MSBA 5502
DATA VISUALIZATION AND STORYTELLING

European Unemployment Rate from 2008-2010

By Andrea Capella-Castro, Angie Menjivar, Francesco Coccaro, Lenora Brown, Patrick Kelly

Introduction

Our intended audience is the International Monetary Fund (IMF). We will be presenting context and key findings in regards to unemployment in Europe during the financial crisis in 2008 and looking at the unemployment rate in European countries from 2008 to 2010. Our goals of presenting these key insights are to compare the outcomes of Germany's unemployment rate to Greece and Spain's outcomes.

Throughout the years of 2008 and 2010, many countries faced many economic instabilities, but one country stuck out. Germany was the least affected country throughout the Great Recession. Greece and Spain faced the most economic issues throughout this impactful event that affected many countries. We will be looking closely at the different factors that could have prevented Germany from increasing their unemployment rate, and what might have caused Greece and Spain to become the most affected European countries throughout the economic crisis.

Context

European unemployment data from 2007 to 2010 piqued our interest in learning more about what was happening in Europe throughout the Great Recession. Looking at our data, we were able to distinguish a significant difference in unemployment specifically from Germany compared to the other countries. Most countries increased in unemployment rate, Germany was the only country that was least affected in unemployment throughout 2007 and 2010. This brought us to the question; Why did Germany not experience an increase in unemployment throughout the Great Recession?

Germany strikes out as the least affected country. Why did Germany not experience an increase in unemployment throughout the Great Recession?

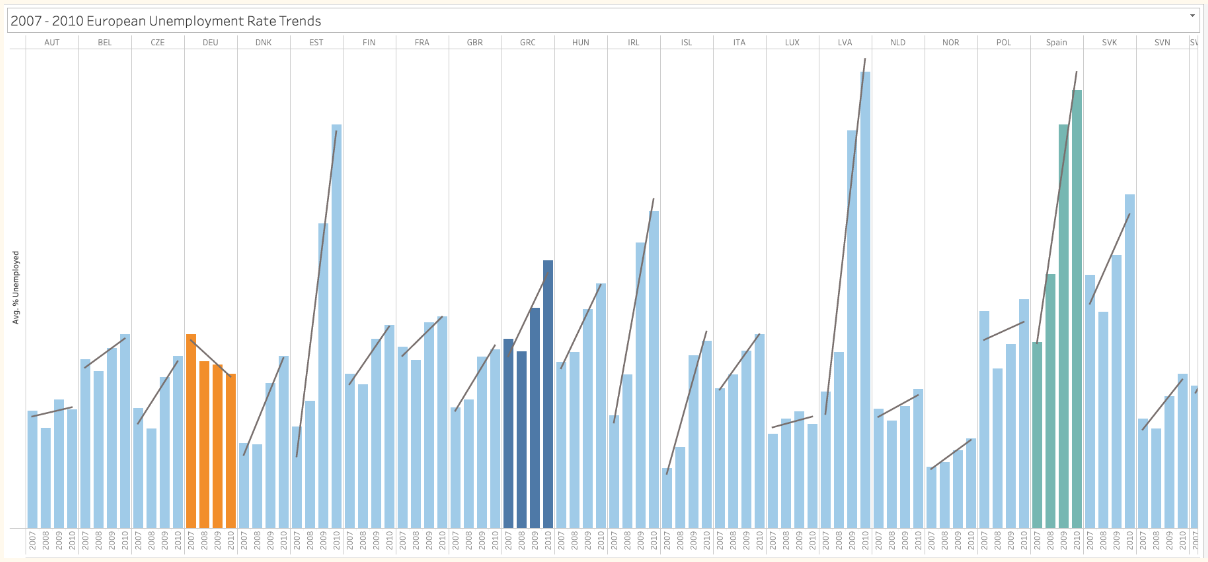

Figure 1.1: European Unemployment Rate Trends
2007-2010

As seen in Figure 1.1, Germany, highlighted in orange, was the country that suffered the least when it came to unemployment. While unemployment only increased for the rest of the world, Germany's unemployment rate decreased throughout the time period of 2007 to 2010. Greece, highlighted in navy blue, and Spain, highlighted in turquoise, had the worst unemployment rate compared to the other countries.

Germany's Government Programs

According to an article, "How did Germany Limit Unemployment in the Recession?," there are two main alternative explanations as to why unemployment performed differently for Germany. From a US perspective, Germany had a great tool in place that aided and softened the Great Recession, they had government programs. Some of the programs that were successful in softening the impact of the recession were the short-time work program and the working-time account program.

