

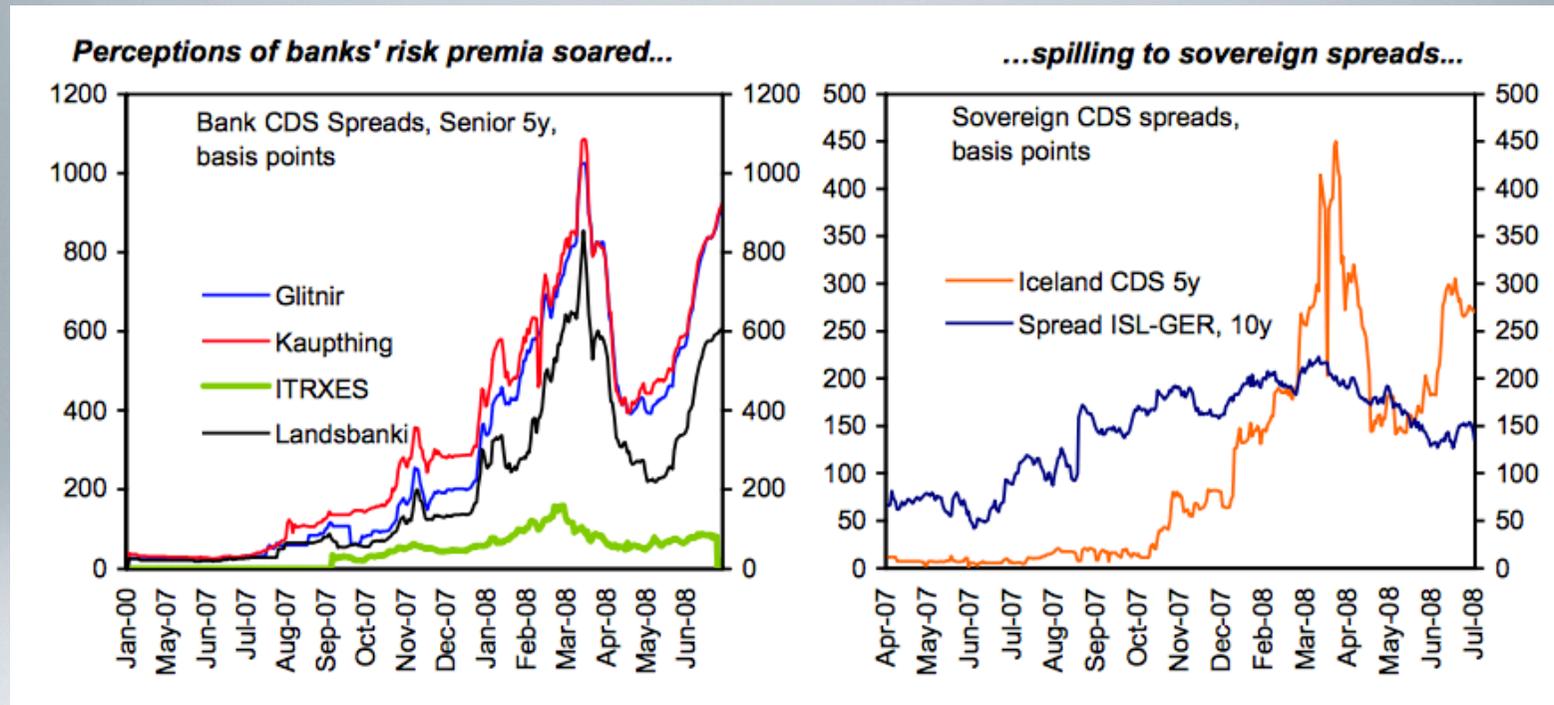
COMMENTS ON

R. COOPER AND K. NIKOLOV

GOVERNMENT DEBT AND BANKING FRAGILITY:
THE SPREADING OF STRATEGIC UNCERTAINTY

Andrew John,
NBER Conference on Multiple Equilibria and Financial Crises,
San Francisco, May 2015

CDS SPREADS IN ICELAND



- (But what was the direction of causality?)

CDS SPREADS IN IRELAND

Ireland Bond Risk at Record as Government Guarantees Deposits

By Neil Unmack - September 30, 2008 13:32 EDT

Sept. 30 (Bloomberg) -- The perceived risk of a bond default by Ireland surged to a record after the government said it will guarantee the deposits and borrowings of six lenders.

Credit-default swaps on Ireland's government bonds jumped 27 basis points to 60, according to CMA Datavision prices at 6:10 p.m. in London, after earlier reaching an all-time high. A basis point is 0.01 percentage point.

Ireland said today it will guarantee all deposits, covered bonds, senior debt and dated subordinated debt of four publicly traded banks and two building societies. The government made the announcement after the country's banking shares fell the most in a quarter-century yesterday.

Credit-default swaps on the banks guaranteed by the government plunged. Contracts on [Anglo Irish Bank Corp. Plc](#)'s senior debt declined 382 basis points to 350, CMA prices show. [Allied Irish Banks Plc](#) fell 215 basis points to 135.

TIMELINE OF MODEL

**Government
Actions**

Bailout
commitment?

Bailout?

Government
default?

**Private
Sector
Actions**

Portfolio
allocations

Bank
default?

