

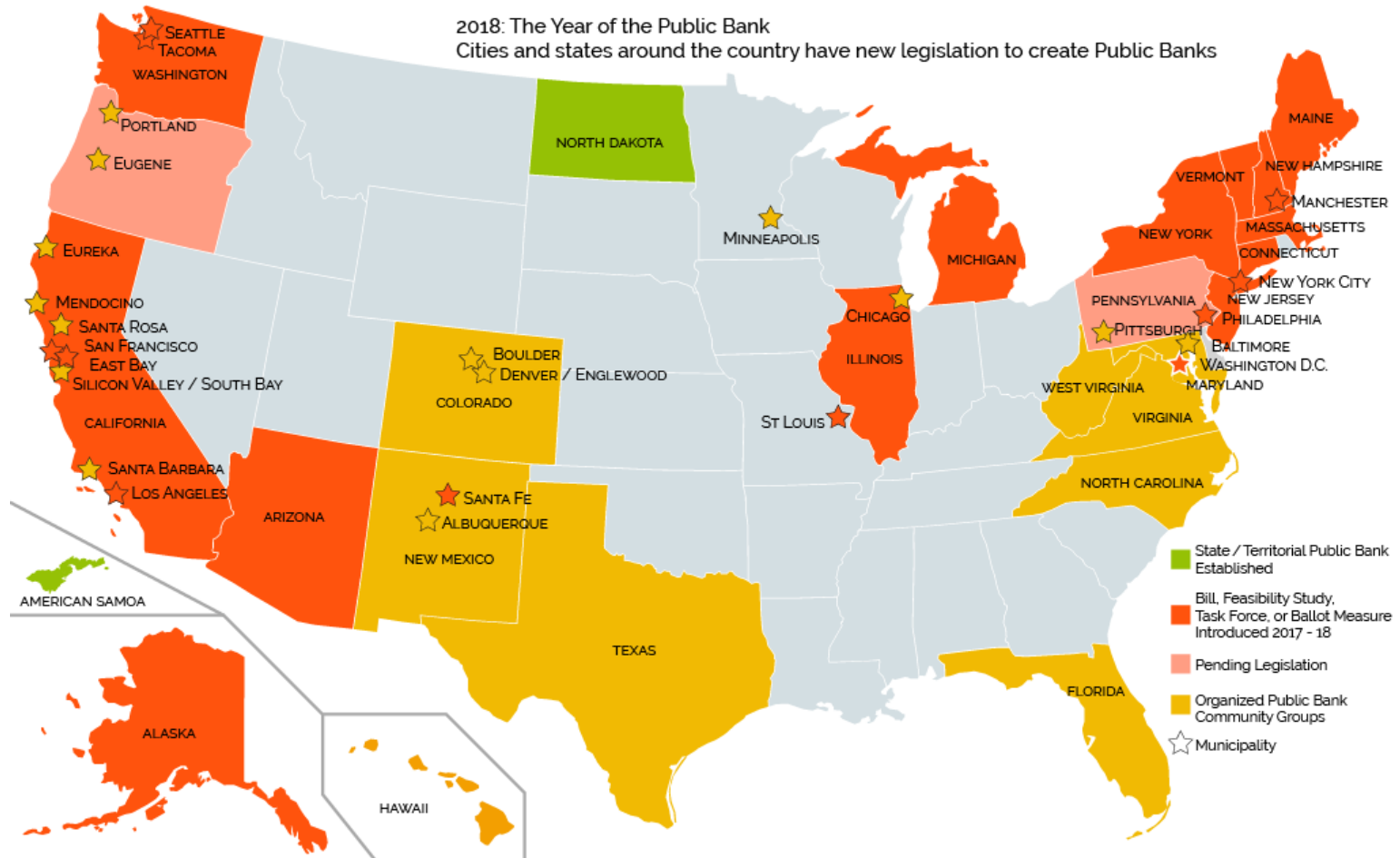


# **Funding the Green Transition with Public Banks**

**Ellen Brown, JD  
Public Banking Institute**

**9<sup>th</sup> Annual Soil and Nutrition Conference  
Southbridge, MA, Nov. 14-17, 2019**

# US public banking action 2019



# AB 857: chartering public banks

- Established legality of municipal public banks
- Set out requirements, allaying risk
- Showed widespread support:
  - Grassroots – CA Public Banking Alliance, joining volunteer activists of 10+ cities
  - Endorsed by 183 organizations including CA Democratic Party
  - Passed by CA legislature
  - Signed by governor



# From Occupy to Divest to Public Banks ...





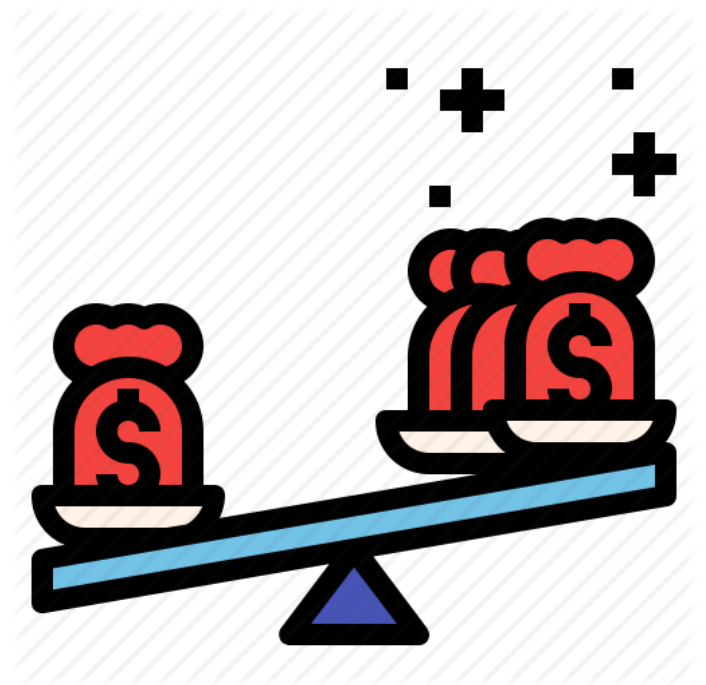
## ... to the Green New Deal

Proposal included funding with “a combination of the Federal Reserve and a new public bank or system of regional and specialized public banks.”



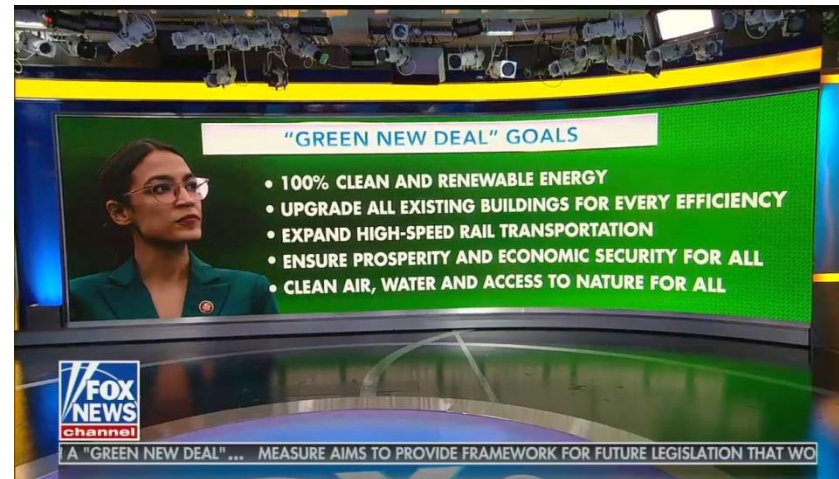
# AOC's bill

“...a Green New Deal will require ... providing and **leveraging**, in a way that ensures that the public receives appropriate ownership stakes and returns on investment, adequate capital (including through community grants, **public banks**, and other public financing) ...”



# “Economic prosperity and security for all” – how much can we afford?

- AOC’s GND includes 100% renewables, upgrade all existing buildings, expand high-speed rail, clean air and water for all
- Plus “economic prosperity and security for all” – jobs guarantee? Health care? UBI?



# An unaffordable \$93T?

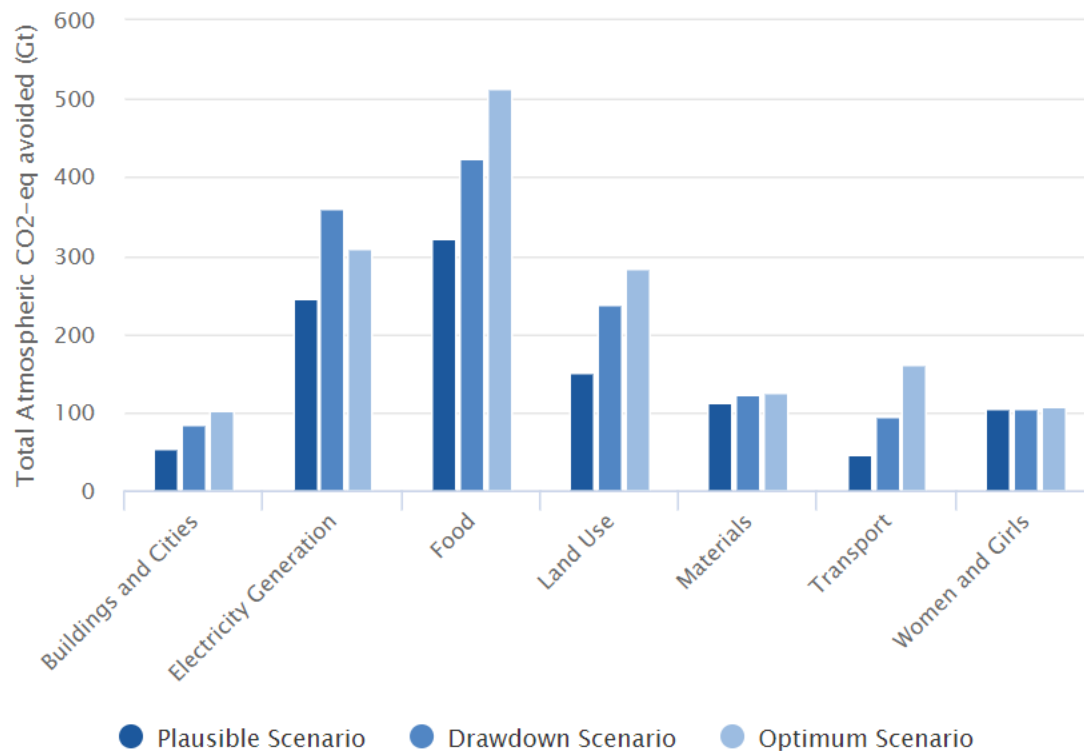
(American Action Forum projections)

<b>Summary Table (2020-2029)</b>		
<b>Goal</b>	<b>Estimated Cost</b>	<b>Estimated Cost Per Household</b>
Low-carbon Electricity Grid	\$5.4 trillion	\$39,000
Net Zero Emissions Transportation System	\$1.3 trillion to \$2.7 trillion	\$9,000 to \$20,000
Guaranteed Jobs	\$6.8 trillion to \$44.6 trillion	\$49,000 to \$322,000
Universal Health Care	\$36 trillion	\$260,000
Guaranteed Green Housing	\$1.6 trillion to \$4.2 trillion	\$4,000 to \$12,000
Food Security	\$1.5 billion	\$10



# The most cost-effective environmental solutions were overlooked: Project Drawdown (Hawken), 2020-2050

FIGURE 2: MITIGATION IMPACT BY SECTOR, 2020-2050 (IN GIGATONS OF CARBON DIOXIDE-EQUIVALENT)



## SECTOR RESULTS BY 2050

321.9 GIGATONS  
REDUCED CO<sub>2</sub>

\$777.64 BILLION  
NET IMPLEMENTATION COST

\$10.02 TRILLION  
NET OPERATIONAL SAVINGS

- Introduction
- Solutions
- Methodology and Integration
- **Results**
- Sector-Level Benchmarks
- Conclusions and Limitations
- Frequently Asked Questions
- Coming Attractions
- Additional Information

Other Sectors:  
Electricity Generation

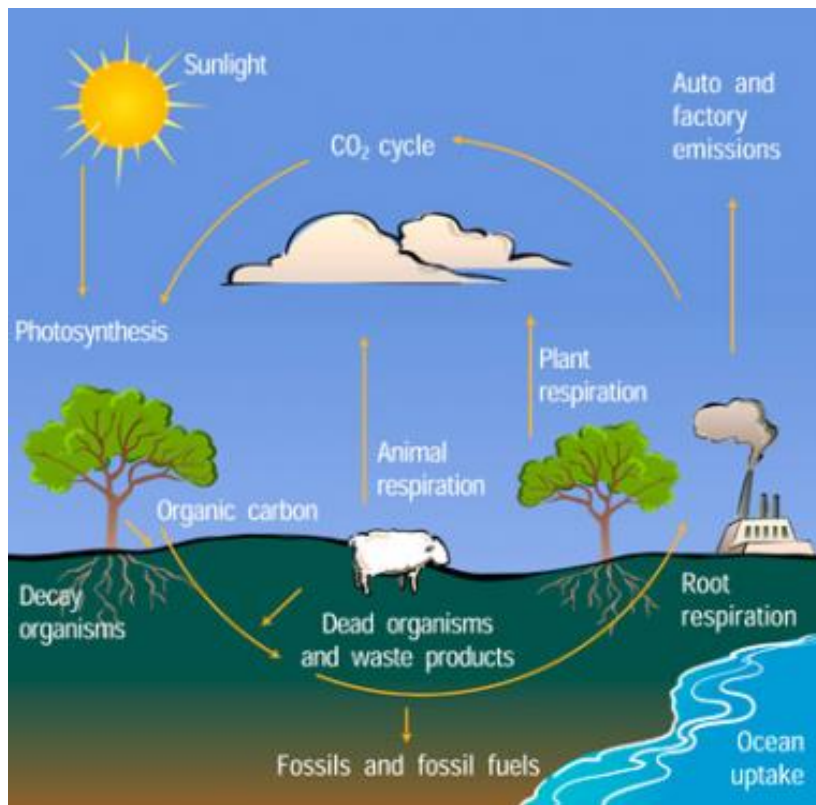
# “Food” is the clear leader.

