Overview of Georgian Banking Market

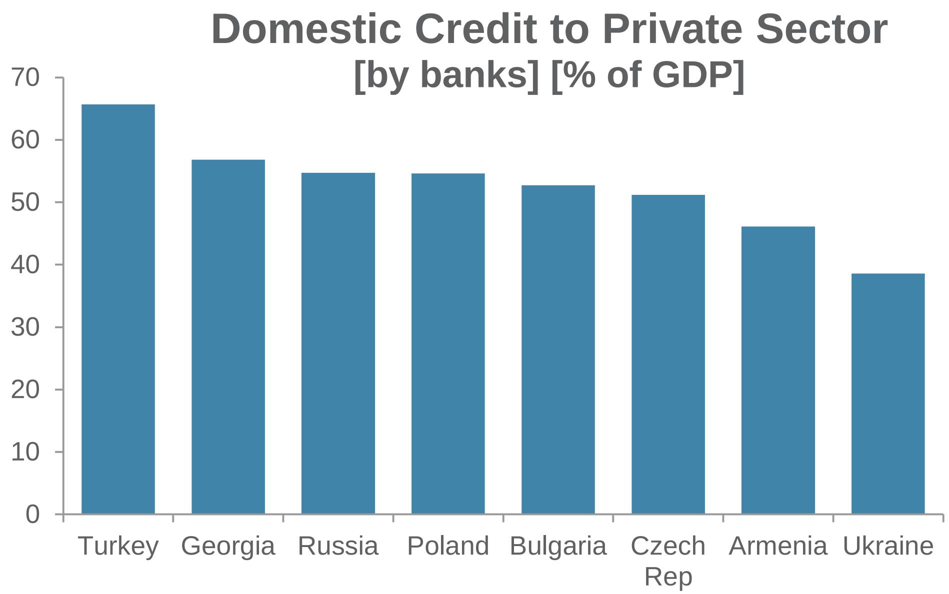
Davit Utiashvili

National Bank of Georgia

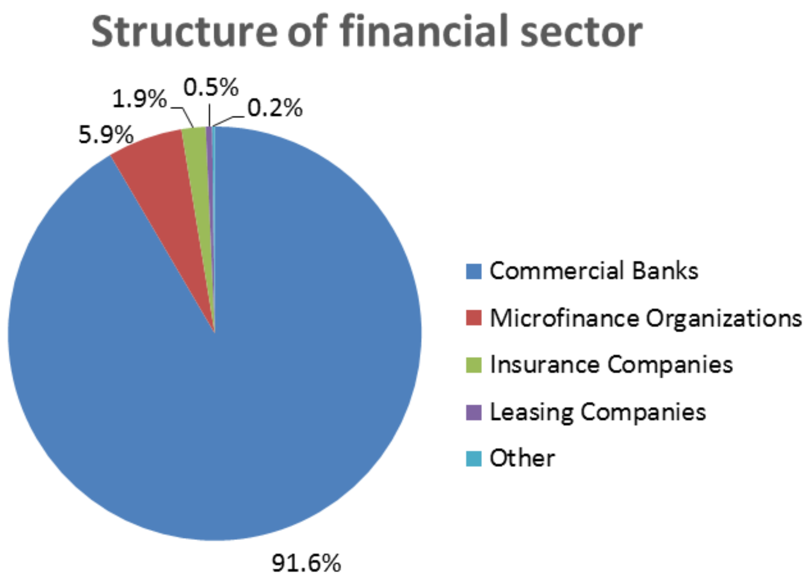
July, 2018

Overview of financial sector

- The financial sector is mainly dominated by the commercial banks.



Source: World Bank, 2016



- Total market capitalization/GDP ratio of all Georgian companies listed on GSE is only around 6%.

Overview of banking sector

- 16 commercial banks operate on the Georgian banking sector.
- Two largest banks have almost 60% of total sector assets, however competition is assessed as intense.
- Due to the increased competition, there is banking consolidation trend.
- Two largest banks - TBC bank and Bank of Georgia - are listed on LSE, as a result almost half of Georgian banking Sector is traded on the London Stock Exchange.

