

An Unpredicted Shock to the Global Financial System: Macro/Microeconomic Effects Across Countries

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ABSTRACT

The current COVID-19 pandemic has brought back a familiar circumstance, starting with a widespread disease that eventually caused inflation. This research paper examines a previous event that began with a housing bubble burst but also had a significant impact on people all over the world. This paper talks about the many effects that the U.S., China, and European Union had because of the 2008 Great Recession, exploring these countries within many categories: macroeconomic, microeconomic, regional, and futuristic planning. We consider the benefits and disadvantages of the enactments that countries provided their citizens during, before, and after the economic crisis. We explore how variations in a country's socio-political, economic, and cultural foundations impact its ability to prevent and recover from a recession.

Introduction

An increase in subprime mortgages and lax lending standards induced inexperienced home buyers and investors with poor credit scores to exploit the housing appreciation opportunity, eventually leading to the housing market's housing collapse in 2008.

The collapse of the housing market provoked the Great Recession in 2008, which was a macro-level financial crisis affecting billions globally, though the degree to which its impact was felt depended on the differing micro- and macroeconomic environments of countries with large economies.

Additionally, the variation in socio-political, economic, and cultural substructures across countries as well as within countries produced differing behaviors on a local and national level. Within a nation, the recession influenced businesses and consumer patterns differently across regions, which is also reflected in how various sectors of a country were impacted.

What Were the Macroeconomic (E.G., GDP, Consumption, Interest Rates, etc.)? Effects of The Great Recession On The United States, China and European Union?

The consequences of a unitary government opposed to a federal system established an underlying distinction between the austerity of implemented fiscal stimulus packages and the bias of a country's import and export trends.

As a predominantly export-driven economy, China's exports dropped by 17% in 2009 (Li et al., 2012), negatively affecting its importing partners and indicating an interdependence in a country's economy

with other nations. Having strict fiscal programs and credit expansion, however, China was able to produce new jobs and infrastructure to support a quick recovery, benefiting associated countries.

In aid with China's stringent monetary policies before the Recession and the nation's lack of engagement in trading derivatives (stock market), the country's GDP only slowed to a 9.7% increase instead of exponentially drop like the U.S. and Europe. When the Recession took extreme measures in the fall of 2008, China reversed those policies to ensure that people had more access to credit in order to recover the economy. (Lardy, 2010) Banks wanted to expand their loaning in regards to encouraging monetary easing. According to the International Monetary Fund, the nation's standard interest rates dropped from 7.47% to 5.31% from the beginning of 2008 to the end of the year. (Yueh et al., 2010)

The Great Recession had significant effects on the U.S. Even though the United States implemented a fiscal stimulus program, it was inadequate for creating new jobs or infrastructure. The country's GDP fell by 4.3% in 2008 and 2.8% in 2009, which was the largest contraction since the Great Depression. The recession terminated hundreds of thousands of manufacturing and construction jobs. The effects led to an employment decrease of 8.5 million jobs, from an unemployment rate of 4.7% to 10.1%.

Many banks failed or required assistance from government bailouts, greatly contributing to a decrease in confidence in the financial system. The depreciation of the US dollar and its major trading partners had an impact on the country's imports and exports. The trade deficit increased by 24 billion dollars due to a decrease in exports and an increase in imports as global demand fell.

Households were more cautious about spending, so there was a great reduction in consumer spending. While Real Consumer Spending (the nominal value after it has been adjusted for inflation) was hindered and declined, Nominal Consumption (the current price that has not been adjusted for any factors) was still steady for almost a year due to inflated gas prices. According to the U.S. Bureau of Labor, "Consumers cut spending by over \$200 billion from the previous year to just under \$9.1 trillion, with lower purchases of goods, especially vehicles."

The European Union took the most significant hit as their financial situation led to a debt crisis. Unlike China or the United States, Europe did not implement strict fiscal programs, which affected the country's ability to stabilize the decrease in spending. The GDP of countries in the EU declined significantly, ranging from -2.5% in France to -7.1% in Ireland.

