

# Ceska Sporitelna

## Quarterly Results - 2Q2019

Ceska Sporitelna made a net profit of CZK 4,758 mil in the second quarter of 2019, up 25.2% when compared to the previous year. Total revenues increased 16.2% yoy to CZK 10,646 mil, ROE amounted to 14.9% and the NPL ratio stood at 1.80%. In the last three years, the bank grew its loans by 9.46% a year, revenues rose by 3.71% and net profit decreased by 0.725% a year, on average.

- ✓ Revenues increased 16.2% yoy to CZK 10,646 mil in the second quarter of 2019. Interest income formed 69.2% of total revenues with the net interest margin increasing 0.03 pp to 1.96% of total assets. Fees added a further 21.2% to total revenue generated in 2Q2019, down from an average of 22.0% as seen in the previous two years.
- ✓ Operating costs grew by 4% yoy to CZK 4,705 mil, so cost to income ratio reached 44.2%, down by 8.94% compared to the previous two years. Staff accounted for 54.3% of total operating expenditures. At the end of second quarter of 2019, Ceska Sporitelna operated a network of 487 branches and 9,821 employees.
- ✓ Loans and deposits grew by 2.21% and 5.54% qoq respectively, so loan to deposit ratio reached 69.7% at the end of 2Q2019. That's down from 75.8% the previous year. Equity reached 8.61% of assets and capital adequacy ratio amounted to 20.6% at the end of the second quarter of 2019.
- ✓ NPLs were 1.80% of total loans at the end of the quarter. Provisions covered 96.3% of non-performing loans
- ✓ When compared to selected peers, Ceska Sporitelna was 4.35 pp less profitable in terms of ROE, achieved 4.87 pp worse cost efficiency when measured by cost to income ratio and grew its loans by 2.84 pp slower based on a last year comparison.

<b>Sector:</b>	Banking
<b>Country:</b>	Czech Republic
<b>Employees:</b>	9,821
<b>Clients:</b>	N/A
<b>Branches:</b>	487
<b>ATMs:</b>	1,778
<b>Bank Cards:</b>	2,887 '000
<b>Capital Adequacy Ratio:</b>	20.6%
<b>Tier 1 Ratio:</b>	20.2%

Data tells a story

KEY FIGURES									
	REVENUES	REVENUE GROWTH	NET PROFIT	PROFIT GROWTH	ROE	COST TO INCOME	LOAN / DEPOSITS	EQUITY / ASSETS	NPL RATIO
	CZK mil	%	CZK mil	%	%	%	%	%	%
2Q2019	10,646	16.2	4,758	25.2	14.9	44.2	69.7	8.61	1.80
2018	39,088	5.00	15,362	5.15	12.6	46.9	72.0	8.60	1.80
2017	37,227	-2.62	14,610	-5.48	12.0	49.0	72.3	9.10	2.10
2016	38,227	-3.81	15,457	8.14	12.8	47.5	73.2	11.4	3.12
2015	39,743	-3.39	14,293	-5.16	12.6	46.8	74.6	12.5	3.82

Source: Company Data, Helgi Analytics



## 1 Company Overview

Česká Spořitelna is the largest retail bank in the Czech Republic. Through a network of almost 500 branches and 1,800 ATMs (2019), it serviced some 5 million retail clients in 2019. Following hefty loan losses and a government-orchestrated bailout at the end of the 1990s, the bank was sold to Austria's Erste Bank in 2000.

Ceska Sporitelna has been growing its revenues and asset by -1.20% and 5.77% a year on average in the last 10 years. Its loans and deposits have grown by 4.73% and 4.65% a year during that time and loans to deposits ratio reached 69.7% at the end of 2Q2019. The company achieved an average return on equity of 15.5% in the last decade with net profit growing 3.72% a year on average. In terms of operating efficiency, its cost to income ratio reached 44.2% in 2Q2019, compared to 44.5% average in the last decade.

Equity represented 8.61% of total assets or 17.9% of loans at the end of 2Q2019. Ceska Sporitelna's non-performing loans were 1.80% of total loans while provisions covered some 96.3% of NPLs at the end of the second quarter of 2019.

FINANCIALS		Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
Net Interest Income	CZK mil	6,262	6,743	6,548	6,596	7,041	7,636	7,287	7,369
Total Revenues	CZK mil	9,278	9,536	9,472	9,162	10,094	10,359	10,206	10,646
Operating Profit	CZK mil	4,863	4,732	4,836	4,638	5,549	5,737	5,377	5,941
Net Profit	CZK mil	4,031	2,906	4,070	3,799	3,976	3,516	3,942	4,758
Customer Loans	CZK mil	654,195	638,694	668,953	696,051	711,632	685,639	709,911	725,627
Total Assets	CZK mil	1,320,950	1,329,220	1,303,270	1,431,810	1,398,060	1,426,460	1,496,460	1,504,530
Shareholders' Equity	CZK mil	118,927	120,975	123,758	114,561	117,151	122,657	126,727	129,565
Interbank Borrowing	CZK mil	281,000	295,232	239,878	367,762	307,097	318,861	340,879	292,755
Customer Deposits	CZK mil	879,129	883,237	907,926	918,266	938,109	952,506	986,666	1,041,280
Issued Debt Securities	CZK mil	8,840	1,805	3,166	2,587	3,210	8,564	10,650	11,036

RATIOS		Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
ROE	%	13.7	9.69	13.3	12.8	13.7	11.7	12.6	14.9
Costs (As % Of Income)	%	47.6	50.4	48.9	49.4	45.0	44.6	47.3	44.2
Net Interest Margin	%	1.95	2.04	1.99	1.93	1.99	2.16	1.99	1.96
Equity (As % Of Assets)	%	9.00	9.10	9.50	8.00	8.38	8.60	8.47	8.61
Loans (As % Of Deposits)	%	74.4	72.3	73.7	75.8	75.9	72.0	72.0	69.7
Loans (As % Assets)	%	49.5	48.1	51.3	48.6	50.9	48.1	47.4	48.2
NPLs (As % Of Loans)	%	2.20	2.10	2.00	2.10	1.90	1.80	1.80	1.80
Provisions (As % Of NPLs)	%	86.3	90.3	100.0	94.1	95.2	99.2	98.2	96.3

Source: Company Data, Helgi Analytics



## 2 Revenues & Costs

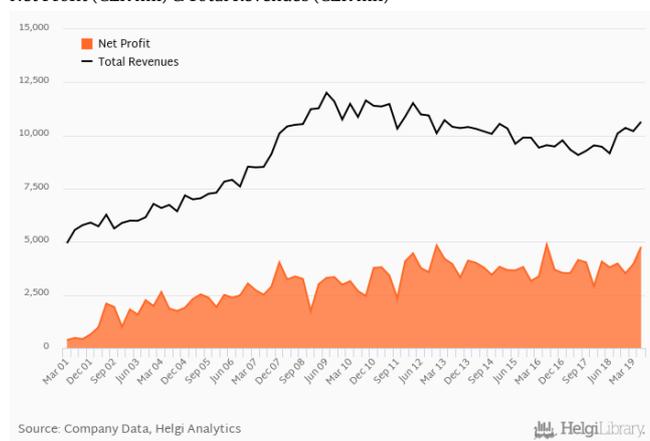
### 2.1 Revenues

Ceska Sporitelna generated total operating revenues of CZK 10,646 mil in the second quarter of 2019, up 16.2% compared to the same period of the previous year. Net interest income represented 69.2% of revenues, fee income contributed 21.2% and other non-interest income added further 9.58% to the overall revenue generated.

Over the previous three years, revenues rose by 3.71% a year on average.

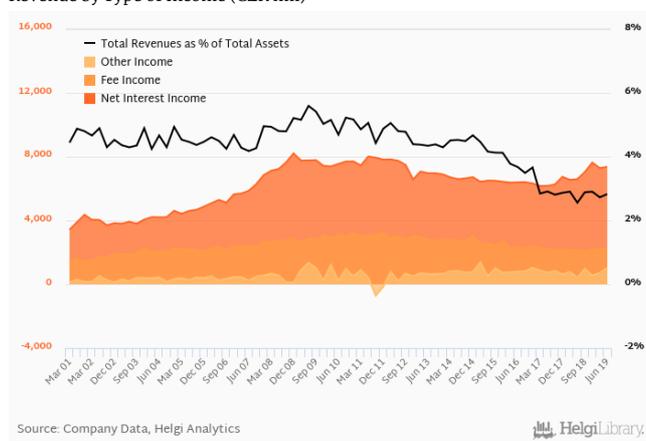
#### Revenue & Profitability

Net Profit (CZK mil) & Total Revenues (CZK mil)



#### Revenue Breakdown

Revenue by Type of Income (CZK mil)



Net interest margin amounted to 1.96% in the second quarter of 2019, up from the 1.93% of the previous year. Historically, Ceska Sporitelna's net interest margin reached a high of 3.77% in 4Q2008 and a low of 1.93% in 2Q2018.

Average asset yield was 2.73% in the second quarter of 2019 (up from 2.55%) while cost of funding amounted to 0.834%% in 2Q2019 (up from 0.678%).

