World - Banking Crisis and Exports 1980-2006

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Report generated on: November 21, 2013

Sampling

No content available

Questionnaires

No content available

Data Collection

Data Collection Dates

Start	End	Cycle
1980	2006	N/A

Time Periods

Start	End	Cycle
1980	2006	N/A

Data Collection Mode

Other [oth]

DATA COLLECTION NOTES

Exports data, from UN Comtrade, are disaggregated at 4 digits ISIC Rev 2 and cover the period 1980 to 2006. There are 81 industries at this level of disaggregation, however, not all countries have exported in all industries and years and therefore the resulting panel is unbalanced with the number of observations slightly above 30000.

The information on banking crises is obtained from Dell'Ariccia, Detragiache, and Rajan (2008) who identify 48 episodes of systemic financial crises in both developed and developing countries. Because we are only interested in the effect of pure banking crises we exclude all \twin crises" when a currency crisis occurred jointly with the banking crisis. The rationale for this exclusion is that we want to isolate the credit crunch channel from balance sheet effects. During twin crises, when large devaluations occur, firms with high exposure to foreign debt will be hit particularly hard. If these firms are also the firms highly dependent on external finance, the effect of the crisis on exporters that we observe might be a consequence of their own balance sheet problems rather than a consequence of the credit crunch due to the banking crisis. Finally, out of the remaining 32 crisis episodes we only have disaggregated trade data for 23 crises in 21 countries. We use Dell'Ariccia, Detragiache, and Rajan's (2008) database to identify the start of the crisis but in the estimations the financial crisis dummy is actually a \crisis window". This is equal to 1 if country if faces a financial crisis in year t as well as in the two following years .The reason of using a crisis window is because we are not only interested in the immediate short run effects of the crisis but also its medium-term effects. Furthermore, given the lumpiness of certain investments it is possible that the impact of the credit crunch due to the crisis may emerge with a lag as firms do not have to finance investment continuously.

Data Processing

No content available

Data Appraisal

No content available

File Description

Variable List

FinalDataset

Content	Exports data, from UN Comtrade, are disaggregated at 4 digits ISIC Rev 2 and cover the period 1980 to 2006. There are 81 industries at this level of disaggregation, however, not all countries have exported in all industries and years and therefore the resulting panel is unbalanced with the number of observations slightly above 30000. The information on banking crises is obtained from Dell'Ariccia, Detragiache, and Rajan (2008) who identify 48 episodes of systemic financial crises in both developed and developing countries. Because we are only interested in the effect of pure banking crises we exclude all \twin crises" when a currency crisis occurred jointly with the banking crisis. The rationale for this exclusion is that we want to isolate the credit crunch channel from balance sheet effects. During twin crises, when large devaluations occur, firms with high exposure to foreign debt will be hit particularly hard. If these firms are also the firms highly dependent on external finance, the effect of the crisis on exporters that we observe might be a consequence of their own balance sheet problems rather than a consequence of the credit crunch due to the banking crisis. Finally, out of the remaining 32 crisis episodes we only have disaggregated trade data for 23 crises in 21 countries. We use Dell'Ariccia, Detragiache, and Rajan's (2008) database to identify the start of the crisis but in the estimations the financial crisis dummy is actually a \crisis window". This is equal to 1 if country if faces a financial crisis in year t as well as in the two following years .The reason of using a crisis window is because we are not only interested in the immediate short run effects of the crisis but also its medium-term effects. Furthermore, given the lumpiness of certain investments it is possible that the impact of the credit crunch due to the crisis may emerge with a lag as firms do not have to finance investment continuously.
Cases	39588
Variable(s)	44
Structure	Type: Keys: ()
Version	
Producer	
Missing Data	

