



Monetary Reform for the Euro?

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Outline

- Current monetary system
- Monetary reform: full-reserve banking
- Seignorage from monetary reform
- Digital cash as a halfway reform



European monetary system

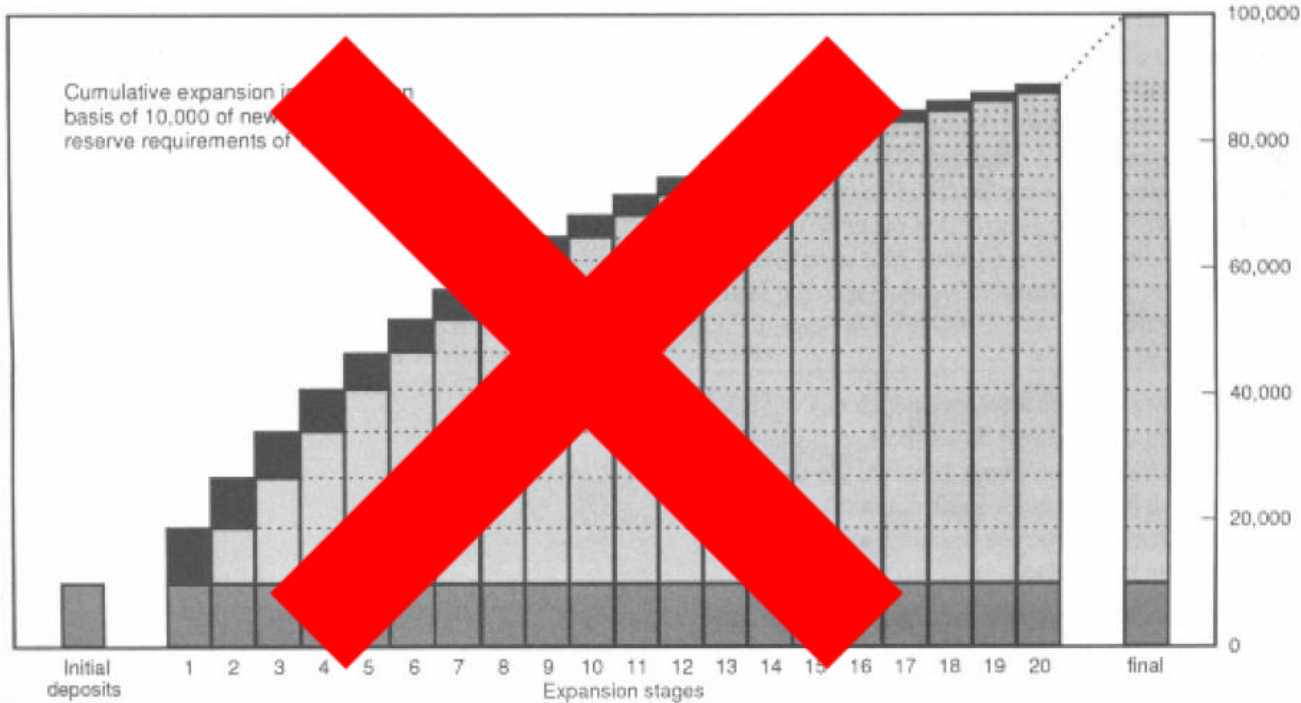
- States create only cash (<10%)
- All digital money (deposits) is created by banks (>90%)
- Banks create money when they grant loans
- ECB prohibited to finance governments





Theories of money creation

Money Multiplier Theory (exogenous money)



Modern Monetary Theory (endogenous money)

Bank's balance sheet (PHASE 1)

ASSETS	LIABILITIES
Loan to XX: 0 €	XX's deposits: 0 €

Bank's balance sheet (PHASE 2)

ASSETS	LIABILITIES
Loan to XX: 1000 €	XX's deposits: 1000 €



Monetary reform for the euro: full-reserve banking

- Money creation a prerogative of states → impose a 100% reserve requirement for banks
- Implemented in UK and US in 19th century!
→ Led to current monetary system (bank notes → deposits)
- Payment system completely secure (no liquidity or solvency problems)
- Eliminate government guarantees to banks (e.g. deposit insurance, lender of last resort, par clearance)
- ECB can still target inflation, only the tool changes from interest rate to quantity of money
- All new money given to states and allocated through democratic fiscal policies



