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# *The aftermath of the crisis and supervisory innovation*

## Liquidity risk and financial solvency

29 September 2011

pwc

# *Agenda*

# Financial Crisis Observations

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# *Financial Crisis – Observations during the turmoil*

- **August 2007 – March 2008 (Bear Stearns rescue)**
- Dominated by concerns about market liquidity and the interaction with funding liquidity at individual institutions

- **March 2008 – September 2008 (Lehman bankruptcy)**
- Adverse liquidity-solvency spirals jeopardize the viability of specific banking business models as a result of ongoing market and funding illiquidity

- **September 2008 – to date**
- Ongoing concerns about solvency of banking and other financial institutions following the default of Lehman

# *Example: Bank run on Commercial Paper*

## Timeline

**Summer 2007** - Uncertainty about the value of MBS and CDOs had severe effects on the commercial paper market and on the money market

**July 2007** – A conduit of a German bank was unable to roll over its ABCP. The bank could not support the conduit and a public-private bailout was arranged.

**Early August 2007** - Spreads on 30-day ABCP immediately widened from near zero to almost 150 basis points

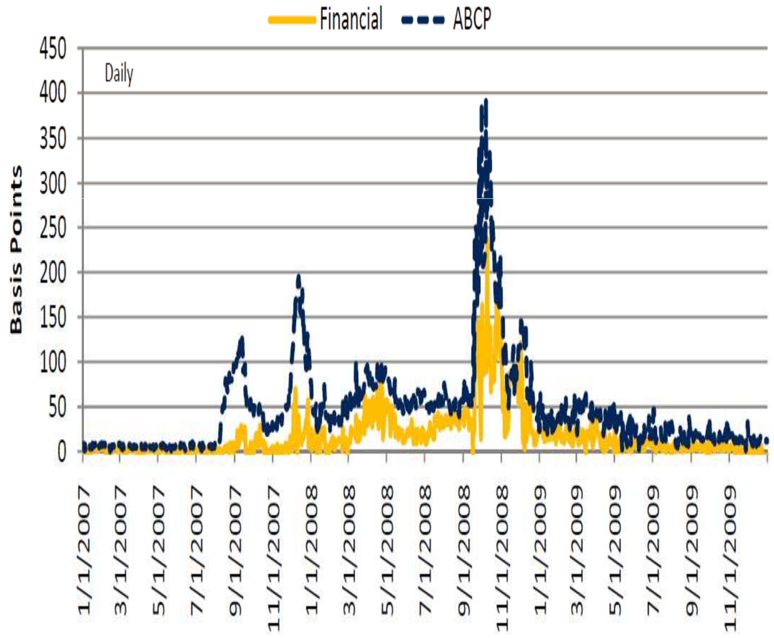
**Mid August 2007** - Overall issuance of ABCP dropped sharply and investors withdrew from ABCP programmes and the withdrawals persisted from those with perceived subprime exposures

**End August 2007** – Impact on the interbank lending market

**August 17, 2007** – FED cut the discount rate by 50 basis points aimed at increasing liquidity in the market. The Board also extended the term of Discount Window lending to 30 days in an effort to offer banking institutions a more stable source of funds.

