



**China – U.S. relations and domestic
politics on the road to Copenhagen
3: The Finale**

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State of Play

In the space of the past two weeks, a cautious optimism has begun to creep back into international climate negotiations, lifting the prospects for a positive outcome at Copenhagen and for sufficient momentum afterwards to conclude a legally binding treaty in 2010. This shift can be attributed to a series of events, not least of which are the moves by the US and China to revive stalled progress. This brief builds on the political context and dynamics laid out in the previous two briefs (*Making Virtue of Necessity*, and *Convergence and Contingencies*) to analyse recent events in China and the US and their potential impacts on climate change negotiations.

Key events that have reinvigorated international climate negotiations include:

- During the APEC meeting on 15 November, Danish Prime Minister, Lars Løkke Rasmussen, announced a new vision for Copenhagen – ‘one agreement, two purposes’ – that would serve the dual purpose of providing for continued negotiations on a legal agreement and for immediate operational action. His statement articulated the new direction for Copenhagen negotiations, and followed weeks of comments by other leading climate change players expressing concerns about Copenhagen outcomes and similar hints of a comprehensive political, rather than legal, agreement. By shifting the goal posts to a politically binding agreement, Rasmussen eased pressure on the international climate negotiations to deliver a legal treaty at Copenhagen and provides the Obama Administration with needed flexibility and time to shepherd its domestic climate legislation through the Senate. The continued push by the G77 for a legal treaty at Copenhagen¹ reflects its concern for ensuring that the basic principles of the Kyoto treaty are encapsulated in any post-Kyoto agreement, rather than their priority on concluding legally binding text at Copenhagen.
- Obama’s decision to attend COP 15 in Copenhagen helped to settle concerns, both internationally and domestically, about any wavering in his commitment to climate change action. However, hamstrung in his ability to provide stronger commitments on emission targets and financial assistance to developing countries, Obama has still yet to convincingly carry the mantle of US leadership on climate change into the international arena.
- Also providing positive momentum to negotiations was the Obama administration’s announcement on 25 November of carbon emissions reduction targets, including mid-term targets. Relative to a 2005 benchmark, the US would reduce carbon emissions by 17 percent by 2020, 30 percent by 2025, 42 percent by 2030 and ultimately 83 percent by 2050. The US numbers are well below the contribution needed – the US target for 2020 would be the equivalent of only a 4 per cent cut compared to 1990 levels,² compared to UN IPCC recommendations that industrialised countries reduce emissions by 25-40 percent by 2020 compared to 1990 levels. Nevertheless, the lack of any US target had proved to be a focal point for criticism of the US, and roadblock to progressing negotiations.
- The following day, on 26 November, China announced its intention to reduce carbon intensity per unit of GDP by 40-45 per cent in 2020, compared with 2005 levels. China (and India) have explicitly adopted a carbon intensity target rather than emissions reductions target because it allows their economies (and emissions) to grow commensurate with their developing needs, and provides greater flexibility in their growth paths, albeit in a more carbon-efficient manner. The following sections delve into further detail on China’s carbon intensity reduction announcement, including its implications on global emissions and climate change negotiations.

US and China emissions targets – one less roadblock . . .

The close proximity in timing of the announcements by the US and China suggests that there had either been some bilateral communication of specific, equivalent numbers, and/or is confirmation that China’s moves in the international climate game continue to be largely determined by closely watching and following US actions. Could it really be a coincidence that the US’s goal of a 17% emissions

reduction is worth slightly more than a 40% improvement in carbon intensity – just at the lower bound the 40-45 per cent carbon intensity reductions announced by China?³

There is sufficient indication to suggest also that the figures by the US and China *do not* represent negotiating positions – the US target is based on current mitigation activities which do not require Senate approval (although it happens to be in line with the House bill) and any announcement of a higher target would have at best an uncertain impact on domestic support for climate legislation in the Senate.