1. Short-Time Work Program

The short-time work program helped significantly with this issue because employees weren't getting fired, instead they worked shorter hours per day. The short-time work program consisted mainly of working for shorter hours at firms and still being paid for their hours, while the government would pay for the rest of the hours as a short time allowance.

This program would be active for up to six months. This was an ongoing program, but throughout 2009, the German government decided to extend the eligibility period to 18 months to 24 months. As this was implemented, the share of workers in the program sharply increased and directly impacted the unemployment rate.

2. Working-Time Account Program

The working-time account program allowed employees to continue working throughout the workweek and still receive their overtime pay, but recorded the employees extra hours through a surplus account, rather than being paid overtime immediately. If a worker had to work less hours, the firm would tap this through the surplus account, not affecting their normal take home pay.

By having these programs, the number of layoffs was very low and kept many workers still working throughout the financial crisis. The low number of layoffs was extremely unlikely in other countries worldwide. These programs existed even before the recession and have been active throughout past recessions.

Restructuring of Financial Structures in Germany

The German economy was hit by the crisis in 2008, the decline continued in 2009. The recession's impact in Germany was based on declining exports and was located in the capital goods industry. Germany's dependence on world markets and interrelationship of its business cycle to the world economy has put countries in a crisis. Most recessions in countries have resulted in this connection of declining exports. The economic crisis emerged in the United States and was subsequently imported to Germany.

Germany had substantial labor market reforms in place before the crisis in 2008. This had put the country in a relatively strong position when the recession of 2008 hit. The labor market reform making low-skilled labor productive helped put the economy into a strong position at the start of the recession. The long-term unemployment rate was reduced substantially and skilled labor in private companies in export sectors. This crisis in Germany mainly affected export-oriented companies.

The discrete policy reactions to the financial crisis that emerged was Internationally coordinated flooding of money in stimulus packages, low interest rates, a guarantee on interbank loans and saving accounts, and restructuring of management. This established a new international financial regime. The reorganization of the financial regime was done slowly and only gradually.

In 2008, Germany fell under a technical recession due to the nominal GDP. By 2009, a $70 billion economic stimulus plan was approved by the German government with goals to prevent high unemployment rates. This helped Germany from the recession throughout late 2009 mostly due to steady consumer demand. Throughout this time, by 2011, Germany became known as the third largest exporter and importer, exporting goods worth over $1.3 trillion.

Unemployment in Men and Women throughout Germany

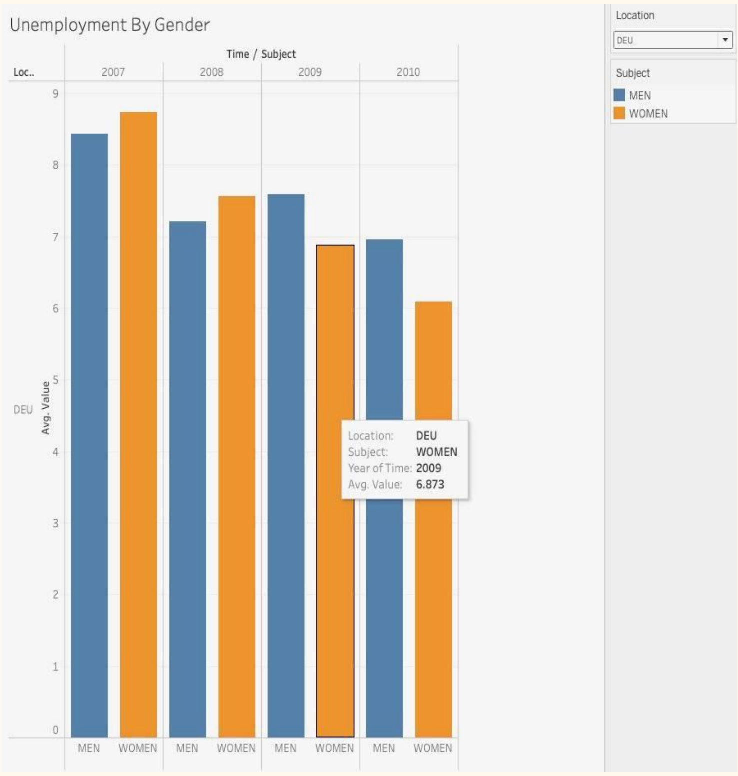

Figure 1.2: Unemployment in Men and Women in Germany 2007-2010

Figure 1.2 shows the comparison between men and women in unemployment from 2007 to 2010. In 2007, there was a higher unemployment rate for women than men. This was also the same in 2008, but once 2009 came, there was more unemployment in men than women. Throughout 2007 and 2010, unemployment for women declined.

