

Financial Stability & Resilience to Crises:

Turkish Banking Sector Experience

Hakan ATEŞ

CEO / DenizBank Financial Services Group



DenizBank is a member of Sberbank Group



I - Banking Sectors Behind Financial Crises

➤ 2008 Global Crisis was destructive

Global financial crisis in 2008 was destructive...



Global Economic Output fell by \$3.4 trillion

➤ **Automobile Production:** Decreased by %16 (=12 mn units)

US Household Assets were down by \$13 trillion

➤ **Stocks Market CAP:** Decreased by more than \$11 tn Citigroup's Mcap: May 2007: \$273 bn → March 2009: \$10 bn → November 2017: \$191bn)

➤ **House Prices:** Dropped by 35% (creating 11 mn underwater mortgage loans)

Labor Force was significantly reduced

➤ **Labor Force:** Reduced by 8.7 and 3.5 mn people in US and EU respectively

➤ **Unemployment Rate:**

➤ **US:** from 4% to over 10% at peak of the crisis

➤ **Eurozone:** from 7.9% to 12.2% (rose over 25% in Greece and Spain)

Public Debt rose dramatically

➤ **Public Debt/GDP (G7 Countries):** 2007: 83% → 2012: 125% → 2017: 136%

➤ **Total of €198 bn** financial assistance were given out from the EU under EFSM* to Portugal, Greece and Ireland

Banks incurred heavy losses

➤ Banks **lost \$2.1 tn** from toxic assets and **cut over 500k jobs**

➤ IMF estimated that **banks and other financial institutions** faced **aggregate losses of \$4.1 tn** in the value of their holdings

Source: Bloomberg, IMF, IIF, OECD, Eurostat *European Financial Stabilisation Mechanism

I - Banking sectors Behind Financial Crises

□ 2008 Global crisis was destructive

➤ **Banks' bad risk management played the major role**

Banks' bad risk management played a critical role in 2008 crisis...

Bad Risk Management

▪ Abuse of Subprime Mortgages:

- 1994: \$35 bn (5% of total originations) ^{17x} → 2006: \$600 bn (20% of total originations)

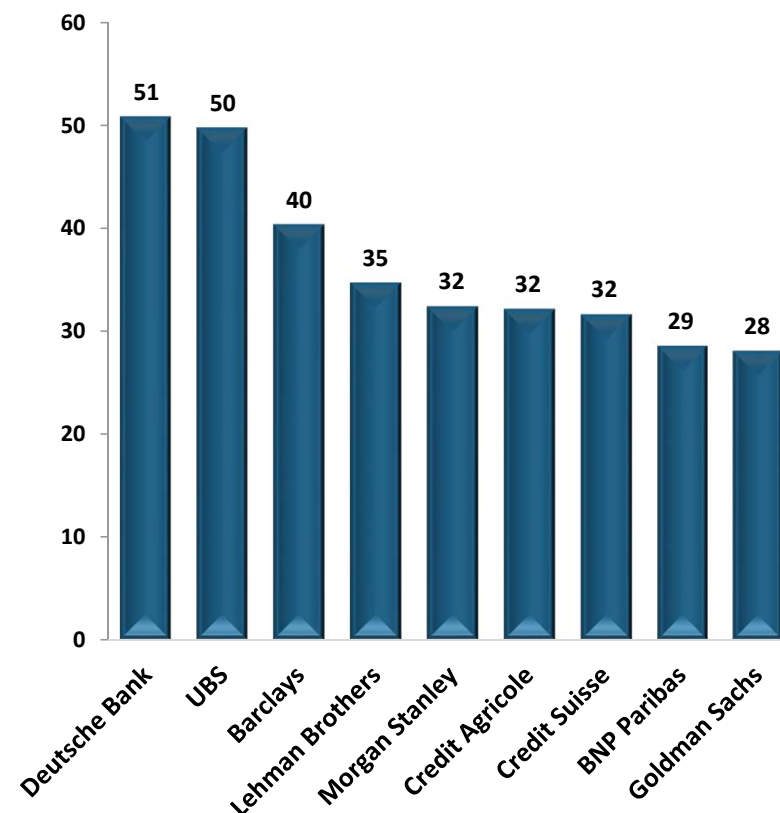
▪ Misuse of Securitization:

- Banks securitized mortgages into bonds and sold to investors through CDOs.
- Global CDOs: 1997: \$50 bn ^{9x} → 2006: \$ 450 bn

▪ Poor Performance of Rating Agencies:

- Big 3 rating agencies gave AAA ratings to risky mortgage-related securities.
- Moody's downgraded 83 % of the \$869 bn in mortgage securities that it rated at the AAA level in 2006.

Banks' Leverage (Asset/Equity) Before Crisis






Source: Bloomberg, Hammond Associates Institutional Fund Consultants

I - Banking sectors Behind Financial Crises

- ❑ 2008 Global crisis was destructive
- ❑ Banks' bad risk management played the major role
- **Large banks failed, central banks picked up the tab**

Large global banks failed, were bailed out or forced to M&A...