Similarly, China is unlikely to raise its carbon intensity target higher for several reasons:

- the tight linkage of China's efforts to the US' will prevent China from unilaterally taking the lead in carbon emissions reductions;
- China's consistent position that developed countries, which bear greater historical burden for accumulated emissions, should take the majority of the responsibility in emission reductions;
- China's traditional reticence to adopt targets internationally (particularly more ambitious targets which China does not have absolute confidence in achieving);
- China does not see any first-mover economic or strategic advantage in adopting tighter goals; and
- China's lower priority and self-interest in technology transfer or financial assistance, relative to other G77 countries, means that it is less likely to be 'bought' into committing to more ambitious climate mitigation actions.

With the recent announcements of the US, China and India on emissions targets, all major emitters have now declared mid-term targets. Although these commitments are less than what is needed for the world to stay below the 2°C temperature target, they diminish this issue as a negotiating roadblock and potential show-stopper in Copenhagen.

. . . but outlook for Copenhagen still grim

The challenge for Copenhagen remains realising Rasmussen's vision: to find the political consensus needed to make breakthroughs at or shortly after Copenhagen on the remaining strategically divisive issues:

- effort-sharing (of emission reductions and on financing);
- framework and provisions on adaptation, finance and technology, including upfront finance for early action; and
- a transparent system of measurement, reporting and verification (MRV).

Countries – mindful that any political agreement at Copenhagen is likely to frame the context for negotiations of a legal treaty – will be tempted to resort to self-interest and further entrench their negotiating positions, complicating last-minute efforts to reach a meaningful political framework agreement or subsequent legal treaty.

Distrust between the developed and developing world, with suspicions about intent and sincerity on both sides, is poisoning genuine efforts to reach a compromise. The sharp response from China and India to the recent draft Danish proposal – which included a 2°C temperature target, halving of global emissions by 2050 (with industrialised nations shouldering responsibility for 80 per cent of the reductions), and 2020 as the peak year for global emissions – is a reflection of this latent distrust. Both China and India have firmly refuted any moves that could expand the legal obligations of developing countries, i.e. legally binding emissions cuts, legally binding peaking year, and MRV of these emissions cuts, without greater commitment by the developed world.⁴

The Danish proposal represents a top-down approach to climate negotiations that is indicative of the EU's approach – that is, it seeks common agreement on strategic issues (in this case, figures on a temperature target, emissions targets and a peaking year). However, judging from the G77's emphasis on the right to development and finance for mitigation and adaptation, China and other developing countries are more likely to be sympathetic towards a bottom-up international climate action strategy that builds domestic capacity. For instance, the US-China summit in November illustrates China's willingness to actively engage in concrete climate action projects. This approach, which supports a

macro-economic transformation to a low-carbon economy, is more likely to stimulate greater emissions reductions in China than an approach that China perceives as legally forcing strong and inequitable commitments.

CHINA – ALL FOR ONE, AND ONE FOR . . . THE G77

G77 still holding strong

China is holding fast in its alignment with the G77 and there is little indication of cracks in the G77 alliance before COP 15. In fact, China has exerted significant diplomatic effort to bridge gaps with key allies, particularly India and other major developing emitters. China, which could be considered a more progressive developing country on climate action than India, has facilitated a closer negotiating partnership between the two largest developing emitters through a bilateral MOA on climate change cooperation signed in October; a series of bilateral and multilateral meetings; and better coordination of negotiating tactics (e.g. carbon intensity announcements).

