
Demand side shocks as contagion channels. The American «Panic of 1907» and its propagation.

- Germany -



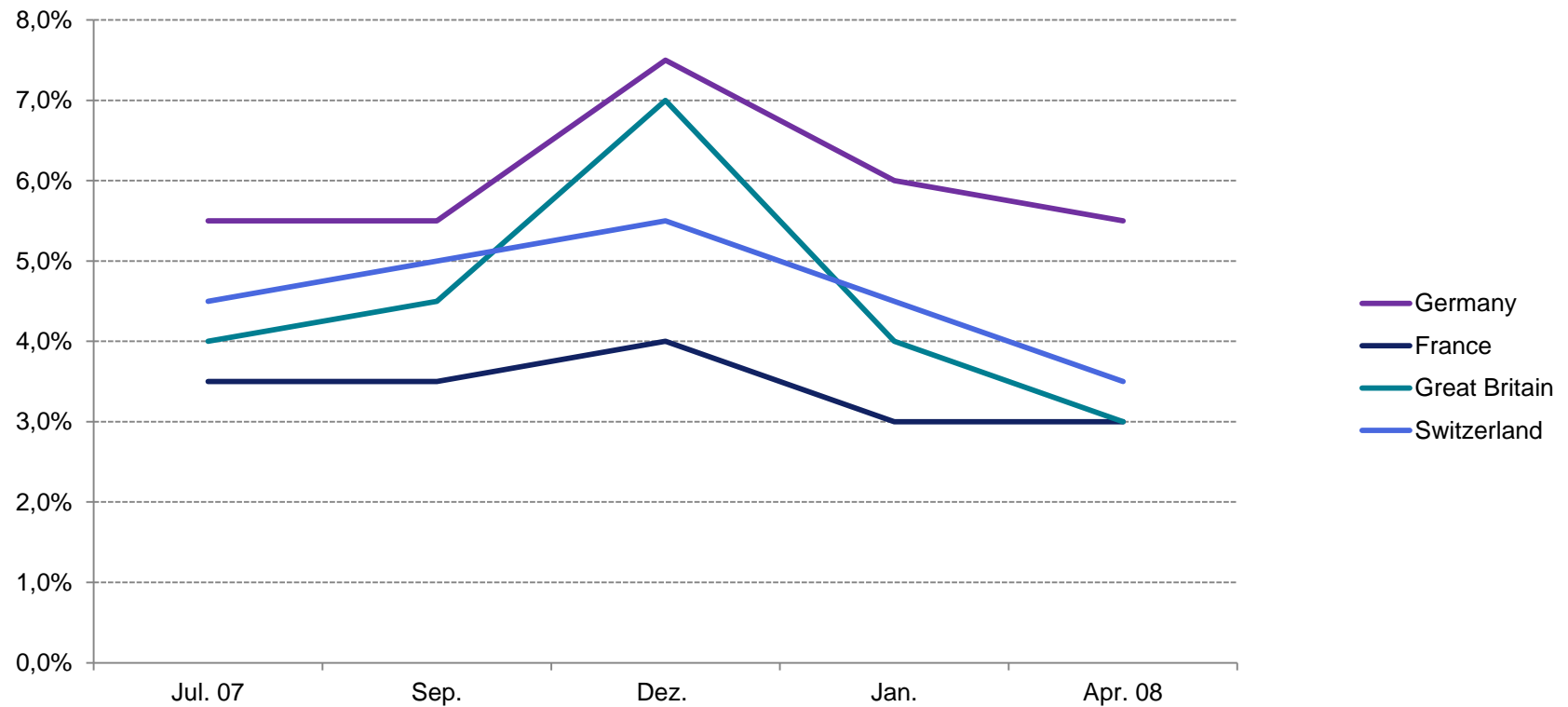
The Panic of 1907



US Subtreasury Building, New York October 1907

Discount rates

European discount rates July 1907 – April 1908



Contagion

Contagion: Transmission of an extreme negative shock in one country to other countries. Not a slow adaptation or a widely anticipation of economic changes.
(Forbes 2013)

