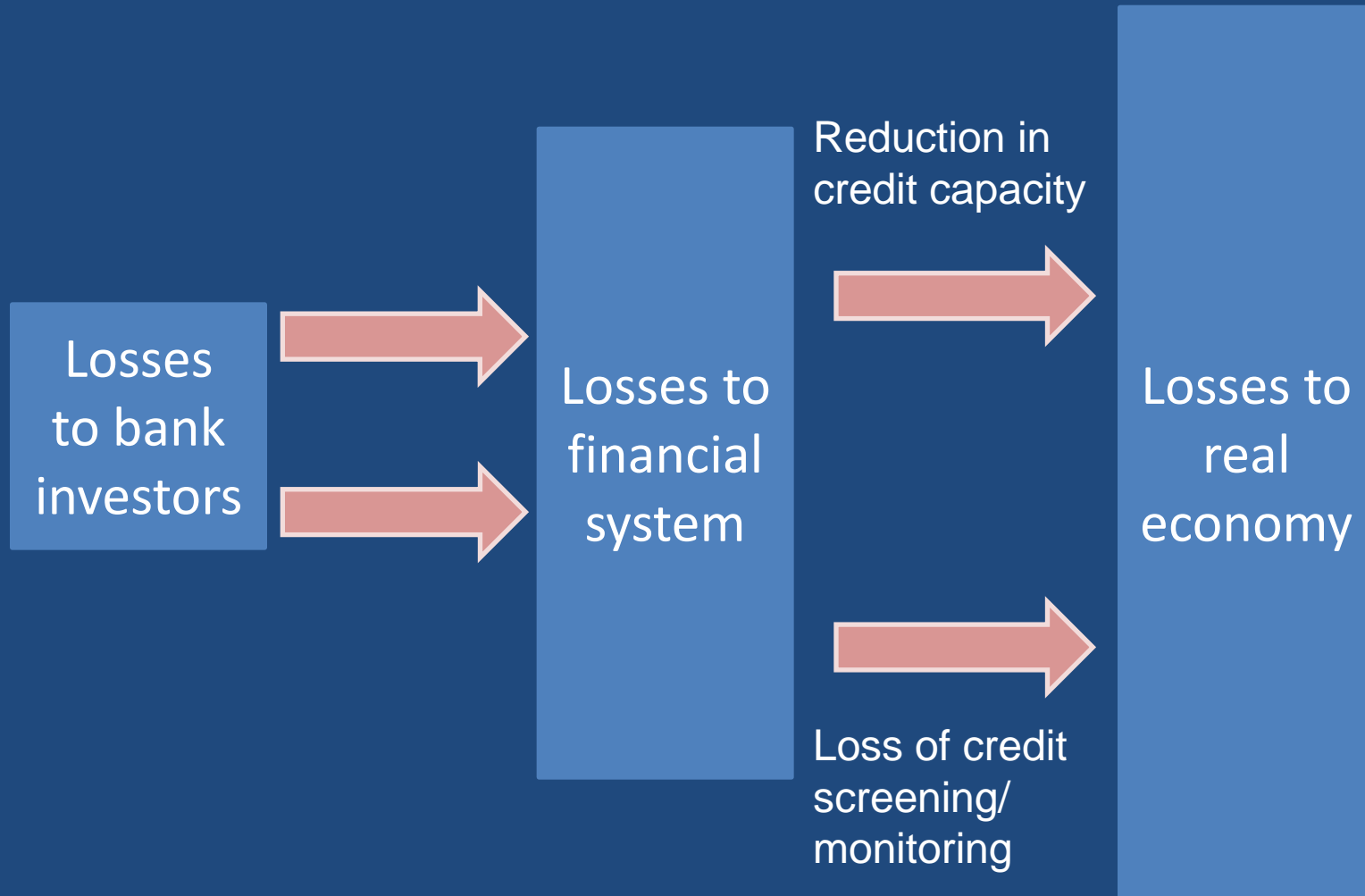


Making Bank Resolution Credible

John Armour
Oxford University

The problem

Bank failure and systemic risk



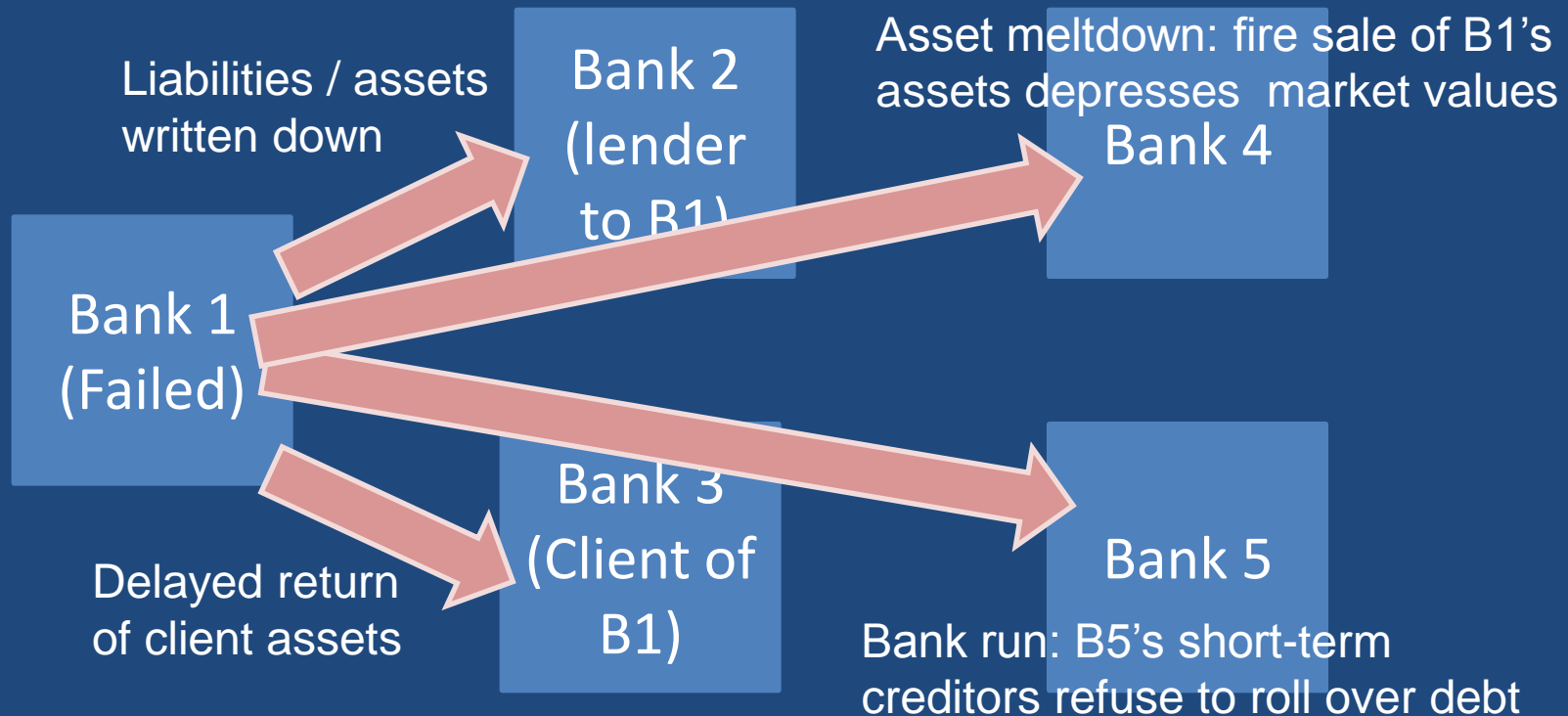
'Paulson's dilemma'

Mechanism	What's Good	What's Bad	Limits
'Bailout'	-Cost of saving troubled firm is much less than systemic losses avoided	-Moral hazard: encourages risk taking <i>ex ante</i>	-Politically unpopular -National balance sheet ('Iceland / Ireland effect')