NET INTEREST MARGIN									
NAME	COUNTRY	Total Assets (CZK mil)	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
CSOB	Czechia	1,682,650	1.71	1.72	1.62	1.76	2.00	2.05	1.89
Komerční Banka	Czechia	1,185,990	2.10	2.07	2.00	2.06	2.20	2.15	2.02
UniCredit Czech Republic	Czechia	855,348	1.52	1.66	1.60	1.69	1.88	1.73	1.50
Raiffeisenbank Czech Republic	Czechia	369,654	1.81	2.06	2.01	2.10	2.24	2.35	2.35
Hypoteční Banka	Czechia	316,813	1.32	1.24	1.07	1.23	1.17	1.10	1.06
PPF Banka	Czechia	212,055	1.22	1.40	1.49	1.63	2.09	1.84	1.81
MONETA Money Bank	Czechia	211,951	3.90	3.74	3.84	4.00	4.02	3.79	3.76
Fio banka	Czechia	150,932	0.765	0.563	0.838	1.19	1.53	1.51	1.55
Ceskomoravská Stavební Sporitelna	Czechia	148,769	1.40	1.33	1.30	1.32	1.37	1.44	1.44
Ceska Sporitelna	Czechia	1,504,530	2.04	1.99	1.93	1.99	2.16	1.99	1.96
Weighted Average			1.84	1.85	1.79	1.89	2.07	2.01	1.91
Median			1.61	1.69	1.61	1.72	2.05	1.92	1.85

Source: Company Data, Helgi Analytics



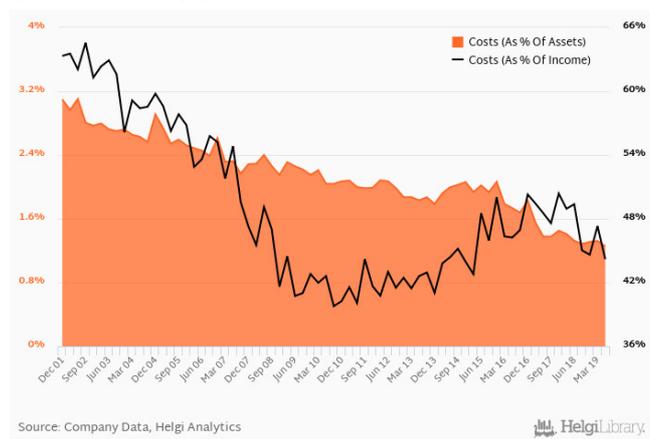
## 2.2 Costs

Operating costs increased by 4% yoy to CZK 4,705 mil in the second quarter of 2019. Ceska Sporitelna's cost to income ratio therefore reached 44.2%, down from 49.4% when compared to the previous year.

Historically, operating costs reached a high of 76.2% of income in 1Q2001 and a low of 39.8% in 3Q2010:

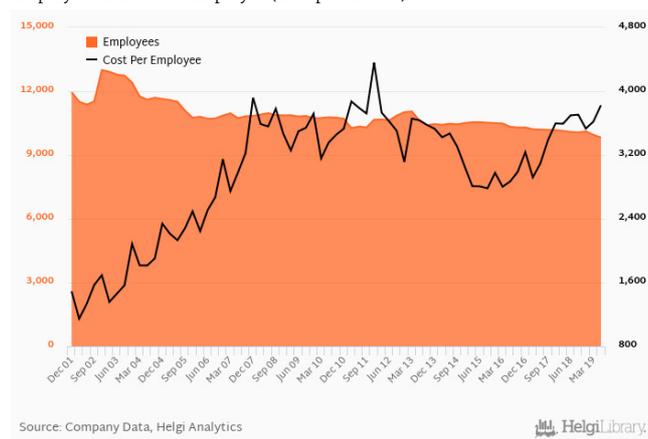
### Cost Efficiency

Costs As % Of Assets & Income



### Workforce

Employees & Cost Per Employee (USD per month)



When compared to its peer's weighted average, Ceska Sporitelna operated with a 4.87 pp higher cost to income ratio in the second quarter of 2019:

COSTS (AS % OF INCOME)								
NAME	COUNTRY	Total Assets (CZK mil)	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
CSOB	Czechia	1,682,650	48.5	49.3	47.0	46.9	47.7	38.8
Komerční Banka	Czechia	1,185,990	53.6	45.2	41.0	42.7	52.6	42.9
UniCredit Czech Republic	Czechia	855,348	50.2	35.3	33.6	35.4	46.0	31.7
Raiffeisenbank Czech Republic	Czechia	369,654	64.3	50.1	49.3	52.6	62.2	49.3
Hypoteční Banka	Czechia	316,813	33.0	23.8	23.1	22.8	34.3	23.8
PPF Banka	Czechia	212,055	16.5	20.7	40.8	30.4	25.4	28.5
MONETA Money Bank	Czechia	211,951	52.6	46.8	39.7	52.6	52.4	46.3
Fio banka	Czechia	150,932	42.0	33.8	28.5	27.8	30.2	18.9
Ceskomoravská Stavební Sporitelna	Czechia	148,769	53.9	48.1	45.9	55.4	59.4	46.5
Ceska Sporitelna	Czechia	1,504,530	48.9	49.4	45.0	44.6	47.3	44.2
Weighted Average			49.0	44.2	41.9	42.7	47.7	39.3
Median			49.6	46.0	40.9	43.7	47.5	40.8

Source: Company Data, Helgi Analytics

When compared to total assets, operating costs amounted to 1.25% in 2Q2019 down from 1.32% the previous year.

Ceska Sporitelna had 9,821 employees in the second quarter of 2019, down by 2.63% when compared to the previous year. The company operated a network of 487 branches in 2Q2019.



The average cost per employee stood at USD 3,825 per month, 3.41% above the previous year. This figure was USD 3,470 per month five years earlier.

Staff accounted for 54.3% of total operating expenditures in 2Q2019.

STAFF COST (AS % OF TOTAL COST)								
NAME	COUNTRY	Total Assets (CZK mil)	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
CSOB	Czechia	1,682,650	45.0	49.9	52.0	49.4	43.0	51.1
Komerční Banka	Czechia	1,185,990	45.5	60.9	56.5	52.4	45.5	55.0
UniCredit Czech Republic	Czechia	855,348	32.0	47.5	51.4	44.7	35.1	53.7
Raiffeisenbank Czech Republic	Czechia	369,654	43.9	55.6	55.6	53.1	42.0	57.8
Hypoteční Banka	Czechia	316,813	40.8	62.8	60.5	63.2	40.3	62.0
PPF Banka	Czechia	212,055	46.2	45.7	31.4	39.0	48.6	37.2
MONETA Money Bank	Czechia	211,951	47.3	51.9	52.1	41.9	40.9	47.4
Fio banka	Czechia	150,932	5.92	6.84	6.22	5.76	6.41	8.91
Ceskomoravská Stavební Sporitelna	Czechia	148,769	33.8	43.2	42.9	38.6	30.6	41.2
Ceska Sporitelna	Czechia	1,504,530	49.4	53.1	54.5	51.5	50.8	54.3
Weighted Average			43.1	52.0	52.0	48.9	43.0	52.0
Median			44.4	50.9	52.1	47.0	41.5	52.4

Source: Company Data, Helgi Analytics



### 3 Balance Sheet Growth, Capital, Funding & Asset Quality

#### 3.1 Balance Sheet Growth

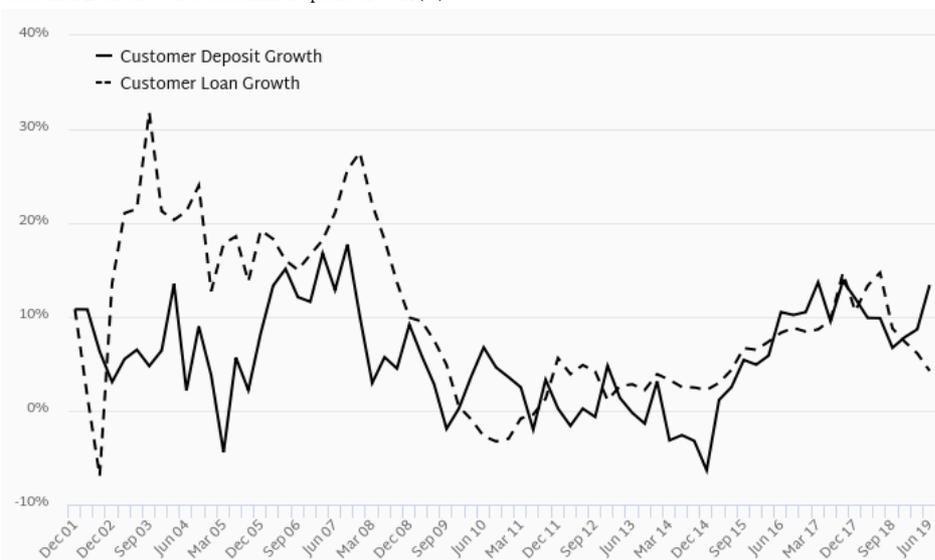
Ceska Sporitelna's customer loans grew 2.21% qoq and 4.25% yoy in the second quarter of 2019. On the other side of the balance sheet, customer deposit growth amounted to 5.54% qoq and 13.4% yoy. That's compared to average of 9.62% and 10.5% seen in the last three years.

In the previous five years, the average annual loan growth amounted to 9.46% while deposit growth reached 10.9% on average a year.

At the end of second quarter of 2019, Ceska Sporitelna's loans accounted for 69.7% of total deposits and 48.2% of total assets.

