Selective Default Expectations

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Selective Defaults

- Why do sovereign governments repay their external debts?
  - Defaults entail **costs** for sovereign governments (Eaton and Gersovitz, 1981;Bülow and Rogoff, 1988, 1989; Borensztein and Panizza, 2010)

- The varying costs of sovereign defaults
  - Creditors differ in their ability to impose costs on defaulters
  - Sovereigns might **discriminate between creditors** in debt default episodes

- Evidence on selective sovereign debt defaults
  - **Foreign versus domestic** creditors (Gelpern and Setser, 2014; Erce and Mallucci, 2018; Chamon et al. 2018)
  - Different **classes of foreign creditors** (Schlegl et al., 2019)

This paper

- How do selective default expectations affect sovereign bond trading and sovereign risk premia?

- A historical laboratory: the **German default of the 1930s**

1. Creditors from different countries **did not expect the same treatment** in case of default
2. Exactly **identical German government bonds** traded in different creditor countries' markets
3. Creditors' secondary markets first geographically **integrated** (1930-1934) and then **strictly segmented** (1934-1939)

➔ **Allows measuring selective default expectations**

What we do

- New data on markets for German government bonds
  - Daily German government bond prices on four markets, 1930-1939
  - Volumes of trading across creditor countries

- Main findings
  - **When creditor markets are integrated**, selective default expectations are not reflected in bond yields but in quantities of bonds traded between creditors
  - **When creditor markets are segmented**, a large selective default risk premium can be priced in sovereign bonds
  - Selective default risk premium accounted for **1/3 of total risk premium** on German external debt in 1934-1939
  - Creditors' **economic power over debtor** strong determinant of their seniority rank

Outline

I. The German debt default of the 1930s

II. Measuring selective default risk

III. Determinants of selective default expectations

IV. Conclusions and implications

I. The German Debt Default of the 1930s

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- Germany, 1919-1931
  - 1919-1924: **Reparations** and **hyperinflation**
  - 1924-1928: **Dawes plan** and borrowing spree
  - 1928-1931: **Sudden stop** and financial crisis

- The road to sovereign default, 1931-1934
  - **June 15th, 1934**: Complete **transfer moratorium** on long-term foreign liabilities (to take effect in July)
  - Unilateral, partial default on **US bondholders**
  - But no immediate default on **European bondholders**

I. The German default of the 1930s

- Bilateral debt settlement negotiations, 1934
  - Bilateral negotiations with each **European creditor country**
  - **Separate debt settlement/trade treaties** in 1934
  - Full service maintained for European bondholders

- Selective defaults
  - **April 1935**: Dawes bond coupon reduced for **Swiss** bondholders (7 to 4.5%)
  - **June 1935**: Dawes bond coupon reduced for **Dutch** bondholders (7 to 3.5%)
  - **August 1938**: Dawes bond coupon reduced for **UK** and **French** bondholders (7 to 5%)

- How did investors assess the **risk of selective default**?

Data

- Daily prices of German government bonds **(Dawes bonds)** in London, Paris, Amsterdam, and Zurich

The Dawes Bonds

- The Dawes Loan
  - Central government loan linked to WWI reparations and currency stabilisation
  - Issued in October 1924, 7% coupon
  - Floated in USA, UK, Belgium, Holland, France, Italy, Sweden, Switzerland

