

A photograph of a sailboat on the ocean. The sail is white and partially visible on the left side. The water is a deep blue, and the sky is a lighter blue with some clouds. The boat's deck and rigging are visible in the foreground.

Asset Risks of Insurers in China from a Look-Through Perspective under C-ROSS

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Adapt to macro trend in economy, financial markets and regulations



On account of the rapid development of conglomerated financial operations and financial innovation

As cross-industry and cross-market products keep emerging, under the complex interest rate environment, insurers are faced with greater challenges in asset allocation and hence have increased positions in alternative investments, which are often structured. Complex structures may lead to risks that are difficult to identify and are vulnerable to risk contagion. This trend has increased the difficulty in risk management and financial regulations.



To comply with the National Financial Supervision System Reform

From segmented regulation to integrated regulation.
Cross regulation borders/obstacles and crack down on illegal activities.
Enhance deleveraging, risk preventing and arbitrage controlling.



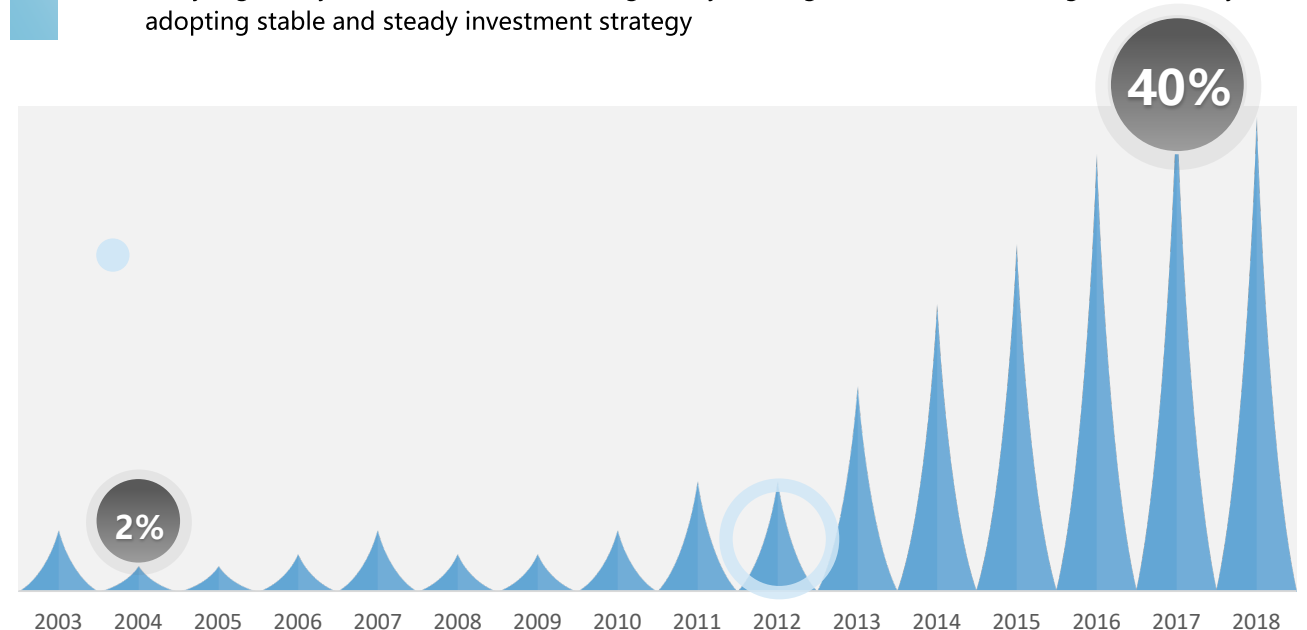
In conformity with C-ROSS Phase II Construction

Phase II will focus on key issues to efficiently upgrade the regulatory rules.
Listen to the industry to ensure Phase II can cover practical issues.
Phase II will re-emphasize the key principle of risk-oriented regulation.
Phase II will reshape insurance regulation to guide the industry back to the origin of insurance (risk protection).

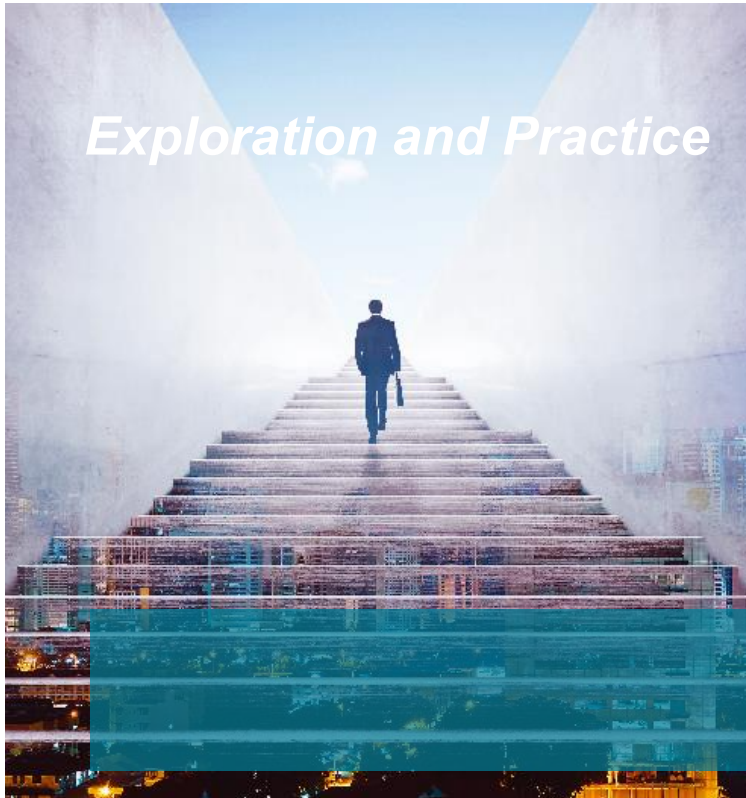


Implementing look-through regulation will improve the comprehensiveness and integrity of the insurance supervisory regime

- ❑ Identify the underlying assets and find out where the insurance funds eventually flow into and who the potential counterparties are.
- ❑ Identify risks hidden behind the investment structures, and perform accurate risk evaluation.
- ❑ Manage the concentration risk and investment leverage, and improve the market transparency, thus effectively prevent systemic risks.
- ❑ Unify regulatory standards to eliminate regulatory arbitrage, and hence encourage the industry in adopting stable and steady investment strategy



By the end of 2018, approximately 40% of insurance funds were invested in other assets; From 2013 to 2018, the compound growth rate reached 27%, which is higher than the industry growth rate of 14%.



