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The Business Cycle on Both Sides of the Atlantic

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The Business Cycle on Both Sides of the Atlantic

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Abstract

The recent economic recession, that began in the US in late 2007 and lasted eighteen months with a heavy toll on society's wellbeing, has demonstrated the need and urgency of properly understanding the business cycle. This is important because this paper shows that the US business cycle is a leading indicator for the European Union and the Eurozone. Therefore, it can advise governments in the European continent that a change of economic tendency is taking place, which due to globalization will sooner or later affect economies and societies. Thus, understanding the business cycle will give European governments an opportunity to adjust economic and monetary policies to help soften the negative effects on European society.

Introduction

The 21st century was inaugurated with two economic recessions, a mild one that started in 2001 and a very severe one in 2007. However, the effects of these economic slowdowns were felt in the Eurozone and EU at different time and with different intensity. This paper presents evidence that understanding the US business cycle is of the upmost importance for the EU and in the Eurozone. Not only the world is globalized and economic ups-and-downs cannot be isolated but also because the US and the EU are preparing the Transatlantic Trade and Investment Partnership, an important free trade agreement that could be finalized by the end of 2014.

This work explains the meaning and importance of the business cycle and focuses on analysis how this affects the unemployment rate both in the US and in the Eurozone. This paper demonstrate that the unemployment rate is a leading indicator that when it changes its course signals that the business cycle is about to change. But most importantly, this paper presents that the business cycle should be considered a leading economic indicator for governments in the Eurozone which could help them adjust their economic and monetary policies to soften the effects of an economic recession.

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The Business Cycle: Definition and meaning

The 21st century was inaugurated with two economic recessions, a mild one that started in 2001 and a very severe one in 2007.

In the United States, the National Bureau of Economic Research (NBER) is the designated institution to follow the evolution of the business cycle and to announce changes in the business cycles. The NBER declares the beginning and end of economic recessions and expansions and has been following the evolution of the US business cycle since the economic peak of June 1857.[1]

The business cycle is defined as the fluctuation in economic activity experienced in a country over a period of time. A business cycle is a number of periods of economic expansion followed by economic recessions. Expansions have a positive effect on society as the economy grows in real terms ameliorating employment, industrial production, and sales and personal incomes among others economic indicators. An expansion positively influences the confidence of consumers and producers. A recession, however, is defined as a significant decline in economic activity that spreads across the economy and that lasts more than just a few months with negative effects easily felt in production, employment, real income and a series of other indicators. Thus, a recession is a broad contraction of the economy not confined to just one sector. Despite all the economic indicators that can be analyzed in any economy, the NBER believes that domestic production measured by the gross domestic product (GDP) and employment are the primary conceptual measures of economic activity and the main indicators examined to determine the evolution and state of the business cycle.[2]

The National Bureau of Economic Research explains that the business cycle is determined by the GDP and the NBER considers that the decline of two consecutive quarters of GDP is considered a recession while am increase of two consecutive quarters of GDP calls for an expansion. The rest of economic indicators are classified into leading, coincident and lagging economic indicators depending on how these relates with the evolution of the GDP. A coincident indicator is an economic metric that shows the pattern of the current economic activity; that is, it moves together with the fluctuations of the GDP. A leading economic indicator is an indicator whose level changes before the economy as a whole changes. In the US economy both the unemployment rate and level reached the lowest level and began to increase months before the GDP slows down and the recession was announced.

Expansion is measured from the trough (or bottom) of the previous business cycle to the peak of the current cycle. During an expansion, jobs are created, and production and income increases benefiting society. A recession begins when the economy has reached a peak of activity and ends when it reaches a trough. The trough marks the end of the declining phase and the start of the rising phase of the business cycle. Determining the date on which the economy changes its course is always a challenging process since in every episode each indicator peaks in a different month. Economic activity is typically below normal in the early stages of an expansion, and it sometimes remains so well into the expansion.

[1] National Bureau of Economic Research, "About the NBER." http://www.nber.org/info.html

[2] National Bureau of Economic Research, "The NBER's Business Cycle Dating Procedure: Frequently Asked Questions." http://www.nber.org/cycles/recessions_faq.html

The US Business Cycle in the 21st Century

The 21st century did not begin on a very positive economic note. The NBER's Business Cycle Dating Committee determined that the expansion that began in March 1991 peaked in business activity in the U.S. economy in March 2001.[3] This means that the US witnessed an expansion that lasted exactly 10 years, the longest in the NBER's chronology. However, the Business Cycle Dating Committee of the National Bureau of Economic Research met on July 16, 2003 and determined that a trough in business activity occurred in the U.S. economy in November 2001, which marked the end of the first recession of the 21st century and lasted 8 months.[4] This is slightly less than the average for recessions since World War II. Thus, the 21st century was inaugurated in the middle of an economic recession.