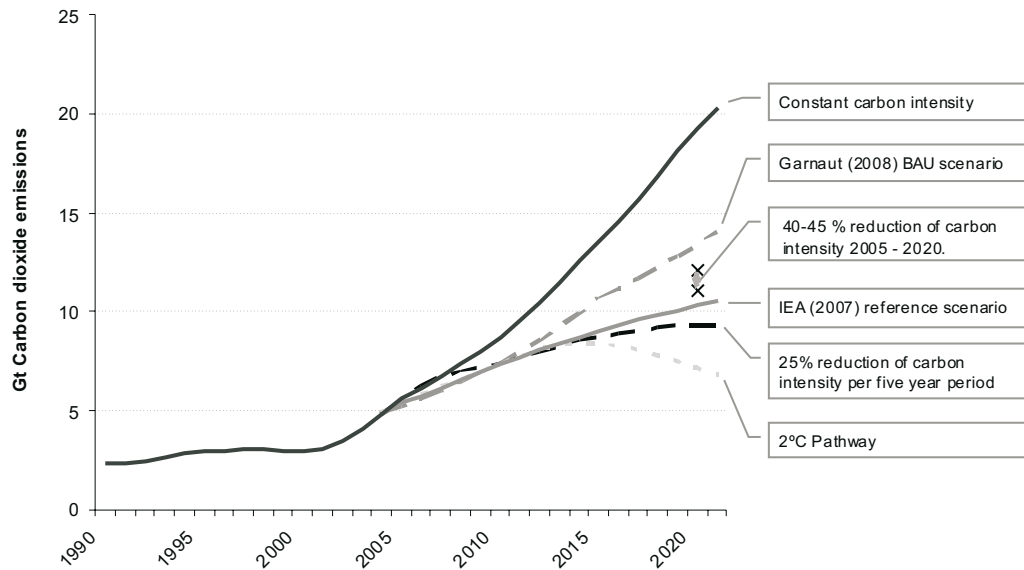
A meeting held in Beijing on 27 and 28 November with Brazil, South Africa, India and Sudan, was another important opportunity to consolidate the G77 coalition – and signal their solidarity to industrialised nations. Premier Wen Jiabao affirmed that “China valued the mechanism of consultation with India, Brazil and South Africa and would increase coordination with the G77 group.”⁵ The meeting also enabled the G77 to agree on core positions on major climate change issues prior to Copenhagen – the lack of change of these positions hints at their inflexibility.

Carbon intensity target and BAU

As China, as a non-Annex 1 country, is not bound under the UNFCCC to binding targets, its carbon intensity announcement reflects China’s desire to be perceived as a responsible international player rather than as a spoiler in international climate negotiations. With other major developing emitters – including Mexico, Indonesia, Brazil, South Africa and South Korea – having made emissions reductions targets (India’s carbon intensity announcement only came after China’s), this move shows that China wants to stay within the mainstream of climate negotiation positions, particularly in keeping aligned to other key G77 allies. But the low numbers also reflect the limitations of international pressure on China and other major developing emitters to undertake more ambitious climate change action without international assistance.

The figure below charts China’s announcement to cut carbon intensity by 40-45 per cent against a range of other trajectories. The figure illustrates clearly that China’s announcement lies within the range of what could be referred to as BAU scenarios, between the IEA reference scenario (which can be seen as a stringent version of a BAU) and Garnaut’s BAU scenario (which exemplifies a more traditional view on BAU).

It does also indicate that the announcement is considerably less ambitious than what China’s current domestic goals call for energy and climate politics indicate. As a reference, we have drawn a trajectory that charts the combined effects of a continuation of the current target to reduce energy intensity by 20% within the current five-year programme, and a fuel-switch effect of 20% non-fossil share of the energy mix by 2020.⁶



Industrialised nations should be neither surprised nor distracted by these low Chinese targets. This reiterates China's reluctance to adopting ambitious international targets, and supports an international diplomatic approach that encourages ambitious domestic climate targets and NAMAs. It is also likely that the level of the Chinese announcement is an indication of how China gauges Obama's 17% announcement. The timing of the Chinese announcement the day after Obama had announced the U.S. numbers suggests that China is waiting for U.S. to play its cards.

MRV

China remains adamant that its actions are voluntary while those of the developed nations are mandatory, precluding any interpretation of these targets as internationally legally enforceable. Xie Zhenhua, Vice Chairman of the National Development and Reform Commission and China's climate minister, has stressed that the 40-45 per cent carbon intensity goal is not "internationally binding or subject to international verification".⁷ "Although this is a domestic voluntary action, it is binding. As we've made this commitment, well, Chinese people stick to their word."⁸ In some sense, this is true: China has a better recent record of meeting domestic targets than many countries have managed with internationally binding commitments. It has domestic institutions and a diverse set of procedures in place for monitoring emission reductions.

