(Bloomberg) -- When Group of 20 finance ministers this week urged the Federal Reserve to “minimize negative spillovers” from potential interest-rate increases, they omitted a key figure: $9 trillion.

That’s the amount owed in dollars by non-bank borrowers outside the U.S., up 50 percent since the financial crisis, according to the Bank for International Settlements. Should the Fed raise interest rates as anticipated this year for the first time since 2006, higher borrowing costs for companies and governments, along with a stronger greenback, may add risks to an already-weak global recovery.

The dollar debt is just one example of how the Fed’s tightening would ripple through the world economy. From the housing markets in Canada and Hong Kong to capital flows into and out of China and Turkey, the question isn’t whether there will be spillovers -- it’s how big they will be, and where they will hit the hardest.

“Liquidity conditions globally will start to tighten,” said Paul Sheard, chief global economist at Standard & Poor’s in New York. “Emerging markets won’t be the only game in town. You will have a U.S. economy that is growing more strongly and also offering rising interest rates and a return on capital that is starting to vie for new investment opportunities around the world.”

The broad trade-weighted dollar has strengthened 12.3 percent since June, and it’s forecast to advance further as the Fed tightens while the European Central Bank starts buying sovereign debt and Japan extends record stimulus. The stronger greenback will be the main channel through which the rest of the world feels the effects of a tighter Fed policy, according to Joseph Lupton, a senior global economist at JPMorgan Chase & Co. in New York.

Volatile Moves
“For the developed economies like Europe and Japan, I think it’s a positive -- it’s getting their currency down and it’s supporting their economies,” said Lupton, who previously worked as a Fed economist. “For the emerging markets, it’s a little bit different, because this could set off a chain of very rapid, volatile moves downward in currencies that have inflation implications which are not as desirable.”

The MSCI Emerging Markets Index of stocks has fallen about 1 percent since Feb. 5, the day before a report showed U.S. payrolls rose more than anticipated in January, adding to speculation that the Fed will raise interest rates as early as June.

Most central bank officials are forecasting that they will raise the benchmark federal funds rate this year from near zero, where it’s been since December 2008. The probability of a Fed liftoff by June, based on trading in futures and options, was about 23 percent on Thursday, with the odds of an increase by September at 56 percent, data compiled by Bloomberg show.

Local Rates

A study on dollar-denominated debt by the BIS in Basel, Switzerland, found that overseas borrowers increased issuance of dollar liabilities more in countries where interest rates were higher than U.S. yields. With American yields at historic lows for much of the last several years, the differentials provided a strong incentive to borrow in dollars instead of local currencies.

China accounts for the biggest share of borrowings, amounting to $1.1 trillion, while the stock of dollar credit in Brazil totals more than $300 billion, according to the BIS report.

As U.S. interest rates go up, it would become more expensive to borrow dollars. A stronger greenback means a company or government needs even more local currency to repay debt if it lacks revenues in dollars.

‘New Reality’

The expected increase in U.S. interest rates makes the dollar-denominated debt of emerging markets “a source of concern,” World Bank Managing Director Sri Mulyani Indrawati said Tuesday. Developing nations “are going to have to face this new reality” of higher rates, Indrawati, a former Indonesian finance minister, said in an interview with Bloomberg Television.

Fed tightening could be especially problematic for China, where policymakers are already battling capital outflows and may exacerbate them with
easing measures, resulting in a “circular trap,” said Manik Narain, a currency strategist at UBS AG in London.

The U.S. central bank should take into consideration the global impact of any interest-rate decision, China Vice Finance Minister Zhu Guangyao said at the G-20 meeting this week.

In another example, Turkey is likely to see a “more mixed” environment for capital flows in part because of the Fed’s rate increases, which could reduce flows to emerging markets, the International Monetary Fund said in a December report. Turkey’s net inflows amounted to about 9 percent of gross domestic product in 2013, according to the fund.

Commodity Prices

Developed markets aren’t necessarily immune, especially those such as Canada and Australia, which rely heavily on exports of oil, iron ore and other commodities. Prices of those goods, which are denominated in dollars, have fallen as the greenback has strengthened and demand has weakened.

The effects can be seen in Canada, where central bank Governor Stephen Poloz said this week that rising U.S. interest rates could have an additional tightening effect, with a separate IMF report in January saying an overvalued housing market may cool.

Hong Kong, which has fixed its currency to the U.S. dollar since 1983, typically raises borrowing costs in tandem with the Fed. Property prices in the city may fall as much as 20 percent this year because of a weaker rental outlook and the potential for interest-rate increases, according to a December report from investment bank Bocom International Holdings Co.

Previous Cycle

From 2004 to 2006, the Fed raised its benchmark interest rate from 1 percent to 5.25 percent. During that stretch corporate bond yields in the U.S. surged from a then all-time low of 4.9 percent to as high as 6.9 percent in June 2006, Bank of America Merrill Lynch index data show.

The Fed’s Open Market Committee in January added “international developments” to a list of issues it takes into account to set policy, alongside domestic concerns such as inflation and the labor market.

While the global environment is unlikely to stop the Fed from raising rates initially, the level of market turmoil may influence the pace and magnitude
of subsequent moves, said Edwin Truman, a former head of the Fed’s international-finance division.

“Either it will be a non-event, which may lead to further small moves sooner rather than later, or if it’s a big event, they will just sit on their hands,” said Truman, who is now a senior fellow at the Peterson Institute for International Economics in Washington.

To contact the reporter on this story: Matthew Boesler in New York atmboesler1@bloomberg.net

To contact the editors responsible for this story: Chris Wellisz at cwellisz@bloomberg.netScott Lanman