The Global Credit Project

www.globalcreditproject.com

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Motivation

A large literature argues that financial development is beneficial for growth
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What could explain this seemingly contradictory result?

- Long vs. short-run (Loayza-Rancière, 2006)?

- Are occasional crises the "price" of higher growth (Rancière-Tornell-Westermann, 2008)?

- Non-linearity: credit only good up to a point (Arcand-Berkes-Panizza, 2015)?

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Key argument of this project: the allocation of credit may be another explanation

The macro-finance data gap

Most cross-country data on credit markets is highly aggregated

- Mostly available: Outstanding credit to the private sector/GDP

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Our contribution: historical time series bridging the gap between micro and macro

- Long time series for most countries

- Much more granular data than previous sources

The Global Credit Project

A cross-country panel database measuring the allocation of credit across sectors

- Data on outstanding domestic credit, by sector

- Combines more than 600 individual sources, mostly newly digitized

- Harmonized sector classifications with help of more than 150 individuals at national authorities

Our goal: create a one-stop shop for global credit data

1. Incorporate all major existing sources of credit data

2. Extend existing time series for total credit

3. Add sectoral data

Details: Müller and Verner (ReStud, forthcoming), "Credit Allocation and Macroeconomic Fluctuations"

Data: www.globalcreditproject.com

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Global Credit Project
189 countries
1910-2014
2-60 sectors (avg.=16)

Comparing data coverage to existing sources

Dataset	Start	Freq.	Countries	Country-year obs.	Sectors	Country-sector-year obs.
Panel A: Sectoral credit data						
Müller-Verner	1940	Y	117	5,436	2–60 (mean=16)	89,019
Jordà et al. (2016a)	1870	Y	18	1,764	3	4,103
IMF GDD	1950	Y	83	1,871	2	3,703
BIS	1940	Q	43	1,220	2	2,417
Panel B: Total credit data						
Müller-Verner	1910	Y	189	10,272	—	10,272
IMF IFS	1948	Y/Q/M	182	8,458	—	8,458
World Bank GFDD	1960	Y	187	7,745	—	7,745
IMF GDD	1950	Y	159	6,802	—	6,802
Monnet and Puy (2019)	1940	Q	46	2,936	—	2,936
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Data sources
and construction

Examples of data sources: Canada and Belize

17.—Loans of Chartered Banks, according to Class, Outstanding at Sept. 30, 1950-52

Note.—The classification of chartered bank loans was revised in 1950; the figures in this table are, therefore, not comparable with those for 1947-49 in the 1951 Year Book, pp. 1043-1044.

Class of Loan	1950 $'000	1951 $'000	1952 $'000
Government and Other Public Services—			
Provincial governments	23,600	24,859	6,349
Municipal governments and school districts	91,505	114,531	102,399
Religious, educational, health and welfare institutions	33,143	45,912	43,284
Totals, Government and Other Public Services	148,248	185,302	152,032
Financial—			
Investment dealers and brokers to the extent payable on call or within thirty days	101,177	107,091	135,173
Trust, loan, mortgage, investment and insurance companies and other financial institutions	85,983	91,720	107,519
Totals, Financial	187,160	198,811	242,692
Personal—			
Individuals, for other than business purposes, on the security of marketable stocks and bonds	243,370	255,605	274,324
Individuals, for other than business purposes, n.e.s	218,201	211,303	227,992
Totals, Personal	461,571	466,908	502,316
Agricultural, Industrial and Commercial—			
Farmers	255,783	298,936	334,202
Industry—			
Chemical and rubber products	29,175	54,257	30,322
Electrical apparatus and supplies	14,310	41,388	22,886
Food, beverages and tobacco	122,514	171,968	168,366
Forest products	76,057	115,685	136,500
Furniture	16,188	19,776	14,363
Iron and steel products	53,389	97,509	95,641
Mining and mine products	26,015	33,381	47,991
Petroleum and products	22,914	31,055	32,813
Textiles, leather and clothing	138,862	213,377	157,963
Transportation equipment	30,102	46,437	52,810
Other products	55,180	63,118	53,156
Public utilities, transportation and communication companies	53,912	87,937	67,526
Construction contractors	122,736	151,774	158,643
Grain dealers and exporters	93,124	98,558	186,518
Instalment finance companies	96,476	100,830	149,397
Merchandisers	436,144	542,869	483,967
Other business	135,492	133,837	139,047
Totals, Agricultural, Industrial and Commercial	1,778,373	2,302,692	2,332,111
Grand Totals	**2,575,352**	**3,153,713**	**3,229,151**

