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DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	Janet L.. Yellen to Michelle Jolin at 19:45:46.00. Subject: Alicia remarks. (4 pages)	03/18/1999	b(6)

COLLECTION:

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[03/11/1999 - 04/01/1999]

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RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

Freedom of Information Act - [5 U.S.C. 552(b)]

- P1 National Security Classified Information [(a)(1) of the PRA]
- P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P3 Release would violate a Federal statute [(a)(3) of the PRA]
- P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

- b(1) National security classified information [(b)(1) of the FOIA]
- b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
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- b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
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- b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

- C. Closed in accordance with restrictions contained in donor's deed of gift.
- PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
- RR. Document will be reviewed upon request.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:11-MAR-1999 18:45:32.00

SUBJECT: Re: draft remarks for roundtable

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

READ:UNKNOWN

TEXT:

I made just a few changes to the remarks and reworked the part on the accuracy of forecasts a bit. I enclose the revised file for you to pass on to Beverly and the organizers. Let's let Doug revise the remarks when he returns. ===== ATTACHMENT 1 =====

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D76]MAIL45059667Q.036 to ASCII,
The following is a HEX DUMP:

Remarks to Women Editors and Reporters Roundtable on Social Security
Janet L. Yellen, Chair
Council of Economic Advisers
March 15, 1999

“How Social Security Reform Will Affect Future Generations of Americans”

I appreciate this opportunity to talk about how the President’s Social Security reform proposal will benefit women -- and all Americans -- in the future. The President’s Social Security plan will help future generations of Americans in two critical ways: one way -- which is what Jack talked about earlier -- is by fundamentally strengthening the Social Security system so that all Americans are confident that they will receive benefits when they need them. The other way -- which I intend to focus on in my brief remarks -- is by strengthening our nation’s economy, so that we can pay future Social Security benefits and provide other necessary government services to retirees without imposing an undue burden on future generations of American workers.

For the Nation as a whole, the central problem of our aging population is how to ensure that future workers and retirees enjoy a higher standard of living, even though a smaller share of the population will be in the workforce. A natural solution is to take steps now to make workers more productive by increasing investment in both physical and human capital, which will, in turn, raise workers’ productivity. In doing so, we can increase the size of the total economic pie, which is prerequisite to meeting the retirement costs of the baby boom generation without unduly burdening workers in the future.

The key to accomplishing this goal is to increase national saving. National saving is simply the sum of saving by households, by firms, and by governments. During this Administration, net national saving has increased sharply as a share of GDP, rising from 3.1 percent of GDP in 1992 to [6.7] percent of GDP last year. This gain is entirely a result of the increase in federal government saving — that is, the savings has come as a result of the dramatic reversal of the federal budget from large deficits to growing surpluses.

The President's proposal for Social Security reform will dramatically extend the Administration's record of fiscal discipline and saving for our Nation's future. Under this proposal, the government will devote three-quarters of the projected budget surpluses over the next 15 years to paying down debt and purchasing equities. For every dollar of publicly held debt that is redeemed, a one-dollar bond will be given to either the Social Security or Medicare trust funds, and each equity share would be placed in the Social Security trust fund. It is important to note, however, that building up these trust funds does not make any new commitments, it simply improves the ability of the funds to pay the benefits that are already required by current law.

According to current projections, the President's proposal will reduce this nation's debt from 44 percent of GDP today to only 7 percent by 2014, the smallest share since 1917. And, the government's overall financial position will be even stronger, because of the investments in equities. The reduction in debt in turn improves the future budget outlook by slashing required interest payments. In fact, the decline in interest expense will exceed the increase in Social

Security expense through the middle of the next century. According to current projections, the President's proposal allows the government to run a budget surplus until the late 2040s.

Both the debt paydown and equity purchase boost national saving, essentially freeing up room in private portfolios for holdings of additional productive capital. Compared to a policy of spending the projected budget surpluses, the President's proposal boosts the government's contribution to national saving by about 2 percent of GDP, which will generate a significant increase in the capital stock. More capital means higher productivity and wages, higher incomes, and lower interest rates. It also leads to a reduced dependence on foreign borrowing and, ultimately, an improving trade balance.

Finally, let me take a moment at this point to talk about the projections used by the Administration in developing the President's Social Security reform plan. Some policymakers and commentators have questioned how we can rely on projections of economic performance over the next 6 decades and how we can count on seeing surpluses in future years. Let me say: forecasting is always a difficult business. But, for the past 7 years, this Administration has built a record of credible, accurate economic forecasts. For seven years in a row, deficits have fallen short of Administration forecasts. The forecast of economic growth which underlies the Administration's budget could be criticized for its conservative bent--we have not, for example, assumed that the economy's ability to grow has increased substantially in recent years, although the data suggests that a pickup may in fact be occurring. Although any forecast is subject to error, I believe that the projections used in the President's Social Security plan are sound, realistic, and in line with the forecasts of the Blue Chip private forecasters and the

To conclude, let me say that the President's Social Security reform plan takes a very important step toward addressing challenges that will face future generations of Americans. By setting aside the lion's share of the projected budget surpluses to pay down our nation's debt we will strengthen our economy for the future. Continuing the fiscal discipline that has been the centerpiece of this Administration's economic agenda will contribute greatly to preparing our Nation for the coming demographic changes. Dedicating the gains from this fiscal discipline to Social Security and Medicare will ensure the further success of these critical programs and will strengthen our nation's economy for future generations.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Charles F. Stone (CN=Charles F. Stone/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:11-MAR-1999 12:52:20.00

SUBJECT:

TO: Janet L. Yellen (CN=Janet L. Yellen/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.D34]MAIL40292167Z.036 to ASCII,
The following is a HEX DUMP:

Economics for Presidents

Thank you. It is a pleasure to be here to talk to you about the connection, if any, between economics as practiced at academic institutions and economics as practiced in Washington. My focus will be on the macroeconomic policy goals laid out in the Employment Act of 1946, which created the Council of Economic Advisers. When I started to think about how to organize such a talk I did the standard academic thing and looked at the literature. And I found some useful models, all either prepared for or subsequently reprinted in the Journal of Economic Perspectives.

In a lecture entitled “What Central Bankers Could Learn from Academics—and Vice Versa” Alan Blinder asks two pertinent questions: 1) Is the training we give and the research we do in the academy useful in actual policymaking (in his context monetary policymaking)?; and 2) Could it be more useful if academics and policymakers would change their ways? After giving a “yes, but . . .” answer to each question, Blinder concludes by quoting Alfred Marshall to the effect that exact scientific reasoning seldom brings us very far on the way to the conclusion for which we are seeking, but that it would be foolish not to use it at all. “Trained common sense” is Marshall’s phrase for what is needed, and Blinder suggests that we would be better off if policymakers paid more attention to the training part and academics paid more attention to the common sense part.

This conclusion is echoed in Charlie Schultze’s essay prepared for the JEP’s symposium on the fiftieth anniversary of the Council of Economic Advisers entitled, “The CEA: An Inside Voice for Mainstream Economics.” Schultze describes his continuing amazement at how few participants in Washington policy debates have a grasp of fundamental economic principles and how different from economists they analyze issues. He concludes that while it is important for the CEA to be well acquainted with the latest research, its greatest value added may be the injection of basic principles, well back from the frontiers of that research, into the debate.

So what is the “trained common sense” that academic economists have to offer? In microeconomics, the answer is fairly straightforward and pretty uncontroversial among economists. It revolves around the value of efficiency as a policy goal and the importance of getting incentives right. How successful economists have been at injecting these principles into the policy debate is less clear. In his 50th anniversary review essay, former CEA chairman Herb Stein concludes that microeconomic advice from the CEA has been important and successful. Schultze also identifies some important long-term successes, but more typically, he argues, the outcome is to convert an outcome from, say, fifth-best to third-best by suggesting more efficient ways of achieving some objective, or making the achievement of a “bad” objective less harmful. My immediate predecessor as CEA chairman, Joe Stiglitz, wrote an essay based on his experiences in which he asked why it is so difficult to implement even Pareto improvements.

The CEA’s role in nudging the policy process toward efficiency is important, and I am proud of our ongoing efforts in that regard. But the main role of the CEA as envisioned in the Employment Act is to give the President advice on macroeconomic policy. Indeed, as my friend and teacher James Tobin once observed, it takes a lot of Harberger triangles to fill an Okun gap. In the rest of my remarks I would like to discuss some of the major macroeconomic developments of the past few years, and the challenges going forward, within the framework of trained common sense that I believe is appropriate for advising Presidents.

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. Preparation of this report is a central function of the Council of Economic Advisers, and it is always worthwhile endeavor because it gives us a chance to reflect in an organized way on economic developments in the American and world economy and to explain the economic logic of the Administration's agenda.

In addition to giving us the responsibility for producing an annual report, the Employment Act, together with its later amendments, also 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. Last year was a year for baseball home-run records, and it was also a year for economic records. We were especially happy to be able to report this year--the fifty-third year after the Act-- we achieved the longest peacetime economic expansion on record and the records go back to 1854. You might think of the red cover of this year's *Economic Report* as symbolizing the Ared-hot economy.@

In our view, the Nation's economy is the strongest it has been in a generation. In 1998, growth was impressive, and job creation was vigorous while inflation declined. Real GDP grew 3.9 percent. Nonagricultural jobs increased by about 2.9 million during the year, and the average unemployment rate for the year dropped to 4.5 percent, its lowest level since 1969. The consumer price index rose by only 1.6 percent, its smallest increase since 1964, and other measures of inflation were even more muted.

As you all know, this year the Federal budget moved strongly into surplus. In the 1992 fiscal year the budget deficit was \$290 billion and expected to rise further with no change in policy. But beginning in 1993, the deficit began to decline steadily as a consequence of a shift to fiscal discipline. In 1998, the budget *surplus* was \$69 billion, the largest surplus as a share of GDP since 1957, and surpluses are projected well into the future: the Administration now projects surpluses in the unified Federal budget amounting to about \$4.5 trillion over the next 15 years. I will return to the budget and the use of those surpluses to address demographic challenges in a few minutes.

The current economic expansion is only the third on record that has lasted at least 7 years. This year's report puts the expansion in its historical context by comparing it with the other two long expansions--the 106-month long expansion of the 1960s (the longest in peace or war) and the 92-month long expansion of the 1980s. Judged in terms of overall economic performance this expansion has been not only long but excellent--especially with respect to inflation and unemployment. By this time in the expansion of the 1960s, for example, inflation was rising sharply and was much higher than now, at about 5%. In the 80s expansion, inflation was also rising at this stage and had reached 5%. By contrast, inflation now is much lower and has been coming down. Since the need to combat high or rising inflation is what typically brings an expansion to an end, this greatly raises the prospects for a continuing expansion.

This is also an expansion that is investment-driven--to a far greater extent than in either of the other two long expansions. This investment is contributing to improvements in productivity and future growth and it is

working to hold inflation down. Of course, it didn't occur by accident --it's the consequence of fiscal discipline and reflects a conscious choice to shift the policy mix toward a tighter fiscal policy coupled with a lower interest rate, accommodative monetary policy to stimulate investment and spur economic growth.

Finally, continued strong growth in 1998 is all the more remarkable because it took place at a time of considerable stress to the world economy. A third of all world economies were in outright recession or experiencing markedly slower growth by late 1998. After growing at 4.2% in 1997, world economic growth slowed to an estimated 2.2 percent in 1998, a pace comparable to the growth rates registered during the pronounced world slowdowns of 1974-75, 1980-83, and 1990-91. Our trade deficit rose and exports declined, particularly to countries in East Asia, producing a drag on economic growth and inflicting hardship on some sectors of the U.S. economy. The international environment remains exceptionally risky, with the prospects for growth in Europe, for a recovery Japan and for a pickup in activity in crisis afflicted countries highly uncertain. Even so, we believe that the U.S. economy has entered 1999 on course to continue growing and the chances are good that next year at this time we will be on the verge of marking the longest economic expansionCwhether in peace or warCever.

I believe that these events and the policies that have been pursued since 1993 can be understood within a relatively simple macroeconomic policy framework. By pursuing a policy of deficit reduction right from the start, the Administration sought to accelerate the sluggish recovery from the 1990-91 recession by bringing down interest rates and stimulating private investment. Although this has been the only one of the three long expansions since 1948 in which fiscal policy was contractionary, our standard IS-LM model teaches us that an appropriately accommodative monetary policy can allow the economy to expand under such circumstances. And this is just what happened. The model also teaches us that the combination of a tight fiscal policy and an accommodative monetary policy should produce lower interest rates and tilt the composition of output toward investment. And, as I have mentioned, the contribution of investment to GDP growth has been quite substantial in this expansion.