- Assumption for the crisis of 1907: Money supply as contagion channel

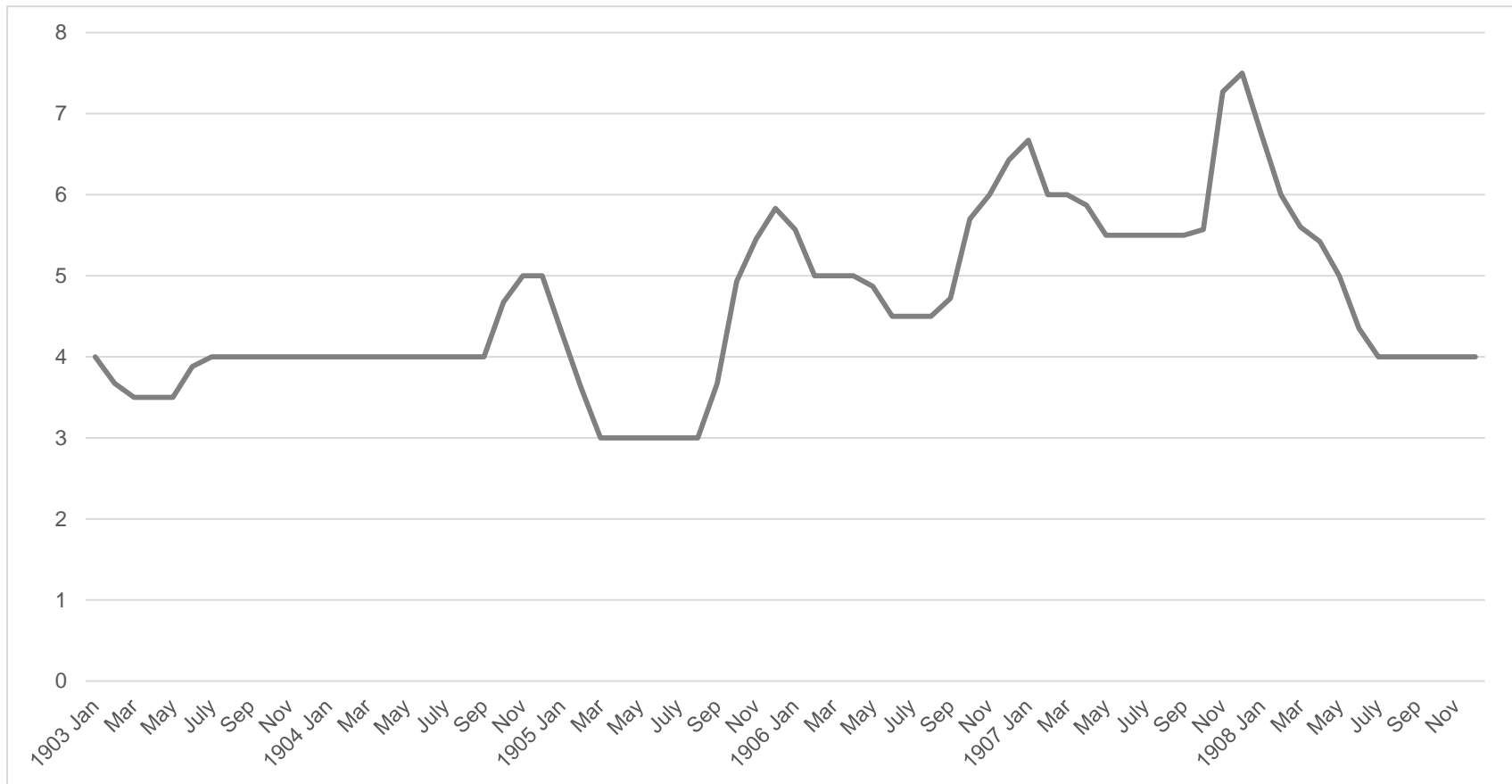
“...we suggest that the large-scale imports of gold from abroad effectively spread the financial crisis in New York worldwide, by draining liquidity away from other financial markets.” (Moen/Tallman 2011)

Findings for the German Empire

- Various studies on business cycles. There was a recession/economic downturn around the year 1907. (Spree 1978, Burhop/Wolff 2005)
- Transmission of the crisis originated from demand/trade shocks.
- High capital export in 1905/Monetary shock in 1905. (Data: Kleiner 1914)
- Contagion exacerbated a domestic crisis.

