



Historical Monetary and Financial Statistics for Sweden, vol 2

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The project *Historical Monetary and Financial Statistics for Sweden*

- ◆ The project started in 2006.
- ◆ Inspiration from *Historical Monetary Statistics for Norway*
- ◆ Why the Riksbank? 1) Scientific task to reconstruct historical data. 2) Continuity 3) Deeper knowledge of its own history 4) History offers better predictions
- ◆ For different users and analytical purposes.
- ◆ A database was launched in 2008.
- ◆ first volume was published in 2010, focus on exchange rates, prices and wages.
- ◆ The books are written in English, to reach international audience.

Historical Monetary and Financial Statistics for Sweden. Vol 1 (2010)

- ◆ 1. Introduction
- ◆ 2. Swedish monetary standards in a historical perspective
- ◆ 3. Swedish Payment Systems 995–1534
- ◆ 4. The multiple currencies of Sweden-Finland 1534–1803
- ◆ 5. Foreign exchange rates 1658–1803
- ◆ 6. Foreign exchange rates 1804–1914
- ◆ 7. The Swedish krona, 1913–2008
- ◆ 8. Swedish consumer prices 1290–2008
- ◆ 9. Wages of unskilled labourers, 1365-1864
- ◆ 10. Wages of manufacturing workers, 1860–2007

Vol. 2 consists of eight chapters

- ◆ 1. Introduction
- ◆ 2. A price index for residential property in Göteborg, 1875–2010
- ◆ 3. A price index for residential property in Stockholm, 1875–2012
- ◆ 4. The Gross Domestic Product of Sweden within present borders 1620–2012
- ◆ 5. Fiscal statistics for Sweden 1670–2011
- ◆ 6. Swedish stock and bond returns, 1856–2012
- ◆ 7. Swedish Money Supply 1620–2012
- ◆ 8. The Riksbank balance sheet, 1668–2011

New price index of residential property back to 1875

- ◆ Two cities: Stockholm and Gothenburg.
- ◆ Based on primary material 1875-1957
- ◆ 14,000 observations in Stockholm
- ◆ 7,000 observations in Gothenburg

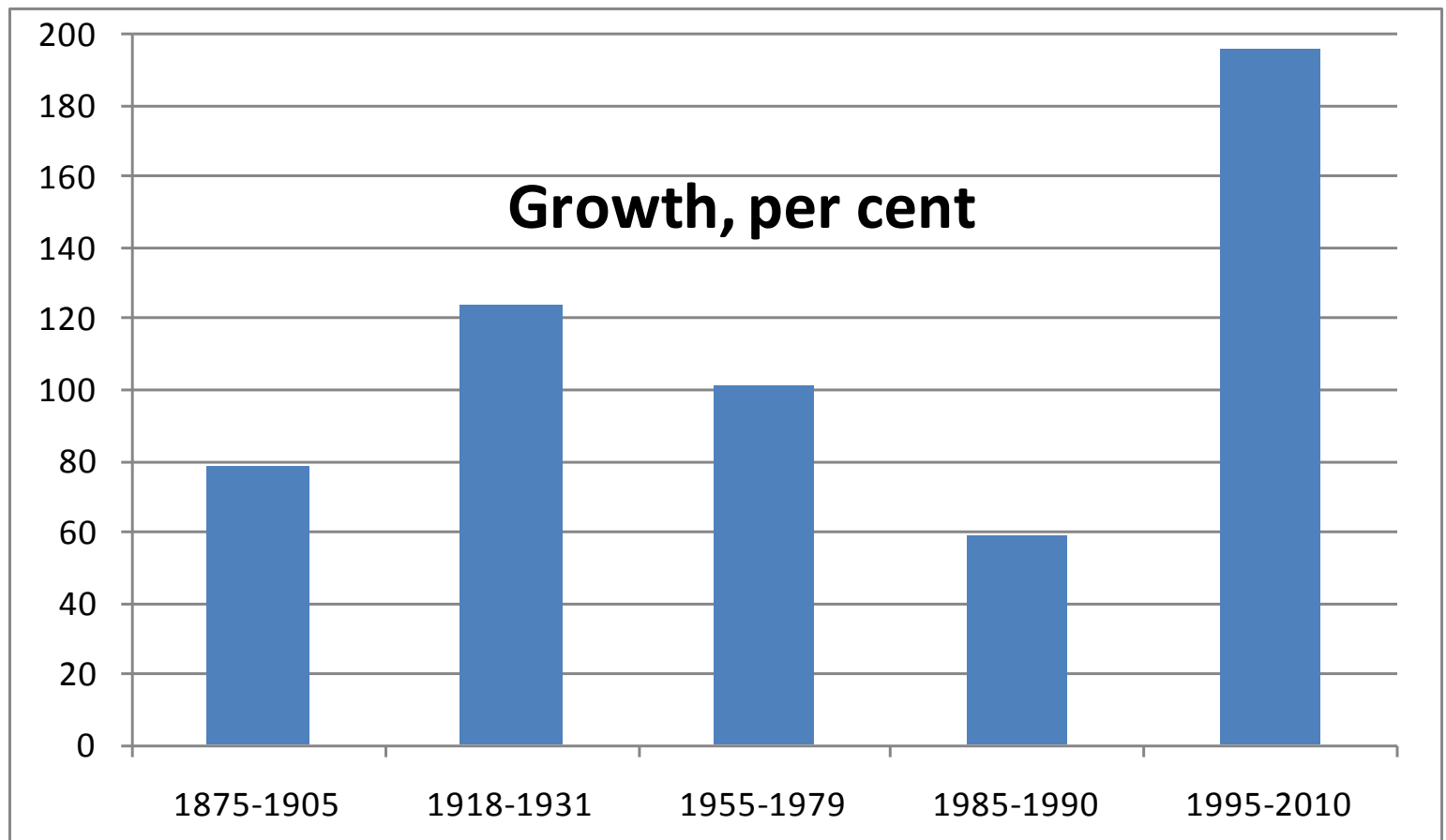
Problem of historical comparisons:

- ◆ Different types of properties. Apartments for renting and houses.
- ◆ Rent regulations from 1940s. Market price different for apartment buildings depending on ownership
- ◆ Holding quality constant over time.

