# The Global Macroeconomic Crisis and G20 Macroeconomic Policy Coordination

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*Istiseo Summers School, June 22, 2009*

# 1 Introduction

- Global Crisis
- This paper
  - Origins
  - Onset
  - Short Term Policy Responses
  - Medium Term:
    - Resolving Global Imbalances
    - Resolving Fiscal Imbalances
- Coordination Issues

# 2 Origins

## 2.1 The Savings Investment Imbalance in East Asia

- Investment fell drastically after the Asian crisis
  - China: 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 why export not domestic growth subsequently?
  - 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.

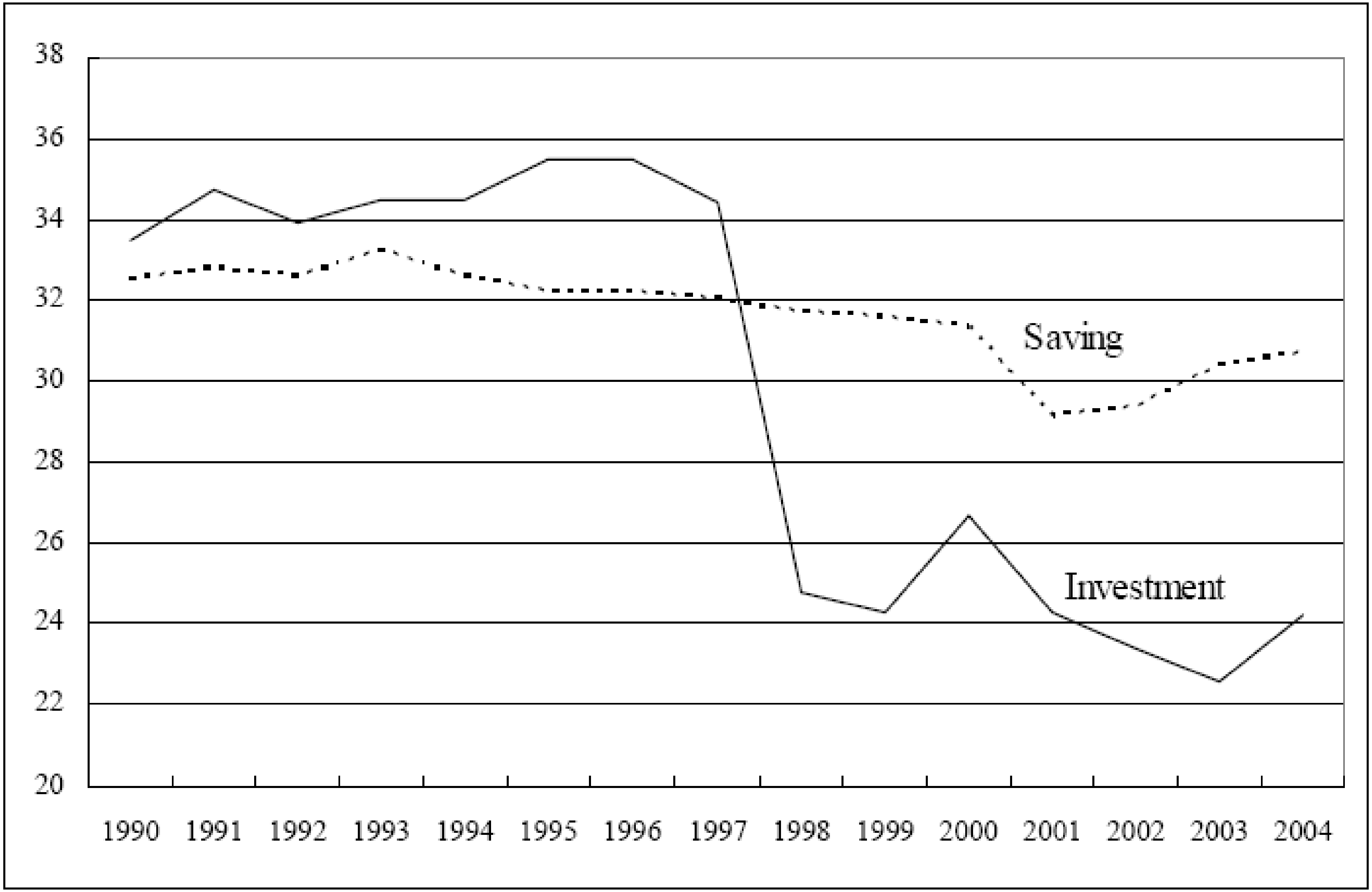


**Figure 2.**

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

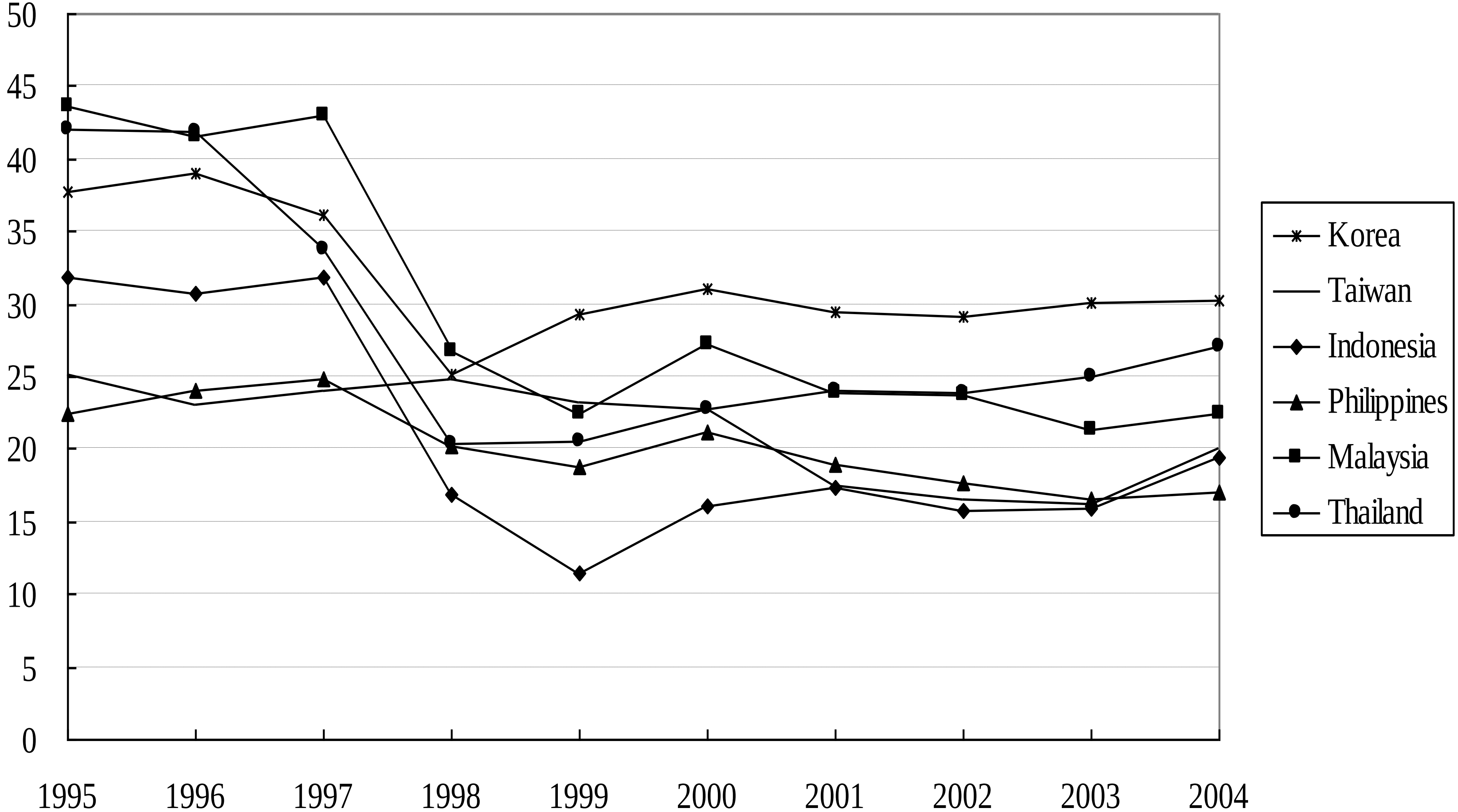
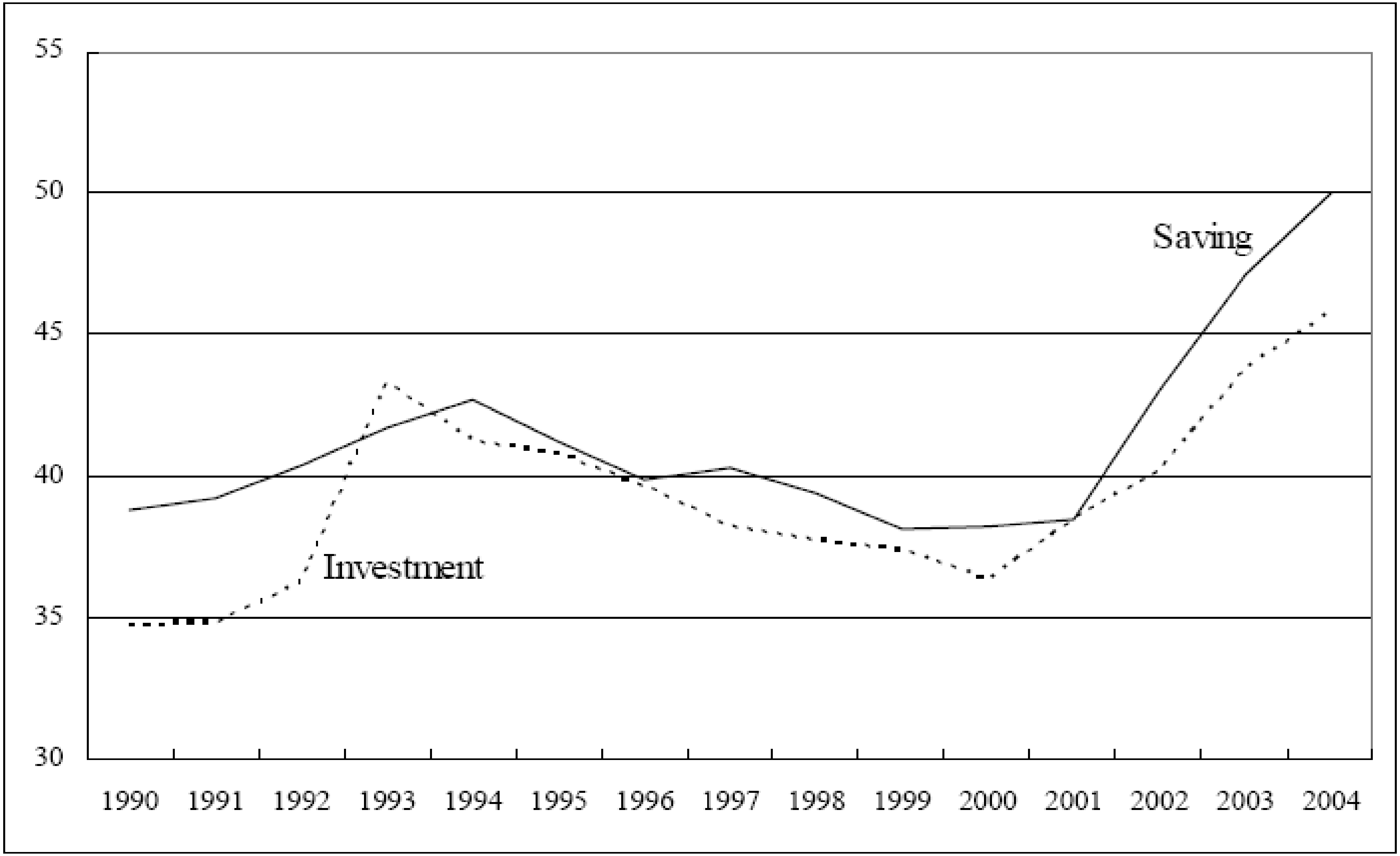


**Figure 3.**
**Saving and Investment in China, as a % GDP, 1990-2004**

A.