#### Loan & Deposit Growth

Customer Loan Growth & Customer Deposit Growth (%)



Source: Company Data, Helgi Analytics



LOANS (AS % OF DEPOSITS)								
NAME	COUNTRY	Total Assets (CZK mil)	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
CSOB	Czechia	1,682,650	74.9	75.6	75.9	87.1	83.2	83.2
Komerční Banka	Czechia	1,185,990	73.7	73.6	72.6	76.7	73.0	71.1
UniCredit Czech Republic	Czechia	855,348	107	108	92.8	92.4	66.5	64.9
Raiffeisenbank Czech Republic	Czechia	369,654	66.6	69.2	68.7	67.7	71.2	69.6
Hypoteční Banka	Czechia	316,813	113	114	114	113	113	113
PPF Banka	Czechia	212,055	17.9	21.2	21.4	25.9	22.5	19.0
MONETA Money Bank	Czechia	211,951	87.0	90.3	90.9	83.0	84.6	84.6
Fio banka	Czechia	150,932	11.8	11.3	13.1	12.6	11.5	11.7
Ceskomoravská Stavební Sporitelna	Czechia	148,769	82.2	82.8	83.9	83.0	84.5	84.7
<b>Ceska Sporitelna</b>	<b>Czechia</b>	<b>1,504,530</b>	<b>73.7</b>	<b>75.8</b>	<b>75.9</b>	<b>72.0</b>	<b>72.0</b>	<b>69.7</b>
Weighted Average			77.2	78.4	76.4	78.8	73.9	72.7
Median			74.3	75.7	75.9	79.8	72.5	70.4

Source: Company Data, Helgi Analytics

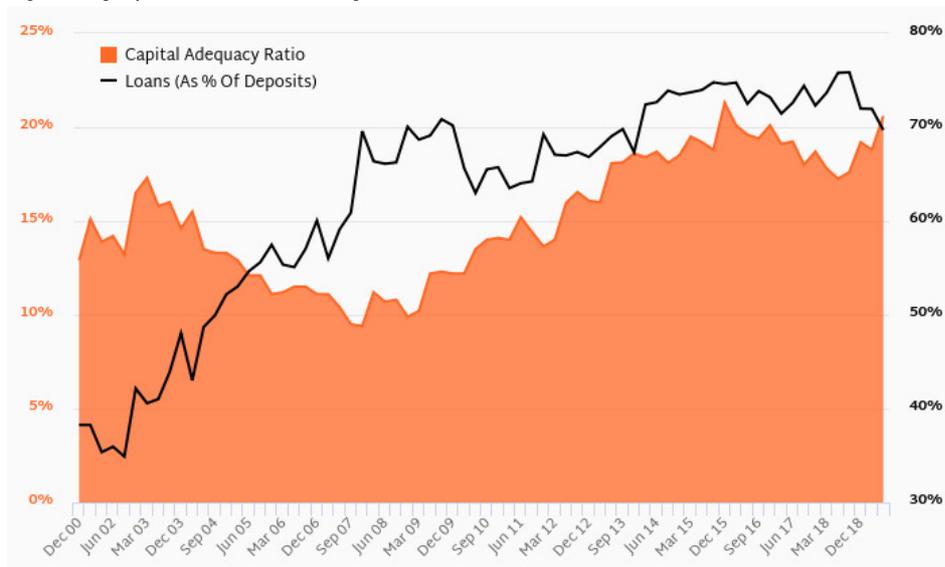


### 3.2 Capital & Liquidity

Ceska Sporitelna's capital adequacy ratio reached 20.6% in the second quarter of 2019, up from 17.3% for the previous year. The Tier 1 ratio amounted to 20.2% at the end of the second quarter of 2019:

#### Capital & Liquidity

Capital Adequacy Ratio & Loans (As % Of Deposits)



Source: Company Data, Helgi Analytics



Ceska Sporitelna's capital is above average compared to its peers when measured by the capital adequacy ratio:

CAPITAL ADEQUACY RATIO								
NAME	COUNTRY	Total Assets (CZK mil)	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
CSOB	Czechia	1,682,650	17.9	17.5	17.3	18.0	19.0	18.7
Komerční Banka	Czechia	1,185,990	18.3	18.1	18.4	18.5	18.9	19.0
UniCredit Czech Republic	Czechia	855,348	19.1	18.6	18.3	20.3	19.7	18.4
Raiffeisenbank Czech Republic	Czechia	369,654	16.6	16.4	16.3	16.9	16.4	17.2
Hypoteční Banka	Czechia	316,813	37.5	41.2	35.5	36.5	39.1	42.2
PPF Banka	Czechia	212,055	15.6	16.3	15.9	16.3	16.1	16.6
MONETA Money Bank	Czechia	211,951	16.6	16.0	16.6	16.4	17.0	16.7
Fio banka	Czechia	150,932	12.5	14.8	14.9	15.3	16.2	15.0
Ceskomoravská Stavební Sporitelna	Czechia	148,769	14.7	15.7	15.5	17.5	18.5	22.7
Ceska Sporitelna	Czechia	1,504,530	17.8	17.3	17.6	19.2	18.8	20.6
Weighted Average			18.7	18.6	18.3	19.3	19.6	20.1
Median			17.2	16.8	17.0	17.7	18.6	18.5

Source: Company Data, Helgi Analytics

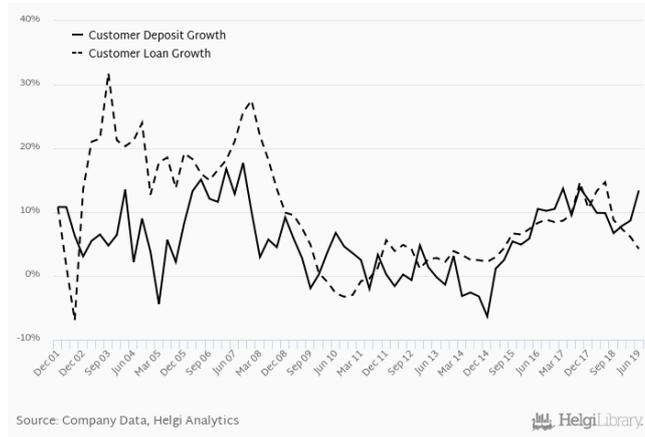


### 3.3 Loan Breakdown

Ceska Sporitelna's loans reached CZK 725,627 mil in the second quarter of 2019, up 4.25% when compared to the same period of the previous year:

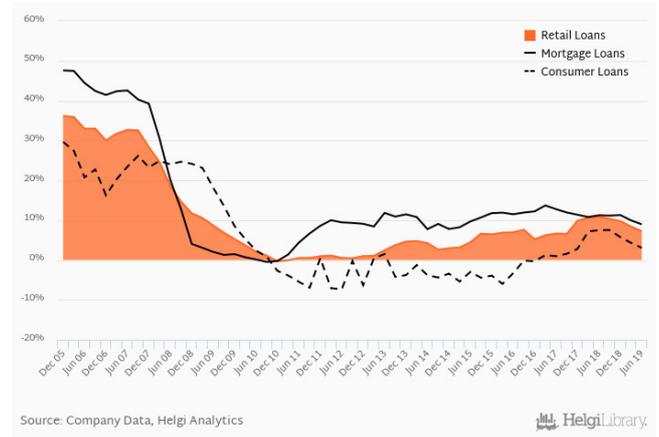
#### Loan & Deposit Growth

Customer Loan Growth & Customer Deposit Growth (%)



#### Retail Loan Growth

Retail Loan Growth (%)

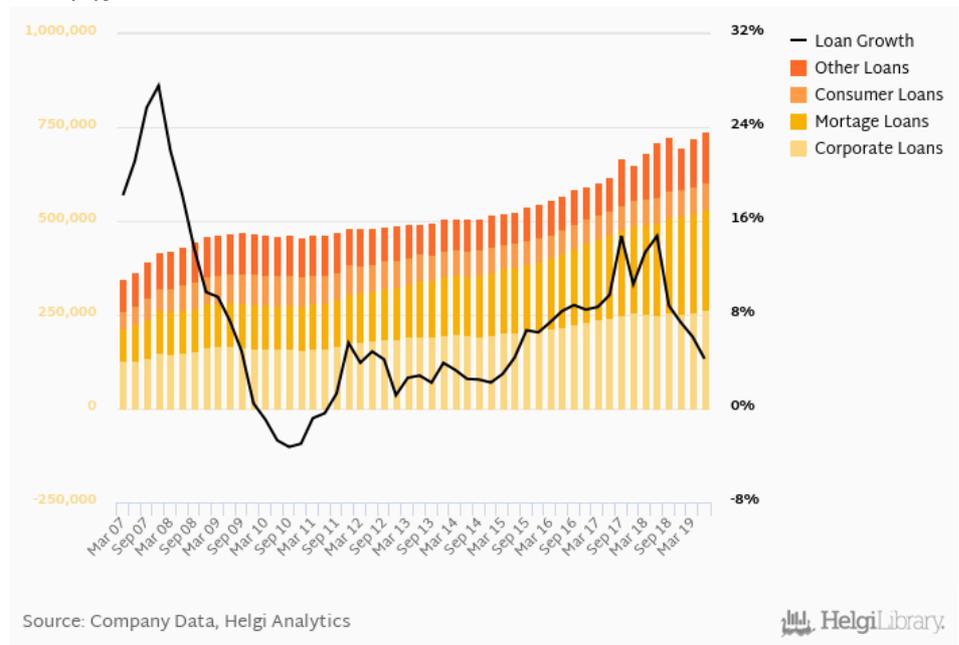


Retail loans grew 1.62% qoq and 7.24% yoy and accounted for 54.3% of the loan book at the end of the second quarter of 2019. In the previous three years, the retail loan portfolio increased 8.22% a year on average.

At the end of the second quarter of 2019, mortgage loans represented 36.9% of the Ceska Sporitelna's loan book, consumer loans added a further 9.78% and corporate loans formed 36.6% of total loans.

#### Loan Breakdown

Loans by Type (CZK mil)





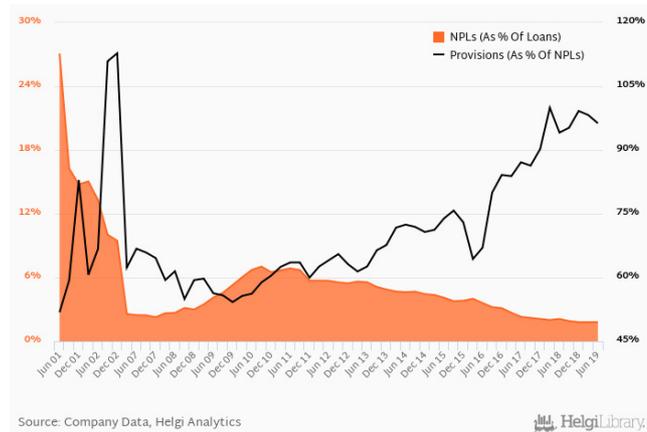
### 3.4 Asset Quality

Ceska Sporitelna's non-performing loans were 1.80% of total loans, up from 1.80% when compared to the previous quarter. Historically, the NPL ratio hit a high of 27.1% in 2Q2001 and a low 1.80% in 2Q2019.

