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Through Strengthening Fiscal Institutions and  
Medium-Term Budget Frameworks*

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**INDIAN POLICY RESPONSE TO THE GLOBAL  
FINANCIAL CRISIS**

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\*Views are personal and not those of GOI

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- Global Policy Response
- Indian Policy Response
- The Policy Aftermath
- 12 Policy Lessons

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## Global Policy Response

### Comparing Recessions

Comparing Recessions				
<i>% change</i>	<b>1975</b>	<b>1982</b>	<b>1991</b>	<b>2009</b>
Output per capita (PPP)	-0.13	-0.89	-0.18	<b>-2.5</b>
Consumption per capita	0.41	-0.18	0.62	<b>-1.11</b>
Investment per capita	-2.04	-4.72	-0.15	<b>-8.74</b>
Industrial production	-1.6	-4.33	-0.09	<b>-6.23</b>
Trade	-1.87	-0.69	4.01	<b>-11.75</b>
Capital Flows/GDP	0.56	-0.76	-2.07	<b>-6.18</b>

## Parallels with the Great Depression

- Preceded by
  - Asset price booms: stocks then, housing now
  - Both bubbles created by easy FED policy and credit
  - Problems in the international monetary system: post WWI bankruptcy in Europe made it dependent on easy US Credit then; bankrupt US dependent on Asian credit now?
- Run on banks:
  - Conventional then: deposit banking
  - Digital run now: capital market based shadow banks now
- Collapse of financial institutions and credit
- Globally synchronized with origins in the US
- Difference: gold standard and policy response

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## Global Policy Response to the Crisis I

- Very aggressive monetary and fiscal policies
- Divide between fiscal and monetary policies blurred
- Monetary:
  - Lower zero bound interest rates
  - Unconventional monetary policy
    - Quantitative Easing
    - Credit Easing
- Fiscal:
  - Re-emergence of fiscal policy as monetary policy ('first line of defence') transmission falls into liquidity trap
  - Used for stimulus and financial bail out

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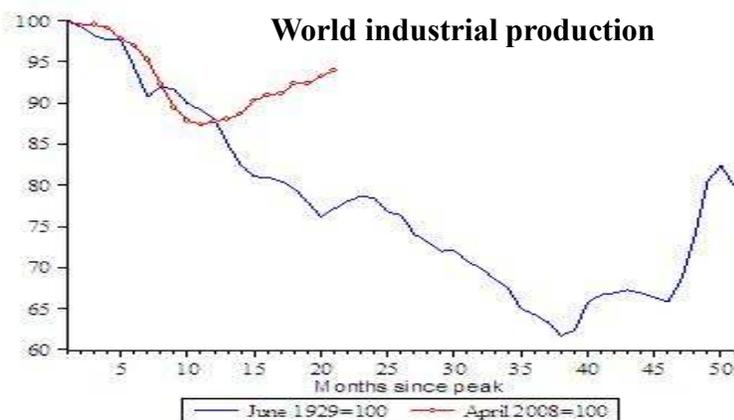
## Global Policy Response to the Crisis II

- Virtual nationalization of the financial system
  - FDIC too small
  - SIFIs renders Bagehot Rule (lend freely in crisis, but only at penal rates and only when illiquid not insolvent) irrelevant
- Unlike in Great Depression, great restraint in use of Trade Policy
- Globally Coordinated Response through G 20
- Averted a Second Great Depression?

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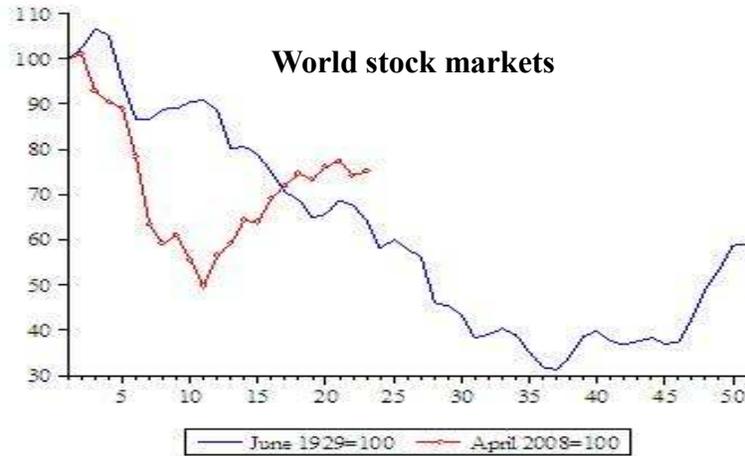
## A Tale of Two Depressions

Eichengreen and O'Rourke (*February 2010*) *vox.eu*

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## A Tale of Two Depressions

