Outline

1. Financial intermediation and regulation: a pre-crisis, paradigm-based, framework

2. Interpreting the crisis: how have perceptions changed?

3. The challenges ahead: reforming regulation won’t be easy
1. Financial intermediation and regulation

A pre-crisis, paradigms-based, framework
Did financial intermediaries see it coming? A simple (prudential) typology...

- They fully understood but went ahead
  - They took advantage of the less informed or farther removed through risk shifting or other means (agency paradigm)
  - Or else they did not internalize social costs and/or failed to coordinate (externalities paradigm)

- They went ahead because they did not understand
  ⇒ In a constantly evolving, uncertain world, they went through acute mood shifts that reflected emotional decision making or rational decisions based on deficient information (mood swings paradigm)
The finance problem from the perspective of an individual investor

Risk

Idiosyncratic

Systemic

Response

Pick and monitor borrowers

Stay liquid/grab opportunities

Adjust portfolio to risk appetite

Gap

Information/control

Liquidity/collective action

Volatility/uncertainty

Market Failure

Agency problems

Externalities/coordination failures

Mood swings
Financial institutions and markets come into play as alternative vehicles to help address the gaps

<table>
<thead>
<tr>
<th></th>
<th>Agency paradigm</th>
<th>Externalities paradigm</th>
<th>Mood swings paradigm</th>
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</thead>
<tbody>
<tr>
<td><strong>Markets</strong></td>
<td>Hard information and governance standards</td>
<td>Deep markets and market makers</td>
<td>Derivatives markets</td>
</tr>
<tr>
<td><strong>Asset managers</strong></td>
<td>Expert screening and delegated monitoring</td>
<td>Pooling</td>
<td>Expert risk management and diversification</td>
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<tr>
<td><strong>Financial intermediaries</strong></td>
<td>Relationship lending, debt contracts and capital (skin in game)</td>
<td>Pooling and risk absorption (demandable debt and capital/liquidity buffers)</td>
<td>Diversification and risk absorption (debt at par and capital buffer)</td>
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The ex-ante regulatory architecture reflected a (mostly) agency view of the world

Agency problems justify regulation in a world of small, uninformed investors

⇒ The supervisor needs to align the incentives of bank owners with those of depositors, whom he “represents” (Dewatripont and Tirole)

However, because regulation is costly and can slow down innovation and competition, the solution (Glass-Steagall) was to draw a “line in the sand”

⇒ Restrict prudential regulation (and supervision) to the systemically important core of commercial banks that also benefit from the safety net

⇒ Let market discipline and transparency take care of agency problems in the unregulated world of informed investors

⇒ The role of the supervisor is that of a policeman and market discipline enhancer

This view was strengthened in the 80’s by:

⇒ The savings and loans crisis (a hotbed of moral hazard)

⇒ The development of the agency approach to corporate governance (Jensen and Meckling, Fama and Jensen, Hart)

⇒ The recognition of the moral hazard implications of deposit insurance
The externalities paradigm was incorporated only partially.

In the externalities paradigm, ex-ante regulation can also help align incentives, this time by internalizing externalities and helping coordination...

While a broad pre-crisis literature on systemic liquidity risks existed (Diamond-Dybvig, Holmstrom-Tirole), it mostly stressed the ex-post stabilizing role of public liquidity (LOLR) rather than ex-ante incentives alignment.

Systemic concerns arguably did translate into higher capital requirements and limits on leveraging for commercial banks (the “systemic core”) but not on other “non-systemically important” institutions.

No link was established between prudential requirements and institutions’ individual contribution to systemic risk and no attempt was made to price access to the safety net so as to reflect its option value to lend-short-and-run.

The ex-post incorporation of systemic concerns also reflected the perception that crises become systemic only through contagion and it is cheaper to call the fire department when needed than to have fire extinguishers in every home.
As to the mood swings paradigm, it was nowhere to be found…

- Vast literature on uncertainty and mood swings
  - Keynes, Minsky, Kindleberger, Shiller
  - Literature on behavioral finance and market (in)efficiency (Shleifer and Vishny)

- However, the dominant pre-crisis perception was that
  - Keynesian thinking was mostly overcome (the sweet water counter-revolution) and the alternative (power to the supervisor) too radical to be contemplated
  - Based on a purely micro/relative prices view, deviations from market efficiency were strictly temporary and of little overall significance

- As a result, the mantra was “institutions and markets know best”…
  - Supervisors were neither equipped nor eager to go beyond fraud policing and market-discipline-enhancing role, in line with the agency paradigm
2. Interpreting the crisis: how have perceptions changed?