Provisions covered some 96.3% of NPLs at the end of the second quarter of 2019, down from 98.2% for the previous three months:

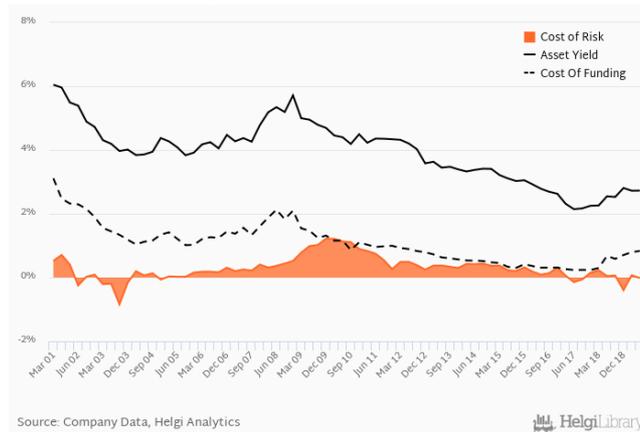
#### Asset Quality

NPLs (As % Of Loans) & Provisions (As % Of NPLs)



#### Cost of Risk

Cost of Risk vs. Interest Spread (%)



Ceska Sporitelna operated with an NPL ratio 0.795 pp lower than the market average at the end of the second quarter of 2019:

NPLS (AS % OF LOANS)								
NAME	COUNTRY	Total Assets (CZK mil)	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
CSOB	Czechia	1,682,650	2.02	2.88	3.05	3.06	2.92	2.39
Komerčni Banka	Czechia	1,185,990	2.85	2.73	2.77	2.71	2.50	2.30
UniCredit Czech Republic	Czechia	855,348	3.22	3.06	2.78	2.67	2.63	2.51
Raiffeisenbank Czech Republic	Czechia	369,654	2.67	2.40	2.41	2.22	2.21	1.95
Hypotecní Banka	Czechia	316,813	1.56	1.44	1.36	1.27	1.20	1.11
PPF Banka	Czechia	212,055	6.63	7.48	7.60	12.9	11.3	9.62
MONETA Money Bank	Czechia	211,951	3.70	3.30	3.00	2.80	2.00	1.80
Fio banka	Czechia	150,932	4.48	5.11	4.21	5.59	9.99	10.2
Ceskomoravská Stavební	Czechia	148,769	2.18	4.72	4.59	4.46	4.38	3.95
Sporitelna								
Ceska Sporitelna	Czechia	1,504,530	2.00	2.10	1.90	1.80	1.80	1.80
Weighted Average			2.59	2.86	2.79	2.92	2.86	2.59
Median			2.76	2.97	2.89	2.76	2.57	2.34

Source: Company Data, Helgi Analytics

Ceska Sporitelna's cost of risk reached -0.018% of average loans in the second quarter of 2019, down from 0.071% in the previous quarter and compared to 0.045% for the previous year on average.



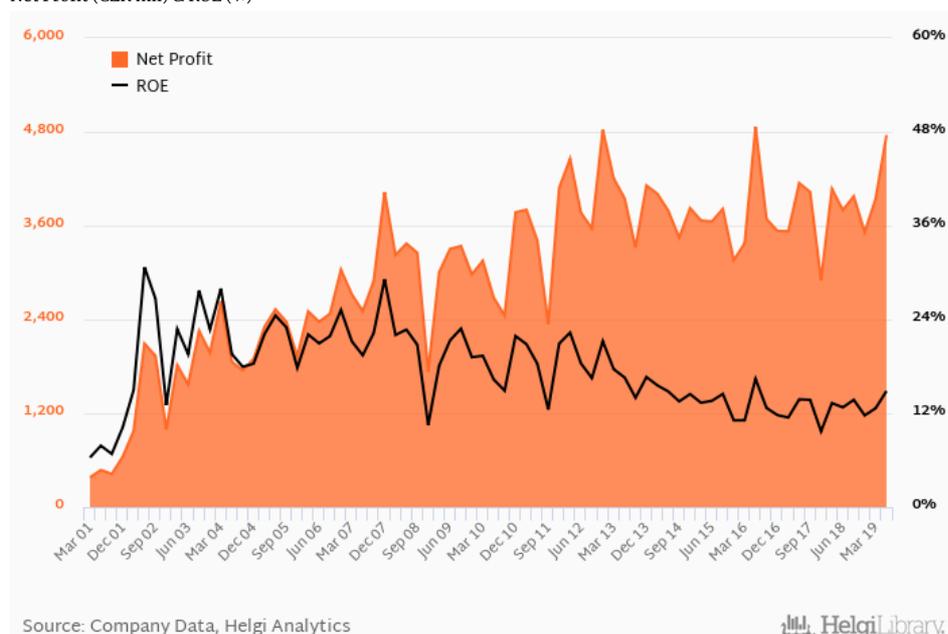
## 4 Profitability

Overall, Ceska Sporitelna made a net profit of CZK 4,758 mil in the second quarter of 2019. This was up 25.2% when compared to the previous year resulting in a return on equity of 14.9%.

Historically, net profit reached a high of CZK 4,863 mil in 2Q2016 and a low of CZK 379 mil in 1Q2001.

### Profitability

Net Profit (CZK mil) & ROE (%)



The company generated an average return on equity of 12.7% for its shareholders in the previous three years with maximum at 14.9% and minimum at 9.69%.

ROE								
NAME	COUNTRY	Total Assets (CZK mil)	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
CSOB	Czechia	1,682,650	17.1	15.6	18.7	18.8	20.5	26.1
Komerční Banka	Czechia	1,185,990	11.9	15.3	17.3	15.3	12.1	15.6
UniCredit Czech Republic	Czechia	855,348	10.2	12.0	13.8	15.1	10.4	14.6
Raiffeisenbank Czech Republic	Czechia	369,654	9.36	14.8	14.8	9.70	12.2	25.4
Hypoteční Banka	Czechia	316,813	5.83	6.03	5.81	5.40	4.98	5.60
PPF Banka	Czechia	212,055	28.8	24.2	12.3	16.9	16.2	17.9
MONETA Money Bank	Czechia	211,951	18.0	15.3	20.9	13.5	15.3	16.4
Fio banka	Czechia	150,932	51.7	55.9	41.8	45.3	42.2	66.1
Ceskomoravská Stavební Sporitelna	Czechia	148,769	12.1	12.1	8.08	8.04	8.79	12.4
Ceska Sporitelna	Czechia	1,504,530	13.3	12.8	13.7	11.7	12.6	14.9
Weighted Average			14.5	15.0	16.0	15.1	14.6	19.2
Median			12.7	15.1	14.3	14.3	12.4	16.0

Source: Company Data, Helgi Analytics

When compared to total assets, Ceska Sporitelna generated a return of 1.27% in the second quarter of 2019 (ROA). That's 0.072 pp below average for the previous five



years.

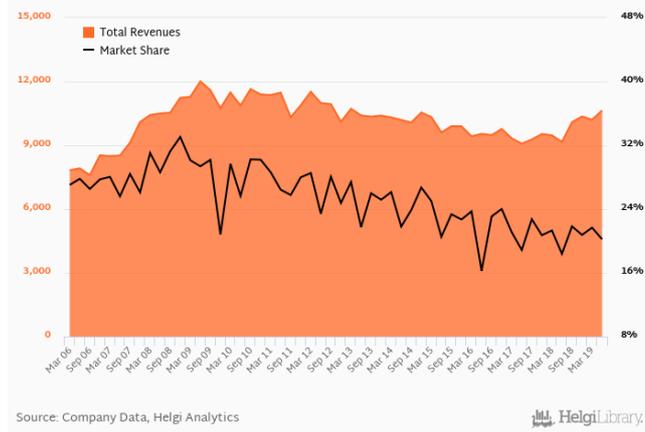


## 5 Market Share Development on the Czech Market

Based on latest available data, Ceska Sporitelna accounted for 19.1% of all bank assets managed in the Czech Republic at the end of the second quarter of 2019.

