



The Financial Crisis, Global Imbalances, and the International Monetary System

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Introduction

- The Great Depression
 - led to the creation of macroeconomics, as a guide to macroeconomic policy-making.
- The Second World War
 - led to the creation of international macroeconomics, as a guide to international macroeconomic policymaking
 - via the Bretton Woods Conference of 1944.
- The present crisis
 - We will come to understand how to conduct macro policy in financially fragile countries
 - We will come to understand global macro coordination as power shifts toward Asia.



2 The International Monetary System

- Bretton Woods objective
 - countries to be able to promote high levels of employment and output, by means of demand management policies
 - To avoid re-emergence of Depression.
- From the beginning, Keynes saw two requirements for an international monetary system.
 - Individual countries external adjustment process w. global support
 - Global coordination needed
- Bretton Woods produced rules-based global system of pegged-but-adjustable system of exchange rates, overseen by the IMF.
 - Countries would pursue their own domestic policies,
 - exchange rates would be adjusted, to ensure external balance.
 - Aim was for both adjustment and cooperation



By 1971 this system collapsed and was replaced by a floating-exchange-rate 'non-system'.

- Countries were free to pursue domestic demand management policies,
- floating rates would ensure external adjustment.
- It was hoped that Keynes' two problems would thereby disappear.
- But the non-system has problems
 - Behaviour of dollar
 - We now live in Bretton Woods II, in which some float and others peg.
- Keynes' two needs – for adjustment and for coordination – remain important
 - Need a return to a more rules-based system, with international surveillance



3 Global Imbalances & Low Interest Rates

3.1 Before the Crisis: the great moderation

- Low and stable inflation and steady growth
 - Unusually good circumstances
 - Reduction in risk
 - Emerging market economies also grew rapidly
- Beneath the Surface there were forces at work which would undermine the stability



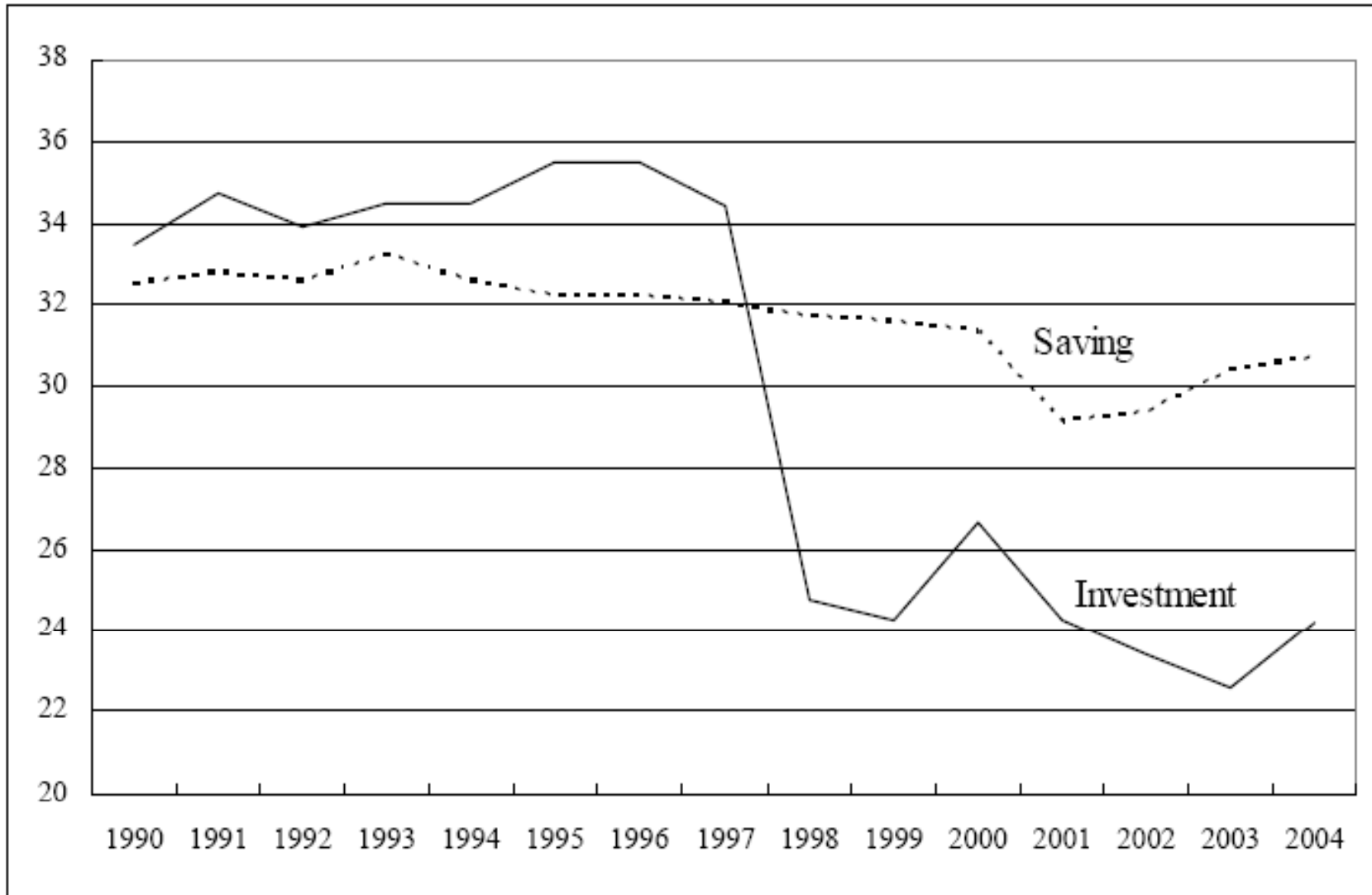
3.2 Savings Investment Imbalances & Low Global Interest Rates