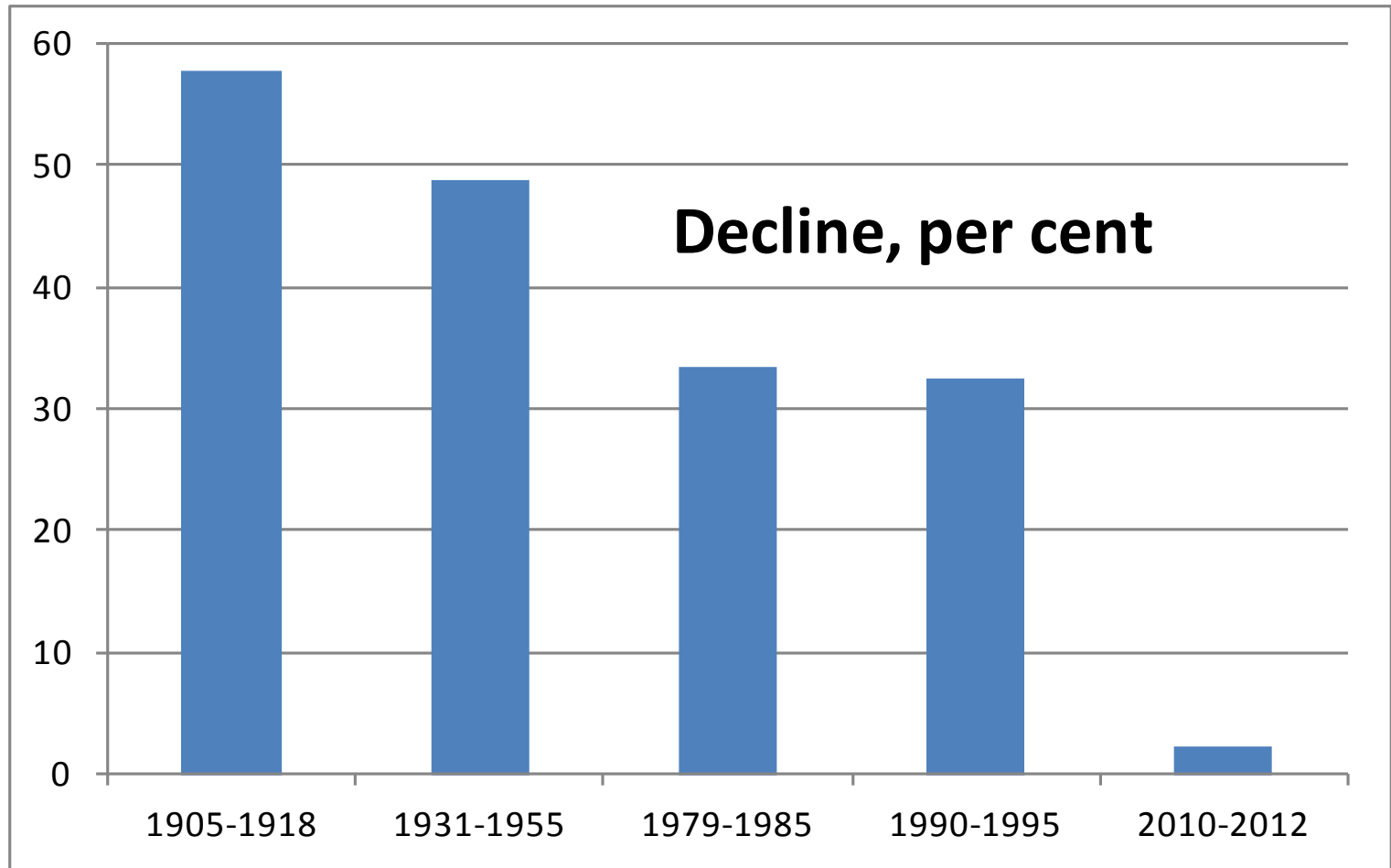
Hötorget 1880s. Large parts of today's inner city countryside before



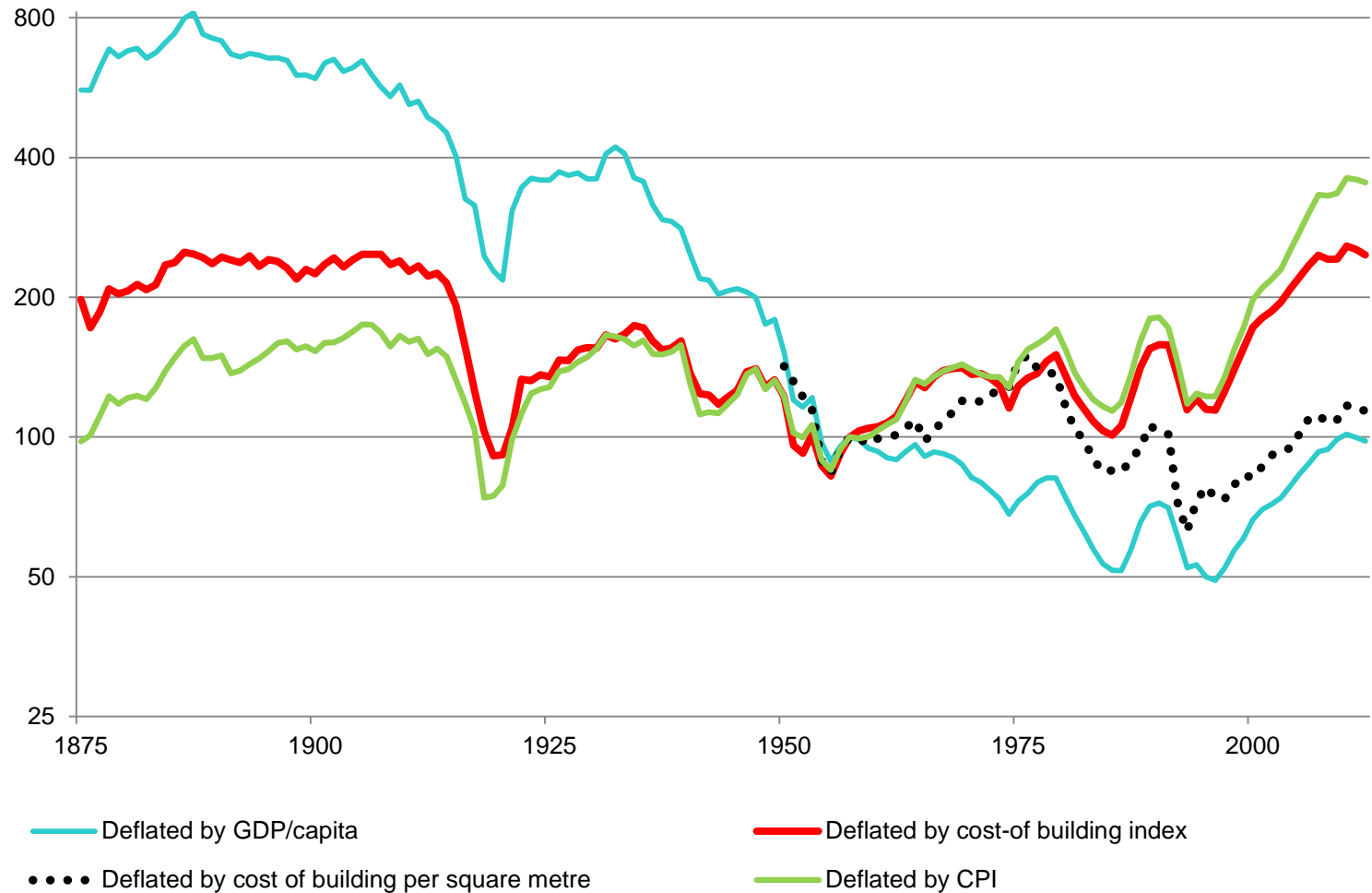
Upturn in real property prices 1995-2010 unprecedented historically



Previous "long" upturns were followed by declines (in real prices)



Property prices Stockholm/Gothenburg (apartments up to 1957, houses after 1957) deflated by different nominal series