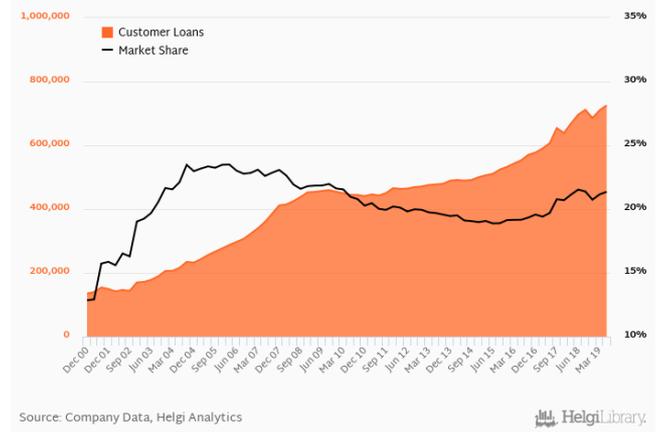
### Market Share in Bank Revenues

Total Revenues (CZK mil)



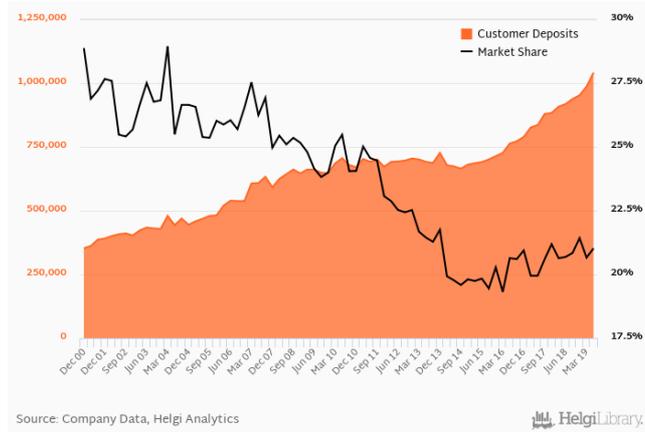
### Market Share in Bank Loans

Customer Loans (CZK mil)



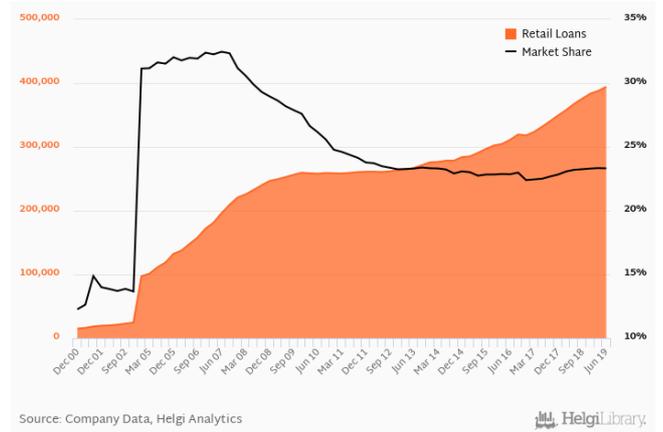
### Market Share in Bank Deposits

Customer Deposits (CZK mil)



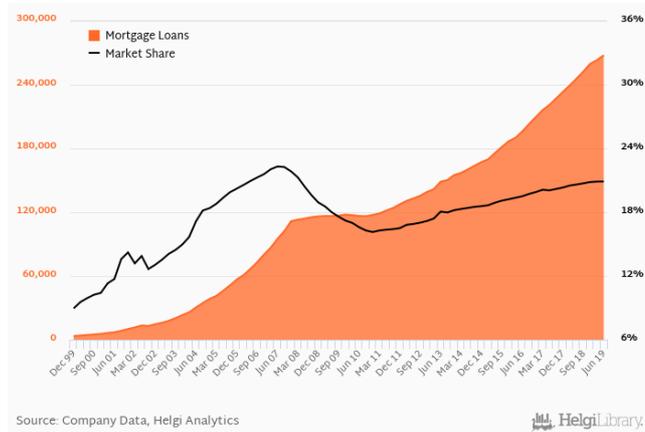
### Market Share in Retail Loans

Retail Loans (CZK mil)



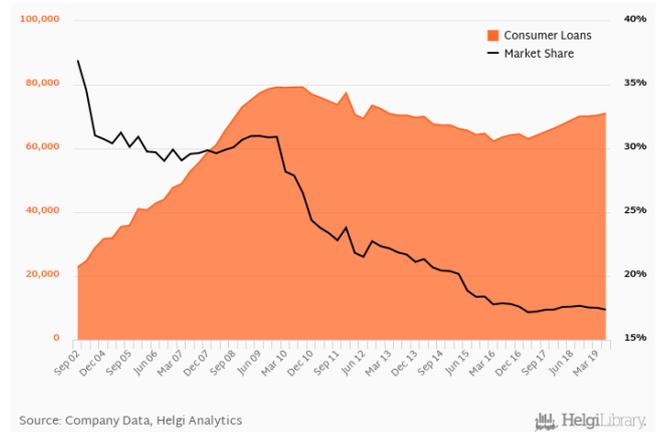
### Market Share in Mortgage Loans

Mortgage Loans (CZK mil)



### Market Share in Consumer Loans

Consumer Loans (CZK mil)



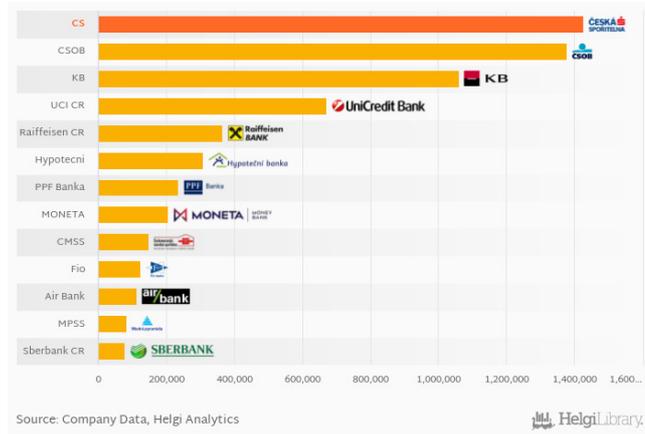


## 6 Market Share Position Within the Czech Market

Based on latest available data, the following charts demonstrate Ceska Sporitelna's position compared to the largest players on the Czech banking market:

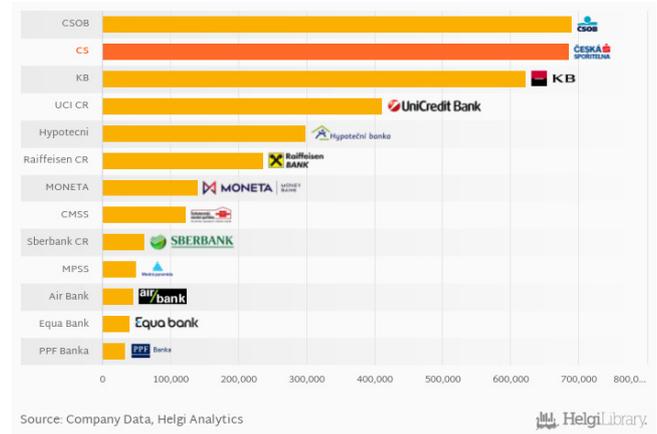
### What Banks in Czechia Were the Largest in 2018?

Top Banks by Total Assets (CZK mil)



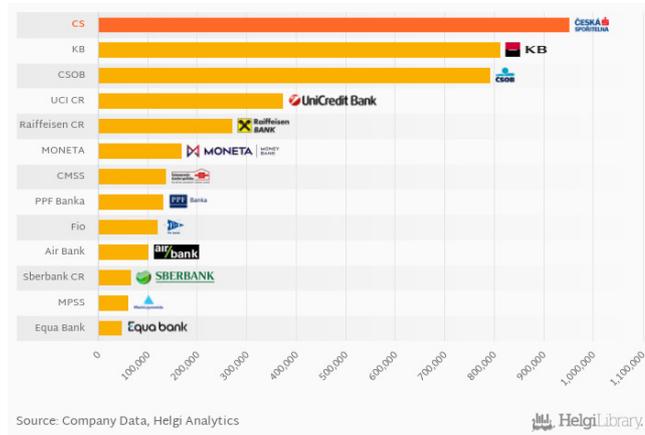
### What Banks in Czechia Were the Largest Lenders in 2018?

Top Banks by Customer Loans (CZK mil)



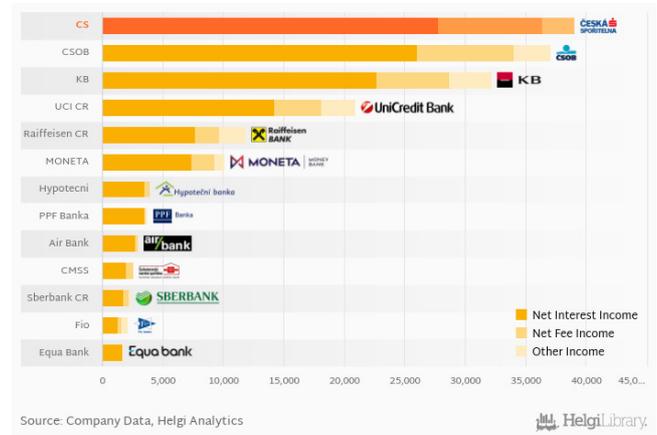
### What Banks in Czechia Were the Largest Deposit Takers in 2018?

Top Banks by Customer Deposits (CZK mil)



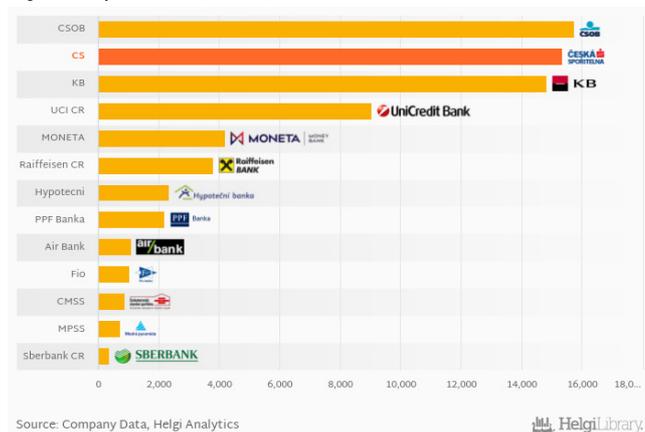
### What Banks in Czechia Generated the Most Revenues in 2018?