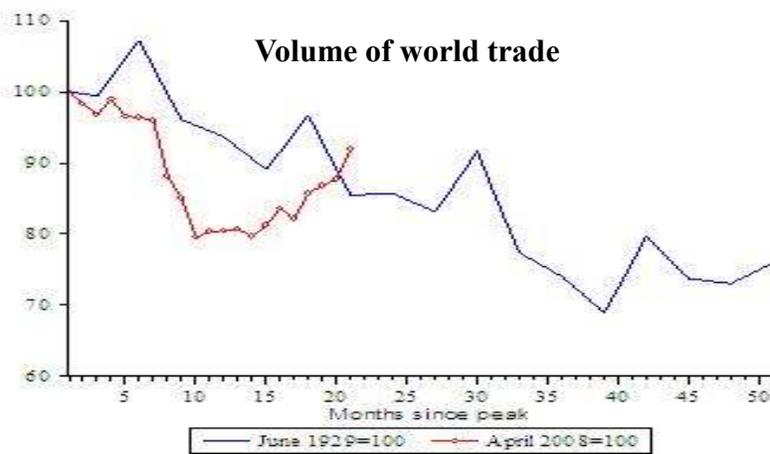


Eichengreen and O'Rourke (*February 2010*) *vox.eu*

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## A Tale of Two Depressions



Eichengreen and O'Rourke (*February 2010*) *vox.eu*

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## US Federal Reserve Balance Sheet

Date	Depository Institutions funds with US Fed in US\$ Trn			Monetary Base in US\$ Trn	TOTAL Assets in US\$ Trn
	TOTAL	Own	Required		
Mar-07	0.04	0.04	0.04	0.81	
Nov-07	0.04	0.04	0.04	0.83	0.9
Mar-08	0.05	-0.06	0.04	0.82	0.9
Nov-08	0.61	-0.09	0.05	1.43	2.1
Mar-09	0.78	0.17	0.06	1.64	2.1
Nov-09	1.14	0.92	0.06	2.01	2.2
Mar-10	1.18	1.09	0.06	2.1	2.3
Nov-10	1.04	0.99	0.07	1.97	2.3
Mar-11	1.44	1.42	0.07	2.4	2.6

US Federal Reserve

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## OECD Fiscal Response

Table 1.1. Fiscal Balances, 2007–11  
(Percent of GDP)<sup>1</sup>

	2007	2008	2009	Projections	
				2010	2011
<b>Overall Balance</b>					
World	-0.4	-2.0	-6.8	-6.0	-4.9
<b>Advanced Economies</b>					
United States	-2.7	-6.7	-12.9	-11.1	-9.7
Euro Area	-0.6	-2.0	-6.3	-6.7	-5.1
Germany	0.2	0.0	-3.1	-4.5	-3.7
France	-2.7	-3.3	-7.6	-8.0	-6.0
Italy	-1.5	-2.7	-5.2	-5.1	-4.3
Spain	1.9	-4.1	-11.2	-9.3	-6.9
Japan	-2.4	-4.1	-10.2	-9.6	-8.9
United Kingdom	-2.7	-4.9	-10.3	-10.2	-8.1
Canada	1.6	0.1	-5.5	-4.9	-2.9
Others	4.3	1.9	-0.9	-0.7	0.0

IMF, *Fiscal Monitor*, November 2010

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## EME Fiscal Response

Emerging Economies	0.0	-0.6	-4.8	-4.2	-3.3
Asia	-0.8	-2.3	-4.7	-4.5	-3.9
China	0.9	-0.4	-3.0	-2.9	-1.9
India	-4.2	-7.6	-10.1	-9.6	-8.8
ASEAN-5	-1.2	-0.7	-3.6	-3.0	-2.9
Europe	2.1	0.3	-6.1	-5.1	-4.0
Russia	6.8	4.3	-6.2	-4.8	-3.6
Latin America	-1.2	-0.6	-3.7	-2.6	-2.2
Brazil	-2.6	-1.3	-3.2	-1.7	-1.2
Mexico	-1.3	-1.4	-4.9	-3.6	-3.0
Low-Income Economies	-1.8	-2.0	-4.4	-3.4	-3.2
Oil producers	2.2	1.9	-4.7	-3.2	-2.2

IMF, *Fiscal Monitor*, November 2010

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## Fiscal support for financial sector

Table 1.3. Selected Advanced Economies: Recovery of Outlays and Net Cost of Financial Sector Support<sup>1</sup>  
(As of end-June 2010; Percent of GDP unless otherwise indicated)

	Direct Support		Recovery	Net Direct Cost
	Pledged	Utilized		
Germany <sup>2</sup>	6.8	4.7	0.0	4.6
United Kingdom	11.9	7.3	1.2	6.1
United States	7.4	5.3	1.7	3.7
Average (end-June 2010)	7.9	5.4	1.4	4.1
In billions of U.S. dollars	1,549	1,074	265	809
Average (end-Dec 2009)	7.9	5.1	1.1	4.0
In billions of U.S. dollars	1,544	1,006	210	796

Sources: Country authorities; and IMF staff estimates.