Variables

ID	Name	Label	Type	Format	Question
V1	exporter	Reporter	discrete	character	
V2	year	Year	discrete	numeric	
V3	product	Product	discrete	numeric	
V4	tradevalue	Total value of exports(thousands USD)	contin	numeric	
V5	tradeshare	Share of the industry in total exports in t-3	contin	numeric	
V6	expgrowth	Export growth rate (log difference)	contin	numeric	
V7	expgrowthTRIM	Trimmed growth rate (5% at each tail)	contin	numeric	
V8	BANK	Banking crisis dummy	discrete	numeric	
V9	BANK_W3	Banking crisis - 3 year window	discrete	numeric	
V10	TWIN	Twin crisis	discrete	numeric	
V11	RZ	External finance dependence (Rajan, Zingales 1998)	contin	numeric	
V12	FL	Dependence on trade credit (Fisman, Love 2003)	contin	numeric	
V13	TANG	Tangibility (Kroszner, Laeven, Klingebiel 2007)	contin	numeric	
V14	ofagdp	OTHER FINANCIAL INSTITUTIONS ASSETS / GDP	contin	numeric	
V15	pcrdbofgdp	PRIVATE CREDIT BY DEPOSIT MONEY BANKS AND OTHER FINANCIAL INSTITUTIONS / GDP	contin	numeric	
V16	stmktcap	STOCK MARKET CAPITALIZATION / GDP	contin	numeric	
V17	RecessionAbroad	Trade weighted recession abroad	contin	numeric	

ID	Name	Label	Type	Format	Question
V18	GDPgrAbroad	Trade weighted GDP growth abroad	contin	numeric	
V19	durables	1 if durable, 0 otherwise	discrete	numeric	
V20	loss	GDP loss during crisis (linear trend)	contin	numeric	
V21	loss2	GDP loss during crisis (quadratic trend)	contin	numeric	
V22	GDPcap	Real GDP per capita (USD)	contin	numeric	
V23	developed	Dummy=1 if developed, 0 otherwise	discrete	numeric	
V24	developing	(mean) developing	discrete	numeric	
V25	blanguar	Blanket guarantee	discrete	numeric	
V26	liqsup	Liquidity support	discrete	numeric	
V27	forba	Forbearance A	discrete	numeric	
V28	forbb	Forbearance B	discrete	numeric	
V29	recaps	Recapitalizations	discrete	numeric	
V30	debtrelief	Debt relief	discrete	numeric	
V31	policytot	Policy total	discrete	numeric	
V32	recession	Recession at home dummy	discrete	numeric	
V33	GDPgr	Real gdp growth %	contin	numeric	
V34	INVSA	Inventories/sales	contin	numeric	
V35	CCC	Cash conversion cycle	contin	numeric	
V36	RZyoung	External finance dependence, young firms	contin	numeric	
V37	rznoncrisis	Ext. fin. dep. non-crisis countries	contin	numeric	
V38	caplab	Capital/labor	contin	numeric	
V39	rd	R&D intensity	contin	numeric	
V40	homogeneity	Product homogeneity	discrete	numeric	
V41	n	Number of intermediates (Cowan and Neut)	contin	numeric	
V42	herf	Herfindahl index of intermediate use (Cowan and Neut)	contin	numeric	
V43	intout	Intermediate use/Output (Cowan and Neut)	contin	numeric	
V44	contcrisis	Contagious crisis dummy	discrete	numeric	

Reporter (exporter)
File: FinalDataset

Overview

Type: Discrete
Format: character
Width: 3

Valid cases: 39588
Invalid: 0

Year (year)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 4
Decimals: 0
Range: 1980-2006

Valid cases: 39588
Invalid: 0
Minimum: 1980
Maximum: 2006

Product (product)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 4
Decimals: 0
Range: 3111-3909

Valid cases: 39588
Invalid: 0
Minimum: 3111
Maximum: 3909

Total value of exports(thousands USD) (tradevalue)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 16
Decimals: 0
Range: 1-136029777.555272

Valid cases: 39588
Invalid: 0
Minimum: 1
Maximum: 136029777.6
Mean: 840004.6
Standard deviation: 4286242.2

Share of the industry in total exports in t-3 (tradeshare)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 20
Decimals: 0
Range: 4.28092450377449e-09-0.952100098133087

Valid cases: 35472
Invalid: 4116
Minimum: 0
Maximum: 1
Mean: 0
Standard deviation: 0

Description

The trade share is the share of industry exports in total exports lagged three periods.