One of the pleasant surprises of this expansion has been the continued good behavior of inflation. Based on standard statistical estimates of the NAIRU, the economy had entered incipient inflationary territory by the end of 1994 when the unemployment rate fell to 5.5 percent, yet actual inflation continued to fall well into 1998. Although the NAIRU is an indicator of the risk of inflation, estimates of the NAIRU have a wide band of uncertainty and should not rigidly dictate policy. The recent behavior of inflation and unemployment provides a good example of the limits of rigorous science and the importance of the prudent application of trained common sense, especially in formulating the Administration's economic forecast.

The main purpose of the Administration economic forecast is for use in the preparation of our budget. This Administration consciously decided back in 1993 to establish a reputation for using credible forecasts so that, budget balancing efforts--and now proposals to use the emerging budget surpluses--would not be based on rosy scenarios. This means that, as we go about making our forecast, we would prefer to err on the conservative side. Our forecast for a projection period extending through 2007 looks for a continuation of the economic expansion with further employment and real wage growth, but with GDP projected to grow at a much slower, 2.0% rate on average over the next 3 years in comparison with the roughly 3.9% average pace of the last three years. We project that unemployment will edge up slightly. We also anticipate that the CPI will rise at a 2.3% annual rate next year and thereafter--close to the increase in the core CPI over the past year. This reflects our expectation that some of the

special factors, including plunging oil and import prices, which depressed inflation this year will contribute less in containing inflation next year and thereafter. After 2001, we project that real GDP growth will resume growth at our estimate of trend--2.4%, and the unemployment rate is projected to stabilize at 5.3%, of our working estimate of NAIRU, the unemployment rate consistent with stable inflation over the longer term.

Our forecast is similar to CBO, the Blue Chip, and other private forecasts, although perhaps a touch on the conservative side in its assumptions about the pace of sustainable growth. A natural question is why we forecast a slowdown in growth when the extent of momentum in domestic demand has been extraordinary and we ended the year with GDP growing at a stunning 5.6% pace in the fourth quarter. Our forecast of more moderate growth going forward reflects our view that several components of domestic demand may be poised to grow at slower rates. In particular, consumption, which constitutes two-thirds of output, has been growing well in excess of income, so that the personal saving rate has declined to zero. In our view, this largely reflects stock-market gains. Unless the stock market continues to surge, the impetus from wealth on consumption is likely to wane, so that consumption will moderate to match the growth of income. As for business investment, slowing consumption growth, coupled with a capacity utilization rate which is now below its historical average, may exert some restraint on the demand for new investment goods. The past year's boom in housing starts reflects strong income gains and the impact of lower mortgage rates, but it has elevated housing starts well above their demographic fundamentals. We expect some restraint going forward in this component of demand as well.

One of the key questions in preparing the forecast concerns the trend pace of productivity growth. The official measure of productivity in the nonfarm business sector has grown at about a 2% annual rate over the past 3 years, substantially above the 1.1% annual growth rate between the business cycle peaks of 1973 and 1990 and the 1.3% pace from 1973 thru 1998. Investment growth has been exceptional, and capital accumulation should work to boost productivity. However, cyclical factors also affect productivity. Productivity growth is usually slow during recessions, rapid in the middle of an expansion and tapers off in advance of the business cycle peak. Strong productivity growth over the last three years could reflect strong output growth. On the other hand, productivity has grown even faster than would be anticipated based on cyclical factors and it is perfectly possible that the growth rate of trend productivity has risen. The extraordinarily low rates of inflation as measured by the PCE and GDP price indexes combined with healthy profits also suggest faster productivity growth than our forecast assumes. In this sense, our productivity growth assumption is conservative and I can only hope that reality shows that we were wrong. Nothing matters more to living standards over the long run than the pace of productivity improvement and an increase in the trend pace of productivity of even a tenth or two is of enormous importance for the long-term outlook for real wages and per capita income.

Let me next turn to a topic which receives emphasis in this year's *Report*, namely the impact of a strong labor market on low-wage and minority workers. Our report presents clear evidence of improvements during the last few years of this expansion.

It was once commonly accepted that an economic expansion is a rising tide that lifts all boats, so that the most surefire way to alleviate poverty and help disadvantaged groups was to keep the economy expanding. However, in the late 1970s, a new, long-term trend toward widening inequality began to afflict the economy, most likely as a consequence of pervasive technological changes raising the demand for skilled labor and lowering the

demand for unskilled workers. In addition, productivity growth declined substantially, for reasons that are still not well understood. During the expansion of the 1980's, real wages declined, particularly among less skilled men. During the current expansion, we saw real wages stagnate for the first five years of the expansion. However, this has finally become an expansion in which a rising tide is lifting all boats. American workers are enjoying direct and measurable progress and in the *Report*, we describe the CEA's analysis of real wage growth. Let me talk briefly about some of these findings:

Wage growth has been particularly strong for historically disadvantaged groups. After years of decline, the real wages of black men began to increase in 1993, and they have risen by 5.8 percent in the last 2 years (since 1996). Black women and Hispanic men and women have also experienced recent gains. The tight labor market of the 1990s appears to be helping even young minority workers, who suffered greater wage declines than others in the 1980s. In 1998 alone, the real wages of young black men aged 16-24 rose by 6.2 percent.

It is well known that less-skilled men have experienced long-term wage decline since the later 1970s. In 1998, real wages among men aged 20 and over who are high school dropouts rose by 7 percent. This was the first time since at least 1979 that their wages rose. In addition, real hourly wages for men at the 10th and 20th percentiles of the earnings distribution rose 6 percent since 1993.

Immigrants, too, are earning more. Mexican- and Central American-born immigrants -- who account for about 30 percent of new immigrants since 1980 -- have had real wage growth since 1995 of almost 7 percent for men and almost 4 percent for women.

It is too early to declare victory in reversing adverse long-term trends in wages for less skilled workers. In particular, it remains hard to know how much of this turnaround is due to particularly favorable business cycle conditions. Nor is this Administration taking the improvements for granted. First, it is committed to maintaining the macroeconomic stability that is a necessary condition for ensuring that all Americans participate in the country's growing prosperity. Second, the Administration continues to stress the importance of education and training policies that address the challenges of a changing economy and a changing society.

MAINTAINING FISCAL DISCIPLINE

Although this year's economic report concludes that our economy is strong and that the prospects for continued growth are excellent, we recognize that our Nation faces other, broader challenges as we move into the 21st century.

One of the key challenges we face is to prepare our nation to meet the needs of an aging population. The ratio of employed workers to retirees has fallen from about 5 to 1 in 1960 to 3-1/2 to 1 today. In only 30 years time, it will be just 2 to 1 and still falling. The same demographic effects that have impaired the finances of Social Security also impact Medicare and Medicaid.

As you know, in his State of the Union the President proposed a plan for how to use the currently projected unified budget surpluses and how to address the financial imbalance of the Social Security system. He proposed devoting 62% of the surpluses over the next 15 years--about \$2.8 trillion with a small portion, about 1/4, devoted to equity purchases--to extend the solvency of the Social security system until 2055. Further reforms would be needed to achieve full 75 year actuarial balance, which is the most commonly used measure of financial soundness.

Assuming that a solution for social security can be achieved, the President has also proposed using 15% of the projected surpluses for Medicare, ensuring the Medicare Trust Fund is secure for another 20 years. The President has emphasized the need to utilize the extra funding as part of a broad effort to strengthen the Medicare program. He also proposed creating a new system of universal savings accounts (USA Accounts) outside of Social Security with 12 percent of the surplus to help working Americans build wealth to meet their retirement needs--a way

of strengthening the current pension system and helping Americans save. The government would provide an equal dollar contribution for most working individuals and provide matches for individual contributions with larger matches going to lower income workers. Finally, the President would reserve 11 percent of the projected surpluses for military readiness and education and research.

Rather than commenting in detail on the President's Social Security plan, let me talk about the overall macroeconomic impact of this plan. For the nation as a whole, the central problem in coping with an aging population is to provide a high standard of living for both workers and retirees even though a smaller share of the population will be in the workforce. A natural solution is to make workers more productive by increasing investment in both physical and human capital, which will, in turn, raise labor productivity. In doing so, we can boost the size of the total economic pie, which is the prerequisite to meeting the retirement costs of the baby boom generation without unduly burdening future workers. The key to accomplishing this is to increase national saving, a goal to which continued fiscal discipline would contribute. National saving increased from 3.1 percent of gross domestic product in 1992 to 6.7 percent in the first three quarters of 1998, but the improvement is accounted for entirely by the elimination of the federal budget deficit, as private saving actually declined relative to total output with the personal saving rate hitting zero in the last quarter of the year. The framework offered by the President for the use of emerging budget surpluses would dramatically increase national saving. Evaluated from a macroeconomic perspective--from the perspective of national savings--this plan saves, in essence, between 77 and 89 percent of the projected surpluses, depending on one's evaluation of the saving impact of the USA accounts. The transfers to Social Security and Medicare amount to 77 percent of the federal budget and about 2 percent of GDP, and they are pure additions to national saving. The USA accounts amount to 12 percent of the unified budget surpluses and could be viewed as a tax cut that is highly likely to add to personal saving. Only 11 percent of the surpluses are devoted to additional government spending.

Dedicating the surpluses to Social Security and Medicare serves two purposes. First, it helps to lock in the surpluses so they are not used for tax cuts or wasteful spending. Second, it gives these critical programs a first call on the benefits of our fiscal discipline. And these benefits will be large.

This is a fiscally conservative, pro-growth plan that comes close in its macroeconomic impact to a plan of simply paying off debt. Publicly held debt is projected to fall from 44 percent of GDP today to about 7 percent in 2014. That would represent the smallest burden of government debt on the economy since the United States entered World War I in 1917. In addition, some of the surpluses will be used to purchase equities, which will represent an asset of the government. The dramatic decline in national debt would increase private capital investment, keep interest rates low or drive them lower, raise future national income, free up government resources by reducing debt servicing costs and fuel economic growth. We have estimated, for example, that in comparison with the exploding ratios of debt to GDP forecast back in 1993, the President's plan, which substitutes productive capital assets in private portfolios for unproductive debt would lower interest rates by about 2.5%. Even compared to a more optimistic baseline in which we assume that the political process would have achieved budget savings sufficient to hold the debt to GDP ratio at 50%, the President's plan lowers interest rates by 1-1.25% by 2014 and would raise GDP by 3.5-4.5%--a substantial increase in the size of the pie.

MEETING THE INTERNATIONAL CHALLENGE

Let me conclude by saying just a few words about the challenges we face on the international economic front and then stop and take your questions.

A first challenge for the United States is to insure that, at this time of economic fragility in so many regions, we do not build new walls of protectionism here, that could set off a dangerous chain reaction around the world,

imperilling the world's prospects for growth while harming our own exporters and consumers. The crisis has taken a toll on some sectors in the United States, steel being notable example. The Administration is committed to vigorous enforcement of our trade laws to insure that American industries are not victimized by unfair trade. However we must also recognize that, as the crisis economies recover, their demand for U.S. goods and services will increase as well, once again fueling our own export growth.

Beyond keeping markets open, the Administration believes that a serious program of reform is needed to strengthen the underpinnings of international financial system to make it less crisis prone and to improve the mechanisms available for dealing with any crises that may nevertheless occur. Unfortunately, there is just no silver bullet--no simple solution that would guarantee countries the benefits of global capital flows while eliminating the risk that a crisis of confidence could once again result in the painful withdrawal of that access. Even so, international agreement is finally emerging on the steps that can and should be taken to strengthen the architecture of the financial system so that it is less crisis-prone going forward. The needed steps include measures to increase transparency and accountability in the operations of individual countries, of financial and corporate institutions and of the international financial institutions themselves to enhance the availability, relevance and reliability of information available for evaluating risk in lending. Reforms are also needed to strengthen the prudential supervision and regulation of banks and other domestic financial institutions: to create stronger incentives for borrowers and lenders to weigh risk and act with appropriate discipline, thereby reducing the odds of a crisis. Countries will need to reassess implicit and explicit government guarantees which create moral hazard and exacerbate risktaking, including the implicit promise of bailouts of corporations considered too big to fail, and semi-fixed exchange rate regimes which reduced the perceived riskiness of foreign currency exposure. Finally, measures are needed to improve creditor coordination in crises and to promote the orderly, cooperative and equitable resolution of international financial crises that may occur in the future. The United States is working intensively with key emerging markets, with other industrialized nations, and the relevant international organizations, to put in place the building blocks of this new architecture to ensure that the unprecedented growth, increase in welfare and opportunity experienced in the 50 years after the creation of the Bretton Woods system are maintained in the future.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:12-MAR-1999 17:52:21.00

SUBJECT: Re: A request from Moynihan.