Note: Updates reflect new measures, as well as some reclassification indicated by the authorities.

<sup>1</sup> The three countries shown in the table account for about three-quarters of worldwide financial sector support. For more details on the support measures provided by advanced G-20 economies, see Table 5 of the May 2010 *Fiscal Monitor*.

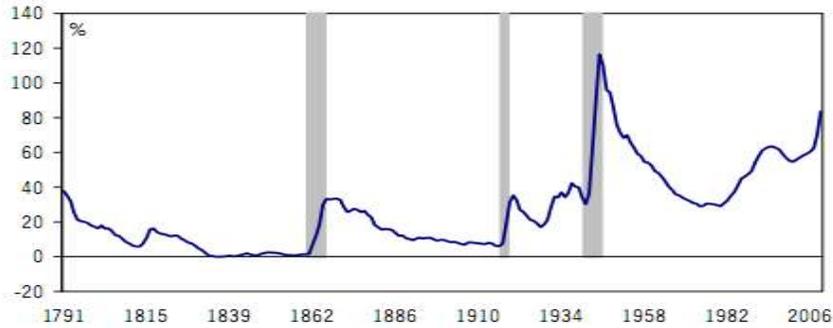
<sup>2</sup> For Germany, the pledged amount includes €85 billion (3½ percent of GDP) for asset purchases.

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## Biggest Peacetime Increase in US Public Debt

Figure 6. US – US Treasury Debt (% of GDP), 1790-2009



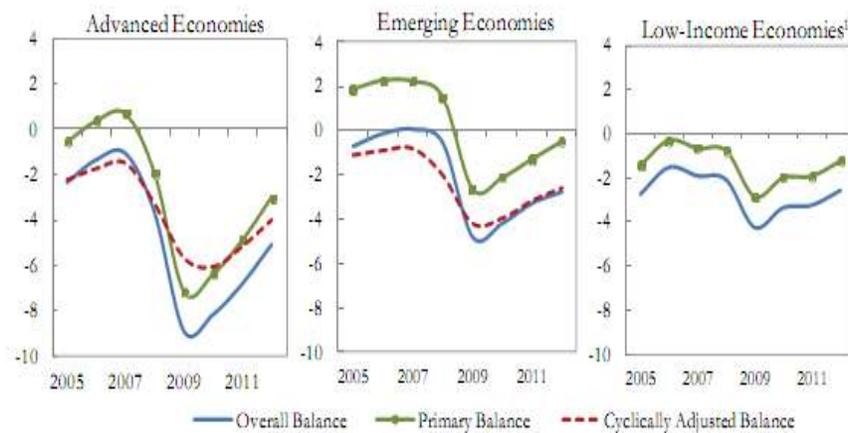
Note: Shaded areas represent American Civil War (1861-1865), World War I (1917-1918) and World War II (1941-1945). Sources: US Nominal and Real GDP 1790-2009: Louis D. Johnston and Samuel H. Williamson, "What Was the U.S. GDP Then?" Measuring Worth, 2009. URL: <http://www.measuringworth.org/usgdp/> US Treasury securities outstanding: US Treasury and Citi Investment Research and Analysis

William Buiter, **Sovereign Debt Problems in Advanced Industrial Countries**. Citigroup Global Markets Global Economics View. 26 April 2010

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Figure 1.1. Fiscal Balances, 2005-11  
(Percent of GDP)



Source: October 2010 *WEO* and IMF staff calculations.

<sup>1</sup> Cyclically adjusted data are not available for several countries.

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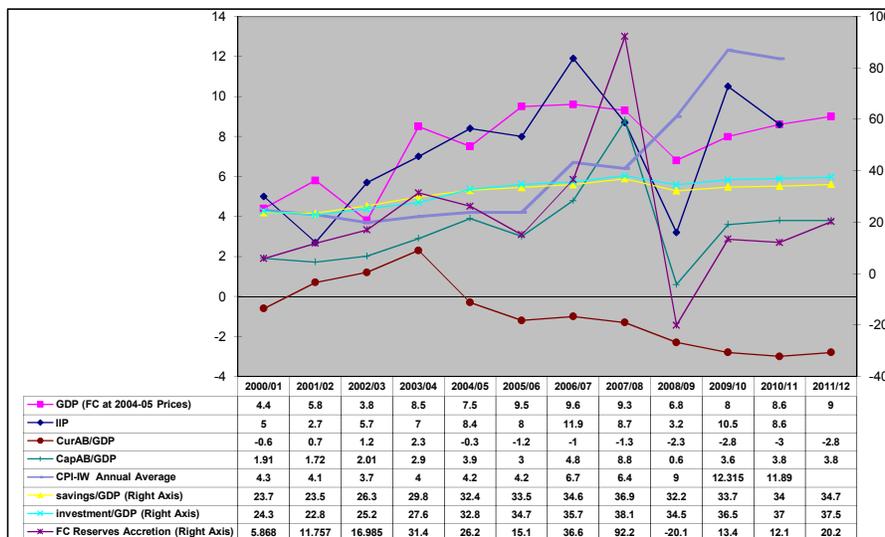
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## Indian Policy Response

