

'Go with the flow...'

Bank rate decisions of De Nederlandsche Bank 1814-1870

working paper (first draft)
prepared for the workshop on
Central Bank balance sheets in historical perspective
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Central question

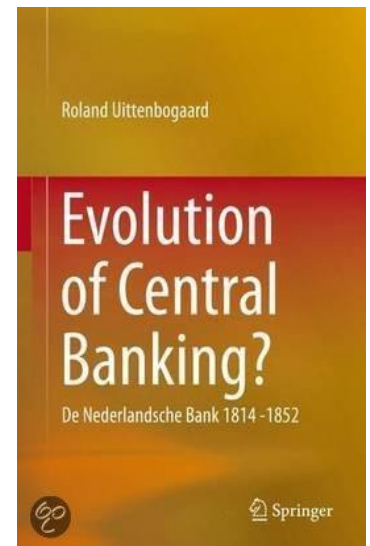
- What factors determined DNB's bank rate decisions?
 - Qualitative sources
 - Empirical analysis

Literature

- Free banking vs central banking
- Dutch historiography
 - Central state building (1780-1814)
 - Establishment: politics and economics

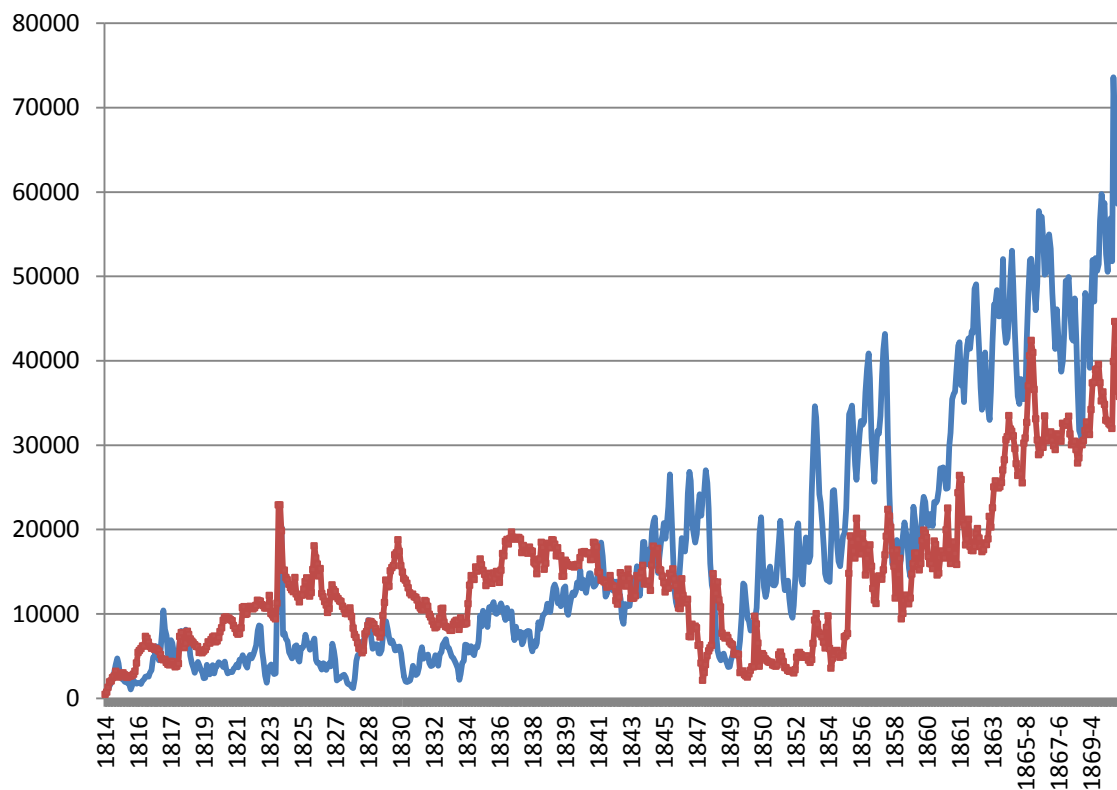
But:

- what was DNB supposed to do?