Top Banks by Total Revenues (CZK mil)



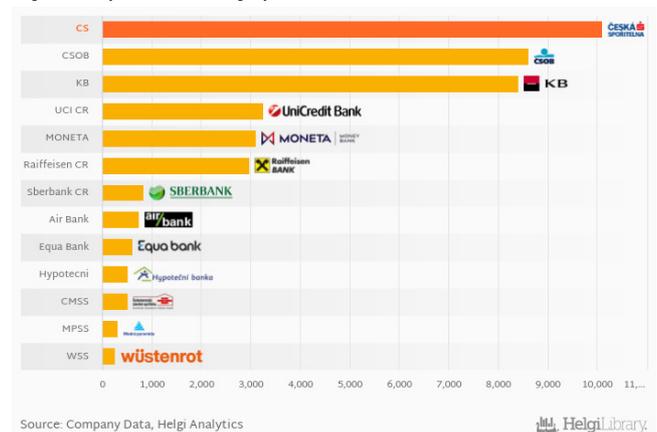
### What Banks in Czechia Were the Most Profitable in 2018?

Top Banks by Net Profit (CZK mil)



### What Banks in Czechia Had the Most Employees in 2018?

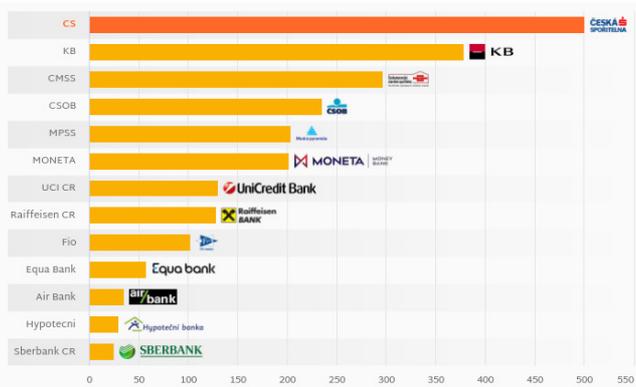
Top Banks by Number of Employees





### What Banks in Czechia Had the Most Branches in 2018?

Top Banks by Number of Branches

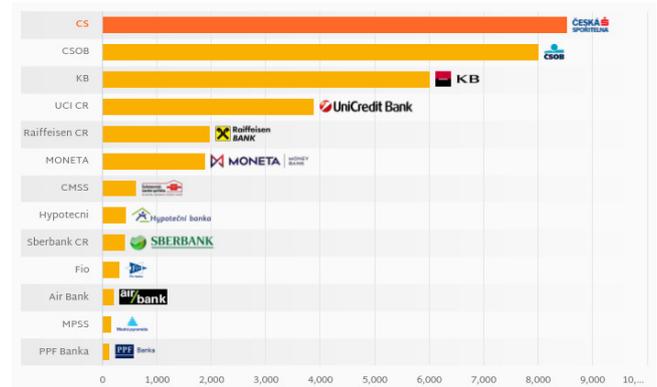


Source: Company Data, Helgi Analytics



### What Banks in Czechia Generated the Most Fees in 2018?

Top Banks by Net Fee Income (CZK mil)



Source: Company Data, Helgi Analytics





## 7 Relative Performance on the Czech Market

Based on latest available data, the following charts demonstrate Ceska Sporitelna's relative performance when compared to the largest players on the Czech banking market:

### What Banks in Czechia Were the Most Cost Efficient in 2018?

Top Banks by Costs As % Of Income

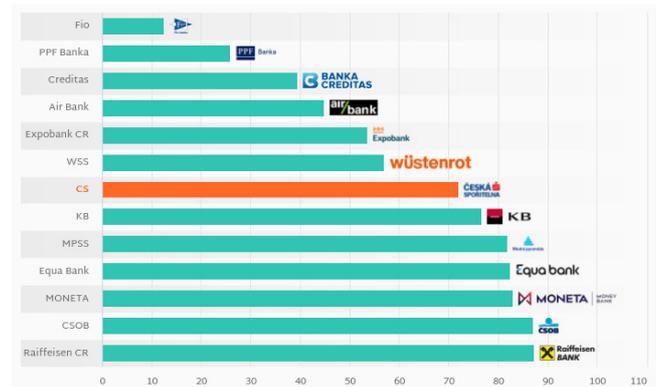


Source: Company Data, Helgi Analytics



### What Banks in Czechia Had the Lowest Loan to Deposit Ratio in 2018?

Top Banks by Loans (As % Of Deposits)



Source: Company Data, Helgi Analytics



### What Banks in Czechia Were the Best Capitalised in 2018?

Top Banks by Capital Adequacy Ratio (%)



Source: Company Data, Helgi Analytics



### What Banks in Czechia Had the Most Bad Loans in 2018?

Top Banks by Non-Performing Loans (As % of Loans)



Source: Company Data, Helgi Analytics



### What Banks in Czechia Achieved the Highest Interest Margin in 2018?

Top Banks by Net Interest Margin (%)

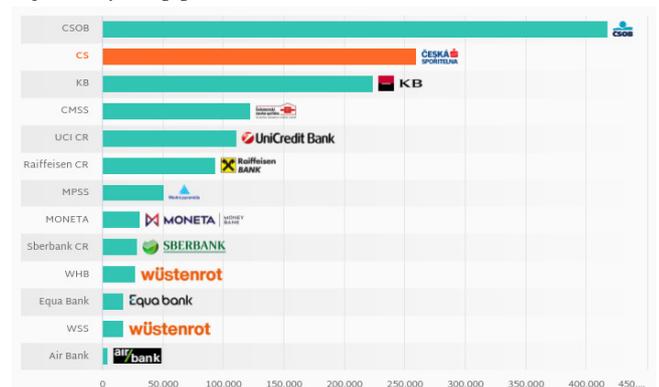


Source: Company Data, Helgi Analytics



### What Banks in Czechia Were the Largest Mortgage Lenders in 2018?

Top Banks by Mortgage Loans (CZK mil)



Source: Company Data, Helgi Analytics





## Financial Data – Quarterly

### Income Statement – Quarterly

INCOME STATEMENT		Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
Interest Income	CZK mil	6,962	7,455	7,439	8,712	8,939	9,916	9,950	10,230
Interest Cost	CZK mil	700	712	891	2,116	1,898	2,280	2,663	2,861
Net Interest Income	CZK mil	6,262	6,743	6,548	6,596	7,041	7,636	7,287	7,369
Net Fee Income	CZK mil	2,169	2,161	2,134	2,153	2,075	2,178	2,193	2,257
Other Income	CZK mil	847	632	791	414	978	545	726	1,020
Total Revenues	CZK mil	9,278	9,536	9,472	9,162	10,094	10,359	10,206	10,646
Staff Cost	CZK mil	2,331	2,376	2,291	2,404	2,478	2,381	2,455	2,554
Depreciation	CZK mil	503	512	500	509	483	509	602	628
Operating Cost	CZK mil	4,415	4,804	4,636	4,524	4,545	4,622	4,829	4,705
Operating Profit	CZK mil	4,863	4,732	4,836	4,638	5,549	5,737	5,377	5,941
Provisions	CZK mil	-205	503	741	162	223	-1,414	267	-68.0
Extra and Other Cost	CZK mil	88.0	740	-999	-277	394	2,769	162	111
Pre-Tax Profit	CZK mil	4,980	3,489	5,095	4,754	4,932	4,382	4,948	5,898
Tax	CZK mil	953	571	1,026	967	951	858	1,003	1,133
Minorities	CZK mil	-4.00	12.0	-0.525	-12.8	5.30	8.00	3.00	7.00
Net Profit	CZK mil	4,031	2,906	4,070	3,799	3,976	3,516	3,942	4,758
Dividends	CZK mil	...	...	...	...	...	...	...	...

Source: Company Data, Helgi Analytics

### Growth Rates – Quarterly

GROWTH RATES		Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
Net Interest Income Growth	%	-2.34	6.59	6.14	6.80	12.4	13.2	11.3	11.7
Net Fee Income Growth	%	-3.69	-10.3	-6.93	-1.26	-4.32	0.787	2.76	4.85
Total Revenue Growth	%	-2.14	-2.43	1.52	0.883	8.80	8.63	7.75	16.2
Operating Cost Growth	%	-0.767	-2.26	0.496	2.63	2.95	-3.79	4.17	4.00
Operating Profit Growth	%	-3.41	-2.61	2.52	-0.768	14.1	21.2	11.2	28.1
Pre-Tax Profit Growth	%	8.10	-11.5	15.9	-7.92	-0.960	25.6	-2.88	24.1
Net Profit Growth	%	9.36	-17.7	15.4	-8.34	-1.36	21.0	-3.15	25.2

Source: Company Data, Helgi Analytics



## Balance Sheet – Quarterly

BALANCE SHEET		Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
Cash	CZK mil	231,204	280,221	159,528	139,810	26,995	63,914	51,839	54,869
Interbank Loans	CZK mil	183,648	157,525	208,394	320,702	375,088	389,844	431,895	413,822
Customer Loans	CZK mil	654,195	638,694	668,953	696,051	711,632	685,639	709,911	725,627
Retail Loans	CZK mil	340,400	349,400	357,900	367,600	375,600	383,500	387,900	394,200
Mortgage Loans	CZK mil	227,200	233,400	239,400	245,800	252,500	259,700	263,200	267,800
Consumer Loans	CZK mil	65,200	66,300	67,500	68,900	70,100	70,100	70,400	71,000
Corporate Loans	CZK mil	250,000	255,924	255,000	250,800	258,200	254,800	258,800	265,900
Debt Securities	CZK mil	230,678	231,415	242,102	251,531	254,827	256,942	269,635	276,866
Fixed Assets	CZK mil	9,939	9,913	14,067	14,187	13,429	14,643	17,137	16,978
Total Assets	CZK mil	1,320,950	1,329,220	1,303,270	1,431,810	1,398,060	1,426,460	1,496,460	1,504,530
Shareholders' Equity	CZK mil	118,927	120,975	123,758	114,561	117,151	122,657	126,727	129,565
Of Which Minority Interest	CZK mil	151	165	164	152	157	184	187	194
Liabilities	CZK mil	1,202,030	1,208,250	1,179,520	1,317,250	1,280,910	1,303,810	1,369,740	1,374,960
Interbank Loans	CZK mil	183,648	157,525	208,394	320,702	375,088	389,844	431,895	413,822
Customer Deposits	CZK mil	879,129	883,237	907,926	918,266	938,109	952,506	986,666	1,041,280
Retail Deposits	CZK mil	608,400	619,400	634,200	650,400	660,300	672,000	684,100	695,100
Corporate Deposits	CZK mil	194,200	201,500	194,600	188,300	196,200	218,600	202,200	206,200
Issued Debt Securities	CZK mil	8,840	1,805	3,166	2,587	3,210	8,564	10,650	11,036
Other Liabilities	CZK mil	33,058	27,974	28,546	28,634	32,490	23,877	31,541	29,886

