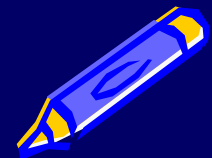




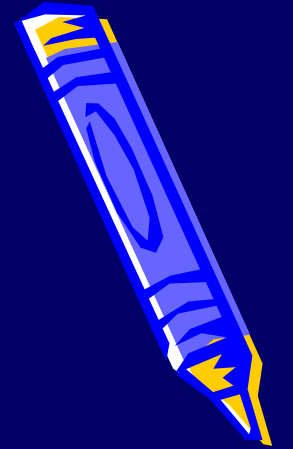
International Scenarios of the Financial
Markets in 2009: Forecasts
and Strategies."

Robert Mundell
December 3, 2008
Rome

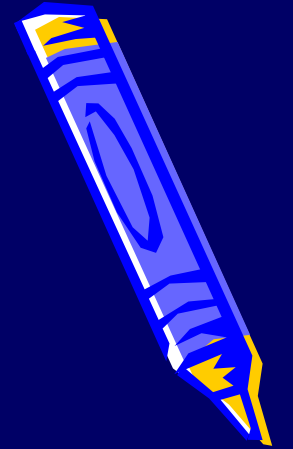


Topics

- Origins of the Financial Crisis
- The Economy
- Lessons from the Crisis
- Managing the Bailouts
- Impact on Exchange Rate System
- Conclusions

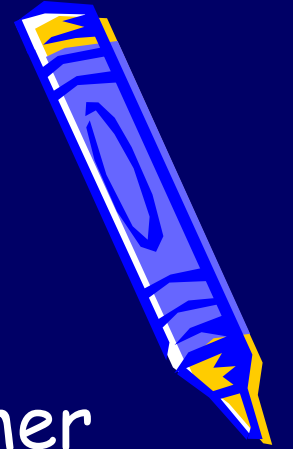


Origins of the Financial Crisis



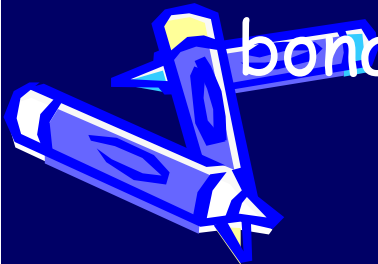
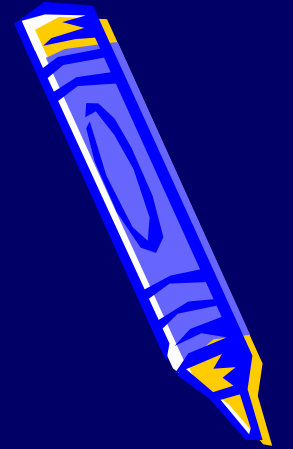
The Financial Crisis

- The financial crisis started in the summer of 2007, flared up in September and October of 2008, and is still with us today.
- It had its origin in the policies associated with the global slowdown of 2001-2.
- Interest rates were kept at unprecedented lowered levels for several years, leading to a lower dollar and inflationary effects in the rest of the world.



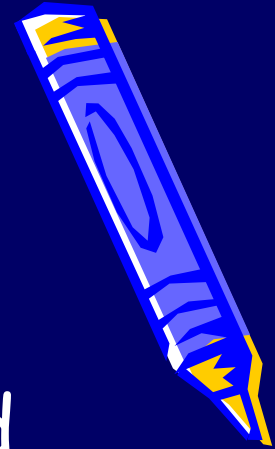
Low Interest, Low Dollar

- Two factors were involved in the boom. One was low interest rates; the other was the low dollar.
- Low interest rates made housing attractive for domestic customers.
- The low dollar made them attractive for the rest of the world.
- Everybody wanted to get into the housing bonanza.



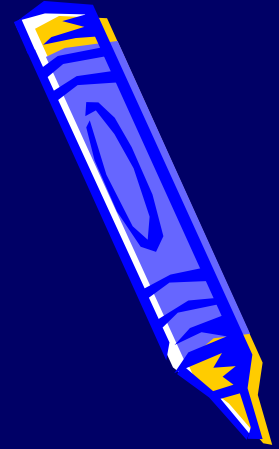
Housing Boom 2003-2006

- Easy money, low interest rates and the low dollar led to rising house prices.
- Mortgages were offered to marginal customers with small down payments that seemed safe as long as house prices were rising.
- As long as house prices were worth more than outstanding mortgages, they seemed to be safe.



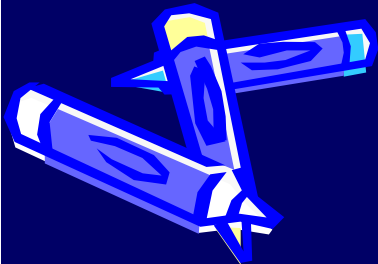
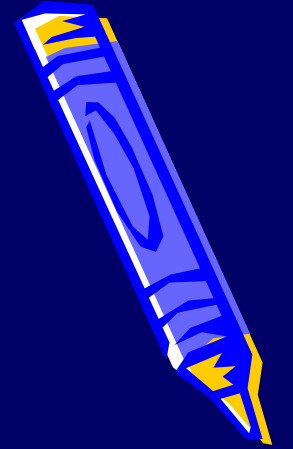
Housing Peaks and Falls

- The crisis began when housing prices peaked and began to fall.
- Soon, amount owed on mortgages threatened to be higher than the resale value of houses.
- Home-owners walked away from them when their equity became low or negative.



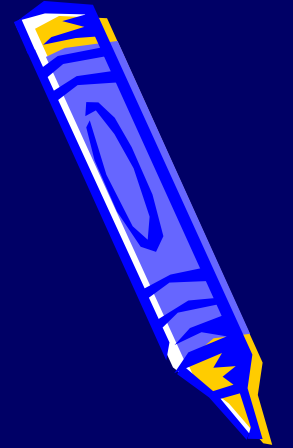
Securitization of Mortgages

- Historically, mortgages were local. The bank that issued the mortgage was the bank that held it.
- Once mortgages could be insured, however, they could be sold on Wall Street. At first, insurance companies were glad to get these risky but high-yielding assets.



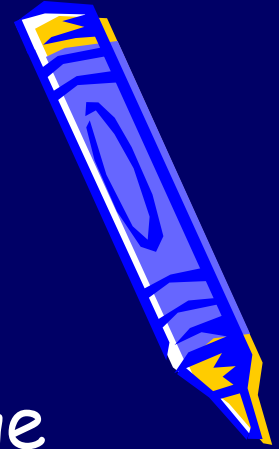
US Mortgage Law

- The banks thought they were safe because the mortgages were insured (credit-default swaps).
- US law (unlike European law) allows owners to walk away from their mortgages leaving the banks holding the bag.



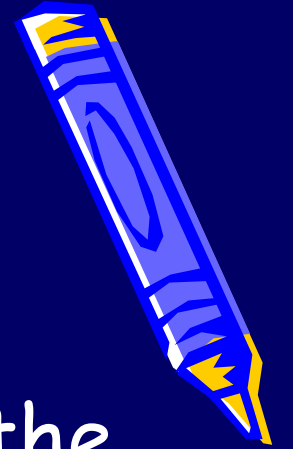
Walking Away from Mortgages

- This is a special feature of US mortgage law.
- In many if not most other countries, any loss to the banks from the sale of foreclosed assets is a debt of the original borrower.
- The US system coddles the home-owner, in taxes (interest payments are deductible from taxable income), and in regulations, and in policies.



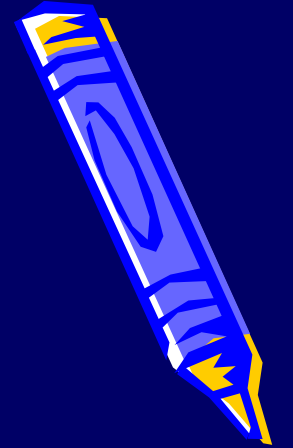
Unfolding

- At the IMF Spring 2007 meeting the problem was discussed but everyone thought the banking system was strong enough to handle it.
- Suddenly Bear Stearns got caught.
- Its failure in June 2007 created a massive scramble for liquidity that came to a head on Thursday and Friday, August 9-10, 2007.



