Legal Risk Prevention and Control in Economic Transformation: Institutional Isolation of Systemic Risks

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Abstract

Economic transformation, a key driver of social development, presents both opportunities and the accumulation of systemic risks. Legal risk prevention and control, a key component in ensuring the smooth progress of economic transformation, hinges on achieving precise risk isolation and controllable management through institutionalized isolation mechanisms. This article, drawing on the formation mechanisms of systemic risk and drawing on practical cases from asset securitization, corporate transformation, and financial innovation, systematically explains the role of legal institutions in risk isolation, their implementation paths, and optimization directions. This article provides theoretical support and practical guidance for building a legal risk prevention and control system adapted to the needs of economic transformation.

Key words: Economic transformation; systemic risk; legal risk prevention and control; institutionalized isolation; risk transmission blocking.

1. Introduction

1.1 The Inevitability and Challenges of Economic Transformation

Economic transformation is the core driving force for social progress. Its essence lies in achieving a qualitative leap in resource allocation efficiency through institutional innovation, technological breakthroughs and industrial upgrading [1]. However, this process is inevitably accompanied by the pain of the transformation from old to new drivers, and systemic risks have become more frequent and complex during this period. Taking the abnormal fluctuations in the Chinese stock market in 2015 as an example, the break in the leveraged capital chain quickly triggered a market liquidity crisis, exposing the hidden nature of risk transmission caused by the multi-layered nested structure in the over-the-counter financing business [2]. Similarly, in 2020, a smart manufacturing company was forced to interrupt its transformation process due to a patent dispute caused by the vague terms of the technical cooperation contract, highlighting the fatal damage of contract management loopholes to the transformation [3]. These cases reveal a common law: at a specific stage of economic transformation, a single risk event may quickly evolve into a systemic crisis through legal relationship networks, market linkage mechanisms or policy transmission channels.

1.2 The Formation Mechanism of Systemic Risk and the Necessity of Legal Prevention and Control

The formation of systemic risk follows the evolutionary path of "micro-risk accumulation – risk transmission acceleration – breakthrough of the critical point of system collapse" [4]. Taking the debt crisis of a real estate group in 2023 as an example, its business model that over-relies on land finance caused debt defaults in the market downturn, which in turn dragged down the stability of the local financial system, reflecting the amplification effect of macroeconomic cycles and policy mistakes on systemic risks [5]. In this context, legal prevention and control has been given a dual mission: on the one hand, to prevent the spread of individual risks through rule design, such as the "Regulations on the Administration of Asset Securitization Business of Securities Companies and Subsidiaries of Fund Management Companies" requiring special purpose vehicles (SPVs) to achieve "true sale" and "bankruptcy isolation", cutting off the transmission of original equity holder risks to securitized products from a legal perspective [6]; on the other hand, to resolve the structural contradictions unique to the transition period through institutional innovation, such as isolating credit risks through trust-based asset securitization in bank-insurance cooperation.

1.3 1.3 Core Functions of the Institutionalized Isolation Mechanism

The institutionalized isolation mechanism builds a "firewall" between risk entities through the synergy of legal rules, contractual clauses, and regulatory frameworks, blocking the risk transmission path [7]. For example, in a certain

infrastructure toll rights securitization project, the independence of the trust plan as an SPV is protected by the Trust Law. Even if the original equity holder goes bankrupt, the underlying assets will not be included in the liquidation scope; a certain intelligent manufacturing enterprise clearly stated in its technology cooperation contract that "the intellectual property rights of the technological achievements belong to both parties, but neither party may authorize a third party to use them without the other party's written consent," effectively avoiding patent disputes.