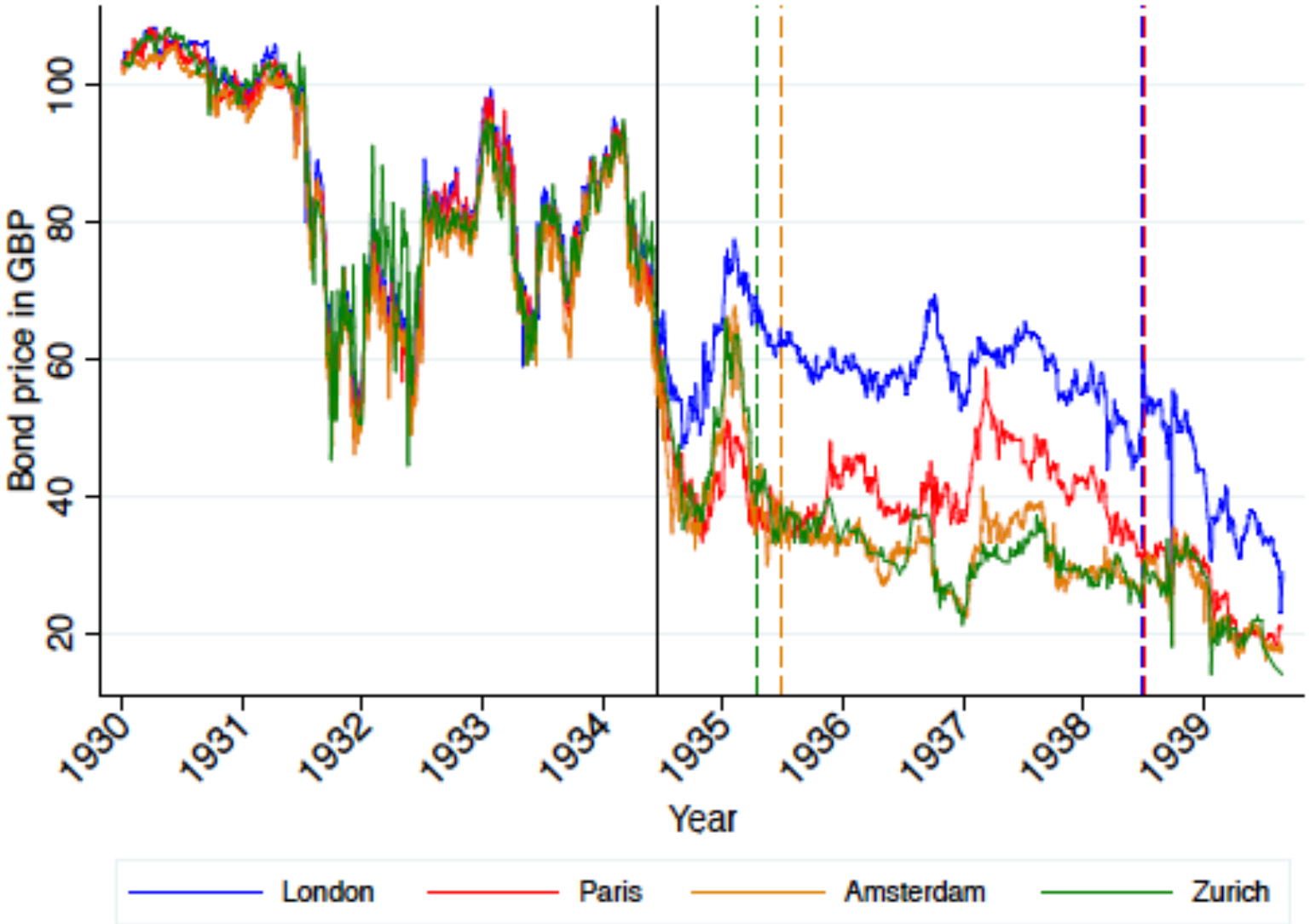
- The sterling tranche: £22 Mio
  - Britain: £12,000,000
  - France: £3,000,000
  - Switzerland: £3,000,000
  - Netherlands: £2,500,000
  - Belgium: £1,500,000

Data

- Daily prices of German government bonds **(Dawes bonds)** in London, Paris, Amsterdam, and Zurich

- Dawes bonds on various markets were **identical**
  - Same **issuer** (German government)
  - Same **coupon** (7%)
  - Same **maturity** (1949)
  - Same **currency** (sterling)

Daily Price of Sterling Dawes Bond 1930-1939



II. Measuring selective default risk

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Suppose German government has borrowed:

- From bondholders in **two creditor countries** *s* and *j*
- Residents of country *s* are **senior**, residents of country *j* are **junior**

1. Markets of *s* and *j* are **integrated**

- Bondholders of junior (*j*) and senior (*s*) countries can exchange bonds
- Yield spread between *s* and *j* only represents **arbitrage cost**

➔ Selective default risk **not reflected in bond yields, but in quantities**

2. Markets of *s* and *j* are **segmented**

- Bondholders **cannot arbitrage bonds** across markets
- Yield spread between *s* and *j* reflects a **selective default risk premium** and a **liquidity premium**

➔ Selective default risk **reflected in bond yields, not in quantities**

II. Measuring selective default risk

Yield spread between **identical bonds** on various creditor markets represents a **selective default risk premium** if:

1. **Secondary bond markets are strictly segmented**

2. **Liquidity differentials across markets are negligible**

Market segmentation

- Official trading restrictions
  - 1934: bilateral debt negotiations with Germany
  - In each market, **ban on sale of Dawes bonds** purchased by foreigners after 15/6/34

Ban on foreign-owned Dawes and Young bonds

"until further notice **no bonds of the Dawes and Young loans will be a good delivery** unless accompanied by a declaration by a banker (British) or stock broker (member of London or Provincial Stock Exchanges) that **they were on 15th June, 1934, the property of a British subject**."