Historical national accounts for Sweden, back to 1620

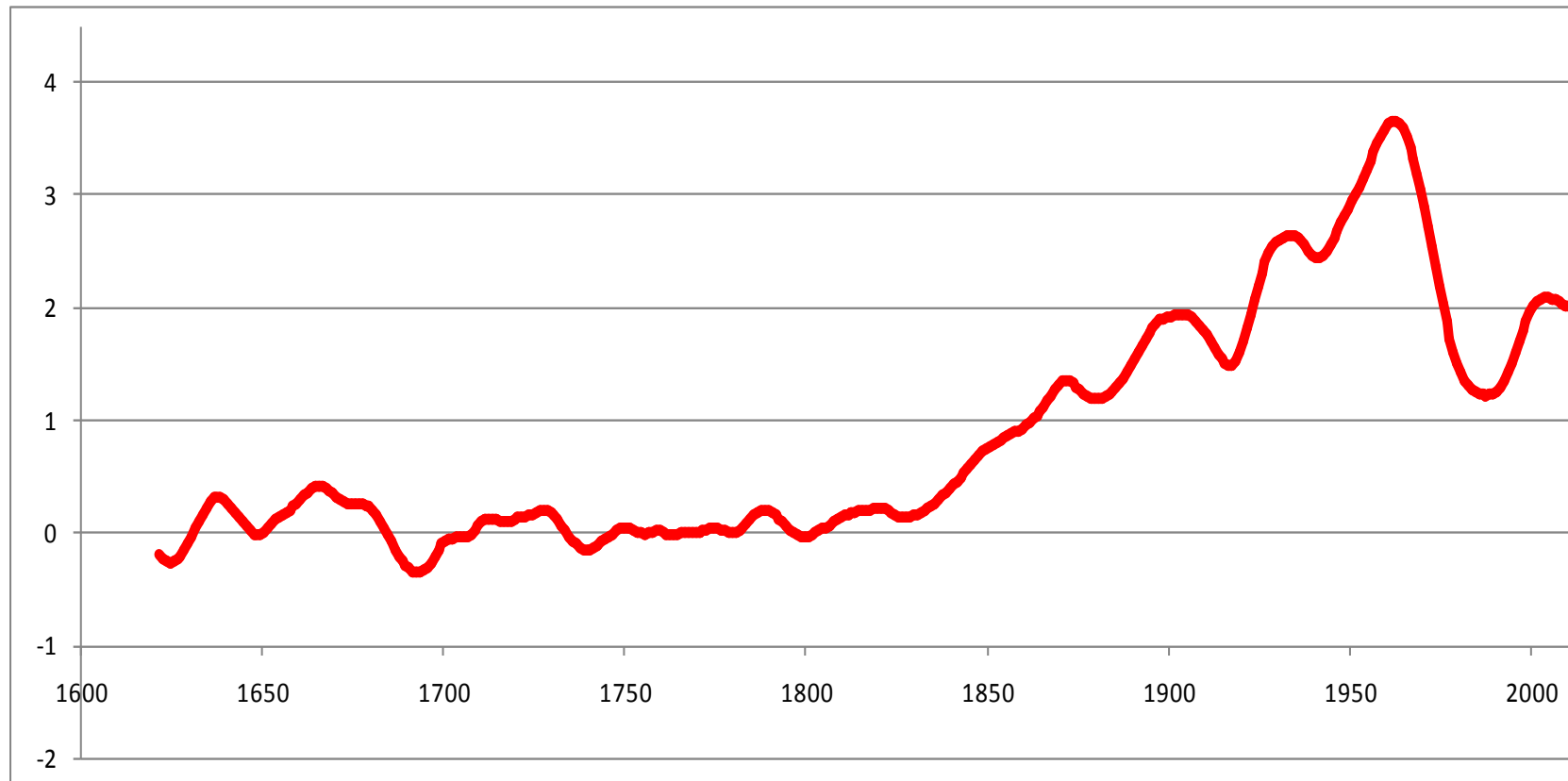
- ◆ Swedish historical national accounts, among the most detailed in the world
- ◆ Still ongoing project
- ◆ Main revisions:
 - 1) agriculture fluctuations
 - 2) inclusion of home industries
 - 3) better series of real estate
- ◆ Extension back to 1620

Primary material unique internationally, not used previously

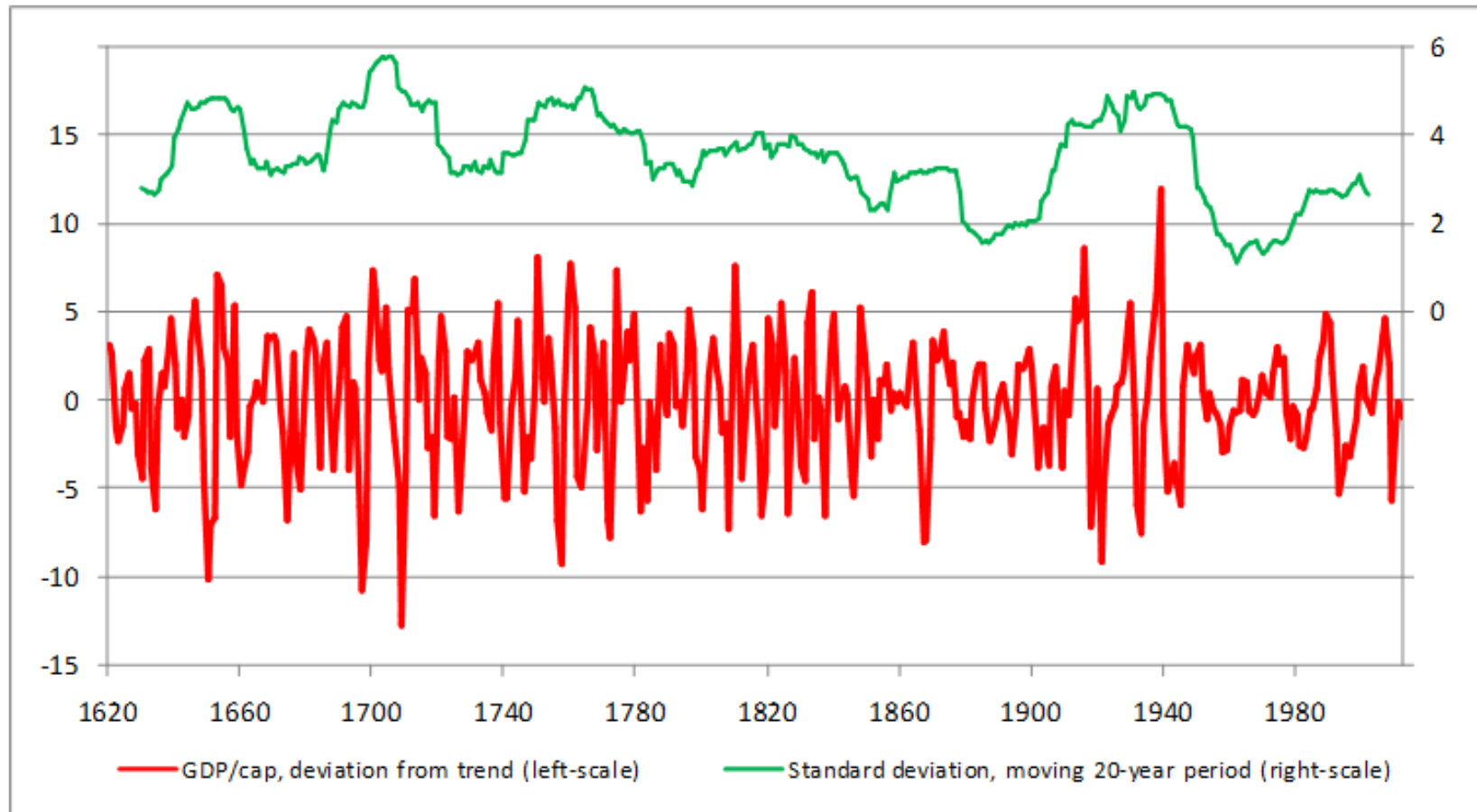
Sammandrag af Berættelserne om Årsvæxten 1831.