Focusing on women in unemployment, one of the main reasons as to why women were struggling with unemployment could have been due to the low quality of jobs. Many jobs offered to women in Germany consisted of low hourly wages and atypical working conditions. Most of the jobs that were available were only part-time or mini-jobs. Comparing part-time and mini-jobs, one fifth of women employees had marginal part-time jobs and about two thirds of women had a mini-job during these times.

Even though both men and women seemed to be affected by unemployment throughout the financial crisis, men were mostly affected by the crisis since 2008.

Greece and Spain had the worst unemployment rate. What could have been affecting these low rates?

Greece and Spain were two of the most affected countries by the recession in terms of unemployment rates.

Figure 1.3: Unemployment between Germany, Greece, and Spain 2007-2010

Figure 1.3 compares the unemployment rates between Germany, Greece, and Spain. Starting in 2007, there was a similar starting point for the three countries for unemployment rate. By 2008, there was a significant increase in the unemployment rate for Spain. In 2009, both Spain and Greece had surpassed Germany's rate. However, 2010 was the most impacted year for Greece and Spain. During this time, Greece had doubled Germany's unemployment rate and Spain had tripled its unemployment.

Greece's Financial Downfall

Greece had a particular experience throughout the Depression. [Greece's economy] caused structural problems that affected the tax system in the nation. One of the main reasons why Greece suffered tremendously was due to the events that occurred prior to the Great Depression. Before being accepted in the Eurozone, Greece suffered high inflation rate, low growth rates, and trade deficits. Greece experienced fiscal problems where the main issue was lack of revenue due to tax evasion. The self-employed population would often report under income.

Furthermore, the economy worsened because the main strategy for aiding the economy through the depression was bailouts from the International Monetary Fund (IMF) totaling about €289 billion.

Greece faced the highest debt deficit in the European Union after the country went into recession in 2008. This led to a severe economic crisis for Greece only to face issues with "high unemployment rate, tax evasion, low global competitiveness, corruption, and inefficiencies in the public sector." Greece began to be impacted by the global recession in 2009 due to a lack of flexibility in monetary policy. The crisis revealed an under-reporting in government debt with the 2009 budget deficit quantified as less than half of the final value calculated in 2010. In 2009 the Greek government raised the debt by 11% from $269.3 billion to $299.7 billion.

Another primary factor for the high unemployment rate in Greece could have also been because of the national debt. In 2011, a $114 billion bailout was granted to Greece by European counterparts for managing debt levels. Greece was also given a credit rating with a disclaimer due to the country being at high risk of default. With this credit rating, many investors and potential ones saw this as a risk and avoided investing in the Greek economy.

Due to the lack of new investors and the effects of government austerity programs, this resulted in the loss of many jobs, which could have been an additional factor as to why Greece suffered throughout the recession.