East Asian S-I Imbalances and Current Account Surpluses

- High level of world savings relative to investment
- Investment fell drastically after the Asian
 - Riskiness of investment
 - China is exception: investment rose but less than savings.
 - Currencies needed to be depreciated relative to the dollar
 - Export growth is classic means of recovery from crisis.
- But continue to rely on export domestic growth?
 - Insurance against further crisis
 - Bretton Woods II – a growth model based on importing foreign technology to sell to world markets
 - Rapid growth of technology in traded goods sector
 - Belassa Samuelson effect

Figure 1. Saving and Investment in Emerging Asia (NIEs and ASEAN-4) as a percentage of GDP, 1990-2004

A.



B.

Figure 2.

Investment as % of GDP in East Asia, 1990- 2004

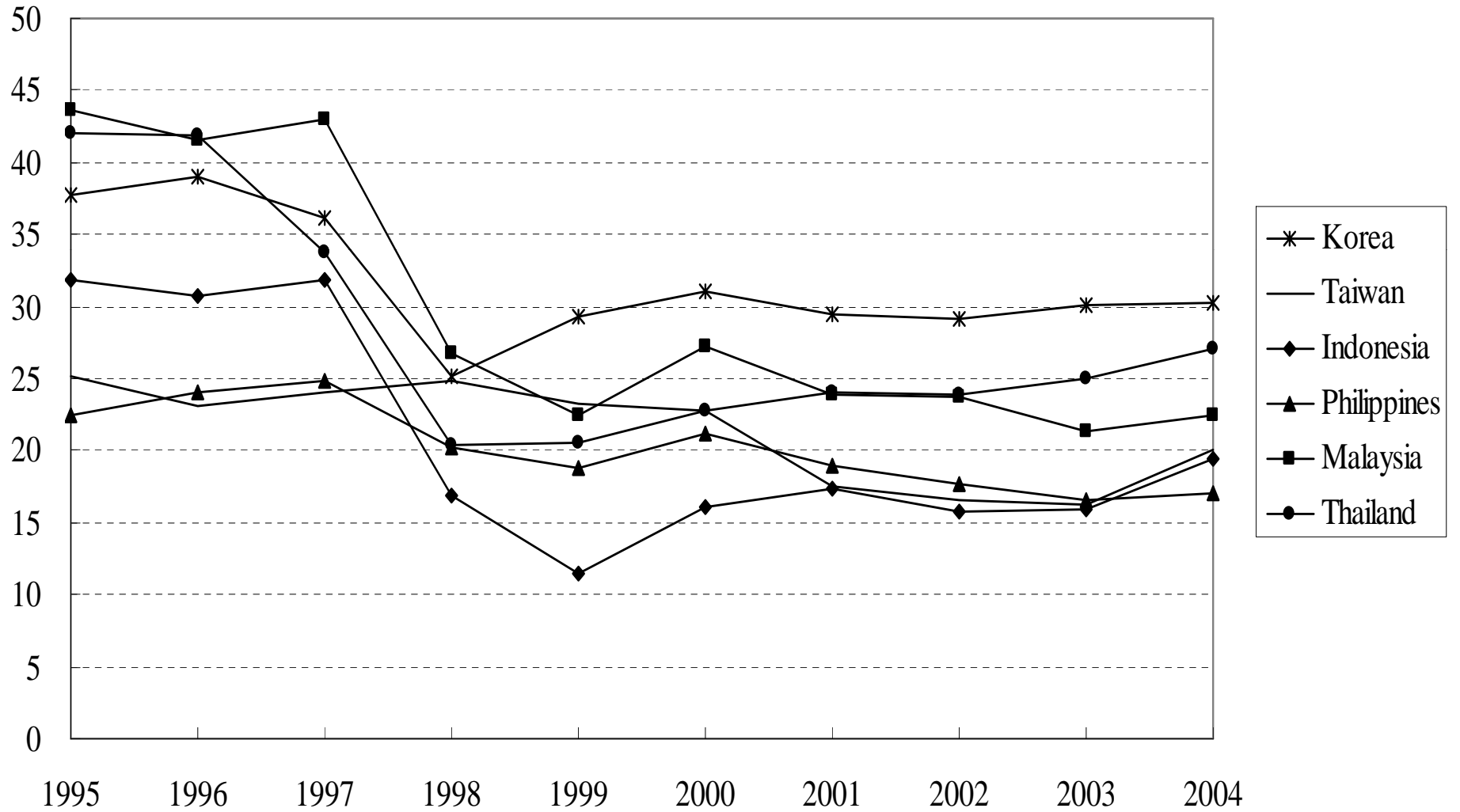
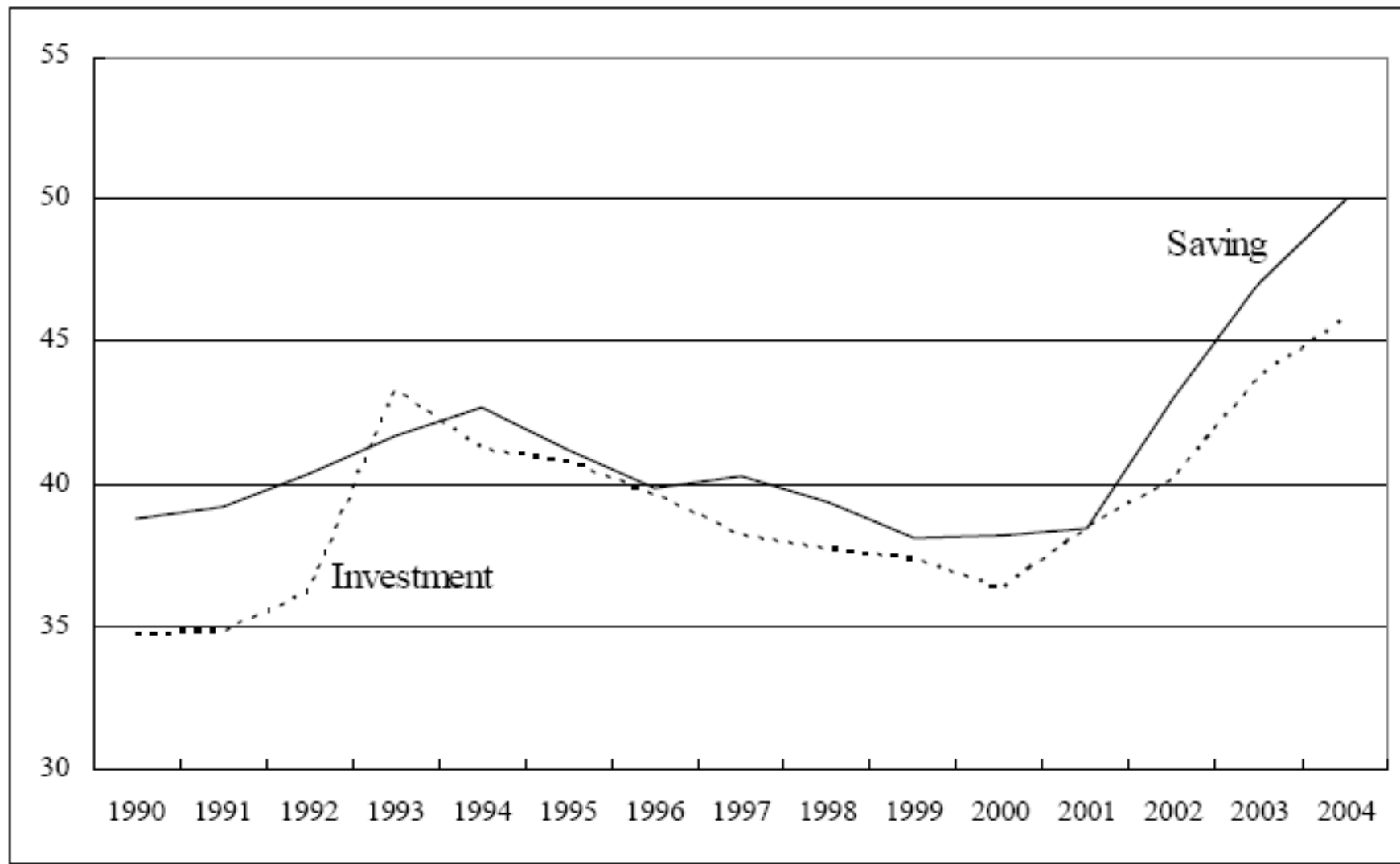


