The MADRE Plan
Mutually Agreed Debt Restructuring in the Eurozone

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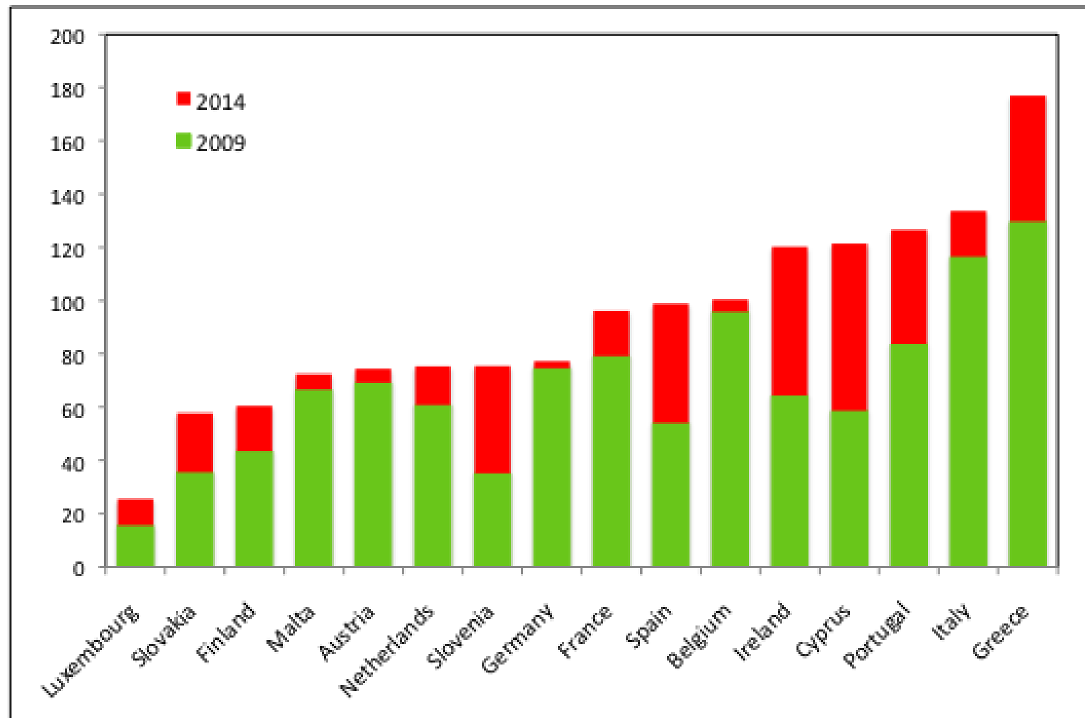
Can public debts be too high?

- The 90% threshold
  - Somme debate, but generally accepted
  - Good reasons, anyway
- Theory
  - Tax burden
  - Financial risk, borrowing costs, shocks and multiple equilibria (self-fulfilling prophecies)
    - Worse in the Eurozone

The situation

- Eurozone public debts ≈ € 9400 bn. (96% GDP)



- Crisis: a strong case of multiple equilibria

Implications

- Debts must be reduced, as fast as possible
- Choice is:
  - Budget surpluses — Expected duration: 35 years
  - Inflation — Ruled out
  - Restructuring — The best solution
- Defaults can destroy banks
- No transfers across countries

Mission impossible? No, there is MADRE

MADRE: a 4-step process

① An agency agrees to redeem at maturity 50% of outstanding debts at nominal price

