Abstract: Prequential analysis provides us with a suitable framework for validating backtesting procedures. In prequential analysis, data are observed sequentially in time, and at each time it is required to make a probability forecast related to the next observation based on the past and current data (thereby the name "prequential"). Given a sequence of probability forecasts, there always exists a unique probability measure on the space of all sequences; it is called a probability forecasting system by Dawid. It follows from Blackwell-Dubins theorem that if two probability forecasting systems are equivalent, then the total variation distance between the corresponding probability forecasts converges to 0 a.s.; in fact, the total variation distance between the conditional distributions for the whole future given the past converges to 0, a.s. From the Bayesian point of view, it may be interpreted to imply that the opinions of two individuals will merge after a sufficiently large number of observations under the assumption of equivalence of their subjective probabilities. We will study condition for the absolute continuity using the martingale theory. Their implications for the validation of backtesting procedures are examined with reference to Mark Davis' calibration concept. A few simple examples will be shown to exemplify the theory. Finally, possible extensions will be discussed.