Export growth rate (log difference) (expgrowth)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 17
Decimals: 0
Range: -8.56560516357422-8.63062572479248

Valid cases: 37596
Invalid: 1992
Minimum: -8.6
Maximum: 8.6
Mean: 0.1
Standard deviation: 0.8

Trimmed growth rate (5% at each tail) (expgrowthTRIM)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 16
Decimals: 0
Range: -1.5270414352417-1.52336502075195

Valid cases: 33862
Invalid: 5726
Minimum: -1.5
Maximum: 1.5
Mean: 0.1
Standard deviation: 0.3

Banking crisis dummy (BANK)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 39480
Invalid: 108

Description

The crisis dummy equals to one in the year of the crisis and in the first and second year after the crisis and is zero otherwise.

Banking crisis - 3 year window (BANK_W3)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 39588
Invalid: 0

Twin crisis (TWIN)
File: FinalDataset

Overview

Twin crisis (TWIN)
File: FinalDataset

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 37843
Invalid: 1745

Description

Twin crises is when a currency crisis occurred jointly with the banking crisis.

External finance dependence (Rajan, Zingales 1998) (RZ)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 18
Decimals: 0
Range: -0.449999988079071-1.49000000953674

Valid cases: 38111
Invalid: 1477
Minimum: -0.5
Maximum: 1.5
Mean: 0.3
Standard deviation: 0.3

Description

RZ is the measure of external dependence. The measure of external finance dependence is based on data of listed US companies provided in Compustat and obtained from Rajan and Zingales (1998). They compute the proxy as a fraction of capital expenditures that an industry is not able to finance with internal funds. To construct it they first compute the median of all firms in each sector and year and then they average the sectoral measures over the entire period of 1980-89.

Dependence on trade credit (Fisman, Love 2003) (FL)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 18
Decimals: 0
Range: 0.0549999997019768-0.149000003933907

Valid cases: 38111
Invalid: 1477
Minimum: 0.1
Maximum: 0.1
Mean: 0.1
Standard deviation: 0

Description

FL is a measure of dependence on trade credit. The measure of trade credit dependence is obtained from Fisman and Love (2003) who define it as the ratio of accounts payable in total assets. Similarly to Rajan and Zingales (1998) they base their measure on US data from Compustat.

Tangibility (Kroszner, Laeven, Klingebiel 2007) (TANG)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 17
Decimals: 0
Range: 0.119999997317791-0.620000004768372

Valid cases: 38111
Invalid: 1477
Minimum: 0.1
Maximum: 0.6
Mean: 0.3
Standard deviation: 0.1

Description

TANG is defined as tangibility. The tangibility obtained from Kroszner, Laeven, and Klingebiel (2007) measure uses the same procedure and data and is defined as the ratio of the book values of property, plant and equipment in total assets.

OTHER FINANCIAL INSTITUTIONS ASSETS / GDP (ofagdp)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 20
Decimals: 0
Range: 3.98999982280657e-05-1.55743503570557

Valid cases: 15857
Invalid: 23731
Minimum: 0
Maximum: 1.6
Mean: 0.3
Standard deviation: 0.4

PRIVATE CREDIT BY DEPOSIT MONEY BANKS AND OTHER FINANCIAL INSTITUTIONS / GDP (pcrdbofgdp)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 18
Decimals: 0
Range: 0.0447236001491547-2.00610899925232

Valid cases: 37844
Invalid: 1744
Minimum: 0
Maximum: 2
Mean: 0.6
Standard deviation: 0.4

Description

Financial development is computed as private credit in GDP.

Source of information

It is taken from Beck, Demirguc-Kunt (2009).

STOCK MARKET CAPITALIZATION / GDP (stmktcap)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 20
Decimals: 0
Range: 0.000635300006251782-2.82433700561523

Valid cases: 31141
Invalid: 8447
Minimum: 0
Maximum: 2.8
Mean: 0.4
Standard deviation: 0.5

Trade weighted recession abroad (RecessionAbroad)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 39588
Invalid: 0
Minimum: 0
Maximum: 1
Mean: 0.1
Standard deviation: 0.2

Trade weighted GDP growth abroad (GDPgrAbroad)
File: FinalDataset

Trade weighted GDP growth abroad (GDPgrAbroad)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 17
Decimals: 0
Range: -30.0777130126953-37.4234199523926

Valid cases: 39588
Invalid: 0
Minimum: -30.1
Maximum: 37.4
Mean: 2.5
Standard deviation: 2.2

1 if durable, 0 otherwise (durables)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 39588
Invalid: 0

GDP loss during crisis (linear trend) (loss)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 17
Decimals: 0
Range: -0.21107779443264-0.673554539680481

Valid cases: 39588
Invalid: 0
Minimum: -0.2
Maximum: 0.7
Mean: 0
Standard deviation: 0.1

Description

The loss is defined as the deviation of the predicted GDP from actual GDP over actual GDP. Either linear or quadratic trend is used for prediction.