The agency view
Explaining the crisis

The source of trouble: “heads I win, tails you lose”

Innovations (securitization, shadow banking) opened a world of new opportunities (involving moral-hazard induced regulatory arbitrage) that
- Boosted the upside potential…
- … while limiting downside risks (good excuse for the bad times)

As a result, intermediaries started preying on the less informed and farther removed, levering up one-sided bets
- Madoff-type frauds are extreme expression of moral hazard dynamics

Once in motion, a crisis became ultimately unavoidable (nothing more to lose by taking more risk)

Widespread ex-post public intervention (under the gun of systemic contagion) ultimately validated the paradigm
What did we learn?

- A whole new set (second generation) of agency problems appeared
  - Agents multiplied, many with little or no skin in the game, opening up whole new layers of control problems
  - The multiplication of new, opaque and complex, instruments boosted the scope for systemic information asymmetries

- Market discipline failed at all levels
  - Wholesale investors failed to monitor (better to lend short and run)
  - Shareholders failed to discipline managers
  - CROs failed to assess and rate risk properly
What is missing?

Why did markets (informed investors) continuously fail to do their job (screen, monitor, and control)?

Was it a problem of control?
- Shareholders might have been unable to alter managers’ compensation or fire them…
- …but why did they fail to vote with their feet?

Or was it a problem of information?
- Yes, there was a serious problem of systemic opacity…
- …but how could this asymmetry last so long?
2. Interpreting the crisis: how have perceptions changed?

The externalities view
Explaining the crisis

The source of trouble: wedge between private and social costs/benefits

⇒ Market discipline & “market-friendly” regulation, by definition, do not work

Externalities-induced regulatory arbitrage shifted financial contracting to the less regulated sphere

Shadow-banking exacerbated fragility of upturn and violence of downturn

✧ Short-term wholesale finance with highly leveraged non-bank intermediaries made the system excessively fragile

✧ Everybody relied on everybody else for liquidity
  ■ Investment banks on commercial banks
  ■ Commercial banks on markets
  ■ Markets and banks on insurance companies (CDS)

✧ Yet, no one internalized adequately the systemic risk of such cross support – gigantic fallacy of composition

Basel-style focus on individual institutions aggravated systemic bias
What did we learn?

- The discrepancy between lightly regulated intermediaries and fully regulated intermediaries created a large wedge in returns.

- As a result, the lightly regulated grew to become systemic behemoths!

- Glass-Steagall ended up being a double calamity:
  - Its introduction boosted systemic risk outside commercial banking.
  - Its repeal boosted systemic risk inside commercial banking.

- The view that only institutions pre-defined as being “systemically important” matter for prudential oversight failed dramatically.

- And so did the view that it is enough to have a safety net (no need to internalize externalities ex-ante).
What is missing?

- Externalities can create dynamics of increasing vulnerability but not by themselves trigger a crisis
  - Rational players should continue to “manage” their risk and maintain safety cushions
  - Even with coordination failures, self-preservation should eventually kick in as the system approaches the cliff
  - It takes an exogenous shock

- But what was the shock?
  - The Lehman Brothers event only exacerbated a crisis that was already in process
2. Interpreting the crisis: how have perceptions changed?

The mood swings view
Explaining the crisis

The source of trouble: getting carried away in the midst of evolutionary uncertainty

Creativity was real but went wild: it exceeded the ability of the users of the new instruments to understand their systemic implications

There was also a failure to fully understand the linkages between financial and asset price dynamics

The seemingly predictable behavior induced exuberance on the way up (“this time things are really under control…”)

Then, the unexpected icebergs in the fog (CBX index) led to acute uncertainty aversion and unpredictability on the way down
What did we learn?

Difficult to maintain now that markets are always efficient

⇒ Price inefficiencies are easy to spot across markets; they are much harder to spot over time (tail risks, endogenous risk, black swans)

⇒ This questions the very core of the market-based Basel II type approach to risk management and regulation

Whether it is irrationality, bounded rationality, or rational inference based on deficient information, in all cases, there is a strong case for enhanced public oversight

❖ Deficient information: inform
❖ Bounded rationality: educate
❖ Irrationality: lead
What is missing?

