

The present money system and concepts of sovereign money

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1.

The present money system

2.

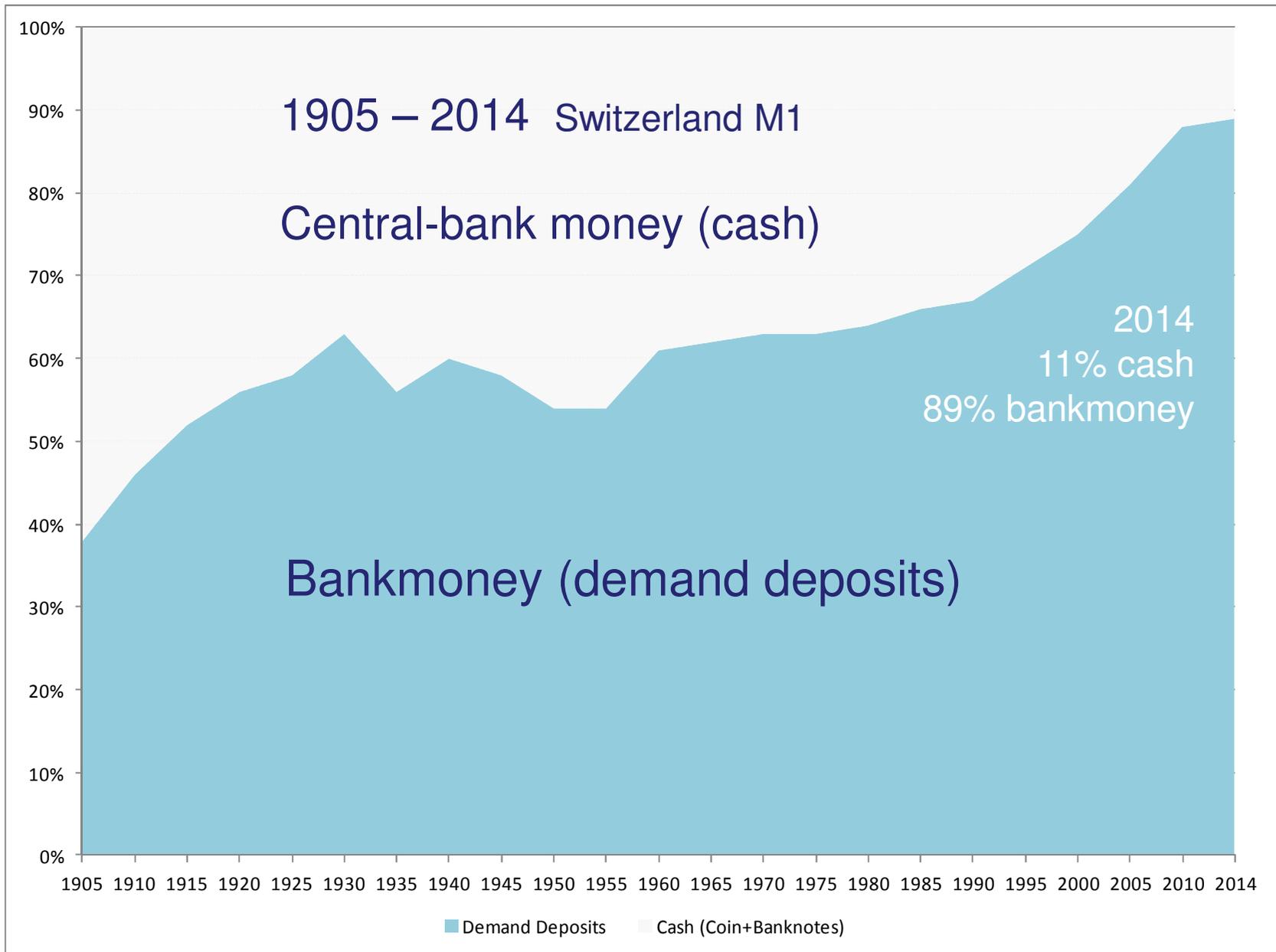
Conclusions regarding the
money system and monetary policy

3.

Considering sovereign money

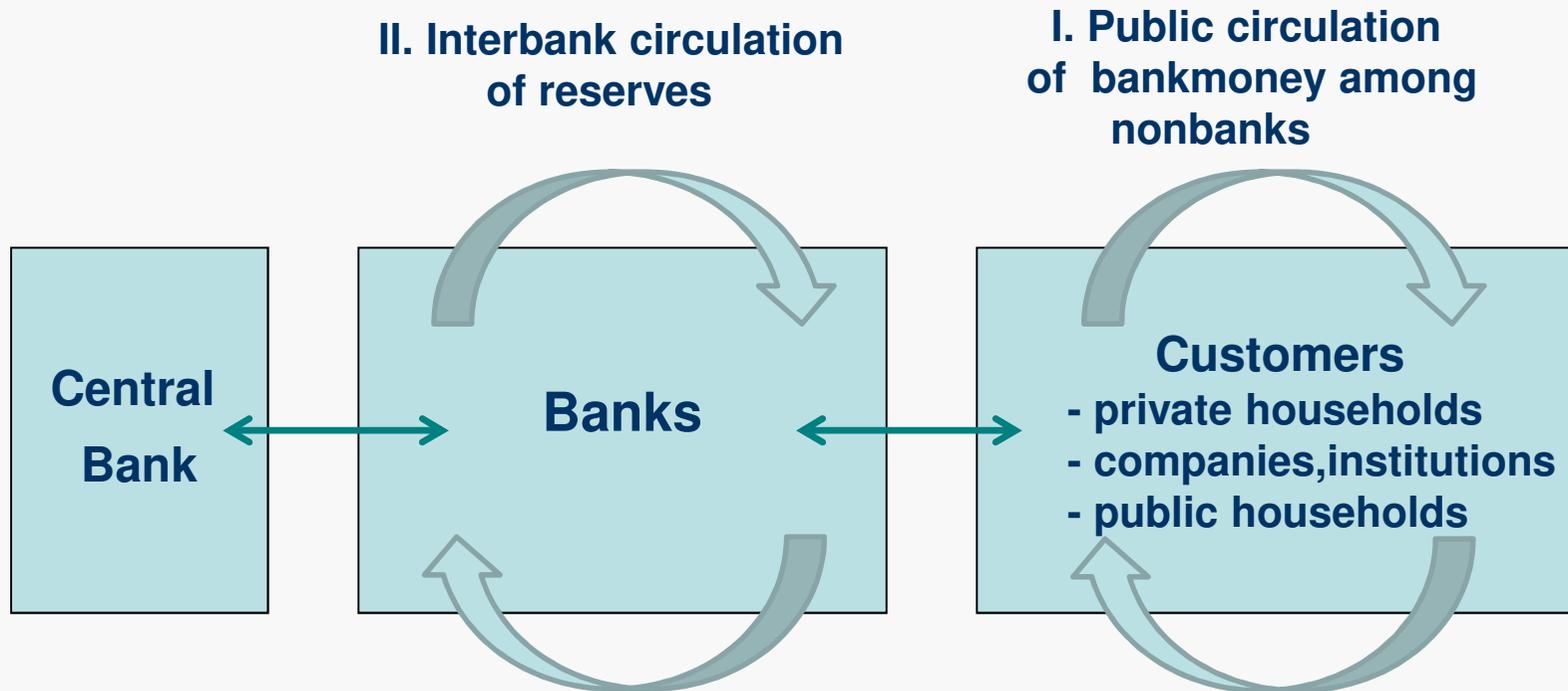
1. The present money system

A bankmoney regime based on a fractional base of central-bank cash and reserves



Data: Swiss National Bank, Historical Time Series, No.1, Feb 2007, 1.3, 2.3 - Monatshefte, Tab. B2

Two-Tier Split-Circuit Money and Banking System



Payment from bank to nonbank creates bankmoney,
payment from nonbank to bank deletes bankmoney.

The amount of reserves in interbank circulation is only a fraction
of the amount of bankmoney in public circulation.

Fractionality of Reserves

In order to create and maintain 100 units of demand deposits, the euro banking sector needs fractional 'coverage' in central-bank money of about 2.5%, composed of

- 1.4% cash (coin and banknotes for the ATMs)
- 0.1% liquid reserves (excess res.) for the settlement of payments
- 1.0% obligatory minimum reserve

EU ~ 2.5%

UK ~ 1.5%

USA ~ 8%

How can this be?

Operating principles of fractional reserve banking

- **Outflows = Inflows**

Payments to customers to and fro banks rather than customers, so that outgoing reserves from a bank are incoming reserves in other banks, and vice versa – being reused immediately

- **Non-segregation of client money**

No requirement to keep own money and client money in separate accounts. All outgoing and incoming payments of a bank are processed via one and the same operational central-bank account of a bank.

- **Distributed transactions**

i.e. payments are spread over time and actors and do not include all of the bankmoney at once, with outgoing and incoming payments largely offsetting each other.

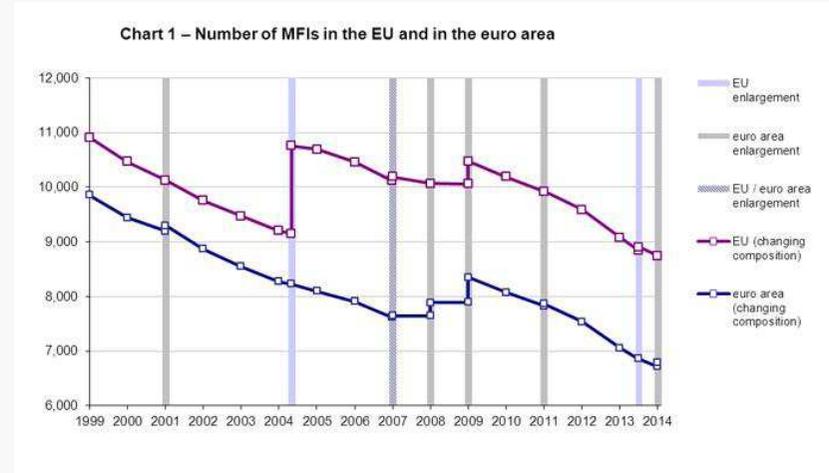
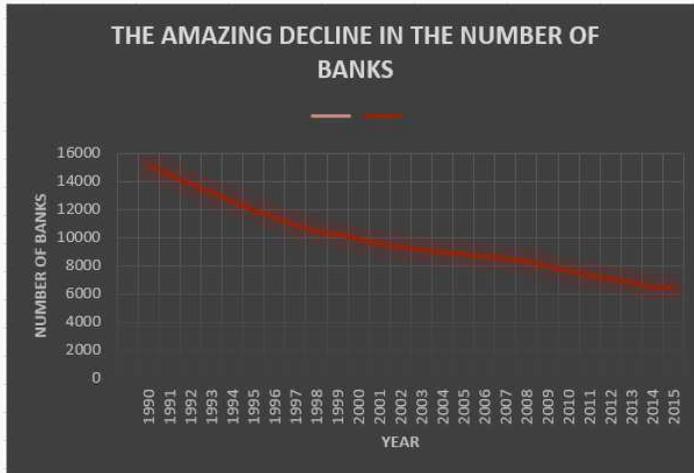
Put differently: velocity of interbank circulation > public circulation.

- **Cooperative bankmoney creation**

Pace and rate of credit extension and bankmoney creation must be largely in step, and the banks must accept each other's transfer of deposits (bankmoney).

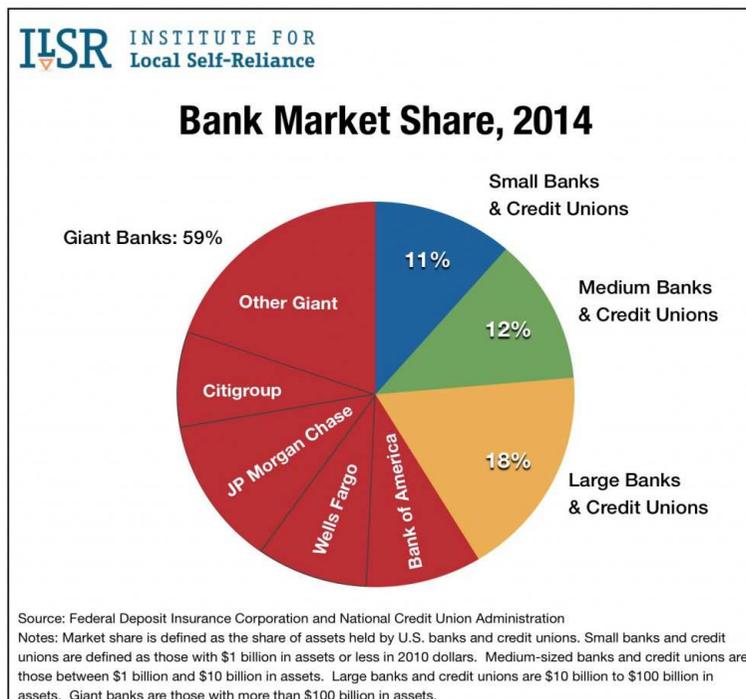
fewer and larger banks making ever more payments cashless in ever faster payment systems

Fewer and fewer banks ...

