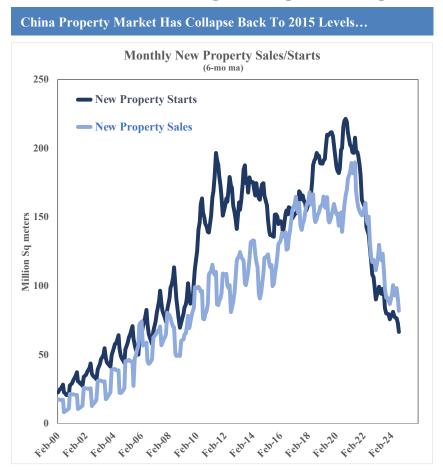
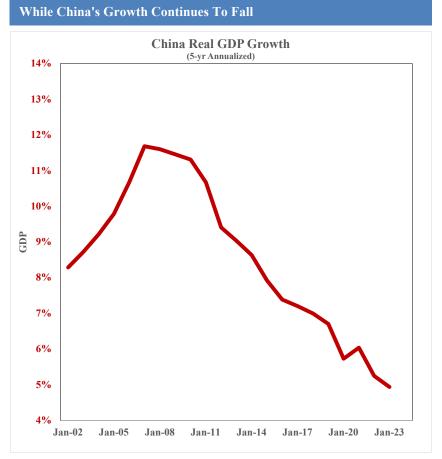
Alan Brazil

October 2024

Step 1: Identify A Macro Theme

Is China Stimulus Enough To Stop The Collapse of The Property Market Or the Fall In GDP?



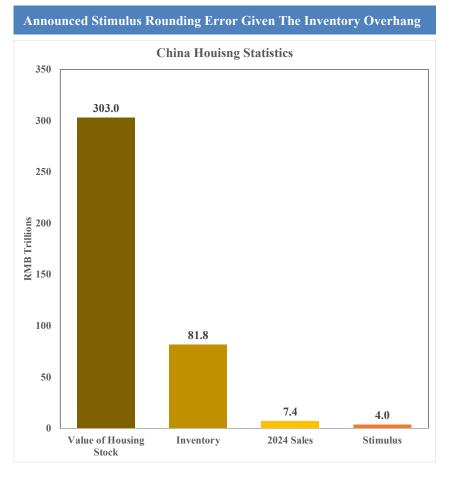


Bloomberg

Step 2: Fundamental Economic Framework

Stimulus Is Not Even Enough To Stop The Property Collapse, Much Less The GDP Slowdown

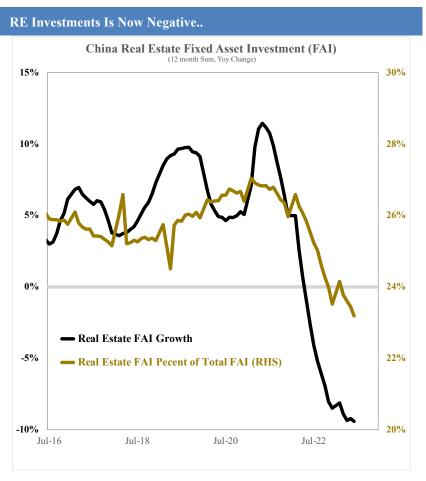
Stimulas is 110t Even Enough to Stop The 110per						
Current Announced Stimulus						
Sector	Current Stimulus Package	Potential Impact				
Monetary Policy	20 bp cut in PBoC policy rate					
	50 bp cut in Required Reserves to	Potentially opening up RMB				
	8%	1,000 of additional bank				
		lending				
Bank	NFRA plans to raise Tier 1	Potential 1 trillion RMB				
	Capital for large state-owned					
Fiscal	Addition central government debt Potential 1 -2 trillion RM					
	quota					
Equities	RMB 500 bn asset swap facility	Open to doing more to				
	directly from PBoC for non-	support equity markets				
	bank financials to investing in					
	equities					
	RMB 300 bn relending facility to					
	support corporate buybacks					
Property						
	Cut minimum downpayment of					
	2nd homes to 15% from 25%					
		Potentially giving borrowers				
	50 bp cut in mortgage rates by	RMB 150 bn of extra				
	end of October	income				
	Increases to 100% from 60% for	PBoC will provide 100%				
	local governments buying	financing up to RMB 100 bil				
	housing inventory to coverts in					
	rentals					
	Increase bank lending for	Funding for developers to				
	"whitelist" property projects to RMB 4 trillion from RMB 2	complete unfinished				
	trillion by end of october	developments and deliver pre-sold units				
	umon by end of october	pre-sora units				

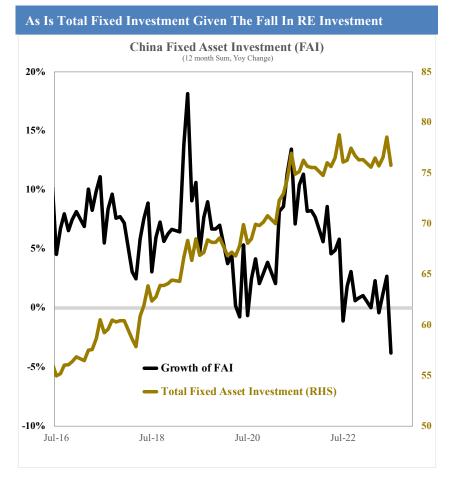


Bloomberg
 Goldman Soob

Step 2: Fundamental Economic Framework

RE Investment And Fixed Investment Are Now Negative Creating A Big Hole In GDP Growth





Step 2: Fundamental Economic Framework

Housing Investment Is Projected To Continue To Fall, Driven In Part By Falling Fundamental Demand

The Downturn Is Projected To Continue To Fall

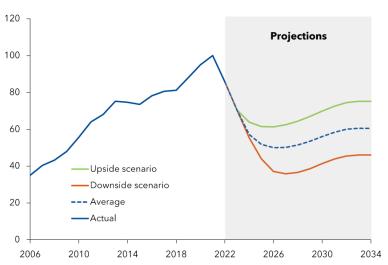
Housing Demand Will Fall From Recent History

Construction to fall further

Housing investment is likely to fall almost 45 percent on average and remain subdued thereafter.

China: Real estate investment

(index: 2021=100)

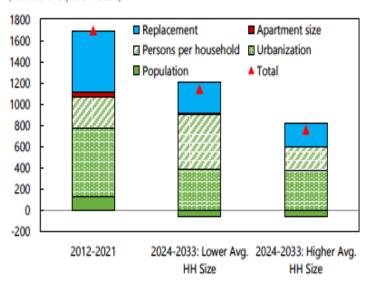


Source: CEIC and IMF staff calculations.

