



**Basel Committee on Banking Supervision
Consultative Paper, Published Dec. '09**

« International Framework for Liquidity Risk Measurement Standards and Monitoring »

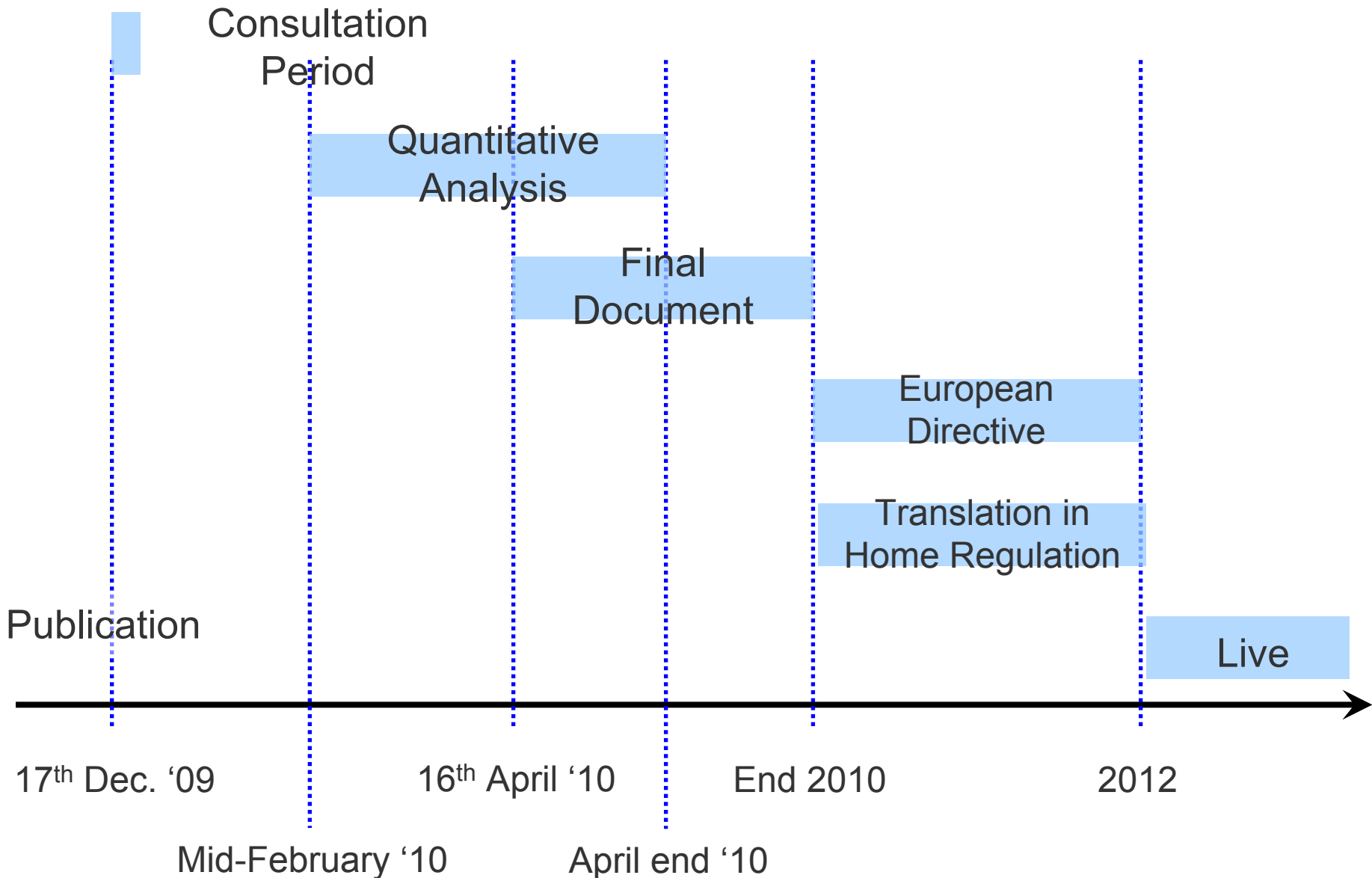
**A GAME CHANGER FOR
BANK LIQUIDITY MANAGEMENT
... AND THE ECONOMY AS A WHOLE**

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**AFGAP / ALM Seminar
Friday 4th June 2010**



Expected Time Table, as of May '10





Binding Ratios considered minimum requirements

LCR **Liquidity Coverage Ratio**
Standardized Weighting Factors
≈ Acute 1 month Stress

$$\frac{\text{High Quality Liquid Assets}}{\text{Net Cash Outflows over 1 month}} \geq 100\%$$

NSFR **Net Stable Funding Ratio**
Standardized Weighting Factors

$$\frac{\text{Available Stable Funding (1 year)}}{\text{Required Stable Funding (1 year)}} \geq 100\%$$

Monitoring Metrics

Contractual Maturity Mismatch

asset at their latest possible maturity
liability at their earliest possible maturity

Available Unencumbered Assets

marketable as collateral in secondary and/or eligible for central banks' standing facilities, by currency

Market-related Monitoring Tools

high frequency market data: market wide (equity, debt, FX, commodities.. markets), bank specific (CDS...)

Funding Concentration by Time Bands

Significant Counterpart

Bank's Balance Sheet Total

Significant Product/Instrument

Bank's Balance Sheet Total

List of asset and liability balances by significant currency

Application

Ongoing monitoring, at least monthly reported, lag ≤ 2 weeks
(higher reporting frequency in stress)

Break down by currency / location

« banks and supervisors cannot assume that currencies will remain transferable in a stress, even for currencies which in normal times are highly convertible »!!!

Consolidated Basis at least, may apply to sub-consolidated level

All metrics are publicly disclosed
Information on the metrics [...] should be transparent and be publicly disclosed

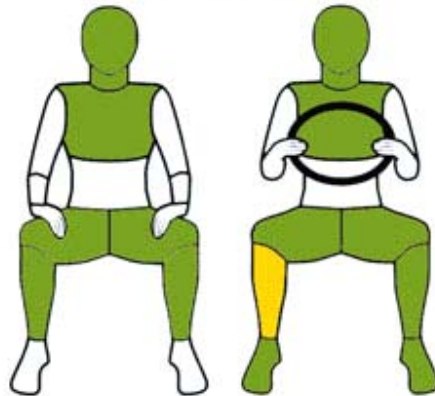




ADAC Crashtest: Grenzen der passiven Sicherheit

Die Farbskala für die Crashtestdummys zeigt, wie das Verletzungsrisiko sprunghaft bei der um 16 km/h höheren Aufprallgeschwindigkeit ansteigt. Besonders im Brustbereich des Fahrers wird es kritisch - das Potenzial des Airbags ist ausgeschöpft.