Län.	Allmönt bedömande öfver Sädsvæxtens beskaffenhet.	Kornets förökning efter utsädet.							Afkastning af jordfrugter efter utsädet.		Hö-afkomst.
		Hvete.	Råg.	Vår-Råg.	Korn.	Blandsäd.	Hafra.	Arter, Vicker och Bööor.	Potatoes.	Kålrötter och Rofvor m. m.	
Upsala	God.	8	7	"	7	7	7	6	5 à 6	Någorlunda	Ganska formånlig.
Stockholms	God.	8 à 10	6 à 7	"	7 à 8	7 à 8	7 à 8	6 à 7	4 à 5	Ej särdeles	God.
Södermanlands	Medelmåttig.	7 à 8	6	"	6	6	6	6	Under me-	delmåttn	Dito
Östergöthlands	Medelmåttig.	6	5	"	7	7	7	7	8		Dito
Gottlands	Mer än medelmåttig.	6	6	"	7	"	4 à 5	8	7		Dito
Calmar	Medelmåttig.	6	5	5	4 à 7	4 à 7	4 à 7	6	7		Dito
Blekinge	Under medelmåttn.	5 à 7	5 à 6	4 à 5	5	"	6 à 7	Medelmåttigt	6		Ymnig.
Jönköpings	Medelmåttig.	4 à 6	4 à 5	4 à 5	4 à 6	4 à 6	4 à 5	4 à 5	{Mindre än i vanliga år	Ofördelaktigt	Dito
Kronobergs	Medelmåttig.	{knapp, me- delmåttigt	6	2	6	4		Medelmåttigt	6		Dito
Christianstads	Under medelmåttn.	4 à 7	4 à 7	2 à 3	3 à 6	"	3 à 5	3 à 5	7 à 10		Öfver medelmåttn.
Matmöhus	Medelmåttig.	6 à 7	6 à 7	"	2 à 8	3 à 6	3 à 6	3 à 4	4 à 6		God.
Hallands	Missväxt.	3	2 à 3	2	2 à 3	2 à 3	2 à 3	3 à 4	2 à 7		Ymnig.
Göteborgs och Bolus	Öfver medelmåttn.	5 à 6	6 à 8	"	5 à 6	5 à 6	5 à 6	6 à 8	12 à 13	God	Medelmåttig.
Elfsborgs	Under medelmåttn.	4 à 6	4 à 5	4 à 6	4 à 5	4 à 5	3 à 4	4	6 à 7	{Mindre gif- vande	God.
Skaraborgs	Medelmåttig.	5	4	"	4	3 à 4	2 à 4	2 à 8	10 à 12	God	Medelmåttig.
Nerikes	Öfver medelmåttn.	6	5 à 6	"	4 à 7	5	5	5	4 à 10	Medelmåttig	God.
Wärmlands	Medelmåttig.	5	3 à 4	"	Fördel- aktigt	"	"	Medel- måttigt			Dito
Westmanlands	Fullt medelmåttig.	7	6	"	6 à 7	6 à 7	6 à 7	6 à 7	5 à 6	Dito	Fullt medelmåttig.
Kopparbergs	Under medelmåttn.	"	1 à 5	"	4 à 5	4 à 5	4 à 5	4 à 5	{under me- delmåttn		{Något öfver medel- måttn.
Gefleborgs	Under medelmåttn.	6	6	"	5	5	5	4 à 7	4	4	Under medelmåttn.
Wester-Norrlands	½ under medelmåttn.	"	6 à 8	"	4	3 à 4	3 à 4	5 à 8	4 à 5	{under me- delmåttn	Mycket knapp.
Jemtlands	Nära missväxt.	"	5	"	3	"	1 à 2	3	Ringa		Under medelmåttn.
Westerbottens	Nära missväxt.	"	6	"	2 à 3	2 à 3	1	"	4		½ under medelmåttn.
Norrbottens	Missväxt.	"	försvarligt	"	hälften	under	Medel-	—	måttn		Mycket knapp.

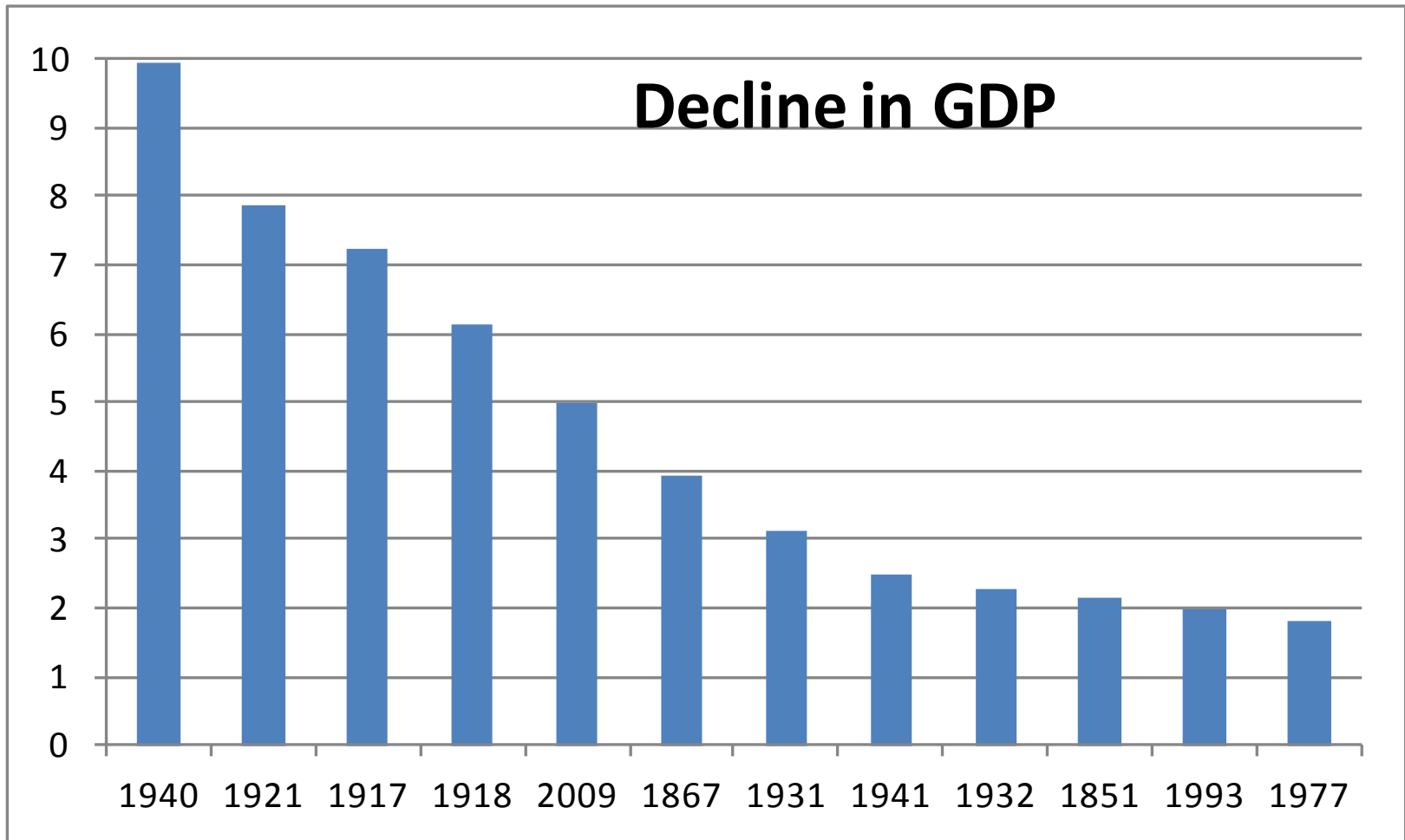
Trend per capita GDP growth (HP-filter with $\lambda=1000$)



