KIT

Karlsruher Institut für Technologie

Fakultät für Wirtschaftswissenschaften

Institut für Volkswirtschaftslehre (ECON)

Bachelor Thesis in Macroeconomics

„US commercial banks"

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(Topic 1)

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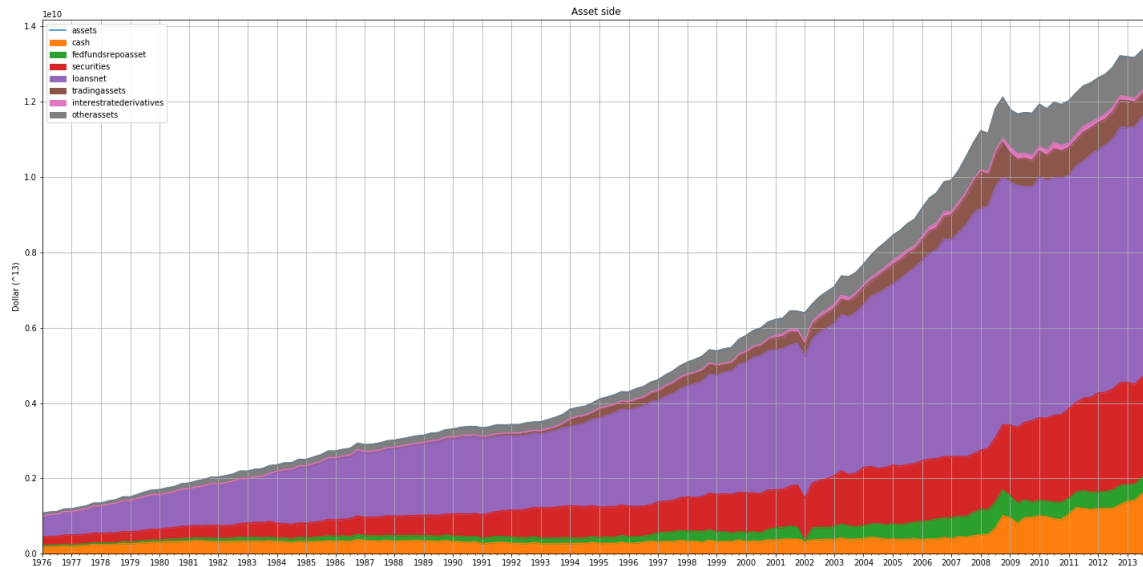Matr.-Nr. 2054108

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2.1 General look at us banks
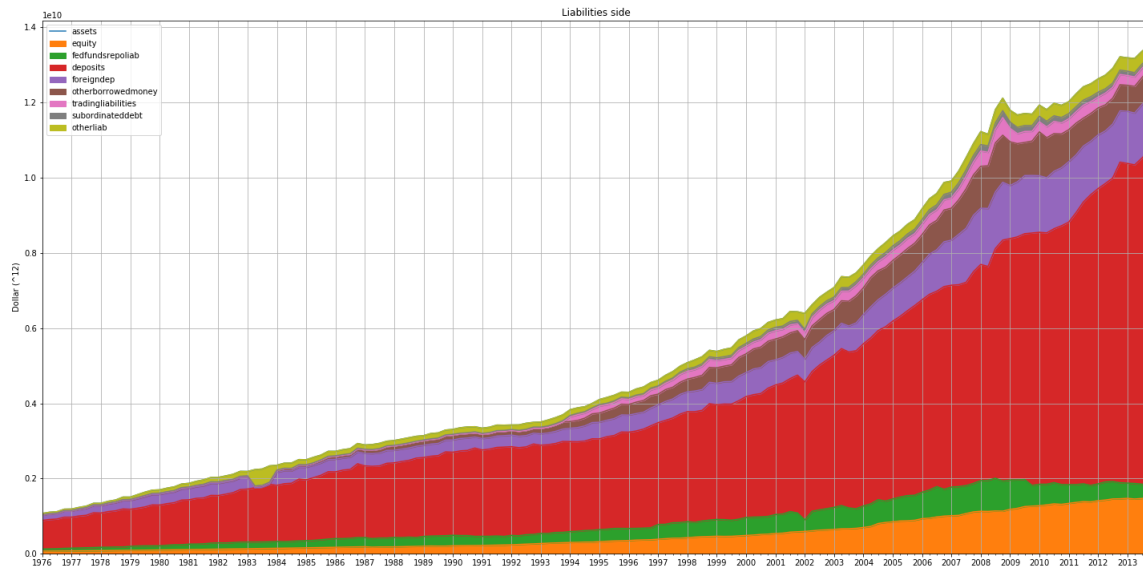
Figure 1: Asset side