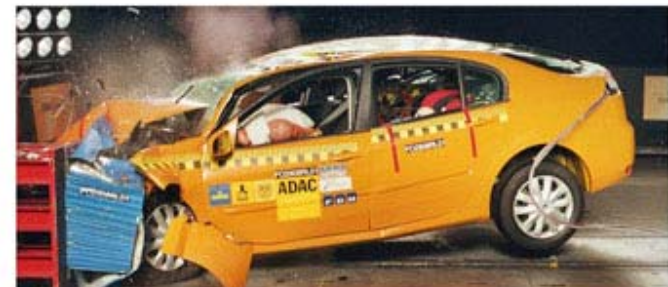
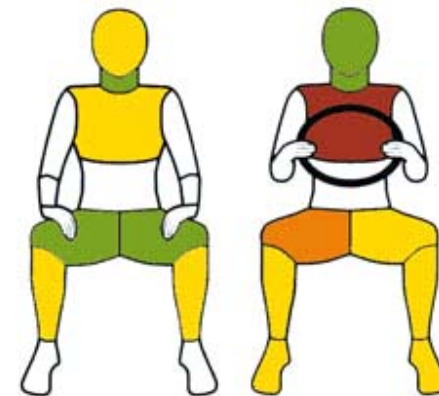
Aufprallgeschwindigkeit
64 km/h



Verletzungsrisiko

- sehr gering
- gering
- mittel
- hoch
- sehr hoch

Aufprallgeschwindigkeit
80 km/h





CP §20 - §77. Annex 1 gives a synthetic view

Very Narrowly Defined High Quality Liquid Assets
Core Definition is CP §34 to §36

$$\text{LCR} \text{ Liquidity Coverage Ratio} = \frac{\text{High Quality Liquid Assets}}{\text{Net Cash Outflows over 1 month}} \geq 100\%$$

Standardized Weighting Factors
≈ Acute 1 month Stress

Cash Outflows CP §38 - §70

Deposits and Funding are given runoff / rollover assumptions

Committed and uncommitted off balance sheet commitments are given drawdown assumptions

Cash Inflows CP §71 - §77

Falling due amounts from performing loans

Lines of credits from financial institutions are ignored



- **Bias towards Sovereign Debt...** to the extent that they are either well rated (0% risk-weight Basel II standardized approach), or that the currency matches the country's currency where the risk is being taken

- **Opening for higher than 50% portion of the liquidity buffer**
 - **Non Financial Corporate**
 - **Covered Bonds not issued by the bank itself**
 - **Subject to**
 - **haircuts: \geq AA \Rightarrow 20% haircut; \geq A- \Rightarrow 40% haircut**
 - **Central bank eligibility**
 - **Proven market liquidity even in times of stress**

- **Central bank eligibility is *not* a criterion *per se***



Cash Outflows Too Severe Deposit Runoff Assumptions

Retail / SME terms of deposits are considered only when they have unwind penalty	“stable”: insured + relationship	7.5%
	“less stable”	15.0%
Non Financial Corporate sovereigns, central banks, public sector s.t. call date > 1 m	“stable”: insured + relationship	25.0%
	Relationship (cash management, other substantive dependency...)	25.0%
	Other	75.0%
Other Legal Entities (incl. monetary policy from central banks)		100.0%
Secured funding (repo) The contractual term is considered	High Quality Liquid Assets	0.0%
	Other	100.0%



Cash Outflows Too Severe Drawdown Assumptions

Off B/S Commitments
incl. conditionally revocable.
Their maturities are ignored.

	Credit Line	Liquidity Line	Other
Retail	10%	10%	Local Supervisor
SME / Non Financial Corporate	10%	100% (fully drawn)	
Other	100% (fully drawn)	100% (fully drawn)	

Other Cash
Outflows

Increase in Margin Calls (collateral agreement for derivatives)	Local Supervisor
Increase in Posted Collateral	20%
Downgrade Triggers (3 notches)	100%
All other cash outflows (ex: derivatives cash flows)	100%



Cash Inflows	Performing Loans' Cash flows		100% (no rollover)
	Secured Lending (rev. repo)	High Quality Liquid Assets	0% (ie: full rollover)
		Other	100% (ie: no rollover at all)
	Marketable Assets (ex: equities)	High Quality Liquid Assets	0% (in the Liquidity buffer)
		Other	0% (no liquidity value)
	Owned Liquidity Lines		0% (denied)
	All other cash inflows (ex: derivatives cash flows)		100%



- **Argues against the one-size-fits-all approach which denies bank-specific issues**
- **Too narrow liquidity buffer: extend to central bank eligible assets potentially with a cap on the portion that is not market liquid (manage moral hazard on central banks)**
- **Call for recognizing securities' market liquidity (ex: equities) in cash inflows (incl. repo roll over assumptions)**
- **Too severe deposit runoff assumptions; break down financial institutions; recognize other stickiness factors (ex: custodians)**
- **Too severe drawdown assumptions (100% for liquidity lines!) Assumptions should be symmetrical**
- **Could the liquidity buffer be used in an actual liquidity crisis? Could the LCR be breached in a liquidity crisis?**
- **Avoid immediate disclosure of LCR**
- **Market and volatility will demand higher than 100% LCR**
- **IT issues to implement**



CP §78 - §91. Annex 3 gives a synthetic view

Available Stable Funding – CP §82 - §86

- Liabilities are given severe runoff / roll over assumptions.
 - Callable liabilities are not considered stable funding.
- Repo on non very narrowly defined High Quality Liquid assets are assumed not to roll over

NSFR Net Stable Funding Ratio
Standardized Weighting Factors

$$\frac{\text{Available Stable Funding (1 year)}}{\text{Required Stable Funding (1 year)}} \geq 100\%$$

Required Stable Funding – CP §87 - §91

Annex 2 gives a synthetic view

- Assets are given Required Stable Funding factors
 - This includes roll over assumptions for loans with less than 1 year residual maturity.
- Non very narrowly defined High Quality Liquid Assets have to be partially funded over 1 year.
- Off balance sheet commitments have to be 1y+ term funded.



Available Stable Funding (1) *Liabilities with greater than 1 year residual maturities*

The expected maturity should be greater than 1 year when taking into account embedded options

Capital (incl. Tier 1 and Tier 2)

100%

Preferred Shares not in Tier 2

100%

Secured + Unsecured

100%

✓ ok



Available Stable Funding (2) Liabilities with lower than 1 year residual maturities

Retail / SME terms of deposits are considered only when they have unwind penalty	“stable”: insured + relationship	85%
	“less stable”	70%
Non Financial Corporate sovereigns, central banks, public sector s.t. call date > 1 m	“stable”: insured + relationship	85%
	Relationship (cash management, other substantive dependency...)	50%
	Other	50%
Other Legal Entities (including monetary policy from central banks)		0%
Secured funding (repo) The contractual term is considered	High Quality Liquid Assets	??? 0%
	Other	??? 0%



Required Stable Funding (2) Liquid Assets

Securities with maturities ≤ 1 year		0%	
Cash, Money Market Instruments		0%	
Unencumbered Liquid Assets with maturities ≥ 1 year	High Quality Liquid Assets	Sovereigns > AA rated	5%
		Sovereigns > A- rated	??
		Corporate Bonds Covered Bonds	20%
	Corporate and Covered Bonds >A- rated		50%
	Major Indexed Listed Equities		50%
	Gold		50%
	All Other		100%
Encumbered Liquid Assets with maturities ≥ 1 year		???	



**Even though NSFR is based on a idiosyncratic stress scenario,
the bank is assumed to keep on originating news loans**

Rollover assumption for Loans with residual maturities ≤ 1 year	Retail	85%
	Non Financial Corporate	50%
	Financial entities	0%

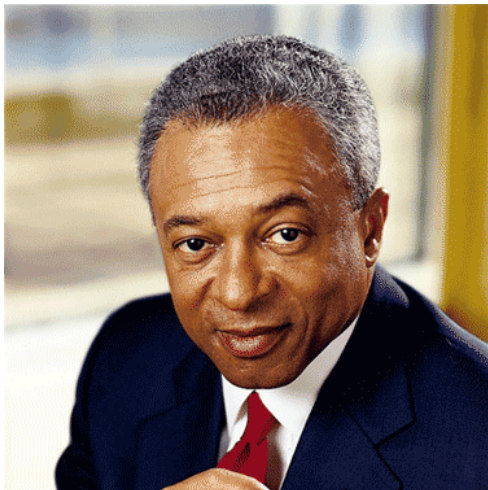
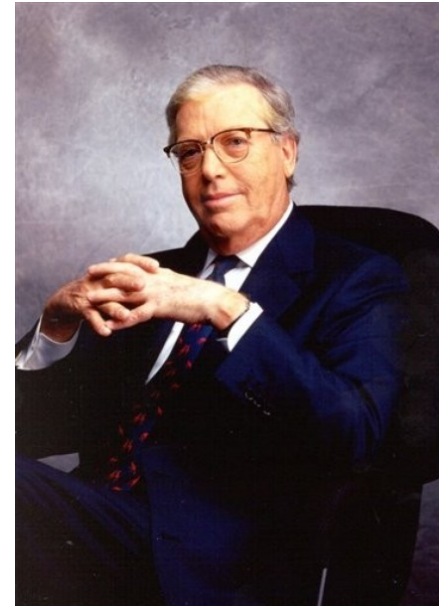
**Seemingly consistent with the 85% and 50% runoff assumption for
retail and corporate deposits,
the loan rollover assumptions are far more demanding
since the loans are longer than the deposits.**