Bankruptcy	-Avoids perverse incentives <i>ex ante</i>	-Contagion	-Financial sector meltdown?

Financial sector contagion

Institutions with contractual links

Institutions with correlated business models

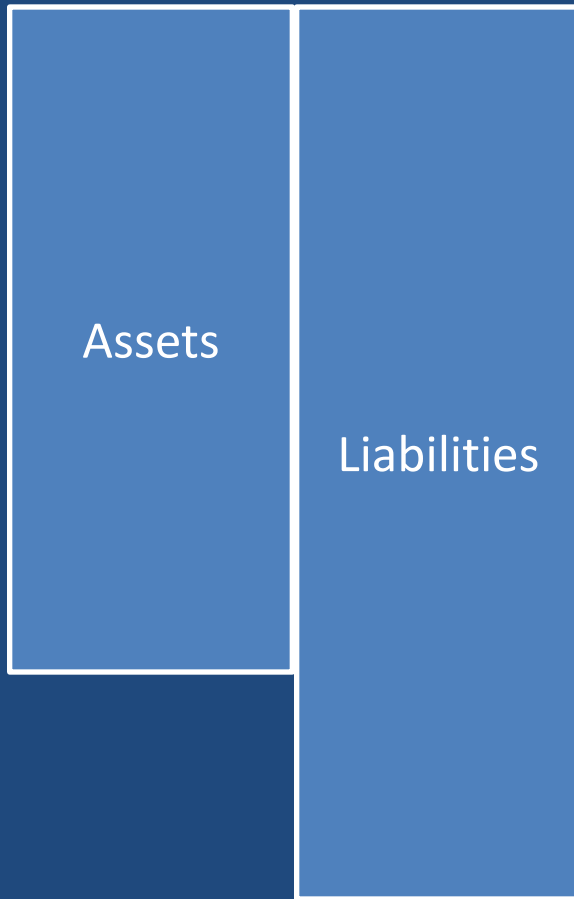


Complementary *ex ante* regulation

- Tightening of capital adequacy rules
 - Basel III
 - Leverage ratio
- New liquidity rules
- Structural reform?
 - Volcker rule (US)
 - Vickers proposals (UK)
- Executive compensation rules
- Corporate governance reform?