2. The Formation Mechanism of Systemic Risk and the Logical Starting Point of Legal Prevention and Control

2.1 The Generation Mechanism of Systemic Risk: from Local Shock to Global Crisis

The generation mechanism of systemic risk has multi-dimensional characteristics, the core of which lies in the hidden nature of risk transmission, the complexity of legal relations and the amplification effect of market mechanisms. Through legal tools such as SPV and trust plans, risks are dispersed to multiple entities, but the correlation of underlying assets is not truly isolated [8]; multi-layer nested structures involve multiple fields of rules such as trust law, securities law, and contract law, and risk management requires coordinated cross-departmental supervision [9]; financial innovation tools such as margin trading and algorithmic trading have accelerated the speed of risk transmission, causing local shocks to evolve into global crises in a short period of time.

2.2 The Logical Starting Point of Legal Prevention and Control: the Necessity of Institutional Isolation

Traditional risk management models focus on risk control of a single entity or a single business, which is difficult to cope with the multi-dimensional transmission of risks during economic transformation. Legislation clarifies risk isolation standards. For example, the "Regulations on the Administration of Asset Securitization Business of Securities Companies and Subsidiaries of Fund Management Companies" require that SPVs must achieve "true sale" and "bankruptcy remoteness," legally isolating the transmission of risks from the original equity holders to the securitized products. In transitional high-frequency transactions such as technological cooperation, mergers and acquisitions, and restructuring, uncertainty in contract performance is reduced by clarifying clauses such as intellectual property ownership, liability for breach of contract, and dispute resolution methods. In response to the trend of mixed financial operations, regulators are replacing "institutional supervision" with "functional supervision." For example, the Macroprudential Assessment System (MPA) spearheaded by the People's Bank of China includes off-balance sheet wealth management and interbank business within its regulatory scope to prevent cross-business contagion of risks.

2.3 Theoretical Basis and Empirical Support for Institutionalized Isolation

The theoretical basis of institutionalized isolation stems from the "transaction cost theory" and "property rights theory" of new institutional economics. According to the Coase Theorem, clear property rights can reduce transaction costs. Institutionalized isolation, through the rigid constraints of legal rules and contractual terms, clarifies the property rights of risk subjects. Empirical research shows that institutionalized isolation mechanisms significantly reduce the probability of systemic risk.

3. Implementation Paths for Institutionalized Isolation Mechanisms: Multi-Dimensional Risk Control Practices

3.1 Asset Securitization: SPV Structure and the True Sale Principle

As an important tool for revitalizing existing assets, asset securitization's risk isolation effectiveness directly determines systemic security.

By establishing a trust plan as an SPV, bankruptcy isolation between the underlying assets and the original beneficiary is achieved. The independence of the trust property is protected by the Trust Law, and even in the event of bankruptcy, the underlying assets are not subject to liquidation. Regulators require that securitization transactions meet the "risk and reward transfer test," requiring the original beneficiary to transfer at least 95% of the cash flow risk of the underlying assets to the SPV. When a company securitizes its accounts receivable, it ensures that the transaction is considered a true sale by signing an asset transfer agreement and registering the receivables transfer. When using a senior/subordinate tiered structure, the thickness of the subordinated tranche must cover 120% of expected losses, and internal credit enhancement

cannot be used to circumvent risk isolation requirements. A project was halted by regulators due to insufficient thickness of the subordinated tranche, highlighting the importance of compliant credit enhancement.

3.2 Enterprise Transformation: Contract Management and Intellectual Property Protection

Enterprise transformation involves profound adjustments to business models, technological approaches, and organizational structures, and legal risk management must be integrated throughout the entire transformation process.

In the transition to smart manufacturing, companies should include a "technology upgrade clause" in equipment purchase contracts, stipulating that suppliers provide at least two free software upgrades within five years to prevent equipment depreciation due to technological iterations. One company, failing to include this clause, was forced to scrap its equipment prematurely three years after transformation due to outdated technology, resulting in losses exceeding 10 million yuan.

Building technological barriers through a "patent pool" strategy. For example, one new energy company combined patents covering battery materials, manufacturing processes, recycling technologies, and other aspects to form a patent network covering the entire industry chain. Furthermore, a comprehensive "R&D-application-maintenance" management system was established to ensure timely payment of patent annual fees and avoid disputes arising from lapsed ownership.