	Bailouts Nationalizations	Bankruptcies	Merger & Acquisitions
	<ul style="list-style-type: none">TARP (Troubled Asset Relief Program): \$245 bn<ul style="list-style-type: none">BofA: \$45 bn, Citi: \$45 bn, JP: \$25 bn, Wells Fargo: \$25 bnAIG (FED Rescue): \$123 bnFannie&Freddie: \$187 bn	<ul style="list-style-type: none">Lehman (Total assets: \$639 bn)Washington Mutual Bank (Total assets: \$300 bn)Indymac (Total assets: \$30 bn)	<ul style="list-style-type: none">BofA – Merrill Lynch (\$50 bn)JP Morgan – Bear Stearns (\$1 bn)Wells Fargo - Wachovia (\$ 15 bn)
	<ul style="list-style-type: none">Commerzbank (€16 bn)Dexia (€12 bn)	<ul style="list-style-type: none">DSB Bank (Total assets: \$12 bn)	<ul style="list-style-type: none">Commerzbank – Dresdner (€4.7 bn)Fortis – BNP (€14.7 bn)7 Cajas under Bankia (€4.6 bn)
	<ul style="list-style-type: none">RBS (£20 bn)Northern Rock (£25 bn)	<ul style="list-style-type: none">London Scottish Bank (Total assets \$800 mn)	<ul style="list-style-type: none">Llyods TSB – HBOS (£12 bn)



Central Banks provided liquidity to support the economy
FED's balance sheet grew by 5 times to \$ 4.6 trillion, ECB's tripled to € 4.4 trillion

Source: Bloomberg, IIF

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- ❑ Banks' bad risk management played the major role
- ❑ Large banks failed, central banks picked up the tab
- **Authorities reformed & tightened regulation**

Authorities reformed the sector and tightened regulation...

New Banking Laws:

- Dodd-Frank, Enhanced Basel III

Restructuring of Bank Institutions:

- Financial Stability Board, Basel Committee on Banking Supervision and International Accounting Standards Board, European Commission European Parliament and EBA (former CEBS)

New Regulations:

- Separation of Casino and Utility Banking
- No more bank bailouts, protection of tax payers rights
- New and More Rigid Definition of Capital
- New Capital Requirements
 - Common Equity Tier 1 Ratio: 4.5%, Tier 1 Ratio: 6%, Liquidity Coverage: 60%.
- New Stress Tests

I - Banking Sector Behind Global Crises

II - Turkish Economy Resilient Thanks to Strong Banking

➤ Heavy restructuring in the past

Thanks to the heavy restructuring after 2001 crisis, primarily in the banking system, Turkish economy stayed resilient...

- 1. **Independent Central Bank & Monetary Policy**
 - Ending state funding and targeting only inflation (Sovereign securities/bank assets down to 13% in 2016 from 40% in 2002)
- 2. **Floating Exchange Rate Regime**
 - Ending state guarantee on exchange rates
- 3. **Legal and Institutional Reforms**
 - e.g. New Arbitration Law in Turkey
- 4. **Ambitious Privatization Program & Fiscal Consolidation**
 - A total of **\$185 bn privatization** (2001-2016) and a fiscal discipline of 2.8% primary budget surplus a year (2001-2016) with 3 year economic visibility with Medium Term Plans
- 5. **Switching to Reformist Stable Politics from Unstable Populism**
- 6. **Heavy Restructuring in the Banking System & Tight Regulation**



Transition from State Driven to Private Sector Driven Economy

\$184 bn investment a year between 2002 – 2016

Source: BRSA, Turkstat, Ministry of Finance

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□ Heavy restructuring in the past

➤ **A well regulated banking system crucial for stability**

A well-regulated banking system was crucial for stability...

■ Consolidation after 2001 crisis:

- **35 of 85 banks have been liquidated**, merged or taken under SDIF control, **3 State Banks rehabilitated** and **IPO'ed**.

■ Strict Banking Code:

- Ensures **confidence and stability in financial markets**, an **efficient functioning of the credit system** and the **protection of the rights and interests of depositors**
- Non-compliance may trigger **criminal liability and judicial monetary fines** with 12 year jail term
- **Fully implementing Basel II** standard of credit risk assessment. **Fully committed to Basel III** standards and implementing a **higher CAR than those set by Basel III**

■ Close Monitoring:

- **Autonomous Banking Regulation and Supervision Agency (BRSA)** to ensure that financial institutions in Turkey operate in full compliance with the Banking Law
- **Savings Deposit Insurance Fund:** Insures savings deposits in Turkey, determines the scope and amount of savings deposits subject to insurance, the tariff of the insurance premium
- **Central Bank aims financial stability besides targeting inflation** and pursues **unorthodox measures** to ensure a sustainable bank lending growth in line with the economy's macroeconomic objectives
- **Deputy Prime Minister** is in charge of coordinating economic and financial affairs.
- **Capital Market Board** has supervisory and regulatory role over listed companies

■ Countercyclical Policies:

- **Macroprudential measures for banking during high growth periods (e.g. 2010):** Only TL lending to retail clients, min CAR requirement (12%), credit limit on credit cards (max 4 times personal income), maturity limit to TL retail loans (max 36 months), no credit card installments in electronic products and jewelry