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

TO: Robert Z. Lawrence (CN=Robert Z. Lawrence/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TEXT:

Doug: Can you handle this? This may already be moot given the material that Treasury has prepared and the fact that Rubin is scheduled to see Moynihan today. Could you at least let Treasury know about this?

I do not think we need to do anything now at CEA to address this issue. Tons of work were done in connection with the Balanced Budget Agreement and with respect to anything we do, we have to coordinate with Treasury and NEC.

Robert Z. Lawrence
03/12/99 04:02:20 PM
Record Type: Record

To: Janet L. Yellen/CEA/EOP
cc:
Subject: A request from Moynihan.

David Podoff at Sen. Moynihan's Office called me. Apparently , next week the Republicans (Domenici) will propose a declining debt ceiling. He is very worried this will have the same impact as a balanced budget ammendment i.e. to prevent counter-cyclical policy -- indeed to enforce pro-cyclical policy. He asked if we could give him some arguments (estimates) of its potential impact I said I'd talk to people here about it. What should I do?

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Robert Z. Lawrence (CN=Robert Z. Lawrence/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:12-MAR-1999 16:03:16.00

SUBJECT: A request from Moynihan.

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

READ:UNKNOWN

TEXT:

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RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Alan S. Polasky (CN=Alan S. Polasky/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:12-MAR-1999 19:03:11.00

SUBJECT: electricity

TO: Robert Z. Lawrence (CN=Robert Z. Lawrence/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

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

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

CC: Quindi C. Franco (CN=Quindi C. Franco/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TEXT:

Janet and Bob: some issues have arisen in the 11th hour (actually well past midnight) in the Administration's electricity restructuring bill. Most of these will be resolved at the staff level but some may not without at least the threat of elevating the issue. The remaining issues are summarized below. On all of the following issues, the positions we have advocated are aligned with those of Treasury and OMB.

Remaining issues:

1) Capping the Public Benefits Fund: as part of a deal to increase the Renewable Portfolio Standard (RPS) to 7.5%, an agreement was made to put a binding cap of \$3 billion annually on the amount of money that can be collected for the Public Benefits Fund. Revenues are collected by a fee on electricity use and from any proceeds from purchases of renewable electricity credits from DOE. Increasing the RPS may mean that more credits are purchased. The fear is that without a cap there is enough authority within DOE to allow the Public Benefits Fund to grow as a result. OMB is drafting language to clarify the cap in the legislative language. Also, there is some fear that other agencies will attempt to undo the cap. Treasury will fight any attempt to remove the cap and will elevate the issue if necessary. I feel strongly that we should also be willing to fight any attempt to remove the binding cap.

2) Bonneville Power Administration's transmission surcharge: we had agreed to allow a limited transmission surcharge if BPA could not cover all of its generation costs at market prices. The transmission surcharge would be limited to transmission within the Pacific Northwest (i.e., not charged to power wheeled from outside the region to customers outside the region). There was an additional provision added to the legislative language that was not discussed in the inter-agency process. This provision allows BPA to charge a transmission surcharge, not limited to transmission customers within the Pacific Northwest, for repaying debt

from the failed Washington Public Power Supply System (WPPSS). Treasury and OMB feel strongly that this provision should be deleted from the bill and I agree.

3) Double credits for renewables on Indian reservations: after Treasury convinced DOE to drop a tax credit for power generation on Indian reservations, DOE came back with a proposal to allow double credit toward meeting the RPS for any renewable power generation facilities built on Indian reservations. As a matter of public policy this is a bad idea. We have now raised the subsidy for renewables on reservations to 4.7 cents per kwh. By way of comparison, the cost of generation by efficient gas plants is around 3 to 3.5 cents per kwh. However, this provision may work to relax the RPS and so not be terrible in practice. Treasury wants to kill this provision. I don't feel as strongly but as long as Treasury takes the lead I think we should follow.

4) Rural Utility Service Report: a Department of Agriculture draft report claiming that many rural areas would be hurt by deregulation "leaked" to the press. The report's claims are not supported by evidence or analysis. Quindi and I sent a short critique to NEC earlier in the week. Howard Gruenspect at DOE has written a very thorough critique. There will probably be a meeting next week to deal with the draft report.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Douglas W. Elmendorf (CN=Douglas W. Elmendorf/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:12-MAR-1999 17:21:31.00

SUBJECT:

TO: Michele Jolin (CN=Michele Jolin/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:

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D47]MAIL44071087M.036 to ASCII,
The following is a HEX DUMP:

Remarks to Women Editors and Reporters Roundtable on Social Security
Janet L. Yellen, Chair
Council of Economic Advisers
March 15, 1999

“How Social Security Reform Will Affect Future Generations of Americans”

I appreciate this opportunity to talk about how the President’s Social Security reform proposal will benefit women -- and all Americans -- in the future. The President’s Social Security plan will help future generations of Americans in two critical ways: one way -- which is what Jack talked about earlier -- is by fundamentally strengthening the Social Security system so that all Americans are confident that they will receive benefits when they need them. The other way -- which I intend to focus on in my brief remarks -- is by strengthening our nation’s economy, so that we can pay future Social Security benefits and provide other necessary government services to retirees without imposing an undue burden on future generations of American workers.

For the Nation as a whole, the central problem of our aging population is how to ensure that future workers and retirees enjoy a higher standard of living, even though a smaller share of the population will be in the workforce. A natural solution is to increase investment now, which will, in turn, raise workers’ productivity. In doing so, we can increase the size of the total economic pie, which is prerequisite to meeting the retirement costs of the baby boom generation without unduly burdening workers in the future.

The key to accomplishing this goal is to increase national saving. National saving is simply the sum of saving by households, by firms, and by governments. During this Administration, net national saving has increased sharply as a share of GDP, rising from 3.1 percent of GDP in 1992 to 6.7 percent of GDP in the first three quarters of last year. This gain is entirely a result of the increase in federal government saving — that is, the saving has come as a result of the dramatic reversal of the federal budget from large deficits to growing surpluses.

The President's proposal for Social Security reform will dramatically extend the Administration's record of fiscal discipline and saving for our Nation's future. Under this proposal, the government will devote three-quarters of the projected budget surpluses over the next 15 years to paying down debt and purchasing equities. For every dollar of publicly held debt that is redeemed, a one-dollar bond will be given to either the Social Security or Medicare trust funds, and each equity share will be placed in the Social Security trust fund. It is important to note, however, that building up these trust funds does not make any new commitments; it simply improves the ability of the funds to pay the benefits that are already required by current law.

According to current projections, the President's proposal will reduce this nation's debt from 44 percent of GDP today to only 7 percent by 2014, the smallest share since 1917. And, the government's overall financial position will be even stronger, because of the investments in equities. The reduction in debt in turn improves the future budget outlook by slashing required interest payments. In fact, the decline in interest expense will exceed the increase in Social Security expense through the middle of the next century. According to current projections, the

President's proposal allows the government to run a budget surplus until the late 2040s.

Both the debt paydown and equity purchase boost national saving, essentially freeing up room in private portfolios for holdings of additional productive capital. Compared to a policy of spending the projected budget surpluses, the President's proposal boosts the government's contribution to national saving by about 2 percent of GDP, which will generate a significant increase in the capital stock. More capital means higher productivity and wages, higher incomes, and lower interest rates. It also leads to a reduced dependence on foreign borrowing and, ultimately, an improving trade balance.

To conclude, let me say that the President's Social Security reform plan takes a very important step toward addressing challenges that will face future generations of Americans. By setting aside the lion's share of the projected budget surpluses to pay down our nation's debt, we will strengthen our economy for the future. Continuing the fiscal discipline that has been the centerpiece of this Administration's economic agenda will contribute greatly to preparing our Nation for the coming demographic changes. Dedicating the gains from this fiscal discipline to Social Security and Medicare will ensure the further success of these critical programs and will strengthen our nation's economy for future generations.

Answer to question about projections:

Finally, let me take a moment to talk about the projections used by the Administration in developing the President's Social Security reform plan. Some policymakers and commentators have questioned how we can rely on projections of economic performance and budget surpluses over the next 50 years. Let me say: forecasting is always a difficult business. But, for the past 6 years, this Administration has built a record of credible, conservative economic and budget forecasts. Year after year, budget deficits have fallen short of Administration forecasts. Indeed, the forecast of economic growth which underlies the Administration's current budget could be criticized for its conservative bent--we have not, for example, assumed that the economy's ability to grow has increased substantially in recent years, although the data suggests that a pickup may in fact be occurring. Although any forecast is subject to error, I believe that the projections used in the President's Social Security plan are sound, realistic, and in line with the forecasts of the Blue Chip private forecasters and the Congressional Budget Office.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Elise H. Golan (CN=Elise H. Golan/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:15-MAR-1999 19:00:46.00

SUBJECT: hormone retaliation

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

READ:UNKNOWN

CC: Nouriel Roubini (CN=Nouriel Roubini/OU=CEA/O=EOP @ EOP [CEA])

READ:UNKNOWN

CC: Robert Z. Lawrence (CN=Robert Z. Lawrence/OU=CEA/O=EOP @ EOP [CEA])

READ:UNKNOWN

TEXT:

Janet,

Just spoke with Ralph Ives at USTR (the hormone guy). He describes the publication of the retaliation list as purely technical.....we must do it now if we want to retaliate in May. He says that it does not lock us into a retaliation time frame. I'm not absolutely convinced that this is a reversible process. I'll know more after the 301 damage meeting tomorrow morning.

Elise

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:15-MAR-1999 14:17:59.00

SUBJECT: Re: China/WTO meeting

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

READ:UNKNOWN

TEXT:

NSC is arguing that they were not responsible for the China/WTO invite list (see below) I am going to check w/ Podesta's office to see whether it was their call.

Thanks.

Michele

----- Forwarded by Michele Jolin/CEA/EOP on 03/15/99
02:16 PM -----

Glyn T. Davies

03/15/99 01:21:48 PM

Record Type: Record

To: Michele Jolin/CEA/EOP

cc:

Subject: Re: China/WTO meeting

Michele: I asked Jim Steinberg's assistant, Nina Hachigian. She believes the Friday China/WTO session was a Gene S-chaired meeting and does not think we were involved in deciding attendance (does not think we were even given attendance in advance). I know we're the big, bad NSC and horribly exclusive, but this sounds like one crime we did not commit. If you develop any info to the contrary please let me know -- but China/WTO is an NEC-led issue. Thanks.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Robert Z. Lawrence (CN=Robert Z. Lawrence/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:15-MAR-1999 13:20:59.00

SUBJECT: Re: Background information on unions, trade, etc.

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

READ:UNKNOWN

TEXT:

Here are some additional points ===== ATTACHMENT 1 =====

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D7]MAIL491754970.036 to ASCII,

The following is a HEX DUMP:

Add to section on trade benefits.

We raise our living standards through specializing in the production of products which produce relatively efficiently. In addition, trade provides us with access to varieties of products not available in the United States. We also derive gains from the stimulus increased competition gives to spur domestic productivity.

We have a strong interest in trade agreements.

In signing trade agreements we agree to constraints on our own behavior. The real issue raised by agreements is not whether they reduce national sovereignty, but whether the obligations they impose on us are more costly than the benefits we receive from applying these requirements on others.

While the nation gains from free trade, our gains will be even greater if we can get others to open their markets as well. This provides our exporters with larger markets and improves the terms at which we trade. For the United States, which is already a very open economy, trade agreements are particularly beneficial since typically foreigners agree to reduce their barriers by more than we do. In the NAFTA for example, the US eliminates tariffs on Mexican goods which effectively averaged 2 percent while Mexico eliminates tariffs on US goods which averaged 10 percent.

Employment growth in foreign firms in the United States has outstripped employment growth in the foreign affiliates of US firms abroad.

Between 1982 and 1996 employment abroad in the foreign affiliates of US multinationals increased from 6.6 to 7.6 million. Over the same period, employment in foreign owned firms in the US increased far more rapidly -- from 2.4 to 5 million

Multinational corporations play an important role in the US economy. In 1996 US multinational parents employed 18.8 million workers. These parents accounted for 26 percent of the gross product of all private U.S. businesses -- about the same share as they did in 1989. Multinationals are particularly concentrated in manufacturing. In 1996, US multinationals accounted for 61 percent of US manufacturing output and about fifty percent of employment. Foreign affiliates in the US accounted for an additional 11.2 percent of manufacturing employment.