First-generation resolution
procedures:
Expedited transfers

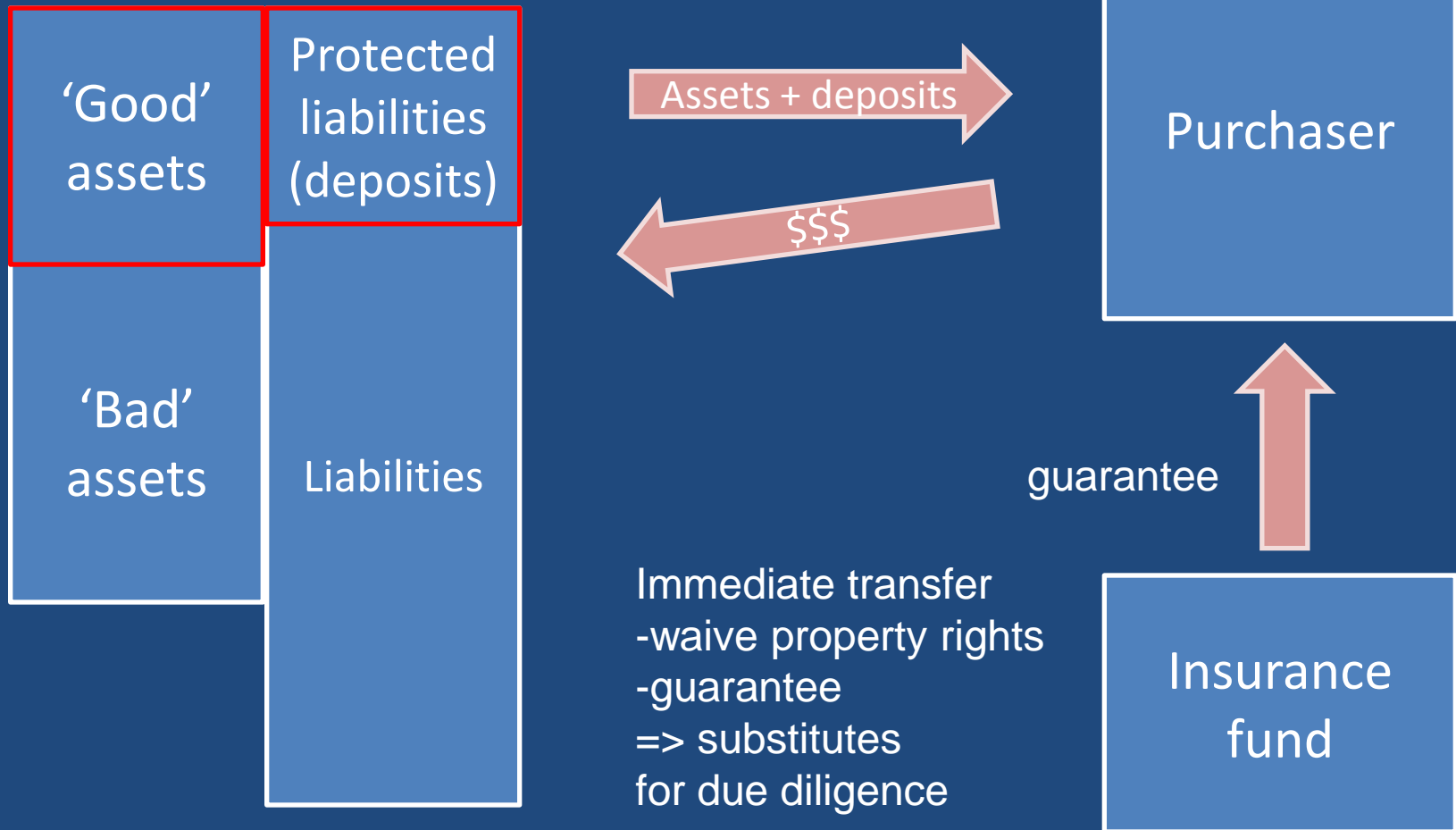
'Special resolution'