Source: Company Data, Helgi Analytics

## Asset Quality – Quarterly

ASSET QUALITY		Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
Non-Performing Loans	CZK mil	14,671	13,672	13,652	14,912	13,770	12,566	13,008	13,292
Gross Loans	CZK mil	666,860	651,034	682,599	710,083	724,748	698,104	722,689	738,427
Total Provisions	CZK mil	12,665	12,340	13,647	14,032	13,115	12,465	12,778	12,800

Source: Company Data, Helgi Analytics

## Growth Rates – Quarterly

GROWTH RATES		Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
Customer Loan Growth	%	14.7	10.6	13.3	14.7	8.78	7.35	6.12	4.25
Retail Loan Growth	%	6.54	9.87	10.6	10.8	10.3	9.76	8.38	7.24
Mortgage Loan Growth	%	11.9	11.4	10.8	11.2	11.1	11.3	9.94	8.95
Consumer Loan Growth	%	1.56	2.79	7.14	7.49	7.52	5.73	4.30	3.05
Corporate Loan Growth	%	10.3	9.79	6.65	2.74	3.28	-0.439	1.49	6.02
Total Asset Growth	%	21.7	24.6	-0.577	14.8	5.84	7.32	14.8	5.08
Shareholders' Equity Growth	%	0.436	-0.620	-0.630	-1.24	-1.49	1.39	2.40	13.1
Customer Deposit Growth	%	13.8	12.0	9.90	9.87	6.71	7.84	8.67	13.4
Retail Deposit Growth	%	...	6.81	6.89	7.91	8.53	8.49	7.87	6.87
Corporate Deposit Growth	%	...	32.8	22.3	19.6	1.03	8.49	3.91	9.51

Source: Company Data, Helgi Analytics



## Market Share - Quarterly

MARKET SHARE		Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
Market Share in Revenues	%	22.7	20.7	21.3	18.4	21.8	20.8	21.7	20.2
Market Share in Net Profit	%	24.7	18.8	22.3	14.8	21.2	18.7	21.5	17.5
Market Share in Employees	%	24.4	24.3	24.2	24.2	24.0	24.2	23.7	23.5
Market Share in Bank Cards	%	25.0	25.0	24.4	24.3	24.4	24.3	...	...
Market Share in Debit Cards	%	...	...	...	...	...	...	...	...
Market Share in Credit Cards	%	...	...	...	...	...	...	...	...
Market Share in Branches	%	26.6	26.6	26.7	26.5	26.5	25.6	26.0	25.4
Market Share in Customer Loans	%	20.8	20.7	21.1	21.5	21.4	20.7	21.2	21.4
Market Share in Corporate Loans	%	24.0	25.0	24.8	23.5	23.5	23.6	23.7	24.1
Market Share in Retail Loans	%	22.7	22.8	23.1	23.2	23.3	23.3	23.3	23.3
Market Share in Consumer Loans	%	17.4	17.4	17.6	17.6	17.7	17.5	17.5	17.4
Market Share in Mortgage Loans	%	20.2	20.3	20.5	20.6	20.7	20.8	20.9	20.9
Market Share in Total Assets	%	18.1	19.0	17.8	19.4	18.5	19.6	19.3	19.1
Market Share in Customer Deposits	%	20.6	21.2	20.6	20.7	20.8	21.4	20.7	21.0
Market Share in Retail Deposits	%	25.7	25.7	25.8	25.9	26.0	25.9	25.9	25.9
Market Share in Corporate Deposits	%	19.9	20.2	19.8	19.1	20.1	21.0	19.9	19.9

Source: Company Data, Helgi Analytics

## Ratios - Quarterly

RATIOS		Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
ROE	%	13.7	9.69	13.3	12.8	13.7	11.7	12.6	14.9
ROA	%	1.26	0.877	1.24	1.11	1.12	0.996	1.08	1.27
Costs (As % Of Assets)	%	1.38	1.45	1.41	1.32	1.28	1.31	1.32	1.25
Costs (As % Of Income)	%	47.6	50.4	48.9	49.4	45.0	44.6	47.3	44.2
Capital Adequacy Ratio	%	18.0	18.7	17.8	17.3	17.6	19.2	18.8	20.6
Tier 1 Ratio	%	17.5	18.1	17.3	16.8	17.1	18.5	18.2	20.2
Net Interest Margin	%	1.95	2.04	1.99	1.93	1.99	2.16	1.99	1.96
Interest Spread	%	1.93	2.01	1.96	1.87	1.94	2.10	1.93	1.89
Asset Yield	%	2.17	2.25	2.26	2.55	2.53	2.81	2.72	2.73
Cost Of Liabilities	%	0.240	0.236	0.299	0.678	0.584	0.706	0.797	0.834
Payout Ratio	%	0	0	0	0	0	0	0	0
Interest Income (As % Of Revenues)	%	67.5	70.7	69.1	72.0	69.8	73.7	71.4	69.2
Fee Income (As % Of Revenues)	%	23.4	22.7	22.5	23.5	20.6	21.0	21.5	21.2
Other Income (As % Of Revenues)	%	9.13	6.63	8.35	4.51	9.69	5.26	7.11	9.58
Cost Per Employee	USD per month	3,388	3,597	3,593	3,698	3,707	3,532	3,619	3,825
Cost Per Employee (Local Currency)	CZK per month	76,289	77,869	75,335	79,441	82,082	78,464	82,220	86,685
Staff Cost (As % Of Total Cost)	%	52.8	49.5	49.4	53.1	54.5	51.5	50.8	54.3
Equity (As % Of Assets)	%	9.00	9.10	9.50	8.00	8.38	8.60	8.47	8.61
Loans (As % Of Deposits)	%	74.4	72.3	73.7	75.8	75.9	72.0	72.0	69.7
Loans (As % Assets)	%	49.5	48.1	51.3	48.6	50.9	48.1	47.4	48.2
NPLs (As % Of Loans)	%	2.20	2.10	2.00	2.10	1.90	1.80	1.80	1.80
Provisions (As % Of NPLs)	%	86.3	90.3	100.0	94.1	95.2	99.2	98.2	96.3
Provisions (As % Of Loans)	%	1.94	1.93	2.04	2.02	1.84	1.82	1.80	1.76
Cost of Provisions (As % Of Loans)	%	-0.130	0.311	0.453	0.095	0.127	-0.810	0.153	-0.038

Source: Company Data, Helgi Analytics



## Financial Data – Annual

### Income Statement – Annual

INCOME STATEMENT		2011	2012	2013	2014	2015	2016	2017	2018
Interest Income	CZK mil	39,555	36,777	33,348	30,832	28,974	28,442	28,148	35,006
Interest Cost	CZK mil	8,320	7,124	5,438	4,160	3,110	2,930	2,798	7,185
Net Interest Income	CZK mil	31,235	29,653	27,910	26,672	25,864	25,512	25,350	27,821
Net Fee Income	CZK mil	12,381	11,769	11,294	11,306	10,254	9,308	8,803	8,540
Other Income	CZK mil	448	2,150	2,682	3,160	3,625	3,407	3,074	2,727
Total Revenues	CZK mil	44,064	43,571	41,886	41,138	39,743	38,227	37,227	39,088
Staff Cost	CZK mil	8,852	8,783	9,013	8,632	8,804	9,169	9,224	9,553
Depreciation	CZK mil	2,405	2,201	2,061	2,271	2,154	2,114	2,046	2,001
Operating Cost	CZK mil	18,424	18,259	17,594	18,234	18,586	18,146	18,240	18,327
Operating Profit	CZK mil	25,640	25,312	24,292	22,904	21,157	20,081	18,987	20,761
Provisions	CZK mil	5,501	3,707	3,332	3,728	2,648	1,905	33.0	-288
Extra and Other Cost	CZK mil	3,069	1,027	1,480	456	569	-749	927	1,886
Pre-Tax Profit	CZK mil	17,070	20,578	19,481	18,720	17,940	18,925	18,027	19,163
Tax	CZK mil	3,565	4,175	3,904	3,650	3,645	3,470	3,415	3,801
Minorities	CZK mil	133	209	11.5	-1.00	2.00	-2.00	2.00	0
Net Profit	CZK mil	13,638	16,612	15,588	15,070	14,293	15,457	14,610	15,362
Dividends	CZK mil	4,560	7,600	9,120	11,400	13,423	11,552	11,704	...