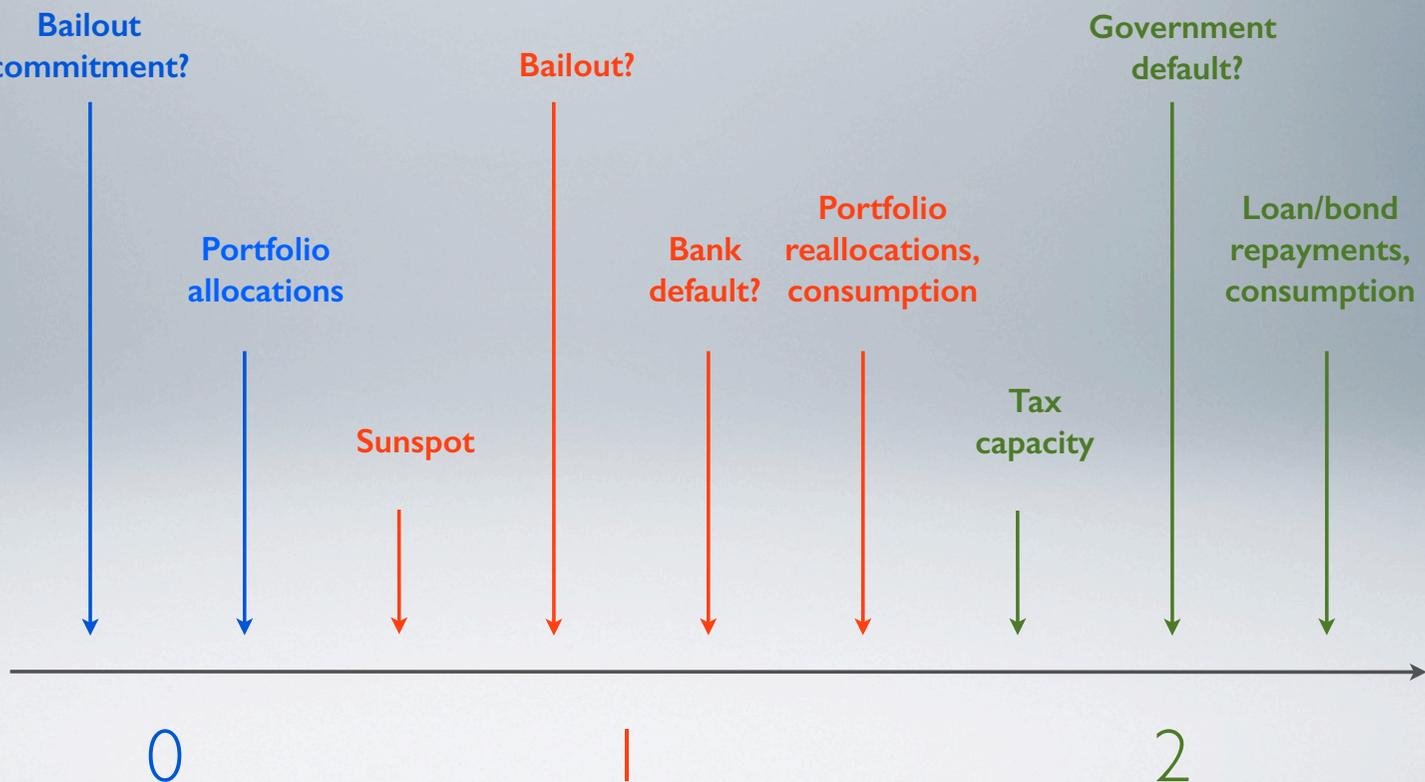
Portfolio
reallocations,
consumption

Loan/bond
repayments,
consumption

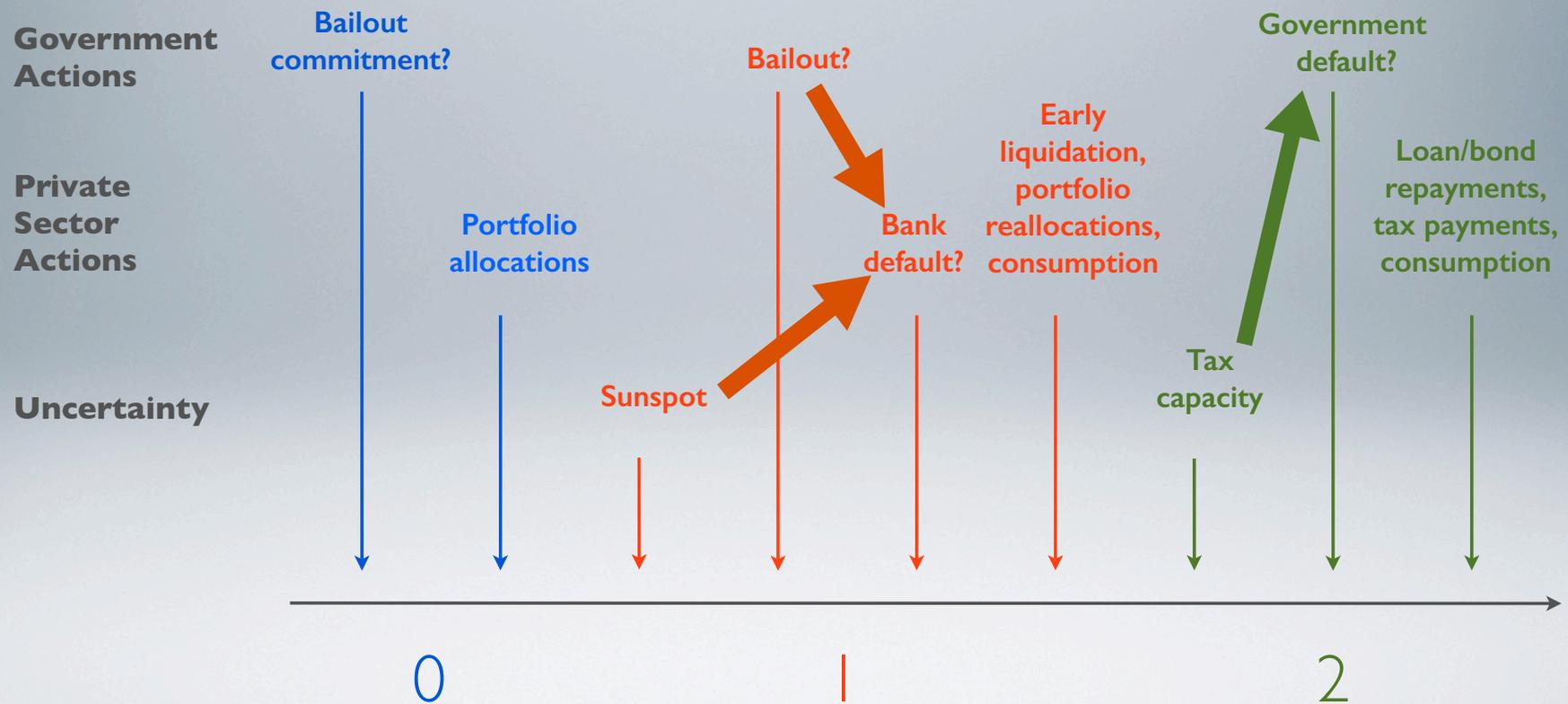
Uncertainty

Sunspot

Tax
capacity



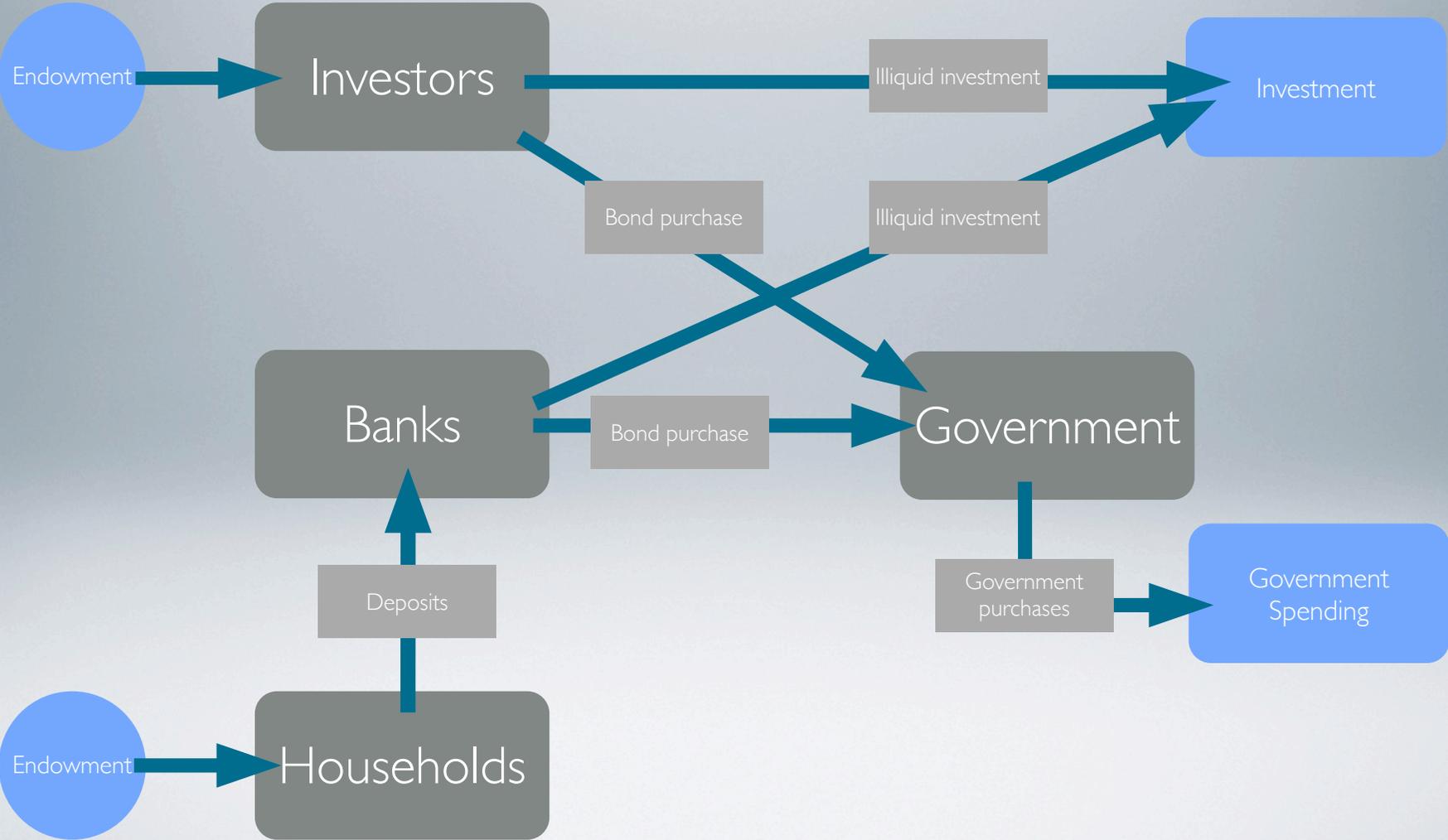
TIMELINE OF MODEL



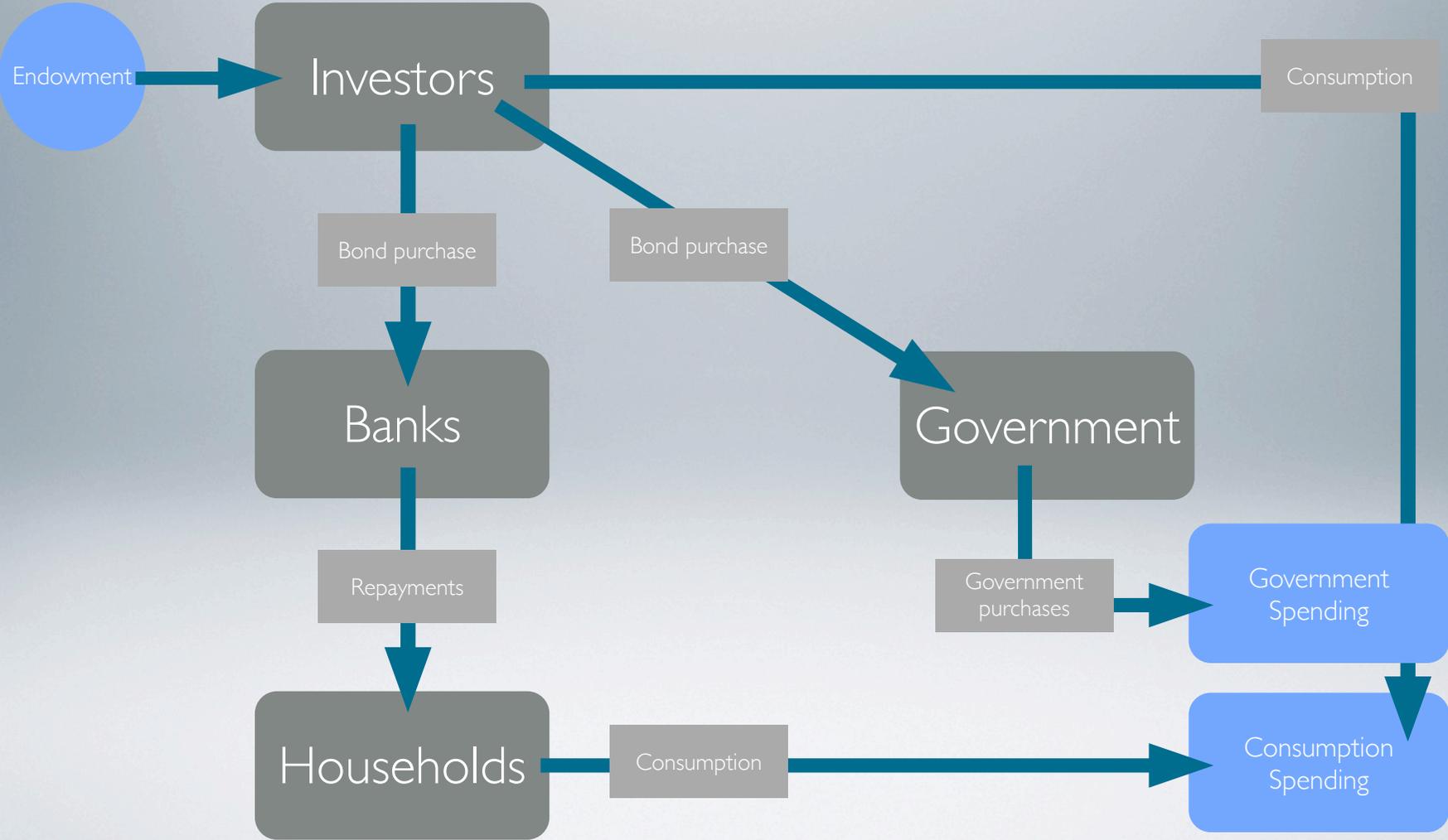
THE CONTRACT UNDER OPTIMISM

Proposition 2:
No sunspots

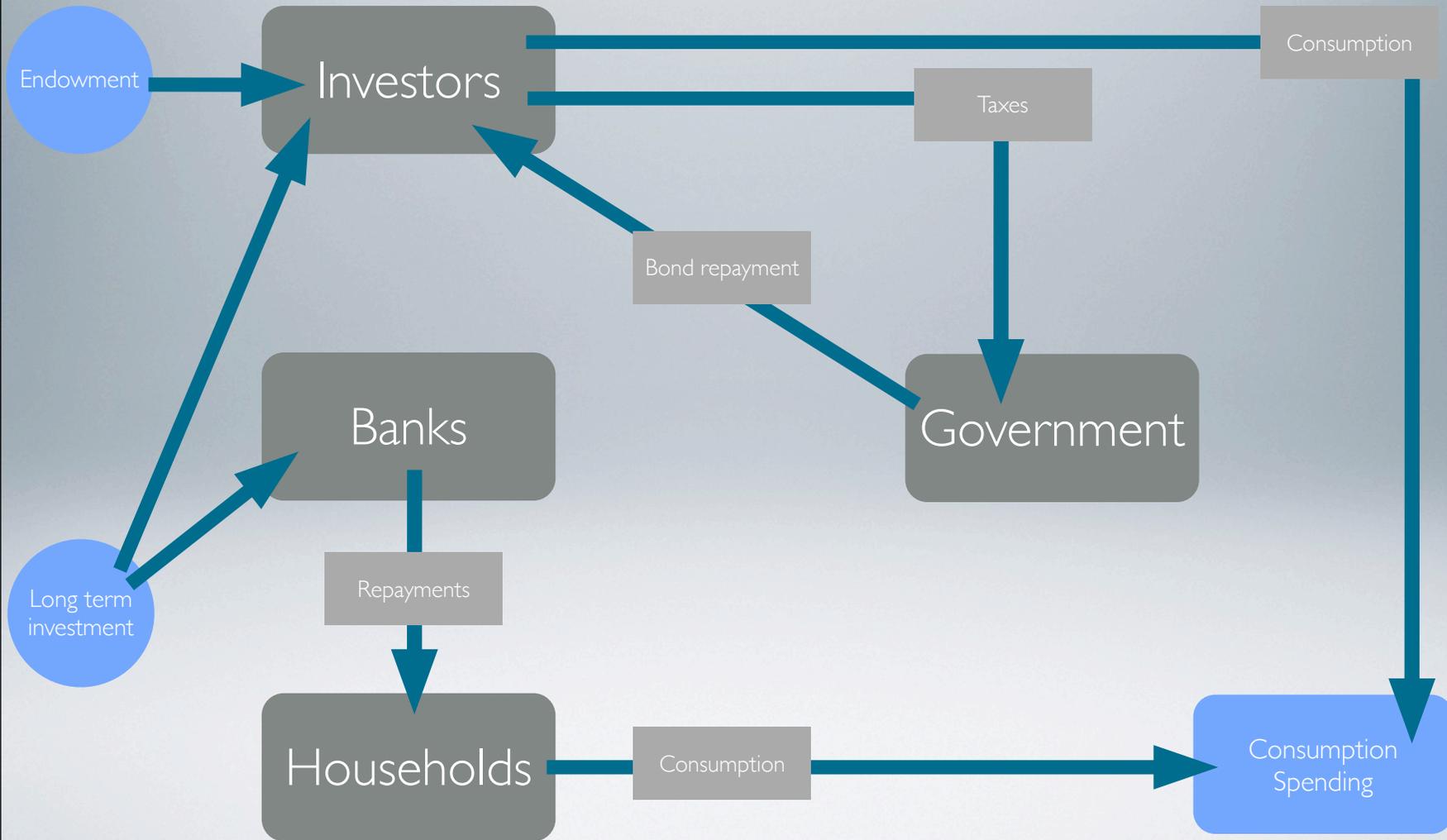
FIRST-BEST: PERIOD 0



FIRST-BEST: PERIOD I



FIRST-BEST: PERIOD 2



DISCOUNTING

- The parameter R is the **two-period** return (from period 0 to period 2) on illiquid investments, but it is also the **one-period** discount rate (from period 1 to period 2) of investors
 - There is no modeling inconsistency: there are no agents in the model who discount utility from period 1 to period 2, so nothing that says anything about how agents view the passage of time between 0 and 1
 - But we do have government spending in both period 0 and period 1, there are bonds issued in both period 0 and period 1, and these periods do correspond to the first two periods in a Diamond-Dybvig game
 - So it seems odd for there to be no discounting between periods 0 and 1, and for debt to pay a zero return between period 0 and period 1

