



# COVID-19 Potential Impact on Georgian Banking Sector

## Scenario Analysis

**KPMG Georgia**

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# Abbreviations

<b>GEL</b>	Georgian Lari
<b>FC</b>	Foreign Currency
<b>JSC</b>	Joint Stock Company
<b>ECL</b>	Expected Credit Loss
<b>KPMG, we</b>	KPMG Georgia LLC
<b>LLC</b>	Limited Liability Company
<b>PD</b>	Probability of Default
<b>LGD</b>	Loss Given Default
<b>NBG</b>	National Bank of Georgia
<b>YE</b>	Year End
<b>IFRS</b>	International Financial Reporting Standards

# Foreword

Global Covid-19 Pandemic that the world has been experiencing for the last couple of months, has pushed the global economies into recession. External shocks placed financial sector under stress conditions as well.

Similar to most of the countries, Georgian economy is also facing the challenges caused by the pandemic. The pressure on key economic sectors is still ongoing and the magnitude or the possible length of the crisis is yet unknown.

Due to the lockdown and sharp decline in performance of vulnerable sectors, dramatic increase of financial risks, especially credit risks, is almost inevitable.

Given the importance of the banking sector in Georgian economy, KPMG Georgia Advisory team initiates a generic analysis on the potential impact of Covid-19 pandemic on the quality of the Georgian banking portfolio (hereinafter "analysis").

The key assumption of the analysis is that the decline in the economy will have a direct impact on solvency of the borrowers, consequently effecting expected credit losses on the loan portfolio.

For the purposes of the impact analysis, period preceding default ("Significant Increase in Credit Risk" as defined per IFRS 9 standard) is considered negligible and only default scenarios are applied. In case of corporates, possible default scenarios were assessed for the most vulnerable economic sectors. For the retail borrowers an impact exercise was performed on the total portfolio due to unavailability of detailed data on the portion of portfolio issued to borrowers employed in affected sectors. However, it is reasonable to assume that the crisis will have an impact on all retail borrowers to a certain extent.

Sensitivity analysis for corporate portfolio was performed for the following sectors: Hospitality, Transportation, Services and relevant Trade subsectors, such as Durable Consumer Goods and Clothing (hereinafter "vulnerable sectors"). These sectors are expected to be most affected as a result of the crisis.

**Hopefully, the analysis will be found useful.**



# Methodology and Assumptions

# Methodology and Assumptions

## Corporate Portfolio

Potential impact was assessed on the corporate loan portfolio expected credit losses by keeping all the other parameters constant (e.g. possible fluctuations in exchange rates, real estate market prices, interest rates, provision of loan holidays by banks, etc.).

For the purposes of the analysis, corporate portfolio breakdown by sectors was obtained from the National Bank of Georgia statistical publications. Scenarios were applied to the gross portfolio issued to vulnerable sectors as of February 2020. For the Trade sector, detailed subsectoral breakdown was not available for the target reporting period, so we have obtained the shares of relevant subsectors from the NBG 2018 annual report and applied the same distribution to the latest available trade portfolio.

We have developed the worst-case, base and optimistic scenarios to estimate the potential impact on ECL under different circumstances. 80%, 50% and 25% of vulnerable portfolio defaults were considered for each scenario, respectively.

In the worst-case scenario, we assumed a zero recovery from the defaulted portfolio. For the purposes of the base and optimistic scenarios, we estimated the market LGD based on the latest available Stage 3 ECL figures reported by the Georgian banks (since 2019 YE financial statements were not published by the time of preparation of this analysis, 2018 figures were used for LGD estimation). For the base scenario the market LGD was further adjusted upwards by the increase rate observed on corporates globally during the 2008-2009 crisis (source: *Moody's publications on corporate default and recovery rates during 2007-2009 years*).

Based on the developed assumptions, the effect on ECL (based on the ECL rate published by the banks in 2018 audited financial statements) on vulnerable sectors and total portfolio was measured for each scenario.

Scenario assumptions are illustrated in the Table 1.

Table 1

Scenario Assumptions for ECL Parameters		
Corporate Portfolio	Probability of Default	Loss Given Default
Worst-Case Scenario	80% of the vulnerable portfolio	100%
Base Scenario	50% of the vulnerable portfolio	Existing LGD adjusted upwards by the same % as observed increase in LGD during 2008-2009 crisis
Optimistic Scenario	25% of the vulnerable portfolio	Existing Market LGD

## Methodology and Assumptions

# Retail Portfolio

For the purposes of the analysis, the default scenarios were developed for the total retail portfolio.

