Final Year Project Showcase Batch-2017
Year 2021

Department: Mathematics Programme: Computational Finance		
1	**Project Idea**	**Impairment Under IFRS9: A Case Study of Private Banking Sector** Our main idea is to work on the impairment methodology of IFRS-9 i.e. Expected Credit loss. Expected Credit Loss (ECL) is the probability-weighted estimate of credit losses (i.e., the present value of all cash shortfalls) over the expected life of a Financial Instrument. ECl consists of three parameters Exposue at Default (EAD), Loss Given Default (LGD) and Probability of Default (PD). We worked on the PD calculation and estimate the Through The Cycle(TTC PD) and then incorporate the macroeconomic variables to show the affect on PD.
2	**Process**	In our project, we have discussed the new forward looking expected credit loss (ECL) approach as set out in IFRS9. Expected credit loss requires impairment allowances for all exposures from the time a loan is originated, based on the deterioration of credit risk since initial recognition. So, our main objective is to estimate Probability of default, which is the most important parameter for the calculation of Expected credit loss. We will first estimate probability of default using Markov chain. The results will arrive at through-the-Cycle Probability of Default (TTC PD) then the impact of macroeconomic factors will be incorporated into TTC PDs using Vasicek model to make these TTC PD forward looking and Point in Time (PiT) PDs. Point in Time Probability of Default tries to capture the variations in economic cycle and thus move along with it. PiT PD models use the current macro-economic conditions and thus the PD scores will closely track the business cycle.
3	**Outcome**	Main purpose is to estimate Expected Credit Losses (ECL) for the portfolio therefore, IFRS9 standard enable financial institutions to estimate amount of ECL using statistical, econometric and time series method.

4	**Evidence (Theoretical Basis)**	After Great Financial Crisis occurred the significantly impact the economy, therefore G20 meeting held at London in April 2009 suggested to look into a more forward exalted Great Financial Crisis approach in designing new financial standards. Studies about the implementation of new concept of accounting for financial asset and financial liabilities introduced by IFRS9, under which expected loss model is more aligned with the regulatory expected loss under the IRB approach, shows that IFRS9 replaces the impairment methodology of IAS39. However, the impairment methodology is still incomplete and IASB is still working it, as authors introduced new Expected Credit Loss internal model for the calculation of probability of default.
		Studies shows that new accounting rules significantly impact the measurement and recognition of a credit loss, causing an overlap with the probability of default and the loss given default, as well as the exposure at default models. Our study is mainly contributing towards the straight forward and flexible methodology for calculation of ECL significant parameter i.e. Probability of Default. Execution consequences of IFRS-9 on banking enterprise do not have a tremendous impact in short time period view in long-time period, however IFRS-9 offer a worthwhile view for the future research of funding and economic reporting management.
5	**Competitive Advantage or Unique Selling Proposition** (Cost Reduction, Process improvement, Attainment of any SDG (Sustainable Development Goal), increase of market share or capturing new market or having superior performance over a competitor. In summary, any striking aspect of the project that compels the industry to invest in FYP or purchase it. Some detailed description is required in terms of how, why when what. You can select one or more from the following dropdown and delete the rest of them). Please keep relevant options, delete the rest of them, and correct the sequence	
a	**Cost Reduction of Existing Product**	Since this standard is new worldwide, this FYP enables institutions to develop in house methodology and models which will reduce cost i.e., less engagement with the consultants.
b	**Process Improvement which Leads to Superior Product or Cost Reduction, Efficiency Improvement of the Whole Process** (e.g. What is the issue is current process and what improvement you suggests)	Our study is mainly contributing towards the straight forward and flexible methodology for calculation of ECL significant parameter i.e. Probability of Default. Execution consequences of IFRS-9 on banking enterprise do not have a tremendous impact in shorttime period view in long-time period, however IFRS-9 offer a worthwhile view for the future research of funding and economic reporting management. Implementation would possibly enhance the provisions and valuation of risk and financial instruments consequently it will drastically affect the shareholder's value and capital necessities however sights of accounting practices in a long-time period might be useful significantly in improving stakeholders' transparency and self-assurance with inside the market itself too.

c	**Attainment of any SDG** (e.g. How it is achieved and why it is necessary for the region)	**SDG#8 Decent Work and Economic Growth** IFRS-9 offer a worthwhile view for the future research of funding and economic reporting management. Implementation would possibly enhance the provisions and valuation of risk and financial instruments consequently it will drastically affect the shareholder's value and capital necessities however sights of accounting practices in a long-time period might be useful significantly in improving stakeholders' transparency and self-assurance with inside the market itself too. State Bank of Pakistan (SBP) regulates every financial institution in the country to implement IFRS 9 standard.
d	**Expanding of Market share** (e.g. how it expand and what is the problem with the current market	Since this standard is new to the industry, this FYP will enlighten the path to develop in house methodology and models to calculate/estimate ECL as per given regulations of IFRS 9.
e	**Capture New Market** (e.g. Niche market or unaddressed segment)	Since it's a regulatory requirement of SBP every financial institution in the country has to implement IFRS 9 standard.
f	**Any Environmental Aspect** (e.g. carbon reduction, energy-efficient, etc.)	N/A
g	**Any Other Aspect**	Apart from methods and models, smooth calculation of ECL require in house calculator which can be developed at low cost if local vendors or developers have insight of IFRS 9 standard.
6	**Target Market** (Industries, Groups, Individuals, Families, Students, etc) Please provide some detail about the end-user of the product, process, or service	The financial institution (which includes brokerage firms, investment banks, and asset management firms) and banking sectors can get benefit from the newly proposed technique for calculating impairment specifically probability of default as a more forward-looking credit risk under IFRS-9, as the expansion of insight for managing credit risk, assisting various industries in determining what variables can influence the projected credit loss, therefore impacting financial statements indirectly.
7	**Team Members** (Names & Roll No.)	Rimsha Fatima (CF-40) Safiya Rizwan (CF-05) Kashaf Arif (CF-45) Hassan Shahab (CF-65)
8	**Supervisor Name**	Mr. Syed Wajid Ali – Unit Head Analytics (External Supervisor) Mr. Sami ullah Qureshi (Internal Spervisor)
9	**Supervisor Email Address**	swali.genius@gmail.com (External Supervisor) samiaerc@neduet.edu.pk (Internal Spervisor)
10	**Pictures (If any)**	--
11	**Video (If any)**	--