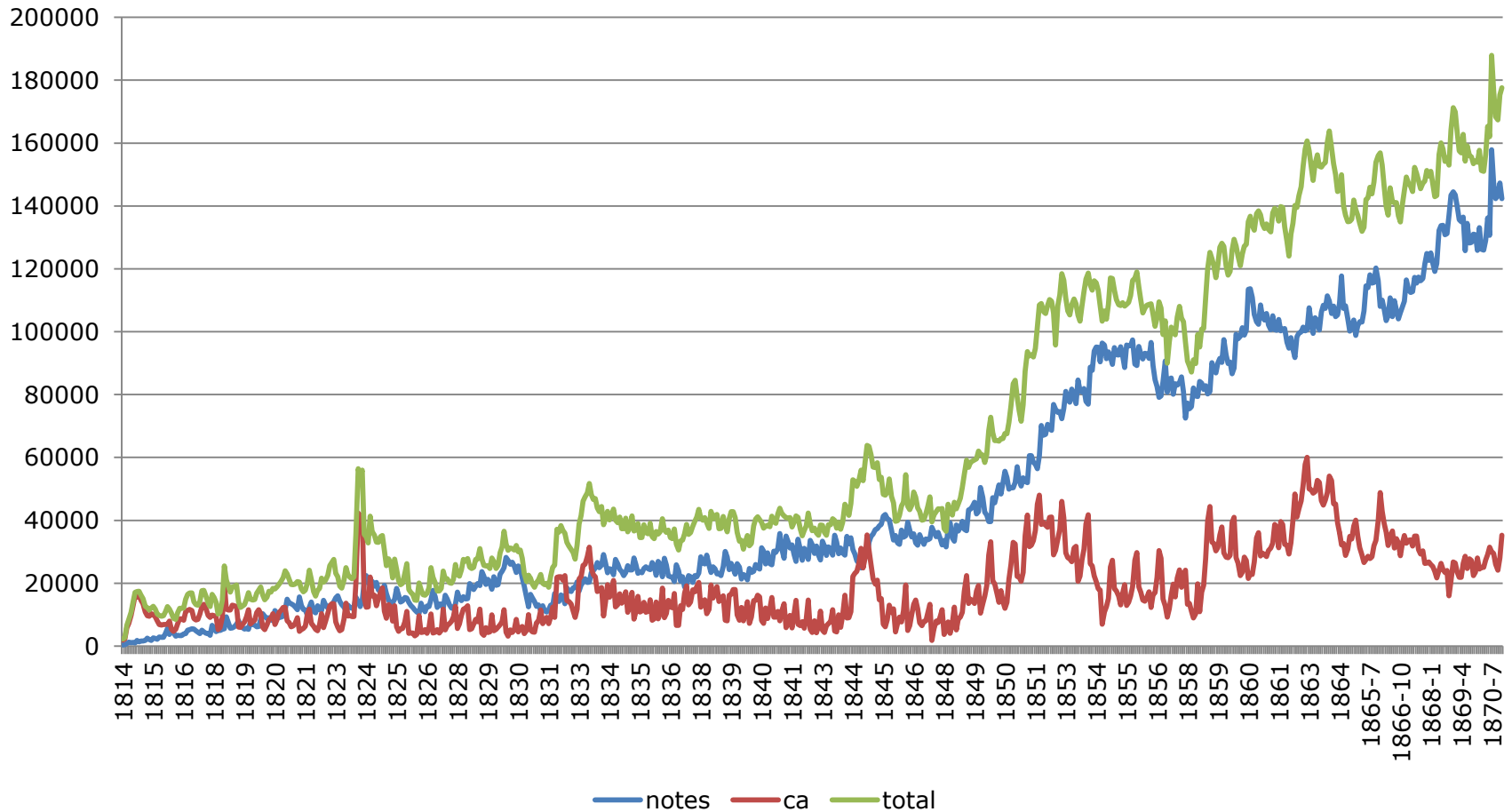


DNB balance sheet 1814-1914

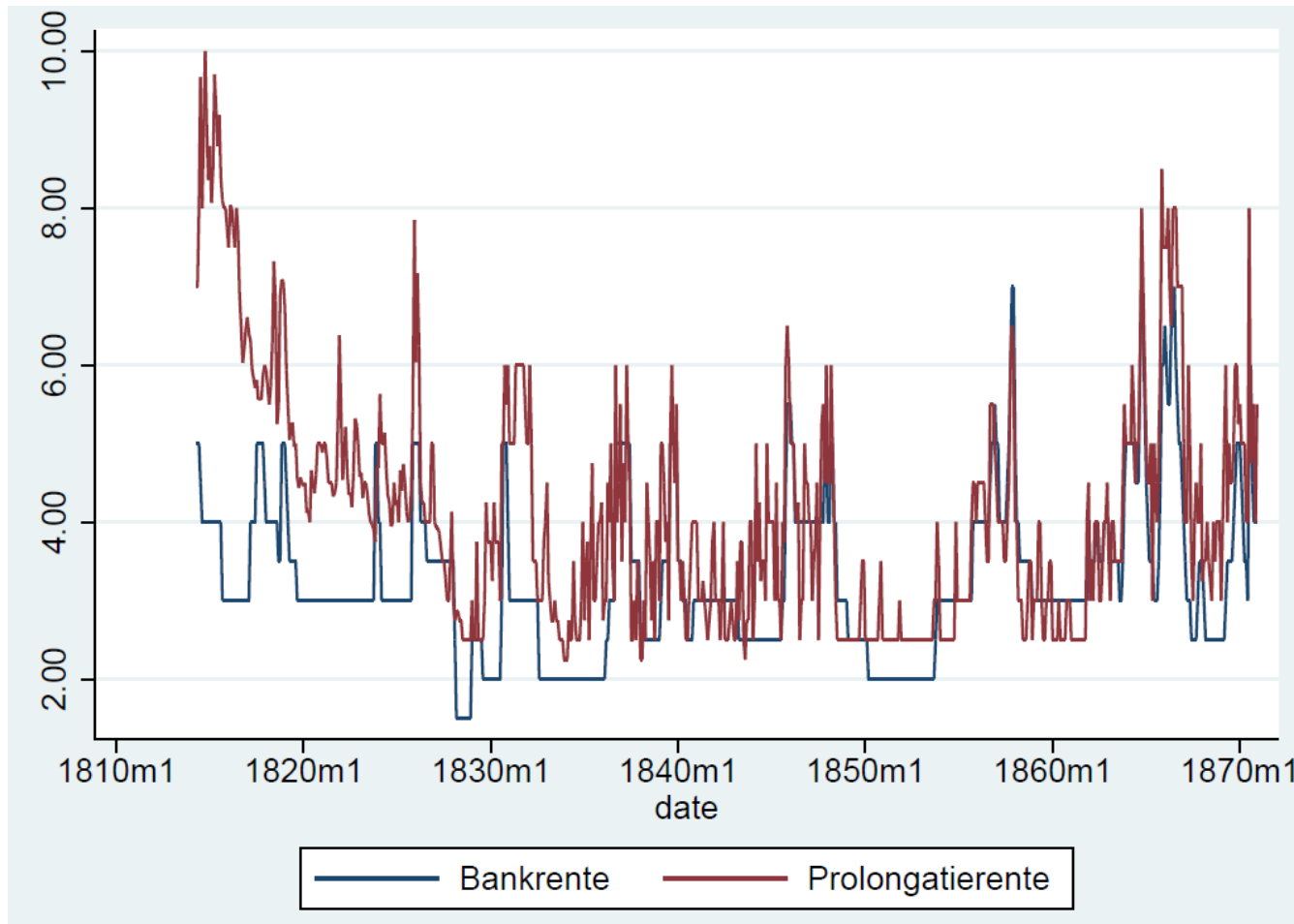
Outstanding volume of discount (blue) and advances (red)
1814-1870, end of month data (in fl 1,000)



DNB banknotes and current account balances (in hfl 1,000), 1814-1870 (end-of-month data)