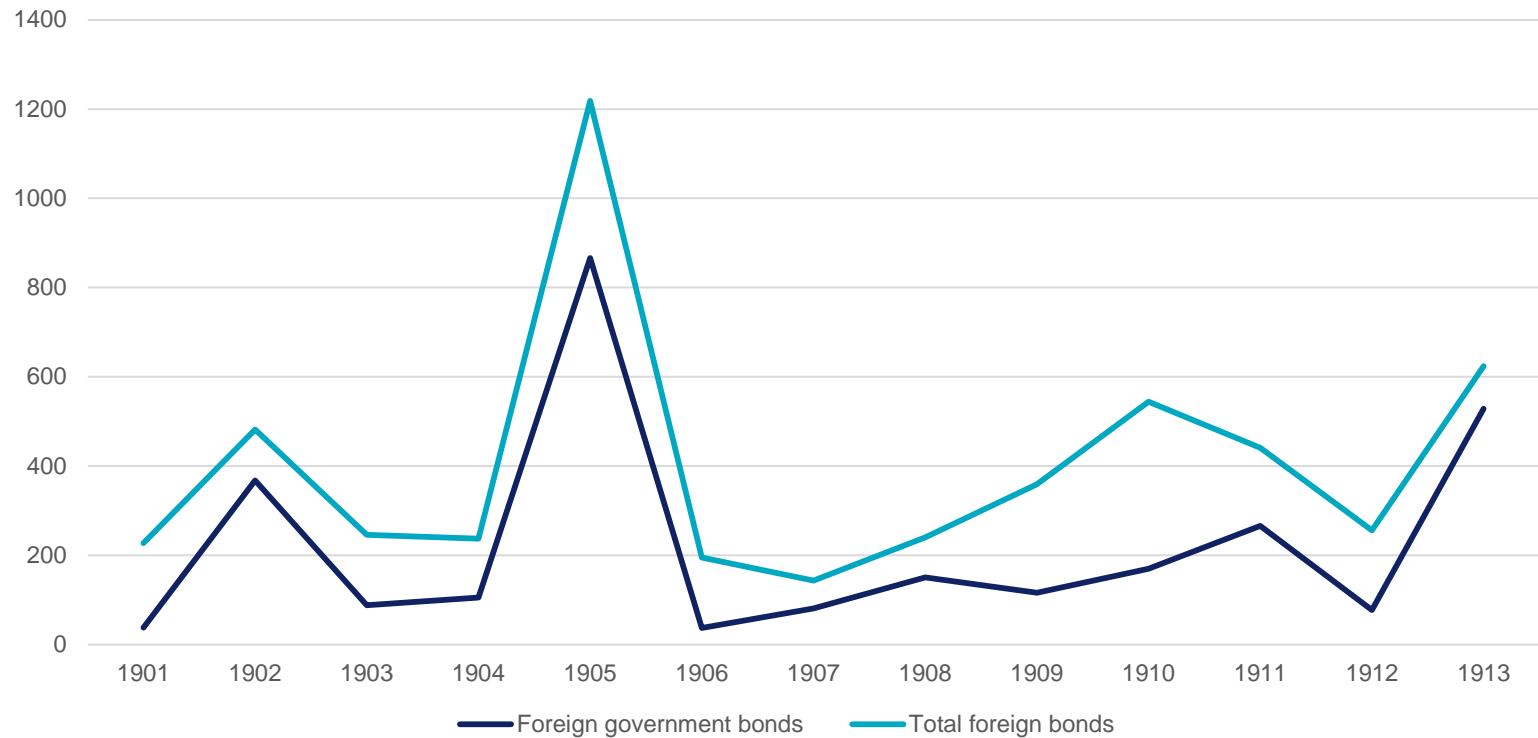
The shock of 1905 – discount rates

Monthly average discount rates of the German Reichsbank in % (1903-1908)



The shock of 1905 – capital export

Foreign securities placed in Germany in million Mark (1901-1913)