TABLE V (b)

COMMERCIAL BANK LOANS AND ADVANCES 1970-1980

BZ$ 000

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Government Services	835	1988	2908	2887	2127	1633	3259	332	5	1955	2457
Public Utilities	1121	1294	2032	2728	3140	3101	1230	1093	1010	775	218
Agriculture	12821	12490	15643	16218	19109	19993	21356	16680	18139	23444	24059
Commercial Fishing	190	117	161	168	318	127	95	303	312	328	738
Forestry	1327	308	346	140	312	440	185	1991	3965	1424	3070
Manufacturing	696	430	1308	1727	1727	2893	5542	8032	7191	10272	12494
Tourism	1092	1079	1228	537	599	756	622	540	543	739	685
Building & Construction	2824	2594	2118	2332	3302	3769	4357	5969	7228	9379	9242
Real Estate	..	..	..	..	..	..	601	1022	1046	1222	933
Financial Institutions	..	..	..	..	..	..	724	644	850	650	204
Distribution	4904	4117	9601	9783	11651	14270	18150	13595	14879	23563	25163
Professional Services	..	..	..	..	..	..	191	509	532	667	1091
Transport	481	529	906	1286	1043	1264	1925	1733	1484	2449	1566
Entertainment	..	..	..	..	..	..	117	349	271	307	375
Mining & Exploration	..	..	..	..	..	..	–	–	–	15	–
Personal	1878	2306	3638	2969	3275	3313	5447	6723	7541	9361	9587
Sundries	..	..	..	..	..	..	127	–	–	–	–
TOTAL	28139	27252	39889	40775	46603	51559	63928	59515	64996	86550	91892

Sources: Abstract of Statistics, Central Planning Unit, Ministry of Finance; Statistical Digest, Monetary Authority of Belize

What constitutes "credit"?

In our data, mostly loans by deposit-taking institutions

- The statistics we construct are based on the **asset side** of financial institutions

- These data are aggregated from bank-level surveys, usually collected by bank supervisors

What is not covered by the data?

- Not always reported: domestically held bonds

- Not covered: internationally held bonds, cross-border loans

How big of an omission is it?

- To some extent an open question

- Müller-Verner (2023): Bond markets too small to matter for link between credit allocation and output (at least historically)

Our data match aggregates in existing datasets
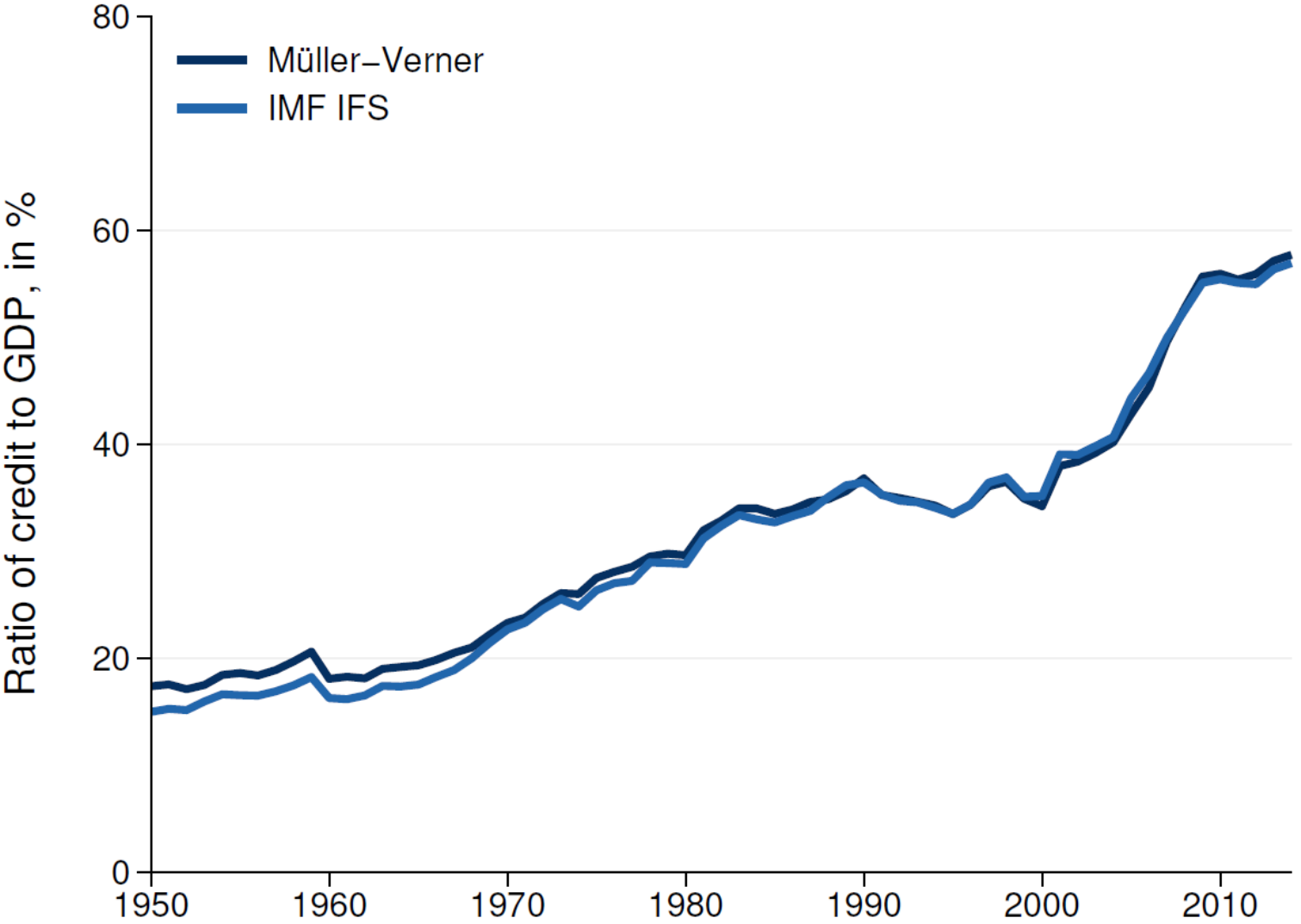
Applications