Note: Upside and downside scenarios are for fundamental housing demand. Data shown is staff's estimate of price-adjusted real estate gross fixed capital formation.

IMF

Estimated Annual Average Fundamental Housing Demand (Millions of square meters)



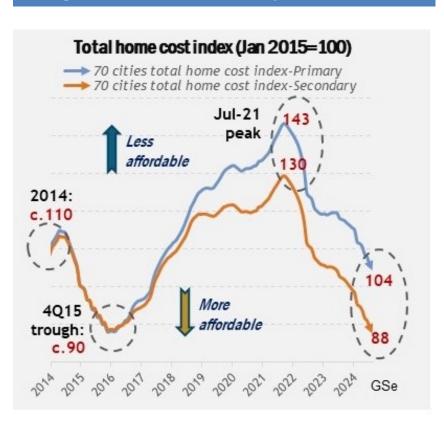
Sources: CEIC Data Company Limited; and IMF staff calculations.

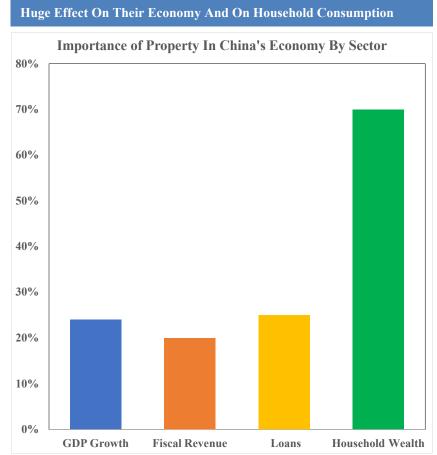
Note: HH=Household.

Step 2: Fundamental Economic Framework

The 30 to 40% Decline In China Housing Prices Will Have a Significant Impact On Their Economy

Housing Prices Are Down 30 to 40% Already, And That Will Have A..



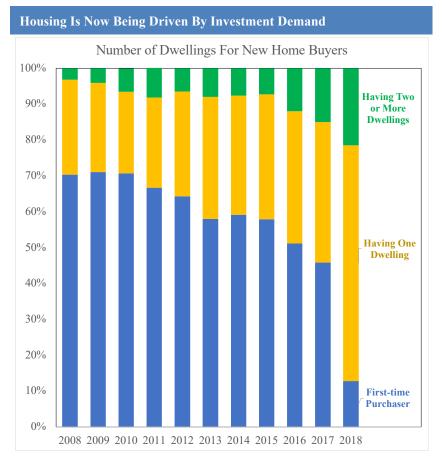


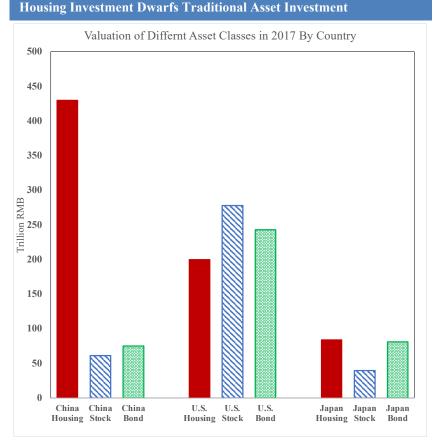
Goldman Sack:

^{2.} Rogoff, Yang, "Peak China Housing," NBER Working Paper 27697, August 2020

Step 2: Fundamental Economic Framework

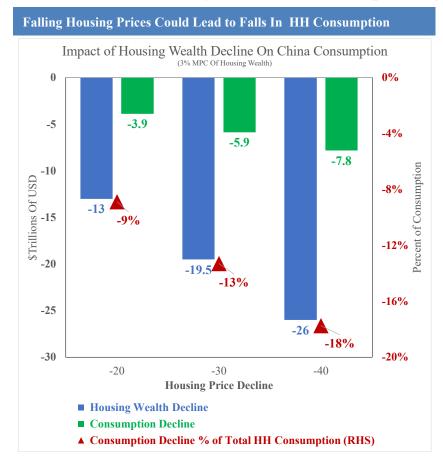
Housing Price Declines Impact on China Households Is Measured In The Trillions And....





Step 2: Fundamental Economic Framework

The Decline In Housing Wealth Will Push Up Savings, Drive Down Consumption And GDP





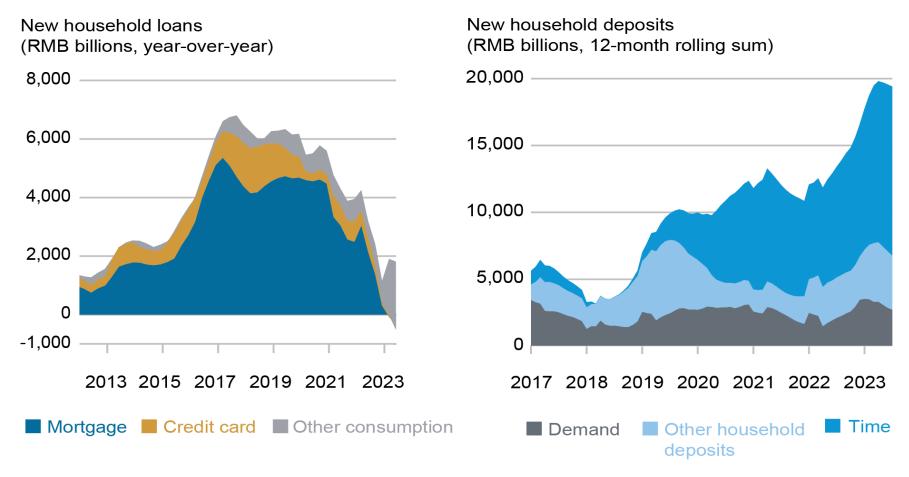
[.] Painter, Yang, Zhong, "Housing Wealth and Household Consumption: Evidence From Urban China", Jan 2021, Presentation To The AEA

^{2.} I use the MPC out of wealth form the reference above

Bloomberg

Step 2: Fundamental Economic Framework

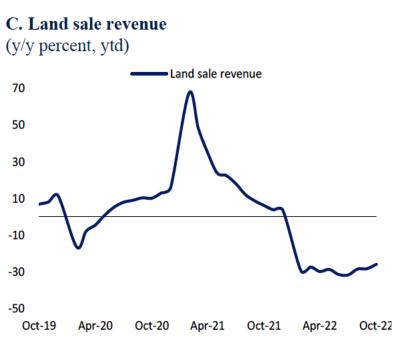
Households Are Retrenching Paying Down Mortgages And Add Deposits Instead of Consuming



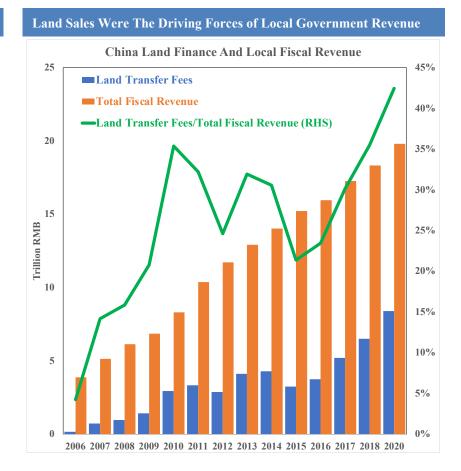
Step 2: Fundamental Economic Framework

The Property Collapse Has Put Put Pressure On Local Governments As Land Sales Have Fallen

Land Sale Revenue Was Down 30% Even Prior to 2023/24



Source: Ministry of Finance (MoF); World Bank.