What are bankers assumed to do during a 1 year long idiosyncratic liquidity stress scenario



**Jimmy Cayne
Bear Stern
was Playing Bridge**

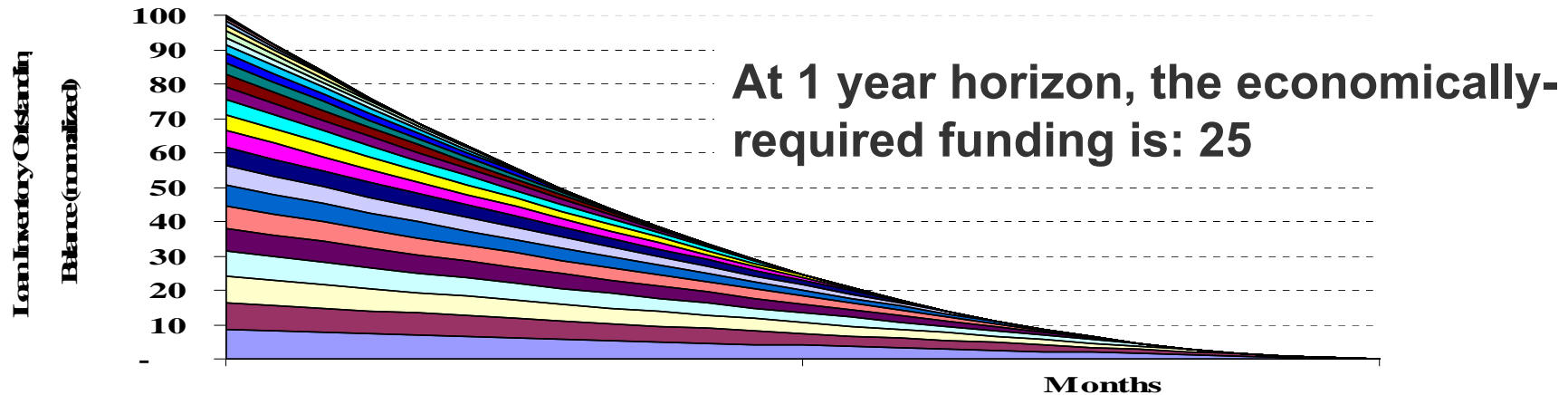


**Stanley O'Neal
Morgan Stanley
was Playing Golf**

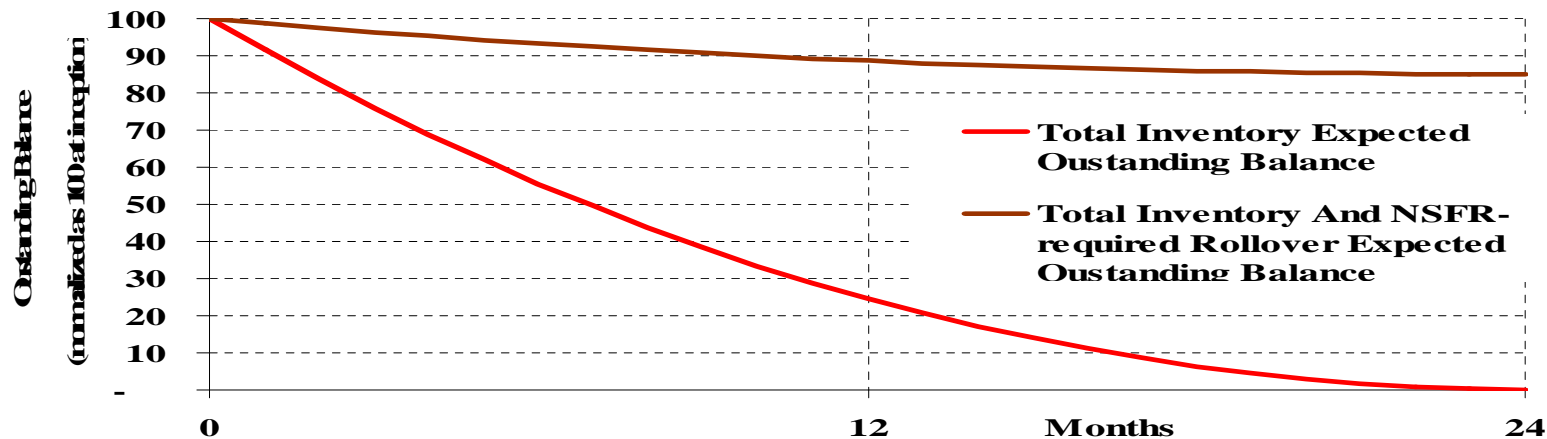


Focus on Roll Over Assumptions (1)

Let's consider an inventory built of 2 year amortizing loans originated over the years. The outstanding amortizing profile is graphed below:



Assuming a 85% retail roll over assumption, the required funding would jump to 89, which is 260% increase in required 1 year funding!!!





Focus on Roll Over Assumptions (2) Increase in term funding

		Loan Maturities (months)				
		24	60	120	180	360
Rollover assumption	85%	260%	55%	26%	19%	12%
	50%	153%	32%	15%	11%	7%

		Loan Maturities (months)				
		24	60	120	180	360
Rollover assumption	85%	94%	27%	15%	12%	10%
	50%	56%	16%	9%	7%	6%

The increases are material.

The symmetry between asset rollover and liability runoff is far more demanding than intuition would lead.



Even a safe 100% Retail Bank would fail the NSFR-test. This comes from inconsistent rollover assumptions

Balance Sheet as-of-today

Assets		Liabilities	
Consumer Loans (5y)	96	8	Capital
Overnight Interbank	4	92	Insured Core Deposits
Total	100	100	Total

Retail Bank with no need for wholesale funding.

Loan to deposit ratio = 104%

The O/N helps passing the LCR test

1 year forward looking Balance Sheet

derived from transactions in the as-of-today balance sheet

Assets		Liabilities	
Consumer Loans (5y)	58	8	Capital
Overnight Interbank	0	x% of 92	Insured Core Deposits
Total	58	Total	Total

At 1 year horizon, the bank could « lose » up to 50% (x%) of its deposits and the loan would still be funded.

This looks like a safe liquidity risk position.

1 year forward looking Balance Sheet

derived from transactions in the as-of-today balance sheet
and rollover/runoff assumptions

Assets		Liabilities	
Consumer Loans (5y)	90	8	Capital
Overnight Interbank	0	78	Insured Core Deposits
Total	90	86	Total

But, due to the rollover assumption, the bank does NOT pass the NSFR test!

It would have to term fund 4 over 1 year, that it would have to invest short term or in highly liquid assets.



