Anatomy of a Response

G-20/ World Bank/ IMF Summits Compendium: Government Policies During the Crisis

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G-20 Pittsburgh and IMF/ World Bank Meetings

Two major economic summits take place within two weeks of each other: the G-20 Pittsburgh Summit in late-September, and the IMF/ World Bank Annual Summit in Istanbul in early-October.

G-20 Pittsburgh Summit – Probable Agenda

- Restore confidence, growth and jobs
  - Undertaking unprecedented and concerted fiscal expansion, which will save or create millions of jobs
  - Aggressive monetary policy
  - Implementation and maintenance of expansionary policies
- Repair the financial system to restore lending
- Strengthen financial regulation to rebuild trust
  - Establish a strengthened Financial Stability Board (FSB)
  - Extend regulation and oversight to all systemically important financial institutions, instruments and markets
  - Take action against non-cooperative jurisdictions, including tax havens
  - Extend regulatory oversight and registration to Credit Rating Agencies to ensure they meet the international code of good practice
- Fund and reform international financial institutions to overcome this crisis and prevent future ones
  - Make available an additional US$850 billion of resources through the global financial institutions to support growth in emerging market and developing countries
  - Support a general SDR allocation which will inject US$250 billion into the world economy and increase global liquidity
- Promote global trade and investment and reject protectionism to underpin prosperity
- Build an inclusive, green, and sustainable recovery

IMF/ World Bank Summit – Aims

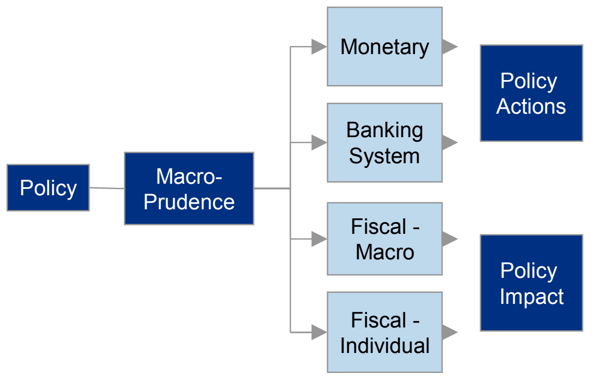
- The annual meeting of the IMF and World Bank Group brings together central bankers, ministers of finance and development, private sector executives and academics to discuss issues of global concern
- Istanbul meeting will focus on:
  - Possible early warning systems that could highlight when economies are getting into trouble
  - Possible exit strategies to unwind the large stimulus packages
  - Imbalances between the large economies and the risk posed to the global economy
  - Future shape of the international financial system and
  - Examination of the effectiveness of the IMF's crisis lending
- Discussion will also take place on:
  - State of the global economy and the policy responses that countries have taken to combat the worldwide recession
  - Outlook for the global economy, developments in financial markets, as well as other pressing issues within the IMF's mandate
  - Critical development issues and the financial resources required to promote economic development in developing countries

Summary

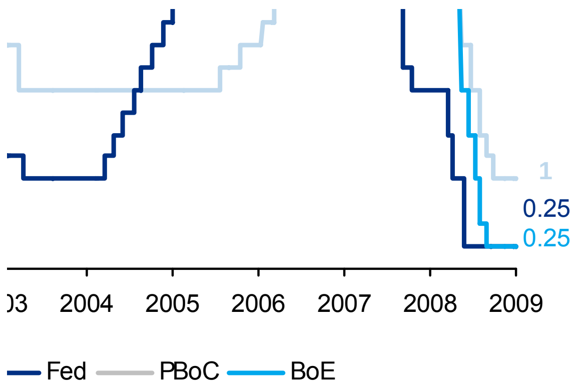
It has been an intense twelve months. From a system teetering on the brink, to growing signs of light at the end of the tunnel. Along the way, governments have often ditched conventional wisdom for practical impact, sometimes returning to the ideas of long-dead economists, yet always learning on the job under immense pressure.

A Co-ordinated Response…

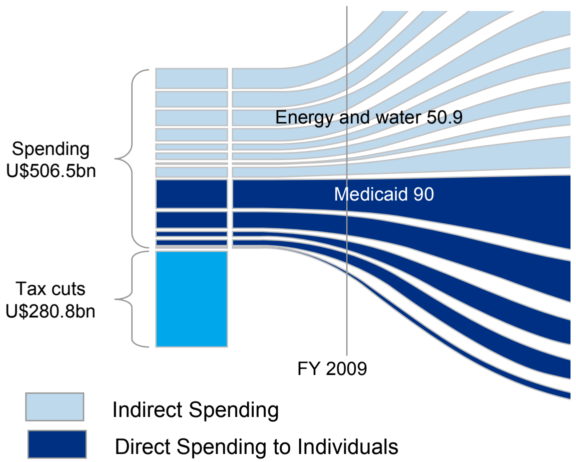
Using All Major Policy Levers…



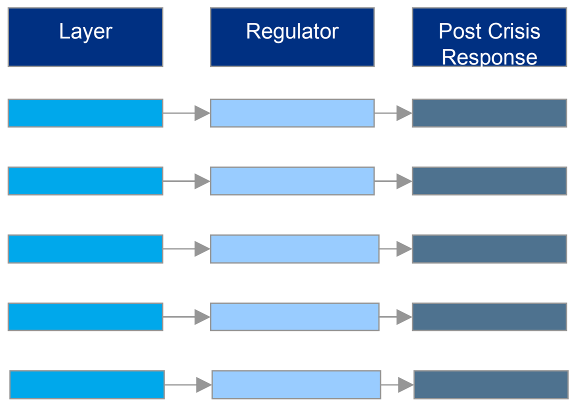
Monetary Easing…



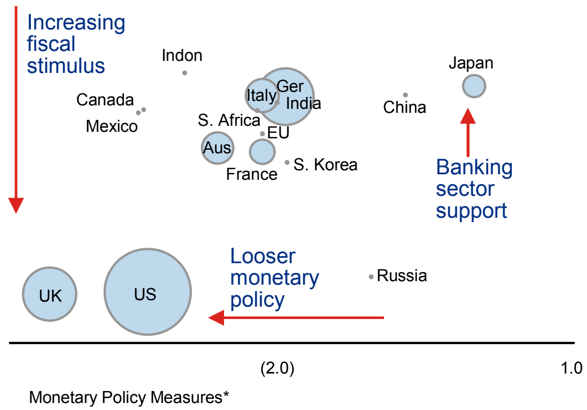
Fiscal Stimulus…



Regulatory System Redesign.



How to "Reverse Out" the Next Challenge.



1. An International Response

Evolving Wisdom: International Co-operation

One of the most striking observations from the past year has been the (generally) coordinated and positive international response to the crisis, and an acceptance by the industrialised states of the new global economic order.

"The international community is obliged to deliver on its commitment to increase aid. This is not the time to renege on those commitments. It is equally important to restart global trade talks and bring the Doha Round to a successful conclusion."

Dominique Strauss-Kahn, MD - IMF, The National, 10 February 2009

"Global recession emerged from US… The level of international cooperation achieved in the next few weeks may dictate how quickly we come out of this downturn… We are about to put in perhaps the biggest fiscal stimulus the world has ever seen... And the biggest cut in interest rates the world has probably ever seen. If we can follow that up with greater international cooperation that can make a big difference to our chances of recovery quickly."

Gordon Brown, Prime Minister of UK, The Guardian, 3 March 2009

"We face the most difficult economic conditions in generations. The international community must unite to tackle the downturn and set the path toward a sustainable future. We must do three things: Boost demand, reform the global system of financial regulation, and increase the resources of the International Monetary Fund."

Alistair Darling, UK Chancellor of the Exchequer, The Wall Street Journal, 13 March 2009

"To counter the financial crisis, Asian countries should not only each run their own affairs well, but also step up cooperation and pull together like passengers in the same boat to promote win-win development and make Asia a key engine in regaining world economic growth."

Chinese Premier Wen Jiabao at 2009 Boao Forum for Asia, 20 April 2009

"Our most urgent tasks are to strengthen global cooperation, resolutely oppose all forms of trade and investment protectionism, stabilise financial markets and restore economic growth."

Zhou Xiaochuan, Governor, People's Bank of China at the IMFC meeting, 27 April 2009

Key Players in the Global Crisis

A dual-track approach to response, at the national and supranational level. Given the increased global connectivity since the last major international recession, the latter has become increasingly important to resolve the crisis.

G-20

- G-20 plays a crucial role in tackling international financial and economic crisis and restoring global financial stability through cooperation between advanced and emerging economies
- On average, G-20 countries are planning stimulus measures amounting to 1.5% of GDP in 2009, and 1% in 2010
- Agenda items for the September 2009 G-20 summit include
  - A list of key issues for the containment of the current global financial and economic crisis and its redress
  - A set of issues for the prevention of future global financial crises, including the reform of the international financial institutions, especially the IMF and World Bank

Financial Stability Board (FSB)

- FSB, erstwhile FSF, was convened in April 1999 to promote international financial stability through information exchange and international co-operation in financial supervision and surveillance
- Members include all G-20 countries, FSF members, Spain and the European Commission
- In the March 2009 meeting, members reaffirmed the commitment of their governments to support systemically important institutions
- FSF will continue to monitor the impact of the steps being taken to restore stability to financial systems and promote credit extension and ensure consistency of these actions

World Bank

- World Bank wants to persuade wealthy countries to set up a “vulnerability fund” to aid poor countries hit hard by the global financial crisis
- This fund would be made available to the poor countries through World Bank
- The Bank could triple its own lending in 2009 to US$35 billion, though that would still be a small fraction of the shortfall facing poor countries

IMF

- IMF is planning the capacity to make concessional loans of US$11 billion over the next five years, about twice its current ability to meet financing needs of poor countries
- The fund also called upon advanced countries to resist “back-door” financial protectionism

US

- US chairs the G-20 summit in September 2009
- Home of the worst financial crisis in 80 years, triggered by the sub-prime lending debacle, Americas stock market has plunged, major investment bank have failed or been forced into precautionary mergers
- US Treasury Secretary called on the US and other nations to offer billions more to bail out economies in crisis, while pushing Europe to support the world economy with more aggressive government spending
- The administration would ask Congress to make US$100 billion more to be available to IMF to aid struggling nations

China

- Despite its severe impact on China’s economy, the President sees the current international financial crisis as an opportunity for the country
- China is keen on avoiding a solution to the crisis that creates an even bigger problem of over consumption of natural resources by the rich people

EU / ECB

- Member states have launched their own recovery programmes, which are coordinated and based on the common principles defined in the European Recovery Programmer
- EU government-funded European Investment Bank will release €30 billion in loans in 2009 and 2010 to increase lending for small businesses, and for projects that support renewable energy and cleaner transport

UK

- In April, Prime Minister Gordon Brown called for a reshape of financial and regulatory system at home and internationally, based on principles of transparency, accountability, responsible risk-taking, prudential regulation and international co-operation

G-20: Outcome of London Summit

At the London Summit, leaders of the G-20 countries agreed that they would take whatever action was necessary – fiscal, monetary and financial – to restore growth and accelerate recovery. They agreed for US$1.1 trillion package of measures to restore growth and jobs.

- Leaders of the world's largest economies agreed a US$1.1 trillion package of measures to restore growth and jobs and rebuild confidence and trust in the financial system. As chairman, Brown set out six agreed pledges, these were to:
  - Restore confidence, growth, and jobs; repair the financial system to restore lending; strengthen financial regulation to rebuild trust; fund and reform our international financial institutions to overcome this crisis and prevent future ones; promote global trade and investment and reject protectionism, to underpin prosperity; and build an inclusive, green, and sustainable recovery

International Financial Institutions and Trade and Markets

- At the London summit countries had agreed to inject fresh money into the economy that would support fiscal expansion. This US$1.1 trillion worth of additional measures included
  - An additional US$500 billion for the IMF US$250 billion in IMF Special Drawing Rights available to all members; and
  - A trade finance package worth US$250 billion over two years to support global trade flows
  - At least US$100 billion of additional lending by the Multilateral Development Banks
- Money must be made available to countries that need it without the excessively burdensome conditionality seen in previous crises
  - Not the time to require countries to reduce domestic demand
- The Summit set out new commitments to keep markets open and not resort to protectionism
  - In the short-term the greatest threat to trade was not explicit protectionism, but rather financial protectionism – and the drying up of trade credit, which finances up to 90% of world trade
  - Particularly severe potential implications for emerging economies

Source: G-20, Citi research.

Macroeconomic Policy – Restoring Growth

- Ensuring that the policy actions that have already been taken, on fiscal policy, monetary policy and fixing the financial system are implemented quickly, effectively, and where appropriate in an internationally coordinated way, and in such a way that they translate into real demand
- Going forward, there was a clear commitment to take more policy actions if necessary on all of these fronts.
- More fiscal expansion if needed to restore demand, more unconventional monetary policy measures if needed to prevent deflation, more action to recapitalise and restructure banks if needed to restore lending

Financial Regulation

- Blueprint agreed to reform the financial sector's regulatory framework to reduce probability of unexpected future events and mitigate scale of crisis.
- The key principles underlying this framework include:
  - Need to strengthen macro-prudential supervision
  - Capital requirements to explicitly incorporate countercyclical elements
  - Systemically important institutions, including hedge funds, to be subject to regulation and supervision
  - Ensure credit rating agencies do their job properly and without conflicts of interest
  - Deal with tax havens and non-cooperative jurisdictions

G-20: The Pittsburgh Summit

With Finance Ministers meeting in London in early September 2009, the stage is set for the second major G-20 summit of 2009, in Pittsburgh. Some strains in international cooperation as countries front-run divergent (and sometimes domestically-focused) policies ahead of the Summit, particularly relating to banks.

- "Leaders representing 85% of the world's economy will review progress made since the London summit in April and discuss further actions to assure and ensure a sound and sustainable recovery from the global economic and financial crisis…"
- But timing is tight, and policy areas will need to be prioritised, hence Finance Minister's meeting
- Expanded Role of IMF
  - Unresolved issue of the necessary institutional reforms that need to accompany a substantially expanded role for the IMF
- Agreement on Monetary Policy and Exchange Rate Reforms
  - Both factors have played a significant role in the onset of the crisis, and deep reforms of international monetary arrangements are needed to secure a sustainable recovery
  - Despite the fact that exchange rate adjustments are usually part of natural adjustment in global trade imbalances, the issue has not found a place on the table
  - A commitment from the countries running large external surpluses to run significantly more expansionary policies
- Identifying Toxic Debt in the World Economy
  - An urgent issue not fully addressed at the London summit was the amount of toxic debt present in the economy
  - Member nations should take effective steps to identify and document toxic paper so as to eventually facilitate trading in it
- Dollar's Role
  - Increasingly hard-pressed position of the dollar as the world's reserve currency and its alternatives
- Disavowing Protectionism
  - A strengthened G-20 should review the new, subtler forms of protectionism as well as traditional discriminatory measures, backed up by a focused real-time surveillance mechanism
- Discourage a Subsidies War
  - Define the types of subsidy that are allowable, the circumstances under which they could be imposed and should be withdrawn, including in principle a time limit on the use of such subsidies in any given instance
- Trade Liberalisation
  - The London Summit communiqué was reserved on a definite roadmap to reach a conclusion on WTO Doha round
  - The upcoming summit may look to draft a timetable of goals for ongoing Doha round to dispel any shadow of doubts being perceived over the trade system intentions of the G-20 partners
- Sustainability and Development
  - The group could show its commitment to the Millennium Development Goals by providing specific funds that would be allocated towards social protection in the low income countries
  - Issues on climate change – including climate subsidies from industrialised to developing countries – could be discussed given proximity to the Copenhagen summit in December

Source: G-20, Citi research.

The IMF's Role in Current Crisis

The IMF responded relatively quickly to the crisis and has been in the forefront with regards to providing macro-economic support commitments. However, calls for institutional reform have increased during the period of pressure.