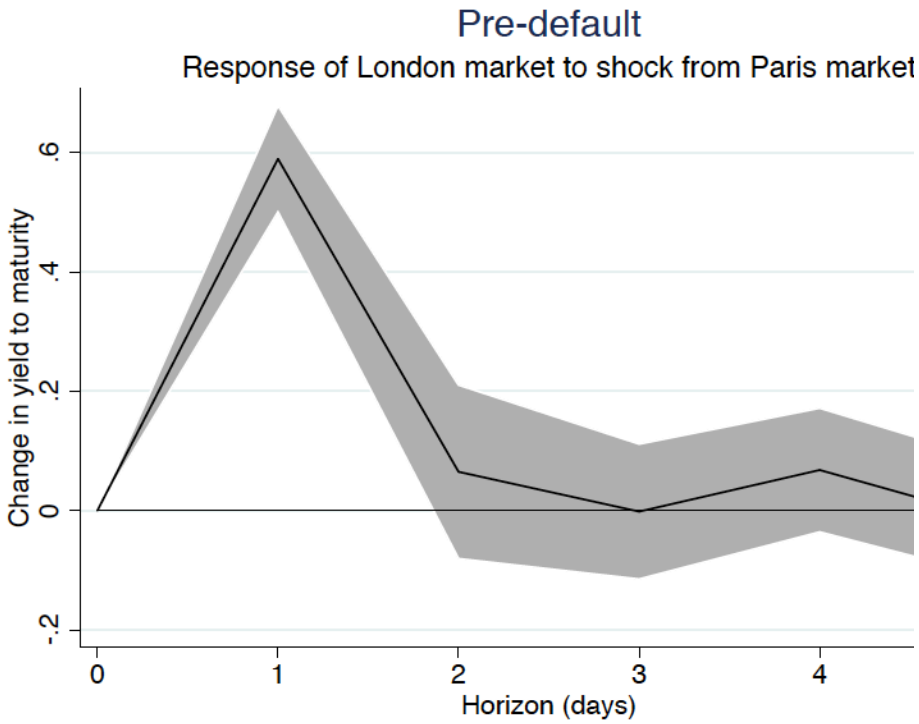
Financial Times, 22 June 1934

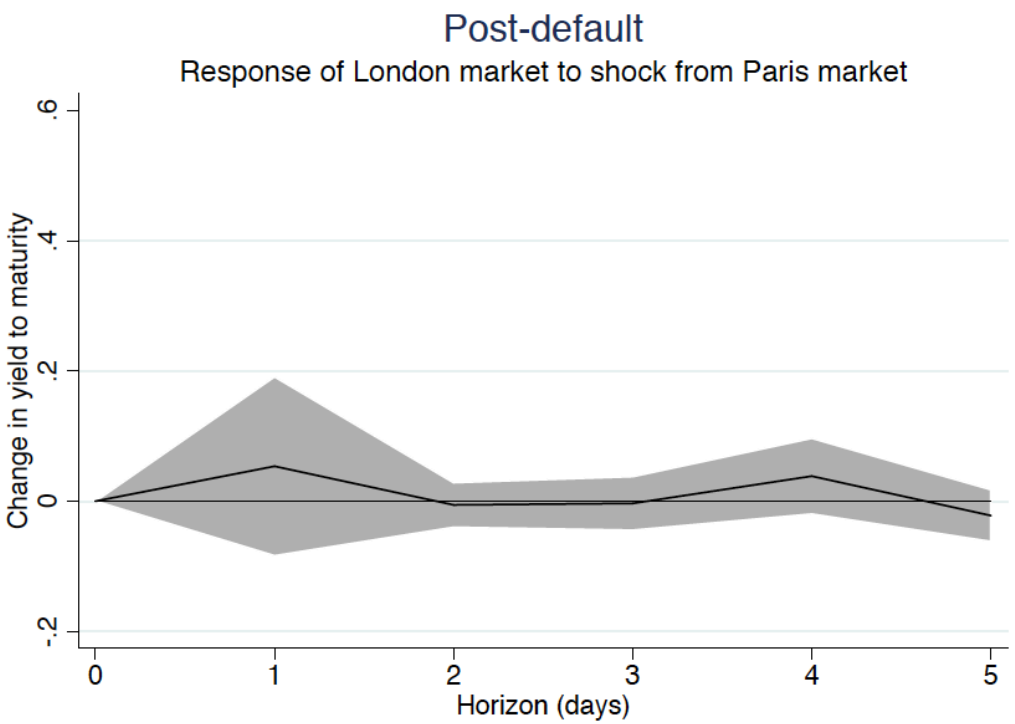
Market segmentation

- Official trading restrictions
  - 1934: bilateral debt negotiations with Germany
  - Discrimination between creditors not possible in the presence of **secondary markets**
  - In each market, **ban on sale of Dawes bonds** purchased by foreigners after 15/6/34