Figure 3.
Saving and Investment in China, as a % GDP, 1990-2004

A.



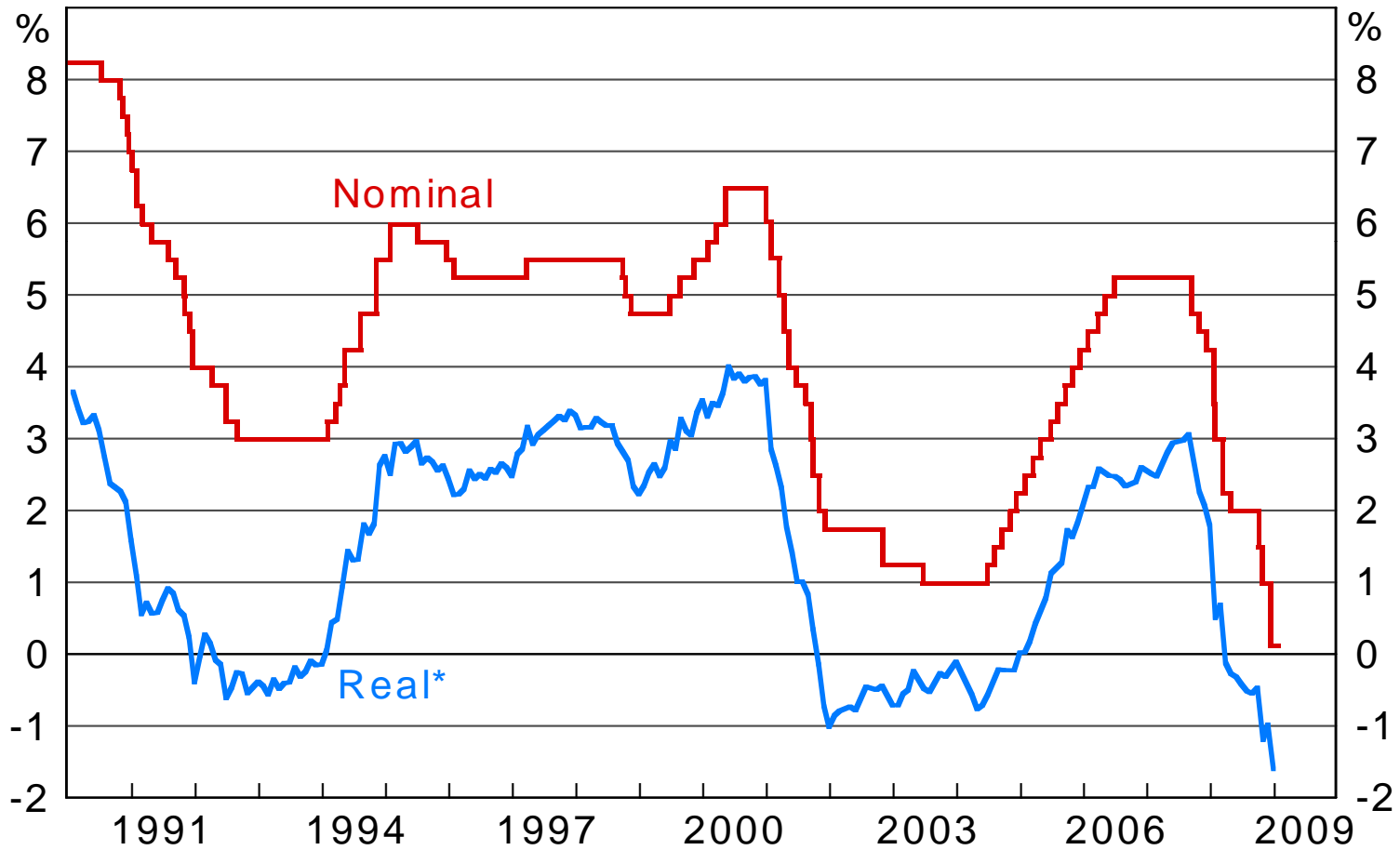


Global S-I Imbalances and US Interest Rates

- After dot-com collapse in 2001 US IS curve shifted left
 - Neutral interest rate fell
- 'Greenspan put' – low interest rates - a *response* to this
 - Demand transmitted to rest of world
 - Undervalued exchange rates maintained in East Asia
 - Interest rates cut elsewhere
- Thus obtained
 - undervalued exchange rates in East Asia & low *i* rates in US and ROW
 - global imbalances:
 - US savings fell by *more* than investment
 - current account deficit in the US – and also the UK, Australia and elsewhere
- Alternative was higher interest rates, from Taylor rule, & large downturn in 2002
 - Higher interest rates from Taylor rule *and continued growth* would have required dollar depreciation – not forthcoming