IMF's Role in Brief

- IMF's primary responsibilities:
  - Promoting international monetary cooperation
  - Facilitating the expansion and balanced growth of international trade
  - Promoting exchange stability
  - Assisting in the establishment of a multilateral system of payments
  - Making resources available to members experiencing balance of payments difficulties

Recent Steps

- July 2009: Executive Board backed an allocation of SDRs equivalent to US$250 billion to provide liquidity to the global economic system
- IMF responded to the crisis, with record commitments of US$157 billion
- Garnered pledges for tripling of IMF resources, endorsed by the G-20
- IMF's new lending framework to fight economic crisis:
  - Doubling of member countries' access to Fund resources
  - Streamlined approach aims to remove stigma of borrowing
  - New flexible credit line for strong-performing economies
  - Reform does away with "hard" structural conditionality
  - New focus on objectives rather than specific actions
- An increase in resources to US$750 billion to be achieved by expanding and modernising its New Arrangements to Borrow ("NAB")
- Expanding the number of participants from the current 26, enlarging the credit provided to up to US$500 billion (including the US$250 billion of contributions provided bilaterally)

Selected Rescue Packages

Country	Amount (US$bn)	Rationale
Pakistan (7 August 2009)	11.3	Review enabled immediate disbursement of an amount equivalent to about US$1.2 billion, bringing recent disbursements by under the program to an amount equivalent to US$5.3 billion
Latvia (27 July 2009)	2.4	Package intended to help Latvia overcome its difficult economic situation, while ensuring debt sustainability and protecting the most vulnerable groups in society
Sri Lanka (24 July 2009)	2.6	Standby Arrangement ("SBA") to ensure the availability of resources for much needed post-conflict reconstruction and relief efforts, to rebuild international reserves and strengthen domestic financial system
Serbia (15 May 2009)	4.0	SBA to support the government's economic program against impact from the global financial crisis
Romania (4 May 2009)	17.1	SBA to support an economic program intended to cushion the effects of the sharp drop in capital inflows and to address country's external and fiscal imbalances
Mexico (17 April 2009)	47.0	Provision of a flexible credit line
Iceland (19 November 2008)	2.1	To support new caretaker government

The IMF: An Activist Agenda

As the banking crisis moved down the agenda – economic issues moved up. IMF packages supported a number of countries struggling to cope with the global turmoil – the design of these assistance packages developed in parallel.

Iceland, Ukraine, Hungary and Pakistan (early-October 08)

- Iceland agreed a US$2.1billion package – the first Western country to have approached the IMF for aid since 1976 (the UK…)
- Soon after, Ukraine agreed to terms for a US$16.5 billion loan, including an economic program and a 24-month SBA
- Hungary: Provision of a joint financing package of US$25 billion, 17-month US$15.7 billion IMF SBA, the EU able to provide US$8.1 billion and the World Bank an additional US$1.3 billion
- Pakistan: IMF agreed to extend a US$7.6 billion loan to Pakistan
  - Aimed at preventing the nation from defaulting on foreign debt and restoring investor confidence

Serbia (mid-May 09)

- Executive Board of the IMF completed the first review of Serbia's performance under the SBA and increased the IMF's financial support to about US$4 billion
  - Equivalent to about 10% of Serbian GDP
  - Board also extended the SBA by 1-year to mid-April 2011
  - Serbia's external and financial environment, like in much of Eastern Europe, deteriorated abruptly and relentlessly
    - Trade flows, output, domestic demand and, especially fiscal revenues lagged significantly behind initial projections
  - Revised arrangement supports the government's economic program amidst a sharper than expected impact from the crisis
  - Original 15-month SBA of €394 million was only approved in January

Mexico (mid-April 09)

- IMF approved a 1-year US$47 billion arrangement for Mexico under the Flexible Credit Line ("FCL")
  - This arrangement is the first commitment under the IMF's FCL – evidence of assistance package redesign during the crisis
  - FCL particularly useful for crisis prevention purposes as it provides the backstop flexibility to draw on the credit line at any time
  - Disbursements neither phased nor conditioned on compliance with policy targets as in traditional IMF-supported programs
  - Mexican authorities stated that they intend to treat the arrangement as precautionary and do not intend to draw on the line

Support for Stable Economies

- Announcement of a new facility (US$250 billion) providing three-month funding for up to five times a country's "quota" for countries with a sound macro economic position
  - Unlike traditional loans, there will be neither conditionality nor tranching for countries that qualify
- The magnitude of the funds significant, though they would not cover the total financing requirements of the countries that might be eligible (e.g. Mexico, Brazil, Korea, Chile, Israel)
  - At the same time the US Fed made US$30 billion swap lines available to each Mexico, Brazil, Korea and Singapore, until end-April, 2009.
  - China provided larger swap lines for selected Asian and African economies.

The World Bank's Role

Developing countries faced new challenge from the crisis. Sharply tighter credit conditions and weaker growth are likely to cut into government revenues and their ability to invest to meet education and health, as well as the infrastructure expenditures needed to sustain growth and employment.

Financial Support

- Loans: Offers two types through its various lending and guarantee bodies, investment loans and development policy loans
  - Investment loans are made for the support of economic and social development projects
  - Development policy loans provide quick disbursing finance to support countries' policy and institutional reforms
  - The International Bank for Reconstruction and Development (IBRD)
    - Cumulative Lending: US$446 billion
  - The International Development Association (IDA)
    - Cumulative commitments: US$193 billion
  - The International Finance Corporation
    - Committed portfolio: US$32.2 billion (IFC's balance sheet), and US$7.5 billion in syndicated loans
  - The Multilateral Investment Guarantee Agency (MIGA)
    - Cumulative guarantees issued: US$19.5 billion
- Grants: Distributes grants for the facilitation of development projects through the encouragement of innovation, cooperation between organisations and the participation of local stakeholders in projects.
- IDA grants are predominantly used for
  - Debt burden relief in the most indebted and poverty-stricken countries
  - Improvement of sanitation and water supply. Support of vaccination and immunisation programs. Combating the HIV / AIDS pandemic
  - Support of civil society organisations. Creating initiatives for the reduction of greenhouse gases

Partnering

- Collaborates with the IMF and others to help governments and private sector through lending, equity investments, and safety net programs
- Ensures efforts to strengthen collaboration among multilateral development institutions to support long-term economic growth consistent with the Millennium Development Goals
- Strengthens collaboration among multilateral development institutions to support long-term economic growth

Analytical and Advisory Services

- Partners with countries by providing technical analysis and advice
  - Diagnostic tools available to help countries react most appropriately if their banking systems encounter problems
- Helps the neediest countries through the Global Food Response Program
- Promotes best practices
- Helps countries develop an environment for investment, jobs and sustainable growth, thus promoting inclusive economic growth through investment
- To speed up the recovery process and limit the credit crunch, IFC is helping financial institutions assess and quantify critical risks, and taking action to mitigate crisis impact
  - Implementing crisis preparedness exercises for officials in emerging markets that may be affected by the financial turmoil
  - Refocusing existing advisory services programs in response

Source: World Bank

The World Bank's Response to Financial Crisis

The World Bank called for developed countries to pledge 0.7% of their stimulus packages, to a global vulnerability fund to help developing countries, which can't afford bailouts. The Bank has expanded lending, assistance, and advice to developing countries, and tried to speed up response times.

Financing

- IBRD can make new commitments of up to US$100 billion over the next three years
  - In 2009 lending could almost triple to more than US$35 billion compared to US$13.5 billion last year
  - In December 2008, the Bank approved US$500 million for structural reforms in Ukraine to help mitigate the impact of the financial crisis.
  - The Bank also agreed to help India with US$3 billion in increased investment, as part of the Bank's new country strategy
- Ensure trade flows: IFC plans to double its Global Trade Finance Program from US$1.5–3 billion and mobilise funds from other resources
- Bolster distressed banking systems: Global equity fund to recapitalise distressed banks, where IFC plans to invest US$1 billion over three years with Japan planning to invest US$2 billion
- Keep infrastructure projects on track: IFC expects over three years to invest a minimum of US$300 million and mobilise at least US$1.5 billion from other sources to provide roll-over financing and help recapitalise viable infrastructure projects facing financial distress through a new Infrastructure Crisis Facility
- MIGA is providing guarantees to foreign banks to help inject liquidity and bolster confidence in Ukraine's and Russia's financial systems.
  - Similar guarantees are expected in Eastern Europe and Africa

Partnerships

- Support for Latin America: In April 2009, joined efforts with the Inter-American Development Bank and the Inter-American Investment Corporation, CAF, the Caribbean Development Bank and the CABEI to provide US$90 billion during the next two years to spur economic growth by coordinating their crisis response initiatives
- Support for Eastern Europe: In February 2009, partnered with the EBRD and the EIB Group to provide up to €24.5 billion (US$31 billion) to support the banking sectors in the region and to fund lending to businesses hit by the global economic crisis.
- The World Bank Group will provide about €7.5 billion as part of this effort
  - IBRD intends to increase lending in Europe and Central Asia up to €16 billion in 2009–2010. From that up to €3.5 billion is envisaged for addressing banking sector issues in emerging Europe
  - MIGA will provide political risk insurance capacity of up to US$3 billion for bank lending, subject to Board approval
  - IFC, through its crisis response initiatives is expected to contribute up to €2 billion
- Policy package for Hungary is underway, where the World Bank was ready to provide €1 billion supported by the European Union and the IMF

The Financial Stability Board's Role

The FSB was first convened in April 1999 at the initiative of G-7 Finance Ministers and Central Banks and called the "Financial Services Forum". It aims to promote international financial stability, improve the functioning of financial markets and reduce the tendency for financial shocks to propagate across borders.

Monitoring and Advisory Services

- The Financial Stability Board ("FSB") seeks to give momentum to a broad-based multilateral agenda for strengthening financial systems and the stability of international financial markets
- The FSB's mandate:
  - Assess vulnerabilities affecting the international financial system
  - Identify and oversee action needed to address these and
  - Improve co-ordination and information exchange among the various authorities responsible for financial stability
- Continues to monitor the impact of the steps taken to restore stability to financial systems, promoting credit extension and ensuring consistency of these actions

Coordinating Agency

International financial institutions charged with surveillance of financial systems and monitoring and fostering implementation of standard

National authorities responsible for financial stability in major financial centres, namely treasuries, central banks, and supervisory agencies

FSB FINANCIAL STABILITY BOARD

Committees of central bank experts concerned with market infrastructure and functioning

Sector-specific and supervisors engaged in developing standards and codes of good practice

- Since 2001, the FSB has also held regional meetings with non-member financial authorities in Latin-America, Asia Pacific, and CEE

Recent Developments

26–27Jun 2009
- FSB holds inaugural meeting in Basel

2 Apr 2009
- FSF re-established as Financial Stability Board (FSB)
- The FSB issued reports covering
  - Recommendations for Addressing Pro-cyclicality
  - Principles for Sound Compensation Practices and
  - Principles for Cross-border Cooperation on Crisis Management

11–12 Mar 2009
- During FSF London meet, members discussed the risks and vulnerabilities in financial markets, the steps that are being taken, to address them and policy options going forward

15 Nov 2008
- At the G-20 summit, agreed that the membership of the FSF will be expanded to include emerging economies, such as India, China, Indonesia, South Korea, etc.

28–29 Mar 2008
- The FSF met in Rome
  - Discussed current challenges in financial markets, and various policy options to address them
  - Discussed work underway at the IMF and OECD with regard to sovereign wealth funds
  - Delivered a report to the G-7 Finance Ministers which detailed its recommendations for enhancing the resilience of financial markets and institutions

2. The Framework

Evolving Wisdom: Broad Strategies

Governments were caught in the headlights of an incoming financial crisis. In some countries the key priority was to stabilise not just individual banks but entire financial systems, but it soon became clear that economies would face high stress without significant government intervention.

"The situation can be improved by appropriate policies, including governments taking over insolvent banks, cleaning them up and re-selling them to private investors. The Group of Seven and the Group of Twenty economies must act together to get out of this mess… The global economy may shrink 1% or grow 0.5% in 2009, before recovering to about a 1% growth in 2010, effectively extending the recession until the end of next year. Emerging market economies, including China and India, will slow down sharply."

Nouriel Roubini, Bloomberg, 6 March 2009

"It is essential for every American to understand that the battle for economic recovery must be fought on two fronts. We have to both jump-start job creation and private investment, and we must get credit flowing again to businesses and families."

Excerpts from Treasury Sec. Tim Geithner's speech on bank plan, 10 February 2009

"While there may be scope for fiscal stimulus in some countries, in many countries it is limited; hence, the region as a whole must protect its hard-won low level of public debt. When the storm has passed, low levels of public debt and sustainable public finances will be crucial to preserving spending that helps the poor and to bringing back the international investors who are indispensable for the future growth of countries like Africa."

Dominique Strauss-Kahn, MD - IMF, The National, 10 February 2009

"… there is a reasonable prospect that the current recession will end in 2009 and that 2010 will be a year of recovery… We don't need majority ownership to work with the banks… Federal agencies have enough supervisory power to nurse banks back to full health. Taking over banks more formally would needlessly destroy the franchise value" of the institutions… There was a risk that the economy would become even worse than the Fed is currently forecasting."

Ben Bernake, The New York Times, 25 February 2009

Response Framework

Four main categories of policy became the foundation of government responses: the traditional resort to looser monetary policy; new responses to banking system stability (to cope with new forms of instability); and a return to older (for some countries) forms of economic intervention – the fiscal stimulus programme.

Government Policies → **Macro Prudential Policies**

Policy Type	Policy Actions	Policy Impact
Monetary Policy	• Interest Rate Cut • Lower reserve requirements • Capital & liquidity injections	▲ Reduce cost of borrowing ▲ Increase liquidity ▼ Have limited scope as at most interest rate can be reduced to 0
Banking System Stability	• Buying bank stocks • Underwriting and Guarantees • Special Liquidity Schemes • Partial or total nationalisation • Strengthened bank supervision • Capital ratios	▲ Help Ailing banks to stay afloat ▲ Restore public confidence in banks and increase liquidity in system ▼ Rewarding failure or propping up inefficient corporations ▼ regulatory arbitrage added to the opacity that made it difficult to spot the extent of the weaknesses in the system
Fiscal Stimulus – Companies and Infrastructure	• Providing monetary support to specific industries • Increase government spending in infrastructure and other projects • Buying Illiquid financial assets	▲ Avoid failure of ailing companies ▲ Reduce job losses and create new jobs ▼ Rewarding failure or propping up inefficient industries
Fiscal Stimulus – Individuals	• Person income tax rebate • Tax rebate on investment in specific sector	▲ Increase disposable income ▲ Increase investment in ailing sectors ▼ Decrease government revenue and increase fiscal deficit

Source: Citi

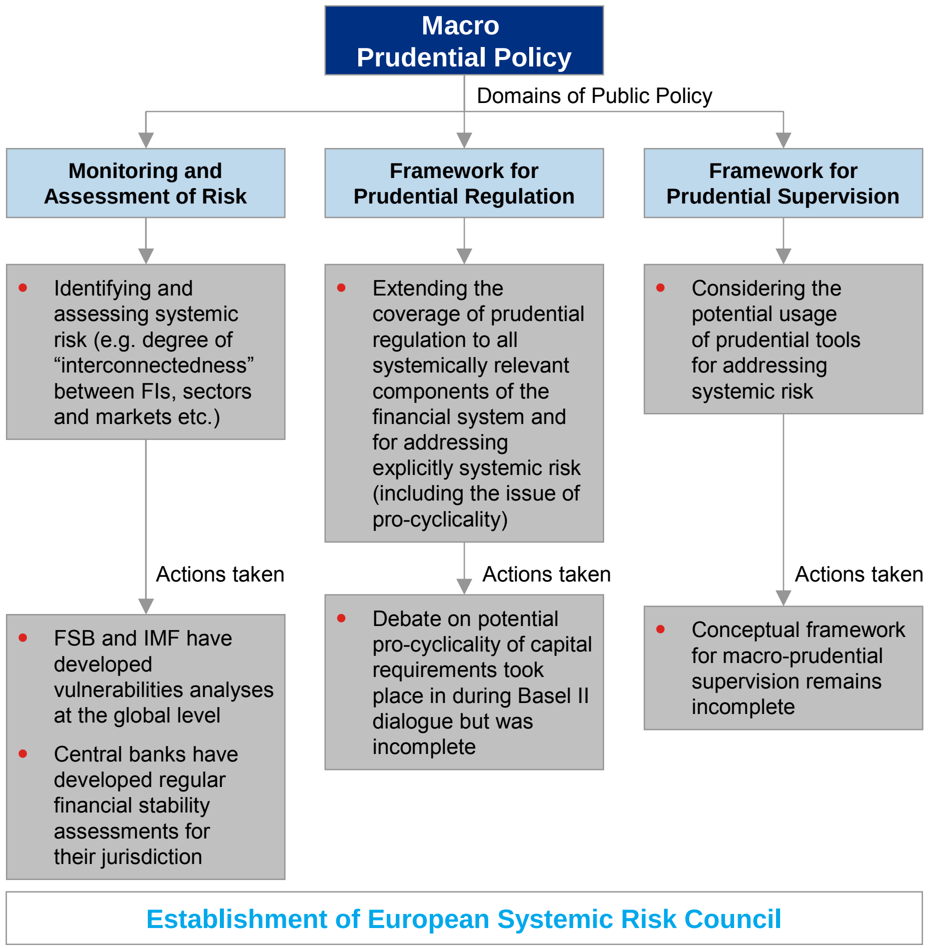
What is Macro-Prudential Policy?