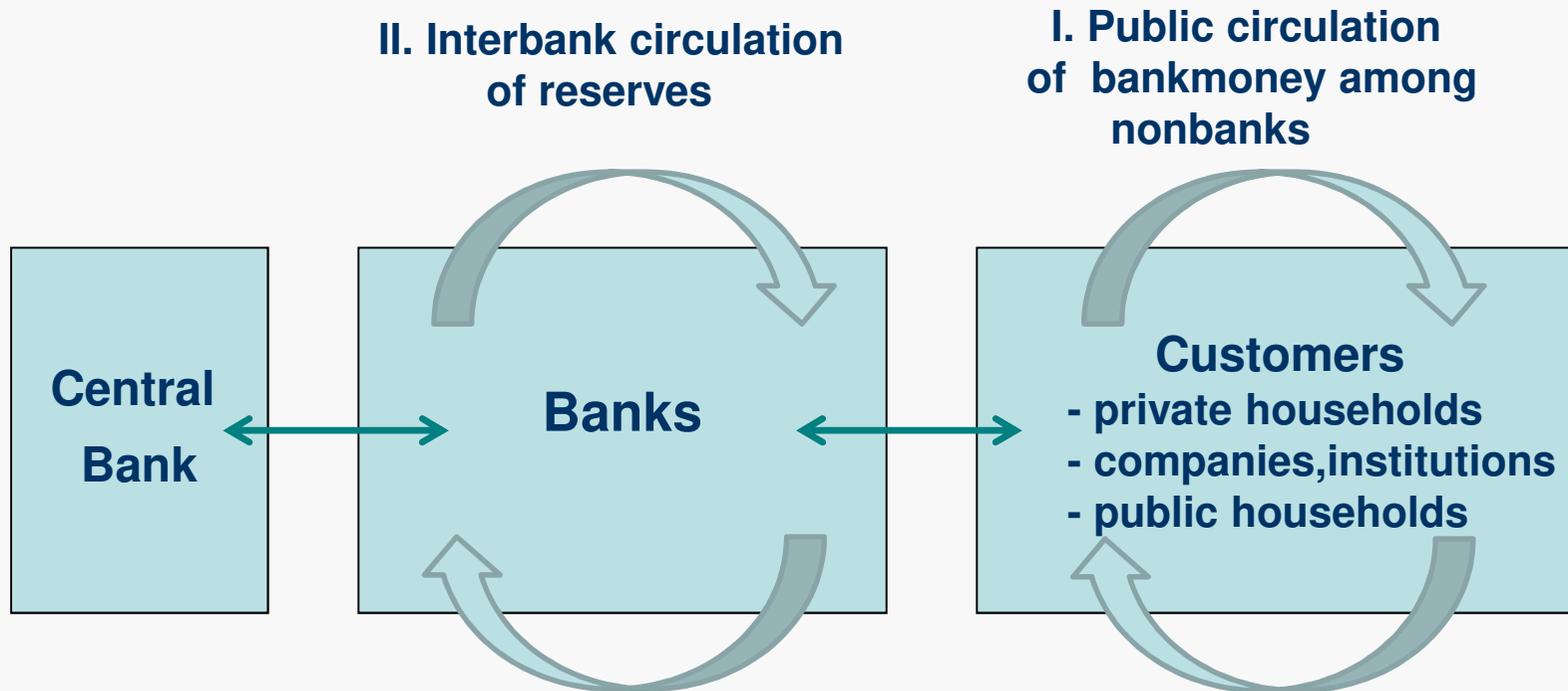


- ... ever larger, incl. ever more customers per bank
- ... ever more cashless
- ... ever faster payments

Sources: Roisin McCord, Edward S. Prescott, Tim Sablik, Explaining the Decline in the Number of US Banks, Federal Reserve Bank of Richmond, Economic Brief March 2015, 1–5. ECB Press Release 21 Jan 2014, Decline in the number of MFI continued. – ILSR Banking Blog <https://ilsr.org/vanishing-community-banks-national-crisis/>

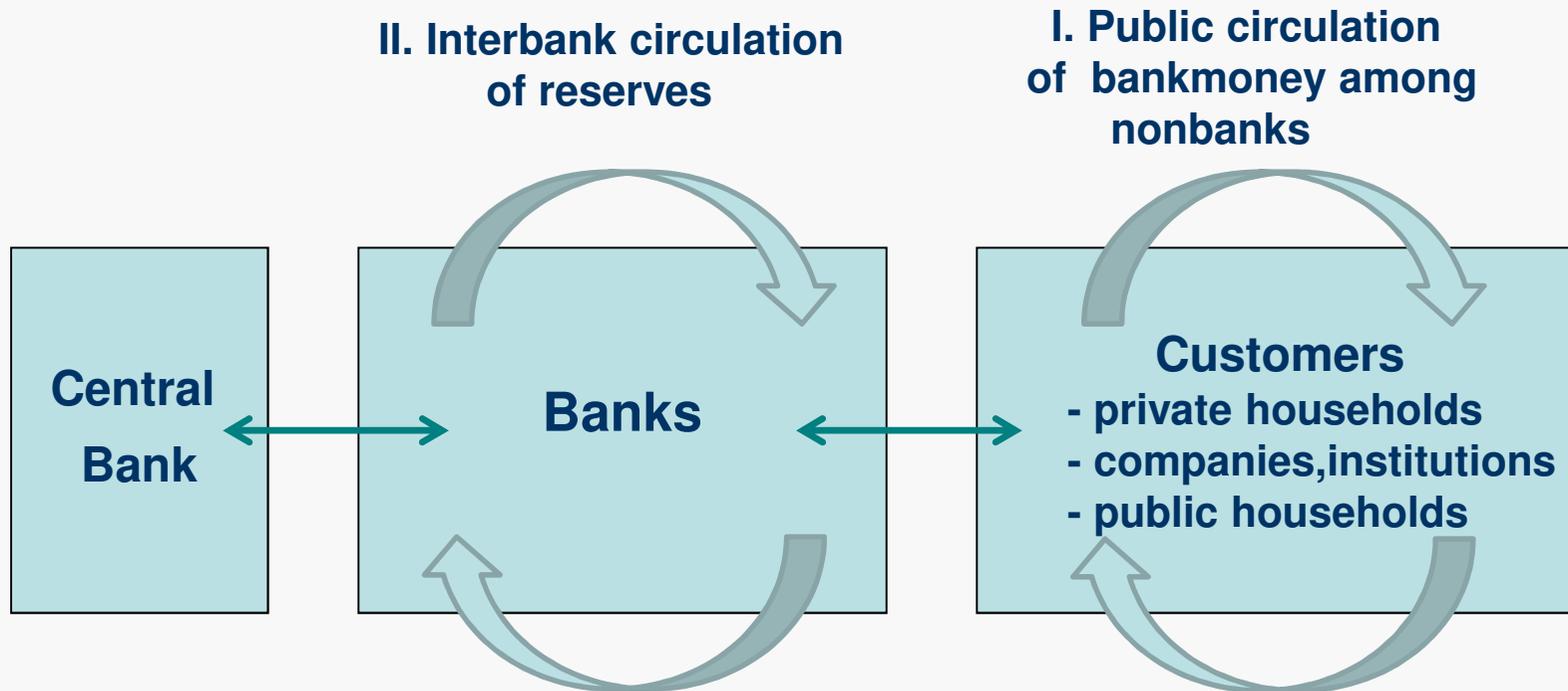


The system is bank-led



The initiative of money creation is with the banks. Central banks re-finance the banks, re-actively, upon or after the fact. Cbks always accomodate the facts the banks have created beforehand. By their pro-active lead in primary credit creation (bankmoney creation), banks determine the entire money supply, including the accomodating creation of reserves and cash by the central banks.

It's a bankmoney regime rather than representing a sovereign currency system



... backed by the central banks and warranted by the government, in periods of business-as-usual anyway, the more so in times of crisis, if need be by massive QE = monetisation of debt (public debt, bank debt, corporate debt).

The monetary root cause of many financial problems: GDP-disproportionate money supply

Switzerland 1992 – 2008

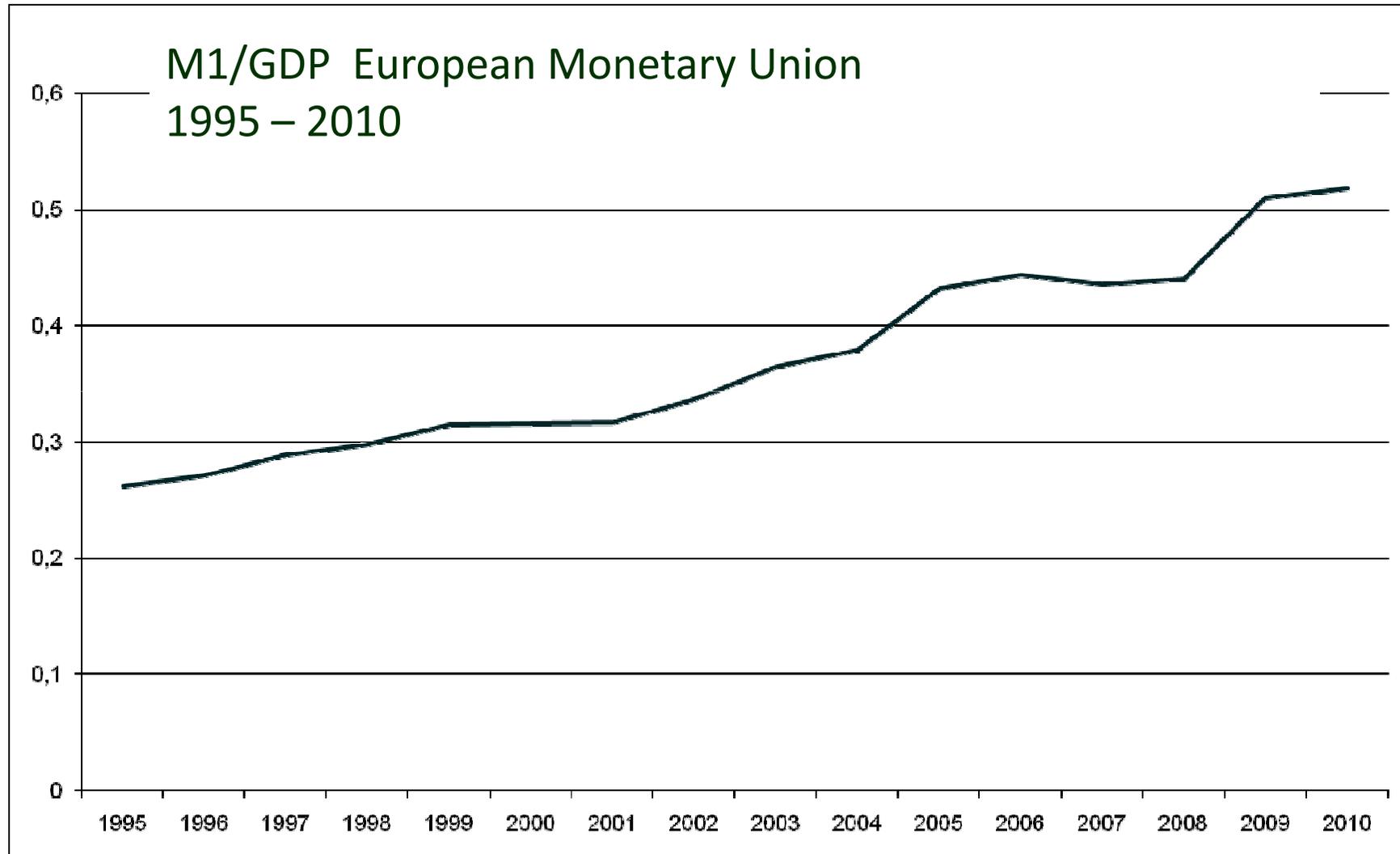
M1	121 %
GDP nominal	37 %

Germany 1992 – 2008

M1	189 %	[73% of increase]
GDP nominal (price-inflated)	51 %	[15% of increase]
GDP real (price-deflated)	23 %	[12% of increase]