The second economic recession of the 21st century has been named the "Great Recession" for the intensity and long duration of its negative effects on society and the economy. The Business Cycle Dating Committee of the National Bureau of Economic Research announced the recession on Friday, November 28, 2008.[5] The committee determined that a peak in economic activity occurred in the U.S. economy in December 2007 ending the expansion that began in November 2001. This expansion lasted 73 month.

The following graph graphs these two recessions and the evolution of gross domestic product (GDP) measured in real terms together with the civilian unemployment rate and the unemployment level in the US. While the first recession was mild in terms of the change in these indicators, the second recession is obviously more significant particularly when it comes to the effect of the recession on unemployment.

In the recession that began on the March 2001, both unemployment rate and levels bottomed in mid-2000—almost a year before the recession was announced, demonstrating that unemployment is a leading economic indicator. However, despite the end of the recession in March 2001, the unemployment market peaked and began to recover on June 2003, when the unemployment reached a record high of 6.3%. That is, it took unemployment 19 month to reach its peak and begin its recess.

Furthermore, in the recession that began on December 2007, unemployment level and rate hit a record low in the last quarter of 2006—this is, almost one year ahead of time—and both indicator began to increase signaling that the economy was slowing down as workers were losing their jobs. Similarly, the NBER announced that the recession ended in June 2009 after 18 months of economic struggle, becoming the longest postwar recession. However, the effect on the labor market was felt well into the expansionary phase since unemployment rate did not begin to recess until October 2009 when unemployment reached 10%.

This explains why unemployment is such an interesting economic indicator. It signals that the economy is about to enter a recession well ahead of time and often times this sign is ignored and consumers, business and governments continues "business as usually" when in fact they should be adjusting to face the recession. By the same token, it takes the labor market sometime after the recession ends to start creating jobs and reducing the unemployment rate; this is why it is often time denied that the recession is over and governments are criticized for announcing the end

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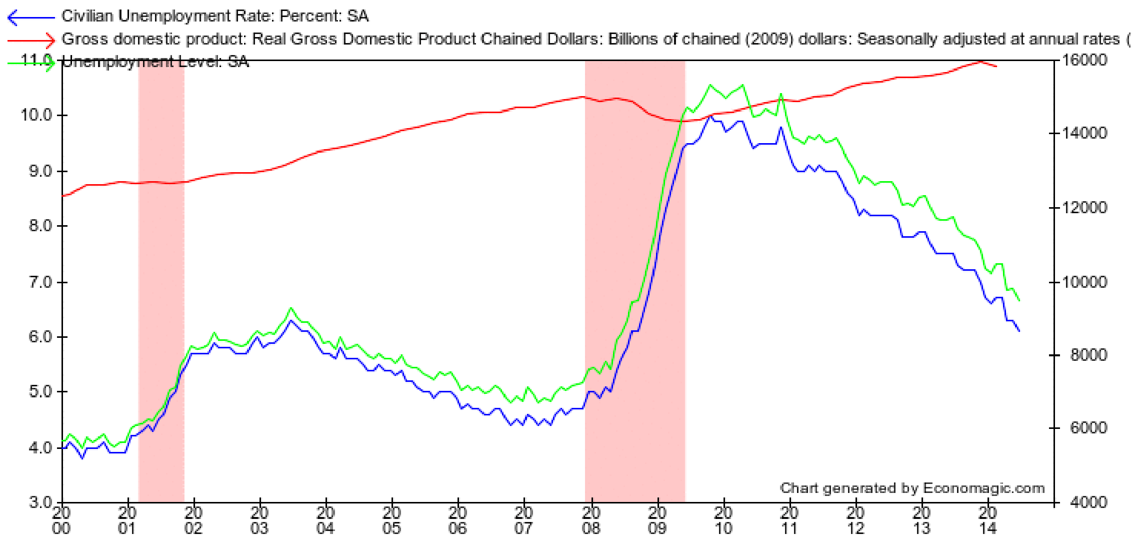
[3] National Bureau of Economic Research," The Business-Cycle Peak of March 2001." http://www.nber.org/cycles/november2001/

[4] National Bureau of Economic Research, "Business Cycle Dating Committee, National Bureau of Economic Research." http://www.nber.org/cycles/july2003.html

[5] National Bureau of Economic Research, "Determination of the December 2007 Peak in Economic Activity." http://www.nber.org/cycles/dec2008.pdf

of economic hardship when society is still under pressure. The explanation is that it takes time for business to start hiring since they want to make sure that economy recovery is a reality and business begin to see economic profits and benefits.