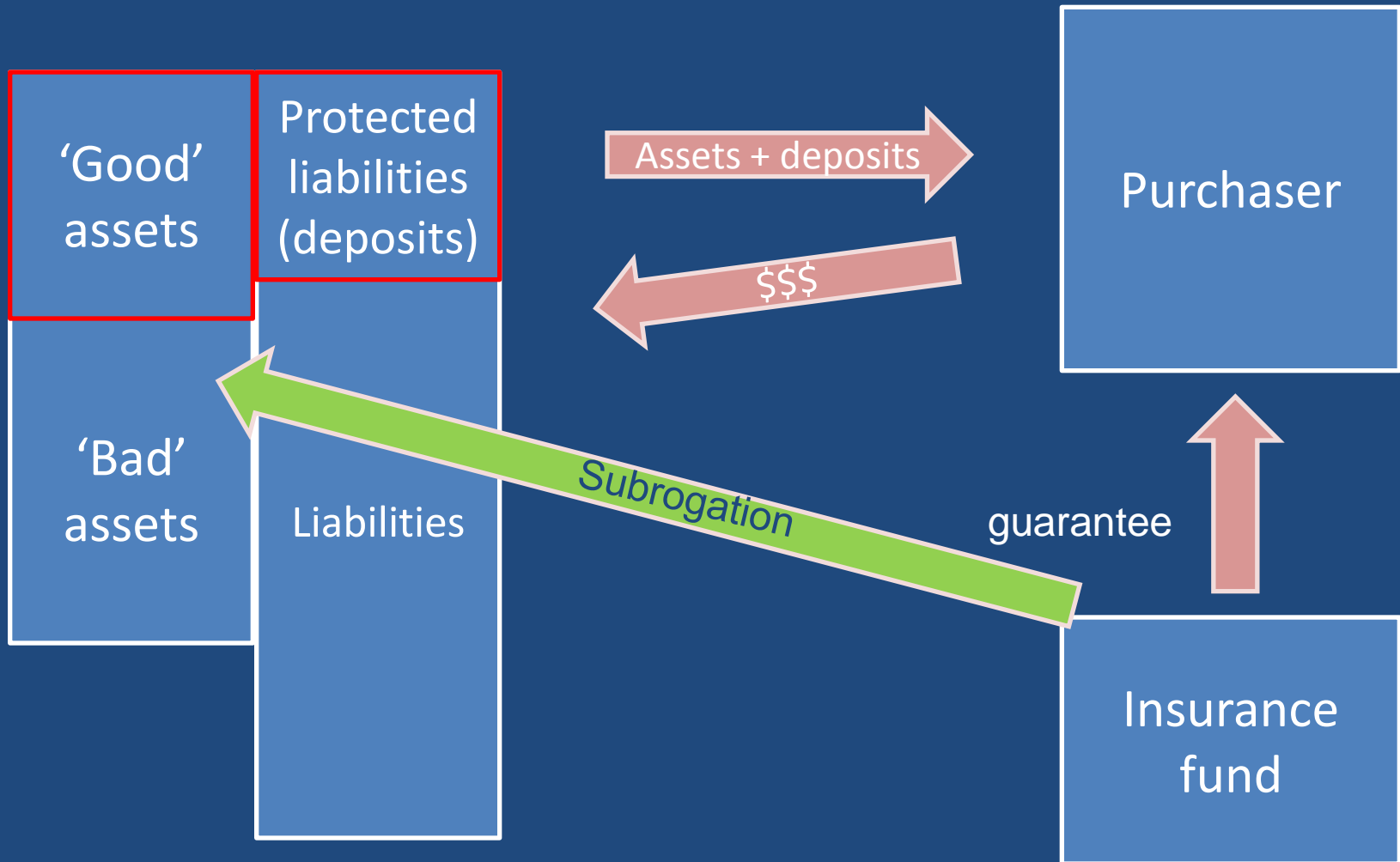
Insolvent financial institution

Models: FDIC Receivership (US)
Banking Act 2009 (UK)

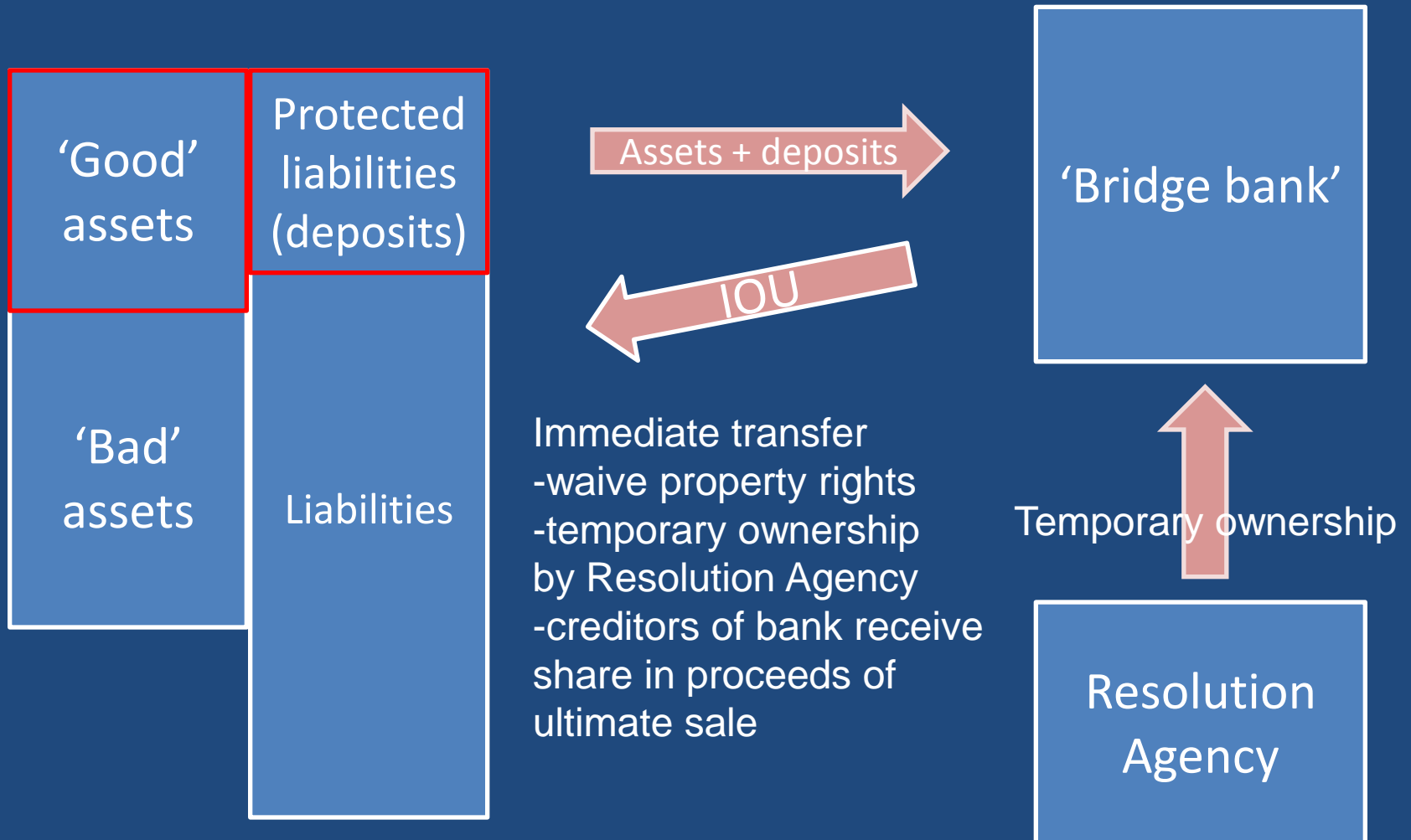
'Special resolution': sale



'Special resolution': funding



'Special resolution': bridge bank



Expedited transfer

- Transfer by operation of law
 - Waiver of ordinary rules of property and contract law
- Compensation of shareholders / unsecured creditors
 - ‘Insolvency benchmark’ : must receive no less than would get in formal insolvency proceedings; assuming no state financial support

