

# **Banking crises and financial crises in Germany, 1873 - 1974**

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## Introduction

- Only few banking crises in Germany in international perspective during the last 140 years.
- Major panics in 1873 and 1931.
- Minor panics in 1901 and 1974.
- More crises in earlier periods (1848, 1857, 1866).



Customers in front of Danatbank in Berlin, 1931

(Quelle: Stern)

## Theory I

A bank is bankrupt if:

- Its liabilities are larger than its assets.
- Its runs out of cash.

A bankruptcy of only one bank is a 'panic'; a bankruptcy of several banks is a 'crisis'.

A panic and / or crisis can already occur if customers assume / fear that a bank is bankrupt.

## Theory II

Asymmetric information between customer and a bank can induce a crisis.

Asymmetric information with respect to:

- Value of assets vs. liabilities.
- Cash.

If a reliable lender of last resort (e.g., a central bank) exists and if the customers know the amount of liquidity available to the central bank, cash-crises might be less important (as long as the bank can transform assets into cash at the central bank).

## Theory III

The value of assets and liabilities as well as the cash demand varies over time.

- Decline of asset values can be induced by declining asset prices (e.g., stocks, real estate) or by recessions (more defaults on credits).
- Increase of liabilities can result from exchange rate movements if the bank has a net foreign exposure (e.g., deposits in Dollar and credits in Mark).
- Seasonal and cyclical fluctuation of cash demand.

## Preview of results

- 1873: High exposure of banks to 'new' types securities (stocks) and rapidly declining stock prices during 1873/ 74. Followed by credit restriction, business cycle downturn and high depreciations on assets.
- 1901: Fraudulent behavior of bank management at few banks. Not related to each other. Liquidity provided by central bank.
- 1931: Substantial net foreign exposure of banks and perhaps risky credit allocation. Problems of fiscal policy resulted into devaluation of currency and this induced banking crisis.
- 1974: Problematic behavior of bank management at one bank. No effect on other banks. Only a small panic.

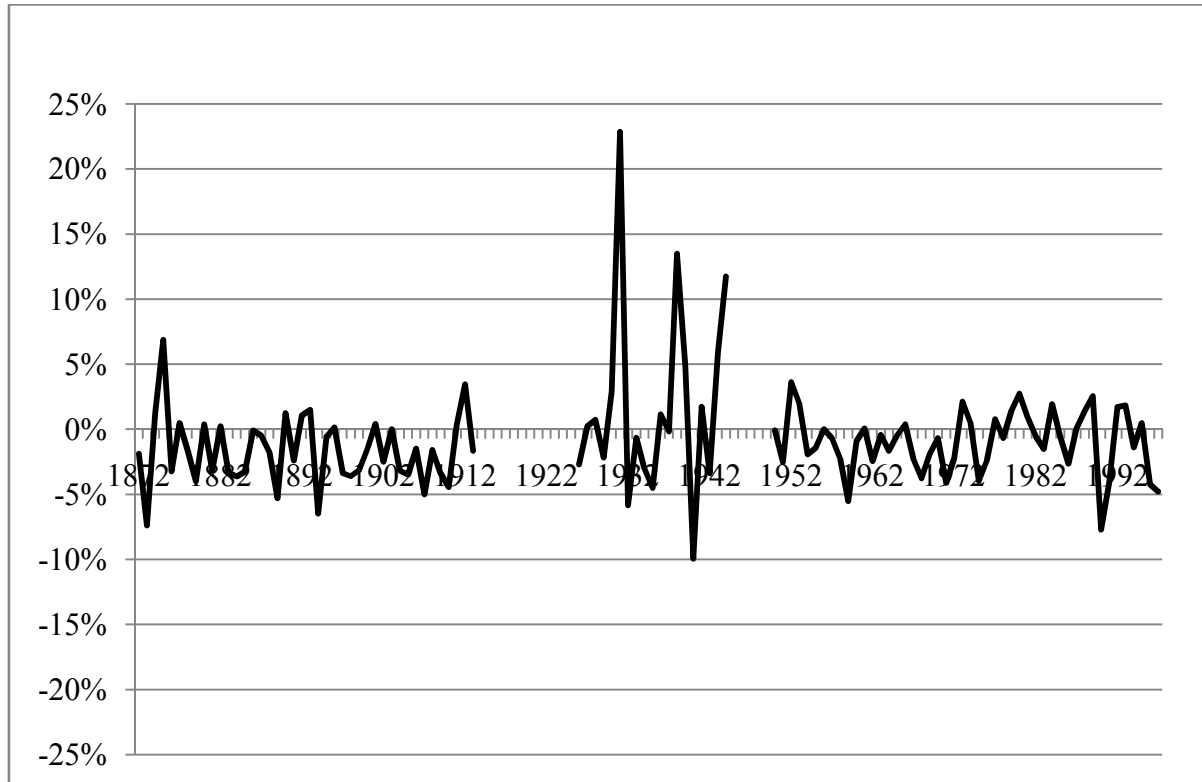
## A simple detection mechanism

Individuals can hold cash or short-term bank deposits to fulfill liquidity needs, i.e.  
Money (M) = Cash (C) + Deposits (D).

