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TO: Janet L. Yellen (CN=Janet L. Yellen/OU=CEA/O=EOP @ EOP [CEA])

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TEXT:

Janet, here is your draft back to you with a few changes.

On page 16, I have added qualifying "trading" phrases to the two most quotable sentences, in the hope that they would be included in any quotes. See what you think. I don't feel strongly

In the subsequent paragraph, I have removed "as high as" on the theory that you also want your qualifiers to protect you against outside economists who attack your numbers for being too low, not just from those who seize on them as being too high. Both of these changes are motivated by preserving credibility vis-a-vis the "validators."

Also I added a necessary "would" on page 15.

Otherwise, I say it's time to circulate to other agencies.

JF===== ATTACHMENT 1 =====

ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D74]MAIL47772693V.026 to ASCII,
The following is a HEX DUMP:

**TESTIMONY OF DR. JANET YELLEN
CHAIR, COUNCIL OF ECONOMIC ADVISERS
BEFORE THE SENATE FOREIGN RELATIONS COMMITTEE
ON THE ECONOMICS OF THE KYOTO AGREEMENT
FEBRUARY 11, 1998**

Thank you, Mr. Chairman. The President has said that we can work to avert the grave dangers of climate change, while at the same time maintaining the strength of our economy. I am pleased to have this opportunity to appear before the Committee to elaborate on the President's statement.

The international agreement that was reached in Kyoto this past December is a crucial first step in addressing global climate change. But it is only a first step. Since the international effort to reduce greenhouse gas emissions is more of a work-in-progress than a completely finished product, it is not yet possible to provide a full authoritative analysis of it. Many of the specifics in several crucial areas are not completely resolved in the diplomatic arena, forcing analysts to make a variety of assumptions about the ultimate form of the international regime. In my testimony today, I will attempt to identify key elements of the agreement, such as global participation and reliance on flexible, market-based measures, that ensure that reductions in global greenhouse gas emissions are consistent with continued strong economic growth. I will do my best also to provide some rough estimates of costs and benefits.

The Administration is strongly committed to ensuring that these critical elements are reflected in our domestic and international climate change policies. We are firmly committed to meaningful developing country participation, as well as emissions trading both domestically and internationally. And as you know, the President's FY 1999 budget includes a \$6.3 billion package of tax cuts and R&D over the next 5 years to jumpstart our efforts.

I. Basic Economic Rationale of the Kyoto Treaty

To begin our analysis, it may be worth stepping back and examining the larger question of the basic rationale, from an economist's perspective, for the Kyoto Agreement.

The earth's surface is warming from the accumulation of greenhouse gases from myriad sources worldwide. None of these emitters presently pays the cost to others of warming's adverse effects -- a classic externality in the language of economists. As a result of these distorted incentives, disruption of the Earth's climate is likely to proceed at an excessive pace and if left uncontrolled may pose substantial costs in terms of harm to commerce and the environment alike. The fundamental economic logic of the Kyoto agreement is thus that

without such an international agreement, individual nations will not have the proper incentives to address the threats from global climate change.

II. Costs of Climate Change

In evaluating efforts to mitigate global warming, the first step is to consider the costs that are likely if we fail to take any action -- for these costs provide the primary motivation for reducing greenhouse gas emissions.

The Intergovernmental Panel on Climate Change (IPCC) jointly established by the World Meteorological Organization and the United Nations Environment Programme, concluded in 1995 that "the balance of evidence suggests that there is a discernible human influence on global climate." Current concentrations of carbon dioxide, methane, nitrous oxide, and the other so-called greenhouse gases have reached levels well above those of preindustrial times. Of these, carbon dioxide (CO₂) is the most important: net cumulative CO₂ emissions resulting from the burning of fossil fuels and deforestation account for about two-thirds of potential warming from changes in greenhouse gas concentrations related to human activity.

Climatic Impact

If growth in global emissions continues unabated, the atmospheric concentration of CO₂ will likely double relative to its preindustrial level by midway through the next century. As a result of the increased concentration of CO₂, the IPCC estimates that global temperatures will increase by between 2.5 to 6 degrees Fahrenheit in the next 100 years, with a best guess of about 3.5 degrees Fahrenheit. While scientists believe that human activities are leading to a gradual warming of the *average* temperature of the earth, the change in temperature in a given region at a given time may differ substantially from this average. Indeed, models predict warming will be greater in high latitudes than in the tropics, and greater over land than ocean. Many models predict larger increases in evaporation than in precipitation over midlatitude land areas, which would result in drier conditions in those regions, especially during summer in North America and Europe.

Potential consequences associated with this shift in climate include a rise in sea levels, greater frequency of severe weather events, shifts in agricultural growing conditions from changing weather patterns, threats to human health from increased range and incidence of diseases, changes in availability of freshwater supplies, and damage to ecosystems and biodiversity.

Economic and Monetary Damages

The derivation of quantitative or monetary estimates of the damages from such a change

in the climate is extremely difficult given the capacity of today's forecasting models. Estimates of the economic damages from climate change fall into the following broad areas: agriculture, sea-level rise, air conditioning and heating, water supply, human life and health, air pollution, and other costs (hurricanes, migration costs, human amenity, construction, leisure activities, urban infrastructure, and ecological damages such as forest loss and species loss).

A subject of great uncertainty and sensitivity is the "discount rate" that is applied to the benefits of averting future climate change. Such a discount rate is needed if the analysis is to be expressed in monetary terms, because a dollar today is not worth the same as a dollar tomorrow. And since the benefits of stemming future climate change accrue over not only decades but centuries, small changes in the discount rate can produce substantial changes in the results. But the precise discount rate that should be used to evaluate questions as important as the future climate of the planet remains a subject of intense debate. It is safe to say that there is, as of yet, no professional consensus on the issue.

A similar point concerns risk aversion. To what extent are we willing to take chances with our planet? The point applies particularly to catastrophe scenarios. Scientists have thought of many possible scenarios, most of which they are fortunately not yet prepared to pronounce as particularly likely based on current evidence, but which might be truly catastrophic for the planet if they were to occur. There is a strong argument for the Kyoto agreement as a form of planet insurance. But what numerical weight should one assign to these catastrophic risks? In other words, what is the value of the insurance policy? It is difficult for an economist, or anyone, to know.

Despite these shortcomings and potential problems, respected researchers have developed estimates of the monetary damages expected from an average worldwide temperature increase of approximately 4.5 degrees Fahrenheit (corresponding to, roughly, a doubling of pre-industrial carbon dioxide concentrations). For example, William Cline, then a Senior Fellow at the Institute for International Economics, estimated that such a temperature change would impose annual damages of more than \$70 billion per year on the U.S. economy in today's terms. These damages include \$22 billion in lost agricultural production, \$13 billion in additional electricity costs, and \$8 billion in new costs to maintain the existing supply of fresh water. (Cline's original estimates are quoted in 1990 dollars. The figures given above translated those numbers into 1997 dollars using the annual GDP price index.) William Nordhaus of Yale University has likewise computed estimates of the dollar loss attributable to a doubling of carbon dioxide concentrations. He finds that the Cline estimate is in the center of three estimates for the U.S., and that the high estimate is only 1.3 times greater than the low estimate.

It must be noted, however, that this similarity of aggregate estimates masks the true uncertainty associated with forecasts of the damages from given increases in global warming -- the estimates are all fundamentally based on extrapolations from current and past experience, and

may not fully incorporate effects that will unfortunately become apparent only with future experience. In particular, the estimates may not fully reflect potential non-linearities in the relationships between carbon dioxide concentrations and temperature, between temperature and economic damages, or in the various other complicated relationships governing interactions between greenhouse gas emissions, the climate, and the economy. Current quantitative analyses do not, and cannot, accurately reflect the small and unknown possibility of large-scale and potentially irreversible discrete events with potentially catastrophic consequences.

Two such possibilities serve as illustrations. Warming of Northern tundra may release very large amounts of methane from the subarctic permafrost, thereby leading to potentially devastating acceleration of an otherwise controllable global warming process. We do not know at what point, if any, such unstable activity would be triggered. Second, evidence from climate models suggests that some types of climate change may lead to changes in ocean currents, including displacement of the Gulf Stream that warms Western Europe. Evidence from ocean core samples suggests such changes of ocean currents have occurred in previous ice ages. Reductions in the risk of such catastrophic outcomes must be considered in addition to the costs and benefits that can be reasonably quantifiable. Since human beings are typically averse to risk, such possibilities are especially important in evaluating whether the benefits of a particular climate control policy justify the costs. One must have at least some sympathy with those who criticize economists on the grounds that the effects of climate change are extremely difficult to quantify in a single monetary number.

III. Addressing Global Climate Change in an Efficient Manner

The costs of unabated climate change may thus be difficult to quantify, but they are nonetheless real and provide the motivation for reducing greenhouse gas emissions. In taking action to reduce those emissions, economic analysis suggests that two elements are absolutely essential:

- The effort must be global, to address the global externality inherent in the nature of the problem.
- The effort must be flexible and market-based, to ensure that we achieve our objectives in the most efficient manner possible.

Need for Global Action

Climate change is a global problem requiring a global solution. As I mentioned earlier, no single country has an incentive to reduce emissions sufficiently to protect the global environment against climate change. Each has an economic incentive to “free ride” on the efforts of others. Even if the United States sharply reduced its emissions unilaterally, greenhouse gas emissions from all other countries would continue to grow, and the risks posed by climate change would not be significantly abated. It is important to emphasize that emissions of different gases anywhere in the world have very similar effects on global climate.

The threat of disruptive climate change has led to coordinated international efforts to reduce the risks of global warming by reducing emissions of greenhouse gases. The first international agreement to address global warming was the Framework Convention on Climate Change signed during the Earth Summit in Rio de Janeiro in 1992. This convention established a long-term objective of limiting greenhouse gas concentrations and encouraged the established industrial countries to return their emissions to 1990 levels by 2000. Since then, it has become clear that the United States and many other participating countries will not meet this voluntary goal.

To address the lack of progress among many industrialized countries toward meeting the Rio objective, the United States and approximately 160 other nations agreed in negotiations held in Kyoto, Japan, last December, to take substantial steps to stabilize atmospheric concentrations of greenhouse gases. The Kyoto Agreement, which requires the advice and consent of the Senate, would place binding limits on industrial countries’ emissions of the six principal categories of greenhouse gases: CO₂, N₂O, methane, sulfur hexafluoride, perfluorocarbons, and hydrofluorocarbons. **These limits apply to the 38 so-called Annex I countries, which are the industrialized countries, defined to include Russia, Ukraine, and most Eastern European countries.**

Under the Kyoto agreement, each industrial country’s “1990 baseline” is actually based on its 1990 emissions of CO₂, methane, and N₂O and its choice of 1990 or 1995 levels of the other three categories of gases. The United States agreed to a target of 7 percent below 1990 levels by the period between 2008 and 2012. To meet that target, net U.S. emissions of greenhouse gases -- all emissions minus removals of CO₂ by certain forestry-related activities -- must average no more than 1,484 million metric tons of carbon equivalent per year during that period. The targets for the European Union and Japan are 8 percent and 6 percent below 1990 levels, respectively. Australia, New Zealand, Norway, Russia and Ukraine all have limits somewhat less ambitious when phrased as cuts relative to their 1990 levels. In sum, over the period from 2008 to 2012, the industrial countries are expected to reduce their average emissions of greenhouse gases to about 5 percent below

their 1990 levels.

The President has made clear that his support of the Kyoto Agreement is dependent on meaningful participation from key developing countries (who are not included in Annex I). The President has also made clear that he will not submit the treaty to the Senate without such participation.

There are several reasons why meaningful participation from developing countries is essential. First, developing countries are projected to contribute a majority of total emissions by 2030 under a continuation of business-as-usual. Without the participation of developing economies, emissions reductions by the industrialized countries will therefore not achieve necessary protection from climate change. Indeed, if developing countries do not participate in the international regime, their emissions could potentially increase by *more* than under their business-as-usual baselines. One mechanism for such an unintended consequence is as follows.

As Annex I countries comply with their targets, their demand for oil will fall, which will probably work to reduce the price of oil on world markets, and perhaps to encourage non-participating countries to use more oil and emit more carbon than they otherwise would have.

Second, developing country participation is crucial because it would permit relatively low-cost emissions reductions to be internationally recognized as a substitute for more expensive emissions reductions that might otherwise be achieved by U.S. companies domestically. Again, greenhouse gas emissions have the same basic impact on the climate regardless of where they occur. So reductions in developing countries have the same environmental benefit as reductions domestically. But these reductions are much less costly than reductions in the U.S. or in other developed nations, because of the very inefficient and carbon-intensive uses of energy in these countries today. It thus makes sense, from both an environmental and an economic perspective, to incorporate emissions reductions in developing countries into the international system.

Third, principles of basic fairness suggest all countries should do their part, depending on their ability to contribute to the solution. Thus even poor countries should contribute, although the existence of more pressing social needs in such countries will inevitably limit the magnitude of their contributions.

So far I have not mentioned the word "competitiveness." One of the difficulties in analyzing concerns related to competitiveness is that the term itself is used to mean many different things. I have seen at least one study that uses "loss of competitiveness" to refer to predictions of negative effects on the *aggregate* trade balance. As a professional economist, I do not accept the logic upon which that particular argument is predicated: the aggregate trade balance is determined by macroeconomic forces -- the difference between saving and investment -- and not by our environmental policies.

On the other hand, if competitiveness refers to adverse effects on a few specific manufacturing industries -- those that are especially energy-intensive, such as aluminum, paper, and chemicals -- the situation may be more complicated. It is difficult to undergo a significant structural change in the economy without having the effect of expanding some sectors and contracting others. But to provide some perspective on this issue, consider the following facts. First, on average, energy constitutes only 2.2 percent of total costs to U.S. industry. Second, energy prices already vary significantly across countries. According to the *1997 Statistical Abstract*, for example, in 1996 premium gasoline cost \$1.28 per gallon in the United States -- but only 8 cents in Venezuela. Similarly, gas prices were \$3.71 per gallon in Switzerland and \$4.41 per gallon in France. Yet U.S. industry is not moving en masse to Venezuela, nor is European industry moving to the United States. Third, roughly two-thirds of all emissions are not in manufacturing at all, but in transportation and buildings. I therefore believe it more accurate to say that we need developing country participation for the reasons I outlined above, than to say that we need it to avoid adverse effects on competitiveness.

Flexibility and Market Mechanisms

A global solution is thus critical to the global problem of climate change. Globalizing the solution is not, however, enough by itself. We must also ensure that our efforts achieve their objectives in the most efficient manner possible. The nature of the climate change problem suggests three basic methods to lower costs of achieving given levels of environmental protection. They can be characterized in terms of three categories of flexibility: (1) "when" flexibility; (2) "what" flexibility; and (3) "where" flexibility, which may be the most important of all. Such methods have long been championed by economists interested in increasing the efficiency of protection. Indeed, the 2,600 economists urged such approaches in a letter they signed last year advocating action on climate change:

"Economic studies have found that there are many potential policies to reduce greenhouse gas emissions for which the total benefits outweigh the total costs...The most efficient approach to slowing climate change is through market-based policies."

1. "When flexibility" (timing)

First is "when flexibility" or timing. Since climate change is a long-term problem, the exact timing of emissions reductions is in some sense not of primary importance. Thus the freedom to delay or accelerate reductions within an agreed upon time frame -- while ensuring credibility of emissions reductions -- lowers costs.

The Kyoto Protocol incorporates this principle of "when flexibility" in four ways:

- First, the cuts to be made in the first period are less severe, and the first period ends much later, than what had been proposed by many other countries, most notably the Europeans.

By adopting a gradual and credible path of reductions in the early years, we can greatly reduce costs such as those from prematurely scrapping coal-fired electricity plants still in the prime of their operating lives, while attaining the same ultimate environmental goals.

- Second, under the Kyoto agreement, the emissions target is not specified in terms of a specific year, but rather in terms of an average over a five-year period (2008-2012). Averaging over five years, instead of requiring countries to meet a specific target each year, can lower costs, especially given an uncertain future. The averaging can smooth out the effects of short-term events such as fluctuations in the business cycle and energy demand, or hard winters and hot summers that would increase energy use and emissions.
- Third, there is allowance for “banking” emission reductions within the 2008-2012 commitment period, for use in a subsequent commitment period [although the emission targets of the next period have not yet been specified].

2. “What flexibility” (gases and sinks)

The second type of flexibility is “what flexibility”, along two dimensions. The first is the inclusion in the agreement of all six greenhouse gases. Emissions of different kinds of gases, not just carbon dioxide, contribute to the greenhouse effect. Since the IPCC has developed conversion factors for all greenhouse gases by estimating their global warming potentials, reductions in emissions of one pollutant can be used to substitute for increases in emissions of another by an amount that has equivalent environmental effects. The Kyoto Protocol stipulates that countries with binding targets are expected to reduce their *total* greenhouse gas emissions by certain percentages, but does not require specific reductions for specific gases. Since a molecule of sulfur hexafluoride is 23,900 times more potent over 100 years than a molecule of CO₂, it may be cheaper to achieve the same environmental benefit by eliminating one molecular unit of SF₆ than nearly 24,000 units of CO₂.

Some initial rough analysis indicates that a strategy of reducing non-CO₂ greenhouse gases by *more* than 7 percent below their 1990/1995 baseline levels while reducing CO₂ by *less* than 7 percent below its 1990 level could reduce greenhouse gas emission permit prices by more than 10 percent. Thus allowing countries flexibility in what gases they reduce -- essentially trading emissions reductions across gases -- can help lower significantly the costs of meeting their targets.

The second source of “what flexibility” is the treatment of sinks, i.e., land use activities that promote the removal of carbon from the atmosphere through the growth of plants. Promoting such sinks through afforestation and reforestation may reduce atmospheric concentrations of CO₂ at much lower costs than reducing emissions of greenhouse gases.

3. "Where flexibility" (international)

The third type of flexibility, and perhaps the most important, is "where flexibility" (international). As I have already emphasized, emissions have the same environmental consequences regardless of where in the world they occur. Therefore, the least-cost approach to controlling climate change is to reduce emissions wherever such reductions are cheapest. The Kyoto agreement includes two important cost-saving provisions of this nature. First, it provides for industrial countries to trade rights to emit greenhouse gases with each other. This market in emissions permits will ensure that emission reductions occur where they are least expensive within the industrial countries. In particular, U.S. companies could purchase emissions reductions in other participating countries when doing so would reduce their costs -- lowering costs without affecting the level of environmental protection.

Second, the agreement allows industrial countries to invest in "clean development" projects in the developing world and use these projects' certified emissions reductions toward meeting their targets. Many such clean-development projects may be quite cheap in terms of the cost per ton of emissions avoided, as has been illustrated by the joint implementation pilot program that is already in place in the U.S. Details of these provisions will be worked out in negotiations in Buenos Aires later this year.

IV. Difficulties of Economic Analysis of Kyoto Agreement

Now that we have a Protocol -- even if it is not yet fully complete nor ready for the President's submission to the Senate -- it is possible to examine it in somewhat more detail from an economic perspective. But I wish to emphasize once again the inherent limitations to any such estimates. Such limitations should not be surprising to you: economists have a difficult enough time projecting the behavior of the economy over the next quarter or year, let alone over the next two decades. The scale of the forecasting exercise is therefore daunting, and any specific results should be treated with substantial caution.

The difficulties associated with economic analysis of climate change fall into three broad categories. First are the uncertainties that still remain over the terms of the ultimate treaty. Second are the inherent limitations of available models to analyze even short-term costs and benefits. And finally is a topic I discussed earlier: the impossibility of putting a single monetary number on the long-term benefits of climate change mitigation.

Uncertainties over Certain Provisions in International Effort to Combat Climate Change

The Kyoto Agreement was an historic accomplishment, delineating the broad terms of the international effort to address climate change. But although we know a lot more than we did before Kyoto about how that international system will work, there is still much that we

don't know.

First, as is often the case in a legal document of the length and complexity of the Kyoto Protocol, there are some provisions that require further clarification and interpretation. Of particular concern here is the treatment of so-called sinks -- activities that affect the rate at which carbon is removed from the atmosphere and "sequestered," specifically by the planting of trees.

Second, the details of a number of items -- primarily concerning international trading and developing countries -- are the subject of further negotiations in Buenos Aires next fall, because they had not been definitively settled by the end of the last all-night session of the Kyoto talks.

Finally, and most importantly, we have not yet negotiated international agreements to limit emissions beyond the 2012 window. The emission cuts agreed upon at Kyoto are only a first step on a long journey. The first step that we propose to take over the next 15 years is critical. But the reason it is critical is *not* that, by itself, it will solve the climate change problem -- emissions during any given decade are small compared to the cumulative concentrations in the atmosphere. Rather, the first step is critical because we can't take the second and third steps until we have taken the first. At the same time, any analysis is complicated by the lack of knowledge over what the subsequent steps will be.

Inherent Limitations of Models

In addition to these uncertainties about the details of the international effort to address climate change, I must also note the inherent limitations of the models used to evaluate that effort. Even within a given model, answers depend critically on the precise nature of the question asked. For example, the costs of emissions reductions depend critically on the extent of global participation and international trading that a treaty is assumed to feature. But in addition to the dependence of the results from a given model on the precise assumptions, different models can give different answers even when all the assumptions are specified to be the same -- a concrete illustration of the range of uncertainty to which we must assign the predictions of any one individual model.

One area in which the uncertainty is particularly large is the pace of technological progress -- including diffusion of existing energy-efficient technologies, as well as research and development of new technologies -- and the extent to which the pace will accelerate in response to government programs. Economics does not offer a good understanding of how technological progress is determined, in part because it is the stuff of experimentation, brainstorming, genius, breakthroughs, perceptions and habits. Invention is largely determined by inspiration -- notwithstanding Edison, who assigned a 99 percent share to perspiration -- and inspiration, in my experience, is difficult to fit into mathematical formulae or economic models. Models and experts on climate change policy tend to have a wider range of disagreement on the speed with which technology can be changed and the scope for speeding the diffusion of existing

energy-efficient technologies than on any other single issue.

Furthermore, each model has strengths and weaknesses; each has questions to which it is better or worse suited to answer. Some, for example, model the energy sector in detail. Some allow for the fact that a coal-fired power plant cannot costlessly be converted to one that runs on natural gas. Some have enough policy detail to distinguish alternative ways of redistributing revenues that would result if emission permits were to be auctioned. Some are capable of showing short-term macroeconomic disequilibria. Some include a long-term “carbon cycle” model that can keep track of the accumulation of greenhouse gas concentrations in the atmosphere and their climatological effects. Some break down the rest of the world into regions and so can model international trade. No one model does everything, and therefore we must not rely blindly on the results of any one model or set of models. Professional judgement and economic intuition are also crucial.

Benefits of Averting Climate Change

As I discussed above, it is evident that the benefits of averting climate change are potentially immense. But I have chosen not to try to quantify them in monetary terms for you, in light of the difficulties I have enumerated -- including the quantitative uncertainty of these benefits, and their timing and therefore the extreme sensitivity of the results to the chosen discount rate.

Instead, what I will do is draw upon a variety of sources in an attempt to add up the various possible costs and benefits of emissions policy *excluding* climate change. To give away the punch line, my conclusion is as follows: the net costs of our policies to reduce emissions are likely to be small, if those reductions are undertaken in an efficient manner, *even before taking into account the benefits of averting climate change itself*. That small net premium excluding the benefits of mitigating climate change, in effect, purchases a partial insurance policy against a serious environmental threat.

V. Assessing the Kyoto Agreement

The existence of modeling difficulties means that the results from any model must be treated with caution. We have therefore employed a broad set of economic tools to assess the Kyoto agreement. We have drawn on the insights of a wide range of models of the energy sector and economy over the next 25 years, including but not limited to the results of the Stanford Energy Modeling Forum exercises, the IPCC’s review of the economic and social dimensions of climate change, and the staff-level Interagency Analytical Team effort last year. Other tools include simple relevant statistics, “meta-analyses” of existing models, historical and sectoral examples, and basic economic reasoning. Drawing on this broad array of analytical tools is crucial to an intelligent evaluation of the policy alternatives.

To my knowledge, as of December, no model -- whether used inside the government or not -- had been set up precisely to analyze the parameters of the agreement that was reached in Kyoto. Most model-builders outside the government tend to take as long as several years to incorporate changes in policy parameters into their models. And no model is currently designed to assess sinks, or all six greenhouse gases included in the treaty.