FEASIBILITY CONSTRAINTS

- Investors' period 1 consumption is

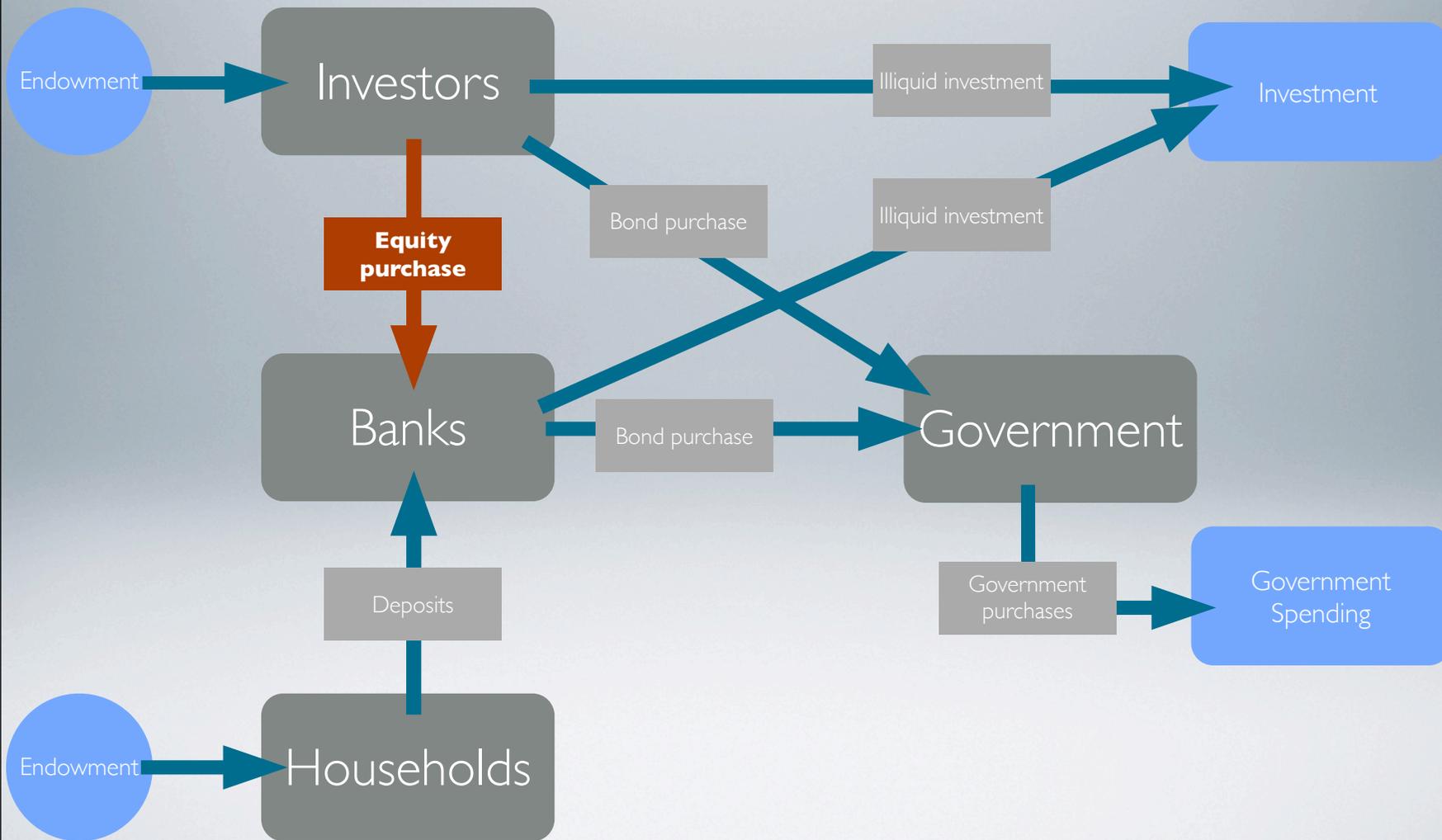
$$c_1 = A_1 - G_1 - \pi c^E$$

- But if the endowment in period 1 is insufficient to cover government spending and consumption of early households, investors will be at a corner solution and the optimal contract is not feasible
- Also $G_0 \geq q_0 B_0^B = q_1 B_0^B \geq \pi c^E$ is an additional constraint on the allocations constructed in the paper (if there is “market clearing in the interbank market at zero trade”)