Swedish GDP per capita relative to its trend (HP-filter, $\lambda=100$)



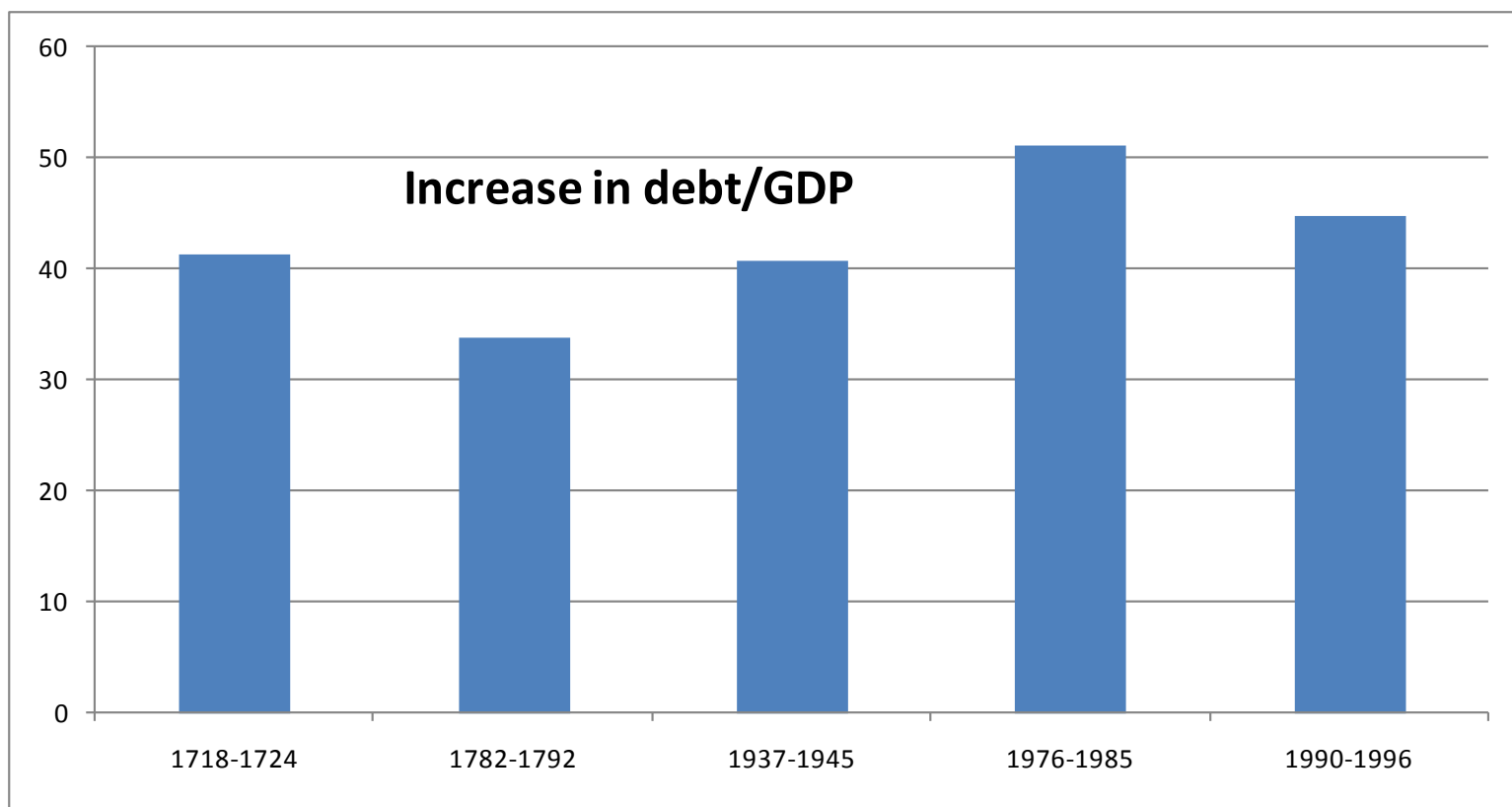
Sharpest declines in GDP since 1850



Government debt

- ◆ Reconstructing the historical evidence on central government debt, state expenditures and revenues.
- ◆ Wars were a notable factor for public indebtedness, also Second World War.
- ◆ Dramatic debt spikes in the 1970s, 1980s and 1990s
- ◆ 1990s, all-time high of 94 per cent of GDP

