

## DIRECTED RISK RESEARCH PROBLEM STATEMENT

<b>Risk Theme</b>	Credit Risk	<b>Problem Nr.</b>	PS16014		
<b>Client Name</b>	Frederik van der Walt	<b>Client Org.</b>	BAG		
<b>Designation</b>	Senior Corporate Credit Modeller				
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**PROJECT TITLE:** Investigate the effect of the PD and LGD correlation

### PROJECT GOAL:

The goal of the project is to quantify the effect of the PD and LGD correlation on economic capital and expected loss.

### HIGH LEVEL DESCRIPTION OF PROBLEM

Empirical studies have demonstrated that loan default probabilities (PD) and loss given defaults (LGD) are positively correlated because of a common, business cycle, dependency. Regulatory capital requirements demand that banks use downturn LGD estimates because the correlation between PD and LGD is not captured. Economic capital models are not bound by this constraint. We require research to investigate the impact of this correlation on economic capital and expected loss.

### PROJECT OBJECTIVES

The main objective of the study is to research the impact of systemic loss given default on economic capital as well as the general impact of the PD-LGD correlation on expected loss and economic capital.

### OUTPUTS REQUIRED

A document describing the impact of the systemic loss given default on economic capital (due to the PD-LGD correlation) as well as the general impact of the PD-LGD correlation on expected loss and economic capital

### STRATEGIC VALUE TO DIRECTED RISK RESEARCH

The research will increase the insight of the effect of the PD-LGD correlation on both the expected loss and the economic capital.