### India on eve of Credit crunch

- **Growing strongly** at above 8% for 5 years
- **Animated debate:** growth above trend or trend growth up.
  - **Savings and investment** (esp. private) rising smartly
  - **Prices** more or less within tolerance level of 6%
  - **Monetary tightening** dampened growth?
  - Corporates **circumvented monetary policy** through ECB
- **Growth created fiscal space** over last few years
- **Financial sector** in relatively good shape
  - Implementation of **Basel II norms**
  - Regulated on premise that financial transactions anchored in **real sector**.
  - **Leverage** levels not excessive and corporate profits were good
  - **Insignificant exposure** to opaque, illiquid asset backed securities.
  - Conservatively managed with **calibrated** opening up
  - **Asset prices targeted** by central bank
  - Good cushion of **FE Reserves**

## Macroeconomic Fundamentals



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## Initial Impact of Credit Crunch (Post Aug 2007)

Sharp rise in net K flows

- Stock market boom
- Rupee appreciation
- Sharp rise in reserves
- Fiscal deterioration because of oil price boom
- Inflationary
  - Oil and food prices rise sharply
- Central Bank grapples with the impossible trinity
  - Stabilize GDP: raise rates?
  - Stabilize exchange rate: lower rates?

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## Second Round Impact of Credit Crunch

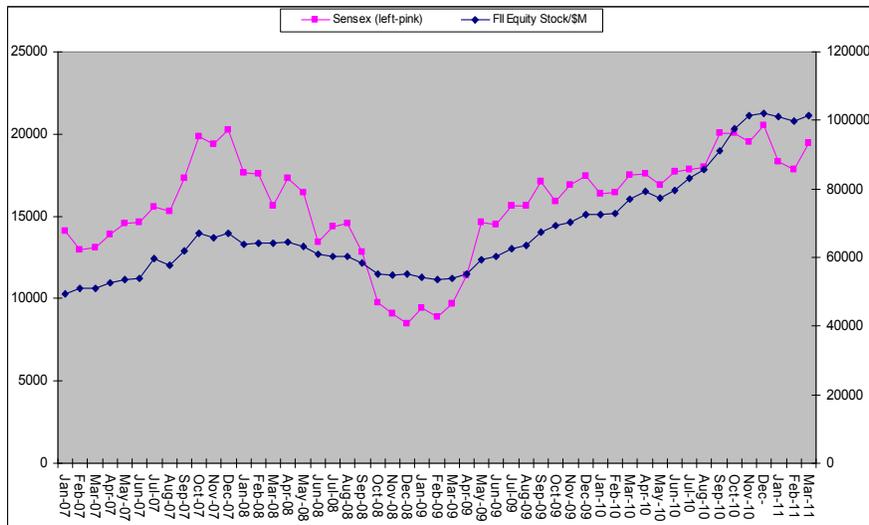
(post Lehman crisis)

- Sharp decline in net **K flows**
  - **Stock market** crash
  - Rupee **depreciation**
  - **Capital account** slips into deficit for the first time in several years.
- **Inflation** moderated
  - **Commodity** bubble pricked
  - Liquidity tight
    - **Squaring positions** overseas
    - Big increase in **fiscal deficit**
    - Sharp decline in **capital market** financing
    - Financing burden on banking sector: increase in **bank credit growth**
- **Transmission from financial to real sector?**
  - **Economic downslide** led by industrial growth and exports
  - **Services sector growth held firm**
  - **Rural economy** in relatively better shape
    - Terms of trade effect ,income growth through NREGS and agricultural debt waiver.
- **Economic growth amongst two fastest globally**

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## Asset Bubbles? India: FII Stocks and Sensex



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## Monetary Policy

- Monetary Easing
  - benchmark overnight **lending rate** (Repo) cut by 425 basis points from 9% to 4.75% between July 29, 2008 and March 5, 2009.
  - Mandatory **reserve requirements** reduced
  - **Liquidity injection** of about 9% of the GDP through lowering bank cash reserve requirements and special refinance facilities.
  - Unlike western countries monetary policy retained **traction**. No liquidity spillovers and or need for unconventional measures.
  - **Transmission** mechanism weak because of illiquid corporate bond market and key administered interest rates. (*Structural not crisis related feature*)<sup>Alok Sheel</sup>

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## Fiscal Policy

- Fiscal expansion
  - net **additional expenditure** in 2008-09 upwards of \$ 35 billion (Rs. 160000 crore), about 3.5 % of GDP over & above budgeted deficit of 2.5%
  - State govts given additional headroom of .5% of GDP in 2008-09 and 2009-10
  - Not all of this is crisis linked, and **begun in first phase** of the credit crunch – therefore timely.
  - **Mostly consumption oriented**: enhanced outlays on social protection and employment generation schemes, farm loan waiver, support prices for farmers, public sector pay rise, reductions in indirect taxes – therefore targeted
  - Most expenditures theoretically self-limiting
  - **Fiscal Space**
    - Structural
    - Crisis linked (contraction of private demand creates more space): market borrowings almost doubled in 2008-09 and rose by further 70% in 2009-10 without upward pressure on interest rates.
    - No increase in public debt despite aggressive fiscal response.