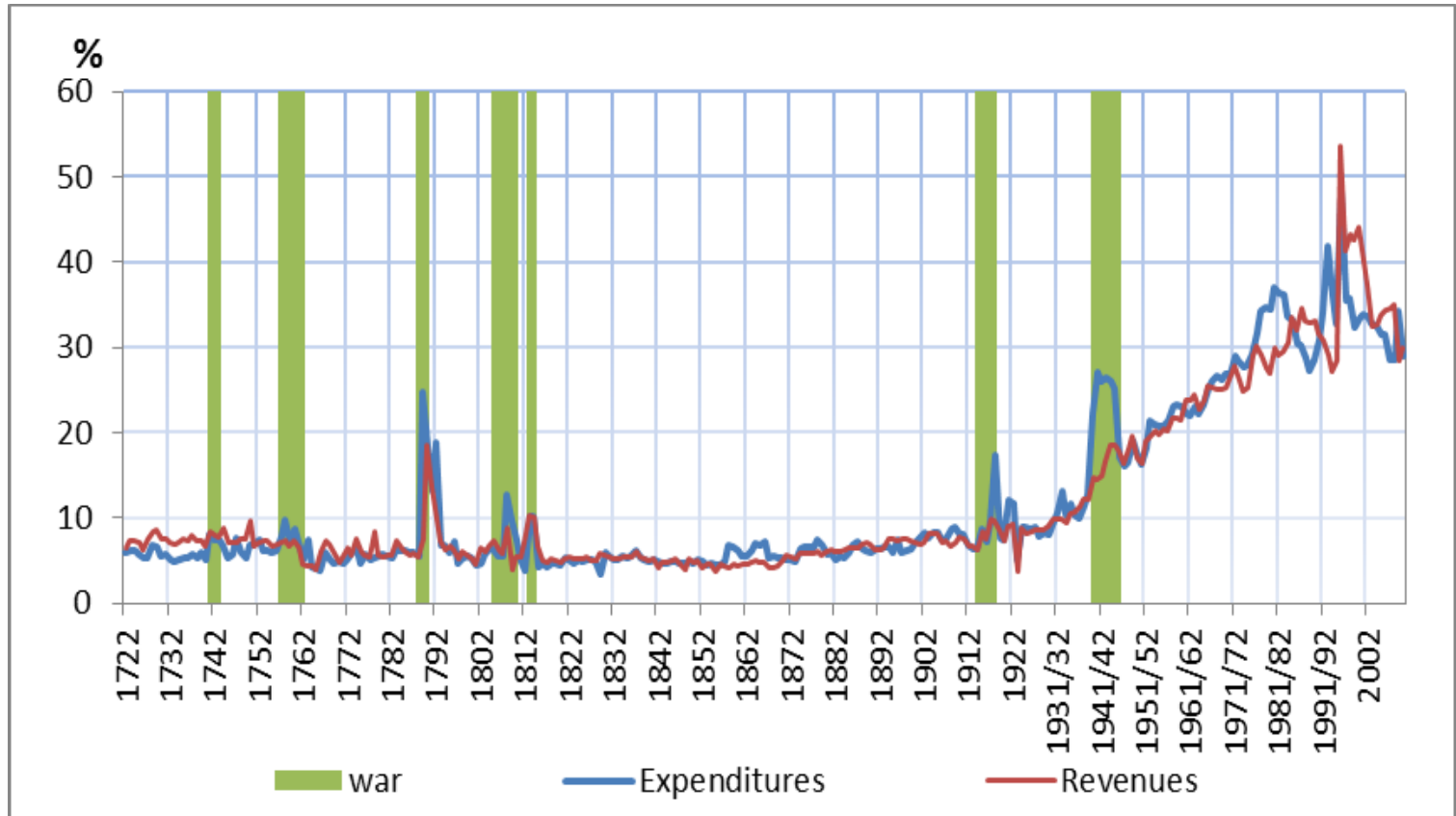
The worst fiscal crises in Sweden (increase debt/GDP)



Government debt as a share of nominal GDP, per cent



Central government expenditures and revenues as shares of GDP





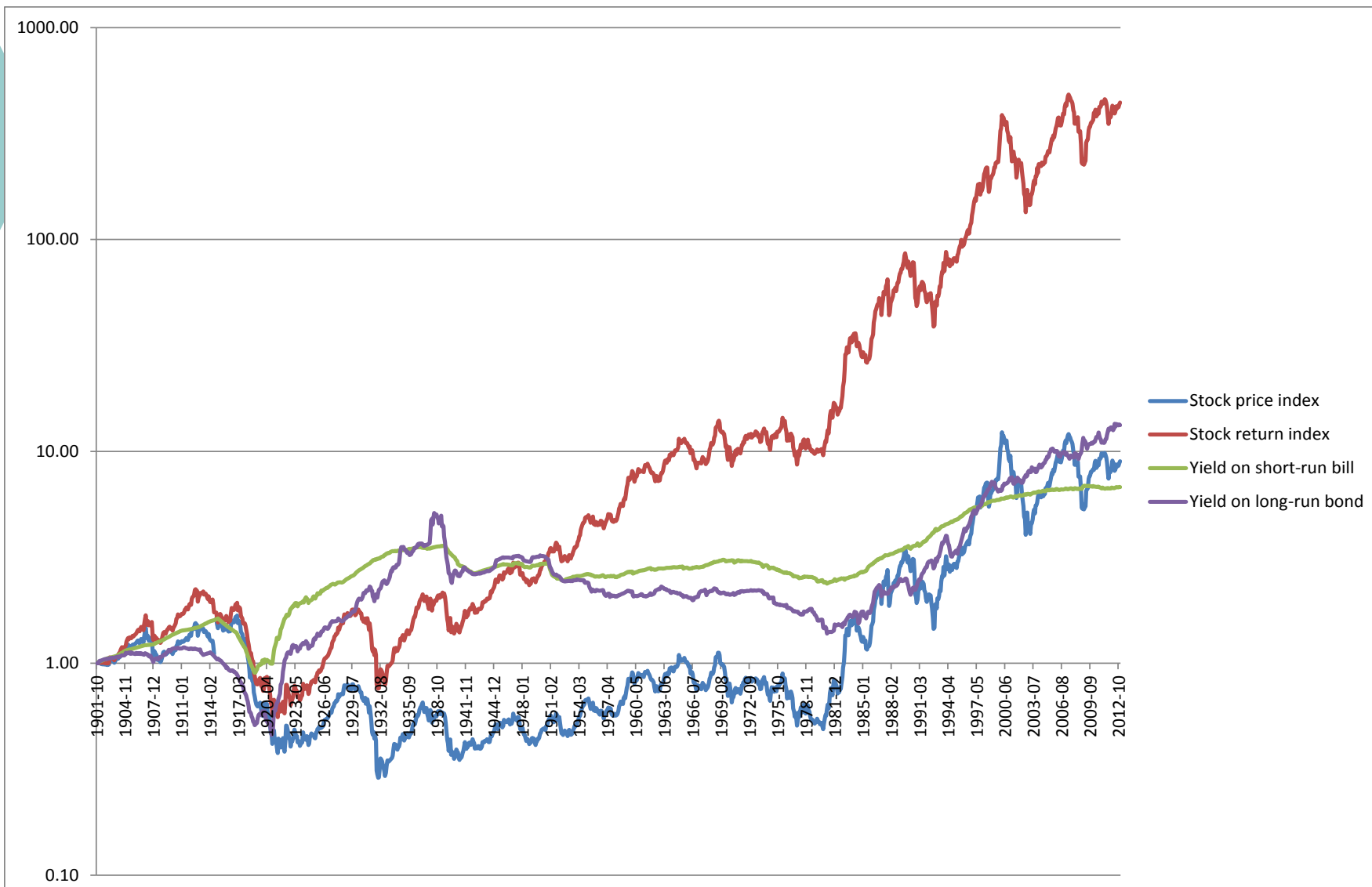
Stock returns and interest rates

- ◆ Stock returns and interest rates in the Swedish economy from the 19th century until present day
- ◆ Market interest rate data collected for both long-term and short-term horizons