- **Argues against the one-size-fits-all: even more for NSFR**
- **Assuming loan roll over assumption in a crisis does not make sense**
- **Call for recognizing securities' market liquidity**
- **Inconsistencies notably on « other assets » (100% required funding) and « other liabilities » (0% stable funding) which could have a dramatic impact on derivatives' market values in the balance sheet**
- **Too severe deposit runoff assumptions** (Japanese and Chinese banks call for far smaller retail deposit runoff assumptions)
- **Call for simpler ratios** (ex: derived from Italian long term ratios that have been binding up to... 2006)
- **IT issues to implement: several years are required**



- **Call for recognizing internal models, at least in the form of bank-specific category breakdown and runoff/rollover assumptions**
- **Some banks call for recognizing business-as-usual central bank money market policy as a source of stable funding**
- **Different economies may have different structures:**
 - **Fannie Mae / Freddy Mac / Federal Home Loans in the US**
 - **Incentives to disintermediate savings in the Netherlands (as in France)**



- **Call for another round of Consultative Paper / Quantitative Impact Study**
- **Call for measuring impact on the economy, in isolation and when combined with other suggested regulations**
- **Risk of liquidity related disclosures**
- **« Announcement risk » to manage (stakeholders expect / require / demand binding ratios to be abided by as soon as final paper is published)**
- **Some dissenting views:**
 - **Recommendation for requiring ratios to be binding at each entity level**
 - **Breakdown the LCR in 2 different horizons (1 or 2 weeks, then 1 month)**
 - **Strongly ring-fenced liquidity buffer**



- **Based on BCBS-CP-NSFR and LCR**
- **One-Single-Rule-Book across Europe**
- **Creation of a European Banking Authority (EBA) to settle issues**
- **Liquidity buffer: EBA would maintain a list of securities that would be eligible for liquidity buffer**
- **Possibilities to have country-specific assumptions (ex: retail runoff factors), publicly disclosed and applicable to all institutions active in the country**
- **In times of crisis, the ratios could be breached. Crisis management has to present its recovery plan to EBA.**
- **European country regulator *could* deliver a waiver for the entities in their country. It's *not* automatic.**