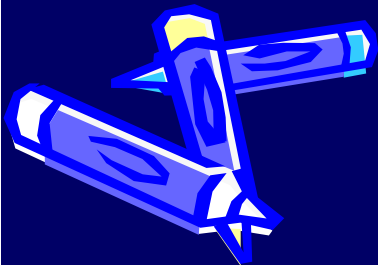
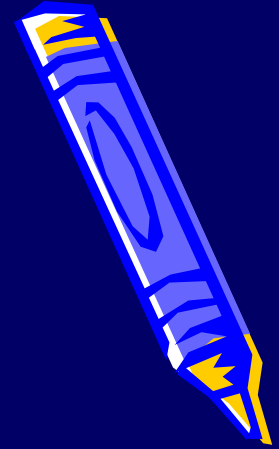
Financial Disintegration with Bear Stearns

- Friday June 22, 2007, Bear Stearns investment bank announced that it intended to bail out two of its failing hedge funds, by extending to them between \$1.6 to \$3.2 billion in emergency loans.
- The loans were designed to prevent the hedge funds' creditors from seizing and selling assets, and to prevent the hedge funds from triggering a systemic breakdown of the world financial system.



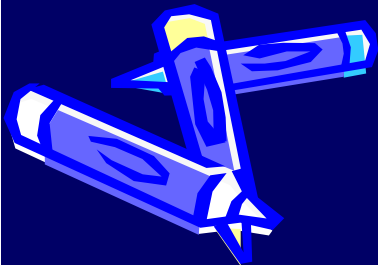
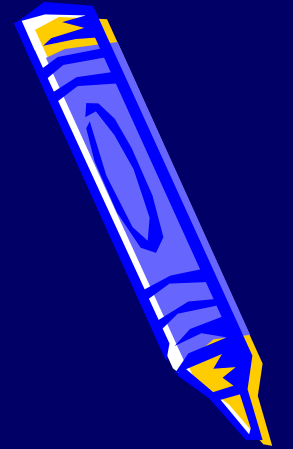
Bear Stearns Largest Bailout Since LTCM

- This constituted the largest known bailout since Alan Greenspan coordinated \$3.6 billion bailout of the Long Term Capital Management (LTCM) hedge fund in September 1998, on the verge of a general crisis.



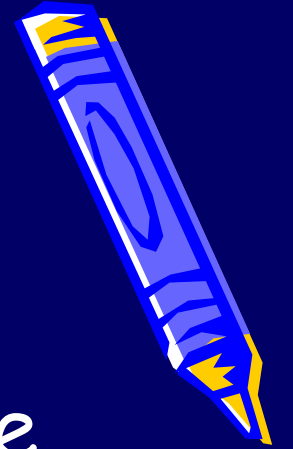
Collateralized Debt Obligations

- The two Bear Stearns hedge funds had invested in exotic and very risky Collateralized Debt Obligations (CDOs).
- These CDOs were predominantly invested in subprime mortgages.
- The two hedge funds borrowed \$9 billion, from banks and investment banks like Merrill Lynch, JPMorgan Chase, Citigroup, Deutsche Bank, and Lehman Brothers.



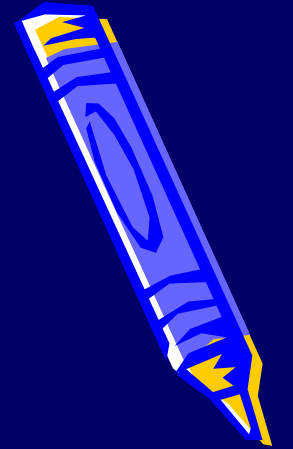
Leveraging

- The two hedge funds leveraged the \$9 billion in borrowings into \$29.7 billion in gambling bets on CDOs linked to the housing market.
- But the meltdown of the subprime mortgage market, and the rise of interest rates, caused the Bear Stearns funds' bets to go wrong and they lost billions of dollars.



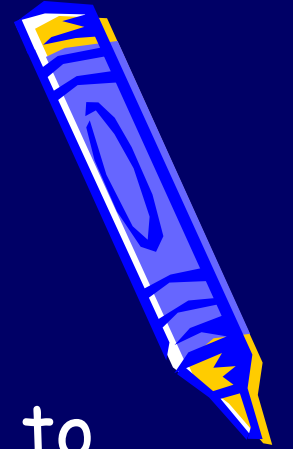
ONLY 50 CENTS ON THE DOLLAR

- The problem was that the hedge funds had given the lending banks CDOs as collateral.
- As the hedge funds' difficulties intensified, on June 19, Lehman Brothers, seized and sold the collateral—the CDOs—on the market
- BUT RECEIVED ONLY 50 CENTS ON THE DOLLAR.



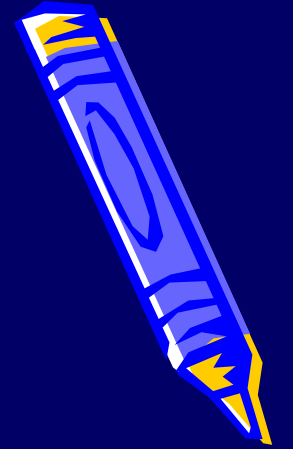
Merrill Lynch

- A big lender, Merrill Lynch, threatened to auction \$825 million of Bear Stearns CDOs that it holds, on the market.
- But Merrill Lynch only sold \$100 million of the higher quality CDOs.
- Were Merrill Lynch to have attempted to sell the remaining CDOs on the market, it would have found that they were worth only 30-50 cents on the dollar.



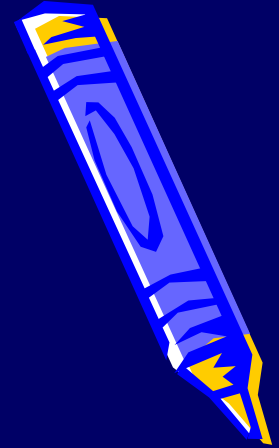
Federal Reserve Intervention

- The problem was colossal, so the Federal Reserve intervened.
- Bear Stearns was then sold to JPMorgan for \$2 a share.
- This shock gave rise to a desperate scramble for liquidity.



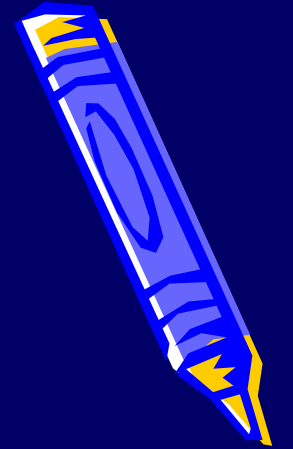
ECB and FRB Actions

- Recognizing the liquidity crisis, the ECB offered unlimited credit at 4% in middle of August 2007.
- They increased liquidity by 95 billion euros (\$140 billion) in a single day.
- Follow-up of Federal Reserve System money six hours later.
- Without this massive infusion of credit the world financial system would have collapsed.



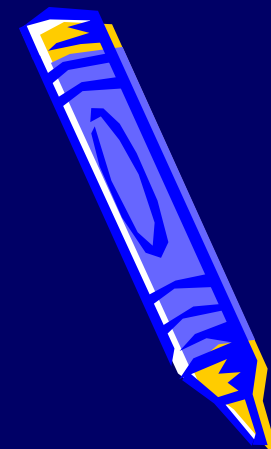
August 9-10, 2007

- Central Banks had to inject huge funds into the markets.
- **European Central Bank**
 - Aug 9: €94.84 billion (\$130 billion)
 - Aug 10: €61.05 billion (\$83.56 billion)
- **Federal Reserve**
 - Aug 9: \$24 billion
 - Aug 10: \$38 billion (tranches of \$19 billion, \$16 billion and \$3 billion)
- Other central banks followed suit.



