



JEC REPUBLICANS

JANUARY 21, 2016

Economic Context of Recent Stock Market Volatility

As of January 20, the major U.S. stock market indices were down between just over 9 percent (DOW Jones Industrial Average, S&P 500) and nearly 11 percent (NASDAQ) since the beginning of the year, with large daily swings since the middle of last week. Following are some thoughts as to the reasons: decelerating economic growth in China, the falling price of oil, and Federal Reserve federal funds rate increases, all against the backdrop of slow-growing national economies around the world.

CHINA'S DECELERATING ECONOMIC GROWTH

The Chinese economy, long generating double-digit growth rates, grew 7.3 percent in 2014 and only 6.9 percent last year, its lowest rate of growth since 1990 according to official data released January 19th. Steel production and power generation contracted for the first time in at least a quarter century.

Overcapacity and currency devaluation. The most immediate concerns relating to China are two-fold:

- 1) Overcapacity—for example, empty building space—is dampening industrial production and is reducing demand for raw material imports from countries that rely heavily on revenue from exporting them.¹ China's industrialization had led the commodities boom and many developing countries became suppliers to its industry. Now they must adjust to lower commodities prices, which slows their economic growth and, in turn, lowers their own demand for imports. Lower export earnings also may cause problems servicing external debt.
- 2) China pegs its currency, the yuan, to the dollar, but lowered the peg last August. Yuan devaluation makes China's goods less expensive in terms of other currencies, thus helping China to export and tending to reduce its imports from the rest of the world. China had very much wanted the International Monetary Fund (IMF) to add the yuan to its Special Drawing Rights (SDR) basket of major currencies, which it did at the end of November 2015.² Leading up to that decision, China had reason not to lower the exchange value of the yuan too much, but that motivation is now lessened and there is concern over competitive devaluations going forward.

¹ IMF Country Report No. 15/234, "People's Republic of China," International Monetary Fund (IMF), August 2015. Oversupply in the housing market, for example, has become visible in most cities since 2014. Especially smaller cities, which account for over half of real estate investment, average unsold inventory of around three years of sales (pp. 9, 10, 36).

² Yuan is the unit of the Chinese currency, the renminbi. The SDR basket includes the U.S. dollar, the euro, the British pound sterling, the Japanese yen, and now the yuan. Inclusion in the basket suggests wide international acceptance and use as a sound and relatively stable currency. The SDR's most important function is as a mechanism for the IMF to conduct transfers from governments of countries with international currency reserves to spare to those that face difficulty servicing their foreign debt. For further information see, "Special Drawing Right (SDR)," Factsheet, IMF, November 2015.

The direct effect on the U.S. economy of China's economic deceleration is small, as only seven percent of U.S. exports (less than one percent of GDP) go to China and U.S. bank exposure is only about \$100 billion.³ However, there is also an indirect effect through other countries that depend on exports of raw materials to China and whose demand for American goods in turn may be reduced. China's dampened demand for crude oil also has contributed to the decline in the price of oil, which adversely affects U.S. oil producers. The indirect effects on the American economy are more difficult to assess.

Furthermore, China's market economy is still in an early phase of development with institutions that are still gaining experience and whose actions are not entirely predictable. Uncertainty remains as to how China's government will manage the various infirmities in its economy and the implications for the yuan's exchange value, capital flows, business regulations, foreign trade, and nonmarket policies such as China's military posture in the South China Sea.

In short, China's economic slow-down has uncertain market and policy effects that contribute to stock market volatility.

THE FALLING PRICE OF CRUDE OIL

The oil price, the economy, and the financial sector. The falling oil price is positive for consumers and negative for oil producers, which, since the shale oil fracking boom vastly expanded U.S. production, makes its effect somewhat ambiguous for the economy in the short run.⁴ Over the long run, the lower oil price is good for the American economy and oil-consuming economies everywhere, but having to reallocate resources is costly in the short run. In some states, energy production and other mining is a substantial share of GDP, in the order of 10 to 35 percent.⁵ Where large shale development occurred, such as in North Dakota, it became a substantial contributor to GDP growth. Cuts in oil industry capital investment and employment are a drag on GDP, although nationally, mining in total usually has accounted only for between 2 and 3 percent of GDP (recently, it has fallen below 2 percent).⁶ However, oil companies can have a significant impact on the stock market. Two of the biggest oil companies in the world, Exxon and Chevron, are part of the 30-member Dow Jones Industrial Average. Of the 20 biggest share price losers in the S&P 500 this year, 13 are energy companies.⁷ Meanwhile, consumer spending as a result of falling gasoline prices has risen less than in the past, perhaps due to lingering consumer debt burdens and continued job market weakness.