But all of this is unlikely to satisfy industrialised nations, particularly the US, which is sceptical about the quality and transparency of data collection in China, and China's capacity and willingness to accurately monitor and report emission reductions. This is a large enough concern in the US that the issue was addressed in a June 2009 US Senate hearing.⁹ The inclusion of MRV provisions was critical to the agreement of the Bali Action Plan (BAP),¹⁰ and a framework for MRV will be equally important to the finalisation and effectiveness of any post-Kyoto agreement.

This does not mean that MRV will be a deal-breaker in Copenhagen. Although third-party MRV can culturally affront China's view of sovereignty, and China has rejected efforts to allow international MRV of other areas, such as legal rights and disease outbreaks,¹¹ China has also allowed verification arrangements as a party to the Montreal Protocol and the World Trade Organisation.¹²

South Korea has also recently proposed an international registry, in which developing countries can voluntarily register their domestic mitigation actions. South Korea suggests that, when combined with an international verification process, a registry would provide the needed international recognition of these actions, without the burdens of a compliance mechanism.¹³ China has not yet publicly commented on this proposal: it has previously held that only those mitigation activities associated

with international technological and financial support should be subject to MRV, and South Korea's proposal would appear to go beyond these boundaries by including all mitigation activities. The immediate responses from India and Brazil, speaking on behalf of G77 and China, also suggests little shift in China or the G77's position¹⁴ The counter-draft by Brazil, South Africa, India and China (BASIC countries) to Denmark's proposal on targets, to be presented at Copenhagen, could include a formal response to this proposal, in addition to reiteration of the G77's well-known negotiation positions and principles.

US – CHINA SUMMIT

There were high expectations before the U.S.-China Summit (Nov 16-17) and hopes that the Chinese leaders would present Obama with a gift by revealing ambitious Chinese domestic targets for 2020. This seems not to have happened and generally the summit did not produce any surprise breakthroughs. At the same time, a comprehensive set of co-operation agreements on energy and climate were signed, spanning everything from energy efficiency and renewables to strategic technologies such as electric vehicles and low emission coal. A summary of the agreements is annexed to this report.

Back in the U.S. – What effects will the agreements have?

The U.S.-China agreements unveiled on Obama's China visit were received positively back home, but they were not the kind of blockbuster announcement needed to shake up U.S. domestic climate politics. Instead, any effects are likely to be incremental. Two particularly important implications for U.S. climate politics are 1) the engagement of politically relevant actors in the business community and 2) the longer-term potential for expanded U.S.-China collaboration for incrementally changing perceptions of China and its relationship to the US.

Opposition to emissions limits is likely to continue to erode as large American energy companies are positioned to share in growth opportunities in or linked to China that are being catalyzed by GHG reduction goals. This can be understood in part as a result of a shift from the widespread perception of a zero-sum proposition in which China's gains are at the expense of American jobs and companies, to one in which the mutual benefits are understood in comparable terms. One such example is the Missouri-based Peabody Energy, one of the world's largest coal companies. Peabody's collaboration in CCS demonstration projects in China and other efforts to reduce the harms generated by burning coal offers the promise of spillover benefits back in the U.S. and makes China a partner in protecting American jobs and companies. It is also notable that Missouri is represented in the U.S. Senate by Claire McCaskill – one of the "fence-sitter" coal-state Senators whose concerns will need to be addressed to put together the required 60 votes in the Senate. In a similar vein, many American electric utilities stand to gain significantly from China-U.S. collaboration through partnerships with their Chinese counterparts. There are relatively few growth opportunities for energy-related utility companies within US borders as a result of the regulated utility nature of the business in the USA. Partnerships with Chinese electricity producers offer opportunities for sharing in the expected benefits of growth in China while simultaneously speeding along the implementation of cleaner technologies in both countries. In both of the cases above, a more complex relationship with China combines with greater capacity to manage or even benefit from efforts to reduce emissions. This has the potential to further weaken previously unequivocal opposition to an ambitious U.S. Climate policy.