Of the top 30 solutions, 12 are in this sector, including:

- Silvopasture
- Regenerative Agriculture
- Tropical Staple Trees
- Conservation Agriculture
- Tree Intercropping
- Managed Grazing
- Farmland Restoration
- Multistrata Agroforestry



... which makes sense because plants have been evolving carbon sequestration for hundreds of millions of years.



- Per a recent study in *Science*, a worldwide tree-planting program could remove 2/3 of human carbon emissions.
- Grasslands are better carbon sinks than forests.
- Hemp is better yet.

# Meanwhile factory farming, which is subsidized, is a major polluter.

- Responsible for as much as 50% of the carbon debt, counting externalities
- Toxic food injures health, increasing medical costs
- Inhumane conditions for billions of animals





# Incentivizing small farmers: Divert subsidies from Big Ag to sustainable, regenerative farming.

- Big agribusinesses (factory farms and mono-crops) are now the biggest recipients of corporate welfare, at over \$20B annually.



NAME	CITY	STATE	ZIPCODE	AMOUNT
CONCORDIA ALLIED PRODUCERS LLC	ASHBURN	GA	31714	\$23,787,621.00
SCOTT FARMS G P	BRINSON	GA	39825	\$21,988,168.00
HEARD FAMILY FARM	BRINSON	GA	39825	\$20,874,304.00
HADER FARMS PARTNERSHIP	ZUMBROTA	MN	55992	\$19,946,024.00
CROSSROAD FARMS	WILLIAMSPORT	IN	47993	\$18,603,265.00
AMERICAN PEANUT MARKETING ASSOC.	LEARY	GA	39862	\$17,907,523.00
JENKS FAMILY FARMS	MONMOUTH	IL	61462	\$17,363,798.00
MICHAEL STAMER FARMS GENERAL PART	WILLMAR	MN	56201	\$14,191,190.00
P G C FARMS	BRINSON	GA	39825	\$14,164,396.00
DELINE FARMS PARTNERSHIP	CHARLESTON	MO	63834	\$14,053,570.00

SOURCE: Department of Agriculture data released via FOIA.

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What about the big GND costs –  
“prosperity and economic security for all?”

We could do it *all* with “helicopter money.”  
The Fed could generate “People’s QE,” tax-free and interest-free. But wouldn’t that be inflationary?

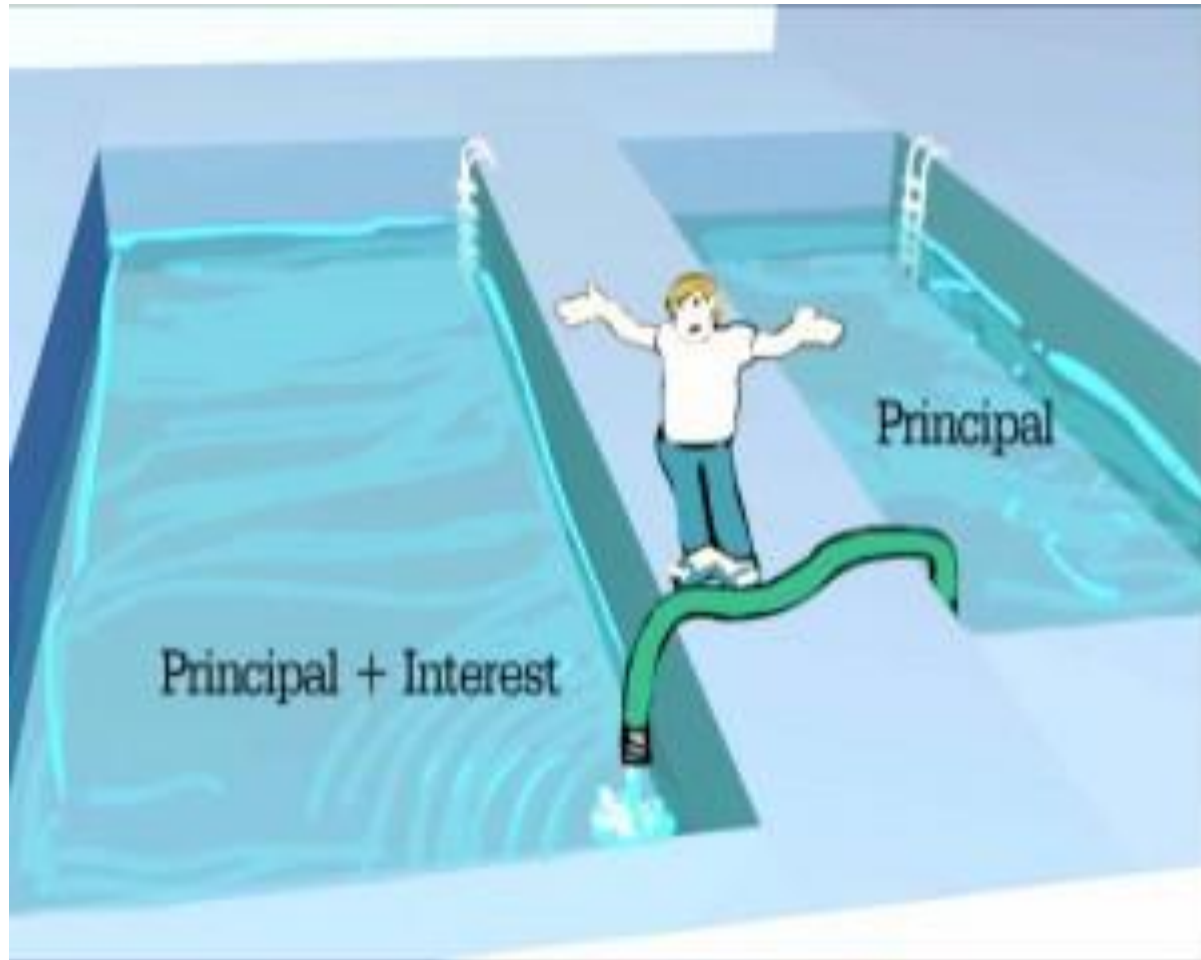


*First some review: Most money  
is created by banks as loans.*

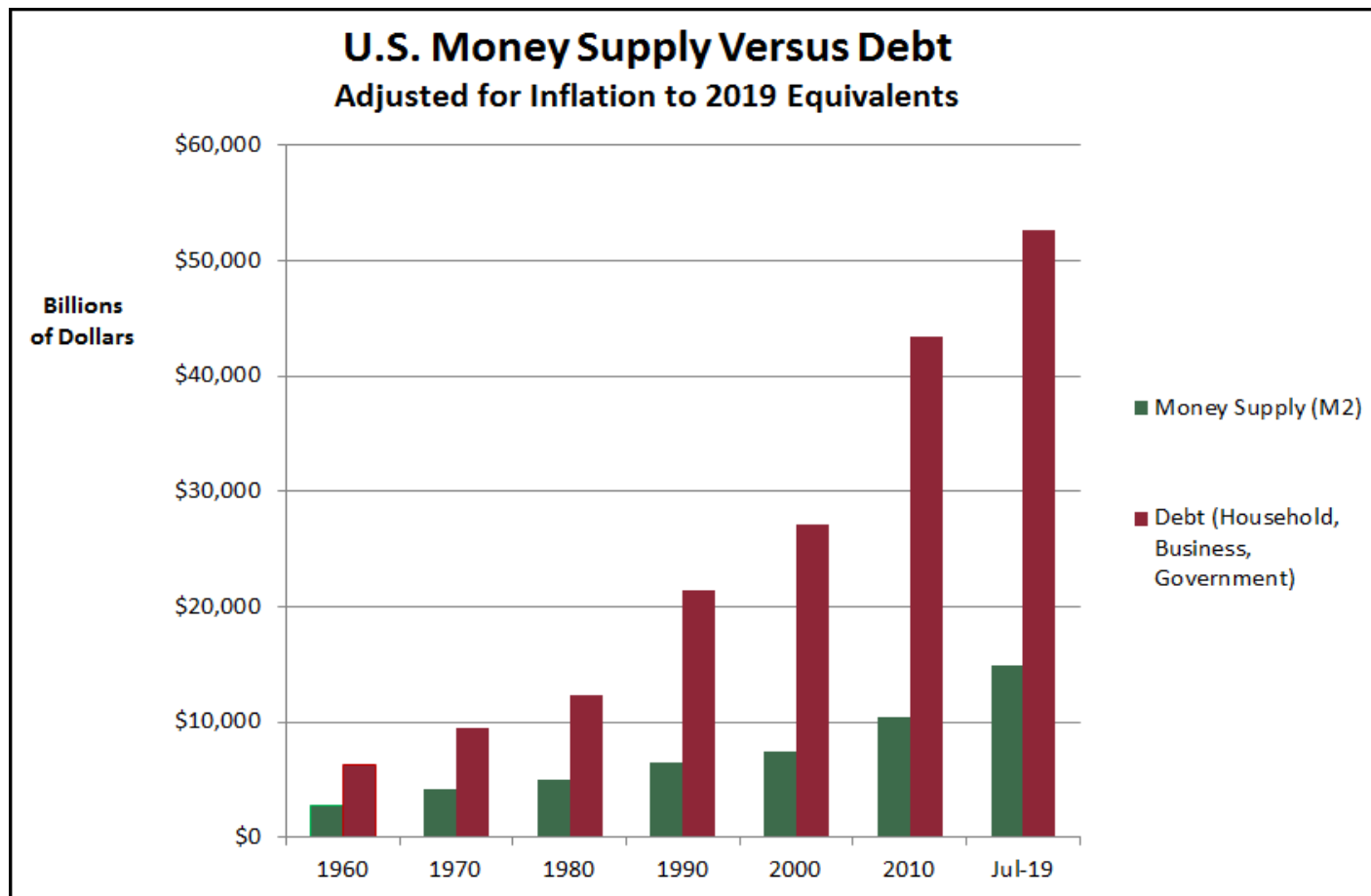
“[B]anks do not act simply as intermediaries, lending out deposits that savers place with them .... Commercial banks create money, in the form of bank deposits, by making new loans.... [B]ank deposits make up ... 97% of the amount [of money] currently in circulation.”

