DISCUSSION OF:

Optimal Debt Restructuring and Lending Policy in a Monetary Union

by K. Dogra

Todd Keister
Rutgers University

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The question

- European debt crisis highlighted the importance of macroeconomic spillovers between debtors and creditors
- The story:
  - when highly indebted countries are forced to deleverage…
  - demand falls in the entire region …
  - which leads to a region-wide recession …
  - and makes everyone (debtors and creditors) worse off
- What can policy makers do in this situation?
  - If high debt is making everyone worse off …
  - maybe debt relief can be a Pareto improvement
  - Is this possible? If so, how should it be structured?

- Answering these questions requires a model that captures:
  - mechanism by which deleveraging in a debtor country affects demand/output in creditor countries, and
  - differences between types of debt relief
    - simple write downs
    - lending at a below market rate
    - extending the maturity of the debt
- The paper does this in a fairly rich two-period model
  - many countries (some are borrowers, some are savers)
  - differentiated commodities and monopolistic competition
  - etc., etc.

- Results are interesting
  - debt reductions can indeed yield Pareto improvements
  - but one needs to be careful about the details
    - better to lend at below market rates than to simply forgive
    - role for extending maturity of debt

My plan

- Try to illustrate (some of) the key ideas graphically
  - aim to understand better what is important here
- Offer some comments/questions

A simplified (two-country) model

- Preferences: $u(c_1^i, h_1^i) + \beta u(c_2^i, h_2^i)$ for $i = S, B$
- Technologies: $\sum_i c_t^i \leq A \sum_i h_t^i$
- Budget constraints:

Borrower:

$$c_1^B \leq y_1 - \bar{d}_1 + q(d_2)d_2$$

$$c_2^B \leq \max\{y_2 - d_2, y_2 - \chi\}$$

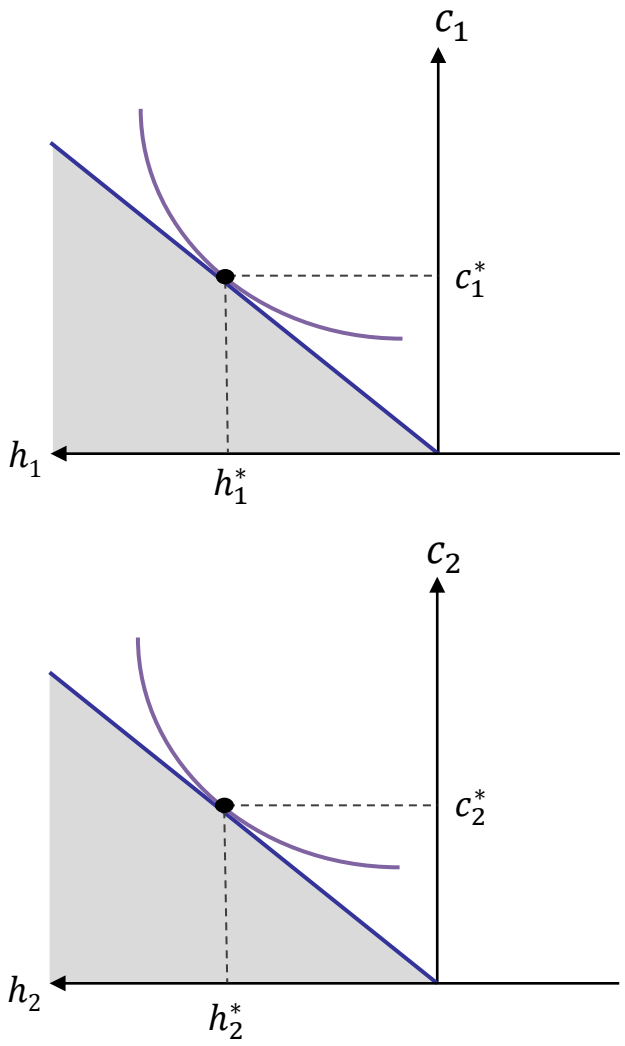
Saver:

$$c_1^S \leq y_1 + \bar{d}_1 - qd_2$$

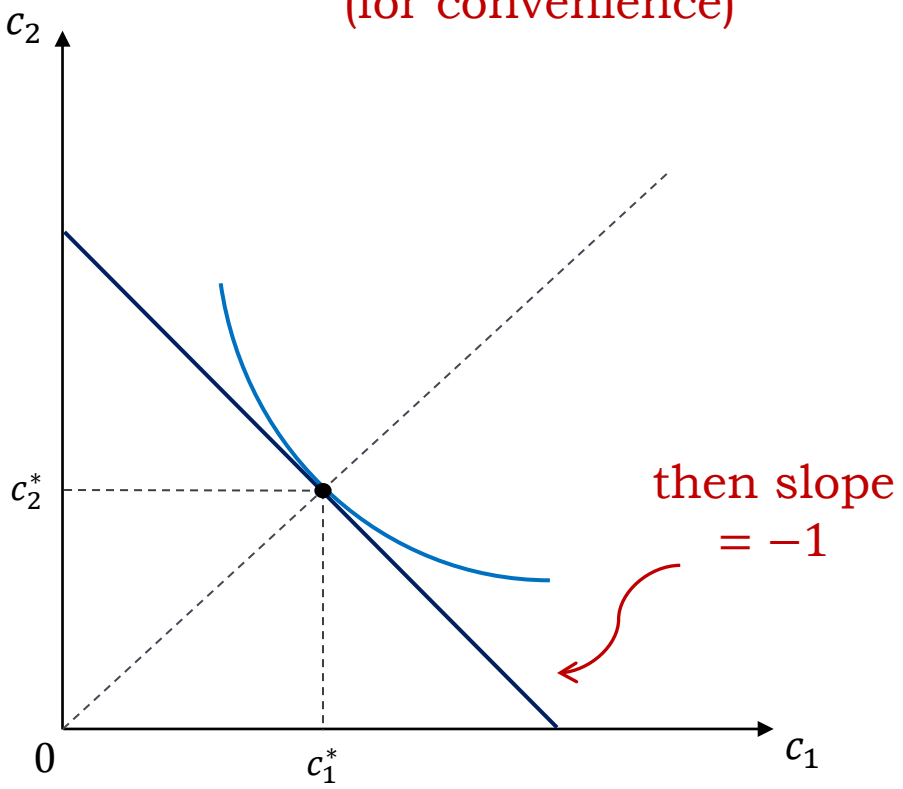
$$c_2^S \leq y_2 + (1 - \delta)d_2$$

Only real difference is initial debt

No debt $(\bar{d}_1 = 0)$

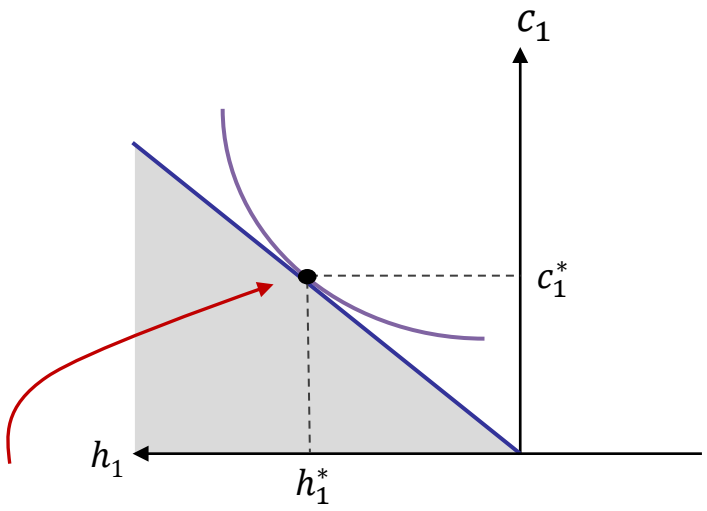


Set $\beta = 1$
(for convenience)