- ## Look-Through Provisions
- Effect: To some extent, it reflects the idea of look-through supervision, that is, the identification of the final investors or underlying assets, but it does not complete the full look-through of capital flow
 - Practice: The relevant legal provisions of US investment firms

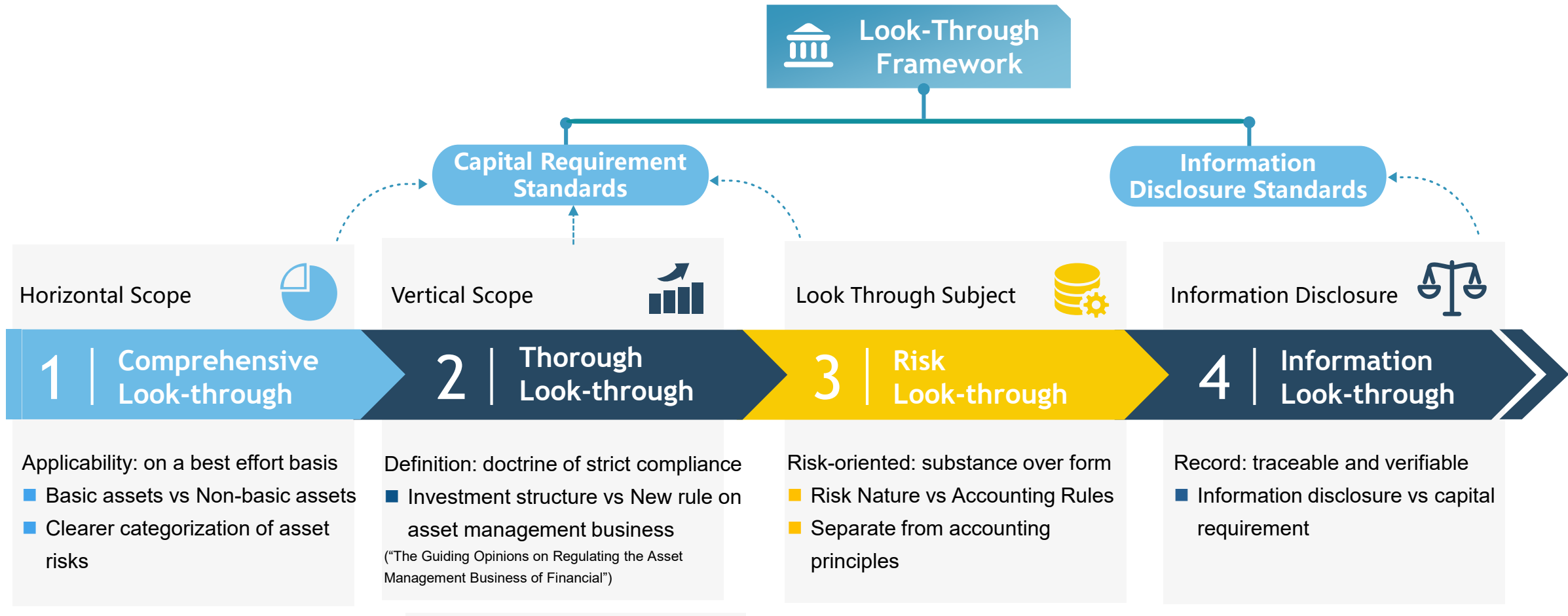


- ## System Design
- Financial crisis in 2008: excessively complex financial innovative instruments with prolonged derivative-product chain and redundant counterparties, which were dissociated from regulatory system, finally led to the accumulation and outbreak of systemic risks
 - Emphasis on post-crisis financial regulatory Reform: Improve financial market transparency through systematic design
 - Legal Entity Identifier(LEI): Breaking down the boundaries between traditional financial subsectors



- ## International Capital Regulation
- **Basel III:** capital requirements for collective investment undertakings, and supervision for controlling large exposures
 - **Solvency II:** calculation of capital requirement for the collective investment undertakings and other investment funds in accordance with underlying assets or investment mandates
 - **Insurance Capital Standards(ICS):** Put forward the guidelines for look-through approach, referring to Basel III

Financial markets have become more and more complex, whilst the financial regulations are also reforming to cope with it. Under the circumstances, **look-through regulation under C-ROSS Phase II** aims to strengthen the comprehensiveness and effectiveness of the insurance regulatory system. By applying the look-through approach on a best effort basis, we can identify investment structures and underlying assets, capture hidden risks and investment leverage, and thus evaluate the risks more accurately. Furthermore, in combination with disclosure requirement, we can identify violations to regulations hidden by investment structures more effectively. Compared to C-ROSS Phase I, Phase II applies to a wider scope, and is clearer in asset categorization and more scientific in risk evaluation.





Asset Categorization

Basic Assets are those traded in the markets sanctioned by the State Council or Financial Supervision and Regulator Department, with fair price, high liquidity and full disclosure, or those having no trading market or reasonable price, but with clear underlying risk and no nested structure, like directly held unlisted equity and real estate investments.