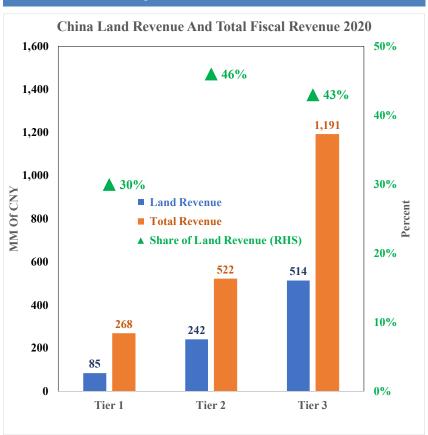
Rogoff, Yang, "Peak China Housing," NBER Working Paper 27697, August 2020

^{2.} China Economic Update, "Navigating Uncertainty, China's Economy in 2023", December 2022, World Bank

Step 2: Fundamental Economic Framework

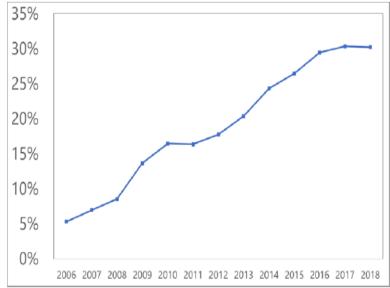
Vulnerability of China's Local Governments To Land Revenue Could Be Another Headwind To Growth

Local Governments Dependent On Land Sales For Revenue



Local Government Debt Defaults Could Put Pressure On the Economy





Sources: CEIC, Wind, China Central Depository and Clearing Company Limited

1. Rogoff and Yang, "Rethinking China's Growth", Sept 26, 2023.

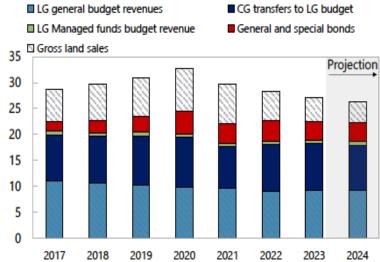
Step 2: Fundamental Economic Framework

The Collapse of the Property Market Could Lead To Financial Crise From Local Government Defaults....

The Fall In Revenue Has Put Pressure on Local Government...

Local Government Budget Financing 1/

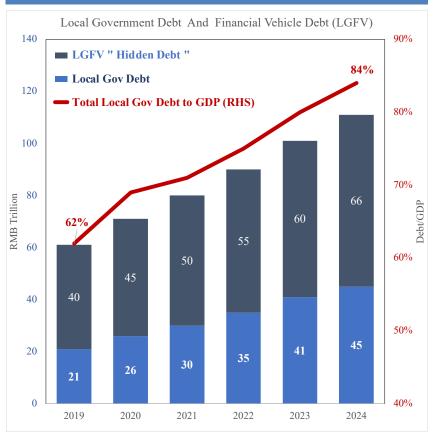
(In percent of GDP)



Sources: CEIC Data Company Limited; Ministry of Finance 2022 budget; and IMF staff calculations.

 Local government general budget and local government managed fund budget. Excludes off-budget financing.

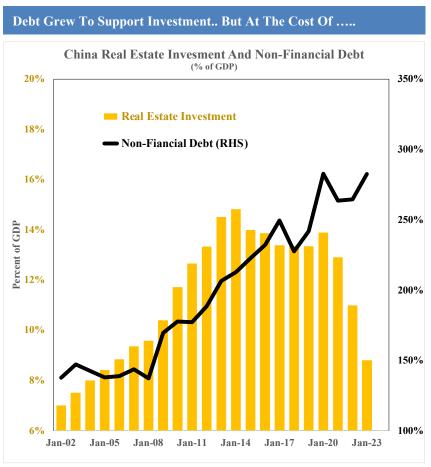
They May Not Be Able To Support Their Rising Debt Load

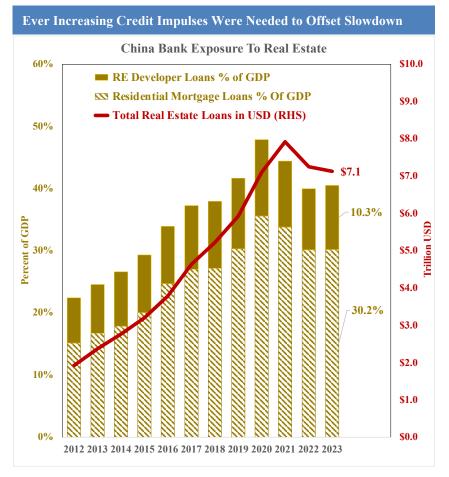


1. IMF Article IV China 2024

Step 2: Fundamental Economic Framework

And Losses On Bank Loans to From Default From Developers And Mortgage Borrowers



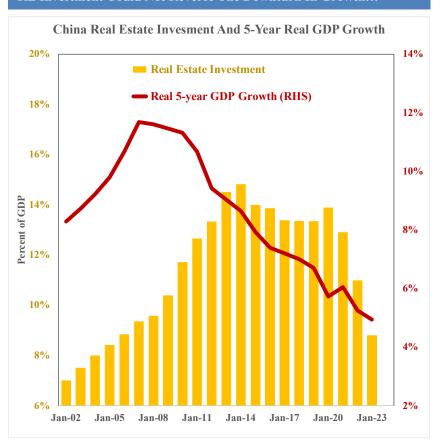


1. Bloomberg

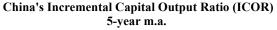
Step 2: Fundamental Economic Framework

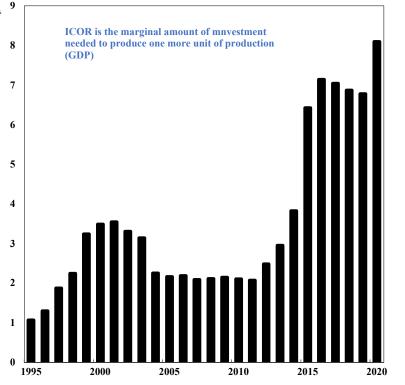
More importantly, The RE Investment Model of GDP Growth Has Failed...So What's Next?