One of the leading models in the field is the Second Generation Model of Battelle Laboratories. The SGM is one of the models best positioned to analyze the role of international trade in emission permits, which we consider to be a critical element of the Kyoto Treaty. However, the SGM does not cover all six gases included in the Kyoto agreement or include a role for sinks. We have used the SGM model as a starting point for a preliminary assessment of the Kyoto treaty, but have attempted to supplement its results with additional analysis to account for such special features of the agreement as the inclusion of six gases, sinks and a possible Annex I trading scheme that could exclude the EU. I will share with you today some preliminary results of this analysis.

Mindful of the limitations of any single model, we are eager to see features of the Kyoto agreement assessed by other models to obtain a better feel for the range of possible effects. Much of this work will continue to go on outside the government. For example, we have had discussions with the Energy Modeling Forum, based at Stanford University. The EMF is a long-running exercise involving many of the leading climate models. We have given the EMF advice on how features of the Kyoto legal language can be translated into terms recognizable to an economist. Unfortunately, the Energy Modeling Forum believes that its members will need at least until mid-year to produce reliable results.

VI. Economic Analysis

With all of that as important background, let us now turn to the task at hand. As we do so, let me emphasize once again that the figures presented below do not incorporate the benefits of starting to mitigate climate change.

I said in Congressional testimony last July that we can do this smart or we can do this dumb. I was referring to the point that the costs of cutting emissions can be much reduced if flexible, market mechanisms are used. Our economic analysis highlighted the importance of such flexible, market-based mechanisms -- which are therefore reflected, at the President's insistence, in the Kyoto Agreement and our approach to the effort.

Within the Kyoto agreement, this means an insistence on international trading, joint implementation, and, ultimately, on full developing country participation. Domestically, this means that we implement any emissions reductions through a market-based system of *tradeable* emissions permits, which ensures that we achieve reductions wherever they are least expensive. But this also means taking serious and responsible steps in the short run to prepare us to meet our

obligations in the longer term.

The first such step is the inclusion in this year's budget of an aggressive, \$6.3 billion program of tax cuts and R&D -- \$1.3 billion more than the \$5 billion package the President promised in his October 22 speech on this issue. The goal is both to stimulate the development of new energy-saving and carbon-saving technologies and to encourage the dissemination of those that exist already. The proposed package contains \$3.6 billion over the next 5 years in tax cuts for energy efficient purchases and renewable energy, including tax credits of \$3,000 to \$4,000 for consumers who purchase highly fuel efficient vehicles, a 15 percent credit (up to \$2,000) for purchases of rooftop solar equipment, a 20 percent credit (subject to a cap) for purchasing energy-efficient building equipment, a \$2,000 credit for purchasing energy-efficient new homes, an extension of the wind and biomass tax credit, and a 10 percent investment credit for the purchase of combined heat and power systems. The package also contains \$2.7 billion over the next 5 years in additional research and development spending -- covering the four major carbon-emitting sectors of the economy (buildings, industry, transportation, and electricity), plus carbon removal and sequestration, Federal facilities, and cross-cutting analyses and research. One example of the R&D effort is the Partnership for a New Generation of Vehicles (PNGV). PNGV is a government-industry effort to develop attractive, affordable cars that meet all applicable safety and environmental standards and get up to three times the fuel efficiency of today's cars. In FY99, the combined proposal for PNGV is \$277 million, up from \$227 million appropriated in FY98. Similar government-industry efforts are proposed to develop more efficient diesel engines for both light trucks and heavy trucks. [ADD SOMETHING MORE ABOUT INDUSTRY-GOVERNMENT DIALOG. PERHAPS A CONCRETE EXAMPLE OF IDENTIFYING AN INDUSTRY REGULATION THAT COULD BE REMOVED.]

The second such step is the promotion of an environmentally-responsible electricity restructuring bill, which the President identified as part of his domestic climate change package in his address to the National Geographic Society on October 22. An electricity sector freed from government regulation would be a more efficient energy sector. Costs to consumers would fall. A reasonable overall estimate of the effects of adding federal electricity restructuring to the rest of the President's program to address climate change is to achieve the same environmental goals at a cost saving of roughly \$16 billion per year.

Estimated Reduction in Costs from Annex I Trading

In the language of the treaty, "Annex I," you will recall, is the set of countries that have agreed to take on binding limitations in emissions of greenhouse gases. Even without developing country participation -- which, again, the President has emphasized as essential before the treaty would be submitted for ratification -- costs would be reduced substantially by trading among the Annex I countries. To provide some indication of the possible efficiency improvements, Russia and the Ukraine consume six times as much energy per dollar of output as does the United States.

Estimates derived from the SGM model suggest that trading among Annex I countries is likely to reduce the cost to the United States of achieving its targets for 2008-2012 emissions by about half relative to a situation in which such trading was not available. This concept of costs is meant to capture aggregate resource costs to the US economy, including the cost to domestic firms of purchasing emission permits from Russia and other countries where emission reductions are cheaper than in the United States. The dramatic reduction in costs available from Annex I trading within the SGM model -- cutting the costs involved by half -- highlights why the President insisted that international trading be part of the Kyoto Agreement.

Estimated reduction in costs from umbrella trading

One possibility that emerged in Kyoto, which none of us foresaw, was the idea that the United States might undertake trading with a subset of Annex I countries, dubbed the "umbrella," that would exclude the European Union. The initial list of proposed participants in the umbrella includes the United States, Australia, Canada, Japan, New Zealand and Russia, with strong indications of interest from some others. The motivation for this idea was that the Europeans have been reluctant to agree to the sort of international trading that we want (preferring that they achieve their goals collectively in a group of their own, called the "EU bubble").

It is too early to say whether the umbrella concept will in fact be accepted by the parties. But it is an important concept to consider, for three reasons. First, it is conceivable that it will be formally agreed to in future negotiations. Second, even if the final treaty does not explicitly include the umbrella, but rather allows trading among all signatories (as the United States has proposed all along), it is conceivable that umbrella countries will agree, outside the treaty, to trade only among themselves. Third, the aversion toward international trading that the Europeans have expressed suggests that they might refrain from making the trades to which they would be entitled -- which would mean that the umbrella would operate in practice, if not in formal international agreement.

The significance of the umbrella idea in the present context is that it has the potential to further reduce costs to the United States. The reason is that if the Europeans do not bid against us for the relatively abundant, low-cost opportunities to reduce emissions in Russia and Eastern Europe, then the price of emissions reductions will be even lower. Results that we have derived from various SGM simulations suggest that, relative to the situation in which there is no trading at all, the umbrella arrangement would reduce costs by an estimated 60-75 per cent, depending on whether the former Warsaw Pact countries are classed with the EU, or are instead assumed to fall within the umbrella.

Estimated reduction in costs from LDC participation

The next consideration is participation by developing countries. The President has said that he will not submit the treaty for ratification without such participation -- which would

further reduce the costs involved.

The substantial potential gains from meaningful LDC participation are highlighted by the significant benefits that will likely accrue even from the limited role that the LDCs have already agreed to: the Clean Development Mechanism, modeled after Joint Implementation (JI).___JI cannot realistically be expected to yield all the gains of binding targets for developing countries, but it might shave costs by roughly another 20 to 25 percent from the reduced costs that result from trading among Annex I countries.

Another possibility is that we persuade some of the key developing countries that are the largest emitters to commit to targets, and allow us to buy emission reductions from those paths. We estimate that this could cut roughly 55 percent off the reduced costs that result from Annex I trading. [The four countries included in this particular estimate are China, India, Brazil and Korea.] Once these savings have been attained, the estimated reductions to US costs from persuading the rest of the developing world to go along with full commitments are relatively small.

A useful rough check on our estimate of the gains from international emissions trading can be obtained from other modeling efforts, notwithstanding that they are likely to be more distant approximations to the parameters of the Kyoto Treaty. Recent results from six leading models that participated in the Stanford Energy Modeling Forum show that worldwide permit trading would reduce the estimated costs -- defined as lost consumption -- of a full, long-term, global program to stabilize atmospheric concentrations at 550 ppmv by an average of 56 percent, although the results vary from model to model.

I offer these numbers because they show the potential effectiveness of trading in reducing costs dramatically. But it is important that I repeat three caveats: First, as always, there is a wide range of uncertainty around all these estimates. Second, they apply to an idealized version of trading, one that assumes no problems of enforcement or transactions costs. Third, it seems unlikely that we will convince all of our partners to agree in Buenos Aires to the most complete and cost-effective international trading arrangements. Nonetheless, despite these caveats, the numbers still show major savings.

Moreover -- and I can't highlight this enough -- these cost-saving features are fundamental tenets of the U.S. position for ratifying the Kyoto Protocol. If we do not get very solid provisions for international emissions trading and meaningful participation by key developing countries, we won't submit the treaty for ratification to the Senate. So, while our analysis may be predicated on some ambitious conditions concerning trading and developing country participation, it is exactly those conditions that form the foundation of the U.S. position going into Buenos Aires.

VII. Non-Climate Benefits

The costs of undertaking greenhouse gas emission reductions must be compared to the benefits. As I have indicated, for various reasons our analysis does not quantify the benefits from averting climate change itself. But the relative price shifts that are necessary to reduce emissions should produce benefits in three areas: air pollution, traffic congestion, and highway accidents. These benefits are quantifiable. The magnitude of these projected benefits would vary with the permit price.

Reductions in carbon emissions also lead to reductions in emissions of pollutants that contribute to excess concentrations of fine particulate matter and low-level ozone. We estimate significant ancillary reductions of nitrogen oxides and other pollutants and associated cost savings even for low carbon prices. These cost savings would be even larger if carbon emissions reduction efforts could be carefully coordinated with the implementation of the national ambient air quality standards.

Traffic congestion hurts motorists by causing delays and inconvenience. More efficient pricing -- which recognizes the externalities involved -- should lead to reductions in congestion as motorists choose other means of travel, share rides, or even forgo less important trips.

Vehicle use also leads to costly accidents and to highway injuries including fatalities. More efficient pricing will reduce use and create savings from reduced accidents and resultant mortality. The savings from reduced congestion and reduced accidents are significant, even with low carbon prices.

A variety of other benefits that are harder to quantify are likely to result from reductions in carbon emissions. With respect to transportation, reduced vehicle use will also reduce the cost of road repair and maintenance. Second, reduced coal use will lower mercury emissions. Finally, reduced energy use will also increase U.S. energy independence. Our inability to estimate these effects quantitatively does not imply that they are necessarily small or unimportant.

VIII. Preliminary Estimate of the Net Effects of the Kyoto Agreement

We can now combine the various benefits and costs delineated above to provide a preliminary assessment of the likely net impact of the Kyoto agreement, excluding, however, the benefits of averted damage from climate change and several other cost mitigating factors, such as sinks, and payoffs from proposed Administration climate change initiatives. This assessment entails a very careful evaluation of results from the SGM model as well as my own professional judgement and additional Administration analysis to match the results from the model with the institutional details of the Kyoto agreement. It accounts for the impact of trading under the umbrella, and assumes full participation by four key LDCs. The conclusion is that the resource

costs of attaining our Kyoto targets for emission reductions might amount to \$7 to \$9 billion, under the assumptions regarding international trading that I have mentioned. Adding in the non-climate benefits, overall net costs could reach \$5 billion to \$8 billion, or roughly 0.08 percent of projected GDP, in this international trading case.

A more tangible measure of costs is the estimated effects on energy prices. Excluding the impact of electricity restructuring, and our SGM-based estimate is that the price of emissions could be \$12 to \$16 per ton of carbon equivalent -- and that energy prices at the household level could rise by about 3 percent under the Kyoto accord. Fuel oil prices could rise by about 6 percent, natural gas prices by 4 percent, gasoline prices by 3 percent, and electricity prices by 3 percent. A 3 percent increase in energy prices at the household level would raise the average family's energy bill by about \$75 per year.

These estimates do *not* mean that households' energy expenses will in fact be higher in 2010 than today, however. In the first place, energy prices fluctuate year-by-year for all sorts of reasons. They could go either up or down. But even if we leave out unpredictable fluctuations, the energy price declines from Federal electricity restructuring would be enough to offset the impact estimated above. By 2008-2012, the projected 10 percent decline in electricity prices from the restructuring that is part of our climate change agenda will mean a net reduction in electricity prices in the U.S., even accounting for the small increases noted above.

As highlighted earlier, estimates of the type that I am presenting are fraught with uncertainty. The estimate I just discussed was predicated on the developing country participation that we will insist upon in Buenos Aires as a condition for our ratifying the Kyoto Protocol, but which is not yet part of that Protocol. At the same time, the numbers I have cited are in several respects conservative: they leave out several factors, such as the role of sinks, that could further reduce costs. But before I bring these factors into the analysis, allow me to say a few words about macroeconomics.

Effects on employment and aggregate output

So far I have said nothing about job losses resulting from climate change policy. Although there may be job gains in some sectors and job losses in others, I do not anticipate any significant aggregate effect. Some jobs could be lost in energy-intensive sectors, although given the very small predicted change in energy prices, impacts in most such sectors are apt to be minimal. Furthermore, a large number of jobs will be created in other sectors -- many of them high-tech jobs paying high wages. The President is firmly committed to assisting any workers who are adversely affected during the transition to a climate-friendly economy.

The situation might be different if a large energy shock were to hit the economy with no

warning, as happened in the oil crisis of 1973-74, when the real money supply, output and employment all contracted sharply. In addition to hitting with no warning, the oil shocks of the 1970s also entailed large transfers from the U.S. and other oil-importing countries to OPEC, thus depressing real income and spending in the former. A self-imposed shift in the relative price of carbon-intensive energy to address global climate change, on the other hand, need not entail such a transfer of purchasing power. Thus there are critical differences between the oil price shocks and the effort to reduce carbon emissions. Our reassuring conclusion regarding aggregate output might also be different if the policy were to be implemented inefficiently (by command-and-control style regulations of the sort put in place in that oil crisis) rather than efficiently (by market mechanisms of the sort that the President has proposed to use).

IX. The Foregoing Estimates Are Conservative Along Several Dimensions

I should emphasize that the estimates I have presented are conservative in the sense that they do not include three factors: the potential cost reductions resulting from the inclusion in the Kyoto treaty of carbon sinks, the potential payoffs to the President's technology or energy efficiency initiatives, or the benefits of mitigating climate change itself. The first omission, sinks, concerns a provision of the Kyoto Protocol that has received less attention than it merits. It is only *net* emissions -- emissions to the atmosphere minus sequestration -- that are to be reduced 7 percent below 1990 levels, not gross emissions. The United States plants many trees every year, and would receive credit for this activity under the Protocol. Very preliminary estimates of the implications for the United States of the Kyoto provision on sinks indicates that carbon sinks could comprise nearly 10% of total required emissions reductions. Decreasing the required emissions reduction by 10% would likely result in cost-savings greater than 10%.

Even this estimate of the effect of sinks is conservative in one respect: it is based on an assumption for sink activity in the U.S. over the 2008-2012 period, and no assumed benefits from sinks elsewhere in the world. Very preliminary estimates suggest that incorporating the gains from sinks *throughout the world* can reduce the costs of meeting the Kyoto target by half or more, on top of the gains from trading among Annex I countries. (Furthermore, no model has yet even tried to take into account that government policies can help increase the amount of tree-planting, possibly through some version of the USDA's Conservation Reserve Program, for example.) But neither we nor other analysts are yet sure exactly how to interpret the legal language of the Protocol. Because the quantitative uncertainty is so large, we do not yet have an estimate with which I feel comfortable. But we do know that the effect of fully modelling the Kyoto provision pertaining to sinks is likely to be both favorable and large.

The estimates I have cited so far also make little allowance for the payoff to the President's \$6.3 billion Climate Change Technology Initiative. The parameter that figures most prominently in analysis of technological progress in the energy field is the rate of improvement in the so-called Autonomous Energy Efficiency Index (AEEI), that is the rate at which the total use of energy falls relative to GDP. In the SGM model analysis that underlies our assessment, the

AEEI is assumed to improve by 1.0 percent per year. Reflecting a conservative interpretation of the 15-year impact of the technology initiative, this is only a small increase above the 0.9 percent number in the Energy Information Administration's Annual Energy Outlook.

Our justification for incorporating into our assessment such a small assumed impact of Administration technology policies is somewhat analogous to the Administration's rationale for employing mainstream economic assumptions in our budget forecasts: in the presence of uncertainty, we are conservative in our estimates of the speed with which the economy will grow, tax receipts will rise, and the budget will improve. That way, any revisions or surprises that occur are likely to be in the pleasant direction. In this instance, we have conservatively assumed that there will be substantial lags in producing payoffs from new technology research and dissemination expenditures.

Clearly, this is neither the best outcome the Nation *can* attain nor the best outcome the Administration *expects* to attain as a consequence of our climate change strategy over the next decade. Many energy technology experts forecast more rapid technological progress; and engineering models suggest that some energy improving technologies are available now at negative costs.

If the Administration is successful in speeding the discovery and adoption of new technologies, the rate of improvement in energy efficiency could rise and such improvements would lower the cost of meeting our Kyoto target. For example, published results based on SGM model simulations with different assumed rates of AEEI improvement suggest an increase in the AEEI from 1.0 to 1.25 would be reflected in about a 40% decrease in the permit price.

Our preliminary estimates do not fully reflect potential entrepreneurial response to appropriate incentives. An instructive example of the ability of U.S. industry to perform beyond expectations when given appropriate economic incentives is EPA's highly acclaimed sulfur dioxide (SO₂) program, which relies, among other things, on a system of tradeable permits to reduce emissions of SO₂ from electric utilities. The SO₂ program has been successful in several ways: a large number of utilities participate, SO₂ emissions and ambient concentrations have fallen and the costs of reducing emissions are considerably lower than originally forecast.

As has been frequently noted, the average cost of SO₂ emissions reductions has recently been significantly lower than was originally forecast, in part due to the role of incentives in fostering innovation. Emission permit prices, currently at approximately \$100 per ton of SO₂, are well below earlier estimates of around \$250 to \$350 per ton.

Trading programs may not always bring cost savings as large as those achieved by the SO₂ program; trading programs will not always be accompanied by the discovery of much cheaper control strategies. However, the SO₂ experience demonstrates clearly how programs that offer important market incentives to find cheaper ways of reducing emissions can lead to

unexpectedly low prices.

The final, and most important factor that has been left out of the estimates I have presented is the benefit of mitigating climate change itself. A full cost-benefit analysis would include mitigation in the benefits column. The only reason we have not done so, as I have explained repeatedly above, is the difficulty in coming up with a number to capture the monetary benefits. But I trust that nobody will lose sight of our ultimate objective -- keeping our planet the hospitable home that we enjoy today.

CONCLUSION

In conclusion, the Kyoto Agreement and the President's general approach to climate change reflect the insight of economic analysis. The Kyoto Agreement includes key provisions on international trading and clean development projects. The President's approach relies on market incentives -- first, with a system of tax cuts and R&D, and then later with a market-based system of tradeable permits -- to ensure that our objectives are achieved as efficiently as possible.

I look forward to continuing to work with members of this Committee, as well as other interested parties, in further analyzing the Kyoto Agreement and evaluating the net effects of reducing greenhouse gas emissions. It is my hope that economic analysis will continue to play a key role in designing policies in this area.

I welcome your questions.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Janet L. Yellen (CN=Janet L. Yellen/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME: 9-FEB-1998 10:08:13.00

SUBJECT: Revised statement to distribute

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Thank you all for coming in today to hear about the *1998 Economic Report of the President*.

As you know, Congress requires the President to submit each year a Report that describes the state of the US economy. But, the *Report* has also traditionally been a vehicle for presenting a broad range of analyses of current economic policy issues. This year, in addition to a chapter on macroeconomic policy and performance, the *Report* contains a chapter on the economic well-being of families and children, and a chapter on racial and ethnic inequality--two central concerns of this Administration. The report also contains two chapters on microeconomic topics, one focusing on improving economic efficiency in the areas of health and environmental policy, and one discussing recent trends in antitrust policy. Finally, it includes an international chapter, which focuses on the benefits of opening international markets.

Let me first touch briefly on the current state of the economy, and then discuss the broad and lasting benefits of a "high-employment economy" -- which is one of the key themes of this year's *Economic Report*. I will then talk specifically about the Chapters on Race and Children.

STATE OF THE ECONOMY

Our Nation's economy is the strongest it has been in a generation. In 1997, growth was exceptional and job creation was vigorous while inflation declined. Real GDP grew 3.9 percent, and employment rose by 3.2 million, for an average rate of 267,000 jobs per month. The unemployment rate dropped below 5 percent for the first time in 24 years, yet core inflation rose

just 2.2 percent. And, this occurred during a period of historic deficit reduction: the Federal budget deficit, which reached \$290 billion in the 1992 fiscal year, declined to only \$22 billion in fiscal 1997. And, as you know, the President recently submitted to Congress a budget for fiscal 1999 that projects a balanced budget for the first time since 1969.

As 1998 begins, the prospects for continued growth with high employment and low inflation are excellent. The economy is remarkably free of the symptoms that often presage an economic downturn -- that is, inflationary pressures remain well under control; inventories are lean in comparison with sales; and there is no evidence of any financial imbalance that could disrupt the expansion. Economic turmoil in East Asia, assuming that stability is restored, may work to permit continued U.S. growth and job creation with a more moderate outlook for interest rates. Our economy is in fundamentally sound shape and well-equipped to handle any unexpected bouts of rougher weather.

THE BENEFITS OF A HIGH EMPLOYMENT ECONOMY

The exceptionally strong economy that we are enjoying today is due in part to the sound and credible economic strategy put in place by the Clinton Administration. The Administration's strategy has focused on getting the fundamentals right -- reducing the budget deficit, investing in the American people, and opening markets at home and abroad. These were the right policies to stimulate the job creation needed to move the economy to full employment.

The *Report* underscores the enormous economic and social benefits to a "high-employment economy." An economy with strong job creation and low unemployment can make a broad and lasting contribution to the well-being of the American people. Let me talk

briefly about some of these benefits:

First, a high employment economy produces certain *direct and measurable benefits*.

Returning the economy to full employment yields a direct and measurable benefit to our nation by ensuring that the economy's resources--human and material--are not squandered by needless cyclical unemployment. On average, reducing the unemployment rate by a percentage point raises output by approximately 2 percent; in 1997, 2 percent of GDP was \$160 billion, or roughly \$600 for every American man, woman, and child. Wasted resources from not producing at potential, together with the human cost of unemployment, are intolerable; the elimination of this waste is the principal benefit of a sustained return to full employment.

Second, a high-employment economy can *reduce long-term joblessness*. A tight labor market encourages participation by those who might otherwise be forced to sit on the sidelines, and makes it easier to absorb less skilled or younger and more inexperienced workers into the labor force. These new labor market entrants gain much-needed job experience, building the skills they will need to hold down a job in the future. The experience of some European countries illustrates this point: in Europe, the prolonged stagnation or recession may have led to a permanent increase in unemployment there, as the unemployed and the never-employed have seen their skills atrophy or become obsolete. For this reason, running a high-employment economy, may be one of the surest ways to ensure that an unacceptably large fraction of our citizens are not consigned to long-term joblessness and economic marginalization.

Third, it will *help move welfare recipients into the workforce*. Keeping the unemployment rate low and job growth high is necessary if we are to move current welfare recipients into the work force. Early, indirect evidence on this point is encouraging: employment

and labor force participation rates among single women who maintain families--about two-thirds of whom have children under 18--have increased in the past few years. This is probably in part the result of recent welfare reform: the greatest acceleration in employment rates has occurred among those single women most likely to be affected by welfare reform, namely, those with young children. Nevertheless, it is obvious that fostering an economy in which job opportunities are plentiful plays a crucial part in aiding the transition from welfare to work.

Fourth, it *enhances personal economic security*. Knowing that work is available to those who seek it, at wages sufficient to keep them and their families out of poverty, is a key to personal economic security. A tight labor market increases the confidence of job losers that they will be able to return to work, lures discouraged workers back into the labor force, enhances the prospects of those already at work to get ahead, enables those who want or need to switch jobs to do so without a long period of joblessness, and lowers the duration of a typical unemployment spell.

And, finally, a high-employment economy *may help reverse the trend toward greater economic inequality*. From the 1980s until the early 1990s, the economy's ability to reduce poverty through growth alone was hampered by a strong headwind: for the poorest Americans, the benefits of an expanding economy were offset by the sustained declines in wages at the low end of the earnings distribution. Since 1993, living standards for all Americans are on the rise, especially for those at the bottom of the income distribution. The poverty rate fell to 13.7 percent in 1996, from 15.1 percent in 1993; the poverty rate for black Americans is at a historical low, and in 1997 unemployment among blacks fell to its lowest rate since 1973. Since 1993, household income has grown in each quintile of the income distribution, with the largest

percentage increase going to the poorest members of our society. Maintaining a full-employment economy is essential if this progress is to continue.