Diversified shareholder structure
Around 90% of assets are foreign owned

International Financial Institutions – **IFC, EBRD**

Institutional Investors from **LSE**

VTB - **Russia**

FMO, Finca Microfinance Cooperation - **Netherlands**

Halyk Bank - **Kazakhstan**

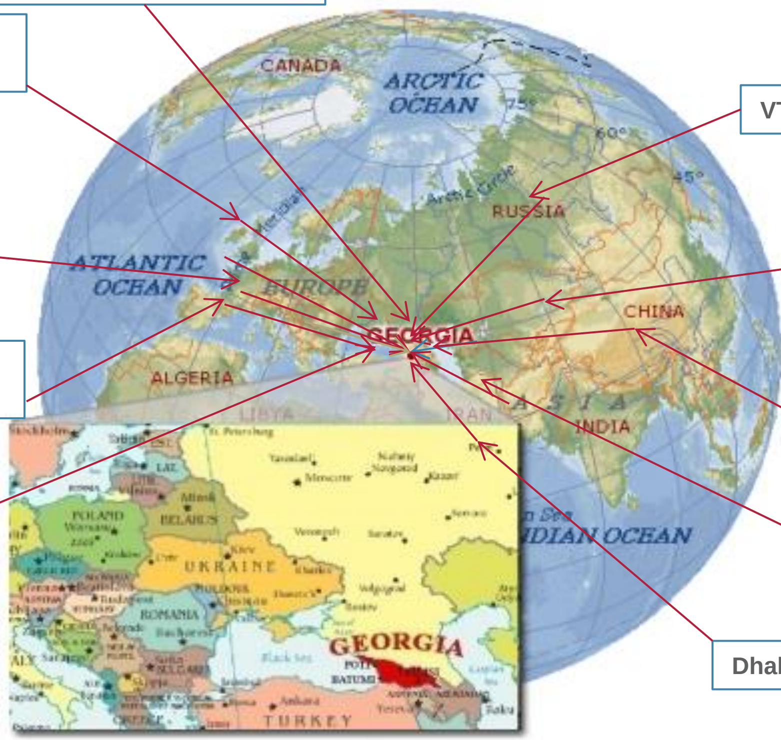
Kfw, Procredit Bank - **Germany**

