# Overview of the Evolution of China's Central Bank and Monetary Policy: Correlation to the European Union

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## Correlation to the European Union

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## Abstract

As an innovator in the financial system, China was the first to use paper currency. Eventually the form of currency was held responsible for devastating inflation and was abandoned during the Ming Dynasty. Going forward in time, uprisings and discontent have emphasized the importance of controlling inflation. The central bank is pivotal in issuing monetary policy to control inflation and to maintain financial stability as the government transforms itself from a planned economy to a mixed market economy. The transforming economy is moving toward a free market system through series of economic reforms. The correlation between China's structure and the European Union's structure provides opportunities for further study to determine next steps for both.


## Introduction

To understand the undercurrents encountered in the transformation of the Chinese government and economy through economic reforms, it is important to know some of the country's history revolving around its currency and central banking. From a historical point of reference, the impact of the government on China's economic policy can be more clearly understood when deliberated in the 2nd and 3rd sections of this paper. In the 4th section, Crowe and Meade's (2007) study highlights the need for increased transparency in China's central banking and economic policy. China has responded by increasing its communication both through the central bank as well as through the country's leadership. The 5th section approaches the concept of how improved transparency is increasing efficiency in adjusting monetary policy to provide financial stability and to control inflation. In the concluding remarks, the importance of financial stability is supported, and the similarity of the regional sub-national governments' autonomy to the European Union is approached as the basis for a sharing alliance to learn and improve on current policy models and tools.

## History of Central Banking

Money has universal importance in the conduct of commerce and trade. Universally accepted forms of value are required for the conduct of trade across borders, requiring the establishment of international standards developed through the centuries.

To appreciate the importance of the role of central banking in China's economy, the evolution of this section of the financial system should be understood. Crowe and Meade

(2007) quote the words Walter Bagehot wrote in his book Lombard Street ([1873] 1915); "Putting new wine into old bottles is safe only when you watch the condition of the bottle, and adapt its structure most carefully." Bagehot's words were in reference to the evolution and the adaptation of central banks to their role in regulating economies.

China was an innovator in the evolution of paper currency. Hvistendahl (2009) writes that paper currency was implemented twice in China. The first was during the Tang Dynasty which spanned the years 618 to 907 C.E. The second was during the following Song Dynasty after the invention of paper, ink and block printing in China. The desirability of paper currency was its light weight as compared to the commodity metal money, most commonly in the form of copper coins. However, The British Museum (2011) informs of how the paper currency was held responsible for devastating inflation during the next dynasty, which was the Ming Dynasty. Peasants lost as much as 70 percent of their purchasing power. Paper currency was removed from circulation around the year 1425 (Fairbank & Goldman, 2006). The Qing Dynasty reissued paper currency during the 1850s.

By this time, central banking had become institutionalized in parts of Europe. Crowe and Meade (2007) document that the oldest central bank, Sveriges Riksbank of Sweden, was founded in 1668 and continues to operate today. The Bank of England central bank began operating shortly thereafter, in 1694.

In 1912, the Republic of China (ROC) was first established on mainland China (Lam, 2000). Dr. Sun Yat-sen established the Bank of China (BOC) from the Qing Dynasty Da Qing Bank in 1912 and gave it the authority to act as China's central bank (Bank of China, 2011). In 1928, the BOC was changed into a government chartered international exchange bank. The article "Chinese Banking: A Primer on the Market" (2010) further chronicles the transformation of banking in China after the civil war. In 1949, the People's Republic of China was formed by the communist government, and China operated a "mono-bank model" in which the People's Bank of China (PBOC) was the nationalized banking system. The PBOC did not conduct commercial banking in that it did not lend to individuals, although it would accept deposits. The bank's purpose was to finance state-owned enterprises (SOE), control monetary policy, accept customer deposits, and address foreign exchange needs. Even though the PBOC was performing the role of central bank for mainland China from its establishment in 1949, it was not until the year 1983 that it was officially designated as China's central bank.