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## Macroeconomic Policy Outcomes

- Quick recovery: fall to 6.8% in 2008-09, back to 8% plus from 2009-10.
- Along with China continued to be amongst the fastest growing economies
- Despite one of the most aggressive fiscal responses, public debt/GDP ratio has fallen
- Fiscal policy timely (kicked in just as private consumption, exports and investment declined), targeted (consumption), and co-ordinated (through G 20). Temporary?
- Unlike western economies monetary policies led to revival of credit growth: transmission mechanisms effective.

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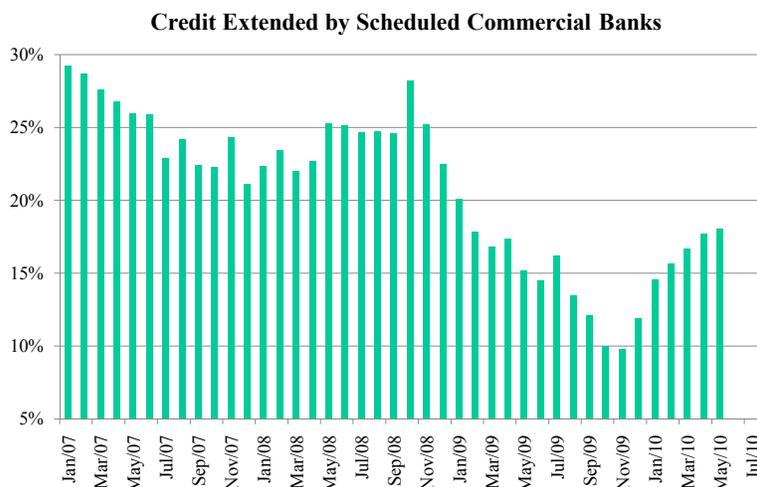
## *Rates of Quarterly Growth*

	2007-08*				2008-09*				2009-10#				2010-11#		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
<b>PFCE</b>	<b>8.1</b>	<b>5.9</b>	<b>6.4</b>	<b>5.7</b>	<b>4.5</b>	<b>2.1</b>	<b>2.3</b>	<b>2.7</b>	<b>2.9</b>	<b>6.4</b>	<b>5.3</b>	<b>2.6</b>	<b>11.8</b>	<b>10.0</b>	<b>10.3</b>
<b>GFCE</b>	<b>-1.4</b>	<b>11.1</b>	<b>3.0</b>	<b>19.5</b>	<b>-0.2</b>	<b>2.2</b>	<b>56.6</b>	<b>21.5</b>	<b>15.3</b>	<b>30.5</b>	<b>2.5</b>	<b>2.1</b>	<b>8.7</b>	<b>10.1</b>	<b>-1.8</b>
<b>Investment</b>	<b>15.6</b>	<b>17.9</b>	<b>16.9</b>	<b>13.1</b>	<b>9.1</b>	<b>12.6</b>	<b>5.8</b>	<b>5.3</b>	<b>-0.3</b>	<b>2.1</b>	<b>8.4</b>	<b>17.3</b>	<b>32.1</b>	<b>23.4</b>	<b>12.8</b>
<b>CAB</b>	<b>-22.6</b>	<b>-6.2</b>	<b>-11.9</b>	<b>278.3</b>	<b>75.9</b>	<b>62.1</b>	<b>75.4</b>	<b>-30.8</b>	<b>29.8</b>	<b>6.1</b>	<b>0.3</b>	<b>113.4</b>	<b>10.1</b>	<b>-4.8</b>	<b>-47.2</b>
<b>Exports</b>	<b>1.7</b>	<b>-0.4</b>	<b>15.0</b>	<b>12.6</b>	<b>25.6</b>	<b>24.3</b>	<b>7.1</b>	<b>-0.8</b>	<b>-16.0</b>	<b>-15.8</b>	<b>7.5</b>	<b>14.2</b>	<b>12.6</b>	<b>11.5</b>	<b>14.7</b>
<b>Less Imports</b>	<b>0.6</b>	<b>-2.2</b>	<b>8.0</b>	<b>27.2</b>	<b>27.4</b>	<b>35.3</b>	<b>21.7</b>	<b>-5.7</b>	<b>-8.5</b>	<b>-10.5</b>	<b>5.8</b>	<b>-3.7</b>	<b>12.0</b>	<b>6.8</b>	<b>-1.1</b>