Partnerships and other comparable exercises in China-U.S. collaboration offer potential for a longer-term shift in perceptions and relations. Current perceptions are colored by ideological differences and relations perceived from the perspective of many Americans as exploitive, in which American companies exploit the availability of cheap labor and a more lax regulatory environment while Chinese manufacturers exploit American's desire for cheap products. Opportunities for reforming such perceptions

will increase as collaborative efforts in which benefits can be measured in comparable terms grow in scope and breadth. Although this is not a process that will fully play out in the next six months, it may well develop sufficiently to exert relevant influence where elements of U.S. climate policy hang in the balance at important tipping points.

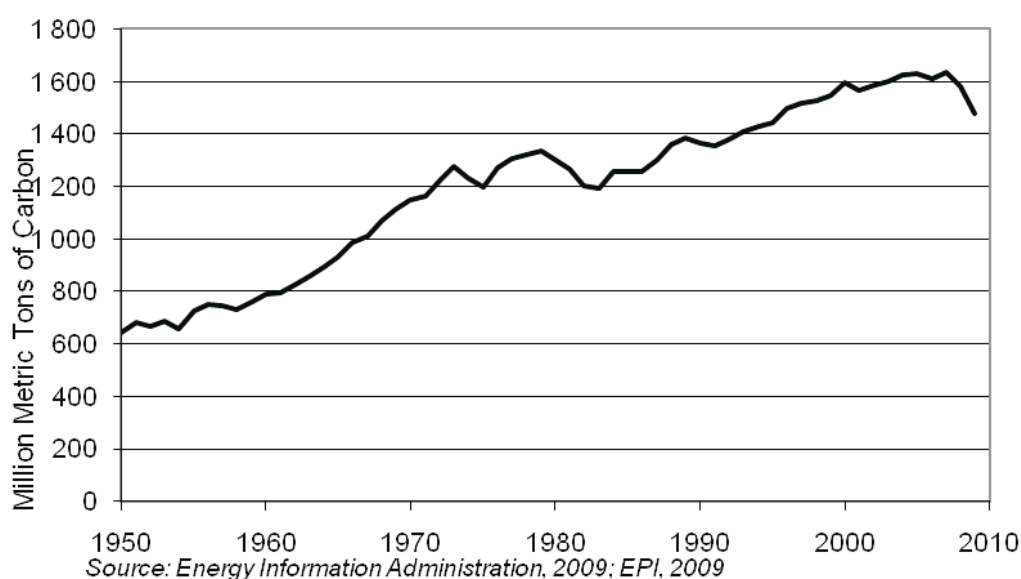
U.S. INTERNAL DYNAMICS

As most observers are already acutely aware, efforts to pass climate legislation through the US Senate remain stalled behind health care reform and are still hampered by concerns among influential Democrats about potential local effects of the proposed policies. Nevertheless, important developments continue both within the Congress and via alternative pathways.

Convergence, but when?

Reduction of US CO₂ emissions continues:

U.S. CO₂ emissions declined from 2007 to 2008 by 2.8%, according to the U.S. Energy Information Administration (EIA), a result both of high energy prices in early 2008 and the financial crisis in late 2008. The EIA currently projects an additional 5.6% reduction for 2009. Emissions are expected to increase again slightly in 2010 as economic recovery begins to increase consumption.



US Energy-related carbon dioxide emissions 1950-2009

It is especially notable that current CO₂ reductions are not solely a result of reduced consumption. The EIA notes that the emissions reductions also reflect important changes in the energy producing sector that include a substantial shift from coal to natural gas and the further development of renewables. This shift is driven in part by state and regional regulations and initiatives beginning to produce effects and by anticipation of more stringent regulation by the financial and energy sectors.