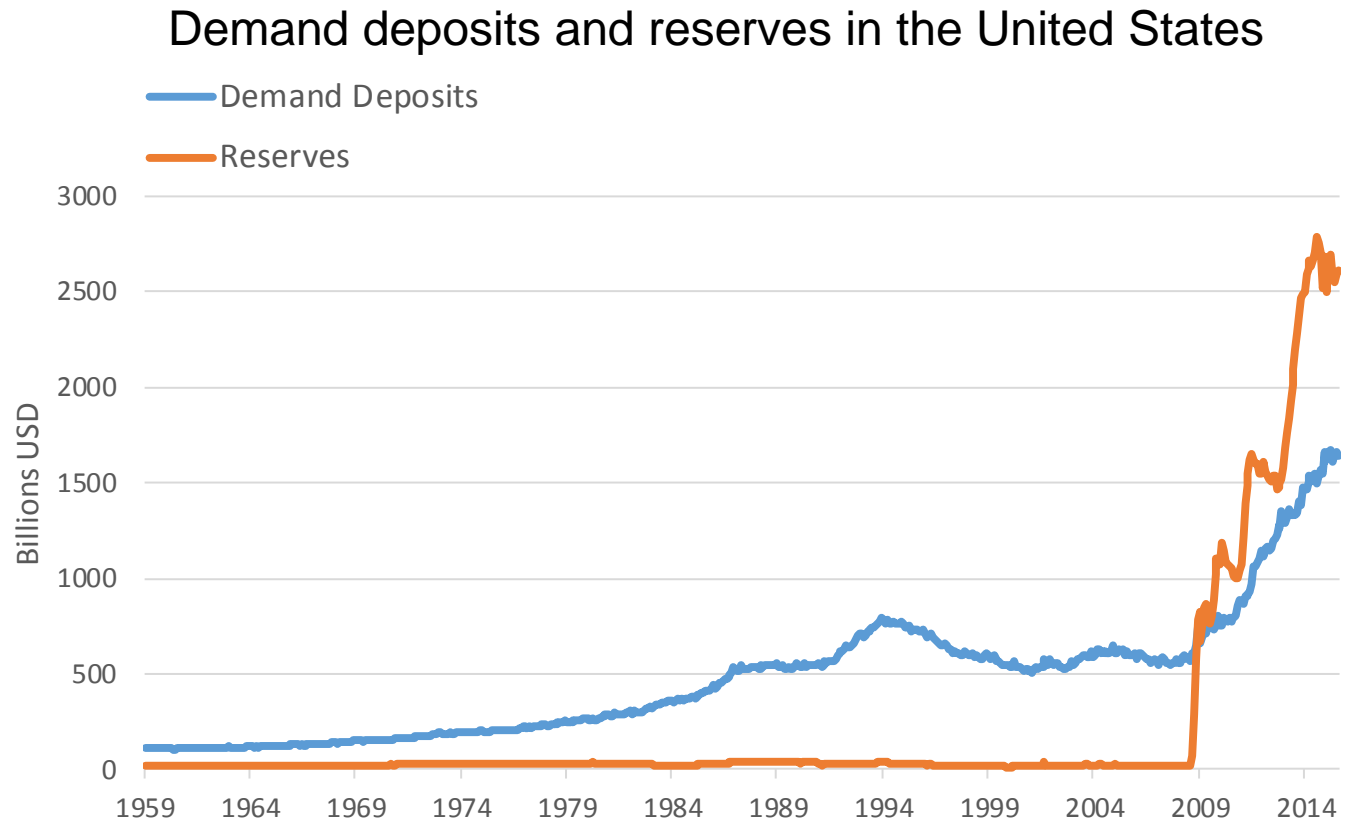
Support from 8 Nobel prize winners

- Frederick Soddy (1921 in chemistry)
- Friedrich Hayek (1974)
- Milton Friedman (1976)
- James Tobin (1981)
- Maurice Allais (1988)
- Merton Miller (1990)
- Joseph Stiglitz (2001)
- Edward Prescott (2004)





US already accomplished (almost)!



Note: Demand deposits are calculated as M1 minus cash in circulation.

