



Interest Rates, Reservation Ratios, and Banking Regulations in China over a Long Run

Nicolas Dai
Olivia Sayakhom
Lian Yixi
Xie Pengpeng
Georg Talke



Summary

1. Theoretical Background
2. China's Central Bank
3. Banking Regulations
4. Recent Development of Monetary Policy

Theoretical Background: Interest Rates

- The interest rate r measures the cost of borrowing money
- Inversely related with Investment I
- Graph about interest and investment
- $r \uparrow \quad I \downarrow$
- $r \downarrow \quad I \uparrow$



Theoretical Background: Money Multiplier

- Fractional-reserve banking
- Commercial banks must keep some part of customer's deposits in an account at the central bank
 - E.g. The reserve requirement is 10%. Then for every 100€ deposit, commercial banks have to put 10€ in their account at the central bank and can use 90€ to buy other assets.

Theoretical Background: Money Multiplier

- Example: Reserve Requirement: 10%.
- John Doe One deposits 1000€ in Bank A. Bank A deposits the required reserve in the central bank and lends the remain to John Doe Two, who deposits it in Bank B and so on.

Bank A's lending out	900€	= 1000 * 0.9
Bank B's lending out	810€	= 900 * 0.9
.....
.....
<hr/>		
Total money supply	10,000€	= $\sum_{n=0}^{\infty} (1000 * 0.9^n)$






Theoretical Background: Money Multiplier

- It can be seen, 1000€ „turned“ into 10000€.
- The Money Multiplier
 - Let the Reserve ratio be R .
 - Money Multiplier $m = 1/R$
- The Money multiplier equals the total money supply, that one unit of money will create.

Theoretical Background: Money Multiplier

$$m = \frac{1}{R}$$

- Obviously, manipulating R will change m, and so the money supply.
- R  m 
- R  m 
- Changes in the money supply will affect price level.
- Reserve Requirements are an important instrument of monetary control.



Theoretical Background: Central Bank

- **Definition:** An institution designed to oversee the banking system and regulate the quantity of money in the economy.
- **Means of Monetary Control:**
 - Reserve Requirements
 - Open-market Operations
 - Discount Rate



China's Central Bank: The People's Bank of China

- The People's Bank of China is the Bank that has the more financial assets in the world
- The People's Bank was established in 1948
- First located in Shijiazhuang, Hebei
- The central bank status is legally confirmed in 1995



China's Central Bank: The People's Bank of China

- Duties
 - To define and implement the monetary policy
 - To limit or prevent from financial risks
 - To ensure the financial stability