Figure 4

US Federal Funds Rate

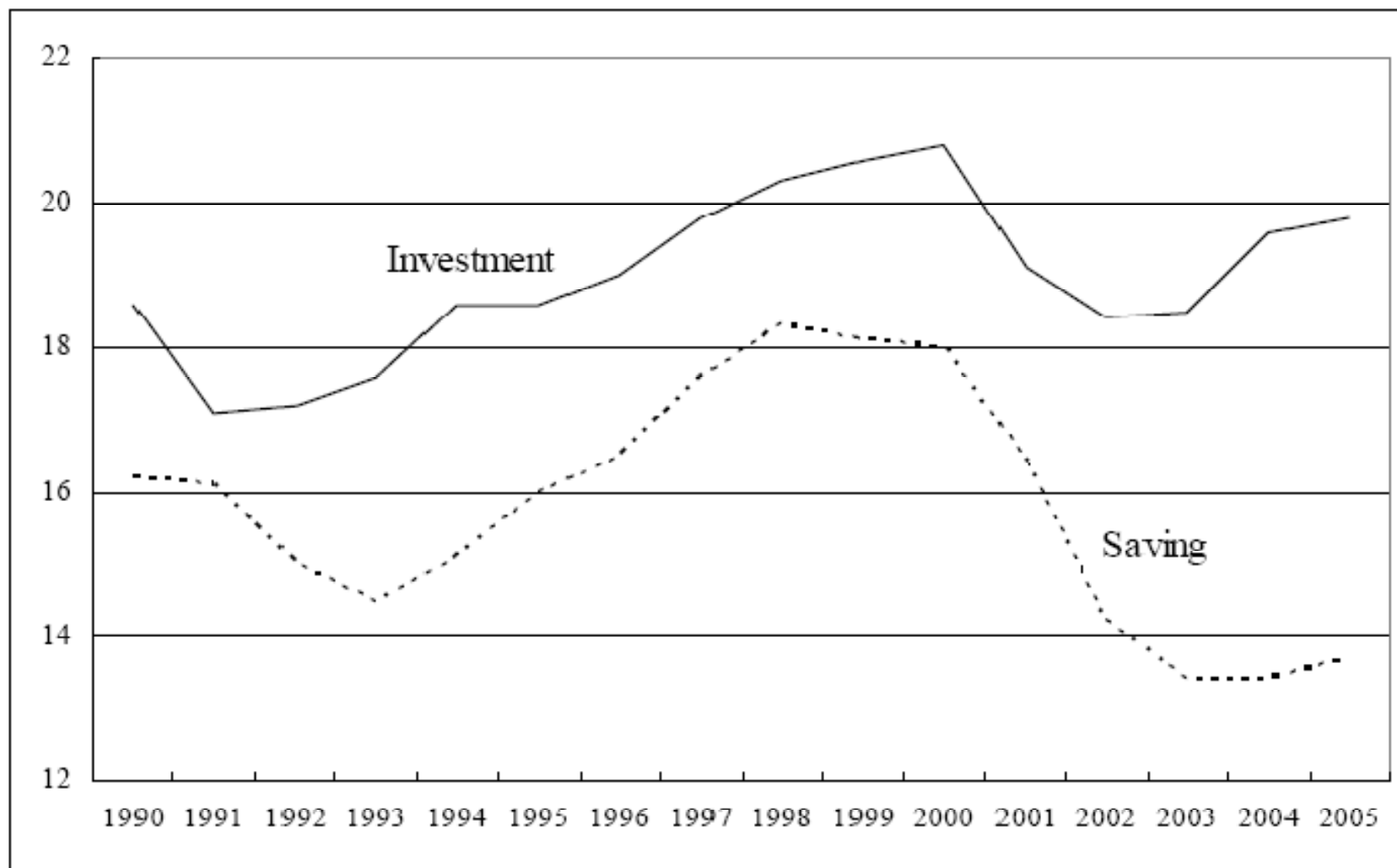


* Real Fed Funds target calculated using core CPI updated to December 2008.

Sources: RBA; US Federal Reserve

Figure 5.
Saving and Investment in U S, as % of GDP, 1990-2005

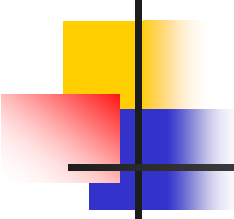
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3.3 Systemic Risks caused by low i in US

- Straightforward in riskless assets – wealth up and spending up
- More complex than this
 - Search for yield' by investors
 - done by leverage, making the financial system more risky, & fragile.
- Highly leveraged financial institutions (HLFIs) invested in mortgage backed securities
 - partly funded by equity finance, and
 - partly by borrowing from elsewhere at lower interest rates (leverage).
- This increased their expected return on equity but made it more risky
- The value of the equity equals value of investments minus the value of borrowing
 - the leverage ratio is equal to the value of these risky investments relative to the value of their equity.
- HLFIs engage in leverage up to the limit of the risk that they are prepared to bear, given the expected return, and the expected variability of this return, of the assets in which they invest.

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- HLFIs greatly expanded the supply of mortgages,
 - driving down the price of such mortgages,
 - the return obtainable from mortgages high came to depend on increases in the interest rate charged over the course of the mortgage.
 - came to require a continuing increase in the price of housing.
 - There was a continuing gradual increase in the price of housing – not immediate because of collateral constrained households.
 - The Asian crisis gave a strong warning that excessive leverage could be highly risky.
 - But the algorithmic risk models in finance led investors, and rating agencies, to believe that such risks could be offset by diversification.
 - Key systemic risk was of a rise in the interest rates