CHALLENGES IN A CHANGING ECONOMY

Although our economy is strong and Americans are working in record numbers, our Nation still faces other, broader challenges as we move into the 21st century. The President addressed these challenges in the SOTU and presented a variety of proposals there and in his budget. The *Economic Report of the President* also discusses several of these challenges. In the remainder of my remarks, I will focus on 2 of the key agenda areas: the challenges of improving the wellbeing of America's children and enhancing the quality and availability of childcare and issues relating to racial and ethnic economic inequality.

Chapter 3 of this year's *Report* assesses the economic situation of children and documents that although an unacceptable fraction of America's children still live in poverty, there have been notable improvements in children's well-being over the past three years. Children have shared in the benefits of the recent economic expansion: the official child poverty rate has fallen by 2.2 percentage points since 1993. And, under a broader measure of poverty which includes both taxes (like the EITC) and non-medical in-kind benefits, the poverty rate for children has decreased by 4.7 percentage points from 1993 to 1996, and is now below its level in 1989. The primary reason for this drop is because more families were able to earn enough money to bring their incomes above the poverty line--a benefit of the strong economy. Child poverty has also declined due to an expansion of the Earned Income Tax Credit.

Other measures of children's well-being have also improved. The share of children living in households without enough to eat has fallen since the early 1990s, and the share of

households with children living in housing in poor physical condition has also declined since the late 1970s. There have also have been increases in low-income children's utilization of basic health care services, and continued improvements in mortality rates of infants and young children during the 1990s.

Despite these improvements, far too many children remain economically vulnerable. One in five children, and nearly one in two children in female-headed families, had incomes below the poverty level in 1996. Adequacy of family income is a critical predictor of both the present and future well-being of children. Children who grow up in low-income families score lower on standardized tests, complete fewer years of school and tend to have lower earnings. With respect to medical care, one in seven children did not have access to health insurance in 1996, despite substantial increases in Medicaid coverage since 1989, due to a concurrent decline in children's private health insurance coverage; one in nine children lived in households which paid more than half their income for housing in 1995. Finally, a large share of children are not attaining even a basic levels of proficiency in science, mathematics, and reading. Thus, too many children are at risk of current and future hardship.

For this reason, the President has developed a number of initiatives to strengthen the economic and social supports for America's children. I will not review all of these in detail. They include the Children's Health Insurance Program, which offers \$24 billion over five years to States to expand health insurance for uninsured children. For fiscal 1999, the President has proposed to expand the supply of affordable housing for low-income families, through a 40% increase in the low-income housing tax credit, and through continued expansions in the HOME Investments Partnership Program. The President has also proposed two major new initiatives

to improve the quality of elementary and secondary education. The first would invest \$12.4 billion over 7 years to bring down class sizes in public schools in grades 1 to 3 from a nationwide average of 22 pupils in to an average of 18. The second would provide tax credits to pay interest on nearly in \$22 billion in bonds to support new construction and renovation of public school buildings.

The ERP also documents changes in family life which make childcare a critical issue. Today, more American workers are faced with the need to juggle the demands of the workplace with the demands of family and home. In 1997, over 60 percent of married mothers with a child under six were working--compared to 30 percent twenty years ago. For most of these families, it is difficult to afford high quality day care. In 1993, child care expenditures represented 25 percent of annual income for those families with annual incomes below \$14,400 with employed mothers and preschool children in paid care. Comparable families with annual incomes above \$54,000 spent only 6 percent of their income on child care. There is also reason to be concerned about the quality of child care: A recent study of regulated child care providers found that 86 percent of child care centers surveyed provided mediocre or poor care when judged from the perspective of child development, and 12 percent were of such poor quality that the children's health and safety needs were only partly met.

The President's 1999 budget therefore includes a \$21 billion increase in funding for child care, to make it accessible to more families and to raise its quality.

A second challenge facing America relates to the economic progress of different racial and ethnic groups. Chapter 4 of the *Economic Report* reviews trends in racial and ethnic economic inequality and concludes that this country's longstanding goal of achieving racial

equality has not yet been attained. Although there has been progress in narrowing economic gaps among racial and ethnic groups in the postwar period, it has been very uneven, with rapid progress in the 1960s and early 1970s, followed by 20 years of stagnation between the early to mid-1970s to the early 1990s.

The current expansion has brought signs of renewed progress: since 1993, for example, the median income of black families has risen more rapidly than that of non-Hispanic whites; in 1996, black family income reached a new high, and the poverty rate for blacks fell to a new low. Data compiled under the Home Mortgage Disclosure Act show that between 1993 and 1996, conventional home mortgage lending to blacks rose 67% and to Hispanics, 49%--much larger than the percentage increase in conventional home mortgage lending overall during this period. Such developments raise hope for renewed and sustained progress toward economic equality.

Nevertheless, substantial disparities in economic status across racial and ethnic groups persist. For example, income gaps between black and white families are as large today as they were 30 years ago. The median wealth of white families is by some estimates 10 times that of black and Hispanic families. Poverty rates of blacks and Hispanics are almost triple those of non-Hispanic whites; and differences in child poverty rates across racial and ethnic groups are stark, with about 40 percent of black and Hispanic children in poverty in comparison with about 16% for whites.

Because the largest share of most families' income is derived from earnings, labor market outcomes across racial groups are important determinants of economic inequality across racial groups. After increasing rapidly between 1965 and the mid 1970s, the wages of black and Hispanic men and women relative to those of non-Hispanic whites have stagnated or declined

between the mid 1970s and early 1990s. (The black-white ratio of median weekly earnings for full-time workers 25 and over in 1997 was 0.74 for men and 0.83 for women; 0.63 for Hispanic men and 0.71 for Hispanic women.) Part of this stagnation/erosion of relative pay reflects a society wide trend toward rising income inequality, due to an increase in the demand for more educated workers reflected in an increase in the skilled-unskilled earnings differential. Because blacks, Hispanics and American Indians are less likely to hold a college degree than whites and Asians, these groups have been hurt disproportionately by changes in the economy that have raised the demand for college educated workers. Over the last 30 years, educational attainment has increased for all groups and blacks largely closed the high school attainment gap with whites; however, the college completion gap widened in the 1980s, just as the reward to college educated workers rose.

Although differences in education across racial groups explain a portion of the trend toward rising earnings inequality since the mid-1970s, racial earnings gaps have also increased among individuals with similar educational levels, suggesting that other factors may also be at work. For example, since the mid-1970s the wages of young black college graduates have fallen relative to those of their white counterparts. Researchers debate whether this trend reflects unmeasured skill differences potentially related to school quality, to discrimination in the labor market, or to other factors.

Clearly, more needs to be done to promote equality of opportunity for all Americans. Many of the Administration's current and proposed policies, such as those that encourage community empowerment and those that promote improved quality and accessibility of education at all levels are intended to address these disparities. Furthermore, the

Administration's 1999 budget proposal signals a renewed federal commitment to strong and effective enforcement of the Nation's civil rights laws. It increases funding for federal civil rights enforcement agencies by more than 16 percent. And, this January, in a Martin Luther King Day address, Vice President Gore announced the Administration's package of proposed civil rights enforcement initiatives. In addition to increasing funding, these initiatives place greater emphasis on the nonlitigation and prevention remedies for discrimination, and provide for better coordination across Federal agencies and offices. The President has also initiated and devoted great energy and resources to his Initiative on Race, an effort to further a national dialogue on race in America.

CONCLUSION

Let me conclude by saying that over the past year the performance of the U.S. economy has been extraordinary: strong growth and low unemployment combined with low and stable inflation. And there are enormous social and economic benefits to our high-employment economy. But that success--and the economy's present strength--cannot be taken for granted. Rather, there are still long-term changes and challenges facing our nation as we enter the 21st Century. The Clinton Administration has an agenda for helping to equip the American people with the skills and flexibility and security to take advantages of the opportunities and possibilities in this new economic era. We must finish the job of balancing the budget while investing in people and opening markets at home and abroad. At the same time, we must ensure that all Americans, regardless of age or origin, have the skills they need to prosper in a world of change and opportunity.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Janet L. Yellen (CN=Janet L. Yellen/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME: 9-FEB-1998 09:31:12.00

SUBJECT: ERP Statement and CNP Speech

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READ:UNKNOWN

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READ:UNKNOWN

TO: Rebecca M. Blank (CN=Rebecca M. Blank/OU=CEA/O=EOP @ EOP [CEA])
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and employment rose by 3.2 million, for an average rate of 267,000 jobs per month. The unemployment rate dropped below 5 percent for the first time in 24 years, yet core inflation rose just 2.2 percent. And, this occurred during a period of historic deficit reduction: the Federal budget deficit, which reached \$290 billion in the 1992 fiscal year, declined to only \$22 billion in fiscal 1997. And, as you know, the President recently submitted to Congress a budget for fiscal 1999 that projects a balanced budget for the first time since 1969.

As 1998 begins, the prospects for continued growth with high employment and low inflation are excellent. The economy is remarkably free of the symptoms that often presage an economic downturn -- that is, inflationary pressures remain well under control; inventories are lean in comparison with sales; and there is no evidence of any financial imbalance that could disrupt the expansion. Economic turmoil in East Asia, assuming that stability is restored, may work to permit continued U.S. growth and job creation with a more moderate outlook for interest rates. Our economy is in fundamentally sound shape and well-equipped to handle any unexpected bouts of rougher weather.

THE BENEFITS OF A HIGH EMPLOYMENT ECONOMY

The exceptionally strong economy that we are enjoying today is due in part to the sound and credible economic strategy put in place by the Clinton Administration. The Administration's strategy has focused on getting the fundamentals right -- reducing the budget deficit, investing in the American people, and opening markets at home and abroad. These were the right policies to stimulate the job creation needed to move the economy to full employment.

The Report underscores the enormous economic and social benefits to a

“high-employment economy.” An economy with strong job creation and low unemployment can make a broad and lasting contribution to the well-being of the American people. Let me talk briefly about some of these benefits:

First, a high employment economy produces certain *direct and measurable benefits*. Returning the economy to full employment yields a direct and measurable benefit to our nation by ensuring that the economy’s resources--human and material--are not squandered by needless cyclical unemployment. On average, reducing the unemployment rate by a percentage point raises output by approximately 2 percent; in 1997, 2 percent of GDP was \$160 billion, or roughly \$600 for every American man, woman, and child. Wasted resources from not producing at potential, together with the human cost of unemployment, are intolerable; the elimination of this waste is the principal benefit of a sustained return to full employment.

Second, a high-employment economy can *reduce long-term joblessness*. A tight labor market encourages participation by those who might otherwise be forced to sit on the sidelines, and makes it easier to absorb less skilled or younger and more inexperienced workers into the labor force. These new labor market entrants gain much-needed job experience, building the skills they will need to hold down a job in the future. The experience of some European countries illustrates this point: in Europe, the prolonged stagnation or recession may have led to a permanent increase in unemployment there, as the unemployed and the never-employed have seen their skills atrophy or become obsolete. For this reason, running a high-employment economy, may be one of the surest ways to ensure that an unacceptably large fraction of our citizens are not consigned to long-term joblessness and economic marginalization.

Third, it will *help move welfare recipients into the workforce*. Keeping the

unemployment rate low and job growth high is necessary if we are to move current welfare recipients into the work force. Early, indirect evidence on this point is encouraging: employment and labor force participation rates among single women who maintain families--about two-thirds of whom have children under 18--have increased in the past few years. This is probably in part the result of recent welfare reform: the greatest acceleration in employment rates has occurred among those single women most likely to be affected by welfare reform, namely, those with young children. Nevertheless, it is obvious that fostering an economy in which job opportunities are plentiful plays a crucial part in aiding the transition from welfare to work.

Fourth, it *enhances personal economic security*. Knowing that work is available to those who seek it, at wages sufficient to keep them and their families out of poverty, is a key to personal economic security. A tight labor market increases the confidence of job losers that they will be able to return to work, lures discouraged workers back into the labor force, enhances the prospects of those already at work to get ahead, enables those who want or need to switch jobs to do so without a long period of joblessness, and lowers the duration of a typical unemployment spell.

And, finally, a high-employment economy *may help reverse the trend toward greater economic inequality*. From the 1980s until the early 1990s, the economy's ability to reduce poverty through growth alone was hampered by a strong headwind: for the poorest Americans, the benefits of an expanding economy were offset by the sustained declines in wages at the low end of the earnings distribution. Since 1993, living standards for all Americans are on the rise, especially for those at the bottom of the income distribution. The poverty rate fell to 13.7 percent in 1996, from 15.1 percent in 1993; the poverty rate for black Americans is at a historical low,

and in 1997 unemployment among blacks fell to its lowest rate since 1973. Since 1993, household income has grown in each quintile of the income distribution, with the largest percentage increase going to the poorest members of our society. Maintaining a full-employment economy is essential if this progress is to continue.

CHALLENGES IN A CHANGING ECONOMY

Although our economy is strong and Americans are working in record numbers, our Nation still faces other, broader challenges as we move into the 21st century. The President addressed these challenges in the SOTU and presented a variety of proposals there and in his budget. The ERP also discusses several of these challenges. In the remainder of my remarks, I will focus on 2 of the key agenda areas: the challenges of improving the wellbeing of America's children and enhancing the quality and availability of childcare and issues relating to racial and ethnic economic inequality.

A major policy challenge involves children and issues related to childcare.

Chapter 3 of this year's *Report* assesses the economic situation of children and documents that although an unacceptable fraction of America's children still live in poverty, there have been notable improvements in children's well-being over the past three years. Children have shared in the benefits of the recent economic expansion: the official child poverty rate has fallen by 2.2 percentage points since 1993. And, under a broader measure of poverty which includes both taxes (like the EITC) and non-medical in-kind benefits, the poverty rate for children has decreased by 4.7 percentage points from 1993 to 1996, and is now below its level in 1989. The primary reason for this drop is because more families were able to earn enough money to bring their incomes above the poverty line--a benefit of the strong economy. Child poverty has also

declined due to an expansion of the Earned Income Tax Credit.

Other measures of children's well-being have also improved. The share of children living in households without enough to eat has fallen since the early 1990s, and the share of households with children living in housing in poor physical condition has also declined since the late 1970s. There have also been increases in low-income children's utilization of basic health care services, and continued improvements in mortality rates of infants and young children during the 1990s.

Despite these improvements, far too many children remain economically vulnerable. One in five children, and nearly one in two children in female-headed families, had incomes below the poverty level in 1996. Adequacy of family income is a critical predictor of both the present and future well-being of children. Children who grow up in low-income families score lower on standardized tests, complete fewer years of school and tend to have lower earnings. With respect to medical care, one in seven children did not have access to health insurance in 1996, despite substantial increases in Medicaid coverage since 1989, due to a concurrent decline in children's private health insurance coverage; one in nine children lived in households which paid more than half their income for housing in 1995. Finally, a large share of children are not attaining even a basic levels of proficiency in science, mathematics, and reading. Thus, too many children are at risk of current and future hardship.

For this reason, the President has developed a number of initiatives to strengthen the economic and social supports for America's children. I will not review all of these in detail. They include the Children's Health Insurance Program, which offers \$24 billion over five years to States to expand health insurance for uninsured children. For fiscal 1999, the President has

proposed to expand the supply of affordable housing for low-income families, through a 40% increase in the low-income housing tax credit, and through continued expansions in the HOME Investments Partnership Program. The President has also proposed two major new initiatives to improve the quality of elementary and secondary education. The first would invest \$12.4 billion over 7 years to bring down class sizes in public schools in grades 1 to 3 from a nationwide average of 22 pupils in to an average of 18. The second would provide tax credits to pay interest on nearly in \$22 billion in bonds to support new construction and renovation of public school buildings.

The ERP also documents changes in family life which make childcare a critical issue. Today, more American workers are faced with the need to juggle the demands of the workplace with the demands of family and home. In 1997, over 60 percent of married mothers with a child under six were working--compared to 30 percent twenty years ago. For most of these families, it is difficult to afford high quality day care. In 1993, child care expenditures represented 25 percent of annual income for those families with annual incomes below \$14,400 with employed mothers and preschool children in paid care. Comparable families with annual incomes above \$54,000 spent only 6 percent of their income on child care. There is also reason to be concerned about the quality of child care: A recent study of regulated child care providers found that 86 percent of child care centers surveyed provided mediocre or poor care when judged from the perspective of child development, and 12 percent were of such poor quality that the children's health and safety needs were only partly met.

The President's 1999 budget therefore includes a \$21 billion increase in funding for child care, to make it accessible to more families and to raise its quality. **(I will not review the full set**

of policies in detail.)

A second challenge facing America relates to the economic progress of different racial and ethnic groups. Chapter 4 of the *Economic Report* reviews trends in racial and ethnic economic inequality and concludes that this country's longstanding goal of achieving racial equality has not yet been attained. Although there has been progress in narrowing economic gaps among racial and ethnic groups in the postwar period, it has been very uneven, with rapid progress in the 1960s and early 1970s, followed by 20 years of stagnation between the early to mid-1970s to the early 1990s.

The current expansion has brought signs of renewed progress: since 1993, for example, the median income of black families has risen more rapidly than that of non-Hispanic whites; in 1996, black family income reached a new high, and the poverty rate for blacks fell to a new low. Data compiled under the Home Mortgage Disclosure Act show that between 1993 and 1996, conventional home mortgage lending to blacks rose 67% and to Hispanics, 49%--much larger than the percentage increase in conventional home mortgage lending overall during this period. Such developments raise hope for renewed and sustained progress toward economic equality.

Nevertheless, substantial disparities in economic status across racial and ethnic groups persist. For example, income gaps between black and white families are as large today as they were 30 years ago. The median wealth of white families is by some estimates 10 times that of black and Hispanic families. Poverty rates of blacks and Hispanics are almost triple those of non-Hispanic whites; and differences in child poverty rates across racial and ethnic groups are stark, with about 40 percent of black and Hispanic children in poverty in comparison with about 16% for whites.

Because the largest share of most families' income is derived from earnings, labor market outcomes across racial groups are important determinants of economic inequality across racial groups. After increasing rapidly between 1965 and the mid 1970s, the wages of black and Hispanic men and women relative to those of non-Hispanic whites have stagnated or declined between the mid 1970s and early 1990s. (The black-white ratio of median weekly earnings for full-time workers 25 and over in 1997 was 0.74 for men and 0.83 for women; 0.63 for Hispanic men and 0.71 for Hispanic women.) Part of this stagnation/erosion of relative pay reflects a society wide trend toward rising income inequality, due to an increase in the demand for more educated workers reflected in an increase in the skilled-unskilled earnings differential. Because blacks, Hispanics and American Indians are less likely to hold a college degree than whites and Asians, these groups have been hurt disproportionately by changes in the economy that have raised the demand for college educated workers. Over the last 30 years, educational attainment has increased for all groups and blacks largely closed the high school attainment gap with whites; however, the college completion gap widened in the 1980s, just as the reward to college educated workers rose.

Although differences in education across racial groups explain a portion of the trend toward rising earnings inequality since the mid-1970s, racial earnings gaps have also increased among individuals with similar educational levels, suggesting that other factors may also be at work. For example, since the mid-1970s the wages of young black college graduates have fallen relative to those of their white counterparts. Researchers debate whether this trend reflects unmeasured skill differences potentially related to school quality, to discrimination in the labor market, or to other factors.

Clearly, more needs to be done to promote equality of opportunity for all Americans. Many of the Administration's current and proposed policies, such as those that encourage community empowerment and those that promote improved quality and accessibility of education at all levels are intended to address these disparities. Furthermore, the Administration's 1999 budget proposal signals a renewed federal commitment to strong and effective enforcement of the Nation's civil rights laws. It increases funding for federal civil rights enforcement agencies by more than 16 percent. And, this January, in a Martin Luther King Day address, Vice President Gore announced the Administration's package of proposed civil rights enforcement initiatives. In addition to increasing funding, these initiatives place greater emphasis on the nonlitigation and prevention remedies for discrimination, and provide for better coordination across Federal agencies and offices. The President has also initiated and devoted great energy and resources to his Initiative on Race, an effort to further a national dialogue on race in America.

CONCLUSION

Let me conclude by saying our Report concludes that over the past year the performance of the U.S. economy has been extraordinary: strong growth and low unemployment combined with low and stable inflation. And there are enormous social and economic benefits to our high-employment economy. But that success--and the economy's present strength--cannot be taken for granted. Rather, there are still long-term changes and challenges facing our nation as we enter the 21st Century. The Clinton Administration has an agenda for helping to equip the American people with the skills and flexibility and security to take advantages of the opportunities and possibilities in this new economic era. We must finish the job of balancing the

budget while investing in people and opening markets at home and abroad. At the same time, we must ensure that all Americans, regardless of age or origin, have the skills they need to prosper in a world of change and opportunity.

The 1998 Economic Report of the President

Dr. Janet Yellen
Chairman, President's Council of Economic Advisers
Center for National Policy
February 10, 1998

Thank you. It is a pleasure to be here. I want to thank the Center for National Policy for again hosting the release of the annual *Economic Report of the President*. In particular, I want to thank Mo Steinbruner and Mike Pietro (pronounced "Pee-tro") for all of their help in arranging the event.

I would also like to thank my colleagues--Jeff Frankel and Rebecca Blank--for all their hard work and dedication in producing this year's *Report*.

Finally, I want to thank the staff of the Council, many of whom are here with us today. During the past several months, the staff have been working long nights and weekends to produce the *Economic Report*. And, because the other work of the Council doesn't disappear, they are in effect working two jobs with two shifts. I appreciate all of their hard work, their thoughtful insights and their good spirits. Their dedication and professionalism deserve special recognition.

As you probably know, the Employment Act of 1946, which created the Council of Economic Advisers, requires the President to submit an *Economic Report* to the Congress each year. The Employment Act, together with its later amendments, gave the Federal government responsibility for stabilizing short-run economic fluctuations, promoting balanced and

noninflationary economic growth, and fostering low unemployment. One purpose of the *Economic Report* is to tell Congress whether we have met those responsibilities. I am happy to say, in this the fifty-second year after the Act, that the state of the economy is truly extraordinary.

I will elaborate on this point in a moment, but I would also like to note that the *Report of the Council of Economic Advisers*, has also traditionally been a vehicle for presenting a broad range of analyses of current economic policy issues. This year, in addition to a chapter on macroeconomic policy and performance, the Report contains a chapter on the economic well-being of families and children, and a chapter on racial and ethnic inequality--two central concerns of this Administration. The report also contains two chapters on microeconomic topics, one focusing on improving economic efficiency in the areas of health and environmental policy, and one discussing recent trends in antitrust policy. Finally, the international chapter focuses on the benefits of opening international markets.

In the remainder of my remarks I will touch briefly on the current state of the economy, and then discuss the broad and lasting benefits of a "high-employment economy" -- which is one of the key themes of this year's *Economic Report*. I will then talk about some of the key challenges that still face our nation as we move into the 21st Century.

STATE OF THE ECONOMY

Our Nation's economy is the strongest it has been in a generation. In 1997, growth was strong and job creation was vigorous while inflation declined. Real GDP grew 3.9 percent, and employment rose by 3.2 million, for an average rate of 267,000 jobs per month. The unemployment rate dropped below 5 percent for the first time in 24 years, yet core inflation rose just 2.2 percent. And, this occurred during a period of historic deficit reduction: the Federal

budget deficit, which reached \$290 billion in the 1992 fiscal year, declined to only \$22 billion in fiscal 1997. And, as you know, the President recently submitted to Congress a budget for fiscal 1999 that projects a balanced budget for the first time since 1969.

As 1998 begins, the prospects for continued growth with high employment and low inflation are excellent. The economy is remarkably free of the symptoms that often presage an economic downturn -- that is, inflationary pressures remain well under control; inventories are lean in comparison with sales; and there is no evidence of any financial imbalance that could disrupt the expansion. Economic turmoil in East Asia, assuming that stability is restored, may work to permit continued U.S. growth and job creation with a more moderate outlook for interest rates. Our economy is in fundamentally sound shape and well-equipped to handle any unexpected bouts of rougher weather.

THE BENEFITS OF A HIGH EMPLOYMENT ECONOMY

The exceptionally strong economy that we are enjoying today is due in part to the sound and credible economic strategy put in place by the Clinton Administration. The Administration's strategy has focused on getting the fundamentals right -- reducing the budget deficit, investing in the American people, and opening markets at home and abroad. These were the right policies to stimulate the job creation needed to move the economy to full employment. And, they are the right policies for attacking the longer term problems of sluggish productivity growth and widening income inequality that had afflicted our nation's economy since the early 1970s.