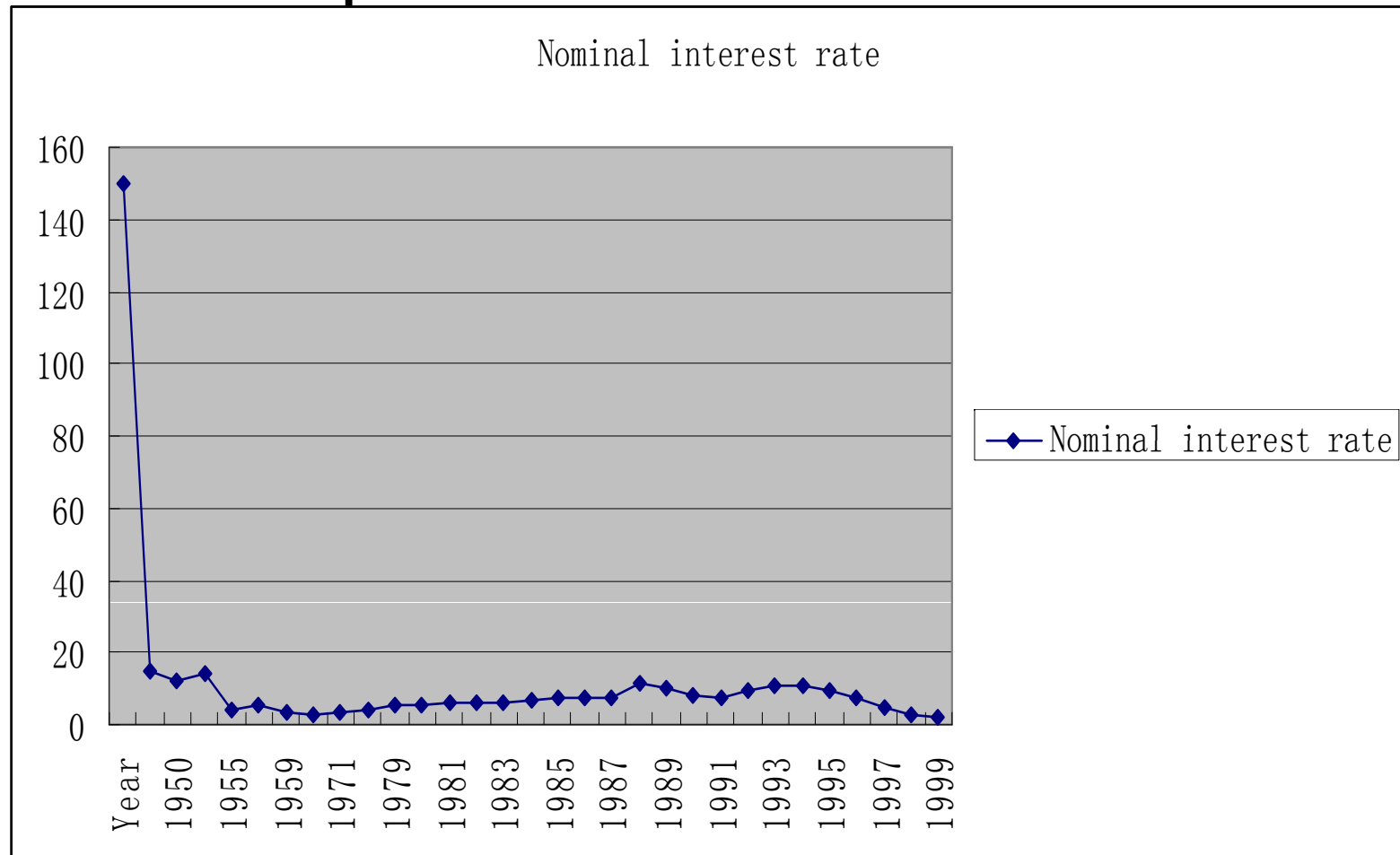


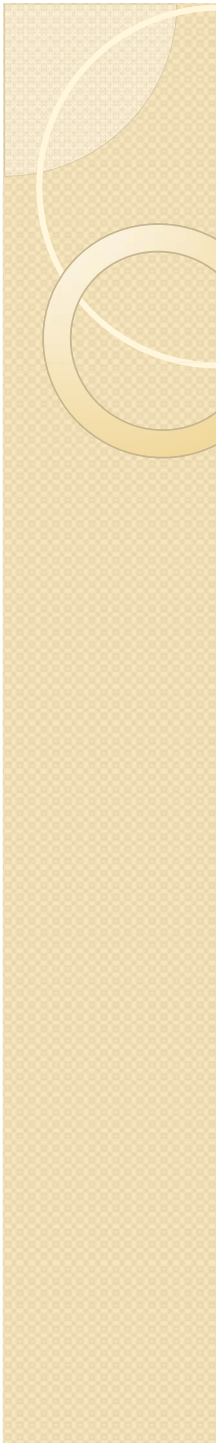
China's Central Bank: The People's Bank of China

- The money control
 - The People's Bank of China have the power to survey the activities of every financial institutions
 - The People's Bank of China implement regulations to control the activities

