economic fallout due to (1) increase in input prices due to deteriorating foreign exchange rate (2) drop in export demand as source markets will be in turmoil for foreseeable future. Due to this reason the industry sector is likely to experience a deeper shock with a longer recovery. In contrast, in 2019, following the Easter attacks, the industry sector recovered much quickly.

The shocks in the services sector will mainly be felt in tourism and retail/wholesale trade industries, which are substantially large sectors of the economy. Tourism has come to a near standstill as key source markets are currently in lockdown. In addition, exchange rate depreciation and import restrictions may affect the supply lines of retail and wholesale trade. But the sector may recover sooner than the industry sector if the travel restrictions are relaxed.

Industry

Is likely to experience a deeper shock and a longer recovery.

Services

Immediate shock to the sector but may be able to bounce back faster.

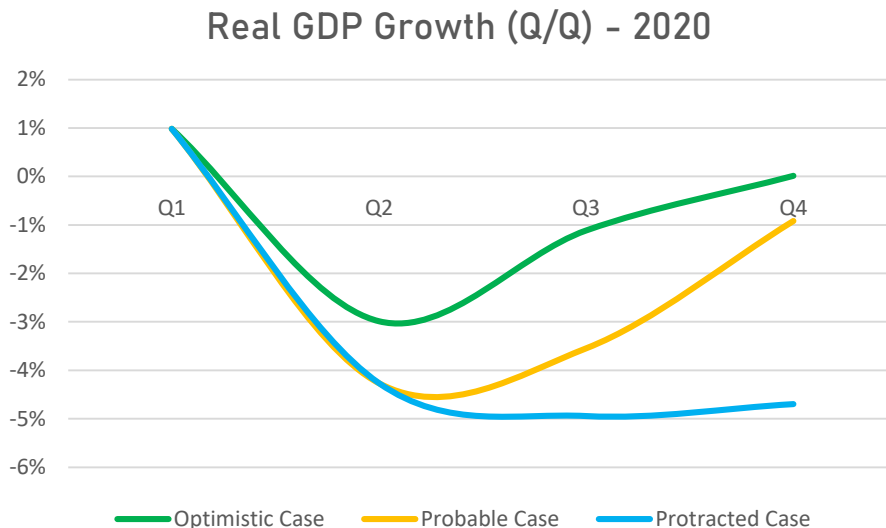
Figure 11: Deviation from Initial Trajectory of the Real GDP by Sector



Source: ICRA Lanka Research

Figure 11 compares the base case (i.e. probable case) against the alternative scenarios. The optimistic case has a shallower shock with a quick turnaround whereas protracted case has a strong and abrupt shock with prolonged recovery.

GDP Growth



Source: ICRA Lanka simulations

GDP growth is a key indicator of health of an economy. Following several years of poor growth Sri Lanka was expected to pick up momentum this year. Before the breakout, IMF estimated Sri Lanka to grow at 3.7% in 2020 [13] and ADB at 3.8% [14]. ICRA Lanka models show Sri Lanka could have grown at 3.6% given the absence of major shocks for the same. In the face of a fragile macro-environment in the country, the growth was a critical need of the hour. But with the unexpected turn of events, the prospects of having a modest growth for Sri Lanka is slim.

All three simulations show Sri Lanka is heading for a recession with all of the remaining quarters of 2020 having negative seasonally adjusted growth rates⁶. If the probable case scenario persists, the country's economy will be contracted by 1.9% and the damage to the economy is as high as 5.7% of the GDP. In nominal terms this is equivalent to LKR 932 Bn. If the situation escalates to the protracted case the repercussions to the economy is much severe. The economy will suffer a 3.3% recession in 2020 and it will cost whopping LKR 1.1 Tn to the economy, which is over 7% of the GDP. In ICRA Lanka's most optimistic scenario, the economy contracts by under 1% and the damage could lead to over 4% of the GDP which is about LKR 735 Bn.

All three simulations show Sri Lanka is heading for a recession with all of the remaining quarters of 2020 having negative seasonally adjusted growth rates.

⁶ The simulations have taken the impact of government's COVID-19 fiscal response of (LKR 50 Bn) fully and remains same for all three simulations.