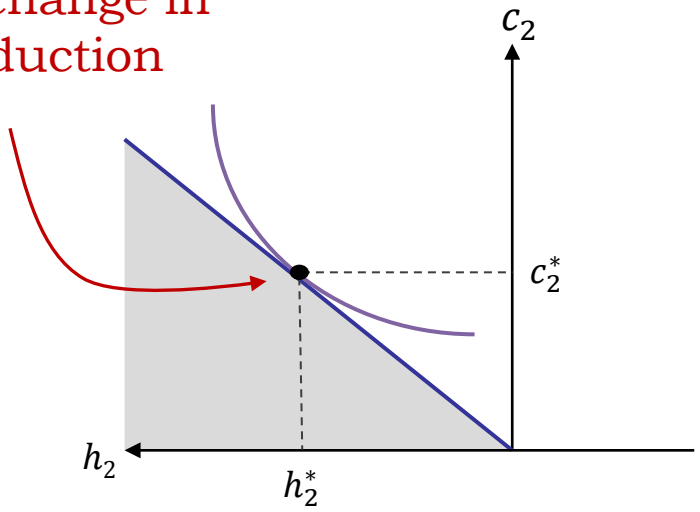


then slope
$= -1$

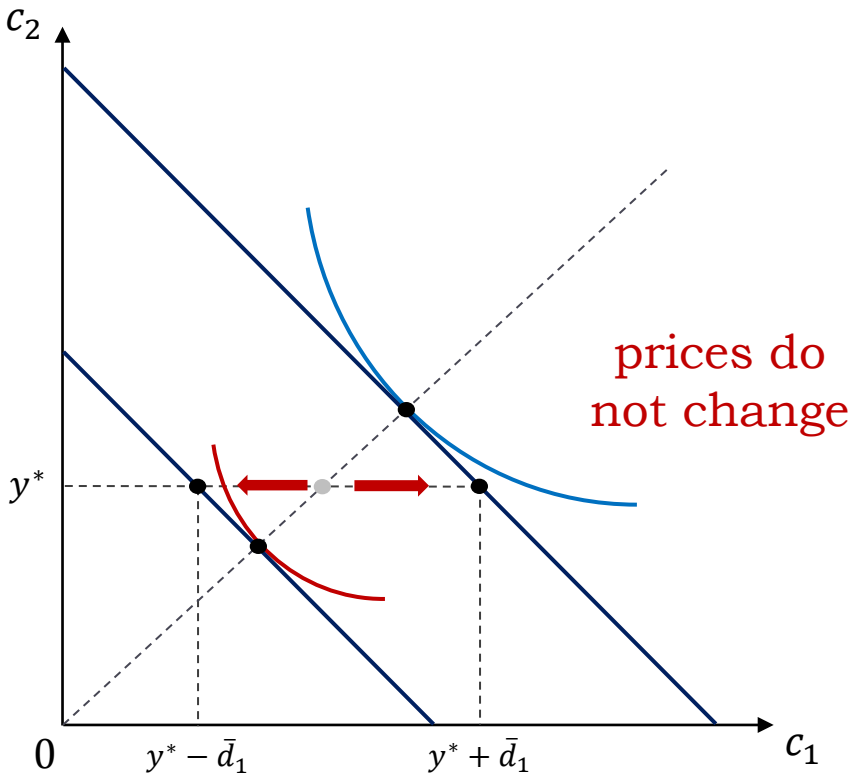
Debt with no default



no change in production



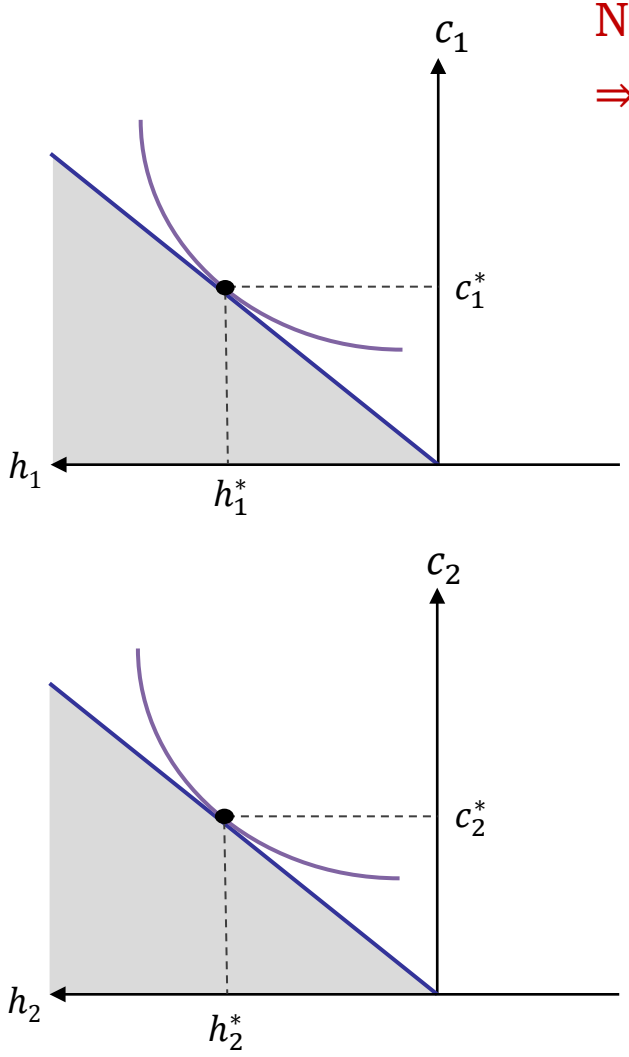
The initial debt moves "endowments" of c_1