- *‘Money creation in the modern economy’,  
Quarterly Bulletin, 2014 Q1, **Bank of England.***

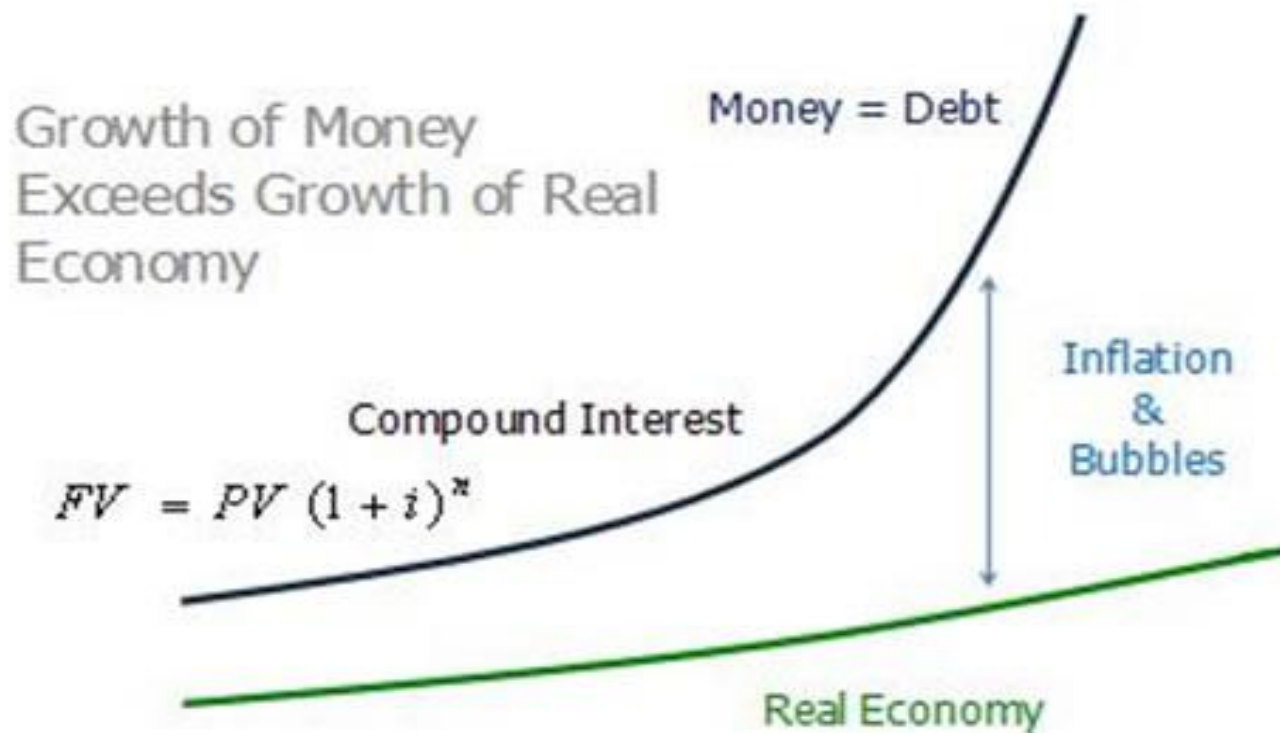
Banks create only  
the principal, not the interest.



# Debt-at-interest always grows faster than the real economy ...



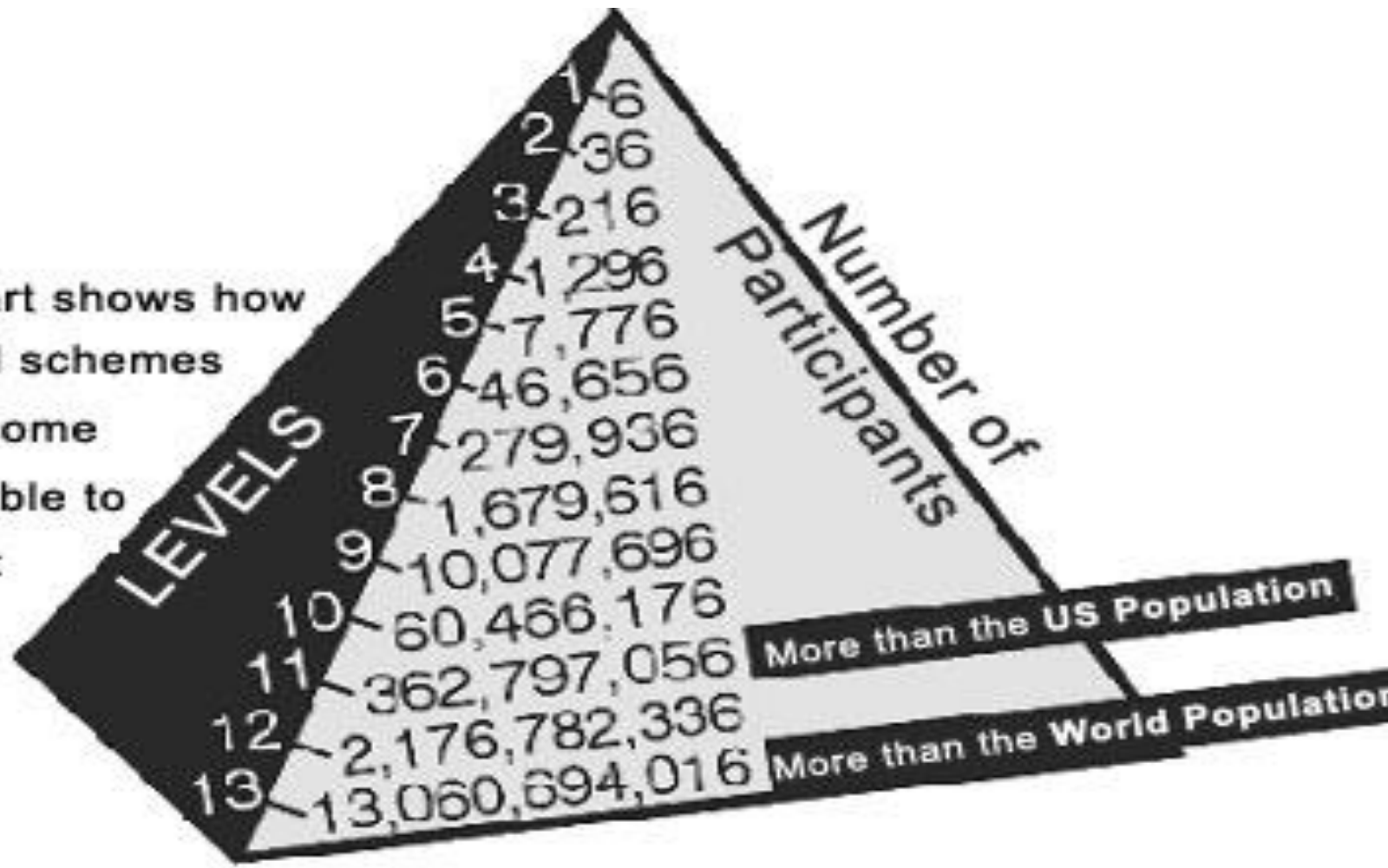
... creating the growth imperative.



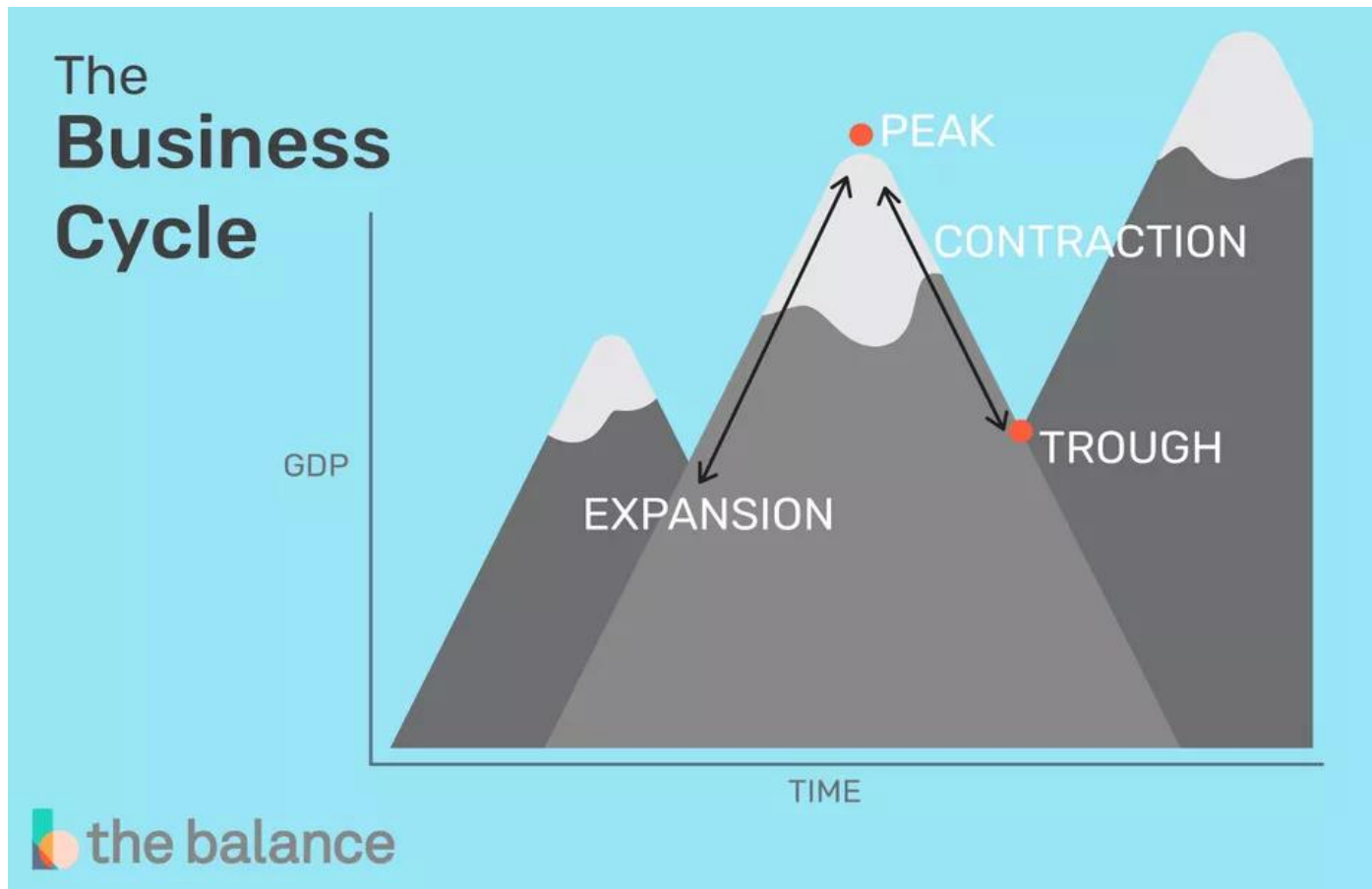


The gap is filled with more debt.  
It's a pyramid scheme.

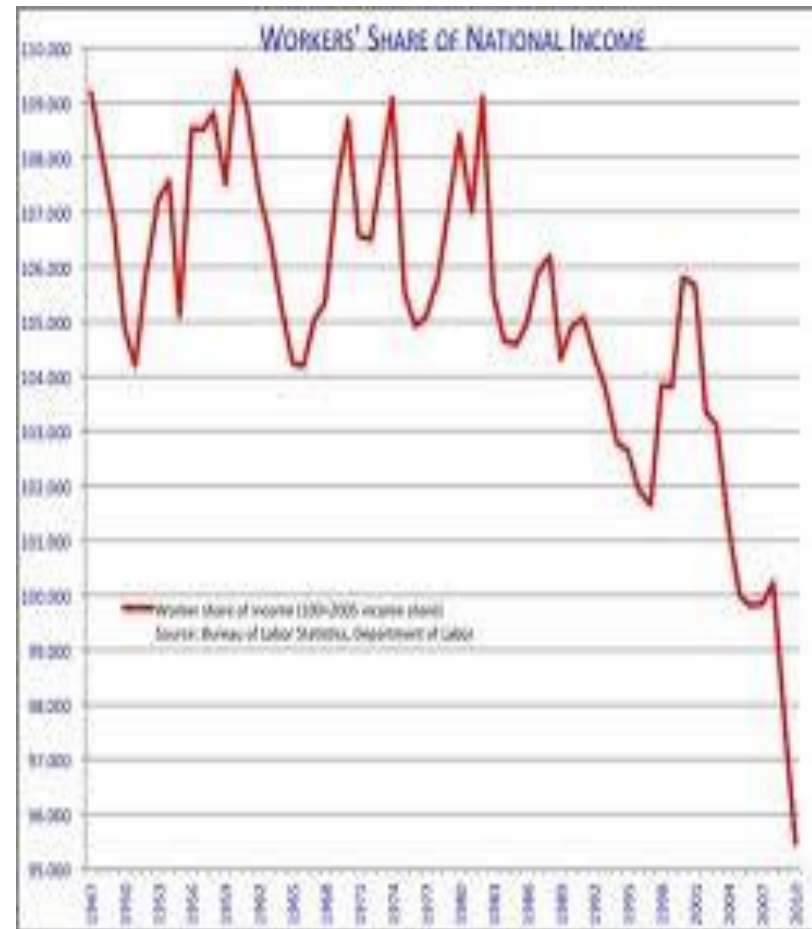
The chart shows how  
pyramid schemes  
can become  
impossible to  
sustain:



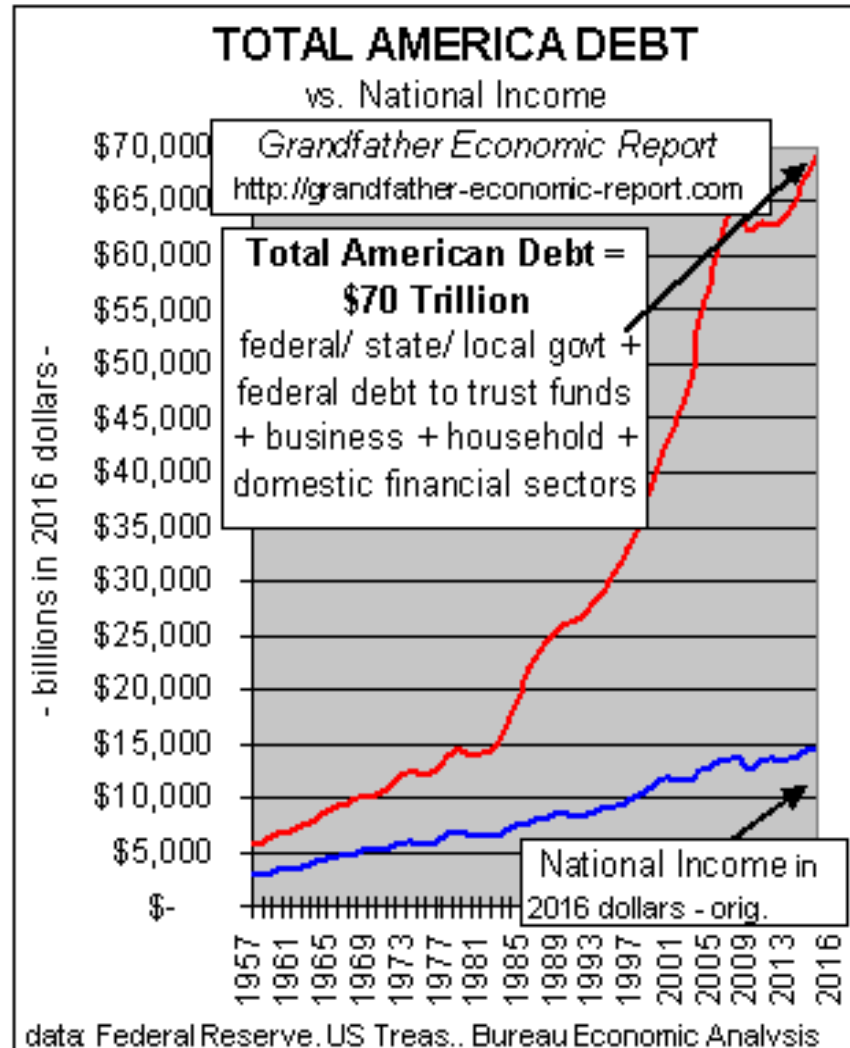
# Credit booms lead to busts ...



and periodic financial collapse,  
widening the wealth gap ...



... and the debt-to-income gap.



# The result is “debt deflation.”

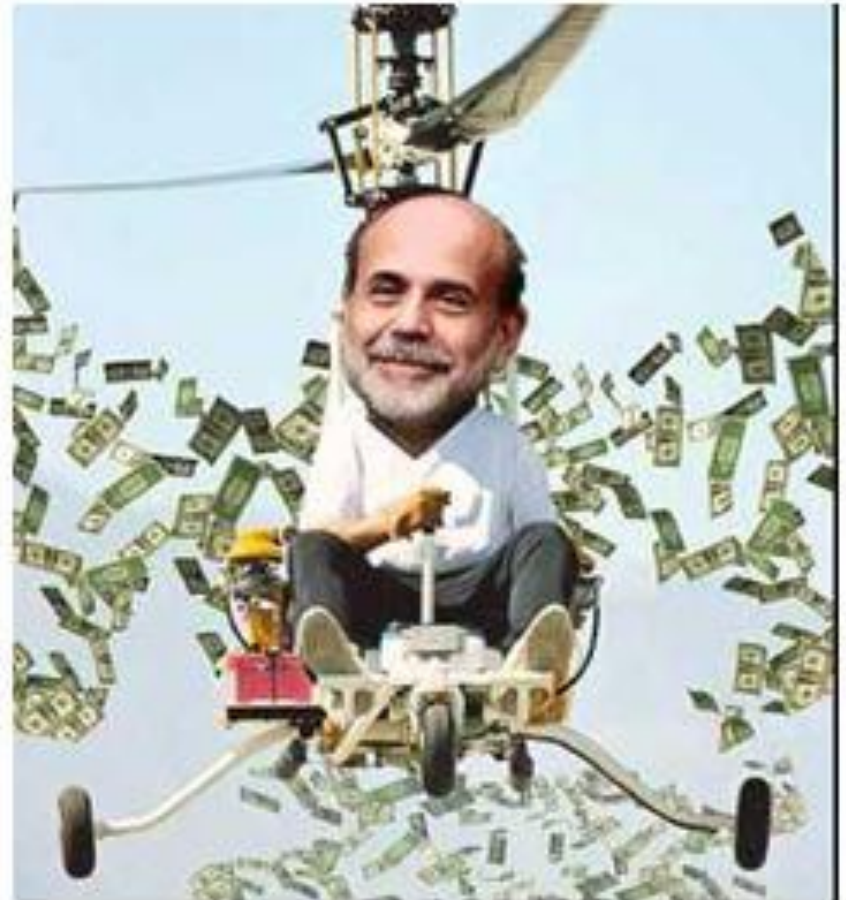
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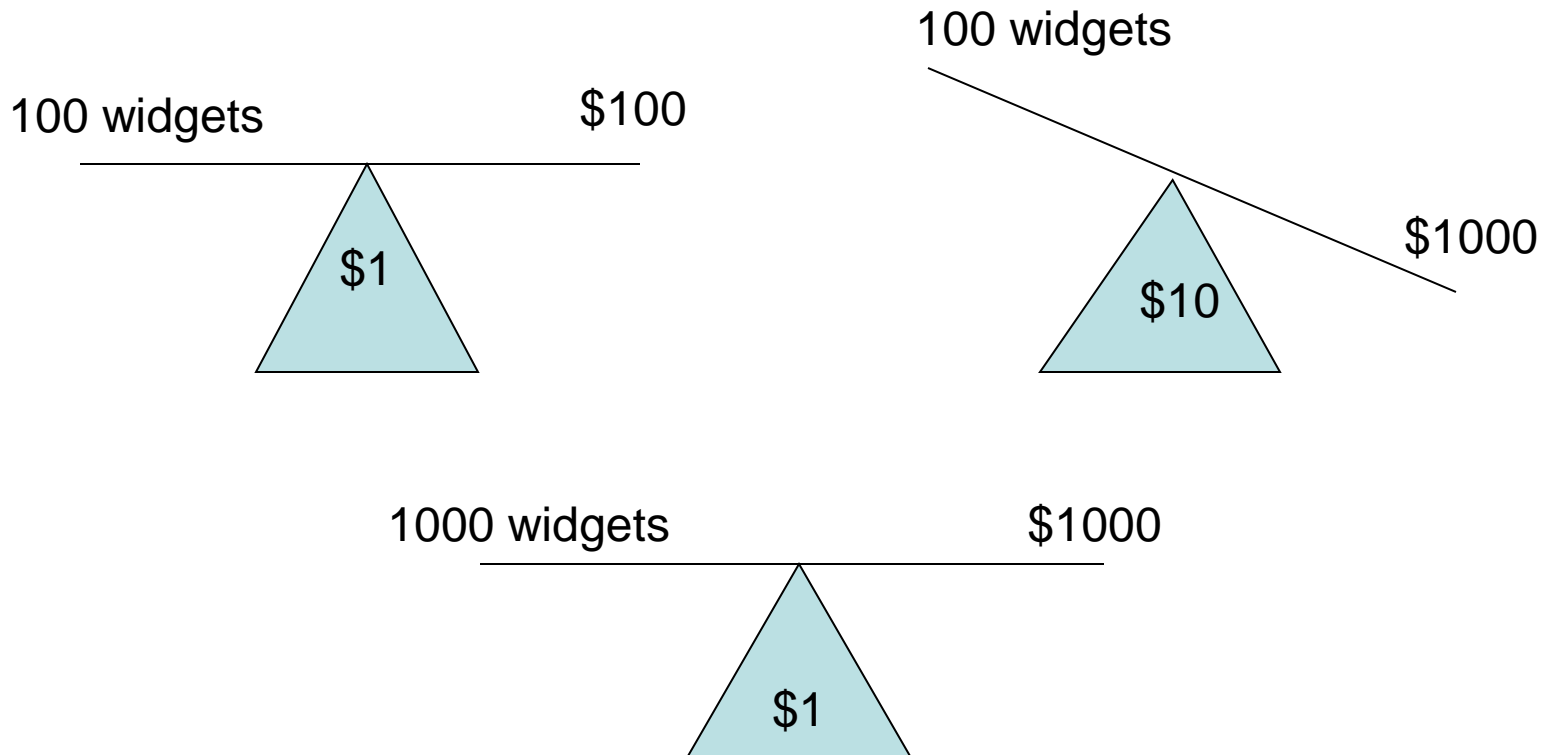


# How to fill the gap between debt and income?

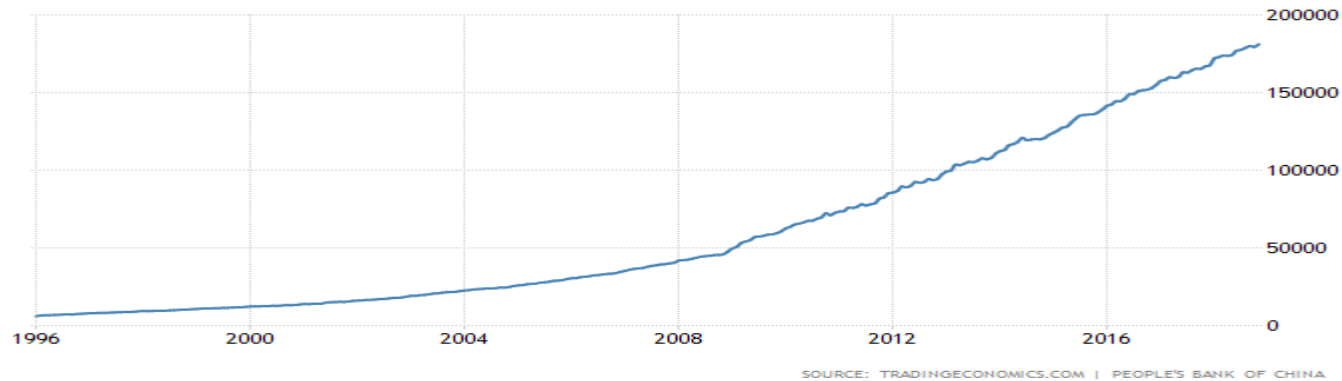
- Simple, said Ben Bernanke: just drop money from helicopters.
- But what about inflation – too much money chasing too few goods? (The quantity theory of money.)



