

A Monetary System for a Steady State Economy

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Current System: Vertical money



\$ taxes



\$ profits





Current System: Horizontal Money



$19\$ + i$
←
→
 $19\text{x}\$$



$19\$ + p$
←
→
 $19\text{x}\$$



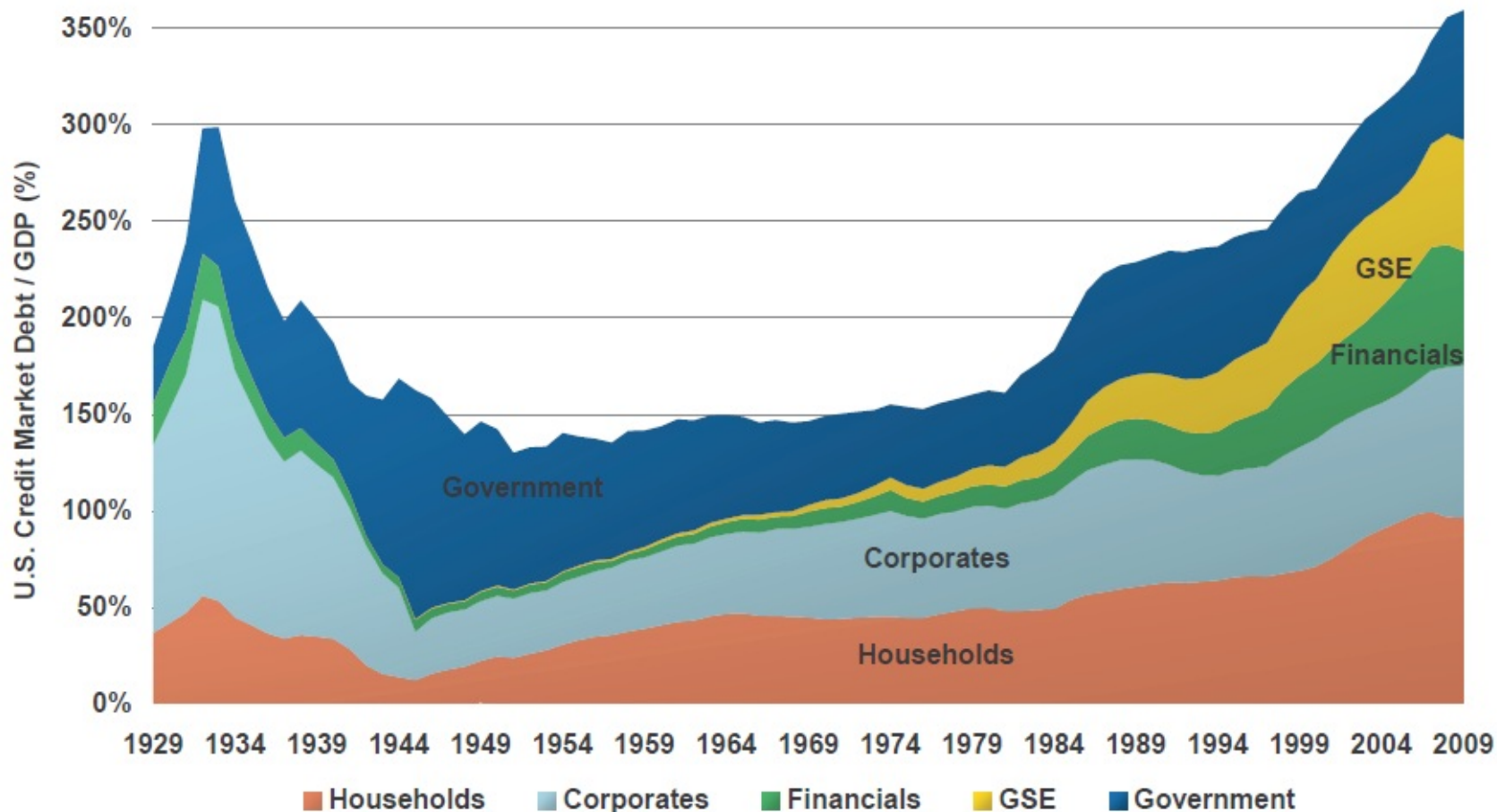
- ♦ What if there's a great lending opportunity, and bank has already lent $19\$$?
- ♦ Where do i (interest) and p (profit) come from?
- ♦ More loans or more vertical money required.
ECONOMIC GROWTH (physics and ecology)
- ♦ What if $p < i$?
- ♦ Procyclical monetary system (positive feedback loops)
 - ♦ Inherently unstable