prices do not change

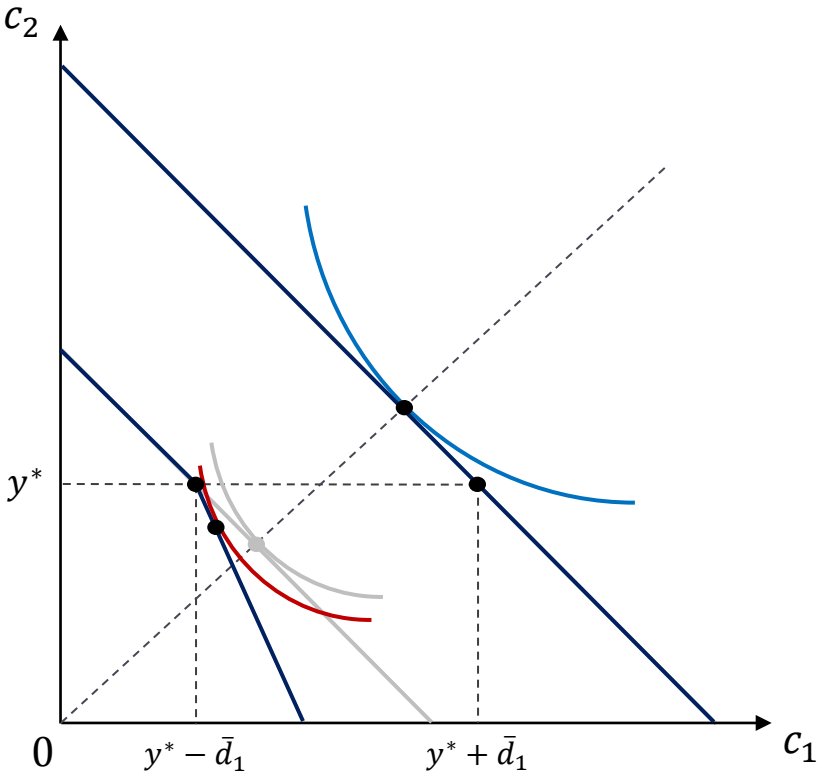
both countries trade along budget line

Debt with default (no ZLB)

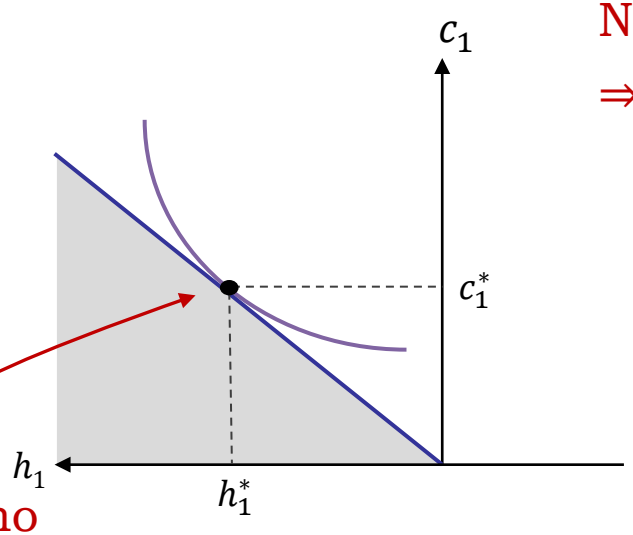


Now: default makes borrowing more expensive

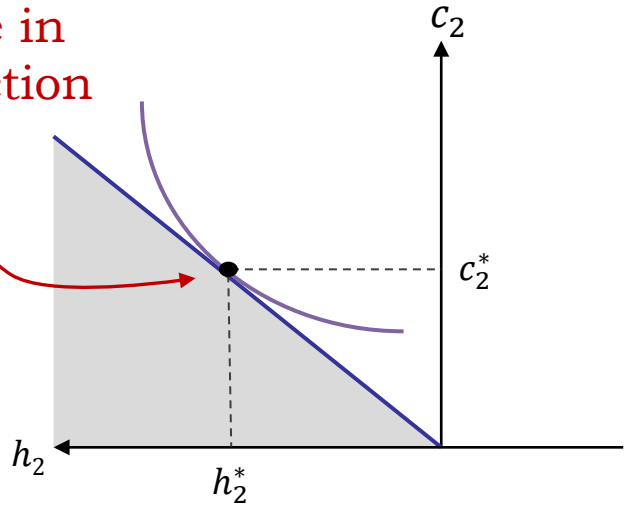
⇒ country B borrows less ("deleveraging")



Debt with default (no ZLB)