The *Report* underscores the enormous economic and social benefits to a "high-employment economy." An economy with strong job creation and low unemployment

can make a broad and lasting contribution to the well-being of the American people. Let me talk briefly about some of these benefits:

First, a high employment economy produces certain *direct and measurable benefits*. Returning the economy to full employment yields a direct and measurable benefit to our nation by ensuring that the economy's resources--human and material--are not squandered by needless cyclical unemployment. On average, reducing the unemployment rate by a percentage point raises output by approximately 2 percent; in 1997, 2 percent of GDP was \$160 billion, or roughly \$600 for every American man, woman, and child. Wasted resources from not producing at potential, together with the human cost of unemployment, are intolerable; the elimination of this waste is the principal benefit of a sustained return to full employment.

Second, a high-employment economy can *reduce long-term joblessness*. A tight labor market encourages participation by those who might otherwise be forced to sit on the sidelines, and makes it easier to absorb less skilled or younger and more inexperienced workers into the labor force. These new labor market entrants gain much-needed job experience, building the skills they will need to hold down a job in the future. The experience of some European countries illustrates this point: in Europe, the prolonged stagnation or recession may have led to a permanent increase in unemployment there, as the unemployed and the never-employed have seen their skills atrophy or become obsolete. For this reason, running a high-employment economy, may be one of the surest ways to ensure that an unacceptably large fraction of our citizens are not consigned to long-term joblessness and economic marginalization.

Third, it will *help move welfare recipients into the workforce*. Keeping the unemployment rate low and job growth high is necessary if we are to move current welfare

recipients into the work force. Early, indirect evidence on this point is encouraging: employment and labor force participation rates among single women who maintain families--about two-thirds of whom have children under 18--have increased in the past few years. This is probably in part the result of recent welfare reform: the greatest acceleration in employment rates has occurred among those single women most likely to be affected by welfare reform, namely, those with young children. Nevertheless, it is obvious that fostering an economy in which job opportunities are plentiful plays a crucial part in aiding the transition from welfare to work.

Fourth, it *enhances personal economic security*. Knowing that work is available to those who seek it, at wages sufficient to keep them and their families out of poverty, is a key to personal economic security. A tight labor market increases the confidence of job losers that they will be able to return to work, lures discouraged workers back into the labor force, enhances the prospects of those already at work to get ahead, enables those who want or need to switch jobs to do so without a long period of joblessness, and lowers the duration of a typical unemployment spell.

And, finally, a high-employment economy *may help reverse the trend toward greater economic inequality*. From the 1980s until the early 1990s, the economy's ability to reduce poverty through growth alone was hampered by a strong headwind: for the poorest Americans, the benefits of an expanding economy were offset by the sustained declines in wages at the low end of the earnings distribution. Since 1993, living standards for all Americans are on the rise, especially for those at the bottom of the income distribution. The poverty rate fell to 13.7 percent in 1996, from 15.1 percent in 1993; the poverty rate for black Americans is at a historical low, and in 1997 unemployment among blacks fell to its lowest rate since 1973. Since 1993,

household income has grown in each quintile of the income distribution, with the largest percentage increase going to the poorest members of our society. Maintaining a full-employment economy is essential if this progress is to continue.

CHALLENGES IN A CHANGING ECONOMY

Yes, our economy is strong and Americans are working in record numbers. And there are broad and lasting benefits to sustaining a healthy economy with strong job creation and low unemployment.

But our Nation still faces other, broader challenges as we move into the 21st century. In many ways the U.S. economy today is very different from that in which our parents and grandparents lived and worked. Today, 24 percent of families are headed by a single parent, compared with 14 percent 25 years ago. Three in five married mothers with children under 6 are in the work force--twice as large a share as in 1970. And the U.S. population is aging-- in the next century there will be fewer workers for every retiree, making issues related to retirement security more and more important. The nature of the workplace also has changed significantly: few American workers expect to be working for the same employer--or even to be in the same career--when they retire. Information technology is dominating industry: in the 1950s the information technology industry barely existed; today it employs a larger share of the labor force than the automobile industry did in the 1950s and 1960s. Because information and technology and global commerce are leading the transformation of the global economy, the new strength of a nation will be found in the skills, knowledge and imagination of its people.

The Clinton Administration's agenda is designed to deal with these changes and the challenges they pose. It is designed to equip the American people with the strength, the skills,

the security and the flexibility needed to reap the rewards of our growing, changing economy.

The President recently laid out this broad agenda in his State of the Union and again in his FY1999 budget. In the remainder of my remarks, I will focus on 3 of the key agenda areas: retirement security, the challenges of childcare and racial and ethnic economic inequality.

First, let me talk about issues related to the aging of the population, which we address in Chapter 1 of the *Economic Report* -- reforming Social Security.

For almost 60 years, Social Security has provided Americans with income security in retirement and protection against loss of family income due to disability or death. A large share of elderly Americans, particularly those with low incomes, rely on Social Security as their primary source of pension income in retirement. The system has enjoyed dramatic success in reducing poverty rates among older Americans.

Today, however, many Americans fear that Social Security will not be there for them when they are ready to retire. This concern reflects the widespread recognition that, under current "intermediate" projections of the Social Security trustees, the system faces a long-term funding gap: beginning in 2012, unless the system is reformed by then, the government will be unable to pay current Social Security benefits in full out of current payroll taxes; it will then have to draw down the system's trust fund, and by 2029 those funds will be exhausted. If still nothing has been done, the government would then face several options which it could adopt singly or in combination: it could reduce benefits until they are in line with collections, raise payroll taxes to cover an unchanged level of benefits, or finance the shortfall from other parts of the budget, by raising other taxes, cutting expenditures on other programs, or borrowing and allowing the budget deficit to increase. One or more of these measures will have to be taken so long as no

changes are made to the present system.

Although the seriousness of the financial imbalance facing Social Security should not be downplayed, its magnitude is not so large as to be insurmountable, particularly if early action is taken. For example, even if nothing is done and the trust fund is exhausted, payroll taxes will still be sufficient to permanently finance roughly 75 percent of benefits. Put another way, the difference between the anticipated income and the anticipated expenditures of the OASDI (Old Age, Survivors', and Disability Insurance) program over the next 75 years amounts to around 2¼ percentage points of taxable payroll, or approximately 1 percent of GDP. These facts suggest that the problem of placing Social Security on a sound financial footing can admit of eventual resolution.

The President is committed to Saving Social Security First. He has proposed reserving 100 percent of any budget surplus until steps have been taken to reform Social Security. He has also proposed a process to devise an appropriate solution over the next 2 years.

A second major policy challenge involves children and issues related to childcare.

Chapter 3 of this year's *Report* documents that there have been notable improvements in children's well-being over the past three years, although an unacceptable fraction of America's children still live in poverty. Children have shared in the benefits of the recent economic expansion: the official child poverty rate has fallen by 2.2 percentage points since 1993. And, under a broader measure of poverty which includes both taxes (like the EITC) and non-medical in-kind benefits, the poverty rate for children has decreased by 4.7 percentage points from 1993 to 1996, and is now below its level in 1989. The primary reason for this drop is because more families were able to earn enough money to bring their incomes above the poverty line. Child

poverty has also declined due to an expansion of the Earned Income Tax Credit.

Other measures of children's well-being have also improved. The share of children living in households without enough to eat has fallen since the early 1990s, and the share of households with children living in housing in poor physical condition has also declined since the late 1970s. There have also have been increases in low-income children's utilization of basic health care services, and continued improvements in mortality rates of infants and young children during the 1990s.

Despite these improvements, many children remain economically vulnerable. One in five children, and nearly one in two children in female-headed families, had incomes below the poverty level in 1996. Adequacy of family income is a critical predictor of both the present and future well-being of children. Children who grow up in low-income families score lower on standardized tests, complete fewer years of school and tend to have lower earnings. With respect to medical care, one in seven children did not have access to health insurance in 1996, despite substantial increases in Medicaid coverage since 1989, due to a concurrent decline in children's private health insurance coverage; one in nine children lived in households which paid more than half their income for housing in 1995. Finally, a large share of children are not attaining even a basic levels of proficiency in science, mathematics, and reading. Thus, too many children are at risk of current and future hardship.

For this reason, the President has developed a number of initiatives to strengthen the economic and social supports for America's children. This year, the Administration has begun to implement the Children's Health Insurance Program, which offers \$24 billion over five years to States to expand health insurance for uninsured children. For fiscal 1999, the President has

proposed to expand the supply of affordable housing for low-income families, through a 40% increase in the low-income housing tax credit, and through continued expansions in the HOME Investments Partnership Program. The President has also proposed two major new initiatives to improve the quality of elementary and secondary education. The first would invest \$12.4 billion over 7 years to bring down class sizes in public schools in grades 1 to 3 from a nationwide average of 22 pupils in to an average of 18. The second would provide tax credits to pay interest on nearly in \$22 billion in bonds to support new construction and renovation of public school buildings.

Today, more American workers are faced with the need to juggle the demands of the workplace with the demands of family and home. In 1997, over 60 percent of married mothers with a child under six were working--compared to 30 percent twenty years ago. For most of these families, it is difficult to afford high quality day care. In 1993, child care expenditures represented 25 percent of annual income for those families with annual incomes below \$14,400 with employed mothers and preschool children in paid care. Comparable families with annual incomes above \$54,000 spent only 6 percent of their income on child care. There is also reason to be concerned about the quality of child care: A recent study of regulated child care providers found that 86 percent of child care centers surveyed provided mediocre or poor care when judged from the perspective of child development, and 12 percent were of such poor quality that the children's health and safety needs were only partly met.

The President's 1999 budget includes a \$21 billion increase in funding for child care, to make it accessible to more families and to raise its quality. An important part of this proposal is increased tax credits for 3 million working families to help them pay for child care, as well as an

increase in block grants to States that will directly subsidize child care for low-income families. In addition, the proposal calls for a new Early Learning Fund, along with support for the enforcement of State child care health and safety standards, scholarships for up to 50,000 child care providers per year, and funding for research and consumer education. Finally, the proposal includes \$3.8 billion in additional funding over 5 years to help to reach the goal of expanding participation in Head Start to 1 million children in 2002.

Finally, I'd like to talk about issues related to the progress of different racial and ethnic groups. Chapter 4 of the *Economic Report* reviews trends in racial and ethnic economic inequality and concludes that this country's longstanding goal of achieving racial equality has not yet been attained. Although there has been progress in narrowing economic gaps among racial and ethnic groups in the postwar period, it has been very uneven, with rapid progress in the 1960s and early 1970s, followed by 20 years of stagnation between the early to mid-1970s to the early 1990s.

The current expansion has brought signs of renewed progress: since 1993, for example, the median income of black families has risen more rapidly than that of non-Hispanic whites; in 1996, black family income reached a new high, and the poverty rate for blacks fell to a new low. Data compiled under the Home Mortgage Disclosure Act show that between 1993 and 1996, conventional home mortgage lending to blacks rose 67% and to Hispanics, 49%--much larger than the percentage increase in conventional home mortgage lending overall during this period. Such developments raise hope for renewed and sustained progress toward economic equality.

Nevertheless, substantial disparities in economic status across racial and ethnic groups persist. For example, income gaps between black and white families are as large today as they

were 30 years ago. The median wealth of white families is by some estimates 10 times that of black and Hispanic families. Poverty rates of blacks and Hispanics are almost triple those of non-Hispanic whites; and differences in child poverty rates across racial and ethnic groups are stark, with about 40 percent of black and Hispanic children in poverty in comparison with about 16% for whites.

Because the largest share of most families' income is derived from earnings, labor market outcomes across racial groups are important determinants of economic inequality across racial groups. After increasing rapidly between 1965 and the mid 1970s, the wages of black and Hispanic men and women relative to those of non-Hispanic whites have stagnated or declined between the mid 1970s and early 1990s. Part of this erosion of relative pay reflects a society wide trend toward rising income inequality, due to an increase in the demand for more educated workers and an increase in the skilled-unskilled earnings differential. Because blacks, Hispanics and American Indians are less likely to hold a college degree than whites and Asians, these groups have been hurt disproportionately by changes in the economy that have raised the demand for college educated workers. Over the last 30 years, educational attainment has increased for all groups and blacks largely closed the high school attainment gap with whites; however, the college completion gap widened in the 1980s, as the reward to college educated workers rose.

Although differences in education across racial groups explain a portion of the trend toward rising earnings inequality since the mid-1970s, racial earnings gaps have also increased among individuals with similar educational levels, suggesting that other factors may also be at work. For example, since the mid-1970s the wages of young black college graduates have fallen relative to those of their white counterparts. Researchers debate whether this trend reflects

unmeasured skill differences potentially related to school quality, to discrimination in the labor market, or to other factors.

Clearly, more needs to be done to promote equality of opportunity for all Americans. Many of the Administration's current and proposed policies, such as those that encourage community empowerment and those that promote improved quality and accessibility of education at all levels are intended to address these disparities. Furthermore, the Administration's 1999 budget proposal signals a renewed federal commitment to strong and effective enforcement of the Nation's civil rights laws. It increases funding for federal civil rights enforcement agencies by more than 16 percent. And, this January, in a Martin Luther King Day address, Vice President Gore announced the Administration's package of proposed civil rights enforcement initiatives. In addition to increasing funding, these initiatives place greater emphasis on the nonlitigation and prevention remedies for discrimination, and provide for better coordination across Federal agencies and offices. The President has also initiated and devoted great energy and resources to his Initiative on Race, an effort to further a national dialogue on race in America.

CONCLUSION

Let me conclude by saying that over the past year the performance of the U.S. economy has been extraordinary: strong growth and low unemployment combined with low and stable inflation. And there are enormous social and economic benefits to our high-employment economy. But that success--and the economy's present strength--cannot be taken for granted. Rather, there are still long-term changes and challenges facing our nation as we enter the 21st Century. The Clinton Administration has an agenda for helping to equip the American people

with the skills and flexibility and security to take advantages of the opportunities and possibilities in this new economic era. We must finish the job of balancing the budget while investing in people and opening markets at home and abroad. At the same time, we must ensure that all Americans, regardless of age or origin, have the skills they need to prosper in a world of change and opportunity.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Janet L. Yellen (CN=Janet L. Yellen/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:10-FEB-1998 10:46:24.00

SUBJECT: Speech

TO: Michele Jolin (CN=Michele Jolin/OU=CEA/O=EOP @ EOP [CEA])

READ:UNKNOWN

TEXT:

===== ATTACHMENT 1 =====

ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D71]MAIL49031404L.026 to ASCII,
The following is a HEX DUMP:

The 1998 Economic Report of the President

Dr. Janet Yellen
Chairman, President's Council of Economic Advisers
Center for National Policy
February 10, 1998

Thank you. It is a pleasure to be here. I want to thank the Center for National Policy for again hosting the release of the annual *Economic Report of the President*. In particular, I want to thank Mo Steinbruner and Mike Pietro all of their help in arranging this event.

I would also like to thank my colleagues--Jeff Frankel and Rebecca Blank--for all their hard work and dedication in producing this year's *Report*.

Finally, I want to thank the staff of the Council, many of whom are here with us today. During the past several months, the staff have been working long nights and weekends to produce the *Economic Report*. And, because the other work of the Council doesn't disappear, they are in effect working two jobs with two shifts. I appreciate all of their hard work, their thoughtful insights and their good spirits. Their dedication and professionalism deserve special recognition.

As you probably know, the Employment Act of 1946, which created the Council of Economic Advisers, requires the President to submit an *Economic Report* to the Congress each year. This Act, together with its later amendments, gave the Federal government responsibility for stabilizing short-run economic fluctuations, promoting balanced and noninflationary economic growth, and fostering low unemployment. One purpose of the *Economic Report* is to tell Congress whether we have met those responsibilities. I am happy to say, in this the

fifty-second year after the Act, that the state of the economy is truly extraordinary.

I will elaborate on this point in a moment, but I would also like to note that the *Report of the Council of Economic Advisers*, has also traditionally been a vehicle for presenting a broad range of analyses of current economic policy issues. This year, in addition to a chapter on macroeconomic policy and performance, the Report contains a chapter on the economic well-being of families and children, and a chapter on racial and ethnic inequality--two central concerns of this Administration. The report also contains two chapters on microeconomic topics, one focusing on improving economic efficiency in the areas of health and environmental policy, and one discussing recent trends in antitrust policy. Finally, the international chapter focuses on the benefits of opening international markets.

In the remainder of my remarks I will touch briefly on the current state of the economy, and then discuss the broad and lasting benefits of a "high-employment economy" -- which is one of the key themes of this year's *Economic Report*. I will then talk about some of the key challenges that still face our nation as we move into the 21st Century.

STATE OF THE ECONOMY

Our Nation's economy is the strongest it has been in a generation. In 1997, growth was strong and job creation was vigorous while inflation declined. Real GDP grew 3.9 percent, and employment rose by 3.2 million, for an average rate of 267,000 jobs per month. The unemployment rate dropped below 5 percent for the first time in 24 years, yet core inflation rose just 2.2 percent. And, this occurred during a period of historic deficit reduction: the Federal budget deficit, which reached \$290 billion in the 1992 fiscal year, declined to only \$22 billion in fiscal 1997. And, as you know, the President recently submitted to Congress a budget for fiscal

1999 that projects a balanced budget for the first time since 1969.

As 1998 begins, the prospects for continued growth with high employment and low inflation are excellent. The economy is remarkably free of the symptoms that often presage an economic downturn -- that is, inflationary pressures remain well under control; inventories are lean in comparison with sales; and there is no evidence of any financial imbalance that could disrupt the expansion. Economic turmoil in East Asia, assuming that stability is restored, may work to permit continued U.S. growth and job creation with a more moderate outlook for interest rates. Our economy is in fundamentally sound shape and well-equipped to handle any unexpected bouts of rougher weather.

THE BENEFITS OF A HIGH EMPLOYMENT ECONOMY

The exceptionally strong economy that we are enjoying today is due in part to the sound and credible economic strategy put in place by the Clinton Administration. The Administration's strategy has focused on getting the fundamentals right -- reducing the budget deficit, investing in the American people, and opening markets at home and abroad. These were the right policies to stimulate the job creation needed to move the economy to full employment. And, they are the right policies for attacking the longer term problems of sluggish productivity growth and widening income inequality that have afflicted our nation's economy since the early 1970s.

The *Report* underscores the enormous economic and social benefits to a "high-employment economy." An economy with strong job creation and low unemployment can make a broad and lasting contribution to the well-being of the American people. Let me talk briefly about some of these benefits:

First, a high employment economy produces certain *direct and measurable benefits*. Returning the economy to full employment yields a direct and measurable benefit to our nation by ensuring that the economy's resources--human and material--are not squandered by needless cyclical unemployment. On average, reducing the unemployment rate by a percentage point raises output by approximately 2 percent; in 1997, 2 percent of GDP was \$160 billion, or roughly \$600 for every American man, woman, and child. Wasted resources from not producing at potential, together with the human cost of unemployment, are intolerable; the elimination of this waste is the principal benefit of a sustained return to full employment.

Second, a high-employment economy can *reduce long-term joblessness*. A tight labor market encourages participation by those who might otherwise be forced to sit on the sidelines, and makes it easier to absorb less skilled or younger and more inexperienced workers into the labor force. These new labor market entrants gain much-needed job experience, building the skills they will need to hold down a job in the future. The experience of some European countries illustrates this point: in Europe, the prolonged stagnation or recession may have led to a permanent increase in unemployment there, as the unemployed and the never-employed have seen their skills atrophy or become obsolete. For this reason, running a high-employment economy, may be one of the surest ways to ensure that an unacceptably large fraction of our citizens are not consigned to long-term joblessness and economic marginalization.

Third, it will *help move welfare recipients into the workforce*. Keeping the unemployment rate low and job growth high is necessary if we are to move current welfare recipients into the work force. Early, indirect evidence on this point is encouraging: employment and labor force participation rates among single women who maintain families--about two-thirds

of whom have children under 18--have increased in the past few years. This is probably in part the result of recent welfare reform: the greatest acceleration in employment rates has occurred among those single women most likely to be affected by welfare reform, namely, those with young children. Nevertheless, it is obvious that fostering an economy in which job opportunities are plentiful plays a crucial part in aiding the transition from welfare to work.

Fourth, it *enhances personal economic security*. Knowing that work is available to those who seek it, at wages sufficient to keep them and their families out of poverty, is a key to personal economic security. A tight labor market increases the confidence of job losers that they will be able to return to work, lures discouraged workers back into the labor force, enhances the prospects of those already at work to get ahead, enables those who want or need to switch jobs to do so without a long period of joblessness, and lowers the duration of a typical unemployment spell.

And, finally, a high-employment economy *may help reverse the trend toward greater economic inequality*. From the 1980s until the early 1990s, the economy's ability to reduce poverty through growth alone was hampered by a strong headwind: for the poorest Americans, the benefits of an expanding economy were offset by the sustained declines in wages at the low end of the earnings distribution. Since 1993, living standards for all Americans are on the rise, especially for those at the bottom of the income distribution. The poverty rate fell to 13.7 percent in 1996, from 15.1 percent in 1993; the poverty rate for black Americans is at a historical low, and in 1997 unemployment among blacks fell to its lowest rate since 1973. Since 1993, household income has grown in each quintile of the income distribution, with the largest percentage increase going to the poorest members of our society. Maintaining a

full-employment economy is essential if this progress is to continue.

CHALLENGES IN A CHANGING ECONOMY

Although our economy is strong and Americans are working in record numbers, our Nation still faces other, broader challenges as we move into the 21st century. In many ways the U.S. economy today is very different from that in which our parents and grandparents lived and worked. Today, 24 percent of families are headed by a single parent, compared with 14 percent 25 years ago. Three in five married mothers with children under 6 are in the work force--twice as large a share as in 1970. And the U.S. population is aging-- in the next century there will be fewer workers for every retiree, making issues related to retirement security more and more important. The nature of the workplace also has changed significantly: few American workers expect to be working for the same employer--or even to be in the same career--when they retire. Information technology is dominating industry: in the 1950s the information technology industry barely existed; today it employs a larger share of the labor force than the automobile industry did in the 1950s and 1960s. Because information and technology and global commerce are leading the transformation of the global economy, the new strength of a nation will be found in the skills, knowledge and imagination of its people.

The Clinton Administration's agenda is designed to deal with these changes and the challenges they pose. It is designed to equip the American people with the strength, the skills, the security and the flexibility needed to reap the rewards of our growing, changing economy. The President recently laid out this broad agenda in his State of the Union and again in his FY1999 budget. In the remainder of my remarks, I will focus on 3 of the key agenda areas: retirement security, the challenges of childcare and racial and ethnic economic inequality.

First, let me talk about issues related to the aging of the population, which we address in Chapter 1 of the *Economic Report* -- reforming Social Security.

For almost 60 years, Social Security has provided Americans with income security in retirement and protection against loss of family income due to disability or death. A large share of elderly Americans, particularly those with low incomes, rely on Social Security as their primary source of pension income in retirement. The system has enjoyed dramatic success in reducing poverty rates among older Americans.

Today, however, many Americans fear that Social Security will not be there for them when they are ready to retire. This concern reflects the widespread recognition that, under current “intermediate” projections of the Social Security trustees, the system faces a long-term funding gap: beginning in 2012, unless the system is reformed by then, the government will be unable to pay current Social Security benefits in full out of current payroll taxes; it will then have to draw down the system's trust fund, and by 2029 those funds will be exhausted. If still nothing has been done, the government would then face several options which it could adopt singly or in combination: it could reduce benefits until they are in line with collections, raise payroll taxes to cover an unchanged level of benefits, or finance the shortfall from other parts of the budget, by raising other taxes, cutting expenditures on other programs, or borrowing and allowing the budget deficit to increase. One or more of these measures will have to be taken so long as no changes are made to the present system.

Although the seriousness of the financial imbalance facing Social Security should not be downplayed, its magnitude is not so large as to be insurmountable, particularly if early action is

taken. For example, even if nothing is done and the trust fund is exhausted, payroll taxes will still be sufficient to permanently finance roughly 75 percent of benefits. Put another way, the difference between the anticipated income and the anticipated expenditures of the OASDI (Old Age, Survivors', and Disability Insurance) program over the next 75 years amounts to around 2¼ percentage points of taxable payroll, or approximately 1 percent of GDP. These facts suggest that the problem of placing Social Security on a sound financial footing can admit of eventual resolution.

The President is committed to Saving Social Security First. He has proposed reserving 100 percent of any budget surplus until steps have been taken to reform Social Security. He has also proposed a process to devise an appropriate solution over the next 2 years.

A second major policy challenge involves children and issues related to childcare.