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## Bank Credit



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## Exit Policies

- Unlike western countries monetary exit preceded fiscal exit
  - RBI amongst first G 20 central banks to signal exit which actually began from January 2010
  - Since then CRR raised from 5% to 6%, SLR from 24% to 25%, repo from 4.75% to 6.75%, policy corridor lowered from 125 to 100 bp
  - More tightening imminent as real rates still negative
- Fiscal exit relatively more modest
  - Combined fiscal deficit of centre and states rose from 4.1% in 2007-08 to 8.5% in 2008-09 and 9.5% in 2009-10. Sharp reduction in central fiscal deficit in 2010-11 to 5.1% from 6.4% in 2009-10 on the back of revenue windfall. Will inflation tax finance rising subsidies and interest burden consequent on monetary tightening?

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## Growth Upsides

- **Financial sector** robust and not highly leveraged:  
**Commercial banks** healthy balance sheets: uptrend in credit:
- **Less dependent on exports** compared to other EMEs.
- Domestic enterprises have become more internationally **competitive** because of trade policy reforms
- **Robust domestic demand** on account of shift in terms of trade, MSP hike, farm loan waiver and NREGS
- **Basic pre-crisis growth drivers** of savings and investment in place
- **External payments** situation comfortable: huge reserves
- **Monetary and fiscal space** available to address another dip

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## Growth Downsides

- **Inflationary pressures, especially food and oil**
- **Uncertain external environment**
- **Fiscal space limited** to deal with second dip:
  - Gross debt high, but mainly domestically held, and **Domar Gap** comfortable
  - Main danger ahead is **crowding out** in domestic market
- Monetary tightening: threat of **rising interest rates (still negative in real terms)** to sustaining high growth rate

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## The Policy Aftermath

### The Fiscal Aftermath

- Cyclical deficits widen and public debt typically rises after deep recessions.
- Effective macroeconomic management entails growing out of cyclical deficits and debt.
- Sovereign debt problems compounded by market response to irresponsible macroeconomic management in some euro-zone countries: PIGS
- Fears of debt trap and inflationary outcomes extends beyond PIGS.
- In the absence of global demand rebalancing, prospects of return to pre-crisis growth in OECD are bleak

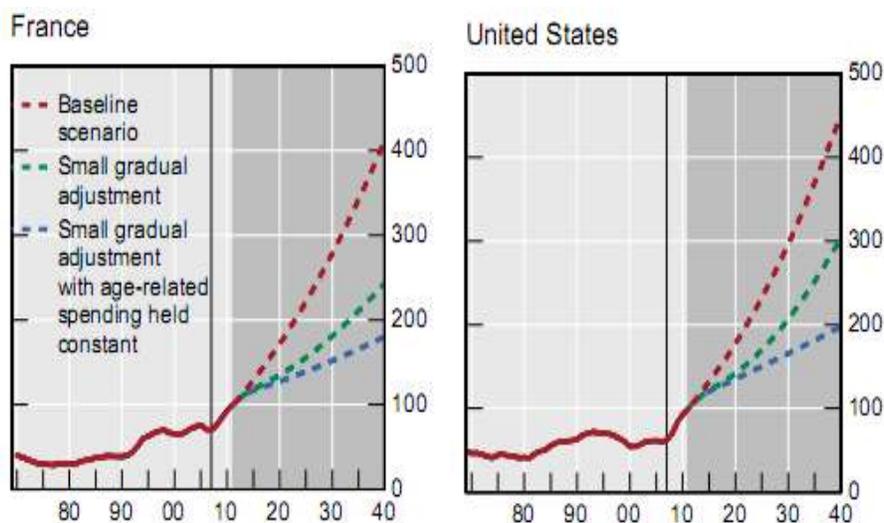
## Two views on Post Crisis Debt

- **Barry Eichengreen:** causal link between elevated public debt post crises and lower growth is from the latter to the former, i.e little evidence of crowding out
  - Low growth means a negative revenue shock
  - Interest rates do not rise as expected because of weak private demand.
  - Deficits aimed at supporting the financial sector may actually help investment
- **Ken Rogoff:** Debt levels in developed countries have reached levels that have impaired growth in the past. At any point the interest demanded by markets on public debt could rise, making existing debt levels unsustainable