Figure 12: Impact on the GDP by Scenario

	GDP Growth	Total impact as a % of the GDP	Total impact in nominal terms (LKR Bn)
<i>Probable Case</i>	-1.9%	5.7%	932
<i>Protracted Case</i>	-3.3%	7.2%	1,168
<i>Optimistic Case</i>	-0.6%	4.4%	735

Source: ICRA Lanka simulations

Impact on the Budget Deficit

The COVID-19 economic shock inevitably affects the tax revenues from goods and services. Last year, GoSL put forth a massive fiscal stimulus which could have cost LKR 500 Bn in revenue this year. Therefore, ICRA Lanka expects augmented shocks to affect the tax revenue this year. ICRA Lanka's models show in 2001 the economy lost 4.7% (i.e. shock to the taxes) of the predicted indirect taxes. In absence of quarterly data, using the best judgement, ICRA Lanka believes the quarterly adjusted peak shock to the taxes to be 6%⁷ in the case of 2001 crisis.

As per the simulations, the loss of tax revenue would widen the budget deficit to 7.8% this year. This translates to a nearly LKR 181 Bn fall in revenue for the government.

Table 9: Estimated Shocks – Easter Attacks (2019)

Quarter	Growth	Shock	Shock (Adjusted)
Q1	2.0%	-	-
Q2	2.5%	-2.1%	-2.0%
Q3	1.7%	-2.9%	-2.5%
Q4	2.9%	-0.9%	-0.5%

Note: Values used are in constant (2010) prices.

Source: ICRA Lanka Research estimates based on CBSL

Table 9 illustrates the growth and shocks to tax during 2019. Slight increase in the revenue growth in Q2 can be attributed to several tax changes that were carried out prior to the Easter attacks. However, the Easter attacks had a direct impact on the tax base and tax collection. The government's relief package included tax concessions (a reduction of VAT to 5%) for affected sectors especially tourism [15]. The shock caused by the Easter attacks came with a lag and peaked in Q3. An initial estimate indicated, on the short run the direct contribution to the government revenue by affected sectors like finance, tourism, trade and construction, will come down by LKR. 50 billion approximately [15]. But with faster than expected recovery, according to ICRA Lanka's estimates, the total revenue loss is much less than that. The shock in Q4 can be mainly attributed to the slowdown of agriculture and industry segments. Considering all the factors, ICRA Lanka assigns -2.5% as the peak shock to taxes from the Easter attacks.

⁷ Due to limitations in data availability ICRA Lanka was not able to determine quarterly shocks. Furthermore, CBSL did not report gross value added of taxes separately in national accounts in 2001. The tax figures used in this particular analysis is absolute figures converted to real terms adjusted using the GDP deflator for the said year.

Considering above observations, by extrapolation, ICRA Lanka assigns -8% as the peak shock to the tax revenue for 2020.

Figure 13: Impact on the Tax Revenue and Budget Deficit by Scenario

	Loss of taxes (LKR Bn)	Budget deficit (% of GDP)
<i>Probable Case</i>	181	-7.8%
<i>Protracted Case</i>	211	-8.1%
<i>Optimistic Case</i>	155	-7.5%

Source: ICRA Lanka simulations

It is not unusual for a government to increase spending during the times of crisis. IMF estimates indicate the budget deficit to widen to -6.2% in 2019 from -5.7% a year ago [16]. Therefore, ICRA Lanka expects the government to have an unusually elevated current expenditure during 2020 as well. The net effect of low tax revenue and increased expenditure would further widen the budget deficit. As per the simulations, the loss of tax revenue would widen the budget deficit to 7.8% this year. This translates to a nearly LKR 181 Bn fall in revenue for the government. In the protracted case the deficit can further grow by 120bps leading to a revenue loss of LKR 211 Bn. The most optimistic scenario predicts a budget deficit of 7.5% with total loss of revenue equivalent to LKR 155 Bn.

Unemployment

With companies already moving forward with salary cuts, as the crisis deepens, the unemployment could rise to upper single digits as per ICRA Lanka calculations. Services and industry sectors are likely to layoff significant number of employees, leading to loss of indirect employment as well. High unemployment will weaken the domestic consumption and as a result inflation may be contained. In the more severe case, the unemployment rate can accelerate to the levels before the late 90's where Sri Lanka used to have double digit unemployment rate.