Chapter 3 of this year's *Report* documents that there have been notable improvements in children's well-being over the past three years, although an unacceptable fraction of America's children still live in poverty. Children have shared in the benefits of the recent economic expansion: the official child poverty rate has fallen by 2.2 percentage points since 1993. And, under a broader measure of poverty which includes both taxes (like the EITC) and non-medical in-kind benefits, the poverty rate for children has decreased by 4.7 percentage points from 1993 to 1996, and is now below its level in 1989. The primary reason for this drop is because more families were able to earn enough money to bring their incomes above the poverty line. Child poverty has also declined due to an expansion of the Earned Income Tax Credit.

Other measures of children's well-being have also improved. The share of children

living in households without enough to eat has fallen since the early 1990s, and the share of households with children living in housing in poor physical condition has also declined since the late 1970s. There have also been increases in low-income children's utilization of basic health care services, and continued improvements in mortality rates of infants and young children during the 1990s.

Despite these improvements, many children remain economically vulnerable. One in five children, and nearly one in two children in female-headed families, had incomes below the poverty level in 1996. Adequacy of family income is a critical predictor of both the present and future well-being of children. Children who grow up in low-income families score lower on standardized tests, complete fewer years of school and tend to have lower earnings. With respect to medical care, one in seven children did not have access to health insurance in 1996, despite substantial increases in Medicaid coverage since 1989, due to a concurrent decline in children's private health insurance coverage; one in nine children lived in households which paid more than half their income for housing in 1995. Finally, a large share of children are not attaining even a basic levels of proficiency in science, mathematics, and reading. Thus, too many children are at risk of current and future hardship.

For this reason, the President has developed a number of initiatives to strengthen the economic and social supports for America's children. This year, the Administration has begun to implement the Children's Health Insurance Program, which offers \$24 billion over five years to States to expand health insurance for uninsured children. For fiscal 1999, the President has proposed to expand the supply of affordable housing for low-income families, through a 40% increase in the low-income housing tax credit, and through continued expansions in the HOME

Investments Partnership Program. The President has also proposed two major new initiatives to improve the quality of elementary and secondary education. The first would invest \$12.4 billion over 7 years to bring down class sizes in public schools in grades 1 to 3 from a nationwide average of 22 pupils in to an average of 18. The second would provide tax credits to pay interest on nearly in \$22 billion in bonds to support new construction and renovation of public school buildings.

Today, more American workers are faced with the need to juggle the demands of the workplace with the demands of family and home. In 1997, over 60 percent of married mothers with a child under six were working--compared to 30 percent twenty years ago. For most of these families, it is difficult to afford high quality day care. In 1993, child care expenditures represented 25 percent of annual income for those families with annual incomes below \$14,400 with employed mothers and preschool children in paid care. Comparable families with annual incomes above \$54,000 spent only 6 percent of their income on child care. There is also reason to be concerned about the quality of child care: A recent study of regulated child care providers found that 86 percent of child care centers surveyed provided mediocre or poor care when judged from the perspective of child development, and 12 percent were of such poor quality that the children's health and safety needs were only partly met.

The President's 1999 budget includes a \$21 billion increase in funding for child care, to make it accessible to more families and to raise its quality. An important part of this proposal is increased tax credits for 3 million working families to help them pay for child care, as well as an increase in block grants to States that will directly subsidize child care for low-income families. In addition, the proposal calls for a new Early Learning Fund, along with support for the

enforcement of State child care health and safety standards, scholarships for up to 50,000 child care providers per year, and funding for research and consumer education. Finally, the proposal includes \$3.8 billion in additional funding over 5 years to help to reach the goal of expanding participation in Head Start to 1 million children in 2002.

Finally, I'd like to talk about issues related to the progress of different racial and ethnic groups. Chapter 4 of the *Economic Report* reviews trends in racial and ethnic economic inequality and concludes that this country's longstanding goal of achieving racial equality has not yet been attained. Although there has been progress in narrowing economic gaps among racial and ethnic groups in the postwar period, it has been very uneven, with rapid progress in the 1960s and early 1970s, followed by 20 years of stagnation between the early to mid-1970s to the early 1990s.

The current expansion has brought signs of renewed progress: since 1993, for example, the median income of black families has risen more rapidly than that of non-Hispanic whites; in 1996, black family income reached a new high, and the poverty rate for blacks fell to a new low. Data compiled under the Home Mortgage Disclosure Act show that between 1993 and 1996, conventional home mortgage lending to blacks rose 67% and to Hispanics, 49%--much larger than the percentage increase in conventional home mortgage lending overall during this period. Such developments raise hope for renewed and sustained progress toward economic equality.

Nevertheless, substantial disparities in economic status across racial and ethnic groups persist. For example, income gaps between black and white families are as large today as they were 30 years ago. The median wealth of white families is by some estimates 10 times that of black and Hispanic families. Poverty rates of blacks and Hispanics are almost triple those of non

Hispanic whites; and differences in child poverty rates across racial and ethnic groups are stark, with about 40 percent of black and Hispanic children in poverty in comparison with about 16% for whites.

Because the largest share of most families' income is derived from earnings, labor market outcomes across racial groups are important determinants of economic inequality across racial groups. After increasing rapidly between 1965 and the mid 1970s, the wages of black and Hispanic men and women relative to those of non-Hispanic whites have stagnated or declined between the mid 1970s and early 1990s. Part of this erosion of relative pay reflects a society wide trend toward rising income inequality, due to an increase in the demand for more educated workers and an increase in the skilled-unskilled earnings differential. Because blacks, Hispanics and American Indians are less likely to hold a college degree than whites and Asians, these groups have been hurt disproportionately by changes in the economy that have raised the demand for college educated workers. Over the last 30 years, educational attainment has increased for all groups and blacks largely closed the high school attainment gap with whites; however, the college completion gap widened in the 1980s, as the reward to college educated workers rose.

Although differences in education across racial groups explain a portion of the trend toward rising earnings inequality since the mid-1970s, racial earnings gaps have also increased among individuals with similar educational levels, suggesting that other factors may also be at work. For example, since the mid-1970s the wages of young black college graduates have fallen relative to those of their white counterparts. Researchers debate whether this trend reflects unmeasured skill differences potentially related to school quality, to discrimination in the labor market, or to other factors.

Clearly, more needs to be done to promote equality of opportunity for all Americans. Many of the Administration's current and proposed policies, such as those that encourage community empowerment and those that promote improved quality and accessibility of education at all levels are intended to address these disparities. Furthermore, the Administration's 1999 budget proposal signals a renewed federal commitment to strong and effective enforcement of the Nation's civil rights laws. It increases funding for federal civil rights enforcement agencies by more than 16 percent. And, this January, in a Martin Luther King Day address, Vice President Gore announced the Administration's package of proposed civil rights enforcement initiatives. In addition to increasing funding, these initiatives place greater emphasis on the nonlitigation and prevention remedies for discrimination, and provide for better coordination across Federal agencies and offices. The President has also initiated and devoted great energy and resources to his Initiative on Race, an effort to further a national dialogue on race in America.

CONCLUSION

Let me conclude by saying that over the past year the performance of the U.S. economy has been extraordinary: strong growth and low unemployment combined with low and stable inflation. And there are enormous social and economic benefits to our high-employment economy. But that success--and the economy's present strength--cannot be taken for granted. Moreover, there are still long-term changes and challenges facing our nation as we enter the 21st Century. The Clinton Administration has an agenda for helping to equip the American people with the skills and flexibility and security to take advantages of the opportunities and possibilities in this new economic era. We must finish the job of balancing the budget while investing in

people and opening markets at home and abroad. At the same time, we must ensure that all Americans, regardless of age or origin, have the skills they need to prosper in a world of change and opportunity.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Peter R. Orszag (CN=Peter R. Orszag/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:11-FEB-1998 16:10:07.00

SUBJECT: Memos on electricity restructuring

TO: Randall W. Lutter (CN=Randall W. Lutter/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TO: Jeffrey A. Frankel (CN=Jeffrey A. Frankel/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TO: Janet L. Yellen (CN=Janet L. Yellen/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TEXT:

Your comments on these memos would be welcome. But they have not been
officially circulated yet, and so I would appreciate it if you used them
at this point only to:

1. Provide comments to me
2. Prepare for tomorrow night's meeting

Thanks,

Peter===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

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The following is a HEX DUMP:

SUMMARY OF ESTIMATED EFFECTS
February 11, 1998

	EPA	DOE	STAFF PROPOSAL
Demand response to lower prices, net of reduction in primary fuel use	+24	+10 to +12	+17
Productivity/efficiency gains	0	-15	-10
Energy Service Companies	0	-11 to -23	-5
Early nuclear plant retirements	+10	+3	+5
Green Marketing	-4	-17 to -36	-5
RPS and PBF	-10 to -23	-10 to -23	-10 to -23
TOTAL	+7 to +20	-38 to -84	-8 to -21

Four factors account for the vast majority of the disagreement (84 million metric tons of the 104 million metric ton difference between the most optimistic DOE estimate and the most pessimistic EPA estimate):

- **Demand response.** Restructuring will reduce electricity prices, and therefore boost electricity usage and emissions (some of the increased demand for electricity will involve switching from other primary fuels -- such as natural gas -- which offsets part of the increase).

EPA assumes that the price decline from restructuring will be somewhat larger (12 percent) and that demand is somewhat more elastic (-0.2 in the short run, and -0.5 in the long run) than DOE (10 percent decline, elasticity of -0.18 in the short run). The available evidence on this subject is mixed, and the estimates are actually somewhat close given the large uncertainties involved. Both agencies could find substantial support for their views.

PROPOSAL: Given the uncertainties involved, a reasonable estimate for this effect may be 17 million metric tons.

- **Productivity and efficiency gains.** DOE believes that retail competition will boost incentives for efficiency in electricity generation since firms will be able to capture the benefits -- rather than having them absorbed by regulators. Similar arguments have been articulated many times by Tom Casten of Trigen -- although EPA notes that Casten predicates his statements on many elements of a restructuring package that will not be included in the Administration's proposal.

This effect can be broken into two pieces: heat rates and capacity availability. The heat rate measures the energy consumption required to produce a kilowatt hour of electricity. Lower heat rates -- reflecting more efficient generation -- reduce carbon emissions.

Capacity availability, on the other hand, measures the maximum potential utilization for a generating unit. Higher capacity availability in coal-fired plants would raise emissions, all else equal. But increased capacity availability in nuclear plants (and in gas-fired plants) would mitigate any increase in carbon emissions. If the increase in capacity utilization at generating plants that have lower than average carbon/Btu ratios exceeds the increase in capacity utilization at other generating plants, carbon emissions would fall.

DOE assumes that heat rates at coal-fired plants could improve by 2 percent by 2010 relative to today. DOE analytical work based on best practices suggests that this estimate may be modest, requiring much less than universal adoption of these best practices (if all plants operated at best practices heat rates, 22 to 39 million metric tons of carbon would be saved -- relative to the 15 million assumed by DOE). EPA has raised questions about this analytical work. Outside opinion as to the exact magnitude of this effect, although not as to its existence, is mixed. The 5-Labs study assumed that heat rates have the potential to increase by 3 to 5 percent by 2010.

EPA argues that under competition, generators will not necessarily have incentives to maximize heat rates -- that profit maximization does not necessarily entail heat rate maximization. EPA also argues that heat rates would deteriorate under the baseline -- and that its assumption of zero therefore reflects an improvement relative to the baseline.

EPA also believes that DOE's assumptions about nuclear capacity availability are too optimistic.

PROPOSAL: DOE's heat rate assumption is modest relative to the technical potential identified in the 5-Labs Study. A 2 percent improvement in heat rates coupled with a slightly less auspicious view on capacity availability would produce a saving of perhaps 10 million metric tons in 2010.

- **ESCOs.** Energy Service Companies (ESCOs) may have more opportunity to market their services under retail competition. DOE believes that significant emissions reductions will result from the activities of ESCOs selling bundled products of both electricity and energy-efficiency services. DOE believes that experience at the state level demonstrates that retail competition is a spur to ESCOs, and notes that the Federal government's own experience with Energy Saving Performance Contracts illustrates the potential energy efficiency gains involved. Furthermore, DOE argues that its assumption on these activities is modest relative to the assumptions in the 5-Labs study and the Climate Change Action Plan. EPA argues that retail competition will reduce prices and thereby attenuate incentives for ESCO activities, that the assumed rate of increase in ESCO activities (45 percent per year) is unreasonable, and that the available evidence (including from other countries) suggests a minimal response.

PROPOSAL: While DOE's views may be too optimistic, it seems reasonable to assume a small reduction in emissions from this effect (perhaps 5 million metric tons).

- **Green Marketing.** The Administration's draft restructuring proposal currently includes provisions for "green marketing" -- providing more information for consumers to purchase green power if they choose. DOE estimates larger effects of green power and information labelling than EPA. EPA argues that electricity sellers will simply offset "green power" sales to one class of customers with electricity sales generated from fossil fuels to other classes of customers. In total, EPA believes that there will be little effect. In effect, EPA believes that the Renewable Portfolio Standard (RPS) will be binding and that no companies will exceed their required level of green power generation. DOE believes that based on limited data from the states, green power sales could be higher than required by the RPS.

PROPOSAL: Given the very limited evidence available on this subject, and the increase in green power resulting from the RPS itself, a reasonable estimate of this effect is a reduction of 5 million metric tons in 2010.

DRAFT: February 11, 1998

MEMORANDUM FOR:

FROM:

SUBJECT: Electricity restructuring

As you know, the NEC has been working closely with the Department of Energy, CEQ, and other interested agencies to develop an Administration proposal on electricity restructuring. At this point, we are ready to move forward with that proposal, pending your approval, except for one controversial issue: the scope of any environmental control authority over certain emissions (known as transport pollutants). The issue, and options for resolving it, are examined below.

Background on electricity restructuring

Under electricity restructuring, competition would replace regulation as the primary mechanism to set electricity generation prices. Consumers would be allowed to choose their own electricity supplier -- much as they have been able to choose their own long-distance telephone service provider for over a decade. Restructuring has proceeded at a wholesale level under FERC Order 888, which requires publicly owned utilities to open up transmission lines to qualified sellers. A dozen states, including California and Massachusetts, have announced that they will promote retail competition as well.

The economic benefits of restructuring are potentially quite large. Electricity sales amount to over \$200 billion per year -- the industry is larger than the telecommunications industry -- and DOE estimates that restructuring could save American consumers \$20 billion per year in lower electricity costs. As the Trigen example illustrates, restructuring also has the potential to provide incentives for higher energy efficiency and lower carbon emissions.

Electricity restructuring, however, involves a variety of difficult political issues. Although there is a wide range of views on the subject, the differences generally do not fall along partisan lines. For example, Senator Bumpers and Senator Gorton recently teamed up to introduce a comprehensive restructuring bill.

One of the most important questions involved in the decisions facing the Administration -- the role of the *Federal* government in advancing restructuring -- vividly illustrates both the variety of views on electricity restructuring, as well as their unusual partisan patterns. As noted above, many states are already moving ahead in promoting retail competition; a Federal mandate has the attraction of capturing the benefits from *national* competition, but the cost of potentially overlooking critical differences across states. Some legislative proposals have Federally mandated retail access for all utility consumers by a date certain, notwithstanding state policies to the contrary. Representative DeLay (H.R. 1230) mandates such access by January 1, 1999,

Representative Schaefer (H.R. 655) by December 15, 2000, and Senators Bumpers and Gorton (S. 1401) by January 1, 2002. On the other end of the spectrum, Senator Lott and Speaker Gingrich have reservations about a Federal mandate, and some legislation (including S.722, introduced by Senator Thomas, and S. 1276, introduced by Senator Bingaman) removes Federal impediments to retail competition rather than mandating it. Thus, Speaker Gingrich and Majority Whip DeLay have diametrically opposite views on this issue.

The Administration proposal would steer a middle course between these two extremes. It would endorse customer choice through a flexible mandate that would require each utility to permit all of its retail consumers to purchase power from other supplies by January 2003, but would permit states or non-regulated utilities to opt out of the competition mandate if they find, on the basis of a public proceeding, that consumers in the state would be better served by an alternative policy -- including a state-crafted retail competition plan or the current monopoly system. This position, we believe, encourages all states to move toward retail competition, but recognizes the vast differences in conditions across states.

Another contentious issue involved in restructuring is that of stranded costs, which arise from plants built in the regulated era that are unlikely to be profitable at the lower prices under retail competition (those plants could often still earn operating profits, but are unprofitable once capital costs are included). The key question is: Who will make up the gap between tomorrow's low prices and the cost of production from power plants built when costs were high -- utility shareholders, ratepayers, or both? All states that plan to implement retail competition have provided for utility stranded cost recovery in some manner.

The agencies have reached consensus that we should endorse the principle that utilities should be able to recover prudently incurred, legitimate and verifiable retail stranded costs that cannot be reasonably mitigated. States would continue to determine appropriate allocation of costs, including stranded cost recovery, under State law. This approach, we believe, allows utilities to recover some of the costs that they prudently incurred, while protecting consumers against unreasonable stranded cost charges. The proposal also balances the need for Federal leadership with the flexibility that a state-led approach allows.

We have also tentatively agreed that we should submit detailed proposals, but not full legislative text, to the Hill. The logic is that detailed, specific text is not conducive to the negotiating process over the legislation. The proposals would contain sufficient detail to provide clarity on our positions, but not be so specific that they undermined future negotiating tactics.

Other aspects of the draft Administration proposal, which have inter-agency agreement, are included in the Appendix.

Electricity restructuring and the environment

Another very difficult set of issues, upon which we have *not* been able to reach inter-agency agreement, involves the environmental impact of electricity restructuring. While restructuring could affect mercury, NOX, and SO2 emissions, the most controversial and important issue we face is the impact of electricity restructuring on CO2 emissions. The reason is that CO2 emissions are inextricably linked to the more controversial and larger climate change debate; the other pollutants (mercury, NOX, and SO2) are not.

Electricity restructuring could have a variety of complicated effects on carbon emissions. On one hand, retail competition should reduce electricity prices -- which would tend to increase energy use and reduce the incentive for energy efficiency. On the other hand, retail competition will free the electricity market to reward improved generation efficiency (as the Trigen example illustrates). Moreover, in a deregulated environment, consumers will pay more attention to energy efficiency, since the competing providers of electricity services will bundle energy efficiency services with the sale of electricity generation. And perhaps most importantly, the agencies have agreed to a variety of proposals within the restructuring package that should help reduce carbon emissions:

- We have reached internal agreement on a \$1.4 billion Public Benefit Fund, which will finance energy-efficiency programs, consumer education and demonstration of emerging technologies such as renewables, and low-income assistance.
- The draft proposal would also include provisions for “green marketing,” which would provide information to consumers to allow them to purchase power from environmentally friendly generators. Evidence from more than a dozen state green pricing programs suggests that consumers are willing to pay significantly more per month for green power; California is planning for 5 to 20 percent of residential consumers to choose green power in their deregulated environment.
- We have also agreed to include a renewable portfolio standard -- to require that a share of electricity sales be generated from non-hydroelectric renewable sources -- although there are some continuing disagreements over the precise figure (all agencies except EPA and CEQ support 4.5 percent; EPA and CEQ would prefer a higher figure).

With these provisions, the Department of Energy estimates that electricity restructuring should reduce carbon emissions by as much as 80 million metric tons in 2010 (a 4.4 percent reduction relative to the expected business-as-usual emissions of 1817 million metric tons). EPA, however, believes that restructuring -- even with the provisions we have included in our proposal -- will not reduce carbon emissions, and EPA documents to that effect have appeared in the trade press.

To adjudicate the dispute between DOE and EPA, the NEC and CEQ have convened a

staff-level working group -- including CEA and Treasury technical staff -- to examine the evidence. As a result of this work, NEC, CEA, [CEQ], and Treasury staff have concluded that the evidence suggests our bill would reduce emissions by between 10 and 20 million metric tons in 2010. Outside experts, including Robert Stavins of Harvard and Paul Joskow of MIT, concur that with the types of provisions included in our proposal, the best estimate of the impact on carbon emissions would be a slight reduction. But there is much uncertainty over the figures. For example, green marketing may prove more or less attractive than assumed, and efficiency improvements may be lower or higher than expected.

Reflecting its concern about the environmental impact of restructuring, EPA wants to ensure that it has explicit cap and trade authority for all transport pollutants (CO₂, mercury, NO_x, and SO₂). EPA now has clear cap-and-trade authority for SO₂. It has explicit control authority for NO_x, but no trade authority. Its authority to regulate mercury and CO₂ is less clear.

EPA argues that without some cap authority for CO₂ we could not *guarantee* that restructuring would provide a down-payment on our climate change proposal. They further argue that given the attention likely to be paid to electricity restructuring in the upcoming Congressional session, we could be criticized for not using this opportunity to signal that we were moving ahead in our plans to reduce greenhouse gas emissions.

On the other hand, estimates from DOE and outside experts strongly suggest that restructuring will reduce carbon emissions, and including cap-and-trade authority for CO₂ could provoke a major Congressional debate over air quality regulation and climate issues. DOE and the economic agencies argue that such a debate would obscure the promise of economic benefits from restructuring, make restructuring a much more partisan issue, potentially drag down the entire bill, and prevent American consumers from a \$20 billion reduction in their energy bills.

Furthermore, our climate change strategy has emphasized that we are first seeking “win-win” solutions. We have decided not to sign the Kyoto Protocol immediately -- but will do so within the next year -- to avoid unnecessarily provoking Congressional opposition. Including cap-and-trade authority for carbon in a proposal we submit next year could undermine this general strategy, perhaps setting back the entire climate change effort. A crucial question we face is whether including cap-and-trade authority for CO₂ turns the electricity restructuring debate into a premature fight over climate change, or alternatively whether the absence of such authority will be seen as a lack of full commitment to climate change.

The carbon question is the most politically charged one. But in addition to carbon, EPA adds that cap-and-trade authority for the other pollutants is necessary to address the possible environmental damage from restructuring. A bipartisan team of thirteen Northeastern Senators has already written to Secretary Pena and Administrator Browner, urging the Administration to “address the environmental implications of deregulation in this legislation.” DOE is willing to include *trading* authority for NO_x in the restructuring package -- perhaps submitted separately --

but believes that any authority beyond that would engender the legislation's prospects.

Options for Moving Forward

There are four possible options for moving forward on this issue. The options are discussed below.

Option 1: Explicit Cap and Trade Authority for All Transport Pollutants

The legislation, or detailed proposals, that are sent to the Hill would include explicit authority for EPA to institute cap and trade programs for all transport pollutants. These would include CO₂ as well as NO_x, SO₂, and mercury.

For NO_x and SO₂, the government already has in place binding emissions restrictions, nationally for SO₂ and for 22 states for NO_x. For SO₂, EPA would propose to tighten the cap that is in place under the existing Acid Rain program. For NO_x, this legislation would allow EPA to rationalize its existing authority, for example to promulgate cross-state trading. For CO₂ and mercury, establishing a cap and trade system would require addressing a set of difficult questions about how the cap is set in the legislation; it could be a numeric target, or delegation of the authority to EPA to either "protect public health" or to "avoid unreasonable risk."

Pros:

- Would be the strongest commitment to environmentally-friendly electricity restructuring legislation. Without this commitment, some environmental groups may criticize the proposal as not providing a guaranteed "downpayment" on climate change.
- Would allow EPA to rationalize its regulatory authority over the utility sector by integrating controls on all transport pollutants.
- Would signal strong support for reducing carbon emissions.

Cons:

- Would transform the full debate over climate change policy into a 1998 issue. Our staged climate change strategy is intended to emphasize that the trading system will not begin for a decade, and that in the short run our policy involves "win-win" solutions such as tax breaks for energy-efficient investment.
- Would significantly increase opposition to the Administration's position among utilities and other industry groups, and make the issue more partisan on the Hill.
- The consensus of DOE and many outside experts on the effects of restructuring on

carbon, as discussed above, is that restructuring should produce a decrease, not an increase, in emissions. Similarly, there should be no increase in SO₂ or NO_x emissions from restructuring, since they are already constrained under other programs. And there is little evidence to suggest that mercury emissions will rise from restructuring either.

- These same issues could be addressed through amending the Clean Air Act, as supported by a group of Midwest and Southern utilities. But EPA argues that it is pursuing these issues within the restructuring context to avoid a battle over reopening the Clean Air Act.

Option 2: No Cap And/or Trade Authority in Proposal

The legislation/principles that are sent to the Hill could exclude altogether any new cap and/or trade authority.

Pros:

- Avoids the debate over our climate change policy, and allows us to continue our staged approach to the climate change issue.
- Helps to shore up the support of major industry and consumer groups which will benefit from lower electricity prices.
- As the DOE estimates suggest, the proposal will provide a significant down payment on GHG reductions. By making it more likely to pass the proposal, leaving out the cap-and-trade authority makes it more likely that these gains will actually be achieved.