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## The Fiscal Aftermath



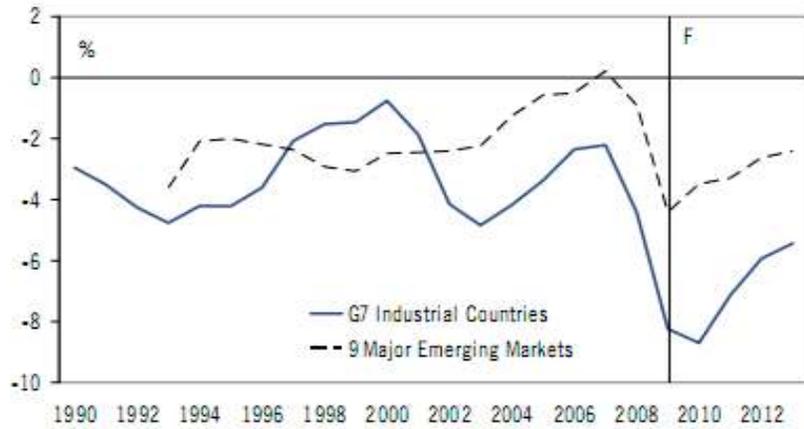
Source: BIS

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## Reversal of Roles I

Figure 4. Global — Fiscal Deficits in Industrial Countries and Emerging Markets, (% of GDP), 1990-2013F

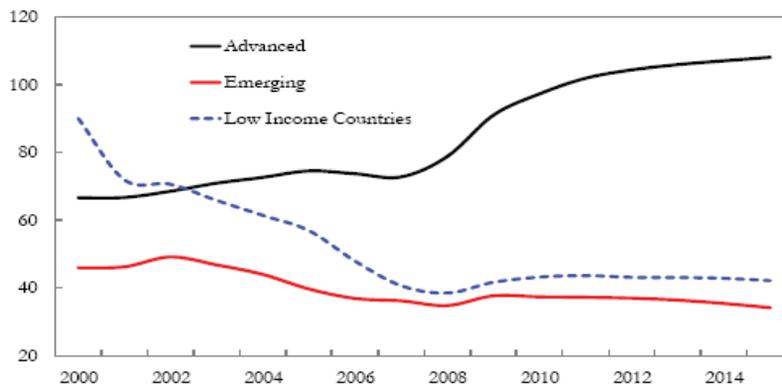


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## Reversal of Roles II

Figure 1.6. General Government Gross Debt Ratios (Percent of GDP; 2009 PPP-GDP weighted average)

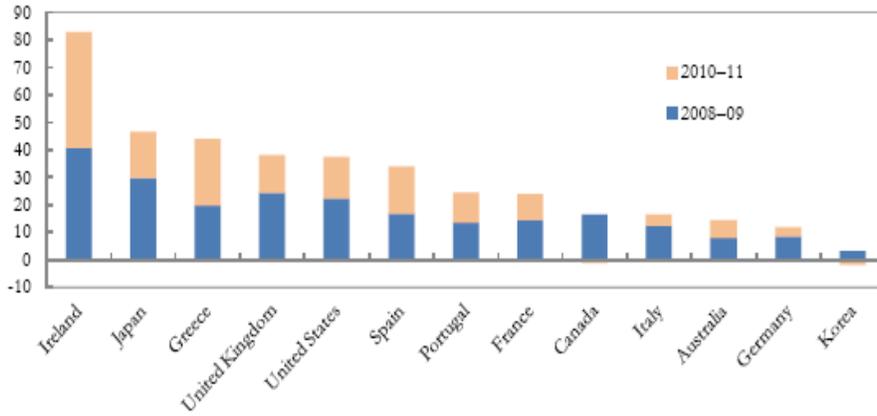


Source: IMF staff estimates based on October 2010 WEO projections.

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Figure 1.7. Selected Advanced Economies: Changes in Public Debt, 2008-11  
(Percentage points of GDP)

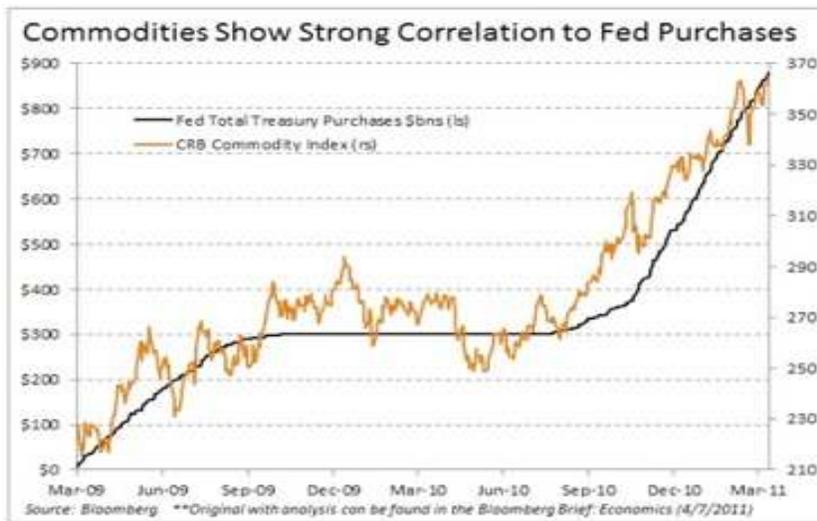


Source: October 2010 WEO.