Source: Company Data, Helgi Analytics

### Growth Rates – Annual

GROWTH RATES		2011	2012	2013	2014	2015	2016	2017	2018
Net Interest Income Growth	%	2.88	-5.07	-5.88	-4.44	-3.03	-1.36	-0.635	9.75
Net Fee Income Growth	%	1.76	-4.95	-4.03	0.107	-9.30	-9.23	-5.43	-2.99
Total Revenue Growth	%	-2.97	-1.12	-3.87	-1.79	-3.39	-3.81	-2.62	5.00
Operating Cost Growth	%	-1.35	-0.897	-3.64	3.64	1.93	-2.37	0.518	0.477
Operating Profit Growth	%	-4.11	-1.28	-4.03	-5.71	-7.63	-5.09	-5.45	9.34
Pre-Tax Profit Growth	%	16.4	20.6	-5.33	-3.91	-4.17	5.49	-4.75	6.30
Net Profit Growth	%	13.2	21.8	-6.16	-3.32	-5.16	8.14	-5.48	5.15

Source: Company Data, Helgi Analytics



## Balance Sheet – Annual

BALANCE SHEET		2011	2012	2013	2014	2015	2016	2017	2018
Cash	CZK mil	31,936	22,501	77,581	54,489	111,027	173,100	280,221	63,914
Interbank Loans	CZK mil	77,433	65,320	75,393	38,533	34,717	22,328	157,525	389,844
Customer Loans	CZK mil	465,565	470,859	489,194	500,039	532,524	577,453	638,694	685,639
Retail Loans	CZK mil	261,144	263,714	275,900	284,029	302,306	318,000	349,400	383,500
Mortgage Loans	CZK mil	127,569	139,158	155,099	167,160	186,813	209,600	233,400	259,700
Consumer Loans	CZK mil	77,380	72,490	69,740	67,356	64,716	64,500	66,300	70,100
Corporate Loans	CZK mil	179,493	185,425	196,839	198,044	207,572	233,100	255,924	254,800
Debt Securities	CZK mil	275,458	323,598	289,947	276,183	255,335	271,059	231,415	256,942
Fixed Assets	CZK mil	13,427	12,686	13,732	13,431	12,318	10,456	9,913	14,643
Total Assets	CZK mil	892,598	920,403	968,723	902,589	959,584	1,066,530	1,329,220	1,426,460
Shareholders' Equity	CZK mil	79,862	93,312	100,978	107,783	119,963	121,730	120,975	122,657
Of Which Minority Interest	CZK mil	26.0	122	316	-26.0	-23.0	166	165	184
Liabilities	CZK mil	812,736	827,092	867,745	794,806	839,621	944,796	1,208,250	1,303,810
Interbank Loans	CZK mil	77,433	65,320	75,393	38,533	34,717	22,328	157,525	389,844
Customer Deposits	CZK mil	672,280	704,532	726,592	680,439	713,836	788,873	883,237	952,506
Retail Deposits	CZK mil	...	...	...	...	...	579,900	619,400	672,000
Corporate Deposits	CZK mil	...	...	...	...	...	151,700	201,500	218,600
Issued Debt Securities	CZK mil	48,122	38,413	30,464	23,833	15,493	9,173	1,805	8,564
Other Liabilities	CZK mil	39,472	39,802	37,653	35,964	26,377	32,468	27,974	23,877

Source: Company Data, Helgi Analytics

## Asset Quality – Annual

ASSET QUALITY		2011	2012	2013	2014	2015	2016	2017	2018
Non-Performing Loans	CZK mil	27,474	26,598	24,657	22,894	20,905	18,479	13,672	12,566
Gross Loans	CZK mil	482,041	487,654	505,872	516,228	547,785	593,000	651,034	698,104
Total Provisions	CZK mil	16,476	16,795	16,679	16,189	15,261	15,547	12,340	12,465

Source: Company Data, Helgi Analytics

## Growth Rates – Annual

GROWTH RATES		2011	2012	2013	2014	2015	2016	2017	2018
Customer Loan Growth	%	5.61	1.14	3.89	2.22	6.50	8.44	10.6	7.35
Retail Loan Growth	%	0.929	0.984	4.62	2.95	6.43	5.19	9.87	9.76
Mortgage Loan Growth	%	8.57	9.08	11.5	7.78	11.8	12.2	11.4	11.3
Consumer Loan Growth	%	0.444	-6.32	-3.79	-3.42	-3.92	-0.334	2.79	5.73
Corporate Loan Growth	%	13.8	3.30	6.16	0.612	4.81	12.3	9.79	-0.439
Total Asset Growth	%	1.24	3.12	5.25	-6.83	6.31	11.1	24.6	7.32
Shareholders' Equity Growth	%	12.6	16.8	8.22	6.74	11.3	1.47	-0.620	1.39
Customer Deposit Growth	%	0.232	4.80	3.13	-6.35	4.91	10.5	12.0	7.84
Retail Deposit Growth	%	...	...	...	...	...	...	6.81	8.49
Corporate Deposit Growth	%	...	...	...	...	...	...	32.8	8.49

Source: Company Data, Helgi Analytics



## Market Share - Annual

MARKET SHARE		Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19
Market Share in Revenues	%	22.7	20.7	21.3	18.4	21.8	20.8	21.7	20.2
Market Share in Net Profit	%	24.7	18.8	22.3	14.8	21.2	18.7	21.5	17.5
Market Share in Employees	%	24.4	24.3	24.2	24.2	24.0	24.2	23.7	23.5
Market Share in Bank Cards	%	25.0	25.0	24.4	24.3	24.4	24.3	...	...
Market Share in Debit Cards	%	...	...	...	...	...	...	...	...
Market Share in Credit Cards	%	...	...	...	...	...	...	...	...
Market Share in Branches	%	26.6	26.6	26.7	26.5	26.5	25.6	26.0	25.4
Market Share in Customer Loans	%	20.8	20.7	21.1	21.5	21.4	20.7	21.2	21.4
Market Share in Corporate Loans	%	24.0	25.0	24.8	23.5	23.5	23.6	23.7	24.1
Market Share in Retail Loans	%	22.7	22.8	23.1	23.2	23.3	23.3	23.3	23.3
Market Share in Consumer Loans	%	17.4	17.4	17.6	17.6	17.7	17.5	17.5	17.4
Market Share in Mortgage Loans	%	20.2	20.3	20.5	20.6	20.7	20.8	20.9	20.9
Market Share in Total Assets	%	18.1	19.0	17.8	19.4	18.5	19.6	19.3	19.1
Market Share in Customer Deposits	%	20.6	21.2	20.6	20.7	20.8	21.4	20.7	21.0
Market Share in Retail Deposits	%	25.7	25.7	25.8	25.9	26.0	25.9	25.9	25.9
Market Share in Corporate Deposits	%	19.9	20.2	19.8	19.1	20.1	21.0	19.9	19.9

Source: Company Data, Helgi Analytics

## Ratios - Annual

RATIOS		2011	2012	2013	2014	2015	2016	2017	2018
ROE	%	18.1	19.2	16.0	14.4	12.6	12.8	12.0	12.6
ROA	%	1.54	1.83	1.65	1.61	1.54	1.53	1.22	1.11
Costs (As % Of Assets)	%	2.08	2.01	1.86	1.95	2.00	1.79	1.52	1.33
Costs (As % Of Income)	%	41.8	41.9	42.0	44.3	46.8	47.5	49.0	46.9
Capital Adequacy Ratio	%	13.6	16.1	18.6	18.5	21.3	20.1	18.7	19.2
Tier 1 Ratio	%	13.6	15.5	17.3	18.4	21.2	19.5	18.1	18.5
Net Interest Margin	%	3.52	3.27	2.95	2.85	2.78	2.52	2.12	2.02
Interest Spread	%	3.43	3.19	2.89	2.79	2.73	2.48	2.09	1.97
Asset Yield	%	4.46	4.06	3.53	3.30	3.11	2.81	2.35	2.54
Cost Of Liabilities	%	1.03	0.869	0.642	0.500	0.381	0.328	0.260	0.572
Payout Ratio	%	33.4	45.7	58.5	75.6	93.9	74.7	80.1	...
Interest Income (As % Of Revenues)	%	70.9	68.1	66.6	64.8	65.1	66.7	68.1	71.2
Fee Income (As % Of Revenues)	%	28.1	27.0	27.0	27.5	25.8	24.3	23.6	21.8
Other Income (As % Of Revenues)	%	1.02	4.93	6.40	7.68	9.12	8.91	8.26	6.98
Cost Per Employee	USD per month	3,951	3,478	3,604	3,214	2,927	2,940	3,218	3,595
Cost Per Employee (Local Currency)	CZK per month	69,881	68,024	70,520	68,698	69,866	74,190	75,574	78,703
Staff Cost (As % Of Total Cost)	%	48.0	48.1	51.2	47.3	47.4	50.5	50.6	52.1
Equity (As % Of Assets)	%	8.95	10.1	10.4	11.9	12.5	11.4	9.10	8.60
Loans (As % Of Deposits)	%	69.3	66.8	67.3	73.5	74.6	73.2	72.3	72.0
Loans (As % Assets)	%	52.2	51.2	50.5	55.4	55.5	54.1	48.1	48.1
NPLs (As % Of Loans)	%	5.70	5.45	4.87	4.43	3.82	3.12	2.10	1.80
Provisions (As % Of NPLs)	%	60.0	63.1	67.6	70.7	73.0	84.1	90.3	99.2
Provisions (As % Of Loans)	%	3.54	3.57	3.41	3.24	2.87	2.69	1.93	1.82
Cost of Provisions (As % Of Loans)	%	1.21	0.792	0.694	0.754	0.513	0.343	0.005	-0.043

Source: Company Data, Helgi Analytics



## ABOUT HELGI ANALYTICS

Helgi Analytics is a consulting company based in the Czech Republic. The company mainly provides consultancy in the area of financial services and real estate and focuses primarily on the region of Central and Eastern Europe.

Helgi Analytics also runs a web application called Helgi Library, which is a database/library offering data and analyses on more than 99% of the world's economy and population. The Library aims to bring interesting statistical data and analyses to a wide audience under affordable conditions. If you wish to get more details, please visit [www.helgilibrary.com](http://www.helgilibrary.com) or contact us at [info@helgilibrary.com](mailto:info@helgilibrary.com).

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