again no change in production



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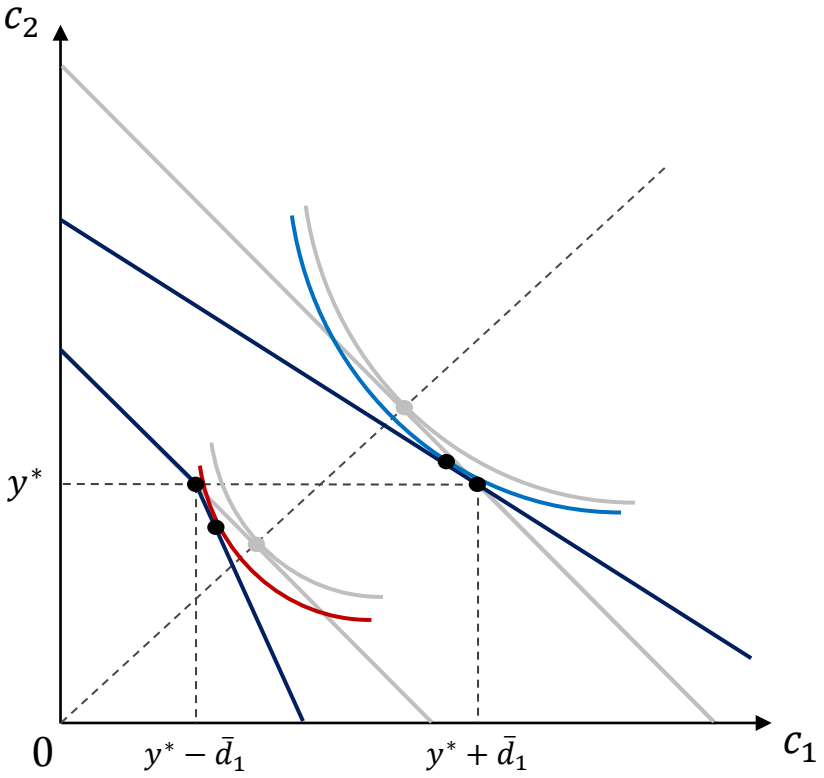
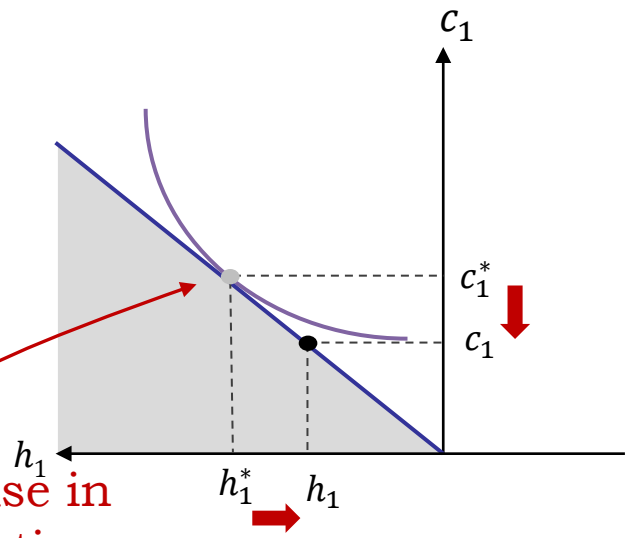
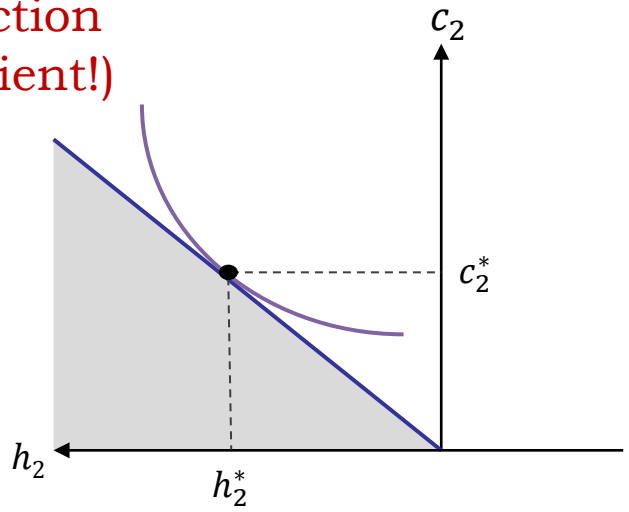