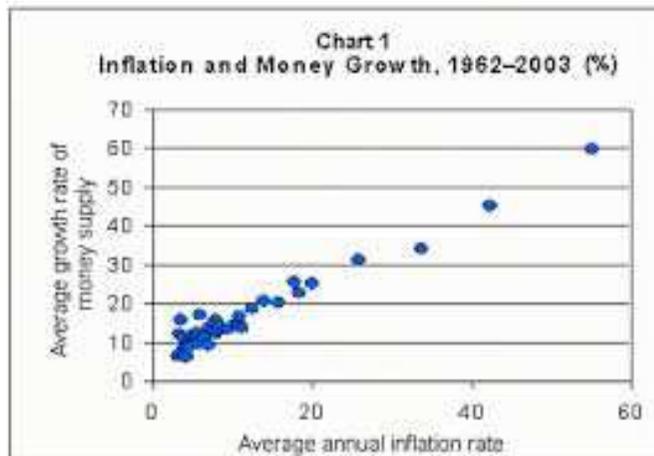
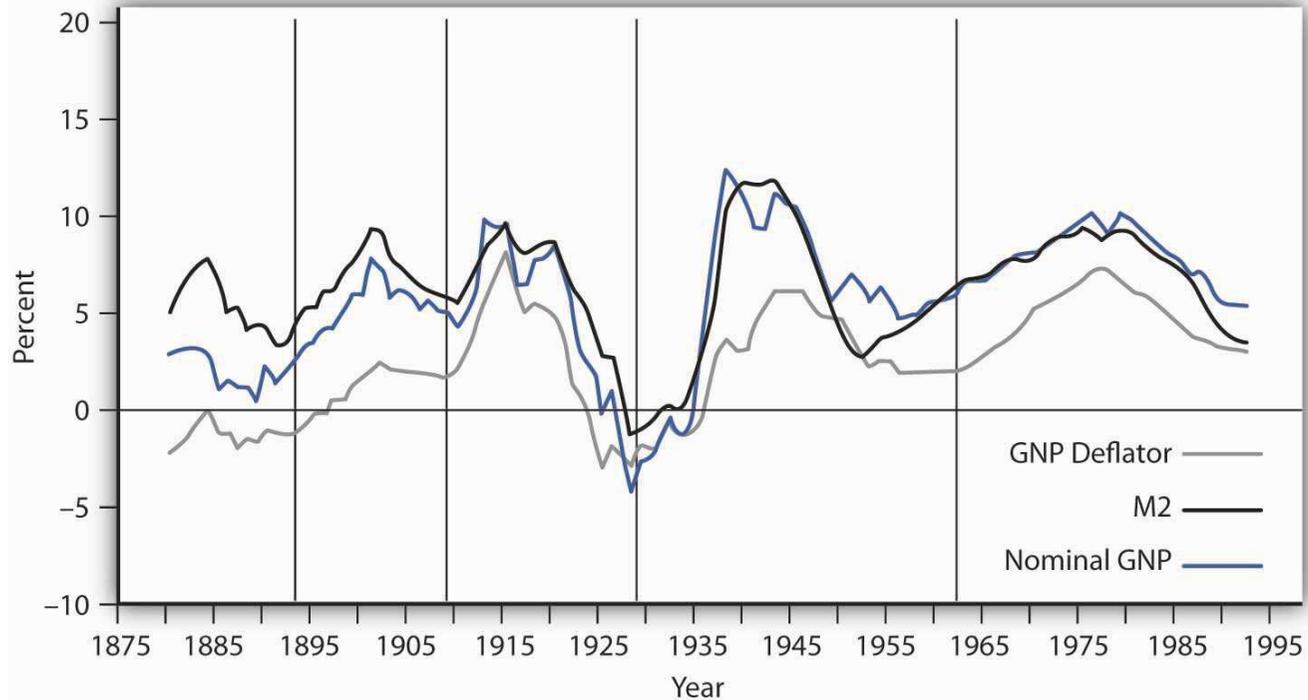
Sources: www.bundesbank.de/statistik/zeitreihen; Deutsche Bundesbank, Monthly Bulletins, Tables II.2; Schweizerische Nationalbank, Monatsberichte, Tab. B2, P1

Bankmoney creation is out of control and growing in disproportion to GDP, resulting in inflation, asset Inflation and bubble building



Data: http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/data/database

Disproportionate growth of the money supply is still accompanied by inflation



William G. Dewald 1998: Historical U.S. Money Growth, Inflation, and Inflation Credibility, *Federal Reserve Bank of St. Louis Review* 80:6. Nov/Dec 1998, 13–23.

Bank of Canada - www.bankofcanada.ca/publications/books-and-monographs/why-monetary-policy-matters/1-economy/

The monetary root cause of many financial problems: GDP-disproportionate money supply

Britain 1980 – 2008

M4 (broad money)	1'744 % [77% of increase]
GDP nominal (price-inflated)	392 % [16% of increase]
GDP real (price-deflated)	121 % [7% of increase]

United States 1980 – 2008

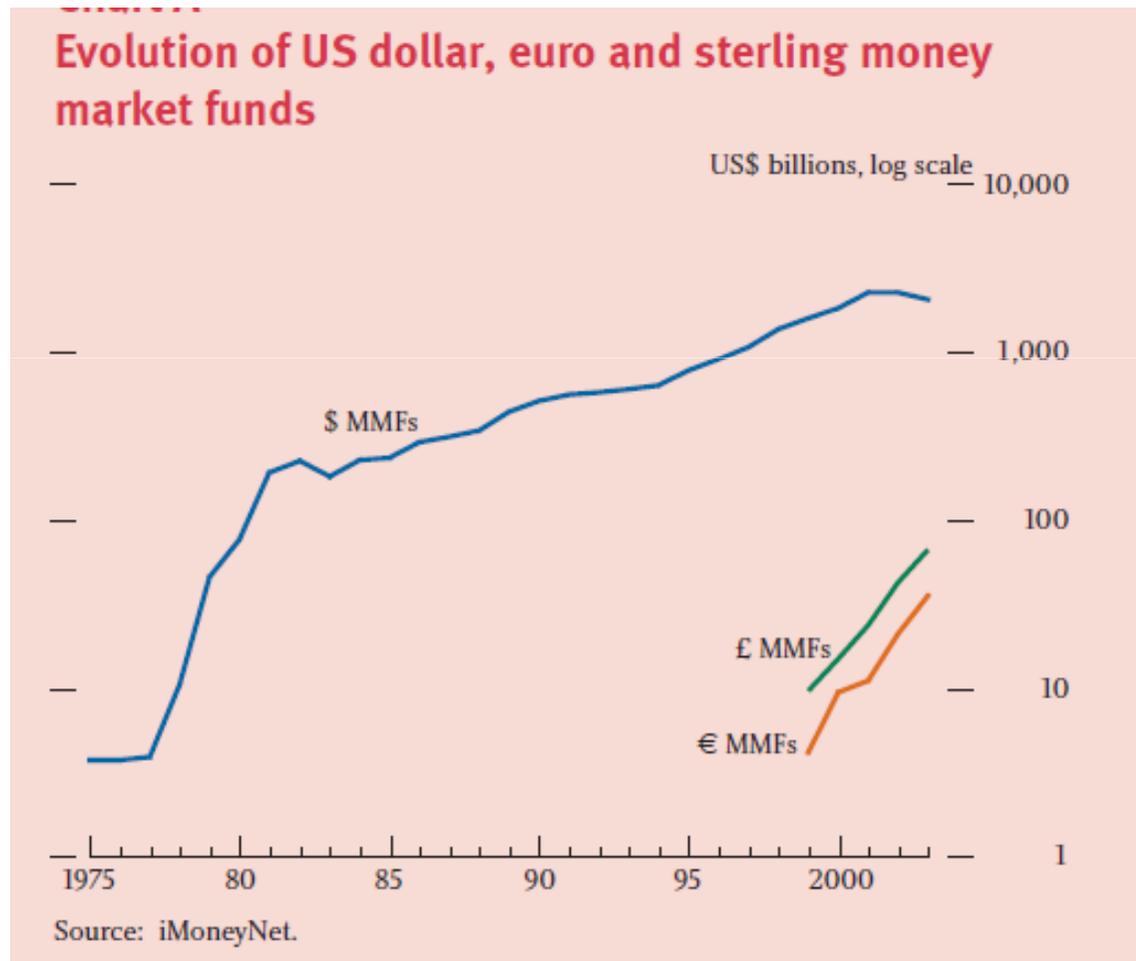
M2 (broad money)	413 % [7% of increase]
GDP nominal (price-inflated)	386 % [62% of increase]
GDP real (price-deflated)	129 % [31% of increase]

Sources: FRED Economic Data St. Louis Federal Reserve, <https://research.stlouisfed.org/fred2/series/M2,/GDP,/GDPCA>. - Bank of England, Quarterly amounts outstanding of M4, of M1 (UK estimate of EMU aggregate), <http://www.bankofengland.co.uk/boeapps/iadb>. - Office for National Statistics, <http://www.ons.gov.uk/ons/datasets-and-tables/index.html>; Quarterly National Accounts, Time Series Data

Emergence of a new money surrogate: Money Market Fund shares, used as a deposit-like means of payment in financial transactions

Money Market Fund Shares

used as deposit-like new money surrogates on the basis of bankmoney



Sources:
Baba/McCauley/Ramaswamy 2009
68, Hilton 2004 180, Mai 2015.

Emergence of a new money surrogate: Money Market Fund shares used as a deposit-like means of payment in financial transactions

Money Market Fund Shares (in USD)

USA 1980 – 2008

MMF-shares	~ 90 bil	→ 3.800 bil	+ 4.222%
GDP nominal			+ 37 %

EU 1998 – 2008

MMF-shares	~ 8 bil	→ 1.300 bil	+ 16.250%
GDP nominal			+ 51 %

The monetary root cause of many financial problems: GDP-disproportionate credit-and-deposit creation

billions units	nominal GDP 2008	1/12 = assumed M1	actual M1	overshoot coefficient
Britain	£ 1'550	£ 127	£ 1'029	8.10
Eurozone	€ 9'259	€ 772	€ 3'974	5.15
Germany	€ 2'496	€ 208	€ 1'028	4.94
Suisse	SFr 597	SFr 60	SFr 273	4.57
USA	\$ 14'369	\$ 1'193	\$ 1'616	1.35

Sources: Bank of England, Quarterly amounts outstanding of M4, of M1 (UK estimate of EMU aggregate) www.bankof-england.co.uk/boeapps/iadb. - Office for National Statistics, <http://www.ons.gov.uk/ons/datasets-and-tables/index.html>; Quarterly National Accounts, Time Series Data. - European Central Bank, Monthly Bulletin, Tables 2.3, 2.4, 5.2.1. - Bundesbank, Monatsberichte, Tables II.1, XI.1. - Banque Nationale Suisse, Bulletin mensuel, Tab. B2, P1. - www.federal-reserve.gov/Releases/H6/hist/h6hist1.txt. - FRED Economic Data St. Louis Federal Reserve, <https://research.stlouisfed.org/fred2/>, series/ M1, series/GDP.

Main channels of monetary overshoot

There are three main channels through which the extension of primary bank credit, thus additional bankmoney, contributes to credit bubbles, financial asset bubbles, and over-indebtedness of actors involved:

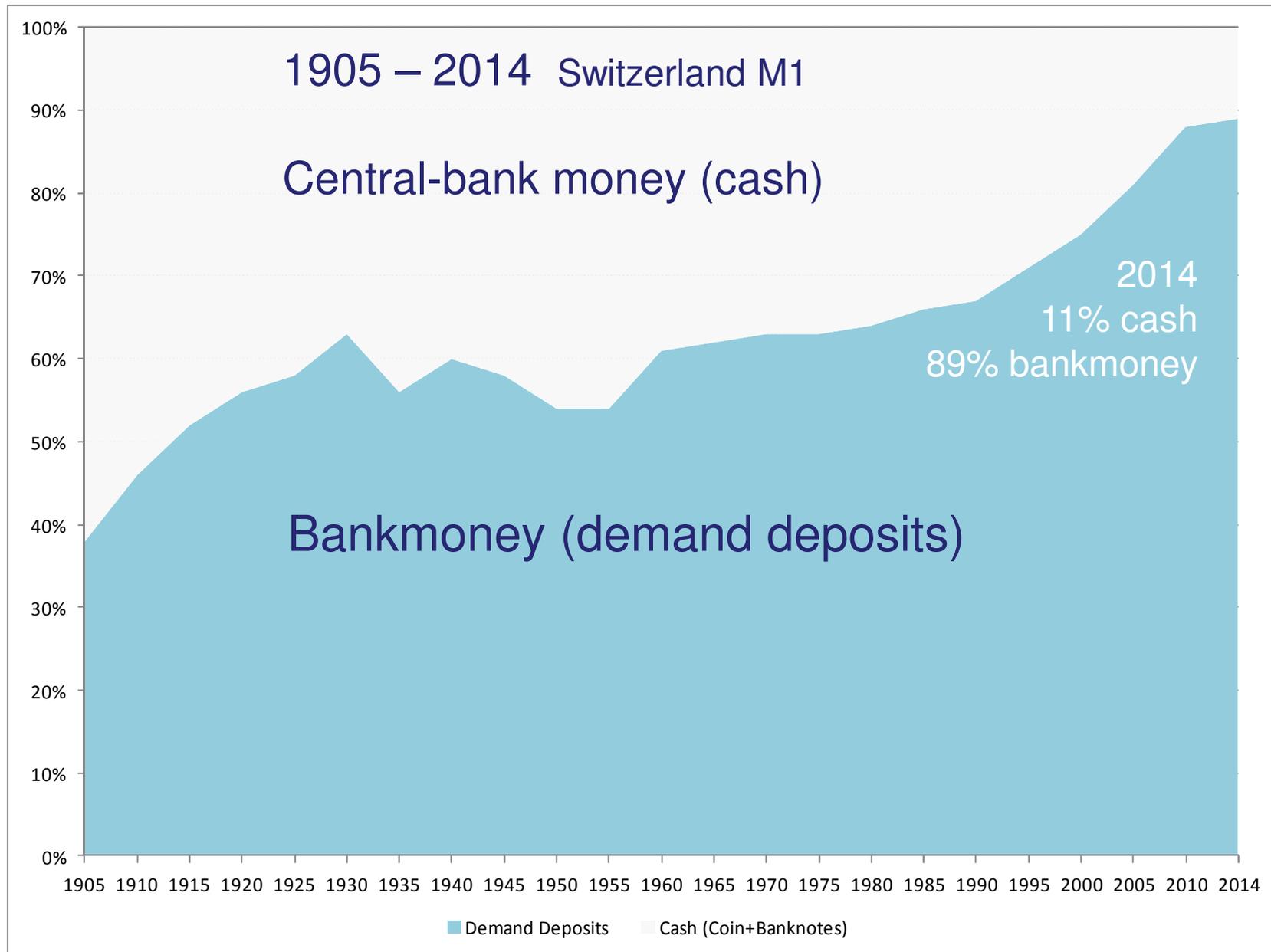
- funding **mortgages and real estate**
- **funding public debt**. The volume of sovereign bonds and bills is nothing but just another bubble, in fact the biggest bubble of all
- **direct leverage of speculative portfolio investment** in stocks, real estate, forex, derivatives, private equity (e.g. hostile leveraged buy-outs most of which are credit-funded).

