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Seksjon 1

JUR1880 Financial Market Law and Regulation - ekstraordinær eksamen - V21

Explain the role of systemic risk in financial market regulation. How might systemic risk justify regulation, and how might it impact on any particular regulatory rules? You may look at some area of regulation or some particular rule of regulation, for example the area of banking regulation and the rules of deposit guarantee protection.

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# Systemic Risk

- a Cause or Consequence of Financial Market Regulation?

Spring of 2021 Exam

JUR1880 Financial Market Law and Regulation ("Ekstraordinær eksamen")

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#### Introduction

#### **Understanding Systemic Risk**

Horsch defines systemic risk as "the risk that a certain incident triggers events that endanger the stability of the (financial) system as a whole"<sup>1</sup>. The expression "system as a whole" signals that the scope of systemic risk lies at the *macro level*, i.e. above individual financial institutions. Still, the triggering incident may occur at the *institutional level*.

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Traditionally, the financial industry was mostly concerned with risks at the *micro level*<sup>2</sup>, especially after the accounting and auditing scandals of Enron and WorldCom in the early 2000s. During the following years, regulators focused on the implementation of the Sarbanes Oxley Act<sup>3</sup>to improve firm-level accountability for corporate misconduct. However, each crisis is typically unique. Whilst regulators were busy repairing the regulatory shortcomings related to previous scandals, the 2007-2008 crisis was related to the "*interconnectedness of financial institutions and markets*"<sup>4</sup>. Consequently, the new crisis entailed a profound **extension of regulatory focus** towards vulnerabilities related to *systemic* risk.

The phrase "**interconnectedness**" was used by the EU when establishing the European Systemic Risk Board based on recommendations by Larosière<sup>5</sup> in response to the crisis. The EU expressed that "monitoring and assessment of potential systemic risks should be based on a broad set of relevant **macroeconomic** and **micro-financial** data"<sup>6</sup>. Although the *macro level* is the primary focus of systemic risk, there are clearly close ties to micro-level risk regulation.

In conclusion, a "systemic risk" has macro-level impact potential. Such risks are characterised by their interdependencies and knock-on effects, i.e. possible contagion of correlated shocks across a larger "system". A *systemic risk* may cause **systemic instability**.

#### The Structure of This Paper

Systemic risk is key to understanding the rationale of regulatory changes in recent years. In the following, I first discuss the **role of systemic risk** in regulation of financial markets. I do so by examining the challenges of systemic risk revealed by **the 2007-2008 crisis** and the subsequent **regulatory responses** to those challenges. Finally, I discuss how systemic risk might **justify regulation** and examine an example of the **impact** it has had specifically in *investor protection* regulation.

- <sup>1</sup> Andenæs (2016), p.395
- <sup>2</sup> Larosière (2009), p.38
- <sup>3</sup> Andenæs (2014), p.337
- <sup>4</sup> Regulation 1092/2010, p.4 and Allen (2018), p.12
- <sup>5</sup> Larosière (2009), p.4
- <sup>6</sup> Regulation 1092/2010, p.4

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# The Role of Systemic Risk in Financial Market Regulation

#### Systemic Risk as a Major Contributor to the 2007-2008 Crisis

An examination of the global financial crisis illustrates how a systemic risk unfolded an unforeseen and devastating damaging potential. Initially, a **domestic housing bubble** in the US spun out of long-lasting imprudent and predatory lending practices at Fannie Mae and Freddie Mac<sup>7</sup>. However, a financial innovation named *collateralized debt obligation* (CDO), i.e. "toxic sub-prime mortgage-backed assets"<sup>8</sup>, **disguised the underlying risks**. CDOs were packaged, insured, sold and resold across the world at prices dissociated from the underlying risks of thousands of subprime mortgages.

Among many institutions, Lehman Brothers invested heavily in CDOs. When mortgage defaults soared, asset prices dropped radically and **the bubble eventually burst**. This led to the bankruptcy of the investment bank in 2008. The ruin of one of the largest and most prestigious banks was an event that **posed a systemic risk**. The liquidation of Lehman sparked a major shock in the entire financial world, a turmoil causing cascading failures that threatened the financial stability at the system level in many jurisdictions. When materialising, the systemic risk quickly **wiped away public confidence** in financial markets **globally**. As financial losses turned into social losses<sup>9</sup>, the whole society became affected.

## A Systemic Risk Demands a Systemic Approach

*Systemic risk* has been imprinted on the backdrop of the international financial stage for more than a decade. Since the global financial crisis, systemic risk has attracted immense attention among all financial regulators and supervisors internationally. The reason for this may be linked to a **regulatory neglect** of the systemic risk perspective as a *contributing factor* to the Great Recession<sup>10</sup>. Systemic risk has therefore played an **exceptionally important role** in modern-day regulation of financial markets, both as a **contributing cause** of the global crisis and subsequently as a regulatory **justification of remedies**. The Financial Services Authority phrased the latter a "need for a systemic approach"<sup>11</sup> to banking regulation and to supervisory practices.