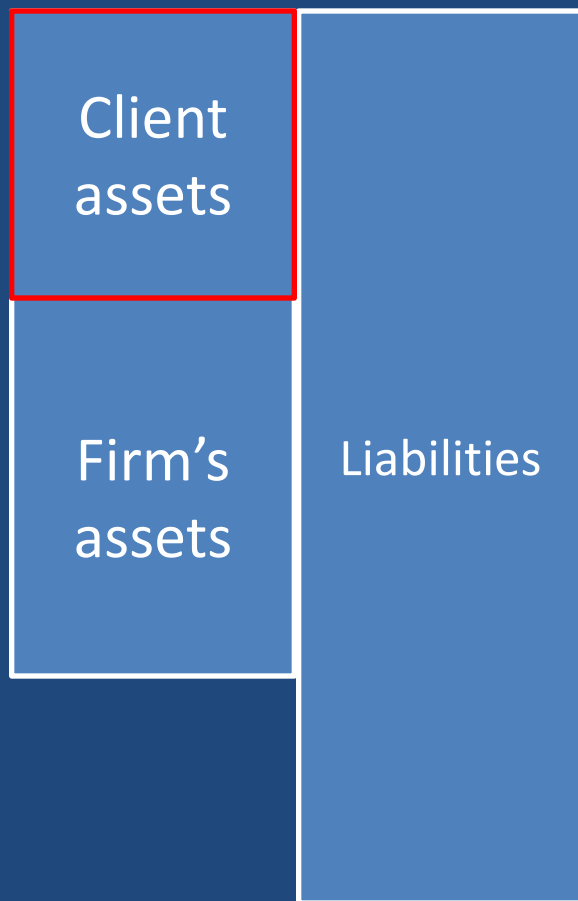
(Likely) Triggers

- Resolution seen as ‘last resort’ before failure
- Preconditions (cumulative)
 1. Bank “likely to fail”:
 - Regulatory capital is or will soon fall below minimum required *or*
 - Assets are or soon will be less than liabilities *or*
 - Is or soon will be unable to pay debts as fall due
 2. No reasonable prospect of private sector intervention
 3. Resolution necessary in public interest

Scope of Application

- Traditional view
 - Bank run by depositors seen as principal channel of contagion
 - Footprint: deposit-taking institutions (e.g. FDIC receivership; UK Banking Act 2009)
- Modern view
 - Problem of 'runs' by short-term wholesale lenders (Gorton, 2008)
 - Problem of asset fire sale risk
 - Footprint: systemically significant financial institutions (= 'banks + ')

UK: Investment bank insolvency



- Complexity of ownership structures and security interests make it very difficult to disentangle client assets
- Waiving property rights won't solve this—could exacerbate it
- Special Administration Regime for investment banks
- Ordinary insolvency + prioritise return of client assets + FSA override for systemic risk

Implementation

Legislation	Scope	Authority	Powers
UK Banking Act 2009	Deposit taking institutions	FSA, Bank of England and Treasury	Waive property rights for sale / bridge bank
UK Investment Bank Special Administration Regs 2011	Investment firms	Insolvency practitioners and the FSA	Conduct procedure so as to mitigate systemic risk
US Dodd-Frank Act 2010	Deposit-taking and systemically important institutions	FDIC	Waive property rights for sale / bridge bank
Proposed EU Directive	Credit institutions & certain investment firms	National authorities + EBA 'mediation'	Waive property rights for sale / bridge bank

Is Resolution Credible? (1)

- Problem (1): Complexity / time
 - Can resolution of a SIFI feasibly be achieved in a weekend?
- Proposed solution: 'living wills'
 - Resolution plan prepared by SIFI in conjunction with authorities

Is Resolution Credible? (2)

- Problem (2): International co-ordination
 - Problem of burden sharing
 - Whose authorities will underwrite?
 - Whose depositors will lose money?
 - Problem of territoriality
 - Resolution powers only encompass assets and debtor entities *in the jurisdiction*
 - Asset territoriality (e.g. Landsbanki / UK)
 - Entity territoriality (e.g. Lehman / UK)

International frameworks

- Proposed EU Directive
 - Harmonize national resolution frameworks
 - ‘Resolution colleges’ lead by regulator in country of parent entity, coordination via EBA
- FSB Consultation Paper (July 2011)
 - Model law for national resolution frameworks
 - Institution-specific cooperation agreements
- How much can be achieved by cooperation?
- Genuine cross-border resolution regime?
 - Draft proposals for EU?