China's Central Bank: The People's Bank of China

- Development of interest rates

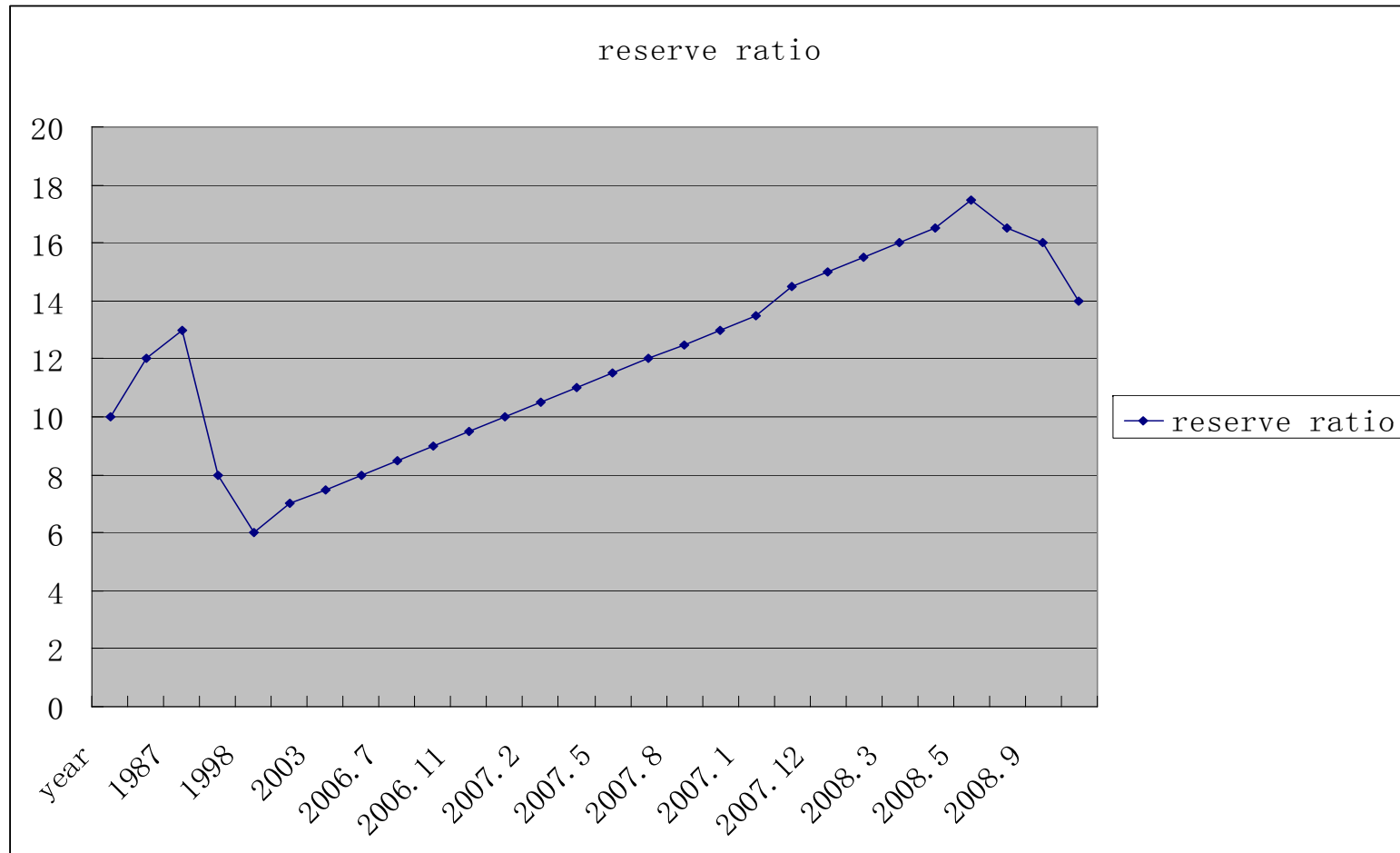






China's Central Bank: The People's Bank of China

- Development of Past reserve ratios



Banking Regulation

- There are three regulators for China's banking industry:
 - The China Banking Regulatory Commission (CBRC): Government agency that supervises financial institutions, ensuring the stability of operations and helping avoid excessive financial risk.
 - People's Bank of China (PBC): Founded in 1948 with headquarters in Beijing, the PBC is responsible for the nation's commercial and central banking.
 - State Administration of Foreign Exchange (SAFE): Responsible for data-collection, management, early-warning and analysis of the international balance of payments and foreign exchange positions in China.