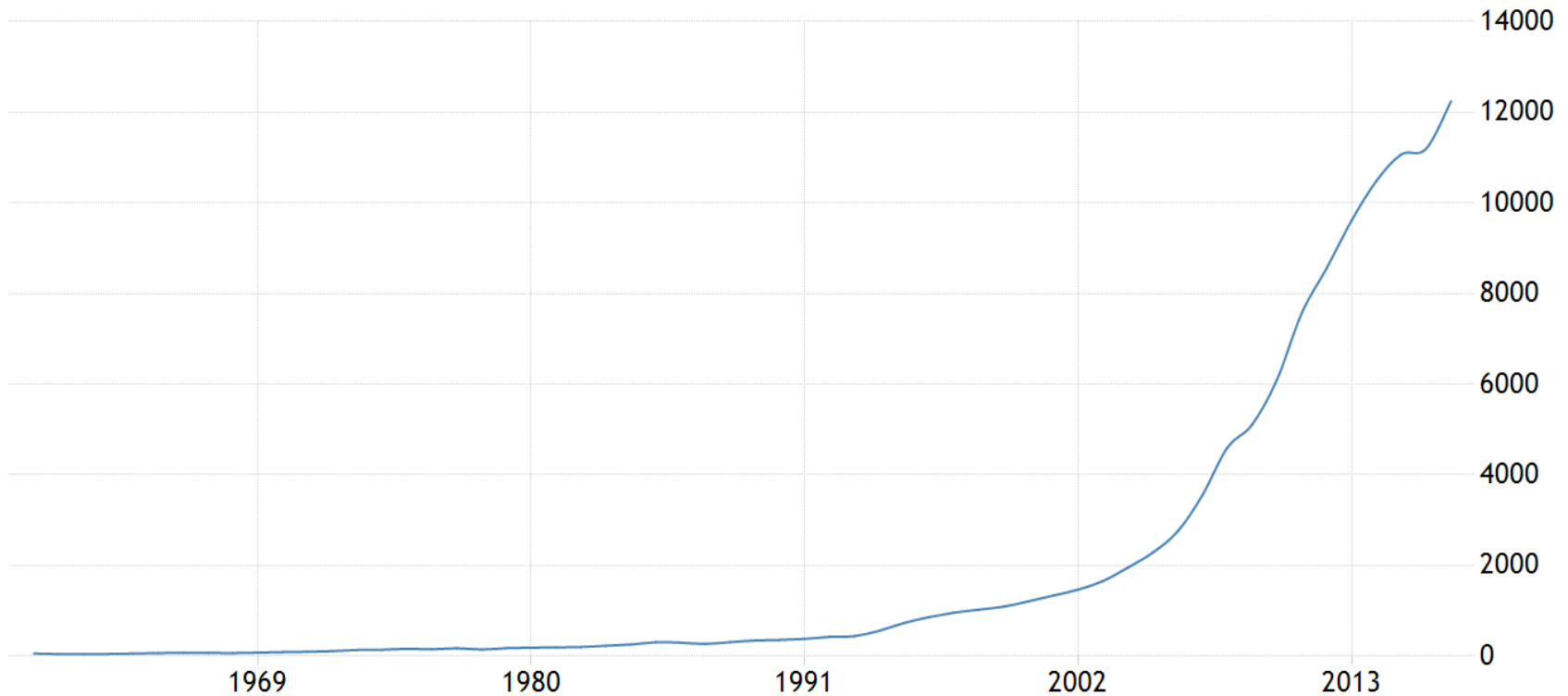
# Not a problem if supply keeps up with demand.



**Compare China:** M2 grew 1800% in 23 years, yet inflation was low.



# Why? China's GDP shot up too.



SOURCE: [TRADINGECONOMICS.COM](http://TRADINGECONOMICS.COM) | WORLD BANK

# Compare: Greenbacks issued in the US Civil War.

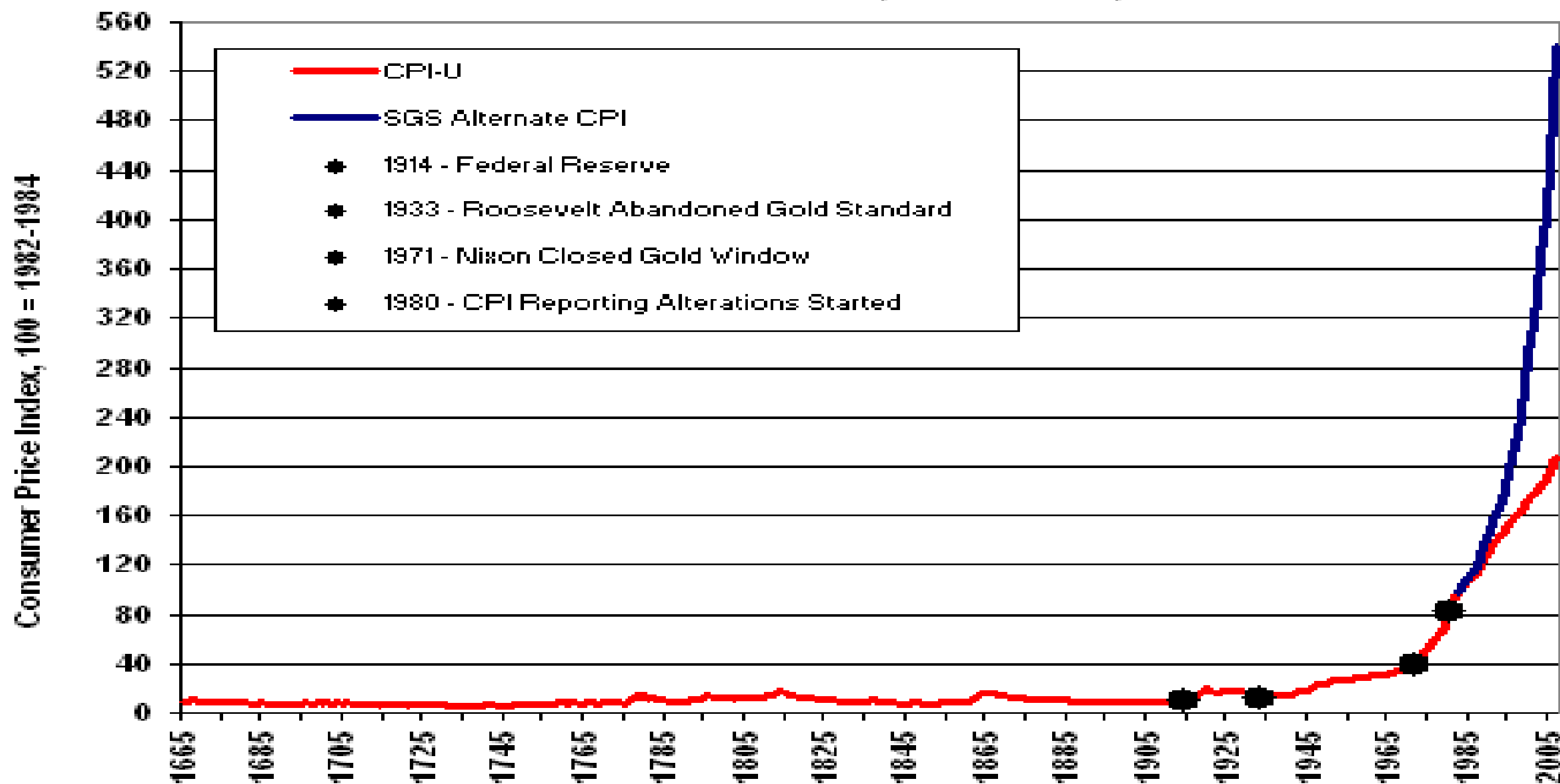
- \$450M issued in 1862, doubling the money supply (equivalent to adding \$15T today)
- \$64M lent for transcontinental railroad
- 1869: \$103M returned (60% profit)



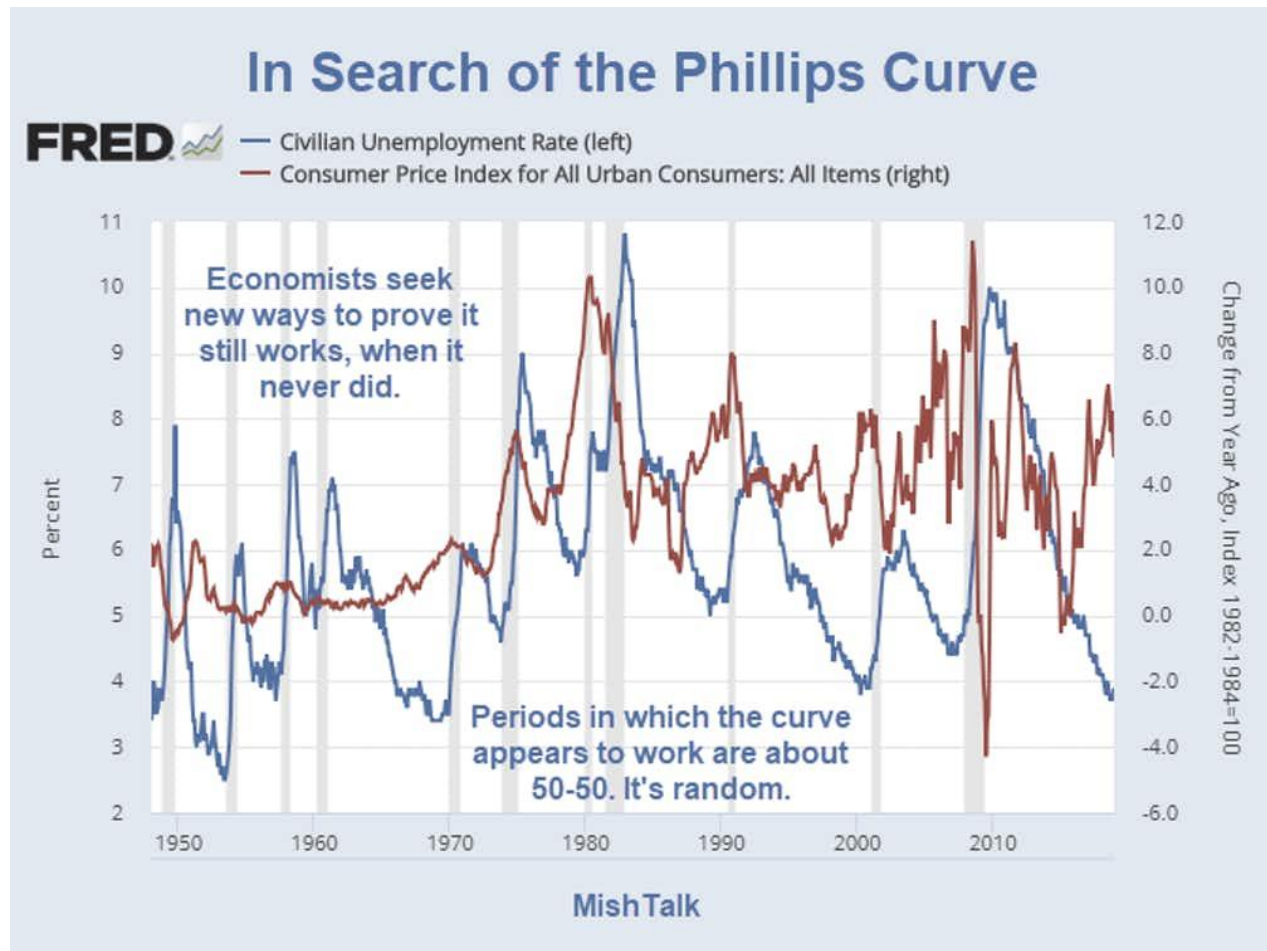


# Here too hyperinflation did not result.

**Consumer Inflation in the American Colonies/  
United States 1665 to 2007, CPI vs. SGS Alternate**  
Sources: ShadowStats.com, Robert Sahr, BLS