Is Resolution Credible? (3)

- Problem (3): who will buy a distressed SIFI?
 - **Private sector** purchasers facing severe adverse selection and liquidity problems
 - Adverse impact on **sovereign** balance sheets (Acharya, Drechsler & Schnabl, 2011)
 - **Bridge bank** requires funding / guarantees to operate
- Problem (4): where will funding come from?

Resolution Funds

US: Orderly Liquidation Fund

- Dodd-Frank Act of 2010 § 214(c)
 - ‘Taxpayers shall bear no losses’
- Amount of FDIC funding for resolution
 - 10% of total value of troubled bank’s assets / 90% of market value of liquid assets (§ 210(n)(6))
- Source
 - Initially: FDIC borrows from US Treasury
 - Repayment: FDIC to seek recoupment from financial institutions (i) assessment on creditor FIs; (ii) general systemic risk-weighted assessments

EU: Bank Resolution Funds

- Commission Communication 26.05.2010
- Proposed Directive expected 06.06.2012
- National resolution funds *pre-funded*
 - Annual levy on relevant financial institutions
 - Cross-deployable with deposit guarantee schemes
 - Minimum ~ 1% of covered bank deposits
- Proposals for cross-national borrowing
- Consider European resolution fund in 2014

Ex post vs Ex ante

- Ex post
 - Creates incentives for cross-monitoring? (Calomiris, 2010)
 - But undermines goal of mitigating contagion?
- Ex ante
 - Assessment algorithm crucial to incentives
 - Cross-deployment with deposit guarantee schemes may weaken effective clout

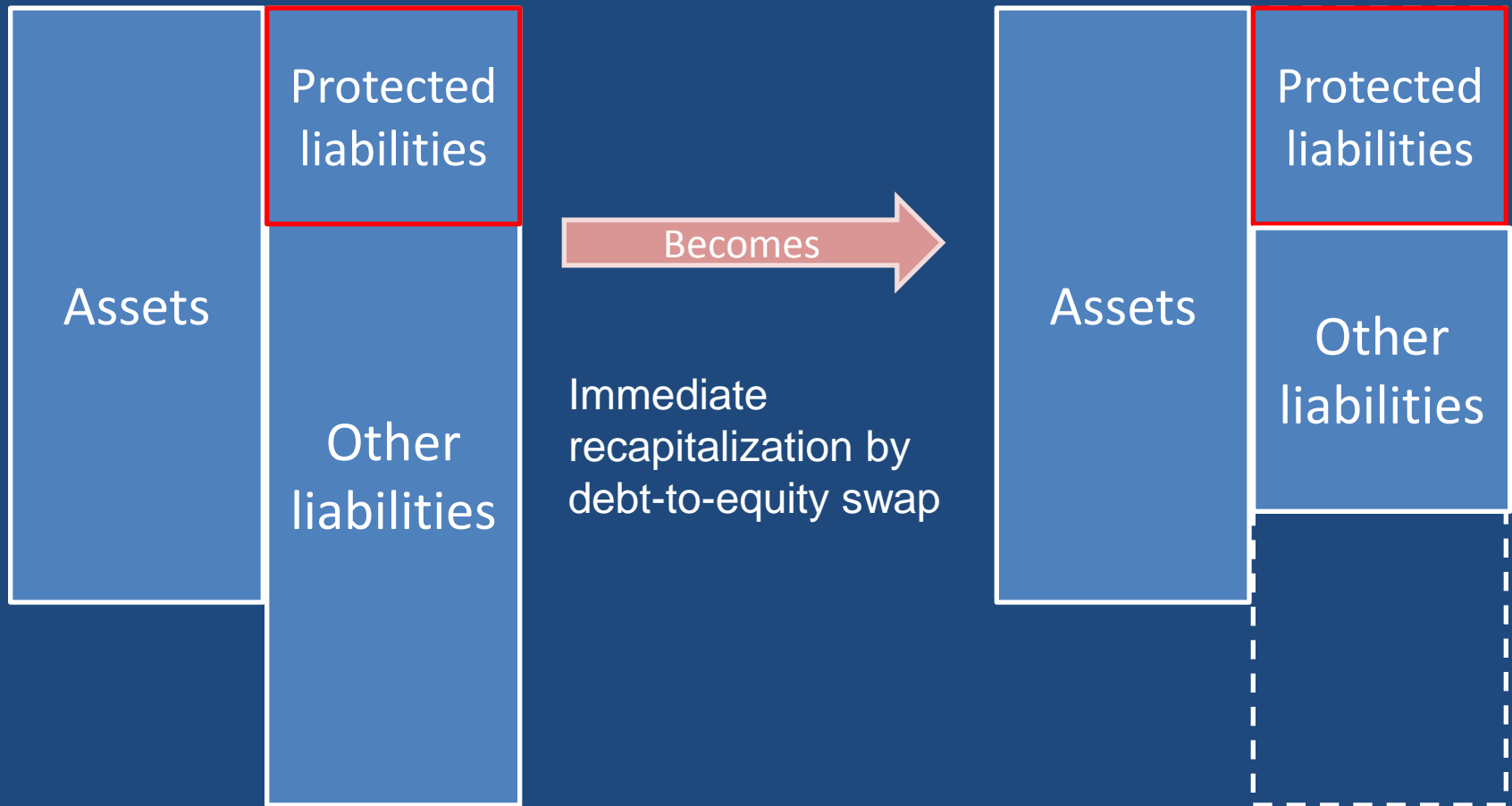
Second-generation resolution
mechanisms:

Expedited recapitalization or 'bail-in'

Proposals

- Commission Proposals
 - COM (2010) 254, 20.10.2010: general outline
 - Technical consultation paper 06.01.2011
 - Discussion paper 31.03.2012
 - *Proposed Directive Expected 06.06.2012*
- FSB, *Key Attributes of Effective Resolution Regimes*, October 2011
- IMF, *From Bail-out to Bail-in*, April 2012

'Bail in'/mandatory recapitalization



Statute vs Contract

- Bail-in could be effected by
 - Statutory provisions giving regulators power to recapitalize on certain triggering events.
 - Contractual provisions for recapitalization, or for regulators to have power to recapitalize, on certain triggering events.