## How Post-Crisis Regulation Addressed Systemic Risk Challenges

After several decades of intense financialisation<sup>12</sup>, deregulation and globalisation, the Great Recession demonstrated that the regulatory regimes were clearly **not capable** of coping with

<sup>7</sup> Ferran (2012), p.258
<sup>8</sup> Andenæs (2014), p.304
<sup>9</sup> Andenæs (2014), p.135
<sup>10</sup> FSA (2009), p.83 and Larosière (2009), p.11
<sup>11</sup> FSA (2009), p.51-52
<sup>12</sup> Epstein (2005), p.6

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systemic risk. In the aftermath of the massive financial disruption, the regulatory dysfunctions related to monitoring and mitigation of systemic risk were thoroughly scrutinized.

Corresponding with "the crisis-driven nature of the regulation of financial market"<sup>13</sup>, a momentum for regulatory change arose after the crisis. Regulators then tried to mitigate known *market failures* and insufficient *market discipline* through **regulation**, e.g. the Dodd Frank Act in the US and similar regulations all across Europe. The pursuit of *risk reduction* as an objective of financial regulation gained renewed attention, particularly through **macro prudential regulation and supervision**, but also within **micro-prudential regulation**, i.e. regulation for institutional safety and soundness. Additionally, substantive law reforms were made in **investor protection** as a third area<sup>14</sup>.

Arguably, there are limits to the effectiveness of **crisis-driven regulation**. Despite strong pushbacks from the industry, many profound changes *were* implemented. I briefly present *key systemic risk-related reforms* below.

#### New Macro-Prudential Regulation and Supervision

To pre-emptively reduce systemic risk, regulators established new regulatory agencies and implemented ex-post policies enabling considerable information collection and surveillance. The bodies include the **Financial Stability Board**<sup>15</sup> at the global level, the **Financial Stability Oversight Council**<sup>16</sup> in the US, the **European Systemic Risk Board**<sup>17</sup> in the EU and the **Financial Policy Committee** in the UK<sup>18</sup>. Through such bodies, post-crisis reforms introduced new and interlinked macro-prudential supervision regimes worldwide.

#### Improved Micro-Prudential Regulation

At the financial institution level, the Basel Accords were revised and Basel III raised **capital and liquidity standards** in addition to addressing firm-level **risk management**. Post-crisis reforms also included the **too-big-to-fail doctrine**. In short, dedicated authorities assumed responsibility for identifying and monitoring, including **stress testing**, "systemically important" banks and financial institutions (so-called SIBs/SIFIs). Through differentiated supervisory approaches, regulators distributed their attention according to systemic risk evaluations<sup>19</sup>. Finally, regulation was also extended to interconnected **hedge funds** and **credit rating agencies**.

<sup>13</sup> Andenæs (2012), p.16 and Andenæs (2014), p.20
<sup>14</sup> Andenæs (2014), p.10
<sup>15</sup> www.fsb.org
<sup>16</sup> www.treasury.gov/initiatives/fsoc/
<sup>17</sup> www.esrb.europa.eu
<sup>18</sup> www.bankofengland.co.uk/about/people/financial-policy-committee
<sup>19</sup> Andenæs (2016), p.400

#### Strengthening of Investor Protection

Traditionally, regulation to protect investors has been justified by information asymmetry arguments and other transactional market failures needing regulation to be corrected. During the post-crisis era, however, investor protection regulation in both the wholesale and retail sectors was linked to the overall objective of **systemic stability**. In particular, regulation of the predominantly domestic **retail sector** was intensified, i.e. enhanced regulatory paternalism, with the aim of reducing systemic risk. Although not unaffected, the **wholesale sector** remained less regulated because of its international nature and more "sophisticated market players"<sup>20</sup>.

## How Systemic Risk Might Justify Regulation

#### The Dynamics of Excessive Risk-Taking Incentives

*Risk allocation* is one of the core functions of the financial sector<sup>21</sup>. This implies that depositors and investors freely make decisions on where to allocate their money based on prospects of positive returns and individual risk tolerance. For regulators, the question therefore becomes to what extent the **management of risks** can be left with the sector itself to deal with.

*Systemic risk* stems from risk-taking activities in the financial sector. Given the lessons learned from the 2007-2008 crisis, the incentives that drive the sector may lead to socially suboptimal outcomes. Somewhere along the continuum that exists between financial stability and instability<sup>22</sup>, regulation is needed to reduce the negative impact of **excessive risk-taking behaviour** among market participants. To justify regulation, i.e. government intervention in a core function of the market, the origins of excessive risk taking must be explored further.