Graph: The Business Cycle in the US Economy
Source: Economagic. www.Economagic.com

A detailed analysis of the business cycle in the US summarized in the table below, demonstrates that the first recession was a mild one as unemployment rate increased a bit over 1 percentage point and the change in GDP was not substantial. However, the Great Recession had a dramatic impact on the economic activity with an important decrease of GDP and with an unemployment rate that almost doubled from 5% to 9.5%. During the 1st recession unemployment increased over 21% while during the so-called "Great Recession" it increased almost 50%; this is a very important increase with a dramatic effect on society.

Table 1: Evolution of GDP and Unemployment Rate

	GDP 1st recession (bill of US$)	Unemployment rate 1st recession	GDP Great Recession (Bill of US$)	Unemployment Rate Great Recession
Peak	US$12,645bn	4.3%	US$14,996bn	5%
Trough	US$12,705bn	5.5%	US$14,356bn	9.5%
% change	**US$+60bn**	**+ 21%**	**US$-640bn**	**+47%**

The Eurozone Business Cycle in the 21st Century

The effect of the US business cycle in the EU and in the Eurozone is of particular importance mainly because the US and the EU are preparing the Transatlantic Trade and Investment Partnership, an important free trade agreement that could be finalized by the end of 2014. Understanding the impact of the US business cycle in the EU and Eurozone could be of great importance for governments and their monetary and fiscal policies.

The effect of the economic recession on the labor market of the Eurozone has two characteristics. The first feature is that the effects were felt in the Eurozone later than in the US. The graph below shows that in the Eurozone for the two recessions of the 21st century the unemployment rate reached its lower level and started to increase months into the recession period. In detail, in the minor recession that started in the US the first quarter of 2001 and lasted until the last quarter of 2001, the unemployment rate in the Eurozone reached its bottom of 8.28% on the second quarter of 2001, right in the middle of the economic recession. Similarly, in the recession that started in December of 2007 the unemployment in the Eurozone reached its lowest point of 7.27% in the first quarter of 2008; once again it reached its bottom in the middle of the economic recession. Thus, it can be concluded that the US business cycle is a leading economic indicator for the Eurozone as it advises governments in the Eurozone of a change in the business cycle that if well understood could be of great help.

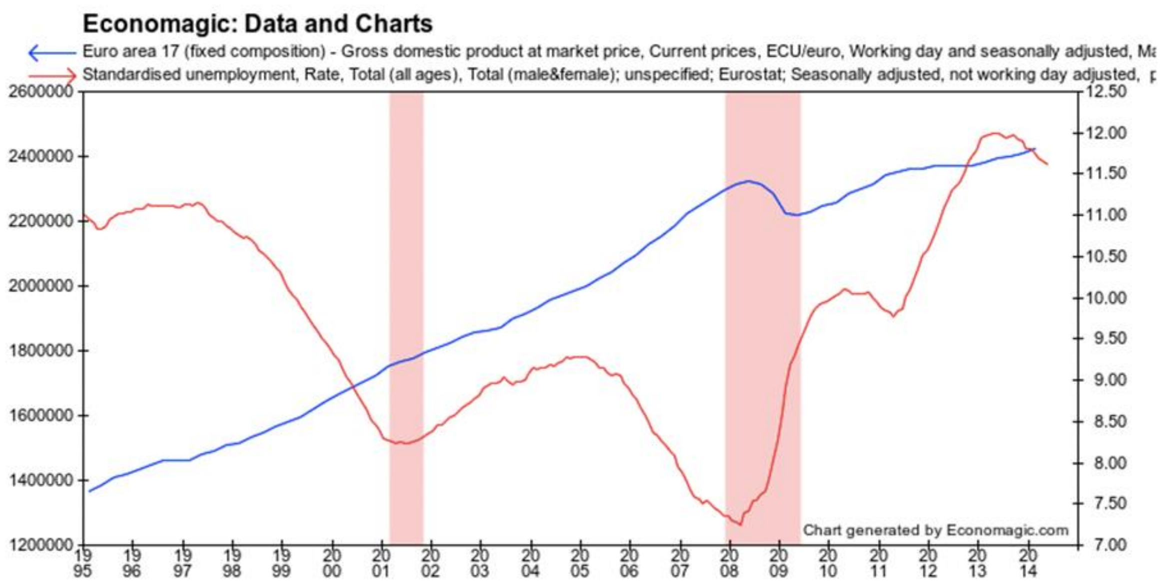


Figure: Economic Indicators for the US and the Eurozone 17
Source: Economagic. www.economagic.com

The second feature is that the unemployment rate in the Eurozone is at least 3% points higher than in the US. In the mild recession of 2001 the lowest US unemployment rate was 4.3% while in the Eurozone was 8.2%, and the highest unemployment rate reached was 5.5% and in the Eurozone was 9.3%. Similarly, the lowest US unemployment rate during the 2007 recession was 5% and in the Eurozone was 7.2% while the highest unemployment rate reached in the US was 9.5% and in the Eurozone was 10.15%.