CBRC

- China's banking regulatory body, the China Banking Regulatory Commission (CBRC), was established in Beijing in 2003.
- The establishment brought a halt to the dual roles that the People's Bank of China, China's central bank, had played as a financial supervisor and a currency policy-maker.



The main functions of the CBRC

- Formulate supervisory rules and regulations governing the banking institutions
- Authorize the establishment, changes, termination and business scope of the banking institutions
- Conduct on-site examination and off-site surveillance of the banking institutions, and take enforcement actions against rule-breaking behaviors
- Conduct fit-and-proper tests on the senior managerial personnel of the banking institutions
- Compile and publish statistics and reports of the overall banking industry in accordance with relevant regulations
- Provide proposals on the resolution of problem deposit-taking institutions in consultation with relevant regulatory authorities
- Responsible for the administration of the supervisory boards of the major State-owned banking institutions; and Other functions delegated by the State Council



SAFE

- SAFE, stands for State Administration of Foreign Exchange
- SAFE was established in Beijing, in 1979
- It is the 3rd institution participate in the country Banking Regulation
- The State administration of Foreign Exchange had a important role in the country Banking Regulation



Major Functions of the SAFE

- To study and propose policy suggestions on the reform of the foreign exchange administration system, prevention of the balance of payments risks, and promotion of the balance of payments equilibrium; to study and implement policy measures for the gradual advancement of the convertibility of the RMB under the capital account and the cultivation and development of the foreign exchange market; to provide suggestions and a foundation for the People's Bank of China to formulate policy on RMB exchange rate.
- To participate in the drafting of relevant laws, regulations, and departmental rules on foreign exchange administration, releasing standard documents related to the carrying out of responsibilities.
- To oversee the statistics and monitoring of the balance of payments and the external credit and debt, releasing relevant information according to regulations and undertaking related work concerning the monitoring of cross-border capital flows.



Adjustment of Monetary Policy from 2007 to 2010

- Period 1: 2007-2008.09
- Period 2: 2008.09-2009
- Period 3: 2010.01-2010.12

time	2007-2008.06	2008.07-2010.01	2010.01-
terms			
Deposit interest rate	2.79 → 3.06 → 3.33 → 3.60 → 3.87 → 4.14	3.87 → 3.60 → 2.52 → 2.25	2.25 → 2.50
Lending rate	6.39 → 6.57 → 6.84 → 7.02 → 7.29 → 7.47	7.20 → 6.93 → 6.66 → 5.58 → 5.31	5.31 → 5.56
Reserve ratio	9.5 → 17.5 (rise by 0.5 at a time)	17.5 → 15.5 (decrease by 0.5 at a time)	16.0 → 18.5 (rise by 0.5 at a time)

Period I: 2007-2008.06

- Background I: appreciation of RMB
- Expanded net exports(NX)

汇率
Exchange Rate

项目 Item	2007.01	2007.02	2007.03	2007.04	2007.05	2007.06	2007.07	2007.08	2007.09	2007.10	2007.11	2007.12
—特别提款权单位折合人民币元（期末数） Yuan per SDR（End of Period）	11.5898	11.6479	11.6801	11.7446	11.5743	11.5418	11.5970	11.5878	11.6917	11.7407	11.7669	11.5302
—美元折合人民币（期末数） Yuan per US Dollar（End of Period）	7.7776	7.7409	7.7342	7.7055	7.6506	7.6155	7.5737	7.5607	7.5108	7.4692	7.3997	7.3046
—美元折合人民币（平均数） Yuan per US Dollar（Period Average）	7.7898	7.7546	7.7390	7.7247	7.6704	7.6330	7.5805	7.5753	7.5258	7.5012	7.4233	7.3676