We have developed the worst-case, base and optimistic scenarios to estimate the potential impact on ECL under different circumstances. 40%, 25% and 15% of the portfolio defaults were considered for each scenario, respectively.

For the purposes of LGD estimation, mortgage and consumer portfolios were assessed separately.

- Mortgage portfolio – LGD for mortgage portfolio in each scenario was estimated based on collateral analysis. Conservatively, regulatory Loan to Value ratios were applied to estimate an approximate value of portfolio collateral. Collateral values were reduced based on the severity of the scenario. Realization period and liquidation haircuts were applied based on market benchmarks.
- Consumer portfolio – in the worst-case scenario we assumed zero recovery from the defaulted consumer portfolio. For the purposes of the base and optimistic scenarios, we estimated the market LGD based on the latest available Stage 3 ECL figures reported by the Georgian banks (since 2019 YE financial statements were not published by the time of preparation of this analysis, 2018 figures were used for LGD estimation). For the GEL portfolio in the base scenario, the market LGD was further adjusted upwards by the same increase rates as for corporate portfolio. As to FC portfolio, LGD in base and optimistic scenarios were adjusted for existing (% of currency devaluation observed in the first quarter of the current year) and expected currency devaluation (% of currency devaluation observed during 2008-2009 crisis), respectively.

Based on the developed assumptions, the effect on ECL (based on the ECL rate published by the banks in 2018 audited financial statements) for total portfolio was measured for each scenario.

Detailed assumptions are illustrated in Table 2.

Table 2

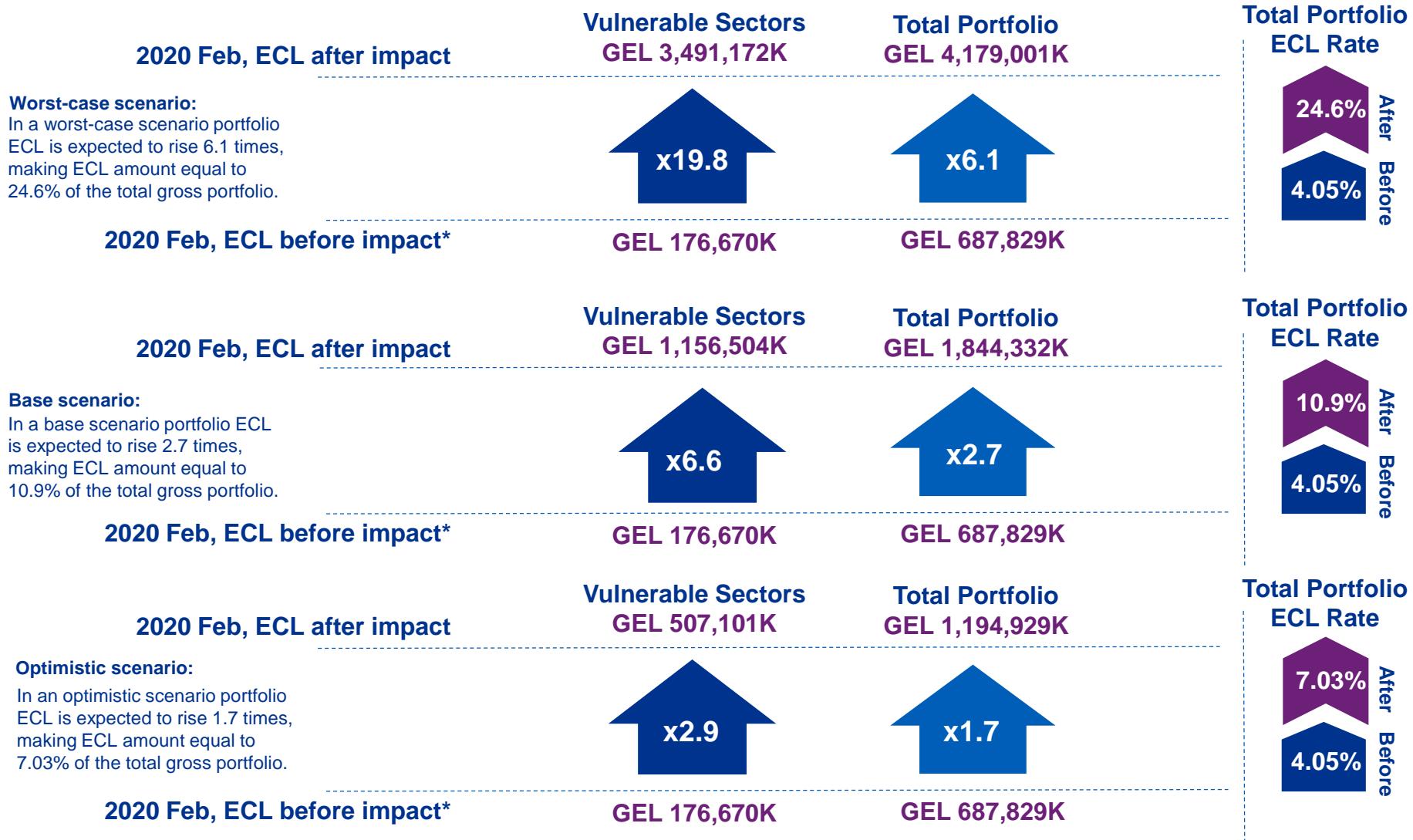
Scenario Assumptions for ECL Parameters					
Retail Portfolio	Probability of Default	Loss Given Default			
		Secured	Unsecured		GEL
Worst-Case Scenario	40% of the total portfolio	Drop in real estate prices (collateral value) 10% higher than 2008-2009 global financial crisis - 35% price drop applied. Collateral realization parameters based on market benchmarks (realization period - 3 years, liquidation haircut - 20%)		100%	100%
Base Scenario	25% of the total portfolio	Drop in real estate prices (collateral value) same as during 2008-2009 global financial crisis - 25% price drop applied. Collateral realization parameters based on market benchmarks (realization period - 3 years, liquidation haircut - 20%)	Existing Market LGD adjusted upwards by the same % as observed increase in LGD during 2008-2009 crisis	Existing Market LGD adjusted upwards by % of currency devaluation observed during 2008-2009 crisis (16%)	
Optimistic Scenario	15% of the total portfolio	Drop in real estate prices (collateral value) 10% lower than 2008-2009 global financial crisis - 15% price drop applied. Collateral realization parameters based on market benchmarks (realization period - 3 years, liquidation haircut - 20%)	Existing Market LGD	Existing LGD adjusted upwards by % of existing currency devaluation (9%)	