Table 2: Unemployment Rate in the US and the Eurozone				
	1st Recession		2nd Recession	
	Lowest	Higher	Lower	Highest
US	4.3%	5.5%	5%	9.5%
Eurozone	8.2%	9.3%	7.2%	10.1%

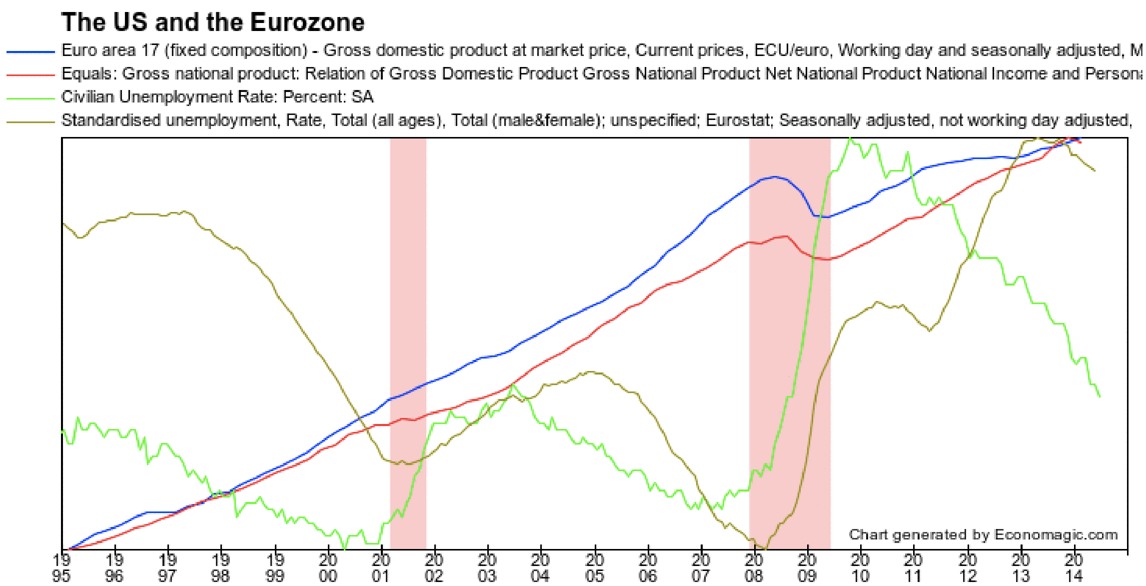


Figure: Economic Indicators for the US and the Eurozone 17
Source: Economagic. www.economagic.com

A final analysis of the evolution of the economy in the Eurozone centers on the elasticity of the unemployment rate with respect to changes in the GDP. The study shows that the unemployment rate in the Eurozone is very elastic as it has an extreme reaction to changes in GDP. Just in the mild recession of 2001 where the Eurozone did not see a decrease in GDP, the unemployment rate suffered a contraction of almost 20%. Further, during the second recession the GDP in the Eurozone contracted almost 5% point which caused the unemployment rate to increase a surprising 40%. A very important final point is that both the US and the Eurozone have curiously experienced the same level of unemployment increase. Both during the first recession suffered an increase of about 20% and on the second recession suffered an increase of about 40%. However, the Eurozone is suffering a far higher unemployment rate than the US.

Nonetheless, this elasticity is extremely dangerous for the stability of the area. However, avoiding such dramatic changes in the unemployment can be avoided in the Eurozone since the business cycle and the unemployment rates in the US are leading economic indicators for the Eurozone. Thus, paying attention to the evolution of the business cycle can be used for the Eurozone to adjust their economic and political policies in order to mitigate its effect.

Table 3: Evolution of GDP and Unemployment in the Eurozone	
	Percentage Change
GDP 1st Recession	No decrease in GDP
Unemployment Rate 1st Recession	Unemployment rate increase from 8.28% to 9.30% ➔ +19.42%
GDP 2st Recession	A decrease in GDP of about -4.4%
Unemployment Rate 2st Recession	Unemployment rate increase from 7.27% to 10.15% ➔ +40%

Final Words

The US has demonstrated that following and recording the evolution of the business cycle is of great importance, as well as deeply understanding and classifying economic indicators in order to better understand the economy. In the US, the National Bureau of Economic Research is the designated institution for this task. However, the EU and in the Eurozone are still working on strengthening economic pillars and have not put effort into structuring the evolution of the business cycle. Eurozone member states should be paying more attention to the US business cycle particularly now that a free trade agreement between both economic powers will greatly affect the world economy and trade patterns. This study has demonstrated that the US business cycle is in fact a leading economic indicator for the EU and Eurozone and more precisely the US unemployment rate which signals the beginning a recession well ahead of time. This could give the EU and Eurozone governments and politician enough time to adjust their policies in order to avoid a heavy impact on the continent economy and society.