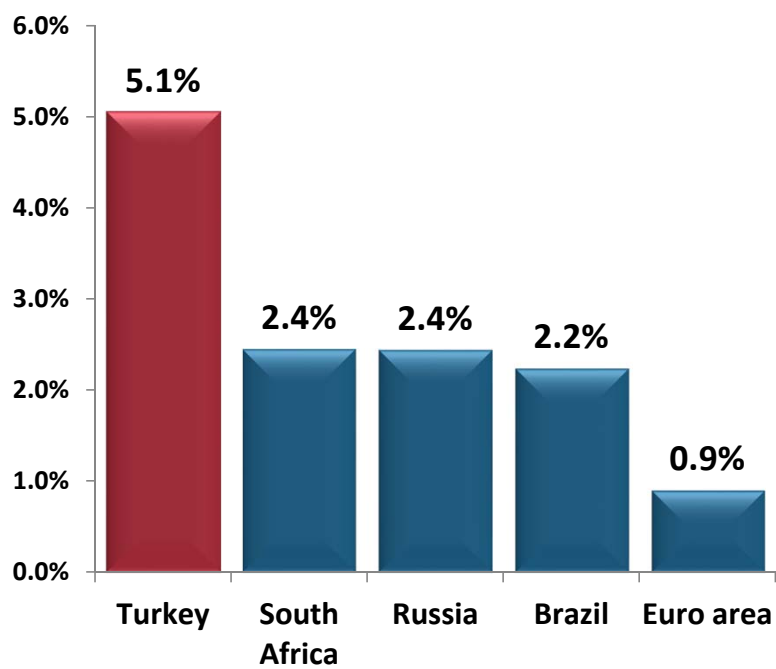
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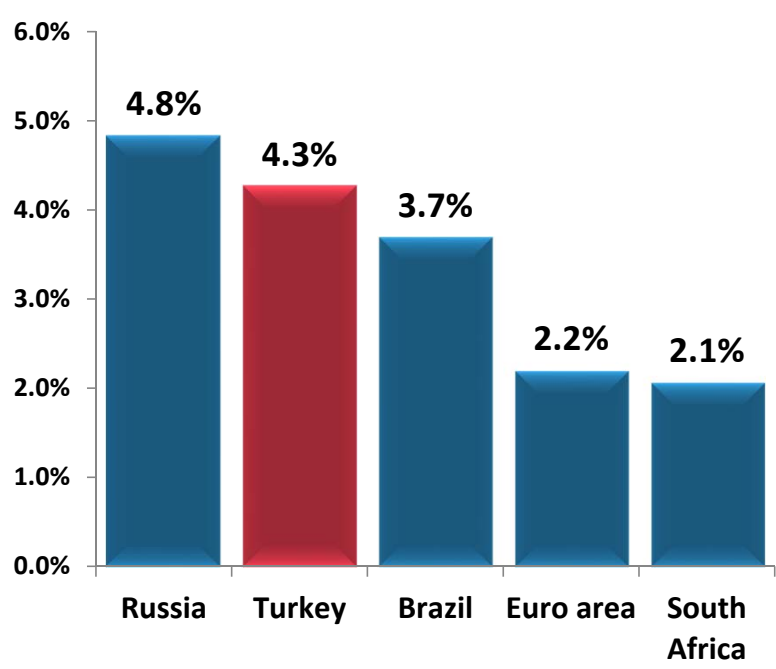
- ❑ Heavy restructuring in the past
- ❑ A well regulated banking system crucial for stability
- **Fast growth despite uncertainty**

Thanks to all these, faster economic growth on average than peers despite high global economic and political uncertainty...

Average Real GDP Growth
(2006-2016)



Volatility of GDP Growth
(Standard deviation, 2006-2016)



Euro Area (19 countries): Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovak Republic, Slovenia, and Spain.

Source: Turkstat, IMF WEO

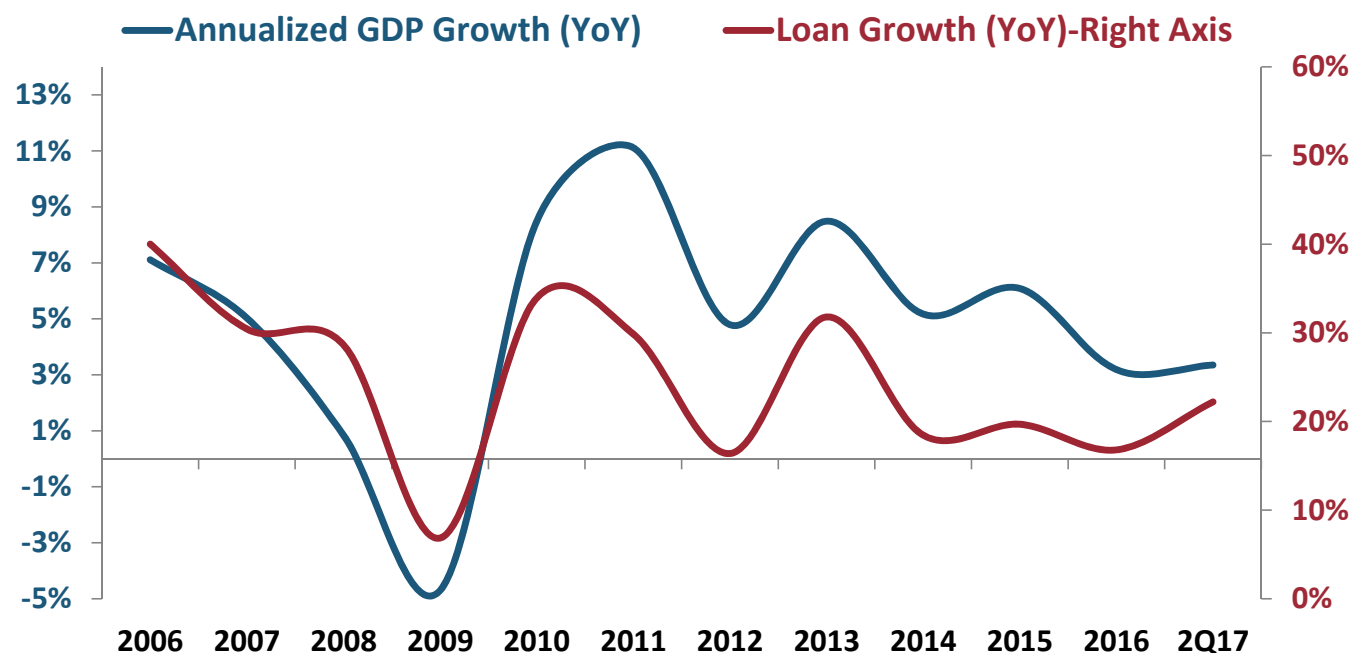
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- ❑ Fast growth despite uncertainty
- **Strong banking main financier of the economy**

