Global Adoption of the Insurance Capital Standard (ICS)

Enhancing Financial Stability Through Robust Valuation and Risk Management in Private Market Investments

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Executive Summary

- ICS Adoption and Significance: The International Association of Insurance Supervisors (IAIS) adopted the Insurance Capital Standard (ICS) at its 2024 AGM, marking a significant step in enhancing financial stability and resilience in the global insurance sector by providing a globally comparable, risk-sensitive measure of capital adequacy for Internationally Active Insurance Groups (IAIGs).
- Challenges in Valuation and Risk Reporting: ICS requirements for asset valuation are not always met by traditional private market valuations, which are often lagging and less transparent. The infraMetrics and privateMetrics platforms provide timely, market-adjusted valuation data and granular risk metrics for private assets that meet ICS requirements for Market-Adjusted Valuation.
- Special Treatment of Infrastructure Investments: ICS incorporates unique provisions for private infrastructure equity and debt, acknowledging their role in offering stable cash flows and diversification. The infra300 index, central to ICS calibration of the standard formula, supports lower equity risk charges for infrastructure investments (27% for developed markets and 37% for emerging markets).
- Enhanced Risk Management for Private Equity: ICS assigns Private Equity a 49% risk charge in the standard formula, but the Value-at-Risk of private equities align with listed equities, which have a risk charge of 35%. Using privateMetrics and tailored internal models, insurers can better estimate Value-at-Risk of their private equity portfolio and significantly lower their capital requirements.
- Optimising Credit Risk Charges for Infrastructure Debt: Most infrastructure debt exhibits high credit quality, with over 77% showing less than 1% probability of default. infraMetrics data enables insurers to better estimate the risk of these investments under ICS, potentially reducing stress factors by up to 73%, lowering overall capital requirements.
- Facilitating Compliance Through Tailored Solutions: Insurers, supervisory authorities, and private market participants must ensure compliance with ICS while maintaining robust investment strategies. infraMetrics and privateMetrics provide the market participants with tools to build custom benchmarks and align portfolio risks and valuations with ICS standards.

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Introduction

At its Annual General Meeting on 5th December 2024, the International Association of Insurance Supervisors (IAIS) adopted the global Insurance Capital Standard (ICS). ICS provides a globally comparable risk-based measure of capital adequacy for internationally active insurance groups (IAIGs) and forms the quantitative element of Common Framework for their supervision (ComFrame). It will serve as a group-wide prescribed capital requirement, which is a solvency control level below which supervisors will intervene on group capital adequacy grounds.

This significant milestone marks a major advancement in insurance supervision – enhancing financial stability and building a more resilient global insurance sector to better serve and protect policyholders around the world.

We strongly support IAIS's initiative to represent a significant advancement toward promoting global financial stability. By providing risk-sensitive, globally comparable measures for capital adequacy, ICS fosters a common language for cross-border supervision, ensuring the resilience of the insurance sector.

ICS makes specific mention and recommends specific treatments for unlisted infrastructure equity and debt investments. In effect, for the ICS to fully realise its potential, the integration of private market investments is essential and must be carefully aligned with its principles, ensuring robust risk measurement with the application of fair valuation principles and representative benchmarks.

In this report, we highlight the role that our infraMetrics and privateMetrics data platforms can play in the implementation of ICS by global insurers.

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The Growing Role of Private Market Investments in Insurers' portfolios

Private market investments are increasingly present in insurance portfolios to increase yield and diversify risk across asset classes. Amongst these:

- Private Equity: Insurers increasingly invest in private equity to enhance returns and diversify total portfolios. These investments are expected to provide diversification benefits due to their imperfect return correlations with public markets but also represent market risk as well as liquidity and cash flow risks at the fund level (see for example privateMetrics 2024). Under ICS, such risks need to be measured and managed.
- Private Infrastructure Equity: Infrastructure equity investments can provide insurance providers with stable, predictable cash flows through long-term contractual arrangements such as availability-based payments and inflation-linked revenues, potentially matching long-term liabilities and maybe even contributing to liability-hedging objectives thanks to their significant duration. These investments may also offer diversification benefits and defensive qualities making them somewhat resilient during economic downturns (see Blanc-Brude 2023). Nevertheless, private infrastructure investments are not risk free (see Blanc-Brude et al 2021) and may even lose all their value (see Whittaker et al 2023). These risks need to be measured appropriately to implement a risk framework like ICS.
- Private Infrastructure Debt: Infrastructure debt has also become an appealing asset class for insurers, offering significant yield for a comparable level of risk. Project finance debt in particular exhibits a unique risk/return profile and may contribute to a fixed income portfolio (see infraMetrics 2024). As above, for these investments to play their role in full under ICS, the risks of private debt instruments need to be measured and reported in a robust and timely manner. ly manner.