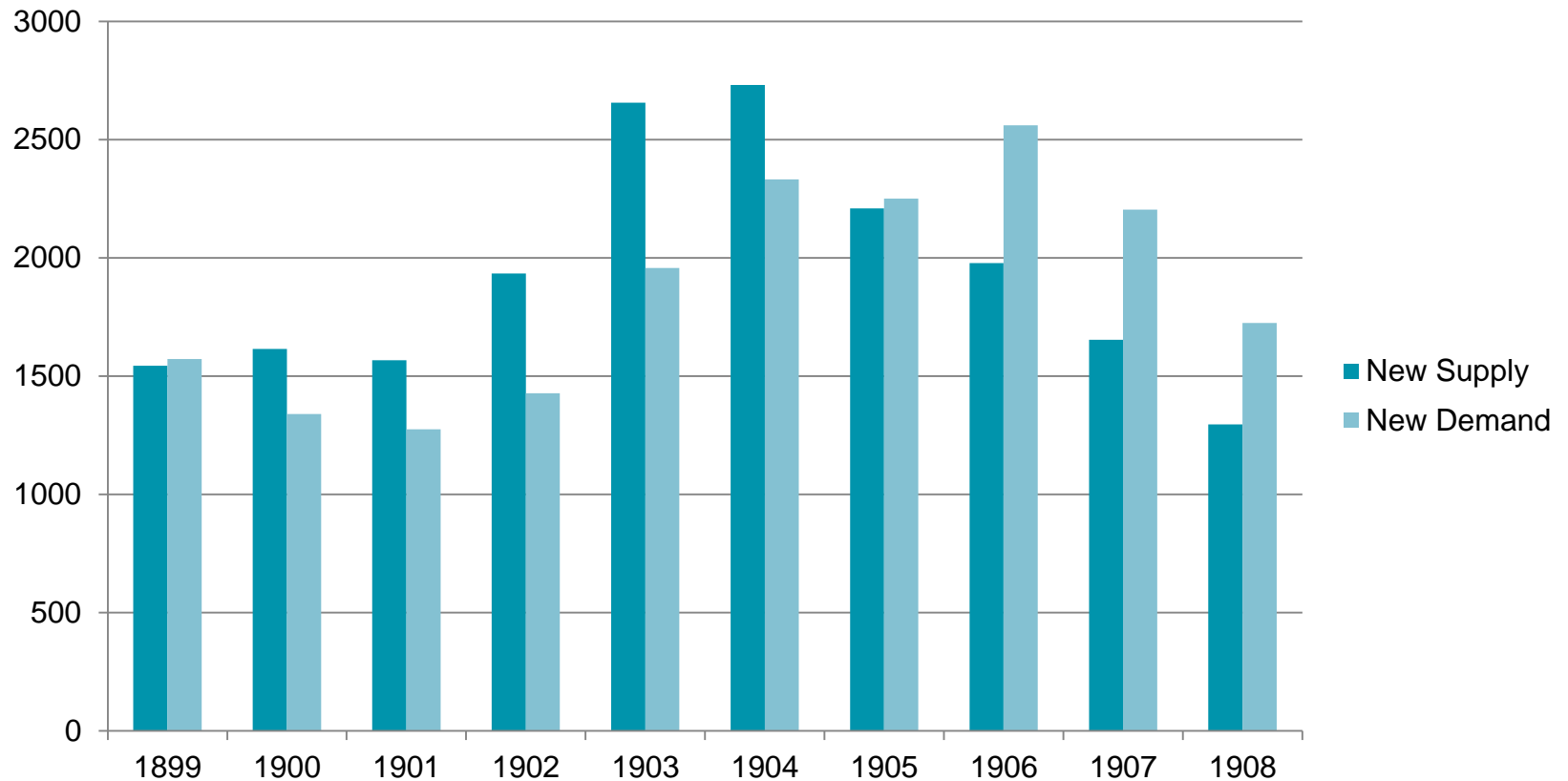


Domestic demand

- Building industry and related industries suffered from 1905 onwards.
- Low interest rates between 1901 – 1905 and attractive returns from investment in Pfandbriefe bolstered the real estate market and led to an oversupply.
- Construction activities declined by ca. 25% with 3 years, residential building activities by 40%-50%. (Data: Wellenreuther 1989, Grabas 1992, Hunscha 1930, Statistische Jahrbücher Deutscher Städte 1904-1912)
- Long term growth factors – immigration and marriages – declined from 1900 onwards (demand was overestimated).

Domestic demand

Supply/Demand of housing units in 5 German cities



Domestic demand – Housing market

Pfandbriefe interest vs. market rate in %. Pfandbriefe in circulation in million Mark and new supply and demand for housing units in 5 German cities.