State and Regional trends:

Regulatory efforts at the state and regional level continue to move forward, largely independent of efforts to pass climate legislation through Congress. To date, some 33 of 50 states have adopted

Renewable Portfolio Standards, 37 have adopted or are developing climate action plans, and 35 have adopted energy efficiency standards for new construction. The three regional initiatives for reducing emissions cover 36 states. The Northeast Regional Greenhouse Gas Initiative (RGGI) is already auctioning permits and California announced in November its plans to move forward – a prelude to emissions trading among Western Climate Initiative states. These developments are largely independent of those at the national level, yet also exert an important influence on the prospects for federal climate legislation. They help reduce opposition in key districts, expand the base of political support, provide concrete experience of how particular policy innovations can work, offer concrete evidence to counter doomsday scenarios, and help build momentum.

Such trends at the state and regional level provide evidence both of the approaching inevitability of significant policy changes in the US. The 2/3rd proportion of states that appears with increasing frequency represents an important tipping point – not least in terms of providing the critical mass necessary for the success of major national level policy changes. These trends illustrate a convergence of developments critical to capping U.S. greenhouse emissions.¹⁵

Administrative regulation on schedule:

Moving with comparable certainty and shorter time frame is the U.S. EPA's planned regulation of greenhouse gases. The comment period for the proposed regulations ends in December and rules could be formally adopted in early 2010. The set of criteria determining which GHG sources will be regulated, (referred to as the "tailoring rule") is a key element of the proposed regulations. EPA regulations would cover only large facilities emitting over 25,000 tons of GHGs/year. This would avoid the potentially nightmarish problems of regulating all CO₂ sources. Such limits would apply to some 14,000 sources, covering nearly 70% of US national GHG emissions.

As noted in our previous brief, the EPA route represents the Obama Administration's trump card in that the required procedures are already underway and do not require Congressional approval. However, even if the EPA formalizes its proposed GHG regulations, they are likely to be tied up in the near term by court challenges. The imminent threat of EPA regulation has prompted an increasing number of business interests to press for Congressional action. The overall impact at this point in time can be summarized as increased certainty of implementing U.S. GHG emissions limits in the near future, but with the exact time frame remaining uncertain.

The Congressional Politics of Climate Change

Even while Senate Climate Legislation remains stuck in traffic waiting its turn to be considered by the full Senate, many challenges remain in the path to the required 60 votes. Recent polling suggests that concern about anthropogenic climate change has weakened among Americans, but that the greater part of that weakening has occurred among respondents identifying themselves as Republican. Among Democrats and Independents, the economy and health care remain the top priority concerns. Even so, a majority of Americans supports action on climate change, with crucial differences at the regional and state levels.

Current assessments place the solid support in the Senate at 41 votes – all Democrats. The list of likely or certain no votes include most Republicans – 30, and only 2 Democrats, both of whom are conservative Democrats from states with economies tied to fossil fuels. Meanwhile, the number of "fence sitter" Democrats has grown to 17, and as many as 10 Republicans who could consider supporting a climate bill under the right conditions. The most immediate promise of the fence sitter list is possible bipartisanship – a goal that during Obama's first year in office has proven itself to be largely wishful thinking. Herein lies one of the more important factors that will influence the direction undecided Senators might go.

Partisan Politics of Cap and Trade

Senate Legislation	Democrats (60)	Republicans (40)
Support for Cap & Trade (Kerry-Boxer + Graham & Leiberma)	Progressive/Mainstream Democrats (41)	
Fence Sitters (conditional support)	Moderate/Conservative Democrats (17)	Moderate Republicans (10)
Opposed and very probably opposed	Conservative Democrats (2)	Mainstream/Conservative Republicans (30)

For Democrats, there is considerable pressure to support Kerry-Boxer from the Obama Administration, from the Democratic Party and from environmental organizations and other NGOs that tend to support Democratic candidates. Many of the undecided Democrats have long expressed reluctance toward cap and trade out of concern for its effects on constituents in states with economically hard-hit energy intensive industries and those dependent on coal production or coal-based electricity generation. Their crucial votes will be won through compromise, with the most problematic compromises from an international perspective entailing implementation delays, weakening of near-term reductions targets, and dedication of auction revenues that might otherwise be channeled to provide development aid. Some of these likely compromises are also generating serious strain among Democrats.