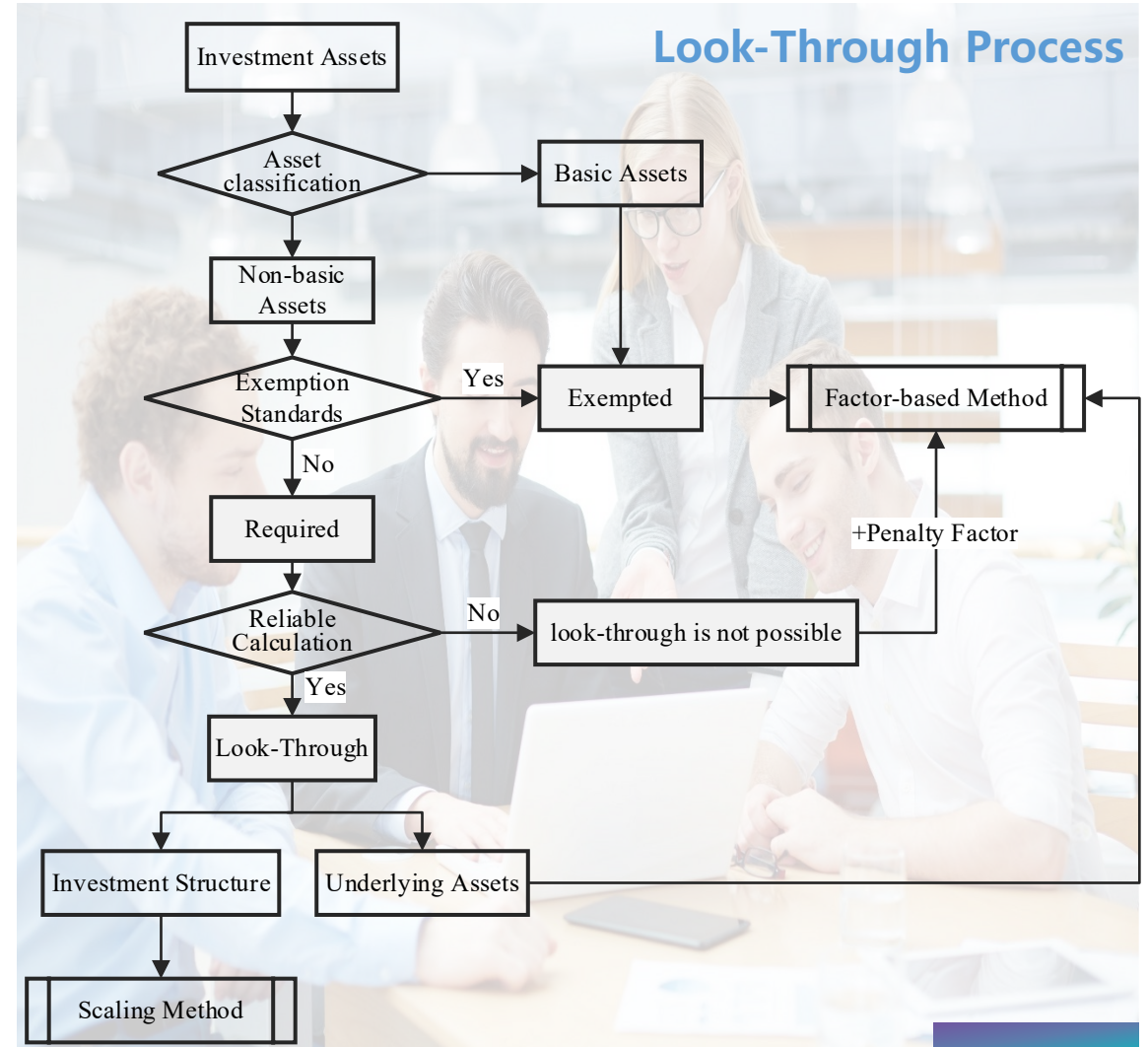
Exemption Criteria

Non-basic assets, if invest mostly in actively traded and fairly priced basic assets such as bonds, stocks and standardized debt assets etc., can be exempt from look-through approach when satisfying the **diversification criteria**: which requires (a) the number limit of underlying exposures, and (b) the proportion limit of the largest underlying exposure value to the instrument's net asset value.



Reliable Calculation

Asset information is available, sufficient and reliable. Insurers are provided with investment mandates, financial statements, or other verifiable documents in a timely manner, and such relevant information is sufficient to determine parameters for calculations of capital charge.



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67%

out of the total
industry assets

- Type: Life/P&C/Pension/Health/Reinsurance
- AUM Size: Large/Medium/Small
- Shareholders: Domestic/Joint/Foreign-funded
- Other: Banking/Property
- Investment: Stable/Aggressive Strategies

A quantitative testing on the new rules of asset risks have been completed recently. 40 insurance companies have attended and those companies are varied in type(e.g. life/non-life), AUM size, risk appetite, investment strategies and so on, which should have been a representative sample set of the whole industry.

Valuation Date: 2018Q2





In terms of implementation and applicability, 86% of assets where Look-through approach shall be applied are calculated accordingly, proving the test results are effective and reliable.



Empirical data shows, insurers tend to focus more on long-term returns, and are mostly moderate value investors.

Before and After applying **Look-through Approach (hereinafter "LTA")**, asset allocation and risk portfolio share no distinctive difference

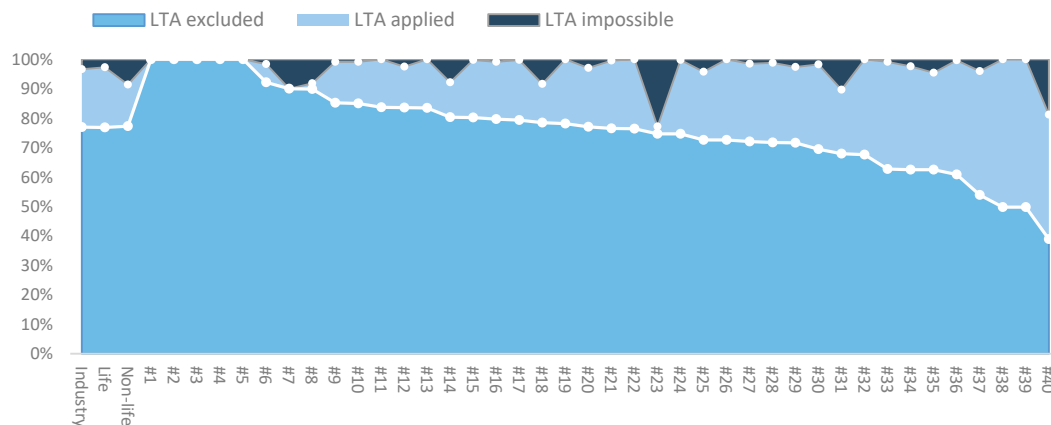
- Insurance Assets are well diversified and invested primarily in fixed income assets, and have low underlying leverage
- Concentration Risk has low trigger rate for single counterparty (legal entity/property)
- Relatively simple Investment structure and clear underlying assets
- Investment structures are mainly constructed due to corporate governance, tax planning, co-investment, asset allocation strategy and etc.

Review on Implementation and Applicability of LTA

The proportion of assets where LTA is excluded to invested assets accounts for 77%; 6 out of 40 insurers are fully exempt from LTA, the majority of which are reinsurers and foreign-funded insurers with quite simple asset portfolio. **The proportion of Assets where LTA should be applied is:**

23%

LTA was implemented in different extent, varying by companies' investment strategies and allocation structure. Proportion of assets should apply LTA: [0%-61%], and proportion of assets impossible to carry out LTA: [0%-23%].