Midway during the Crisis, policy-maker attention turned to gaps in overall macro-economic policy highlighted by asset bubbles and banking failures. Discussion centred on best forms of Marco Prudential Policy and associated micro policy. Economic theory was back in the headlines.

- Prudential Policies: There are two focal points, to analyse the overall risks faced by a financial system
  - Micro prudential focus
  - Macro prudential focus
    - Focus on the financial system as a whole and aims at limiting system-wide distress and avoiding output costs
    - Treat aggregate risk as dependent on collective behaviour of financial institutions (endogenous)
- There is a difference between these perspectives

Parameters	Macro Prudential	Micro Prudential
• Proximate objective	• Limit financial system-wide distress	• Limit distress of individual institutions
• Ultimate objective	• Avoid output (GDP) costs	• Consumer (investor/ depositor) protection
• Characterisation of risk	• Endogenous (in part)	• Exogenous
• Correlations and common exposures across institutions	• Important	• Less relevant
• Calibration of prudential controls	• In terms of system-wide risk; Top-Down	• In terms of risks of individual institutions; Bottom-Up

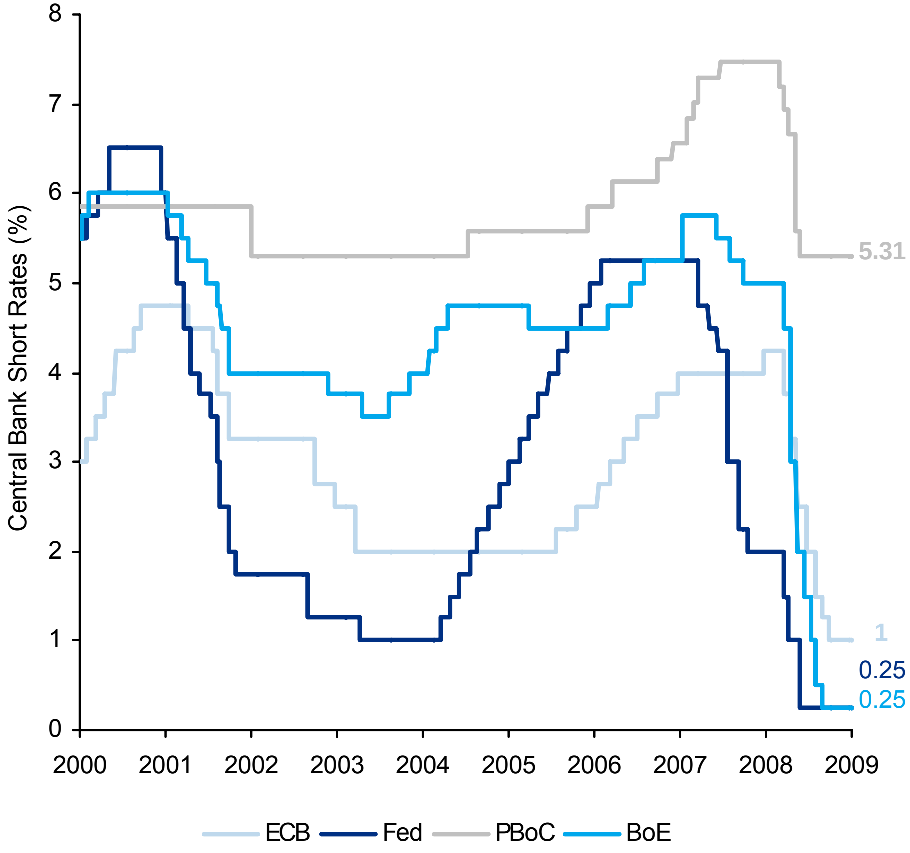
Source: Citi



Monetary Policy: Interest Rates

At first, it appeared obvious that interest rates had to be cut, but as emergency cut followed cut, it became clearer that Central Banks would soon have less room for manoeuvre, indeed the economists started to raise the spectre of potential deflation within weeks of the Lehman's' collapse.

Interest Rates – Historical Overview



Source: Central Bank websites, Citi Investment Research.

Monetary Policy Constraints

- Increasingly, the depth of the trade and capital flow disruptions generated exchange rate pressures.
  - In countries where the exchange rate is closely linked to inflation expectations, monetary authorities may be forced to keep short-term interest rates higher to support the exchange rate and suppress expected inflation
- This constraint has already appeared.
- Some countries – e.g. Mexico, Poland, and Russia – have begun not by reversing rate cuts, but by selling down international reserves
  - The sheer magnitude of the aggregate demand shock facing many countries should weaken the impact of any exchange rate depreciation on inflation expectations
- In those countries where short-term interest rates are at or are close to zero, some investors are worried that rapidly expanding central bank balance sheets will usher in a period of inflation
- Central Banks face the dilemma of when to reverse rate cuts and withdraw emergency liquidity
  - If done either prematurely or too late may stoke slowdown or inflation respectively

Monetary Policy: Quantitative Easing

As a result of less flexibility on interest rate policy, Central banks looked for other measure to stimulate the economy – the controversial Quantitative Easing was one measured adopted by the Bank of England in particular.

What is Quantitative Easing ("QE")?

- The central bank injects new money into the financial system, to increase the supply of money. Quantitative' refers to the money supply; 'easing' refers to reducing the pressure on privately-owned banks

Selected Options Available Under QE Regime

- Pre-commit to an extended period of low policy rates
- Buy alternative assets ranging from government debt to corporate bonds, money market paper, equities etc
  - Gilt purchases could effectively be carried out via funding the budget deficit solely through money market paper (this is equivalent to funding the deficit through gilts, and then buying gilts)
  - These measures could boost financial asset prices and lower various market interest rates.
  - Among the assets that can be bought are foreign currencies which would weaken the exchange rate, so boosting exports and reducing demand for imports
- Expand asset purchases so providing excess liquidity to the banking system, aiming to lower inter-bank rates. If deflation fears dominate, there is virtually no limit to the potential scale of the central bank's balance sheet
- Establish public sector banks, or instruct the nationalised banks, to increase lending to households and businesses at lower spreads or, for mortgages, higher LTV ratios

When to Use QE

- When the economy remains in recession and there is a risk of a liquidity trap plus a credit squeeze
  - It makes more sense to focus on measures that boost bank liquidity, slow associated deleveraging and help shrink credit spreads, rather than focus on measures to lower long-term gilt yields

QE Undesirable in Normal Times

- Large exit costs: once started complex to withdraw from
- Less flexible than monetary policy, which can be adjusted in small steps as frequently as needed

Recent Developments: Bank Of England

- August 2009: BoE take the decision to extend QE programme by increasing the size of asset purchase programme from £125 to £175 billion
- July 2009: Makes no change to the existing £125 billion QE programme of asset purchases.
  - MPC was expected to make a tactical extension of QE, perhaps by £15-25 billion, simply to keep the programme going to the August MPC meeting (this turned out to be a false assumption – which again highlights how adaptable to changing circumstances central bankers and finance ministries have had to be during the Crisis)

Fiscal Stimulus

The next option in the Finance Ministries tool-kit was to introduce a range of Fiscal programmes. Some were aimed at business, others aimed at enhancing long-term economic infrastructure, and others were aimed at consumers. However, each programme needed to be, in the words of a Minister, “timely, targeted and temporary”.

- Fiscal Stimulus: With a fall in aggregate demand in the economy, governments launch public spending programmes to boost the aggregate demand and so stimulating spending and economic activity
- Although monetary policy is generally the first line of defence against an economic slowdown, there are several circumstances in which fiscal stimulus can be more helpful
  - If a sharp economic downturn appears imminent, and well-designed tax or spending changes could be implemented quickly, such fiscal stimulus could boost economic activity more quickly than monetary stimulus
  - Allowing for uncertainty about the effects of fiscal and monetary stimulus, a mixture of the two provides greater confidence about the economic outcome
- Principles governing fiscal stimulus
  - Timely Enactment: Policymakers should act in a timely manner to lessen any economic downturn. Thus, fiscal stimulus should neither be enacted prematurely, nor delayed, or simply consist of tax cuts or spending increases that would take too long to be implemented or to boost output
  - Well Targeted: From a macroeconomic perspective, policymakers should ensure that each dollar of tax cuts or higher spending raises output in the short-run by the maximum amount. From households perspective, stimulus should ensure that money ends up in the pockets of families that are most vulnerable in a weakening economy
  - Temporary: Taxes should be cut or spending increased in order to raise output in the short-run and should not increase the budget deficit in the long-run as it may reduce the extent of short-run stimulus by raising interest rates, and it would reduce long-run living standards by reining in savings rates

Methods for Implementing Short-term Fiscal Stimulus

- Most effective options
  - Temporary extension of unemployment insurance benefits: Unemployment insurance benefits are generally limited. However, during economic slowdowns when new jobs are harder to find, the optimal balance shifts toward longer periods of eligibility
  - Temporary increase in food stamps
  - Temporary issuance of flat, refundable tax credit: most effective of the three options and include tax rebates for working households
- Less effective options
  - Increase in infrastructure investment: difficult to design in a manner that would generate significant short-term stimulus
  - Create temporary investment tax incentive: can induce businesses to undertake investment immediately that they would otherwise pursue in some future year
- Ineffective or Counterproductive options
  - Reduction in tax rates: research shows that reducing tax rates would generate less than half as much economic stimulus as flat, refundable tax credits of the same size.
  - Such a tax reduction would give disproportionate benefits to high-income households, who are least likely to be hurt by an economic downturn.
  - Moreover, the permanence of the tax reduction may raise long-term interest rates and crowd out some of the modest direct stimulus

Banking System: Recapitalisation and Stability

Banks were at the heart of the crisis, and indeed the increased connectivity of banks of all types, helped to increase the speed of transmission of problems from one economy to the next. Therefore, the first priority was to stabilise the financial system by an imaginative mix of policies which went beyond capital injections.

Bank Recapitalisation Scenarios

	Baseline Case		Worst Case	
	Amount (Bil. Local Currency)	(% of GDP)	Amount (Bil. Local Currency)	(% of GDP)
Australia	11	1.0	39	3.5
Austria	6	2.0	15	5.3
Belgium	21	6.0	27	7.8
Canada	0	0.0	76	4.8
Denmark	0	0.0	70	3.9
Finland	0	0.0	2	1.1
France	22	1.1	40	2.0
Germany	80	3.2	120	4.8
Greece	5	2.0	13	5.1
Ireland	8	4.0	15	8.0
Italy	18	1.1	60	3.8
Japan	2,500	0.5	7,500	1.5
Netherlands	14	2.3	20	3.4
New Zealand	2	1.0	6	3.5
Portugal	4	2.4	10	6.0
Spain	12	1.1	48	4.3
Sweden	0	0.0	65	2.0
Switzerland	6	1.1	26	4.9
UK	40	2.8	83	5.7
US	1,040	7.3	1,900	13.3

Source: S&P.
Note: Baseline scenario considers programs announced to date while stressed case include projections of future recapitalisations under assumptions of weaker growth, lower inflation, and deeper fiscal deficits in 2009 and 2010.

What Have Central Banks Done Given Low Rates?

Action	Objective	Current Status
Pre-commit to keeping rates low	• "Talk down" the yield curve to help liquidity and lower interbank rates	• Fed has undertaken this: "In particular, the Committee anticipates that weak economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time"
Expand the central bank's balance sheet	• Increase bank reserves through asset purchases and repos to help liquidity and lower interbank rates	• Fed's balance sheet has ballooned from US$900 billion a year ago to US$2.2 trillion now. Over the same period, bank excess reserves at the Fed have increased by US$574 billion. • The ECB similarly, with the size of the ECB's open market operations currently around €800 billion, up from around €400 billion a year ago. Lowering reserve requirements should have a similar effect.
Buy unconventional' assets	• Boost asset prices and lower risk premia	• Fed is doing this to some extent by buying asset-backed CP, but could have included a variety of instruments from long-dated government bonds to corporate credit or even equities.
Guarantee triple-A ABS	• Improve availability of credit, so lowering risk premia	• The Crosby Report in the UK suggested securitisation markets might be revived with government guarantees, facilitating the availability of credit to home buyers and consumers.
Lend directly to households and Corporates	• Improve availability of credit, so lowering risk premia	• Some pressure on banks that have received government support (e.g. in the US and UK) to prop up lending levels.

Banking Systems: Asset Books

Focus has also been placed on the assets held by certain banks, some classes of which no longer have a liquid market. Reviews of previous “distressed asset” or “bad bank” situations provided inspiration for the response.

Common Solutions

Strategies	Carve Out	Spin-off	Good- Bad- bank
Description	• Carving out of damaged assets and onerous liabilities into an asset recovery structure. Ex: Sweep Bank, assignment in trust to other banks, asset and recovery agencies	• Of healthy assets and guaranteed liabilities to a new bank, leaving the existing shareholders equity and certain arduous liabilities to the old bank	• Bank is divided into two parts wherein Good-bank retains performing assets while NPAs are transferred to a Bad-bank shell
Pros	▲ Clarifies position of entity ▲ Greater focus on extracting remaining value	▲ Allow bank to survive and create economic value for society ▲ No burden of toxic assets	▲ Good-bank can operate more efficiently and raise capital at lower rates ▲ Bad-bank then directs efforts at loan recovery and self liquidation ▲ With an economic turnaround, the value of toxic assets in the Bad-bank may increase
Cons	▼ Involves a number of complex business and legal issues ▼ Managing employee issues and benefits	▼ Existing shareholders will loose value	▼ Issues regarding funding the Bad bank entity ▼ Primary funding remains, equity or debt sales of Bad-bank finds, yet such debt can be difficult to place

Swedish Banking Crisis (1991–1992)

- Causes
  - High Inflation, rapid expansion, primarily in the real estate sector and a recession in exports led to increased bankruptcies, falling collateral value, and plummeting asset quality for Swedish Banking Sector
- Rescue Strategies
  - Guarantees provided on all retail deposits, senior and subordinated debt, problem assets, loans and new equity issues
  - Good-bank, bad-bank method of problem loan resolution was extensively used in the Swedish bailout

French Bail-out of Credit Lyonnais (1995)

- Causes
  - Bank diversified too rapidly in the late 1980s, particularly in film, industrial and realty ventures
- Rescue Strategies
  - French Government allowed US$27.6 billion in assets to be transferred to a CL subsidiary, Consortium de Realisation (CDR) which acted as its “bad-bank”
  - Other conventional restructuring measures such as trimming workforce and replacing top management

Japanese Bank Restructuring (1990s)

- Causes
  - Banks’ aggressive property lending and asset price collapse during the second half of 1980s, led to distressed loan problems (see later case study)
- Rescue Strategies
  - Restructuring recapitalising organisation set up to assist and advise distressed debtors on restructuring their debts through out-of-court workouts, Civil Rehabilitation and Corporate Reorganisation proceedings

Banking: Financial Sector Linkage to Non-financial Economy

The importance of banking stability is borne out by the support which the financial sector usually provides to the non-financial economy – whether individuals, businesses or government – through allocating capital to investment, managing risks, and providing payments systems & credit to facilitate trade.

Non-FS Sectors of the Economy

Key Financial Sectors

Financial Infrastructure: Capital Markets; Exchanges; Payment Systems

Key Financial Sectors	Public Sector	Companies	Households
Banking	• Built infrastructure finance • Financial management • Advisory support	• Financing (lending) • Equity/Debt issuance • Financial management • Risk management	• Savings and investments • Secured lending (e.g. mortgages) • Unsecured lending
Insurance		• Commercial insurance • Specialty risks	• Life insurance • P&C insurance • Private pensions
Asset Management	• Infrastructure investing • Sovereign debt funds	• Venture capital • Investments in large corporations • Liquid investments	• Mutual funds • Investment trusts • Wealth protection

Source: Citi

3. Selected National Strategies

Evolving Wisdom: National Strategies

No two countries faced exactly the same issues. Some counties had large financial sectors, others relied on physical exports in specific manufacturing industries. Some countries faced infrastructure shortfalls, others needed to invest in technology. So as logical dictated, countries specialised in which policy areas they initially focused on.