While these factors should lead to a significant allocation of private market investments in insurers' portfolios, most of them are or will be made through funds and the responsibility to measure risk and value in private assets is thus shared between insurers and asset managers.

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Enhancing Valuation and Reporting of Private Market Investments under ICS

To ensure the effective integration of private market investments into the ICS framework, the following enhancements are critical:

A. Adoption of Market-Adjusted Valuation (MAV):

ICS requires that all investments be valued using a fair, market-adjusted methodology. This ensures transparency and consistency in reflecting current market conditions and asset-specific risks.

However, private markets are traditionally valued, at best, on a quarterly frequency, using appraisal methods, and can carry up to six months lag over other financial markets. Despite recent efforts to improve valuation and risk disclosure, including by ILPA in 2024 (see our response to the ILPA Consultation), reporting standards used in private markets still lack the level of quality and transparency required for insurers to comply with ICS.), reporting standards used in private markets still lack the level of quality and transparency required for insurers to comply with ICS.

infraMetrics and privateMetrics provide timely, marked-to-market comparables in private infrastructure equity and debt, and private equity asset classes. The data (tables 1, 2, and 3) includes valuation inputs such as discount rates, risk premia, credit spreads, and valuation multiples in different private markets.

TABLE 1: DISCOUNT RATE AND RISK PREMIUM IN INFRASTRUCTURE EQUITY AS OF 31/10/2024

	Cost of Equity	Risk Premium(bps)
infra300	11.6%	840
Infra Equity Advanced Economies	10.7%	790
Infra Equity Emerging Markets	14.6%	821
Infra Corporate	12.3%	912
Infra Project Finance	10.6%	743

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TABLE 2: YIELD AND CREDIT SPREAD IN INFRASTRUCTURE DEBT AS OF 31/10/2024

	Yield	Credit Spread(bps)
infra300 Debt	5.03%	121
Infra Debt Advanced Economies	4.60%	129
Infra Debt Emerging Markets	9.04%	157
Infra Corporate Debt	4.69%	94
Infra Project Finance Debt	5.30%	165

TABLE 3: VALUATION MULTIPLES IN PRIVATE EQUITY AS OF 31/10/2024

	EV/EBITDA	EV/SALES
private2000	15.9x	1.8x
privateUS	16.0x	1.8x
privateEurope	17.0x	1.5x
privateAPAC	16.6x	1.6x

This data can serve as a market anchor that dynamically tracks private market prices (updated monthly) and can be adjusted for investment-specific characteristics (see our case study on anchoring private market prices monthly). By incorporating monthly updates, granular data, and a risk-focused approach, these solutions help institutional investors maintain compliance while achieving accurate and reliable valuation reporting.

B. Risk Assessment through Equity Risk Charges:

ICS equity risk charges quantify the potential losses of private market investments under adverse conditions. The charges are calculated as the change in Net Asset Value (NAV) of the portfolio investments following the occurrence of stress scenarios in two parts:

1. that impact the level of the fair value
2. that impact the volatility of the fair value

ICS provides a standard formula to calculate risk charges for equity investments calibrated using market data. However, it also allows IAIGs to estimate capital requirements using internal models.

Standard Formula

Under the level scenarios, the ICS standard formula assigns fixed charges (table 4) for the equity investments in the portfolio.

- Private Infrastructure Equity: the ICS infrastructure equity risk charge has been calibrated using our flagship infra300® index (monthly data between August 2011 and August 2022) as the market representation of the infrastructure equity asset class. It estimates a fixed 27% equity risk charge to "developed markets private infrastructure" and a 37% charge in the case of emerging markets, about 23% lower than for other listed equities.