Speculation on a full planet

- ♦ Essential resources and inelastic demand
 - ♦ Food, energy, water, land
- ♦ Growing scarcity and inelastic supply
 - ♦ Food, energy, water, land
 - ♦ Stocks (not scarce, but inelastic supply)
- ♦ Increasing concentration of wealth, hence pool of speculative capital
- ♦ Speculation drives up short term financial returns on investment, reproduction rates of natural resources can rarely compete

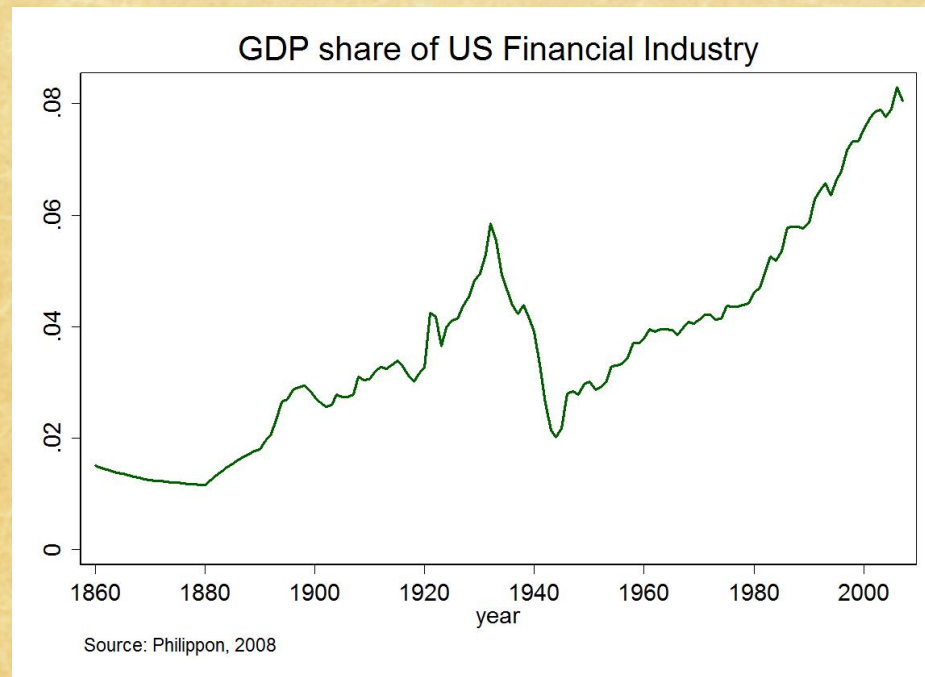
Total Government + Private Debt in USA – At Historic High of 360% of GDP

USA Total Credit Market Debt Outstanding as % of GDP, 1929 – 2009



Growth and Inequality or Collapse

- ♦ Debt is 360% of GDP and growing faster than GDP
- ♦ Interest on total debt is likely to be 15% of GDP.
Direct transfer to lenders



Goals for the Needed Monetary System

- ♦ Ecological sustainability
 - ♦ Steady state throughput
- ♦ Just distribution
 - ♦ Fair distribution of wealth/assets provided by nature or by society as a whole (e.g. unearned income), within and between generations Fair return to labor and earned assets
- ♦ Efficient allocation
 - ♦ Max QOL/sustainable throughput

Sustainable System: Vertical money, 100% fractional reserve, green taxes



Taxes,
AEAs



Characteristics of desired system:

- ♦ Money Creation
 - ♦ Spent on public goods
 - ♦ Easy to target unemployment, misery, poverty
 - ♦ Central bank purchases state/municipal bonds
 - ♦ Decentralizes money creation, fiscal policies
 - ♦ Loaned into existence
 - ♦ Can be deposited in banks that service community, available for banks to lend
- ♦ Money destruction
 - ♦ Auctioned Environmental Allowances set according to ecological constraints
 - ♦ Tax unearned income
 - ♦ May need net creation to cover currently unpriced transactions, or net destruction as we reduce throughput

Characteristics of desired system:

- ♦ Countercyclical (negative feedback loops)
- ♦ Society as a whole benefits from seigniorage
- ♦ Not dependent on growth

Rethinking taxation

- ♦ Not required for government revenue
- ♦ Required to:
 - ♦ reduce resource use
 - ♦ back dollar
 - ♦ achieve desirable income distribution
 - ♦ adjust aggregate demand, reduce money supply

Fiscal Policy

- ♦ Expenditures
 - ♦ Government can target money to address unemployment, misery, poverty; provide public goods; restore natural capital
- ♦ Taxation
 - ♦ Tax rent, natural resource extraction, waste emissions
 - ♦ Dramatic income tax increases, asymptotically approaching 100%
 - ♦ How much residual is enough for rich?
 - ♦ \$5,000,000=99.9% tax rate
 - ♦ \$1,000,000= 99.98% rate
 - ♦ Relative wealth

Marginal tax rates and income share for top 0.1%