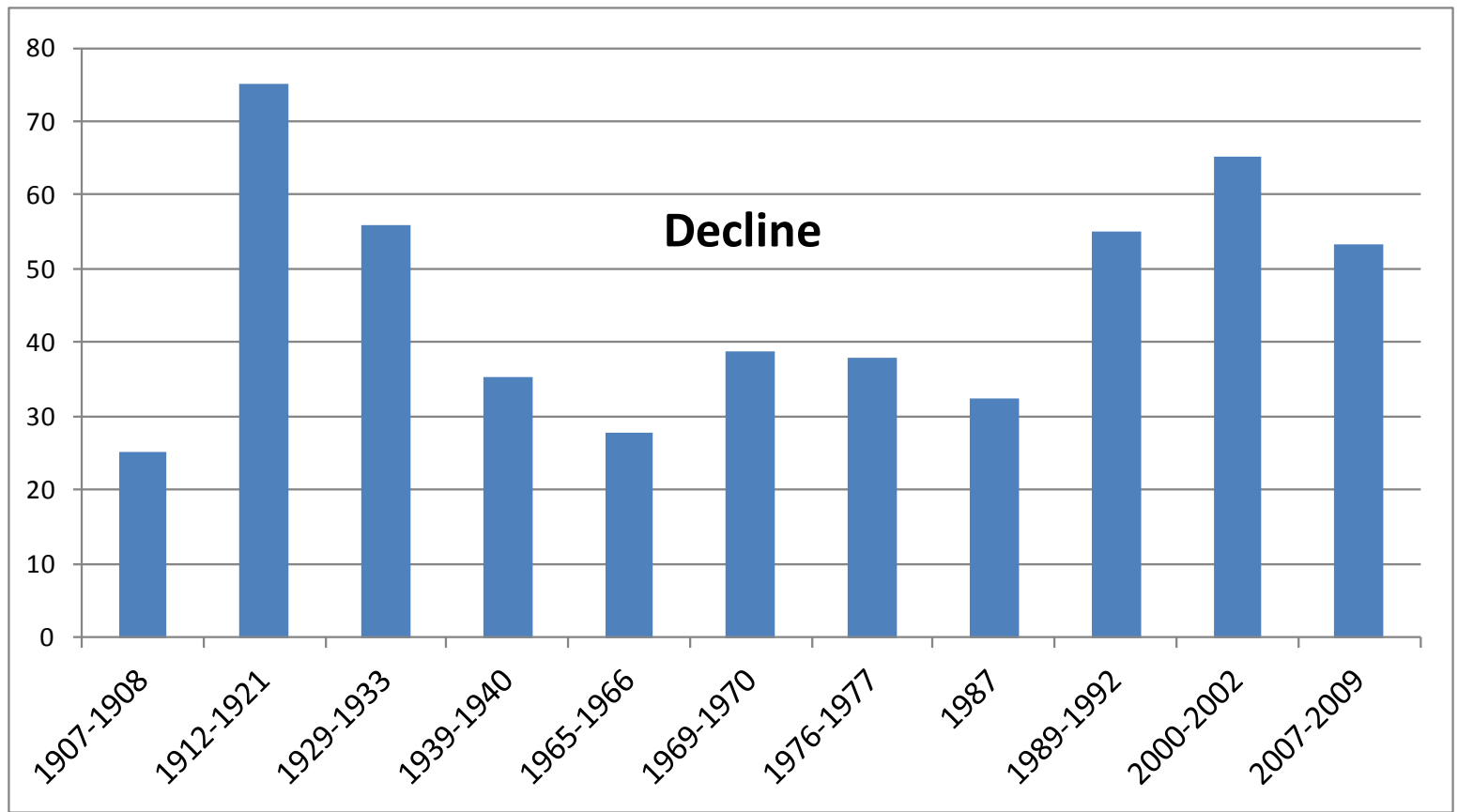
Large institutional changes:

- ◆ The Stockholm Stock Exchange 1901, reorganised
- ◆ Few companies listed initially, banks 1907
- ◆ Stagnant after the Kreuger crash
- ◆ Deregulations 1980s and 1990s.

Stock, bill and bond returns indices, real values, 1901–2012



Real Stock Return Index, crashes (more than 25 per cent decline)





Money supply and Riksbank balance sheets, two chapters

- ◆ Money supply back to 1620.
- ◆ Riksbank balance sheets back to 1668.
- ◆ Enable us to write the whole monetary history of the Riksbank

The Riksbank, the world's oldest central bank



The Riksbank balance sheet

- ◆ Goals of the Riksbank:
 - 1) Price stability,
 - 2) lending
 - 3) Security of the financial system
 - 4) Business cycle stabilization
 - 5) Seigniorage
- ◆ Financial markets

Both influence

- ◆ Assets: 1) Reserves 2) Loans 3) Securities
- ◆ Liabilities 1) Deposits 2) Notes 3) Equity

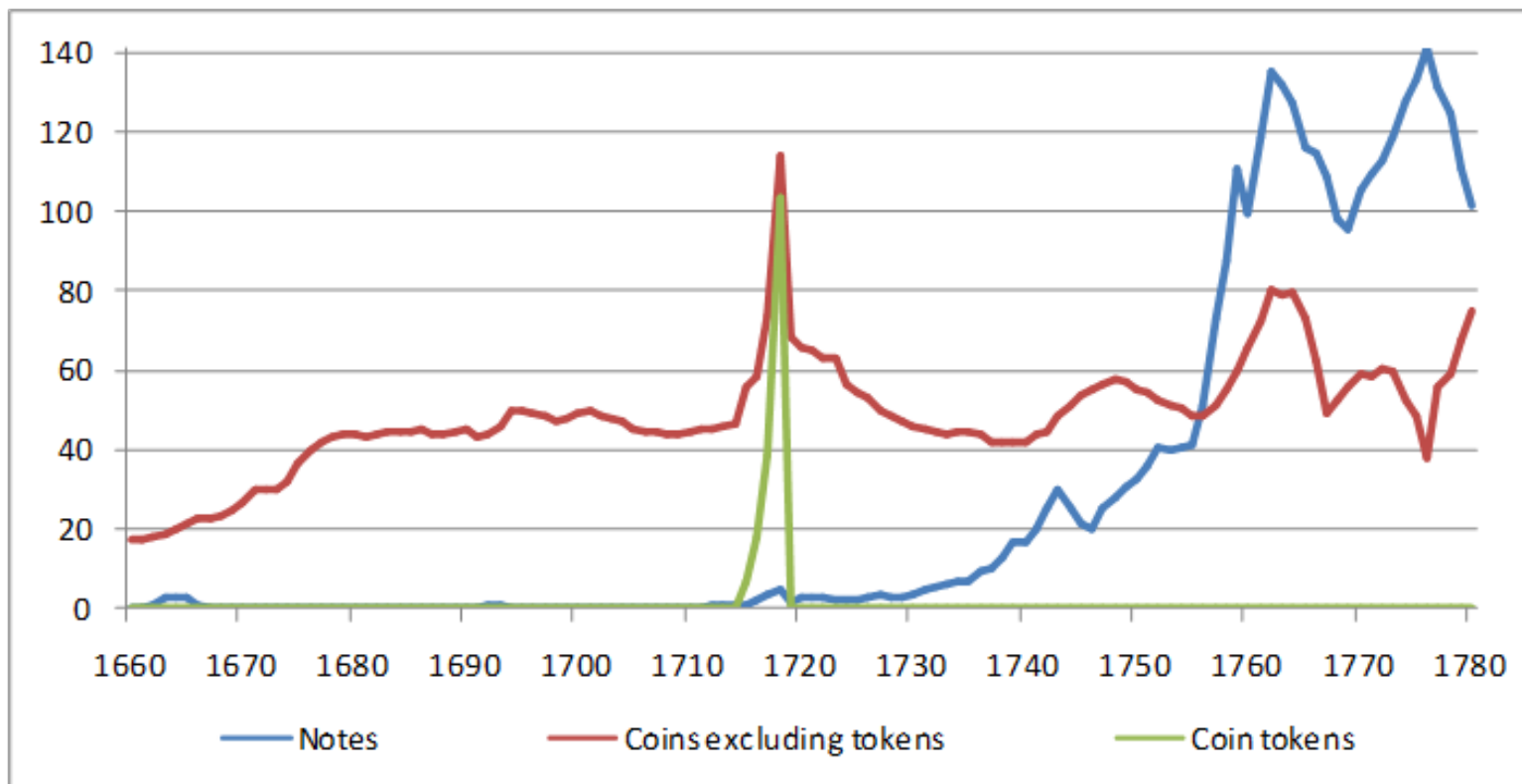
Monetary systems

- ◆ Before 1624, silver standard
- ◆ 1624-1776, copper and silver standard. First notes 1660s. The Riksbank 1668 – product of copper standard. De facto paper standard 1745-1776.
- ◆ 1776-1873. Silver standard. De facto paper standard 1789-1803, and 1809-1834. Growth of private banks, use of private notes
- ◆ 1873-1914. Classical gold standard. 1904 – Riksbank monopoly of note issue.
- ◆ 1914-1971. Suspended gold standard, gold exchange standard, Bretton Woods.
- ◆ 1971- Fiat standard.