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- Private Equity: The Private Equity fixed charge has been calculated using an index of listed private equity companies (Bloomberg Ticker: LPXIDITR). It assigns a higher risk charge of 49% reflecting the perception of a greater volatility of private equity investments.

  The issue, however, is that the performance of this index is tied to the fund managers' stock performance, which only provides indirect exposure to private equity, as returns depend on the firm's overall business performance. For example: Blackstone, one of the largest listed private equity managers, derives revenues not only from managing private equity funds but also from other business lines like real estate, credit, and financial advisory services. This makes the stock's performance tied to the overall profitability, operational decisions, and public market dynamics of the management company.

  In contrast, institutional investors invest in private equities (via funds or directly) to gain exposure to private companies, with returns driven by the performance of those companies, benefiting from illiquidity premiums and imperfect correlations to public markets.

  Therefore, we argue that this index is not the best representation of the private equity investments held in most insurers' portfolios. As a result, most IAIGs should avoid using the standard method and rely on internal models for the calculation of Private Equity risk charge.

TABLE 4: ICS LEVEL EQUITY RISK CHARGE AS A PERCENTAGE OF NAVs

Asset Class	Level Equity Risk Charge
Developed Infrastructure Equity	27%
Emerging Infrastructure Equity	37%
Private Equity (before NAD)	49%

Under the volatility scenarios, the risk charge is calculated by adding a pre-calibrated maturity-based absolute stress factor to the implied volatility of each class of equity investments. The total risk charge is calculated as the sum of the NAV impact of both level and volatility scenarios.

However, for most investors, calculating the volatility of their private investments using reported information by private equity managers is not possible due to smoothness and latency in the valuations, which often provides inaccurate and underestimated volatility.

The possible solutions are either to use the MAV approach (described in the previous section) to regularly value portfolio investments using market-based data, or to use benchmarks that can reflect portfolios and use this as an estimate of the portfolio volatility.

We discussed in section A, how the market anchor data in infraMetrics and privateMetrics can be used to value investments, which also adheres to the ICS requirements. For the latter solution, volatility can be estimated using the infrastructure and private equity indices provided with these products (table 5).

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TABLE 5: ANNUALISED VOLATILITY OF SELECTED INFRASTRUCTURE EQUITY AND PRIVATE EQUITY INDICES AS A PERCENTAGE OF NAVs

Asset Class	**Volatility**
Infra Equity Advanced Economies	10.48%
Infra Equity Emerging Markets	14.24%
Private2000	18.86%

Internal Model

ICS also allows IAIGs to use their internal models for the calculation of capital requirements, provided the models are validated and approved by the authorities, and rely on representative data for their portfolio.

- Private Infrastructure Equity: While the infra300 index is a representative index for the asset class, many institutional investors will have different investment strategies and will need to calculate the risk charge for their specific portfolio. Table 5 shows the Value-at-Risk at 99.5% confidence interval for various infrastructure equity indices. For instance, an insurer who allocates only in project finance companies will report a lower value-at-risk and should benefit from a lower capital requirement.

  infraMetrics provides more than 400 indices for various infrastructure market segments, and the capability to build custom benchmarks tailored to specific investment strategies. In the internal model calculations, insurers can map their portfolio to either a standard or custom infrastructure equity benchmark and use the Value-at-Risk figures which truly reflect the risk of their portfolio.

TABLE 6: VALUE AT RISK AT 99.5% CONFIDENCE INTERVAL OF SELECTED INFRASTRUCTURE EQUITY INDICES AS OF 31/10/2024

	VaR at 99.5%
infra300	14.62%
Infra Equity Advanced Economies	17.54%
Infra Equity Emerging Markets	18.96%
Infra Corporate	23.03%
Infra Project Finance	13.43%

- Private Equity: As mentioned above, the listed private equity companies' index is not representative of the private equity investments included in the insurers' portfolio. Backed by the methodology used for the infra300 index, i.e., using the private market transactions and financials of private companies, we have created more than 300 private equity indices offering a monthly data series since 2013. Not only have these indices been carefully constructed to represent the private equity market, but they are also priced using market inputs and macroeconomic factors, thus aligning them with the MAV approach outlined in ICS.

  Table 6 shows the Value-at-Risk figures for our flagship private equity indices. This table presents important conclusions for insurers.