RE Investment Could Not Reverse The Downturn In Growth...



Because the Impact of Investment On Growth Diminished



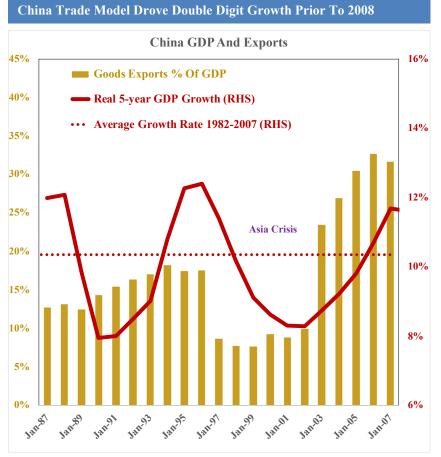


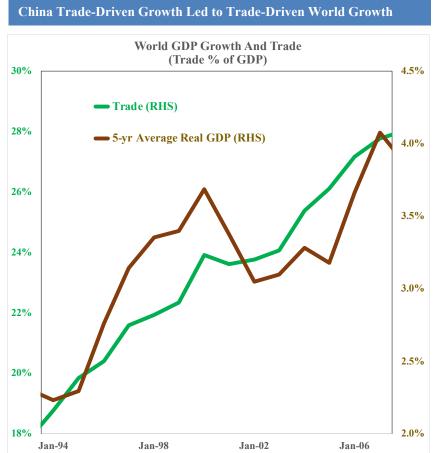
Bloomberg

^{2.} OECD China Economic Survey 2022

Step 2: Fundamental Economic Framework

China Could Go Back To Its Original Drive of Growth...

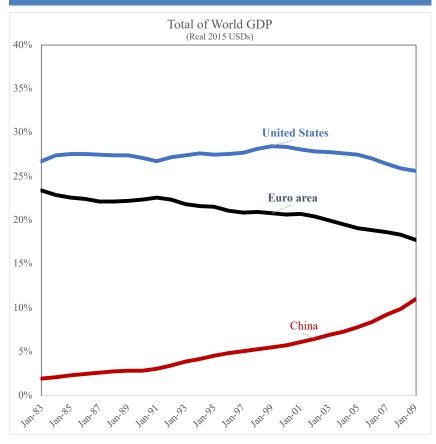




Step 2: Fundamental Economic Framework

Before 2008, China's Growth Drove The ROW Through Trade, But That Stopped After The GFC

Trade-driven Growth Pushed China's GDP To Approach Europe's



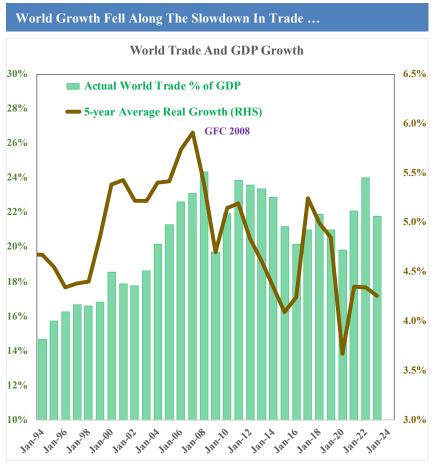




1. World Bank Data Base

Step 2: Fundamental Economic Framework

The Collapse of China's Trade Model Led To A Slowdown In the World And China's Growth...And



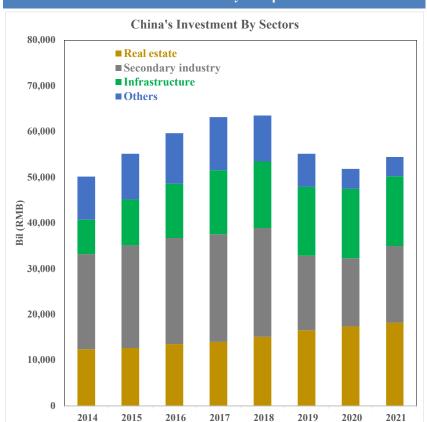


World Bank Database

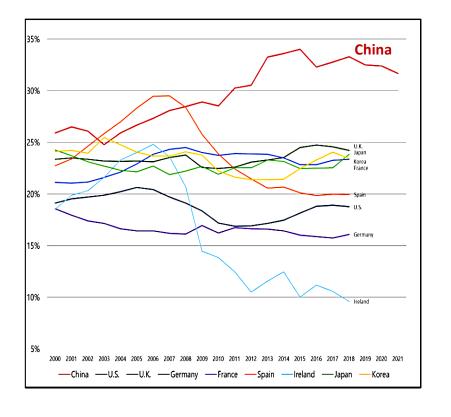
Step 2: Fundamental Economic Framework

The Collapse Of RE Investment Model Has Left A Big GDP Hole For China To Fill.. So, What's Next?

Real Estate Investment Has Been A Key Component of Investment



Real Estate Investments Is Now Over 1/3 Of China's Economy



^{1.} Brandt, et al., "China's Productivity Slowdown and Future Growth Potential", Policy Research Working Paper 9298, June 2020, World Bank 2. Rogoff, Yang, "Peak China Housing," NBER Working Paper 27697, August 2020

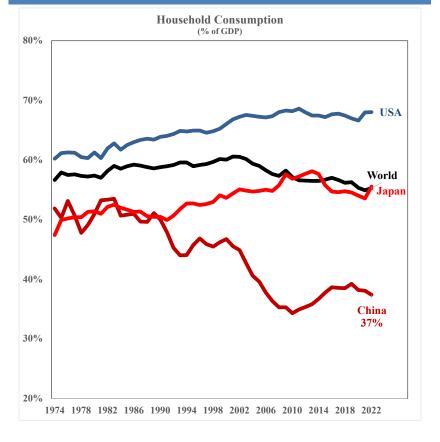
Step 2: Fundamental Economic Framework

Could China Use Consumption To Replace Trade And RE Investment To Drive GDP?

China Investment Driven GDP Is An Outlier..