"A major problem that led to the crisis was that financial institutions weren't held to a high enough standard. In boom times, that problem wasn't visible, but those firms turned out not to have the capital and liquidity cushions they needed in times of true stress. Our plan fixes that too. There are a whole range of areas – from consumer protection to the establishment of a coordinating council of regulators – where our plan puts in place measures that would have made it more unlikely for things to get as far out of hand as they did in this recent crisis. And we do it in a way that will allow us to get the upside of market-driven innovation while protecting against the downside risk of market excesses."

– Treasury Sec. Tim Geithner at an economic summit in NY, 29 June 2009

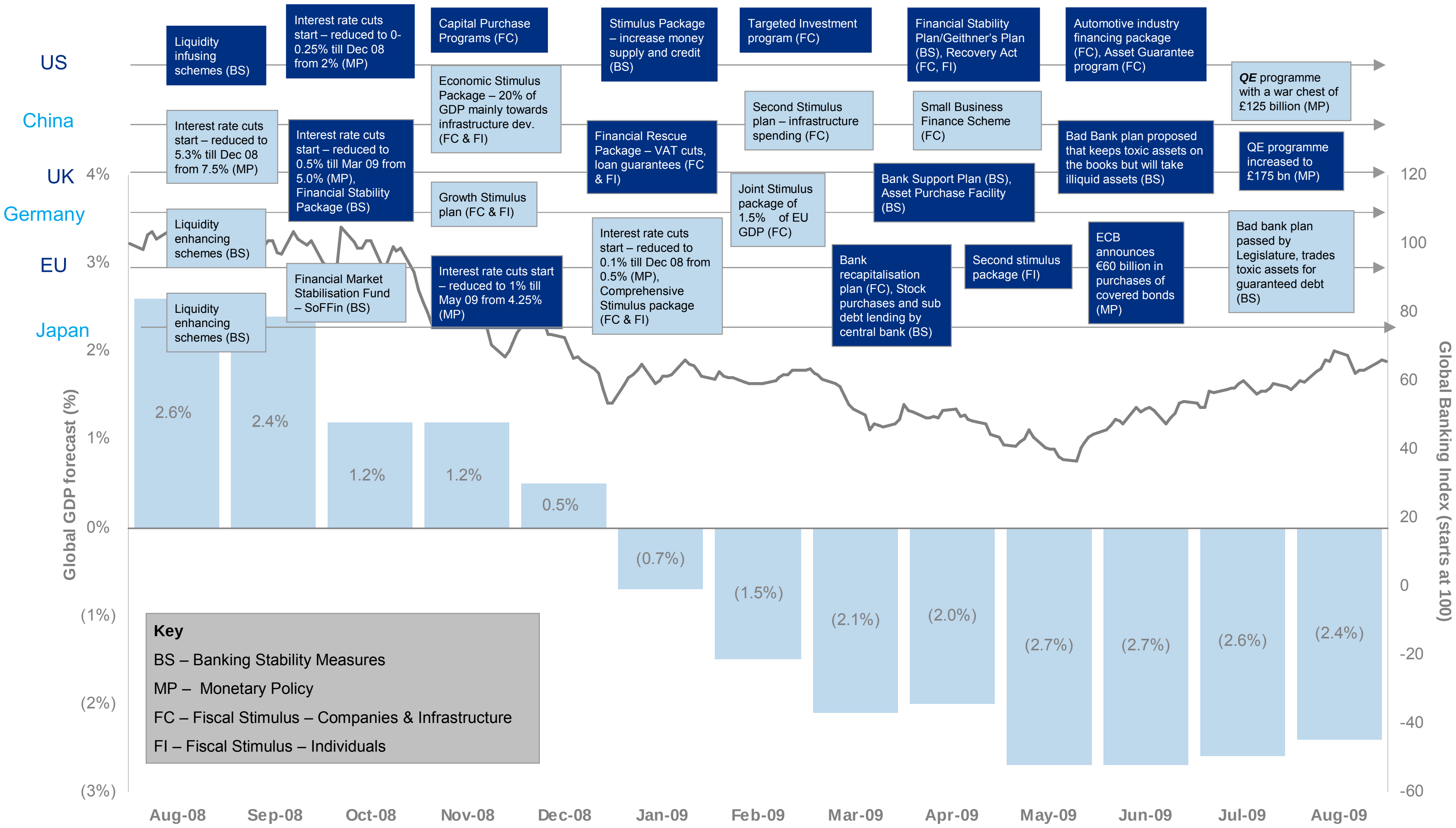
"Taking the lessons of the '90s era to heart, in the current crisis we have thus far undertaken fiscal stimuli totalling about US$120 billion. In addition, we are now poised to engage in new fiscal outlays of approximately US$150 billion. We have taken such steps in the belief that abnormal economic circumstances demand exceptional responses as well."

– H.E. Mr. Taro Aso, Prime Minister of Japan, at the International Conference on The Future of Asia, 21 May 2009

"… together with the Fed, FDIC and private sector, we will establish a Public Private Investment Fund. This program will provide government capital and government financing to help leverage private capital to help get private markets working again for the legacy loans and assets that are now burdening the entire financial system."

– Excerpts from Treasury Sec. Tim Geithner's speech on bank plan, 10 February 2009

Key National Responses Over Twelve Months



Source: Citi

Best Practices in National Strategies

Out of our four categories of policy response, four countries showed particular strengths which helps other countries to formulate policy in these areas: the United States' monetary policy; the UK's stabilisation of the banking system; China's immense fiscal stimulus related to infrastructure; and Germany's stimulus of consumer spending.

Strategy	Monetary Policy	Banking System Stability	Fiscal Stimulus – Companies	Fiscal Stimulus – Individuals
Country	US	UK	China	Germany
Approach	• Key benchmark rate reduced from 2% in October 2008 to 0 to 0–0.25% in December 2008 • Fast response • Fed began paying interest on depository institutions required and excess reserve balances	• Capital investment in banks like RBS, Lloyds TSB / HBOS through either Preference/Equity shares • Introduced £200 billion under Special Liquidity Scheme (SLS) to ease liquidity concerns • QE programme of up to £175 billion to facilitate asset purchase • Established a credit guarantee scheme to answer funding concerns	• Stimulus package worth RMB4 trillion (US$586 billion) (nearly 20% of GDP) through 2010 to boost domestic demand – To finance programs with a focus on infrastructure – 45% funds flowed into railway, highway, and airport projects – 25% dedicated to post-disaster rebuilding efforts • Also declared a shipping sector stimulus plan	• Income tax relief of ~€3 billion in 2009 and ~€6 billion from 2010 onwards by raising the basic tax-free allowance and reduction in the lowest tax bracket from 15–14% • A one-off bonus of €100 per child would be paid to recipients of child benefit in 2009 • A green incentive of €2,500 on scrapping 9-year old cars in favour of newer, more environmentally-friendly models (approximately €1.5 billion in funding)
Benefits	• The economy slowly coming out of recovery with positive trends in fall in unemployment rate, up-tick in retail sales and housing prices data etc.	• Against SLS, £185 billion of Treasury bills were lent to 32 institutions in exchange for £242 billion/£287 billion (market value/face value) • RBS and Lloyds Prefs swapped to equity in January 2009 and March 2009, respectively	• To make Yuan more widely used in the global trade, China signed bilateral Currency Swap agreements worth RMB650 billion – Hong Kong: 200 billion – Korea: 180 billion – Indonesia: 100 billion – Malaysia: 80 billion – Argentina: 70 billion – Belarus: 20 billion	• Auto industry reaping the benefits with a surge in demand because of the new green incentive
	See also UK	*See also US, Japan*	*See also US, Germany*	*See also US*

Case Study: Geithner's Roadmap To Banking System Stability

Troubled Assets Relief Program (TARP) was established under the Emergency Economic Stabilisation Act of 2008. Under TARP, the Treasury established The Financial Stability Program to stabilize the financial system, restore the flow of credit to consumers and businesses and tackle the foreclosure crisis.

How Is TARP Promoting Financial Stability ?

Capital Assistance Program (CAP)

- Restore confidence by providing sufficient capital cushion to large financial institutions against larger than expected future losses
- Regulators to conduct forward-looking assessments to evaluate the capital needs of the major US banks
  - Banks with assets in excess of US$100 billion on a consolidated basis are required to participate in the assessments
- Capital provided will be in the form of a preferred security that is convertible into common equity
- Banks applying for CAP to submit a plan for how they intend to use this capital

Consumer & Business Lending Initiative

- Support the consumer and business credit markets by providing the financing to private investors to help unfreeze the credit markets and lower interest rates
- Treasury to use US$20 billion to provide credit protection for US$200 billion of lending from Fed
- Protecting taxpayer resources by limiting purchases to AAA rated loans
- Expand the initial reach of the Term Asset-Backed Securities Loan Facility (TALF) to now include commercial mortgage-backed securities

Making Home Affordable Program

- Provide the opportunity for up to 4–5 million homeowners to low cost refinancing
- A US$75 billion a comprehensive multi-part strategy home affordable modification program to prevent foreclosures
  - Plan to reach up to 3–4 mn homeowners
  - Clear and consistent guidelines for loan modifications
  - Modifications of home mortgages during bankruptcy
  - Requiring that financial stability plan recipients use treasury guidelines for loan modifications
- Strengthen confidence in Freddie & Fannie

Public-Private Investment Program

- Effort to repair balance sheets of financial institutions and unfreeze credit markets. Plan addresses both – troubled legacy loans and legacy securities
- To dedicate US$75 billion to US$100 billion of TARP/ FSP capital. With financing from FDIC & Fed, leverage of US$500 billion with potential to expand to US$1 trillion of purchasing power
- Only US banks are eligible to sell assets to the loan purchase program
- Government to select five asset managers for the securities purchase program. To qualify, an investment firm must have at least $10 billion in assets under management

Capital Purchase Program (CPP)

- Under the program the Treasury will invest up to US$250 billion in US banks that are healthy, but desire an extra layer of capital for stability or lending
- Capital to be provided to viable banks through the purchase of banks' preferred shares
- Institutions participating in the CPP to pay the Treasury a 5% dividend on senior preferred shares for the first five years and 9% per year, thereafter
- The total "eligible" pool of financial institutions is approximately 8,400

Asset Guarantee Program (AGP)

- Treasury to guarantee certain assets held by the qualifying financial institution
- AGP is meant for systemically significant institutions, and can be used in coordination with other programs
- Set of insured assets to be selected by the Treasury and its agents in consultation with the institution receiving the guarantee
- Assets to be guaranteed must have been originated before March 14, 2008
- Government to provide a set of portfolio management guidelines to which the institution must adhere for the guaranteed portfolio

Targeted Investment Program (TIP)

- Investments made seek to avoid significant market disruptions resulting from the fall of one financial institution that can threaten other institutions and impair broader financial markets
- TIP participants are subject to stringent regulations regarding Executive Compensation
- Investment eligibility considerations:
  - Extent to which destabilisation threatens the viability of creditors
  - Access to alternative sources of capital
  - How significantly can the institution's failure injure broader financial markets

Auto Industry Financing Program

- Objective – to prevent a significant disruption of the American automotive industry, which would pose a systemic risk to financial market stability
- US$24.7 billion in total loans provided to GM, GMAC, Chrysler Holding, and Chrysler Financial in order to avoid a disorderly bankruptcy, via AIFP
- Treasury to get equity warrants in return for the loans disbursed to the auto industry
- Participants to adhere to rigorous executive compensation, limited institutional expenditure and other corporate governance requirements

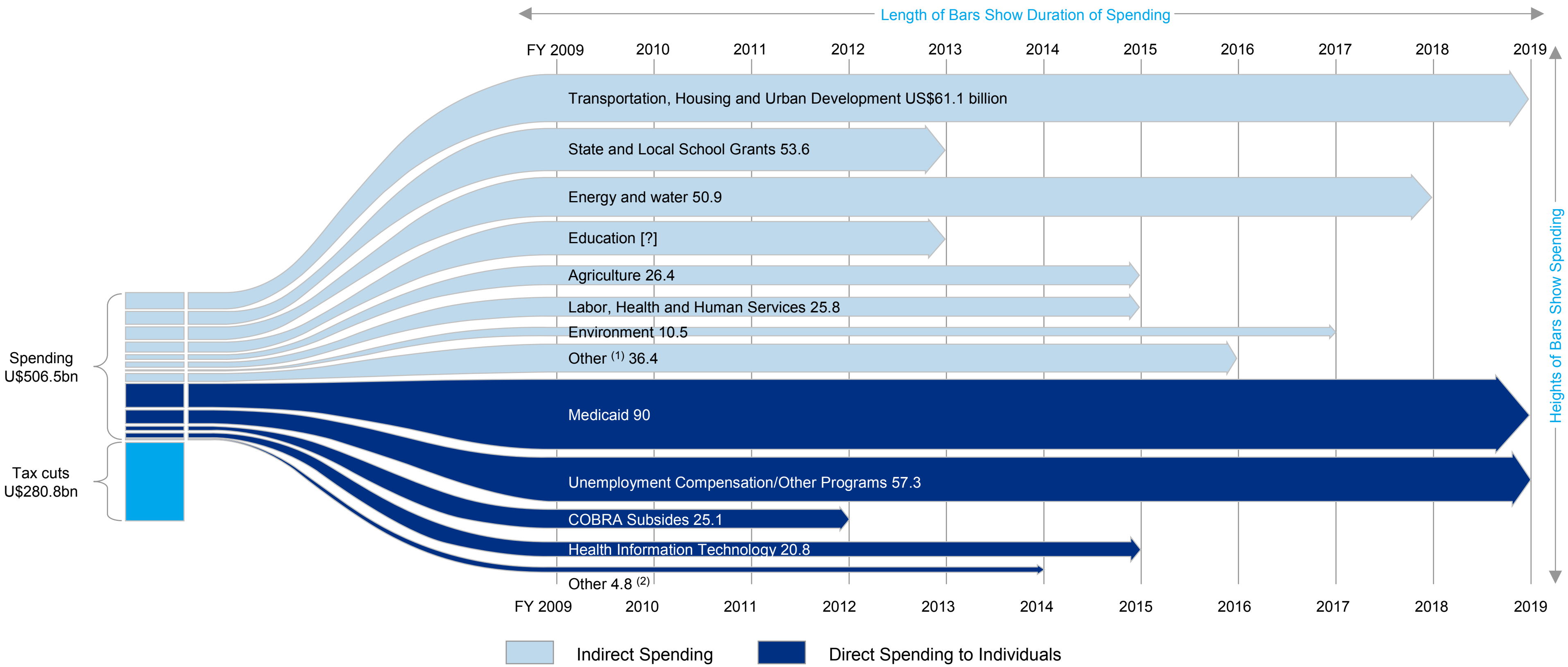
Source: Citi

Case Study: US Fiscal Stimulus

President Obama signed into law the US$787 billion stimulus bill that is expected to create jobs and stimulate the economy. Tax cuts account for 35% of the measure – so it aims for a mix of infrastructure, corporate and individual stimulus.

Estimated Cost of the American Recovery and Reinvestment Act

(US$ in Billions), Fiscal Years



Source: Congressional Budget Office.

(1) Includes Commerce, Justice, Science, Department of Defence, Health and Human Services, Employment and Training Administration, Financial Services and General Government Federal Banking Fund, Legislative Branch, Military Construction and State Foreign Operations.

(2) Tax protections.

Case Study: US Public-Private Investment Programme

The programme was aimed at banks to help underwrite their balance sheets and was a variation on the initial TARP scheme (an example of government's learning as they went along).