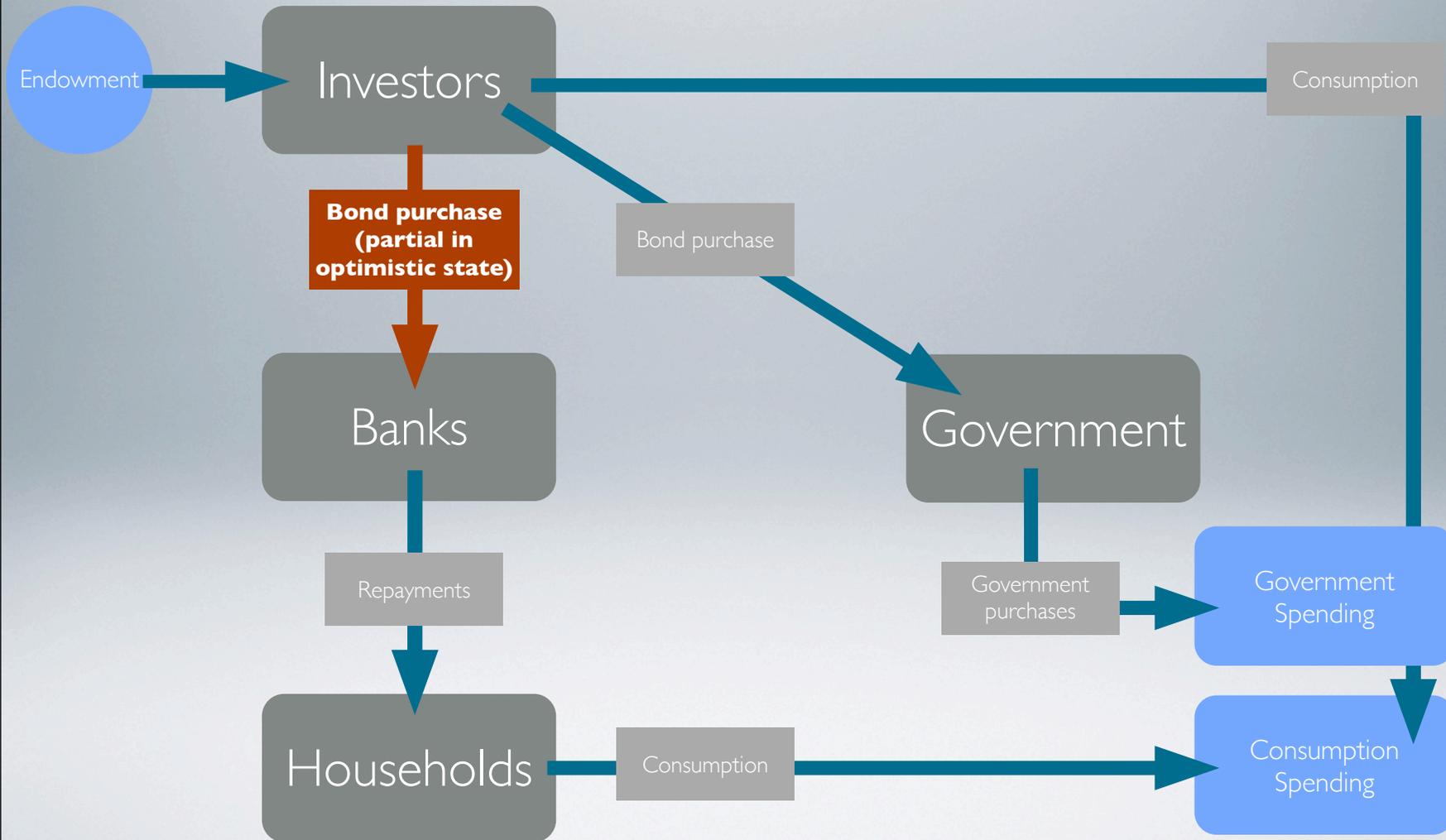
PRIVATE SECTOR INSURANCE

Propositions 4 and 6:
Sunspots; credible commitment to no bailout

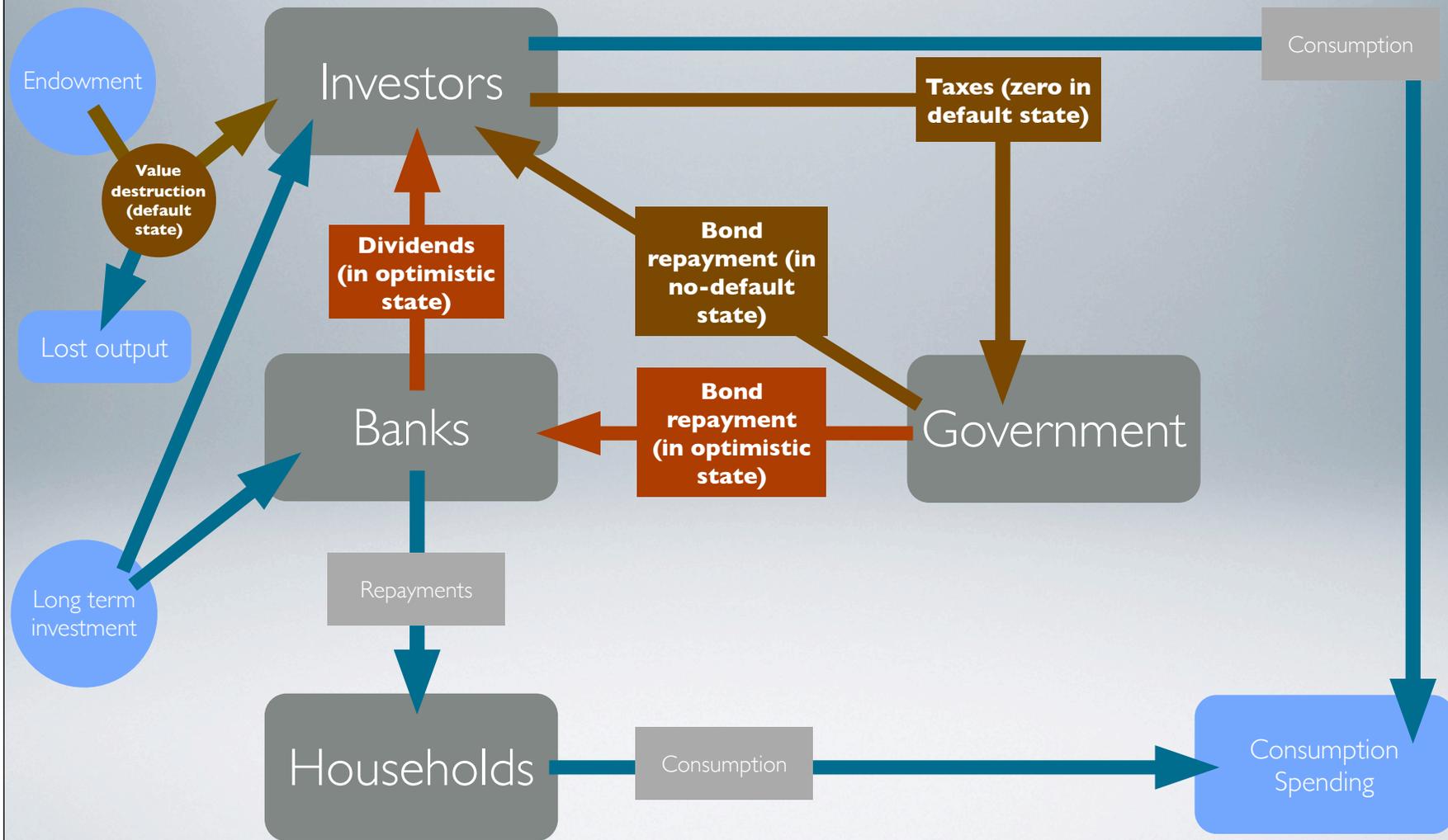