Sources: Federal Reserve (2015a; 2015b)



Transition seignorage from monetary reform (only once)

	US	UK	Euro Area	Finland
Demand Deposits	1700 billion dollars	1300 billion pounds	5000 billion euros	81 billion euros
...of GDP	10 %	72 %	49 %	39 %
Reserves	2600 billion dollars	300 billion pounds	210 billion euros	17 billion euros
...of GDP	15 %	17 %	2 %	9 %
...of Demand Deposits	157 %	23 %	4 %	22 %
Transition Seignorage	0 dollars	1000 billion pounds	4800 billion euros	63 billion euros
...of GDP	0 %	55 %	47 %	31 %
...of General Government Budget	0 %	144 %	101 %	54 %
...of Central Government Budget	0 %	158 %	226 %	117 %



Annual seignorage from monetary reform

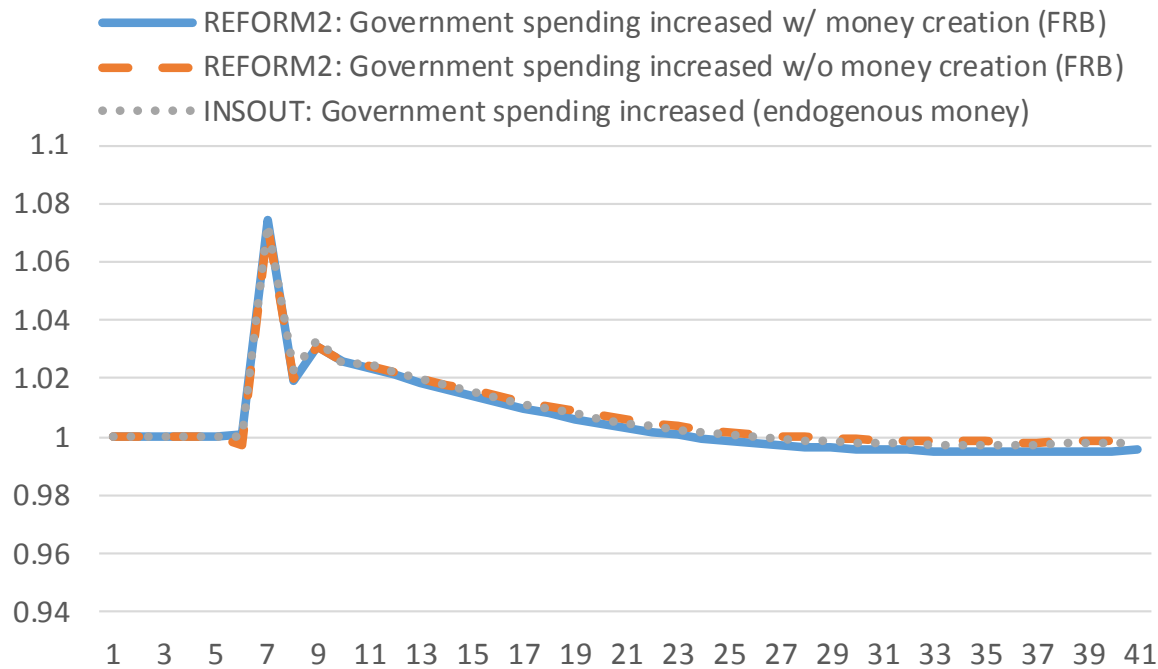
	US	UK	Euro Area	Finland
M1	3000 billion dollars	1400 billion pounds	6000 billion euros	98 billion euros
...of GDP	17 %	76 %	59 %	48 %
M1 Growth	5.7 %	10 %	7.3 %	6.2 %
Annual Seignorage	170 billion dollars	140 billion pounds	430 billion euros	6,0 billion euros
...of GDP	1.0 %	7.7 %	4.3 %	2.9 %
...of General Government Budget	3.1 %	20 %	9.2 %	5.2 %
...of Central Government Budget	5.7 %	22 %	21 %	11 %

Source: Lainà (2017)