The Great Immoderation ~ 1980–2008

Setting in after final demise of gold dollar and with globalisation incl. deregulation of financial markets, almost chronic US double deficit, excessive public debt, and housing and stock market bonanzas.

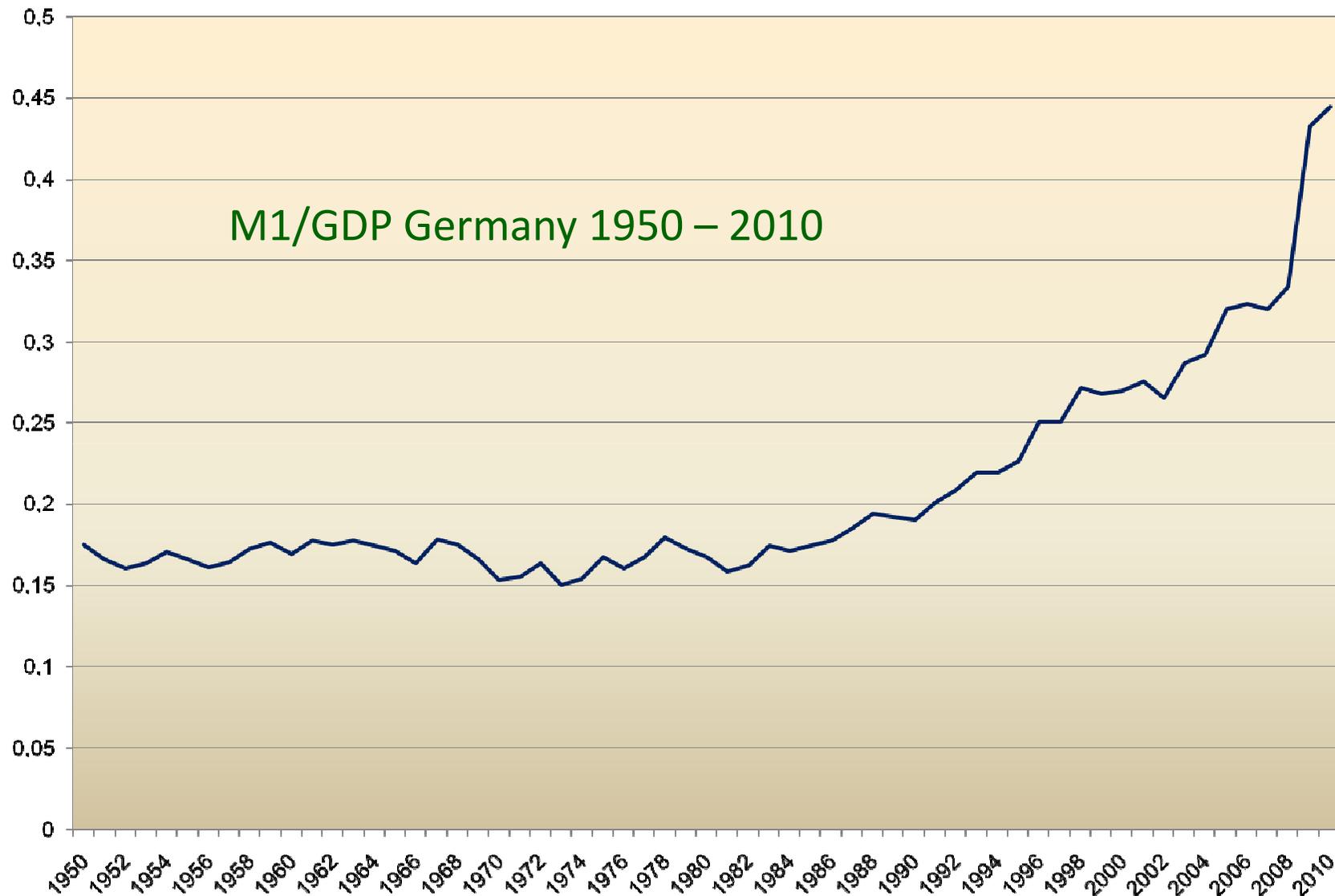
- final supersession of central-bank money by bankmoney
- GDP-disproportionate increase in monetary aggregates
- GDP-disproportionate growth in investment banking and overall financialisation, also to be seen in GDP-disproportionate growth of financial assets and debt (public, financial leverage, private households, industrial-corporate least)
- increasingly unequal distribution of income and wealth

Final supersession of central-bank money by bankmoney



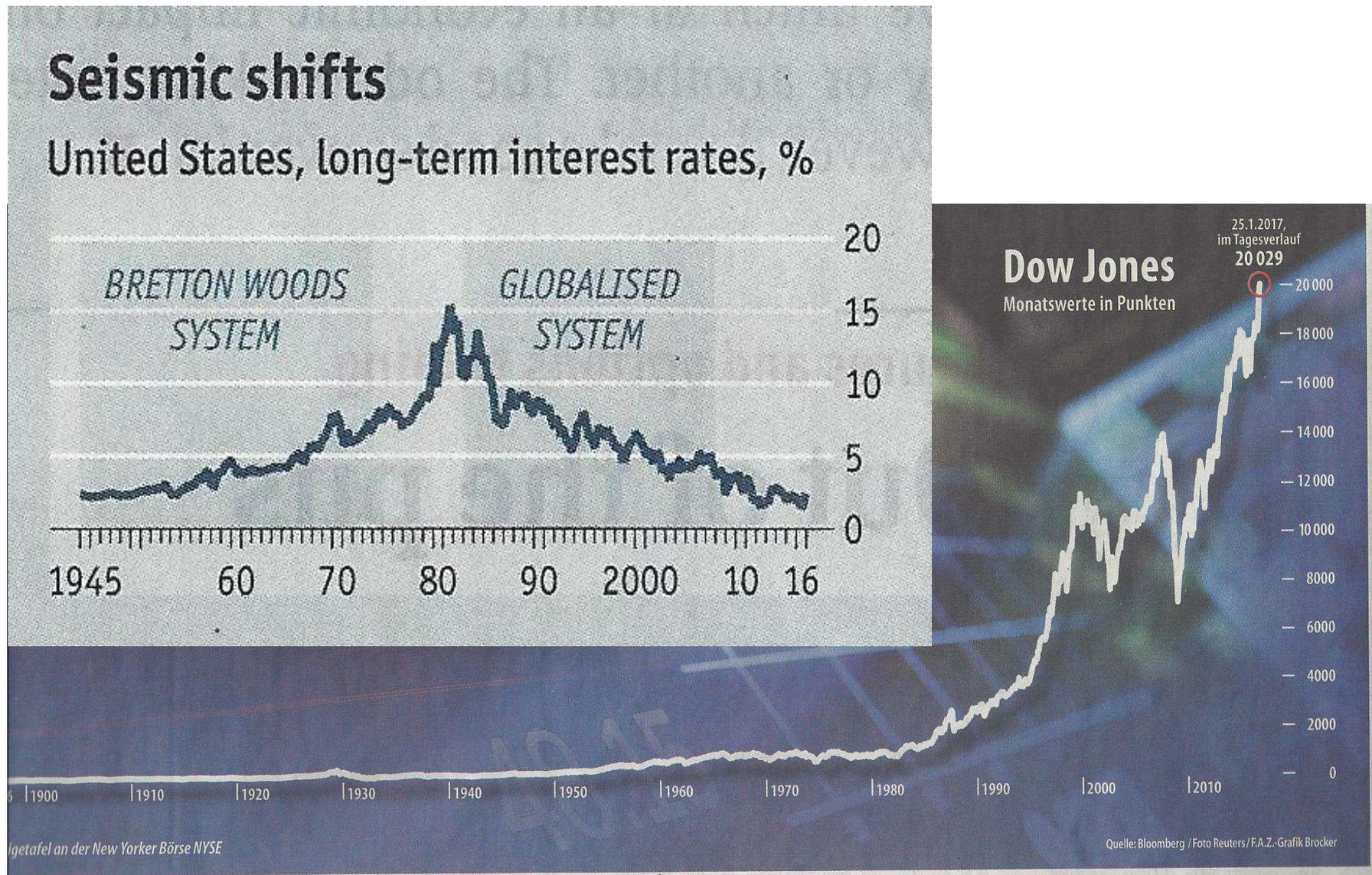
Data: Swiss National Bank, Historical Time Series, No.1, Feb 2007, 1.3, 2.3 - Monatshefte, Tab. B2

Bankmoney creation out of control. GDP-disproportionate growth in monetary aggregates



Data: http://www.bundesbank.de/statistik/statistik_wirtschaftsdaten_tabellen.php#wirtschaftsentwicklung

GDP-disproportionale growth in investment banking and overall financialisation – asset inflation, asset and debt bubbles

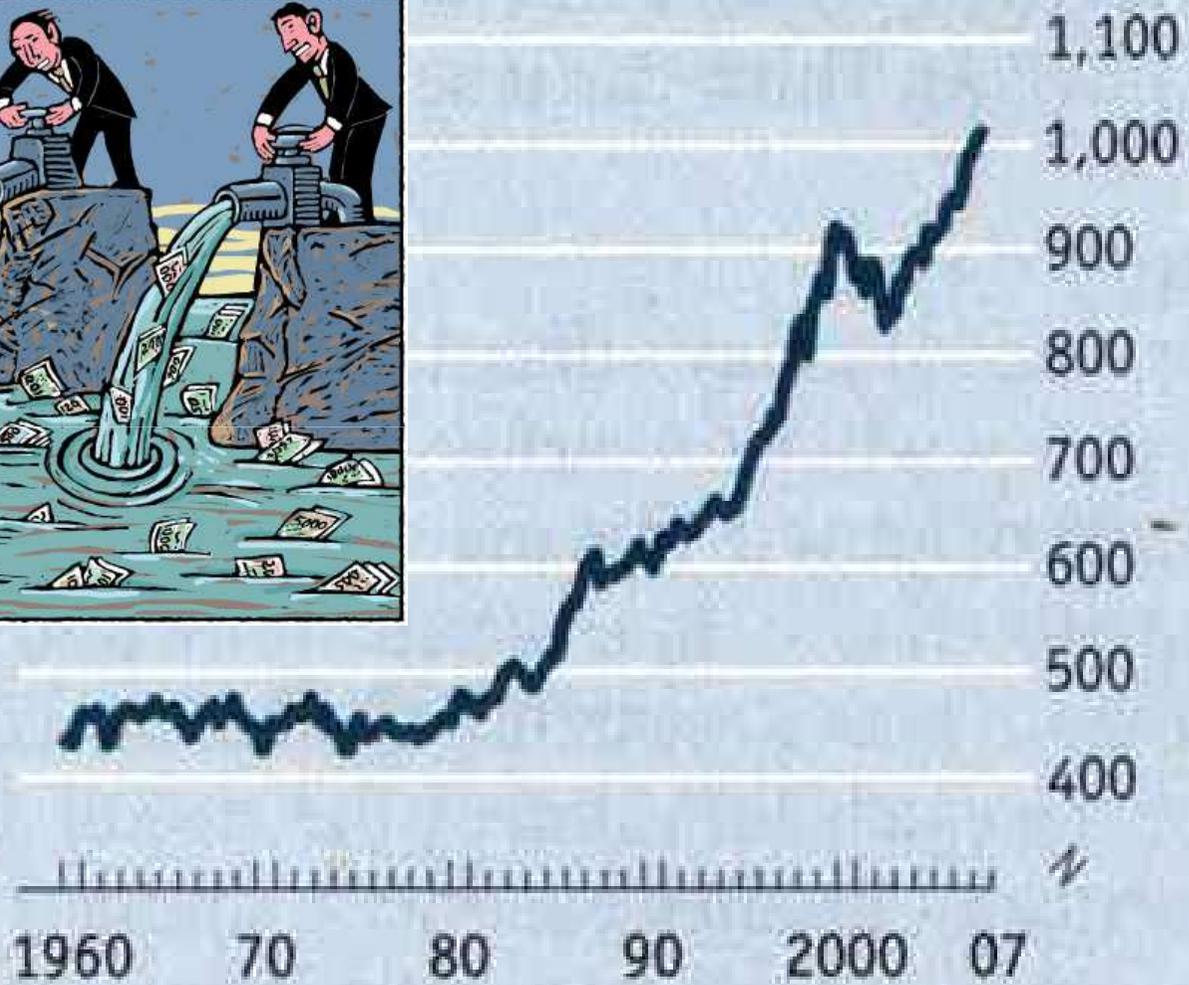


Sources: *The Economist* Jan 7th 2017,55; *Frankfurter Allgemeine Zeitung* 26 Jan 2017,23