NO BAILOUT: PERIOD 0



NO BAILOUT: PERIOD I



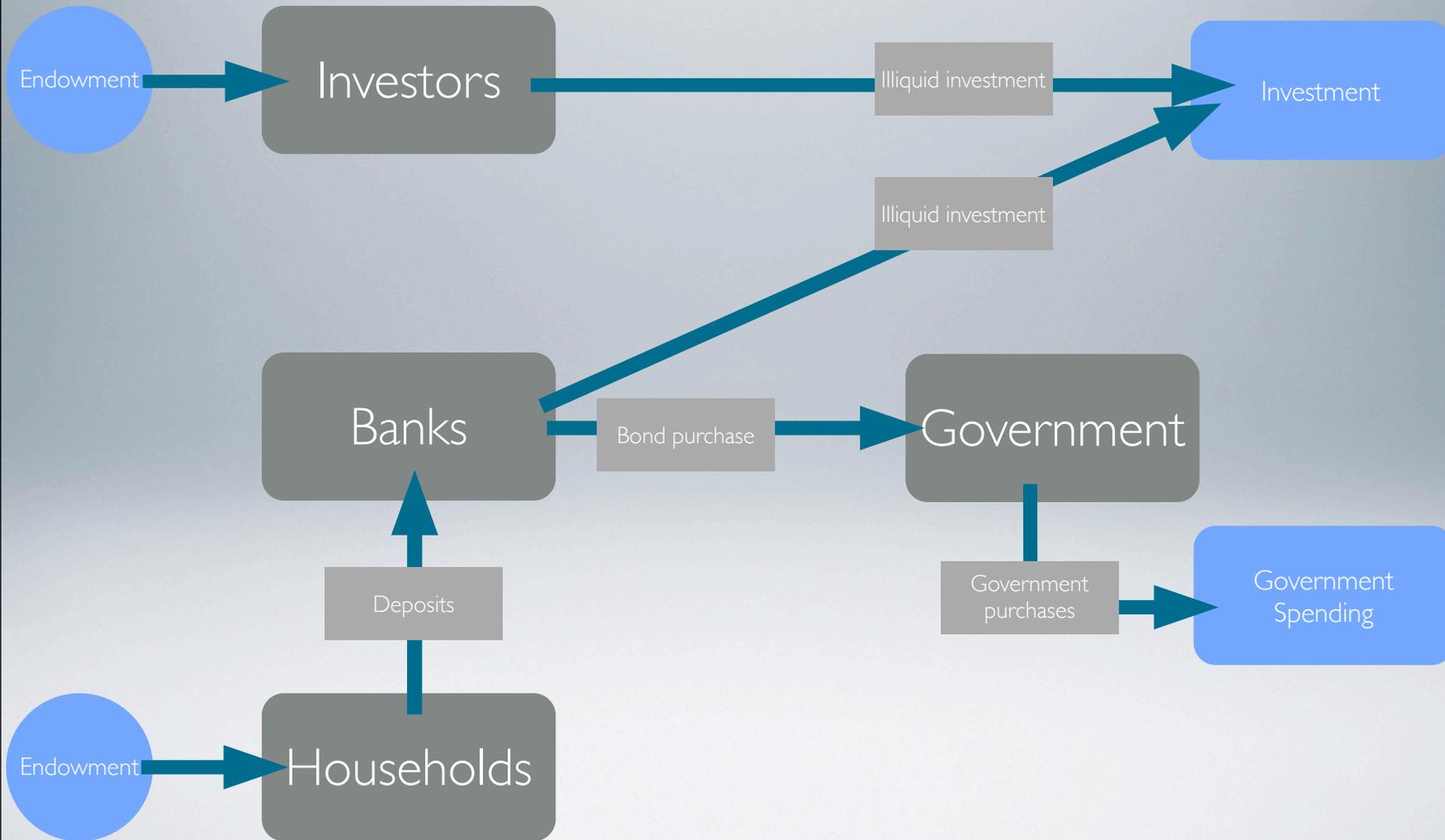
NO BAILOUT: PERIOD 2



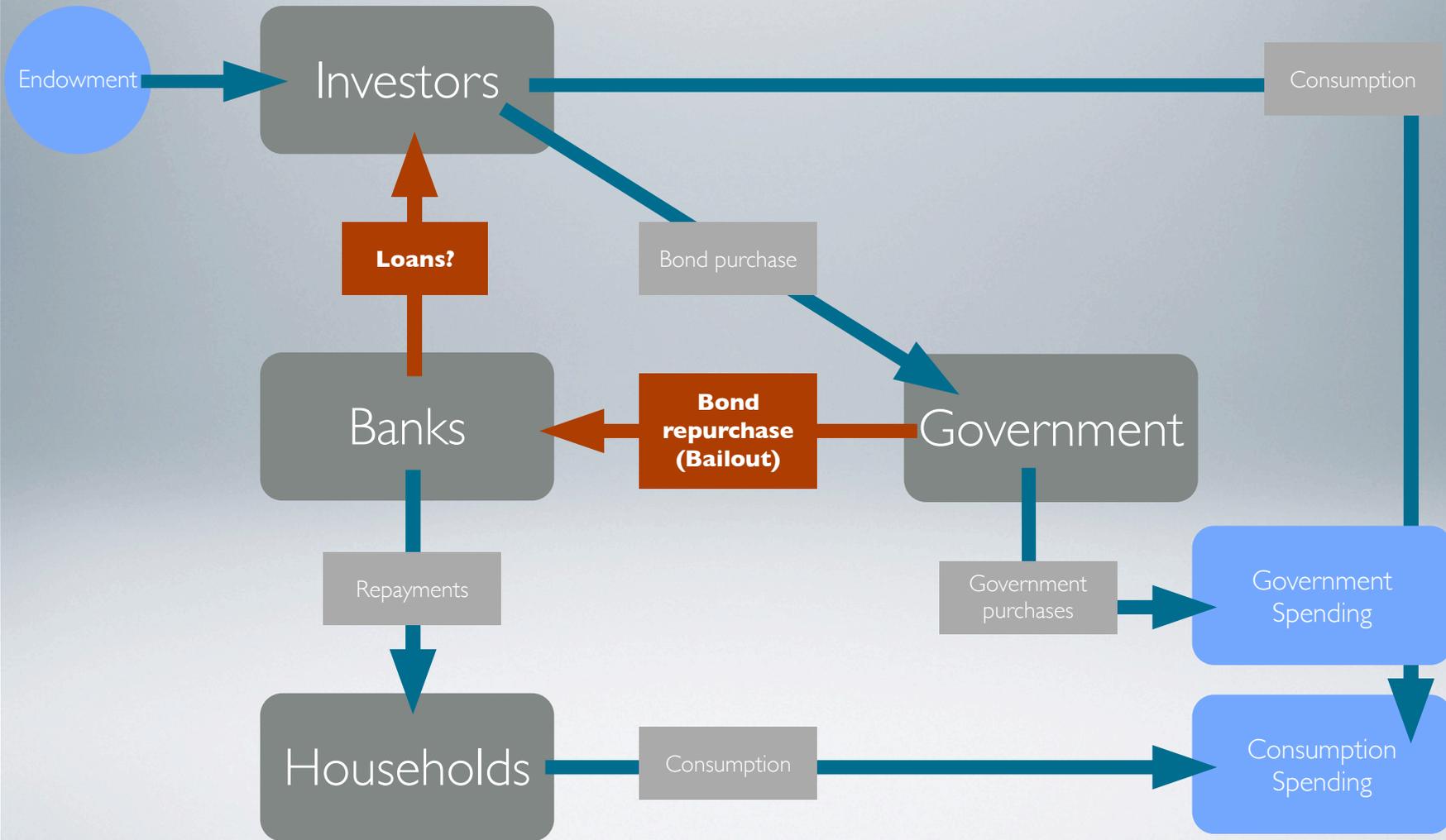
THE MODEL WITH MORAL HAZARD AND BAILOUTS