**To be continued...
soon**

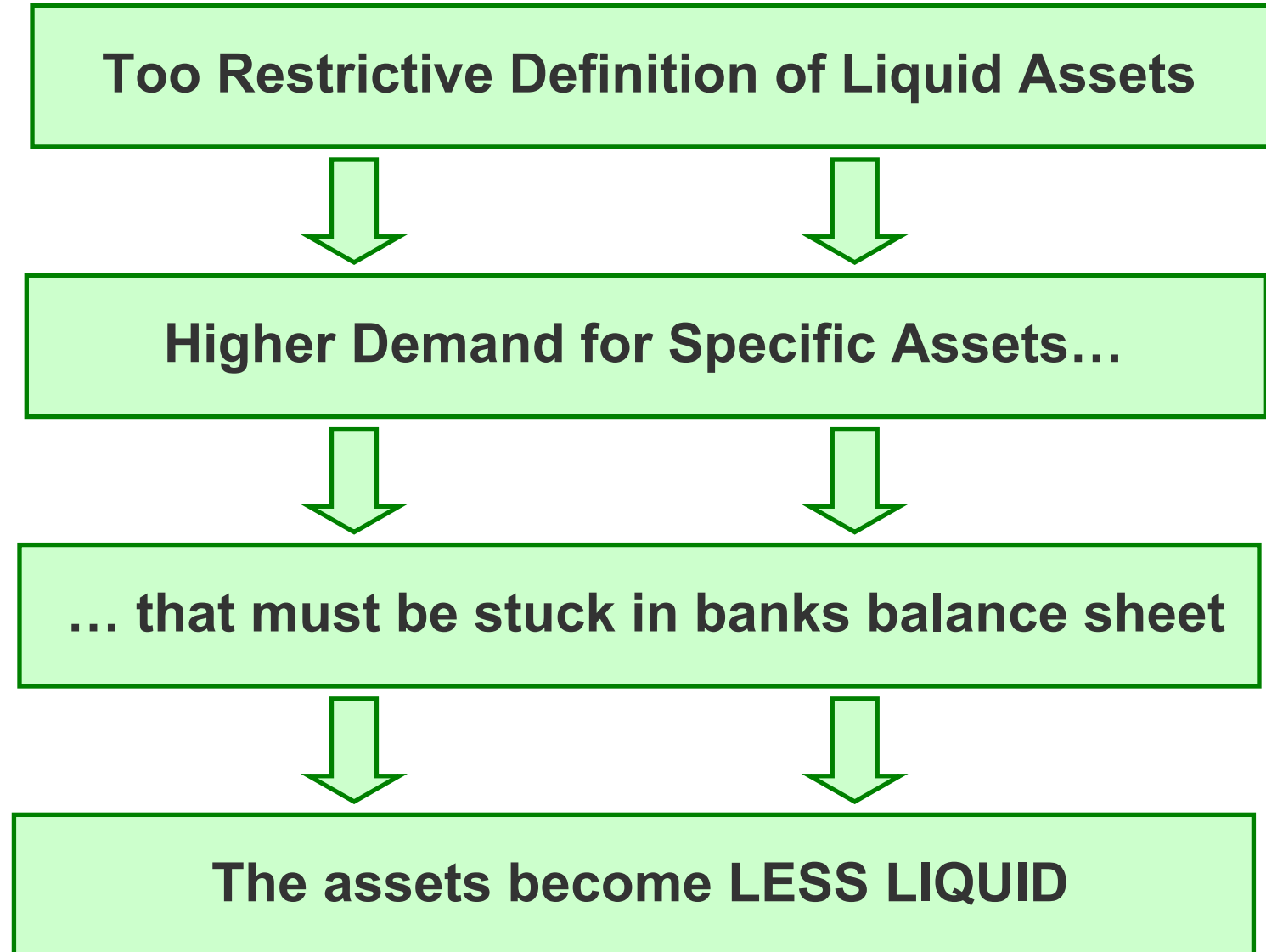


Appendix

A Few Unintended (?) Consequences

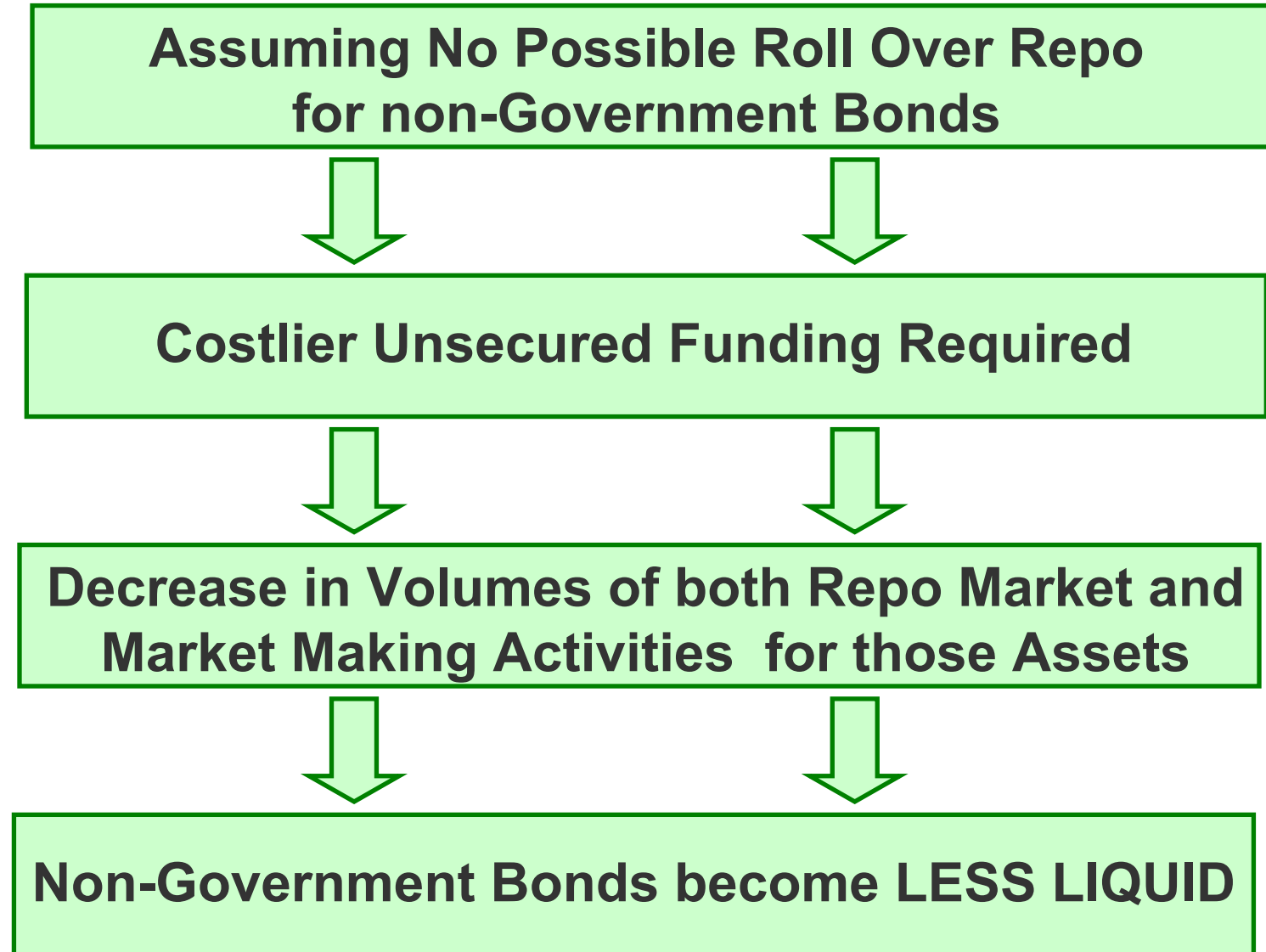


Unintended Consequences *Trade off Funding Risk vs. Asset Liquidity Risk (1)*





Unintended Consequences Trade off Funding Risk vs. Asset Liquidity Risk (2)





Unintended Consequences Increased Systemic Risk (1)

**Concentration of Banks' Liquidity Buffers
on narrowly defined High Liquid Assets**



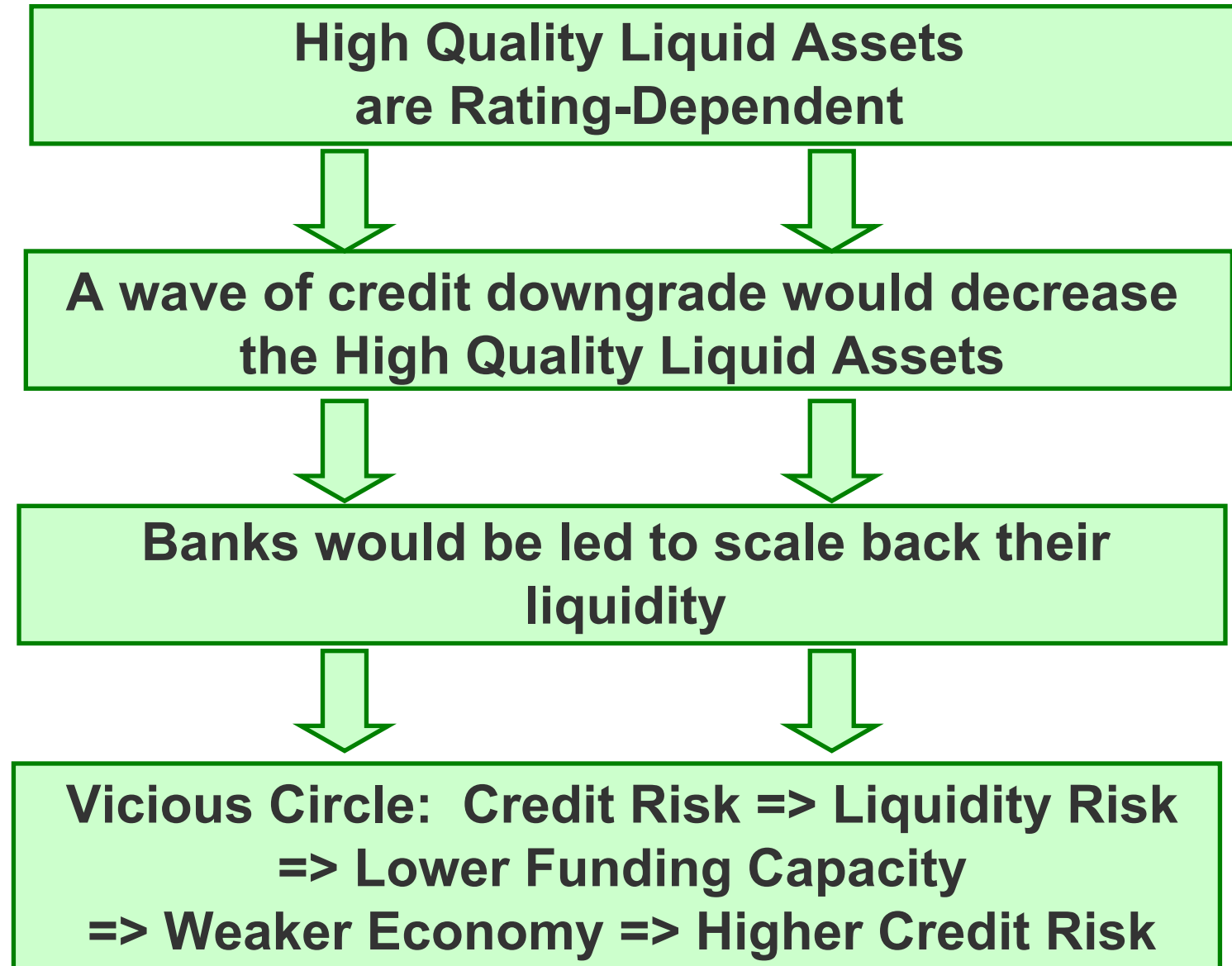
**Massive Fire Sales Concentrated
on those Assets when a crisis occurs**