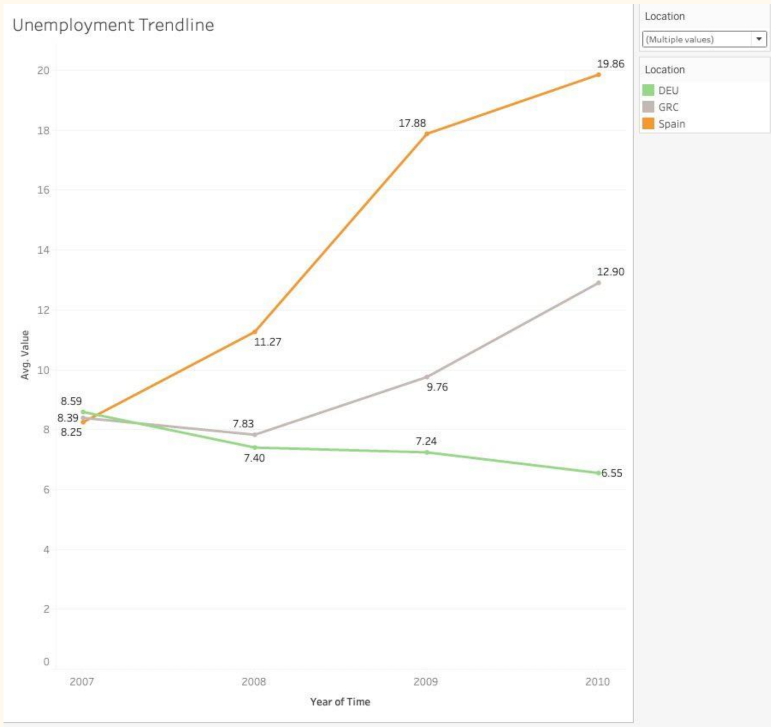

Figure 1.4: Unemployment Trendline between Germany, Greece, and Spain
2007-2010

Focusing on unemployment levels, Greece's industrial production declined significantly. Figure 1.4 shows an unemployment trendline that highlights how contrasting the unemployment rates were for Germany, Greece and Spain. All three countries started with similar low unemployment rates. As 2008 approached, we can see a high unemployment rate rising from Spain and only exponentially got higher since 2007. Spain surpasses Germany's unemployment rate drastically. Looking at Greece, what's interesting is that the unemployment rate got better right before the recession, then suddenly increased sharply reaching 12.90 by the end of 2010. Germany, compared to Spain and Greece, remained the most stable country out of the three, and the only country that lowered the unemployment rate throughout 2007 and 2010.

Spain's Economic Crisis

Spain's economic circumstances were particularly interesting. In the 1990s and early 2000s, Spain was the 5th largest European economy. [Unemployment in Spain]() was high even when the economy was at its best in the early 2000s.

In 2006, Spain built 800,000 new homes, but suffered in 2008 from the global credit crisis. This caused the property market to collapse and fall to a recession that lasted for years. The tax revenue from property investment and construction provided a surplus in revenue for the Spanish Government until 2007. This development was supported by the government due to relaxed supervision of the financial sector which resulted in violations of the International Accounting Standards Board. These violations misled regulations and analysts were the main cause of the Spanish real estate bubble. The resulting economic crash included a severe increase in unemployment and bankruptcies for major companies.

Since 2008, Spain had also been declining in GDP due to exports that were overvalued, the recession, austerity measures, the collapse in the property market, and the banking crisis.

Hours Worked throughout Germany, Spain, and Greece

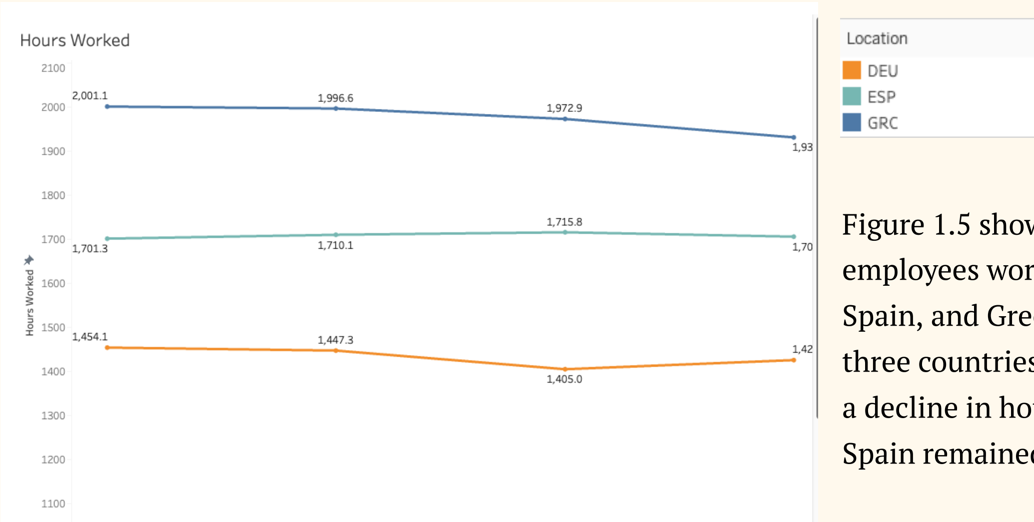

Figure 1.5: Hours Worked in Germany, Spain, and Greece 2007-2010

Figure 1.5 shows the hours employees worked in Germany, Spain, and Greece. Out of the three countries, Greece showed a decline in hours worked. Spain remained the most stable of hours worked that did not seem to change much throughout the recession. Germany remained stable for about a year, then shows that less hours were worked from 2008 to 2009. In 2009, the number of hours worked began to increase.