market clearing requires prices to change so that S saves less

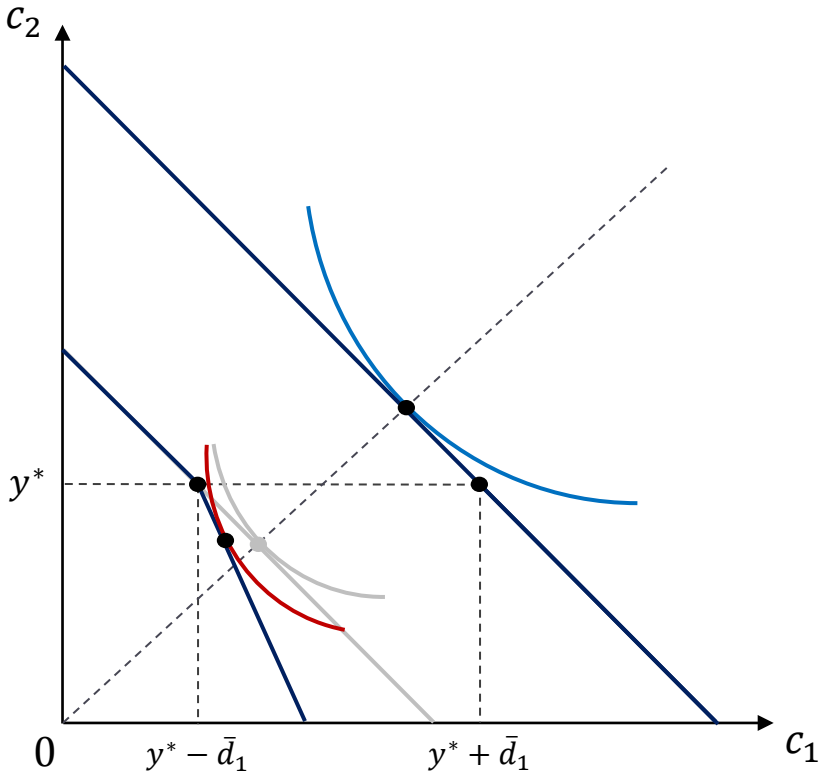
Debt with default and a ZLB



decrease in production (inefficient!)



Suppose the interest rate faced by saver cannot decrease

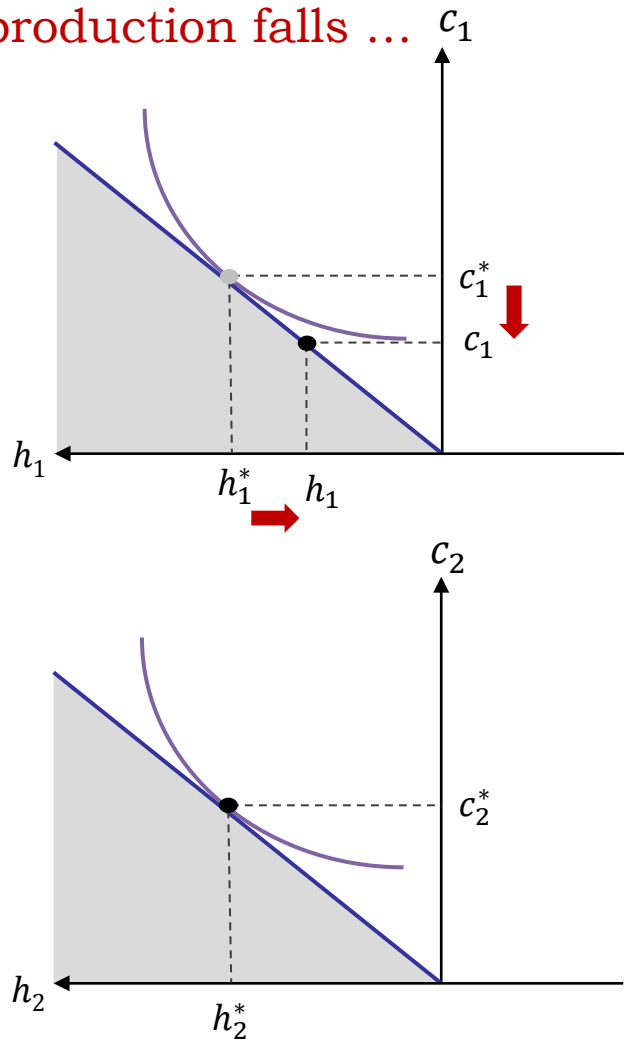


⇒ then total demand for c_1 falls

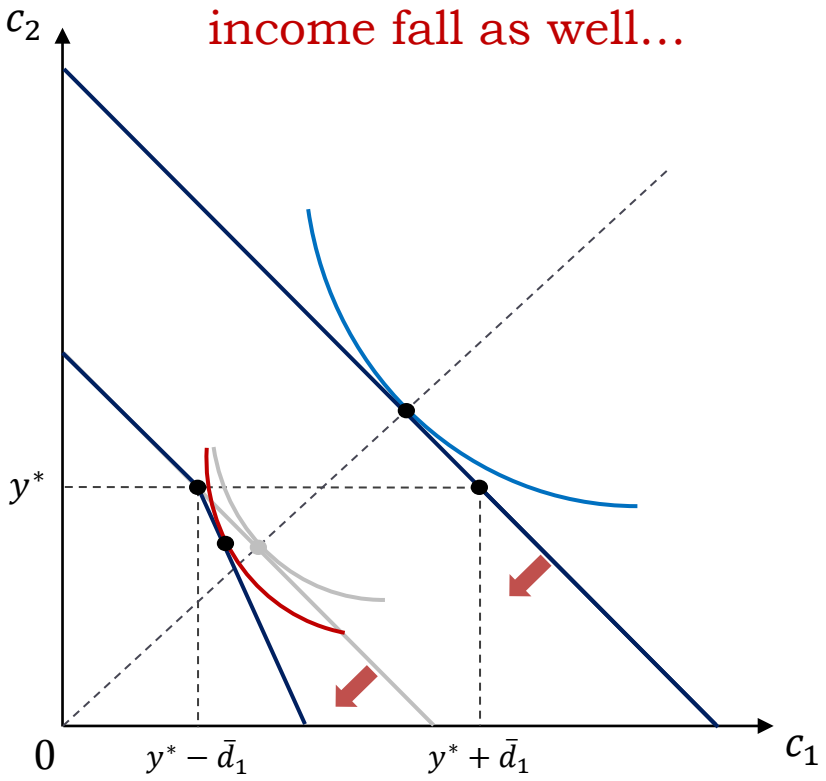
The only way for markets to clear is …

Debt with default and a ZLB (cont.)