Both US and foreign multinationals are deeply embedded in the economies in which they are located. In 1996, ninety percent of the sales of majority-owned US foreign affiliates were made to foreign customers. Only 7 percent of the output of U.S. parents was accounted for by inputs purchased from abroad. In 1994, the domestic content of the gross output of U.S. affiliates of foreign firms was 87 percent.

The notion that foreign investments tends to flow automatically to low wage countries is also not supported by the data. In 1996 for example, high-wage countries accounted for 87 percent of employment in new affiliates. Overall, about 60 percent of affiliate employment is in Canada, Europe and Japan.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Ryan D. Edwards (CN=Ryan D. Edwards/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:15-MAR-1999 19:07:47.00

SUBJECT: Re: !! Briefing for OECD Environment Meeting !!

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

READ:UNKNOWN

TEXT:

Thanks, Janet; I'll go ahead and get comments from Becky and the others, then. Unless you tell me otherwise, I'll proceed by (1) doing exactly that, (2) sending to you what I intend to send along to the State people, then (3) sending it to the State people, provided it's correct.

-Ryan

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Elise H. Golan (CN=Elise H. Golan/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:15-MAR-1999 18:35:54.00

SUBJECT: hormone retaliation list

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

READ:UNKNOWN

CC: Nouriel Roubini (CN=Nouriel Roubini/OU=CEA/O=EOP @ EOP [CEA])

READ:UNKNOWN

CC: Robert Z. Lawrence (CN=Robert Z. Lawrence/OU=CEA/O=EOP @ EOP [CEA])

READ:UNKNOWN

TEXT:

Janet,

I just received a call from Joanna McIntosh over at USTR. The hormone retaliation list (I don't know whether this is preliminary or final) is scheduled to be released on Thursday or Friday. At the minimum I think that this decision warrants a deputy's meeting. In all of the meetings that I've attended on this issue there have only been a handful of people who felt that retaliation would ultimately get our beef into the European market. The vast majority felt that retaliation at this stage would be counterproductive and would further isolate us as we seek a long-term solution to trade in Genetically Modified Organisms (GMO's).

Could you possibly raise this issue the morning staff meeting? Who made this decision? Why aren't we pursuing a different result (labeling) with similar vigor?

Elise

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:15-MAR-1999 19:03:29.00

SUBJECT: Re: !! Briefing for OECD Environment Meeting !!

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

CC: Rebecca M. Blank (CN=Rebecca M. Blank/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

CC: Alan S. Polasky (CN=Alan S. Polasky/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

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

TEXT:

I have been deeply involved in negotiating an agreement with the OECD according to which they would undertake extensive work in sustainable development, subject to the proviso that environmental issues would become a standard EDRC topic. This needs to be done (that is, economies of scale need to be found) in order to satisfy tight OECD budget constraints. I agreed that the U.S. would set a good example for other members by agreeing to have a special chapter on sustainable development/environment in next year's U.S. Country Survey. I hope that this commitment is not under discussion or being called into question at next week's meeting. If the issue on which comments are needed instead pertains to the substance of the paper which is intended to guide the EDRC reviews, Steve and Joe should be given copies to review and comment. Becky may have some reactions based on the WP-1 discussion.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:17-MAR-1999 18:00:05.00

SUBJECT: congressional testimony

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

Roger Ballentine left a message saying that the Senate Energy Committee (Chaired by Murkowski of Alaska) might want you to testify next week Thursday on the cost of Kyoto.

He also asked me to call the Democrats on the Committee to find out what is behind this. I called the Democrats and left a message but haven't heard back. In addition, Joe heard from the Climate Change task force. They think that the Republicans don't want an Administration witness -- but the Democrats are pushing to have you testify. So I am going to try to find out what is going on. In the mean time, Joe will begin updating your past testimony. But, before Joe spends too much time on it, we need to find out for sure. I will bug them again tomorrow. But, we should meet in the AM to talk about this.

Michele

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Joseph E. Aldy (CN=Joseph E. Aldy/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:17-MAR-1999 16:51:31.00

SUBJECT: meeting with a team of Kazak GCC experts

TO: Todd Stern (CN=Todd Stern/OU=WHO/O=EOP @ EOP [WHO])

READ:UNKNOWN

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

READ:UNKNOWN

CC: Meagan M. Earley (CN=Meagan M. Earley/OU=WHO/O=EOP @ EOP [WHO])

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

Starting in late April, a technical team from Kazakstan will be in the States learning more about climate change issues. There may be 1 or 2 deputy ministers on the team, but the rest would be staff from government agencies and institutes. They will be in Boston (at HIID), New York, and DC. They have an interest in meeting with several senior WH people during their visit to DC, and they have asked me to try to set up some meetings. Would you be interested in meeting with them?

The Kazak team will be in DC from Monday night May 3 through Friday afternoon May 7. They will have technical meetings on emissions inventories, emissions forecasting, trading, and other issues with EPA, DOE, and AID staff throughout the week. I would suggest having a meeting near the end of that week -- the timing then would be similar to our visit to Kazakstan, where we had technical staff level meetings followed by a day of meetings with their ministers. How is Thursday afternoon or Friday morning on your schedules? Do you want a joint meeting, or a series of meetings with WH officials? Who else from WH should we consider including? The people arranging this would like a response from me by the end of this week so they can then nail down the rest of the DC schedule, so if you can back to me by Friday, that would be great.

Thanks,

Joe

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:17-MAR-1999 18:19:16.00

SUBJECT: Remarks for ICWBE meeting

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

READ:UNKNOWN

TEXT:

Attached is a DRAFT of your ICWBE remarks. It's just a draft. I need to talk to Juanita Weaver about a couple of things.

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D83]MAIL46699148S.036 to ASCII,
The following is a HEX DUMP:

**JOINT MEETING OF THE NATIONAL WOMEN'S BUSINESS COUNCIL AND THE
INTERAGENCY COMMITTEE ON WOMEN'S BUSINESS ENTERPRISE**

Friday, March 19 1998

11:00-12:00

I. WELCOME[11:00-11:05]

Jenny Luray
Deputy Assistant to the President and
Director Women's Initiatives and Outreach

II. BRIEF REMARKS AND INTRO: Mary Beth Cahill

Assistant to the President for
Public Liason

III. CALL TO ORDER AND OPENING REMARKS:

- * I want to welcome you all here today. I am Janet Yellen, the Chair of the President's Council of Economic Advisers. I am also, as you know, the Chair of the President's Interagency Committee on Women's Business Enterprise. As many of you know, I served on this Committee as the Federal Reserve's Designee from 1995 to 1997, before being appointed Chair of the Committee in 1997.

- * I believe that the Interagency Committee and the NWBC play important roles in focusing attention on ways that the Federal government can promote women's businesses and the full and successful participation of women in our nation's growing, changing economy. And I thank you for taking the time to be at our meeting today.

* As you will hear this morning, we have made great progress in our efforts to move our Federal government agencies toward the 5% procurement goal. As of today, we have 11 MOUs signed by the heads of these agencies. And these MOUs are really an important commitment: it is a signal that the head of the agency has made a personal commitment to meet this goal.

* I'd like to now turn to the NWBC Chair, Kay Koplovitz, and ask her to make a few remarks. Kay has been a tireless and enthusiastic supporter of efforts to expand opportunities for women business owners.

V. **REMARKS:** Kay Koplovitz
Chair of the NWBC

[REMARKS BY KAY KOPLOVITZ]

* Thank you, Kay. Now, let me turn to those who are going to talk more about the issue of access to procurement opportunities for women's businesses, and the progress we are making toward the 5% goal.

V. **IACWBE REPORT:**

* First, we are going to hear from Cal Jenkins of the Small Business Administration on a status report on the signing of MOUs.

[REMARKS BY CAL JENKINS, SBA]

* Thank you, Cal. This is impressive progress. Now we will hear from the Department of

[Automated Records Management System Hex-Dump Conversion]

Transportation's General Counsel, Nancy McFadden. As you know, Nancy was here at our last meeting to report on the Transportation Department's MOU and commitment to enhancing procurement opportunities for women. We are lucky to have her back today to report on Transportation's progress. And, I also want to commend Nancy for the leadership she has shown on this issue.

[REMARKS OF NANCY McFADDEN, DOT]

- * Thank you, Nancy. I'd like to now take some time to talk about where we will go from here with the MOUs. Let's take about 10 minutes to talk about: how will we be able to measure the success toward meeting the goal? And, if an agency is not meeting the goal, what steps will be taken to make it happen? In other words, what needs to be done to make sure that Agencies are held accountable?

[Q&A on accountability issue]

VI. SPECIAL REPORT: Dee Lee
Admin for Federal Procurement Policy

- * Now, we will hear from Dee Lee on the new initiatives that the Office of Federal Procurement Policy has put in place to help women get access to federal procurement opportunities.

[Automated Records Management System Hex-Dump Conversion]

VII. NWBC REPORT:

Kay Koplovitz

- * Thank you. Now we will hear again from Kay. Kay will be talking about the work of the NWBC and their new initiatives. There is lots of exciting work.

Release of Economic Summit Plan
Annual Report/ Procurement Study Findings
Women's Venture Capital Fair

VIII. ADJOURN

- * Thank you all for coming. I believe that this has been an interesting and important discussion. Promoting women's business enterprises helps to create jobs and strengthen our economy. And opening up competitive contracting opportunities and ensuring that women-owned businesses have access to government procurement will strengthen and enhance the viability of enterprises run by women.

I look forward to our next meeting. Until then, the Committee stands Adjourned.

Withdrawal/Redaction Marker

Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	Janet L. Yellen to Michelle Jolin at 19:45:46.00. Subject: Alicia remarks. (4 pages)	03/18/1999	b(6)

COLLECTION:

Clinton Presidential Records
Automated Records Mangement System [Email]
CEA ([Yellen])
OA/Box Number: 950000

FOLDER TITLE:

[03/11/1999 - 04/01/1999]

2013-0723-F
ab1296

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P1 National Security Classified Information [(a)(1) of the PRA]
- P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P3 Release would violate a Federal statute [(a)(3) of the PRA]
- P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).

RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

- b(1) National security classified information [(b)(1) of the FOIA]
- b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:19-MAR-1999 09:23:41.00

SUBJECT: Q in Lockhart's briefing on caps

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

TEXT:

Below is a question that was asked yesterday at Lockhart's briefing. It cites you as saying that the Administration would consider lifting the caps. Do you remember saying that? Is that the public Administration position?

Q The Republican budget contemplates, over the next decade, living within the caps. And White House officials, such as Yellen, have said that they would negotiate lifting the caps. Is that still the White House position after next year, that you would talk about lifting the caps?

MR. LOCKHART: Well, we're going to have to -- I mean, we think once you reserve the bulk of the surplus for Social Security and Medicare, and for the USA accounts -- you have some flexibility. But they have to be locked in. This can't be something that you can walk away from the next year.

So we look forward to engaging on this as we move forward over the next couple months, but we're going to continue to make our case that you have to lock in these savings.

Q But aren't they being more fiscally responsible in saying that they won't lift the caps, and the White House is saying that they --

MR. LOCKHART: You know, it is hard to describe a proposal as fiscally responsible that makes the claims that this one does, which is, you know, we're going to follow our smoke and mirrors, and cut taxes, raise spending and somehow balance the budget. But we're not going to tell you the spending we're going to cut. This is 1980 all over again.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Charles F. Stone (CN=Charles F. Stone/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:19-MAR-1999 14:33:13.00

SUBJECT: draft

TO: Janet L. Yellen (CN=Janet L. Yellen/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.D64]ARMS180471885.036 to ASCII,
The following is a HEX DUMP:

Perspective on the Farm Economy

I. Overview

Farmers are important as people and, of course, as a political constituency. But the farm sector is a relatively small part of the overall economy.

- In 1998, farm output represented \$84 billion of our \$8.5 trillion dollar economy (just under 1 percent of GDP).
- The farm sector has been declining as a share of GDP for a long time (in 1948, for example, it accounted for almost 9 percent of GDP).
- Employment in agriculture is also relatively small (about 3.4 million persons in 1998, including about 1.3 million self-employed and 2.0 million wage and salary workers).
 - To put these numbers in perspective, the *increase* in employment for the economy as a whole last year was 1.9 million, or more than half the *total* employment in farming.
 - As a proportion of the labor force, farm employment has fallen from 13 percent in 1948 to 2.6 percent in the last few years.