Strong banking was the main financier of this performance with prudent management...

Turkey GDP Growth vs Loan Growth



- **Average Real GDP Growth (2006-2016): 5.1%**
- **Average Loan Growth (2006-2016): 25%**

Source: Turkstat, BRSA

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- **Banking sector grew fast in the past 15 years**

Banking sector grew fast in the past 15 years...

Banking Sector Indicators					
	2002	2017 ⁺		2002	2017 ⁺
Asset (Bn \$)	131	862	Securities (% of Assets)	40%	12%
Asset (% of GDP)	59%	105%	Capital (Bn \$)**	17	112
Loan (Bn \$)	30	563	Capital Adequacy Ratio	25.1%	17.2%
Loan (% of GDP)	14%	69%	NPL Ratio	5.4% (2009 peak)	3.1%
Number of Credit Cards (Mn)	16	61	Adjusted NPL Ratio (%)***	-	4.5%
Number of Debit Cards (Mn)	35	127	Return on Equity	14.2%	14.4%
Number of ATMs (000)	12	49	Leverage (Asset/Equity)	8.3	8.9
Deposit (Bn \$)	85	462	Cost / Income	55%	42%
Deposit (% of GDP)	39%	56%			
Loan/Deposit	35%	122%			

⁺ September 2017

^{*}Including investment and development banks, ^{**}Including tier-2 capital, ^{***}Before NPL sales






















Source: BRSA, BKM

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- ❑ Banking sector grew fast in the past 15 years
- **It is very competitive, dominated by top 10**

It is very competitive, dominated by top 10...

30 September 2017	Assets 2002 (TL bn)	Assets 3Q 2017 (TL bn)	%Share (in Assets)	CAGR		Owners
1.Ziraatbank	38	428	14.0	18%		State
2.İşbank	28	419	13.7	20%		ISE
3.Garanti	22	340	11.1	20%	 	JV '11 
4.Akbank	25	315	10.3	19%		JV '06
5.Yapı Kredi	19	294	9.6	20%	 	JV '06 
6.Halkbank	17	287	9.4	21%		State
7.Vakıfbank	13	256	8.4	22%		State
8.DenizBank	4	152	5.0	28%		'12 
9.Finansbank	8	124	4.1	20%		'15 
10.TEB	9	83	2.7	16%		'05 
11.ING Bank	4	59	1.9	20%		'07 
12. HSBC ¹	3	25	0.8	15%		HSBC 

- Top 12 banks make up 91% of total assets

¹ Figures are unconsolidated.

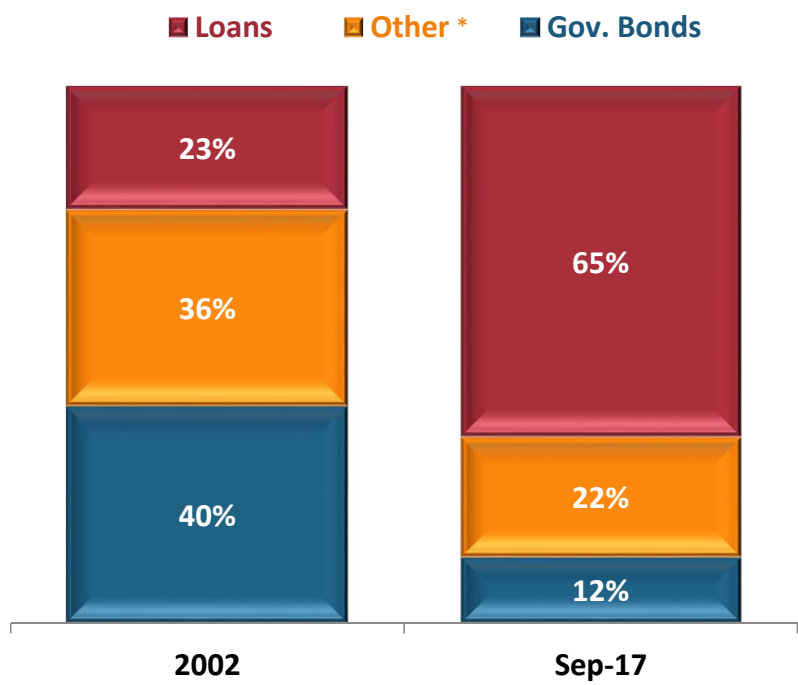
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- ❑ It is very competitive, dominated by top 10
- Increasingly diversified lending