Cons:

- Will be criticized by environmental groups, who could unfairly claim that you broke your promise for an environmentally-friendly restructuring bill, despite the inclusion of the three green provisions described above.

Option 3: Limiting Cap and Trade Authority

A: Delaying Implementation of Cap and Trade for all Transport Pollutants

The Administration proposal could endorse a cap and trade scheme for all transport pollutants, but delay its implementation to some later date (e.g. 2005), and make that implementation conditional on a finding of significant adverse environmental impacts of restructuring.

Pros:

- Would allow us to claim environmental benefits of including the cap and trade authority.

- Reduces criticism of the provision as an opening position on climate change, since it delays action until the second phase of the Administration climate change plan.

Cons:

- Doesn't avoid a 1998 Congressional debate over climate, since it still provides an opening for those who would oppose any climate change action. Thus burdens the restructuring bill with the core opposition to climate change policy.
- Could be difficult to explain: If we are worried about emissions increases from restructuring, why do we delay implementing our remedy? If we aren't concerned, then why are we forcing the issue of carbon policy in this bill?
- Doesn't fully please environmentalists, since their opposition is largely based on short run increases in the use of coal-fired generation.

B: Trading Authority only for NOX

The proposal could include trading authority for NOX only. While EPA has the authority to limit NOX emissions, and has recently proposed to do so in 22 state areas, it has no clear authority to set up a trading system across states. Establishing such a trading program could substantially lower the costs of meeting the new national air quality standards. As a result, implementing a NOX trading regime in the restructuring legislation would potentially rationalize existing environmental policy, rather than impose new regulatory standards.

Pros:

- Rationalizes an existing regulatory constraint, minimizing opposition from industry groups.
- Adds an additional environmental protection element to our bill.
- Could prove less divisive on the Hill than broad cap-and-trade authority.

Cons:

- Minimalist approach which will not please all environmentalists. Does nothing to guarantee that restructuring produces greenhouse gas emission reductions.
- Some utilities, which have said that they would support a bill with no environmental provisions of this type, have already voiced opposition to even this minimalist provision.

Option 4: Present Less Detailed Proposals and Engage in Negotiations

A final option is to present to the Hill much less detailed proposals that would largely sidestep the issue of whether the proposal is ultimately capping CO2 or not. We could then enter into negotiations with Congress over the structure of the ultimate legislation.

Pros:

- Allows us to promote environmentally-friendly deregulation in general, without addressing the issue of how we would achieve this goal.
- Avoids being characterized as pushing a specific agenda.

Cons:

- If we are sufficiently vague, it will be difficult to claim credit for the gains to the economy from restructuring. It is hard to see how principles that avoid the issue of environmental constraints could be sufficiently detailed so that we could claim leadership on this issue.
- Would not allow us to show full clarity on all our agreed positions, and thus could undermine our leadership on restructuring issues. Without such leadership, further progress on legislation may be unlikely.

Appendix: Summary of Interagency Agreement on Electricity Restructuring Issues

1. Retail Choice Policy- Flexible Mandate.

Endorse customer choice through a flexible mandate that would require each utility to permit all of its retail customers to purchase power from other suppliers by January 2003, but would permit States or non-regulated utilities to opt-out of the competition mandate if they find, on the basis of a public proceeding, that consumers in the State would be better served by an alternative policy such as a State-crafted retail competition plan or the current monopoly system.

2. Stranded Cost Principle

Endorse the principle that utilities should be able to recover prudently incurred, legitimate and verifiable retail stranded costs that cannot be reasonably mitigated. States would continue to determine recovery of investments, including stranded cost recovery, under State law. FERC would have "backup" authority to establish a stranded cost recovery mechanism if a State lacks such authority.

3. Reciprocity Requirements

Provide States that have implemented retail competition with the authority to preclude an out-of-state utility with a retail monopoly from selling within the State unless that out-of-state utility permits customer choice.

4. Federal and State Jurisdiction

- Federal Power Act (FPA) amendment to provide that it does not preempt States from ordering retail competition.
- Provide that FPA does not preempt States from imposing a charge on the ultimate consumers receipt of electric energy.
- Provide FERC with clear authority to order retail transmission in a State other than where the end user is located to complete an authorized retail sale.
- Clarify FERC jurisdiction over rates, terms, and conditions of unbundled retail transmission.
- Clarify FERC authority relied upon to promulgate Order 888.
- Provide that FERC's open access rules apply to municipal utilities, cooperatives, TVA, and Federal power marketing administrations.

- Amend federal law to encourage the development of regional transmission planning and siting groups.

5. Federal Power Agencies

- The Administration supports the application of the Commission's open access requirements to the PMAs, TVA and cooperatives financed by the Rural Utility Service with the proviso that it may be necessary in some instances to adopt special stranded cost mechanisms that take into account the unique facts and circumstances surrounding these federal investments or loans.

- The Administration is favorably inclined toward the recommendations made concerning BPA by the Comprehensive Review of the Northwest Energy System a process sponsored by the Governors of Washington, Oregon, Idaho and Montana. However, issues such as stranded costs, which were not resolved by the Review, must be resolved before we have a complete blueprint for adapting BPA to competition.

Because the resolution of BPA restructuring issues is closely intertwined with the Administration effort to recover endangered salmon in the Columbia River Basin, these issues are to be resolved in a separate ad hoc interagency group that involves DOE, CEQ, OMB, Commerce, Treasury and others.

- The Administration supports the creation of a regional public stakeholder process to develop recommendations on how TVA should be adapted to competition.

TVA and its stakeholders agreed that such a process was needed but were unable to reach agreement on the structure of such a process. In response, DOE has convened an independent advisory committee to make recommendations to the Administration and the Congress on how TVA should be adapted to competition.

6. Public Benefits Fund

The agencies have reached consensus in support of a \$1.4 billion public benefits fund (PBF) to provide matching funds to States for low-income assistance, energy efficiency programs, consumer education and development and demonstration of emerging technologies with emphasis on technology with regional or national benefits, particularly renewables. The PBF would be funded through a generation or transmission fee of up to 0.5 mills per kilowatt hour.

7. Consumer Information

Secretary of Energy authorized to conduct rulemaking to require all suppliers of electricity to disclose information on price, terms, and conditions, the type of generation source, and generation emissions characteristics.

8. Renewable Portfolio Standard

A Federal portfolio standard would be established, with the requirement placed on retail sellers. Renewable energy credits would be issued for renewable energy generation and trading of credits would be permitted. Renewable energy would be defined as solar energy, wind, geothermal energy, waste, and biomass, but would not include energy generated at hydroelectric facilities. Retail sellers would be required to hold renewable energy credits corresponding to 2 percent of their sales from 2001 to 2004, 3.5 percent for 2005 through 2009, and 4.5 percent of sales thereafter.

CEQ has proposed that appropriate percentages be revised. Treasury has proposed, and DOE has agreed, that a cost-cap mechanism should be included to ensure that the total costs of this approach do not exceed a pre-specified level.

9. Repeal Mandatory Purchase Requirement of PURPA

Repeal the “must buy” provision prospectively, but preserve existing contracts and exemptions.

10. Independent System Operators

Amend FPA to provide FERC with the authority to require transmitting utilities to turn over operational control of transmission facilities to an independent system operator. Additionally, amend the Federal Power Act to provide that FERC shall not approve an ISO unless the ISO operates the control area(s).

11. Market Power

Authorize FERC to remedy wholesale market power if FERC finds market power in wholesale markets. Authorize FERC, upon petition from a State, to remedy market power in retail markets if the State is implementing retail competition, finds market power, and has insufficient authority to remedy the market power. FERC would be authorized in these circumstances to require generators with market power to submit a plan to mitigate market power, which FERC could approve with or without modification. FERC would be authorized to order divestiture to the extent necessary to mitigate market power.

12. Repeal Public Utility Holding Company Act

Repeal of substantive requirements of PUHCA. FERC and State Commission provided with additional access to the books and records of holding companies and affiliates of public utilities within holding companies to guard against increased interaffiliate abuse following repeal of PUHCA.

13. Merger Review

Amend FPA to eliminate the requirement of an on-the-record hearing and to provide FERC with jurisdiction over mergers of public utility holding companies (SEC currently has such authority under PUHCA) and generation-only utilities.

14. Reliability

Amend the FPA to require FERC to approve and oversee a national electric reliability organization that prescribes and enforces mandatory reliability standards. Require that operators of generation and transmission and power marketers join national electric reliability organization.

15. Tax Issues

Reference to “cost-of-service” should be removed from the provision in the Internal Revenue Code relating to deductions to a qualified nuclear decommissioning fund. With regard to the “private use” rules, DOE and the Treasury reached the following consensus, subject to DOE review of the anticipated regulations on tax-exempt bonds: (1) private use limitations inapplicable to existing bonds used to finance facilities subject to retail competition; (2) tax-exempt financing unavailable for new generation or transmission facilities; (3) tax-exempt financing continues to be available for distribution facilities subject to private use restrictions; and (4) a publicly-owned system which elects to be subject to FERC’s open access rules would not jeopardize the tax-exempt status of their transmission facilities.

16. Other Regulatory Provisions

- (a) amend Bankruptcy Reform Act to make nuclear decommissioning costs a nondischargeable priority claim
- (b) direct EIA to study impacts of competition in electricity markets
- (c) provide that nothing in Act affects operation of antitrust laws
- (d) eliminate antitrust review by NRC

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Janet L. Yellen (CN=Janet L. Yellen/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:11-FEB-1998 15:24:39.00

SUBJECT: Response to outside calls concerning climate change testimony

TO: Lisa D. Branch (CN=Lisa D. Branch/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TO: Sandra F. Daigle (CN=Sandra F. Daigle/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TO: Alice H. Williams (CN=Alice H. Williams/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

CC: Michele Jolin (CN=Michele Jolin/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

CC: Jeffrey A. Frankel (CN=Jeffrey A. Frankel/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TEXT:

In his testimony to the Senate Foreign Relations Committee this morning, Stu Eizenstat indicated that I would be presenting the Administration's economic analysis of the Kyoto (Climate Change) Treaty to Congress in the near future. I understand that several people have called to obtain a copy of CEA's work on this topic. Could you respond by saying that CEA does not have a report or paper on this topic for distribution, but that I do expect to discuss the Administration's economic analysis of the Kyoto agreement in future testimony. There will be nothing available for distribution other than that forthcoming testimony.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Peter R. Orszag (CN=Peter R. Orszag/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:11-FEB-1998 19:45:04.00

SUBJECT: Reserve Fund memo, with staff comments (Treasury, OMB, CEA) incorporated

TO: Jill M. Blickstein (CN=Jill M. Blickstein/OU=OMB/O=EOP @ EOP [OMB])
READ:UNKNOWN

TO: Sally Katzen (CN=Sally Katzen/OU=OPD/O=EOP @ EOP [OPD])
READ:UNKNOWN

TO: Joseph J. Minarik (CN=Joseph J. Minarik/OU=OMB/O=EOP @ EOP [OMB])
READ:UNKNOWN

TO: Janet L. Yellen (CN=Janet L. Yellen/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TO: DAVID.WILCOX (DAVID.WILCOX @ MS01.DO.treas.sprint.com @ INET @ LNGTWY [UNKNOWN])
READ:UNKNOWN

TO: Jacob J. Lew (CN=Jacob J. Lew/OU=OMB/O=EOP @ EOP [OMB])
READ:UNKNOWN

TO: Peter A. Weissman (CN=Peter A. Weissman/OU=OPD/O=EOP @ EOP [OPD])
READ:UNKNOWN

TO: Barbara Chow (CN=Barbara Chow/OU=OMB/O=EOP @ EOP [OMB])
READ:UNKNOWN

TO: Gene B. Sperling (CN=Gene B. Sperling/OU=OPD/O=EOP @ EOP [OPD])
READ:UNKNOWN

TO: Christopher D. Carroll (CN=Christopher D. Carroll/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TO: Alan.Cohen (Alan.Cohen @ MS01.DO.treas.sprint.com @ INET @ LNGTWY [UNKNOWN])
READ:UNKNOWN

TEXT:

===== ATTACHMENT 1 =====

ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D99]MAIL48282714U.026 to ASCII,
The following is a HEX DUMP:

SOCIAL SECURITY RESERVE FUND
February 12, 1998

Our "Save Social Security First" policy has proven to be tremendously successful. But we have had some difficulty in explaining to a broad audience the mechanics of:

1. Reserving the surpluses pending Social Security reform; and
2. Actually using the surpluses to bolster the Social Security Trust Fund as part of a broader reform effort.

The primary focus of this memorandum is the first of these issues, although the second is also discussed in some of the options.

Since most of the surpluses (over 90 percent of the surpluses projected between FY 1999 and FY 2003) will accrue *after* we plan to have accomplished Social Security reform, "reserved" primarily means that we should not pass legislation now that will spend the out-year surpluses. But the possibility of a surplus in FY 1998 -- highlighted by the recent CBO monthly analysis -- has piqued interest in how we would "reserve" any surpluses that accrue before we are able to achieve Social Security reform. For example, Representative Rangel is likely to introduce a bill that would create an explicit Save Social Security First Reserve Fund.

Our answer on this issue thus far has been something like:

- First, mechanically, if surpluses accrue before Social Security reform is accomplished, they would be used to reduce the publicly held debt. That is not a policy decision, but rather an automatic implication of running a unified surplus. It's also fully consistent with not spending the money until we have achieved reform.
- Second, we don't project significant surpluses before FY 2000 -- so the amounts involved are likely to be small.
- Third, if significant surpluses look likely before we can achieve reform, we would be willing to revisit our formulation and perhaps consider legislation to create an explicit Social Security Reserve Fund.

The question before us is whether this answer is sufficient, or whether we should put forward some proposal to make more explicit the "reserve" mechanism in the very short run. The answer could be affected by proposals such as the one put forward by Rangel.

OPTION 1: MAINTAIN CURRENT STANCE

PROS:

- Does not create the impression that all of the near-term surpluses (accruing before reform is accomplished) are available for future use.
- Does not require any legislative changes.
- Maintains our flexibility to act later if necessary.

CONS:

- Seems confusing to many outside the budget world.
- May be awkward once legislation is introduced by others.

OPTION 2: CREATE A DISPLAY THAT MEETS OUR POLICY NEEDS WITHOUT NEW LEGISLATION

Under this option, we would (by Executive Order or other means) create a display mechanism to “track” the reduction in publicly held debt resulting from any unified surplus arising before Social Security reform is accomplished (e.g., any unified surplus in FY 1998, FY 1999, and perhaps beyond if reform is delayed). For example, the Monthly Treasury Statement could include a line for the accumulated surpluses.

We would not, however, create an explicit “Reserve Fund” legislatively. In effect, this option does nothing that is not possible under current authority. Instead, it is merely designed to provide a display that we could point to in explaining our policy.

We could also indicate, if we choose, that an amount equal to any reduction in publicly held debt over that period could be later “transferred” to the Social Security Trust Fund as part of a general Social Security reform. For example, we could indicate now that the overall Social Security reform legislation should grant the Secretary of the Treasury authority to transfer special-purpose securities to the Trust Fund in an amount equal to the tracked reduction in publicly held debt. Indicating that the reserve could only be used to transfer special-purpose securities to the Trust Fund, however, may raise awkward questions about whether the reserve could be transferred to individual accounts. On the other hand, explicitly including individual accounts as a possible use of the reserve could prove equally awkward.

PROS:

- Provides a display of accumulated surpluses to which we could point.

- Does not create legislation, but leaves open the possibility of legislation at later date.

CONS:

- Creates the strong impression that any near-term surpluses could be “used” in the future (since they are “held in reserve”) -- either for Social Security or other purposes. Note, however, that such uses would require modifications to the Congressional Budget Act.
- May seem gimmicky because from a legal perspective, this option is equivalent to Option 1.
- May not fully resolve confusion.
- Does not allow interest to be accrued.

OPTION 3: NEW LEGISLATION -- CREATE A NEW TRUST FUND BUT MAKE NO CHANGE IN THE BUDGET ACTS

Under this option, we would propose legislation to create an explicit Reserve Fund. But we would leave decisions about how to transfer any funds out of that Reserve Fund to the overall Social Security reform legislation. In particular, this option would involve the following steps:

- The Secretary of Treasury would create a new trust fund.
- At the end of each fiscal year, the Secretary of the Treasury would deposit new “specials” (non-marketable Treasury securities) into this Reserve Fund in an amount which in the aggregate is equal to the surplus in the unified budget for the fiscal year just concluded.
- The rates and maturities of the “specials” would be determined using the same rules which determine these parameters for deposits of “specials” into the Social Security Trust Fund.
- The “specials” could be redeemed -- and a use assigned to the “proceeds” -- only by enactment of legislation.
- No change would be made to the Congressional Budget Act or the Balanced Budget and Emergency Deficit Control Act.

PROS:

- Provides a specific “reserve” that is easily understood.

- Securities in the Reserve Fund would have legal standing (as opposed to Option 2).
- Securities would earn interest (as opposed to Option 2).

CONS:

- Since transfer to the Reserve Fund are intra-governmental, it may be viewed by some as an accounting gimmick.
- May create confusion between Save Social Security First Reserve Fund, and Social Security Trust Funds.
- Specific legislation may provoke Congressional debates about double-counting.
- Creates the strong impression that any near-term surpluses could be “used” in the future (since they are “held in reserve”) -- either for Social Security or other purposes. Note, however, that such uses would require modifications to the Congressional Budget Act.
- Requires legislation.

OPTION 4: NEW LEGISLATION -- CREATE A NEW TRUST FUND AND CHANGE THE BUDGET ACTS

Under current law, the special-purpose securities held by the putative Reserve Fund created under Option 3 could not be redeemed or transferred without violating the Congressional Budget Act. In addition to the steps undertaken in Option 3, this option would therefore also include authority to redeem the special-purpose securities held by the Trust Fund for specific uses. The “withdrawal” authority could be general, specific to transfers to the Social Security Trust Fund, or specific to the Social Security Trust Fund and individual accounts.

PROS and CONS same as under Option 3, with following additions:

PROS:

- Allows future withdrawals from Reserve Fund without a change in Congressional Budget Act -- resolves an issue now that could be awkward later.
- Provides an answer to “how the surpluses could be used for Social Security reform” by illustrating one of the mechanisms.

CONS:

- Premature and unnecessary at this time -- the withdrawal issue could be handled in

general Social Security legislation.

- Forces us either to signal views about individual accounts, or to include broad authority for transfers that would weaken the Budget Acts' constraints against using surpluses for tax cuts or spending.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Peter R. Orszag (CN=Peter R. Orszag/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:12-FEB-1998 21:25:29.00

SUBJECT: Reserve Fund memo for 12:00 Special Issues meeting

TO: Sally Katzen (CN=Sally Katzen/OU=OPD/O=EOP @ EOP [OPD])

READ:UNKNOWN

TO: DAVID.WILCOX (DAVID.WILCOX @ MS01.DO.treas.sprint.com @ INET @ LNGTWY [UNKNOWN])

READ:UNKNOWN

TO: Barbara Chow (CN=Barbara Chow/OU=OMB/O=EOP @ EOP [OMB])

READ:UNKNOWN

TO: Jacob J. Lew (CN=Jacob J. Lew/OU=OMB/O=EOP @ EOP [OMB])

READ:UNKNOWN

TO: Janet L. Yellen (CN=Janet L. Yellen/OU=CEA/O=EOP @ EOP [CEA])

READ:UNKNOWN

TO: Alan.Cohen (Alan.Cohen @ MS01.DO.treas.sprint.com @ INET @ LNGTWY [UNKNOWN])

READ:UNKNOWN

TO: Joseph J. Minarik (CN=Joseph J. Minarik/OU=OMB/O=EOP @ EOP [OMB])

READ:UNKNOWN

TO: Gene B. Sperling (CN=Gene B. Sperling/OU=OPD/O=EOP @ EOP [OPD])

READ:UNKNOWN

CC: Russell W. Horwitz (CN=Russell W. Horwitz/OU=OPD/O=EOP @ EOP [OPD])

READ:UNKNOWN

CC: Peter A. Weissman (CN=Peter A. Weissman/OU=OPD/O=EOP @ EOP [OPD])

READ:UNKNOWN

TEXT:

The attached reflects my best effort to incorporate OMB's extensive comments while maintaining some balance to the memo. (I am confident of only one thing: my effort was not fully successful.)

We will be discussing the issue in Gene's office at noon. I hope the current draft could at least be used as the basis for discussion -- it could then be modified afterward to reflect developments during the meeting if necessary.===== ATTACHMENT 1 =====

ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D64]MAIL45655824M.026 to ASCII,
The following is a HEX DUMP:

SOCIAL SECURITY RESERVE FUND
February 13, 1998

In his State of the Union address, the President stated: "What should we do with this projected surplus? I have a simple four-word answer: Save Social Security first. Tonight, I propose that we reserve 100 percent of the surplus -- that's every penny of any surplus -- until we have taken all the necessary measures to strengthen the Social Security system for the 21st century."

This Save Social Security First policy has proven to be tremendously successful. Both Speaker Gingrich and Chairman Domenici have explicitly accepted the President's premise. The press widely acknowledges that the movement to spend the budget surpluses before they arrived has been stopped dead in its tracks. However, we have had some difficulty in explaining to a broad audience the mechanics of:

1. Reserving the surpluses pending Social Security reform; and
2. Actually using the surpluses to bolster the Social Security Trust Fund as part of a broader reform effort.

The primary focus of this memorandum is the first of these issues, although the second is also discussed in some of the options.

Since most of the surpluses (over 90 percent of the surpluses projected between FY 1999 and FY 2003) will accrue *after* we plan to have accomplished Social Security reform, "reserved" primarily means that we should not pass legislation now that will spend the out-year surpluses. But the possibility of a surplus in FY 1998 -- highlighted by the recent CBO monthly analysis -- has piqued interest in how we would "reserve" any surpluses that accrue before we are able to achieve Social Security reform. For example, Representative Rangel has introduced a bill (H.R. 3207) that would create an explicit Save Social Security First Reserve Fund. Such action could preclude our ability to use a possible 1998 surplus to support military operations in Bosnia and Iraq, which OMB believes may be essential.

Our answer on this issue thus far has been:

- First, mechanically, if surpluses accrue before Social Security reform is accomplished, they would be used to reduce the publicly held debt. That is not a policy decision, but rather an automatic implication of running a unified surplus. It's also fully consistent with not spending the money until we have achieved reform.
- Second, we don't project significant surpluses before FY 2000 -- so the amounts involved are likely to be small.

- [• Third, if significant surpluses look likely before we can achieve reform, we would be willing to revisit our formulation and perhaps consider legislation to create an explicit Social Security Reserve Fund.] [OMB objects to this third bullet.]

The question before us is whether this answer is sufficient, or whether we should put forward some proposal to make more explicit the “reserve” mechanism in the very short run. A fundamental question is whether reduction in publicly held debt in and of itself qualifies as “reserving” the surplus pending Social Security reform. Our response could be affected by proposals such as the one put forward by Rangel.

OPTION 1: MAINTAIN CURRENT STANCE

PROS:

- We are winning this fight. Never change a winning game.
- Does not create the impression that all of the near-term surpluses (accruing before reform is accomplished) are available for future use.
- Does not require any legislative changes.
- Maintains our flexibility to act later if necessary.

CONS:

- Could force us toward equating debt reduction with helping Social Security.
- May be particularly awkward now that legislation has been introduced by those who believe they are supporting the President’s policy.

OPTION 2: CREATE ADDITIONAL SYMBOLIC DISPLAYS (IN ADDITION TO FY 1999 BUDGET) THAT HIGHLIGHT OUR POLICY WITHOUT NEW LEGISLATION

The FY 1999 budget already includes a line showing that the projected surpluses are reserved pending Social Security reform. Under this option, we would create other displays (by Executive Order or other non-legislative means) to “track” the reduction in publicly held debt resulting from any unified surplus arising before Social Security reform is accomplished (e.g., any unified surplus in FY 1998, FY 1999, and perhaps beyond if reform is delayed).

Possibilities include:

- The Monthly Treasury Statement could include a line for the accumulated surpluses;

- We could request the Congress to have CBO track the accumulated surpluses;
- We could publish a new document that tracks the accumulated surpluses.

We would not, however, create an explicit “Reserve Fund” legislatively. In effect, this option does nothing that is not possible under current authority. Instead, it is merely designed to provide a display that we could point to in explaining our policy.