Market rate and bank rate



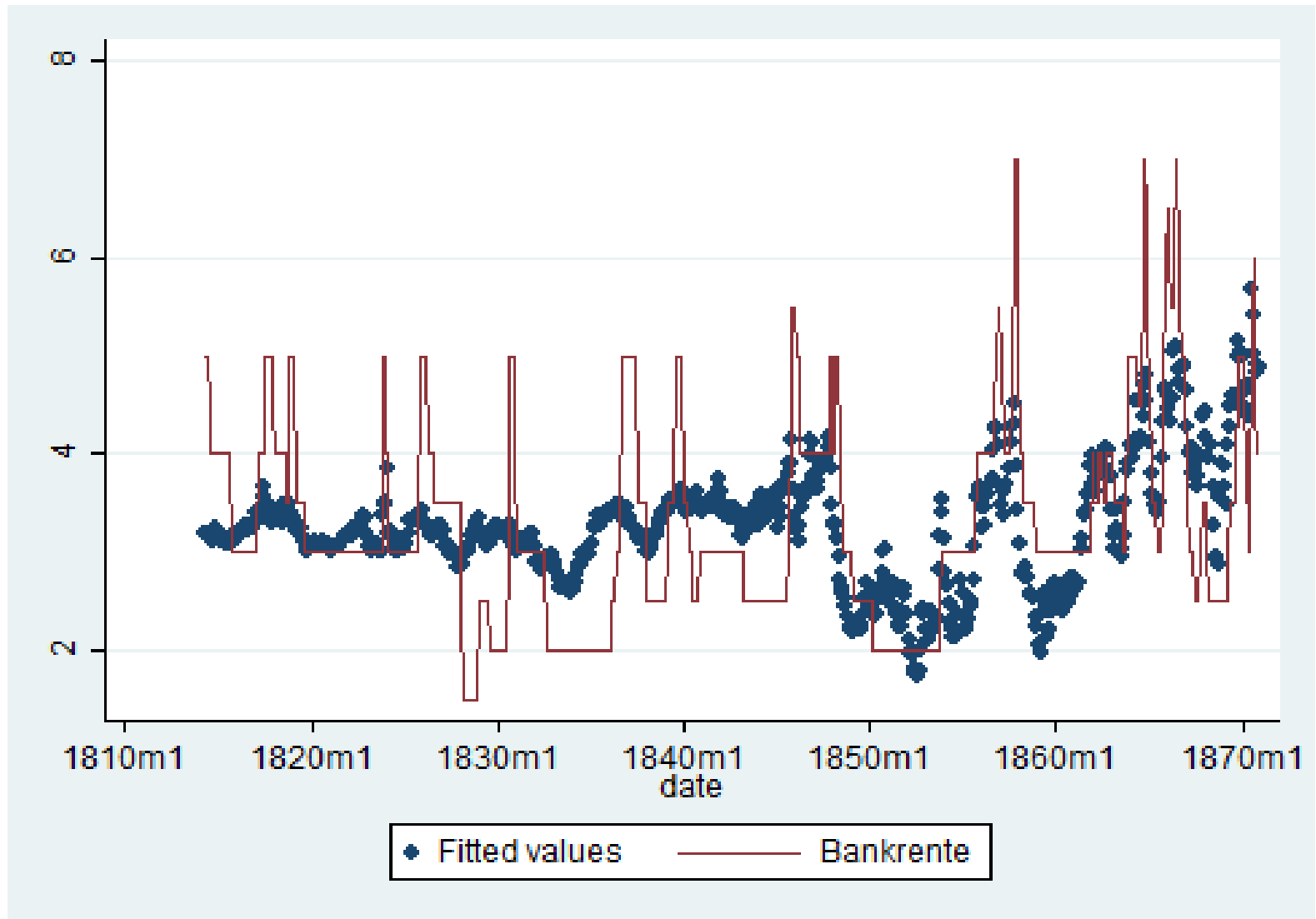
Qualitative sources

- “Go with the flow”
Movement in:
 - Credit demand,
 - Notes and
 - Metal reserve
- Stability
- Maximising credit to private sector
- Exceptions:
 - 1824 (issue of state loan)
 - 1828 (competition)