Very low interest rates may have encouraged excessive borrowing by shale oil and gas companies through issuance of so-called high yield or junk bonds, posing financial risk if the unanticipated low oil price should depress oil revenues enough to cause widespread defaults. Particularly in connection with the Federal Reserve raising interest rates, some analysts are expressing unease about possible financial fallout akin to that from home mortgage defaults in the last financial crisis (though not of the same scale).⁸ A falling oil price thus can be unsettling to the stock market in the near term.

³ See, "Strategic Economic Insights: The Great Wall of Worry," Wells Fargo, January 12, 2016.

⁴ The combination of fracking with horizontal drilling is remarkably successful in natural gas production as well. The average annual spot price of domestic natural gas in 2015 was at the lowest level since 1999.

⁵ See, <http://www.eia.gov/todayinenergy/detail.cfm?id=17451>.

⁶ See, <https://research.stlouisfed.org/fred2/series/VAPGDPM>.

⁷ Quote from NBC News at <http://www.nbcnews.com/business/markets/cheap-oil-good-consumers-so-why-it-slamming-stocks-n500696>.

⁸ See, for example, "Default danger for U.S. high yield in 2016," Jenny Cosgrave, CNBC, December 23, 2015; "The Fed's Great Miscalculation," Desmond Lachman, e21, The Manhattan Institute, January 15, 2016, which estimates the U.S. shale oil industry loan market at \$200 billion; and "Big banks brace for oil loans to implode," Matt Egan, CNN Money, January 18, 2016.

Why the price of oil is falling.

- 1) The fracking revolution in the United States has fundamentally changed the global oil market. For the first time in decades, there is a substantial source of incremental supply outside of the Organization of Petroleum Exporting Countries (OPEC) that expanded quickly at costs far below the \$100 per barrel price that had prevailed and do not threaten to cause a recession. As the oil price fell, technical improvements continued to cause a decrease in shale oil production costs, making the U.S. production rate surprisingly resilient.
- 2) China's demand has slowed, as has demand from all the other slow-growing economies that otherwise might absorb more of the incremental U.S. supply. To the extent stock traders interpret an oil price decline as reflecting weakening demand and infer that economic growth is slowing, stock prices tend to go down. However, different forces are acting on demand and supply simultaneously, and it can be difficult to discern the reasons for, and implications of, oil price movements, which contribute to stock price volatility.
- 3) The international boycott of Iranian oil has come to an end, and it is unclear how much additional supply will enter the world market as a result. (The longstanding U.S. boycott remains in effect.) Saudi Arabia has been increasing its rate of production in the face of a falling oil price because it wants to maintain its market share and contain the shares of both the United States and Iran.

Iran is an OPEC member, but there are heightened political tensions which extend to indirect military conflict in Yemen between Sunni-led Saudi Arabia and Shia-led Iran. Saudi Arabia not only wants to maintain its crude oil market share, it also wants to limit Iran's new revenue source. Saudi Arabia seems determined to maintain downward pressure on the oil price, even though its economy is oil revenue-dependent, and it forgoes much revenue by doing so. Reports of a possible IPO by Saudi Aramco, the national oil company, suggest an interest in raising revenue, in effect, by selling off some of the future oil revenue stream.⁹

There is uncertainty over Saudi Arabia's oil price objective and what the effect of a still lower price would be on U.S. shale oil producers.

FEDERAL RESERVE POLICY

Higher interest rates and a stronger dollar constitute risks and headwinds to economic growth.

Higher interest rates. The Fed's Federal Open Market Committee establishes the target rate for trading in the federal funds market, which it raised by ¼ point in December. More importantly, the Fed has announced its intention to slowly raise the rate this year. The federal funds rate is an interest rate, at which depository institutions lend balances to each other overnight, and it affects the interest rates, at which they in turn lend money. The most immediate effects are:

- 1) Asset prices that are sustained by ultralow interest rates fall, but it is uncertain how much. The Fed's near zero interest rate policy accepted the risks of asset bubbles and future inflation in the hope of stimulating economic growth that would eventually underpin the artificially boosted prices. But

⁹ All major oil-exporting countries have a difficult adjustment to make from the era of \$100 per barrel oil to a much lower price, whatever short-run market strategy they might prefer. Point (1) above acts to limit how high the price can rise in the future even with strong economic and oil demand growth. (Canadian oil sands and the opening of the Mexican oil sector to foreign investment represent additional sources of non-OPEC supply that over the longer term also can mitigate a rise in the oil price.)

because economic growth has been very slow, the prices of many assets may still be propped up by ultralow interest rates and will lose value as rates rise. The Fed is hoping that economic growth has caught up sufficiently, or is catching up, to support the valuations, thus avoiding a steep drop in assets prices, but critics say the overvaluation is large and will only get worse the longer it waits to raise rates. The extent of the asset price declines is unclear, as is the Fed's determination to follow through with rate increases. The resulting uncertainty causes stock market volatility.¹⁰