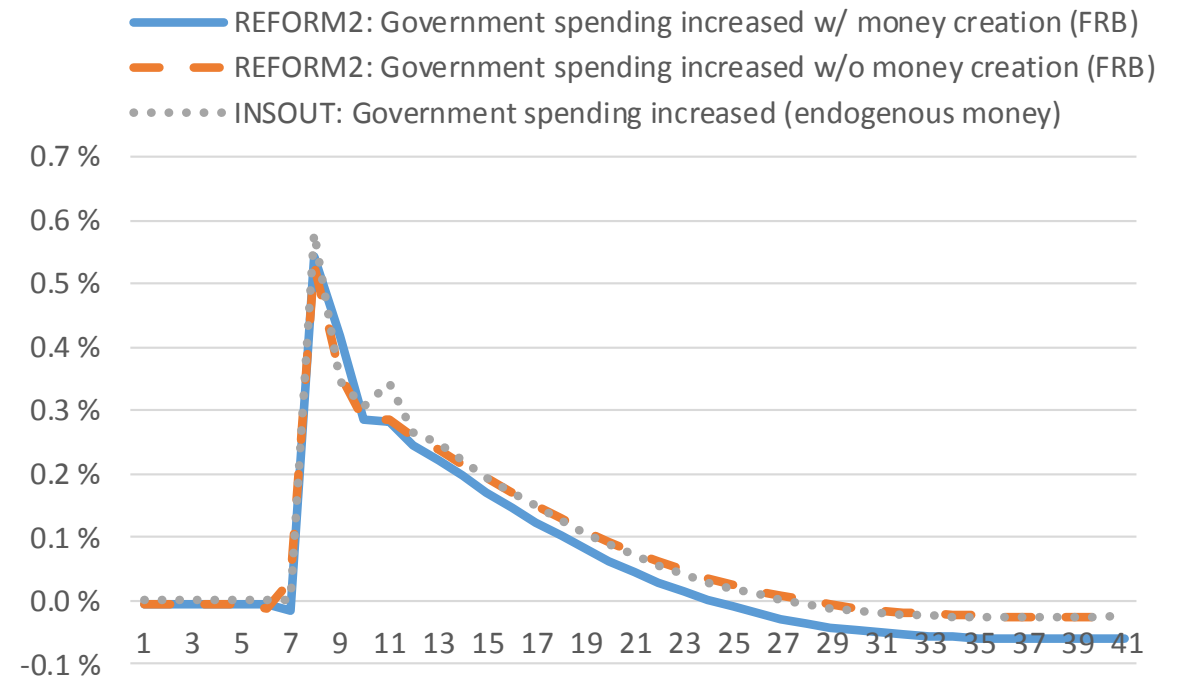


Experiments with a stock-flow consistent model

Real GDP



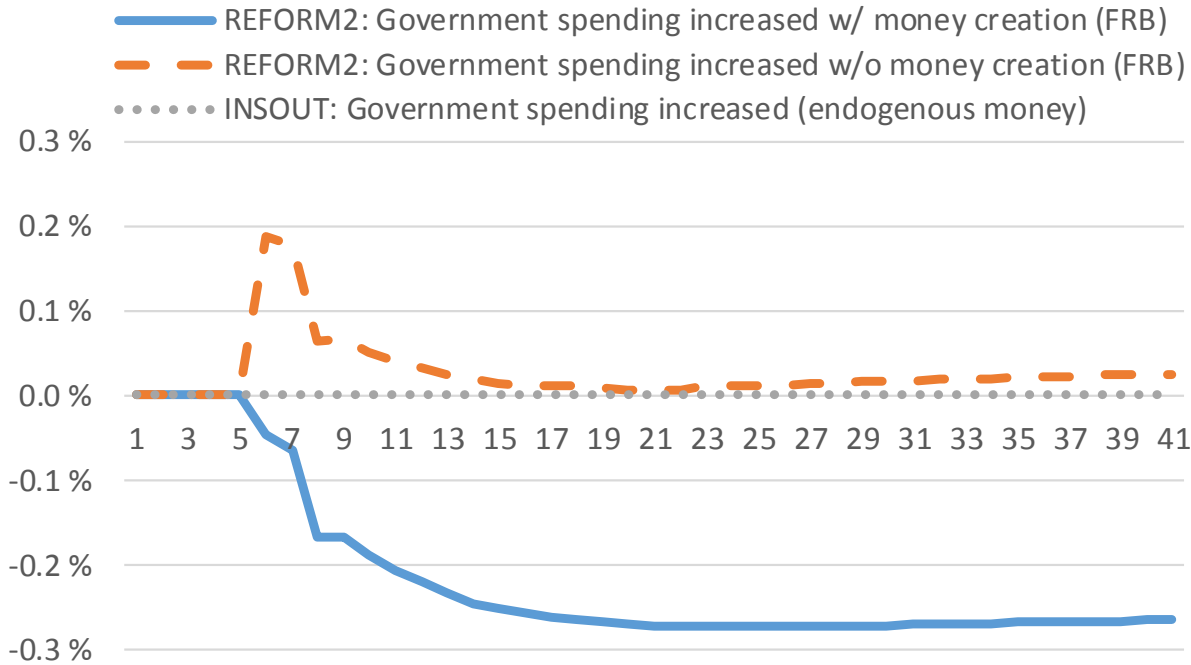
Inflation rate



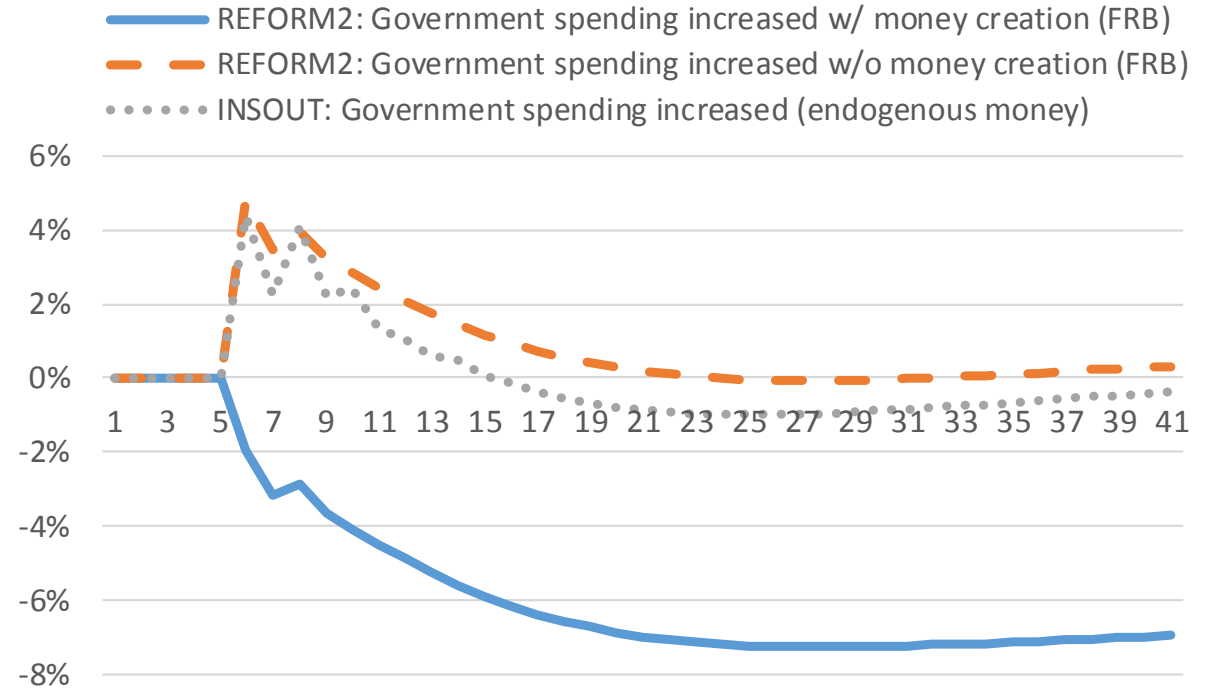


Experiments with a stock-flow consistent model

Interest rate on government bills (main rate)



Consolidated government debt-to-GDP ratio



Source: Lainà (forthcoming)



Digital cash as a halfway reform?

- Politically less demanding
 - Let banks continue to create money
 - States given right to issue digital cash (central bank digital currency)
 - Either directly accounts at central bank or indirectly through payment system providers (incl. banks)
 - Adds tools for monetary policy
 - Sweden, Denmark, Norway and UK are seriously considering
- Likely to be issued in the near future!





Conclusions

- Currently, almost all money created by banks
- After monetary reform all money issued by states
- Fiscal capacity extended significantly (annual seignorage 4 % of GDP)
- Digital cash a step to right direction