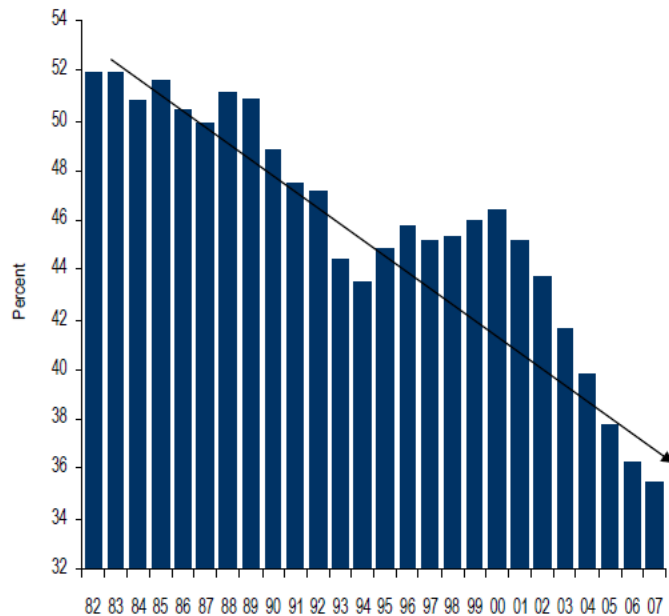


# But isn't money injection possible only up to full employment?

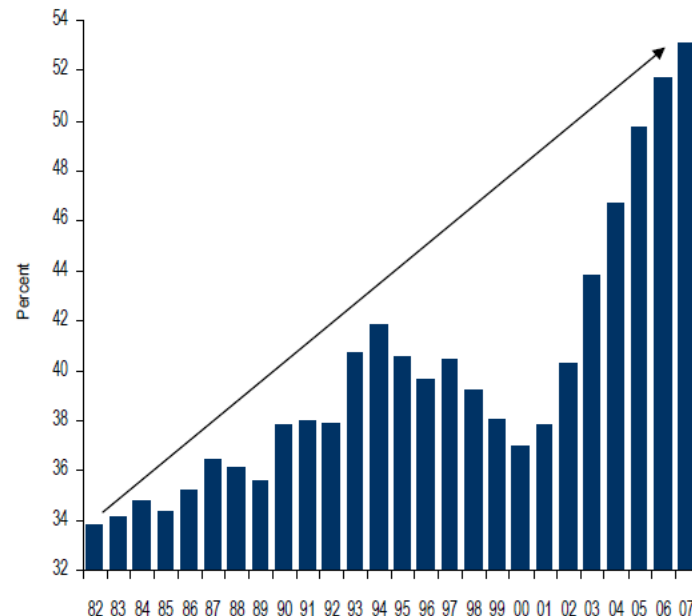


**No.** Not all income is spent on consumer goods. Debt repayment and savings don't add to demand.

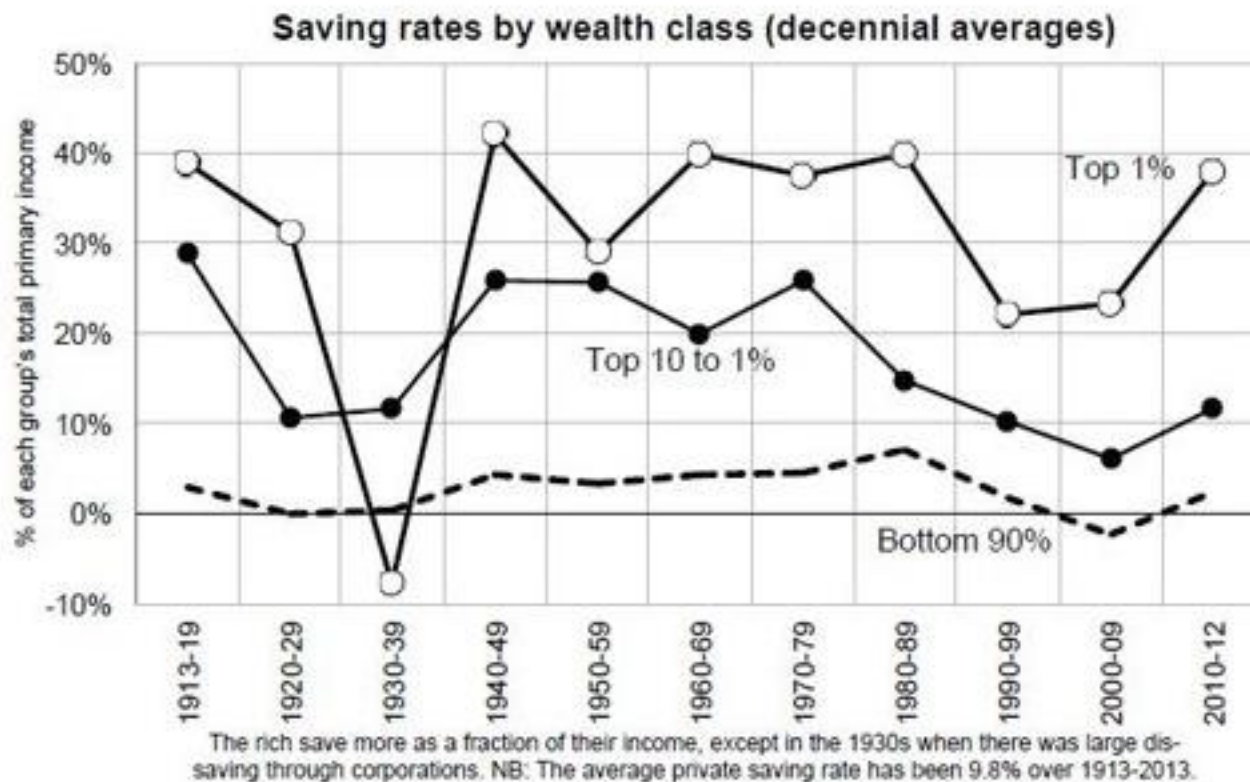
**China: Consumer Spending  
as a Share of GDP**



**China: Gross National Savings  
as a Share of GDP**

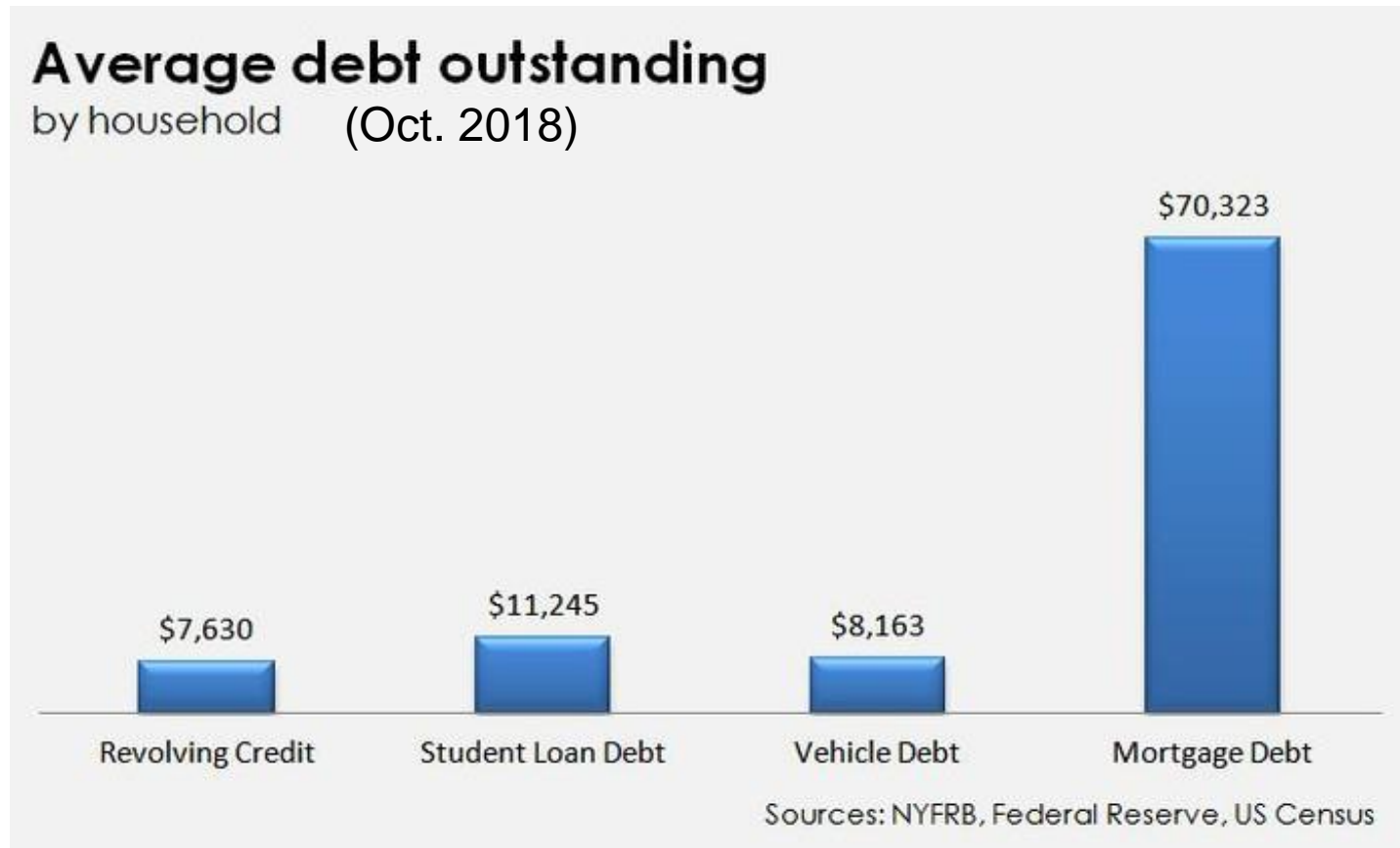


# And the savings rate for most US families is very low ...

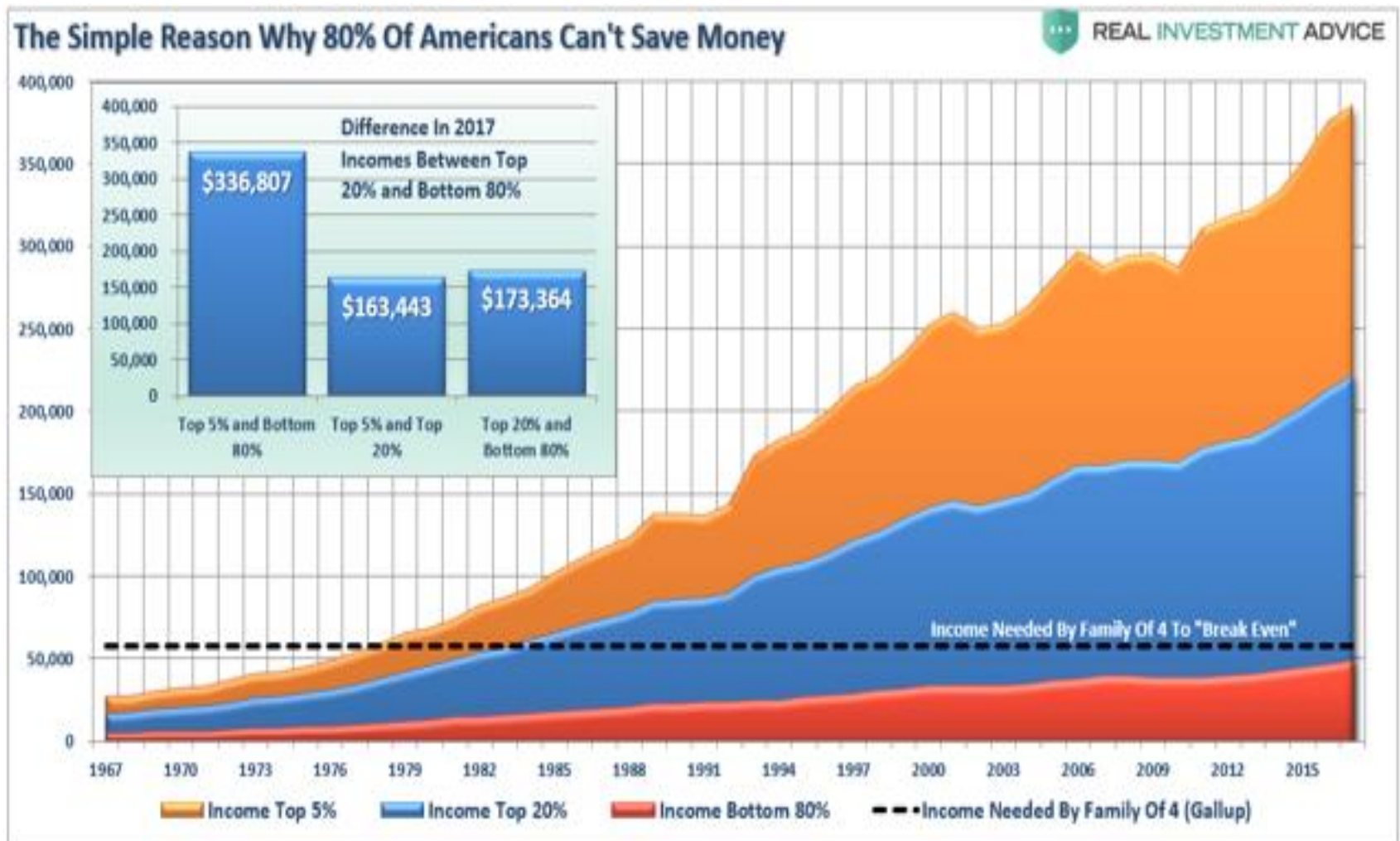


Source: Emmanuel Saez and Gabriel Zucman, *The Distribution of U.S. Wealth, Capital*

While US household debt is very high.  
Recall: Money going to debt repayment  
is extinguished with the debt.

