**Topic Characteristics:**

My thesis will focus on the positive impacts on entry into the EU and its impact on innovation. The principal reason for this is that after the great wake and instability of the Financial Crisis in 2008 and the Eurozone, numerous member states have begun doubting the benefits of joining the union. The numerous benefits of joining the EU includes political integration, a single currency if a member states to do so, freedom of movement, labour, goods and services, and a deepening of financial integration. Additionally, by joining the EU as in the case of Ireland, the member state was able to receive a large sum for grants and research. Although there have been numerous studies studying one of these aspects, there hasn’t been any empirical research in which most of the benefits of joining the EU has been studied especially due to missing data within numerous data bases. Recent literature, such as Campos (2014) has engaged in counterfactual in the hopes of showing the benefits of joining the EU especially within the case of GDP per capita. I hope to investigate whether or not if joining the EU has provided the benefits as other recent literature has shown. Nevertheless, we differentiate from previous literature by employing the GMM-diff. I will also attempt to verify my GMM-diff results with two other different models: Fixed Effects and Ordinary Least Squares (OLS), to ensure that our results are within range and are accurate. Additionally, after studying the impact of EU ascension on the overall EU, I will demarcate the countries into two predominate main regions: Western and Eastern Europe. I will be utilising data
from the World Bank, WIPO, IMF, EuroStat, Lane-Milesi-Ferretti Wealth of Nations data set, and OECD.

However, innovation is difficult to measure hence we decided to use two predominate main indicators for innovation: product (number of patents filed) and the process (R&D expenditure). Both in turn influence each other hence we included both variables in each other’s formulas. Since the enlargement into the EU consists of predominately 4 main time periods, we were not able to accurately compare the entry period comparison between Western and Eastern Europe. As such, we decided to lagged our dependent variables by two years. By doing so, we hope to be able to provide a fuller picture.

**Hypothesis:**

1. Overall, entry within the EU has sparked an increase of number of patents filed and an increase in R&D expenditure. By doing so, this will help bring an increase of innovation and provide proof that there is a boon in joining the EU.
2. Nevertheless, we believe that entry into the EU has a greater benefit for Western Europe than for CEE Europe.
3. It is our belief that our GMM-diff and OLS models, especially within our explanatory variables, will be estimated upwards whilst the Fixed Effects’ results will be biased downwards.

**Methodology:**

Concerning the innovation indicators, we will be utilising the standard explanatory variables of joining the EU. I am going to employ the GFF-difference model, whilst using the Fixed Effects and OLS’ coefficients to indicate that our results are correct and
in the right direction. I will especially be using a dynamic panel data and employ a robustness to our GMM and OLS models. I will be using Hausman et al’s (1984) hypothesis and results to ensure that our models are correct.