Structural change in firm credit over time

**Large decrease in manufacturing credit, rise of construction and tertiary sector**

Sector share % of firm credit

- Other sectors
- Transport/Communication
- Trade, Accomm., Food
- Construction/RE
- Manufacturing/Mining
- Agriculture
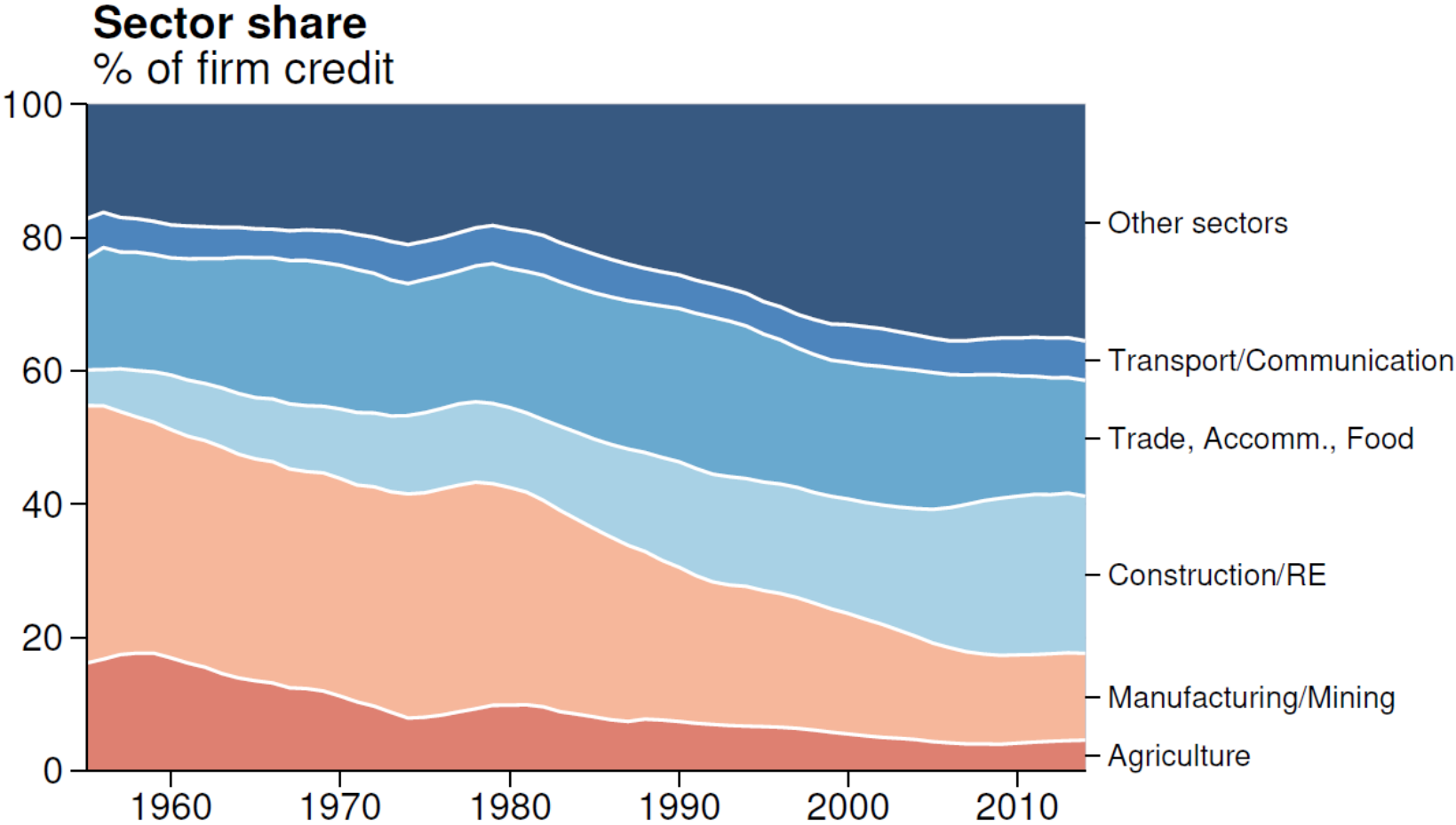
Source: Müller and Verner (ReStud, forthcoming). Figure shows average values for advanced economies.