# Results of Scenario Analysis

## Results and Findings

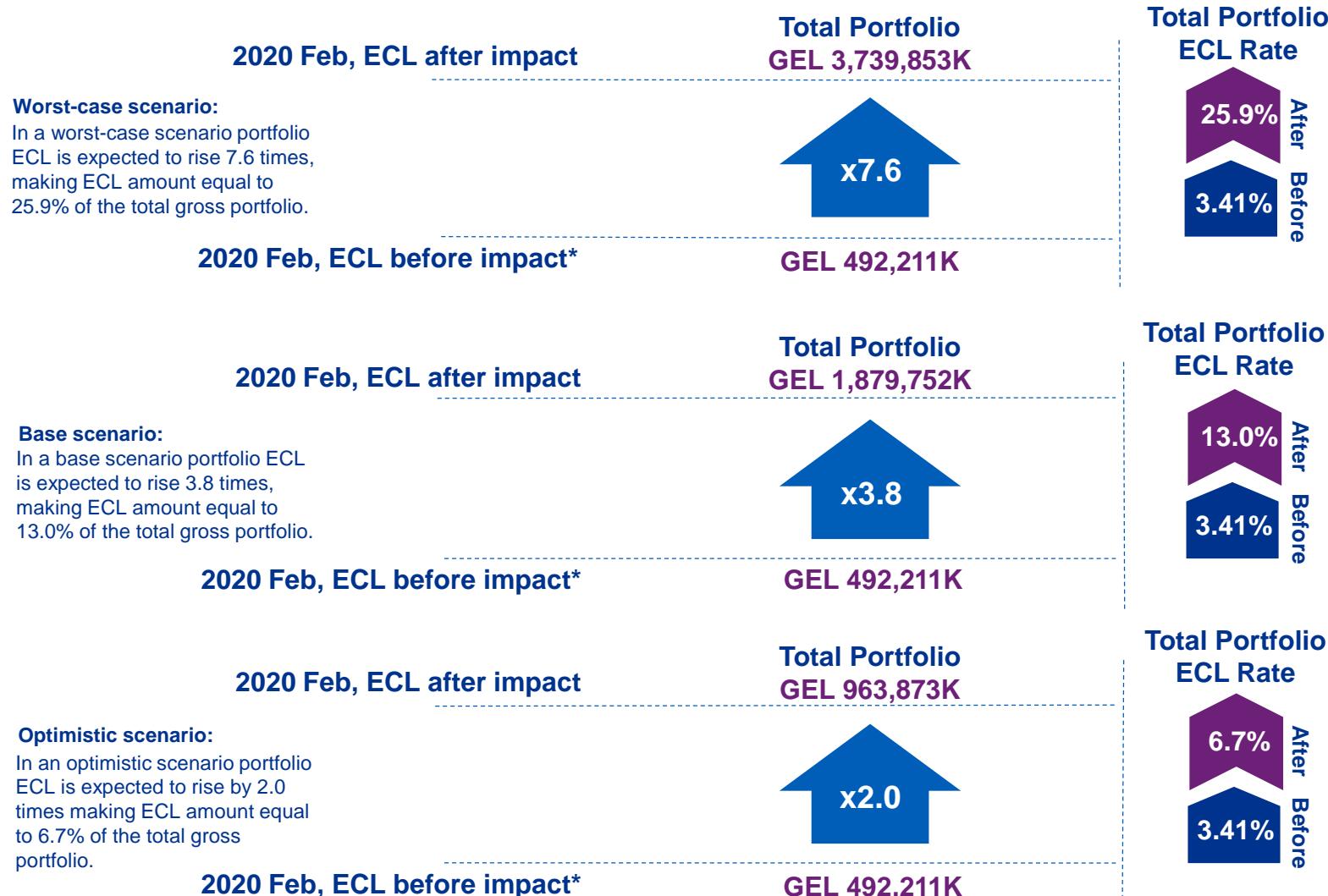
# Corporate Portfolio Scenarios



\*Due to unavailability of reported ECL figures for 2019, ECL was calculated by applying 2018 ECL rate to February 2020 Portfolio