Overview of the Program

Public Private Investment Program

- US$75–100 billion of TARP / FSP capital
- With financing from FDIC & Federal Reserve, leverage of US$500 billion with potential to expand to US$1 trillion of purchasing power

Legacy Loan Program

- Banks would identify assets to sell
- Loans would be auctioned by FDIC to highest bidder
- FDIC will provide a loan guarantee to finance the purchase for a max 6:1 D/E ratio
- Equity capital will consist of a 50/50 co-investment of the private investor with Treasury

Capital Public – Private Investment funds

- Combines USG and private capital

Financing Funds Will Raise FDIC Guaranteed Debt

- FDIC will guarantee debt
- Leverage of up to 6:1

Legacy Securities Program

- TALF Expansion – Through this program non-recourse loans will be made to investors to fund the purchases of legacy securitisation assets
- Side-By-Side Co-Investment – Treasury will approve up to five asset managers who will raise private capital to purchase the qualifying securities. The Treasury will match 100% of the private equity capital raised

Capital Public – Private Investment Funds

- Combines private capital with USG capital and potential USG leverage

Financing Funds Will Raise FDIC Guaranteed Debt

- Builds on existing TALF framework

Strengths

- Leverage – financial leverage of 6x can be gained
- Expansion of TALF to include legacy securities
- Sufficient size of up to US$1 trillion – total size of the program can reach US$1 trillion
- Improves liquidity

Weaknesses

- No upside for the selling banks
- No capital relief, but this may tie into the Stress Test and CAP plan – banks may still need to take a loss on asset dispositions, which may limit participation due to capital constraints

Other Key Points

- Plan will benefit the banks which have been most aggressive writing down loans
- Program seems better suited for securities
- Only US banks are eligible to sell assets to the loan purchase program the guidelines specifically exclude foreign-controlled banks
- Government plans to select five asset managers for the securities purchase program to qualify, an investment firm must have at least US$10 billion in assets under management

Source: Citi

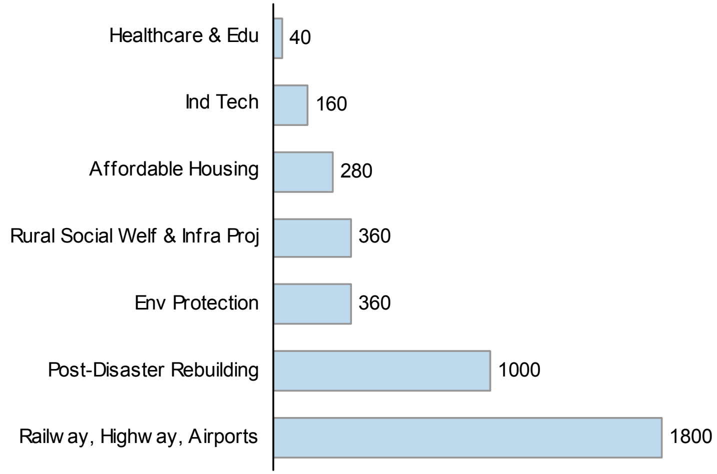
Case Study: China Economic Stimulus Package

China announced one of the biggest stimulus packages, equivalent to nearly 20% of its GDP. One of the interesting facets of the package was the acceleration in planned infrastructure schemes which will enhance future economic development, but also a package with an eye to enhanced consumer spending.

Economic Stimulus Package Announced in November 2008

- RMB4 trillion (~US$586 billion) economic stimulus package
  - Aimed to loosen credit conditions, cut taxes and embark on a massive infrastructure spending program in a wide-ranging effort to boost domestic demand
- Funds, equivalent to nearly 20% of China's GDP or 1/3rd of the country's fixed asset investment in 2007, were budgeted for spending through the end of 2010
  - First US$18 billion commitment in 4Q08
- Plan covered ten major areas, including low-income housing, rural infrastructure, water, electricity, environmental protection, technological innovation, and post-disaster rebuilding
  - Government would invest in certain key economic sectors as part of an "active" fiscal policy
- It included reform in value-added tax, which was expected to cut industry costs by RMB120 billion (~US$17.5 billion) and encouraged companies to invest more in the long run
- Finally, the plan increased grain purchase prices and subsidies for farmers and allowances for low-income urban households
  - Also involves an increase in bank lending to SMEs, many of which have had been impacted by the global slowdown
- Government also lifted the credit ceiling over commercial banks
  - Encouraged to enhance their lending to priority projects, to SMEs, development of rural areas, and for technical innovation projects

China's RMB4 Trillion Investment through 2010



Real Estate Stimulus Package Announced in December 2008

- Building more houses for low-income urban families, encouraging home buying, supporting property developers to deal with changing market, enhancing role of local governments in stabilising the real estate market, and improving surveillance on the property market
- Government to solve the housing problem for 7.5 million low-income urban families and 2.4 million households in shantytowns in the next three years; rural homes in dangerous condition will also be renovated
- Package allows home-owner of more than two years to sell it without having to pay taxes; previously, owners had to wait at least five years before selling houses tax-free

Source: Citi

Case Study: Germany's Stimulus Package

Germany led the way for the EU economy in two fiscal stimulus tranches. The packages were made up of job creation programmes, tax cuts, regional economic investment and green infrastructure investment. Support for the German auto industry turned out to be a particularly successful move.

November 2008: Initial Economic Stimulus Package - €31 Billion

- New lending program of up to €15 billion was introduced for German state-owned development bank Kreditanstalt fuer Wiederaufbau (KfW) to strengthen its lending activities until the end of 2009
- A scheme for write downs for up to 25% of a company's movable assets introduced for two years
- KfW's infrastructure programme for structurally weak local authorities raised by €3 billion
  - The federal government made available an additional €200 million in 2009 for the states to boost regional economies
- Urgent investment in transport infrastructure was accelerated with a new program worth €1 billion in each of those years introduced
  - The expansion of rail and waterways was subsidised
- The government to push the EU to make sure its planned CO_2 emissions caps for cars, due to take effect in 2012, are affordable for the auto industry
  - Funds available for renovation work on buildings aimed at cutting CO_2 emissions were be raised by €3 billion for the years 2009 through to 2011
- The government aimed for the funding available for credit granted by the EIB for research, development and innovation to rise to €10 billion in 2009 from €7.2 billion
- The tax-deductible amount for housing repairs and modernisation was doubled to €1,200

January 2009: Subsequent Economic Stimulus - €50 billion

- A €100-billion programme of loans and credit guarantees would be implemented by expanding existing measures and creating new instruments
- The funding available to support SMEs' R&D projects would be extended in 2009 and 2010 (€450 million in additional funding per annum)
- To provide support to ensure short-time work took precedence over redundancies by subsidising employers social insurance contributions in 2009 and 2010 (approximately €2 billion of relief)
- Extra funds of approx €2.5 billion would be made available for activation, support and training measures for job seekers as well as short-time and agency workers
- The statutory health-insurance contributions paid in equal parts by employers and employees would be lowered by increasing the federal subsidy by around €3 billion in 2009 and approximately €6 billion in 2010
- Income tax would be reduced through relief of approximately €3 billion in 2009 and around €6 billion from 2010 onwards by raising the basic tax-free allowance and reduction in the lowest tax bracket from 15% to 14%
- A green incentive of €2,500 on scrapping 9-year old cars in favour of newer, more environmentally-friendly models (approximately €1.5 billion in funding)
  - The existing motor vehicle tax will be replaced by a tax on emissions, with implementation envisaged by 1 July 2009
- A one-off bonus of €100 per child paid to recipients of child benefit in 2009

Case Study: Eurozone Area Measures

The Eurozone as a whole looked to Germany and France for leadership on fiscal packages, and took a leaf out the UK's book on bank stabilisation schemes. In the immediate two months following Lehman's, measures were often coordinated with the US, UK and Japan to provide jittery markets with an injection of confidence.

- Guarantees on Bank Liabilities: As per the agreement reached at the Paris summit, Euro Area Governments raised the coverage of their deposit insurance schemes to the new maximum of €50,000 per deposit account. In addition, government guarantees were extended to cover newly issued bank debt securities
- Capital Injections: Several governments also provided Tier 1 capital to banks through the acquisition of preference shares or other hybrid instruments which fulfil the conditions for Tier 1 capital. Some countries have considered the provision of capital through the acquisition of ordinary shares
- Asset Support Schemes: It can take the form of asset removal schemes i.e. transferring the assets to a separate institution or asset insurance schemes i.e. keeping the assets on the banks' balance sheets. Some initiatives can be categorised as hybrid schemes, which involve asset transfers, financed through guaranteed public sector loans, and sophisticated risk-sharing arrangements between the governments and the participating banks

Cost of Fiscal Stimulus Packages

(%of GDP)	2008	2009	2010
Austria	0.3	1.5	1.7
Belgium	0.0	0.8	0.4
Finland	0.0	1.7	0.5
France	0.0	0.7	0.8
Germany	0.0	1.6	2.0
Greece	0.0	0.1	0.0
Italy	0.0	0.2	0.1
Ireland	0.0	0.0	0.0
Netherlands	0.0	0.8	0.7
Portugal	0.3	1.0	0.0
Spain	1.9	2.3	0.3

Summary of Rescue Measures in Europe [1]

	Capital Injection		Liability Guarantees		Asset Support		
€bn	Within Schemes	Outside Schemes	Guaranteed Issuance Bonds	Other Guarantees	Within Schemes	Outside Schemes	Total Commitment as a % of GDP
Europe	103.4 (251)	56.6	543.7 (2,136)	(236.8)	585.4 (877)	26.2	27.3
EU	99.4 (247)	56.6	543.7 (2,096)	(236.8)	544.2 (836)	26.2	27.9
Euro Area	59.1 (172)	54.1	396.8 (1,677)	(235.0)	23.7 (198)	26.2	23.7

Source: ECB Financial Stability Review June 2009.
Note: (1) National Authorities, Bloomberg and ECB calculations.
(2) Numbers in parenthesis show the full amount of the government commitment and those outside parenthesis show amount implemented till June 2009.

Case Study: US Bank Regulation

The two economies with the world's leading financial clusters – the US and the UK – have undertaken (and continue to undertake) reviews of their regulatory frameworks. The art will be to strike a balance between economic efficiency, regulatory robustness and ability to minimise future storms.

Promote Robust Supervision and Regulation of Financial Firms

- Creation of a Financial Services Oversight Council to aid information sharing and coordination; identify emerging risks; advise the Federal Reserve on firms whose failure could pose a threat to financial stability due to their combination of size, leverage, and interconnectedness (referred to as a "Tier 1 FHC"); and provide a forum for resolving jurisdictional disputes between regulators
- Implement heightened consolidated supervision and regulation of all large, interconnected financial firms
- Strengthen capital and other prudential standards for all banks
- Hedge Funds and other Private Pools of capital to be SEC-registered
- Reduce the susceptibility of Money Market Mutual Funds (MMFs) to *Runs*
- Enhance oversight of the Insurance Sector with the establishment of the Office of National Insurance within Treasury
- Determining the future role of the Government Sponsored Enterprises like Freddie Mac and Fannie Mae

Establish Comprehensive Regulation of Financial Markets

- Strengthen supervision and regulation of Securitisation Markets
- Create comprehensive regulation of all OTC Derivatives, including Credit Default Swaps
- Harmonize Futures and Securities regulation
- Strengthen oversight of systemically important payment, clearing, and settlement systems and related activities
- Strengthen settlement capabilities and liquidity resources of systemically important payment, clearing, and settlement systems

Raise I'ntl Regulatory Standards and Improve Cooperation

- Strengthen the International Capital Framework
- Improve the oversight of Global Financial Markets
- Enhance supervision of internationally active financial firms
- Reform crisis prevention and management authorities and procedures
- Strengthen the Financial Stability Board
- Strengthen and expand the scope of prudential regulations and introduce better compensation practices
- Promote stronger standards in the prudential regulation, money laundering/terrorist financing, and tax information exchange areas
- Improve Accounting Standards
- Tighten oversight of Credit Rating Agencies

Provide G'ment with the Tools it Needs to Manage Financial Crises

- Creation of a regime to avoid the disorderly resolution of failing banks
- Propose legislation to amend Section 13(3) of the Federal Reserve Act to require the prior written approval of the *Treasury Secretary* for any extensions of credit by the Fed to individuals, partnerships, or corporations in "unusual and exigent circumstances"

Protect Consumers and Investors from Financial Abuse

- Create a New Consumer Financial Protection Agency (CFPA) to protect financial consumers, and to regulate providers of such products and services
- Reform consumer protection through transparency, simplicity, fairness and equitable access to CFPA
- Strengthen investor protection by giving expanded authority to SEC to promote transparency in investor disclosures

Case Study: UK's Layers of Systemic Financial Regulation

The UK meanwhile, stung of accusations of regulatory issues, and understanding that sound and appropriate regulation was crucial to future financial services competitiveness, launched a series of reviews and revamps at nearly all levels of regulation. This process is still ongoing.

In Theory, Multiple Checks and Balances in the System…

Layer	Regulator/ Stakeholder	Post Crisis UK Response
Macro Prudential Supervision	Bank of England	H.M. Treasury
Financial Regulation	F.S.A	Turner review
Financial Firm Governance	Firm Non-Exec. & Mgt. Boards	Walker Review
Business Risk Mgt. & Audit	Firm Management	F.S.A
Business Culture & Ethics	Firm Mgt./Individuals	None

Source: Citi

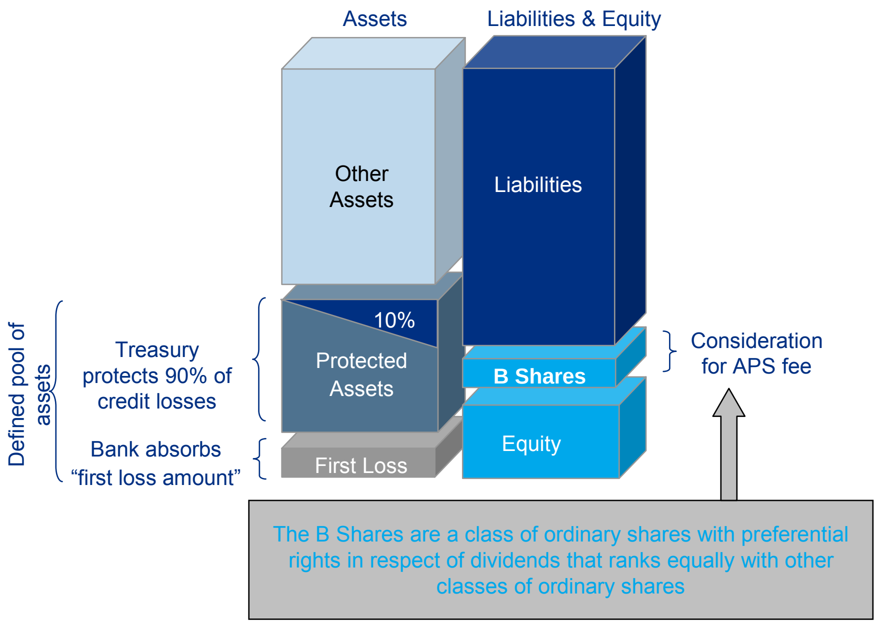
Case Study: UK Banking Funding and Liquidity Support

Special Liquidity Scheme *21 April 2008*	• In an attempt to address overhang of illiquid assets, BoE allowed banks and building societies to swap for up to three years some of their illiquid assets for liquid Treasury Bills, subject to defined haircuts – Eligible securities included AAA-rated UK and EEA RMBS (but not US RMBS), UK, US and EEA credit card ABS, and Aa3 or higher rated debt issued by G-10 sovereigns; credit risk stays with the banks – Fee based on the spread of the 3 Mo LIBOR over the 3 Month Treasury subject to a 20bps floor • The scheme closed as planned at the end of January 2009 – £185 billion of Treasury bills were lent to 32 institutions in exchange for £242 billion/£287 billion (market value/face value) of mostly RMBS collateral – Average spread over the drawdown period of 115bps • To provide necessary liquidity post the close of the scheme, the BoE's Discount Window has been extended to enable banks to swap a broad range of collateral for gilts or cash with access extended from 30 days to 365 days
Credit Guarantee Scheme *8 October 2008*	• The scheme provided a government guarantee on up to £250 billion of new senior unsecured debt issuance denominated in sterling, euro and US dollars, with a maturity of up to three years – The fee payable to HMT was based on an annual rate of 50bps + the issuer's 5Y median CDS spread – Guaranteed securities qualified for zero risk weighting for capital adequacy purposes • The scheme was first revised in December, lengthening the period for which support may be provided from 3–5 years (ending 9 April 2014), reducing cost of the guarantee and broadening the range of currencies covered • The latest proposal extended the period in which new debt can be issued from 9 April 2009–31 December 2009
Discount Window Facility *20 October 2008*	• A permanent facility, aimed to provide liquidity insurance to the banking system • Not intended for firms facing fundamental problems of solvency or viability • Eligible banks and building societies could borrow gilts, for 30 or 364 days, against a wide range of high-quality collateral in return for a fee, which will vary with the collateral used and the total size of borrowings
Guarantee Scheme for Asset-Backed Securities (ABS) *22 April 2009*	• The Government intended to provide full or partial guarantees to eligible triple-A rated asset-backed securities, including mortgages and corporate and consumer debt to UK banks and building societies eligible to participate in the CGS • Included two types of guarantee – A credit guarantee for a defined period that is meant to address any credit issues raised by ABS investors – A liquidity guarantee (in the form of a call or put) that is meant to address investors' concern about any extension risk after a defined date

Case Study: UK Government Asset Protection Scheme

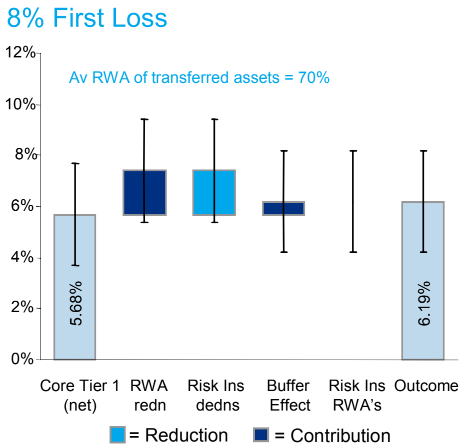
In February 2009, HM Treasury announced the details of the Asset Protection Scheme, which was designed to stabilise bank balance sheets and improve prospects for bank lending, restoring confidence to the financial markets. It appeared to bring significant stability to the balance sheets of two stressed banks.