About € 4700 billion

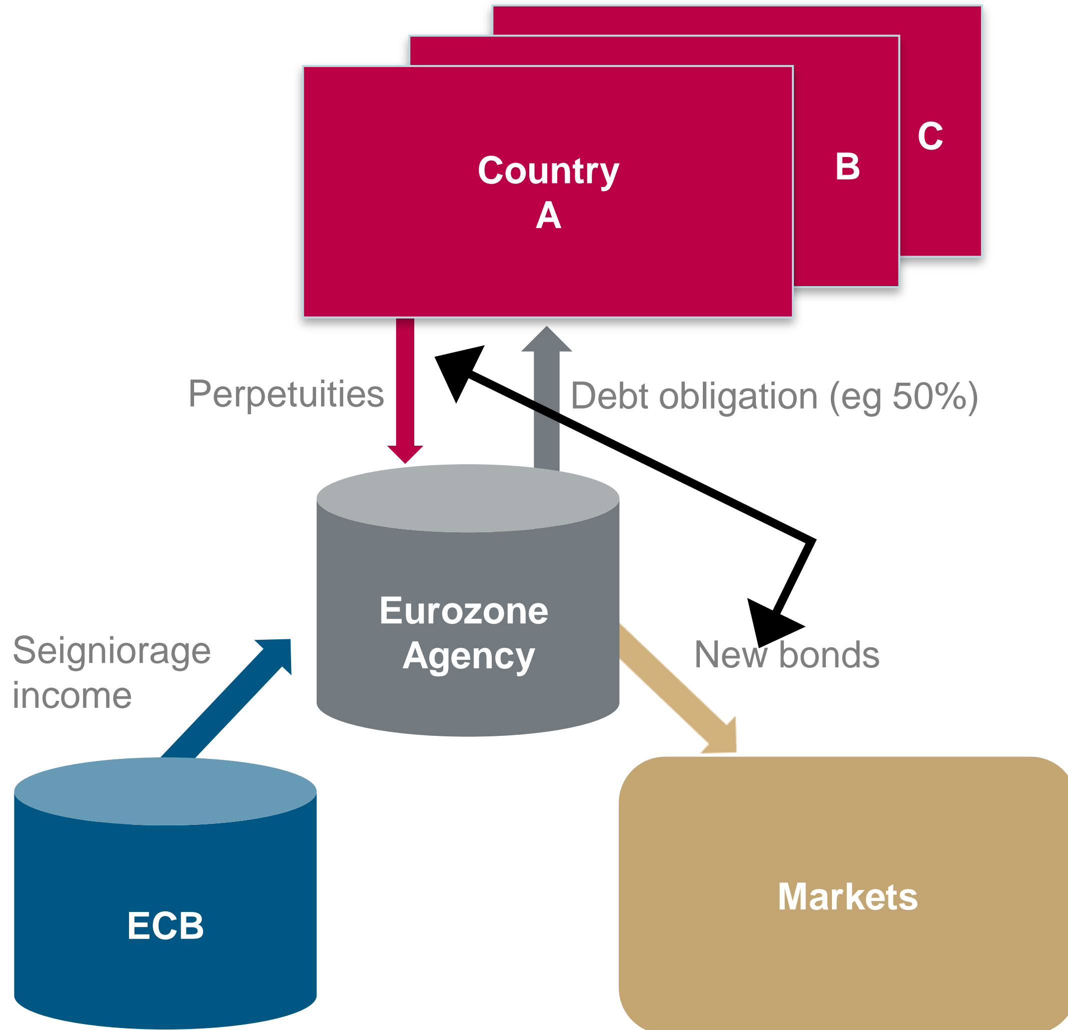
② The agency receives zero-interest perpetuities in exchange of bonds repayment commitment

③ The agency borrows from markets

Carry trade costs: about € 160 billion p.a.

④ Who pays?

Each country waives its ECB's seigniorage income to the agency, until full repayment of perpetuities



Financing details

- Capital shares of ECB = seigniorage costs to member countries

Austria	Belgium	Cyprus	Estonia	Finland	France
2.77%	3.46%	0.19%	0.25%	1.78%	20.24%

Germany	Greece	Ireland	Italy	Latvia	Luxembourg
26.86%	2.79%	1.59%	17.84%	0.39%	0.25%

Malta	Netherlands	Portugal	Slovakia	Slovenia	Spain
0.09%	5.68%	2.53%	0.99%	0.47%	11.82%

- Bond purchases and swaps = benefits
  - In proportion of capital shares
- Costs = benefits, **country by country**

Results

- No transfers
  - PV (seigniorage abandoned) = Value of debt restructured
    - In the aggregate
    - Country by country (transfer across generations)
- No losses to bondholders
  - Bonds purchased at maturity
  - Instantaneous capital gains
    - Can be taxed away
- No inflation
  - Debts are **not** monetized

The outcome

	Initial debt (2014)		Debt reduction		Post-restructuring debt	
	€ billion	% of GDP	€ billion	% of GDP	€ billion	% of GDP
Austria	241	74.2	131	40.3	110	33.8
Belgium	394	100.5	163	41.6	231	58.9
Cyprus	19	121.1	9	57.0	10	64.1
Estonia	2	10.2	12	62.2	-10	-52.1
Finland	121	61.3	84	42.7	37	18.6
France	2026	96.2	954	45.3	1072	50.9
Germany	2186	77.2	1267	44.7	920	32.5
Greece	322	177.0	132	72.3	190	104.7
Ireland	204	120.8	75	44.4	129	76.3
Italy	2117	133.7	841	53.1	1276	80.6
Latvia	10	39.1	19	75.2	-9	-36.1
Luxembourg	12	25.4	12	24.5	0	0.9
Malta	5	71.7	4	57.2	1	14.4
Netherlands	464	75.2	268	43.4	196	31.8
Portugal	213	126.0	119	70.5	94	55.6
Slovakia	43	57.9	46	62.7	-4	-4.8
Slovenia	27	74.6	22	61.5	5	13.1
Spain	1024	98.7	557	53.7	466	45.0
Eurozone	9430	95.9	4715	47.9	4715	47.9

Easy, but…

- Can we afford it?
- Moral hazard is huge because it’s so painless
- Variants

Is seigniorage income sufficient?