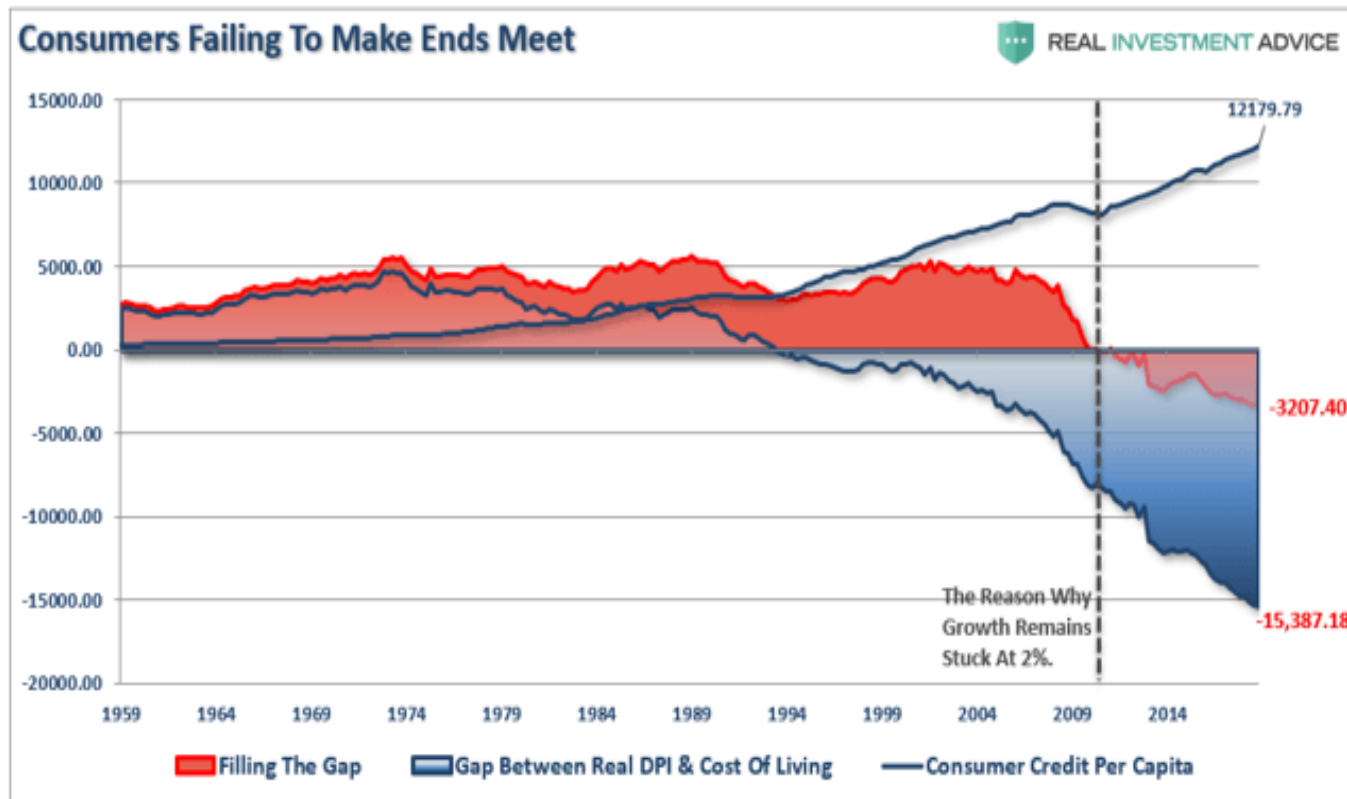


# 80% of Americans must borrow just to meet expenses.





Borrow how much? The gap between annual real disposable income and the cost of living is \$15K per capita.

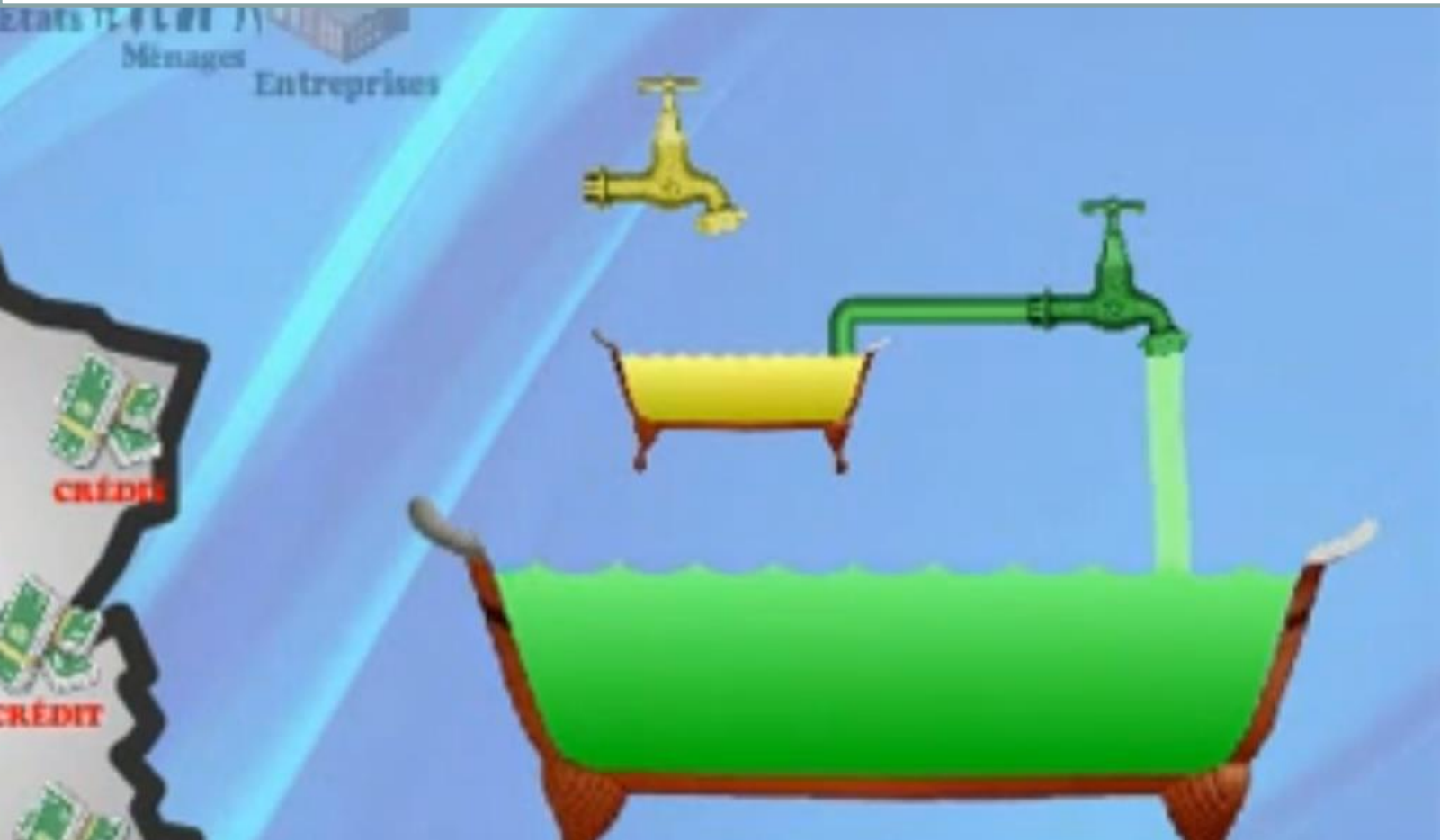


# So assume a UBI of \$12K/year.

- If 80% of recipients used it to repay their consumer debts (credit cards, student debt, medical bills, etc.), that money would disappear with the debt.
- The 20% who can meet expenses would not need to spend their UBI. Most would save it or invest it in the financial (non-consumer) markets.
- Net result: NO appreciable increase in CPI.



The money created by banks as debt would just be replaced with debt-free money created as People's QE.



# Other federal options:

## (1) Restore postal banking

- Safe, popular alternative to bankrupt commercial banks, 1911-67.
- Could serve the unbanked and underbanked today.
  - 25% of households
  - Sen. Kirsten Gillibrand's postal banking bill (2018) could avoid 400% payday loans, \$40K over a lifetime paid in deposit and checking fees



## (2) A federal infrastructure bank -- compare Roosevelt's Reconstruction Finance Corp.

- \$500 million capitalization
- Loaned or invested over \$40 billion from 1932 to 1957
- Issued bonds, mostly bought by the Treasury
- Funded the New Deal and World War II
- Net profit to the government: \$690 million



# Compare: Germany's KfW & green energy



- Half of German banking assets are in the public sector.
- Germany has been called “the world's first major energy economy”: renewables generated 41% of its electricity in 2017, up from 6% in 2000.
- KfW and the German public savings banks (Sparkassen) provided over 72% of the financing and were instrumental in the transition – both as lenders and as facilitators, coordinating stakeholders and setting up renewable energy cooperatives.



# Compare:

## China's public development banks

- China built 12,000 miles of high-speed rail in a decade
- World's largest dam and power station
- How funded? The government owns most of the banks.
- Debts not repaid are written off.



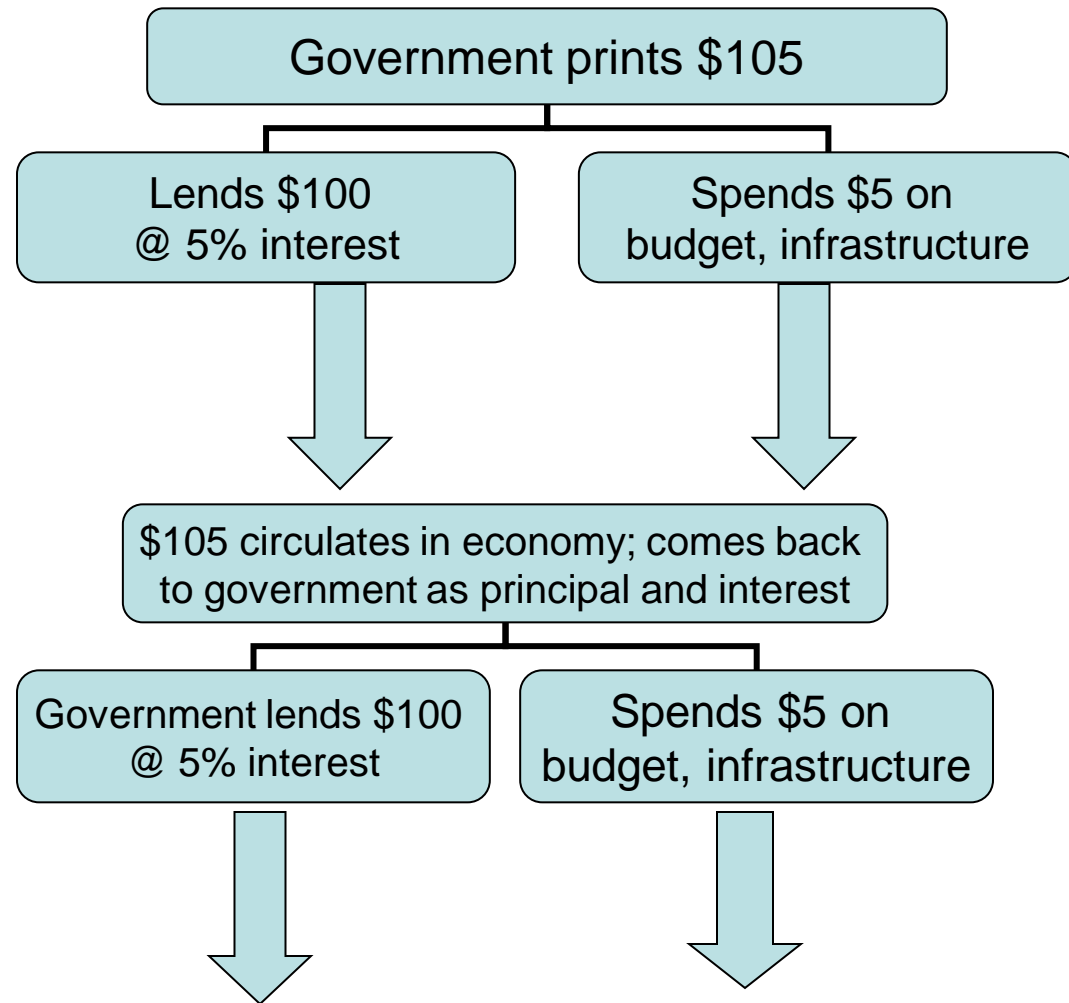
And if Congress or the Fed  
won't act? We can create money locally.



