The Role of Internally Financed Capex in Rising Chinese Corporate Debts

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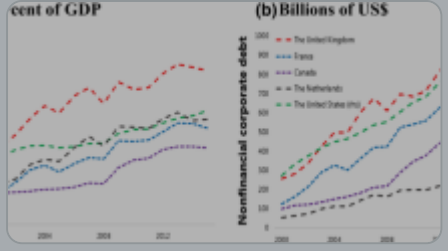
Comparative Economic Studies

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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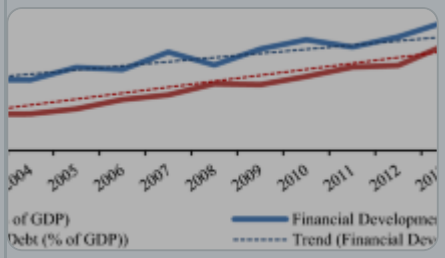

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Notes

1. During 2008–2018, the Chinese household debt rose much faster than the

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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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 debt	Credit to general government from all sectors at market value in percentage of GDP except Argentina, Brazil, China, Indonesia, India, Mexico, Russia, Saudi Arabia and South Africa and emerging markets (as a whole) for which we use the only available nominal values in percentage of GDP instead. Data sources: BIS, OECD and IMF
Crisis	Dummy variable of the global financial crisis. Two alternatives: (1) crisis 0810 takes value 1 for the crisis period of 2008–2010, and 0 otherwise (Moore and Mirzaei 2016). (2) crisis 0716 is given by the indicator function $I = 1$ if $t \geq 2007$ (Cheung et al. 2018)
China	Dummy variable for China. It takes value 1 for all period of China, and 0 otherwise

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
USDNEER	Nominal effective exchange rate of the US Dollar, based on a broad basket of trade partner countries. Annual average of monthly data or year-end monthly data. Data sources: BIS
USTIPS	Year-end US 10-Year Treasury Inflation (or Protected)-Indexed Securities yield, percent per annum. Measured as the difference between 10-year US government bond yield and 10-year US breakeven inflation rate, which represents a measure of expected inflation in the next 10 years. Data sources: Bloomberg
Expected USD Appreciation	Expected effective appreciation of US dollar over the next 12 months. Measured as the ratio of the effective 12 M US dollar forward exchange rate to the NEER, based on a narrow basket of trade partner countries. Annual average of monthly or daily data. Data

List of countries (41)			
China	Ireland	Peru	United Kingdom
Colombia	Italy	Poland	United States
Costa Rica	Japan	Portugal	
Czech Republic	Korea, Rep.	Russia	
Denmark	Latvia	Slovak Republic	

Appendix B: Descriptive statistics

Variable	Obs	Mean	SD	Min	Max
Industry	887	26.780	6.011	10.671	47.559
ΔIndustry	846	− 0.187	1.112	− 6.005	13.116
Globalgrowth	902	2.955	1.297	− 1.734	4.448
USDNEER	902	107.353	9.619	90.561	124.537
ΔUSDNEER	861	1.417	5.427	− 7.423	12.912
G3Rate	902	1.603	1.292	0.142	3.667

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 and the *Z* test of Choi (2001) with Z_CHOI statistic. We run these three tests on two specifications: (1) series only with a constant; (2) series with both a constant and trend. Our rules of thumb are the following: we conclude with stationarity (or non-stationarity) if more than three of six statistics reject (don't reject) the null hypothesis of unit root; we conclude with trend stationarity if more than one test statistics out of three show stationarity with the specification of both constant and trend. For global factors that are the same for each country, we perform two unit root tests for times series: the KPSS test (Kwiatkowski–Phillips–Schmidt–Shin 1992) and Ng–Perron test (Ng and Perron 2001). We apply first KPSS test with the specification including a trend and constant. According to the significance of the trend, we proceed with KPSS test (LM-statistic) and Ng–Perron test (with MZa and

Variable	W_IPS		P_MW		Z_CHOI		Decision
	Constant	Constant and trend	Constant	Constant and trend	Constant	Constant and trend	
PPP	1.97683	0.61966	83.1302	72.6696	2.03109	0.96003	Non-stat.
Invest	−3.77857***	−4.97668***	128.441***	153.407***	−3.77194***	−4.52228***	Stationary
Industry	−1.99771**	−0.03233	112.574**	87.9366	−0.43331	0.19980	Non-stat.
Debt2Equity	−8.22439***	−4.63829***	356.519***	162.966***	−7.89897***	−4.58199***	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	
USDNEER	0.105109		− 1.58485		− 0.65211		Non-stat.
Expected USD appreciation		0.221598**		− 22.9252**		− 3.33409**	Stationary

The optimal number of lags is chosen by minimizing the AIC. ***, *, * are significance at 1, 5, and 10%, respectively, for rejecting the unit root null hypothesis (or the stationarity null hypothesis). W_IPS denotes the standardized IPS statistic based on simulated approximated moments (Im, Pesaran and Shin

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