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The case for a Green Stimulus

Aka: How not to waste two good crises!

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Climate Change and
the Environment

Economic crisis and climate change: Lessons on risk management

- Current crisis gives **lessons on managing risk**: delayed action is very dangerous
- Policies to boost demand must deliver growth that is **sustainable**
- **Decisions must be taken in next 2-3 months** if demand generated is to be counter-cyclical
- Green stimulus should be set in context of **medium-term policy framework**; will be strongly influenced by and influence the likely outcome in Copenhagen in December

Dual Global challenges

The coming together of the two crises is an opportunity

1. Policy for a near-term crisis:

- Break vicious **confidence** cycle - requires boosting demand and creating jobs
- Restore effective financial intermediation and **boost credit flow**
- Without obstructing private sector **rebalancing** and restructuring
- Comparative advantage of **monetary tools** diminished
- **Fiscal policy** has **enhanced role to play**, but public borrowing has limits - cannot offset private saving completely
- Diverse measures; **spending increases rather than tax cuts**
- Effective fiscal policy must be **timely, targeted and temporary**

Dual Global challenges

The coming together of the two crises is an opportunity

2. Policy for a longer-term crisis:

- Scale of unmanaged **climate change much larger** and irreversible
- If policy-makers put off action until climate change is forced to the top of the political agenda, it will be **too late**
- World will be carbon-constrained – early movers benefit from technologies, institutions, markets and profit **opportunities**
- Business investment requires, long, loud, legal and long-term **credible policy signals**

Possible 'green' expenditure programmes

- Insulation, efficiency and smart buildings
- Low-carbon public transportation
- Building 'smart' electricity grid systems
- Wind power, solar power, CCS and next-generation biofuels
- Re-tooling car industry
- Supporting universities, innovation and research

Some measures can be brought forward, others will continue into long term and require funding arrangements

A qualitative assessment of the merits of various specific measures is possible...

Principles for effective fiscal measures

Mitigation target	Investment approach	Timeliness ('shovel-ready')	Long-term social return	Scores (1 = worst; 3 = best)			
				Positive lock-in effects	Domestic multiplier / job creation	Targeting areas with slack	Time-limited/reversibility
<i>Buildings and industry</i>							
Residential energy efficiency (lofts etc), either utility-driven or local-authority-driven	Mixed public / private	3	3	2	3	3	3
Energy efficiency measures for public buildings	Mixed public / private	3	3	2	3	3	3
Boiler replacement programme	Private with incentives	3	3	2	3	3	3
Lights and appliances, e.g. utility-driven	Private with incentives	3	3	2	3	3	3
Renewable heat / fuel switch (e.g. solar, biomass)	Private with incentives	3	3	2	2	3	2
Micro-generation (wind, biomass), e.g. through feed-in system	Private or mixed public / private	2	3	2	2	2	1

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<i>Buildings and industry</i>							
Smart production (increase energy efficiency, monitor, meter and regulate delivery and consumption of energy and inputs)	Private with incentives	2	2	3	1	1	1
Smart infrastructure and buildings – increase energy efficiency, monitor, meter and regulate delivery and consumption of energy and water	Mixed public / private	2	3	3	2	2	1
Encouraging energy R&D (doubling percentage of GDP)	Mixed public / private	2	3	3	2	1	1
Industrial energy efficiency / mitigation, e.g. combined heat and power	Private or mixed public / private	2	3	3	2	1	3

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Power generation							
Renewable energy promotion, e.g. through accelerated planning process	Private	2	3	3	3	1	3
Nuclear power, e.g. through accelerated planning process	Private	1	3	3	3	1	3
CCS demonstration projects	Mixed public / private	1	2	2	3	1	1
Upgrade to smart electricity grid	Public with some clawback via tariffs	1	3	3	3	1	3
Advanced battery development	Private with incentives	1	3	3	2	1	1

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Transport							
Supply-side efficiency in new cars, vans and HGVs (g/km)	Private with incentives	1	3	3	3	3	3
Switch to cleaner cars / fleet renewal e.g. through stronger VED differentiation	Private with incentives	3	3	2	2	3	1
Connected urban transportation including road traffic management systems and work patterns	Mixed public / private	1	3	3	2	2	1
Supply-side efficiency in rail (engines, rolling stock)	Private with incentives	1	3	3	2	2	3
Mass transit and rail freight	Mixed public / private	2	2	3	3	3	1
Car efficiency standards	Private with incentives	1	3	3	2	2	3
Tyre check	Private with incentives	3	2	2	3	2	3

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<i>Reducing emissions from deforestation and forest degradation</i>							
Afforestation, expanding and developing parkland, wetlands and rural ecosystems	Private with incentives	3	2	3	3	2	2