China has made rapid progress since the beginning of the economic reforms implemented by Deng Xiaoping in the late 1970s. The reforms began the transformation of China from a country in which many of its citizens lived in poverty to a country that is now the 2nd largest economy in the world, reported by the BBC (British Broadcasting Corporation, 2011). With its current rate of growth, China is expected to overtake the United States as the world's largest economy by approximately the year 2020. The other side of the stellar growth is that once again inflation may become a focus of concern.

## China's Government and Its Impact on the Economy

China has experienced government changes that have greatly influenced its economy. After approximately 2000 years of imperial rule by various dynasties, the country transformed into a socialistic society formed through its communist government. Xu (2010) describes the country's current institution as a "regionally decentralized authoritarian (RDA) system." China's central party and its sub-national governments are similar to the structure of the European Union (EU) and its member countries. From an international perspective, the central government may be the most commonly recognized part of the governmental structure; however, the regional sub-national governments are responsible for the greater part of the economy. They "initiate, negotiate, implement, divert and resist reforms, policies, rules and laws." These sub-national governments consist of 4 levels; the provincial level, the municipal (or prefecture) level, the county level, and the township level.

The current RDA regime structure, as written by Xu, partially originated from the governance structure established during the 2000 years of imperial rule. The RDA regime began evolving before, and continued during and after Mao's rule and the establishment of communism. Disillusionment with communist ideologies began with the Great Leap Forward (GLF) in the late 1950s, and became widespread with the Cultural Revolution in the late 1960s. The sentiments of the revolution permitted Deng Xiaoping's government to begin the economic reforms that have led to China's great prosperity and economic growth.

Xu continues with an analysis of China's reform of the late 1970s and how the economy has continued to develop. The economic reform has been shaped by regional decentralization. China's general economy is fractionalized into regional economies that are relatively autonomous. What was a centrally-planned economy that began with the country's civil war has transitioned to a mixed-market economy.

Competition between sub-national governments is used to achieve higher growth rates. The individual regional governments are generally responsible for innovating and implementing regional reforms, public services, and the development and enforcement of regional laws. The leader of the region that wins the competition is rewarded with increased power and a greater possibility of promotion.

Demonstrating the autonomous power of China's decentralized although authoritarian rule, Wong (2006) compares percentages of fiscal spending by the sub-national governments to a few of the world's largest democratic governments. In the early 2000s, China's sub-national governments were responsible for approximately 70 percent of the country's fiscal spending.

By comparison, the local governments of other federally governed countries were responsible for percentages of fiscal spending in the following order: approximately 46 percent in the United States, 40 percent in Germany, and 38 percent in Russia. These ratios are important to note in relevance to the discussion regarding local financing taking place later in this paper.

Xu (2010) highlights the autonomy granted by the central government to the sub-national governments. They compete regionally while independently developing and implementing reform policies. Due to their immediate proximity, the sub-national governments are more informed about local conditions. The decentralized structure increases effectiveness in implementing the strategies determined by the central government through the reform policies of the sub-national governments.

The argument is made by Xu that the decentralized structure has important implications for China's economy. The first point is that the regional coordination of economic policies diminishes external shocks to the general economy. The objective is to decrease the magnitude of impact that would occur if coordination were done on a national level.

Xu's point is important to China's opening of its financial system to international markets. The financial system has been susceptible to failure by external shocks as demonstrated by the rate of inflation and the subsequent closing of international trade by the Ming Dynasty. This point is inspiring debate over moving the current economy from an export-based economy to supporting more consumption which means a decrease in the savings rate (Yang, Zhang, Zhou, 2011). The savings rate is important to the discussion regarding local financing taking place later in this section.

Xu's (2010) second point has to do with the politics of effecting reform. It is more likely to be accepted when coordinated on a local level. Resistance and political opposition to reform can be diminished through local coordination, maintaining government and economic stability.

Decentralizing is a process. As China continues to transform, it is becoming more similar to the European Union in financing structure. For both China and Europe, banks are the main source of financing, accounting for 51 percent in Europe. Banks provide less than one-fifth of total financing in the United States at 18 percent through the years 2005-2009 (European Central Bank, 2011). Private bond financing accounted for almost half of the US total financing through the same time period. In contrast, China's central party has prohibited municipal bond financing.