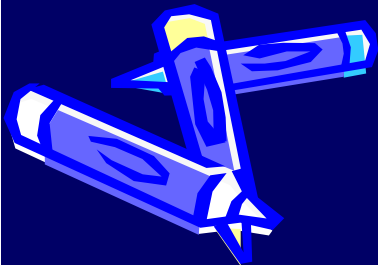
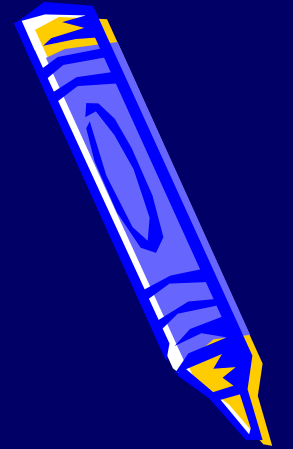
Injections by ECB and FRB in Billions of Dollars in August 2007

	Thursday August 9	Friday August 10
ECB	\$130b.	\$54b.
FRB	\$24b.	\$38b.



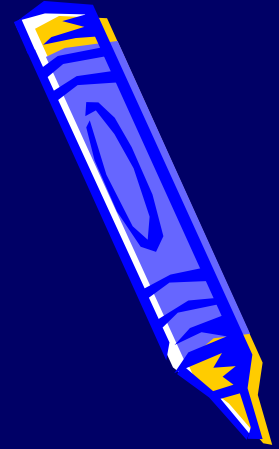
Sub-Prime Mortgage Crisis

- The phrase "sub-prime mortgage crisis" suddenly reverberated around the world.
- I was asked about I last year in Timbuktu!

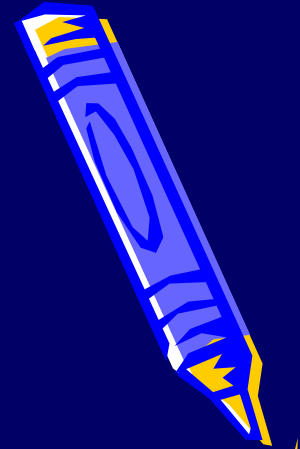


Credit-Default Swaps

- The rating agencies, like Moody's Standard and Poor, and Fitch, caught on too late.
- The credit-default swaps magnified the leveraging in the system.
- Credit-default swaps amounted to over \$50 trillion, several times US GDP.



Meanwhile, the Economy



The Real Economy

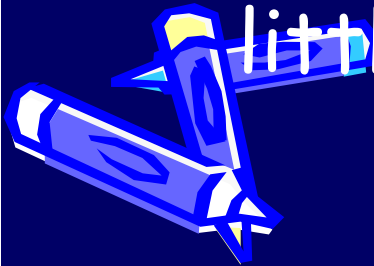
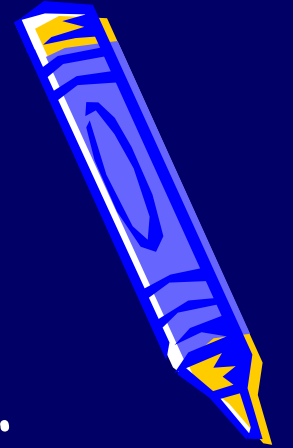
- First three quarters of 2007 all major economies, including emerging markets, move strongly forward.
- Lots of liquidity in all the emerging market countries fed by US deficits.
- China's bulging international reserves with \$1.8 trillion.



- Secretary-of-the-Treasury Paulsen said he has never seen the world economy in

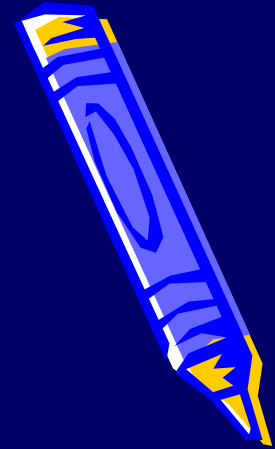
Low Growth

- US growth strong in third quarter; growth nearly 5 per cent.
- Then for two quarters, growth plummeted to about 0.5 per cent, barely avoiding the definition of a recession.
- It was a growth recession but with little impact on employment.

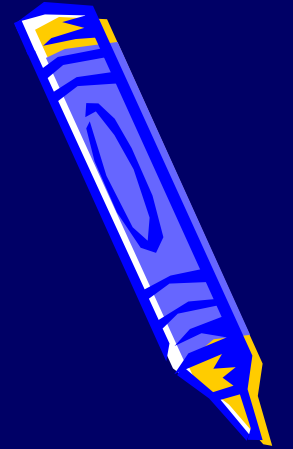


Economy in 2008

- Sudden recovery.
- Revised growth figures showed expansion of 3.3%.
- But economy went south in the third quarter of 2008 by 0.5 %.
- {However, this fails to account for the terms of trade improvement.}
- In the 4-th quarter of 2008, output seems certain to fall, closing the year with the technical definition of a recession—two consecutive quarters of negative growth.

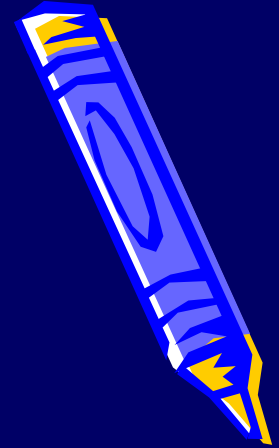


Lehman and the Fall '08 Blowout



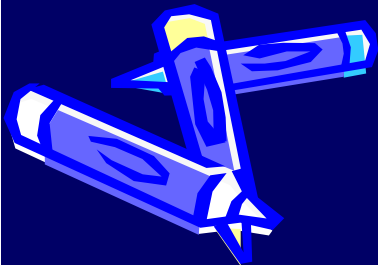
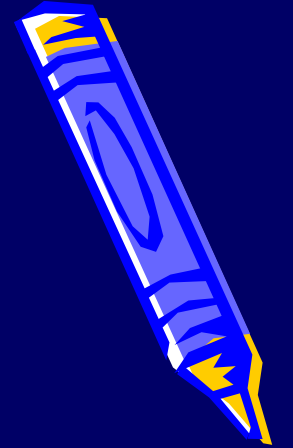
Lehman Bros. Bankruptcy

- Lehman went down in September 2008, a shock that threatened many other institutions.
- Lehman Bankruptcy six times bigger than Enron, previous biggest.
- Failure of Lehman threatened failure of AIG, the biggest insurer in the world.



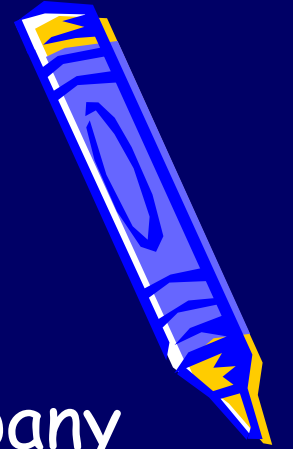
Sept-Oct 2008

- Collapse of Lehman Bros.
- B of A takes over Merrill-Lynch
- Failure of Washington Bank; JP Morgan takeover.
- AIG technically bankrupt, not allowed to fail

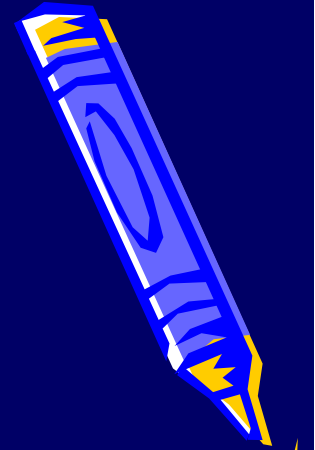


AIG

- The CEO of the biggest insurance company did some creative accounting but was forced to resign by Attorney-General Spitzer (later Governor) of New York.
- This caused the rating companies to downgrade AIG from its historic AAA rating.
- This rating reduction forced the company to increase its borrow to increase its reserves by about \$15 billion.