Gross Fixed Capital Formation (% of GDP) 45% China 43% 40% 30% World 25% 20% 15% 1974 1978 1982 1986 1990 1994 1998 2002 2006 2010 2014 2018 2022

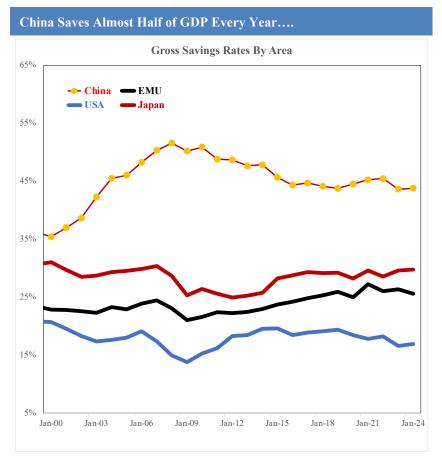
Which Means They Could Turn To Consumption To Drive Growth

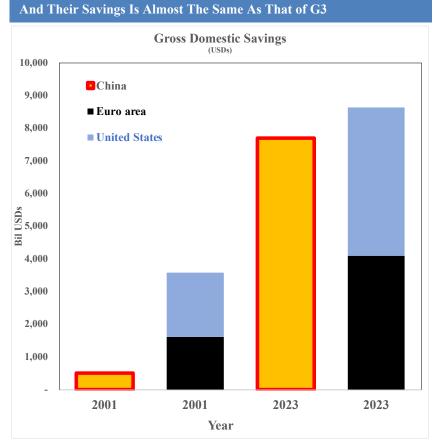


1. World Bank Database

Step 2: Fundamental Economic Framework

That Would Be Huge For China And World Growth Given Their Massive Levels Of Savings..But No!

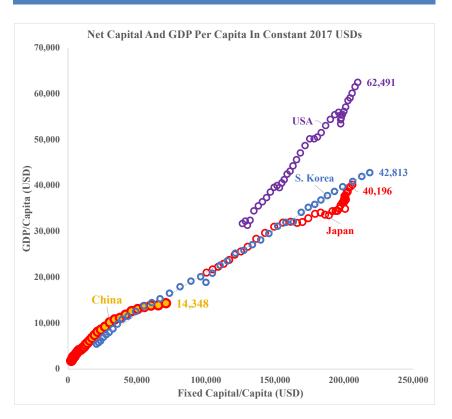


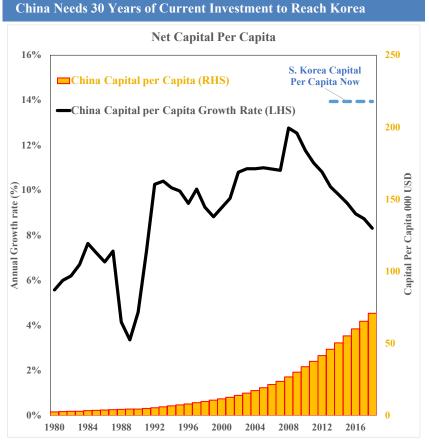


Step 2: Fundamental Economic Framework

China Will Need High Levels Of Investment For Decades To Catch Up To The Korea Of 20 Years Ago

Chinse Capital Stock Is Still Less than 1/3 of South Korea



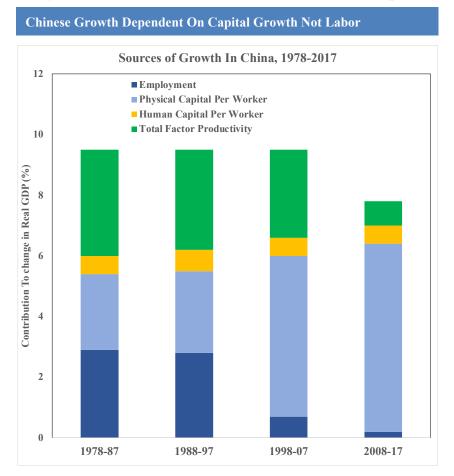


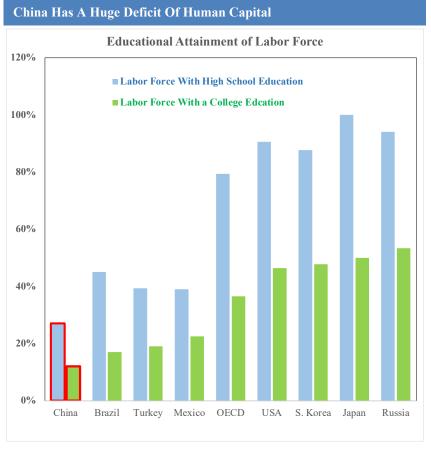
World Bank Database

²¹

Step 2: Fundamental Economic Framework

High Levels of Investment Are Even More Important Given China's Low Levels of Labor Productivity



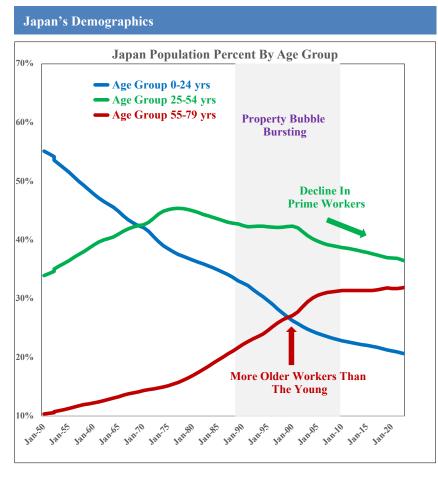


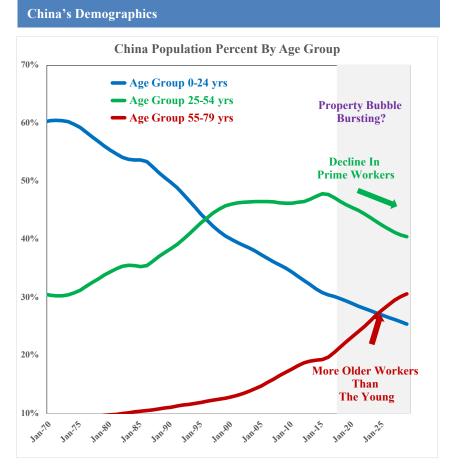
^{1.} World Bank Database

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 World Bank Database

Step 2: Fundamental Economic Framework

And Headwinds From Demographics With Falling Labor Supply And Prime Savers

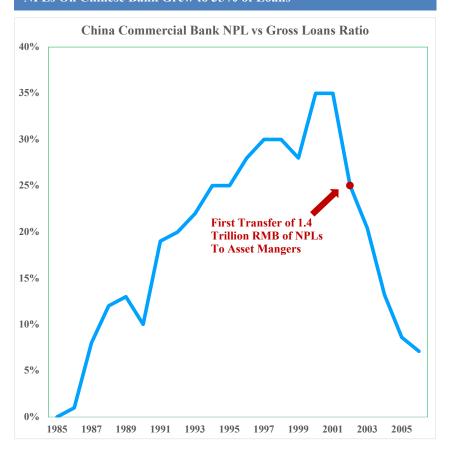




Step 3: Identify Potential Repricing Catalysis

China Socialize Risk By Taking Bad Loans Off Balance Sheets As They Did In 2001

NPLs On Chinese Bank Grew to 35% of Loans



Losses Then And Losses Now Could Be Substantial

Sector	Loans Outstanding (RMB Billions)	NPLs Percent of Loans	NPLs	Value of Underlying Asset	Cash Recovery	Recovery Rate	Losses % of GDP
Big Four Banks 2001	6,600	42%	3,400	300	60	2%	34%
China Property Loans 2023	13,174	42%	5,533	487	98	2%	4%
China Mortgage Loans 2023	38,370	42%	16,115	1,418	284	2%	12%

