1.

(a) Trade Comparison. Analysis of trade data (both internal and external where available) is used to determine the most relevant pricing inputs and valuations.

External Price Comparison. Valuations and prices are compared to pricing data obtained from third parties (e.g., broker or dealers, MarkIt, Bloomberg, IDC, TRACE). Data obtained from various sources is compared to ensure consistency and validity. When broker or dealer quotations or third-party pricing vendors are used for valuation or price verification, greater priority is generally given to executable quotations.

Calibration to Market Comparables. Market-based transactions are used to corroborate the valuation of positions with similar characteristics, risks and components.

Relative Value Analyses. Market-based transactions are analyzed to determine the similarity, measured in terms of risk, liquidity and return, of one instrument relative to another or, for a given instrument, of one maturity relative to another.

Collateral Analyses. Margin calls on derivatives are analyzed to determine implied values which are used to corroborate our valuations.

Execution of Trades. Where appropriate, trading desks are instructed to execute trades in order to provide evidence of market-clearing levels.

Backtesting. Valuations are corroborated by comparison to values realized upon sales.

(b) Review of Net Revenues. Independent control and support functions ensure adherence to our pricing policy through a combination of daily procedures, including the explanation and attribution of net revenues based on the underlying factors. Through this process we independently validate net revenues, identify and resolve potential fair value or trade booking issues on a timely basis and seek to ensure that risks are being properly categorized and quantified.

(c ) Review of Valuation Models. The firm’s independent model validation group, consisting of quantitative professionals who are **separate from model developers**, performs an independent model approval process. This process incorporates a review of a diverse set of model and trade parameters across a broad range of values (including extreme and/or improbable conditions) in order to critically evaluate

(d) The model’s suitability for valuation and risk management of a particular instrument type;

The model’s accuracy in reflecting the characteristics of the related product and its significant risks;

The suitability of the calculation techniques incorporated in the model;

The model’s consistency with models for similar products; and

The model’s sensitivity to input parameters and assumptions.

2. Our most important liquidity policy is to pre-fund our estimated potential cash and collateral needs during a liquidity crisis and hold this liquidity in the form of unencumbered, highly liquid securities and cash.

3.

(a) Our primary risk measures are VaR, which is used for shorter-term periods, and stress tests.

(b) We typically employ a one-day time horizon with a 95% confidence level. We use a single VaR model which captures risks including interest rates, equity prices, currency rates and commodity prices.

We are aware of the inherent limitations to VaR and therefore use a variety of risk measures in our market risk management process. Inherent limitations to VaR include:

VaR does not estimate potential losses over longer time horizons where moves may be extreme;

VaR does not take account of the relative liquidity of different risk positions; and

Previous moves in market risk factors may not produce accurate predictions of all future market moves.

(c ) When calculating VaR, we use historical simulations with full valuation of approximately 70,000 market factors. VaR is calculated at a position level based on simultaneously shocking the relevant market risk factors for that position. We sample from five years of historical data to generate the scenarios for our VaR calculation. The historical data is weighted so that the relative importance of the data reduces over time. This gives greater importance to more recent observations and reflects current asset volatilities, which improves the accuracy of our estimates of potential loss. As a result, even if our positions included in VaR were unchanged, our VaR would increase with increasing market volatility and vice versa.

Given its reliance on historical data, VaR is most effective in estimating risk exposures in markets in which there are no sudden fundamental changes or shifts in market conditions.

(d) return of stocks