GDP-disproportionate expansion of financial assets



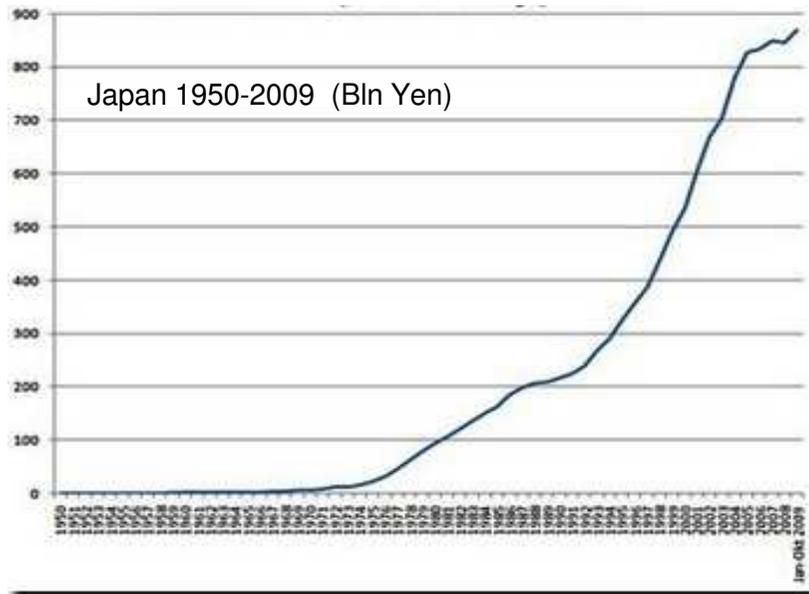
US financial assets as a % of GDP



Sources: Thomson Datastream; Federal Reserve

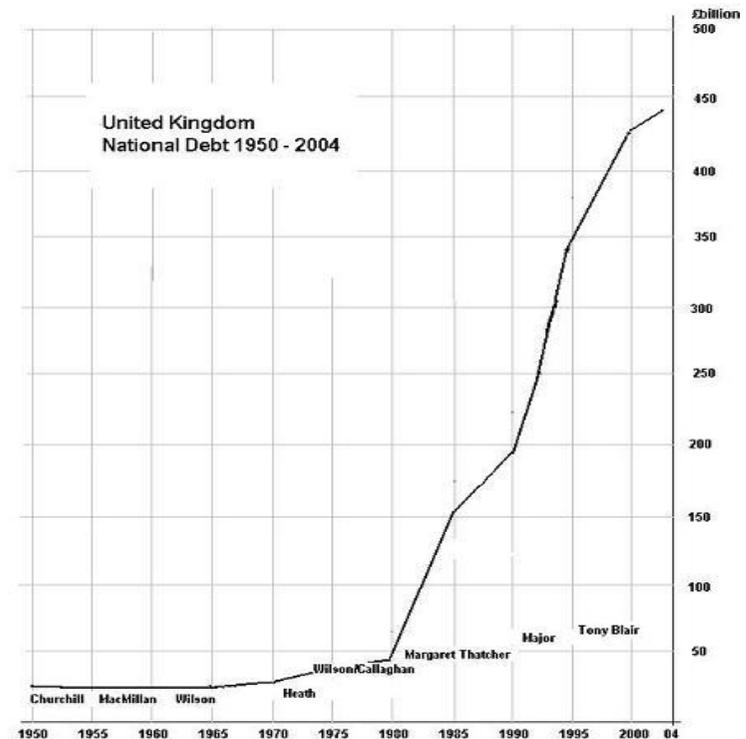
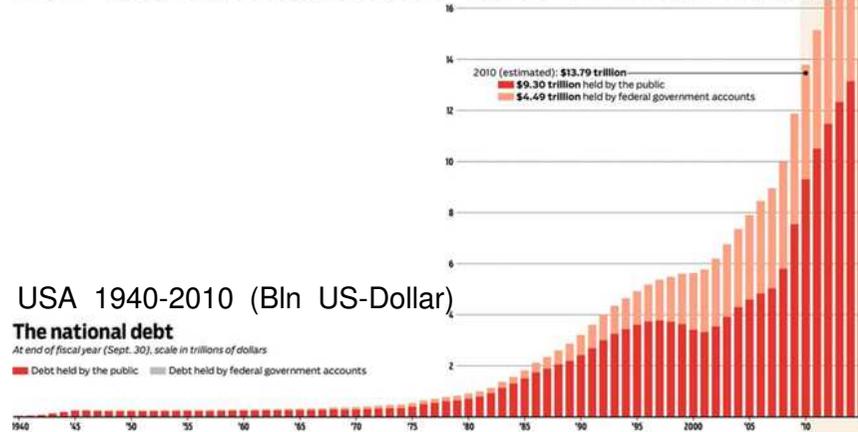
Sources: Trader's Narrative, November 7th, 2009. The Economist, March 22, 2008. Andere Abgrenzungen erbringen ein niedrigeres Niveau, aber gleiche Proportionen, z.B. bei Ashok Vir Bhatia 2011: Consolidated Regulation and Supervision in the United States, IMF Working Paper, No.23, 2011, p.8.

GDP-disproportionate growth in public debt in old-industrial countries

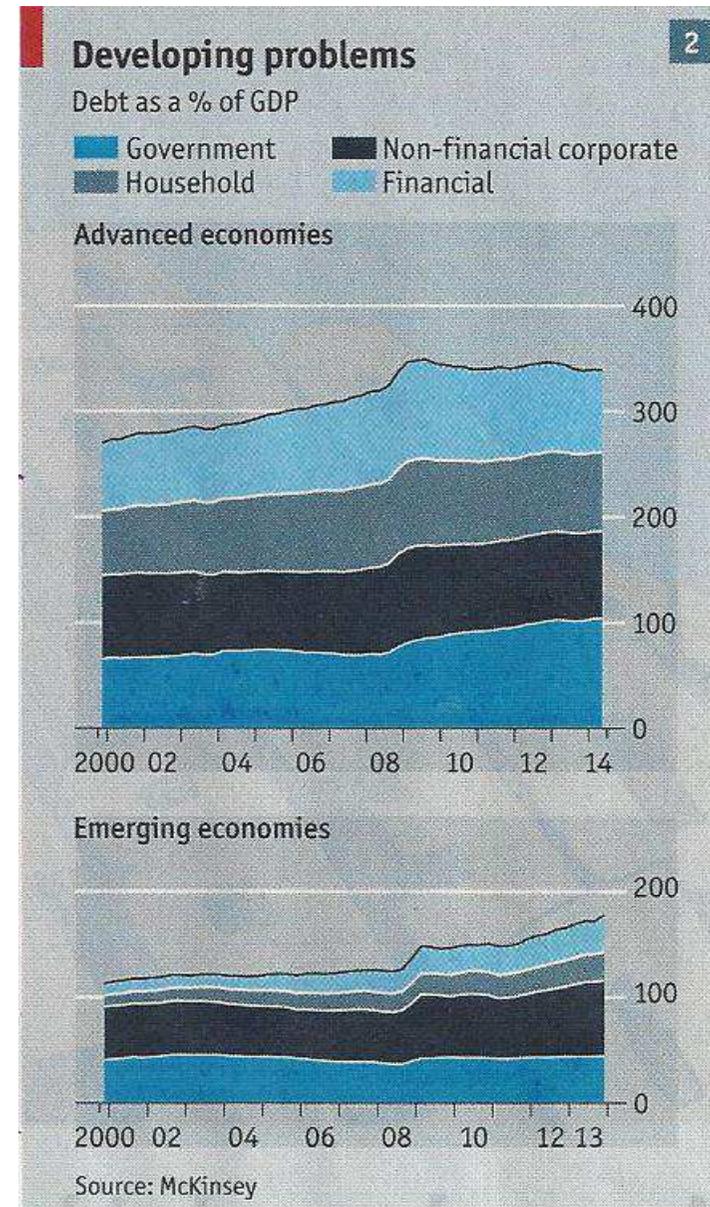
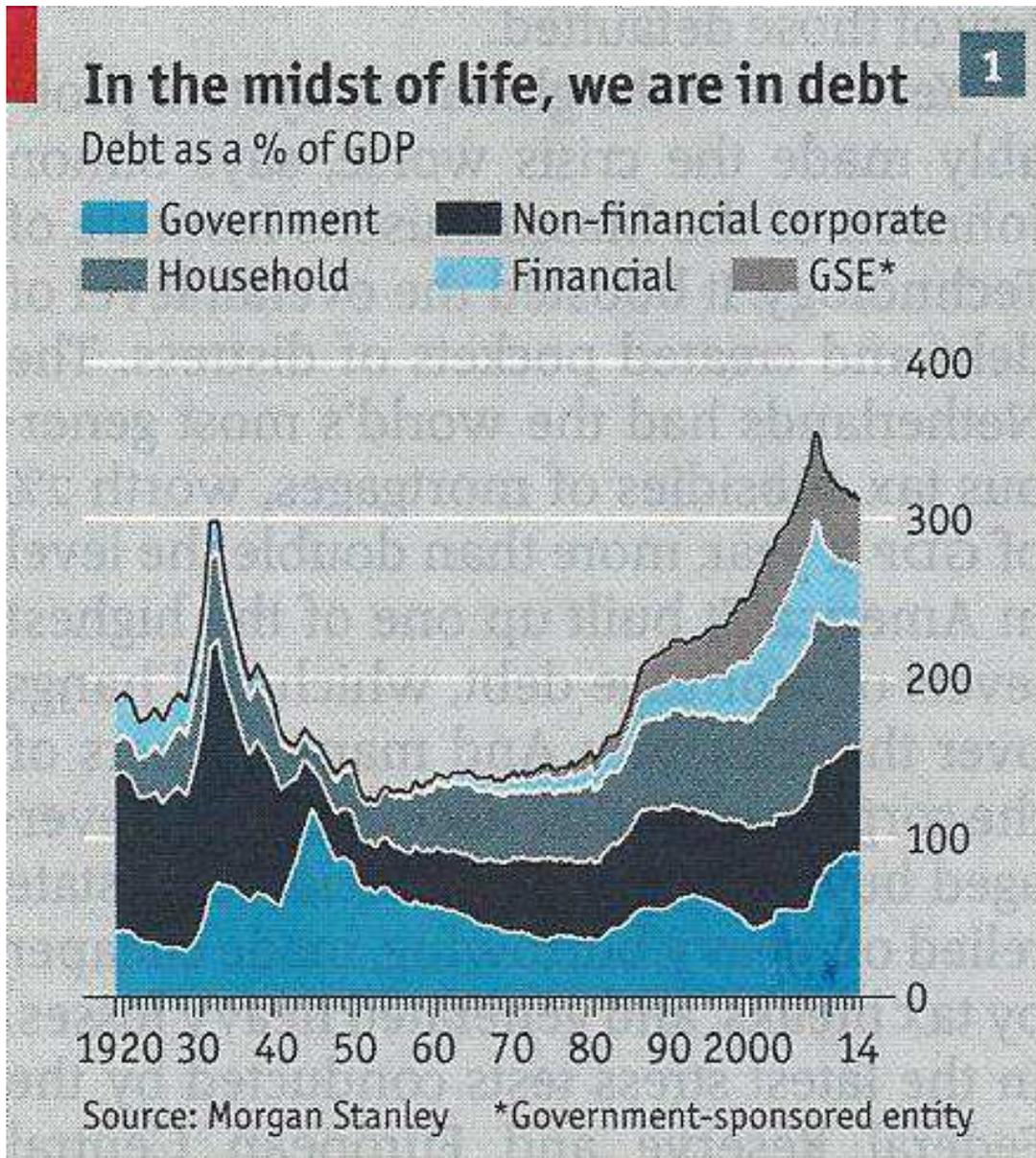