A granular view into credit booms before banking crises

Prominent case studies suggest wide dispersion in credit growth across sectors
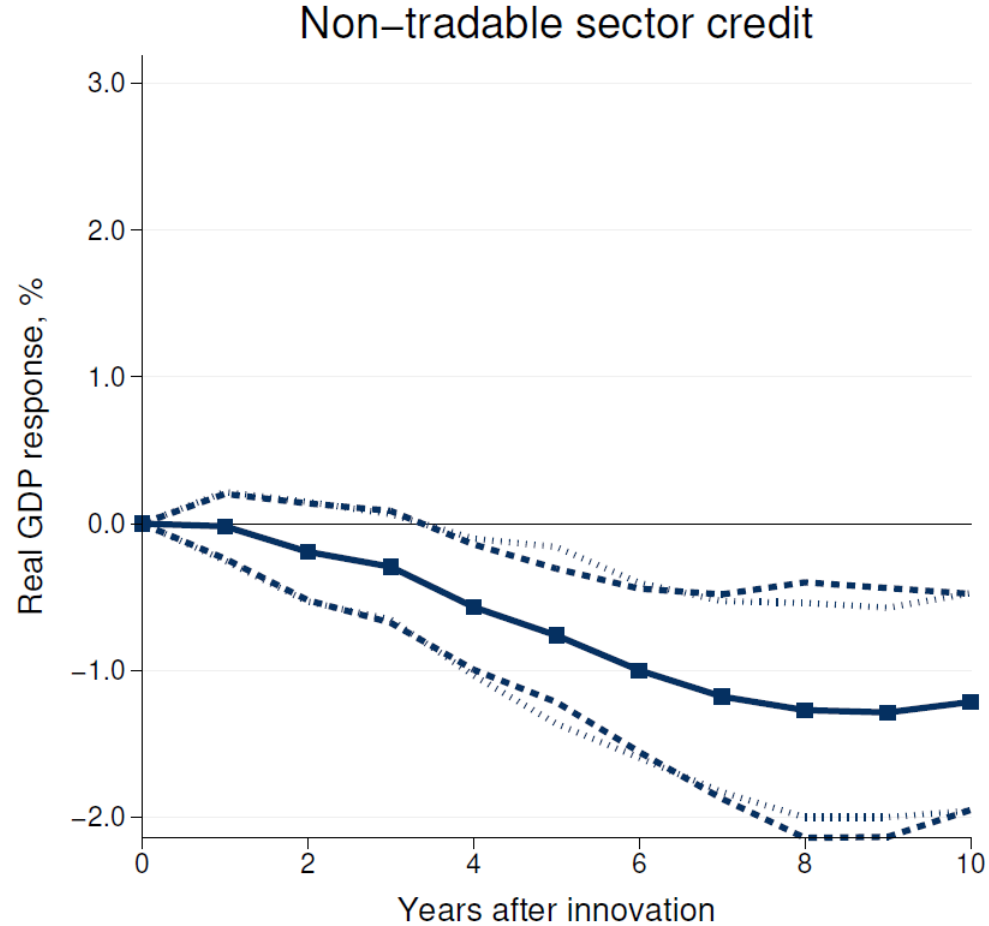