Europe's strong connection with the U.S. caused a domino effect when the Lehman Brothers Bank collapsed. The failure of Lehman Brothers was a major trigger for the global financial crisis, as several European banks had significant exposure to Lehman's securities, which led to a loss of confidence in the banking system.

In 2008, the European Economic Recovery Plan (EERP), a stimulus package, was sent out. The government used bailouts to aid struggling businesses and banks, especially in Ireland, Spain, and Greece, where there were several bank failures. After the crisis, many issues still arose with macroeconomic imbalances (i.e., youth unemployment and in-work poverty) and an undetermined vision for the European Monetary Union (EMU). Unemployment rates rose, with some countries, such as Spain and Greece, experiencing particularly high levels.

What Were the Microeconomic Effects of the Great Recession On The United States, China and European Union?

The global financial crisis affected firm and consumer behavior across different countries, though the relative impact was different depending on the country's political and cultural structures, as well as its macroeconomic policies (e.g., credit extension to firms). Lending practices varied between countries, where firms and consumers responded differently.

For example, in China, most of the credit expansion that occurred in the aftermath of the recession was extended to state-owned firms, whereas in the United States, private banks lent and extended credit to private corporations. Although the ownership structure may seem innocuous, it influenced the lending behavior as the risk of credit extension to state-owned firms was distorted (i.e., the risk of bankruptcy or insolvency of creditors resulting from defaulted loans by unproductive state-owned businesses is manipulated by the lender's belief in the government bailing them out). It is likely that one reason lenders extended credit to ineffective (e.g., speculative real estate investment firms) businesses is that the state owned these firms, which the government would protect if they defaulted. Contrarily, lenders are more cautious about extending credit to private firms (relative to state-owned firms) as government protection is uncertain if these loans underperform.

Businesses on the receiving end of credit learned quickly from the market failures associated with the Great Recession by de-risking their balance sheets. Firms helped facilitate economic recovery in the United States through voluntary de-risking, contrary to some macroeconomic perspectives in which government stimulus packages were heavily promoted as measures to address economic recovery (Crandall & Winston 2009). Crandall and Winston (2009) argue that the recovery was driven by market-driven incentives to rebalance the housing market, which are independent of macroeconomic government policies (e.g., TARP, TALF, government intervention in Fannie Mae and Fannie Mac).

On the consumer side, the Great Recession was associated with a change in purchasing behavior among individuals in the United States. For example, Cha, Pradeep, and Dhar (2015) conducted a study at the Chicago Booth in which they show that households bought less expensive clothing (i.e., fewer luxury brands) from 2007–2009 relative to the period before. Additionally, even though older and more educated demographics have a higher disposable income than those who are younger and have a lower income, they were more likely to switch to cheaper goods (e.g., including food) compared to younger and less educated households. This can be seen in the increase in grocery spending (roughly 3% increase) versus restaurant spending (roughly 11% decrease) between 2007 and 2009. However, this relationship of substituting toward less expensive goods did not appear to hold for top brands—even as prices increased for these brands, their consumer demand did not change much, suggesting an inelastic demand curve for these goods (i.e., demand changes by less than the percentage change in price).

Another study by Petev et al., (2012) examined the change in consumption of households across different income brackets. Similar to the findings of Cha, Pradeep, and Dhar (2015), they also observed that wealthier households reduced their consumption by a greater percentage than low-income households. The authors suggest consumption among lower-income households was protected by government transfers (i.e., food stamps, earned income, etc.), whereas wealthier individuals may have decided to "rebuild" their wealth through savings, as in general, loss of wealth was severe for these households during the early part of the Great Recession.

The consumption decision-making in China seemed to have been boosted through artificial channels, similar to those of the low-income population in the United States, primarily through transfers and stimulus.

How Were Different Sectors And/Or Regions *Within* These Countries Affected?