If banks are stable, individuals are willing to hold bank deposits. In contrast if banks are unstable, individuals prefer cash.

Therefore, the ratio of cash to money ( $C / M$ ) increases if individuals fear a banking crisis.

## The change of C / M, 1872-1997



## Implications

This simple approach reveals four years of declining trust in bank:

- 1875, most likely banking crisis
- 1931, most likely banking crisis
- 1938, most likely related to World War II
- 1944, most likely related to World War II
- 1901 and 1974 do not show up in the picture (only minor effect)

## The 1870s I

- Free incorporation for joint-stock companies in Germany from 1870. More than 400 IPOs within three years. Quality of assets / securities barely known.
- Inflow of French war indemnity (about 15 percent of GDP) in 1871-73.
- Repayment of German government bonds makes adjustment of portfolios necessary.
- Set-up of new banks of issue, shift from silver to gold coins. Massive increase of monetary base (M2 +45% during 1870-73).

## The 1870s II

- Incorporation of more than 140 new banks (1871-73). Expansion of existing banks.

Share capital of joint-stock banks increased by factor four.

- Substantial exposure to stock market (1870: 18 % of assets; 1872: 28 % of assets).

Half of equity was invested in stock market business.

- Moreover: credits became riskier (spread between credit and deposit interest rate increased from 3.7 to 4.2 percent during 1871/ 72).
- Liquidity no problem: cash / deposit ratio was 17% (1872) and 27% (1873).

## The 1870s III

- Stock market crash at the turn of 1872/ 73 (1873: - 38%).
- Mark-to-market valuation of assets: high bonus payments to management out of non-realized accounting profits in 1871/72, substantial depreciations on assets thereafter (close to 20% of assets).
- Return on equity declined from 12% (1870/72) to 1.5% (1873/76).
- 71 joint-stock banks went bankrupt until 1878.
- Credit crunch: decline of credits by 35% between 1873 and 1878.

## The 1870s IV

- Long-lasting political debate; economists proposed to interdict joint-stock companies.
- New corporate law enacted in 1884:
  - ⇒ Stricter incorporation rules (what's the value of the new firm?)
  - ⇒ More liability for incorporators, underwriter, and management.
  - ⇒ Better corporate governance (i.e., voting rights, publication of profit-loss-statement).
  - ⇒ More conservative accounting rules: replacing 'mark-to-market' by 'strict lowest value principle'.

## 1930s I

The four views of the crisis:

- Banking crisis (Born, James)
  - ⇒ expansion of risky credits during the 1920s; one bank collapsed and the central bank can only provide enough liquidity if fixed exchange rate is abolished. This turns out to be impossible. Consequence: crisis.
  
- Currency crisis (Hardach, Balderston, Temin)
  - ⇒ Government financed debt in foreign countries, but failed to do so in Mai / June 1931. As a result, the currency collapsed and the banks went into crisis due to a high-net foreign exposure.

## The 1930s II

- Twin crisis (Schnabel)
  - ⇒ Bank customers expected currency crisis and reduced deposits. Bank balance sheets became weaker. Moreover, deposits were transformed into foreign currency. Pressure on exchange rate increased and finally exchange rate broke down.
- Reparation crisis (Ritschl)
  - ⇒ Switch of debt priority in Young-plan increased risk of commercial foreign currency debt held in Germany and reduces supply of commercial credits to Germany.
  - ⇒ This was the reason for the currency crisis, not the government problems in May / June 1931.

## The 1930s III

- Recent research focus on the role of government for the instability of the German economy.
- It is not clear if the credits of banks were extraordinary risky during the late 1920s and early 1930s.
- It seems that the banking crisis was a 'second-order' problem. Fiscal and monetary policy was the true problem in 1931.
- Nevertheless: policy impact on banking sector (KWG)

## Conclusion

1. German banking system was – by and large – very stable during the last 140 years.
2. Banking crises in 1873 and 1931 were related to extraordinary economic policy regime.
3. Bank behavior substantially contributed to the 1873 crisis; impact in 1931 is not clear.
4. Crises in 1901 and 1974 were related to individual management problems.
5. All crises were followed by policy activity. However, holes remained in the regulatory regime.
6. Evaluation of policy measures quite difficult since weak data base (1873, 1901) or strong effect of general policy environment (1931).