汇率
Exchange Rate

项目 Item	2008.01	2008.02	2008.03	2008.04	2008.05	2008.06	2008.07	2008.08	2008.09	2008.10	2008.11	2008.12
—特别提款权单位折合人民币元（期末数） Yuan per SDR（End of Period）	11.4625	11.4442	11.5427	11.3668	11.2593	11.2052	11.0849	10.7293	10.7100	10.1588	10.1701	10.5271
—美元折合人民币（期末数） Yuan per US Dollar（End of Period）	7.1853	7.1058	7.0190	7.0002	6.9472	6.8591	6.8388	6.8345	6.8183	6.8258	6.8349	6.8346
—美元折合人民币（平均数） Yuan per US Dollar（Period Average）	7.2478	7.1601	7.0752	7.0007	6.9724	6.8971	6.8376	6.8515	6.8307	6.8316	6.8286	6.8424

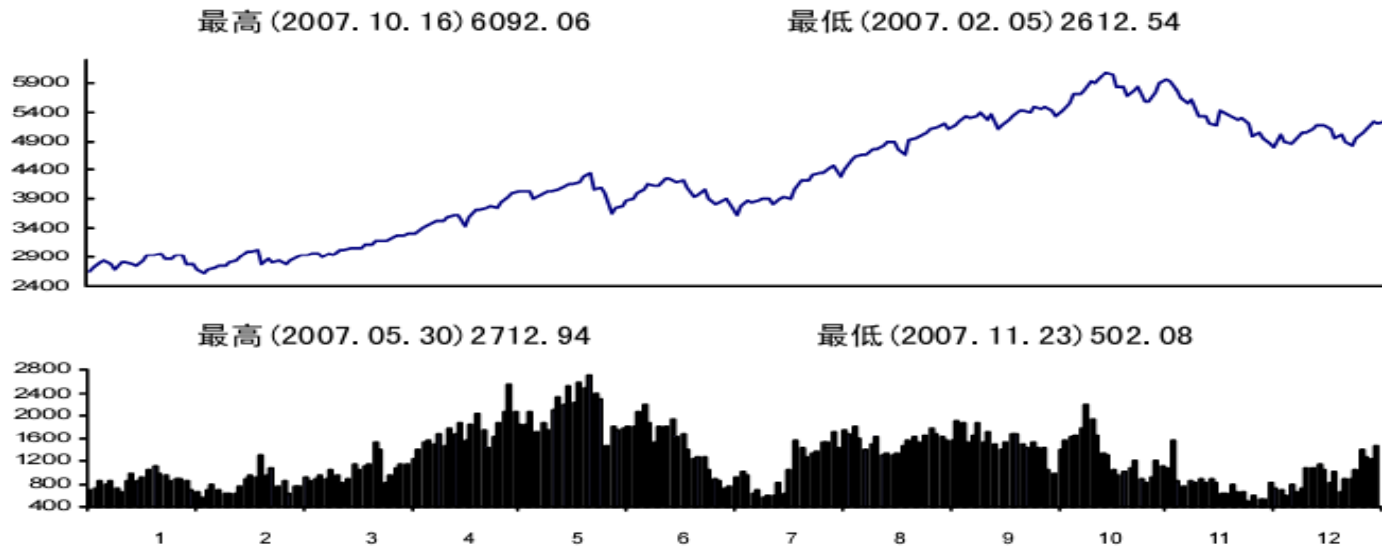
• Background 2: Stock boom in China

上证综合指数 SSE Composite Index

— 指数走势
 ■ 成交金额
 单位：
 亿元人民币



上证综合指数 SSE Composite Index



- Background 3: Inflation

month	07.1	07.2	07.3	07.4	07.5	07.6	07.7	07.8	07.9
Δ CPI (%)	2.20	2.70	3.30	3.00	3.40	4.40	3.20	5.60	6.50
month	07.10	07.11	07.12	08.1	08.2	08.3	08.4	08.5	08.6
Δ CPI (%)	6.20	6.50	6.90	7.10	8.70	8.30	8.50	7.70	7.10