(a) Eurozone Crisis: Spain
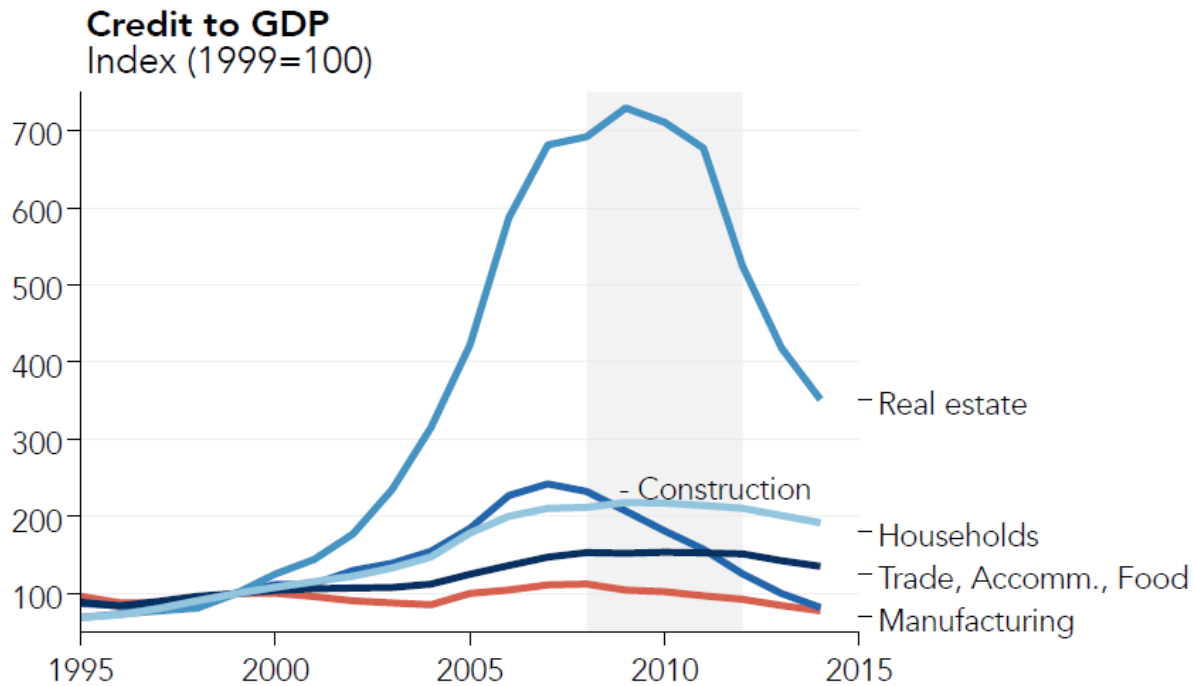
(b) Eurozone Crisis: Portugal

