

**For Immediate Release**

**CREDIT SUISSE FINANCIAL PRODUCTS (CSFP)**

**launches "CREDITRISK<sup>+</sup>"**

**A Credit Risk Management Framework**

Today, Tuesday 14<sup>th</sup> October, 1997, Credit Suisse Financial Products is pleased to announce the launch of its "CREDITRISK<sup>+</sup>" - a modern approach to measuring and managing credit risk.

The CREDITRISK<sup>+</sup> model provides a better understanding of the credit risk associated with a portfolio of assets by:

- I. measuring the expected and unexpected credit loss
- II. determining the economic capital required to support the credit risk
- III. highlighting the assets that contribute the most risk within a portfolio

Several ratings agencies, accounting firms and a leading academic – Moody's Investors Service, Standard and Poor's, IBCA, JBRI (The Japanese Bond Research Institute), KPMG, Arthur Andersen, Price Waterhouse and Professor John Hull – have endorsed the principles which underlie CSFP's approach, support the initiative which has given rise to the production of the framework and encourage the production and publication of alternative credit risk management methodologies.

**An approach that can be implemented from all types of credit products**

"The initial focus of CREDITRISK<sup>+</sup> was for use in CSFP's derivatives business, but, after we implemented it across the entire Credit Suisse Group, we felt our clients would benefit if it were more widely released," said Chris Goekjian, president of CSFP. "We believe that CREDITRISK<sup>+</sup> will help our clients and the industry to develop better credit risk management practices and will encourage improved portfolio management techniques. In the long-term we hope that this type of economic calculation will be used for determining regulatory capital requirements."

“Today’s credit managers demand solutions that generate appropriate risk information easily and quickly,” said Mark Holmes, head of risk management and quantitative analysis at CSFP. “Our research indicated that many market participants wanted to use credit risk models, but that implementation seemed difficult and complicated, with onerous data requirements. CSFP’s CREDITRISK<sup>+</sup> Model is highly scalable and capable of handling portfolios containing large numbers of exposures. The low data requirements and minimum of assumptions make it easy to implement for a wide range of portfolios, regardless of the specific nature of the obligors.”

### Components of CREDITRISK<sup>+</sup>

CREDITRISK<sup>+</sup> comprises three main components:

- The CREDITRISK<sup>+</sup> Model that uses a portfolio approach and analytical techniques widely applied in the insurance industry.
- A methodology for calculating economic capital for credit risk.
- Applications of the credit risk modelling methodology, including: (i) a methodology for establishing provisions on an anticipatory basis, and (ii) a means of measuring diversification and concentration to assist in portfolio management.

### Measuring credit risk

CREDITRISK<sup>+</sup> is based on a portfolio approach to modelling credit risk that takes into account information relating to size and maturity of an exposure and the credit quality and systematic risk of an obligor. CSFP have applied modelling techniques used widely in the insurance industry.

“Our CREDITRISK<sup>+</sup> Model captures the essential characteristics of credit default events. It incorporates the volatility of default rates rather than making assumptions about the timing or causes of default events. By taking a portfolio approach, the benefits of diversification that arise from a large number of individual risks are fully captured. Concentration risk, resulting from groups of obligors that are affected by background factors, is measured using sector analysis,” said Mark Holmes.

The use of default rate volatilities captures the effects of default correlations, and also leads to easy implementation of the model. Often there are background factors that may cause the incidence of defaults to be correlated even though there is no causal link between them. This appearance of correlation is usually caused by an external factor, such as the state of the economy, which changes the rates of default. The effects of these background factors are incorporated into the specification of the default rates through default rate volatilities rather than using default correlations as an explicit input into the CREDITRISK<sup>+</sup> Model.

### **Economic capital provides a measure of the economic risk taken by a firm**

Measuring the uncertainty or variability of loss and the relative likelihood of the possible levels of unexpected losses in a portfolio of credit exposures is fundamental to the effective management of credit risk. One of the outputs of the CREDITRISK<sup>+</sup> Model is the level of economic capital required to cover the risk of unexpected credit default losses. Economic capital is a more appropriate risk measure than the one specified under the current regulatory capital regime as it takes account of the credit quality of the obligors, the benefits of diversification and the effects of concentrations.

### **Applications of the credit risk modelling methodology**

CREDITRISK<sup>+</sup> presents several applications of the credit risk modelling methodology, including a forward-looking provisioning methodology and quantitative portfolio management techniques.

“Recently, the development of instruments that can be used to actively manage credit risk, such as credit derivatives, has outpaced the development in models that measure credit risk,” said John Chrystal, managing director and head of credit derivatives structuring at CSFP. “The risk and capital information produced by the CREDITRISK<sup>+</sup> Model allows users to quantify the impact of credit derivative transactions. For example, the cost of a risk reducing credit derivative transaction can be specifically weighed against the cost of capital it releases and the reduction in expected portfolio losses. The use of the CREDITRISK<sup>+</sup> Model and other similar models should greatly increase the importance of credit derivatives,” he added.

### Obtaining CREDITRISK<sup>+</sup>

CREDITRISK<sup>+</sup> is freely available from CSFP and on the internet (<http://www.csfp.csh.com>). In addition, a spreadsheet-based implementation that illustrates the use of the CREDITRISK<sup>+</sup> Model can be downloaded from the internet.

### Credit Suisse Financial Products

CSFP is a leading provider of derivative and risk management products offering a full range of interest rate, foreign-exchange, equity, commodity and credit related products that address the financing, hedging and investment needs of its clients. CSFP is a subsidiary of Credit Suisse First Boston, the global corporate and investment bank of Credit Suisse Group. CSFP is effectively 80% owned by Credit Suisse First Boston and 20% by Reinsurance Derivatives Holding AG (a wholly owned subsidiary of Swiss Reinsurance Company). It was formed in July 1990 as a UK bank, with the principal objective of providing comprehensive financial and risk management services globally.

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### For further information and a copy of our CREDITRISK<sup>+</sup>, please contact:

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