During layoffs, the procedures stipulated in the Labor Contract Law should be strictly followed, with the union or all employees informed 30 days in advance, and financial compensation paid in accordance with the law. One company was ordered to pay double compensation for failing to follow legal procedures, increasing its transformation costs by 30%.

3.3 Financial Innovation: Regulatory Sandbox and Risk Early Warning Mechanism

The development of FinTech has spawned new business models such as digital currencies and robo-advisory. These risks are transboundary across markets and regions, requiring proactive prevention and control through institutionalized isolation. A local financial regulatory bureau established a digital currency pilot zone, allowing businesses to test blockchain payment systems within a limited scope. Through a comprehensive "entry-testing-exit" regulatory process, they ensure that innovative businesses do not violate existing legal frameworks while also accumulating regulatory experience. During the pilot program, three data privacy breaches were identified and corrected.

Combining macroeconomic data, market transaction data, and public opinion information, an early warning model encompassing 36 indicators across 12 categories was established. When an indicator exceeds a threshold for three consecutive months, a yellow alert is triggered, requiring regulators to conduct on-site inspections of the relevant institutions. Exceeding the threshold for six consecutive months triggers a red alert, suspending approvals for related businesses. To address asset price fluctuations potentially caused by foreign capital withdrawal, a "countercyclical adjustment of capital flows" system has been established. When foreign exchange reserves decline by more than 5% for three consecutive months, a foreign exchange risk reserve requirement system is activated, requiring financial institutions to maintain a reserve of 1% of their foreign exchange loan balances to curb short-term capital outflows. This measure effectively stabilized market expectations during the RMB depreciation cycle in 2025.

4. Optimizing the Institutional Isolation Mechanism: From Passive Response to Proactive Governance

4.1 Refining and Improving Legal Rules

With the vigorous development of the digital and green economies, emerging areas such as data asset securitization and carbon finance have become new sources of systemic risk. However, the current legal system lags significantly in regulating these areas. For example, the vague definition of data asset ownership leads to frequent transaction disputes, and the lack of standardization of carbon finance products fosters market speculation. Therefore, it is necessary to expedite the legislative process and formulate the "Measures for the Confirmation and Transaction Management of Data Assets" to clarify data ownership, transaction rules, and dispute resolution mechanisms, providing legal safeguards for the market-based allocation of data elements. Simultaneously, the "Measures for the Management of Carbon Financial Products" should be issued to regulate the trading of derivatives such as carbon futures and options, and to prevent the risk of "greenwashing." For example, the EU's "Digital Markets Directive" effectively curbs the monopolistic behavior of digital platforms by clarifying the obligations of "gatekeeper" companies, providing a valuable reference for my country's data legislation.

Interdepartmental legal application disagreements are another obstacle to institutional isolation. In the field of financial innovation, the same business may fall under multiple laws, including the Securities Law, the Banking Law, and the

Insurance Law, leading to frequent instances of different judgments for the same case. For example, a local court hearing a financial derivatives dispute disagreed on the criteria for identifying "qualified counterparties" in the "Measures for the Supervision and Administration of Derivatives Transactions," resulting in significantly different verdicts and raising market questions about legal certainty. To address this, a cross-departmental coordination mechanism for legal application should be established. Led by the Supreme People's Court and the Ministry of Justice, in collaboration with regulatory agencies such as the "One Bank, Two Commissions," regular guidance on typical cases should be issued to unify enforcement standards. Furthermore, the coordination mechanism of the Financial Stability Oversight Council in the US Dodd-Frank Act could be used to establish a cross-departmental risk management committee to coordinate responses to systemic risks.