Advantages of recapitalization

- Complexity reduced
 - No need to effect an asset transfer, business remains intact
- International coordination made easier
 - Change is to contracts, not property rights
 - Can in principle ensure debt contracts are all subject to a single law
- No need to find a purchaser

Negative feedback problems

1. Short term creditors

- Creditors anticipate bail-in and so refuse to roll over : triggers bank run?

2. Shareholders

- Paradoxically, anticipation of *credible* resolution will depress stock price
- Makes it more difficult to raise fresh equity in times of trouble

Scope of bail-in (DP, March 2012)

- Exclusions
 - Secured claims (up to value of collateral)
 - Derivatives
 - Deposits and other short term liabilities
- Included
 - Long term debt
 - Deposit guarantee schemes
- What is 'short term'?
 - Version 1: up to one month maturity
 - Version 2: up to one year maturity

Bail in and bank capital structure

- ‘Superpriority’ for short term claims
 - banks have incentive to rely more on these in capital structure
- Necessary to treat ‘bail-inable’ capital as part of regulatory capital requirements
 - Proposal: EU-wide rule, 10% of total liabilities
 - Key insight: need to view ‘resolution readiness’ as part of capital framework

The market for bail-inable debt

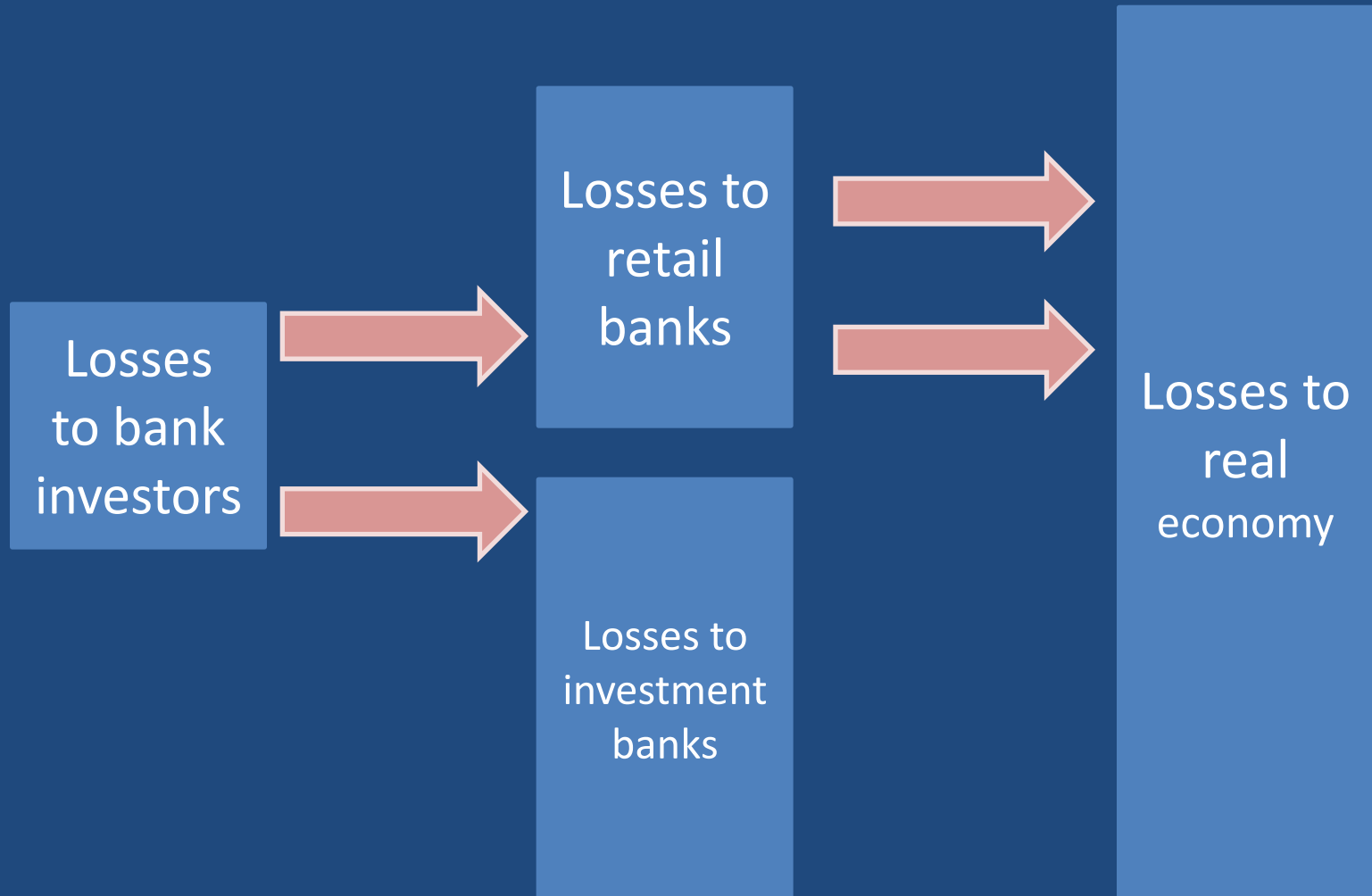
- Who will buy?
 - Need to restrict other banks from purchasing?
 - Hedge funds may have appetite: but cf bank ownership rules?
- How will it be priced?
 - Pricing will depend on capital levels of bank: desirable to think about BID/capital together
 - Tax shield may reduce cost of BID relative to capital: depends on being treated as “debt” for tax purposes; cf contingent convertibles