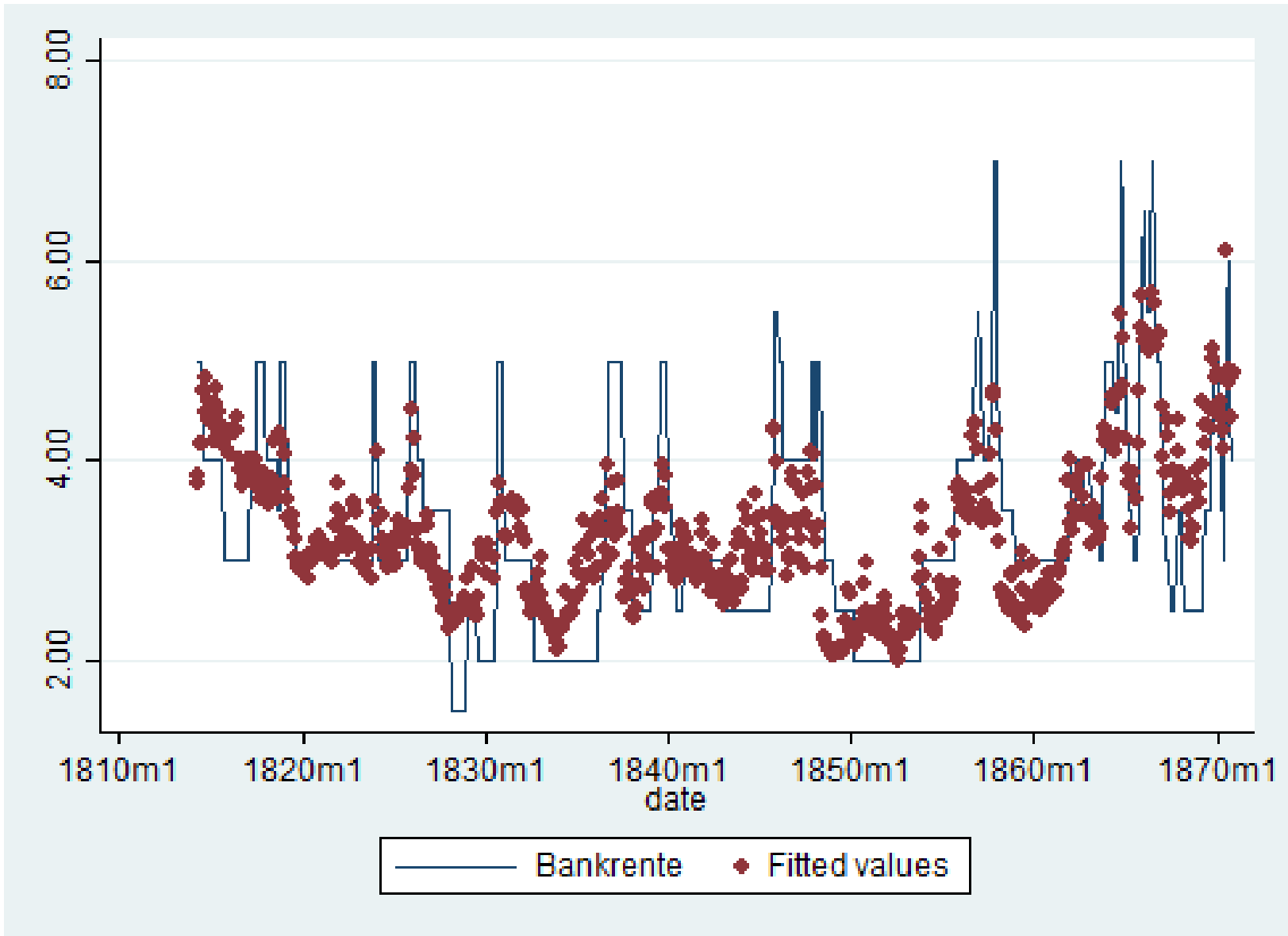
Empirical findings (1)

- Policy rate:
 - Flat lines
 - International comparison
 - Granger
- “Monetary policy rule”?

rate predicted with metal and lending



$$\text{rate} = c + \text{lending} + \text{cover} + \text{metal} + \text{Dummie}(t > 1848) * \text{prol}$$



Empirical findings (2)

- Ordered Probit: what caused rate changes: (+), (0) or (-/-)
- Main independent variables:
 - Disvolume
 - Notes
 - Metal
- Control variables: lag of the interest rate and full set of monthly dummies

Ordered Probit

Ordered-Probit Regressions explaining interest rate policy of DNB, 1814-1870.