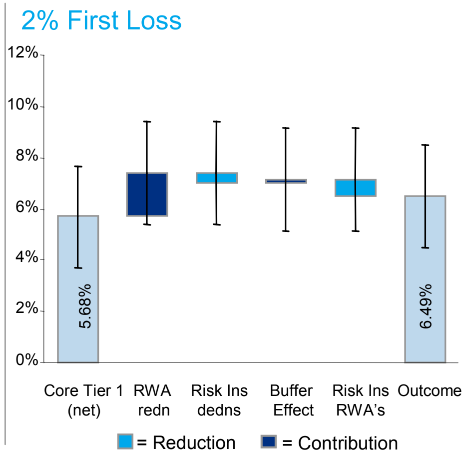
Asset Protection Scheme-Overview



- Under the Asset Protection Scheme (APS), in return for a fee, HM Treasury will provide protection against credit losses incurred on one or more portfolios of defined assets above and beyond a "first loss amount" borne by the bank
- HM Treasury protection will cover 90% of the credit losses which exceed the first loss amount
- The fee for the APS may be paid in the form of capital instruments, including B Shares – a special class of equity designed specifically for the purpose of the APS
- The market reacted favourably to HM Treasury's announcement with UK bank shares trading up sharply on the news

Source: Citi





- This illustrates the capital impact of the APS under Basel II rules applied to notional UK bank assets and capital structure in two scenarios
  - Where the bank retain a First Loss of 8%,
  - Where the bank retain a First Loss of 2%,
  - And we assume a capitalised cost of the scheme with equivalent capital impact between the scenarios
- We show ring-fenced assets are zero risk-weighted for capital purposes: the other main drivers in the calculations are changes to Tier 1 and Tier 2 deductions in respect of the First Loss piece
- Overall, Core Tier 1 is strengthened by a similar amount between the scenarios – capital is stable even if losses migrate scenario 1 towards scenario 2
- Total capital is strengthened more that Tier 1 because the of application of capital buffers (capital in excess of 8%) to a smaller RWA denominator
- Accounting leverage is also fractionally reduced – particularly if adjusted to account for the removal, in effect, of ring-fenced assets from the balance sheet
- This illustration follows treatment consistent with the UK FSA notes of 26 February 2009

Case Study: Lessons Learnt from Japan’s Lost Decade

- Japan experienced a disastrous decade of economic stagnation and deflation from 1991 to 2001 after bubbles in its stock market and land market collapsed
- Equity prices plunged by 60% between late 1989 and August 1992, accompanied by a 70% drop in land values by 2001
- Japan’s lost decade can be divided into three phases:
  - 1991-93 recession: Equity bubble burst in 1989 but land prices continued an upward spiral for another year
    - BoJ remained concerned about inflation pressure and increased the discount rate from 4.75% to 6% in August 1990
  - As land prices begin to fall, BoJ reversed course and cuts rate by 275bps in June 1991, followed by further 150bps in September 1993
    - Japan introduced three major fiscal stimulus packages totalling 6% of GDP between August ’92 and September’ 93
  - Temporary recovery of 1994-96: Limited positive impact on economy as growth recovered to ~ 1% in 1994. Main reasons were:
    - BoJ initiated monetary easing rather too late, and by June 1991, when first rate cut was used, *nominal* GDP growth of ~ 2.5% rate was already less than discount rate of 6%
    - Falling land and equity prices erased household wealth and resulted in a sharp curtailment of credit because of the heavy exposure of Japan’s banks to the commercial land bubble – as a result, deflation emerged
    - Stimulus packages proved ineffective – they suffered from double counting, were not as large as advertised and were poorly directed towards unproductive public works and credit to economically unviable SMEs
  - Deflation emerged mid-decade and dragged down nominal GDP growth, which coupled with a loss of public confidence, resulted in a liquidity squeeze
  - 1997-2001 Deflation persistence: Japan’s biggest policy mistake was possibly in 1997 when the government raised its consumption tax from 3 to 5%
    - The combination of higher taxes, the continued fall in land prices preventing Japan’s banks from operating as financial intermediaries because of their heavy exposure to real estate losses, and a rapid return to deflation in 1998 resulted in a virtual collapse of the Japanese economy
    - Japan’s nominal GDP growth rate was below zero for most of the five years after 1997
  - Post-2001: After five years facing deflationary economic wilderness, the BoJ switched to a policy of *quantitative easing* i.e. targeting the growth of the money supply instead of nominal interest rates
  - Koizumi’s newly elected government in April 2001 aggressively recapitalized Japan’s banks, still heavily burdened by nonperforming loans whose total value had risen as high as 20-25% of Japanese GDP
  - The move by BoJ to quantitative easing and large increase in liquidity, helped to stabilize land prices by 2003.
  - Since then, the Japanese economy has enjoyed modest growth averaging around 2% p.a

Lessons Remembered During the Crisis

- An economic cycle driven by a collapse in an asset market for, to which the banking system is heavily exposed is dangerous
  - Conventional measures such as interest rate reductions and some fiscal relief for households and firms are necessary but not sufficient conditions to return the economy to health
- The banking system must move promptly to reveal the full extent of its exposure to the depreciating asset.
  - If market-clearing prices for financial assets tied to real estate entail substantial losses for financial institutions, then those losses must be borne by shareholders.
  - f shareholder equity is insufficient to protect depositors, then public funds must be used to provide that protection in order to avoid a further collapse in asset values entailed by rapid withdrawal of funds from financial institutions
- Governments should not allow deflation to take hold. While central banks remain concerned that inflation pressures may rise because of higher commodity prices, it is important to remember that inflation can quickly turn to deflation
- Most importantly, Governments should avoid the temptation to raise taxes in the midst of a rapid economic slowdown driven by deteriorating credit conditions as a premature tax increase such as Japan used in 1997 can throw a weak economy back into a more intense slowdown that only exacerbates the problem

4. Handling the Aftermath

Evolving Wisdom: The Way Forward

2008-09 has been a sobering period for everyone – from proponents of globalisation to the more ardent protectionist –yet governments have shown that they have been able to adapt and respond. Nevertheless, the aftershocks of the Crisis will be living with us for many years – some more subtle than others.

"Although we have avoided the worst, difficult challenges still lie ahead. We must work together to build on the gains already made to secure a sustained economic recovery, as well as to build a new financial regulatory framework that will reflect the lessons of this crisis and prevent a recurrence of the events of the past two years."

US Fed Chairman Ben Bernanke, Kansas City's Annual Economic Symposium, 21 August 2009

"This crisis has reminded a generation of some old truths. Banks can fail. But they matter enormously to our economies, and so the authorities cannot afford to stand back and allow disorderly systemic failure. Going forward, we cannot have a regime where the upside for risk taking goes to shareholders and management, but the downside falls to the general taxpayer." He says, "… we want banks and the financial sector more generally to thrive… The financial sector has played an enormous role in the development of modern economies. But a regime in which banks can thrive standing on your own feet would be a better market – for all of us."

Deputy Governor for Financial Stability, BOE, Paul Tucker in a speech, 30 June 2009

"We have also decided to say that we must return to a solid, sustainable fiscal policy after the crisis. So we have got to signal to markets on the one hand that we are tackling the crisis decisively and, on the other hand, that we will permanently avoid excessive global imbalances."

German Chancellor Angela Merkel at a news conference, 14 March 2009

Future Implications

A year after the Lehman's administration signalled an intensification of the financial crisis, the longer-term implications of the crisis still remain uncertain. Memories can sometimes be short, but undoubtedly the scale of the crisis will influence policy-making for many years.

	Short-term	Medium-term	Long-term
Banking	• Reliance on the state for either direct or indirect support • Restoring basic levels of trust within the banking system and financial markets a pre-requisite	• The idea of banking as a growth industry has been shelved – developing market champions will emerge • The regulatory system will become more internationalised	• "Never again": Multi-layered systems of checks and balances will be crucial to ensuring stability • A public push for "boring banking" – but must be a place for innovation which has social and economic utility
Private Sector	• Has been shown to need government during crisis • Threat of protectionism	• Private sector may find itself with a credibility gap compared to the public	• The free-market global model has lost ground – a third way may be sought by many countries
Public Sector	• The public sector has stepped into the investment and consumption gaps left by a recessionary private sector – but how long can this be maintained?	• Western countries, facing increased debt ratios, will need to make significant cuts in public programmes and improve public sector efficiency	• Structural vulnerabilities in certain large economies, from climate response, demographics, and energy security will exacerbate pressures on public budgets
Role of Government	• Has been only bolstered by its activist role • Return to the 1970s for the Anglo-American bloc – but most citizens glad for the help	• Reversing out from monetary and fiscal stimulus (and banking investments) without damaging growth prospects is the most pressing issue	• How easily can governments return quickly to a "hands-off" role vis-à-vis the financial and private sectors?
International Relations	• International cooperation and coordination has been crucial • The end of the G-8 "club", the rise of the G-20	• China's role significantly enhanced • "G-2" relations will continue to grow in importance – sprawling-EU could be marginalised, leading to bilateral "E-3" diplomacy with the G-2	• Global leadership based solely on Western premises will end… but the sudden end of US leadership has been greatly exaggerated • A more complex and nuanced group of countries and alliances is emerging…

G-20: “Reversing Out”, Economic Challenges for 2010 Onwards

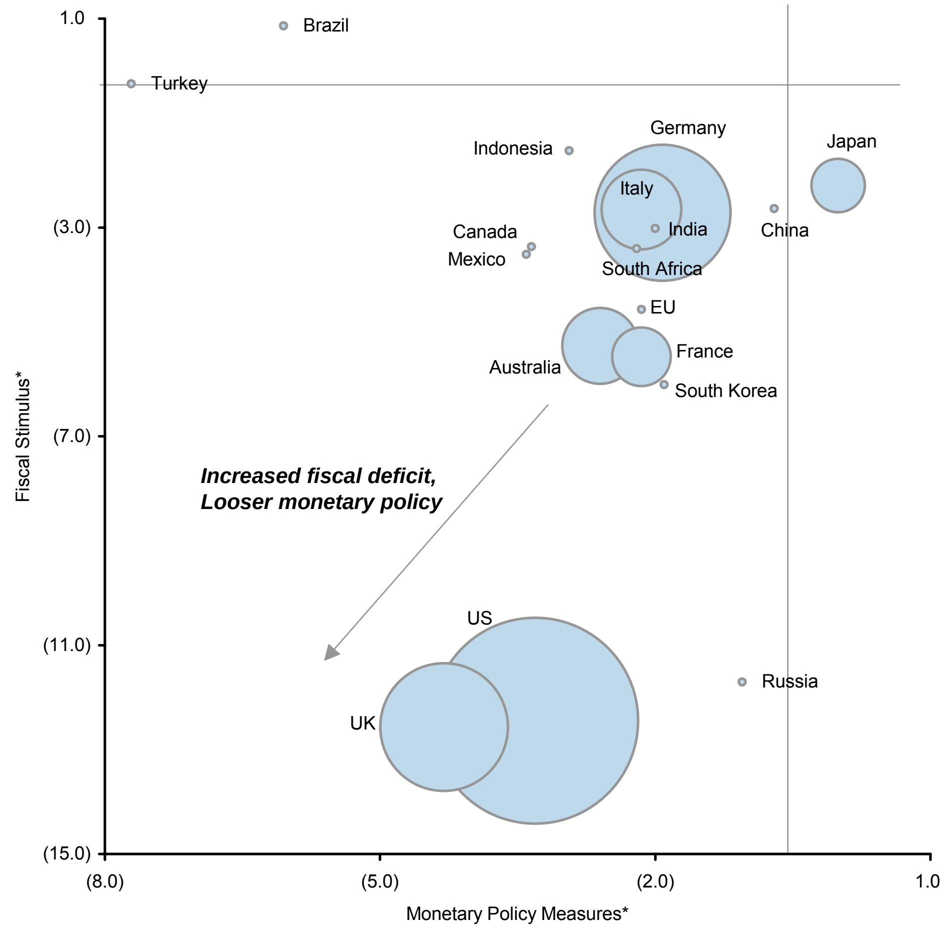
Over the course of the next Parliament, many countries will need, in the phrase of the new Bank of England Monetary Policy Committee member Adam Posen, to execute a “three-dimensional exit strategy” from recent monetary policy, fiscal stimulus, and banking system support. The US and UK face the more significant challenges among their peers.

The Public Financial Expansion

	Monetary		Fiscal		Banking
	A	B	A	B	
Argentina	21.19	10.91	(0.9)	0.0	NA
Australia	3.00	5.60	(3.9)	1.4	1.0
Brazil	8.75	14.80	(2.8)	(3.7)	NA
Canada	0.25	3.60	(2.3)	1.1	0.0
China	5.31	6.01	(4.1)	(1.5)	NA
France	1.00	3.15	(8.2)	(2.7)	0.6
Germany	0.12	2.04	(4.7)	(2.0)	3.2
India	4.75	6.75	(7.8)	(4.8)	0.0
Indonesia	6.50	9.44	(2.8)	(1.3)	NA
Italy	1.00	3.15	(5.4)	(2.7)	1.1
Japan	0.10	0.11	(7.9)	(5.7)	0.5
Mexico	4.50	7.90	(4.0)	(0.5)	NA
Russia	10.75	11.80	(8.0)	3.7	NA
Saudi Arabia	7.50	3.46	9.2	(0.5)	NA
South Africa	7.00	9.20	(4.5)	(1.1)	NA
South Korea	2.00	3.90	(5.4)	0.6	NA
Turkey	8.25	15.96	(5.8)	(5.6)	NA
UK	0.50	4.80	(14.4)	(1.8)	2.8
US	0.13	3.44	(13.7)	(1.3)	7.3
EU	1.00	3.15	(6.4)	(1.8)	NA

Source: EIU, Central bank’s website and S&P.
Monetary A: Current policy rate, Monetary B: Average of last 10 years’ policy rates.
Fiscal A: Projected fiscal deficit, Fiscal B: Average of last 10 years’ fiscal deficits.
Banking: Support as a percentage of GDP.

Public Expenditure Strains in 3-D



Source: Citi, EIU, Central bank’s website and S&P.
Size of the bubbles signify banking system support as a percentage of GDP.

