The Role of Internally Financed Capex in Rising Chinese Corporate Debts

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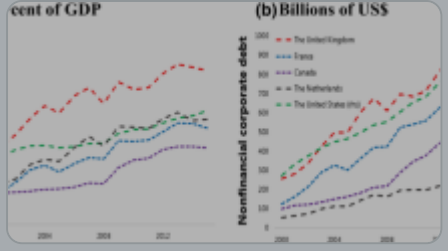
Comparative Economic Studies

Aims and scope →

investment efficiency as a possible important driver behind China's high and rising corporate leverage, in light of its high investment rate and low internally funded capex ratio.



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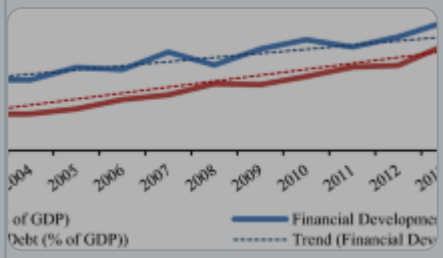

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by taking into consideration debt issued by LGFVs. However, their estimate of augmented debt is only available since 2012 and its methodology can be debated (IMF 2017).

4. The estimation results under benchmark estimation Eqs. (B), (C) and (D) are quite similar and will not be reported in the paper.

5. The potential weakness of the difference-GMM estimator is that lagged levels are often rather poor instruments for first-differenced variables. The system-GMM estimator includes lagged levels as well as lagged differences (Arellano and Bover 1995; Bond et al. 2001).

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Appendices

Appendix A: Variables definitions and data sources

Corporate debt	Credit to non-financial corporations from all sectors at market value in percentage of GDP. Data sources: BIS, OECD and IMF
Internally funded corporate capital expenditure	Ratio of corporate earnings to gross capital formation of non-financial corporates. Corporate earnings defined as disposable income of non-financial corporates adjusted for the net acquisition of non-financial assets. Data sources: OECD, and authors' calculation
Government	Credit to general government from all sectors at market value in percentage of GDP

Industry, value added	Industry, value added in percentage of GDP. Data source: World bank WDI (NV.IND.TOTL.ZS)
Corporate debt to equity ratio	Ratio of corporate debt to total market capitalization of listed domestic companies in percentage of GDP. Market capitalization is the share price times the number of shares outstanding (all classes) for listed domestic companies, end of year values. Data sources: BIS, World Bank WDI (CM.MKT.LCAP.GD.ZS), and authors' calculation
Bond yield	Year-end 10-year government bond yield. Data sources: OECD and Bloomberg
Global growth rate	Annual percentage growth rate of GDP at market prices based on constant local currency and constant 2010 US dollars. Data sources: World Bank and OECD
G3 policy rate	Averaged policy interest rate of USA, Japan and Euro area. Lombard rate of Bundesbank is used for the euro area for the period from 1995 to 1998. Yearly averaged data and year-end data are both used. Data sources: BIS, St. Louis FED and Bundesbank

List of countries (41)			
Austria	Finland	Luxembourg	South Africa
Belgium	France	Mexico	Spain
Brazil	Germany	Netherlands	Sweden
Canada	Greece	New Zealand	Switzerland
Chile	Hungary	Norway	Turkey
China	Ireland	Peru	United Kingdom

Variable	Obs	Mean	SD	Min	Max
ΔGovDebt	831	0.809	6.018	−42.100	51.100
Growth	898	2.979	3.362	−14.814	25.557
PPP	902	29,952.690	16,047.960	2564.071	97,864.200
ΔPPP	861	545.247	984.762	−5801.609	11,919.720
Invest	902	23.586	5.126	9.819	47.686
Industry	887	26.780	6.011	10.671	47.559

Variable	Obs	Mean	SD	Min	Max
Saving rate	902	25.291	7.854	8.331	54.651
Expected USD appreciation	738	0.903	0.081	0.768	1.046

The descriptive statistics of the variables in first difference (Δ) are also reported for non-stationary variables

Appendix C: Unit root analysis

We perform three main panel unit root tests to ensure that all the variables included are stationary: the W *t*-bar test of Im et al. (2003) with the W_IPS statistic, the Fisher-type test of Maddala and Wu (1999) with the P-MW statistic

Variable	$W_{\overline{IPS}}$		P_{MW}		Z_{GLS}		Decision
	Constant	Constant and trend	Constant	Constant and trend	Constant	Constant and trend	
	Constant	Constant and trend	Constant	Constant and trend	Constant	Constant and trend	
Panel unit root tests							
CorpDebt	1.73162	0.79629	72.0376	83.2772	1.81649	1.43835	Non-stat.
IFCE	−3.83248***	−3.13355***	133.806***	142.369***	−3.54595***	−4.45349***	Stationary
Growth	−12.0654***	−9.63171***	297.905***	239.182***	−11.5073***	−8.93756***	Stationary

Time series unit root tests	LM (KPSS)		MZa (Ng-Perron)		MZt (Ng-Perron)		
	Constant	Constant and trend	Constant	Constant and trend	Constant	Constant and trend	
	Constant	Constant and trend	Constant	Constant and trend	Constant	Constant and trend	
Globalgrowth	0.163079		−11.0561**		−2.35112**		Stationary
G3Rate		0.056020		−8.40132		−2.00595	Non-stat.
USTIPS		0.112803		−9.60162		−2.10256	Non-stat.
USDNEER	0.105109		−1.58485		−0.65211		Non-stat.

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