With companies already moving forward with salary cuts, as the crisis deepens, the unemployment could rise to upper single digits.

Figure 14: Unemployment by Scenario

	Unemployment rate
<i>Probable Case</i>	9.3%
<i>Protracted Case</i>	10.5%
<i>Optimistic Case</i>	8.2%

Source: ICRA Lanka simulations based on SIOT

Inflation

In Sri Lanka, the GDP deflator which is an implicit price indicator representing overall economic activities in the country, generally tend to grow by double digit rates when the inflation rate or currency depreciation spikes to double digits (see Figure 15). Based on this observation, considering the gravity of the crisis and the downward pressure on the rupee, ICRA Lanka expects the GDP deflator to move up by 12%. However, the domestic demand may weaken amidst falling incomes of consumers during the course of the year and therefore inflation is expected to be contained in the range of 4 to 7%.

the domestic demand may weaken amidst falling incomes of consumers during the course of the year and therefore inflation is expected to be in the range of 4 to 7%.

Figure 15: Relationship of GDP deflator with inflation and exchange rate

	Deflator	Depreciation (LKR/USD)	Inflation
1996 - terrorist attack on the Central Bank	12.1%	7.8%	15.9% ^a
2001 - terrorist attack on the BIA	12.4%	17.9%	14.2% ^a
2005	10.4%	-0.6%	11% ^b
2006 to 2008 - the last stage of war	13.8% (avg.)	2.5% (CAGR)	16.1% ^b (avg.)
2012	10.8%	10.4%	7.6% ^c

Notes: a- CCPI(1952=100), b- CCPI(2002=100), c-CCPI(2006/7=100)

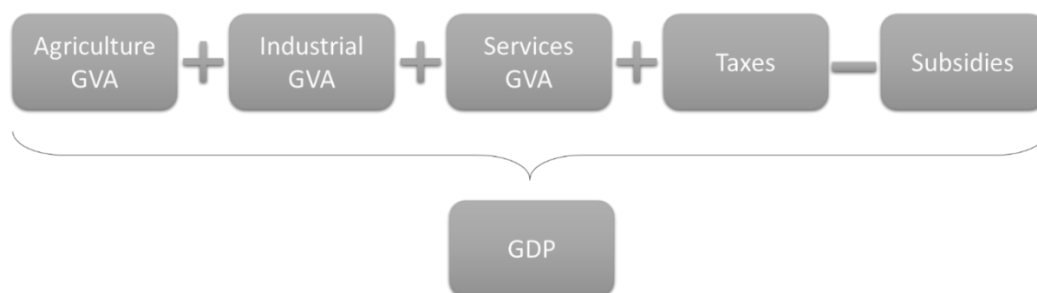
Source: CBSL

Methodology

ICRA Lanka carried out a rapid analysis using a historical economic shock analysis. An economic shock in this context means an alteration from economy's original trajectory (ex-ante GDP). Shocks indicate by what percentage the economy underperformed or over performed with respect to ex ante GDP trajectory. Therefore, irrespective of the context, these economic shocks provide a pragmatic means to compare the magnitude across crises.

Modeling ex ante GDP for a given crisis year is the first step in quantifying the magnitude of shocks and it is conducted using time series analysis. In addition, it is critical to control for any other external or internal shock to isolate the impact of the crisis. To increase the accuracy of the prediction, each sector of the economy was modelled separately (see Figure 16). Furthermore, the different sectors react differently in terms of the depth and recovery to a crisis and these dynamics provide valuable insights in preparation of recovery strategies.

Figure 16: Calculating GDP Using Production Approach



Source: CSD

In this study two major crises were studied for their impacts. The first is 2001, terrorist attacks on the Bandaranayke International Airport (BIA). This was the first time Sri Lanka experienced an economic contraction on record. The second is the Easter attacks. This was the most recent shock to the economy. Though in terms of the magnitude, 2001 crisis is comparable to the current crisis, the structure of the economy was different back then. In this respect, studying of Easter attacks provides valuable insights to understand how the economy reacted to that shock.

Deeper understanding of the said crises would enable to setup a benchmark for the likely shock of the present crisis. Using this as a base, simulations were carried out for selected outcome scenarios.

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