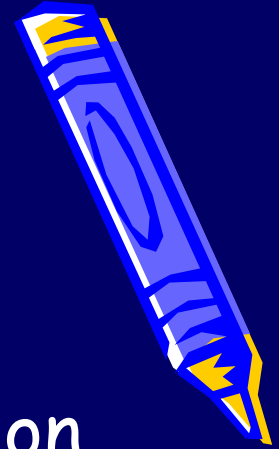


Managing the Bailouts



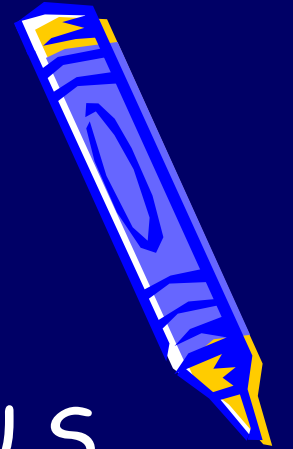
\$700 Billion + \$800 Billion

- \$700 billion bailout huge, much discussion, half left over for Obama. In the right direction.
- Governments trying to restore credibility by calling for major reform.
- \$800 billion credit line from Federal Reserve to bolster economy.
- Europe has called for a new international monetary system.

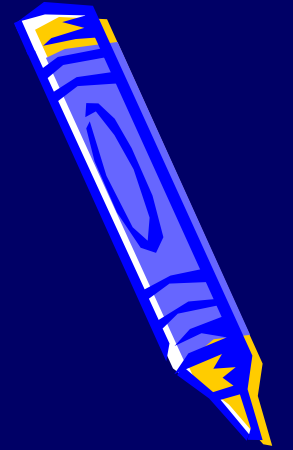


European Economy in Recession

- Bullish signs in housing market in U.S.
- The dollar has soared.
- Europe is in recession.
- Japan's economy with \$15 billion stimulus; Wrong policy mix.

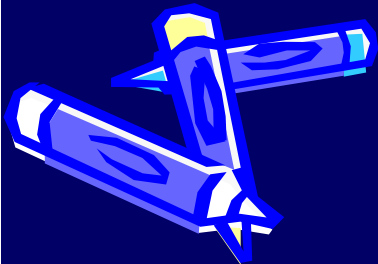
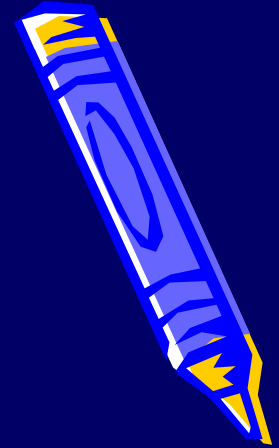


Lessons from the Crisis



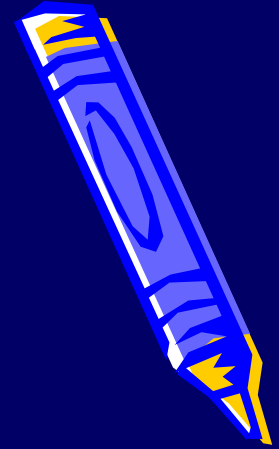
Errors

- 1. System of securitization and insuring mortgages grossly defective; too much distance between issuer and owner.
- 2. Compulsory mark-to-market accounting requirement a mistake.
- 3. Variable rate mortgages a mistake.
- 4. Bond-rating companies derelict.
- 5. Policy mistakes, e.g., allowing Lehman bankruptcy.



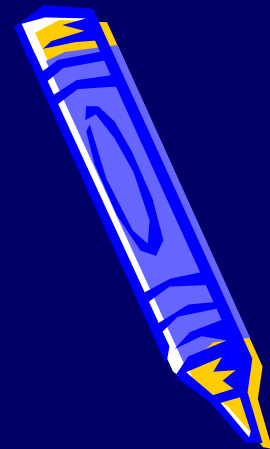
Tarnished Greenspan Legacy?

- Federal Reserve System too easy too long in 2004.
- Created the housing bubble.
- Lack of surveillance over financial system.
- Neglect of exchange rate swings.

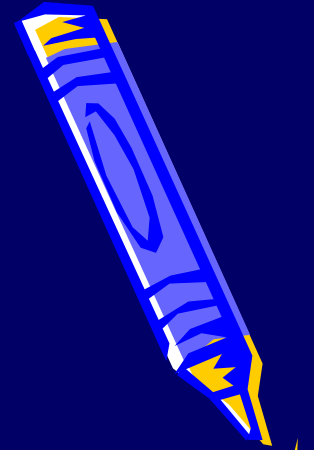


Federal Reserve Errors

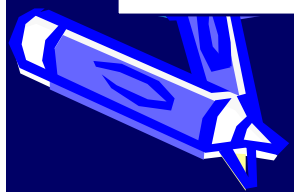
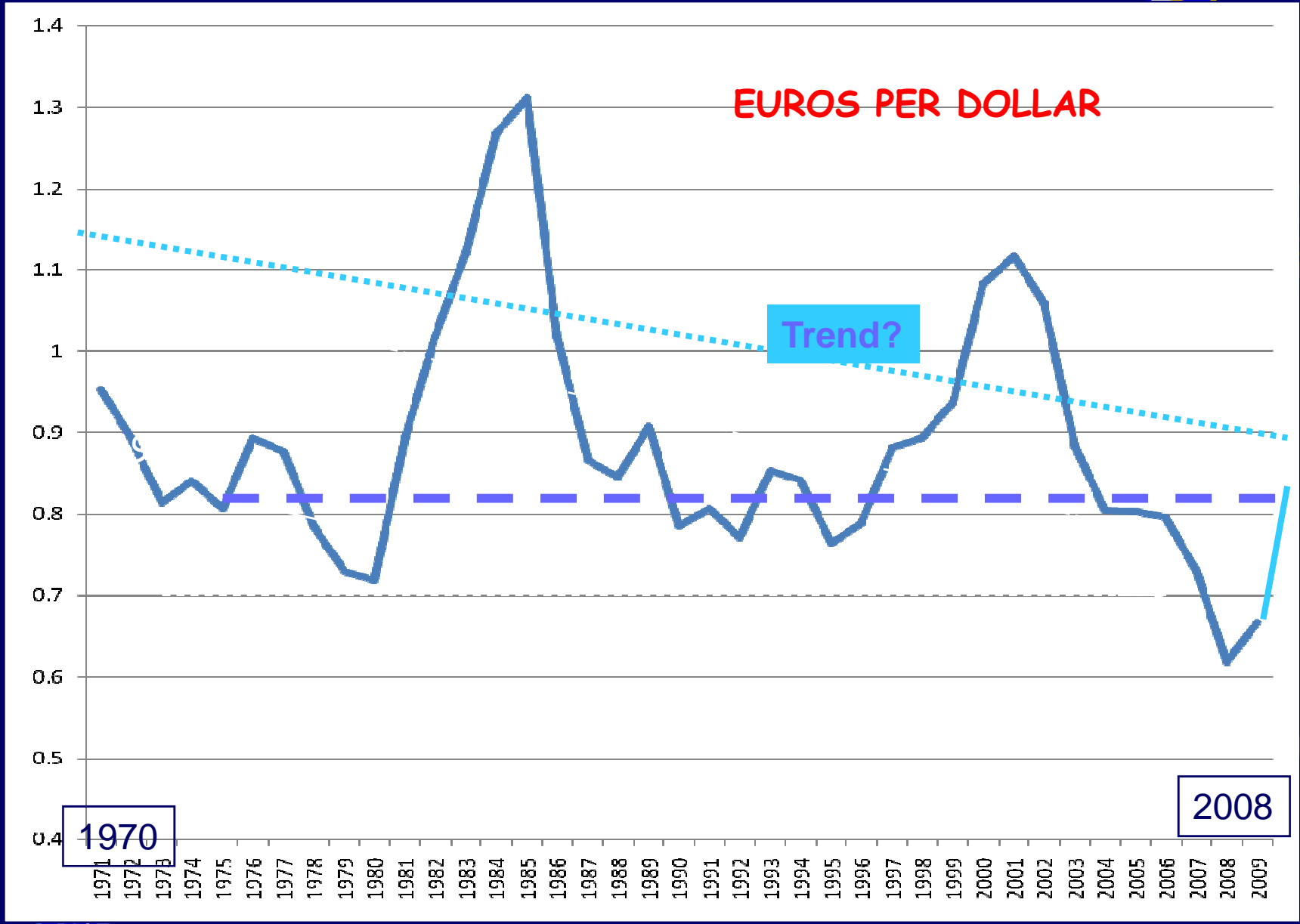
- Closely tied to the type of international monetary system.
- System relies upon big swings in exchange rates
- These are not necessary and they are harmful.
- Swings in Dollar-Euro Rate Endemic to the System