Hualing Industrial Group- **China**

International Bank of Azerbaijan, Pasha bank - **Azerbaijan**

Ziraat Bank Branch, IsBank Georgia- **Turkey**

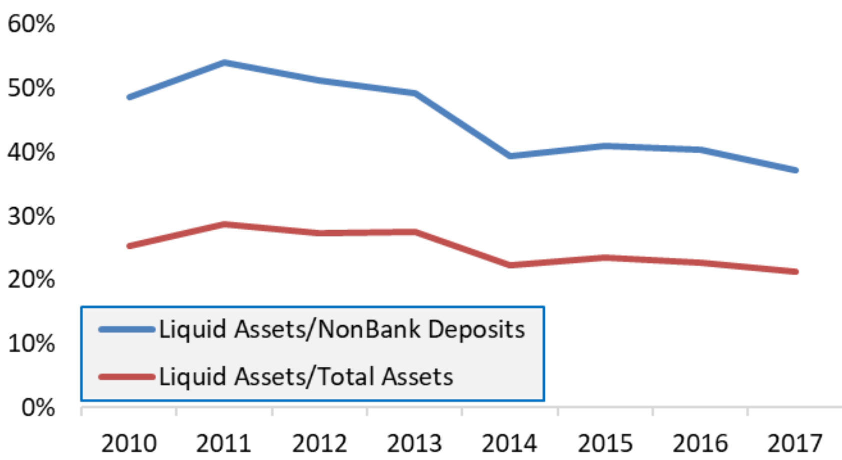
Dhabi group - **UAE**

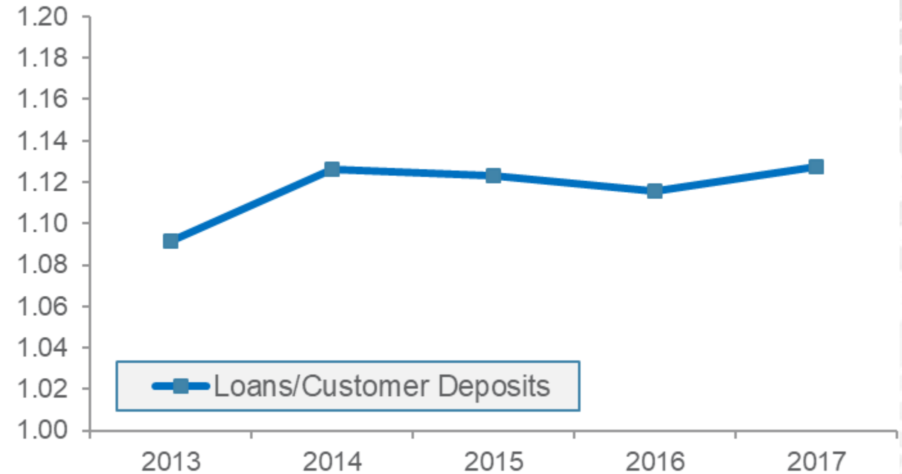


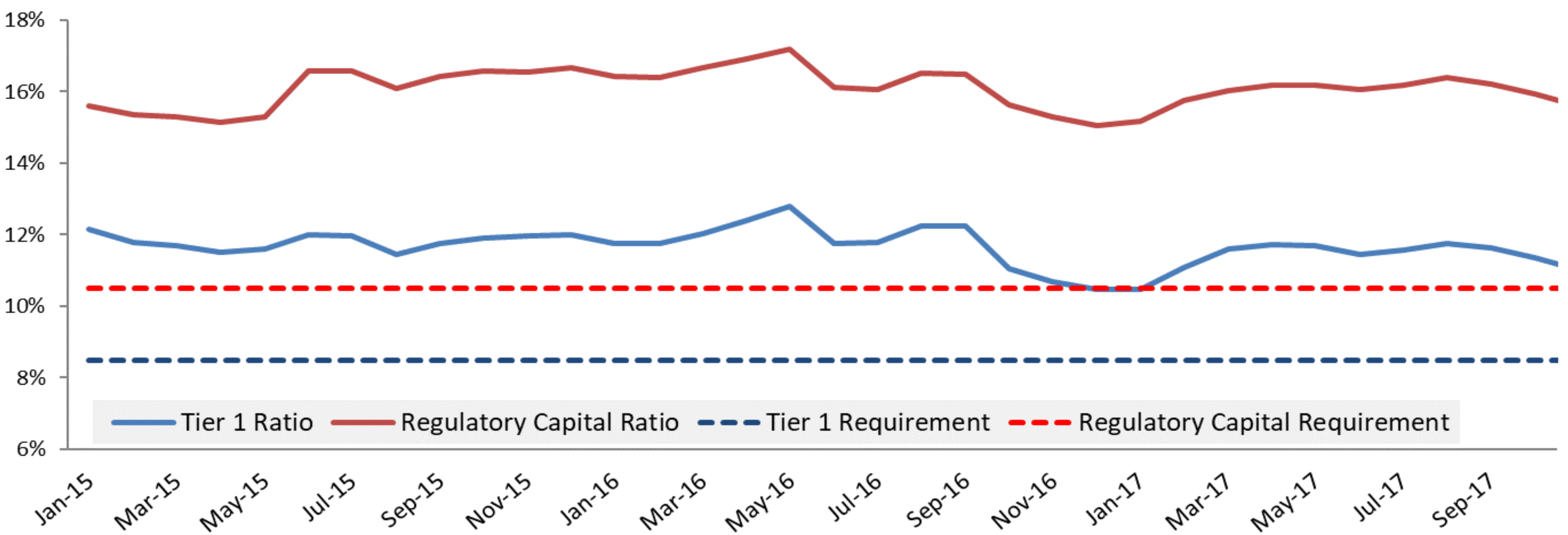
Source: NBG

Key indicators (2)