Even so, China allows for greater assumption and accumulation of risk by the sub-national governments through state owned enterprises (SOE) and urban development investment corporations (UDIC). This risk may not be in the best interest of the region's citizens. Barboza (2011) writes of the hidden sub-national government debt that could threaten the growth of the country's economy for many years or perhaps decades. China's national auditor recently reported on this economic peril to the cabinet.

Barboza continues by providing more details. To circumvent the Central Party's rules that do not allow sub-national governments to take on debt, the regional governments have used other accepted methods to push the debt off the regions' financial balance sheets. When SOEs and urban development investment corporations (UDICs) borrow to invest in infrastructure for a region, the debt is not captured on the regions' official financial balance sheet. Barboza uses the numbers given by Zhang Dong, a sub-national government advisor, to emphasize the importance of the "off-the-book financing." As an example, Dong estimates that less than 5 percent of infrastructure spending by the Wuhan region comes from the general budget.

Barboza documents fixed-asset spending to be nearly 70 percent of China's gross domestic product. This ratio is higher than all other large nations. By comparison, at the peak of its building expansion in the 1980s, Japan's ratio reached 35 percent, and for decades the United States' ratio has been around 20 percent.

As a counterbalance to the hidden debt, Barboza says analysts point to the liquidity created by the $3 trillion of foreign exchange reserves and the large amount of household savings on deposit from the country's 1.3 billion citizens. Consequently, analysts do not think China is in danger of an imminent banking crisis that could collapse its economy. However, an important point to consider is how the developing economic policy of decreasing the citizens' savings rate to increase consumption analyzed by Yang, et al. (2011) could potentially weaken the liquidity that is a counterbalance to the veiled debt.

"Set for Inflation Surge" (2010) highlights the concern of overleveraging becoming non-performing loans (NPLs). What is missing from the west's democratic government and free market economy that is present in China's centralized government and planned economy for NPLs is how monetary policy and fiscal policy can be merged into one policy. If a loan becomes non-performing in the west, it has the potential of becoming a toxic asset and remains on the bank's balance sheet. If a loan becomes non-performing in China, the government absorbs it into its fiscal budget. However, this is equivalent to becoming expansionary policy, which is not desirable during periods of high inflation.

The objective of the sub-national governments for increasing financed investment through SOEs and UDICs is to increase growth. "Set for Inflation Surge" (2010) makes the point that what can potentially occur are asset bubbles instead of growth. In 2009 and early 2010, UDICs used a large amount of financed investment to support the flourishing growth in infrastructure, providing fuel for the asset bubble in real estate.

A method the central government is employing to control asset bubbles is the adjustment of monetary policy issued through the PBOC (2011). It can be concluded that the difficulty in accurately analyzing the general economy for the adjustment in monetary policy is that regional loans not shown on regional financial balance sheets will not have the necessary impact in determining policy formed from analysis of the numbers. The central government cannot accurately strategize how to address issues such as overheating of the economy by too much investment. Consequently, the result can be too much inflation.

## China's Economic Policies

China's National People's Congress of the central party has approved the country's 12th 5 year plan. The plan is for the years 2011 through 2015. The World Bank Group (2011) has included the five main objectives of the plan and they are quoted in the following:

1. Maintaining stable and fast economic growth, with a focus on price stabilization, more job creation, improved balance of payment, and higher quality of growth.

2. Achieving major progress in economic restructuring, with higher share of household consumption and the service sector, further urbanization, more balanced rural-urban development, lower energy intensity and carbon emissions, and better environment.

3. Increasing people's incomes, reducing poverty and improving the living standards and quality of life.

4. Expanding access to basic public services, increasing the educational level of the population, developing a sound legal system, and ensuring a stable and harmonious society.

5. Deepening the reforms in the fiscal, financial, pricing and other key sectors, changing the role of the state, improving governance and efficiency, and further integrating into the world economy.

The first two points and the last point are all directly related to economic policies. In its function as China's central bank, the PBOC (2011) has defined the monetary policy. The objective is directly related to the first point in the 5 year plan and is quoted as follows, *"The objective of the monetary policy is to maintain the stability of the value of the currency and thereby promote economic growth."* It is clear the role of the central bank in issuing monetary policy is to control inflation and maintain financial stability.