4.2 Technology-Enabled Risk Prevention and Control

Smart contracts, leveraging the immutability and automatic execution of blockchain technology, provide a technical solution to institutionalized isolation. In supply chain finance, the traditional model relies on the credit endorsement of core enterprises, which presents information asymmetry and operational risks. Smart contracts can encode transaction terms into executable code. When pre-set conditions (such as goods receipt and invoice verification) are met, payment is automatically triggered without manual intervention. After implementing smart contracts, one company saw its accounts receivable turnover rate increase by 40% and its bad debt ratio drop to 0.5%, significantly reducing transaction costs and risks. Furthermore, smart contracts can be applied to securitization, automatically enforcing "true sale" clauses to ensure risk isolation between the underlying assets and the original equity holders, thereby enhancing investor confidence.

The integration of big data and artificial intelligence technologies enables early identification of systemic risks. Traditional regulatory oversight relies on companies submitting data regularly, which is lagging and incomplete. Big data monitoring, on the other hand, integrates multi-dimensional information, including corporate credit reports, legal proceedings, administrative penalties, and social media, to construct risk profiles using machine learning models. For example, one bank used this technology to analyze alternative data, such as utility bill payments and logistics data, from small and micro enterprises, reducing its non-performing loan ratio from 3.2% to 1.8%. In addition, regulators can establish a "risk early warning index" to monitor market liquidity, leverage ratios, related-party transactions, and other indicators in real time. When the index exceeds a threshold, it can automatically trigger a resolution mechanism, achieving a shift from "ex post facto accountability" to "ex ante prevention."

4.3 Collaborative Governance through International Cooperation

In the context of economic globalization, systemic risks have the characteristic of cross-border transmission. During the 2008 global financial crisis, the US subprime mortgage crisis rapidly spread globally through the financial derivatives market, exposing loopholes in cross-border regulation. To this end, it is necessary to strengthen cooperation with international organizations, participate in multilateral mechanisms such as the International Organization of Securities Commissions (IOSCO) and the Financial Stability Board (FSB), and establish a cross-border risk information sharing platform. In the case of a multinational corporate debt default, through coordination on this platform, regulators in 15 countries simultaneously implemented measures, including asset freezes and trading restrictions, effectively preventing cross-border risk contagion. Furthermore, the EU's Market Abuse Regulation (MAR) could be used as a reference to establish a joint cross-border insider trading investigation mechanism to improve law enforcement efficiency.

Different legal standards are a major factor in the high compliance costs of multinational corporations. For example, China's "genuine sale" criteria for securitization differ from those of the EU, forcing Chinese companies to meet dual compliance requirements when issuing asset-backed securities overseas, increasing financing costs. To this end, it is necessary to align Chinese legal standards with international rules and achieve mutual recognition of standards through bilateral or multilateral agreements. Currently, China and the EU have reached an equivalence assessment for securitization regulations, allowing Chinese companies to apply simplified procedures when issuing securitized products in the EU market, significantly improving financing efficiency. In the future, this approach could be further expanded to include areas such as carbon finance and cross-border data flows, building a "united front" for global risk prevention and control.

Optimizing institutionalized isolation mechanisms is a systematic project that requires a three-pronged approach: legal, technological, and international cooperation. By refining legal rules to fill regulatory gaps and unify enforcement standards, empowering technology to enhance risk monitoring and management, and collaborating internationally to build a cross-border collaborative governance framework, we can achieve a transition from reactive to proactive governance and provide solid risk protection for economic transformation.

5. Conclusion

The essence of economic transformation lies in rebalancing risks and returns. Institutionalized isolation mechanisms, through the synergy of legal rules, contractual clauses, and regulatory frameworks, enable manageable risk. From the SPV structure of asset securitization to intellectual property protection in corporate transformation, from regulatory sandboxes for financial innovation to the collaborative governance of cross-border risks, institutionalized isolation mechanisms have permeated every aspect of economic transformation. In the future, with the in-depth application of technologies such as artificial intelligence and blockchain, legal risk management will evolve towards intelligent and precise approaches. However, the core principle of institutionalized isolation—blocking risk transmission through rule-based design—will remain the cornerstone for ensuring the smooth progress of economic transformation. Only by building a multi-layered, three-dimensional legal risk management system can we achieve a dynamic balance between "breaking" and "building" amidst the tide of economic transformation.

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