 - If interest rates not fallen so much in 2002, coming in part from what happened in Asia, then this risk would not have been present
 - Financial globalisation spread this risk to Europe.



4 The Crisis

3.1 Onset

- Interest Rates Rose Rapidly between 2004 and 2006
- House prices stopped rising in 2005
- Effect greatly magnified through financial leverage
 - Price of mortgage backed securities fell
 - Multiplier effect
 - Price fall depressed balance sheets, depressing demand for these securities, leading to further declines in price, further contraction of balance sheets, etc
- Collapse in private wealth and increase in savings

3.2 International Transmission

- Keynesian transmission of demand through exports
- International propagation of shocks through an international financial multiplier



5 Short Term Policy Responses

- Four components
 - Lowering of interest rates
 - Quantitative easing
 - open market operations along the yield curve to depress longer term rates
 - Recapitalising the Financial System
 - Fiscal Expansion
 - Large injection of expenditure and of debt, to replace private sector savings
- Significant Cooperation issue – each country wished to free ride on expansion coming from others.

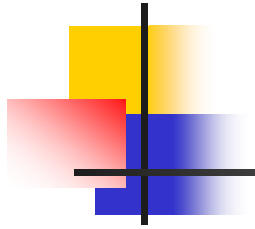


6 Resolving Global Imbalances in the Longer Term

- Requires
 - disproportionate expansion of demand in surplus countries
 - devaluation of real exchange rates in deficit countries

- (i) Risk of excessive reliance on domestic demand in deficit countries, setting off process again
 - Serious risk about the US
 - UK has devalued significantly – need sterling to stay down

- (ii) Risk of insufficient recovery of domestic demand in the surplus countries
 - China appears to be moving in right direction
 - Will be hard to reduce savings
 - Focus on Investment may create instability
 - A risk that these countries will resist currency appreciation
 - Dynamics of appreciation difficult
 - Movement of other currencies in East Asia will become easier as and when China moves

