

State of the art for voltage collapse point approximation using continuation power flow.

ABSTRACT

In this study we investigate the relative ability of comprehensive income and net income to summarize firm performance as reflected in stock returns. We also examine which comprehensive income adjustments improve the ability of income to summarize firm performance. We also investigate this claim that income measured on a comprehensive basis is a better measure of firm performance than other summary income measures. The results do not show that comprehensive income is superior to net income for evaluating firm performance on the basis of stock return and price. Except for investment industrial group, In Tehran Stock Exchange, we found no evidence that comprehensive income for firm performance evaluation on the basis of cash flows prediction is superior to net income. While, we found the better results for the state companies (only in other companies group), i.e., firm performance evaluation on the basis of cash flows prediction using comprehensive income is superior to net income. Collectively, our results provide some weak evidence that show comprehensive income adjustments improve ability of income for reflecting firm performance. Continuation power flow is one method to determine the proximity to voltage collapse point and can be described as a power flow solution, which is used to analyze the stability of power system under normal and disturbance conditions. The main purpose of Continuation Power Flow is to find a continuity of power flow solution for a given load change. Conventional power flow algorithms are subjected to the convergence problems at operating condition near the stability limit. Therefore researchers proposed to use the Continuation Power Flow to solve this problem by reformulating the power flow equations and ensuring the system remains in well-conditioned at all possible loading condition. This Continuation Power Flow uses an iterative process involving predictor and corrector step. However the continuation step, parameter variation and the reliability of the system are still in question. This paper discusses several issues including the needs, demands and expectations of continuation power flow. Several solutions have been proposed by the previous researchers is been discussed.

Keyword: Bifurcation; Contingency; Continuation power flow; Parameter variation; Voltage stability.