WASHINGTON, Aug 5 (Reuters) - The euro could supplant the dollar as the world's dominant reserve currency within 20 years if Britain and other European Union countries adopted the unit and the greenback continues to slide, a recent study showed.

The paper, released by the National Bureau of Economic Research this week, outlined two key criteria for a change of the current status quo -- where about two thirds of world's central bank reserves are denominated in the U.S. currency.

First was the scope for expansion of the euro zone so that it tops the gross domestic product of the United States and envelops London's dominant international financial center.

Second is the role of U.S. economic policies and the risk that they might undermine confidence in the dollar through inflation and depreciation.

"We find that if all 13 EU members who are not currently in EMU (European Economic and Monetary Union) join it by 2020, including the United Kingdom, then the euro overtakes the dollar a few years later," the study's authors wrote.

"We also find that even if some of these countries do not join, a continuation of the recent depreciation trend of the dollar -- were it to occur for whatever reason -- could bring about the tipping point even sooner."

The study, written by Harvard University's Jeffrey Frankel and Menzie Chinn of the University of Wisconsin at Madison, said euro setbacks this year -- from sluggish growth and the rejection of the EU constitution -- were unlikely to delay for long the prospect of continued deficit-driven dollar losses in future.

"Our results suggest that such dollar depreciation would be no free lunch, and could have profound consequences for the functioning of the international monetary system," it said.

Debate resurfaced over the past year about the effects of rising U.S. international indebtedness on the dollar's prized reserve currency status, where the United States has a major advantage of borrowing from the rest of the world in its own currency.

The U.S. current account deficit has ballooned in recent years to about 6 percent of GDP and its outstanding stock of debts to the rest of the world has risen to 20 percent of GDP.

As world central bank reserves, particularly from Asia, have rocketed over the past three years as downward pressure on the dollar has mounted, speculation has grown that central banks may soon wish to diversify away from dollars.

Most economists reckon the euro is one of few sufficiently large and liquid alternative currencies.

The most recent data shows about 64 percent of the $3.81 trillion of world currency reserves are held in dollars and 20 percent in euros. But signs of diversification are mounting.
On July 21, China -- with the second biggest reserves hoard in the world at $711 billion -- changed its yuan target regime from a fixed dollar peg to one shadowing a basket of currencies.

On August 1, Russia -- with $114 billion of foreign currency reserves -- said it raised the share of euros in its day-to-day currency target basket to 35 percent from 30 percent and cut the dollar proportion to 65 percent from 70 percent.

There is also widespread speculation that Saudi Arabia -- with $112 billion of foreign reserves - may also change its strict dollar peg for a wider target basket.

The NBER study looked at several decades of reserve holding shifts, including the period when the dollar supplanted sterling as the dominant currency. It identified key determinants of these shifts and scenarios for the future.

"The euro gains overwhelming dominance in the instance where the UK joins the euro area and rapid (dollar) depreciation persists indefinitely," the study said.

"In this combination, the switchover occurs in 2020 and eventually the euro accounts for more than 80 percent of combined dollar and euro holdings."