The Dollar Cycle



EUROS PER DOLLAR

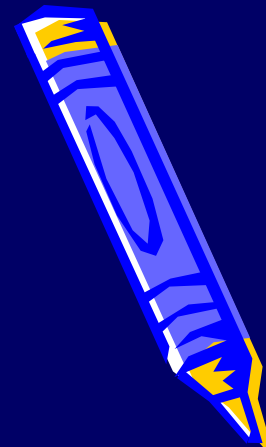


Dollar Cycles: Eight Half-Cycles

- Weak dollar in late 1970s
- Strong dollar in early 1980s
- Weak dollar from 1985 to 1994
- Strong dollar from 1985 to 2001
- Weak dollar from 2001 to 2005
- Stronger dollar in 2006

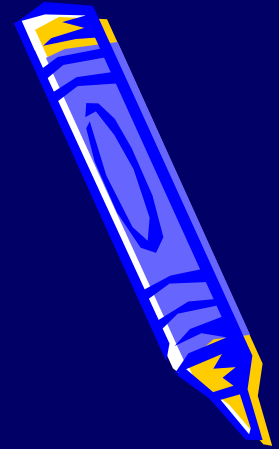
Weak dollar in 2007-2008

- Strong dollar after the middle of 2008.



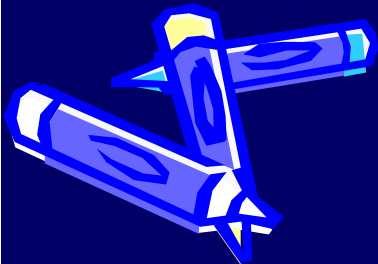
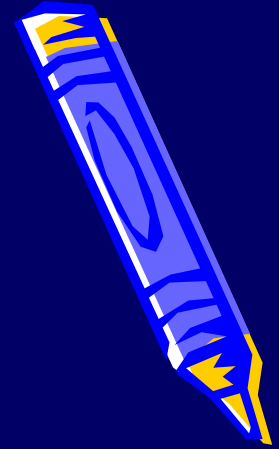
Harmful Effect of Big Swings in Exchange Rates

- Huge redistributions of wealth because currencies denominate debts
- Dollar system benefits U.S.
- Dollar weakens with easy monetary policy during recessions and strengthens during booms
- Harmful to Europe and Other Countries



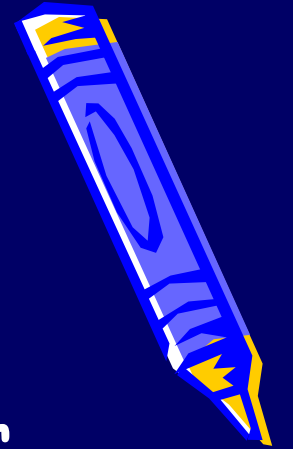
International Crises

- Most of the great banking crises in history are rooted in either deflation or currency instability.
- This was true of the liquidity crisis of the 1930s, which was caused by the European return to the gold standard in the 1920s.



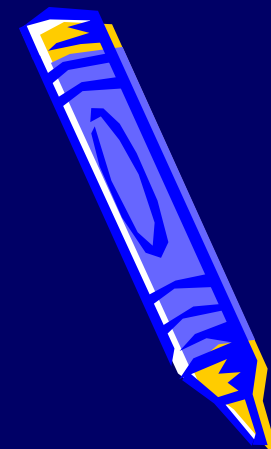
The 1930s

- The return created a scramble for gold and monetary policies that created 30% deflation **in all the major countries and the great depression.**
- The deflation caused thousands of US banks to collapse.



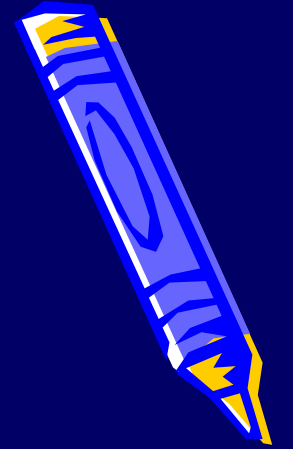
Savings and Loan, and the Debt Crisis of 1982

- The savings-and-loan crisis of the early 1980s, as well as the international debt crisis of 1982 was caused by the sudden shift in the US policy mix from inflation to disinflation, which caused the dollar to double against the European currencies.



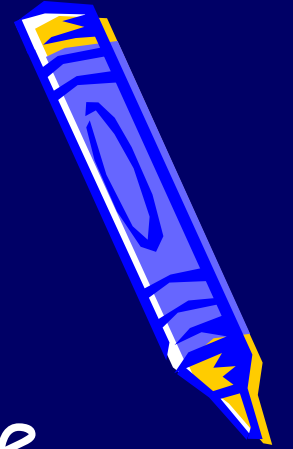
The Asian Crisis of 1990s

- Getting closer to home, the Asian crisis was also caused by currency instability.
- The main culprit was the swing of the dollar against the yen, from 78 yen in April 1995 to 148 yen in June 1948.
- The descent of the yen dried up FDI from Japan while the appreciation of the dollar created deflationary pressure and loss of market in countries tied to the dollar.



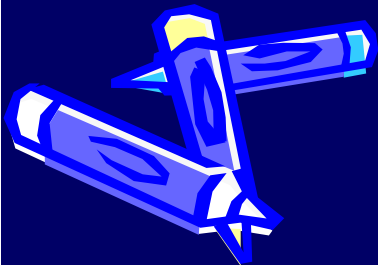
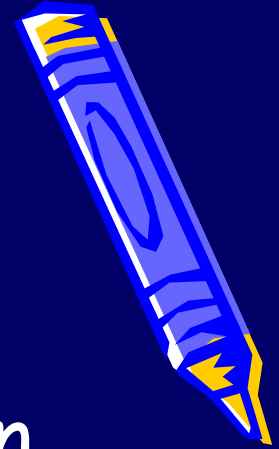
Crisis of 2008

- What determined the timing of the crisis in August 2008?
- Probably the appreciation of the dollar, when the euro fell by from \$1.60 to \$125.
- The dollar appreciation overvalued those weak assets of Lehman even more than they were already.



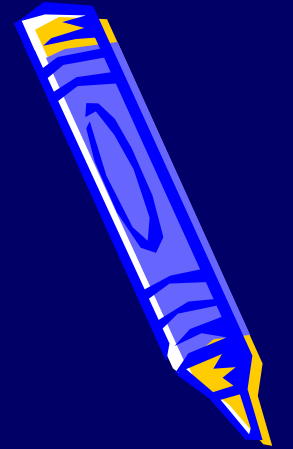
Bretton Woods System

- The arrangements made at Bretton Woods was a system in which dollar supplies were kept in check by the discipline of US gold convertibility
- Other currencies were kept in check by their international reserves mainly dollars.



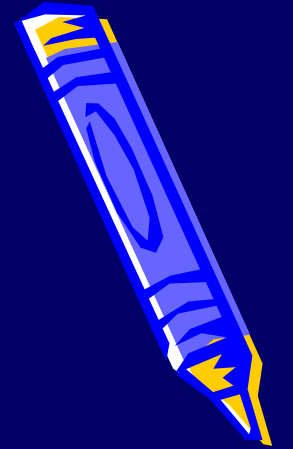
After 1973

- Under a well working system, abstracting from growth, an increase in reserves of one country would have its counterpart in a decrease in reserves of the rest of the world.
- After 1973 there was no control over the total quantity of liquidity.