II. Recent trends in farm income

Farming is an inherently cyclical industry and producers of some key commodities are experiencing a sharp drop in prices. It is worth noting, however, that the farm economy is quite diverse and, many segments are doing just fine.

- According to USDA's chief economist, the part of the farm economy composed of fruits, vegetables, nursery and greenhouse products, and broilers is large, stable, and growing. Sales of these commodities exceed the total value of hog and cattle sales and the total value of food grain, feed grain, and oil seed sales.

The focus of concern is on field crops, which are experiencing the problems associated with high world supply and low world demand.

- In the United States, weather and other problems have hurt yields for some producers, but overall wheat and soybeans were at record high yields and corn achieved the third highest yield ever. 1999 could be another strong year for U.S. supply, based on preliminary evidence.
- Production is also up among our trade competitors adding to world supply at a time when overall world demand remains weak as a result of the Asia crisis and its subsequent repercussions.

- Exports of agricultural products (from the NIPAs) declined to \$53 billion in 1998, from \$59 billion in 1997 (chart 1). Nevertheless, this was still better than any year prior to 1995. On an inflation-adjusted basis, ag exports in 1998 were about the same as in the preceding 3 years. USDA projections call for a further decline in 1999, however.

I'll return to the outlook in a minute, but I want to put 1998's farm income performance in perspective based on the next chart (chart 2).

- The chart shows how inflation-adjusted net farm income before government transfers (the white part of the bars) has fluctuated in the 1990s. Yes, 1998 was relatively low, but 1991 and 1993 were roughly comparable and 1995 was even lower--so 1998 was not off the charts, even before government transfers.
- The gray part of the bars reflect price support and emergency payments and the black bars represent the AMTA payments introduced in the 1996 Farm Act. When government payments are included, net farm income was not greatly out of line with average payments over the 1990s.

III. The USDA outlook

How then should we evaluate USDA's recent 10-year outlook based on this recent history?

- USDA projects a 3-4 year period before the world economy returns to a stable, moderately strong rate of growth. This slow rate of recovery, combined with ample supplies in competitive countries will result in US ag exports returning to past peak income levels in 2003.
- Further, USDA predicts that US planted acreage will drop only a small amount with trend yield and supplies remaining large. This will lead to slow recovery in nominal farm prices and steadily declining relative farm prices throughout the 10-year projection period.

Though USDA's price projections are reasonably consistent with scenarios forecasted by other economists, it could turn out to be too pessimistic if, for example, weather is less than perfect (reducing supply) or the world economy recovers more quickly than is expected in current (fairly pessimistic) forecasts.

Most important, even in the face of USDA's "bearish" projections, farm income is projected to begin growing after 2000 with the farm balance sheet improving as the overall debt-to-asset ratio continues to decline. Farmers are experiencing a down cycle, but not one that is wildly out of line with previous cycles.

IV. The Financial condition of farmers

What about the concern that a possible slow recovery from the 1998 drop in farm revenues, coupled with declining asset values for some farmers, will make it difficult for these farmers to obtain credit?

I would note the following:

- The overall farm balance sheet is fairly sound, and farm credit availability is strong as is the financial condition of most lenders. As the chart shows farm equity steadily increased through the 1990s, and the overall debt to asset ratio remained steady at about 15 percent.
- A healthy majority of individual farmers are also in good shape.
 - At the beginning of 1999, USDA found that 65.5 percent of farms and ranches were in favorable financial position (with a positive income and debt/asset ratio less than 40 percent).
 - This is down slightly from the year before but still one of the highest levels in the 1990s. In general, these profitable, low-leverage operations are able to retain earnings and take advantage of investment and expansion opportunities.
- At the beginning of 1999, 5.6 percent of farms and ranches were in a vulnerable position (with negative income and a debt/asset ratio above 40 percent). This is slightly higher than a year earlier but 2 percentage points lower than in 1995. Many of these vulnerable farms are highly leveraged and do not generate sufficient income to meet current expenses or reduce existing indebtedness. Troubled farms are most prevalent in Northern Plains and Lake States.

A second question is whether we might be heading toward a severe financial contraction in the agriculture sector analogous to what happened in the mid-1980s.

Let me first note the similarities between current conditions and that period.

- Both had an up cycle of rising ag exports, high prices, and optimism about future income from farming. Both up cycles had low interest rates and both saw an increase in farm indebtedness.
- Both then had down cycles characterized by relaxed supply controls, shrinking demand in the face of foreign financial crises, a strong dollar, and increasing carryover stocks of grains and oilseeds.

Despite these similarities, however, there are substantial differences between the two situations. In contrast to the early 1980's, the farm sector and its lenders are much less vulnerable to economic instability, and the domestic economic environment is much more stable.

[Figure 4 - Nominal and Real Farm debt]

[Automated Records Management System Hex-Dump Conversion]

- Unlike the 1980's when there was a big run up of both nominal and real debt, farm debt in the 90's has been growing gradually. Much less of the recent increase in farm assets has been debt financed. In fact real debt has been essentially flat.

Farmers and farm lenders have used leverage more conservatively. While interest payments and principal payments consumed 22% of gross cash income in 1979 rising to 28 % by 1983, they currently consume only 14%.

[Figure 5 - farm sector rate of return remains normal and debt/asset ratio continues decline.]

- Unlike the 1980's, farm sector rate of return has remained steady and the debt/asst ratio is actually declining.

From 1990 to 1998, nominal farm assets increased 34 percent, while nominal farm debt increased 23 percent. In contrast, debt increased 4 percent faster than assets from 1972 to 1979 and 15 percent faster from 1972 through 1981.

[Figure 6 - Debt Service ratio]

- Farmers and farm lenders have used leverage more conservatively in the 90's as compared with the 80's. The debt service ratio has remained flat throughout the 90's - unlike the 80's which saw a large increase. While interest payments and principal payments consumed 22% of gross cash income in 1979 rising to 28 % by 1983, they currently consume only 14%.

In addition to these differences between farm balance sheets in the 80's and 90's, Farmers are less economically vulnerable now than in the 70's and 80's. Off-farm income has been an important alternative source of farm repayment capacity for many years. Because overall economic growth has remained strong and unemployment in most parts of the country is low, off-farm opportunities are generally better then during the years of stagflation and recession of the late 70's and early 80's.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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SUBJECT: electronic version of testimony

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

READ:UNKNOWN

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

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**TESTIMONY OF DR. JANET YELLEN
CHAIR, COUNCIL OF ECONOMIC ADVISERS
BEFORE THE
U.S. SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES**

MARCH 25, 1999

Thank you, Mr. Chairman. I appreciate having this opportunity to discuss with you the economics of climate change and the Administration's efforts to address this significant environmental challenge. As you know, the Administration released a report last July, entitled "The Kyoto Protocol and the President's Policies to Address Climate Change: Administration Economic Analysis." The report states that, in the Administration's view, the costs of achieving our Kyoto target would be modest if we can succeed in implementing international trading, joint implementation, and the Clean Development Mechanism in an efficient manner and we achieve meaningful developing country participation. In addition, since the Kyoto Conference, a variety of research on the economics of Kyoto, and especially on the economics of Kyoto's flexibility, has been undertaken. Today, I will provide a brief summary of the Administration's Economic Analysis and review several of the key findings in the recent economic literature on climate change.

The Potential Impact of Climate Change

The Intergovernmental Panel on Climate Change (IPCC) concluded in 1995 that "the balance of evidence suggests that there is a discernible human influence on global climate." Current concentrations of greenhouse gases have reached levels well above those of preindustrial times. If growth in global emissions continues unabated, the atmospheric concentration of carbon dioxide (CO₂) will likely double relative to its preindustrial level by midway through the next century and continue to rise thereafter. As a result of the increased concentration of CO₂, the IPCC estimates that global temperatures will increase by between 2 to 6 degrees Fahrenheit in the next 100 years, with a best guess of about 3.5 degrees Fahrenheit. 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. Further discussion of the costs of climate change is contained in the Administration Economic Analysis.¹

¹ Please refer to the attached paper copy or <http://www.whitehouse.gov/WH/New/html/kyoto.pdf> for a PDF version of this document.

The Kyoto Protocol and the Buenos Aires Conference of the Parties

The Kyoto Protocol provides several mechanisms that would allow countries to achieve cost-effectively the emissions targets established in this agreement. These mechanisms, which permit what we have termed “when”, “what”, and “where” flexibility in meeting the Kyoto emissions targets, are described in detail in the Administration Economic Analysis. Since securing international emissions trading, the Clean Development Mechanism, and joint implementation in Kyoto, the Administration has worked in bilateral and multilateral arenas to promote understanding of these mechanisms and to develop rules that will promote their efficient operation. In Buenos Aires, a workplan to resolve key implementation issues regarding these mechanisms by the end of 2000 was agreed to by all the participating countries. I will reiterate that efficient implementation of these flexibility mechanisms is critical to reducing the costs of achieving the targets established in the Kyoto Protocol.

Costs of Action

In assessing the economic effects of the Kyoto Protocol, the Administration has drawn on the insights of a wide range of models and analysis. Examples include models of the energy sector and economy over the next 25 years, such as the Stanford Energy Modeling Forum, the Intergovernmental Panel on Climate Change’s review of the economic and social dimensions of climate change, the work of the Organisation for Economic Co-operation and Development (OECD) on the economic dimensions and policy responses to global warming, and the Administration’s staff-level interagency analysis. In addition, the Administration used other tools, such as a meta-analysis, basic economic reasoning, overviews of the domestic and international energy sectors, statistics regarding energy efficiency and greenhouse gas emissions, and economic indicators from World Bank, International Energy Agency, and Energy Information Administration databases.

Assuming that effective mechanisms for international trading, joint implementation, and the Clean Development Mechanism are established, and assuming also that the United States achieves meaningful participation of key developing countries, the Administration’s overall assessment is that the economic cost of attaining the targets and timetables specified in the Kyoto Protocol will be modest for the United States in aggregate and for typical households. This conclusion is not entirely dependent upon, but is fully consistent with, formal model results. The Administration continues to believe that there are limitations to relying on any single model to assess the economic impact of the Kyoto Protocol. However, model results can further inform and improve the understanding of the effects of climate change policy. To complement the economic analysis of the Administration’s policy to address climate change, we have conducted an illustrative assessment with a modified version of the Second Generation Model (SGM). The results from the SGM substantiate the conclusion that the economic effects of an efficient, effective, and global policy to address the risks of climate change will be modest.

An assessment using the SGM model that accounts for effective trading and developing country participation yields permit price estimates ranging between \$14/ton and \$23/ton, and direct resource costs to the U.S. between \$7 billion and \$12 billion/year (1997 dollars). The range reflects uncertainty about the extent of Annex I participation in international trading.

Under the assumptions of the Administration's analysis, permit prices in the range of \$14/ton to \$23/ton translate into energy price increases at the household level between 3 and 5%.

Under these permit prices, fuel oil prices would increase about 5 to 9 percent, natural gas prices about 3 to 5 percent, gasoline prices about 3 to 4 percent (or around 4 to 6 cents per gallon), and electricity prices about 3 to 4 percent. This increase in energy prices at the household level would raise the average household's energy bill in ten years by between \$70 and \$110 per year, although such predictions may not be observable because they would be small relative to typical energy price changes, and nearly fully offset by electricity price declines from Federal electricity restructuring. By 2008-2012, the anticipated 10 percent decline in electricity prices from restructuring is projected to lead to expenditure reductions of about \$90 per year for the average household.

The illustrative modeling analysis does not account for several key components of the Kyoto Protocol and the Administration's policies to reduce greenhouse gas emissions. These include the benefits of reducing net emissions through carbon sinks, the Administration's electricity restructuring proposal, the Administration's Climate Change Technology Initiative (R&D funding and tax incentives in the FY 1999 and the Administration's FY 2000 Budgets), the Administration's sectoral consultations to encourage and support voluntary efforts by U.S. industry to undertake emissions reductions, including the provision of credit for early action, and the Administration's efforts to reduce federal energy use. There are also ancillary benefits of reducing greenhouse gas emissions -- in particular, the corresponding reductions in conventional air pollutants like sulfur dioxide and fine particulate matter. These benefits alone could produce savings equal to about a quarter of the costs of meeting our Kyoto target.