Appendix – Other National Strategies

The US Response

Monetary Policy

06 October 2008	• Fed began to pay interest on depository institutions' required and excess reserve balances
16 December 2008	• Key benchmark rate reduced from 2% in October to 0 to 1/4 % in December 2008

Banking System Stability

September 2008	• Swap lines – Expansion of existing swap lines with central banks of major countries by around US$500 billion to provide sufficient dollar liquidity
19 September 2008	• AMLF – Asset Backed Commercial Paper Money Market Mutual Fund Liquidity Facility to extend non-recourse loans to US depository institutions and bank holding companies to finance their purchases of high-quality asset-backed commercial paper (ABCP) from money market mutual funds, (2) To purchase from primary dealers, short-term debt issued by Fannie Mae, Freddie Mac, and the Federal Home Loan Banks
07 October 2008	• CPFF – Commercial Paper Funding Facility, to improve liquidity in short-term funding markets and increase the availability of credit
21 October 2008	• MMIFF – Money Market Investor Funding Facility, to serve as a source of liquidity to money market mutual funds
25 November 2008	• TALF – Term Asset-Backed Securities Loan Facility, to help market participants meet the credit needs of households and small businesses by supporting the issuance of asset-backed securities (ABS) collateralised by student loans, auto loans, credit card loans, and loans guaranteed by the Small Business Administration (SBA); under this, the Federal Reserve Bank of New York (FRBNY) was to lend up to $200 billion on a non-recourse basis to holders of certain AAA-rated ABS backed by newly and recently originated consumer and small business loans
25 November 2008	• Debt purchase: To purchase upto US$600 billion of direct obligations of Fannie Mae, Freddie Mac, and the Federal Home Loan Banks and mortgage-backed securities (MBS) backed by Fannie Mae, Freddie Mac, and Ginnie Mae
18 March 2009	• Securities purchase: To purchase up to an additional US$750 billion of agency MBS, bringing its total purchases of these securities to up to US$1.25 trillion this year, and to increase its purchases of agency debt this year by up to US$100 billion to a total of up to US$200 billion; also to purchase up to US$300 billion of longer-term Treasury securities over the next six months
10 February 2009	• Financial Stability Plan – CAP – Capital Assistance Program; Eligible US banking institutions were required to participate in the coordinated supervisory assessments, and may access the CAP as a means to establish any necessary additional buffer; CAP to be in the form of convertible preferred stock – PPIF – Public-Private Investment Fund to generate US$500 billion in purchasing power to buy legacy loans and legacy securities from financial institutions– with the potential to expand to US$1 trillion over time – TALF Expansion – Increased its size to as much as US$1 trillion and broaden the eligible collateral to include \ newly issued AAA-rated ABS, such as commercial MBS, private-label residential MBS, and other ABS

The US Response (Cont'd)

Fiscal Stimulus Companies and Infrastructure

14 October 2008	• CPP – Capital purchase program; Treasury invested up to US$250 billion in banks that were healthy, but desired an extra layer of capital for stability or lending, through purchases of preferred stock
14 October 2008	• Voluntary Capital Purchase program – Financial institutions could sell preferred shares to the government; FDIC temporarily guaranteed the senior debt of all FDIC-insured institutions, as well as deposits in non-interest bearing deposit transaction accounts
March 2009	• AGP – Asset Guarantee program; Treasury guaranteed certain assets held by qualifying financial institutions
02 January 2009	• TIP – Targeted Investment Program; made investments in institutions critical to the functioning of the financial system
27 January 2009	• Since its inception in October 2008, Treasury strengthened regional, small and large financial institutions as well as Community Development Financial Institutions through total CPP investments of US$194.2 billion in 317 institutions in 43 states and Puerto Rico
19 March 2009	• Automotive Industry Financing program – Treasury invested US$24.7 billion in General Motors, GMAC, Chrysler Holding, and Chrysler Financial in order to avoid a disorderly bankruptcy; and had made available US$5 billion in financing under the Auto supplier support program
17 February 2009	• Recovery Act – Revive the renewable energy industry, provide capital over the next 3 years to eventually double domestic renewable energy capacity – Undertake the largest weatherisation program in history by modernising 75% of federal building space and more than one million homes – As part of the US$150 billion investment in new infrastructure, to enact the largest increase in funding of the nation's roads, bridges, and mass transit systems since the creation of the national highway system in the 1950s

Fiscal Stimulus – Individuals

04 March 2009	• Making Home Affordable – To offer assistance to around 7–9 million homeowners to make their mortgage payments – Refinance: To provide refinancing opportunities to 4–5 million homeowners who took out loans owned or guaranteed by Freddie Mac and Fannie Mae – US$75 Billion Mortgage Modification Program – Treasury to prevent foreclosures by partnering with financial institutions and investors to reduce homeowners monthly mortgage payments
17 February 2009	• Recovery Act – a package of targeted investments and tax cuts designed to get Americans back to work and get the economy growing again – Save and create more than 3.5 million jobs over the next two years – Increase college affordability for 7 million students by funding the shortfall in Pell Grants, increasing the maximum award level by US$500, and providing a new higher education tax cut to nearly four million students – Provide US$800 Making Work Pay tax credit for 129 million working households, and cut taxes for the families of millions of children through an expansion of the Child Tax Credit – Expanded tax breaks for 2009 First time homebuyers; sales tax deduction for vehicle purchases – Economic Recovery payments: One time payment of US$250 to around 64 million people

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The Chinese Response

Monetary Policy

15 September 2008	• Cut the reserve requirement ratio by 1 pp for smaller financial institutions
23 December 2008	• Key benchmark rate reduced from 7.47% in September to 5.31% in December 2008

Fiscal Stimulus – Individuals

December 2008	• Second Stimulus package – Boosting the broad M2 measure of money supply by 17% in 2009 – Increased the target for new bank lending by Rmb4tr (US$586 billion) in 2008 – Discouraged banks from parking their funds in government bonds by reducing new issuance – Introduced flexible interest rates, loans guarantees, interest subsidies, pilot REITS, easier credit to encourage people to buy homes and cars, and short dated corporate bonds and medium-term notes to help businesses tap the market for funds – Allowed insurers to invest in a wider class of assets, specifically the purchase of bonds relating to infrastructure, telecoms, energy and rural projects – Supported exporters with credit facilities through government agencies such as the Exim Bank
December 2008	• Real Estate package – Building more houses for low-income urban families – Encouraged home buying – Supported property developers to deal with changing market

Fiscal Stimulus – Companies & Infrastructure

09 November 2008	• Economic Stimulus Package – Stimulus package worth RMB4 trillion (US$586 billion) through 2010 to boost domestic demand – nearly 20% of its GDP – Investments were to be spent over the next two years to finance programs in 10 major areas, such as low-income housing, rural infrastructure, water, electricity, transportation, environment, technological innovation and rebuilding from several disasters – Included a comprehensive reform in value-added taxes, which would cut industry costs by RMB 120 billion – To eliminate the credit ceiling for lending to priority projects, rural areas, small enterprises, technological innovation, and industrial rationalisation through M&A – About RMB100 billion had been allocated for welfare, housing, rural infrastructure, health care, education and energy – 45% funds flowed into railway, highway, and airport projects, and 25% dedicated to post-disaster rebuilding efforts – In 4Q08, it committed RMB120 billion (~US$18 billion) in economic stimulus, with 28% dedicated to infrastructure projects in rural areas
	• Shipping sector Stimulus Plan – Comprehensive action plan for the shipbuilding industry in 2009–2011 – To encourage eligible companies to list and sell bonds, and also accelerate the establishment of shipbuilding-focused investment funds – Would also speed up the decommissioning and replacement of old ships to boost domestic demand

Fiscal Stimulus – Individuals

09 November 2008	• Economic Stimulus Package – Stimulus package worth RMB 4 trillion ($586 billion) – Plan increased grain purchase prices and subsidies for farmers and allowances for low-income urban households
22 December 2008	• Real-estate stimulus package – Building more houses for low-income urban families, encouraging home buying, supporting property developers to deal with changing market, enhancing role of local governments in stabilising the real estate market, and improving surveillance on the property market – Govt's goal for 2009, is to help overcome housing difficulties for 2.6 million low-income urban families and 800,000 households in shantytowns

The Japanese Response

Monetary Policy

19 December 2008	• Key benchmark rate reduced from 0.5% in October to 0.1% in December 2008

Banking System Stability

18 September 2008	• Dollar swap agreement: BOJ to supply USD funds to market participants in Japan, in conjunction with the Federal Reserve under a dollar swap agreement with the US Fed
14 October 2008	• Money Market operations: (1) BOJ to improve liquidity in the JGB repo market by expanding the list of eligible bonds and reducing the rates on its securities lending facility; (2) To increase the size and frequency of its commercial paper repo operations and broaden the range of asset-backed commercial paper eligible for its market operations
31 October 2008	• Complementary Deposit Facility: A temporary measure to pay interest on the banks' excess reserve balances with BOJ
19 December 2008	• Outright purchases of JGB & CP: BOJ to increase its outright purchases of JGBs (up from ¥1.2 trillion pm to ¥1.4 trillion pm) and CPs (upto ¥3 trillion) to provide longer-term funds
22 January 2009	• Market operations: BOJ to accept debt issued by real estate investment trusts (REITs) and govt guaranteed dematerialised CP as collaterals in its CP repo market operations
03 February 2009	• Stock Purchases: BOJ decided to resume its purchases of stocks held by financial institutions, to support their future endeavours to reduce market risk associated with stockholdings, and through which to ensure the stability of the financial system; size of the plan to be ¥1trillion
17 March 2009	• Sub debt investments: BOJ to buy up to ¥1 trillion (US$10.2 billion) of subordinated debt issued by banks to help bolster their capital bases

The Japanese Response (Cont'd)

Fiscal Stimulus – Companies & Infrastructure

30 October 2008

- Comprehensive immediate policy package
  - Assistance in the form of government-backed loans and tax breaks for smaller companies – ¥9 trillion

February 2009

- Bank Recapitalisation plan – Increased the budget for injection of public funds into ailing banks from ¥2 to ¥12 trillion; funds were to be injected in the form of convertible preferred shares

10 April 2009

- Second Stimulus package – spending of more than ¥15 trillion – 3% of GDP, total value of ¥56.8 trillion
  - Spending on childcare, education, nursing and medical services; subsidies for green technologies such as solar panels and environmental friendly vehicles; loan guarantees to support business
  - Public works projects and infrastructure building schemes – ¥2.4 trillion

Fiscal Stimulus Individuals

30 October 2008

- Comprehensive immediate policy package – ¥11.7 trillion
  - Measures to support employment
  - Social security, revamp of health care system
- Measures to Support People's Daily Lives – ¥26.9 trillion
  - Introduction of special tax cuts and temporary special welfare benefits, reduction in expressway tolls
  - Temporary grants for regional revitalisation and measures to support people's daily lives
  - Measures for medical service, long-term care and welfare
- Emergency Measures to Defend People's Daily Lives – ¥10 trillion
  - Measures for employment
  - Increasing tax revenues allocated to local governments to implement job-creating business and other policies
  - Newly create reserve budget for emergency economic response
  - Tax system revision, Tax cuts for housing, etc

10 April 2009

- Second Stimulus package
  - Creating a safety net for workers who lack the status of 'permanent' staff
  - Planned to pay living expenses of the unemployed while they took job training classes and offered them allowances for housing
  - Lead to the creation of 400,000 to 500,000 jobs
  - Tax breaks for parents giving money to their children to buy houses

EU Fiscal, Unemployment and Inflation Measures

UK (31%)

Britain pledged to spend £500 million ($754 million) to tackle rising unemployment. The pledged money is part of a £20 billion fiscal package announced Nov 2008. Companies will get £2,500 for new recruits unemployed for more than six months.

The plan includes a VAT reduction to 15% from 17.5%, effective from Dec 1 until the end-2009.

The plan also extended a system of tax repayments to help businesses which were previously profitable but now making losses. Losses of up to £50,000 could be offset against profits made in the past three years – benefiting 75,000 businesses. It also included an exemption for companies' foreign dividends from tax in 2009.

Spain (38%)

The Spanish govt. on Feb 13, 2009, approved a €4 billion aid package to prop up its ailing automobile industry. The plan also earmarks €800 million to help the automobile industry refocus production on more competitive and energy efficient vehicles.

In 2008, Spain announced various measures to cushion the impact of the economic slowdown and soaring unemployment including a €38 billion fiscal stimulus package. The package includes €6 billion in tax cuts and €4 billion of liquidity to credit-strapped companies and households. The govt. also spent an extra €11 billion on public works and other stimulus measures to create 300,000 jobs next year.

Portugal (41%)

The Portuguese govt. approved in Dec 2008 a €2.18 billion economic stimulus package to boost GDP by a planned 0.7% point in 2009, its most comprehensive plan to date for dealing with fallout from the global financial crisis. The plan will primarily focus on investment in schools, boosting technology and alternative energy.

The public resources earmarked for these measures represent 1.25% of GDP.

Bulgaria (64%)

Finance Minister said that the 2009 budget includes a package of measures aimed to encourage the national economy, and several buffers to soften possible adverse effects on the enterprise sector from the world financial crunch. Public investment spending will swell by BGN 900 million from last year and will be backed by an extra investment programme of up to BGN 1 billion sourced up to BGN 400 million by the fiscal stability reserve and up to BGN 700 million from the planned budget surplus.

Bulgaria will receive about €70 million from the economic recovery plan drafted by the European Commission. The latest draft earmarked €45 million for linking of the gas transmission systems of Bulgaria and Greece and €10 million for connecting the Bulgaria and Romania grids. Out of a total of €80 million allocated for building reverse gas links between nine countries in the region, Bulgaria would receive about €15 million.

Iceland (94%)

The international aid package for Iceland is set to double to more than US$10 billion, with the U.K., Germany and the Netherlands adding roughly US$5 billion to a US$5.1 billion package Iceland had already secured.

Loans from the IMF and the Nordic countries are aimed at restoring investor confidence, shoring up the banking system, and ensuring medium-term fiscal stability. The British, Dutch and German loans likely will be intended to free up cash so Iceland can repay the money owed to foreign depositors in Icelandic banks that have collapsed.

Hungary (50%)

Hungary has announced plans for a HUF1.4 trillion (US$6.9 billion), two-year stimulus package to kick-start economic growth. The package does not involve new spending but a regrouping of existing funds to assist businesses

HUF680 billion will be allocated to provide lending guarantees primarily to SMEs and HUF260 billion will provide liquidity for lending.

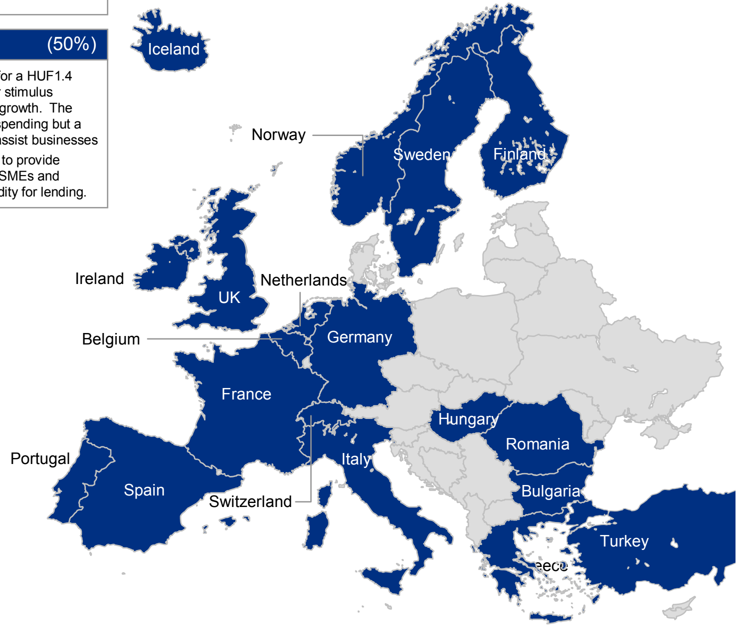
Belgium (45%)

The govt. aims to get the jobless into work while progressively cutting unemployment benefits. In the wake of the bail-outs of the country's three largest banks, Fortis, Dexia and KBC, the Belgian government is also focusing on further measures to shore up the banking sector. Authorities in the Flanders region of Belgium have agreed to provide struggling bank KBC with €2 billion in exchange for a non-voting stake in its capital.

From tax perspective and to invigorate the real estate sector, the following measures have been adopted: The VAT rate for costs incurred on the construction of new private housing is reduced from 21% to 6%. The rate applicable to the construction of housing as part of a social policy is reduced from 12% to 6%.

Netherlands (46%)

The Dutch government announced stimulus measures on Mar 25, 2009, totalling €17.5 billion for the next two years. The package comprises €10 billion in unemployment benefits and €1.5 billion for local governments as well as €6 billion for civil projects. The government also revealed plans to raise the retirement age to 67 from 65. The package adds to €50 billion in automatic extra spending



Ireland (65%)

Ireland's govt. delivered a painful emergency budget that doubled income tax surcharges, cut spending and created a toxic asset company to house banks' bad debts.

Capital spending is to be cut by €1.3 billion in 2010 and €2.4billion in 2011. Capital gains tax to increase to 25%, thresholds to fall. New levy on life insurance policies to be introduced. The levy on non-life insurance premiums rise from 2% to 3%.

Anglo Irish bank to be pulled into public ownership amid fears that it could collapse, triggering a state guarantee of more than €100 billion.

Greece (65%)

The Karamanlis government on Jan 23, 2009, unveiled a new €500 million package for the country's farmers.