Copper plate, weighing 20 kg, 1644



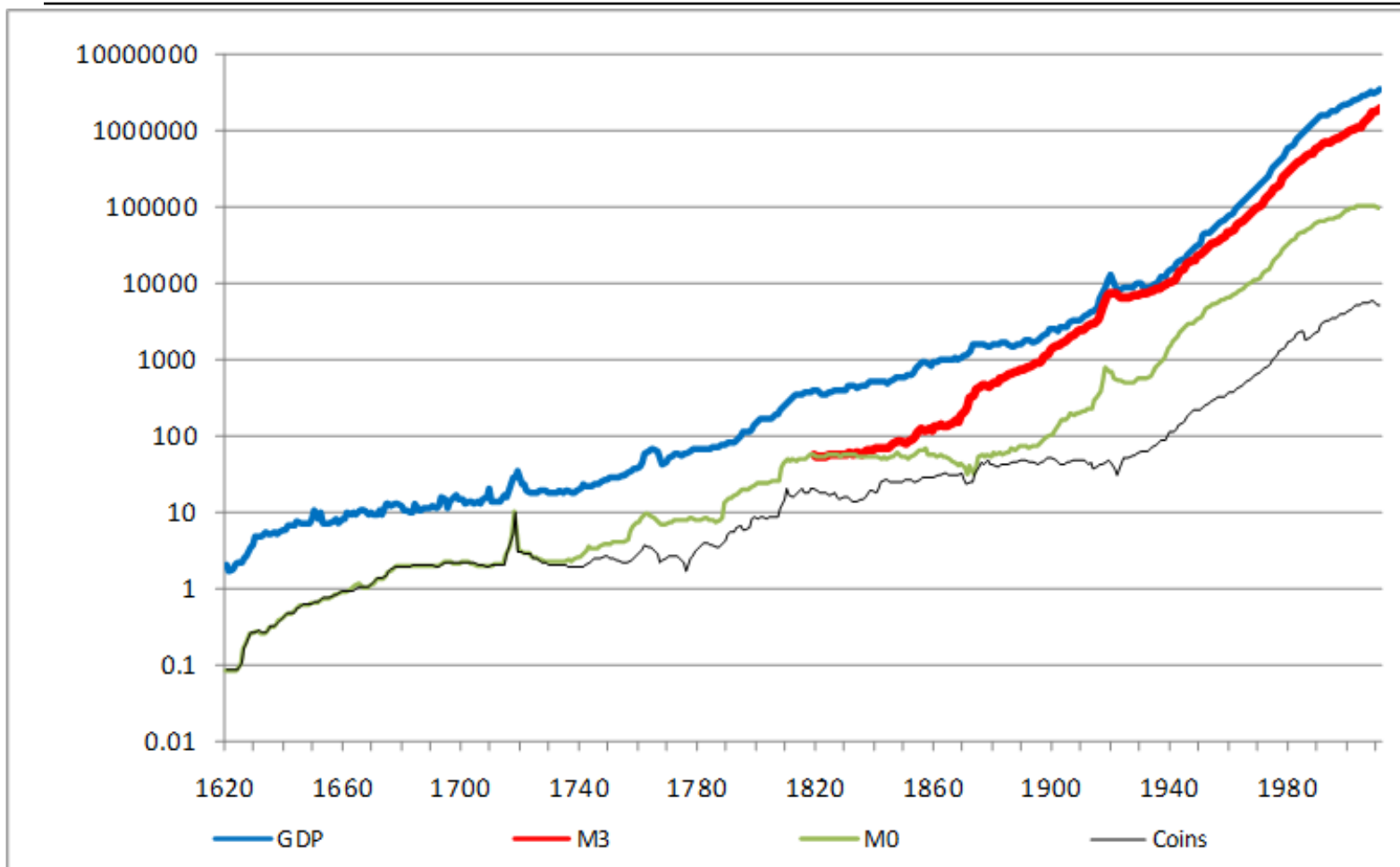
Notes, coins and coin tokens in mn daler kopparmynt 1660-1780



Stockholm banco account books damaged in fire.

Banco Balance, Åwer		Sihelstæen		Dhe		Kapital och Interesse, tite. 1		
	Capital	Interesse					Capital	
	Rörver	Skuld					Rörver	
	Dag	ore	Dag	ore			Dag	
212	Lantz Johanning Welb. Herr Schwartz Vater, Kantar 1 1/2 Runder Kantar för 1000 R. Åwer, Åster hoo 1 Januarii 1666. Lång Interesse ka vid Åbris 1666;	2100	602 144				Per Balance tite 27mo Decembris 1666	2400
252	Hög Herr frö Agnes Margareta Kantar 1000 R. i obligation med 2% årlig obligation i 1/2 1/2 Runder 2 1/2% Interesse och Åster ka 1 Jani 1666 Lång int. ka. Ditto 1666	1600	587 69			1666. 11	May Capital och Interesse ka	500
281	Borgmästare och Råd i Stockholm Kantar 1000 R. i obligation med 2% årlig obligation och 1/2 R. Åster ka 1 Jani 1666					1666. 11	Dito Summa	200
361	Mester Christian Nyler Kantar 2 Runder Kantar 1000 R. i obligation med 2% årlig obligation och 1/2 R. Åster ka 1 Jani 1666 Lång Interesse ka. Ditto 1666	500					Per Bal Ditto	900
424	Mst. G. Jacob Nyman Kantar 1000 R. Kantar 1000 R. i obligation med 2% årlig obligation och 1/2 R. Åster ka 1 Jani 1666 Lång Interesse ka. Ditto 1666 Capital Interesse Lång Interesse, Summa	1000					Per Bal Ditto	500
							Per Bal ka 1/16 ad. 1666	400
							Capital - 50 R. Jan. 17 1/16	

M3, M0, coins and GDP in current values (mn SEK)



Future continuation or off-shots of the project?

- ◆ Update database on Riksbank's homepage
- ◆ Property prices, back to the 1400s, more towns, different types of properties
- ◆ Bank statistics
- ◆ National wealth
- ◆ National income, wage and capital shares
- ◆ Revise GDP, SNA2008, back to Middle Ages
- ◆ Interest rates, bonds, private banks
- ◆ Money supply, monthly
- ◆ CPI, monthly
- ◆ International cooperations