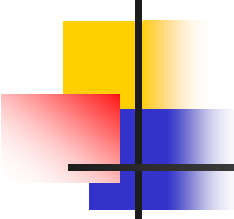


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- (iii) Pressure on Europe if there is not a resolution between the US and East Asia
 - Internal Imbalances in Europe make this harder
 - Adjustment may be impeded by fiscal imbalances



7 Resolving Fiscal Imbalances in the Longer Term

- With the recovery, fiscal positions will be strained.
- As the recovery comes,
 - investment and consumption will rise
 - Consumption will increase
 - Fiscal deficit risks becoming excessive –
- What will be required is ability to raise taxes
 - Note this difficult short/long transition
 - *Increase* in debt required in short term, but
 - *Control* over debt needed in longer term
- Time inconsistency - need credible promise of tax increases
- Long term interest rates may rise
 - Fear that taxes will not be raised
 - Fear that debt will be inflated away
 - Problem worsens if fear of public sector default.

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- Fiscal time profiles must assist resolution of global imbalances.
 - The fiscal discipline necessary in the deficit countries - in particular in the US and the UK - must be far greater than the fiscal discipline in the surplus countries.
 - Fiscal position
 - can remain disproportionately loose in surplus countries
 - fiscal pressures must not be resisted in deficit countries.
 - This could easily go wrong. Possibility of US interest rates rising
 - either to control inflation,
 - if debt is inflated away
 - Risk of capital being pulled into US government bond market in
 - This could then cause the dollar to rise, and currencies of other deficit countries could rise for similar reasons.
 - endangering the correction of global imbalances



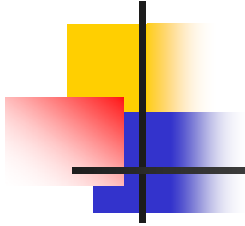
8 Global Policy Surveillance by the IMF

- A new alternative to the current non-system is needed
- Frameworks need to be broader than the inflation-targeting regime in which policies
 - do not produce financial boom and bust,
 - do not produce inappropriate fiscal outcomes.
 - do not produce external imbalances and inappropriate exchange rates,
- There needs to be a move towards some external enforcement of rules relating to these frameworks.



Surveillance of Macroeconomic Policy Regimes

- It is necessary to use *three* policy instruments (interest rate policy, regulatory supervision, and fiscal policy) in more appropriate ways.
 - (i) Interest rates: as at present to stabilise inflation and subject to that output
 - (ii) Countries will need to regulate their financial systems so as to limit speculative risk taking.
 - a limit to borrowing and to the leverage of financial institutions.
 - an increase in financial regulation which would limit the balance sheets of systemically important financial intermediaries.
 - Such limits tied to the fiscal capacities of host governments.
 - Without this, the use of interest rates to pursue inflation targets may give rise to the perverse boom-bust outcomes in asset markets.

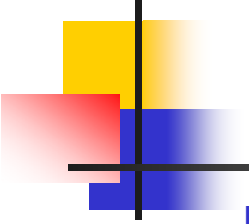


(iii) Exchange rates will continue to float.

- A country with excessive inflation will raise interest rates and the expectation is that this will allow the exchange rate to appreciate. Countries in which demand is too low will, as before, lower interest rates and allow exchange rates to depreciate.

(iv) Countries will need to manage fiscal policies sufficiently in line so that

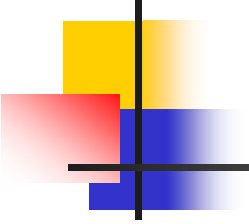
- interest rates do not impede forthcoming recovery
- induce inappropriate exchange rate movements over the medium term.

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- This virtuous policy trio of policies would *not* be self-enforcing
 - The IMF will need to enforce all three elements.
 - Making multilateral surveillance more effective
 - Macroeconomically the IMF's *World Economic Outlook* is the natural vehicles for this analysis, coordinated with the IMF's programme of multilateral surveillance. will imply a loss of policy sovereignty, particularly w.r.t fiscal policy.
 - Microeconomically IMF needs to play a role as a macroprudential supervisor – preferable that the Fund does this instead of FSB
 - Requires more effective global governance of the IMF
 - Removing Executive Board of Fund from Article IV reports.
 - Could strengthen the accountability of the Managing Director and his Deputies
 - Reporting to a strengthened IMFC
 - Agreement about multilateral surveillance will be difficult to achieve.
 - has so far been of limited effectiveness.
 - but current system is unsustainable.