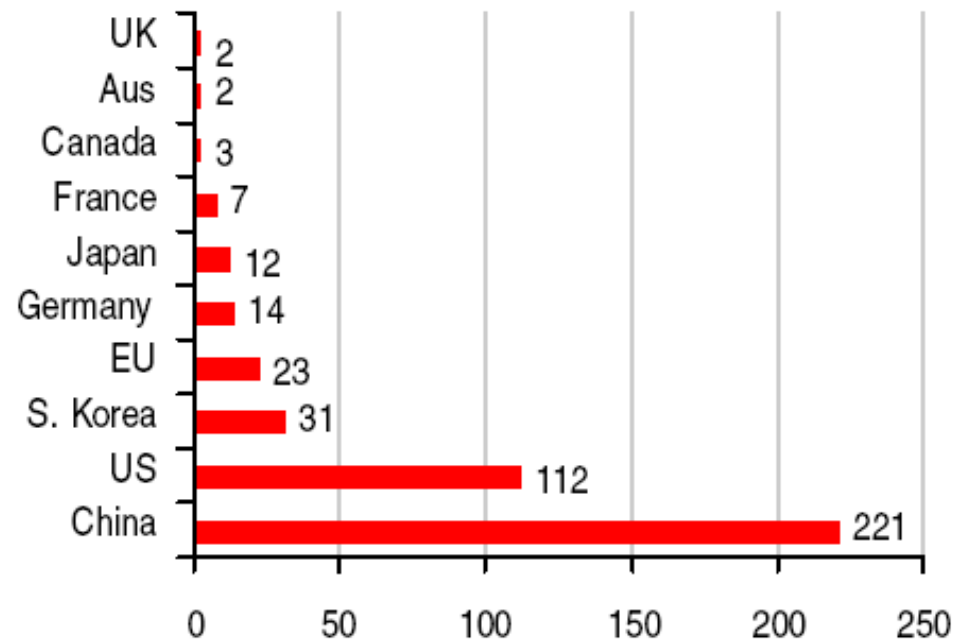
Even measures not explicitly 'green' have a 'green' element

- Must avoid locking in high-carbon infrastructure for decades to come
- Must not make achieving climate-change goals more difficult by subsidising greenhouse gas emissions or

'Green' Stimulus around the world

- \$430bn of fiscal stimuli across the world dedicated to climate change investment themes
- China (more than \$221bn = 40% of total) and the US (\$112bn = 15%, lead the way). S Korea also very strong on climate, with its Green New Deal (\$31bn – 80% of total)
- Little impact in 2009, except in China. Bulk of impact on the economy in 2010
- Key beneficiaries: rail transportation water infrastructure, grid expansion and building efficiency

Green stimulus regional ranking (USDbn)



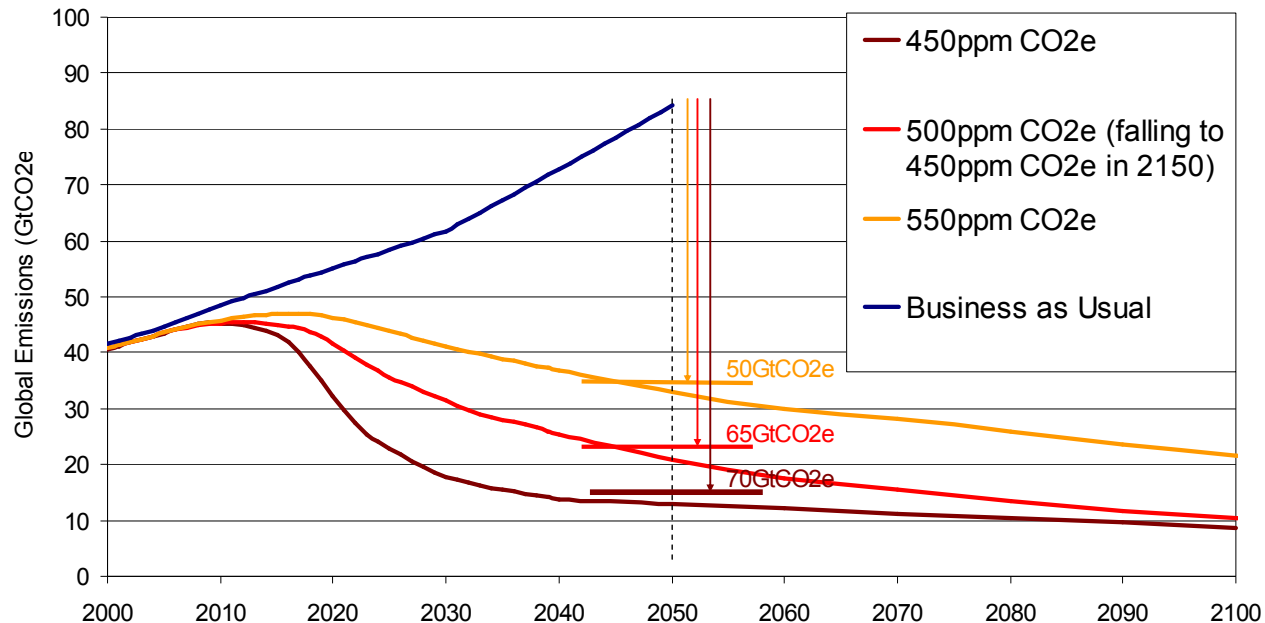
Source: HSBC estimates

Why 'green' why now?

- Good time for longer-term investments such as smart infrastructure: **lower input costs** and interest rates
- Lay foundations for transformative **technology-led long-term growth** story
- **Benefits of energy efficiency** measures are **immediate**, and even greater with high prices in **medium term**
- Potential **job creation** benefits of a shift to a low-carbon economy as many actions are more **labour-intensive** (especially energy efficiency)
- Unlike other investments, **costs of delay rise sharply...**

Why 'Green' Why now?

Delaying mitigation is very costly



- A 50/50 chance of stabilising at +2°C (EU aim) would require emissions to peak by 2010 with 6-10% p.a. decline thereafter.
- If emissions peak in 2020, we can have a 50/50 chance of stabilising at +3°C, if we achieve annual declines of 1 – 2.5% afterwards.
- A 10 year delay almost doubles the annual rate of decline required.

Conclusion

Must not delay action until the economy recovers

A 'green' fiscal stimulus can:

- provide an effective boost to the economy, increasing labour demand and confidence in a timely fashion*
- build the foundations for sound, sustainable and strong innovation-led growth in the future*