- Among the number of structure layers, two layers and more is less than 8%, and only a few have complex structures with 3 layers and more (7 firms, mostly just one single investment) ;
- Among the asset types of structured Investments, the proportion of asset management products (generalized) is about 95%, two or more layers, three or more layers of which compromise 3.6%, 1.2% respectively. Among Non-asset management products, 3 or more layer structures account for 12%.

- The collected testing data shows that, overall investment leverage is low:
- For assets applying LTA, their risk exposure leverage is about 1.03;
 - If deducted the fair value changes of underlying assets, real risk exposure leverage would be closer to 1.





Non-basic Assets

Non-basic assets account for 26% of testing insurers' invested assets, and top 3 largest assets are fixed-income trusts, private equity investment/funds, asset management products.



Look-through Implementation

Top 3 Assets where look-through is not possible: Private Equity investment/funds (35%), Equity Trusts (33%), ABC(Asset-Backed-beneficiary Certification, 24%)

Top 3 Assets where look through is used: Real estate debt schemes (94%), Infrastructure Investment Plans (91%), Fixed income Trusts (82%)

LTA Implementation by Asset

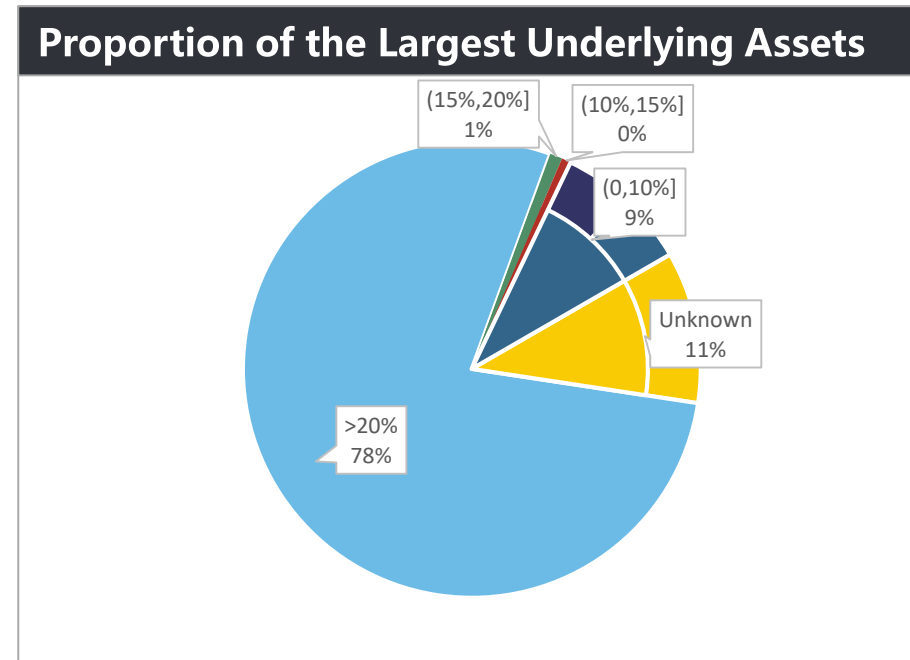
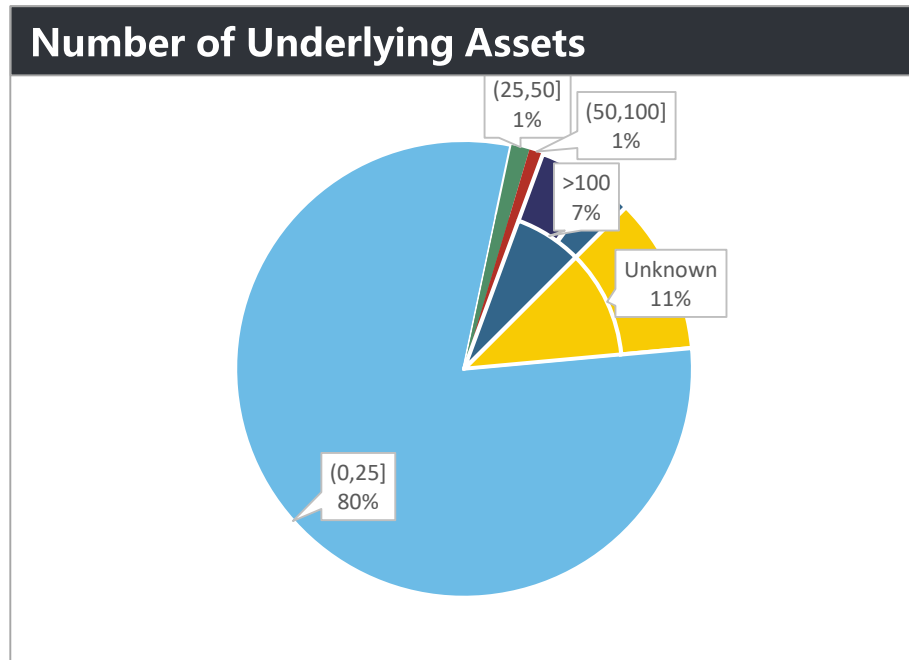


A number of testing insurers responded that private equity investments/funds are not possible to apply LTA, mainly because they could not obtain relevant information/materials from fund managers, or fund management agreements did not stipulate to assess or evaluate underlying assets quarterly, therefore, it's not likely to fulfill the timeliness for solvency reporting.

LTA Exemption Criteria drafted by C-ROSS Phase II Asset Risks Project requires that, **(1) the number of underlying assets should be greater than 100, and (2) book value of the largest underlying asset should not exceed 10% of the instrument's net asset value.**

Based on testing data, the applicability where financial instruments and asset management products meet the diversified investment criteria is as follows:

- Overall, the exemption criteria is reasonably strict: **only 5.7% is qualified.** (life 6.2% /non-life 3.4%)
- The number of underlying asset with 25 or less accounts for 80%, 100 or more, 7%.
- Almost 78% of the largest underlying assets have book value more than 20% of the product's net asset value, and about 9% of which are under 10% of net asset value.