Fence sitting Republicans face a different set of challenges. The national Republican Party organization and its grassroots conservative base are unequivocally opposed to a climate bill. The reasons include denial of climate change as a problem, ideological opposition to government intervention or to signing away sovereignty in international agreements, and a political strategy that entails fighting Obama and the Democrats at every turn. Senator Lindsay Graham has been censured by his own home state Republican Party for his collaboration with Democrats on climate change side. The names and images of the eight House Democrats who supported the Waxman-Markey legislation were put on a Wanted Poster that was distributed in Republican circles following the House vote. It is unclear how many of the 10 undecided Senate Republicans will be ultimately willing to buck their party establishment and join with the Democrats, but it will not be without some difficult choices for the Democratic leadership. Likely tradeoffs include support for expanded nuclear power, increased offshore exploration for oil, and the same kind of investment in technologies to boost the viability of coal that coal-state Democrats are seeking.

Even as the Republicans seek to maintain party unity to defeat climate legislation, Democratic supporters of ambitious climate legislation are struggling to hold together a coalition that includes both climate realists and political pragmatists. The realists include many environmental NGOs that find themselves unable to support the legislation now moving through Congress because they consider it too weak. They take the position that time is running out and Congress has one opportunity to get it right. They also enjoy important high-stature support in people such as James Hansen, who fears that weak climate legislation will lock in failure. On the other side of the Democrats' internal divide are political pragmatists who argue that legislation on the scale required by climate change has never passed the Congress in a single step. Here, the Obama Administration, Al Gore, and numerous moderate environmental organizations argue that only after the basic structure is first set in place first can the necessary targets be set. Their strategy is reflected in modest near term reductions targets followed by a much steeper drop after 2020.

The combination of the U.S. history of major legislative reforms and the reservations expressed by fence sitting Senators suggest the pragmatist strategy is necessary to pass legislation – even as the climate realists are arguably correct in their assessment of the risks. Here, Obama's key challenge will be to hold together the coalition of groups that support aggressive action to reduce greenhouse emissions.

On the Republican side, it is clear that hopes for a resurgence in the 2010 elections are being built on an agenda of opposition to Obama on his core policy priorities, including climate change. Thus far, only one of the major Republican candidates for U.S. Senate has supported climate action – Florida Governor Charlie Crist – and he is now trying to avoid talking about climate change. Once expected to easily win the Republican nomination for the fall 2010 elections, Crist is now being challenged from the right. These developments strongly suggest that opposition to climate change legislation will be a centerpiece of the Republican strategy for the November 2010 elections.

POST-COPENHAGEN

Considering the current goal of agreeing on a political framework in Copenhagen and following up with a legally binding agreement in 2010, we conclude by raising two important questions. First, given the importance of the US and China, what guiding principle will dominate the US-China relationship going forward: collaboration or continued competition? Second, what will be the time frame for US domestic legislation and how might the follow up to Copenhagen best support US action?

Recent evidence suggests that the climate “suicide pact” between the US and China has been replaced by a new, more collaborative relationship. Increased collaboration offers a substantial promise of leadership from the world’s two largest greenhouse gas emitters. One key question is to what extent collaboration supersedes competition. We see such collaboration as making “virtue of necessity” and seeking mutual benefit in the steps required for accelerating the achievement of GHG reductions. If the US-China relationship is evolving toward greater collaboration and interdependence, one place it is likely to be manifested is in the apparent coordination of announcements linked to mitigation goals targets.

By most accounts, 2010 presents a six-month window of opportunity for US domestic action on climate change. Assessments from experienced observers suggest that climate legislation must be on its way to President Obama’s desk by summer to be successful. Delay from such a time frame risks the likelihood of becoming even more politicized than currently and too hot to handle given some of the dynamics discussed in this brief. A former head of the California EPA offered an optimistic scenario in which Obama signs climate legislation on Earth Day – April 22, 2010, which would be among the earliest imaginable dates. Others, including Pew Climate’s Eileen Claussen, suggest that the Congress has until June to act before the chances of success drop precipitously. A Copenhagen follow-up toward the end of the first half of 2010 could help keep the momentum going without the danger of repeating the schedule mismatch of Copenhagen.