Graph description: The graph shows the aggregates of the main variables from the asset side of the balance sheet over time.

Key Observations:

- loans make up the largest share of assets

- share of trading assets have risen

- loans and trading assets have risen more than securities

- drop in assets in 2002 and 2008
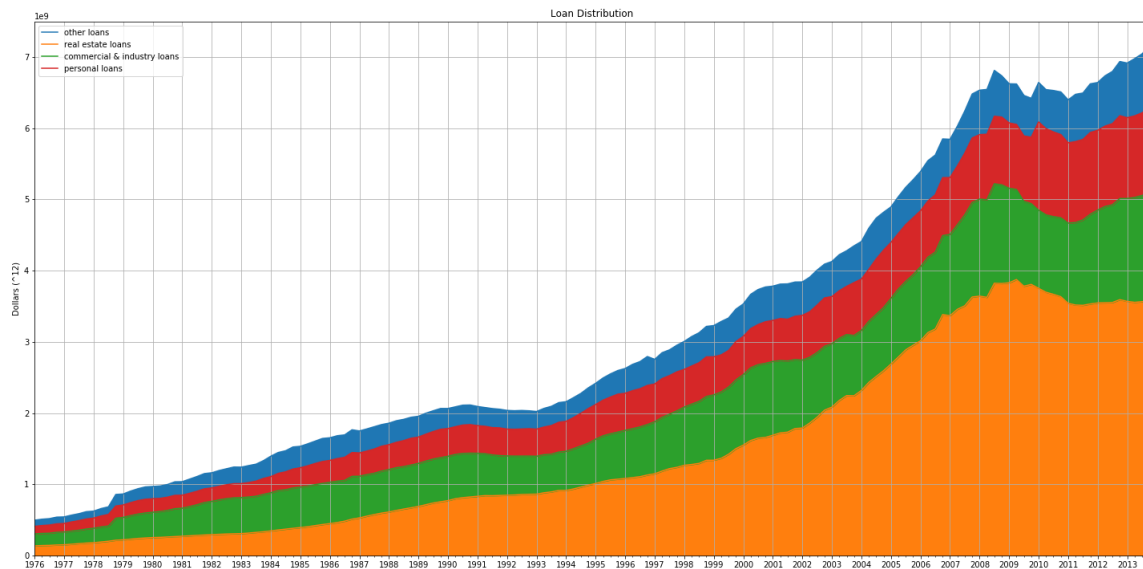
Figure 2: Liabilities side

Graph description: The graph shows the aggregates of the main variables from the liabilities side of the balance sheet over time.

Key Observations:

- deposits as main source of funding

Figure 3: Loans

Graph description: It shows the share of loan types of total loans over time.

Key Observations:

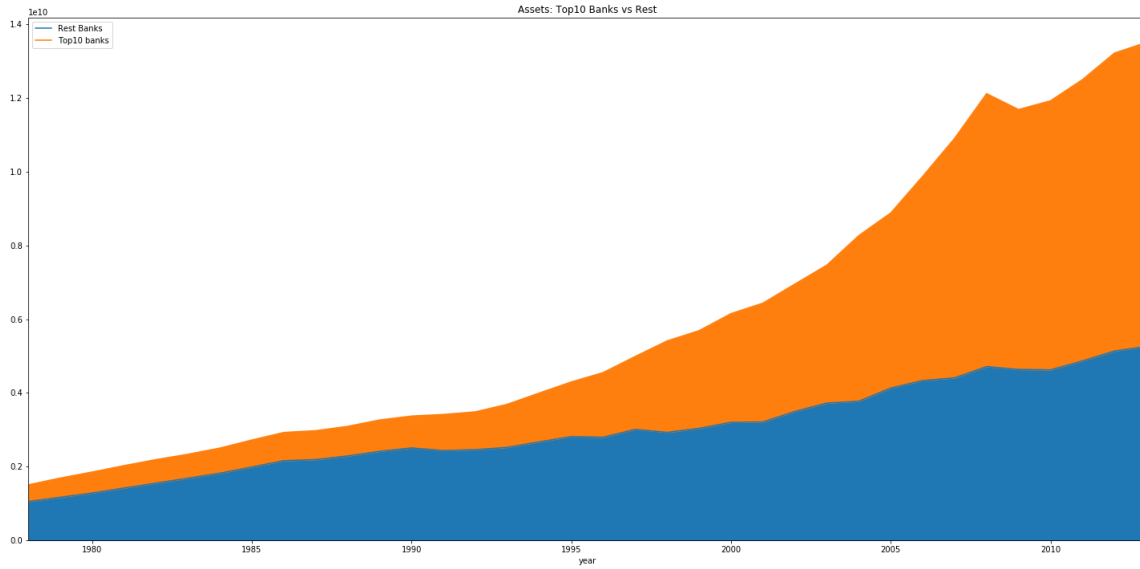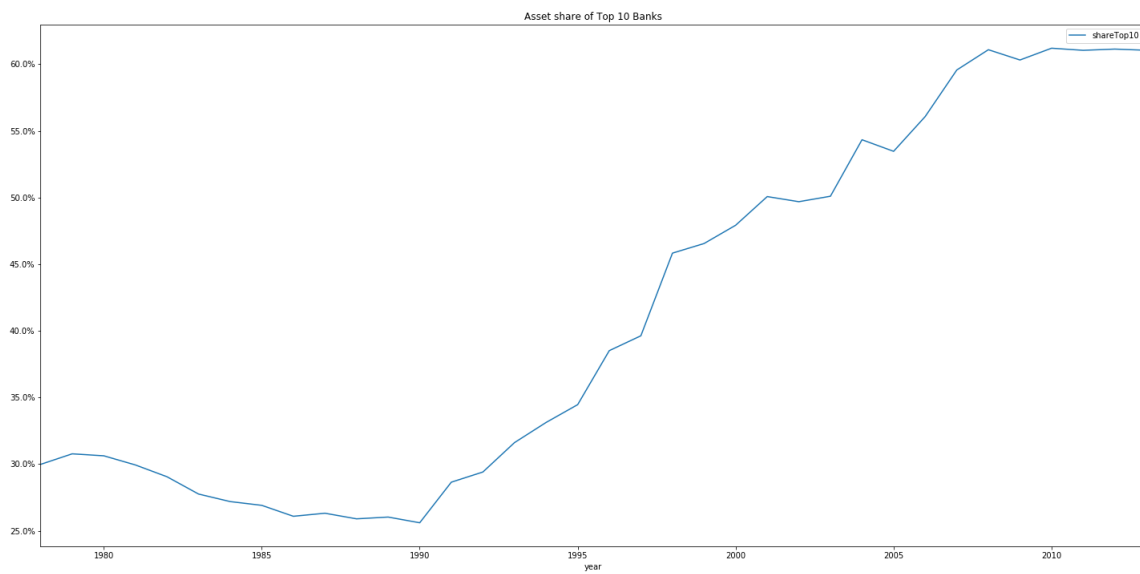- real estate