The Administration released last year its proposed electricity restructuring legislation and the supporting analysis of this proposal. The Administration's proposed Comprehensive Electricity Competition Act (CECA) is estimated to reduce greenhouse gas emissions by about 25 to 40 million metric tons of carbon equivalent per year by 2010. Further, the electricity restructuring proposal provides potential cost-savings in four areas: dispatch efficiency, improved capital utilization, savings in capital additions and cost reductions in fuel procurement, non-fuel operation and maintenance expenses, and administrative and general expenses. These four categories of savings, when translated to consumers, are likely to reach or exceed \$20 billion annually. The Department of Energy's CECA supporting analysis documents² contain further discussion of the Administration's electricity restructuring proposal.

² Please refer to the attached paper copy or <http://www.doe.gov/ceca/ceca.htm> for the PDF version of the supporting analysis.

Recent Research on the Economics of Climate Change

Since December 1997, many economists have conducted and made available their analyses of the Kyoto Protocol. I have noted in previous appearances before Congressional Committees that there are limitations to relying on one or a small set of models and that we were eager to see assessments of the Kyoto Protocol by other models. Two large efforts have been undertaken to coordinate and compile modeling results on the Kyoto Protocol. First, the Stanford University Energy Modeling Forum (EMF), a long-running model comparison exercise involving many of the leading climate and energy models, has coordinated full scale analyses of the Kyoto Protocol. Second, the Organisation for Economic Co-operation and Development (OECD) held an economic modeling workshop this past fall, and has since published the proceedings of this workshop which includes 16 papers. In addition, several research teams have undertaken work in evaluating the potential for intergas trading and the cost-savings of a six-gas target relative to a carbon dioxide-only target. I would like to take this opportunity to provide an overview of this recent research.

Kyoto Modeling Analyses

The Energy Modeling Forum comparison exercise of the Kyoto Protocol has included ten modeling teams from the United States, Europe, and Asia. In evaluating the Kyoto Protocol, all of the participating teams used economic models that incorporate the potential for international trading in greenhouse gas permits. The OECD workshop included presentations by X modeling teams, Y of which had global models as well.³ By explicitly incorporating international trading, these models can evaluate the opportunities for cost-savings through trading among Annex I nations and among Annex I and developing countries were they to adopt emissions targets. Since the Kyoto Protocol enables all countries with emissions targets to trade emissions allowances among other countries with targets, these models are well-suited to assess the economic implications of the international trading component of the agreement.

While the models used in the EMF exercise and the OECD workshop can assess international trading, there are several other flexibility mechanisms of the Kyoto Protocol that they cannot, at present, readily assess. For example, these models did not incorporate the effects of sinks. While several modelers did assess the economic costs of achieving the Kyoto targets with “off-line” assumptions about sink activity, none incorporated an integrated energy-land use model. Further, most of the modelers did not evaluate opportunities to reduce costs by trading across greenhouse gases. These models are primarily energy models and are focused on the economics of reducing carbon emissions from fossil fuel combustion. Again, some modelers analyzed the Protocol by making some “off-line” assumptions about the potential reductions in non-carbon dioxide greenhouse gases, but none employed a model with cost curves for these gases. Finally, it should be noted that these models did not include opportunities for emissions

³ Please note that several modeling teams participating in the EMF exercise made presentations at the OECD workshop.

reduction through Administration proposals, such as electricity restructuring or the Climate Change Technology Initiative, that could lower greenhouse gas permit prices.

The results from both the EMF and OECD efforts provide very useful context for the Administration's economic analysis. First, the illustrative model used by the Administration, the Second Generation Model of the Pacific Northwest National Laboratory, tends to fall in the middle of the range of this set of models in terms of U.S. permit prices.⁴ For example, under Annex I trading SGM generates a permit price which is at the median of this set of models. Under full global trading, the SGM permit price is just below the median permit price. Second, the EMF exercise found that the reduction in permit prices as trading expands from no trading to Annex I trading to full global trading is robust. On average, the EMF models found that Annex I trading would cut the U.S. permit price by 53% relative to a no trading scenario. Of these models, one estimated a 72% reduction in the permit price under Annex I trading. In full global trading, the permit price would be, on average, 80% lower than the no trading price. Several models estimated permit price reductions of about 90%.

The reported results from the OECD workshop found similar reductions in permit prices by going from no trading to Annex I trading. On average, the OECD workshop models found that Annex I trading would cut the U.S. permit price by 57% relative to a no trading scenario. Moreover, they found that the European Union and Japan would benefit more from unconstrained Annex I trading. For both the E.U. and Japan, the average reduction in permit prices across these models would be nearly 75%.

Analyses of Trading Constraints

In addition to the modeling of various efficient international trading scenarios, several EMF modeling teams have considered the impact of constraints on the opportunity to buy or sell emissions allowances in an international market. While the United States is unambiguously opposed to trading restrictions, several parties to the agreement have indicated support for some form of a trading constraint, for example, by setting a limit on the amount a party can purchase through the trading system. Trading restrictions would generate no benefit for the global climate while they could significantly increase the costs of achieving the Kyoto targets.

Before describing the economic costs of trading constraints, I would like to explain why such constraints yield no climate benefits. Regardless of where an emission reduction occurs, it has the same effect on total emissions and the same effect on the climate. A ton reduced in New

⁴ Please note that the version of SGM used in EMF differs from the analysis conducted by the Administration because the EMF version does not include cost curves for non-carbon dioxide greenhouse gases used by the Administration. Since efficient trading across gases would lower costs and permit prices, and accounting for six gases affects the stringency of some countries' targets, the EMF version of SGM yields slightly higher permit prices than the Administration version.

York generates the same climate benefit as a ton reduced in Berlin. In proposing trading constraints, some have focused on countries such as Russia, that will have emissions below their Kyoto targets during the commitment period because of the decline in their economic output associated with the transition to market economies. If trading constraints are established that restrict the ability of Russia to sell permits (or restrict the opportunity for other Annex I countries to buy Russian permits), then emissions during the first commitment period would be lower than in the absence of such constraints. However, Russia would simply bank its allowances and use these allowances in a subsequent commitment period when its emissions exceed its target. While a trading constraint might lower emissions during the first commitment period, the cumulative emissions over several commitment periods from Annex I countries would be the same with and without the trading constraint. Given the long residence times of greenhouse gases (on the order of a 100 or more years), the cumulative effect is what is most relevant in terms of changes in the global climate.

To provide a sense of the economic implications of trading constraints, I would like to share with you two examples from work done by EMF modeling teams. First, consider a trading constraint that mandates that at least two-thirds of the emissions reductions necessary for a country to achieve its Kyoto target must occur through domestic actions. Evaluating this trading constraint with the EPPA model based at the Massachusetts Institute of Technology, the permit price for the United States is almost four times higher with the constraint than under an unconstrained global trading system. It is important to note that the effects of this constraint are even more pronounced for the European Union and for Japan. The permit price for the EU would be more than five times higher than the unconstrained global trading permit price, and the Japanese permit price would be thirteen times higher. As these results indicate, the trading constraint would result in each country experiencing a different marginal cost of abatement, and there would be no common permit price for a ton of carbon equivalent. Since the constraint restricts opportunities for countries like the United States, Japan, and members of the EU to buy emissions allowances, the competitive price for emission allowances from countries like Russia would fall below the unconstrained level.

Second, consider a trading constraint that mandates that acquisitions of permits through international trading could not exceed 10% of a country's emissions allocation. For example, the U.S. target is approximately 1.5 billion tons of carbon equivalent on an annualized basis. Under this trading constraint, the United States, or private firms in the United States, could not purchase more than 150 million tons on an annual basis from other countries. Assessing this trading constraint with the Second Generation Model, the permit price for the United States would more than triple relative to the unconstrained global trading permit price. For the E.U., the permit price would nearly double, and for Japan, the permit price would be eleven times as high as the unconstrained global price.

While trading constraints increase greenhouse gas permit prices (and subsequently, energy prices) in the United States, the European Union, and Japan, they also reduce the gains from trade by the countries likely to be sellers of emissions allowances. For example, Russia

and large developing countries that adopt emissions growth targets and participate in international trading, e.g., China and India, would sell fewer emissions allowances at lower international permit prices under such trading constraints than in an unconstrained global trading environment. Such restrictions lessen the benefits of participation by developing countries in international trading.

Estimated reduction in costs from trading across gases

As we note in the Administration Economic Analysis, the Kyoto Protocol provides additional flexibility in achieving emissions targets by specifying these targets as a basket of 6 types of greenhouse gases. Countries can effectively trade across gases, based on their global warming potential, so that the aggregate weighted emissions reductions occur at least cost. Most models used to evaluate the Kyoto Protocol have not incorporated this kind of flexibility, although several modeling teams are actively working to modify their models to include emissions of non-CO₂ greenhouse gases. In the Administration's analysis, cost curves for these other gases for the United States were used in conjunction with the SGM model. These simulations suggest that trading across greenhouse gases can lower costs up to 15% relative to a situation where no trading across gases occurs.

Complementing this finding, recent work by a group of researchers at the Massachusetts Institute of Technology has found that including the opportunity to abate non-CO₂ greenhouse gas emissions and promote carbon sinks reduces the costs to the United States by about 25% relative to a carbon-only approach (assuming no international trading). On average, they find that Annex I countries' costs would fall by more than 20%. In addition, work by University of Illinois researchers and others has evaluated the changes in costs of abating methane and carbon dioxide to achieve the U.S. Kyoto target instead of abating carbon dioxide alone. They found that cost-effectively meeting an emissions target by trading between carbon dioxide and methane reductions could reduce costs by nearly 20% relative to a case with no intergas trading. Finally, research by several Dutch analysts presented at the OECD workshop found significant opportunities for the European Union to substitute abatement of non-CO₂ greenhouse gas emissions for carbon dioxide reductions. They found that 27% of the total reduction effort necessary for E.U. countries to achieve their emissions targets could occur through the abatement of these non-carbon gases.

Developing Country Participation

During the Buenos Aires Conference, two non-Annex I countries, Argentina and Kazakstan stated that they will announce emissions targets by the fifth climate change conference scheduled for this coming October. We believe that these two countries' efforts may encourage other non-Annex I countries to follow their lead. Economic and environmental benefits would accrue if some developing countries adopt binding emissions targets and participate in international trading. Setting a target below the business as usual emissions level for the

commitment period would generate climate benefits by reducing global emissions below what they would otherwise have been. In addition, if the target is set not too far below the business as usual emissions level, the participation of the country in a global trading system would produce economic benefits or "gains from trade" for both the developing country and its trading partners. Emissions trading by developing countries would occur only if they chose to undertake emissions reductions above and beyond their commitments -- reductions that would generate trading extra income for them as long as their marginal abatement cost is below the world trading price for greenhouse gas permits. Many of the EMF models reveal that, for large developing countries, like China, such excess reductions would indeed be profitable, so that these countries would export allowances and gain from trade. Developing countries would also reap ancillary benefits of reducing conventional air pollutants, which may be substantial. Benefits from trading would also accrue to Annex I countries. Annex I countries (and private firms in these countries), who would purchase these emissions allowances in the world market, would achieve their targets at lower cost than without the participation of the developing countries. However, it should be noted that the more stringent the target for the developing country, the lower the gains from trade both for that country and for Annex I countries such as the United States. Indeed, an extremely stringent target could conceivably make the developing country a net importer of emissions allowances, and raise the international trading price for a greenhouse gas permit. Still, these models illustrate the potential to create targets that simultaneously make the environment, the developing country, and Annex I countries all better off.

Conclusion

The Administration's overall conclusion is that the economic impact of the Protocol will be modest under the conditions we have identified in our economic analysis. The purpose of this testimony has been to summarize the analysis we have presented in the Administration Economic Analysis on climate change and to provide a brief update of recent research efforts outside of the government.

I look forward to continuing to work with members of this Committee, as well as with other interested parties, in further analyzing the Kyoto Protocol 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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CREATION DATE/TIME:22-MAR-1999 19:54:12.00

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

READ:UNKNOWN

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07:53 PM -----

Joseph J. Minarik

03/22/99 07:51:10 PM

Record Type: Record

To: Steven N. Braun/CEA/EOP, Robert.Cumby @ do.treas.gov@inet

cc:

Subject: Memo

Jack Lew is fine with the memo, and with Janet's / Steve's suggestion that we hold it to Troika until some future hour when we are ready to discuss it with a wider audience. He also asked that I get the savings that CBO would enjoy simply from moving to our assumptions; I will ask Doug for that.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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CREATION DATE/TIME:22-MAR-1999 14:23:42.00

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The following is a HEX DUMP:

**TESTIMONY OF DR. JANET YELLEN
CHAIR, COUNCIL OF ECONOMIC ADVISERS
BEFORE THE
U.S. SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES**

MARCH 25, 1999

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 agree and am pleased to have this opportunity to appear before the Committee to elaborate on the Administration's views on these issues.