GDP loss during crisis (quadratic trend) (loss2)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 18
Decimals: 0
Range: -0.257914334535599-0.21690160036087

Valid cases: 39588
Invalid: 0
Minimum: -0.3
Maximum: 0.2
Mean: 0
Standard deviation: 0

Description

The loss is defined as the deviation of the predicted GDP from actual GDP over actual GDP. Either linear or quadratic trend is used for prediction.

Real GDP per capita (USD) (GDPcap)
File: FinalDataset

Real GDP per capita (USD) (GDPcap)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 12
Decimals: 0
Range: 142.8467538-41440.828125

Valid cases: 39588
Invalid: 0
Minimum: 142.8
Maximum: 41440.8
Mean: 10456.8
Standard deviation: 11728.6

Dummy=1 if developed, 0 otherwise (developed)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 39588
Invalid: 0

(mean) developing (developing)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 39588
Invalid: 0

Blanket guarantee (blanguar)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 24735
Invalid: 14853

Liquidity support (liqsup)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 24735
Invalid: 14853

Forbearance A (forba)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 24735
Invalid: 14853

Description

Forbearance of type A allows insolvent or illiquid banks to operate for 12 months.

Forbearance B (forbb)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 24735
Invalid: 14853

Description

Forbearance of type B means that either there is type A forbearance or some regulations are not enforced.

Recapitalizations (recaps)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 24735
Invalid: 14853

Description

The measure captures repeated recapitalizations as zero-one dummies.

Debt relief (debtrelief)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 24735
Invalid: 14853

Description

The measure captures government sponsored debt relief for corporate or private borrowers as zero-one dummies.

Policy total (policytot)
File: FinalDataset

Policy total (policytot)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-5

Valid cases: 24735
Invalid: 14853

Description

The policy total variable adds the dummies and gives the number of policies that have been implemented during each crisis

Recession at home dummy (recession)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 39588
Invalid: 0

Source of information

The recession dummy is based on Braun, Larrain (2005).

Real gdp growth % (GDPgr)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 12
Decimals: 0
Range: -13.45211411-18.6648407

Valid cases: 39588
Invalid: 0
Minimum: -13.5
Maximum: 18.7
Mean: 3.4
Standard deviation: 3.5

Source of information

GDP growth is taken from WDI.

Inventories/sales (INVSA)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 18
Decimals: 0
Range: 0.0525526218116283-0.406792819499969

Valid cases: 38258
Invalid: 1330
Minimum: 0.1
Maximum: 0.4
Mean: 0.2
Standard deviation: 0.1

Description

INVSA is from Raddatz (2006). It is defined as inventories to sales and is meant to capture short term financial needs intended to cover mainly the working capital.

Cash conversion cycle (CCC)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 17
Decimals: 0
Range: 0.189755097031593-1.99012053012848

Valid cases: 38258
Invalid: 1330
Minimum: 0.2
Maximum: 2
Mean: 1
Standard deviation: 0.4

Description

CCC is from Raddatz (2006). It is defined as cash conversion cycle and is meant to capture short term nancial needs intended to cover mainly the working capital.

External finance dependence, young firms (RZyoung)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 17
Decimals: 0
Range: -1.52999997138977-2.05999994277954

Valid cases: 37081
Invalid: 2507
Minimum: -1.5
Maximum: 2.1
Mean: 0.7
Standard deviation: 0.6

Description

RZ young is a measure of external dependence based on Rajan, Zingales (1998) calculated as fraction of capital expenditures not funded by internal funds computed for firms listed for less than 10 years.