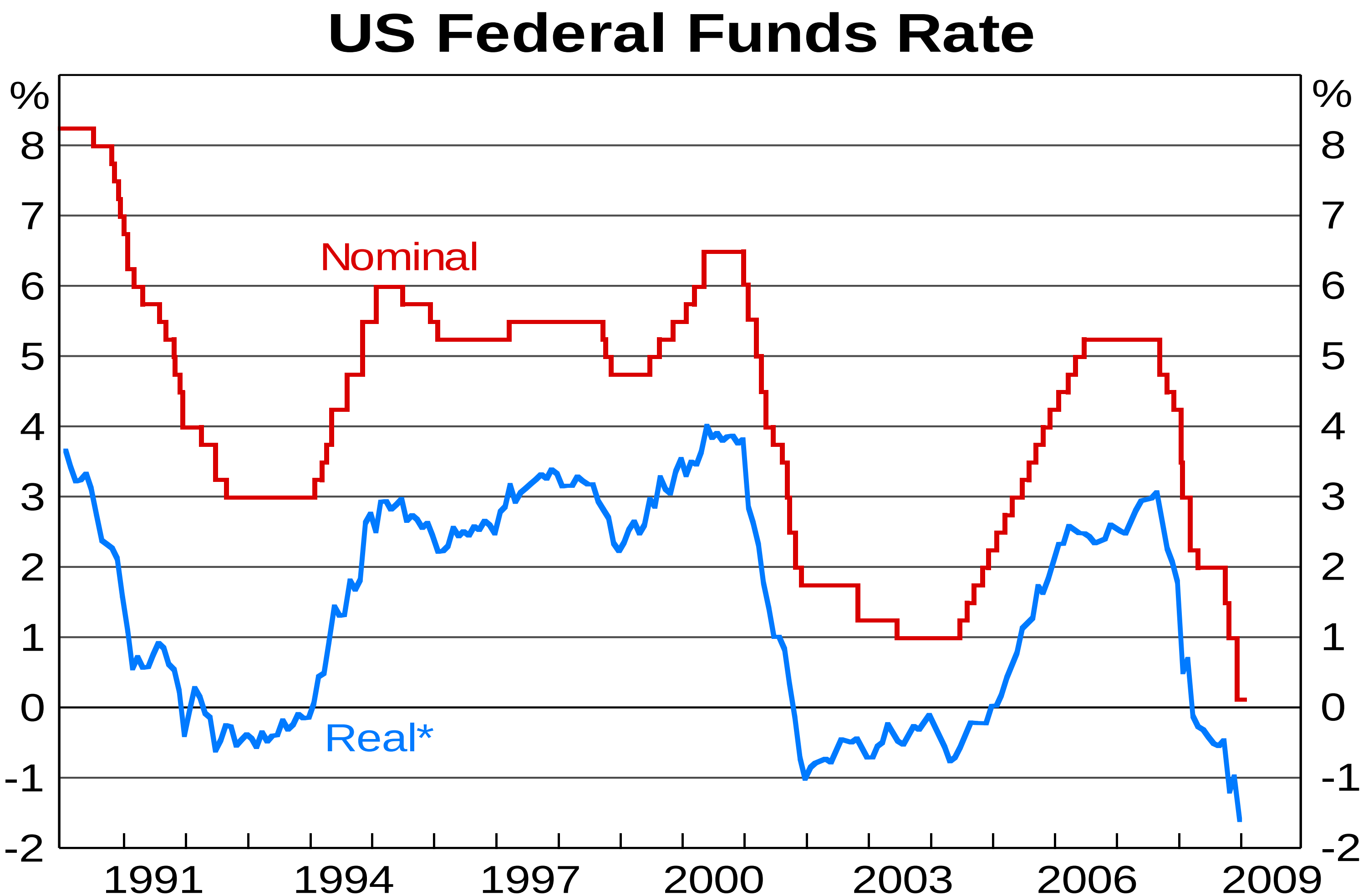


# 2.2 Implications for US and Global Interest Rates

- After dot-com collapse world IS curve shifted left in 2001
  - 'Greenspan put' – low interest rates - a *response* to this
  - Alternative was large downturn in 2002.
- But undervalued exchange rates in East Asia meant that
  - low US interest rates caused low world interest rates *and*
  - appreciated exchange rates of advanced currencies
- Together these led to global imbalances:

  ensured that US savings fell by more than investment
  - current account deficit in the US – and also the UK, Australia and elsewhere
- Had dollar fallen there would have been much less low interest rates, in the US and world wide