loans has largest share
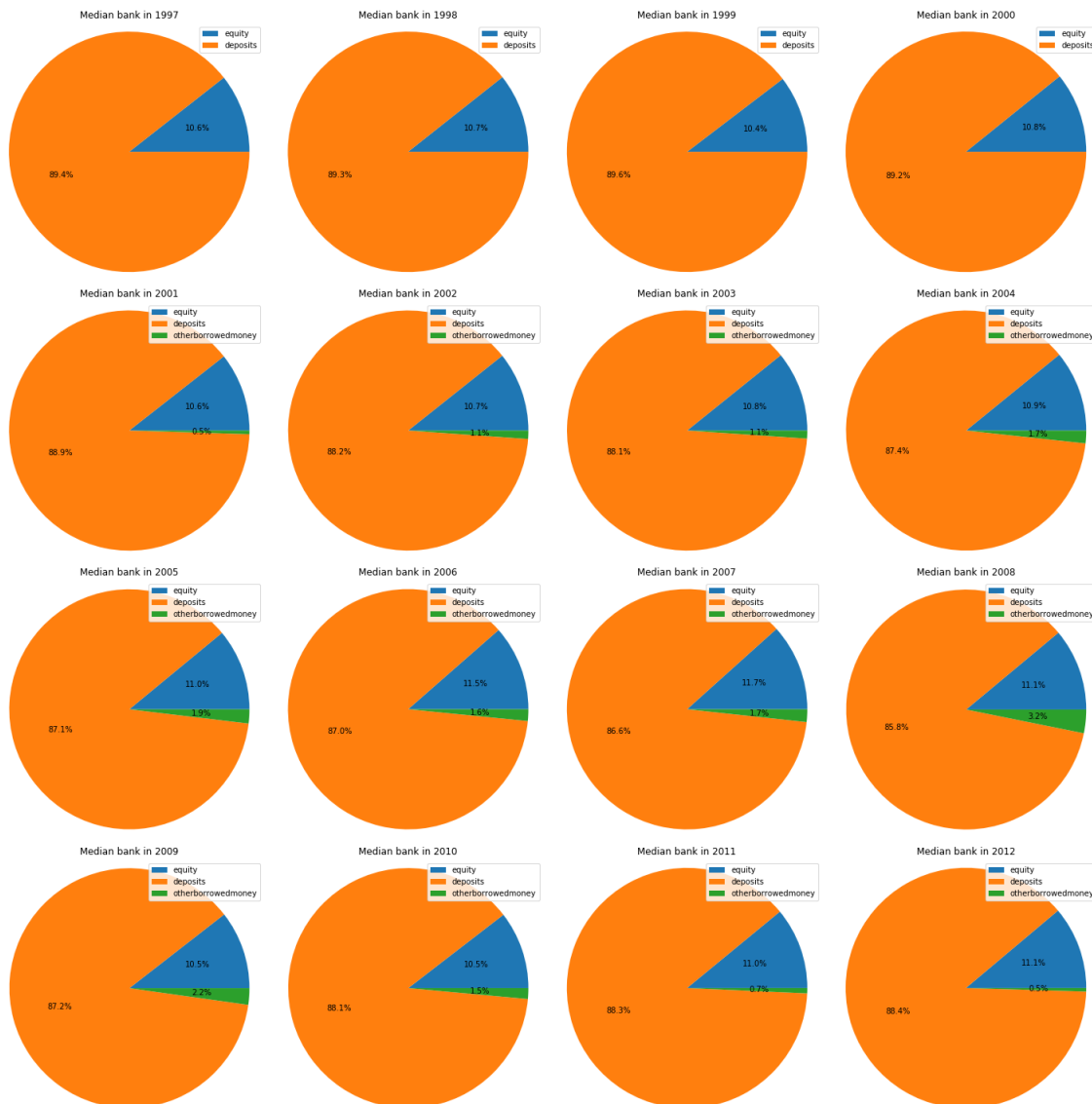
Figure 4: Top10 asset share