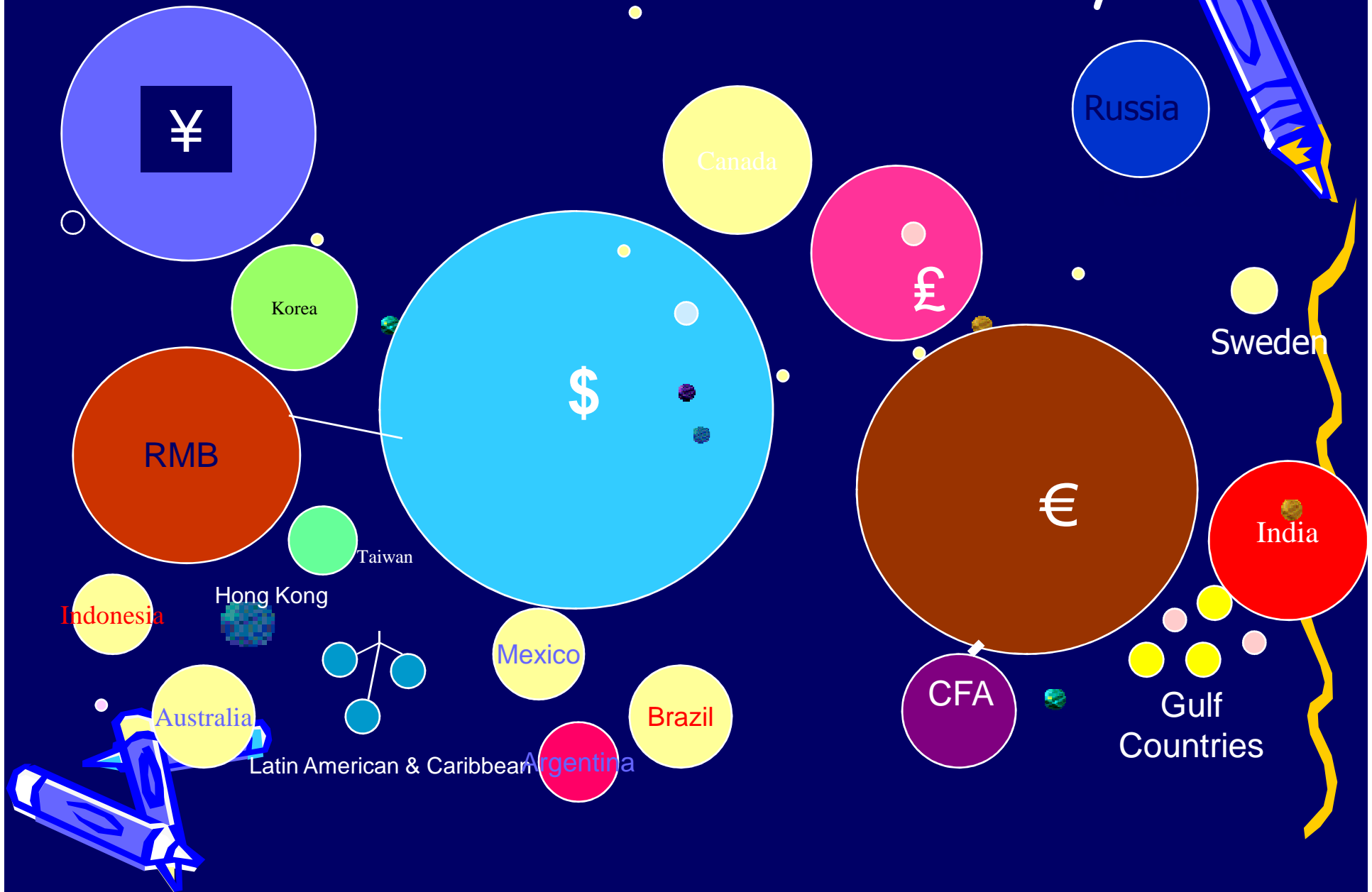


Today

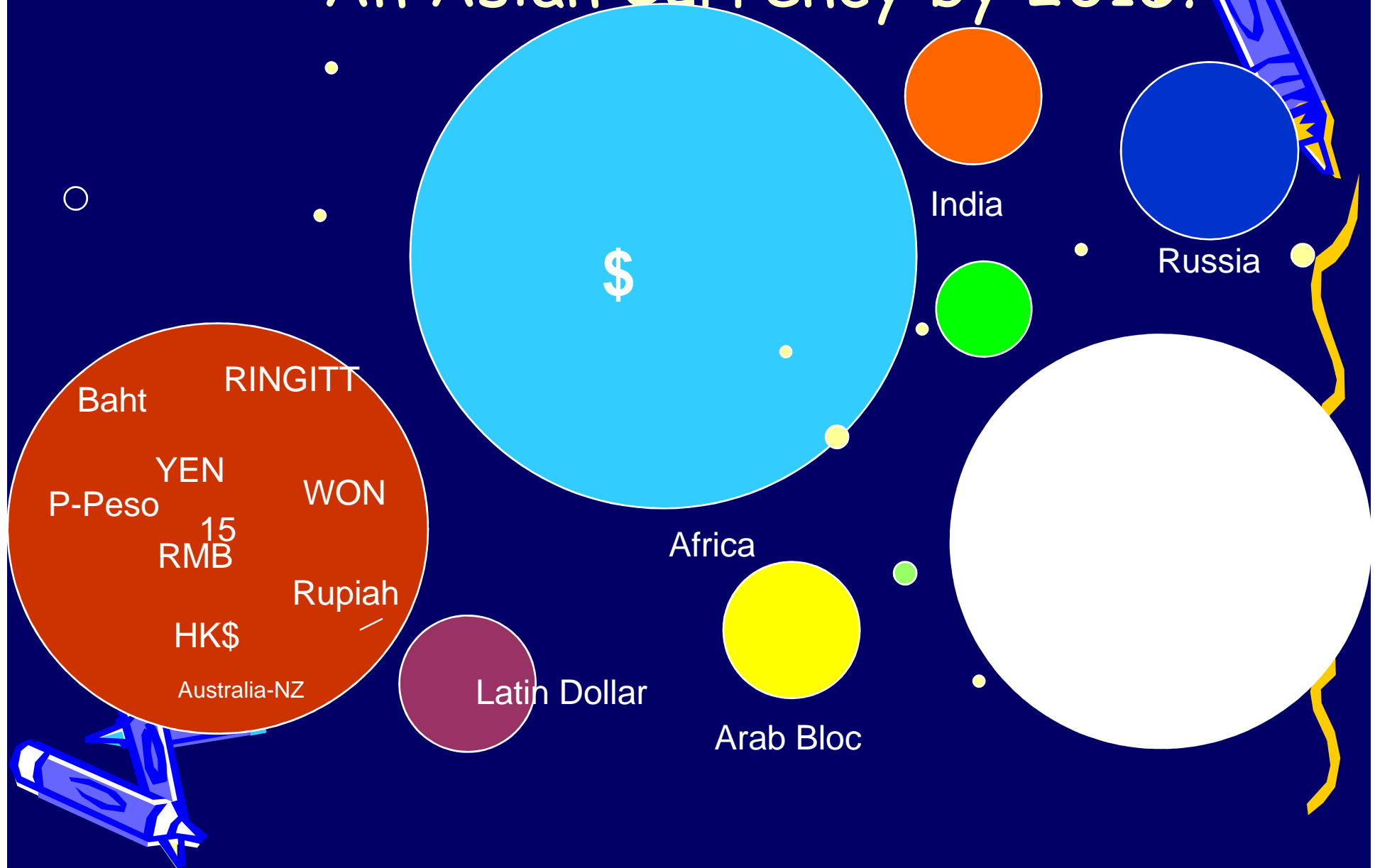
- Today one country can acquire reserves without decreasing the reserves of other countries.
- China added \$1.6 trillion to its reserves in only six years, without decreasing the reserves of the rest of the world.