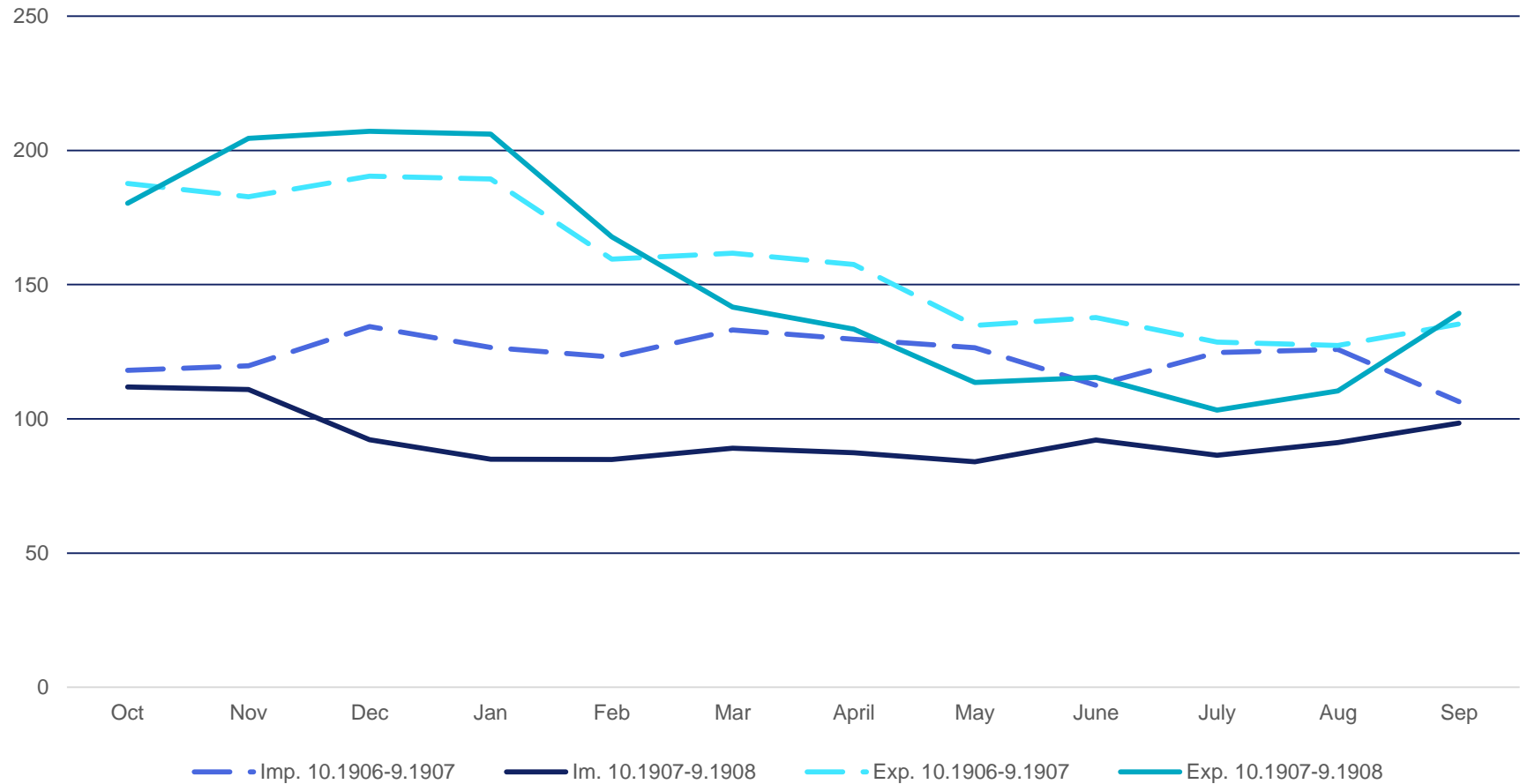
Year	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Interest Pfandbriefe	3.94	4.00	4.00	3.98	3.78	3.87	3.84	3.94	4.02	4.02
Market rate	4.45	4.41	3.06	2.19	3.01	3.14	2.85	4.04	5.12	3.52
Pfandbriefe in circulation	376m	120m	169m	305m	451m	435m	504m	341m	262m	481m
New supply housing units	1543	1615	1567	1933	2656	2731	2209	1978	1653	1295
New demand housing units	1572	1339	1275	1427	1957	2332	2250	2560	2203	1724

German Exports

- Total German exports fell by 8% in 1908. However consumer goods were more affected (12%). (Data: Grabas 1992, Wagenführ 2008, Kaiserliche Statistische Amt)
- Exports to the United States dropped by more than 20%. American imports (luxury goods) fell by 20% in 1908. (Data: NBER)
- American exports spiked in the 3 months after the panic (high trade surplus – 30% - brought liquidity into the country).