## Results and Findings

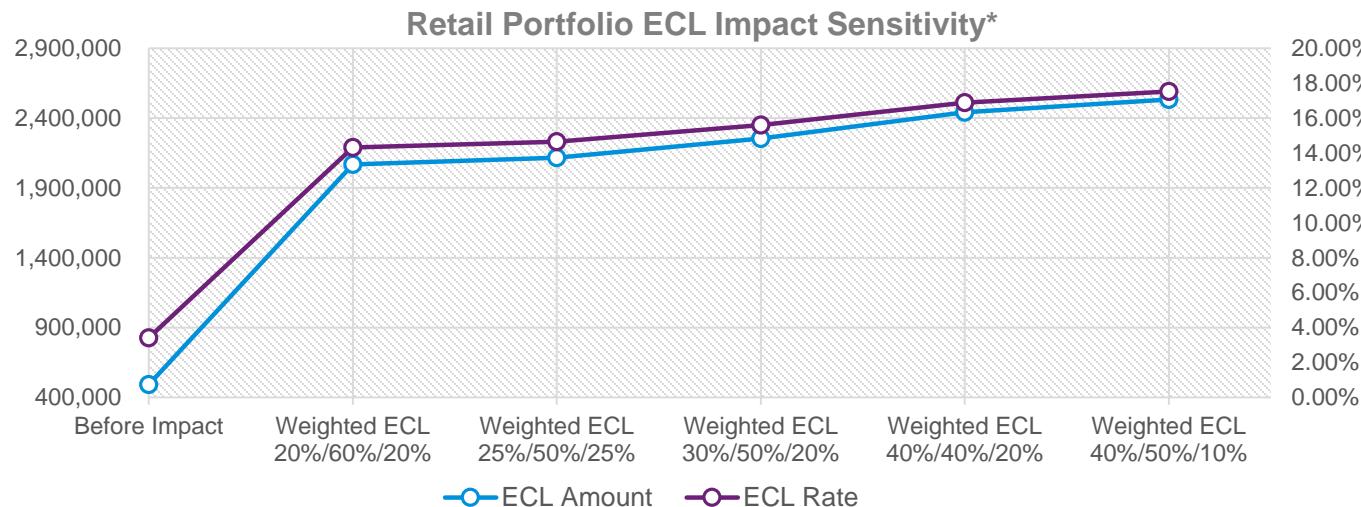
# Retail Portfolio Scenarios



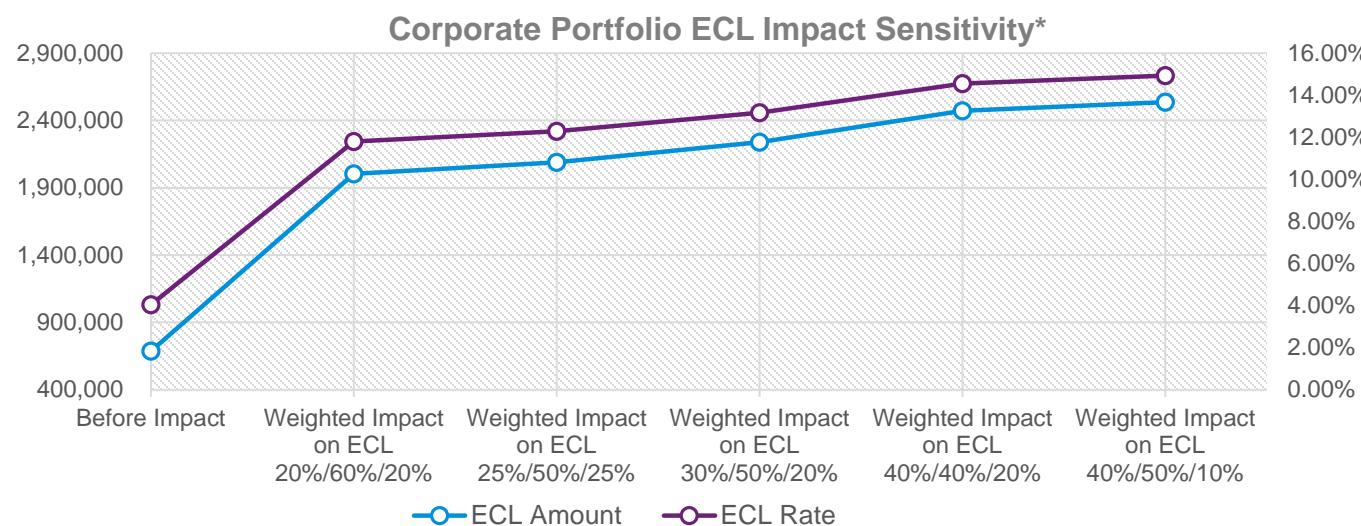
\*Due to unavailability of reported ECL figures for 2019, ECL was calculated by applying 2018 ECL rate to February 2020 Portfolio

## Results and Findings

# Impact sensitivity based on various scenario weights



As a result of applying different scenario weights, weighted Retail ECL varies from GEL 492mln (before