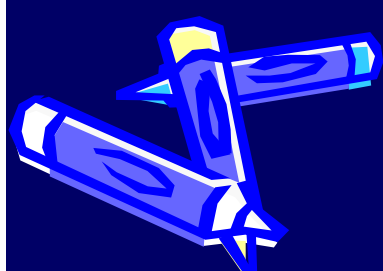
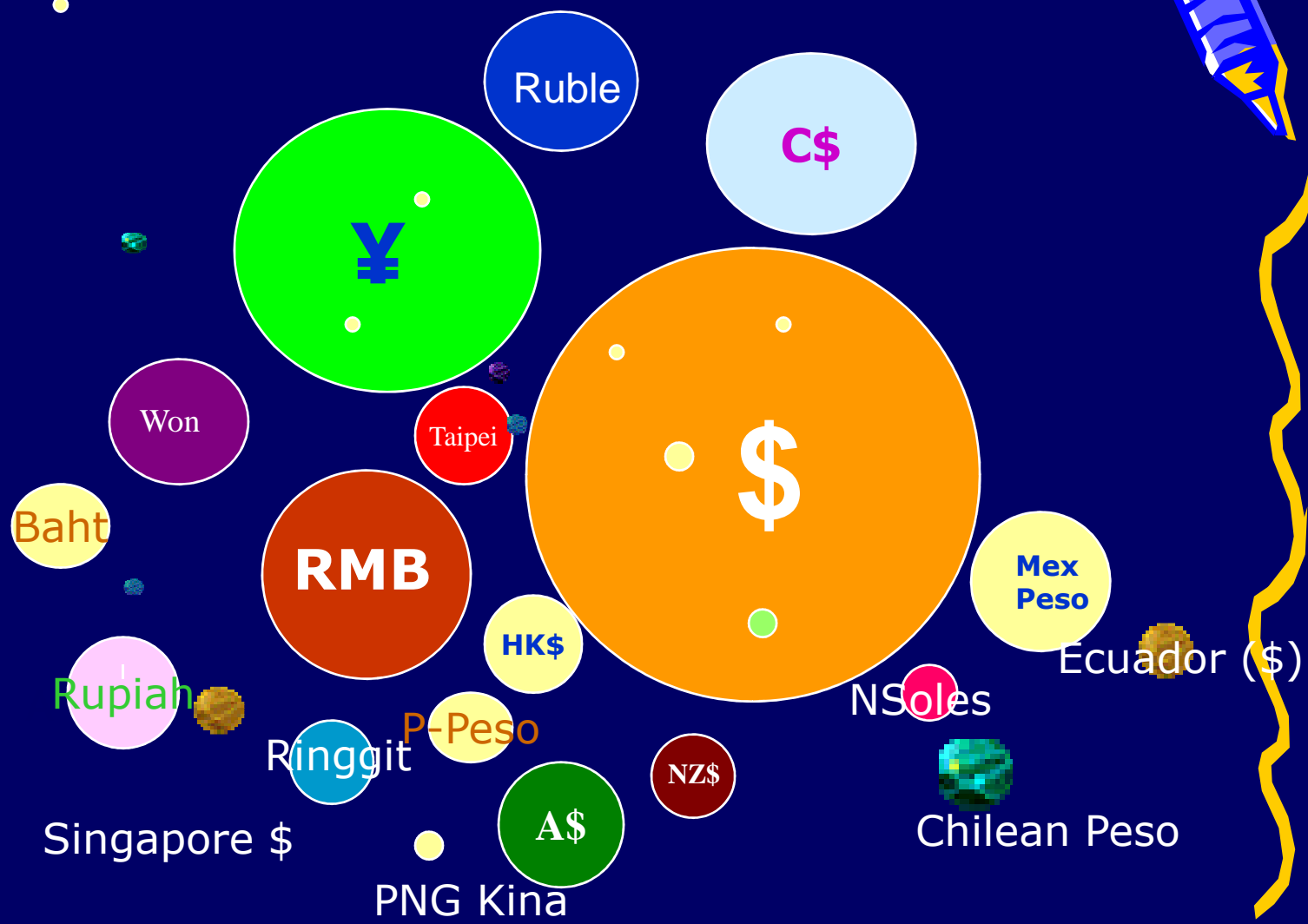
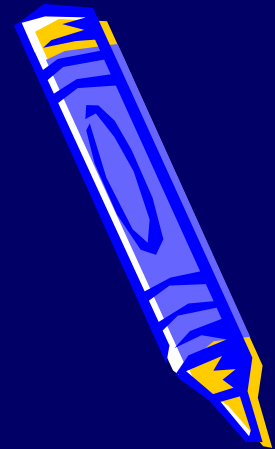
Currency Areas



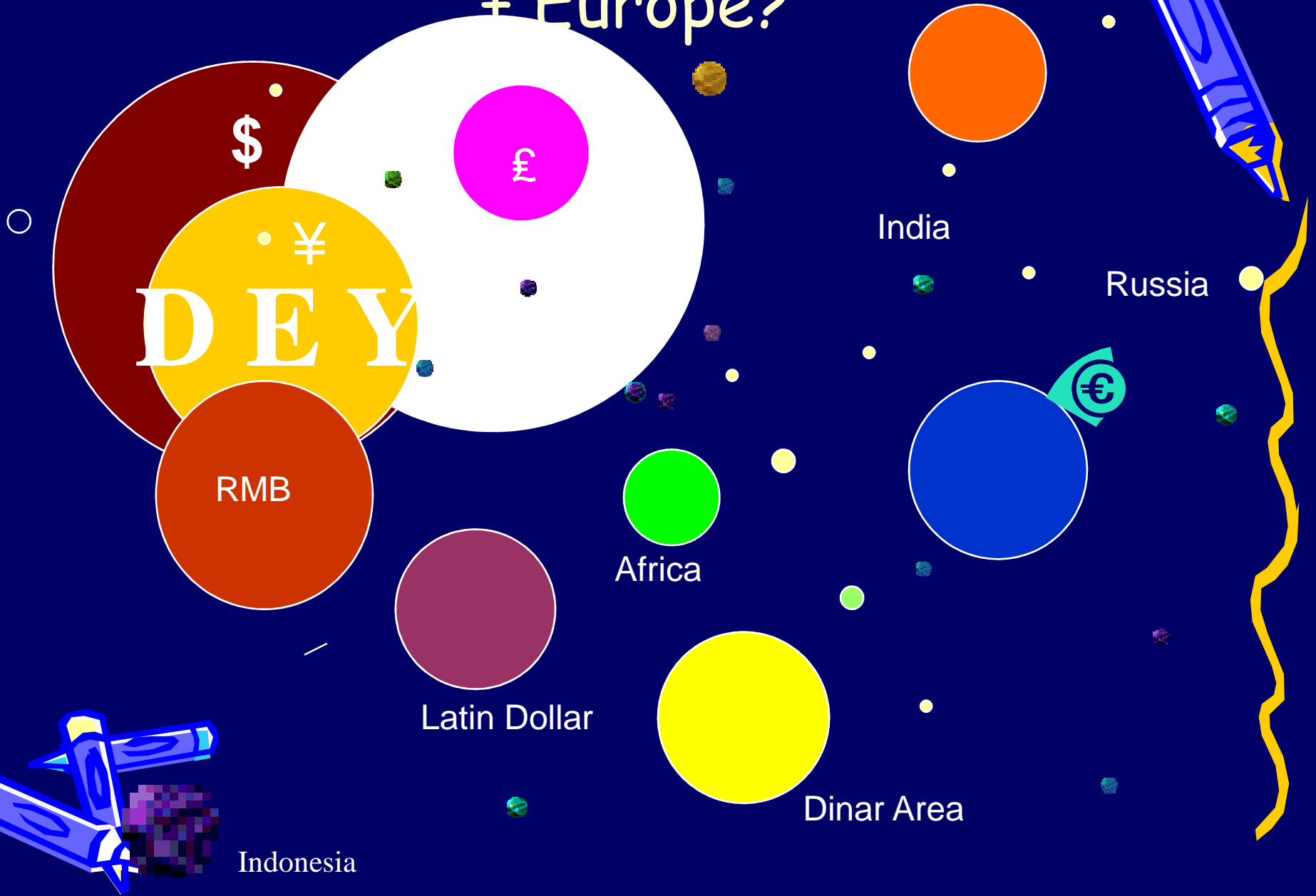
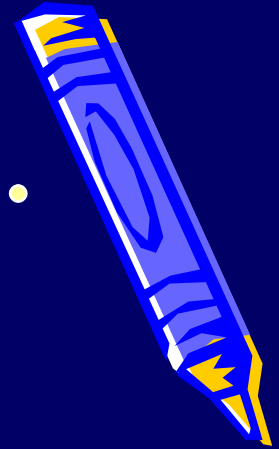
An Asian Currency by 2015?