[.] Fung & Ma, "China's Asset Management Corporations", BIS Working Paper no 115. Dec 2005

Turner, tan and Sadegohian, "The Chinese Banking System", Reserve Bank of Australia, September 2012

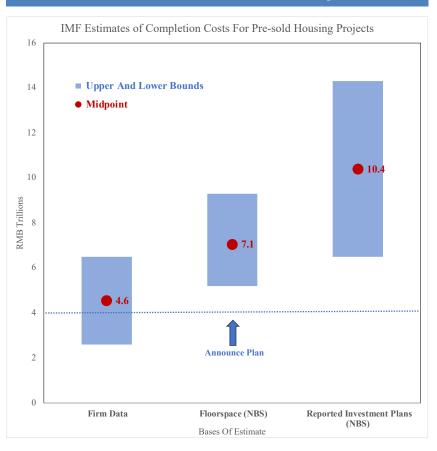
³ Bloomber

Step 3: Identify Potential Repricing Catalysis

China Increases Stimulus By Multiples Of Current Levels In Order To Fix The "Pre-Sold" Overhang

Need Could Be As Much As RMB 14 Trillion For Completions..

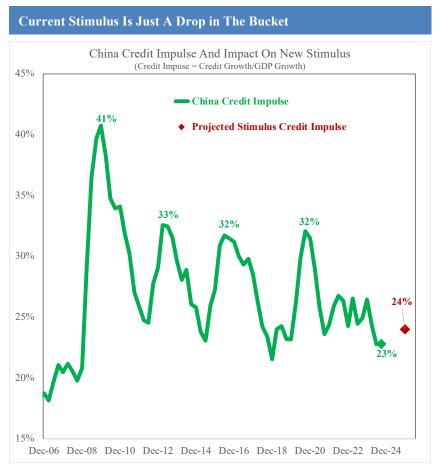
But Could Be Double That To Clear Developer Inventory

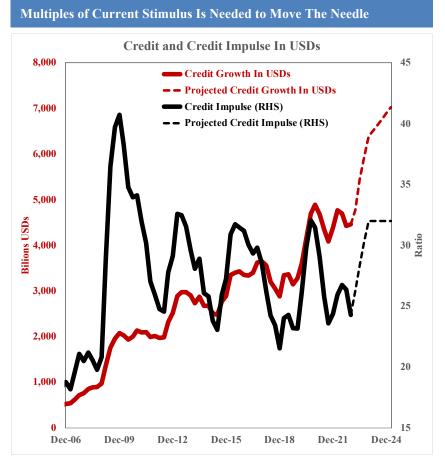


State of Uncompleted Pipeline	GFA (bn sqm)	Capital Needed To Complete (RMB Trillions)
Saleable Work-in-Progress (WIP)	2.1	4.9
Construction In Progress (unsaleable)	1.7	5.3
Raw Land	4.2	17.7
Total	8.0	27.9

Step 3: Identify Potential Repricing Catalysis

China Steps On The Credit Gas, As Current Stimulus Measures Will Be Inadequate

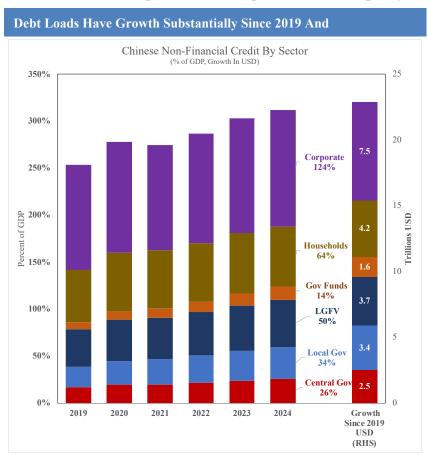


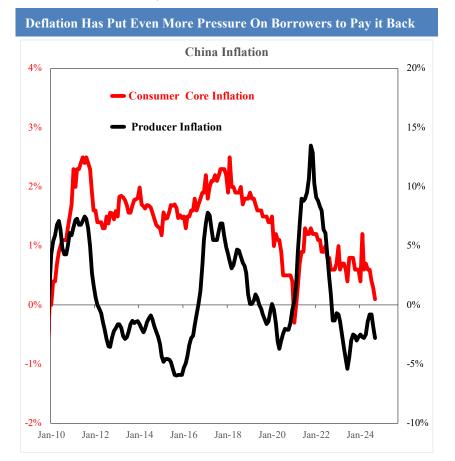


1. Bloomberg

Step 2: Fundamental Economic Framework

Deflation Has Amplified The Impact of The Property Market On the Economy Given Debt Loads