Surveillance of Policy Regimes in which Exchange Rates are Managed

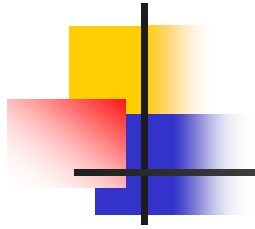
- Would induce emerging market economies to *not* to pursue macroeconomic policies which adversely affect the rest of the world.
- e.g. in China
 - an excess of Chinese savings over investment,
 - without an exchange rate that supported a trade surplus
 - would have produced a recession
 - could trigger a domestic demand-expanding policy response
- - in these circumstances, policy in the US,
 - would not have had huge trade deficit
 - would not have needed such low interest rates.

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- (i) The IMF would determine the appropriate exchange rate values for countries – ‘fundamental equilibrium exchange rates’.
 - The IMF would be given the power to require countries not to intervene in such a way as to steer their exchange rates away from these fundamental values.
 - It is difficult to specify equilibrium exchange rates.
 - Different ways give different answers
 - the IMF has three different methods. (IMF, 2007).
 - Thus, the Fund could only activate this requirement if a currency was judged to be a *significant* distance from its fundamental equilibrium level.
 - This would *not* involve an attempt by the IMF to impose, or fix, exchange rates.
 - It require that countries not intervene in an attempt to maintain exchange rates well away from fundamental equilibrium

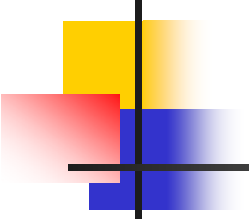


(ii) Need new system of provision of international reserves for emerging market economies

- Need to provide credible insurance to countries
 - Central Bank swap lines (Portes, 2009)
 - more ambitious 'reserve pooling' arrangements.
- *And* should involve a *new system* of reserve provision
 - IMF given power to make emergency issues of SDRs to fight crises.
 - making the IMF 'lender of first resort' (Cohen & Portes, 2006).
 - The IMF would issue SDRs to emerging market countries,
 - This would go well beyond recent issues of SDRs
- Would remove need for current account surpluses
- An additional advantage
 - with such a scheme is the US would be less tempted to overspend, since it would lose the "exorbitant privilege" of issuing the world's reserves.



- These two changes to the international monetary system also imply a loss of sovereignty, in two ways.
 - Would limit the ability of countries to set their exchange rates in ways which harm the rest of the world.
 - They would limit the ability of the US to run excessive deficits.
- Could be made mutually reinforcing in emerging market economies.
 - would be possible to link access to SDR financing to countries which were not intervening in such a way as to cause their exchange rates to be greatly undervalued
 - making this provision of insurance an alternative to running large current account surpluses.

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- Requires further changes to governance of the IMF
 - so that the Fund inspires confidence in emerging market economies.
 - That will need changes in the IMF's distribution of power, and voting structure, so as to reflect the changing realities of the world balance of economic power.
 - The *ad hoc* provision of increased quota shares to China, Korea, Mexico, and Turkey in 2006 was a first step
 - further steps discussed in run up to April summit
 - will require decisions to reduce the shares of others, esp in Europe.

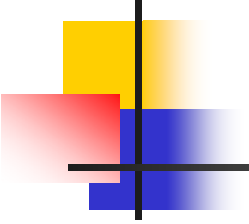


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Conclusion

Three features have contributed to instability –

- monetary policies in advanced countries confined only to inflation targeting,
- exchange rates floating in some countries but managed in other countries,
- and a financial system in advanced countries with a high degree of leverage
- Interest rates fell a great deal
 - Undervalued exchange rates in East Asia *and*
 - use by the US of monetary policy to ensure a steady growth in demand
 - In the presence of a highly leveraged financial system, such a large fall in interest rates created an outcome in which continued growth was built on fragile foundations.
- With leverage this meant growth was built on fragile foundations.

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- Keynes' two arguments remain valid
 - need for global support of policies in individual countries,
 - need for global coordination of polices.
 - Need rules-based system, and & global surveillance of national policies.
 - Requires enhanced surveillance of national macroeconomic policies.
 - Central to this is the need to ensure that fiscal policies do not support outcomes in which exchange rates remain away from the levels necessary to ensure more balanced external positions in the longer term.
 - Stronger global surveillance of national financial systems.
 - For countries which peg their exchange rates,
 - To this surveillance must be added a provision of international reserves in a way not dependent on the dollar.