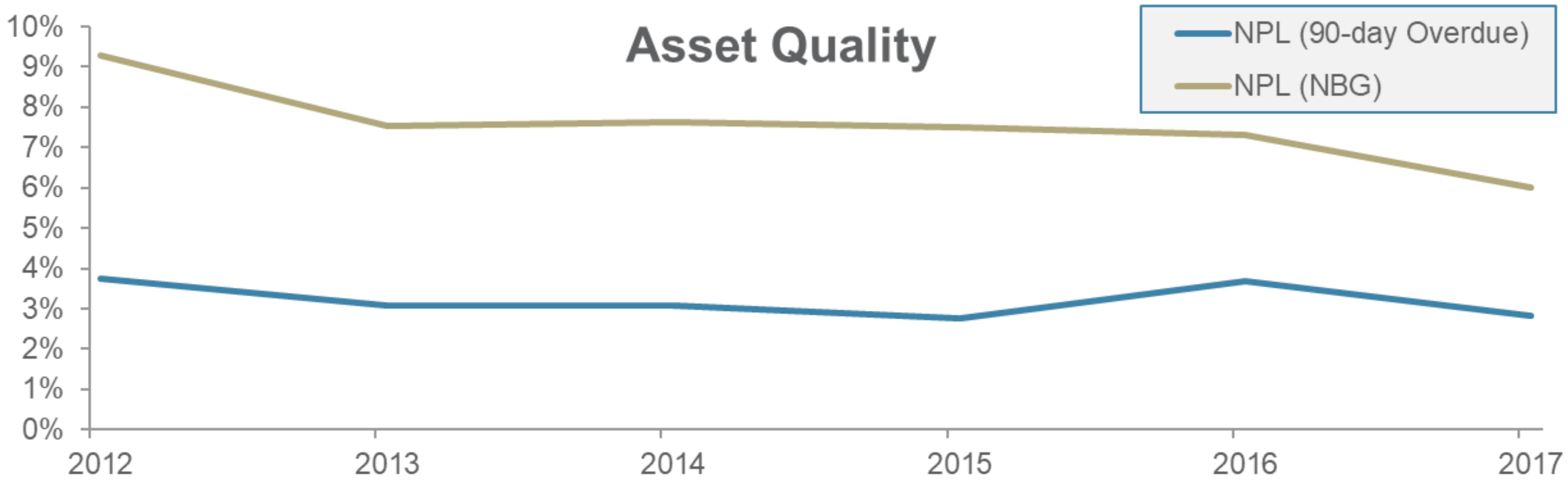
Strong Liquidity and Capital Position

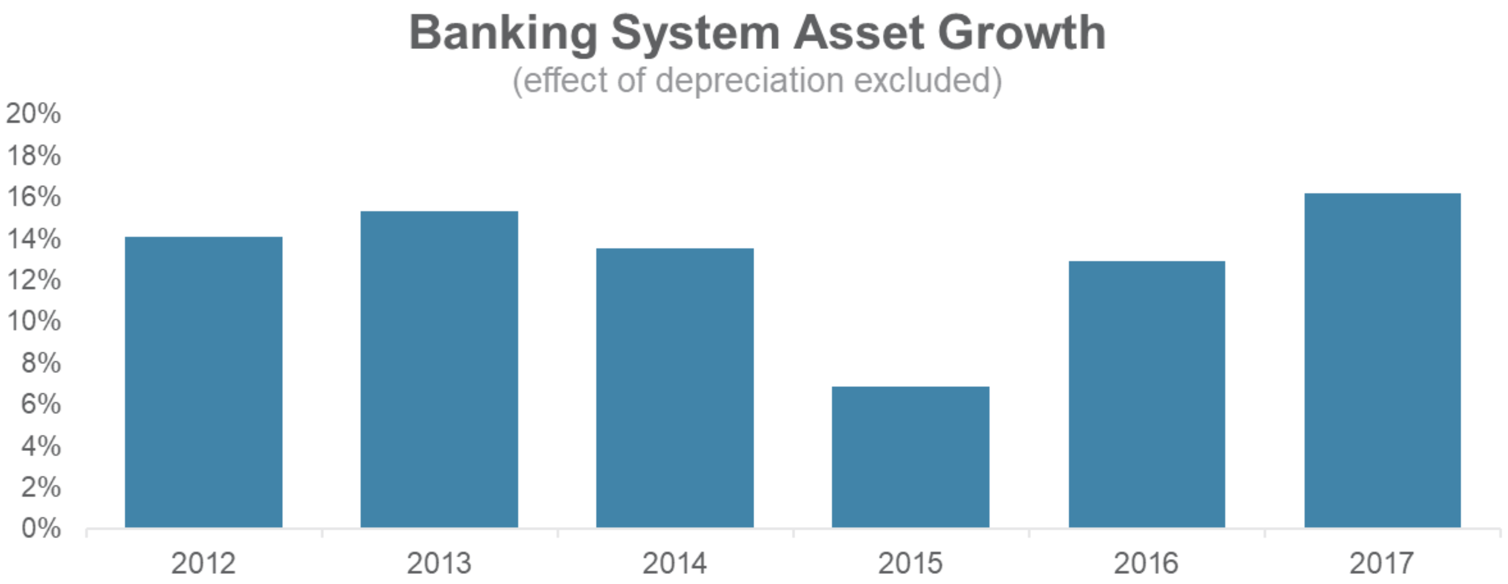






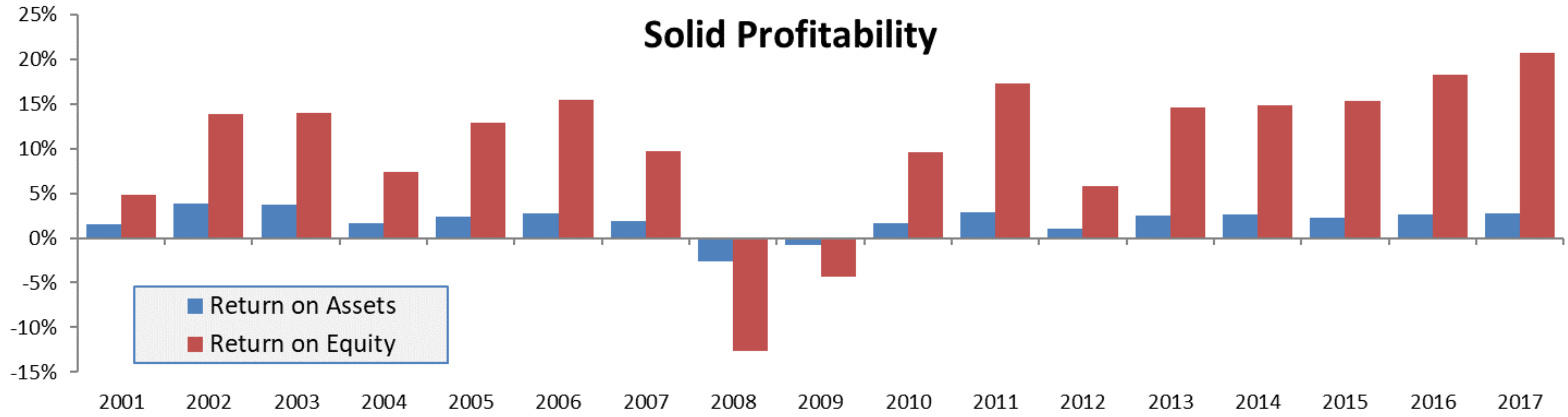
Key indicators (3)