- Without externalities, would the swings be so violent?
- Without agency problems, rational agents would have arbitraged?
- Why can’t systemic wizards make a living? (Is systemic analysis a public good?)
- What determines moods? (Anything goes?...)
3. The challenges ahead

Harmonizing the paradigms won’t be easy...
The costs and benefits of specific regulatory reforms clash across paradigms...

<table>
<thead>
<tr>
<th>Should fair value accounting be reviewed?</th>
<th>Agency</th>
<th>Externalities</th>
<th>Mood Swings</th>
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<tbody>
<tr>
<td>Absolutely not: it is fundamental to keeping incentives aligned (cf. Savings &amp; Loans crisis)</td>
<td>Yes, it exacerbates the transmission and impact of externalities</td>
<td>Yes, it exacerbates the transmission and impact of mood swings</td>
<td></td>
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<tr>
<th>Should CROs’ fees be paid by borrowers or investors?</th>
<th>Agency</th>
<th>Externalities</th>
<th>Mood Swings</th>
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<tbody>
<tr>
<td>Investors, having borrowers paying creates obvious agency conflicts</td>
<td>Borrowers, having investors paying creates obvious free rider problems</td>
<td>Not sure, they can all go cuckoo..</td>
<td></td>
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<th>Should the perimeter of regulation be reviewed?</th>
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<tr>
<td>No, it will only constrain innovation and competition, and make supervision more costly</td>
<td>Absolutely yes, without it, it is impossible to effectively internalize externalities and prevent regulatory arbitrage</td>
<td>Not sure, might help reign in innovation but could do the same by authorizing new instruments</td>
<td></td>
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<th>Should systemic liquidity norms be introduced?</th>
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</tr>
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<tbody>
<tr>
<td>No, lending short and running is fundamental to market discipline</td>
<td>Absolutely yes, this is key to enhancing systemic ex-ante resilience</td>
<td>Yes, unless supervisor is Moses, it will help him control mood swings</td>
<td></td>
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<th>Are counter-cyclical norms needed?</th>
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<tr>
<td>No, systemic events start from individual malfeasance and this is where the ball should stay</td>
<td>Yes, they are needed to ensure coordination and can be rules-based</td>
<td>Yes, they are needed to avoid major disequilibria and should be mostly judgment based</td>
<td></td>
</tr>
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... and so does the more fundamental visions on the role of official oversight

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<th>Should the role of the supervisor be extended?</th>
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<tr>
<td>Should prudential and monetary authorities coordinate?</td>
<td>No, going beyond policing and market discipline enhancing invites moral hazard</td>
<td>Yes, crowd control is as much part of the job as firefighting</td>
<td>Yes, scouting and guiding need to be included in the supervisor's TOR</td>
</tr>
<tr>
<td>Can players learn?</td>
<td>Not really, supervisors control the micro side, central bankers the macro (the Greenspan doctrine)</td>
<td>Tightly, externalities naturally connect the micro and macro worlds</td>
<td>Joined at the hip, mood swings arise from the constant interaction between micro and macro</td>
</tr>
<tr>
<td>Is a LOLR facility needed?</td>
<td>Yes, got me once, won't get me twice…</td>
<td>No, there is nothing much to learn and even if there was, I am not interested!</td>
<td>No, can't learn what is truly novel (even learning to expect the unexpected seems to go contrary to human nature)</td>
</tr>
<tr>
<td>Is a deposit insurance needed?</td>
<td>No, it is counterproductive</td>
<td>Yes, to provide liquidity in systemic events</td>
<td>Yes, to absorb risk in systemic events</td>
</tr>
<tr>
<td></td>
<td>No (setting aside consumer protection)</td>
<td>Yes, to limit risk of “wrong” runs</td>
<td>Yes, to calm the frayed nerves</td>
</tr>
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Attribution problems and public failures will further compound the challenges

- The observed facts can be explained cogently by each paradigm, and assessing their relative importance is not easy.

- Weighting the relative importance of tail risks vs. main risks is not easy.

- At the end of the day, how does one compare the relative costs and benefits of prevention vs. firefighting?

- Public oversight (the next logical step in the quest to address the gaps faced by the investor) also faces the same three paradigm problems…