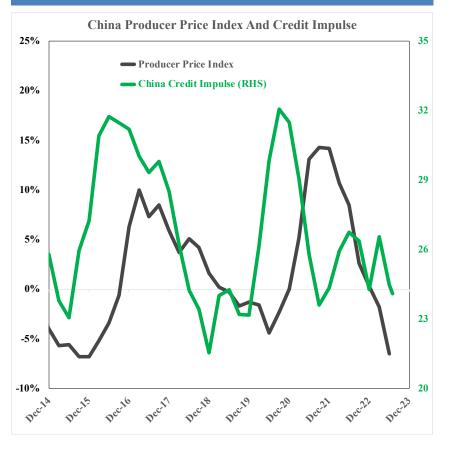




Step 3: Identify Potential Repricing Catalysis

Another Spike In Credit Growth Is Needed To Offset Deflation

Deflation to Some Degree Reflects The Lack Of A Credit Impulse



Export Prices Are Free Falling To Levels Not Seen Since The GFC



1. Bloomberg

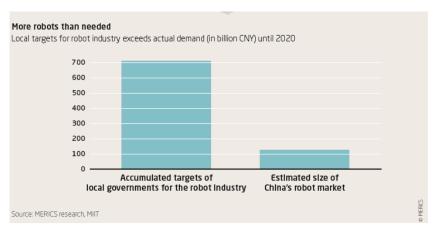
Step 3: Identify Potential Catalysts

China Turns Back To Trade To Drive Growth: China Exports Robotics to The World

Robotics Production Capacity In China Will Grow Substantially

Planed Capacity Growth Dwarfs Growth in Chinese Demand

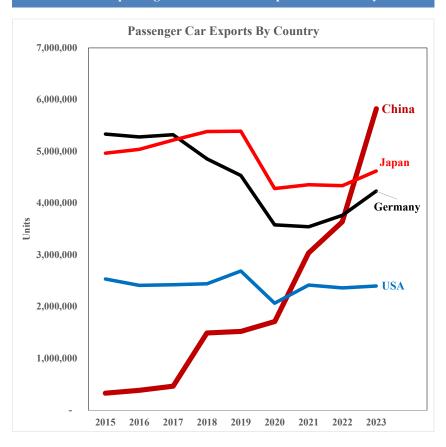




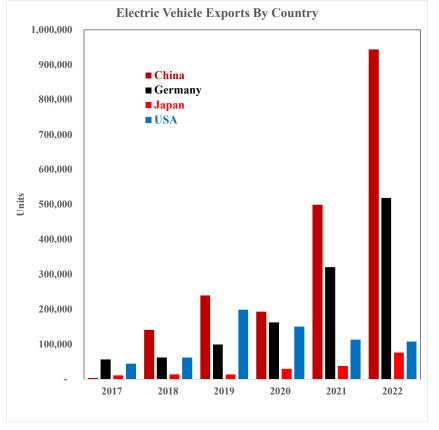
Step 3: Identify Potential Catalysts

Another Example Is the Growth of Chinese Auto Exports, Particularly Electric vehicles

China Is Now Exporting More Cars Than Japan and Germany



They Export Almost Double The EVs of Germany



Step 4: Identify Asymmetric Trades

Buy 1-yr 5% OTM CNY Puts/USD Calls

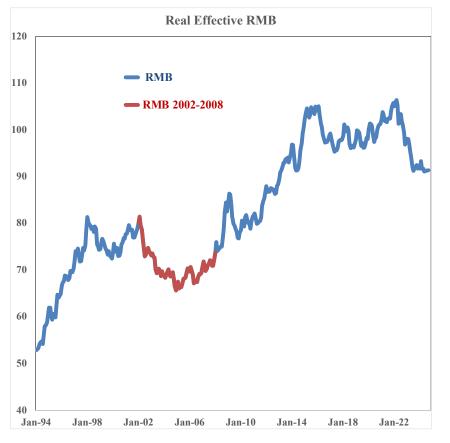
Trade Thesis

- China's current growth model is not sustainable
 - Baby bust, property bust, and now inflation are significant headwinds to China's existing growth model
 - Capital growth and consumption growth cannot support a 5% growth target without credit growth
 - A credit growth impulse to pull China out of deflation is too large to be realistic an causes too many imbalances
- China needs to return to its trade model for sustainable growth
- China needs to depreciate its currency for trade to become an alternative to investment growth alone
 - RMB would need to depreciate close to 20% or more to get back to levels during the trade boom in 2002-2008

China Already Produces the Cheapest EV, What Happens With It Devalue?



The RMB Needs To Devalue 20% To Get Back to GFC Levels



State Of the Markets: Best Long & Short Strategies 2024Q4

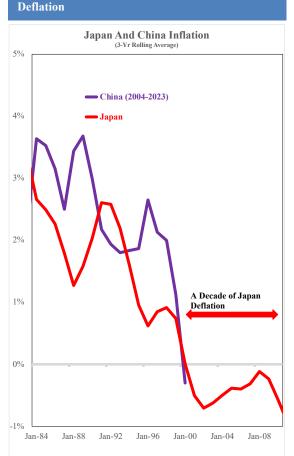
Part II: Current China Stimulus Is Not Enough, Substantially More Is Needed

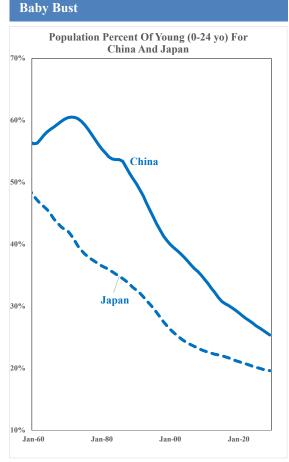
China Becomes Japan

Step 2: Fundamental Economic Framework

China Is Now Faced With Same Property Bust, Deflation And A Baby Bust As Japan





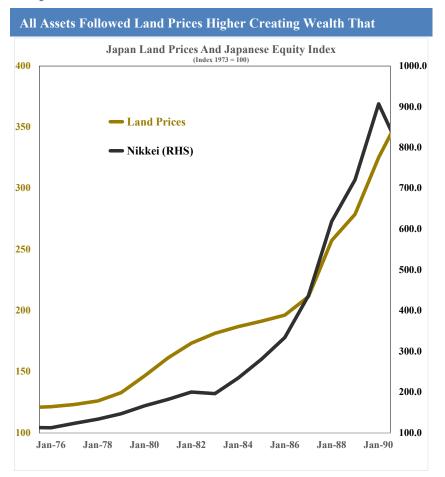


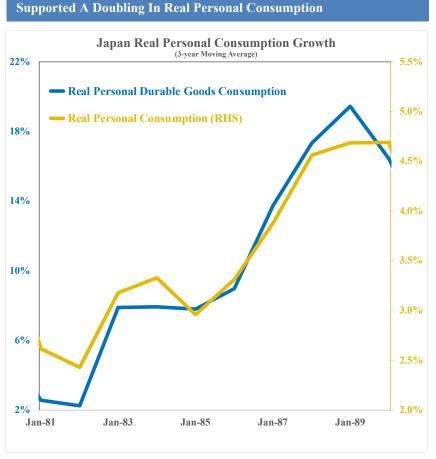
Bloomberg

^{3.} IMF

Step 2: Fundamental Economic Framework

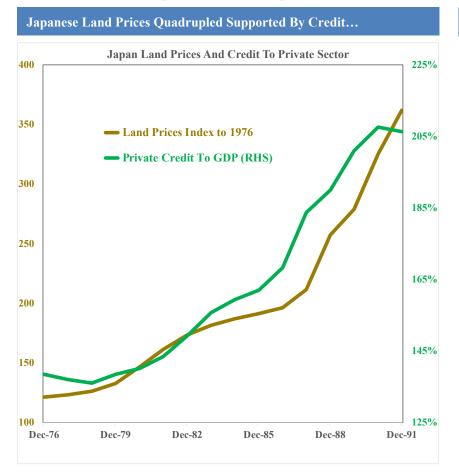
Japanese Wealth Growth Led To Unstainable Levels of Consumption





