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What do Chinese macro announcements tell us about the world economy?

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ABSTRACT

We examine the effect of scheduled macroeconomic announcements made by China on world financial and commodity futures markets. All announcements related to Chinese manufacturing and industrial output move stock markets, energy and industrial commodities as well as commodity currencies. News about Chinese domestic consumption leaves most markets unaffected, suggesting that market participants view the announcements primarily as a signal of the state of the global economy rather than merely of China's domestic demand. The market response to unexpectedly strong output announcements is not consistent with investors being concerned about tightening of Chinese macroeconomic policy; instead, the world markets view strong Chinese output as a rising tide that lifts all boats.

1. Introduction

China's spectacular rise to the second largest economy in the last two decades brought about dramatic changes in the world economic landscape. Yet, in spite of China's prominent role in the world economy, we do not know much about how macroeconomic news from China affects the world financial

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and commodity markets.[1] The only systematic study is a qualitative description of China's economic indicators by Orlik (2011b).[2] We use intraday financial and commodity futures markets data from September 30, 2009 to December 31, 2013 to show that Chinese macroeconomic announcements wield substantial influence over the world markets compared to similar announcements from the U.S. and Japan.

Understanding how Chinese macroeconomic announcements affect asset prices is useful not only for market participants but also for central banks with staff monitoring the world markets to gauge investor views of macroeconomic conditions. For example, our results show that all three announcements related to Chinese manufacturing and industrial output – purchasing manager index (PMI), industrial production (INP) and real gross domestic product (GDP) – move the world stock indices, foreign exchange as well as energy and industrial commodities. On the contrary, news about Chinese domestic consumption measured by Chinese retail sales leaves most markets unaffected. This suggests that the world markets view China's economic news primarily as a barometer of the world economy rather than merely an indicator of China's domestic demand.

The direction of the market moves also conveys useful information because the market reaction could differ depending on the state of the economy. A positive surprise about Chinese output may drive stock markets up because strong Chinese output will translate into profits for companies in the rest of the world, reflecting global integration in industries such as electronics, where increased production in China not only benefits the Chinese manufacturers but also increases sales of multinational companies.[3] However, a positive surprise may also drive the markets down. The recent global financial crisis brought about a slowdown of the Chinese economy, contributing to GDP growth rate falling from 14.2 percent in 2007 to 9.6 percent in 2008.[4] The Chinese government responded by stimulatory fiscal, monetary and other policies, leading to expansion in investment, credit and real estate sector. While these policies successfully mitigated the shock to the external demand, they also created concerns about an overheating economy, deterioration of credit quality, and overinvestment in the real estate sector (International Monetary Fund Article IV Reports, 2010, 2014). It is, therefore, possible that a positive surprise about Chinese output will drive stock markets down in expectations of tighter macroeconomic policies. In our data, a positive surprise about Chinese output boosts the world stock indices, energy and industrial commodities as well as currencies of commodity exporters (Australia, New Zealand and Canada), suggesting that concerns about policy tightening do not prevail. This stands in contrast to Andersen et al. (2007) finding that stock market reaction to the U.S. macroeconomic announcements differs across the business cycle, with positive surprises causing a negative response in expansions but a positive response in contractions.[5]

Our findings also add to the literature on the transmission of information across global financial markets. An extensive branch of this literature uses macroeconomic announcements as a proxy for information, and several studies, including Wongswan (2006) and Hausman and Wongswan (2011), have shown that U.S. macroeconomic news moves emerging markets. Our study is the first one to show the transmission in the opposite direction: from macroeconomic announcements in an emerging economy to the world markets. This finding is novel because shocks from emerging economies usually come into the spotlight only in times of crisis. For example, Kaminsky and Reinhart (2000) examine

[1] Previous studies have focused on announcements from developed countries. For example, Andersen et al. (2007), Bauwens et al. (2005), and Hashimoto and Ito (2010) study how markets in developed countries move following U.S., European and Japanese macroeconomic announcements, respectively.

[2] De Pooter et al. (2014) use a set of six Chinese macro announcements (Consumer Price Index (CPI), GDP, Industrial Production (INP), PMI, Retail Sales and Trade Balance) to study inflation expectation anchoring for Brazil, Chile and Mexico. Using daily data, they conclude that Chinese announcements have no effect on one-year nominal rate in these countries. One-year far-forward inflation compensation is affected only by two announcements (GDP and INP) in one country (Brazil), which the authors attribute to possible statistical noise because the coefficients on these two announcements show opposite signs.

[3] The rising integration of the global economy, where intermediate goods often cross borders multiple times during the manufacturing process, is described by Feenstra (1998). Samuelson (2004) is another seminal study that discusses potential effects that globalization may have on world economies.

[4] World Bank database.

[5] Andersen et al. (2007) argue that in expansions the discount factor component of the equity valuation prevails compared to the cash flow component due to anti-inflationary monetary policies.