When production falls …

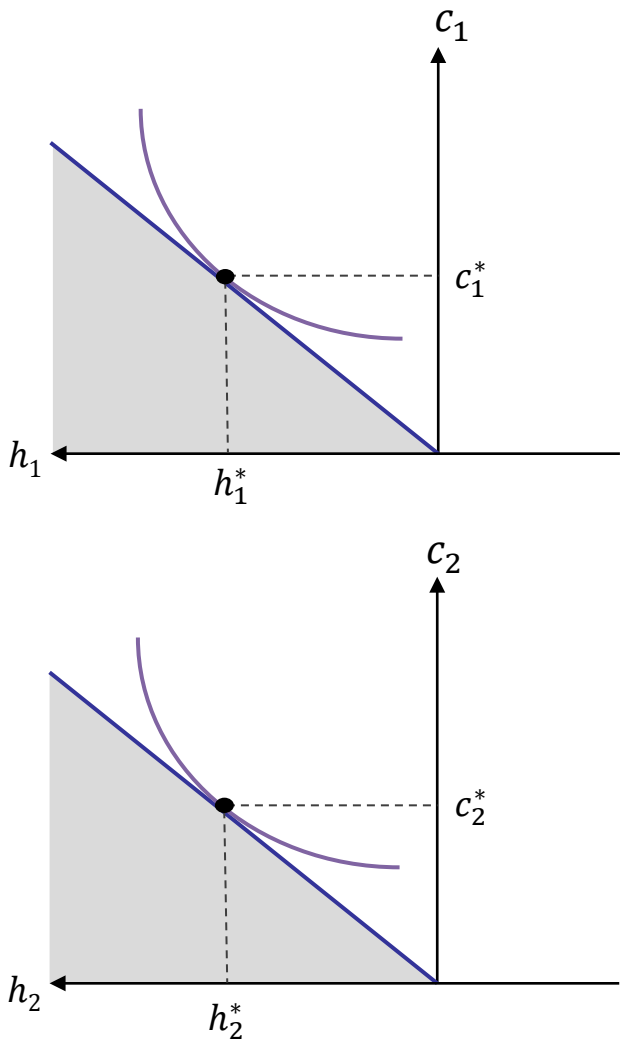


… labor input and labor income fall as well…

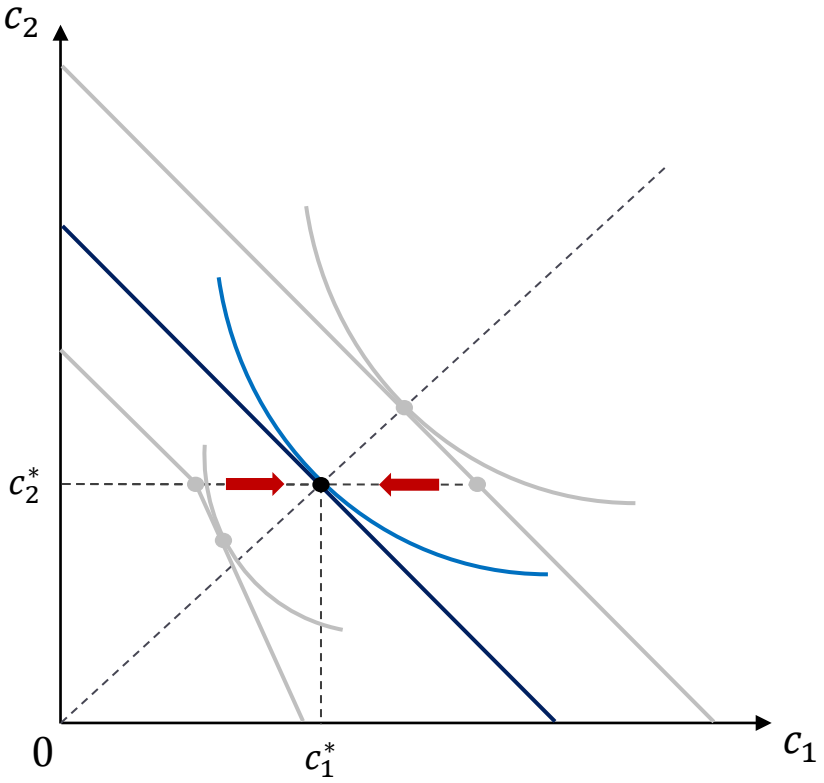


… which shifts budget lines inward and further decreases agents' demand

Debt relief



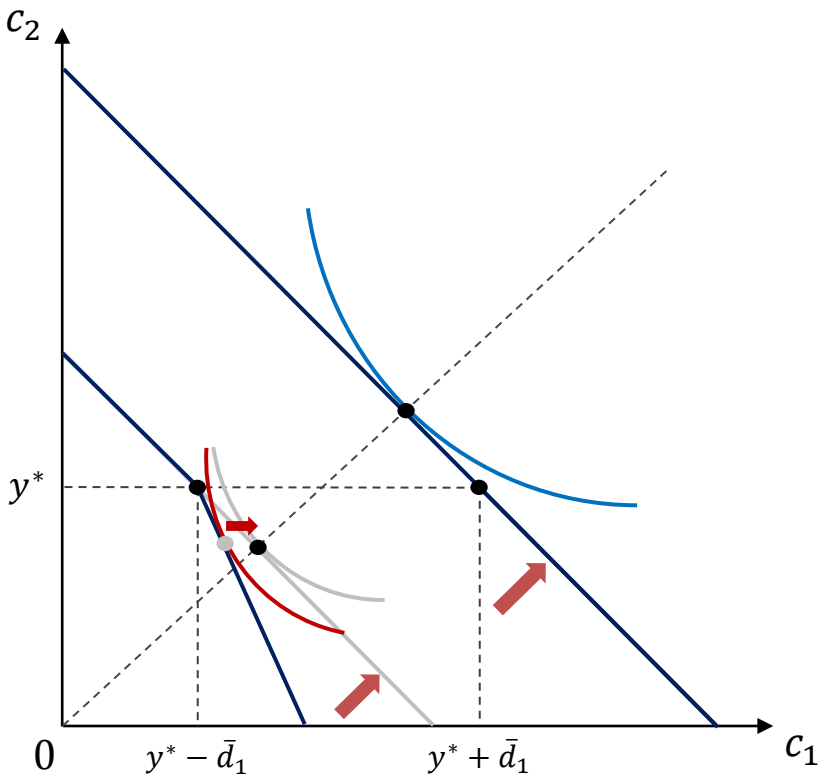
Note: Debt relief can always restore efficiency…



…but typically makes country S worse off

The question

- Can a (smaller) debt relief yield a Pareto improvement?
  - seem plausible: there are idle productive resources
- Try: forgive amount of debt equal to $t = 1$ output gap
  - if country 1 consumes the entire transfer…
  - output returns to potential
  - incomes rise
  - everyone is happy
- Problem: what if they *save* some of the transfer?
  - need to transfer more …



1) An interesting insight

- Even in a setting where the aggregate demand spillovers are large (by construction)
  - … so it seems like the story should work …
- Simple debt forgiveness is typically a bad deal for creditors
  - this point was not so obvious (at least to me)
- But … it is a bad deal for an "odd" reason
  - debtors behave too conservatively once debt is forgiven
  - impose "austerity" to partially pay down remaining debt
  - creditor nations want debtors to spend *more*

2) Forgiving vs. forgetting

- Optimal policies forgive debt and *discourage* saving
  - by subsidizing current borrowing, or shifting to longer-term debt that can be diluted
  - which ensures the country remains sufficiently indebted
- Reason for this in the model is clear
  - Benefit of forgiveness (for creditors) is the increased demand for their current output …
  - which cannot be generated domestically because of the ZLB
- How strongly do we believe this mechanism?
  - I don't recall comments from German officials along these lines
  - Are they just wrong? Is the model missing something?

3) Eurobonds to the rescue?

- Savers in the model buy a diversified portfolio of bonds
  - take default rate as given
  - do not think that saving more will lead to higher default rate
- Borrowers issue country-specific bonds
  - recognize that issuing more raises the interest rate they pay
  - this fact drives a wedge between the MRS of savers and borrowers
- Suppose a central agency packages country bonds into Eurobonds …
- … and charges all borrowers the *average* interest rate
  - regardless of their own default probability

- In equilibrium, all countries issue the same amount and receive a "fair" price for their bonds
  - but the equilibrium quantity of debt issued will be higher
- Would this centralized debt pricing raise welfare?
  - would it mitigate (or prevent?) the problems associated with the ZLB?
- Usual worry with this scheme: introduces an externality
  - my issuance raises the interest rate everyone must pay
  - gives countries an incentive to over issue
  - but the problem in this model is debtors issuing *too little* debt
  - seems worth considering