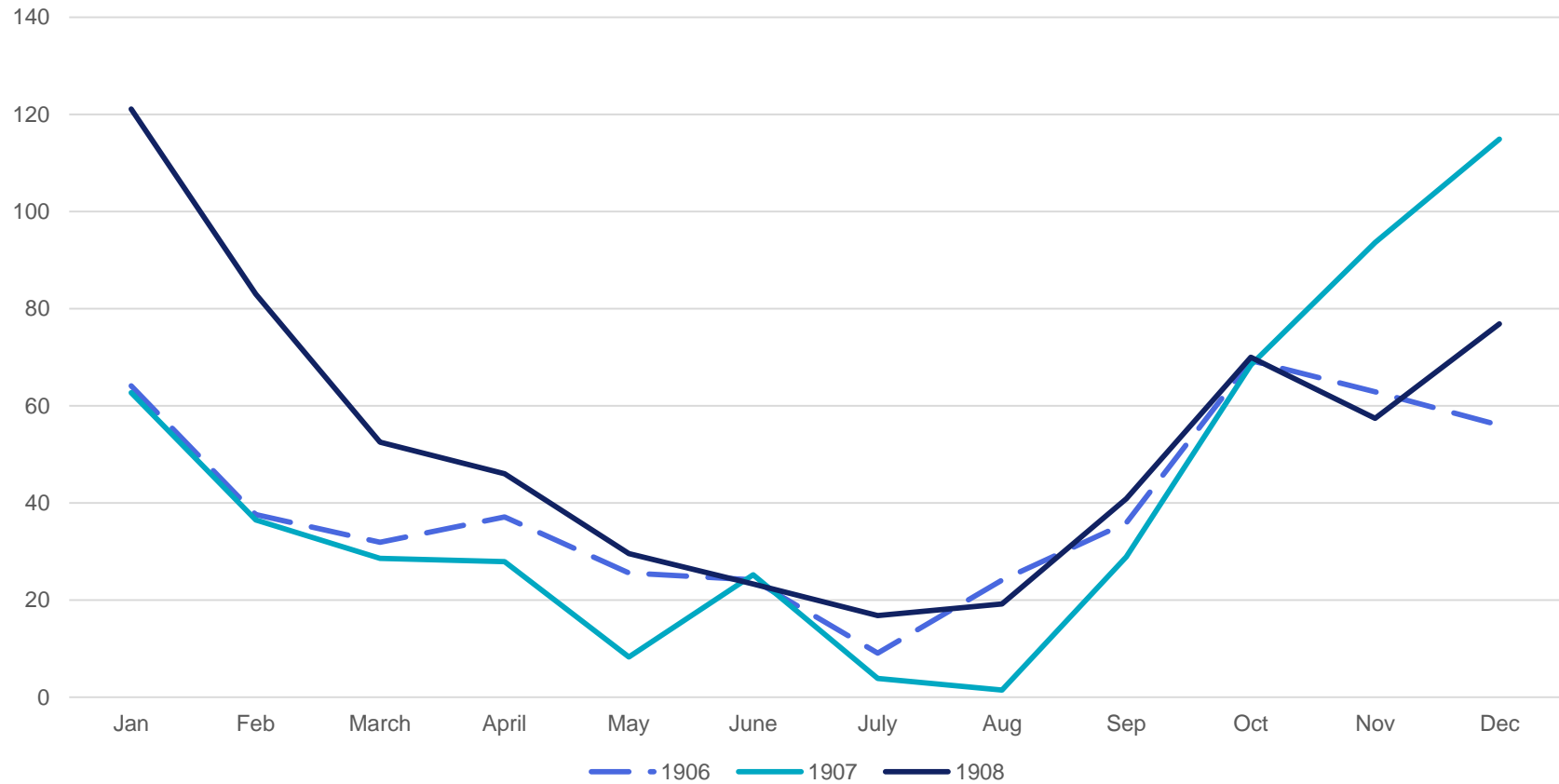
US Trade

Total imports and exports of the United States in million USD
from Oct. 1906 - Sep. 1908