impact) to GEL 2,532mln (the highest impact) with the ECL rate in the range of 3.41% - 17.52%.



As a result of applying different scenario weights, weighted Corporate ECL varies from GEL 688mln (before impact) to GEL 2,537mln (the highest impact) with the ECL rate in the range of 4.05% - 14.93%.

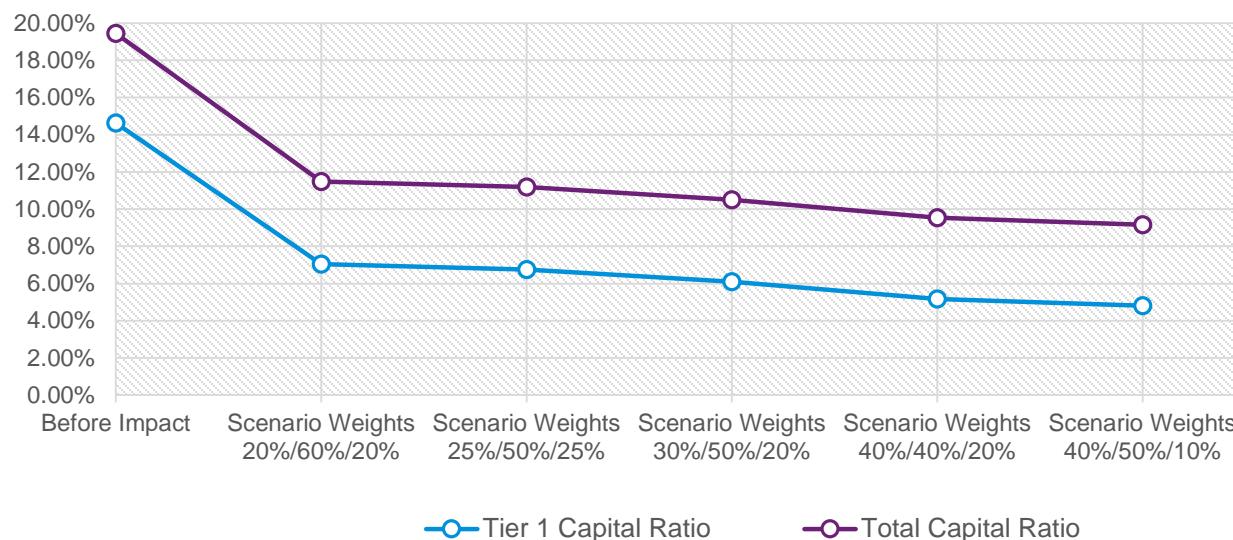
\*Scenario weights in the graph are given in the following order: Worst-case scenario, Base scenario, Optimistic Scenario