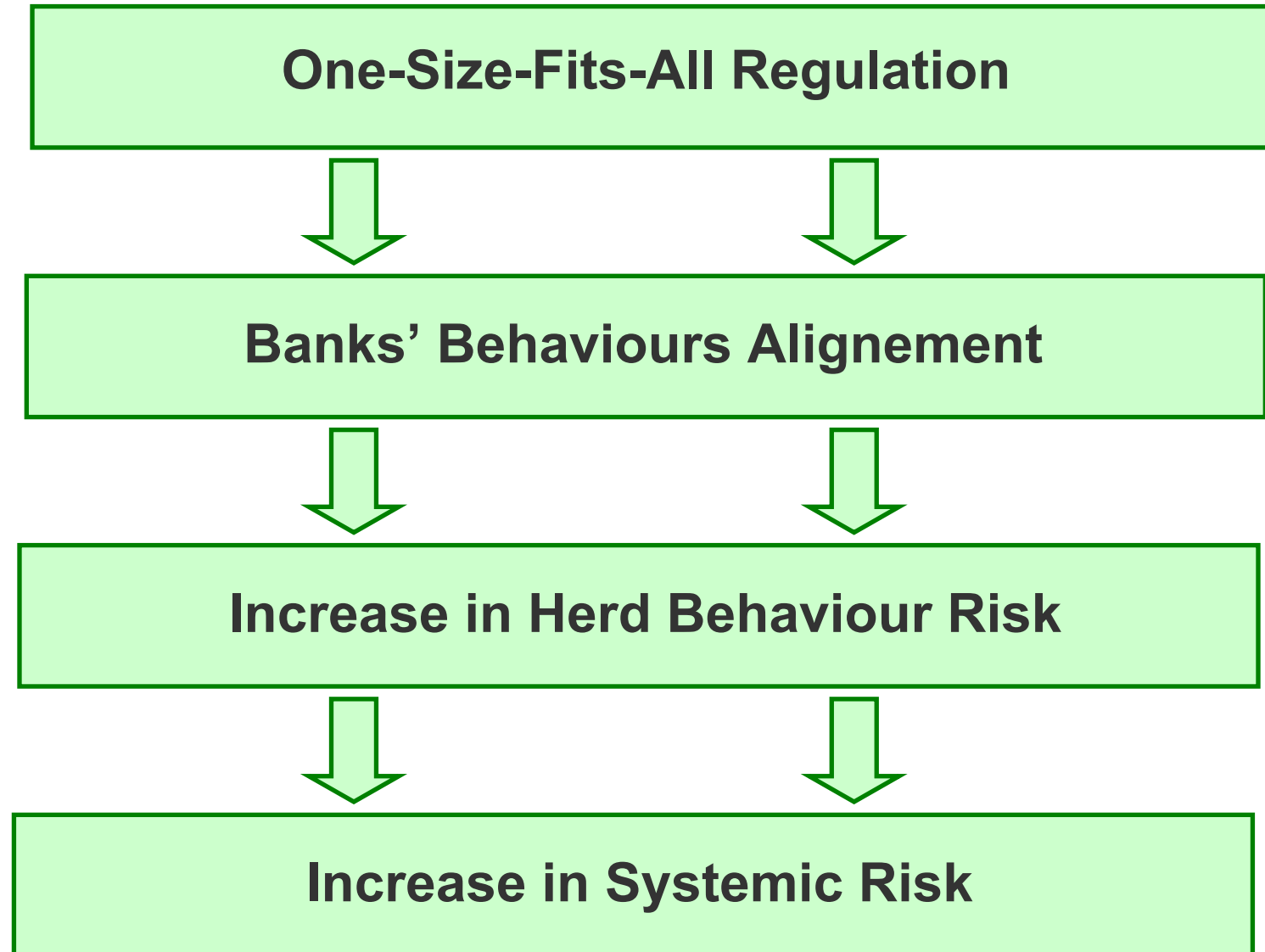


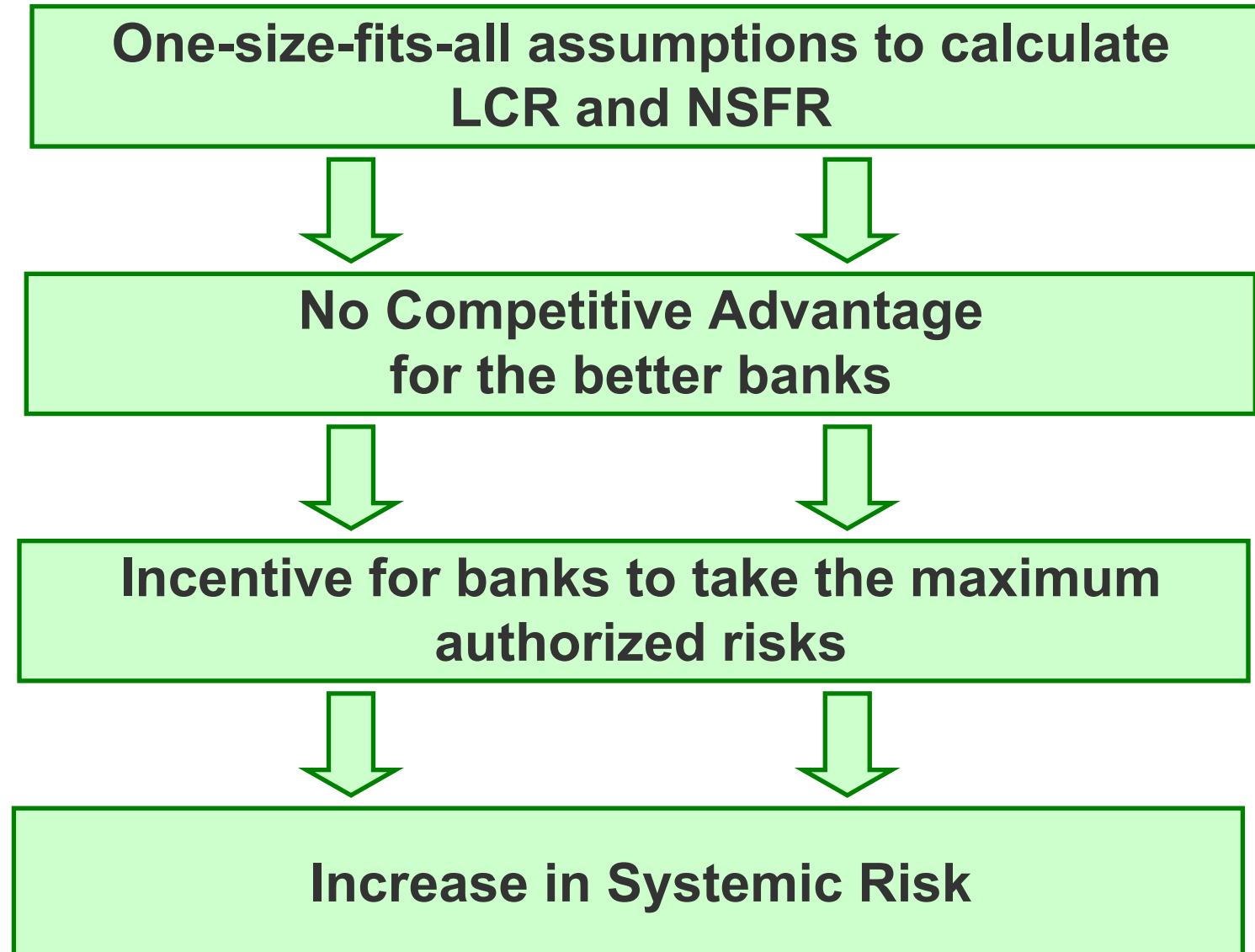
**Decreases in Prices
(Increase in Rates and Government Spreads)
in a crisis mode**