Figure 5: Rise of Top10 asset share

Typical bank

Figure 6: Median bank financing over time

Graph description: Each pie chart shows how the liabilities side of a typical bank looks like.

2.2 Looking into leverage

Throughout the analysis the definition of accounting leverage (assets/equity) is used. Equity is calculated by total assets minus total liabilities. In addition, for risk analysis banks belonging a bank holding company were aggregated. Hence, the dataset which was used contained bhcs and independent banks.

Figure 7: Average Leverage over all years

Graph description: The graph shows the average leverage (assets/equity) for every year over all banks. Banks with equity or assets below zero are excluded.

Key Observations:

- Overall Leverage did fall over time

- Spike in leverage in year 2008/2009

- Leverage lowest in 2007

- Small spike in year 1999

- Introduction of Basel 1 in 1988 might have lead to continuously decrease in leverage

Figure 8: Leverage Top 10 vs Rest over all years
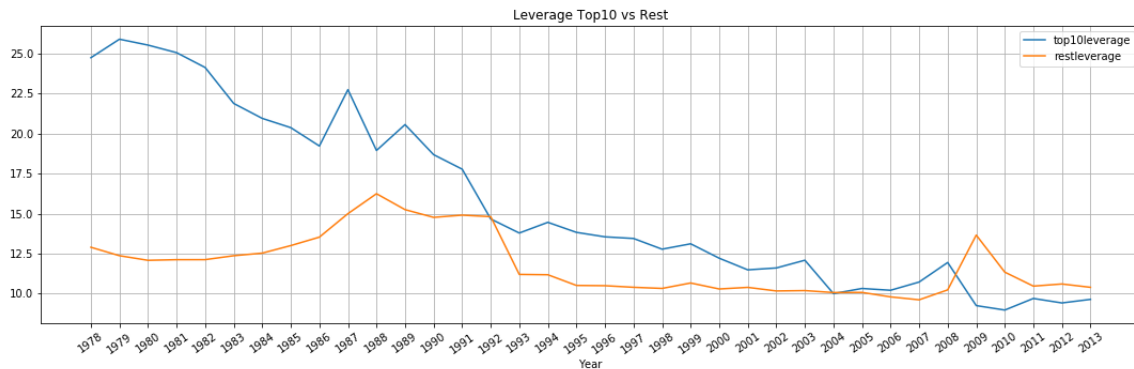
Graph description: Since the top 10 banks share of assets did rise up to 60% in 2013, it is important to differentiate. The graph shows the average leverage (assets/equity) for every year quarter 4.
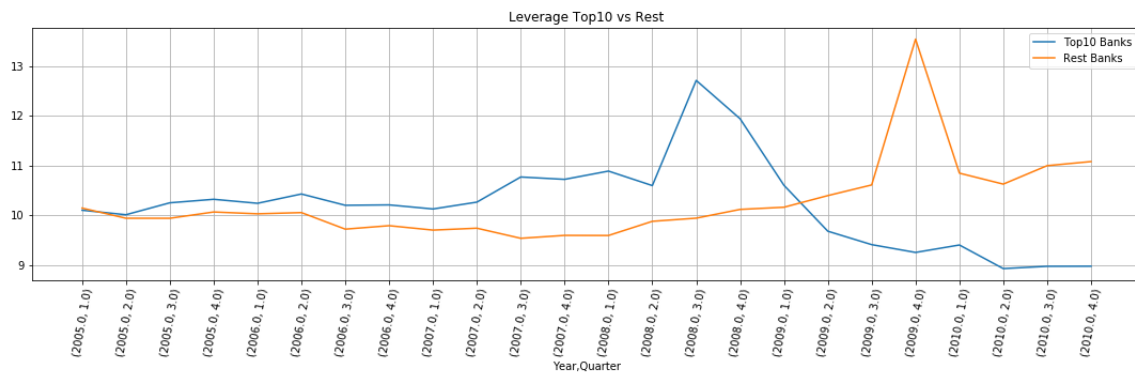
Blue Line: Top 10 Banks by assets

Orange Line: All banks beside the top 10

Key Observations:

- Leverage of top 10 banks tends to be higher

- Trend of falling leverage is similar

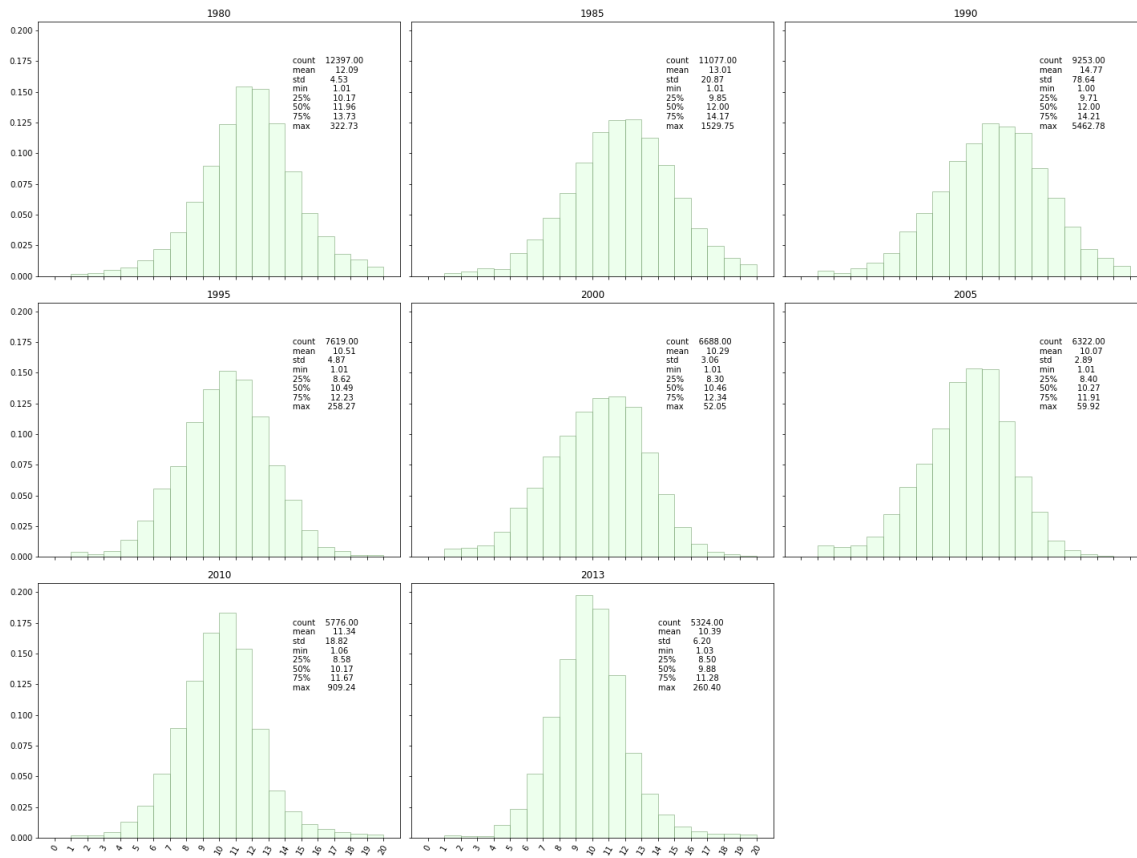Figure 9: Leverage Top10 vs Rest detailed look into crisis

Key Observations:

- Top10 banks leverage peak in year 2008/3 before the rest banks leverage peak in year 2009/4 (theory of risky assets from big banks to small transfer?)