UNDERSTANDING THE NATIONAL DEBT

A tsunami of red ink



Supercycle of Total Debt



Found: The Economist, 16 May 2015, 20

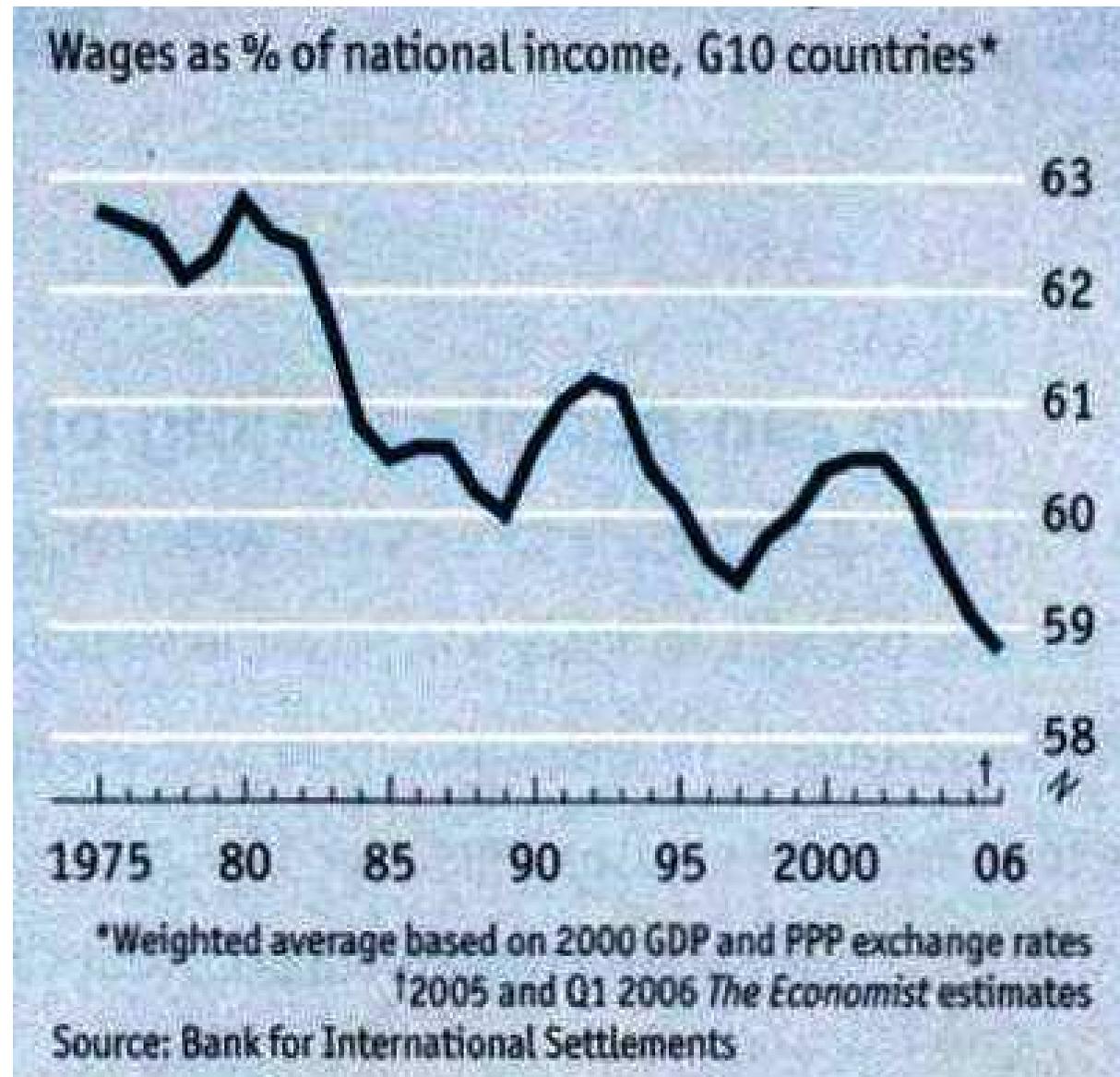
GDP-disproportionate growth in financial assets and debt causes a shift in income distribution – to the benefit of financial income at the expense of earned income

because any current income (taxes, labour, interest and payback of principal) has to be paid out of current proceeds from GDP – or paid with additional debt.

If interest-bearing and otherwise rent-drawing monetary and financial assets grow in disproportion to GDP, this will lead to a disproportionately growing share of capital revenue, or interest respectively, and correspondingly a declining share of earned income.

Growing share
of financial
income ...

... at the expense
of earned income



Increasingly unequal income distribution again



Found: The Economist, 6 June 2015, 7. Based on Atkinson, Inequality, 2015, pp.17.

2.

Conclusions regarding the
money system and monetary policy

- I. The importance of the monetary system has not been given due attention
- II. Money creation is out of control

Dysfunctions of the bankmoney regime

- unnecessarily complicated and opaque
- fosters financial instability. The credit/debt creation, thus creation of bankmoney, is out of control. The money supply is pro-cyclically overshooting, resulting in
 - inflation, currency depreciation, and asset inflation
 - extreme oversteering of business cycles and financial cycles, resulting in severe crises (see figures next slide)
- In a banking crisis, bankmoney turns out to be unsafe.
- GDP-disproportionate growth of the quantity of money and financial fortunes contributes to distributional inequality.
- Seen from a constitutional point of view, creation of bankmoney is an illegitimate privilege:
 - special monetary benefits in the form of funding costs avoided (2.5% fractional rather than 100% funding of loans and purchases)
 - large amounts of seigniorage foregone to the public purse
 - implicit state guarantee for systemically relevant major banks and the entire sector in case of systemic crisis.

The money and banking system causes a variety of problems, recurrently resulting in financial crises

Current banking and debt crises are no single events, but latest links in a continued chain.

From 1970 to 2007 many crises happened on migratory hot spots around the world, intensifying in number and gravity:

145 sector-wide banking crises

208 currency crises

72 sovereign debt crises

425 systemic financial crises

in addition now also including the subprime crisis, the US-EU banking crisis, and the euro's sovereign debt crisis. Further such mess upcoming.

The monetary system – the misjudged fundamental factor

Many factors have been held responsible for the problems in banking and finance :

- **Moral hazard** and bad behaviour (greed, perverse incentives, deliberate disregard of risk on grounds of 'too big to fail')
- **Risk-concealing accountany practices** (e.g. off-balance items); partially misleading ratings
- **insufficient equity** and liquidity buffers
- **deregulation** of financial markets and products; overuse of high-risk instruments such as CDS and many other derivatives
- **missing firewalls** between
 - trading on customers' and own account (proprietary trading),
 - between money service, commercial and investment banking.

All of these factors clearly have contributed to the problems to some extent. One other factor, however, a factor of fundamental importance, has so far been grossly underrated – the monetary system.

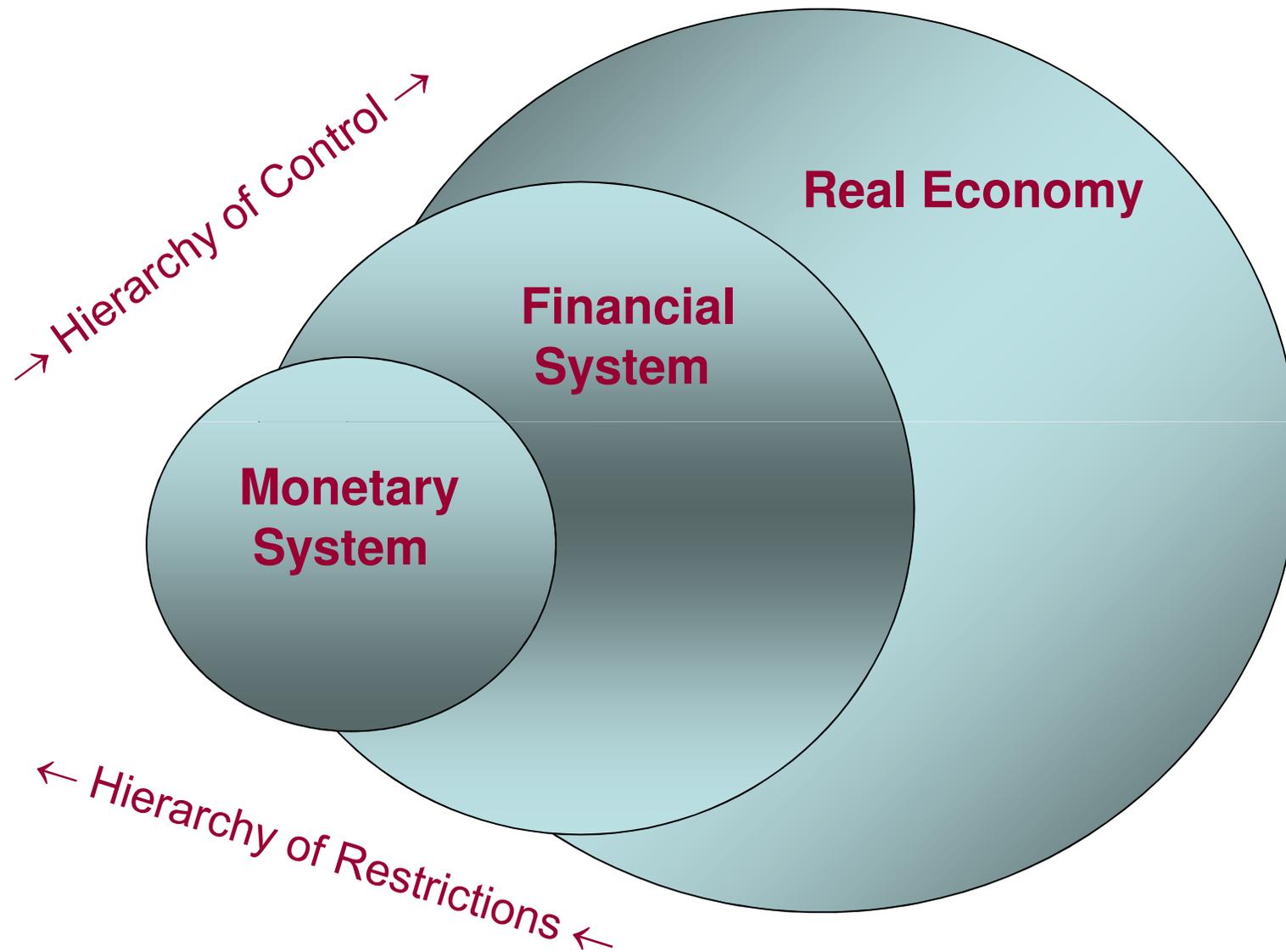
Bringing back in the monetary system

Analyses of the subprime crisis and the euro sovereign debt crisis all have their point, but fall short of recognising the **monetary system as the root cause** of the problems.

The *financial* causes of crises have a common *monetary* cause: excessive bankmoney creation (overshooting extension of primary credit and debt). Financial markets cannot work properly on the basis of a malfunctioning monetary system.

For sorting out banking and financial markets, one has to come to grips with the money system.

In a monetarised and financialised economy
money governs finance, as finance governs the economy



Why do markets fail to limit expansion of primary credit and bankmoney?

Why do money and capital markets fail rather than reaching a point of self-limiting 'equilibrium' as banking teaching has it (real bills doctrine, efficient market hypothesis)?

Very simply, because banks have a strong incentive for extending their balance sheets, i.e. extend their business.

For the banks it appears to be an irresistible temptation, often against better knowledge, to create a GDP-disproportionate excess of bankmoney because the creator and first user of new money enjoys the immediate benefit of it here and now, while expecting the disadvantages (inflation, asset Inflation, bubbles, crises) to hit everybody at a later point in time. (Cantillon Effect, after Richard Cantillon 1730).

Nobel price in 2013 for both Eugene Fama (efficient market hypothesis) and Robert Shiller (system dynamics approach to recurrent market disequilibria, similar to Hyman Minsky's financial instability hypothesis).

Why do central banks fail to control the banking sector?

... because within the present bankmoney regime, quantity policy is ineffective, and base-rate policy largely so.

→ **Monetary quantity policy** is impossible to implement in the bank-led reserve system. That's why monetarist policies of the 1970–80s were doomed to fail.

If central banks refused to accommodate the banks' demand for cash and reserves, the flow of payments came to a standstill, which can induce a standstill in the financial and real economy. No one will voluntarily want to pull that card.

Why do central banks fail to control the banking sector?

- **Interest-rate policy**, too, is weaker than supposed, because
- in the short term, the banks' demand for additional cash and reserves is price-*inelastic*
 - Refinancing costs on only 2.5% of the bankmoney have no decisive transmission effect on the entire 100%
 - Higher base rates will not deter banks from creating additional bankmoney, because the lending interest and expected capital gains are normally much higher than central-bank rates, interbank rates and deposit rates
 - The general level of interest does not depend on central-bank and interbank rates, but on the asset markets (capital markets). Central banks follow the general trend in interest rates rather than having the lead in setting the level of interest.
 - This is true all the more with regard to the inflation rate.

Why do central banks fail to control the banking sector?

The range of **effective** central-bank interest rate policy is rather limited, or orientational rather than operational.

Limited:

1. Setting base rates and influencing interbank rates, the latter also by security purchases from banks and sales to them
2. Price administration by banks, in that these tie certain lending rates (overdraft, mortgages) to previous interbank rates – which is not about market dynamics of supply and demand, rather, about central planning of corporate bureaucracies.

Oriental rather than operational:

3. Forward guidance, i.e. a central bank as a major player and opinion leader communicates its expectations on future interest rates and maybe other important financial and economic developments.

Monetary reform perspective: regaining control of the money

Central banks have largely lost control of the money and must regain it; possibly full control, or at least a much higher degree of control than hitherto.

Decisive for this is reverting the secular trend from central-bank money to bankmoney; possibly by fully substituting central-bank money for bankmoney, or

at least by expanding the share of central-bank money, thus driving back the share of bankmoney in the public money supply.

3.

Considering sovereign money

What is sovereign money?

Following akin financial terminology such as 'sovereign bonds', 'sovereign debt', 'sovereign wealth', ...

Sovereign money = legal tender (~ lawful or official money) issued by a government body such as a national central bank.

Central-bank money **is** sovereign money **if** the central bank is the national monetary authority, with state majority ownership (if still a joint stock company) and run under public law.

Coins (issued by the treasury) and banknotes (issued by the central bank) are sovereign money. So are reserves (i.e. non-cash central-bank money).

Other expressions occasionally suggested

- chartal money (derived from chartalism or the state theory of money)
- public money (Yamaguchi, Mellor)
- constitutional money (Anderson/Morrison)

What is 'sovereign money'?