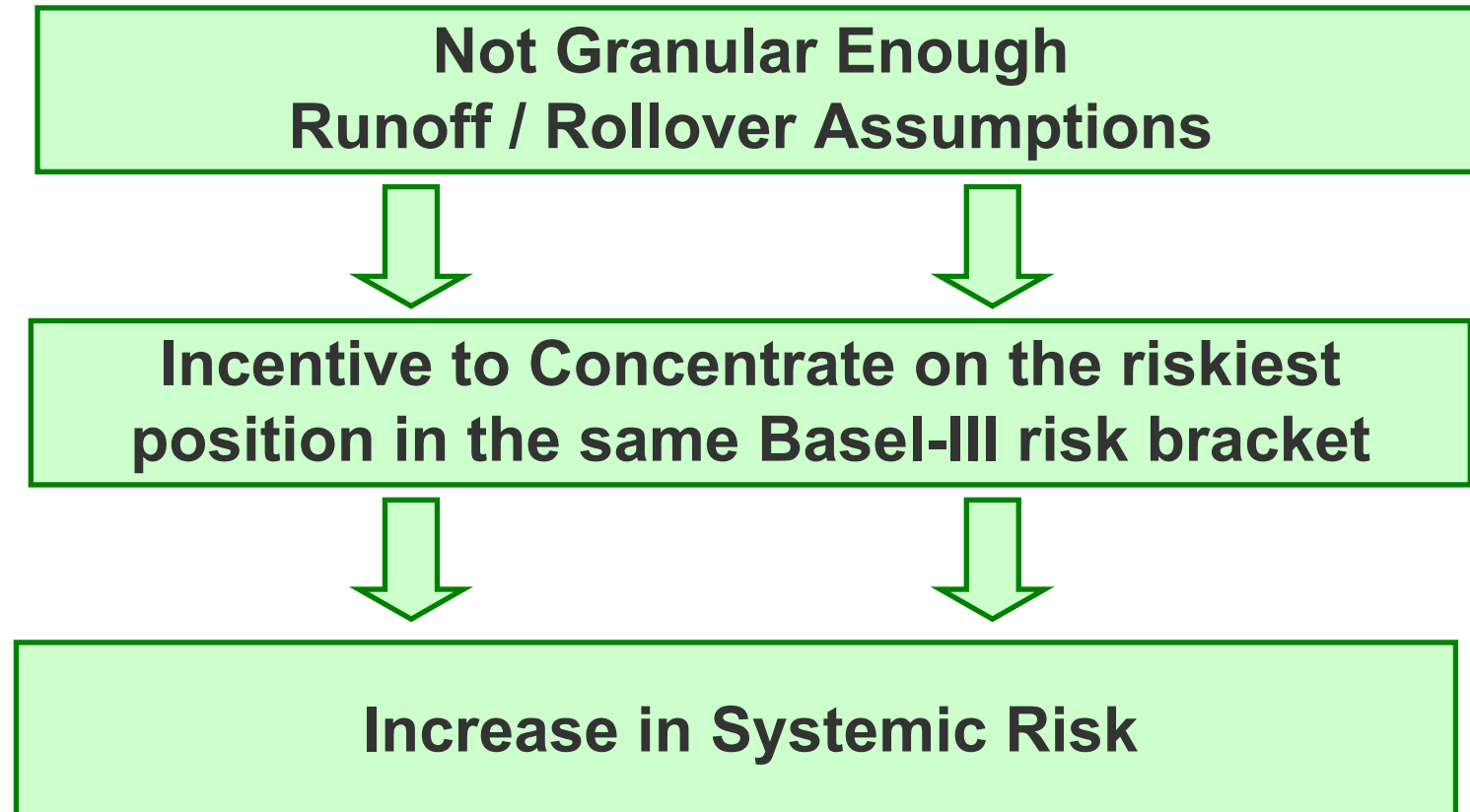
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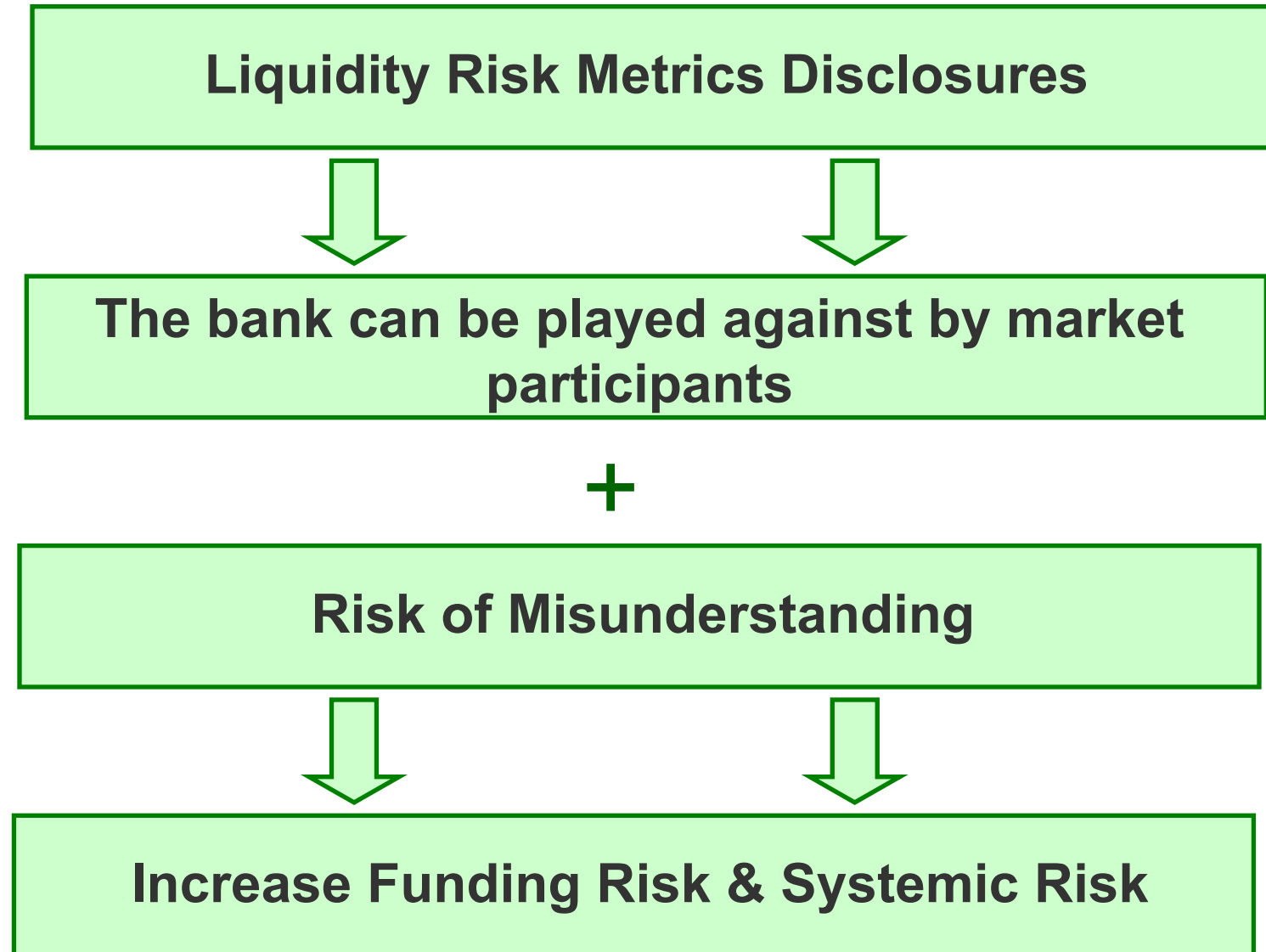
Decrease in Available Liquidity