- Was market segmentation effective?
  - **Impulse response functions**

Local Projections





Market segmentation

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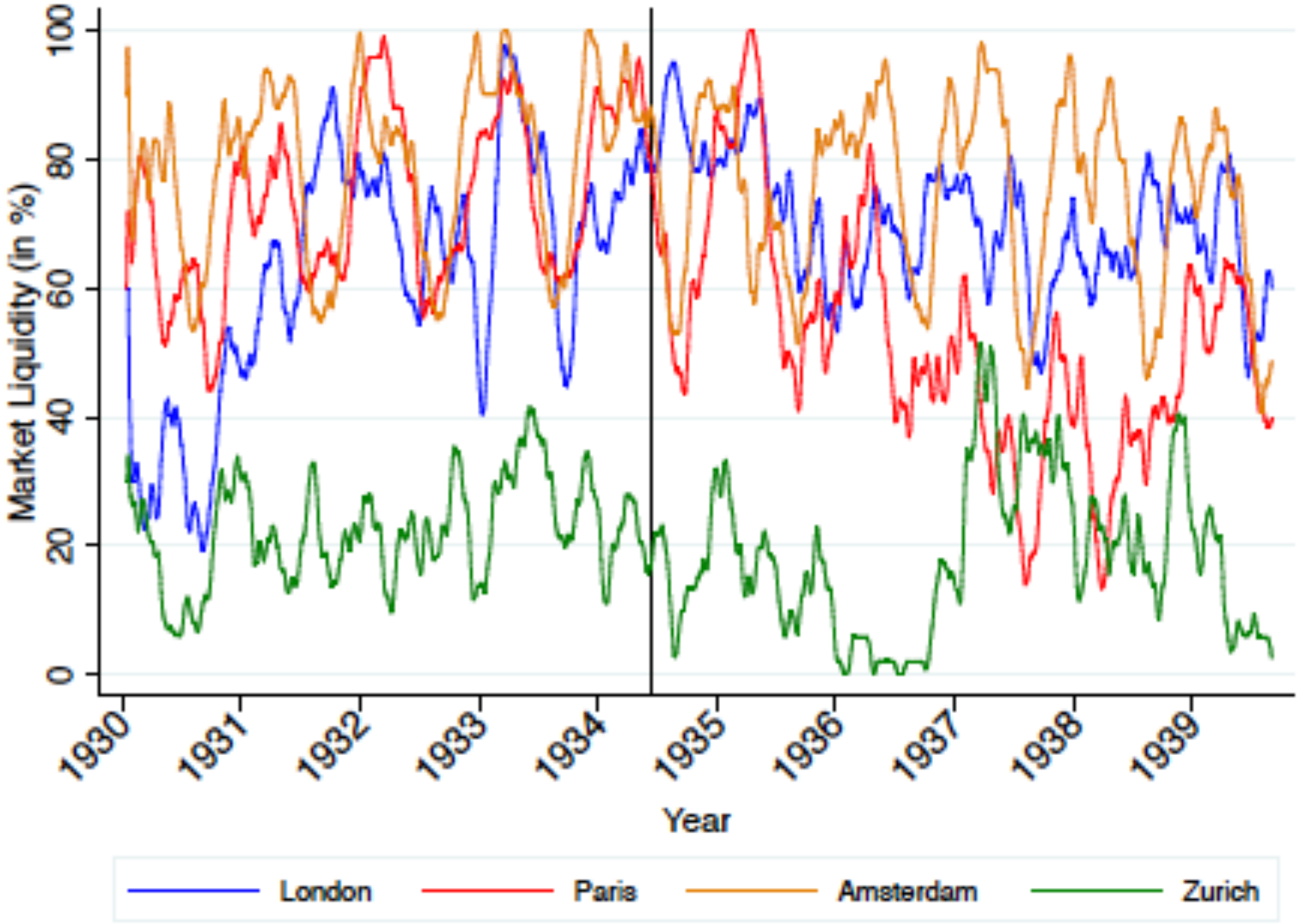
- Was market segmentation effective?
  - **Impulse response functions**
  - Evidence on **trading volumes**