Demand deposits, as well as related e-cash, are private bank money, not legal tender, but a money surrogate that has developed into the most important means of payment – and has thereby captured the money prerogatives of a sovereign state:

1. Determining the **currency** of the realm, i.e. the monetary unit of account
2. Creating and issuing the **money**, the means of payment denominated in that currency
3. Benefitting from the **seigniorage**, the gain that accrues from the creation of money.

... constitutionally of the same importance as the monopolies of legislation, jurisdiction, administration, taxation, and the use of force.

Monetary reform perspective

... regaining full or greater control of the stock of money in a transition process that reverts the secular trend from sovereign money to bankmoney ...

either by

1. full transition from bankmoney to sovereign money

or

2. gradual transition by introducing sovereign money in the form of

a. central bank digital currency

b. sovereign money accounts

side by side with the bankmoney in place.

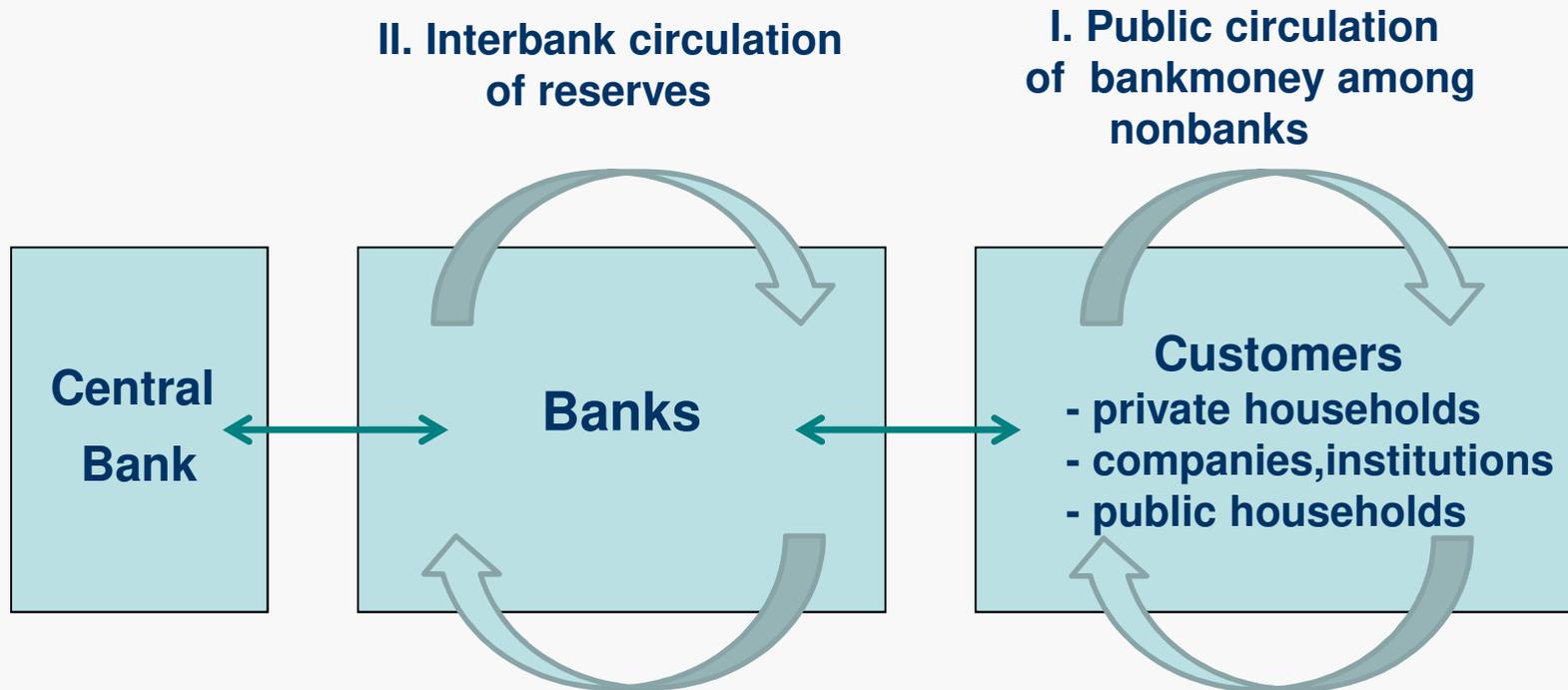
1. Fully replacing bankmoney with sovereign money

A full-blown switch from the present bankmoney regime to a pure sovereign money system would mean

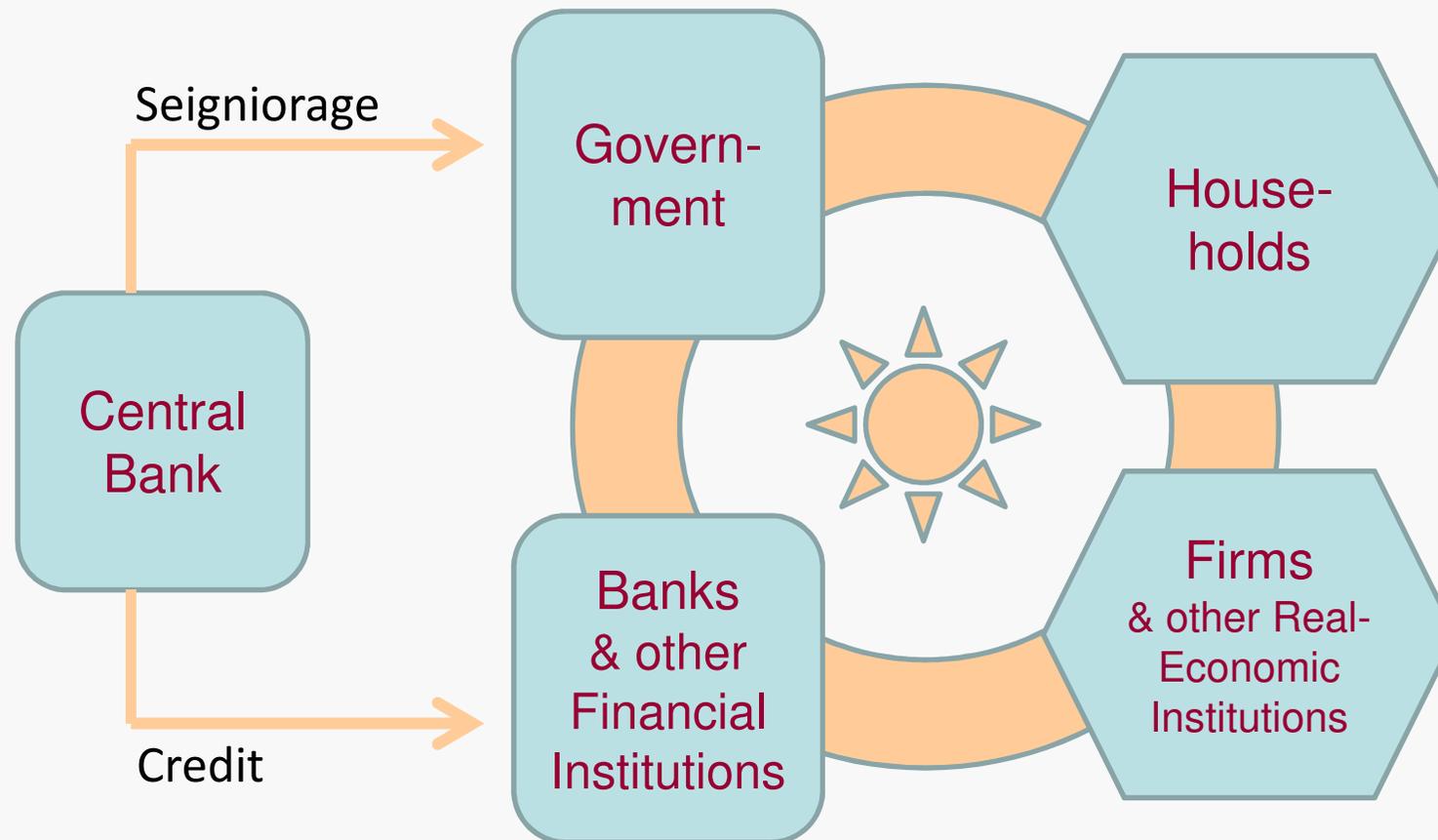
- overnight conversion of bankmoney into sovereign central-bank money
- taking that money off the banks' balance sheet
- thus converting the present system of split-circuit reserve banking into a single-circuit payment system based on sovereign money only (in its various use forms – solid cash, on account, digital).

→ see illustrations

Split-Circuit Money and Banking System



Single-Circuit System



All money is sovereign money, issued by the central bank, cash and non-cash, circulating as a liquid asset only. No more bankmoney and reserves (liabilities).

Banks no monetary institutions anymore, thus similar to other financial institutions.

Single-Circuit System

In a single-circuit plain sovereign money system, the money base and the stock of money become identical (no difference between M0 and M1).

The future supply of sovereign money M would correspond, roughly speaking, to today's cash plus bank overnight liabilities (demand deposits) (= M1) plus, foreseeably, central bank digital currency.

Savings and time deposits or similar positions (M2/M3) would no longer be a 'monetary aggregate', but short-term capital, classes of low-risk investment (when there is business as usual).

1. Fully replacing bankmoney with sovereign

Switching overnight from split-circuit reserve banking to a single-circuit sovereign money system

1. **Full money monopoly**

Extending the existing money monopolies on coins and banknotes to money on account and digital money, i.e. full nationalisation of the official stock of money (not, however, nationalisation of banking); amendment of Art.128 TFEU, Art.16 ECB/ESCB Statutes, today restricted to banknotes.

2. **Monetary authority**

Conferring responsibility for the entire stock of money to an independent and impartial monetary authority, in Europe the central banks, or the ECB respectively.

3. **Separation of monetary and fiscal powers**

Keeping apart monetary competences (central bank) and fiscal responsibilities (treasury), and both from wider financial-market functions (banks and other financial institutions).

4. and 5. →

1. Fully replacing bankmoney with sovereign

4. **Bankmoney no more**

Banks no longer able to create a money circuit of their own, because customer money separate from banks proprietary means. Direct transfer between customer accounts without monetary intermediation by the banks, even though possibly managed by the banks as payment service providers.

5. **Phasing out bankmoney**

in a process stretching over several years (depending on the maturity of outstanding credit to nonbanks), in a way analogous to the transition from private to sovereign banknotes in the 19th century: private banknotes were phased out and replaced with the central-bank monopoly on banknotes.

Today, it is about replacing bankmoney (sight deposits) with sovereign central-bank money.

Single-circuit sovereign money. Further characteristics and possible achievements

- Full control of the stock of money (M-to-GDP ratio) which is the basic prerequisite for stable money and financial stability
- output-oriented monetary policy that is geared to the output of the economy at full capacity (expected and actual development of GDP)
- Issuance of additional money and continual re-adjustment of the stock of money
 - long-term* by way of genuine seigniorage (major part)
 - short-term* through central-bank credit to banks (minor part)
- On the grounds of GDP-proportionate effective control of M
 - ... no or less unwanted inflation/deflation for monetary reasons
 - ... no or less artificially leveraged asset inflation and bubble building.More steady flow of money and capital. Business and financial cycles more moderate.

Single-circuit sovereign money. Further characteristics and possible achievements

- Sovereign money on account cannot disappear and is thus safe. In a banking crisis, the payment system is no longer at stake. In so far, no more need for governments to bail out banks.
- No more monetarily induced bias in favour of financial revenue at the expense of earned income.
- A pure sovereign money system is transparent and robust. It works like most people today think that the system works, but does not.

Single-circuit sovereign money. Further characteristics and possible achievements of

- Full seigniorage to the benefit of the public purse by spending new money into circulation through public expenditure (genuine seigniorage), or by loaning it to banks (interest-borne seigniorage).
- *Regular annual seigniorage* from additions to the stock of money. About 1–4 % of total public households, depending on a country's government expenditure and growth.
- *One-off transition seigniorage* from substituting sovereign money for bankmoney. Would allow for a redemption of about half to two thirds public debt of in most countries within a time span of about five to seven years.

Regular Annual Seigniorage as an Addition to the Stock of Money

billion \$, €, £, SFr	Money Supply M	Seigniorage from Δ M of 1-2-3 %	Total public expenditure	Δ M as a % of total public expenditure
Euro M1				
2012	5'105	51–102–153	4'741	1.1 – 2.2 – 3.2
2013	5'390	54–108–162	4'773	1.1 – 2.2 – 3.4
2014	5'916	59–118–178	4'957	1.2 – 2.4 – 3.6
2015	6'631	66–133–199	5'071	1.3 – 2.6 – 3.9
Switzld. M1				
2012	505	5.0 – 10.1 – 15.1	196	2.5 – 5.1 – 7.7
2013	547	5.5 – 10.9 – 16.4	202	2.7 – 5.4 – 8.1
2014	568	5.7 – 11.4 – 17.0	206	2.8 – 5.5 – 8.3
USA M2				
2014	8'112	81 – 162 – 243	6'200	1.3 – 2.6 – 3.9
UK Mx				
2014	1'380	13.8 – 27.6 – 41.4	735	1.9 – 3.7 – 5.6

Sources: www.federalreserve.gov/releases/h6/current/default.htm#t5tg1link (M2). - www.bankofengland.co.uk/boeapps/iadb/BankStats.asp?Travel=Nix (overnight deposits and cash in circulation); www.ukpublicspending.co.uk/total_2014UKbt_15bc5n. - European Central Bank, *Monthly Bulletin*, Tables 2.3.1, 2.5.1, 5.2.1, 6.1.2 (www.ecb.int). Ab 2014/15 ECB *Economic Bulletin*, Tables 5.1, 3.1, 6.1–2 (www.ecb.europa.eu/pub/pdf/ecbu); bis 2013 EU-17, ab 2014 EU-18. - Schweizerische Nationalbank, *Statistische Monatshefte*, Tab. B2, H1.