Dependent variable	(1) <u>DisRate</u> 1814-1870	(2) <u>DisRate</u> 1814-1870	(3) <u>DisRate</u> 1814-1848	(4) <u>DisRate</u> 1814-1848	(5) <u>DisRate</u> 1848-1870	(6) <u>DisRate</u> 1848-1870
Sub-period						
Outcome	Downwards	Upwards	Downwards	Upwards	Downwards	Upwards
Lag of interest rate	0.06*** (0.01)	-0.05*** (0.01)	0.04*** (0.01)	-0.03*** (0.01)	0.08*** (0.02)	-0.08*** (0.02)
<u>Disvolume</u>	-0.06*** (0.00)	0.05*** (0.00)	-0.07*** (0.00)	0.04*** (0.00)	-0.06*** (0.00)	0.06*** (0.00)
Notes	0.09 (0.00)	-0.08 (0.00)	-0.07 (0.00)	0.04 (0.00)	0.01 (0.00)	-0.01 (0.00)
Metal	0.09 (0.00)	-0.08 (0.00)	0.04*** (0.00)	-0.03*** (0.00)	0.02' (0.00)	-0.02' (0.00)
Month dummies	YES	YES	YES	YES	YES	YES
R ²	0.14	0.14	0.26	0.26	0.16	0.16
No. of observations	624	624	371	371	253	253

Notes: Robust standard errors in parentheses. *, **, *** denote significance at the 10%, 5%, 1% level respectively. The coefficient on the *Metal* in columns (5) and (6) is significant at the 11% and 12% level respectively. All regressions include a set of monthly time dummies, which were jointly significant at the 1% level in all of the reported regressions.

Conclusion (1)

Qualitative sources confirmed in empirical analysis:

- Development of balance sheet items: lending portfolio and metal reserve
- Development of demand and (once) competition of the market

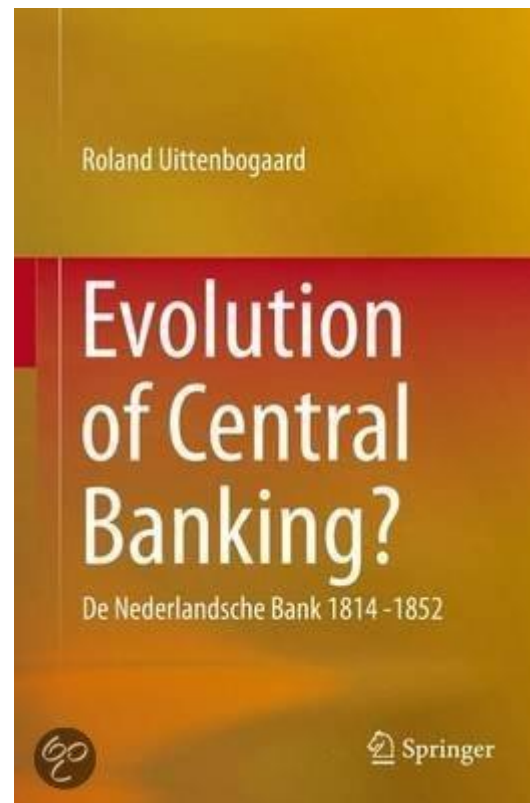
Less clear:

- Keeping the rate stable and low,
- No explicit reference to the profit motive
- No reference to any macroeconomic objective in the entire period until 1870.