Across these different regions, sectors were disproportionately affected by the Great Recession, with greater negative effects in industries like tourism and construction, whereas industries traditionally regarded as recession-proof like healthcare and waste management fared better. However, even though on average, employment in industries like construction was significantly hurt by the Great Recession, there was significant variation in employment in these industries across different regions of the United States. For

example, western states (i.e. Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming) experienced over 8% declines in construction employment, whereas the Midwest states and south experienced increases in construction employment (Figure 1).

One explanation for this disparity is that the construction industry in the Midwest and South is primarily agricultural, as opposed to the Western states, which rely more heavily on housing, office buildings, and retail brick-and-mortar stores. With the economic downturn, there was less demand for these types of construction projects, severely weakening this sector on which many western states have relied economically (Keegan, C. E., et al. 2011). Similarly, the manufacturing sector in western states was severely hurt as compared to the south and Midwest, which can partially be reflected in the slower production of timber and forest goods. The prices for forest products decreased due to a shift in demand as well as lower production capacity for these goods. For example, sales of wood products decreased from \$49 billion in 2005 to \$34 billion in 2009, which is approximately a 50% increase. With lower prices for products, inefficiencies in any production processes among manufacturing firms probably became more important as there was a strong push to reduce costs. With the inability to reduce marginal costs to match prices, forest manufacturing plants were forced to shut down (Keegan, C. E., et al. 2011).



Figure 1. Earnings(left y-axis) and employment (right y-axis) in Forest. Products Industry across the Western United States (Keegan, C. E., et al. 2011). Notes: Western United States refers to states Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming

In Europe, countries with significant construction sectors appeared to experience similar negative effects as the western states in the United States. For example, the economies of Ireland and Spain – both of which construction makes up a large portion of their economies, were severely impacted by the Great Recession, in which unemployment was 10 percentage points greater in 2009 relative to 2007 (Pissarides, 2013). Contrarily, as shown in Figure 2, countries like Greece, Portugal, and Italy fared better (i.e., increases in unemployment below expectations) in the early period of the recession (2009), which has more to do with government protections than robust labor markets (Pissarides, 2013). However, these protections failed to offer economic support in the middle and later stages of the recession, which led to excessive debt levels that disincentivized lending from large banks and other creditors.

Although there are fewer data resources available in China, it appears as if their export sector has maintained reasonable strength despite a drop in international demand for their products. Researchers hypothesize that the quick actions toward a stimulus package and high foreign exchange reserves (roughly \$3

trillion) provided funds to finance public spending during the downturn (Li et al., 2012). This probably allowed them a cushion on which they could maintain a robust economy until the macro economy improved (i.e., increased foreign demand for their domestically produced goods).

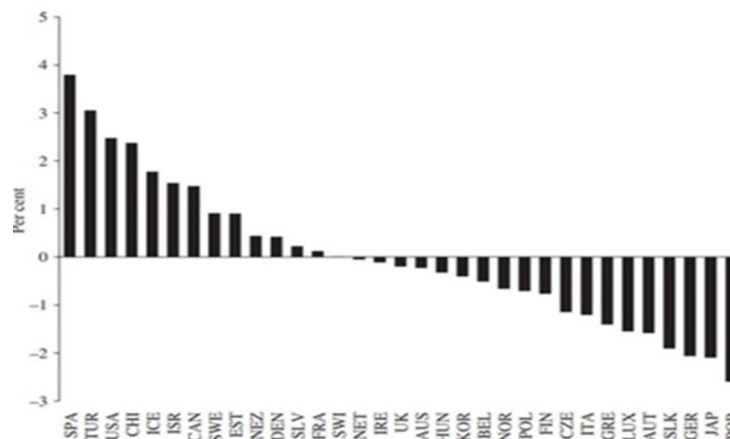


Figure 2. Rise in residual unemployment from 2007 - 2009 (Pissardes, 2013). Notes: Residual unemployment is realized unemployment during periods of full employment.

Discussion

Future Economic Policies to Protect Against Another Recession/ Levers to Reduce the Severity of Recession After Effect

The Great Recession has induced countless global changes as a way of attempting to anticipate and prevent another financial crisis from happening. Many countries combated the crisis using government-implemented policies and programs (i.e., monetary policy, fiscal stimulus, financial regulation, encouraging investment, etc.)