The international agreement that was reached in Kyoto in December 1997 is a crucial step forward in addressing global climate change. But it is only one step in a journey. Since the international effort to reduce greenhouse gas emissions is still in some respects a work-in-progress, 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 and the Administration's policy, such as international emissions trading, meaningful developing country participation, inclusion of land-use activities that absorb carbon ("sinks") and six categories of gases, as well as domestic initiatives, that together can ensure that reductions in global greenhouse gas emissions are consistent with continued strong economic growth. I will explain the reasoning underlying our conclusion that, under these conditions, economic impacts are likely to be modest. In addition, I will review some of the more recent economic analyses that have been undertaken outside of the Federal government on this issue.

The Administration is strongly committed to ensuring that these key elements are reflected in our domestic and international climate change policies. We are firmly committed to meaningful developing country participation, the use of sinks to offset emissions requirements, and emissions trading both domestically and internationally. And as you know, the President's FY 2000 budget includes a request for tax cuts and R&D investments as a part of a 5-year, \$6.3 billion package; this package makes good sense in terms of energy policy and will jumpstart our efforts. A final component of the President's climate change policy is his support for electricity restructuring in a manner that will offer approximately \$20 billion in cost savings to electricity consumers, while reducing greenhouse gas emissions.

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 Protocol.

The earth's surface appears to be 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 Protocol 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 Change¹

In evaluating efforts to mitigate global warming, the first step is to consider the costs of inaction. These costs --and they are significant-- provide the primary motivation for actions to reduce 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 and continue to rise thereafter. As a result of the increased concentration of CO₂, the IPCC estimates that global temperatures will increase by between 2 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.

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

¹ Further discussion of the costs of climate change is contained in the Administration Economic Analysis. Please refer to the attached paper copy or, for a PDF version of this document, refer to <http://www.whitehouse.gov/WH/New/html/kyoto.pdf>.

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 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, relocation costs, human amenity, construction, leisure activities, urban infrastructure, and ecological damages such as forest loss and species loss). Although the quantification of these effects is quite demanding, researchers have developed estimates that prompt substantial concern. Other researchers have predicted sea level increases of about 20 inches by 2100, with greater increases in subsequent years.

Despite the difficulties, respected researchers have developed estimates of the monetary damages expected from an average worldwide temperature increase. For example, William Cline, then of the Institute for International Economics, estimated that a temperature change of 4.5 degrees Fahrenheit would impose annual damages of about 1.1 percent of GDP per year on the U.S. economy. That amounts to \$94 billion in today's terms. (Cline's original estimate is quoted in 1990 dollars. The figure given above translates this number into 1998 terms by scaling it to current GDP.) William Nordhaus of Yale University has likewise computed estimates of the dollar loss attributable to a doubling of greenhouse gas concentrations. Although he uses methods that differ from Cline's in several respects, Nordhaus estimates that a slightly larger temperature change of 5.4 degrees Fahrenheit would impose losses equal to about 1 percent of GDP. A third independent estimate reported by Nordhaus is close to Cline's. It must be noted, however, that this similarity among aggregated 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.

One key difficulty in interpreting and monetizing these estimates of damages is uncertainty over the extent that they should be discounted because they occur in the distant future. 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 yet, no professional consensus on the issue. Indeed there can be no technical answer to the ethical question how we should value the welfare of future generations.

A similar difficulty with such estimates is that they do not include potential non-linearities in the relationships between greenhouse gas 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 estimates of damages do not, and cannot, accurately reflect the value of reducing the unknown risk of large-scale and potentially irreversible discrete events with potentially catastrophic consequences.

Two such possibilities serve as illustrations. Warming of Northern tundra may release huge amounts of methane from the permafrost, thereby leading to accelerated warming. We do not know at what point, if any, such potentially 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 weakening of the Gulf Stream that warms Western Europe. Scientific evidence suggests that abrupt seawater temperature shifts have occurred over periods as short as decades.

To what extent are we willing to take such chances with our planet? There is a strong argument for the Kyoto Protocol 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? Although it is difficult for an economist, or anyone, to know, reductions in the risk of such catastrophic outcomes must be considered in addition to the costs and benefits that can be reasonably quantified. Since human beings are typically averse to risk, such catastrophic risks 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 without an international agreement limiting emissions abroad, greenhouse gas emissions from all other countries would continue to grow, and the risks posed by climate change would not be significantly reduced. 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. A landmark 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 an objective of limiting greenhouse gas concentrations and called upon 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; quite the contrary, emission levels have continued to rise not fall among both developed and developing countries.

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, in December 1997, to reduce emissions of greenhouse gases. The Kyoto Protocol, which requires the advice and consent of the Senate, would place binding limits on each industrial country's combined emissions of the six principal categories of greenhouse gases: carbon dioxide (CO₂), nitrous oxide (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 Protocol, each industrial country's baseline is 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 this baseline by the period between 2008 and 2012. Given the changes in the definition of the baseline for the three long-lived chemical compounds (HFCs, PFCs and SF₆) from 1990 to 1995 combined with a change in the way sinks are accounted for in the baseline, the actual reduction required in the U.S. is no more than 2-3% more stringent than the President originally proposed as the U.S. negotiating position. 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 he will not submit the Kyoto Protocol to the Senate without meaningful participation from key developing countries (who are not included in Annex I). There are several reasons why meaningful participation from developing countries is essential. First, developing countries are projected to contribute a majority of world emissions around 2030 under a continuation of business-as-usual. Without the participation of developing

economies, efforts by the industrialized countries to limit emissions will therefore not provide adequate protection from climate change.

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 domestically by U.S. companies and those in other industrialized countries. Since greenhouse gas emissions have the same impact on the climate regardless of where they occur, emission reductions in developing countries have the same environmental benefit as reductions in the U.S. 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, in part, on their ability to contribute to the solution. Thus even poor countries should participate, although the lack of resources in such countries may limit the extent of their participation.

Some have expressed fears that the Kyoto Protocol might adversely affect the competitive position of American industry. Evaluating how the Kyoto Protocol could affect competitiveness of a few specific manufacturing industries -- especially those that are especially energy-intensive, such as aluminum and chemicals -- is complex. The answer depends, in part, on the impact of the agreement on energy prices, which we will shortly address. In general it is difficult to undergo a 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 per gallon in Venezuela. Similarly, gas prices were \$3.71 per gallon in Switzerland and \$4.41 per gallon in France. Electricity prices also vary significantly: in the U.S., for industry, they were 5 cents per kilowatt hour in 1995, a fraction of prices in Switzerland of 13 cents per kilowatt hour. Yet U.S. industry is not moving en masse to Venezuela, nor is Swiss industry moving to the United States. Third, roughly two-thirds of all emissions are not in manufacturing at all, but in transportation and buildings, sectors which, by their very nature, are severely limited in their ability to relocate to other countries. We therefore believe we need developing country participation because the problem is global and cost-effective solutions are essential, than 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

reductions in global greenhouse gas emissions are attained 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, over 2,500 economists from academia, industry, and government alike urged such approaches in a letter they signed in 1997 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, within some range, 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.

As a result of U.S. leadership, the Kyoto Protocol incorporates this principle of “when flexibility” in four ways:

- First, the initial emissions reductions are less severe, and the period over which they occur ends much later than what had been proposed by many other countries. 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, while attaining the same ultimate environmental goals.
- Second, under the Kyoto Protocol, 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 subsequent periods have not yet been specified].
- Fourth, CDM credits achieved between 2000 and 2008 may be banked until 2008 to 2012.

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 gas can be used to substitute for increases in emissions of another by an amount that has equivalent environmental effects. Again at U.S. urging, all six gases are included, while Japan and the E.U. had insisted until the end on covering only three. Thus the U.S. succeeded in having the Kyoto Protocol stipulate that countries with binding targets are 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 analysis using cost curves developed by the Interagency Analytical Team indicates that a strategy of reducing non-CO₂ greenhouse gas emissions by a greater percent than CO₂ emissions could lower U.S. emissions permit prices by 10-20 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. At the urging of the U.S. delegation, sinks can be used to offset emissions targets. Promoting such sinks through afforestation and reforestation may reduce atmospheric concentrations of CO₂ at much lower costs than reducing emissions of greenhouse gases. In addition, the United States advocates including other categories of sinks, such as agricultural soil sinks, consistent with our understanding of the science of sequestration.

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 Protocol, because of U.S. insistence and persistence, includes three important cost-saving provisions of this nature.

- First, it provides the opportunity for countries that take on binding targets to trade rights to emit greenhouse gases with each other. This market in emissions permits could ensure that emissions 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 -- thus lowering costs without affecting the level of environmental protection. While

currently only industrialized countries have emissions caps, this mechanism also offers an incentive for developing countries to take on emissions targets.

- Second, the agreement provides for Joint Implementation by Annex I countries. Thus if some countries do not develop programs to trade permits internationally, U.S. firms could nonetheless implement projects in those countries for which they could receive emissions reductions credits in the U.S.
- Third, 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 U.S. Joint Implementation pilot program begun consistent with the existing Framework Convention on Climate Change.

Details of how these provisions will operate will be discussed in future negotiations based on the workplan agreed to in Buenos Aires last November. Nonetheless, effective international trading of emission credits, Joint Implementation, and the Clean Development Mechanism can lead to substantial reductions in costs relative to alternative policies that do not exploit the power of market incentives. To illustrate briefly the ability of U.S. industry to perform beyond expectations when given appropriate economic incentives, consider further 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 been significantly lower than was originally forecast, in part due to the role of incentives in fostering innovation. 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 like international permit trading, Joint Implementation, and the Clean Development Mechanism will lead firms to find cheaper ways of reducing emissions that can lead to unexpectedly low costs.

IV. Difficulties of Economic Analysis of the Kyoto Protocol

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, once again the inherent limitations of any such estimates deserve emphasis. 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, necessitating assumptions on which the analysis is predicated. Second are the inherent limitations of available models to analyze even short-term costs and benefits. And finally is a topic discussed earlier: the impossibility of putting a single monetary number on the long-term benefits of climate change mitigation, although there will clearly be economic benefits of emission reductions.

Uncertainties in the International Effort to Combat Climate Change

The Kyoto Protocol 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 can work, and that informs our analysis, there is still much that we do not know.

First, some provisions raise complex implementation issues. At issue here is the treatment of so-called sinks -- activities that affect the rate at which carbon is removed from the atmosphere and "sequestered," e.g., by the planting of trees.

Second, the details of a number of items -- primarily concerning international trading, the Clean Development Mechanism, and developing countries -- are the subject of further discussions including future negotiations, because they had not been definitively settled by the end of the Kyoto talks. The workplan agreed to in Buenos Aires established the aim of resolving key implementation issues associated with international trading and the CDM by the close of the negotiations scheduled for late in 2000. In addition, the announcements by two non-Annex I countries, Argentina and Kazakhstan, regarding their intent to adopt emissions targets illustrates some progress on the issue of developing country participation. Further expansion of the number of countries with binding targets could result in greater environmental benefits through additional emissions abatement and greater cost-savings through international trading.

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 not 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, are 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 --especially the diffusion of existing energy-efficient technologies, but also the development of new technologies -- and the extent to which the pace will accelerate in response to government programs. Models and experts on climate change policy tend to have a wider range of disagreement on 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 show the effects of hypothetical tax cuts made possible by the new revenues earned through the auction of emissions permits. Some are capable of showing recessions and booms. Others 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, along with diplomatic assessments, are also crucial.

Benefits of Averting Climate Change

As discussed above, it is evident that the benefits of averting climate change are potentially immense. But we have chosen not to try to quantify them in monetary terms, in light of the difficulties we have enumerated. These include the uncertainty of these benefits, their timing and therefore the extreme sensitivity of the results to the chosen discount rate, and the dependence of benefits on emissions paths after the 2008 to 2012 budget period specified in Kyoto.

V. Assessing the Kyoto Protocol

In order to evaluate the likely net economic impact of the Kyoto Protocol, *excluding the benefits of mitigating climate change itself*, we have drawn upon a variety of tools to assess the various possible costs and non-climate benefits of the Administration's emissions reduction

policy. To give away the punch line, our conclusion is as follows: the net costs of our policies to reduce emissions are likely to be small, assuming those reductions are undertaken in an efficient manner and we are successful in securing meaningful developing country participation as well as effective international trading, and the Clean Development Mechanism in future negotiations. That potential small net premium, even excluding the benefits of mitigating climate change, in effect, purchases a partial insurance policy against a serious environmental threat.