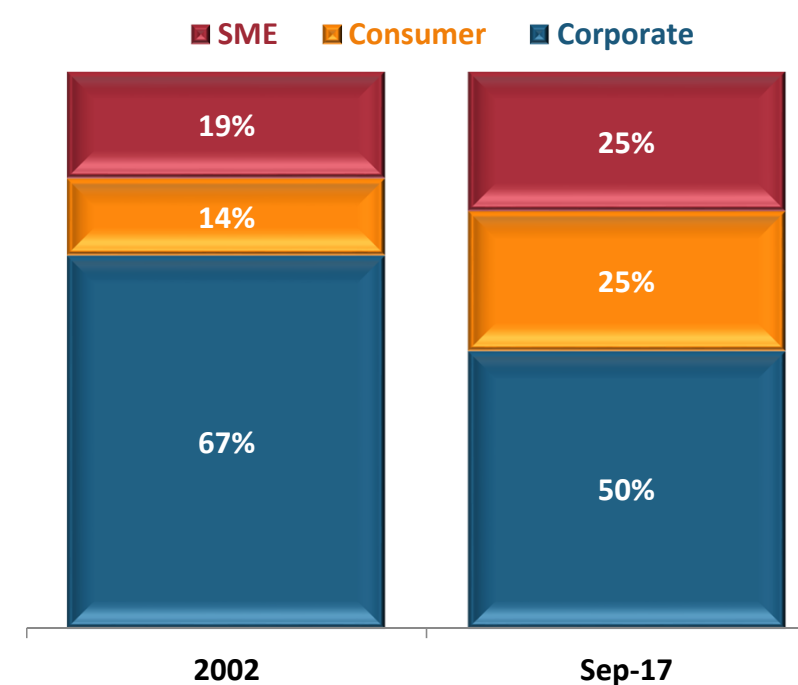
Lending became increasingly diversified...

Breakdown of Total Assets (%)



- From Casino Banking to Utility Banking:
 - Loan to Assets: 2002: 23% → Sep, 2017: 65%

Breakdown of Total Loans (%)



- Diversified Lending : Retail Loans (SME+ Consumer) (% of total loans):
 - 2002: 33% → Sep,2017: 50%

Source: BRSA *Other: Cash + Reserves + Receivables (from Central Bank + Money Market + Banks) + Other Assets

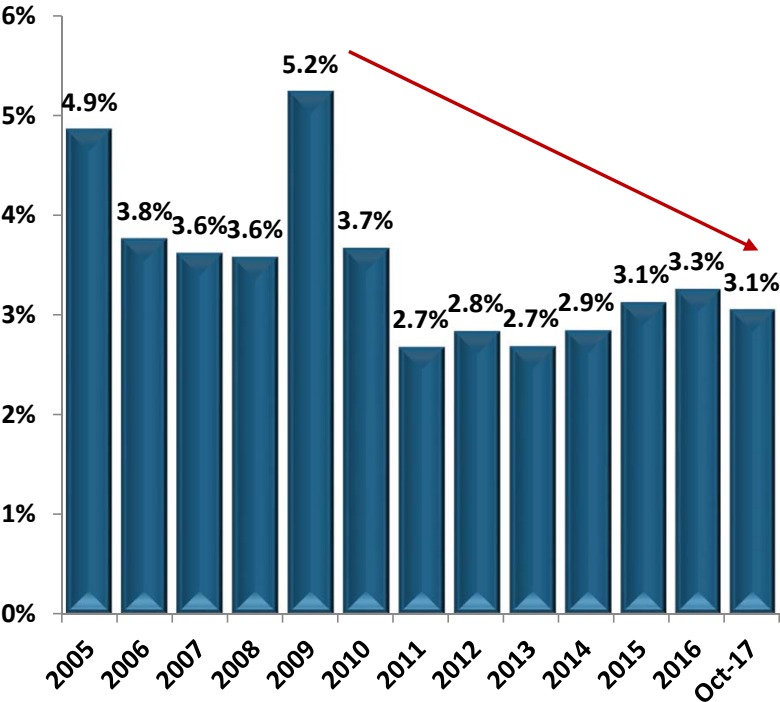
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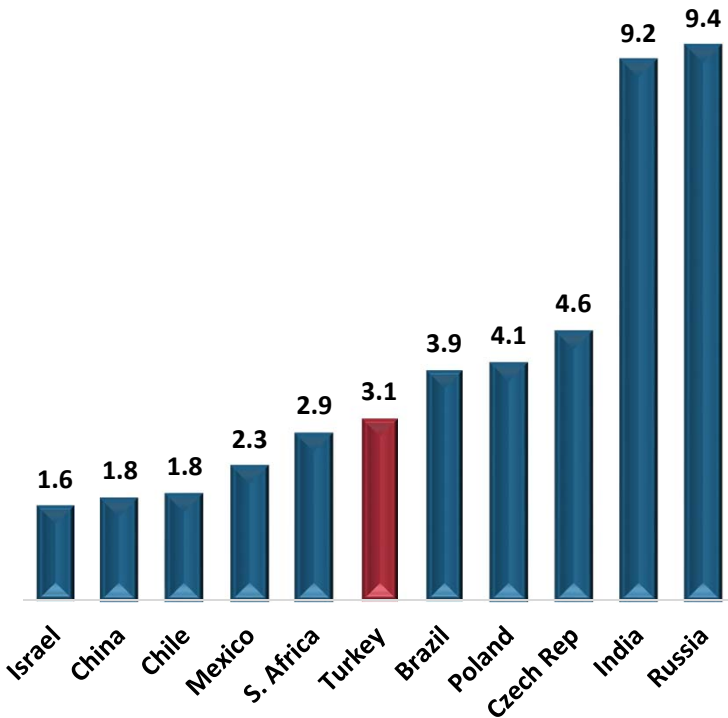
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- **With low and stable NPL performance**

Growth was accompanied by low and stable NPL performance...