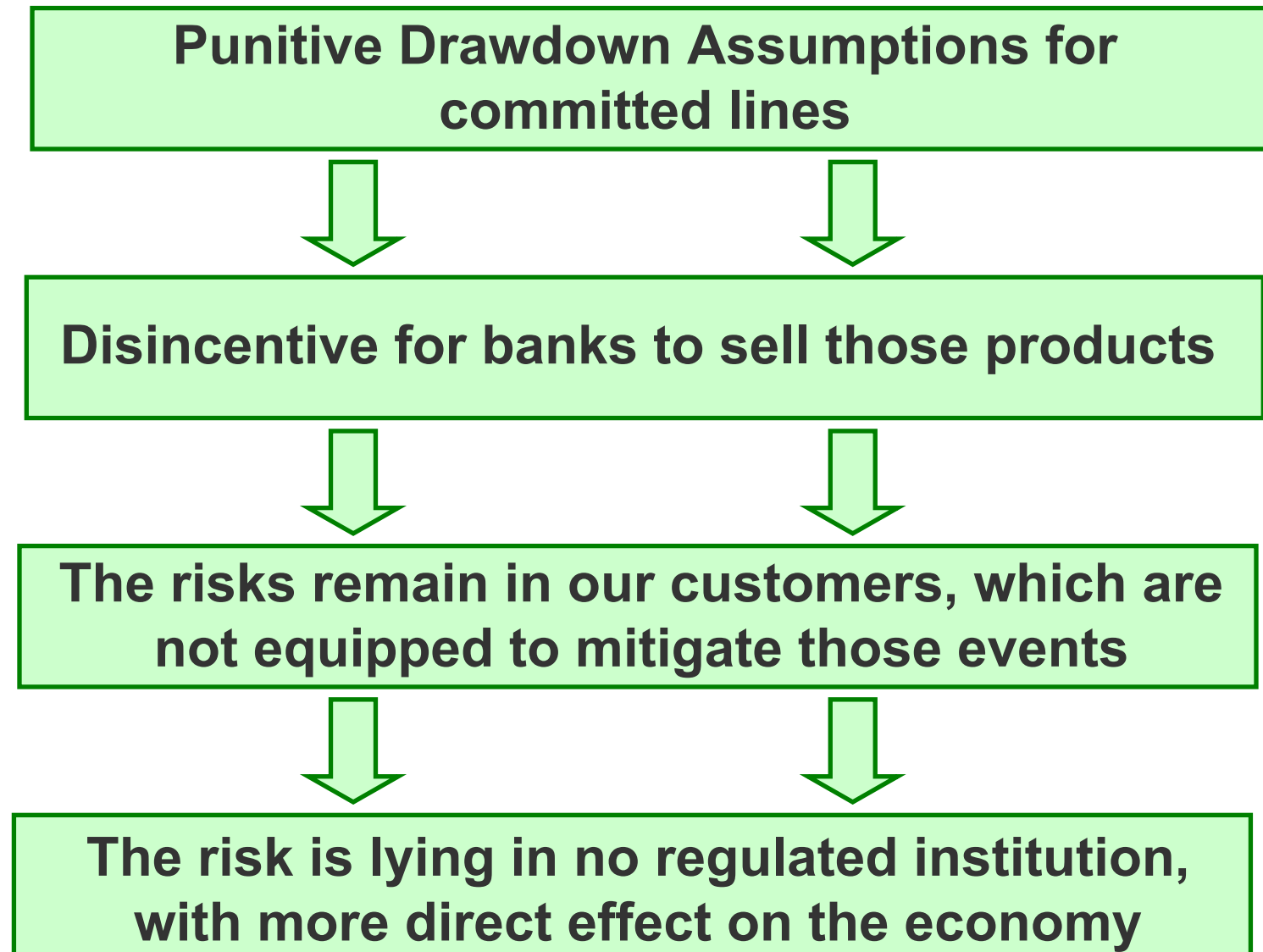














Lower Liquidity Risk in the Banking Industry

+

**Economic Needs to Transform
Short Term Money in Long Term Assets**



**Liquidity Risk is pushed outside
the banking industry**



**Lower Resiliency to Liquidity Crises
(no access to Central Banks)**

Unintended Consequences Adverse for GDP Potential Growth (1)



**Significant Increase in banks long term
funding needs**

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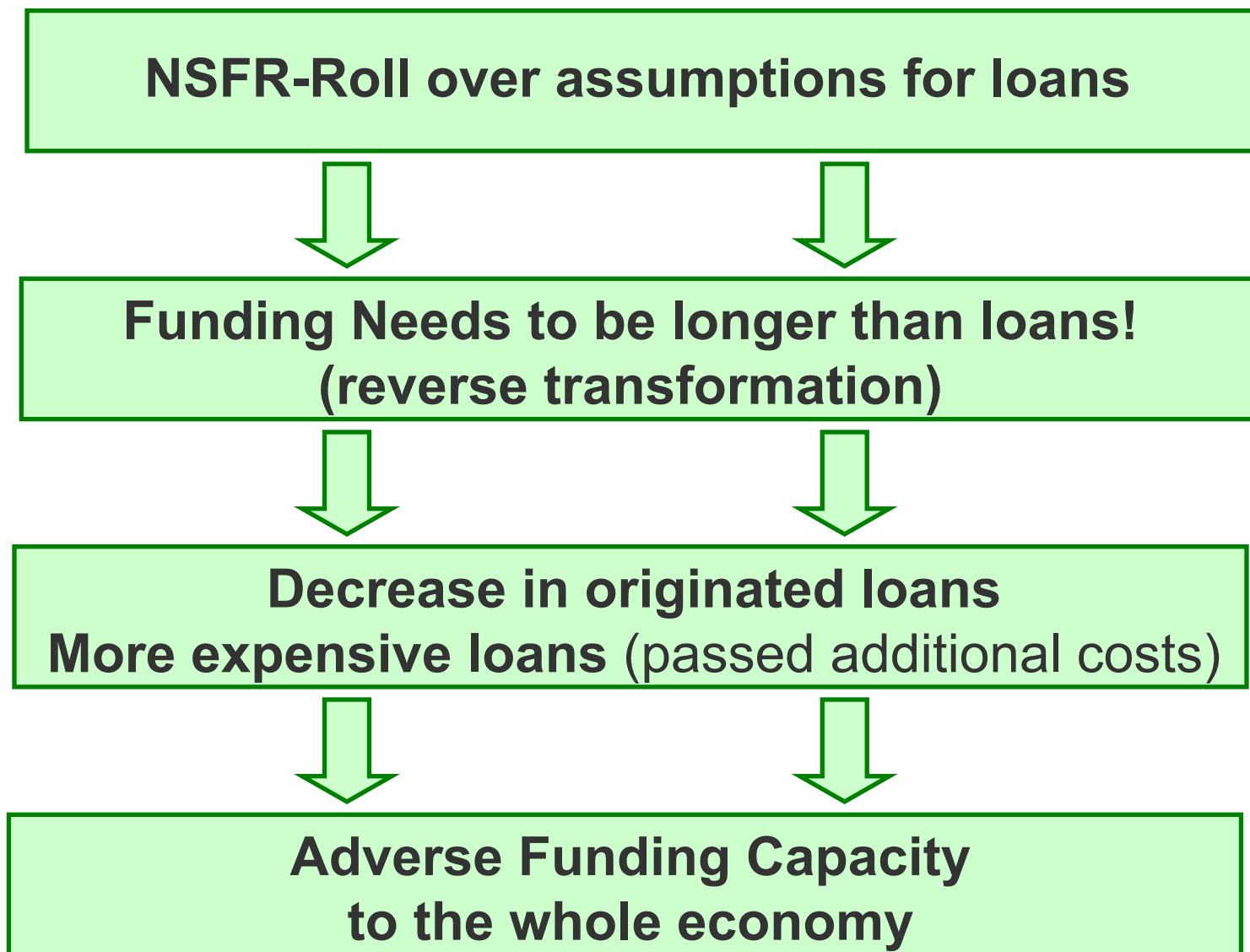
Government funding needs



Significant Increase in long term funding needs



Higher Long Term Rates



Unintended Consequences Adverse for GDP Potential Growth (3)



If the suggested supervisory framework is applied at sub entity level (branch/subsidiary)



Break down of internationally active banks



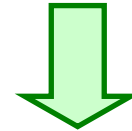
**Reduced flow of liquidity and
Less efficient liquidity allocation mechanism**



Decreased Potential Growth



If the suggested supervisory framework is applied only to internationally active banks



No level playing field with non internationally active banks



**NSFR requires huge increase
in long term funding for banks**

**... to the extent of drastically decrease
short term funding**



Less effective Central Bank Monetary Policy



**Liquidity Regulation based on
non Legally Binding Commitments**



**De facto, stakeholders could argue
that they become Legally Binding Commitments**

Example:

Non legally binding liquidity commitment to bank-sponsored mutual funds
(reputation risk mitigation)

=> mutual funds' investors could make the case that
they benefit from an actual commitment from the bank