Crowe and Meade (2007) researched the transparency of central banks around the world. Their belief is that transparency improves the effectiveness of monetary policy. To increase effectiveness, the central banks should communicate their objectives, the methods used for making decisions, and the actual decisions. The following table shows an analysis performed on central banks around the world, including China's.

Table 1

Transparency Measure

| *Category of Transparency* | *Questions* | *Coding* |
|---|---|---|
| (1) Political | 1.1: Is there a statutory objective? | **1:** Single objective of price stability or price stability objective does not conflict with other objectives<br>**.5:** Price stability objective potentially conflicts with other objectives<br>**0:** Objectives do not include price stability or there is no objective |
| | 1.2: Is there an explicit numerical target for prices or inflation? | **1:** Yes<br>**0:** No |
| (2) Economic | 2.1: Does the central bank publish surveys (conducted by itself or others) that could be used to estimate inflation expectations? | **1:** Yes<br>**0:** No |
| | 2.2: Does the central bank publish any forward-looking analyses such as forecasts? | **1:** Words AND numbers/figures<br>**.5:** Words OR numbers/figures<br>**0:** Neither |
| (3) Procedural | 3.1: *Does* the central bank publish minutes of policy meetings? | **1:** Yes<br>**0:** No |
| | 3.2: Does the central bank publish voting patterns of the monetary policy committee? | **1:** Yes<br>**0:** No |
| (4) Policy | 4.1: Does the central bank publish explanations on the same day that policy changes? | **1:** Yes<br>**0:** No |
| | 4.2: Does the central bank publish an explanation on its meeting days even when there is no change in policy? | **1:** Yes<br>**0:** No |
| (5) Operational | 5.1: Does the central bank publish discussion of risks to the outlook or forecast? | **1:** Words AND numbers/figures<br>**.5:** Words OR numbers/figures<br>**0:** Neither |
| | 5.2: Does the central bank publish discussion of shocks or forecast errors after the fact? | **1:** Yes<br>**0:** No |

*Source:* The source for question 1.1 is from the Crowe-Meade independence measure, based on 2003 law. The sources for all other questions are the websites and publications of the central banks. For some countries, information in English is provided with a delay. We did not consider the language of the information when measuring transparency. The overall transparency index is defined as an unweighted average of 5 categories; each category is an unweighted average of all subcategories. (Crowe & Meade, 2007)

Crowe and Meade's resulting year 2003 measurements of various central banks of the world included China, India, and Singapore, all with the lowest score of 0.15. The highest score in transparency was 1.0, which was earned by the United Kingdom.

Since the time of the above transparency analysis, the PBOC has taken measures to increase its effectiveness through transparency to accomplish currency stability and to promote economic growth. The PBOC web site (2011) defines the objective of the monetary policy as written above. It also defines the tools used to adjust monetary policy as the "reserve requirement ratio, central bank base interest rate, rediscounting, central bank lending, open market operation and other policy instruments specified by the State Council."

The PBOC web site (2011) goes further into transparency. Information is provided regarding the Monetary Policy Committee that has a pivotal role in the formation of monetary policy. Article 12 of the Law of the People's Republic of China mandates the PBOC establish a monetary policy committee to be directed by the State Council that will file reports with the Standing Committee of the National People's Congress. "The Monetary Policy Committee shall play an important role in macroeconomic management and in the making and adjustment of monetary policy. Rules on Monetary Policy Committee of the People's Bank of China stipulates that the Monetary Policy Committee is a consultative body for the making of monetary policy by the PBC, whose responsibility is to advise on the formulation and adjustment of monetary policy and policy targets for a certain period, application of monetary policy instrument, major monetary policy measures and the coordination between monetary policy and other macroeconomic policies. The Committee plays its advisory role on the basis of comprehensive research on macroeconomic situations and the macro targets set by the government."