China transitioned from an export-based economy by shifting its focus from investment-led growth to consumption-led growth, reducing its dependency on exports. While investment made up more than 50% of China's economy in the early 2000s, the strategy was impacted by the global economic downturn, leading to a shift in the country's approach towards importing and boosting domestic consumption. Global trends showed that consumers in major markets like the US and Europe cut back on spending, which decreased demand for exports, particularly in the export-driven economy of China.

The Great Recession highlighted the risks of relying heavily on exports, prompting China to seek new growth factors such as offering a stimulus package that included investments in infrastructure and innovation, as well as support for domestic consumption of goods and services. The country also created policies to support small and medium-sized enterprises (SMEs), including tax cuts, financing support, and reducing administrative red tape. These businesses aimed to boost entrepreneurship and promote new jobs in order to uplift the economy. China wanted to encourage foreign investments to diversify its economy and shift away from its dependency on exports. Cooperating with other companies allowed the country access to advanced technology, improving and increasing competition in its domestic market and enhancing the quality and efficiency of products and services.

Automatic stabilizers are government policies that provide support to the economy, which were helpful in mitigating the consequences of the 2008 recession because of their ability to authorize fiscal

support. The United States and countries in the EU used automatic stabilizers (i.e., unemployment insurance (UI), the Supplemental Nutrition Assistance Program (SNAP), and Medicaid). Unemployment insurance provided a safety net to workers who lost their jobs, allowing them to maintain their consumption and prevent a greater economic decline. The SNAP program encouraged local businesses, boosting the economy when families with low income were given money to buy food, and Medicaid increased access to health care, which created jobs in the medical sector.

While the U.S. implemented these stabilizers to control the recession from a consumer assistance perspective, there was also a mix of regulatory and monetary policies. Regulatory policy refers to the rules and laws the government uses to ensure a competitive market, for example, laws concerning finance and banking, consumer protection, etc. Monetary policy comes from the actions that central banks take to influence money and credit in the economy. (i.e., interest rate setting, quantitative easing, open market operations) Both policies contributed to economic recovery by strengthening financial institutions, lowering interest rates, increasing the supply of money and credit, and regulating an efficient but protected market and consumer connection, thereby avoiding another severe recession.

On the EU level, many measures were taken as a way of preventing another crisis and ensuring a more resilient financial system. Increased deposit insurance ceilings and guarantees for bank liabilities were implemented by many countries to provide protection to depositors and secure confidence in the banking system.

When banks failed during the recession, it led to a loss of confidence in the banking system, so enacting this insurance meant that depositors were entitled to still have their savings safe even if there was a bank failure. Because countless banks were impelled to fail or go bankrupt during the financial crisis, the EU gave funds to support them. Central banks also helped fund banks and support the banking sector's liquidity by building special facilities to support the interbank market and the provision of short-term finance.

Recapitalizing banks was used to restructure state-run banks to increase financial stability and capital in order to consistently provide credit to the economy. The government disbursed a stimulus package called the European Economic Recovery Plan (EERP). This package was used to make investments in small and medium-sized enterprises, research, and infrastructure to create more jobs. Tax relief assisted those who were most affected by the recession, making reductions in taxes on businesses, personal income, and value-added tax (VAT); and subsidies were given to part-time employment to support and encourage workers and boost the economy by allowing businesses to have the assurance to invest and create new jobs. Major countries utilized this opportunity to strengthen economic governance, stabilize the financial sector, and make structural reforms. As a result of the financial crisis, many improvements were made to prevent another recession from occurring.

Conclusion

The U.S., China, and the EU are areas with the highest Gross Domestic Product (GDP), which shows that they have a large connection to the global economy but also that they can be greatly impacted by being a big part of trade and businesses, especially during a recession. Although these countries are influential, the actions that their governments implement may alter the effects of a global crisis. There are advantages and disadvantages to the policies and investments that each country makes, but they ultimately serve to prepare for and prevent future instances like the Great Recession.

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