Source: Müller and Verner (ReStud, forthcoming)
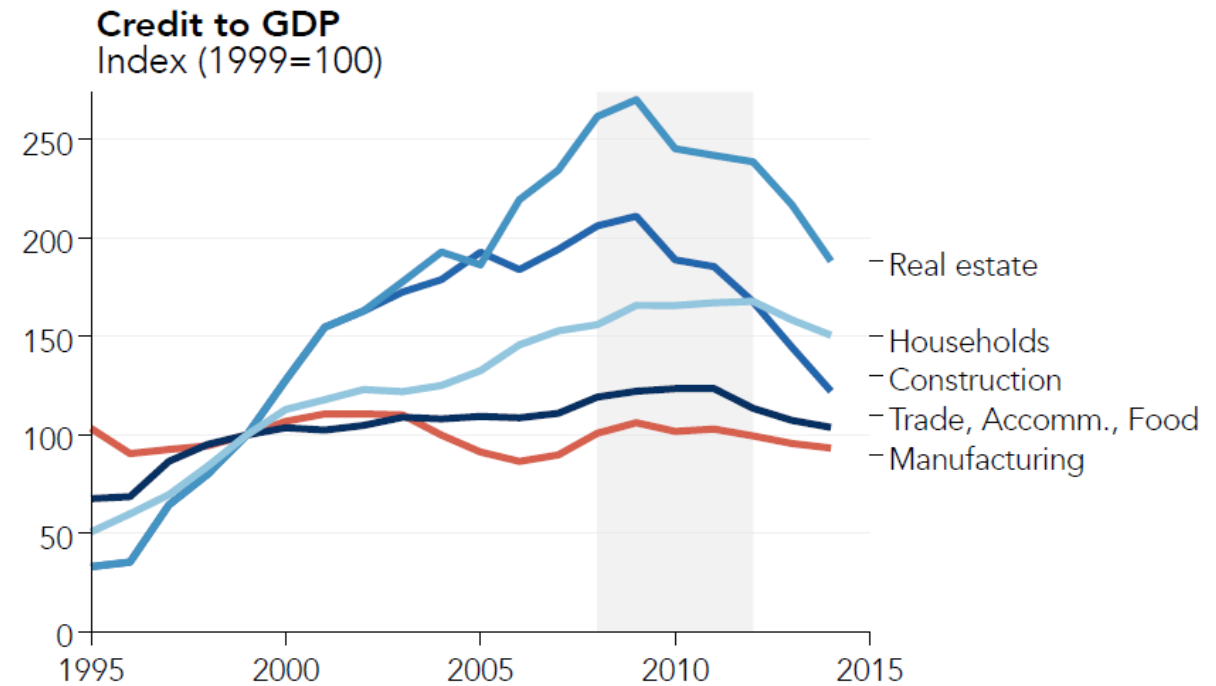
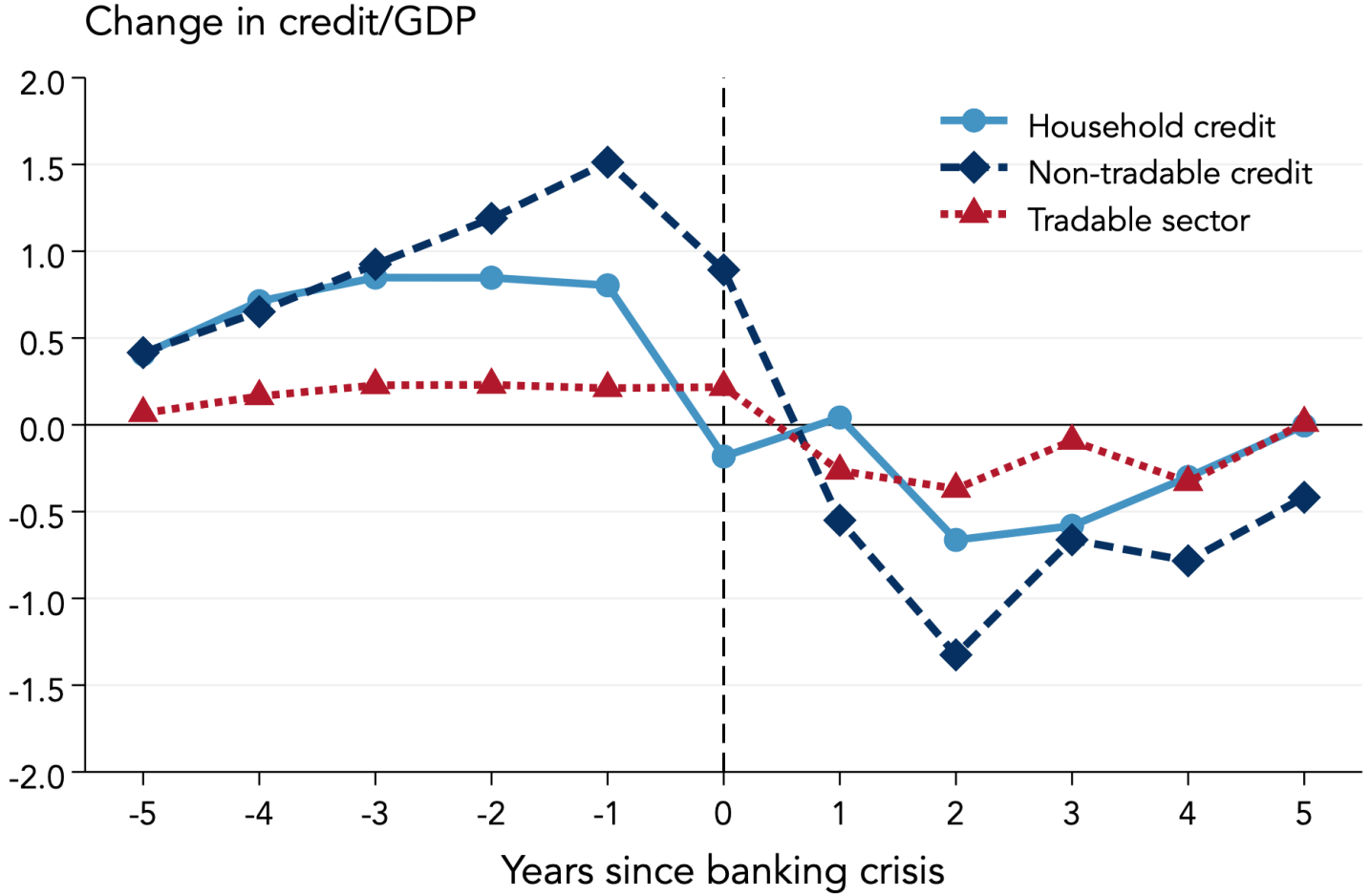# Credit allocation and business cycles