Even though Germany remained a country that did not have such an impactful and negative unemployment rate, many employees faced having to cut their work hours or working less in general because of the recession. Many part-time jobs became available and became more common for both men and women during this time.

Unemployment by Age throughout Germany, Spain, and Greece

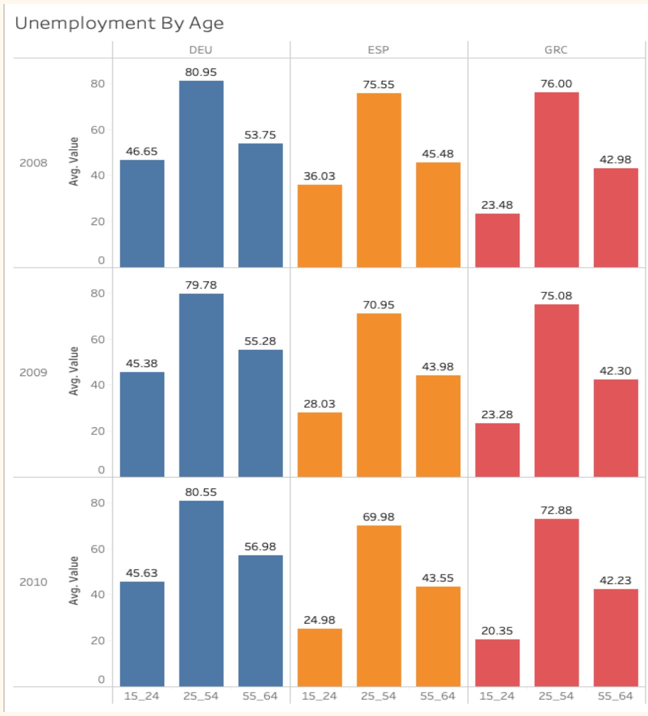

Figure 1.6: Unemployment by Age 2007-2010

Figure 1.6 shows unemployment by age throughout Germany, Spain, and Greece. The three age groups are distributed from 15-24, 25-54, and 55-64. Throughout all three countries from 2007-2010, the most common unemployment falls under people aged 25-54. Greece had the least amount of youth unemployment aged 15-24. Unemployment in young people aged 15-24 started to increase in 2009 due to the Great Recession.

More specifically, Greece and Spain mostly suffered with the increase of unemployment through young people. Some key factors to take into account are that most of these young people could be facing other responsibilities such as school, studying, or helping out with families, which could be the reason as to why many young people were unemployed.

Compared with the older age groups, there is a higher risk among unemployment when it comes to young people finding jobs as well. Many young people are transitioning from educational studies and trying to find jobs upon graduating. These are factors that also could have affected young people throughout the financial crisis.

Key Insights and Conclusions

In conclusion, data between the years of 2007 and 2010 showed a significant difference in unemployment rates for Germany compared to other European countries. The main reason why unemployment had a different impact for Germany can be attributed to the Government programs applied to soften the impact of recession in the workforce. Two programs that directly impacted unemployment were the short-time work program and the working-time account program.

Unemployment rates among men and women throughout Germany showed a contrasting difference between 2007 to 2010. In 2007 and 2008, women had a higher unemployment rate, while the rate was higher for men in 2009 and 2010. Many jobs offered to women were low wage and with atypical working conditions.

Greece and Spain had the worst unemployment rates. Compared to Germany, the two countries doubled and tripled the unemployment rates. Each country had different reasons that precedented the 2008 crisis and contributed to the worsening of the unemployment rate.

Greece suffered aggravations to their economy during the depression because they had previous existing structural problems in their tax system. Previously, Greece had suffered from a high inflation rate, low growth rates, and trade deficits that only worsened the conditions of the economy once the depression came along.

Spain had unique circumstances, the economy was the 5th largest European economy throughout the 1990s and early 2000s. Even during the economic boom in Spain, the unemployment rate was high. In 2006, Spain built 800,000 new homes and consequently suffered greatly from the 2008 global credit crisis causing the property market to collapse.

One of the consequences of the 2008 recession was the reduction of hours employees worked since there were no stable hours. Greece showed a decline in hours worked, Spain remained with stable hours, while Germany remained stable at first and then showed a decline.

One of the major topics of unemployment during this period was age as all three countries ultimately experienced unemployment at a higher rate for people aged 25-54. Greece stood out with the least amount of youth unemployment.