Table 1: Sterling Dawes bonds in British ownership, 1924-1938

	1924 (Issue)	1934	1938
	British tranche		
Amount outstanding (in Mio GBP)	12.000	9.159	9.159
Of which British ownership	12.000	7.387	8.144
% certified in British ownership	-	81%	89%
	French tranche		
Amount outstanding (in Mio GBP)	3.000	2.279	2.279
Of which British ownership	-	1.320	1.403
% certified in British ownership	-	58%	62%
	Dutch tranche		
Amount outstanding (in Mio GBP)	2.500	1.904	1.904
Of which British ownership	-	0.264	0.304
% certified in British ownership	-	14%	16%
	Swiss tranche		
Amount outstanding (in Mio GBP)	2.360	1.82	1.82
Of which British ownership	-	0.298	0.316
% certified in British ownership	-	16%	17%
	Belgian tranche		
Amount outstanding (in Mio GBP)	1.500	1.149	1.149
Of which British ownership	-	0.48	0.574
% certified in British ownership	-	42%	50%
	$\sum$ *All continental tranches*		
Amount outstanding (in Mio GBP)	9.360	7.152	7.152
Of which British ownership	-	2.362	2.597
% certified in British ownership	-	33%	36%

Liquidity


Market Liquidity (in %)
0
20
40
60
80
100
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
Year
London
Paris
Amsterdam
Zurich

II. Measuring selective default risk

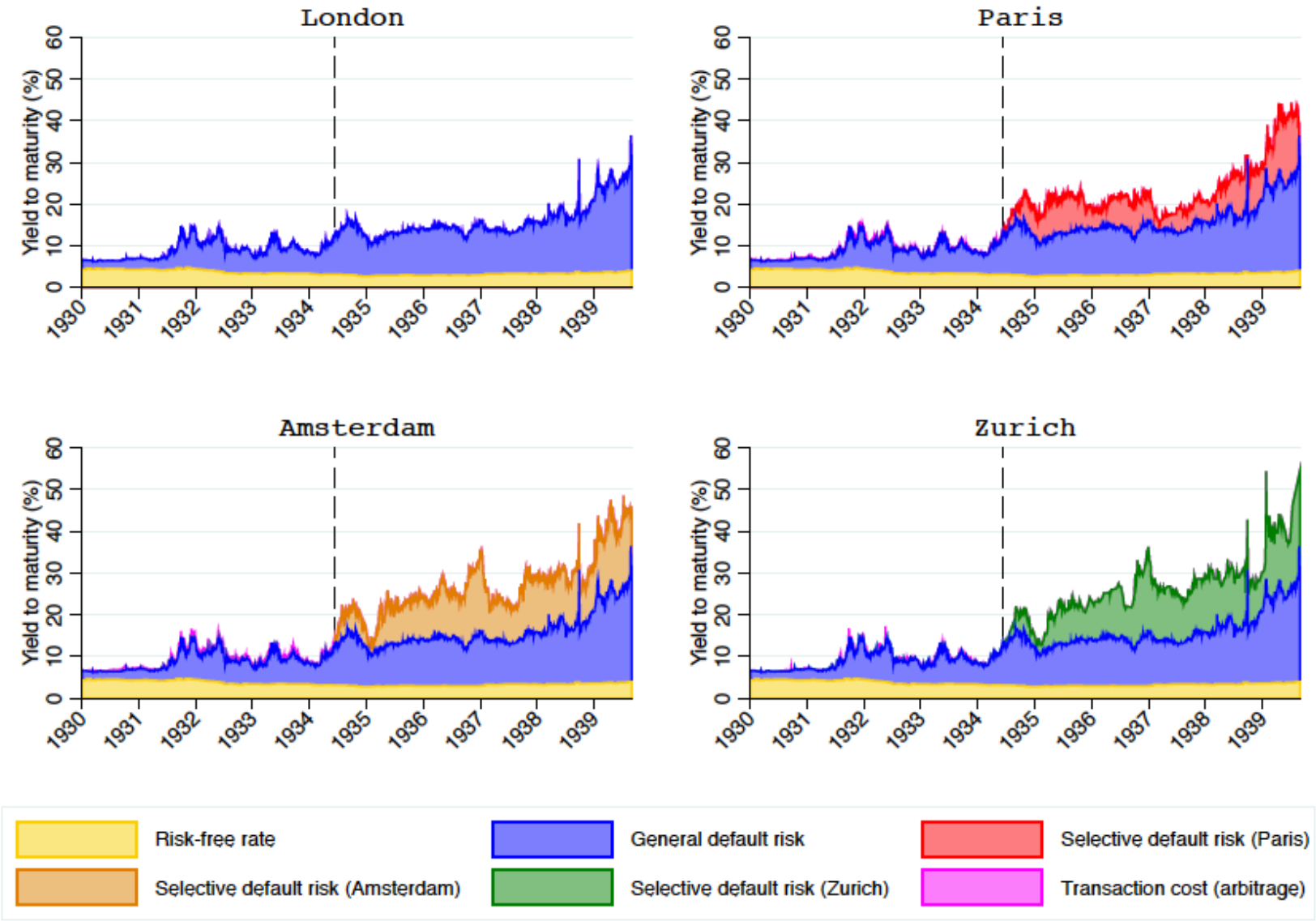
Dawes bond yield in market *i* can be decomposed into:

1. An international **risk-free** rate
   Proxied by yield on British consol

2. A **general** default risk premium
   London Dawes bond yield – consol rate

3. A **selective** default risk premium
   Spread relative to London Dawes bond yield

The selective default risk premium



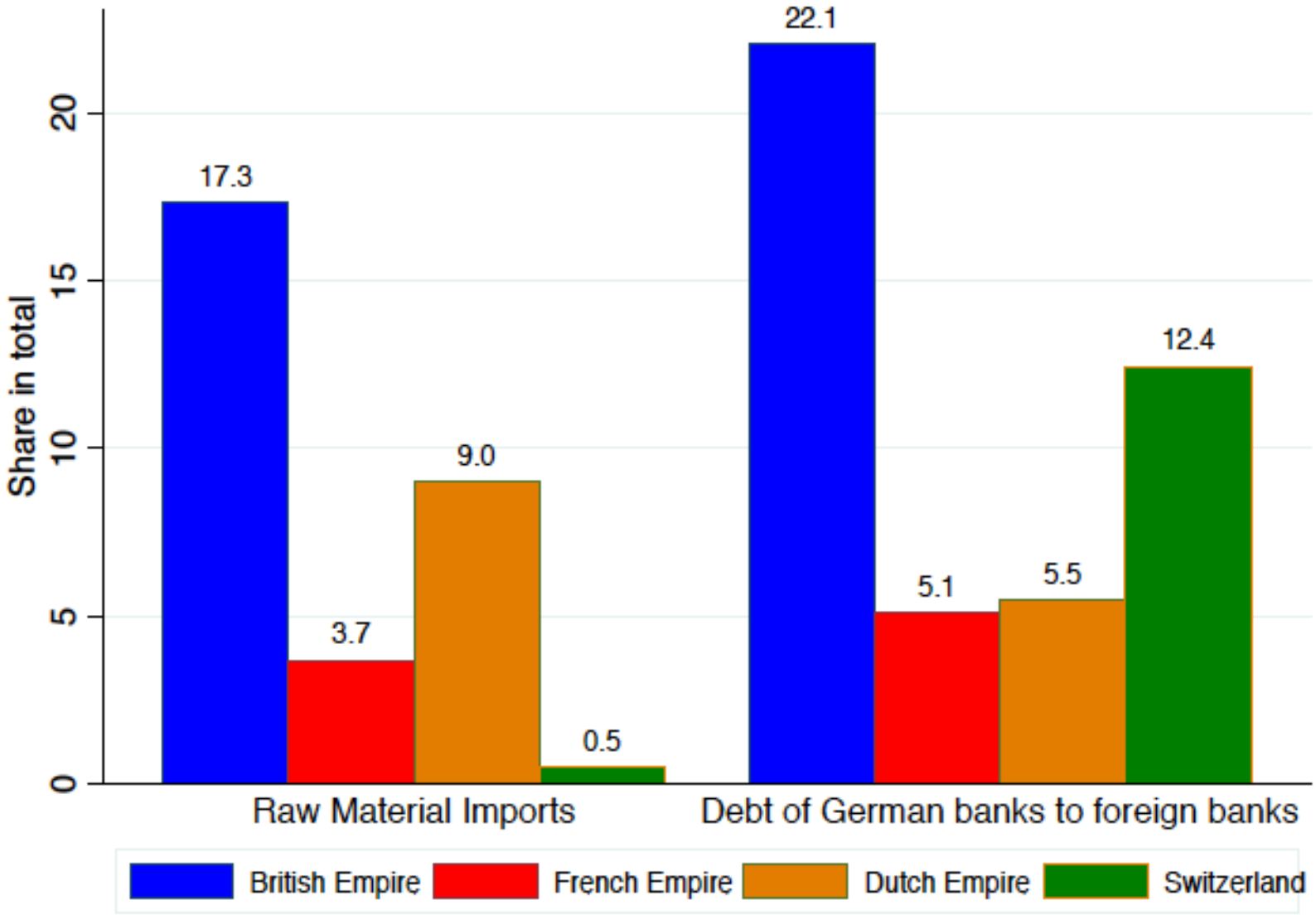
III. The determinants of selective default expectations