Turkish Banking Sector NPL (%)



NPL in Emerging Markets (Latest data available, %)



Source: BRSA, IMF Financial Soundness Indicators

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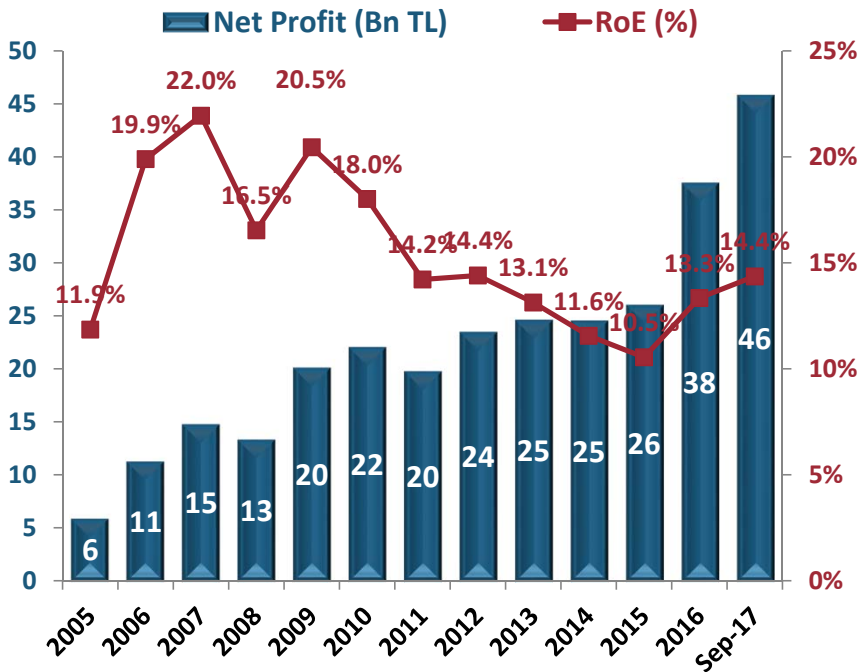
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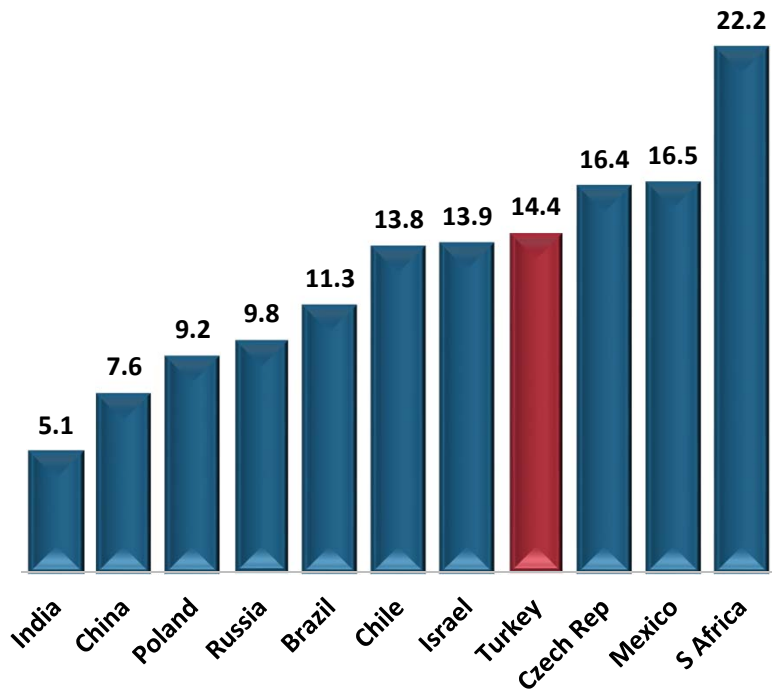
➤ Profitability remaining high enough

Profitability remained high enough to generate the required lending capacity for high economic growth...

Turkish Banking Sector
Net Profit and RoE



Banking Sector RoE in Emerging Markets
(Latest data available, %)