Figure 9

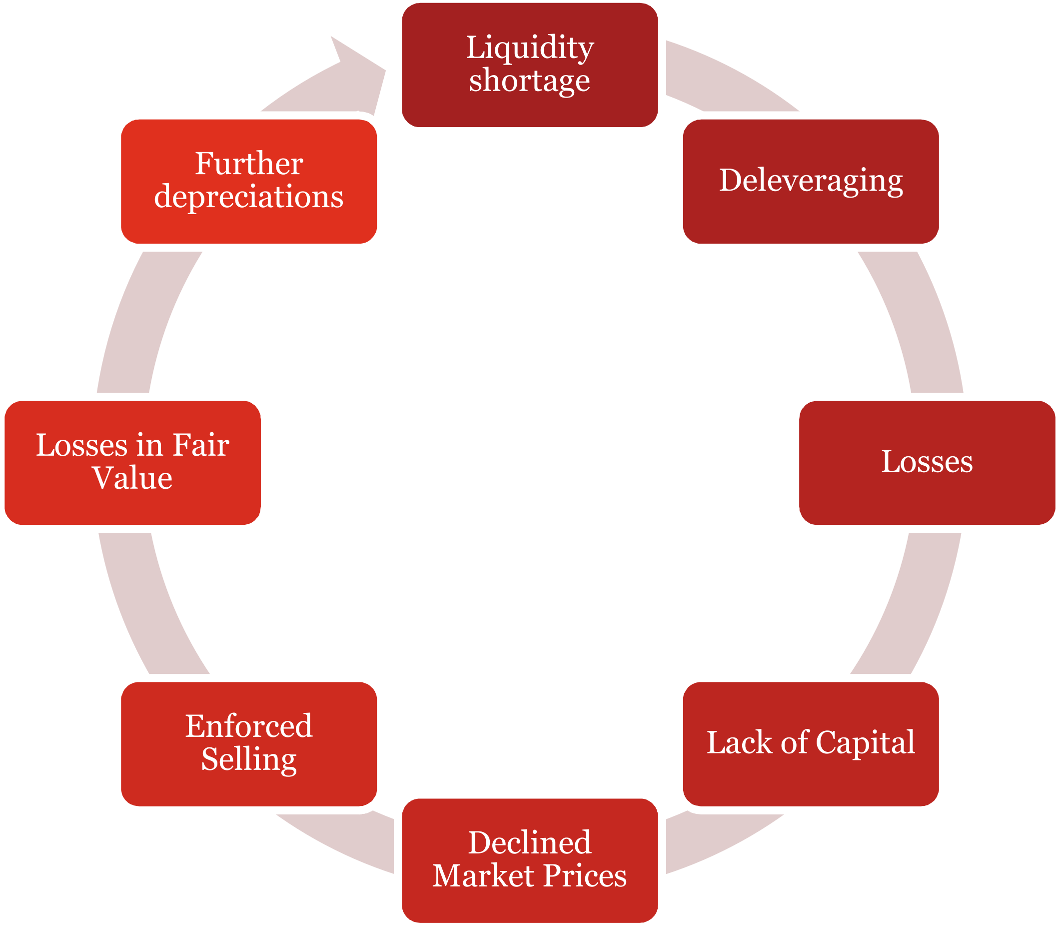
30-day Highly Rated Commercial Paper Yield Spreads




Note. All issuers included in this index have at least one short-term rating of A-1, A-1+, or P-1, with no ratings less than A-1 or P-1.

Source: Federal Reserve Board.

# *Consequences of liquidity problems: Insolvency cycle*



# *Financial Crisis –Underlying Causes*

- Ample financial market liquidity over several years
- Relatively **low interest rates**
- "Reach for yield " as a huge driver for demand for highly complex structured credit products
- **High competition** in the financial marketplace with extraordinary tightness of credit spreads across all classes of credit products
- **Complexity** factor of contemporary finance for risk management, valuation and price verification
- **Speed of contagion**- ABCP market, conduits, SIVs, CDOs, Monoliners,…
- Design and workings of the **incentive system** within the financial sector

# Liquidity risk

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# *Definition of liquidity risk*

## Liquidity risk includes the following risks

- Payment obligations are not paid at maturity (**insolvency risk**, liquidity risk in "strict / traditional" sense),
- Sufficient liquidity cannot be procured to the expected terms as needed (**funding liquidity risk,** refinancing risk),
- Due to market disruption assets can only be sold at reduced prices or transactions can only be dissolved or liquidated with losses (**market liquidity risk,** asset liquidity risk).

# *New Liquidity Requirements*

# 3

# *Development of new liquidity requirements*

| 2000 - 2006 | 2007 | 2008 | 2009 | 2010 | 2015/2018 |
|---|---|---|---|---|---|
| | | | G20 Pittsburgh | EU-Commission: Preparation CRD IV | |
| | | Draft Reform Basel principles (Basel III) | Turner /de Larosière report | Basel-Commitee: QIS 6 | |
| | Financial crisis | | Basel Framework* | Basel-Commitee: Capital and liquidity reform package | Introduction Liquidity Ratio EU Regulation (CRD IV) |
| Basel I / Basel II | IIF-principles | EBA/CEBS: Technical Advice | EBA/CEBS: Liquidity Buffers | | |

* BCBS: International Framework for Liquidity Risk Measurement, Standards and Monitoring (consultative document)

# *BIS: Principles for Sound Liquidity Risk Management (2008)*

**Principle 1:**
**Management and responsibility**

**Principle 2-4:**
**Liquidity Risk Governance**
Liquidity risk tolerance
Liquidity cost

**Principle 5-7:**
**Quantification and market access**
Comprehensive cash flow analysis
International Liquidity Management
Money and capital market access, relationship management

**Principle 8:**
**Intraday Liquidity Management**

**Principle 14-17: Role of supervision,**
Obligation to supervise and to take measures
Exchange of information between supervisory authorities

**Principle 13:**
**Disclosure**

**Principle 12:**
**Liquidity reserve**

**Principle 10-11:**
**Stress tests and emergency plans**
Institute-specific and market-wide stress scenarios
Determining measures to a number of stress scenarios

**Principle 9:**
**Collateral Management**

# *Quantitative liquidity standards of Basel III*

## Principles for Sound Liquidity Risk Management and Supervision

## Regulatory standards for liquidity risk management

**30-day horizon**

**1 year horizon**

### Liquidity Coverage Ratio (LCR)

$$\text{LCR} = \frac{\text{High-quality liquid assets}}{\text{Total net cash outflows}} > 100\%$$