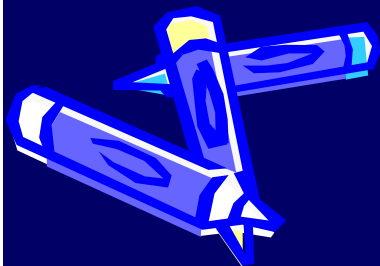
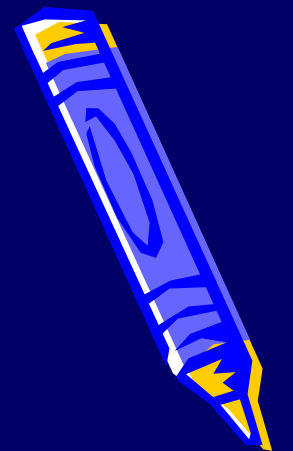
The APEC Currency Community



Alternative Scenario: APEC + Europe?

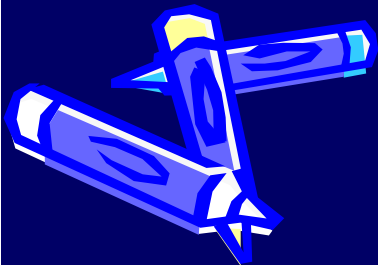
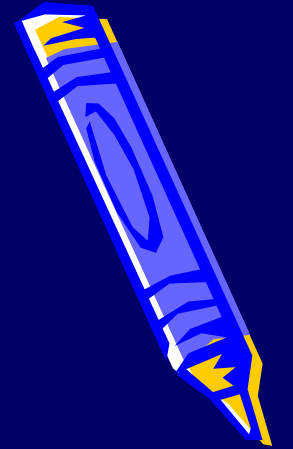


Policies



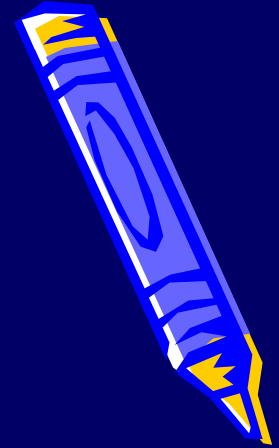
5 Problems

- 1. Confidence
- 2. Recapitalization of Banks and Corporations
- 3. Increase in Effective Demand
- 4. Increase in Investment and Effective Supply
- 5. Restoration of the International Monetary system



5 Policies to Solve the 5 Problems: 1. Confidence

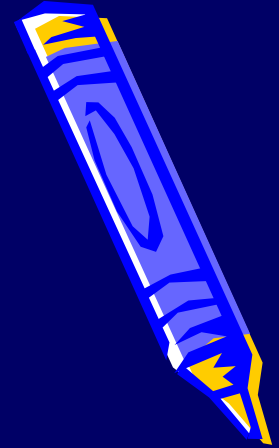
- Confidence. A good management team.
- Obama has made a good start.
- The people of the United States and the rest of the world want him to succeed.
- He is the first president elected by the world!



Problem 2.

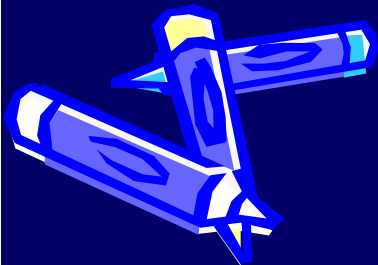
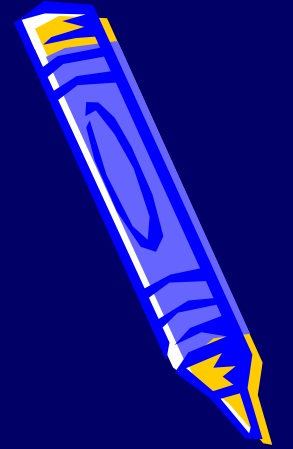
Recapitalization

- At present the government has a 35% share in the profits of C-corporations.
- No need to take a larger share.
- Eliminate or drastically lower the corporation tax (a double tax) for one year.
- Like Germany and some European countries.



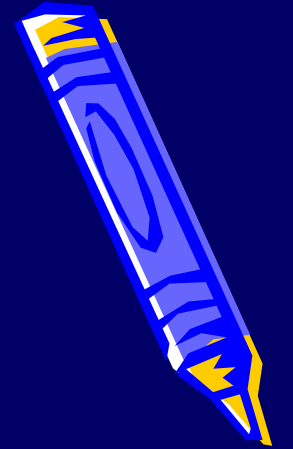
Problem 3. To increase Effective Demand

- Issue \$1,000 worth of dated vouchers to every man, woman and child in the U.S.
- Can be used for purchases from any retail enterprise that pays taxes.
- The retail can use them as vouchers for taxes already paid.



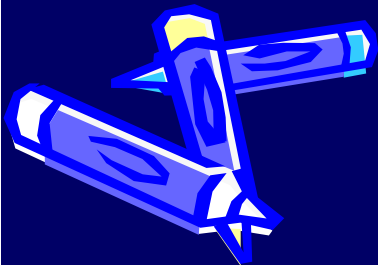
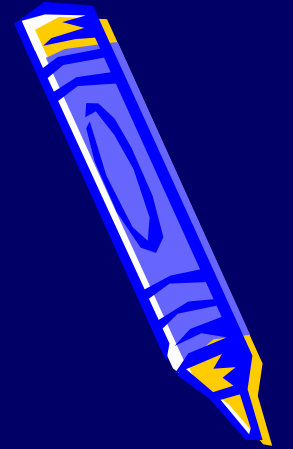
Problem 4. Increase Investment and Effective Supply

- Permanently lower corporation taxes to 15% (as in Germany).
- This tax on an institution is very inefficient, and all serious tax theorists have opposed it.
- William Vickrey, Nobel Prize winner and expert on taxation, was a liberal but regarded the corporate profits tax as AN ABOMINATION!

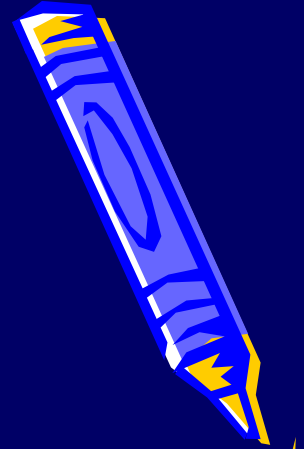


5. Restore the International Monetary System

- Rebuild the international monetary system of fixed exchange rates.
- Start with the current of China's yuan and the dollar at 6.8 Yuan = \$1.00
- Then put bands around the dollar-euro rate, and gradually work toward fixed them with coordination of monetary policies.
- Have Bretton Woods scale meeting on the subject in Shanghai in 2010, along with the World Fair.

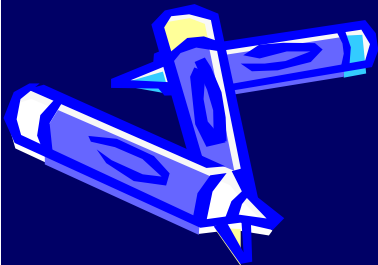
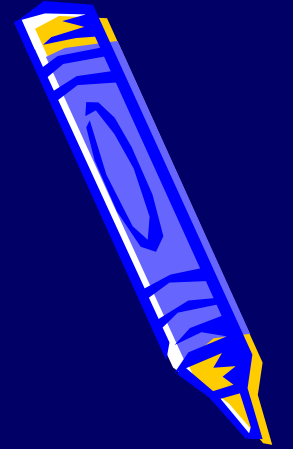


Investments



To be Discussed

- Choice Between Stocks, Bonds and bills
- Choice Between Stocks and Real Estate
- Choice Between Dollar and Euro assets
- Choice Between U.S., Europe, Asia and Emerging Markets.



Thank You