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First, private equities have a Value-at-Risk estimate in line with public equities in developed markets. Therefore, insurers using privateMetrics indices can reduce their risk charge significantly from the standard method, which is 49% for private equities, while only 35% for developed public equities.

It is also clear that not all private equity investments carry the same risk. Therefore, investors can either choose one of the standard private equity indices or build a custom benchmark representative of their investment strategy to calculate the risk and capital requirements specific to their portfolio.

TABLE 7: VALUE AT RISK AT 99.5% CONFIDENCE INTERVAL OF FLAGSHIP PRIVATE EQUITY INDICES COMPARED WITH A PUBLIC EQUITY INDEX AS OF 31/10/2024

	VaR at 99.5%
private2000	32.49%
Public equity (FTSE Developed)	30.04%
privateUS	28.63%
privateEurope	35.45%
privateAPAC	36.63%

For private equity, the risk charge further needs to be adjusted by the Neutral Adjusted Dampener (NAD), which modulates charges based on market volatility, further enhancing resilience. The NAD ensures that these charges remain counter-cyclically adjusted, promoting stability across economic cycles. NAD ranges between -10% and 10% and allows the lower and upper bound of the equity risk charge to be understood (table 4).

In table 7, we have shown the NAD and equity risk charge calculation for the flagship private equity indices. As of 31/10/2024, the flagship indices have a lower value as compared to their three-year moving average. Therefore, they have a negative NAD, which will further reduce the equity risk charge estimated in the previous step.

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TABLE 8: NEUTRAL ADJUSTED DAMPENER (NAD) FOR PRIVATE EQUITY INDICES

	NAD
private2000	-1.43%
privateUS	-2.09%
privateEurope	-0.49%
privateAPAC	-1.99%

C. Credit Risk Charge

Most private infrastructure debt is unrated by the major rating agencies. Therefore, under ICS, the Credit Risk Charge for private infrastructure debt is calculated by setting the stress factors at a very high level, which is equivalent to the classification of speculative grade (ICS Rating Category of 5).

It implies a much higher Credit Risk Charge for an asset class that is of high credit quality, has very few historical cases of default, and based on the infraMetrics probability of default (table 8), the majority of infrastructure debt can be classified to an equivalent ICS Rating Category of less than 4 (investment grade). This improved classification of infrastructure debt would imply a 50%-73% reduction in the stress factor, thus also lowering the capital requirement.

TABLE 9: PROPORTION OF INFRASTRUCTURE DEBT WITH LESS THAN 1% PROBABILITY OF DEFAULT BY CORPORATE VS PROJECT FINANCE AS OF 31/10/2024

	Proportion of debt with < 1% PD
Corporate Infrastructure Debt	90.3%
Project Finance Infrastructure Debt	55.8%
All infrastructure Debt	77.6%

infraMetrics data offers monthly estimates of credit spread by probability of default and the probability of default transition matrix. Insurers can build internal models to value their infrastructure debt investments using this data as market anchor (see section A) and calculate an implied probability of default. With this data, they can appropriately map the rating category of their infrastructure debt investments and justify a lower credit risk charge.

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Conclusion

The adoption of the ICS marks a transformative step in global insurance regulation, establishing a standardised, risk-sensitive framework for IAIGs. This not only enhances financial stability but also promotes cross-border regulatory alignment, fostering a resilient insurance sector. The ICS framework impacts a broad spectrum of stakeholders, including:

- Insurance Companies: Especially IAIGs operating across multiple jurisdictions, which must align their private market portfolios with ICS capital and reporting standards.
- Supervisory Authorities: Responsible for implementing ICS guidelines and ensuring compliance across their jurisdictions.
- Private Market Participants: Including fund managers and data providers, who must adapt to ICS-driven demands for transparency and consistency.

The growing role of private market investments, including private equity, infrastructure equity and infrastructure debt, highlights the need for precise valuation and risk assessment methodologies to align these portfolios with ICS requirements. The integration of tools like infraMetrics and privateMetrics can address these challenges by providing timely, market-based data and benchmarks, enabling insurers to adopt robust internal models and achieve compliance. As the insurance industry adapts to ICS-driven standards, insurers, supervisory authorities, and private market participants must collaborate to ensure transparency, accuracy, and consistency in reporting, ultimately supporting the long-term stability and growth of the sector.

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