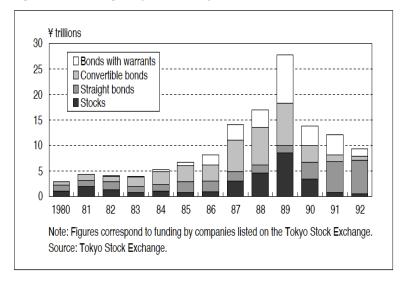
Step 2: Fundamental Economic Framework

Before China, Japan Had A Property Bubble And Subsequent Bust



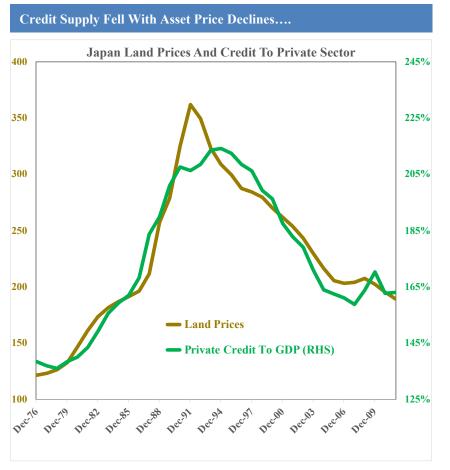
Credit Was The Primary Source Of Funding For Capital Markets

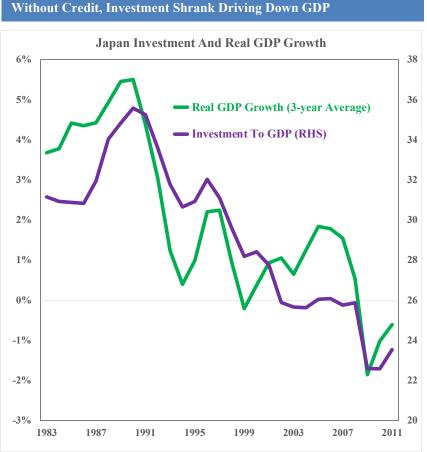
Figure 8 Fund-Raising in Capital Markets by the Private Sector



Step 2: Fundamental Economic Framework

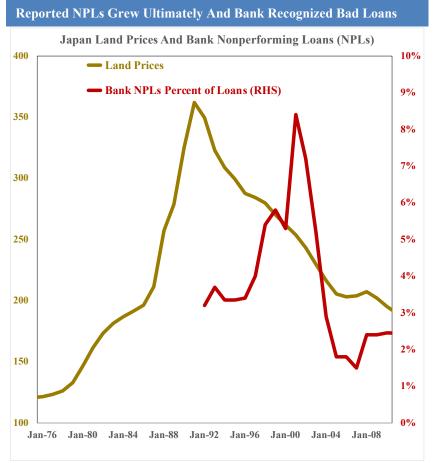
The Japanese Economy Collapsed As Credit, Investment, And GDP Fell With Asset Prices

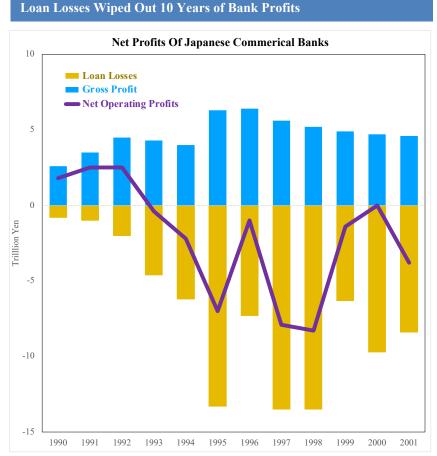




Step 2: Fundamental Economic Framework

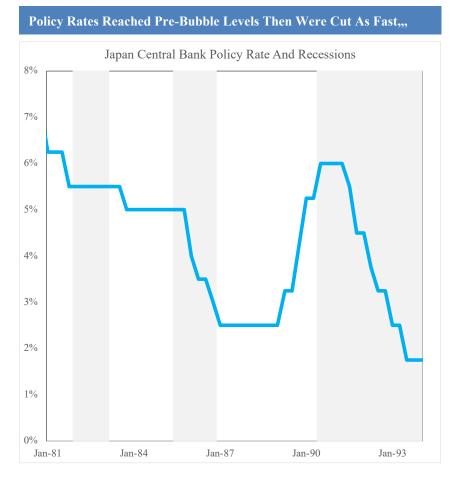
The Fall In Asset Prices Led To a Surge In Bank NPLs And Losses--"The Japanese Lost Decade"

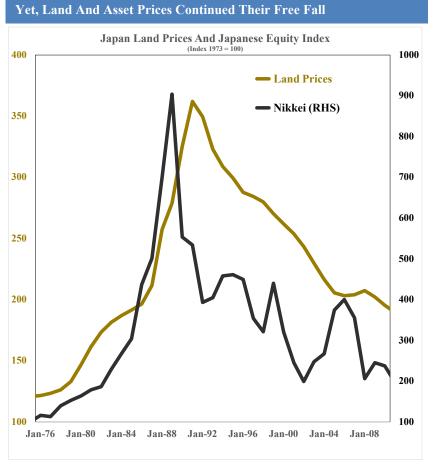




Step 2: Fundamental Economic Framework

BOJ Popped the Asset Bubble With A Rapid Increase in Rates But BOJ Rate Cuts Could Not Stop the Bust



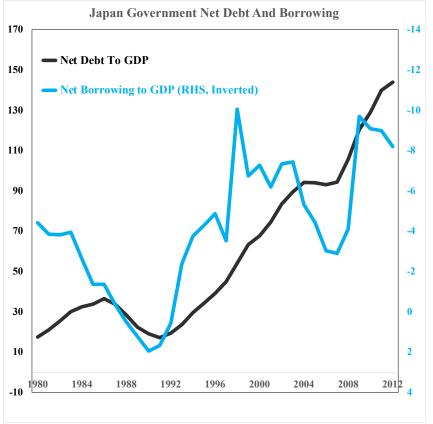


Step 2: Fundamental Economic Framework

China Faced Similar Pressures Which They Fought With Lower Rates And Government Spending

Demand Did Not Rebound Nor Inflation Even With Zero Rates Japan: Core Inflation And Central Bank Policy Rate 6% **BOJ Policy Rate** 5% Core Inflation (3-year Average) 3% 2% A Decade of Deflation 0% Jan-84 Jan-88 Jan-92 Jan-96 Jan-00 Jan-04 Jan-08

Government Failed to Push Up Inflation Even With More Spending



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