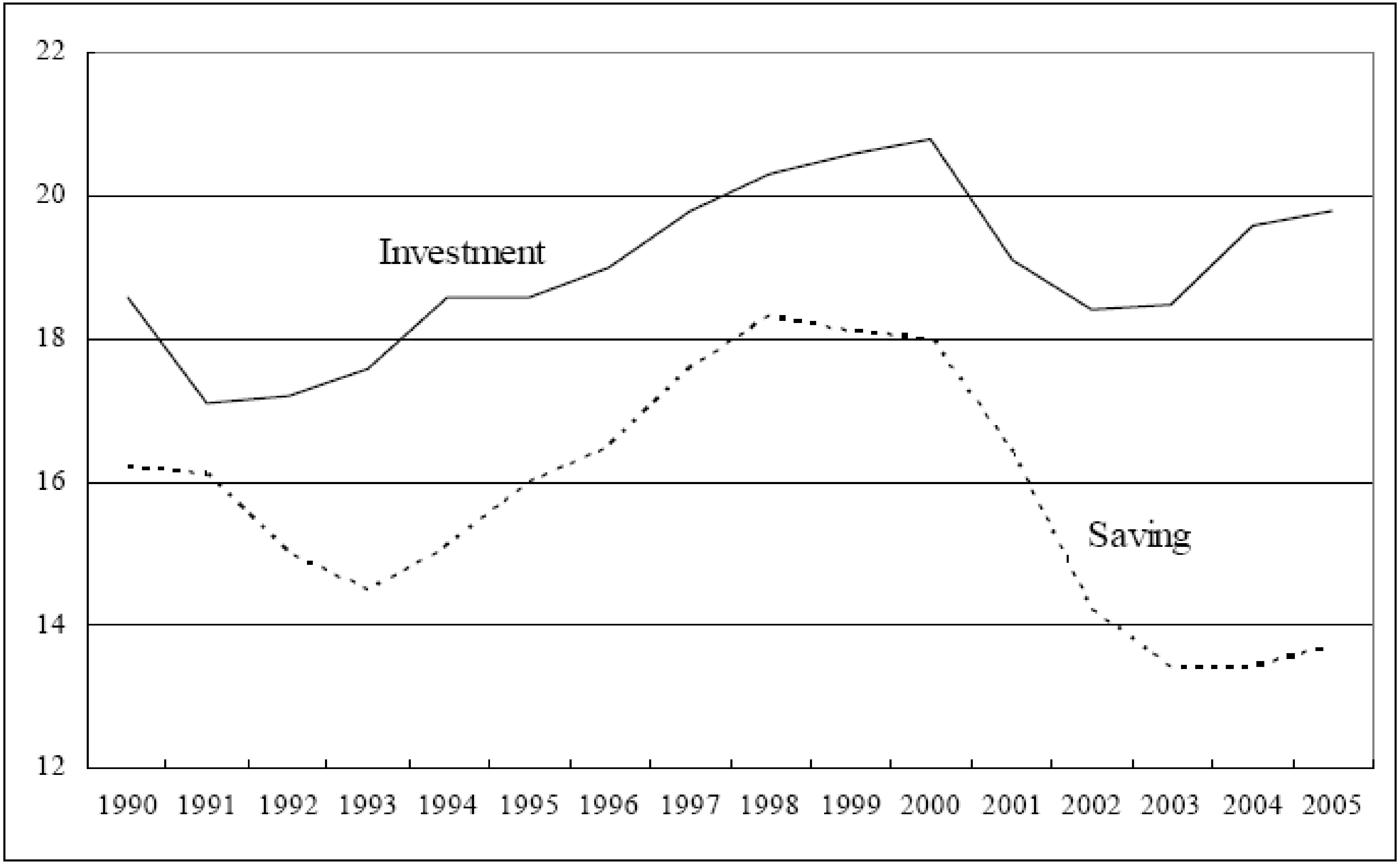
# Figure 4




* 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**

**A.**



# 2.3 Transmission Mechanism in US

Rise in Asset Prices

- Straightforward in riskless assets – long govt bonds
- More Complex for Riskier Assets
  - *Supply* of mortgages rose: search for yield, pursued through leverage
  - *Demand* for mortgages collateral constrained
  - prices rose gradually
- Very large increase in financial wealth – the means of monetary transmission
  - Financial liberalisation crucial
- Risk of increases in interest rates
  - Other countries exposed to this risk