III. Determinants of selective default risk

Historical narrative

- Why were UK bondholders considered senior?
  - Germany's dependence on **London trade and financial centre**
  - Access to British Empire's **raw materials** essential to Nazi economy
  - Most of German imports **financed by London banks**

Germany's dependence on the UK



III. Determinants of selective default risk

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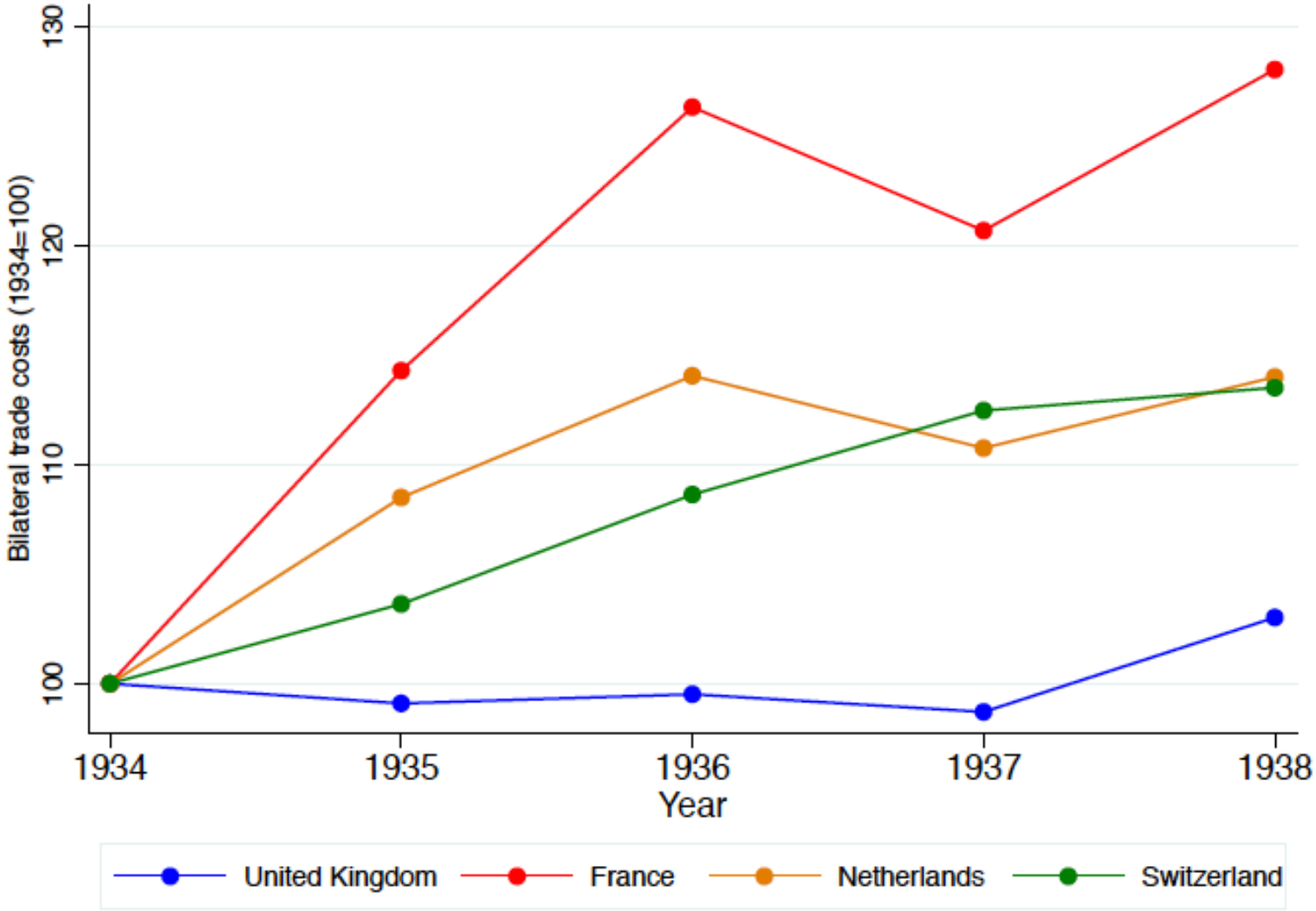
- Creditors' trade policy towards Germany
  - Germany's **transfer problem** and **trade treaties** with creditors
  - UK: granted **generous trade concessions**
  - Fr., Swi., Neth.: instored coercive, **heavy clearing systems**