Monetary policy is published in the Financial Stability reports found on the PBOC (2011) web site. The report provides information on macro-economic conditions and its management, the various financial sectors and the financial infrastructure, and analysis of the government, corporate, and household sectors, and various special topics. The Financial Stability report of 2010 includes the special topics of international financial regulatory reform, and the reform and development of the rural financial system. However, historically this report has not been published the same day on which it is generated as referenced in the 4$^{th}$ point of "Transparency Measure" (Table 1).

In addition to more transparency being shown by the PBOC, the Premier of China, Wen Jiabao has been more open in discussing economic conditions. During Wen's visit to Britain, which received the highest transparency score in Crowe and Meade's (2007) analysis, International Business Times (2011) reports that in June Premier Wen Jiabao made the statement that corruption and income disparities are harming the lives of China's people. The following quotes were in Wen's speech given while visiting the Royal Society, an institution for scientific development and promotion in London:

> "Without freedom there is no real democracy and without the guarantee of economic and political rights there is no real freedom."

> “To be frank, corruption, unfair income distribution, and other ills that harm the people’s interests still exist in China.”
>
> “The best way to resolve these problems is to firmly advance the political structural reform and socialist democracy under the rule of law.”

During a news conference with British Prime Minister David Cameron, The International Business Times continues its report with quotes from Premier Wen:

> "Tomorrow's China will be a more open and inclusive, culturally advance and harmonious society and country," Wen said at a news conference with British Prime Minister David Cameron. "A country or a nation will grow and progress only when it is open and inclusive."

The above statements were made to a general audience that in addition to being outside the forum of China’s central party, were outside the borders of China shows the willingness of China’s leadership to communicate openly about the economy of China. This additional transparency fits well with Crowe and Meade’s (2007) belief that the communication of objectives is an important component to increasing effectiveness of economic policy.

Another area of financial information that has recently attracted attention as noted above is the increase in transparency of the off-balance sheet financing that banks provide to SOEs. In the article “Beware the Middle-Income Trap” (2011), the number for public debt is officially cited as 17 percent of GDP. However, with the increased understanding of how China operates, Standard Chartered bank estimates the public debt to be approximately 80 percent of GDP. In comparison with other countries’ debts, Sanburn (2011) reports the percentage of debt to GDP for the United Kingdom is 89 percent, and 137 percent for Greece. Japan tops Sanburn’s list at 204 percent debt to GDP. Even so, China is taking measures to decrease investment in regional economies through SOEs. The objective is to use the tool of slowing growth to manage inflation.

## Inflation

Inflation has been a concern in China’s history, and it is a concern now. During the Ming Dynasty, China’s trade with the international markets was closed due to rampant inflation causing great harm to the living standards of the peasants. “Beware the Middle-Income Trap” reminds readers that 20% inflation in 1988 was the origination of the discontent leading to the Tiananmen Square protests of 1989. In 1994, inflation was even higher at above 25 percent. In May of 2011, inflation was 5.5 percent, well below historical highs; however, it is above the targeted 4 percent. Consequently, China’s government has been assertively using tools available to adjust monetary policy implemented through the PBOC central bank.

The article "Inflation" (2011) notes that the PBOC was criticized for attempting to drain liquidity out of the money system by increasing the reserve requirement ratios held by banks on January 20, 2011. The reason for the criticism was the timing of the increased requirement, which was at the beginning of the year, as well the perceived overuse of the singular tool of raising the reserves. The general consensus was that the timing was consistent with the extra demand of money for the tradition of giving cash on the Chinese New Year. With the combination of the higher reserves and the higher demand, liquidity was absorbed.

Five days after the increased requirement for bank reserves, the article "Inflation" (2011) documents how the interbank rate jumped 242 basis points on January 25th to 7.69 percent, which was a three year high. The higher amount of cash that banks were required to hold in reserve removed liquidity from the system and had the subsequent effect of increasing the rates charged. With the decreased money supply, the cost of borrowing increased in the form of increased interest charged for the overnight funds rate between banks.

Another conclusion one might draw from the timing of the increased reserve requirement ratio is that the PBOC was attempting to remove money from the system that could have otherwise been used to finance regional growth projects. The consistent pattern of the rate of growth of loans shown by Liu and Wray (2011) is markedly higher in the first half of a year. The rate typically decreases for the 2nd half of the year. This is in direct correlation to the competition Xu (2010) writes about that occurs between sub-national governments. Each regional sub-national government competes to have the highest rate of investment and growth, and they attempt to accomplish their targeted goals as early in the year as possible.