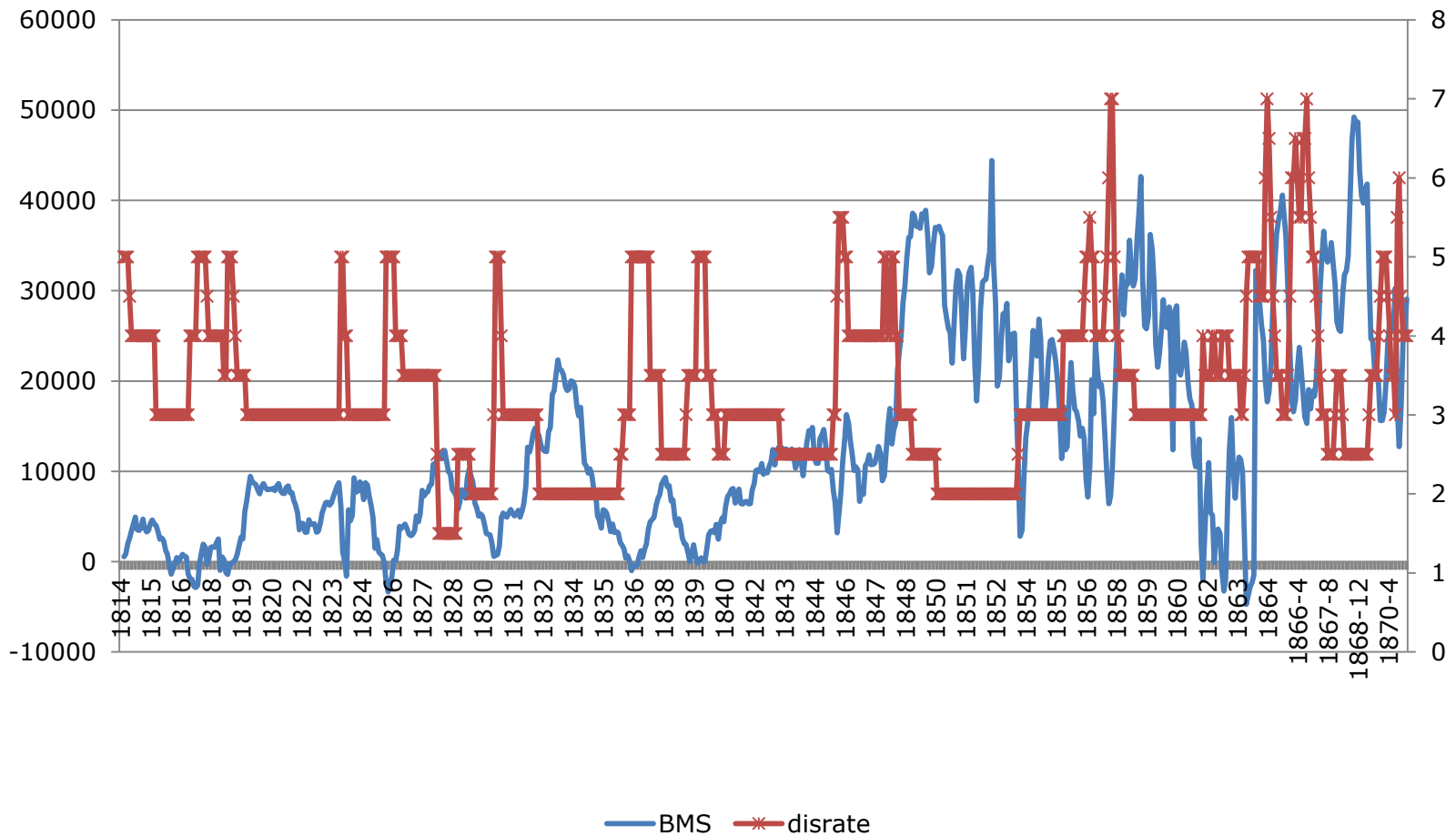
Conclusion (2)

- DNB aimed to facilitate trade as much as possible by maximising lending to the private sector.
- DNB was not in control of money market conditions, but went with the flow.
- Demand turned to DNB when the market became tight.

Thanks for your attention!



Graph: Disposable metal balance (left axis, in fl 1,000) and discount rate (right axis, in %) (end of month data), 1815-1870.



Overview of instances of credit rationing by DNB, 1814-1856

- I When: 23 November 1818 until end of January 1819
What: Advances renewed for one month only; no new advances, except after old ones are paid down.
Why: (International political circumstances (Congress of Aachen/terms of peace with France) led to demand for financial means (in France) and speculation.

- II When: End of December 1825 until early April 1826
What: All credit longer than 6 weeks.
Why: Bad state of specie stock (*'klinkende kas'*), *there was not enough good coin available. This problem continued until the currency overhaul.*

- III When: 15 September 1830 until 14 January 1832
What: Advances
Why: Political turmoil (July revolution/riots in Brussels /State debt obligations) lead to extraordinary export of specie

- IV When: 31 July 1839 until April 1840
What: Advances
Why: State of specie stock

- V When: 22 September 1856 until End of December 1856
What: Refusal to discount paper that may be reasonably suspected to be intended for money demand abroad.
Why: Preventing the export of specie and bullion (measure considered 'harsh and unusual')