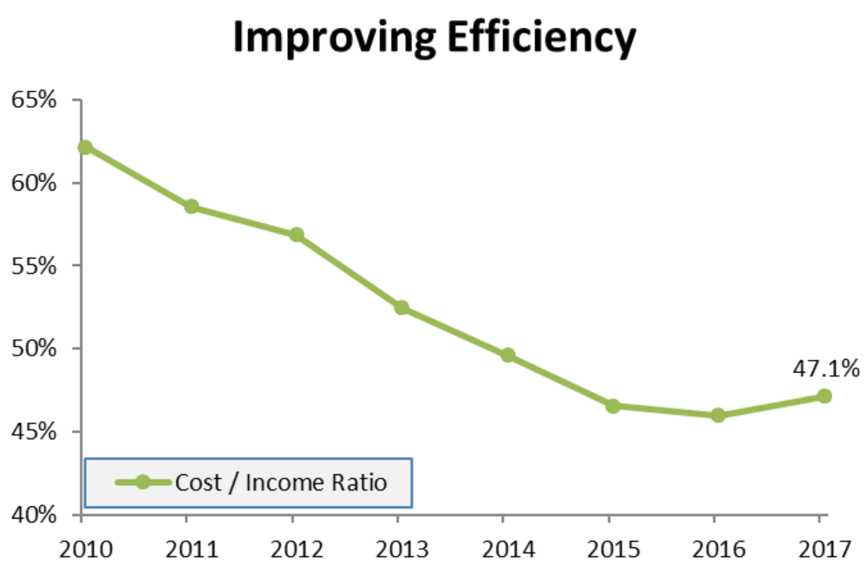




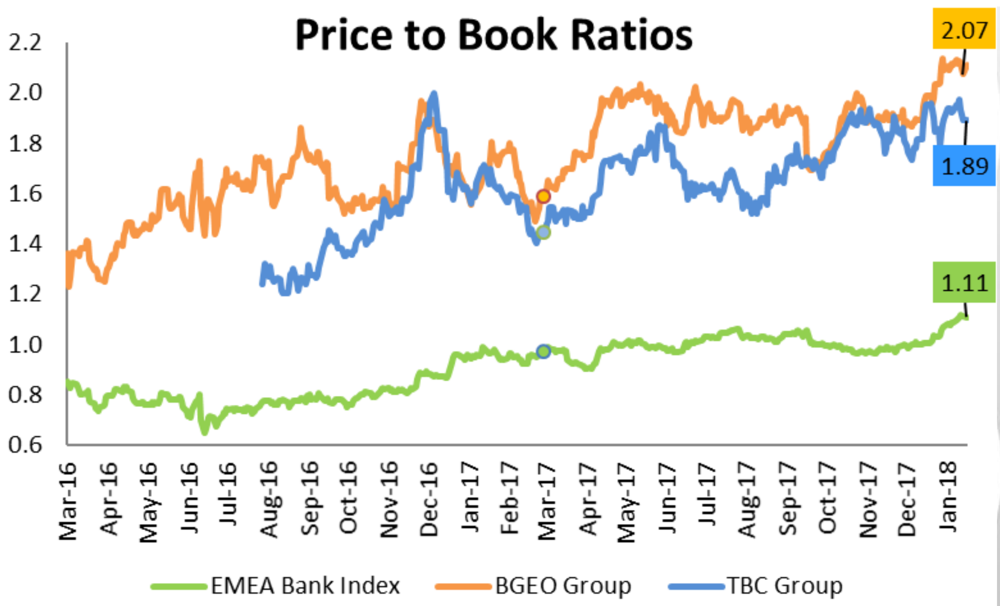
Source: NBG

Key indicators (1)





*Non interest expenses / (Net interest income +Non-interest income)