Germany's bilateral trade costs



III. Determinants of selective default expectations

Event study

- How did various events affect selective default expectations?
  - Identify news regarding the service of German Dawes bonds
  - *Financial Times* (all articles mentioning Dawes)
  - *Chronicle of International Events* (political events)

- News classification

A. Positive versus negative news

B. News affected:

1. **All creditors** (Germany's overall creditworthiness)
2. **Most senior creditor** (Anglo-German relationship)
3. **Junior creditors** (French-, Swiss-, or Dutch-German relationship)

Event Study Results I

News affecting all creditors

	Dependent variable: Selective default risk ($Y_j - Y_s$)					
	Baseline		Liquidity control		Paris only	
	News pertaining to all bondholders					
	bad news	good news	bad news	good news	bad news	good news
News shock	0.25**	0.08	0.24**	0.08	0.25**	0.10
	(0.10)	(0.09)	(0.09)	(0.09)	(0.12)	(0.11)
Liquidity differential			0.64	0.34	0.24	0.82
			(0.53)	(0.43)	(0.57)	(0.66)
N (observations)	744	735	744	735	283	274
N (Event-market)	126	134	126	134	47	45
Adj. overall R^2	.95	.98	.95	.98	.95	.98
Within R^2	0.02	0.00	0.03	0.01	0.05	0.03

Bad news about **Germany's overall creditworthiness** increased the selective default risk premium

Event Study Results II

News affecting UK only

	News pertaining to UK bondholders only					
	bad news	good news	bad news	good news	bad news	good news
News shock	0.16	0.16	0.20	0.17	0.37	0.22
	(0.17)	(0.14)	(0.17)	(0.14)	(0.22)	(0.18)
Liquidity differential			-0.70	0.53	0.09	1.10
			(0.67)	(0.60)	(0.51)	(1.01)
N (observations)	112	366	112	366	47	140
N (Event-market)	20	66	20	66	8	23
Adj. overall R^2	.97	.98	.97	.98	.95	.98
Within R^2	0.02	0.02	0.04	0.02	0.08	0.7

Bad/Good news about **German-UK relationship** had **no effect** on the selective default risk premium

Event Study Results III

News affecting continental creditors only

	Dependent variable: Selective default risk ($y_j - y_s$)			
	bad news	good news	bad news	good news
News treatment	0.32*	-0.40**	0.33*	-0.37**
	(0.18)	(0.17)	(0.18)	(0.17)
Liquidity differential			-0.23	0.68
			(0.55)	(0.46)
N (observations)	184	325	184	325
N (Event-market)	34	54	34	54
Adj. overall R^2	.98	.99	.98	.99
Within R^2	.19	.39	.19	.40

Bad (good) news about **Germany's bilateral relationship with a given continental creditor** increased (decreased) expectations of selective default on that country's bondholders

Conclusions

- **Quasi-natural experiment** allows us to assess the incidence of selective default expectations
- Selective default expectations reflected in **volumes** of bonds traded when secondary bond markets are integrated and in **yields** when they are segmented
- Germany post-1934: large and persistent **selective default risk premium**
- Selective default expectations related to **creditors' economic power over debtor** and responded to various types of news
- Selective debt defaults are **possible to implement** and expectations of creditor discrimination can have a large impact on sovereign bond markets