- Ensuring adequate liquidity on a short term basis (over a 30-day stress scenario)

### Net Stable Funding Ratio (NSFR)

$$\text{NSFR} = \frac{\text{Available amount of stable funding}}{\text{Required amount of stable funding}} > 100\%$$

- Avoiding excessive term transformation
- Ensuring adequate liquidity on a medium and long term basis

## Monitoring Tools

# Outlook
## New Liquidity Requirements – an innovation?

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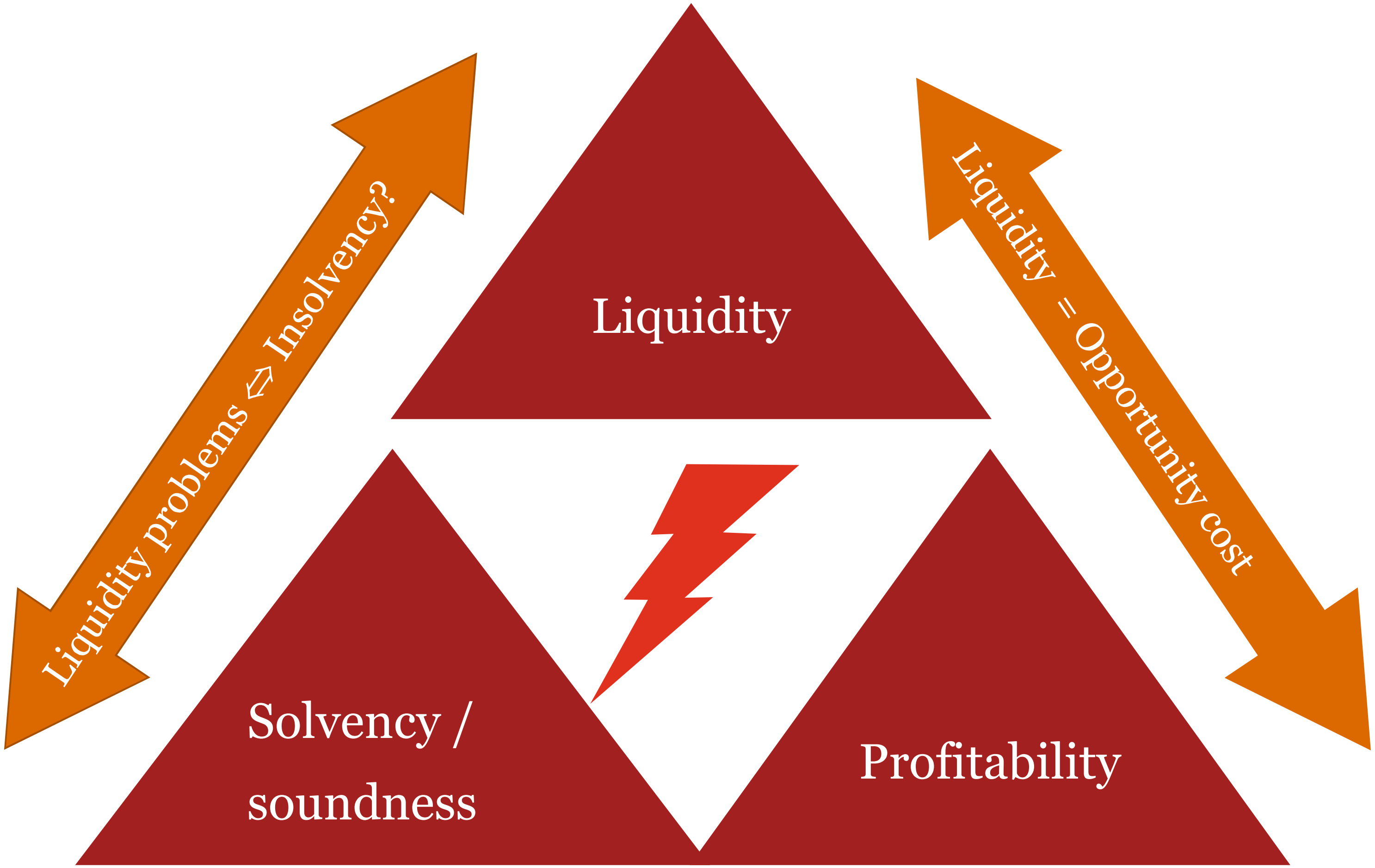
# Conflicts between economic figures



# *Impact of the new requirements*

## Conflicts

Conflict between LCR and Leverage Ratio

Conflict between NSFR and Profitability

The aim of matching maturities conflicts with the original function of banks

# *Thank you for your attention*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