# 3 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

# 4 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 wants to free ride on expansion coming from others.

# 5 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 insufficient recovery of domestic demand in the surplus countries
  - A risk that these countries will resist currency appreciation
  - China appears to be moving in right direction
    - Will be hard to reduce savings
    - Appreciation of the exchange rate will be *big* challenge
      - Dynamics of appreciation difficult
  - Movement of other currencies in East Asia will become easier as and when China moves

- (ii) Additional 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
- (iii) Pressure on Europe if there is not a resolution between the US and East Asia
  - Internal Imbalances in Europe make this harder
- (iv) Risk of Sovereign Debt Crisis in Eastern Europe
- Adjustment may be impeded by fiscal imbalances

# 6 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.

- 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

# 7 G20 Cooperation and Global Policy Surveillance

- We need a different way of managing macroeconomic policy internationally
  - in ways that do not produce external imbalances and inappropriate exchange rates,
  - do not produce financial boom and bust, and
  - do not produce inappropriate fiscal outcomes.
- The requirements for this are different for advanced countries and emerging market

## 7.1 G20 Advanced Economies

- Amongst advanced G20 countries, it is necessary to use three policy instruments (interest rate policy, regulatory supervision, and fiscal policy) in more appropriate ways.

(i) Interest rates: to stabilise inflation and output.

- 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.

(ii) Countries will need to regulate their financial systems so as to limit speculative risk taking.

- This involves a limit to borrowing and to the leverage of financial institutions.
- It involves an increase in financial regulation which would limit the allowable increases in balance sheets of systemically important financial intermediaries.
- Such limits will need to be 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) 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.

- 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
  - 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.
- 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.

## 7.2 G20 Emerging Market Economies

In emerging market economies two changes needed

(i) Abandon pursuit of inappropriate exchange rates

- 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.

- The IMF would determine the appropriate exchange rate values for countries – ‘fundamental equilibrium exchange rates’.
  - 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.
  - 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.
  - 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
  - The IMF would issue SDRs to emerging market countries,
  - IMF given power to make emergency issues of SDRs to fight crises.
    - making the IMF 'lender of first resort' (Cohen & Portes, 2006).
  - 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.

- 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.

## 7.3 Multilateral Cooperation – the Issues

- Amongst advanced countries requires enhanced surveillance
  - Of monetary, financial and fiscal policies
  - cooperation to ensure that
    - Global imbalances are resolved
    - Fiscal imbalances are resolved
    - Requires further changes to governance of the IMF
- Amongst emerging market economies requires
  - Surveillance to ensure that countries do not intervene to maintain inappropriate exchange rates
  - A new method of reserve provision
- Both will require improved management and governance of the IMF

## Additional Notes: International Transmission Through Exports

- Foreign Trade Multiplier
  - $y_1 = x_1 + \beta r_1 + \gamma y_2 - \delta a$ Demand in US
  - $y_2 = x_2 + \beta r_2 + \gamma y_1 + \delta a$ Demand in China
  - $y_1 = y\hat{}_1$ Monetary policy in US
  - $y_2 = y\hat{}_2$ Monetary policy in China
  - $r_1 = r_2$
- Turns into story about global interest rates and exchange rates

# International Transmission Thro' Financial Sector

- Home
  - Supply of assets for HL investors depends positively on q
  - Demand for assets by HL investors depends positively on q
    - (since they leverage their equity which depends positively on q)
  - Equilibrium outcome for q
  - Show effect of increase in non-HL demand for assets, and reverse
- Two country world
  - As above, and demand for home assets depends on q*,
  - Similarly for abroad, and demand for foreign assets depends positively on q
  - Positive interaction between q and q*
- Thus
  - Show effect of increase in non-HL demand for assets, & reverse
  - International Financial Multiplier