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## Monetary Aftermath: QE and Commodity Prices



The Cure for High Prices, John Mauldin's Weekly E-Letter, Apr. 16, 2011

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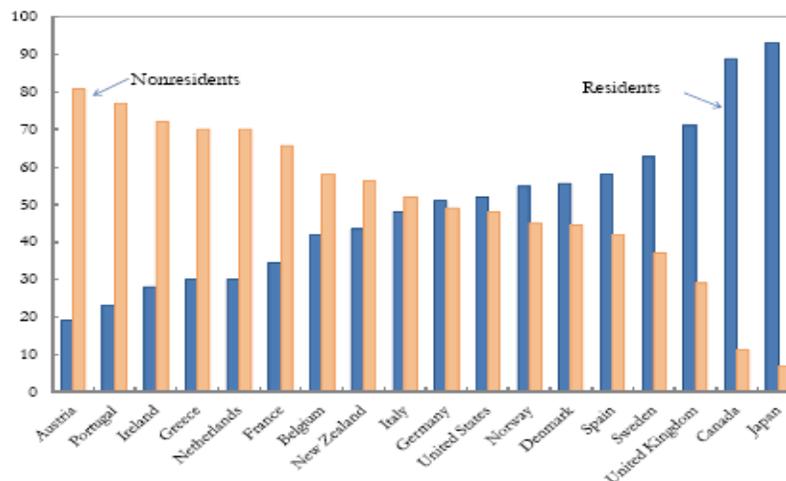
## How long can aggressive stimulus be sustained?

- Japanese public debt 200% of GDP without crowding out impact because of externally generated private domestic saving. External environment no longer benign.
- The tight embrace of US and Chinese economies sustained the pre-crisis 'goldilocks' economy.
- US deficits dependent on foreign savings, and hence on continuing global imbalances: Bretton Woods III ?
- US problem is politically sensitive unemployment figures not global imbalances.
- Sustainability of the current model hinges on the extant international monetary system where dollar occupies the role of the global reserve currency.
- Strategic depth, first mover advantage and continuing globalization makes it difficult to dislodge the dollar.
  - Current crisis has further underscored its status
  - Chinese attempts to diversify into yen drove Japan to buy dollars to defend its currency: result same if China had bought dollars!
- European sovereign debt crisis indicates that other countries expand their fisc at their own peril.

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Figure 26. Government Debt Holding by Residence  
(Percent of total)



Source: OECD, 2010.

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## Global Economy: Recent Trends

- Highly differentiated recovery : literally two worlds
- Developed economies still on macro-economic life support
- Adverse fall-out of extended, aggressive policy response to crisis:
  - Volatile capital flows in emerging markets (*monetary Response*)
  - Sovereign debt crisis in developed countries (*Fiscal Response*)
- Bank balance sheets cleaned up but risks in financial markets remain in developed countries, especially deriving from escalating sovereign debt
- Unemployment still at crisis highs
- Downside risks elevated due to revolution, war, natural disasters, rising commodity prices and looming debt crises
- Risk of disruption in global cooperation high: growing unilateralism – protectionism and currency markets
- No policy space for ‘second dip’

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## 12 Policy Lessons

## 12 Policy Lessons

1. Blunting of macro-policy tools because of spillovers induced by globalization : “Greenspan’s conundrum” – G 20 global policy co-ordination.
2. Exposed the power and limits of macro-policy tools: pulled the global economy from the brink, but still on life support: importance of animal spirits.
3. Monetary policy focused exclusively on inflation targeting cannot contain dangerous asset bubbles: Greenspan’s ‘clean up afterwards’
4. Zero bound policy rates not the end of monetary policy, but unconventional policies cannot substitute for failure of transmission channels.

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## 12 Policy Lessons

5. Conventional trade policy no longer seen as a policy tool because of the rise of global production chains.
6. New Roles for fiscal and monetary policies: protectionism, rebalancing, financial stability
7. Extended use of policy tools has deleterious macro-economic consequences: asset inflation and public debt
8. Importance of effective development, regulation and supervision of the financial sector for the traction of monetary policies.

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## 12 Policy Lessons

9. Stimulus financing:

(a) Contra cyclical fiscal policy creates fiscal space for effective crisis response.

(b) Fiscal space determined more by growth and consequential changes in revenue than by expenditure management which tends to be sticky.

(c) Using the cyclical fiscal space created in deep recession because of contraction of private demand and easy monetary policy can make debt even more unsustainable after the crisis.

(d) US in a class of its own - Reserve currency advantage, dangers of a new 'Bretton Woods III'

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## 12 Policy Lessons

10. Aggressive fiscal policy removes the firewall between fiscal and monetary policies

11. Sustainable debt should be calibrated to growth prospects rather than to historic averages.

12. European experience indicates generous social welfare schemes affordable when population is young and trend growth high; unsustainable as society ages and trend growth declines. Difficult to renegotiate social compacts.

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# Thank You!

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