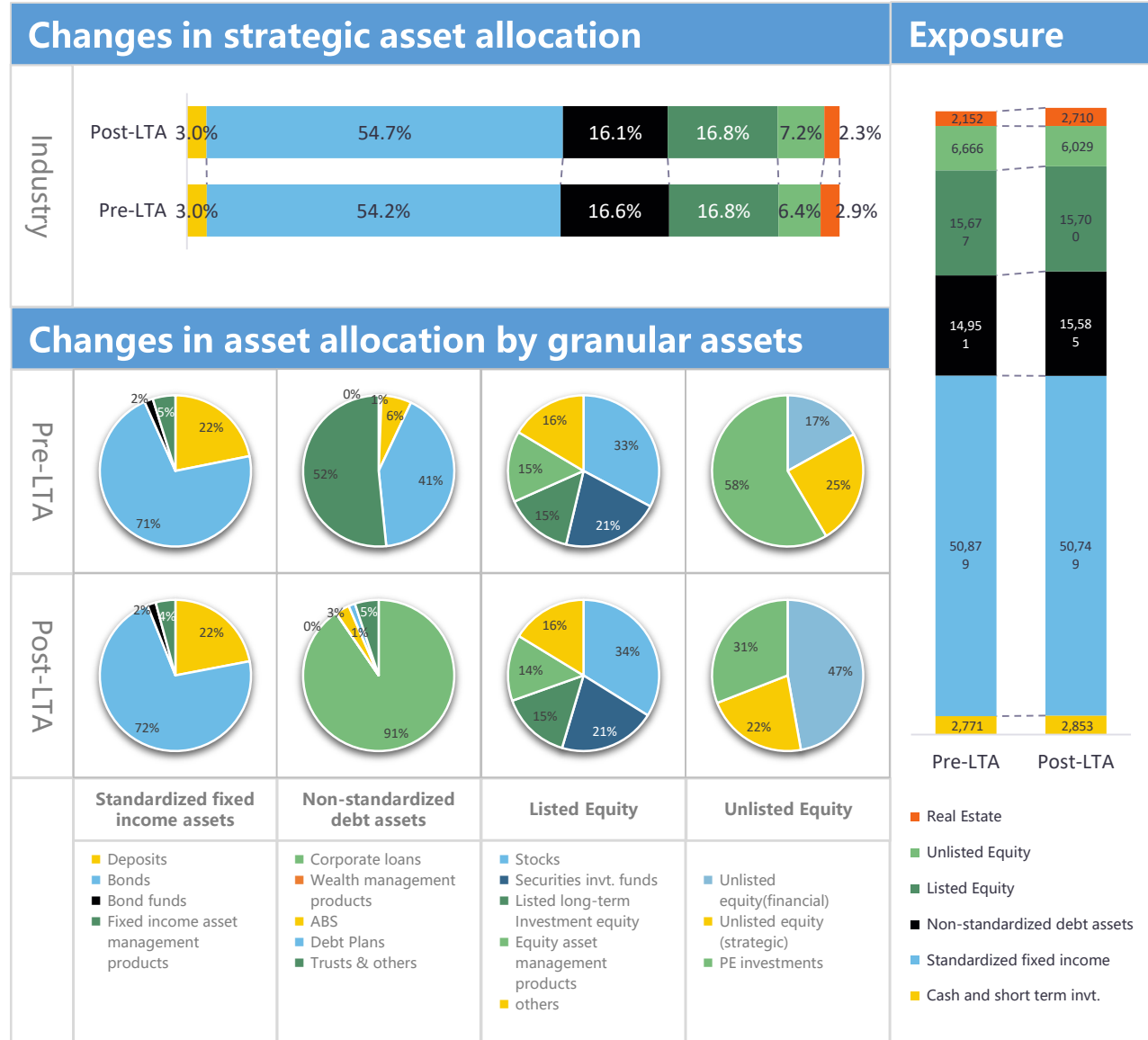
Strategic Asset Allocation Remains Steady

- Asset composition had slight change, lower than 0.5%
- Asset exposures had no obvious change, non-standardized debt assets had risen on a small margin



Second-Class Asset Allocation Varies

- Standardized fixed income assets and listed equity assets barely changed
- Among Non-standardized debt assets, trust plans and debt schemes were mostly looked through and their majority underlying assets were corporate loans with risk level rated normal (referring to five-category loan classification system)
- Among unlisted equity investments, after applying look-through, private equity investment/funds turned out to be corporate loans or unlisted equity, etc.
- Directly held Real estate increased slightly, for some underlying assets are added to this asset category.





Risk Capital: capital charge dropped slightly under look-through approach



Risk Structure: allocation is more balanced under look-through approach

Capital Charge for Market Risks increased slightly, 1.8%:

- Mostly because Capital requirement for investment structures and where look-through approach must apply but not able to perform;
- A few underlying assets have larger exposures;
- Few risk crossing or transferring issues, therefore, no obvious decrease from weighted-average risk factor of market risk.

Capital Charge for Credit Risk decreased 12%:

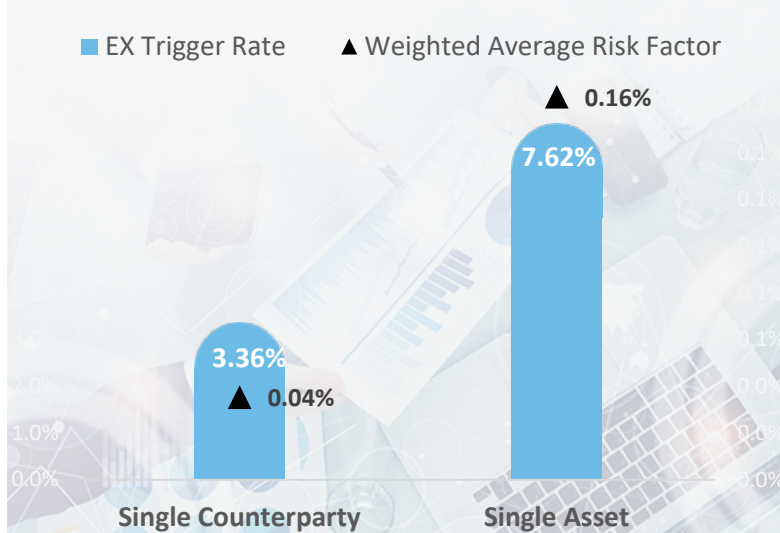
- The majority underlying assets of trusts and debt plans are corporate loans, and normal-class loan has lower risk factor compared to other non-standardized debt assets, which then caused the decline in default risk capital charge;
- No noticeable change for non-default spread risk charge.

Pre-LTA/Post-LTA: Risk Portfolio (excl. interest rate risk capital)



Note: the above table is calculated by recalibrated technical standards, considering diversification of risk.