This option would leave open all choices for actual deployment of any budget surpluses later. If we wanted to be more specific at this point, we could indicate that an amount equal to any reduction in publicly held debt could be later transferred to the Social Security Trust Fund as part of a general Social Security reform. For example, we could indicate now that the overall Social Security reform legislation should grant the Secretary of the Treasury authority to transfer special-purpose securities to the Trust Fund in an amount equal to the tracked reduction in publicly held debt. Indicating that the reserve could only be used to transfer special-purpose securities to the Trust Fund, however, may raise awkward questions about whether the reserve could be transferred to individual accounts. On the other hand, explicitly including individual accounts as a possible use of the reserve could prove equally awkward.

PROS:

- Provides a display of accumulated surpluses to which we could point.
- Does not involve legislation, but leaves open the possibility of legislation at later date.

CONS:

- If debt reduction is currently viewed as one way of “reserving” the surplus, this mechanism would change the meaning of “reserve.” In particular, it would create the strong impression that any near-term surpluses could be used in the future -- since they are “held in reserve” -- either for Social Security or other purposes.

OPTION 3: NEW LEGISLATION -- CREATE A NEW TRUST FUND BUT MAKE NO CHANGE IN THE BUDGET ACTS

Under this option, we would propose legislation to create an explicit Reserve Fund. But we would leave decisions about how to transfer any funds out of that Reserve Fund to the overall Social Security reform legislation. In particular, this option would involve the following steps:

- The Secretary of Treasury would create a new trust fund.
- At the end of each fiscal year, the Secretary of the Treasury would deposit new “specials” (non-marketable Treasury securities) into this Reserve Fund in an amount which in the

aggregate is equal to the surplus in the unified budget for the fiscal year just concluded.

- The rates and maturities of the “specials” would be determined using the same rules which determine these parameters for deposits of “specials” into the Social Security Trust Fund.
- The securities would earn interest and have legal standing.
- The “specials” could be redeemed -- and a use assigned to the “proceeds” -- only by enactment of legislation.
- No change would be made to the Congressional Budget Act or the Balanced Budget and Emergency Deficit Control Act.

PROS:

- Provides a specific “reserve” that is easily understood by the lay public.
- Adds potential resources to Social Security reform effort.
- Allows the Congress to satisfy a need for action.
- Provides another significant opportunity to highlight the President’s State of the Union message.
- Avoids the need for us to be neutral or opposed to proposals that are intended to support the President’s policies (e.g., Rangel).

CONS:

- Since transfers to the Reserve Fund are intra-governmental, the Fund may be viewed by some as an accounting gimmick.
- The debt held by the Reserve Fund would either have to be excluded from the debt subject to limit, or would accelerate the need for a debt limit increase bill.
- May create confusion between Save Social Security First Reserve Fund, and Social Security Trust Funds.
- Specific legislation may provoke Congressional debates about double-counting.
- If debt reduction is currently viewed as one way of “reserving” the surplus, this mechanism would change the meaning of “reserve.” In particular, it would create the

strong impression that any near-term surpluses could be used in the future -- since they are “held in reserve” -- either for Social Security or other purposes.

- Legislation in this form would put jurisdiction over the surpluses into the hands of Ways & Means and Finance.
- Legislation could make it difficult to use small portions of any 1998 surplus for emergency needs relating to Iraq and/or Bosnia.

OPTION 4: NEW LEGISLATION -- CREATE A NEW TRUST FUND AND CHANGE THE BUDGET ACTS

Under current law, the special-purpose securities held by the putative Reserve Fund created under Option 3 could not be redeemed or transferred without violating the Congressional Budget Act. In addition to the steps undertaken in Option 3, this option would therefore also include authority to redeem the special-purpose securities held by the Trust Fund for specific uses. The “withdrawal” authority could be general, specific to transfers to the Social Security Trust Fund, or specific to the Social Security Trust Fund and individual accounts.

PROS and CONS same as under Option 3, with following additions:

PROS:

- Allows future withdrawals from Reserve Fund without a change in Congressional Budget Act -- resolves an issue now that could prove to be awkward in the context of overall Social Security reform.
- Provides one answer to “how the surpluses *could* be used for Social Security reform” by illustrating one of the mechanisms.

CONS:

- Premature and unnecessary at this time -- the withdrawal issue could be handled in general Social Security legislation.
- Forces us either to signal views about individual accounts, or to include broad authority for transfers that would weaken the Budget Acts’ constraints against using surpluses for tax cuts or spending.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Janet L. Yellen (CN=Janet L. Yellen/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:12-FEB-1998 20:11:18.00

SUBJECT: Revised climate change testimony

TO: Adele C. Morris (CN=Adele C. Morris/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TO: Randall W. Lutter (CN=Randall W. Lutter/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TO: Joseph E. Aldy (CN=Joseph E. Aldy/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TO: Jeffrey A. Frankel (CN=Jeffrey A. Frankel/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

CC: Michele Jolin (CN=Michele Jolin/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TEXT:
Attached is a slightly revised version of the climate change testimony. I
propose that we distribute it tomorrow morning for discussion in the
climate change meeting.===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D3]MAIL44604824V.026 to ASCII,
The following is a HEX DUMP:

**TESTIMONY OF DR. JANET YELLEN
CHAIR, COUNCIL OF ECONOMIC ADVISERS
BEFORE THE SENATE FOREIGN RELATIONS COMMITTEE
ON THE ECONOMICS OF THE KYOTO AGREEMENT
FEBRUARY 11, 1998**

Thank you, Mr. Chairman. The President has said that we can work to avert the grave dangers of climate change, while at the same time maintaining the strength of our economy. I am pleased to have this opportunity to appear before the Committee to elaborate on the President's statement.

The international agreement that was reached in Kyoto this past December is a crucial first step in addressing global climate change. But it is only a first step. Since the international effort to reduce greenhouse gas emissions is more of a work-in-progress than a completely finished product, it is not yet possible to provide a full authoritative analysis of it. Many of the specifics in several crucial areas are not completely resolved in the diplomatic arena, forcing analysts to make a variety of assumptions about the ultimate form of the international regime. In my testimony today, I will attempt to identify key elements of the agreement, such as global participation and reliance on flexible, market-based measures, that ensure that reductions in global greenhouse gas emissions are consistent with continued strong economic growth. I will do my best also to provide some rough estimates of costs and benefits.

The Administration is strongly committed to ensuring that these critical elements are reflected in our domestic and international climate change policies. We are firmly committed to meaningful developing country participation, as well as emissions trading both domestically and internationally. And as you know, the President's FY 1999 budget includes a \$6.3 billion package of tax cuts and R&D over the next 5 years to jumpstart our efforts.

I. Basic Economic Rationale of the Kyoto Treaty

To begin our analysis, it may be worth stepping back and examining the larger question of the basic rationale, from an economist's perspective, for the Kyoto Agreement.

The earth's surface is warming from the accumulation of greenhouse gases from myriad sources worldwide. None of these emitters presently pays the cost to others of warming's adverse effects -- a classic externality in the language of economists. As a result of these distorted incentives, disruption of the Earth's climate is likely to proceed at an excessive pace and if left uncontrolled may pose substantial costs in terms of harm to commerce and the environment alike. The fundamental economic logic of the Kyoto agreement is thus that

without such an international agreement, individual nations will not have the proper incentives to address the threats from global climate change.

II. Costs of Climate Change

In evaluating efforts to mitigate global warming, the first step is to consider the costs that are likely if we fail to take any action -- for these costs provide the primary motivation for reducing greenhouse gas emissions.

The Intergovernmental Panel on Climate Change (IPCC) jointly established by the World Meteorological Organization and the United Nations Environment Programme, concluded in 1995 that "the balance of evidence suggests that there is a discernible human influence on global climate." Current concentrations of carbon dioxide, methane, nitrous oxide, and the other so-called greenhouse gases have reached levels well above those of preindustrial times. Of these, carbon dioxide (CO₂) is the most important: net cumulative CO₂ emissions resulting from the burning of fossil fuels and deforestation account for about two-thirds of potential warming from changes in greenhouse gas concentrations related to human activity.

Climatic Impact

If growth in global emissions continues unabated, the atmospheric concentration of CO₂ will likely double relative to its preindustrial level by midway through the next century. As a result of the increased concentration of CO₂, the IPCC estimates that global temperatures will increase by between 2.5 to 6 degrees Fahrenheit in the next 100 years, with a best guess of about 3.5 degrees Fahrenheit. While scientists believe that human activities are leading to a gradual warming of the *average* temperature of the earth, the change in temperature in a given region at a given time may differ substantially from this average. Indeed, models predict warming will be greater in high latitudes than in the tropics, and greater over land than ocean. Many models predict larger increases in evaporation than in precipitation over midlatitude land areas, which would result in drier conditions in those regions, especially during summer in North America and Europe.

Potential consequences associated with this shift in climate include a rise in sea levels, greater frequency of severe weather events, shifts in agricultural growing conditions from changing weather patterns, threats to human health from increased range and incidence of diseases, changes in availability of freshwater supplies, and damage to ecosystems and biodiversity.

Economic and Monetary Damages

The derivation of quantitative or monetary estimates of the damages from such a change

in the climate is extremely difficult given the capacity of today's forecasting models. Estimates of the economic damages from climate change fall into the following broad areas: agriculture, sea-level rise, air conditioning and heating, water supply, human life and health, air pollution, and other costs (hurricanes, migration costs, human amenity, construction, leisure activities, urban infrastructure, and ecological damages such as forest loss and species loss).

A subject of great uncertainty and sensitivity is the "discount rate" that is applied to the benefits of averting future climate change. Such a discount rate is needed if the analysis is to be expressed in monetary terms, because a dollar today is not worth the same as a dollar tomorrow. And since the benefits of stemming future climate change accrue over not only decades but centuries, small changes in the discount rate can produce substantial changes in the results. But the precise discount rate that should be used to evaluate questions as important as the future climate of the planet remains a subject of intense debate. It is safe to say that there is, as of yet, no professional consensus on the issue.

A similar point concerns risk aversion. To what extent are we willing to take chances with our planet? The point applies particularly to catastrophe scenarios. Scientists have thought of many possible scenarios, most of which they are fortunately not yet prepared to pronounce as particularly likely based on current evidence, but which might be truly catastrophic for the planet if they were to occur. There is a strong argument for the Kyoto agreement as a form of planet insurance. But what numerical weight should one assign to these catastrophic risks? In other words, what is the value of the insurance policy? It is difficult for an economist, or anyone, to know.

Despite these shortcomings and potential problems, respected researchers have developed estimates of the monetary damages expected from an average worldwide temperature increase of approximately 4.5 degrees Fahrenheit (corresponding to, roughly, a doubling of pre-industrial carbon dioxide concentrations). For example, William Cline, then a Senior Fellow at the Institute for International Economics, estimated that such a temperature change would impose annual damages of more than \$70 billion per year on the U.S. economy in today's terms. These damages include \$22 billion in lost agricultural production, \$13 billion in additional electricity costs, and \$8 billion in new costs to maintain the existing supply of fresh water. (Cline's original estimates are quoted in 1990 dollars. The figures given above translated those numbers into 1997 dollars using the annual GDP price index.) William Nordhaus of Yale University has likewise computed estimates of the dollar loss attributable to a doubling of carbon dioxide concentrations. He finds that the Cline estimate is in the center of three estimates for the U.S., and that the high estimate is only 1.3 times greater than the low estimate.

It must be noted, however, that this similarity of aggregate estimates masks the true uncertainty associated with forecasts of the damages from given increases in global warming -- the estimates are all fundamentally based on extrapolations from current and past experience, and

may not fully incorporate effects that will unfortunately become apparent only with future experience. In particular, the estimates may not fully reflect potential non-linearities in the relationships between carbon dioxide concentrations and temperature, between temperature and economic damages, or in the various other complicated relationships governing interactions between greenhouse gas emissions, the climate, and the economy. Current quantitative analyses do not, and cannot, accurately reflect the small and unknown possibility of large-scale and potentially irreversible discrete events with potentially catastrophic consequences.

Two such possibilities serve as illustrations. Warming of Northern tundra may release very large amounts of methane from the subarctic permafrost, thereby leading to potentially devastating acceleration of an otherwise controllable global warming process. We do not know at what point, if any, such unstable activity would be triggered. Second, evidence from climate models suggests that some types of climate change may lead to changes in ocean currents, including displacement of the Gulf Stream that warms Western Europe. Evidence from ocean core samples suggests such changes of ocean currents have occurred in previous ice ages. Reductions in the risk of such catastrophic outcomes must be considered in addition to the costs and benefits that can be reasonably quantifiable. Since human beings are typically averse to risk, such possibilities are especially important in evaluating whether the benefits of a particular climate control policy justify the costs. One must have at least some sympathy with those who criticize economists on the grounds that the effects of climate change are extremely difficult to quantify in a single monetary number.

III. Addressing Global Climate Change in an Efficient Manner

The costs of unabated climate change may thus be difficult to quantify, but they are nonetheless real and provide the motivation for reducing greenhouse gas emissions. In taking action to reduce those emissions, economic analysis suggests that two elements are absolutely essential:

- The effort must be global, to address the global externality inherent in the nature of the problem.
- The effort must be flexible and market-based, to ensure that we achieve our objectives in the most efficient manner possible.

Need for Global Action

Climate change is a global problem requiring a global solution. As I mentioned earlier, no single country has an incentive to reduce emissions sufficiently to protect the global environment against climate change. Each has an economic incentive to “free ride” on the efforts of others. Even if the United States sharply reduced its emissions unilaterally, greenhouse gas emissions from all other countries would continue to grow, and the risks posed by climate change would not be significantly abated. It is important to emphasize that emissions of different gases anywhere in the world have very similar effects on global climate.

The threat of disruptive climate change has led to coordinated international efforts to reduce the risks of global warming by reducing emissions of greenhouse gases. The first international agreement to address global warming was the Framework Convention on Climate Change signed during the Earth Summit in Rio de Janeiro in 1992. This convention established a long-term objective of limiting greenhouse gas concentrations and encouraged the established industrial countries to return their emissions to 1990 levels by 2000. Since then, it has become clear that the United States and many other participating countries will not meet this voluntary goal.

To address the lack of progress among many industrialized countries toward meeting the Rio objective, the United States and approximately 160 other nations agreed in negotiations held in Kyoto, Japan, last December, to take substantial steps to stabilize atmospheric concentrations of greenhouse gases. The Kyoto Agreement, which requires the advice and consent of the Senate, would place binding limits on industrial countries’ emissions of the six principal categories of greenhouse gases: CO₂, N₂O, methane, sulfur hexafluoride, perfluorocarbons, and hydrofluorocarbons. **These limits apply to the 38 so-called Annex I countries, which are the industrialized countries, defined to include Russia, Ukraine, and most Eastern European countries.**

Under the Kyoto agreement, each industrial country’s “1990 baseline” is actually based on its 1990 emissions of CO₂, methane, and N₂O and its choice of 1990 or 1995 levels of the other three categories of gases. The United States agreed to a target of 7 percent below 1990 levels by the period between 2008 and 2012. To meet that target, net U.S. emissions of greenhouse gases -- all emissions minus removals of CO₂ by certain forestry-related activities -- must average no more than 1,484 million metric tons of carbon equivalent per year during that period. The targets for the European Union and Japan are 8 percent and 6 percent below 1990 levels, respectively. Australia, New Zealand, Norway, Russia and Ukraine all have limits somewhat less ambitious when phrased as cuts relative to their 1990 levels. In sum, over the period from 2008 to 2012, the industrial countries are expected to reduce their average emissions of greenhouse gases to about 5 percent below

their 1990 levels.

The President has made clear that his support of the Kyoto Agreement is dependent on meaningful participation from key developing countries (who are not included in Annex I). The President has also made clear that he will not submit the treaty to the Senate without such participation.

There are several reasons why meaningful participation from developing countries is essential. First, developing countries are projected to contribute a majority of total emissions by 2030 under a continuation of business-as-usual. Without the participation of developing economies, emissions reductions by the industrialized countries will therefore not achieve necessary protection from climate change. Indeed, if developing countries do not participate in the international regime, their emissions could potentially increase by *more* than under their business-as-usual baselines. One mechanism for such an unintended consequence is as follows.

As Annex I countries comply with their targets, their demand for oil will fall, which will probably work to reduce the price of oil on world markets, and perhaps to encourage non-participating countries to use more oil and emit more carbon than they otherwise would have.

Second, developing country participation is crucial because it would permit relatively low-cost emissions reductions to be internationally recognized as a substitute for more expensive emissions reductions that might otherwise be achieved by U.S. companies domestically. Again, greenhouse gas emissions have the same basic impact on the climate regardless of where they occur. So reductions in developing countries have the same environmental benefit as reductions domestically. But these reductions are much less costly than reductions in the U.S. or in other developed nations, because of the very inefficient and carbon-intensive uses of energy in these countries today. It thus makes sense, from both an environmental and an economic perspective, to incorporate emissions reductions in developing countries into the international system.

Third, principles of basic fairness suggest all countries should do their part, depending on their ability to contribute to the solution. Thus even poor countries should contribute, although the existence of more pressing social needs in such countries will inevitably limit the magnitude of their contributions.

So far I have not mentioned the word "competitiveness." One of the difficulties in analyzing concerns related to competitiveness is that the term itself is used to mean many different things. I have seen at least one study that uses "loss of competitiveness" to refer to predictions of negative effects on the *aggregate* trade balance. As a professional economist, I do not accept the logic upon which that particular argument is predicated: the aggregate trade balance is determined by macroeconomic forces -- the difference between saving and investment -- and not by our environmental policies.

On the other hand, if competitiveness refers to adverse effects on a few specific manufacturing industries -- those that are especially energy-intensive, such as aluminum, paper, and chemicals -- the situation may be more complicated. It is difficult to undergo a significant structural change in the economy without having the effect of expanding some sectors and contracting others. But to provide some perspective on this issue, consider the following facts. First, on average, energy constitutes only 2.2 percent of total costs to U.S. industry. Second, energy prices already vary significantly across countries. According to the *1997 Statistical Abstract*, for example, in 1996 premium gasoline cost \$1.28 per gallon in the United States -- but only 8 cents in Venezuela. Similarly, gas prices were \$3.71 per gallon in Switzerland and \$4.41 per gallon in France. Yet U.S. industry is not moving en masse to Venezuela, nor is European industry moving to the United States. Third, roughly two-thirds of all emissions are not in manufacturing at all, but in transportation and buildings. I therefore believe it more accurate to say that we need developing country participation for the reasons I outlined above, than to say that we need it to avoid adverse effects on competitiveness.

Flexibility and Market Mechanisms

A global solution is thus critical to the global problem of climate change. Globalizing the solution is not, however, enough by itself. We must also ensure that our efforts achieve their objectives in the most efficient manner possible. The nature of the climate change problem suggests three basic methods to lower costs of achieving given levels of environmental protection. They can be characterized in terms of three categories of flexibility: (1) "when" flexibility; (2) "what" flexibility; and (3) "where" flexibility, which may be the most important of all. Such methods have long been championed by economists interested in increasing the efficiency of protection. Indeed, the 2,600 economists urged such approaches in a letter they signed last year advocating action on climate change:

"Economic studies have found that there are many potential policies to reduce greenhouse gas emissions for which the total benefits outweigh the total costs...The most efficient approach to slowing climate change is through market-based policies."

1. "When flexibility" (timing)

First is "when flexibility" or timing. Since climate change is a long-term problem, the exact timing of emissions reductions is in some sense not of primary importance. Thus the freedom to delay or accelerate reductions within an agreed upon time frame -- while ensuring credibility of emissions reductions -- lowers costs.

The Kyoto Protocol incorporates this principle of "when flexibility" in four ways:

- First, the cuts to be made in the first period are less severe, and the first period ends much later, than what had been proposed by many other countries, most notably the Europeans.

By adopting a gradual and credible path of reductions in the early years, we can greatly reduce costs such as those from prematurely scrapping coal-fired electricity plants still in the prime of their operating lives, while attaining the same ultimate environmental goals.

- Second, under the Kyoto agreement, the emissions target is not specified in terms of a specific year, but rather in terms of an average over a five-year period (2008-2012). Averaging over five years, instead of requiring countries to meet a specific target each year, can lower costs, especially given an uncertain future. The averaging can smooth out the effects of short-term events such as fluctuations in the business cycle and energy demand, or hard winters and hot summers that would increase energy use and emissions.
- Third, there is allowance for “banking” emission reductions within the 2008-2012 commitment period, for use in a subsequent commitment period [although the emission targets of the next period have not yet been specified].

2. “What flexibility” (gases and sinks)

The second type of flexibility is “what flexibility”, along two dimensions. The first is the inclusion in the agreement of all six greenhouse gases. Emissions of different kinds of gases, not just carbon dioxide, contribute to the greenhouse effect. Since the IPCC has developed conversion factors for all greenhouse gases by estimating their global warming potentials, reductions in emissions of one pollutant can be used to substitute for increases in emissions of another by an amount that has equivalent environmental effects. The Kyoto Protocol stipulates that countries with binding targets are expected to reduce their *total* greenhouse gas emissions by certain percentages, but does not require specific reductions for specific gases. Since a molecule of sulfur hexafluoride is 23,900 times more potent over 100 years than a molecule of CO₂, it may be cheaper to achieve the same environmental benefit by eliminating one molecular unit of SF₆ than nearly 24,000 units of CO₂.

Some initial rough analysis indicates that a strategy of reducing non-CO₂ greenhouse gases by *more* than 7 percent below their 1990/1995 baseline levels while reducing CO₂ by *less* than 7 percent below its 1990 level could reduce greenhouse gas emission permit prices by more than 10 percent. Thus allowing countries flexibility in what gases they reduce -- essentially trading emissions reductions across gases -- can help lower significantly the costs of meeting their targets.

The second source of “what flexibility” is the treatment of sinks, i.e., land use activities that promote the removal of carbon from the atmosphere through the growth of plants. Promoting such sinks through afforestation and reforestation may reduce atmospheric concentrations of CO₂ at much lower costs than reducing emissions of greenhouse gases.

3. "Where flexibility" (international)

The third type of flexibility, and perhaps the most important, is "where flexibility" (international). As I have already emphasized, emissions have the same environmental consequences regardless of where in the world they occur. Therefore, the least-cost approach to controlling climate change is to reduce emissions wherever such reductions are cheapest. The Kyoto agreement includes two important cost-saving provisions of this nature. First, it provides for industrial countries to trade rights to emit greenhouse gases with each other. This market in emissions permits will ensure that emission reductions occur where they are least expensive within the industrial countries. In particular, U.S. companies could purchase emissions reductions in other participating countries when doing so would reduce their costs -- lowering costs without affecting the level of environmental protection.

Second, the agreement allows industrial countries to invest in "clean development" projects in the developing world and use these projects' certified emissions reductions toward meeting their targets. Many such clean-development projects may be quite cheap in terms of the cost per ton of emissions avoided, as has been illustrated by the joint implementation pilot program that is already in place in the U.S. Details of these provisions will be worked out in negotiations in Buenos Aires later this year.

IV. Difficulties of Economic Analysis of Kyoto Agreement

Now that we have a Protocol -- even if it is not yet fully complete nor ready for the President's submission to the Senate -- it is possible to examine it in somewhat more detail from an economic perspective. But I wish to emphasize once again the inherent limitations to any such estimates. Such limitations should not be surprising to you: economists have a difficult enough time projecting the behavior of the economy over the next quarter or year, let alone over the next two decades. The scale of the forecasting exercise is therefore daunting, and any specific results should be treated with substantial caution.

The difficulties associated with economic analysis of climate change fall into three broad categories. First are the uncertainties that still remain over the terms of the ultimate treaty. Second are the inherent limitations of available models to analyze even short-term costs and benefits. And finally is a topic I discussed earlier: the impossibility of putting a single monetary number on the long-term benefits of climate change mitigation.

Uncertainties over Certain Provisions in International Effort to Combat Climate Change

The Kyoto Agreement was an historic accomplishment, delineating the broad terms of the international effort to address climate change. But although we know a lot more than we did before Kyoto about how that international system will work, there is still much that we

don't know.

First, as is often the case in a legal document of the length and complexity of the Kyoto Protocol, there are some provisions that require further clarification and interpretation. Of particular concern here is the treatment of so-called sinks -- activities that affect the rate at which carbon is removed from the atmosphere and "sequestered," specifically by the planting of trees.

Second, the details of a number of items -- primarily concerning international trading and developing countries -- are the subject of further negotiations in Buenos Aires next fall, because they had not been definitively settled by the end of the last all-night session of the Kyoto talks.