Source: BRSA, IMF Financial Soundness Indicators

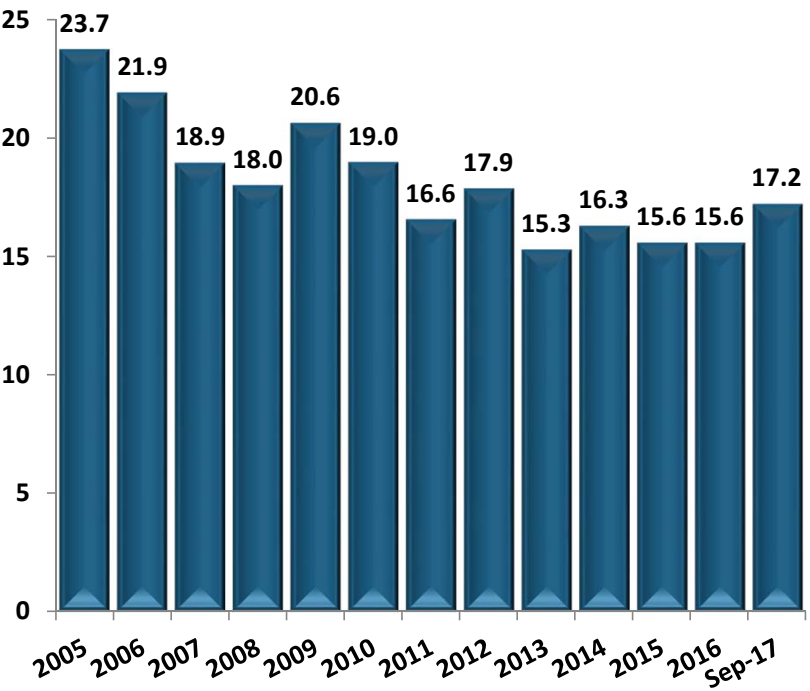
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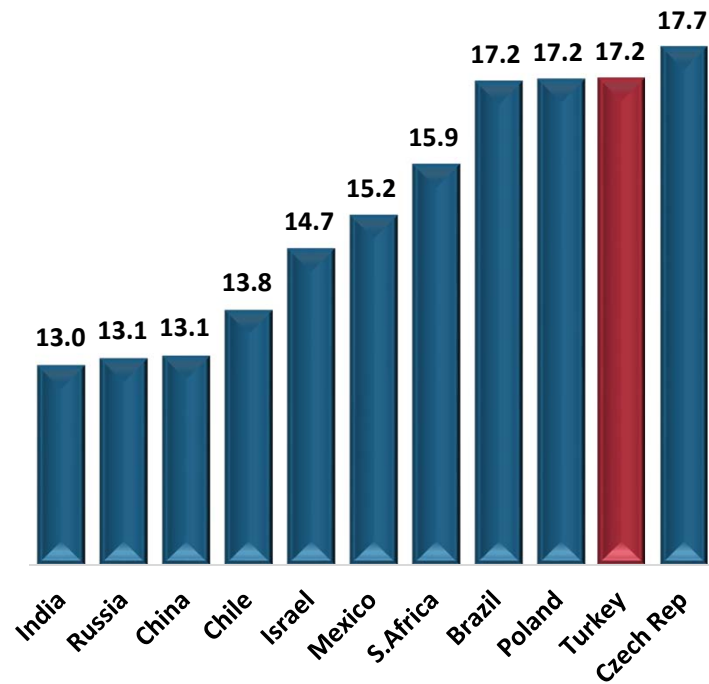
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 - ❑ With low and stable NPL performance
 - ❑ Profitability remaining high enough
- **Capital base strong**

The Sector's capital base remains well above Emerging Market peers and regulatory standards...

Turkish Banking Sector Capital Adequacy Ratio (CAR,%)



CAR in Emerging Markets (Latest data available, %)



Source: BRSA, IMF Financial Soundness Indicators

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➤ **It has the proper mechanisms, know-how and agility**

It has the proper mechanisms, know-how and agility to allocate liquidity through the right channels to the right borrowers...

A good example recently has been the use of the Credit Guarantee Fund (CGF)



Source: Credit Guarantee Fund, BRSA, BAT, TurkStat

- **TL250 bn (9% of GDP)** credit guarantee for SMEs with <250 employees at 5 (+3) years duration
- **Increase in tax income, higher growth** (5.1%, 2017Q2), **job creation** (≈ 1 mn since the beginning of the year),
- **Bounced checks decreased** from over 4% to 1.9%, banking system **NPL remained steady** at 3.1%
- First loss guarantee cap of CGF is 7% and just a fraction of it has been used as only **0.7% became non-performing**
- **Banking and Treasury remaining prudent** (CAR up by 150 bps to 17%, budget deficit <2.5%GDP)

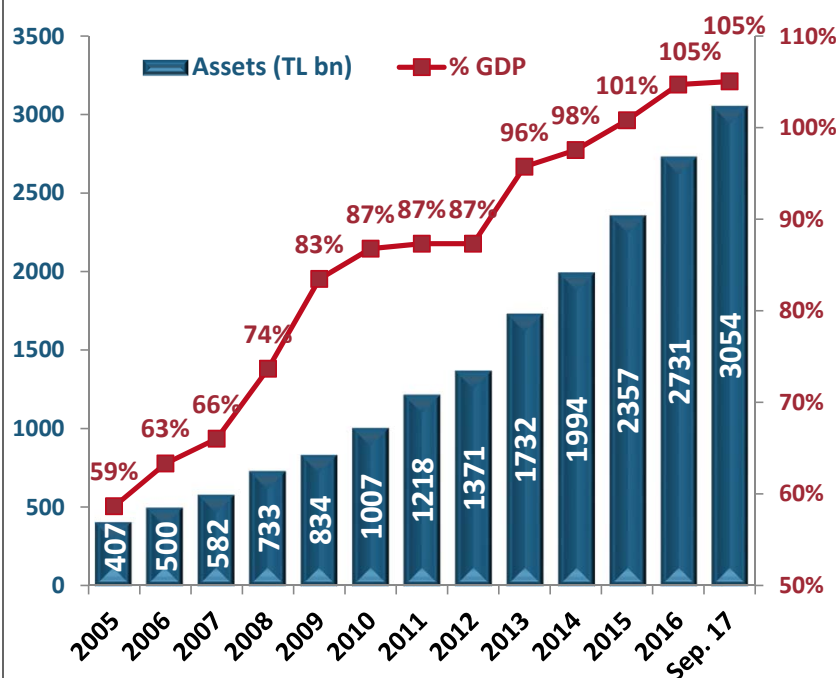
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- ❑ Capital base strong
- ❑ It has the proper mechanisms, know-how and agility
- **With still significant growth potential**

The sector still has a significant growth potential...