Greece's parliament gave final approval on Nov 20, 2008, to a €28 billion (US$35 billion) plan to help banks weather the credit crunch. This package was split into three areas - recapitalisation, debt guarantees and liquidity measures

France (42%)

France unveiled a €26 billion (US$33.8 billion) stimulus package on Dec 04, 2008. The plan is expected to produce economic growth of around 1.3%

The French economy minister said the plan should create 80,000–110,000 new jobs, making up for the expected disappearance of s ome 90,000 jobs next year due to the crisis

The French stimulus plan is split into three parts: 11bn euros to help businesses improve their cashflows; €11 billion of direct state investment; and €4 billion of investment by state-owned firms for modernising rail infrastructure, energy and the postal service.

Norway (43%)

The Norwegian govt. on Feb 08, 2009, unveiled a NOK100 billion rescue package aimed at helping companies and individuals struggling with the global economic crisis.

The package comes on top of a NOK350 billion bank rescue and loan guarantee package launched in Oct 2008 and a NOK20 billion stimulus package announced last month aimed at combating the economic crisis.

Norway's govt. proposed in the latest rescue package the creation of two funds, each worth NOK50 billion. The first is aimed at increasing banks' liquidity and the second is aimed at providing credit directly to companies struggling to obtain funds on the market.

Turkey (49%)

Per Turkey's Treasury officials the government will seek to sign a US$25 billion loan deal with the IMF to service the country's external financing need.

The parliament approved a stimulus package which includes measures to support manufacturers, and will give the government the power to reduce some corporate tax on investment by up to 90%.

It will also cut taxes on textiles and retail clothing by 75% for a 5-year period if companies move their plants to certain cities.

Switzerland (30%)

The Swiss govt. is about to finalise a third economic stimulus package.

The second package announced on Feb 11, 2009, included tax relief and CHF700 million (€464 million) to boost infrastructure projects and exports. Spending was primarily aimed at federal investment in modernisation projects for road and rail transport networks, in energy and environmental infrastructure, housing, research, and marketing for the country's key tourism industry.

The govt. announced its first economic stimulus package worth CHF890 million (US$732 million) in Nov 2008.

Italy (49%)

Italy approved a stimulus package amounting to €80 billion, but economists pointed out the vast majority was a recycling of existing funds.

The measures included a temporary freeze on regulated energy prices and road tolls, €2.4 billion in tax breaks for poor families and some marginal easing of the direct and indirect tax burden for companies.

On Feb 6, 2009, the government unveiled a stimulus package worth over €2 billion for its struggling car and domestic goods industries. The package, approved in a decree, includes a payment of up to €1,500 for trading in an old car to buy a new car with low carbon emissions, and a 20% tax break on furniture and appliance purchases of more than €10,000.

Finland (48%)

The govt. in Finland has committed itself to implementing a guaranteed pension from the beginning of March 2011. It will cost €111 million a year, will raise the lowest pensions by about €100 a month and will affect about 120,000 people. The various measures are set to increase state spending by €1.2 billion. The Finnish Prime Minister, estimated that the total impact of the package, including the leverage effect, would amount to €2 billion. He estimated that the package would lead to the creation of 17,000 jobs directly and 25,000 jobs indirectly in 2009 and in 2010. The supplementary budget also includes about €70 million for road and rail maintenance, and another €70 million for further transport infrastructure projects.

Finland now plans to close the stimulus tap for this year and the next, and has started to assess the impact of the measures put into effect to date

Romania (67%)

The EU govts. on May 07, 2009 approved a €5 billion bailout for Romania to help it balance its books as the economy shrinks this year amid the global financial crisis.

The loan is part of a €20 billion package led by a €12.95 billion loan from the IMF, with another €1 billion each from the World Bank and the European Bank for Reconstruction and Development.

The govt. in order to boost financing for SMEs has increased 20-fold the state aid budget for SMEs - from €5 million to €100 million

Sweden (35%)

Sweden's govt. plans to provide more than US$7 billion in economic stimulus for 2010 to bolster the economy. The government also put in place aggressive measures worth over US$1 billion for 2009 to target Sweden's slackening labour market. The govt. on April 07, 2009 presented SEK17 billion in stimulus to Sweden's municipalities and counties. The government is set to give a one-time payment of SEK7 billion to its local governments next year and then lift the level of state contribution to local governments by SEK5 billion for both 2011 and 2012.

Germany (42%)

The Bundesrat, parliament's upper chamber, has approved a €50 billion stimulus package, which includes a mix of infrastructure investment and tax cuts. Germany had previously passed a package of measures worth €31 billion, aimed at generating €50 billion of investment and new contracts over two years. A new lending programme of up to €15 billion will be introduced for German state-owned development bank. Kreditanstalt fuer Wiederaufbau to strengthen its lending activities.

Urgent investment in transport will be accelerated via a new programme totalling €1 billion in both 2009 and 2010.

Parliament approved a rise in government net new borrowing in 2009 to €18.5 billion from €10.5 billion.

Source: Reuters, Factiva as of 25 May 2009. **Main Equity Index LTM Price Performance as of 19 January 2009.**

The ECB / EU Response

Monetary Policy

07 May 2009	• Interest rate reduced from 4.25% in October to 1% in May 2009

Banking System Stability

September 4, 2008	• To renew the supplementary longer-term refinancing operation (LTRO) aimed at supporting the market
September 26, 2008	• Swap lines: To provide USD liquidity under swap lines to address funding pressures
October 15, 2008	• Liquidity measure: List of eligible assets as collateral in credit operations expanded, longer term refinancing enhanced and introduction of USD liquidity through forex swaps

Fiscal Stimulus – Companies & Infrastructure

October 30, 2008	• EU to provide €6.5 billion community financial assistance to Hungary
December 12, 2008	• Stimulus Package – €200 billion package – €170 billion to come from national budgets and the remaining to come from the budgets of the EU and the European Investment Bank – Amounts to 1.5% of the bloc's GDP; to be made up of 1.2 pp of the member nations' budget spending and 0.3 pp of central EU funding – Also includes €5 billion of extra funding for the European car sector – Includes EU's climate-energy package, the "20-20-20" deal, seeking to decrease greenhouse gas emissions – Each country to choose how it would help out troubled industries, picking between more public spending, tax or social security cuts, aid for specific industries or financial support for cash-strapped households – €5 billion of unspent EU funding toward improving energy infrastructure and Internet access across Europe – EU government-funded European Investment Bank would release €30 billion in loans next year and 2010 to increase lending for small businesses, and for projects that support renewable energy and cleaner transport

The German Response

Banking System Stability

17 October, 2008	• Bank Rescue Package: €500 billion Financial Market Stabilisation Fund (SoFFin) set up under a Government Act to overcome the liquidity squeezes and to strengthen the equity base of financial sector enterprises
31 October, 2008	• HRE group received a guarantee of €15 billion provided by SoFFin to cover a bank bond that it would use as collateral to get cash from the central bank
03 November, 2008	• Commerzbank got a €8.2 billion Tier 1 capital injection and funding commitment guarantees of €15 billion by SoFFin
November–February, 2009	• HRE group received a €52 billion framework guarantee from SoFFIn; HRE to use this to collateralise debt issues
23 December, 2008	• IKB received a €5 billion guarantee from SoFFIn
25 November, 2008	• HSH Nordbank received upto €30 billion of guarantee from SoFFin
08 January, 2009	• Commerzbank received additional capital of €10 billion from SoFFin, which would now hold little more than 25% of its share capital
22 January, 2009	• SdB (a newly created banking entity) received a €7 billion guarantee from SoFFin
18 February, 2009	• Volkswagen Bank received a €2 billion guarantee framework from SoFFIn
13 March, 2009	• German mortgage bank Duesseldorfer Hypothekenbank AG received €2.5 billion guarantees from SoFFin; to use to issue bonds
18 March, 2009	• Aareal Bank got a €0.5 billion capital injection and funding commitment guarantees of €2 billion by SoFFin
March–May, 2009	• SoFFin took a 47.3% stake in HRE for around €185 million; intends to acquire 100% to restructure and save it from liquidation

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The German Response (Cont'd)

Fiscal Stimulus – Companies & Infrastructure

05 November 2008	• Growth Stimulus Plan – would trigger roughly €50 billion in investments in 2009 and 2010; actual spending of €23 billion – Measures to safeguard companies financing and liquidity to be provided by funding investments and better conditions for companies for special write downs – New lending programme of up to €15 billion to be introduced for state-owned bank KfW to strengthen its lending activities – Loans to small and medium-size businesses – Funds available to be increased for Infrastructure programme for structurally weak local authorities – Urgent investment in transport and subsidies for expansion of rail and waterways; total investment to be around €8 billion over 2009–2010
27 January 2009	• Second Stimulus Plan – €50 billion stimulus program for 2009–2010 – New plan to boost investment in public infrastructure by €16.9 billion

Fiscal Stimulus – Individuals

05 November 2008	• Growth Stimulus Plan – Tax-deductible amount for housing repairs and modernisation to be doubled – New cars will be tax free for one year and those with low emissions will be tax free for two years
27 January 2009	• Second Stimulus Plan – €50 billion stimulus program for 2009–2010 – To cut income taxes, shift tax bracket upwards and cut public healthcare insurance levies by around €18 billion from July – Also will encourage companies to retain their staff by improving short-term work conditions – To pay a bonus of €100 per child – To help the struggling car industry by providing financial incentives to buy new cars

The UK Response

Monetary Policy

05 March 2009	• Key benchmark rate reduced from 5.0% in October 2008 to 0.5% in March 2009
20 May 2009	• Bank of England's Monetary Policy Committee (MPC) extended the bank's Quantitative Easing program by a further £50 billion (US$77.5 billion) to £125 billion

Banking System Stability

13 October 2008	• FSP – As a part of the Financial Stability Package, the government announced a list of comprehensive measures which included – Capital investment of £37 billion in Royal Bank of Scotland and Lloyds TSB/HBOS (from a £50 billion recapitalisation fund), in the form of preference shares and ordinary shares, which took the institutions' Tier 1 capital ratio to over 9% – To address concerns about liquidity, the authorities announced that at least £200 billion would be made available to banks under the Bank of England's Special Liquidity Scheme (SLS) – A £250 billion government guarantee scheme of short to medium-term debt available to UK banks which had been recapitalised or had undertaken to strengthen their capital position. The guarantee was available for six months since 13 October, 2008 – To address funding concern, the government established a credit guarantee scheme. This made available to eligible institutions a government guarantee to refinance maturing debt
19 January 2009	• APF – A new Asset Purchase Facility fund was set up to inject £50 billion into the economy by buying out high quality private sector assets including commercial paper and corporate bonds
19 January 2009	• RBS – Government raised its stake in Royal Bank of Scotland from 58–68% by the conversion of £5 billion of preference shares
19 January 2009	• BSP – HM Treasury, as a part of Bank Support Plan, unveiled comprehensive package to increase confidence and capacity to lend, including: – Extending the drawdown window for new debt under the Government's Credit Guarantee Scheme – Establishing a new facility for asset backed securities – Extending the maturity date for the Bank of England's Discount Window Facility which provides liquidity to the banking sector by allowing them to swap less liquid assets – Establishing a new Bank of England facility for purchasing high quality assets and offering capital and asset protection scheme for banks, with proposals for this to be coordinated internationally
17 February 2009	• NR Bailout – Government nationalised the ailing bank, Northern Rock, after having extended £55 billion (US$107 billion) in loans and guarantees to it since September 2008
07 May 2009	• APF New – Gradually increased the size of Asset Purchase Facility plan to £125 billion in two stages from the initial proposal of £50 billion

Source: Central Bank website, HM Treasury, Pre Budget Report, Company website.

The UK Response (Cont'd)

Fiscal Stimulus – Companies & Infrastructure

25 Nov 2008

- Following measure were announced as a part of the stimulus package:
  - VAT – Temporary reduction in the standard rate of VAT to 15% introduced from 1 December 2008; would return to its original level of 17.5% from 31 December 2009
  - Extended a system of tax repayments to help businesses which were previously profitable but now making losses; losses of up to £50,000 could be offset against profits made in the past three years, benefiting 75,000 businesses
  - Also included an exemption for companies' foreign dividends from tax in 2009
  - Government would guarantee up to £20 billion of loans to SMEs with an annual turnover of up to £500 million through a Working Capital Scheme
  - Planned increase in the small companies rate of corporation tax delayed until April 2010

14 Jan 2009

- EFG – The Government launched a new A Small Business Finance Scheme, known as the Enterprise Finance Guarantee, to support up to £1 billion of bank lending
  - A separate £1 billion guarantee facility to support bank lending to small exporters
  - A £50 million fund to convert businesses debt into equity; and a £25 million regional loan transition fund
- Businesses could defer their corporation and other tax payments provided certain hardship criteria were met

Fiscal Stimulus – Individuals

25 Nov 2008

- As a part of $30 billion stimulus package, the government announced the following measures:
  - Britain pledged to spend £500 million (US$754 million) to tackle rising unemployment. The pledged money was part of a £20 billion fiscal package announced in November 2008
  - Companies would get £2,500 for new recruits unemployed for more than six months
  - An additional £1.3 billion was announced to continue delivering effective support for the unemployed to find a new job

Source: Central Bank website, HM Treasury, Pre Budget Report, Company website.

Case Study: UK Banking Capital Injection and Asset Protection

Direct Capital Injections
13 October 2008

RBS	HBOS plc	Lloyds TSB
Ordinary: £15 Bn/Preference: £5 bn	Ordinary: £8.5 bn/Preference: £3 bn	Ordinary: £4.5 bn/Preference: £1 bn

- Ordinary shares at 8.5% discount to last close; Preference Shares callable after 5 years with a coupon of 12%
- No dividend to be paid on ordinary shares until the Preference Shares have been repaid
- Commitment to maintain the availability of SME and mortgage lending at least at 2007 levels
- RBS and Lloyds Prefs swapped to equity in January 2009 and March 2009, respectively

RBS
£19.5 bn "B" Shares
26 Feb 2009

Lloyds Banking Group
£15.6 bn "B" Shares
7 Mar 2009

– Issuance related to GAPS participation fee
– Perpetual and irredeemable; accepted as Core Tier 1 by FSA
– Dividend the greater of 7% yield or 2.5x/1.25x the ordinary dividend

Asset Protection Scheme
19 January 2009

- In return for a fee, the Treasury will provide to each participating institution protection against future credit losses on portfolios of defined assets to the extent that credit losses exceed a "first loss" amount to be borne by the institution
  – Fee in the form of new capital of the participating institution or cash
  – Each participating institution will be required to retain a further 10% residual exposure post the first loss amount
  – Eligible assets include portfolios of commercial and residential property loans, structured credit assets and certain other corporate and leveraged loans
- Assets included in the Scheme will continue to be managed by the institution and will remain on its balance sheet but will be required to be ring-fenced

	RBS *26 Feb 2009*	Lloyds Banking Group *7 Mar 2009*
Asset Pool	• £302 billion, marked on average at 93%	• £250 billion, marked on average at 96% (83% HBOS legacy)
Losses Covered	• First loss capped at 6% and residual loss spit 90%/10%	• First loss capped at 10% and residual loss spit 90%/10%
Fee	• £6.5 billion amortised over 7 years to be paid by the issuance of "B" shares	• £15.6 billion amortised over 7 years to be paid by the issuance of "B" shares
Capital	• PF Core Tier 1 ratio of 12.4%	• PF Core Tier 1 ratio of 14.5%
Lending Commitment	• £25 billion increase in net lending commitments (£9 billion mortgages, £16 billion SME and corporate) in 2009 vs. current plan and further £25 billion in 2010	• £14 billion increase in net lending commitments (£3 billion mortgages, £11 billion SME and corporate) in 12 month period ending 1 March 2010 and further £14 billion in 12 month period thereafter

In January 2007, Citi released a Climate Change Position Statement, the first US financial institution to do so. As a sustainability leader in the financial sector, Citi has taken concrete steps to address this important issue of climate change by: (a) targeting $50 billion over 10 years to address global climate change: includes significant increases in investment and financing of alternative energy, clean technology, and other carbon-emission reduction activities; (b) committing to reduce GHG emissions of all Citi owned and leased properties around the world by 10% by 2011; (c) purchasing more than 52,000 MWh of green (carbon neutral) power for our operations in 2006; (d) creating Sustainable Development Investments (SDI) that makes private equity investments in renewable energy and clean technologies; (e) providing lending and investing services to clients for renewable energy development and projects; (f) producing equity research related to climate issues that helps to inform investors on risks and opportunities associated with the issue; and (g) engaging with a broad range of stakeholders on the issue of climate change to help advance understanding and solutions.

Citi works with its clients in greenhouse gas intensive industries to evaluate emerging risks from climate change and, where appropriate, to mitigate those risks.