## Results and Findings

# Potential Impact on Capital Adequacy

Impact on Capital Ratios*	Before Impact	Pessimistic Scenario	Base Scenario	Optimistic Scenario
Tier 1 Capital Ratio	14.62%	-1.24%	7.84%	11.78%
Total Capital Ratio	19.45%	2.94%	12.29%	16.44%

Capital Ratios Impact Sensitivity



According to the National Bank of Georgia Supervisory Plan with regard to Covid-19, banks will get relief on the capital requirements by reduction of the capital conservation buffer (2.5% of the risk weighted assets) and the portion of the pillar 2 buffer (2/3 of the currency induced credit risk buffer).

Source: The National Bank of Georgia announcement, dated as 01.04.2020

\*2019 YE capital figures are taken for the purposes of impact assessment



# Appendices

# Sources of Information

The Analysis is based on the publicly available information only and collected from the following sources:

- The National Bank of Georgia statistical publications - loan and interest rates statistics February 2019
- The National Bank of Georgia 2018 Annual Report
- The National Bank of Georgia 2010 Annual Report
- Monthly currency exchange rates published by the National Bank of Georgia
- The National Bank of Georgia regulation on Responsible Lending to Natural Persons (decree #281/04)
- 2018 audited financial statements of 15 commercial banks operating in Georgia
- National Statistics Office of Georgia (geostat.ge)
- Moody's publications on corporate default and recovery rates (2007-2009 editions)

## Appendix 2

# Loan portfolio breakdown per sector

<b>Gross portfolio breakdown per sector as at 29 February 2020</b>		
<b>Sector</b>	<b>GEL 1,000</b>	<b>Share in subtotal</b>
<b>Corporate portfolio</b>		
Agriculture, Forestry, Fishing	489,557	3.26%
Industry	3,976,300	26.47%
Construction	1,879,175	12.51%
Trade	3,043,026	20.26%
Hotels and Restaurants	1,446,569	9.63%
Transport and Communications	459,679	3.06%
Financial Intermediation	621,420	4.14%
Transactions in Real Estates, Researches	1,734,188	11.55%
Education	201,175	1.34%
Health Care and Social Services	606,152	4.04%
Other services	563,462	3.75%
<i>Subtotal</i>	<b>15,020,703</b>	<b>100%</b>
<b>Retail portfolio</b>		
Mortgage loans	10,283,201	71.2%
Consumer loans	4,166,293	28.8%
<i>Subtotal</i>	<b>14,449,494</b>	<b>100%</b>
<b>Total</b>	<b>29,470,197</b>	

Source: National Bank of Georgia

## Appendix 3

# List of commercial banks operating in Georgia

<b>List of commercial banks operating in Georgia</b>
<b>Name</b>
JSC "TBC Bank"
JSC "Bank of Georgia"
JSC "Liberty Bank"
JSC "Basisbank"
JSC "VTB Bank – (Georgia)"
JSC "Cartu Bank"
JSC "Procredit Bank"
JSC "Silk Road Bank"
JSC "Ziraat Bank Georgia"
JSC "Isbank Georgia"
JSC "Terabank"
JSC "Halyk Bank Georgia"
JSC "PASHA Bank Georgia"
JSC "Finca Bank Georgia"
JSC "Credo Bank"

Source: National Bank of Georgia



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