- Financing need: € 4700 billion
- Simple calculation over infinite horizon (Buiter and Rahbari, 2012)
- Assumptions:
  - Inflation always remains 2%
  - Elasticity = 0.8

		Annual real growth rate		
		1%	1.5%	2%
Nominal interest rate	3%	14380	Infinite	Infinite
	3.5%	3899	11001	Infinite
	4%	2265	3949	9317

Country moral hazard: the covenant

- Each country signs a covenant
  - Includes a country by country debt/GDP limit
  - Ex.: Post-restructuring + 10% of GDP
- When limit reached by 1%: reverse swap
  - Agency puts perpetuities worth 1% of GDP for cash forcing new country bonds issuance
  - Not discretionary
- Any further 1% excess: further conversion
- Immediate market / rating sanctions

Collective moral hazard: the covenant

- Collective moral hazard
  - Like in 2010: a bailout of some sort for one country?
- Any such decision to be voted upon
  - Countries that refuse a deal: excused from loss
  - Potential losses from any change to be shared only by those who vote in favor

Conclusions

- Why does it work?
  - It solves important economic problems (market failures)
    - Multiple equilibria (runs on debts, runs on banks)
    - Growth and policy externalities
      - Alternative is debt mutualisation, but rejected
  - Can strengthen fiscal discipline
- Many variants
  - A blueprint, not a fully worked out plan
  - Can be done country by country
    - Less credible?

Loose end: Borrowing Cost

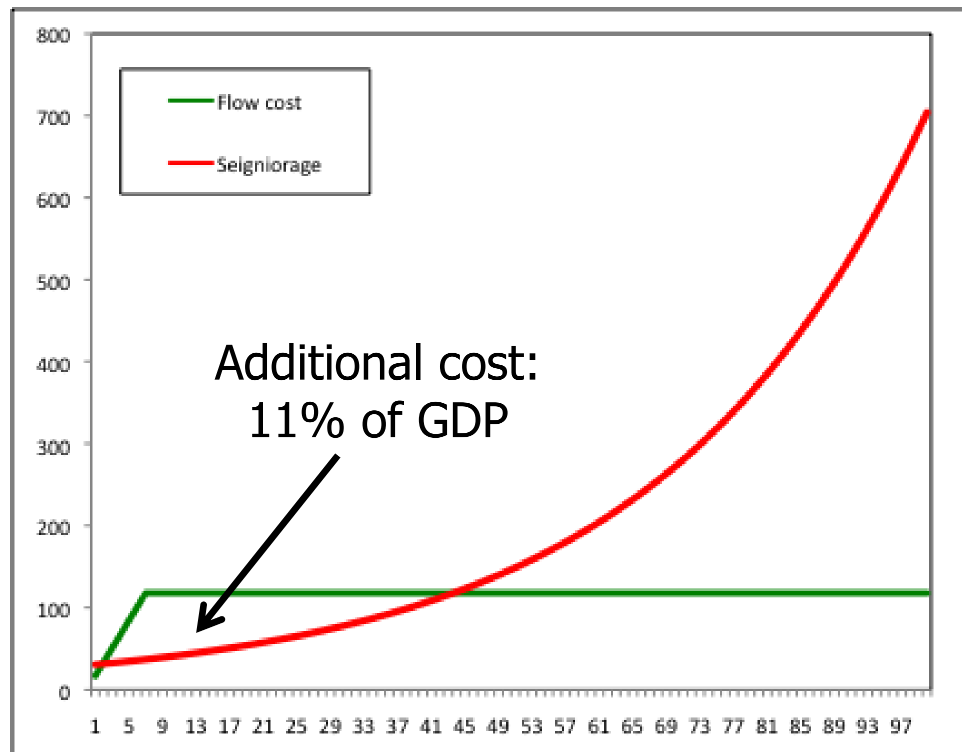
- At what rate can the agency borrow?
  - Risk of inter-country transfers
  - Average?
  - Lowest (best collateral)?
  - Case of ESM: 2.26% vs. 1.62% (Germany)

Loose ends : time profile

- Time profile
  - Early on: buy debts
  - Seigniorage grows with nominal GDP

Loose end: Time profile of annual cost and income

- Early on: buy debts
- Seigniorage grows with nominal GDP



Loose end: Which agency?

- A new agency?
- Existing agencies
  - European Stability Mechanism (ESM)?
  - European Investment Bank?
- Simplest: Eurosystem
  - ECB buys bond
  - ECB issue own debt instruments to fully sterilize bond purchases
  - ECB losses deducted from seigniorage
  - Loss capacity absorption directly tapped
  - BUT, political acceptability?

Variants

- Just an example
- Myriads of variants possible
  - Smaller debt restructuring
  - Opting out
  - Explicit transfers
  - Limited duration
    - Note that amounts become trivial over time