- 2) The dollar strengthens against other currencies and tends to lower foreign demand for U.S. exports. This has occurred already as the Fed, long before December, signaled its intent to raise rates while Europe's and Japan's central banks lowered theirs and engaged in quantitative easing. Internationally mobile short-term capital moves in response even to small interest rate differentials, and in this case, entails exchanging euro- for dollar-denominated assets, for example. The increased demand for the dollar raises its value relative to the euro, which makes U.S. goods and services less price competitive with customers who have to exchange euros for dollars to pay for them. Indeed, the U.S. manufacturing industry is experiencing a decline in factory orders as it faces less demand from abroad.¹¹

While the dollar-euro exchange rate has been stable around \$1.08 to \$1.09 per euro (it had strengthened from rates above \$1.30 per euro), the dollar could go higher as U.S. interest rates rise. That also could lead to devaluation of other currencies pegged to the dollar, notably the yuan. China may decide to lower its peg again. In addition, some countries with substantial dollar denominated external debt could face payment difficulties as the dollar rises in value against their home currencies.

Fed policy also is intertwined with the oil price and the exchange value of the dollar via domestic inflation/deflation. Among the Fed's motivations is reaching its inflation target of 2 percent.¹² Actual inflation, which has been very low, is closer to that target if one discounts as temporary the drop in oil prices and the strengthening of the dollar (which makes foreign goods cheaper in the United States). Inflation moving up toward the target supports raising interest rates. In support of raising rates, Fed Vice Chair Stanley Fischer recently stated that, "our estimate of taking account of the exchange rate and the price of oil and food is that we'd be at about 1.4 percent [inflation] now, which is a heck of a lot closer to 2 than is almost zero."¹³ If the oil price continues to fall and/or the dollar continues to rise, that argument becomes harder to make, casting doubt on the Fed's future course.

CONCLUSION

The stock market is gyrating in response to three major developments: The significant slow-down in China's economic growth; the large decline in the price of oil, which adversely affects the expanded U.S. domestic oil

¹⁰ Martin Feldstein is among prominent economists who long have advocated raising the federal funds rate and points out that the S&P Index was 30 percent above its historical average as of January 12 ("A Federal Reserve Oblivious to Its Effect on Financial Markets," *The Wall Street Journal*, 1/13/2016). Fed Vice Chair Stanley Fischer recently expressed a fairly strong commitment to continue raising the rate this year, before the market dropped, but on January 14 St. Louis Fed President James Bullard, a voting member of the Fed's policy committee, seemed to be backing away from raising rates. The Dow rose 228 points that day. The Fed is in this position because it has been trying to increase employment with monetary policy (part of its "dual mandate") absent appropriate fiscal, tax, and regulatory policies by the Congress and the Administration.

¹¹ See, <http://bigstory.ap.org/article/5406543c992d4e549e5fbffc709537b7/us-factory-orders-dipped-02-percent-november>.

¹² The Fed is fearful of deflation, a continuing decline in the general price level that has the effect of discouraging current spending and causing financial stress as debt service and other contractual obligations remain unaffected while revenue falls.

¹³ CNBC transcript of "Federal Reserve Vice Chairman Stanley Fischer Speaks with CNBC's Steve Liesman on 'Squawk Box' Today," January 6, 2016.

production sector; and the upward trajectory of U.S. interest rates announced by the Federal Reserve. Large unknowns surround these three developments as well as uncertainty with respect to the manner in which the governments in China and Saudi Arabia, and the Federal Reserve in the United States, will react to changing conditions. Traders follow the smallest bit of news about China and the oil market, and hang on every word Fed officials utter.

There is no economic growth engine—not in the United States nor in China, nor among any of the emerging economies—that is generating strong demand for raw materials, goods and services. Investment is lagging, and hence so is employment. Central banks have made plenty of money available, but that has caused asset prices to be bid up and has not generated enough real investment. As a result, risk in the financial sector heightens when important prices drop, such as for crude oil and assets that are highly interest rate sensitive.

The tradeoff of risking asset bubbles and future inflation for accelerated economic growth with easy money does not look favorable at the moment. The Fed's accommodative policies did not result in much growth, and in its effort to move off zero interest, may find itself trapped by overvalued assets whose possible implosion threatens to set off another recession. Some observers believe the Fed may reverse its recent interest rate hike.

All the major economies—China, Japan, Europe, and unfortunately the United States as well—face structural economic challenges that monetary policy cannot overcome. As the shock of the Great Recession fades, these challenges, which vary somewhat by country, are being addressed with less vigor in Europe and in Japan, and in the United States we even seem to still be moving in the wrong direction with regard to financial, energy, environmental, labor, and health care mandates from the Obama Administration.