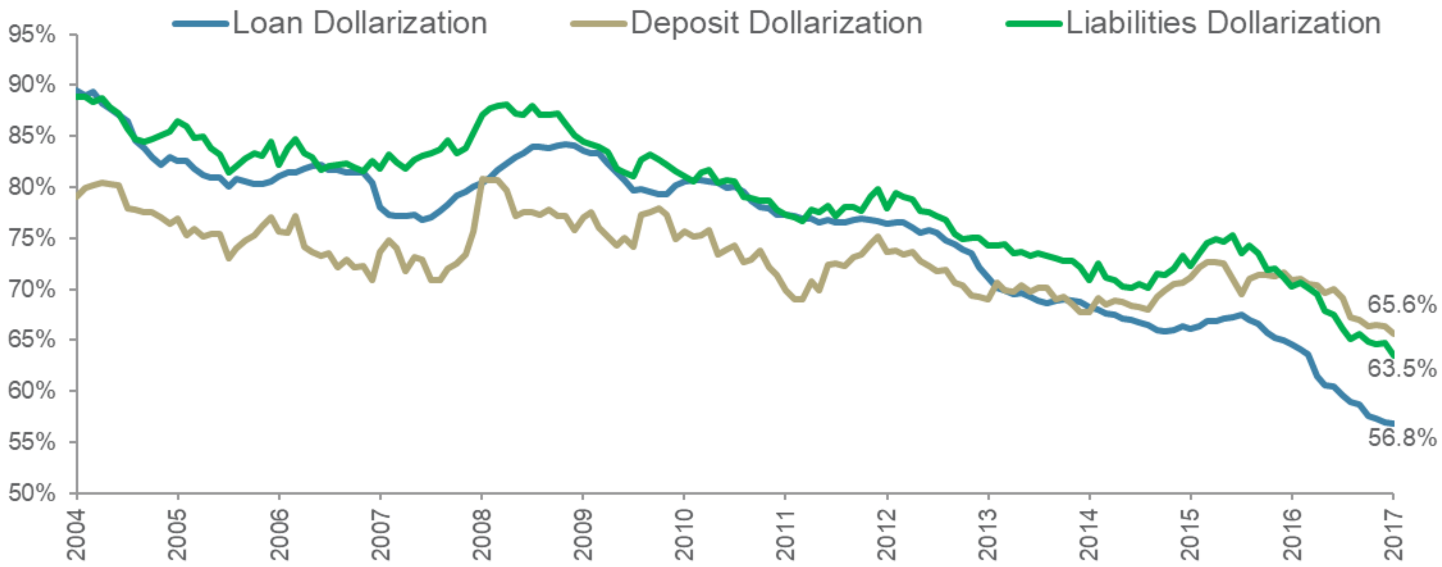


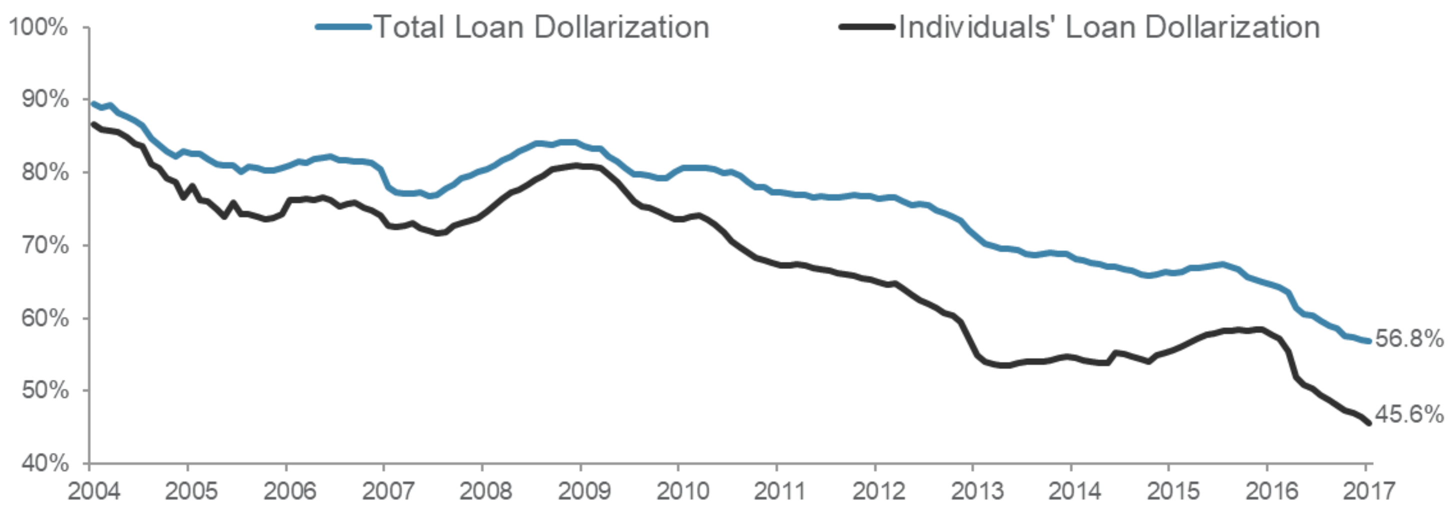
Source: NBG

Main risks

- Lack of long term capital and underdeveloped equity sector of the financial market constrains growth of the banking sector and amplifies financial risks.
  - NBG is actively involved in capital market development strategy. Pension reform could be an important impetus.
- Dollarization remains as the main inherent risk to the banking sector;
  - However, it is largely mitigated by lending standards, capital requirements, regulatory stress-tests, liquidity requirements and direct administrative measures;

Dollarization





Organizational Structure
Matrix of Supervision Horizontal Reviews

System-wide view

Bank specific view

Risk¥Bank teams	Bank team #1	Bank team #2	Bank team #3	…	Systemic risk
Corporate Credit Risk team					CR risk register, stocktaking
Retail Credit Risk team		…	…	…	Retail risk register, stocktaking
Market Risk team		Task - assessment of market risk bank #2 Author¥review	Task - assessment of market risk bank #3 Review/author	…	Market risk register, stocktaking
Operational Risk team		…	…	…	Operational risk register, stocktaking
Corporate Governance		…	…	…	Corp/Group risk register, stocktaking
Macroprudential team					Macroprudential risk register, stocktaking
…	…	…	…	…	…
	Stocktaking of Bank #1	Stocktaking of Bank #2	Stocktaking of Bank #3	…	

Stress Testing Framework

Macro Model

$$NPL_t = \alpha_0 + \alpha_1 \times GDP\_gr + \alpha_2 \times Depreciation + \alpha_3 IR$$

Macroeconomic Factor	Annual Elasticity
Exchange rate	3.2%
GDP growth rate	-5.2%
Interest rate	0. 4%

Stress Level	
GEL Depreciation	20%
Real GDP Growth	-5%
Interest Rate Increase	GEL: +4%, FX: +2%

- Based on historical data
  - 7 economic sectors;
  - Quarterly indicators since Q1/2000.
- Wide variety of past stress events
  - War, financial crises, real stare bubble burst, trade embargo, political vulnerabilities
- Very handy exercise
  - Based on supervisory data & time-efficient (automatic);
  - Consistent among banks;
- However
  - Can't handle structural changes (e.g. leverage, financial depth); Backward-Looking;
  - Can't fully capture differences among banks;
  - Data quality may not be perfect + model error;
  - Stressed assets classes are not granular;
  - Underestimates results during high growth of credit portfolio;
  - Complex and hard to communicate. Not useful for capital requirement.