Period 2: 2008.06-2009

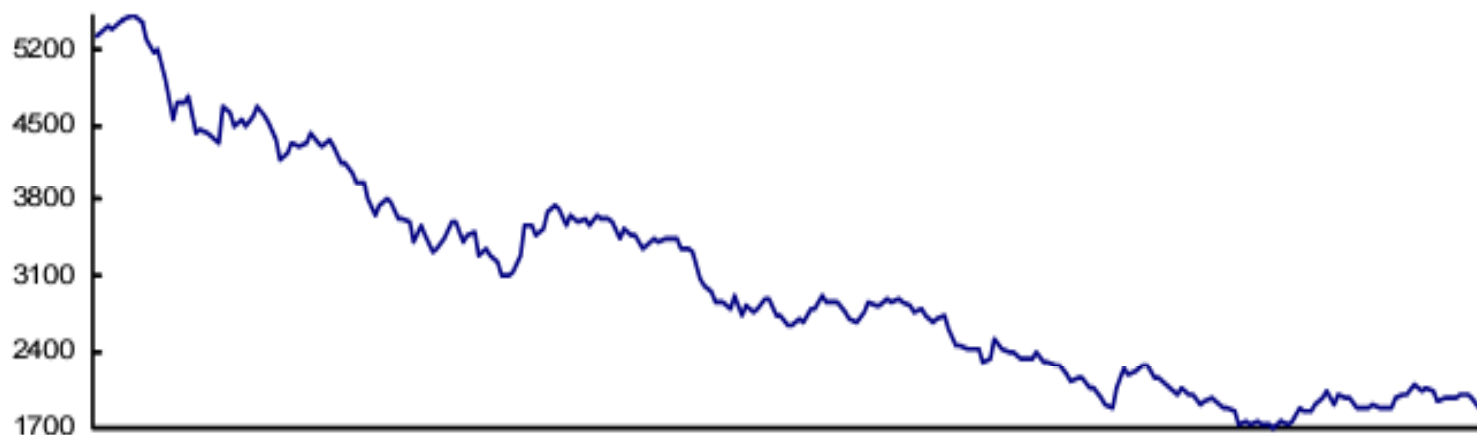
Inflation turns to deflation

Month	08.7	08.8	08.9	08.10	08.11	08.12	09.1	09.2	09.3
Δ CPI (%)	6.30	4.90	4.60	4.00	2.40	1.20	1.00	-1.60	-1.20
Month	09.4	09.5	09.6	09.7	09.8	09.9	09.10	09.11	09.12
Δ CPI (%)	-1.50	-1.40	-1.70	-1.80	-1.20	-0.80	-0.50	0.60	1.90