Ext. fin. dep. non-crisis countries (rznoncrisis)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 16
Decimals: 0
Range: -0.25-1.54999995231628

Valid cases: 38111
Invalid: 1477
Minimum: -0.3
Maximum: 1.6
Mean: 0.1
Standard deviation: 0.3

Description

RZ non crisis is based on Kroszner, Laeven, and Klingebiel (2007) who compute the same measure based only on data of countries that have never experienced a financial crisis.

Capital/labor (caplab)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 16
Decimals: 0
Range: 7.11999988555908-244.649993896484

Valid cases: 38111
Invalid: 1477
Minimum: 7.1
Maximum: 244.7
Mean: 29.6
Standard deviation: 30.7

Source of information

Capital is from Kroszner, Laeven, and Klingebiel (2007).

R&D intensity (rd)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 17
Decimals: 0
Range: 0-0.579999983310699

Valid cases: 38111
Invalid: 1477
Minimum: 0
Maximum: 0.6
Mean: 0
Standard deviation: 0.1

Source of information

R&D intensity is from Kroszner, Laeven, and Klingebiel (2007).

Product homogeneity (homogeneity)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 30351
Invalid: 9237

Source of information

The product homogeneity is based on the Rauch (1999) classification of industries.

Number of intermediates (Cowan and Neut) (n)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 17
Decimals: 0
Range: 0.402999997138977-1.72899997234344

Valid cases: 37268
Invalid: 2320
Minimum: 0.4
Maximum: 1.7
Mean: 1.1
Standard deviation: 0.3

Universe

The share of 20 largest intermediates together with Herfindahl index is capturing the complexity of a product.

Source of information

It is taken from the work of Cowan and Neut (2007).

Herfindahl index of intermediate use (Cowan and Neut) (herf)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 17
Decimals: 0
Range: 0.351999998092651-4.15999984741211

Valid cases: 37268
Invalid: 2320
Minimum: 0.4
Maximum: 4.2
Mean: 0.8
Standard deviation: 0.6

Universe

The Herfindahl index toghether with n is capturing the complexity of a product.

Source of information

Herfindahl index of intermediate use (Cowan and Neut) (herf)
File: FinalDataset

It is taken from the work of Cowan and Neut (2007).

Intermediate use/Output (Cowan and Neut) (intout)
File: FinalDataset

Overview

Type: Continuous
Format: numeric
Width: 17
Decimals: 0
Range: 0.611000001430511-1.50300002098083

Valid cases: 37268
Invalid: 2320
Minimum: 0.6
Maximum: 1.5
Mean: 1
Standard deviation: 0.2

Contagious crisis dummy (contcrisis)
File: FinalDataset

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 39588
Invalid: 0

Related Materials

Reports

Summmary Note

Title	Summmary Note
Filename	Summmary_note.pdf

Banking Crises and Exports

Title	Banking Crises and Exports
Author(s)	Leonardo Iacovone Veronika Zavacka
Date	2009-08-01
Description	For the first time since 1982, in 2009, global trade flows will not grow. According to the latest IMF projections global trade in goods and services is expected to drop by 11% during 2009 and to stagnate in year 2010. The recent collapse in exports following the unfolding of the financial crisis has generated new pressing questions about the relationship between banking crises and exports growth. Are the supply shocks due to the collapse in the banking system responsible for the falls in exports? Or is what we observe completely attributable to the demand side where we have also observed unprecedented drops particularly in developed countries? In Iacovone and Zavacka (2009) we explore these questions using data, below, from 23 past banking crises episodes involving both developed and developing countries during 1980-2000. Our results, summarized below, show that during a crisis the export growth of a sector with a relatively high reliance on external finance, such as electric machinery, is reduced on average by 4 percentage points compared to a sector like footwear whose dependence is relatively low. We also find that exports of industries that tend to have more tangible assets grow relatively faster during a banking crisis confirming the hypothesis about the importance of collateral in a context when access to finance becomes scarcer. Finally, using a proxy for trade credit dependence (Fisman and Love,2003) we show that exports of industries relatively more reliant onon inter-firm finance are not affected by a banking crisis more than others. A potential explanation for this finding is that if importers do not face a crisis themselves they might be willing to accept less favorable payment conditions and extend trade credit to their suppliers in order to allow them to overcome their temporary credit constraints.
Filename	http://go.worldbank.org/B1L5M0UNR0