One-off Transition Seigniorage

billion \$, €, £, SFr	A Bankmoney	B Total public debt	A/B
Euro			
2012	4'349	8'603	51 %
2013	4'480	8'892	50 %
2014	4'976	9'280	54 %
2015	5'567	9'452	59 %
USA			
2014	11'647	18'141	64 %
2015	12'381	18'922	65 %
UK			
2014	1'306	1'260	104 %
Schweiz			
2012	449	216	208 %
2013	484	219	221 %
2014	501	217	231 %

Data sources: USA MZM minus currency in circulation . MZM <https://fred.stlouisfed.org/series/MZM>. Currency https://www.federalreserve.gov/paymentsystems/coin_data.htm#value; Total public debt <https://fred.stlouisfed.org/series/GFDEBTN>. - Eurozone overnight deposits in M1, from 2014 for EU-18. European Central Bank, *Economic Bulletin*, Tables 2.3.2, 6.2.1 (www.ecb.europa.eu/pub/pdf/ecbu). - UK overnight deposits and deposits redeemable at notice, excluding cash in circulation. www.bankofengland.co.uk/boeapps/iadb/BankStats.asp? Travel=Nix. For UK government debt see www.ukpublicspending.co.uk/uk-national-debt-chart.html. - Switzerland demand and transaction deposits. Schweizerische Nationalbank, *Statistische Monatshefte*, Tab. B2, H1.

2a. Gradual transition by introducing central bank digital currency (CBDC)

Two current developments threaten to further weaken the position of central banks, in addition to the continued dominance of bankmoney:

- calls for abolishing cash
- emergence of private digital currencies such as Bitcoin, Litecoin etc.

CBDC would be based on blockchain technology, with the central bank as the only 'miner' in pursuing its discretionary policies.

Direct money transfer between digital 'wallets' in lieu of bank accounts.

Processing capabilities need to be much faster and less energy-intensive than is the case with Bitcoin.

At the moment, a number of central banks is considering CBDC.

CBDC offers a suitable modern equivalent for traditional cash, and, given its nature as safe high-powered central-bank money, a strong competition to private money surrogates, both bankmoney and digital cryptocurrencies.

2a. Gradual transition by introducing central bank digital currency (CBDC)

CBDC, bankmoney and cryptocurrencies would be alternative options, existing side by side, similar to the way cash and bankmoney do.

The market, i.e. the preferences of the money-using public, the customers, would decide which option will prevail to what extent.

Exchange of CBDC for bankmoney, or the reverse, would be possible, thus also transfer of money between digital wallets and bank accounts.

According to a plan by Barrdear/Kumhof (BoE) CBDC would be issued by way of central-bank sovereign-bond purchases against CBDC. CBDC-units would be interest-bearing, like early banknotes.

2b. Gradual transition by introducing sovereign money accounts

... a more conventional alternative to CBDC, basically fulfilling the same function or purpose.

Principle: the public is enabled to use central-bank money on account.

Does not necessarily mean 'central bank accounts for everybody', rather, enabling payment service providers to carry out customer payments in today's payment reserves ('excess reserves') rather than bankmoney

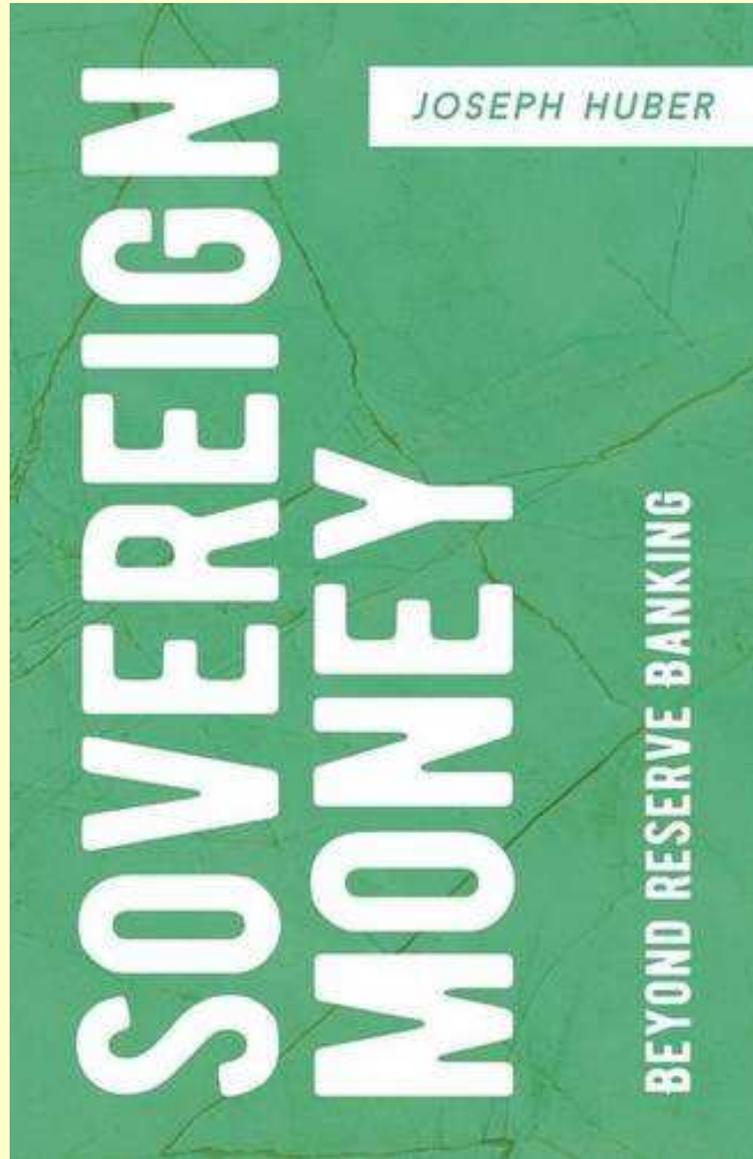
- either by introducing 'sovereign money accounts' as a new type of account in public circulation, managed by payment service providers,
- or by allowing banks and other payment service providers to run a customer transaction account in the form of an omnibus account, in addition to and in parallel with the central-bank account of a respective bank or other service provider.

This will cost the banks about as much as providing cash, reducing the seigniorage-like extra profit banks have from creating bankmoney and thereby avoiding refinancing costs to a large extent.

2. Gradual transition by introducing CBDC and/or sovereign money accounts

It remains unclear whether high-powered CBDC and/or sovereign money accounts would really drive out bank money, or whether there would be a new Gresham situation (less reliable bank money being preferred as a means of payment over safe central-bank money; the latter being preferred as asset, a 'store').

Anyway, both options might prove to be suitable ways to expand again the share of central-bank money, thus restoring to the central banks a greater lever of control over the entire stock of money.



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The present money system and concepts of sovereign money

IPSOconomics, Frankfurt
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Prof Dr Joseph Huber

Em Chair of
Economic Sociology

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Credit extension and bankmoney creation in one act

Bank Balance Sheet		Customer	
Assets	Liabilities	Debit	Credit
100 k, mio	100	- 100	+ 100
Claim on customer from credit creation	Liability towards customer	Interest-bearing debt to the bank	Credit as liquid bank money (means of payment) = claim on cash and bankmoney transfer

Accounting record:

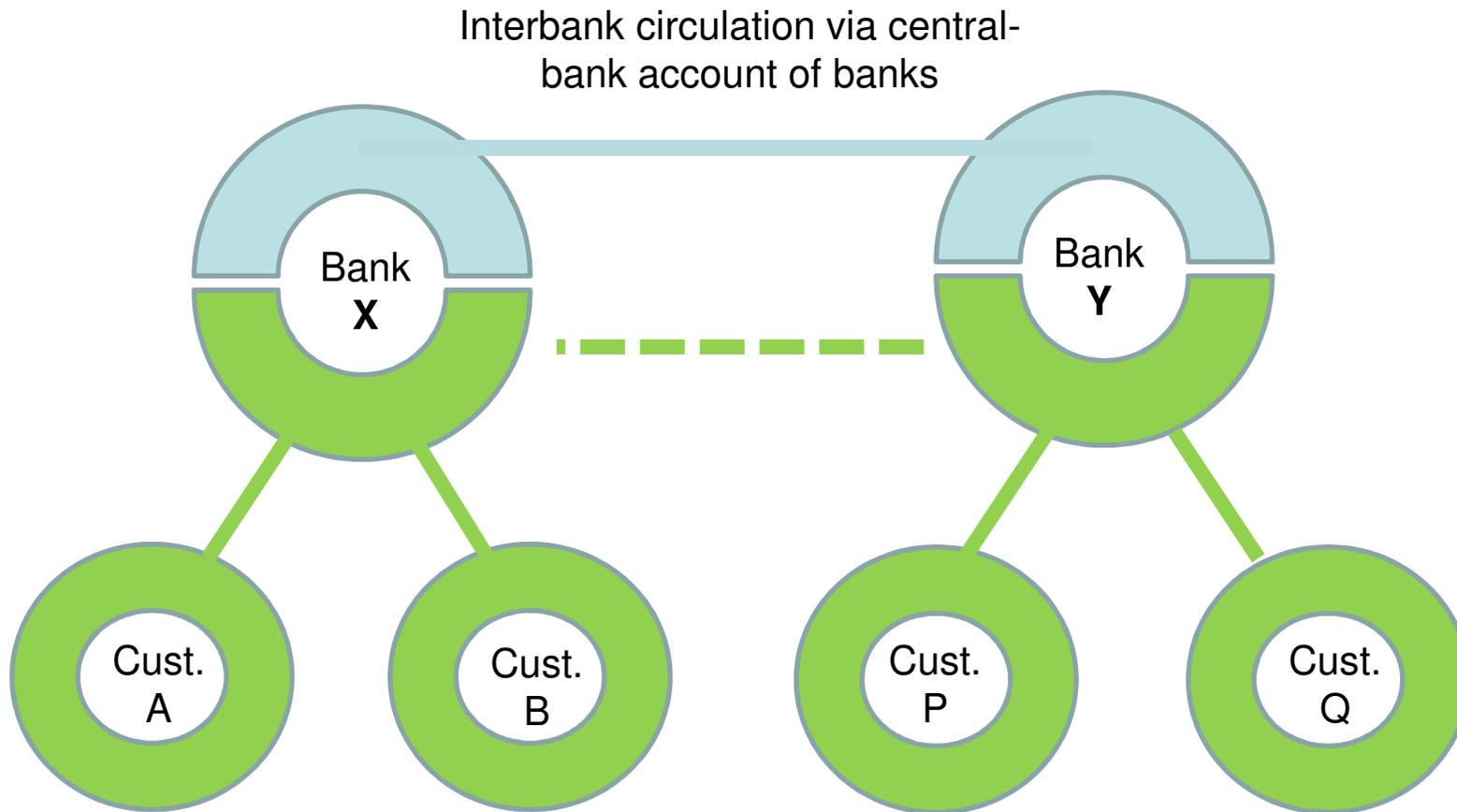
Bank Credit/Securities/Tangibles Account to Customer Current Account

In actual fact, however, this does not make sense – not yet, because you borrow in order to make use of the money, and using bankmoney involves central-bank money, i.e. cash and reserves.

Cashless payments in interbank and public circulation

Central bank money (reserves)

Bankmoney (deposits)



Money supply M1 in the eurosystem

Billion €

Magnitude of expectable
seigniorage

Increase in M1 taken as a
first rough approximation

Source: European Central Bank,
Monthly Bulletin, Tables 2.3.1

Jahr	M1	Δ M1	Δ M1 Ø 3 J.
1998	1.781	116 7,0%	
1999	1.966	94 5,3%	102
2000	2.077	111 5,6%	100
2001	2.222	145 7,0%	117
2002	2.439	217 9,8%	158
2003	2.727	288 11,8%	216
2004	2.949	222 8,1%	242
2005	3.480	531 18,0%	347
2006	3.757	277 8,0%	339
2007	3.901	144 3,8%	317
2008	4.035	134 3,4%	185
2009	4.502	467 11,6%	248
2010	4.706	204 4,5%	268
2011	4.786	80 1,7%	250
2012	5.105	319 6,7%	201
2013	5.390	285 5,6%	228
2014	5.916	526 9,8%	377
Jahr	M1	Δ M1	Δ M1 Ø 3 J.



International Movement *for* Monetary Reform

internationalmoneyreform.org
(ca. 30 initiatives)

sovereignmoney.eu

positivemoney.org.uk

vollgeld-initiative.ch

vollgeld.de

monetative.de

monetary.org (USA)