Current Stress Test Scenarios and Parameters

Stress Level	Drop in real GDP	GEL Depreciation	Decrease in employment/compensation	Real Estate Price Drop	Interest Rate Increase
	-5%	+20%	-5%	-20%	+2%

Drop in turnover for each sector due to GDP drop

Sectors	Drop in Turnover	Sectors	Drop in Turnover	Sectors	Drop in Turnover
State Organization	5%	Production of Consumer Foods and Goods	5%	Energy	5%
Financial Institutions	10%	Production and Trade of Durable Goods	35%	Auto Dealers	35%
Pawn-shop Loans	*Gold Pr.* ↓	Prod. and Trade of Clothes, Shoes and Textiles	5%	Health Care	5%
Real Estate Development	40%	Trade (Other)	5%	Pharmacy	5%
Real Estate Management	25%	Hotels, Tourism	25%	Telecommunication	5%
Construction Companies	25%	Restaurants	10%	Service	5%
Production and Trade of Construction Materials	25%	Industry	5%	Agro	5%
Trade of Consumer Foods and Goods	5%	Loans to Oil Importers and Retailers	5%	Other Production	10%
		Other (Including Scrap-metal)	5%		

- Regional Stress, Instant, 1 Year Shock.
- Countercyclical time varying scenarios taking into account stages of business cycle and macro dynamics (e.g. over/undervaluation of GEL); other systemic risk developments or sector specific imbalances (e.g. oversupply in hotel industry);
- Idiosyncratic scenarios might be added by bank supervisor in case a bank has exposure to additional significant risk factors (e.g. downgrade of parent bank or concentration on specific segment).

Methodology

- Very prescriptive & Rule-Based;
- Static balance sheet;
- Projection period: 1 year horizon;
- Balance sheet revaluation & IR gap repricing: 1 year;
- Loan portfolio:
  - Corporate exposures (>1% of regulatory capital) are assessed individually;
  - SME exposures are sampled, results extrapolated;
  - Retail exposures are sampled, results extrapolated;

Credit Risk: Asset Classification

	Before	After
Salary	3000	2850
PMT	1200	1440
PTI	40%	51%

Net Income (GEL) — Retail Credit	Standard Loan	Watch Loan	Non-Standard Loan	Loss
<1,000	35%	35%-40%	40%-50%	>50%
1,000-2,000	40%	40%-45%	45%-55%	>55%
2,000-4,000	45%	45%-50%	50%-60%	>60%
4,000-8,000	50%	50%-55%	55%-65%	>65%
>8000	55%	55%-60%	60%-70%	>70%

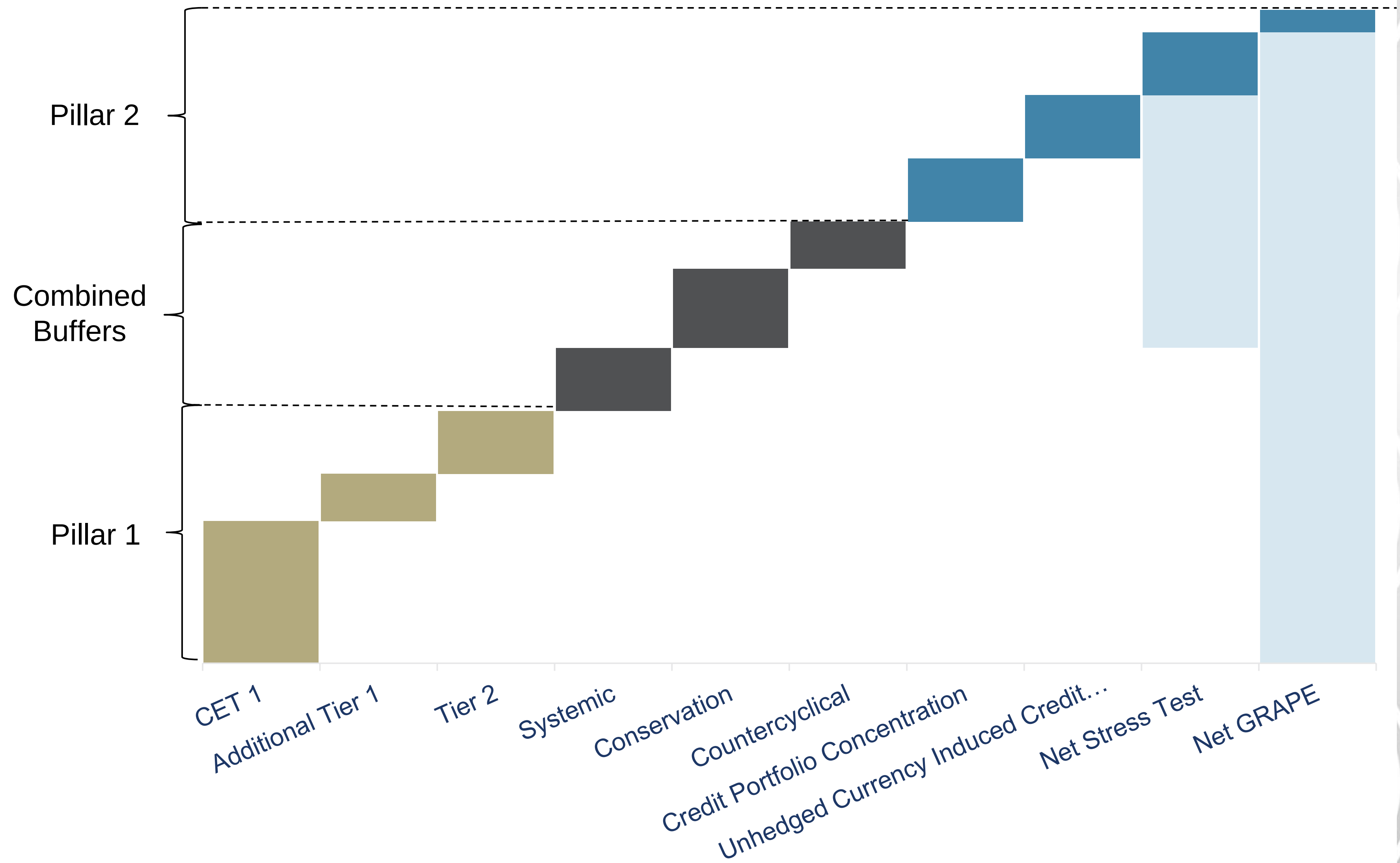
- Maturity Extension: 12 years for mortgages, 4 years for other loans;
- No Income Check Loans: 20% Default Rate.