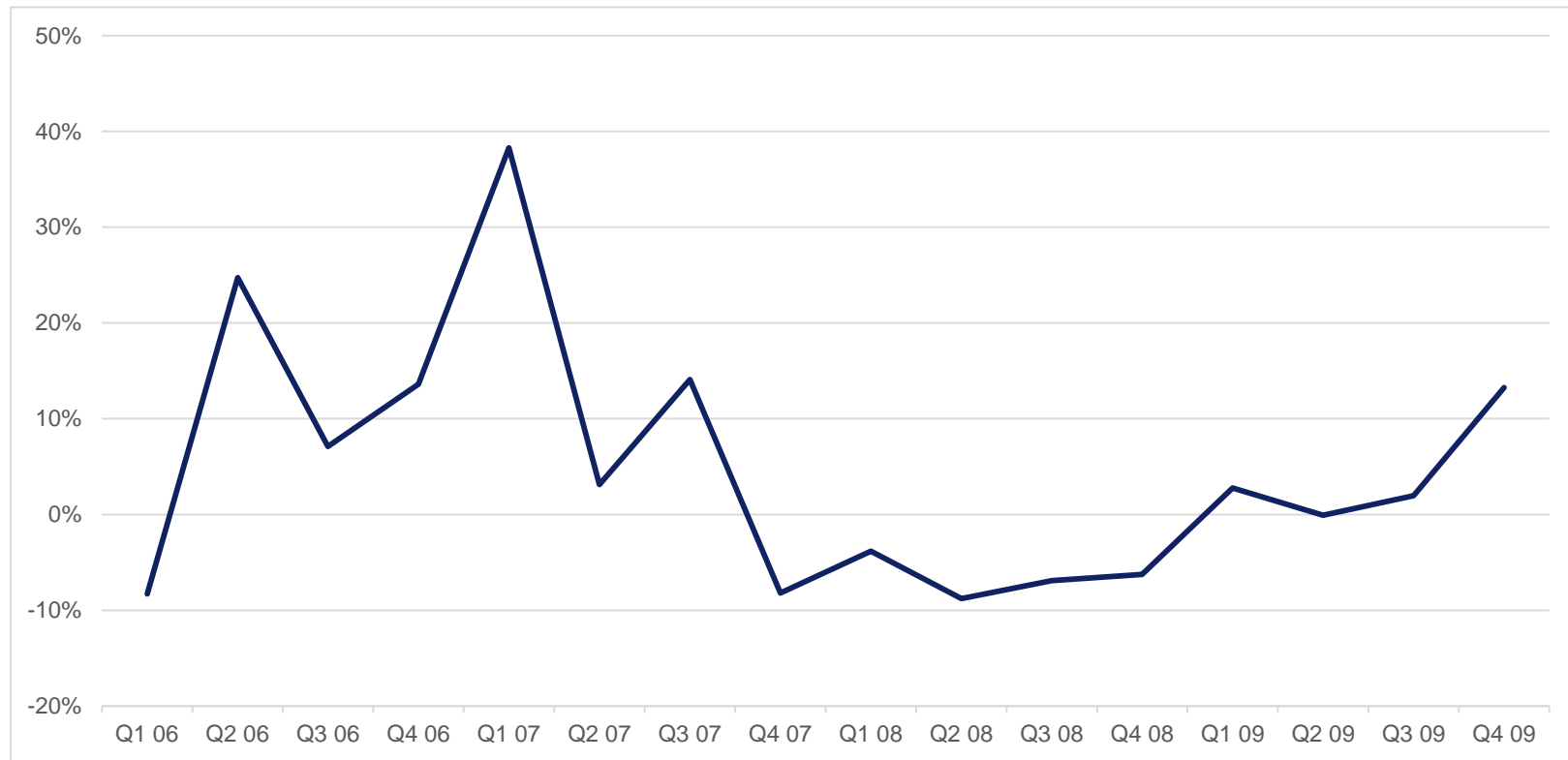
Exports - US Trade

Excess of exports over imports in million USD



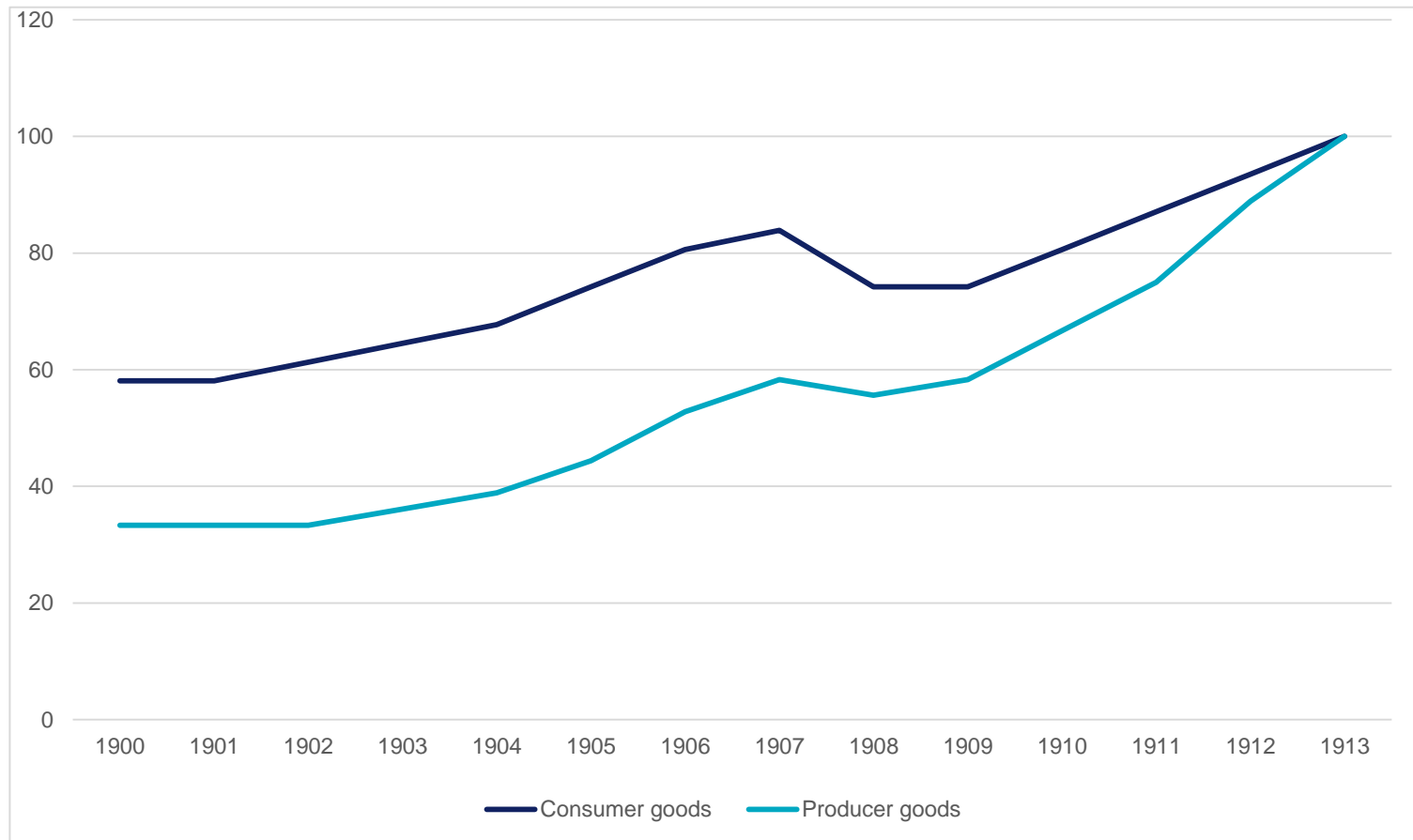
Exports - Germany

Quarterly German exports year-on-year change 1906-1908



Exports - Germany

Export quota of the German industry (1913=100)



Money supply and demand

- Average gold coverage fell between 1905-1907 from 56% to 43%, with lowest coverage in Dec 1906 and 1907 (27%) (Data: Deutsche Reichsbank)
- Financial stress from 1905 onwards with difficult months in autumn.
- German Reichsbank as the lender of last resort for the commercial banks.
- Commercial banks more important for German industry and trade than the Reichsbank.

Money supply and demand

Discounted bills by the German Reichsbank

	Average amount discounted bills p.a.	Peak amount discounted bills	Average coverage (gold) p.a.	Lowest coverage (gold)
1904	801m	1.074m - on 31 March	52.9%	35.5% - on 30 Sep
1905	875m	1.305m – on 30 Sep	55.8%	31.4% - on 30 Sep
1906	946m	1.349m – on 30 Sep	48.6%	27.1% - on 31 Dec
1907	1.060m	1.470m – on 31 Dec	42.9%	26.4% - on 31 Dec
1908	897m	1.277m – on 07 Jan	51.5%	32% - on 07 Jan

Conclusions

- A demand side/trade shock led to the transmission of the crisis of 1907 (even in a pegged exchange rate system).
- The monetary shock happened two years earlier in 1905.
- Focus on monetary transmission leads to incomplete results.
- Models on consumer behavior and expectations can provide an explanation.

Excursus: What is the right explanation?

Intuition behind a self-fulfilling panic (Bacchetta/Van Wincopp 2013)

Trigger: shock(bank runs)/communication (telegraph/telephone)