# Money creation by public banks is sustainable, because profits return to the local economy.

## The colonial Pennsylvania model:

- No taxes
- No inflation
- No government debt

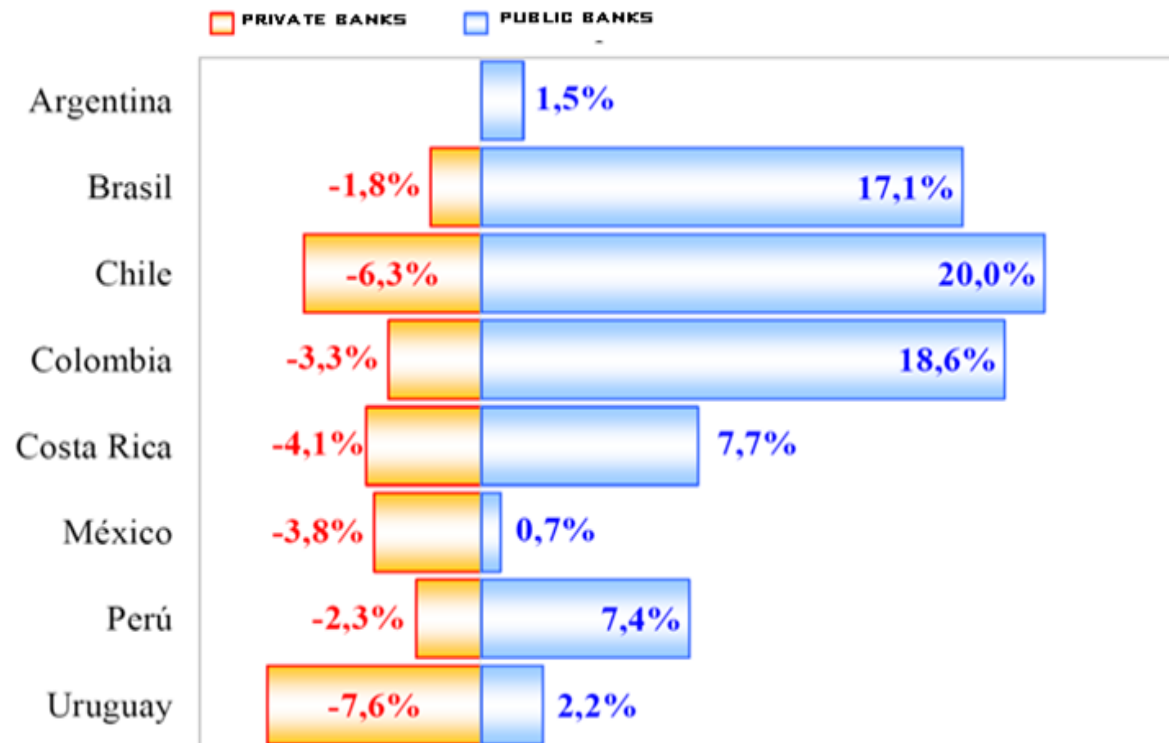


## 25% of banks globally are publicly-owned, including the world's largest banks –

- The two largest banks by market capitalization (ICBC and China Construction Bank)
- The largest bank by deposits (Japan Post Bank)
- The largest bank by number of branches (State Bank of India)
- The largest development bank (China Development Bank).
- The world's seven *safest* banks are also publicly-owned, leading with KfW, Germany's public development bank.

# Public banks avert banking crises by lending counter-cyclically.

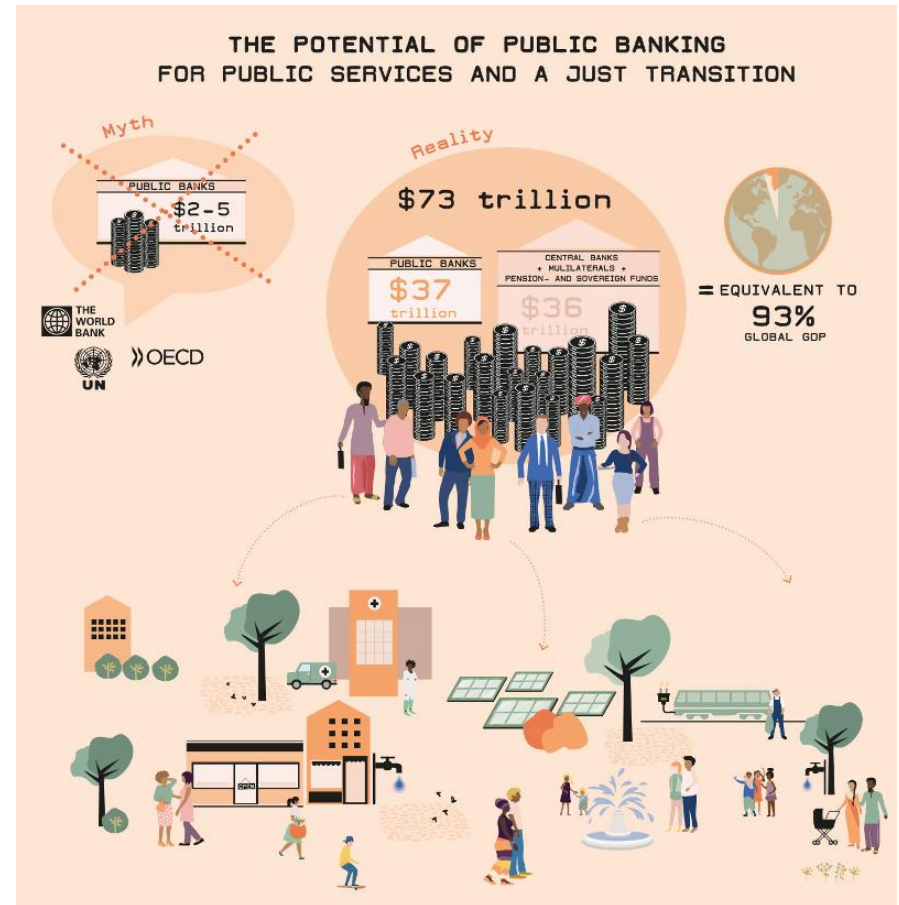
**CREDIT FROM PUBLIC AND PRIVATE BANKS  
FROM DECEMBER 2008 TO SEPTEMBER 2009 IN %**



SOURCE: CEPAL

# Public banks are the heavy hitters in climate finance.

- They control 20% of assets globally but contribute nearly 50% of climate finance.
- “Private finance has no appetite for saving the planet without first feeding insatiable shareholders.” — *Thomas Marois, Univ. of London*





# Recent studies show that public banks are also:

- Safer.
- Less corrupt.
- More profitable.
- Avert banking crises by lending countercyclically.
- Serve local economies rather than private investors.



In the US, we have only one state-owned depository bank — in North Dakota — but it's a stellar model.



- ND was the only state to escape the 2008-09 credit crisis
- The nation's lowest unemployment rate
- Lowest default rate
- Most banks per capita

# North Dakota has had its own bank since 1919.



- The farmers were losing their farms to the Wall Street bankers.
- They organized, won an election, and passed legislation.

## Wall Street Journal, Nov 16, 2014

“It is more profitable than [Goldman Sachs Group Inc.](#), has a better credit rating than [J.P. Morgan Chase](#) & Co. and hasn’t seen profit growth drop since 2003. Meet Bank of North Dakota, the U.S.’s lone state-owned bank, which has one branch, no automated teller machines and not a single investment banker. . . .

Return on equity . . . is 18.56%, about 70% higher than those at Goldman Sachs and J.P. Morgan.”

## Not due to oil:

The BND has had record profits for 15 years despite a massive oil bust.

- Spring 2019 annual report showed:
  - total assets: \$7 billion
  - capital: \$861 million
  - return on equity: 18%.



# Why so profitable?

- No private shareholders.
- No bonuses, fees, commissions.
- No high-paid CEOs.
- No advertising.
- Massive deposit base – all state revenues.
- Partners with local banks, which act as the front office. No need for branches or ATMs.
- Savings are passed on to borrowers and communities.





# Local German public banks also outperform private banks



2015 report comparing private German commercial banks with public savings banks (Sparkassen), regional banks and credit unions:

Total deposits and loans are about the same. Yet private banks are less profitable and pay less than half the taxes.

Bonn, January 2015

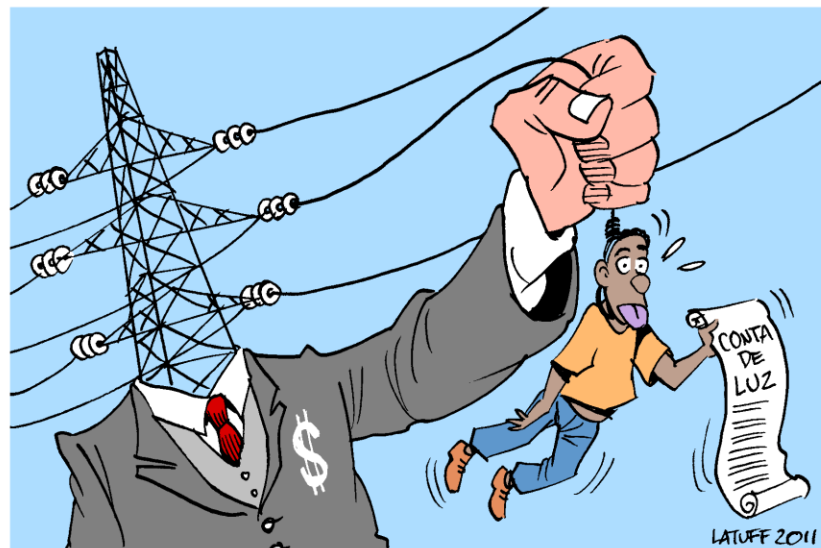
# Policymakers ask: Why do we need *publicly-owned* banks?

- We already have lots of banks, and governments have loan funds.
- The difference is **leverage** -- \$1 of capital can fund \$10 in bank loans.
- Private banks can leverage but are costly.

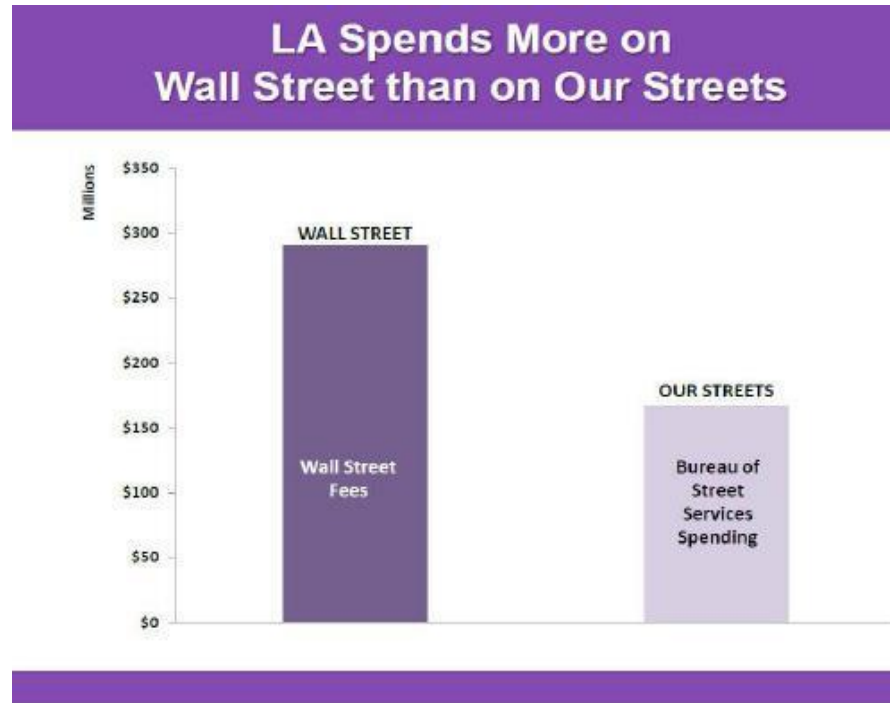


# The high cost of private finance

- School districts are paying over 3x principal on Capital Appreciation Bonds.
- Debt-strapped governments wind up privatizing public assets, which means high user fees and tolls.



# Bank fees are another huge cost.



Fact Tuesday: The City of Los Angeles last year spent more on Wall Street fees than it did on our streets—it paid Wall Street \$290 million in fees, spending only \$163 million on the Bureau of Street Services.

Source: *No Small Fees* report, [www.fixla.org/research](http://www.fixla.org/research)

# Half the cost of infrastructure is interest.

## **Bay Bridge retrofit:**

principal, \$6 billion;  
interest, \$6 billion.

## **Bullet train:**

principal, \$9.95 billion;  
interest, \$9.5 billion



# The magic of leverage -- IBank possibilities

Capital: \$400M unencumbered capital

Deposits: \$4B x 1% interest = \$40M cost of funds

Loans: \$4B less 10% = \$3.9B to lend or invest:

\$3B @ 3% = \$90M profit

\$.9B in required reserves @ 2% = \$18M

Gross profit: \$108M

less \$40M for interest

less \$41M non-interest costs (30% of profit)

Net profit: \$27M = 7% ROE



# Calif. Prop. 68 – Parks, Environment and Water Bond (2018)

## Interest owed in \$\$ billions



State Bond Cost Estimates	
Authorized new borrowing	\$4.0 billion
Average annual cost to pay off bonds	\$200 million
Likely repayment period	40 years
Source of repayment	General tax revenues

Principal	\$4.0B	\$4.0B
% interest	4%	3%
Duration	40 yrs	30 yrs
Total interest	\$4.00B	\$2.16B
\$\$ saved	0	\$1.84B
% interest saved	0	46%

# Potential savings for California

- 100% renewables required by 2045.
- Projected cost: \$350 billion.
- Projected savings if funded through public banks: \$90 billion (25%) (more if the fed funds rate goes to 0).





For more information –  
[PublicBankingInstitute.org](http://PublicBankingInstitute.org)  
[EllenBrown.com](http://EllenBrown.com)