Finally, and most importantly, we have not yet negotiated international agreements to limit emissions beyond the 2012 window. The emission cuts agreed upon at Kyoto are only a first step on a long journey. The first step that we propose to take over the next 15 years is critical. But the reason it is critical is *not* that, by itself, it will solve the climate change problem -- emissions during any given decade are small compared to the cumulative concentrations in the atmosphere. Rather, the first step is critical because we can't take the second and third steps until we have taken the first. At the same time, any analysis is complicated by the lack of knowledge over what the subsequent steps will be.

Inherent Limitations of Models

In addition to these uncertainties about the details of the international effort to address climate change, I must also note the inherent limitations of the models used to evaluate that effort. Even within a given model, answers depend critically on the precise nature of the question asked. For example, the costs of emissions reductions depend critically on the extent of global participation and international trading that a treaty is assumed to feature. But in addition to the dependence of the results from a given model on the precise assumptions, different models can give different answers even when all the assumptions are specified to be the same -- a concrete illustration of the range of uncertainty to which we must assign the predictions of any one individual model.

One area in which the uncertainty is particularly large is the pace of technological progress -- including diffusion of existing energy-efficient technologies, as well as research and development of new technologies -- and the extent to which the pace will accelerate in response to government programs. Economics does not offer a good understanding of how technological progress is determined, in part because it is the stuff of experimentation, brainstorming, genius, breakthroughs, perceptions and habits. Invention is largely determined by inspiration -- notwithstanding Edison, who assigned a 99 percent share to perspiration -- and inspiration, in my experience, is difficult to fit into mathematical formulae or economic models. Models and experts on climate change policy tend to have a wider range of disagreement on the speed with which technology can be changed and the scope for speeding the diffusion of existing

energy-efficient technologies than on any other single issue.

Furthermore, each model has strengths and weaknesses; each has questions to which it is better or worse suited to answer. Some, for example, model the energy sector in detail. Some allow for the fact that a coal-fired power plant cannot costlessly be converted to one that runs on natural gas. Some have enough policy detail to distinguish alternative ways of redistributing revenues that would result if emission permits were to be auctioned. Some are capable of showing short-term macroeconomic disequilibria. Some include a long-term “carbon cycle” model that can keep track of the accumulation of greenhouse gas concentrations in the atmosphere and their climatological effects. Some break down the rest of the world into regions and so can model international trade. No one model does everything, and therefore we must not rely blindly on the results of any one model or set of models. Professional judgement and economic intuition are also crucial.

Benefits of Averting Climate Change

As I discussed above, it is evident that the benefits of averting climate change are potentially immense. But I have chosen not to try to quantify them in monetary terms for you, in light of the difficulties I have enumerated -- including the quantitative uncertainty of these benefits, and their timing and therefore the extreme sensitivity of the results to the chosen discount rate.

Instead, what I will do is draw upon a variety of sources in an attempt to add up the various possible costs and benefits of emissions policy *excluding* climate change. To give away the punch line, my conclusion is as follows: the net costs of our policies to reduce emissions are likely to be small, if those reductions are undertaken in an efficient manner, *even before taking into account the benefits of averting climate change itself*. That small net premium excluding the benefits of mitigating climate change, in effect, purchases a partial insurance policy against a serious environmental threat.

V. Assessing the Kyoto Agreement

The existence of modeling difficulties means that the results from any model must be treated with caution. We have therefore employed a broad set of economic tools to assess the Kyoto agreement. We have drawn on the insights of a wide range of models of the energy sector and economy over the next 25 years, including but not limited to the results of the Stanford Energy Modeling Forum exercises, the IPCC’s review of the economic and social dimensions of climate change, and the staff-level Interagency Analytical Team effort last year. Other tools include simple relevant statistics, “meta-analyses” of existing models, historical and sectoral examples, and basic economic reasoning. Drawing on this broad array of analytical tools is crucial to an intelligent evaluation of the policy alternatives.

To my knowledge, as of December, no model -- whether used inside the government or not -- had been set up precisely to analyze the parameters of the agreement that was reached in Kyoto. Most model-builders outside the government tend to take as long as several years to incorporate changes in policy parameters into their models. And no model is currently designed to assess sinks, or all six greenhouse gases included in the treaty.

One of the leading models in the field is the Second Generation Model of Battelle Laboratories. The SGM is one of the models best positioned to analyze the role of international trade in emission permits, which we consider to be a critical element of the Kyoto Treaty. However, the SGM does not cover all six gases included in the Kyoto agreement or include a role for sinks. We have used the SGM model as a starting point for a preliminary assessment of the Kyoto treaty, but have attempted to supplement its results with additional analysis to account for such special features of the agreement as the inclusion of six gases, sinks and a possible Annex I trading scheme that could exclude the EU. I will share with you today some preliminary results of this analysis.

Mindful of the limitations of any single model, we are eager to see features of the Kyoto agreement assessed by other models to obtain a better feel for the range of possible effects. Much of this work will continue to go on outside the government. For example, we have had discussions with the Energy Modeling Forum, based at Stanford University. The EMF is a long-running exercise involving many of the leading climate models. We have given the EMF advice on how features of the Kyoto legal language can be translated into terms recognizable to an economist. Unfortunately, the Energy Modeling Forum believes that its members will need at least until mid-year to produce reliable results.

VI. Economic Analysis

With all of that as important background, let us now turn to the task at hand. As we do so, let me emphasize once again that the figures presented below do not incorporate the benefits of starting to mitigate climate change.

I said in Congressional testimony last July that we can do this smart or we can do this dumb. I was referring to the point that the costs of cutting emissions can be much reduced if flexible, market mechanisms are used. Our economic analysis highlighted the importance of such flexible, market-based mechanisms -- which are therefore reflected, at the President's insistence, in the Kyoto Agreement and our approach to the effort.

Within the Kyoto agreement, this means an insistence on international trading, joint implementation, and, ultimately, on full developing country participation. Domestically, this means that we implement any emissions reductions through a market-based system of *tradeable* emissions permits, which ensures that we achieve reductions wherever they are least expensive. But this also means taking serious and responsible steps in the short run to prepare us to meet our

obligations in the longer term.

The first such step is the inclusion in this year's budget of an aggressive, \$6.3 billion program of tax cuts and R&D -- \$1.3 billion more than the \$5 billion package the President promised in his October 22 speech on this issue. The goal is both to stimulate the development of new energy-saving and carbon-saving technologies and to encourage the dissemination of those that exist already. The proposed package contains \$3.6 billion over the next 5 years in tax cuts for energy efficient purchases and renewable energy, including tax credits of \$3,000 to \$4,000 for consumers who purchase highly fuel efficient vehicles, a 15 percent credit (up to \$2,000) for purchases of rooftop solar equipment, a 20 percent credit (subject to a cap) for purchasing energy-efficient building equipment, a \$2,000 credit for purchasing energy-efficient new homes, an extension of the wind and biomass tax credit, and a 10 percent investment credit for the purchase of combined heat and power systems. The package also contains \$2.7 billion over the next 5 years in additional research and development spending -- covering the four major carbon-emitting sectors of the economy (buildings, industry, transportation, and electricity), plus carbon removal and sequestration, Federal facilities, and cross-cutting analyses and research. One example of the R&D effort is the Partnership for a New Generation of Vehicles (PNGV). PNGV is a government-industry effort to develop attractive, affordable cars that meet all applicable safety and environmental standards and get up to three times the fuel efficiency of today's cars. In FY99, the combined proposal for PNGV is \$277 million, up from \$227 million appropriated in FY98. Similar government-industry efforts are proposed to develop more efficient diesel engines for both light trucks and heavy trucks.

A second responsible step entails industry-by-industry consultations to prepare emission reduction plans in key industrial sectors. The Administration will work in partnership with industry to identify ways in which the Federal government might remove regulatory hurdles that discourage energy efficiency. In addition, DOE will spearhead a comprehensive effort to improve the energy efficiency of the Federal government's own operations and purchases.

The third step is the promotion of an environmentally-responsible electricity restructuring bill, which the President identified as part of his domestic climate change package in his address to the National Geographic Society on October 22. An electricity sector freed from government regulation would be a more efficient energy sector. Costs to consumers would fall. A reasonable overall estimate of the effects of adding federal electricity restructuring to the rest of the President's program to address climate change is to achieve the same environmental goals at a cost saving of roughly \$16 billion per year.

Estimated Reduction in Costs from Annex I Trading

In the language of the treaty, "Annex I," you will recall, is the set of countries that have agreed to take on binding limitations in emissions of greenhouse gases. Even without

developing country participation -- which, again, the President has emphasized as essential before the treaty would be submitted for ratification -- costs would be reduced substantially by trading among the Annex I countries. To provide some indication of the possible efficiency improvements, Russia and the Ukraine consume six times as much energy per dollar of output as does the United States.

Estimates derived from the SGM model suggest that trading among Annex I countries is likely to reduce the cost to the United States of achieving its targets for 2008-2012 emissions by about half relative to a situation in which such trading was not available. This concept of costs is meant to capture aggregate resource costs to the US economy, including the cost to domestic firms of purchasing emission permits from Russia and other countries where emission reductions are cheaper than in the United States. The dramatic reduction in costs available from Annex I trading within the SGM model -- cutting the costs involved by half -- highlights why the President insisted that international trading be part of the Kyoto Agreement.

Estimated reduction in costs from umbrella trading

One possibility that emerged in Kyoto, which none of us foresaw, was the idea that the United States might undertake trading with a subset of Annex I countries, dubbed the "umbrella," that would exclude the European Union. The initial list of proposed participants in the umbrella includes the United States, Australia, Canada, Japan, New Zealand and Russia, with strong indications of interest from some others. The motivation for this idea was that the Europeans have been reluctant to agree to the sort of international trading that we want (preferring that they achieve their goals collectively in a group of their own, called the "EU bubble").

It is too early to say whether the umbrella concept will in fact be accepted by the parties. But it is an important concept to consider, for three reasons. First, it is conceivable that it will be formally agreed to in future negotiations. Second, even if the final treaty does not explicitly include the umbrella, but rather allows trading among all signatories (as the United States has proposed all along), it is conceivable that umbrella countries will agree, outside the treaty, to trade only among themselves. Third, the aversion toward international trading that the Europeans have expressed suggests that they might refrain from making the trades to which they would be entitled -- which would mean that the umbrella would operate in practice, if not in formal international agreement.

The significance of the umbrella idea in the present context is that it has the potential to further reduce costs to the United States. The reason is that if the Europeans do not bid against us for the relatively abundant, low-cost opportunities to reduce emissions in Russia and Eastern Europe, then the price of emissions reductions will be even lower. Results that we have derived from various SGM simulations suggest that, relative to the situation in which there is no trading at all, the umbrella arrangement would reduce costs by an estimated 60-75 per cent, depending on whether the former Warsaw Pact countries are classed with the EU, or are instead

assumed to fall within the umbrella.

Estimated reduction in costs from LDC participation

The next consideration is participation by developing countries. The President has said that he will not submit the treaty for ratification without such participation -- which would further reduce the costs involved.

The substantial potential gains from meaningful LDC participation are highlighted by the significant benefits that will likely accrue even from the limited role that the LDCs have already agreed to: the Clean Development Mechanism, modeled after Joint Implementation (JI). JI cannot realistically be expected to yield all the gains of binding targets for developing countries, but it might shave costs by roughly another 20 to 25 percent from the reduced costs that result from trading among Annex I countries.

Another possibility is that we persuade some of the key developing countries that are the largest emitters to commit to targets, and allow us to buy emission reductions from those paths. We estimate that this could cut roughly 55 percent off the reduced costs that result from Annex I trading. [The four countries included in this particular estimate are China, India, Brazil and Korea.] Once these savings have been attained, the estimated reductions to US costs from persuading the rest of the developing world to go along with full commitments are relatively small.

A useful rough check on our estimate of the gains from international emissions trading can be obtained from other modeling efforts, notwithstanding that they are likely to be more distant approximations to the parameters of the Kyoto Treaty. Recent results from six leading models that participated in the Stanford Energy Modeling Forum show that worldwide permit trading would reduce the estimated costs -- defined as lost consumption -- of a full, long-term, global program to stabilize atmospheric concentrations at 550 ppmv by an average of 56 percent, although the results vary from model to model.

I offer these numbers because they show the potential effectiveness of trading in reducing costs dramatically. But it is important that I repeat three caveats: First, as always, there is a wide range of uncertainty around all these estimates. Second, they apply to an idealized version of trading, one that assumes no problems of enforcement or transactions costs. Third, it seems unlikely that we will convince all of our partners to agree in Buenos Aires to the most complete and cost-effective international trading arrangements. Nonetheless, despite these caveats, the numbers still show major savings.

Moreover -- and I can't highlight this enough -- these cost-saving features are fundamental tenets of the U.S. position for ratifying the Kyoto Protocol. If we do not get very solid provisions for international emissions trading and meaningful participation by key

developing countries, we won't submit the treaty for ratification to the Senate. So, while our analysis may be predicated on some ambitious conditions concerning trading and developing country participation, it is exactly those conditions that form the foundation of the U.S. position going into Buenos Aires.

VII. Non-Climate Benefits

The costs of undertaking greenhouse gas emission reductions must be compared to the benefits. As I have indicated, for various reasons our analysis does not quantify the benefits from averting climate change itself. But the relative price shifts that are necessary to reduce emissions should produce benefits in three areas: air pollution, traffic congestion, and highway accidents. These benefits are quantifiable. The magnitude of these projected benefits would vary with the permit price.

Reductions in carbon emissions also lead to reductions in emissions of pollutants that contribute to excess concentrations of fine particulate matter and low-level ozone. We estimate significant ancillary reductions of nitrogen oxides and other pollutants and associated cost savings even for low carbon prices. These cost savings would be even larger if carbon emissions reduction efforts could be carefully coordinated with the implementation of the national ambient air quality standards.

Traffic congestion hurts motorists by causing delays and inconvenience. More efficient pricing -- which recognizes the externalities involved -- should lead to reductions in congestion as motorists choose other means of travel, share rides, or even forgo less important trips.

Vehicle use also leads to costly accidents and to highway injuries including fatalities. More efficient pricing will reduce use and create savings from reduced accidents and resultant mortality. The savings from reduced congestion and reduced accidents are significant, even with low carbon prices.

A variety of other benefits that are harder to quantify are likely to result from reductions in carbon emissions. With respect to transportation, reduced vehicle use will also reduce the cost of road repair and maintenance. Second, reduced coal use will lower mercury emissions. Finally, reduced energy use will also increase U.S. energy independence. Our inability to estimate these effects quantitatively does not imply that they are necessarily small or unimportant.

VIII. Preliminary Estimate of the Net Effects of the Kyoto Agreement

We can now combine the various benefits and costs delineated above to provide a preliminary assessment of the likely net impact of the Kyoto agreement. This assessment

excludes, however, both the benefits of averted damage from climate change and also the impacts of a substantial number of cost-mitigating factors, including mitigation through sinks, and emissions reductions achieved as a consequence of the proposed Administration climate change initiatives. An additional limitation of this analysis is that it relies in part on results from one specific model--the SGM model--supplemented by additional Administration analysis to match the results from the model with the institutional details of the Kyoto agreement. The analysis does, however, attempt to account for the impact of trading under the umbrella, joint implementation, and meaning participation by key LDCs. Under these assumptions about international trading, the resource costs of attaining our Kyoto targets for emission reductions might amount to \$7 to \$9 billion. Adding in the non-climate benefits, overall net costs could reach \$5 billion to \$8 billion, or roughly 0.08 percent of projected GDP, under the international trading assumptions and other provisos I have mentioned.

A more tangible measure of costs is the estimated effects on energy prices. Excluding the impact of electricity restructuring, our SGM-based estimate is that the price of emissions could be \$12 to \$16 per ton of carbon equivalent -- and that energy prices at the household level could rise by about 3 percent under the Kyoto accord. Fuel oil prices could rise by about 6 percent, natural gas prices by 4 percent, gasoline prices by 3 percent, and electricity prices by 3 percent. A 3 percent increase in energy prices at the household level would raise the average family's energy bill by about \$75 per year.

These estimates do *not* mean that households' energy expenses will in fact be higher in 2010 than today, however. In the first place, energy prices fluctuate year-by-year for all sorts of reasons. They could go either up or down. But even if we leave out unpredictable fluctuations, the energy price declines from Federal electricity restructuring would be enough to offset the impact estimated above. By 2008-2012, the projected 10 percent decline in electricity prices from the restructuring that is part of our climate change agenda will mean a net reduction in electricity prices in the U.S., even accounting for the small increases noted above.

As highlighted earlier, estimates of the type that I am presenting are fraught with uncertainty. The estimate I just discussed was predicated on the developing country participation that we will insist upon in Buenos Aires as a condition for our ratifying the Kyoto Protocol, but which is not yet part of that Protocol. At the same time, the numbers I have cited are in several respects conservative: they leave out several factors, such as the role of sinks and policy initiatives, that could further reduce costs. But before I bring these factors into the analysis, allow me to say a few words about macroeconomics.

Effects on employment and aggregate output

So far I have said nothing about job losses resulting from climate change policy.

Although there may be job gains in some sectors and job losses in others, I do not anticipate any significant aggregate effect. Some jobs could be lost in energy-intensive sectors, although given the very small predicted change in energy prices, impacts in most such sectors are apt to be minimal. Furthermore, a large number of jobs will be created in other sectors -- many of them high-tech jobs paying high wages. The President is firmly committed to assisting any workers who are adversely affected during the transition to a climate-friendly economy.

The situation might be different if a large energy shock were to hit the economy with no warning, as happened in the oil crisis of 1973-74, when the real money supply, output and employment all contracted sharply. In addition to hitting with no warning, the oil shocks of the 1970s also entailed large transfers from the U.S. and other oil-importing countries to OPEC, thus depressing real income and spending in the former. A self-imposed shift in the relative price of carbon-intensive energy to address global climate change, on the other hand, need not entail such a transfer of purchasing power. Thus there are critical differences between the oil price shocks and the effort to reduce carbon emissions. Our reassuring conclusion regarding aggregate output might also be different if the policy were to be implemented inefficiently (by command-and-control style regulations of the sort put in place in that oil crisis) rather than efficiently (by market mechanisms of the sort that the President has proposed to use).

IX. The Foregoing Estimates Are Conservative Along Several Dimensions

I should emphasize that the estimates I have presented are conservative in the sense that they do not include three factors: the potential cost reductions resulting from the inclusion in the Kyoto treaty of carbon sinks, the potential payoffs to the President's technology or energy efficiency initiatives, or the benefits of mitigating climate change itself. The first omission, sinks, concerns a provision of the Kyoto Protocol that has received less attention than it merits. It is only *net* emissions -- emissions to the atmosphere minus sequestration -- that are to be reduced 7 percent below 1990 levels, not gross emissions. The United States plants many trees every year, and would receive credit for this activity under the Protocol. Very preliminary estimates of the implications for the United States of the Kyoto provision on sinks indicates that carbon sinks could comprise nearly 10% of total required emissions reductions. Decreasing the required emissions reduction by 10% would likely result in cost-savings greater than 10%.

Even this estimate of the effect of sinks is conservative in one respect: it is based on an assumption for sink activity in the U.S. over the 2008-2012 period, and no assumed benefits from sinks elsewhere in the world. Very preliminary estimates suggest that incorporating the gains from sinks *throughout the world* can reduce the costs of meeting the Kyoto target by half or more, on top of the gains from trading among Annex I countries. (Furthermore, no model has yet even tried to take into account that government policies can help increase the amount of tree-planting, possibly through some version of the USDA's Conservation Reserve Program, for example.) But neither we nor other analysts are yet sure exactly how to interpret the legal language of the Protocol. Because the quantitative uncertainty is so large, we do not yet have an

estimate with which I feel comfortable. But we do know that the effect of fully modelling the Kyoto provision pertaining to sinks is likely to be both favorable and large.

The estimates I have cited so far also make little allowance for the payoff to the President's \$6.3 billion Climate Change Technology Initiative. The parameter that figures most prominently in analysis of technological progress in the energy field is the rate of improvement in the so-called Autonomous Energy Efficiency Index (AEEI), that is the rate at which the total use of energy falls relative to GDP. In the SGM model analysis that underlies our assessment, the AEEI is assumed to improve by 1.0 percent per year. Reflecting a conservative interpretation of the 15-year impact of the technology initiative, this is only a small increase above the 0.9 percent number in the Energy Information Administration's Annual Energy Outlook.

Our justification for incorporating into our assessment such a small assumed impact of Administration technology policies is somewhat analogous to the Administration's rationale for employing mainstream economic assumptions in our budget forecasts: in the presence of uncertainty, we are conservative in our estimates of the speed with which the economy will grow, tax receipts will rise, and the budget will improve. That way, any revisions or surprises that occur are likely to be in the pleasant direction. In this instance, we have conservatively assumed that there will be substantial lags in producing payoffs from new technology research and dissemination expenditures.

Clearly, this is neither the best outcome the Nation *can* attain nor the best outcome the Administration *expects* to attain as a consequence of our climate change strategy over the next decade. Many energy technology experts forecast more rapid technological progress; and engineering models suggest that some energy improving technologies are available now at negative costs.

If the Administration is successful in speeding the discovery and adoption of new technologies, the rate of improvement in energy efficiency could rise and such improvements would lower the cost of meeting our Kyoto target. For example, published results based on SGM model simulations with different assumed rates of AEEI improvement suggest an increase in the AEEI from 1.0 to 1.25 would be reflected in about a 40% decrease in the permit price.

Our preliminary estimates do not fully reflect potential entrepreneurial response to appropriate incentives. An instructive example of the ability of U.S. industry to perform beyond expectations when given appropriate economic incentives is EPA's highly acclaimed sulfur dioxide (SO₂) program, which relies, among other things, on a system of tradeable permits to reduce emissions of SO₂ from electric utilities. The SO₂ program has been successful in several ways: a large number of utilities participate, SO₂ emissions and ambient concentrations have fallen and the costs of reducing emissions are considerably lower than originally forecast.

As has been frequently noted, the average cost of SO₂ emissions reductions has recently been significantly lower than was originally forecast, in part due to the role of incentives in

fostering innovation. Emission permit prices, currently at approximately \$100 per ton of SO₂, are well below earlier estimates of around \$250 to \$350 per ton.

Trading programs may not always bring cost savings as large as those achieved by the SO₂ program; trading programs will not always be accompanied by the discovery of much cheaper control strategies. However, the SO₂ experience demonstrates clearly how programs that offer important market incentives to find cheaper ways of reducing emissions can lead to unexpectedly low prices.

The final, and most important factor that has been left out of the estimates I have presented is the benefit of mitigating climate change itself. A full cost-benefit analysis would include mitigation in the benefits column. The only reason we have not done so, as I have explained repeatedly above, is the difficulty in coming up with a number to capture the monetary benefits. But I trust that nobody will lose sight of our ultimate objective -- keeping our planet the hospitable home that we enjoy today.

CONCLUSION

In conclusion, the Kyoto Agreement and the President's general approach to climate change reflect the insight of economic analysis. The Kyoto Agreement includes key provisions on international trading and clean development projects. The President's approach relies on market incentives -- first, with a system of tax cuts and R&D, and then later with a market-based system of tradeable permits -- to ensure that our objectives are achieved as efficiently as possible.

I look forward to continuing to work with members of this Committee, as well as other interested parties, in further analyzing the Kyoto Agreement and evaluating the net effects of reducing greenhouse gas emissions. It is my hope that economic analysis will continue to play a key role in designing policies in this area.

I welcome your questions.

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TO: Michele Jolin (CN=Michele Jolin/OU=CEA/O=EOP @ EOP [CEA])
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TO: Janet L. Yellen (CN=Janet L. Yellen/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TEXT:

I just had lunch with Mr. Nishikawa, the economic counsellor at the Japanese embassy (seconded here from the EPA). He said that the line on page 40, "...deficits are not the proper gauge of the success or failure of U. S. trade policy" has been quoted widely in Japanese newspapers.

He also said that the standard Japanese journalist scans for references to Japan in any American document and then evaluates the comment as evidence of Japan bashing. Because they found no Japan bashing, Mr. Nishikawa thought we had done very well.

He also thanked us for mentioning CEA - EPA meetings in the activities section.

The Japanese are always well prepared. Mr. Nishikawa had told his Tokyo-based supervisors that he having lunch with me and they had sent a fax with questions to ask. (The questions were standard: east Asia crisis, new age macro, productivity trend, IMF funding, efficiency of labor markets)

we also discussed Japan.

He said that estimates now show that the Asian economic crisis may have boosted the level of nonperforming loans at Japanese banks by 10 percent. He showed me a chart from a Japanese newspaper showing that the Government budget request for public works was down from last year's spending. He knew that the Americans think that this budget ought to be bigger, but said that this figure could not be changed before passage of the budget. But after passage, a supplemental package is likely to be proposed, and asked that Americans should be patient.