Credit expansions to tradable and non-tradable sectors are followed by different GDP growth
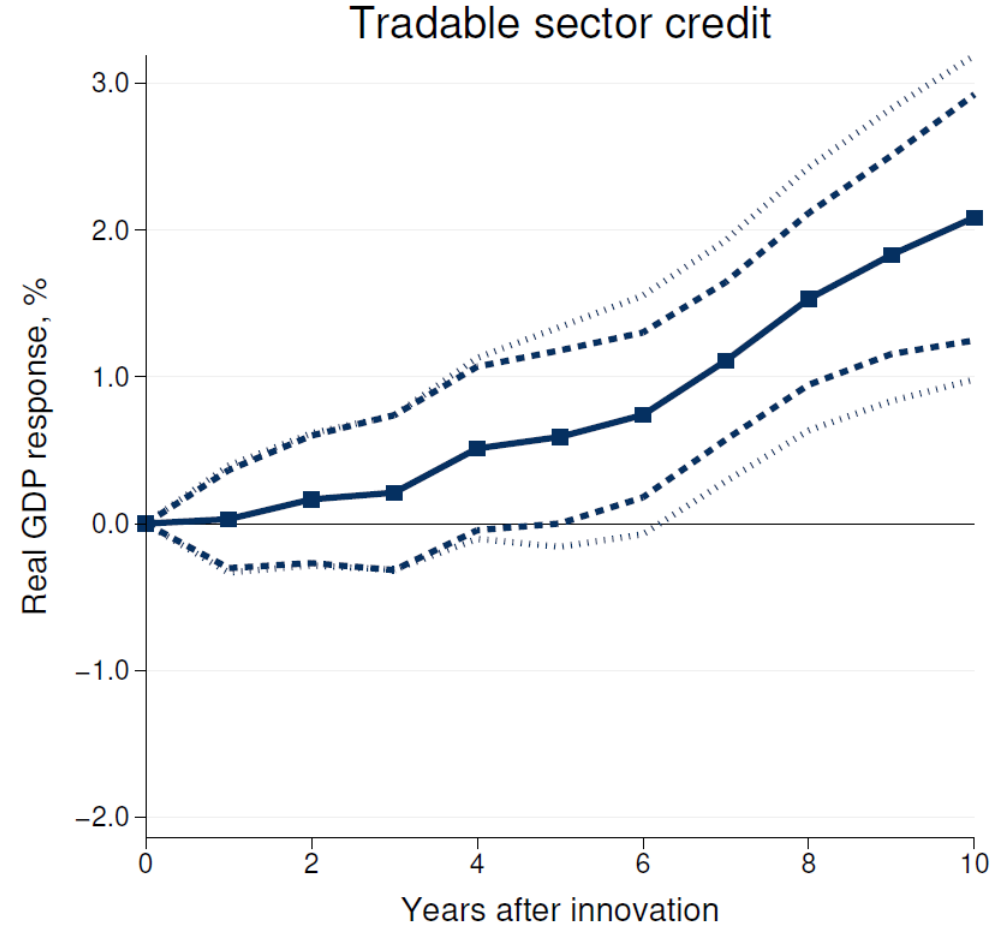
Source: Müller and Verner (ReStud, forthcoming)