Turkish Banking Sector Assets



Source: BRSA, IMF Financial Soundness Indicators

Factors Supporting Growth

- **Has Low Leverage:** Turkey (8.9) vs Brazil (10.8), S. Africa (12.2), India (14)
- **Has Low Penetration:** only 57% of adults have a banking account, Assets (% of GDP): 105%
- **Has High Capital Adequacy:** Together with strong profitability (ROE: 14%) added to capital each year
- **Serves a Diversified Transition Economy:** Lucrative investment opportunities in sectors such as agriculture, SMEs, energy, tourism, infrastructure, maritime, health, education
- **Has Favorable Demographics:** Median age in Turkey is 31 years compared to 44 years in EU-19.
- **Has Prudent Management & Crisis Know-how:** Experience with numerous global and local crises

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➤ No need for excessive risks

It has the ability to support the economy without having to take excessive risks...



Assumptions:

- Leverage: 10x (Today:9x)
- Average ROE (2017-2027): 14.2%
- NIM: 3.75%
- Dividend payout ratio: %10

Outcomes:

- Asset Growth: 15.3% CAGR
- Earnings Growth: 14.0% CAGR
- CAR: 2017: 17.2% → 2027: 13.1%

Source: BRSA, Deniz Yatırım

I - Banking Sector Behind Global Crises

II - Turkish Economy Resilient Thanks to Strong Banking

III - Risks and Challenges

- **Geopolitical risks, protectionism and political uncertainty**
- **Deposit concentration**
- **Tight regulation and monetary policy pressuring margins**

Looking forward, there are also risks and challenges...

1. Geopolitical risks, protectionism and political uncertainty could constrain wholesale funding:

- Deposits are 56% of total liabilities while the ratio of wholesale funding is limited at 18%.
- Wholesale funding (\$158 bn) is becoming more critical as total loan to deposit ratio reached 120%.
- Capital requirements are tighter than Basel III (CAR: 12%) limiting the leverage in the sector at 8-9x

2. Deposit Concentration puts pressure on deposit costs:

- Deposit >1 mn TL is only 0.15% of total bank accounts in number but 45% in volume.

3. Strict Regulations and tight monetary policy put pressure on the net interest income:

- Turkish banking sector net interest margin contracted from 6% in 2010 to ≈3.5% today.
- **IFRS 9 will go into effect:** Although current NPL coverage ratio at 80% is pretty high, banks may have to increase general provisioning ratio, which may negatively affect profitability.

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- **Regulation falling behind digitalism**
- **Cyber security**
- **Unbanked segment still higher**

4. Regulation falls behind digital innovation and slowing down the business transformation:

- Know your customer requirements to online services.
- Barriers to using foreign cloud services
- Stringent rules for payment and e-money companies
- Lack of regulations on Bitcoin and other cryptocurrencies
- Lack of adequate regulations for ensuring cybersecurity
- Law concerning the protection of personal data

5. Cyber security threats are on the rise

- Cyber attack to HSBC Turkey in 2014 resulted in the loss of card details on 2.7 mn customers
- Cyber attacks through SWIFT system in 2016: Akbank faced a maximum risk of \$ 4 mn

6. Unbanked Segment in Turkey is higher than comparable countries:

- Only 57% of population has a bank account in Turkey (vs BRICS: 67%, EU19: 95%)

Source: World Bank, Local Media Sources

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III – Risks and Challenges

IV - Recommendations

- **Economic and financial visibility required**
- **Should be no need for excessive risk taking**
- **National rating company**
- **Cooperation between banks**
- **Cooperation and coordination with government in digitalization**
- **National Wallet**
- **Regulation support for digital advances**

Recommendations

- **Economic and financial visibility is crucial for stability:**
 - Inflation must be targeted and predictability of monetary policy should be improved.
 - Fiscal discipline, which has been the main anchor behind the economic success in the last 10 years, should be maintained.
- **Banking system must be able to support real sector without having to take excessive risks.** Leverage should increase with means like securitization to use its capital more effectively. Loan book could be securitized and sold to foreign and local investors.
- **National rating company should be established** to support local corporate bond market (both primary and secondary) and for investors to judge easier risk-return trade-off
- **Cooperation between banks should be improved** to increase efficiency and more effective cost management. For example, banks could share costly POS machines and ATM investments.
- **Greater use of digitalization in increasing client benefits requires and effective coordination with the Government and tech savvy Banking system.** A Government CDO (Chief Digital Officer) would facilitate such coordination.
- **A National Wallet** could be established in collaboration with the Government to raise standards of living and to decrease and check shadow economy.
- **Regulation should encourage measures such as e-signature and e-identity** in financial transactions for greater financial inclusion.