Chow points out that excessive risk-taking incentives in the business of banking are generated by a well-known combination of **leveraged intermediation** managed by people subject to **limited liability** and **profit-sharing contracts**<sup>23</sup>. However, more factors can explain the *perverse incentives* and *moral hazard* of the industry. Firstly, the **funding** of banks through access to fixed-price capital, ignoring the risk profile of banking activities, exacerbates excessive risk taking. Secondly, **regulation** itself, such as deposit guarantees, entails regulatory paternalism contributing to *disempowerment* of investors and *moral hazard* among bankers. Thirdly, central banks acting as **lenders of last resort** fuel the risk appetite of banks

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<sup>20</sup> Andenæs (2014), p.136-139
<sup>21</sup> Andenæs (2014), p.29
<sup>22</sup> Andenæs (2014), p.27
<sup>23</sup> Chow (2011), p.4
<sup>24</sup> Andenæs (2014), p.40 and p.241
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Strong incentives motivating **socially suboptimal behaviour** in the financial sector are observable. When such incentive-driven behaviour becomes a source of systemic risk, regulators cannot leave the sector unregulated. Consequently, given the overall stability objective, systemic risk *warrants* regulation. Hence, regulators might justify intervention by arguing that regulation may moderate suboptimal behaviour and thereby reduce systemic risk.

#### How Systemic Risk Impacts Investor Protection Regulation

Below, I discuss a specific example of how systemic risk mitigation through financial regulation plays out in the field of investor protection in the retail sector. I explore how stability concerns impact **deposit guarantees**.

Given the above-mentioned incentives among bankers, banks may enter into bankruptcy. For instance, a severe shock may negatively impact the asset prices of balance sheet items of banks. Along the way into insolvency, financial institutions become unwilling to lend each other money, resulting in a credit crunch. The negative spiral may escalate into a liquidity crisis when rumours spread that banks may become unable to repay deposits. After **bank runs**, citizens resort to a "money-in-the-mattress" mentality and investors withhold capital in absence of trust. Inevitably, the vicious circle results in unprecedented risks of people losing their money and spiralling crime rates.

To prevent consumers from **running on banks**, regulators issue deposit guarantees as a protective measure. Through paternalistic regulation, depositors gain protection against recklessly managed banks. Within the EU, a directive on deposit guarantee schemes<sup>25</sup> has for instance harmonised the legislation across the national jurisdictions with a minimum deposit insurance of 100,000 euro.

This example demonstrates how systemic risk concerns justify regulation in the form of deposit guarantees. However, as mentioned above, **regulation** itself is indeed one of several factors contributing to excessive risk-taking incentives. When deposits are guaranteed, depositors are no longer motivated to assess the risk of their banks in terms of solidity and soundness. On the contrary, depositors may be motivated to choose the least profitable bank offering the highest interest rate, simply ignoring the insolvency risk. This behaviour only exacerbates the incentive problem of bankers since the clients become less likely to monitor and discipline the management of banks. Protected against losses, depositors are **unlikely to make risk-sensitive decisions** as they are driven by unintended incentives *induced by regulation*. Responding rationally, banks may offer even more attractive interest rates.

Partial deposit insurance<sup>26</sup> is an alternative that may restore risk-sensitive decision making among depositors. Although such regulation might prove more effective in tackling moral hazard problems, complex regulation tends to become costly and inefficient.

<sup>25</sup> Directive 2014/49/EU <sup>26</sup> Gan (2013), p.12

# **Concluding Remarks**

The deposit insurance example demonstrates why financial regulation is so challenging, making regulators reluctant to regulate. Banks may meet regulation proposals by claiming, and perhaps correct so, that regulation increases **systemic risk** instead of reducing it.

However, to provide *financial stability* as a "public good"<sup>27</sup>, governments *must* regulate a sector dominated by strong private interests notoriously averse to regulation yet driven by socially suboptimal incentives. For regulators, avoiding regulatory capture or arbitrage by powerful international institutions thus becomes important<sup>28</sup>. Race-to-the-bottom threats must be countered through harmonisation of regulation across jurisdictions, e.g. EU's legal integration<sup>29</sup>.

Ultimately, the duty of regulators is to secure "optimal welfare"<sup>30</sup> for the society as a whole, not only for bankers.

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<sup>27</sup> Andenæs (2014), p.4
<sup>28</sup> Andenæs (2014), p.84 and p.308
<sup>29</sup> Andenæs (2014), p.43 and Andenæs (2017), p.501
<sup>30</sup> Andenæs (2014), p.241

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