Decomposing credit growth around banking crises

Stark difference between credit to tradable and non-tradable sectors
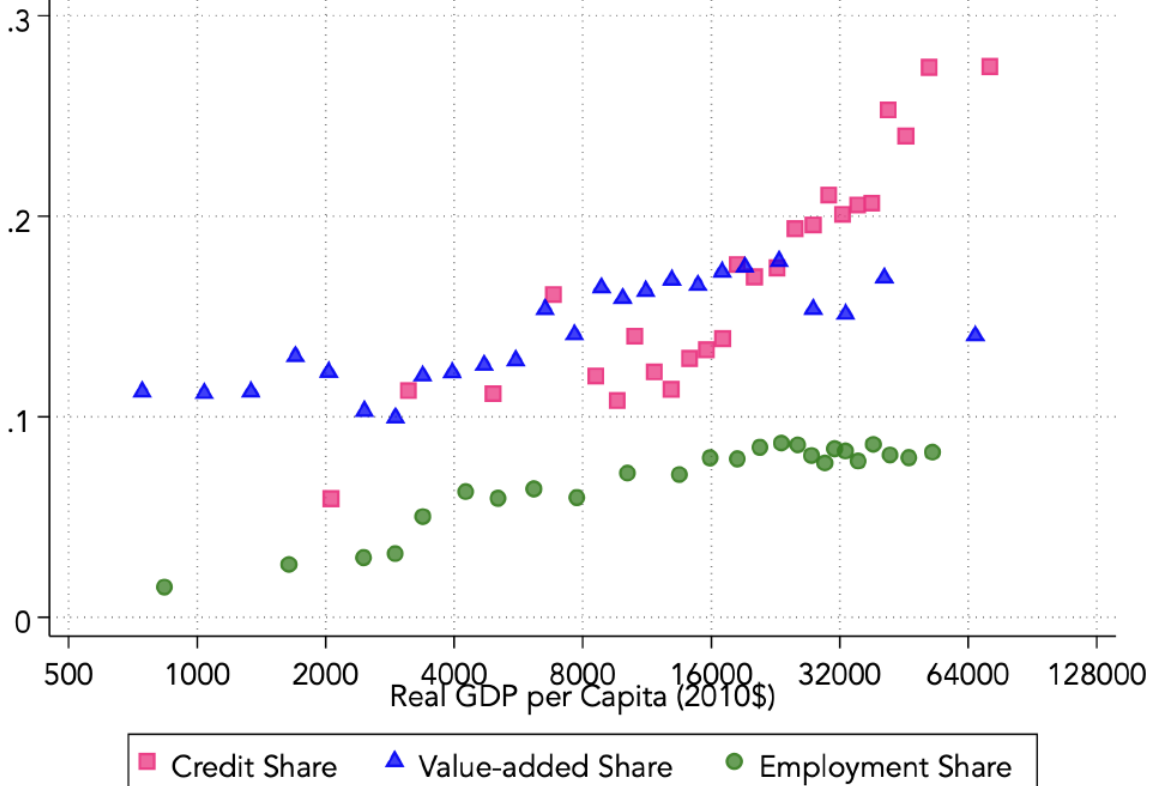

Source: Müller and Verner (ReStud, forthcoming)

Financial Kuznets facts

As countries get richer, manufacturing share goes down faster for credit than value added

(a) Manufacturing

(b) Construction/real estate

Our data allow addressing many new and old questions

Dai, Müller, and Verner (in progress)

- Are long-run changes in the sectoral composition of credit driven by demand or supply factors?

- What is the effect of changes in credit policy that historically have been used to steer lending?

Ivashina, Kalemli-Özcan, Laeven, and Müller (in progress)

- Does commercial real estate play a role in boom-bust cycles? If so, why?

- Does the recovery from financial crises depend on where credit was flowing before?

Liu, Müller, and Verner (in progress)

- How can we measure "credit-bites-back risk" (Kashyap-Stein, 2023)?

- Does incorporating granular data on credit markets help forecast deep economic downturns?

Many other open questions

Conclusion

The Global Credit Project introduces novel statistics on credit by sector

- Broad coverage of advanced and emerging economies

- New sectoral data starts in 1940, new long-run data on total credit starts in 1910

These data open up new possibilities for research in macro, finance, development, and trade

- Check out the data on **www.globalcreditproject.com**

- All comments are welcome

Future plans

- Continuous improvements and updates

- Future releases: More detailed industry-level data, household credit by "type", monthly data

Interested in these topics? Please get in touch!

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