Structural reforms

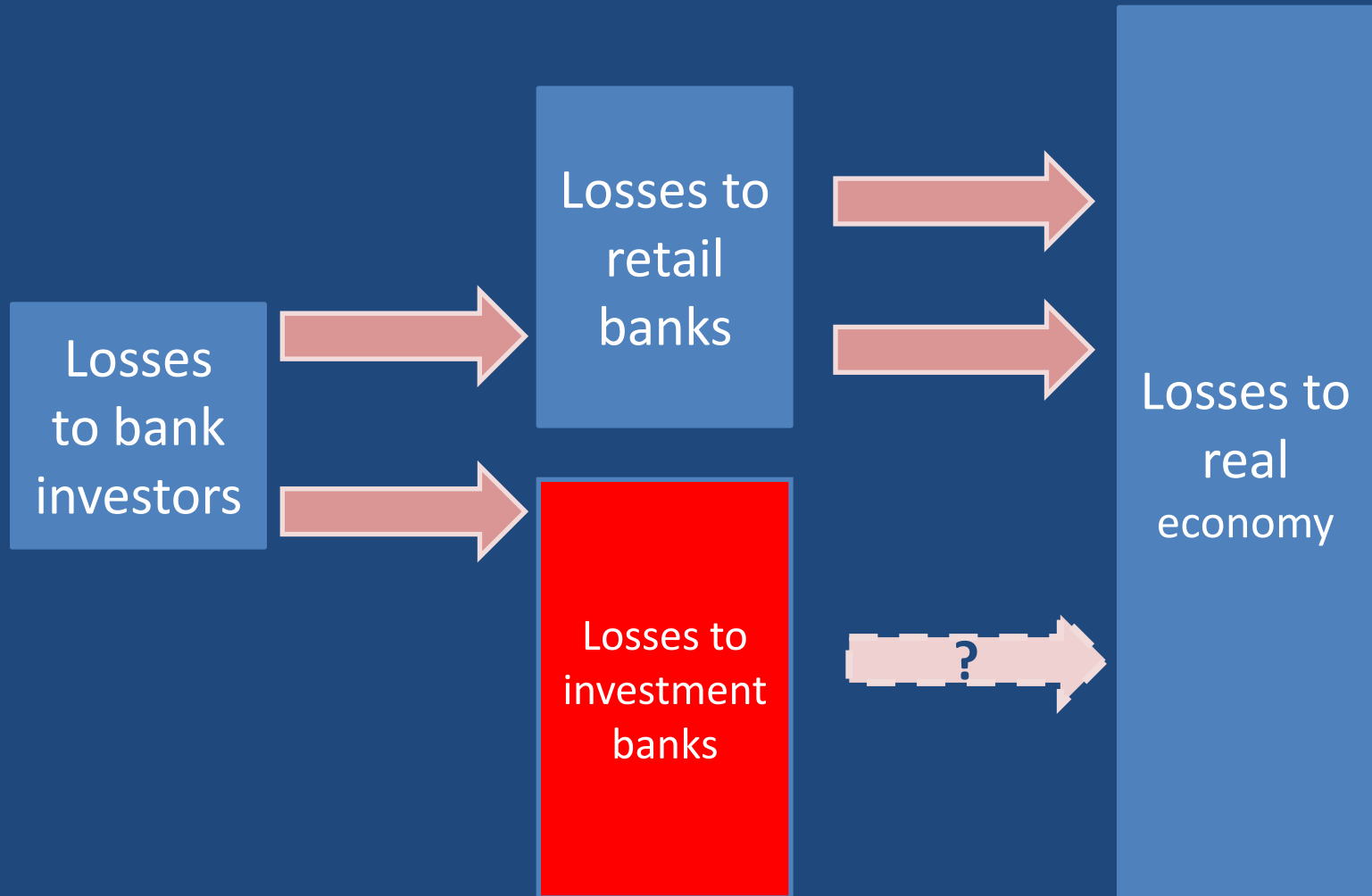
Vickers 'ring-fencing' proposals

- Separate retail and investment banking
- Facilitate resolution
 1. Simplification: operational and geographic separation
 2. Reduction of cost: target resolution funding at retail banks
 3. Mitigate contagion: insulate retail banks from effect of failure by investment bank

Bank failure and systemic risk



Bank failure and systemic risk



Conclusions

Outlook

- Transfer-based resolution is no panacea for troubled banks (lack of purchasers, funding)
- Major problems of international coordination

Ways to make resolution credible :

1. Recapitalisation (bail-in) 'designed-in' *ex ante* through capital adequacy oversight
2. Ring-fencing of functions crucial for real economy