ANNEX: U.S.-CHINA AGREEMENTS

- U.S.-China **Electric Vehicles Initiative**: The initiative builds on the US-China Electric Vehicle Forum organized in September 2009. Its goal is to develop joint standards, initiate demonstration projects in multiple cities, and carry out mapping and public education projects. Both China and the U.S. share a common interest in accelerating the development and deployment of electric vehicles not only to reduce greenhouse gas emissions, but also to reduce oil dependence and promote economic growth.
- U.S.-China **Energy Efficiency Action Plan**: Collaboration under the plan is intended to improve the energy efficiency of buildings, industrial facilities, and consumer appliances. U.S. and Chinese officials plan work with private sector actors to develop energy efficient building codes and rating systems, benchmark industrial energy efficiency, and train building inspectors and energy efficiency auditors for industrial facilities. It will also facilitate efforts to harmonize test procedures and performance metrics for energy efficient consumer products, and share best practices in energy efficient labeling systems. In addition, a U.S.-China Energy Efficiency Forum will alternate between the two countries on an annual basis.
- U.S. China **Renewable Energy Partnership**: The Partnership will provide technical and analytical resources to states and regions in both countries to support the deployment of renewable energy technologies. It is expected to help facilitate state-to-state and region-to-region partnerships to share experience and best practices.
- **21st Century Coal**: The program will promote cooperation on the development of cleaner uses of coal, including large-scale carbon capture and storage (CCS) demonstration projects. Industry, academia, and civil society in also being involved in advancing clean coal and CCS solutions. Important components of the program includes: (i) a grant from the U.S. Trade and Development Agency to the China Power Engineering and Consulting Group Corporation to support a feasibility study for an integrated gasification combined cycle (IGCC) power plant in China using American technology, (ii) an agreement by Missouri-based Peabody Energy to invest participate in GreenGen, a project of several major Chinese energy companies to develop a near-zero emissions coal-fired power plant, (iii) an agreement between GE and Shenhua Corporation to collaborate on the development and deployment of IGCC and other clean coal technologies; and (iv) an agreement between AES and Songzao Coal and Electric Company to use methane captured from a coal mine in Chongqing, China, to generate electricity and reduce greenhouse gas emissions.
- **Shale Gas Initiative**: This initiative entails using experience gained in the United States to assess China's shale gas potential, promote environmentally-sustainable development of shale gas resources, and conduct joint technical studies to accelerate development of shale gas resources in China. Promotion of shale gas investment in China will be fostered through the U.S.-China Oil and Gas Industry Forum, study tours, and workshops.
- U.S. China **Energy Cooperation Program**: The ECP will include collaborative projects on renewable energy, smart grid technology, clean transportation, green building, clean coal, combined heat and power, and energy efficiency. The list of founding members of the program includes 22 companies, and the intention is to generate benefits in both countries through leveraging private sector resources for project development work in China across a broad array of clean energy projects.

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14. Brazil's statement was that, 'the position of G77 and China (is) that there is a distinction between measurable reportable and verifiable for Annex I and non-Annex I countries. For Annex I, their quantified commitments should be measured, reported and verified, whereas for non-Annex I countries, it is the effective implementation of nationally appropriate mitigation action, supported by finance and technology that is measured, reported and verified. It said that the registry idea is useful to match measurable, reportable and verifiable technology and financial support from developed countries and mitigation actions by developing countries, assuring that the two aspects are balanced. The idea of the registry brings them together in a transparent manner.' Accessible at http://peoplesclimatemovement.net/index2.php?option=com_content&do_pdf=1&id=41
15. See important details available at e.g. <http://www.wri.org>; http://www.eia.doe.gov/overview_hd.html

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