	Before	After
Sale	1,000	800
COGS	800	640
FC	50	47.5
EBIT	150	113
PMT	100	120
EBIT/PMT (DSCR)	1.5	0.9

Business Credit	Debt Service Coverage Ratio (DSCR)				
	>=1.2	1.0-1.2	0.7-1.0	0.5-0.7	<0.5
Reserve	2%	10%	30%	50%	100%

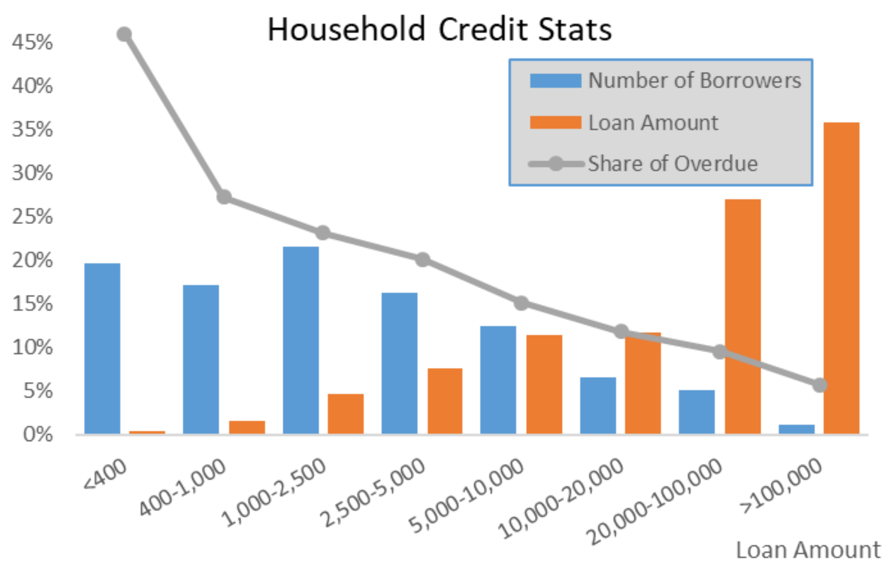
- Maturity Extension: 12 years for mortgages, 4 years for other loans.;
- Reserves are adjusted by collateral;
- Bank should also look at Interest Coverage Ratio and DEBT/EBITDA.

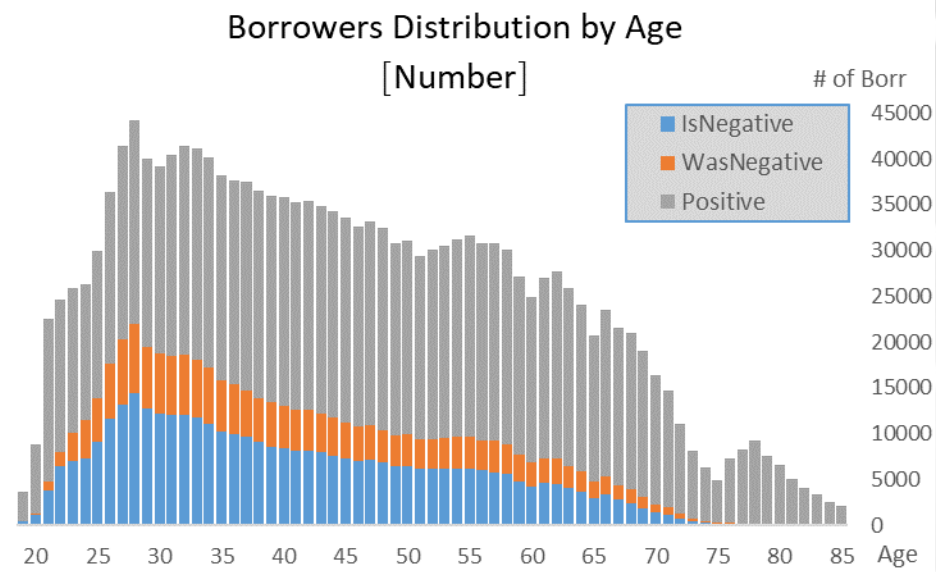
Capital Requirement Framework



Responsible Lending &
Financial Consumer Protection

Household Over-Indebtedness





RiskGrade	A-D2	D2-E2	E3
Banks	55%	18%	27%
Other Lenders	23%	21%	56%

Price Limit Measures:

- Cap on Effective Interest Rate: 50% Annually;
- Cap on Overdue Penalties: 100% Annually;
- Cap on Overall Credit Expense: 150%

- Responsible Lending Regulation;
- Financial Consumer Protection;
- Financial Education;