Sub-national governments cannot directly receive financing, so another vehicle for financed investment is used. Control of the SOEs was transferred from the central government to the sub-national governments during the GLF in the late 1950s, increasing their tax revenue. Many of the SOEs were dismantled in the 1990s (Rising Power, Anxious State, 2011). However, during the last decade, the remaining SOEs have a large amount of power that is persistently growing through their political and economic influence. The concern about the SOE financed growth is the result of an overheated economy that would fuel inflation.

Reviewing the numbers for loans generated during 2008 and 2009 supports the concern about overheating the economy and the result of inflation from too much investment. Liu and Wray (2011) show Chinese bank loans grew more in the 1st quarter of 2009 at RMB4.6 trillion than in all of 2008, which only grew less than RMB4 trillion for the entire year. The loan growth for all of 2009 of RMB9.59 trillion was more than double that of 2008.

Ge Zhaoqiang, a senior researcher at China Merchants Bank, is quoted in "Beware the Middle-Income Trap" as referencing China's economy as "seriously distorted." Ge warns that the high levels of investment have created a risk of an economic downturn that has been "unprecedented in the past 30 years" placing China's social and political stability at risk.

## Conclusion

China's leadership has been implementing economic reforms since the late 1970s to transform their country from a planned economy to a free market economy. The transformation is occurring at a measured pace to move from the comfort of the known centrally planned economy to a less familiar market economy. While there is support for the transformation both abroad and at home, transitioning to an unfamiliar structure can cause unrest. China's government is moving with measured steps toward the construction of a democratic society that has free markets, rather than by immediate destruction of the known planned system, which could potentially lead to chaos. The planned economy of the communist government has been a lifestyle for the country's citizens. The people of China are finding their way with these measured changes into a new lifestyle of a capitalist free market system that can be absorbed into their culture.

Controlling inflation is a key component to accomplishing China's 12th 5 year plan. Another key component is the inclusion of all local financing on the financial balance sheets of the regional governments. The decisions made with the intention of improving China's economy are only as good as the data used in the decision-making process. De-centralized sub-national governments need to do more than compete with each other to have the greatest amount of growth. They also need to have more transparency between the regions and the central government that ensures open communication and the reporting of all financial data. The increased transparency would increase effectiveness of monetary policy and the stability of economic and social conditions. A question is what will be the innovation in response to current concerns economic and social conditions? One answer might be the developing innovation in money and banking that is the use of technology to deposit money via cellphones. This banking method is currently used in rural areas of Africa and India and is making economic growth more available to citizens living outside of local bank areas.

The structure of the decentralized regional sub-national governments and the political and economic power generated through the SOEs are similar to the European Union (EU) and its member countries. The European Central Bank (ECB) issues monetary policy to be implemented by the countries in the EU. The model is similar to how the PBOC issues monetary policy to be implemented by the sub-national governments.

The sub-national regional governments are responsible for strategizing how to implement, and then for the actual implementation of policy issued through the PBOC central bank. This is similar to how the countries of the European Union (EU) are responsible for strategizing how to implement, as well as the actual implementation of monetary policy issued through the ECB.

In addition, the sub-national governments use SOEs and UDICs to achieve the policy expectations for growth by competing to meet and exceed their investment driven goals. This is a relatively flat delivery of government with the intention of increasing effectiveness of economic and social policy. The autonomy experienced by China's sub-national governments is similar to how the EU countries set their expectations for public debt. China's system provides more autonomy at 70% debt determination as compared to the example of 40% by Germany's local governments.

China's federalized system may provide a model for the EU's member countries. While the ECB has greater transparency of debt as shown by its readily accessible data on its web site, it does not have control over the fiscal policy of member countries obtaining the debt.

Considering the similarities between the EU member countries and China's sub-national governments, the two entities may be able to create alliances to increase learning, innovating, and the effectiveness of monetary policy and economic reforms.

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