上证综合指数 SSE Composite Index

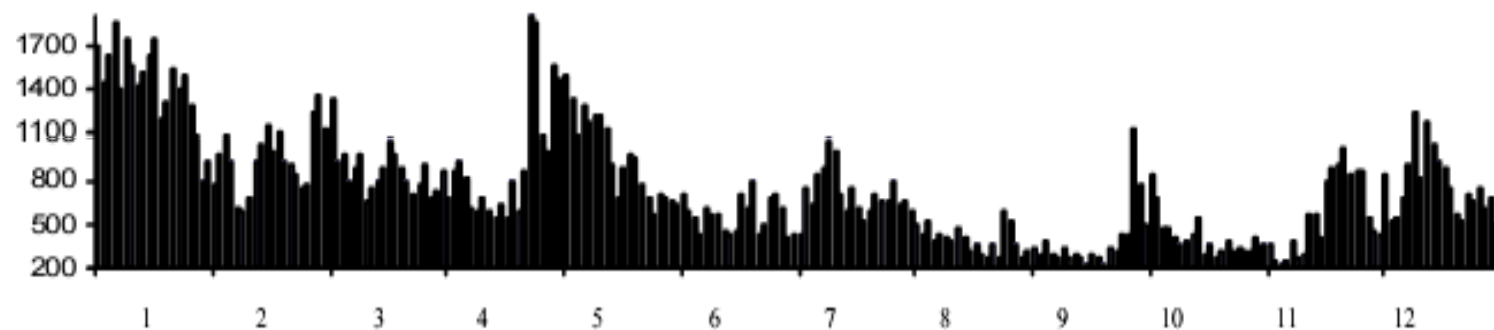
最高 (2008. 01. 14) 5497. 90

最低 (2008. 11. 04) 1706. 70



最高 (2008. 04. 24) 1896. 84

最低 (2008. 09. 09) 217. 96



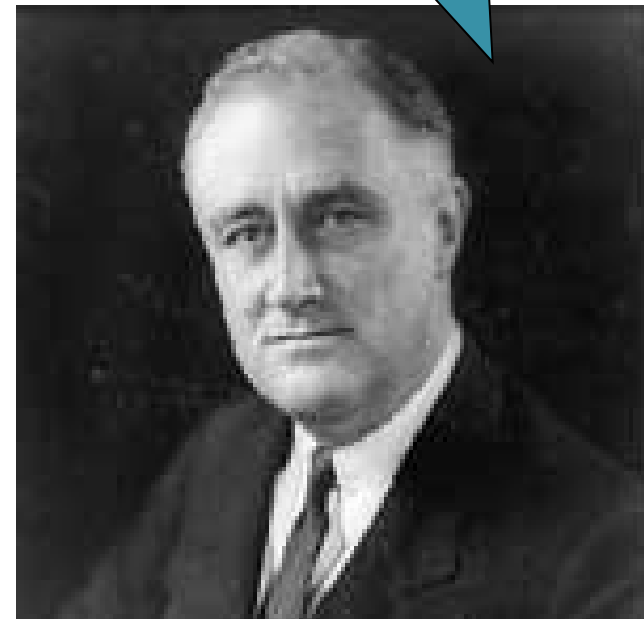
Actions

“4 trillion plan”

CONFIDENCE is more important than GOLD!



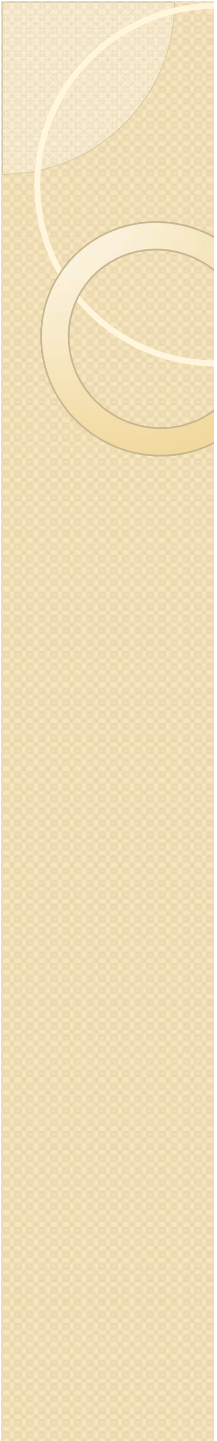
Only thing we have to FEAR is FEAR itself.



Period 3

- inflation

Mont h	10.1	10.2	10.3	10.4	10.5	10.6
△ CPI (%)	1.50	2.70	2.40	2.80	3.10	2.90
Mont h	10.7	10.8	10.9	10.10	10.11	
△ CPI (%)	3.30	3.50	3.60	4.40	5.10	

- 
- Predictions: interest rate will rise in the following months. But both reservation ratio and interest rate will decrease as the inflation rate goes down.