Concentration Risk:
Exposure trigger rate 11%、average risk factor 0.20%



Δ Asset Ratio Change (post LTA-pre LTA)

	Equity	Property	Other investments	Corporate Loans	Overseas Assets
Industry	0.1%	-5.4%	-6.5%	12.3%	0.0%
Life	0.0%	-5.5%	-7.0%	13.0%	0.0%
Non-life	0.6%	-5.0%	-3.2%	7.9%	0.1%

Note: Concentration Risk for single asset is calculated pre-look-through approach



Single Counterparty

By counterparties, legal entity or property, concentration risk threshold is set at **progressive rates** in accordance with total asset size and insurance business type.



Single Asset Class

By defined-limit regulation of insurance investment, equity assets, property assets, other investments, and overseas investments, concentration risk threshold is set by its **asset ratio**.

1

Strengthen the oversight and regulation of concentration risk

Legal entity and property risk threshold to total asset ranges from 3%-5% and 3%-8% respectively



Screen to identify any breach of regulation limits

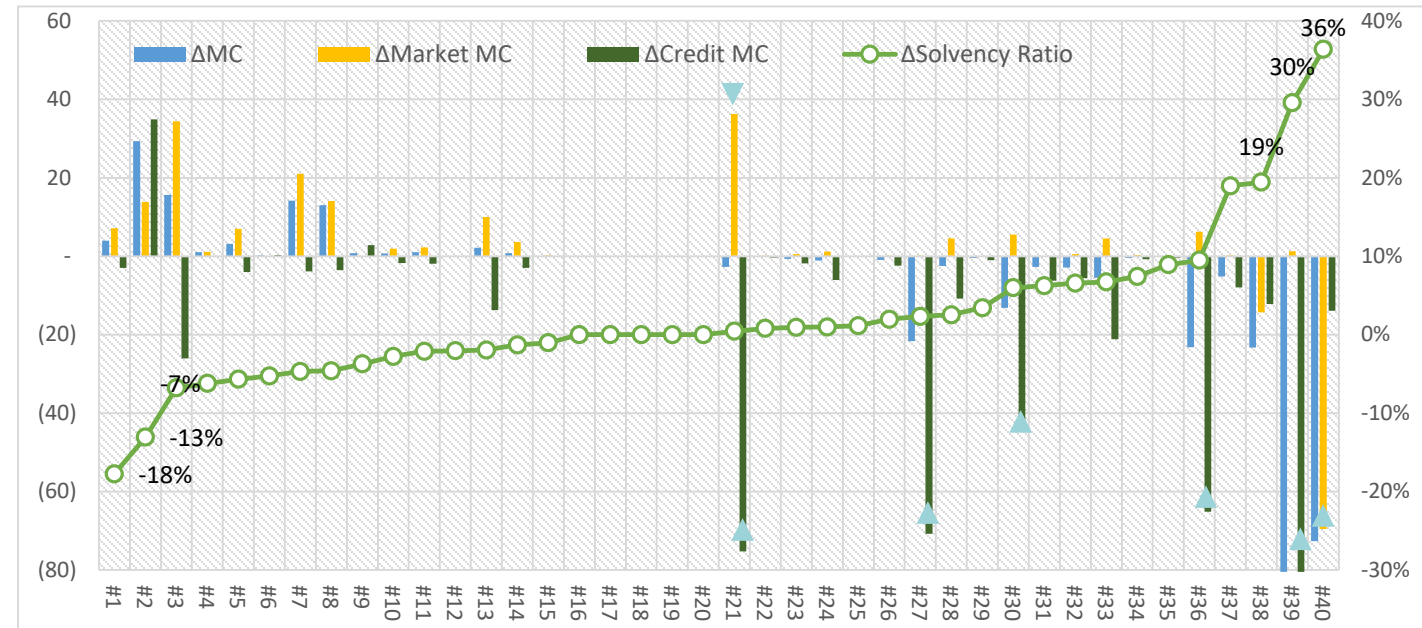
only one testing firm's real estate asset exposures exceed the limits, mostly because its private equity funds significantly invested in real estate assets.

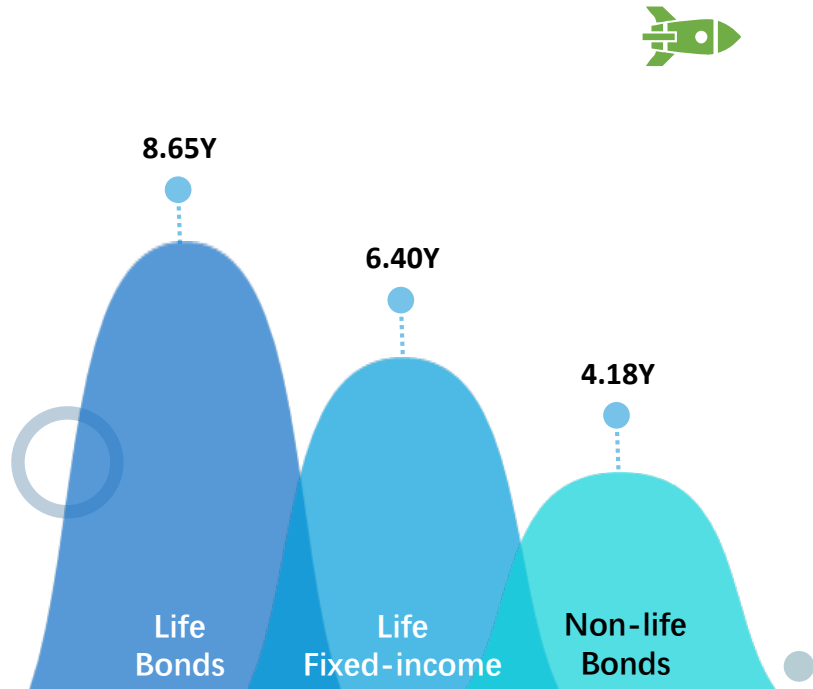
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Impact of look-through approach on capital requirement and solvency ratio varies in different types of company and risk.

Calculate and compare capital requirement and solvency ratio **pre-LTA and post-LTA** by using **recalibrated risk factors**, key findings are as follows:

- Applying look-through approach, solvency ratios of industry and life insurers increased 4.5% and 6.7% respectively, while non-life insurers dropped 4.7%; capital requirement for market risk raised 0.95 billions and for credit risk, declined 4.83 billions.
- Main reason for capital charge changes: after looking through debt schemes, underlying assets mostly are corporate loans and the vast majority of which are rated normal in risk level. Normal-class loan has lower risk factor compared to other non-standardized debt assets in test scenario.