Propositions 3 and 5:
Sunspots; lack of credible commitment

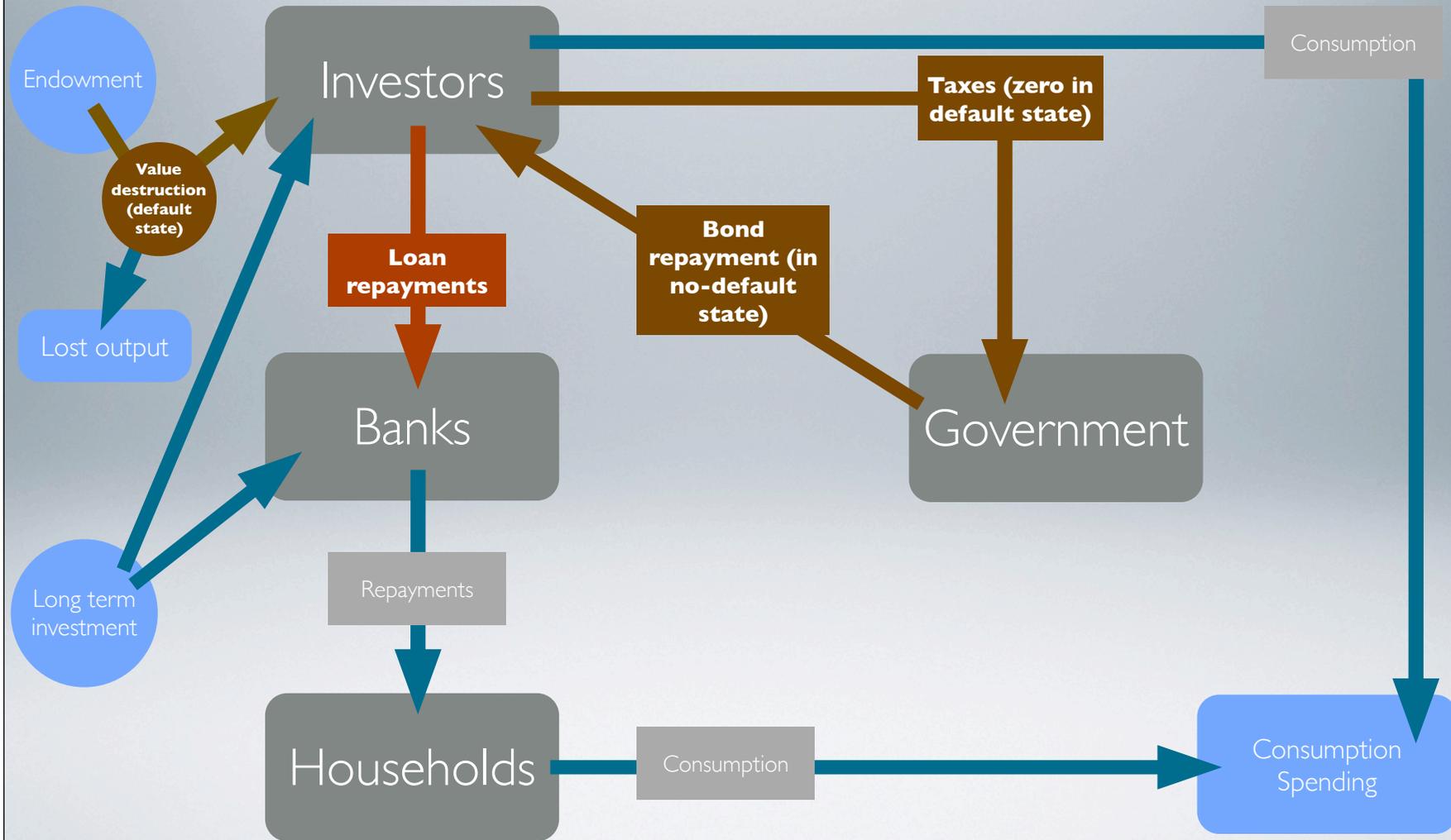
BAILOUT: PERIOD 0



BAILOUT: PERIOD I

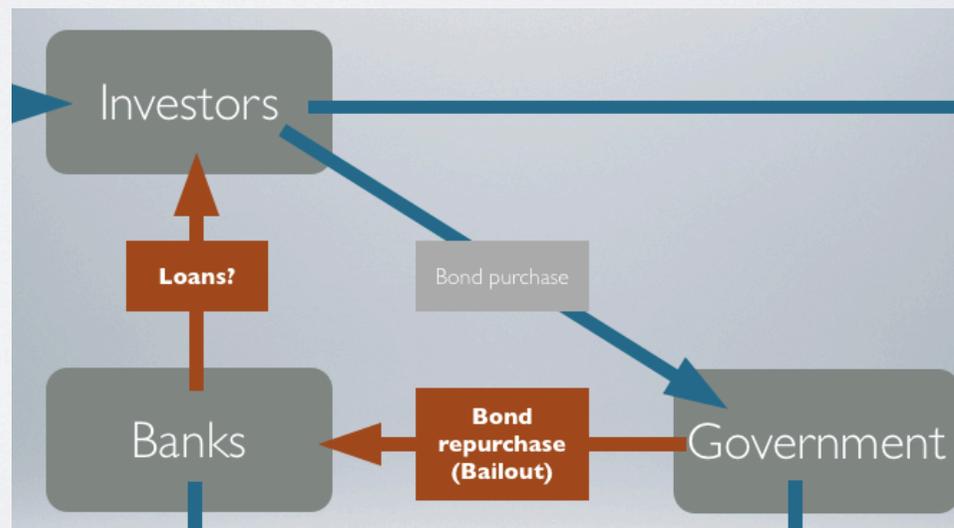


BAILOUT: PERIOD 2



PROPOSITION 3

- “All government debt [in period 0] is held by banks as they receive the benefits of the debt buyback”
- “Along the equilibrium path, banks sell all the risky debt to investors at date 1”
- “Under a buyback scheme, the government will buy as much debt as banks supply at a price ... $q_1^{BB} = \frac{1}{R}$ ”
- “The investors are willing to lend as much as demanded in the interbank market”



BANK RUNS

- A run on the banking sector à la Diamond-Dybvig is excluded, because the banks and the households negotiate an optimal contract
 - There is a risk of bank failure, but only because there may be government default, and only off the equilibrium path
 - Even in the case of bank failure and restructuring (off the equilibrium path), short-term liquidation of assets does not occur
- It would be nice to have a model where depositors can stage a run on the bank and where this leads to bailout (Northern Rock?)
 - It would be even nicer to have speculative attacks on the currency as well

DEBT SENIORITY

- Two-period bonds issued in period 0 and one-period bonds issued in period 1 are perfect substitutes in the model
- Bonds held by banks and bonds held by investors are likewise perfect substitutes
- These are OK modeling assumptions, but reality is muddier
 - On-the-run treasuries typically trade at a premium
 - Seniority might depend on the class of bondholder
 - The government could choose to selectively default on debt of particular maturity
 - This could be relevant even within the confines of the model -- the strategy set for banks could in principle include selective default as a possibility

GOVERNMENT FINANCES

- The government does not tax any of the economic activity of the banking or investment sectors
- The only tax is on the endowment of investors in period 2
 - This allows taxes to be non-distortionary, but seems restrictive
 - It also shuts down a potentially interesting channel: if banks liquidate assets in period 1, this will reduce the tax base, making government default more likely
- Government spending is exogenous, and there is no government spending in period 2

POLICY IMPLICATIONS

- Commitment good; moral hazard bad!
 - Can we change government incentives to make no bailout time consistent?
- Bank equity removes the incentive for government bailouts
 - It would be worth including an explicit analysis of optimal capital requirements in the paper