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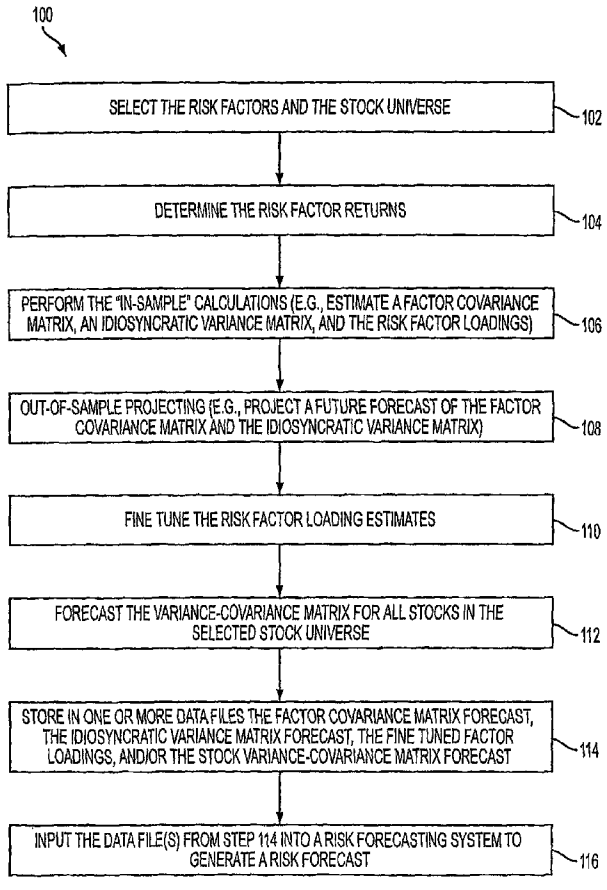
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(54) Title: A FACTOR RISK MODEL BASED SYSTEM, METHOD, AND COMPUTER PROGRAM PRODUCT FOR GENERATING RISK FORECASTS



(57) **Abstract:** A factor risk model based method for generating risk forecasts. In one embodiment, the method includes: selecting a set of securities; selecting a set of risk factors; determining the risk factor returns; constructing a risk factor covariance matrix; constructing an idiosyncratic variance matrix; determining, for each risk factor, a factor loading coefficient for each selected security; projecting the risk factor covariance matrix into a future forecast; and projecting the idiosyncratic variance matrix into a future forecast. The factor loading coefficients, the future forecast of the risk factor covariance matrix, and the future forecast of the idiosyncratic variance matrix can be used to determine a forecast of the variance-covariance matrix for the selected securities. In some embodiments, the step of estimating factor loadings includes performing a time series regression to obtain the sensitivity of each stocks' return to variations in the factor's return.

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