Note: Durations of life insurers are calculated by discounted cash flow with risk-free yield curve.

Insurers provides long-term stable capital for the real economy

Durations in different scope of assets of life and non-life insurers are calculated based on the collected date, and the result shows:



Asset Duration

Effective duration for bond investments of Life insurers is about 8.7 years, while for all fixed income assets with expected stable cash flow, it is up to 6.4 years



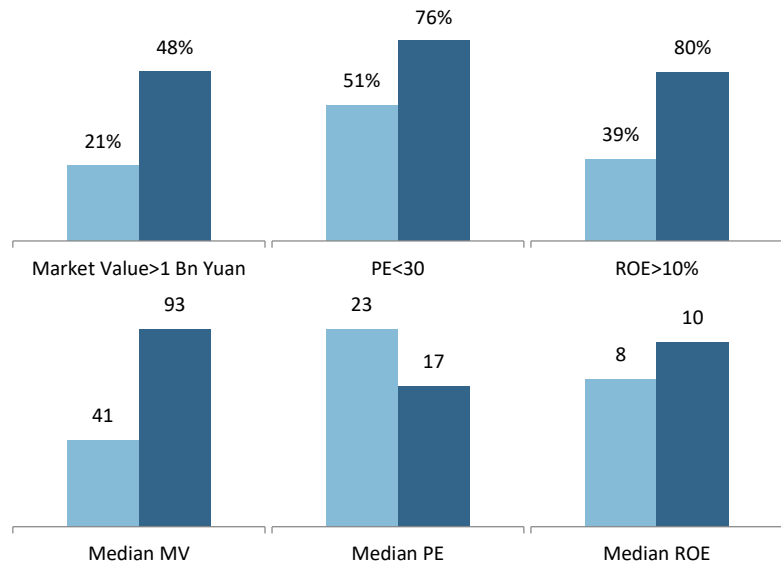
Weighted Average Duration

Out of all the bond assets with Non-default spread risk of insurance industry, about 43% has weighted average duration 5 years or longer.

Out of Investible assets of listed banks and debt assets of listed securities brokerages, about 26% has weighted average duration 5 years or longer (24% in below 1 year, 48% in 1 to 5 years).

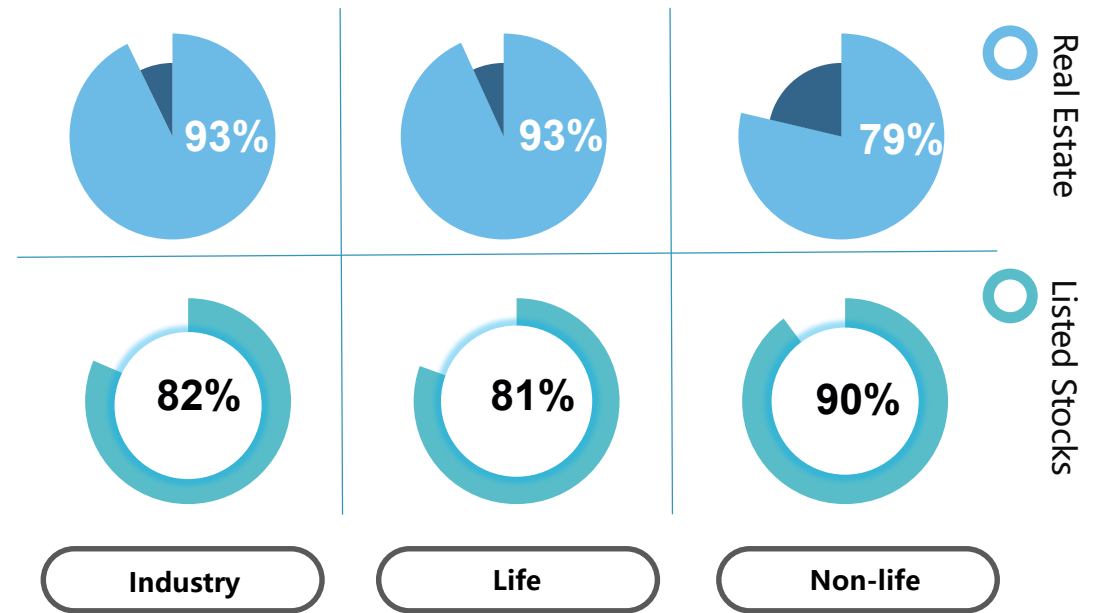


Insurers focus on established enterprises, with strong earning capability and lower valuation, in accordance with their business goals, liability characteristics and solvency requirements.



Source: wind, 2018Q2, 100 Bn Yuan

■ A-Share ■ Insurers



80% of stocks are invested in main-board market, especially in blue-chip stocks, targeting for strong earning capability, lower valuation and large cap; as for direct real estate investments, insurers have mostly focused on major cities both domestic and overseas (about 90%), to ensure its profitability and liquidity.

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- Lower VAT rates for collective investment products
- Setting up one or more SPVs in overseas investments due to local regulations or tax policies.

The results of the recent industrial survey and testing show that insurers do perform a lot indirect investments. However, the investment structures used are generally quite simple, and most of those are used for the purpose of governance, tax planning, co-investment and etc.

Debt Plan



Debt Plan is one of the main investment structures used by insurers, where the funds eventually flow to the real economy (mainly infrastructure projects) as the form of corporate debt financing rather than circulating inside the financial system. It is one of the important sources of mid-to-long term funds at reasonable cost to the economy.

PE Investment



Insurers tend to perform private equity investments by investing in PE funds, and hence can rely on the professional institutions in this particular area.

Real Estate



The investment structures are generally set up so that insurers can co-invest with the developers and professional investors like real estate funds. Often the insurer needs to cooperate with the 3rd party and set up a joint venture so that issues like tax planning, governance, dispute settlement and so on can be resolved in a more regulated manner.



Disclosure of look-through results

Satisfying data quality will provide necessary information to the regulators, investors and hence the market, so that the transparency of the market can be improved effectively.



Underlying assets

Identify and verify whether the underlying investment meets the requirements of macro-control and supervision, and whether or not the supervisory stipulations like investment scope, regulatory limits and solvency provisions have been breached.