A look into the distribution of leverage

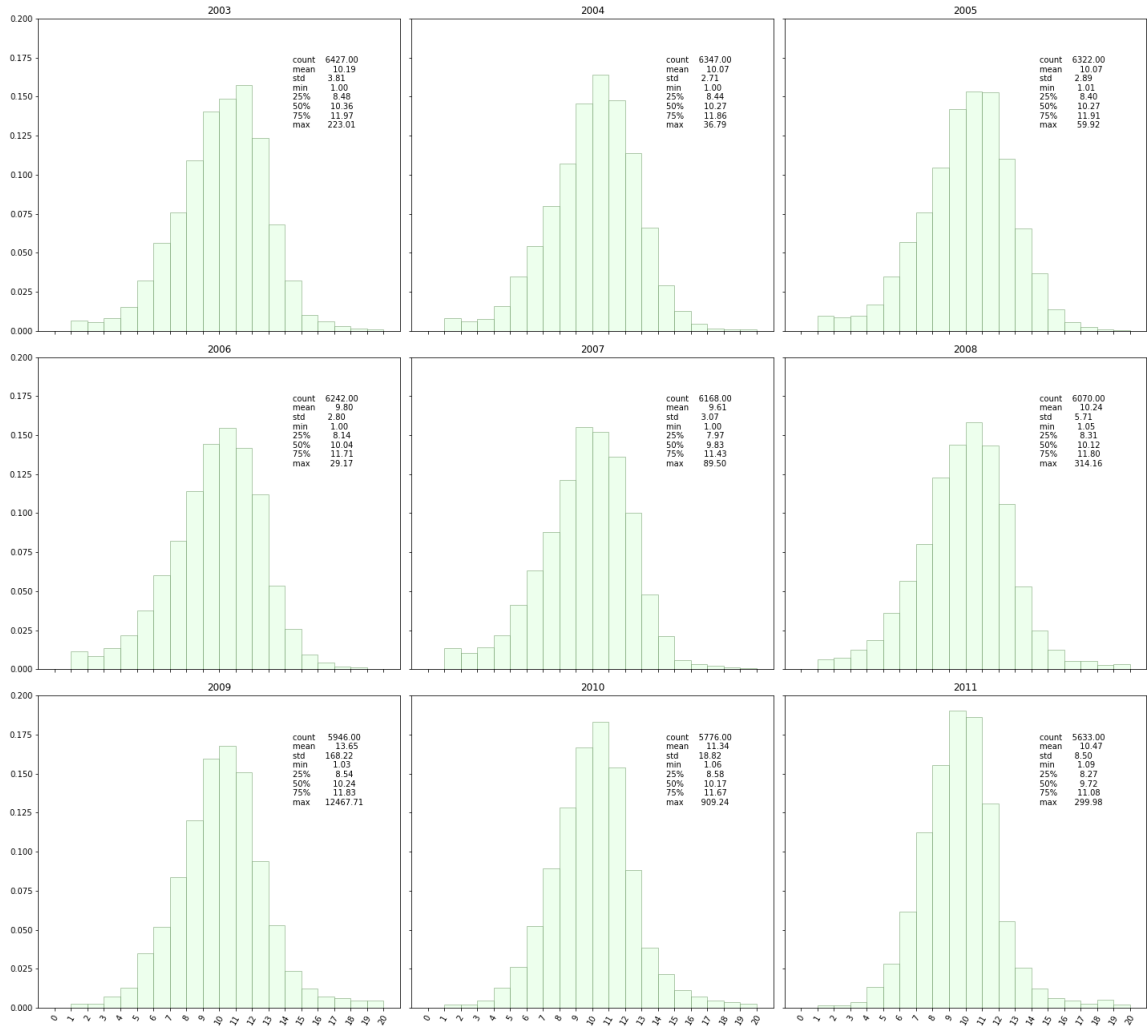Figure 10: Distribution 1980-2013

Graph description: Counts are normed to 1. Only leverage ratios between 0-20 are accounted for. The others are seen as outliers. Leverage ratios are always from quarter 4.

Key Observations:

- large standard deviation in year 2010 with 18.82

- less and higher bars in 2013 indicate higher homogeneity in 2013 compared to the years before.

Figure 11: Distribution in crisis 2003-2011

Graph description: Counts are normed to 1. Only leverage ratios between 0-20 are accounted for. The others are seen as outliers. Leverage ratios are always from quarter 4.

Key Observations:

- Increasing homogenity over time.

- extremely high standard deviation in year 2009 with 168.22

3 Conclusion