National Economic Trends

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The European Debt Crisis and U.S. Economic Growth

Many economists worry that the ongoing European debt crisis could slow the U.S. economy as it emerges from recession. One concern is that the debt crisis could create a decline in the demand for U.S. goods and services, contributing to a growth slowdown. However, other channels could also depress U.S. growth. For instance, investors may shift more assets to the United States, which may cause the U.S. dollar to appreciate further against the euro. The latter scenario may further shrink U.S. net exports. Financial contagion could also weaken financial systems in the United States and abroad.

Appreciating the implications of a possible European crisis on U.S. economic growth requires a comprehensive view of U.S. international trade. This is especially important because of substantial shifts in the major trading partners of the United States over the past four decades. In particular, the share of trade in terms of value with the European Union and Canada combined has declined steadily from 34 percent in the mid-1980s to 26 percent by 2009, whereas that of China and Mexico combined has dramatically increased from 5 percent to 20 percent during the same period. Currently, the collective trade with China and Mexico is larger than trade with all of the Europe Union.

The chart shows the correlation between U.S. gross domestic product (GDP) growth and that of its major trading partners over the past four decades. Each point on the graph is calculated using observations over the previous 10 years. This method is called a "rolling window"; it helps determine whether the correlations have changed over time. A positive value at a moment in time indicates the GDPs of the given pair of countries moved roughly in the same direction; a negative value means the GDPs move in opposite directions. The higher the absolute value of the correlation coefficient, the stronger is the relationship between the given pair.

In the early 1970s, the correlations between U.S. GDP growth and that of Mexico, Canada, and Euro-19 countries[1] were positive and strong. The correlation between Mexico and the United States weakened substantially from the 1980s to the early 1990s. Since then it has increased with sharp upturns since 2007. The correlation with Canada was stable until the early 2000s when it fell by 50 percent and remained low until recently. The correlation between the United States and the Euro-19 countries decreased precipitously in the early 1990s. It increased smoothly afterward and sharply since 2007.

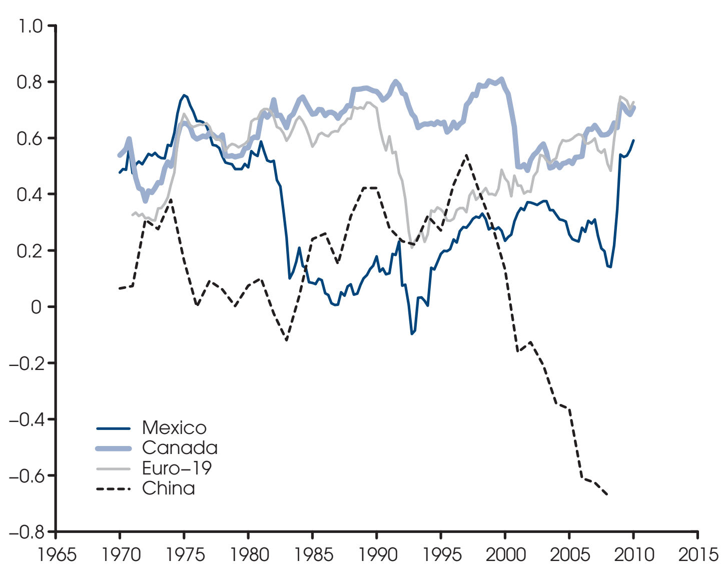
China's GDP relationship to the United States exhibits an altogether different trend. The correlation was low from 1970-85. It increased steadily from 1985 up to the late 1990s, reaching a value of 0.54 in 1997, but since has declined steadily. By 2008, the U.S.-China GDP growth correlation was –67 percent, which may seem surprising given the increasing share of trade with China. However, the correlation between U.S. growth in any given year and growth in China the previous year is positive. That is, periods of high growth in China are typically followed by periods of high growth in the United States.

Importantly, correlations do not imply causations—they are simply statistical relationships. Indeed, the correlation between U.S. GDP growth and that of its major trading partners is neither stable nor explained by shares of international trade. Nevertheless, the recent strengthening of these correlations validates further consideration of the performance of U.S. trade partners for growth.

—Chanont Banternghansa and Adrian Peralta-Alva

[1] The Euro-19 countries are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

Correlation between U.S. GDP Growth and Other Countries (10-year rolling window)



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