Look-through by risk

Evaluate risk capital by looking through the investments layer by layer and risk-oriented, increase capital requirement for channel businesses and investment structures to inhibit the misuse of complex investment behaviors like multilayer structures and unclearly identified risks.



Inspection with Look-through

Apply Look-through approach to evaluate and analyze leverage, inspect whether insurers misuse the structures to hide any improper investments, if accumulated to some point, it could cause market bubble and lead to the outbreak of systemic risks. Look-through can be very helpful if performed properly and efficiently, to improve the macro-prudential regulation.



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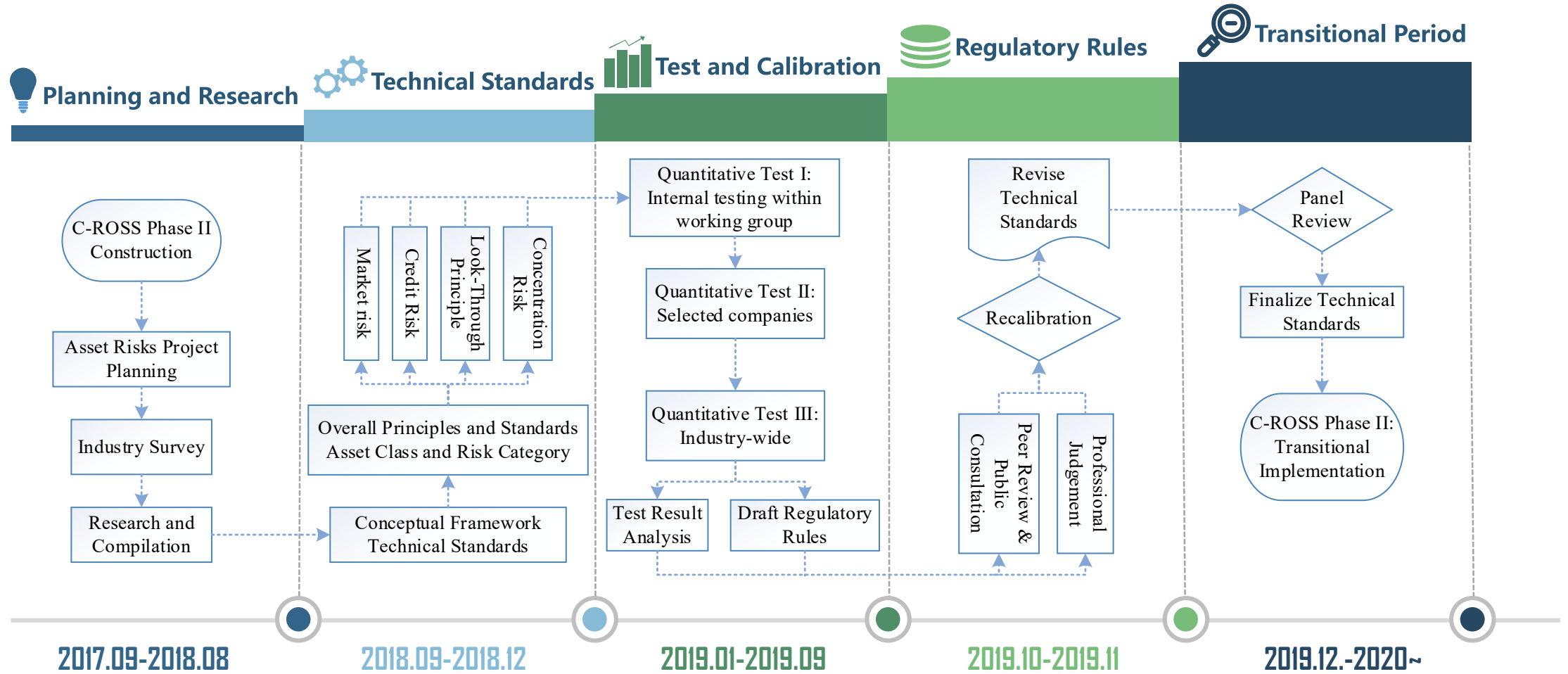
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C-ROSS Phase II Asset Risks Project: Schedule





Unify product statistical standards & Build registration and monitoring system

Learning from global practice, we can establish a unique financial product statistical standard and information registration and monitoring system, which directly provides comprehensive information of product issuing and transactions, and helps to complete the full capital-chain statistics, and realize real-time look-through and online monitoring.



Integrate with the industrial resources to further strengthen supervision cooperation

Improve Solvency Supervision Advisory Committee and set up an emergency working group to handle all sorts of unexpected, temporary and innovative issues; strengthen the supervisory cooperation and cross-sector information sharing, to facilitate the interconnectivity and interoperability to better enact the Look-through regulation.



Improve the regular data quality and inspection mechanism & Enhance accountability system

Periodically check and review data and disclosed information to ensure reporting quality, and to verify the insurers do faithfully implement look-through on a best effort basis and disclose relevant investment transaction details; establish a solid accountability mechanism, and any violations should be punished accordingly to curb further problematic situation.



Reinforce corporate internal communication and coordination mechanism to ensure the quality and integrity of data and information

Insurers should enhance inter-departmental cooperation, actuarial, financial, risk management, investment and relevant personnel shall collaborate together to apply look through approach properly and precisely, and to identify and evaluate risk capital more accurately.





Regulatory look-through vs market look-through

Which method is more effective when it comes to risk identification, prevention and dissolution of complex financial products, regulation look-through or market look-through ?

Relying on the regulatory requirements to achieve risk look-through is effective yet not thorough, while market look-through plays an uprooted role in ending the problem, neither should be neglected. We should uphold the market-oriented financial reform and improve the market depth and breadth to better perform risk management under the financial innovation and expansion environment.



Capital requirements + information disclosure

Capital requirements can effectively identify and evaluate risks, but they cannot single-handedly solve all the remaining problems. In terms of risk management and prevention, information disclosure and transparency requirements have at least equivalent status and effects compared to capital requirements.



The characteristics of insurance investment from the perspective of look-through

Empirical data shows that insurance funds do indeed tend to focus on long-term returns and pursue stable and value investment strategies, and play a critical role in providing long-term stable capital to the real economy.



A photograph of a sailboat on the ocean. The sailboat is white with a large white sail on the left side. The deck is visible in the foreground, and the ocean extends to the horizon under a clear blue sky. The word "Thanks" is written in white text on the right side of the image.

Thanks