Because the results from any model must be treated with caution, the Administration has employed a broad set of economic tools to assess the Kyoto Protocol. 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, the work of the OECD on Economic Dimensions and Policy Responses to Global Warming, and the staff-level Interagency Analytical Team analysis produced last year. Other tools include simple relevant statistics, "meta-analyses" such as work by the World Resources Institute, models, and basic economic reasoning. Drawing on this broad array of analytical tools is crucial to an intelligent evaluation of the policy alternatives.

Our thinking has been informed, however, by simulations conducted with the Second Generation Model of Pacific Northwest National Laboratory, one of the leading models in the field. 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 Protocol or include a role for sinks. We have used the SGM model as one input into our overall 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, a possible trading arrangement that could include a subset of the Annex I countries and the Clean Development Mechanism. We will share with you today some preliminary results of this analysis. To the extent possible, we have compared results obtained with the SGM model with those of other modeling efforts.

Since December 1997, many economists have conducted and made available their analyses of the Kyoto Protocol. I have noted in multiple appearances before Congress that there are limitations to relying on one or a small set of models and that we were eager to see assessments of the Kyoto Protocol by other models. Two large efforts have been undertaken to coordinate and compile modeling results on the Kyoto Protocol. First, the Stanford University Energy Modeling Forum (EMF), a long-running model comparison exercise involving many of the leading climate and energy models, has coordinated full scale analyses of the Kyoto Protocol. The Energy Modeling Forum comparison exercise of the Protocol has included ten modeling teams from the United States, Europe, and Asia.² In evaluating this agreement, all of the

² Please note that only nine of these modeling teams have provided results for the United States, so all references below to changes in permit prices for the United States in EMF analyses reflect these nine models.

participating teams used economic models that incorporate the potential for international trading in greenhouse gas permits. By explicitly incorporating international trading, these models can evaluate the opportunities for cost-savings through trading among Annex I nations and among Annex I and developing countries were they to adopt emissions targets. Since the Kyoto Protocol enables all countries with emissions targets to trade emissions allowances among other countries with targets, these models are well-suited to assess the economic implications of the international trading component of the agreement.

Second, the Organisation for Economic Co-operation and Development (OECD) held an economic modeling workshop this past fall, and has since published the proceedings of this workshop which includes 16 papers. Like the Stanford EMF project, the OECD workshop involved primarily assessments that included models capable of evaluating international emissions trading. I should also note that some modeling teams participated in both the EMF effort and the OECD workshop.

While the models used in the EMF and OECD efforts can assess international trading, there are several other flexibility mechanisms of the Kyoto Protocol that they cannot, at present, readily assess. For example, these models did not incorporate the effects of sinks. While several modelers did assess the economic costs of achieving the Kyoto targets with “off-line” assumptions about sink activity, none incorporated an integrated energy-land use model. Further, most of the modelers did not evaluate opportunities to reduce costs by trading across greenhouse gases. These models are primarily energy models and are focused on the economics of reducing carbon emissions from fossil fuel combustion. Again, some modelers analyzed the Protocol by making some “off-line” assumptions about the potential reductions in non-carbon dioxide greenhouse gases, but none employed a model with cost curves for these gases. Finally, it should be noted that these models did not include opportunities for emissions reduction through Administration proposals, such as electricity restructuring or the Climate Change Technology Initiative, that could lower greenhouse gas permit prices.

I will provide an overview of the key findings from these two efforts in the context of the Administration’s results below.

VI. Assessing the Potential Costs of Emissions Reductions

The first time I testified before Congress on this issue in 1997, I said 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-based 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 Protocol and our ongoing diplomatic strategy.

Within the Kyoto Protocol, this means an insistence on international trading, Joint Implementation, the Clean Development Mechanism, and, ultimately, on meaningful 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 continued funding for the Climate Change Technology Initiative (CCTI) -- an aggressive program of tax cuts and R&D investments. 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 5 years in tax cuts for energy efficient purchases and renewable energy. The package also contains \$2.7 billion over 5 years in additional research and development investments -- covering the four major carbon-emitting sectors of the economy (buildings, industry, transportation, and electricity), plus carbon removal and sequestration, and cross-cutting analyses and research. Many of the efforts within the CCTI reflect recommendations made in a 1997 report by the President's Committee of Advisors on Science and Technology. The Committee found that "the inadequacy of current energy R&D is especially acute in relation to the challenge of responding prudently and cost-effectively to the risk of global climatic change from society's greenhouse gas emissions."

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. [EXAMPLES? I will contact WHCCTF] 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, 1997. An electricity sector freed from government regulation would be a more efficient energy sector. Costs to consumers would fall. In addition, stronger incentives for improved generation efficiency in conjunction with appropriate market based provisions could achieve modest reductions in emissions. Last year the Administration proposed the Comprehensive Electricity Competition Act (CECA), which was estimated to reduce greenhouse gas emissions by about 25 to 40 million metric tons of carbon equivalent per year by 2010. Further, the electricity restructuring proposal provides potential cost-savings in four areas: dispatch efficiency, improved capital utilization, savings in capital additions and cost reductions in fuel procurement, non-fuel operation and maintenance expenses, and administrative and general expenses. These four categories of savings, when translated to consumers, are likely to reach or exceed \$20 billion annually. The Department of Energy's CECA supporting analysis documents³ contain further discussion of the Administration's electricity restructuring proposal. These steps should be taken regardless of Kyoto, because they make sense in terms of energy efficiency. But they have the added benefit of preparing us for Kyoto.

³ Please refer to the attached paper copy or <http://www.doe.gov/ceca/ceca.htm> for the PDF version of the supporting analysis.

Estimated Reduction in Costs from Annex I Trading

In the language of the treaty, "Annex I," is the set of countries that have agreed to take on binding limitations in emissions of greenhouse gases. Even without meaningful developing country participation -- which, again, the President has emphasized is essential before the treaty would be submitted for ratification -- costs could be reduced substantially by emission trading among the Annex I countries. To provide some indication of the possible efficiency improvements, Russia and Ukraine consume six times as much energy per dollar of output as does the United States. Such large international differences in energy efficiency suggest that adoption of existing U.S. technology would yield very large emissions reductions in these countries.

Estimates derived from the SGM model confirm that emissions trading among Annex I countries can 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 other countries where emission reductions may be cheaper than in the United States. Although these estimates reflect idealized international trading in efficient markets, the overall conclusion is clear. The dramatic reduction in costs potentially 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 Protocol; and why its achievement by our negotiators in Kyoto was such an important accomplishment.

The EMF results provide very useful context for the Administration's economic analysis. The illustrative model used by the Administration, the Second Generation Model, tends to fall in the middle of the range of this set of models in terms of U.S. permit prices.⁴ For example, under Annex I trading EMF SGM generates a permit price which is at the median of this set of models. On average, the EMF models found that Annex I trading would cut the U.S. permit price by 53% relative to a no trading scenario. Of these models, one estimated a 72% reduction in the permit price under Annex I trading.

The reported results from the OECD workshop found similar reductions in permit prices by going from no trading to Annex I trading. On average, the OECD workshop models found that Annex I trading would cut the U.S. permit price by 57% relative to a no trading

⁴ Please note that the version of SGM used in EMF differs from the analysis conducted by the Administration because the EMF version does not include cost curves for non-carbon dioxide greenhouse gases used by the Administration. Since efficient trading across gases would lower costs and permit prices, and accounting for six gases affects the stringency of some countries' targets, the EMF version of SGM yields slightly higher permit prices than the Administration version.

scenario. Moreover, they found that the European Union and Japan would benefit more from unconstrained Annex I trading. For both the E.U. and Japan, the average reduction in permit prices across these models would be nearly 75%.

Estimated reduction in costs from umbrella trading

One possibility that emerged in Kyoto, which none of us foresaw, was the idea developed there by the U.S. delegation, that the United States might undertake trading with a subset of Annex I countries, dubbed the “umbrella”. Countries that have expressed interest in the umbrella include the United States, Australia, Canada, New Zealand and Russia, with strong indications of interest from some others. This subset of Annex I countries shares a common interest in promoting market-based mechanisms, most specifically, fully flexible rules for international trading of emissions permits.

It is too early to state the precise form the umbrella will take. But we can envision a number of potential benefits. The umbrella could, for example greatly reduce costs to the U.S.

Results that we have derived from various SGM simulations of efficient international trading suggest that, relative to the situation in which there is no trading at all, the umbrella can reduce costs by an estimated 60-75 percent, depending on whether the former Warsaw Pact countries fall within the umbrella. The Kyoto Protocol classifies these countries outside of the E.U. bubble for the first budget period 2008-2012.

Estimated reduction in costs from developing country participation

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

The substantial potential gains from meaningful developing country participation are highlighted by the significant benefits that will likely accrue from the limited role that the developing countries have already agreed to: the Clean Development Mechanism (CDM), modeled after the U.S. joint implementation concept. The CDM cannot realistically be expected to yield all the gains of binding targets for developing countries, but it might shave costs up 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. Simulations with the SGM model suggest that full participation by non Annex I countries could cut roughly 55 percent off the reduced costs that result from Annex I trading. The actual cost reduction would depend on the extent of developing country participation that is ultimately obtained, as well as the effectiveness of international trading arrangements. The more developing countries that take on modest binding targets and trade in international permit markets, the lower will be costs.

The Stanford EMF exercise also finds significant benefits from expanding participation to non-Annex I countries. The EMF exercise found that the reduction in permit prices as trading expands from no trading to Annex I trading to full global trading is robust. In full global trading, the permit price would be, on average, 80% lower than the no trading price. Several models estimated permit price reductions of about 90%. To provide context for the Administration's analysis, under full global trading, the EMF SGM permit price is just below the median permit price of the models in EMF.

These cost-saving opportunities are fundamental tenets of the U.S. position. The promise of Kyoto cannot be achieved without effective emissions trading. Moreover, if we do not get 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 in international negotiations.

I would like to be very clear on this issue. The Administration position on non-Annex I countries' adopting emissions targets could allow for a win-win because of opportunities available through international trading: we win, and they win. Economic and environmental benefits would accrue if some developing countries adopt binding emissions targets. Setting a target below the business as usual emissions level for the commitment period would generate climate benefits by reducing global emissions below what they would otherwise have been. In addition, if the target is set not too far below the business as usual emissions level, the participation of the country in a global trading system would produce economic benefits or "gains from trade" for both the developing country and its trading partners. Emissions trading by developing countries would occur only if they chose to undertake emissions reductions above and beyond their commitments -- reductions that would generate trading extra income for them as long as their marginal abatement cost is below the world trading price for greenhouse gas permits. Many of the EMF models reveal that such excess reductions could indeed be profitable for some developing countries, so that these countries would export allowances and gain from trade. Developing countries would also reap ancillary benefits of reducing conventional air pollutants, which may be substantial. Benefits from trading would also accrue to Annex I countries. Annex I countries (and private firms in these countries), who would purchase these emissions allowances in the world market, would achieve their targets at lower cost than without the participation of the developing countries. However, it should be noted that the more stringent the target for the developing country, the lower the gains from trade both for that country and for Annex I countries such as the United States. Indeed, an extremely stringent target could conceivably make the developing country a net importer of emissions allowances, and raise the international trading price for a greenhouse gas permit. Still, these models illustrate the potential to create targets that simultaneously make the environment, the developing country, and Annex I countries all better off.

Analyses of Trading Constraints

In addition to the modeling of various efficient international trading scenarios, several EMF modeling teams have considered the impact of constraints on the opportunity to buy or sell emissions allowances in an international market. While the United States is unambiguously opposed to trading restrictions, several parties to the agreement have indicated support for some form of a trading constraint, for example, by setting a limit on the amount a party can purchase through the trading system. Trading restrictions would generate no benefit for the global climate while they could significantly increase the costs of achieving the Kyoto targets.

Before describing the economic costs of trading constraints, I would like to explain why such constraints yield no climate benefits. Regardless of where an emission reduction occurs, it has the same effect on total emissions and the same effect on the climate. A ton reduced in New York generates the same climate benefit as a ton reduced in Berlin. In proposing trading constraints, some have focused on countries such as Russia, that will have emissions below their Kyoto targets during the commitment period because of the decline in their economic output associated with the transition to market economies. If trading constraints are established that restrict the ability of Russia to sell permits (or restrict the opportunity for other Annex I countries to buy Russian permits), then emissions during the first commitment period would be lower than in the absence of such constraints. However, Russia would simply bank its allowances and use these allowances in a subsequent commitment period when its emissions exceed its target. While a trading constraint might lower emissions during the first commitment period, the cumulative emissions over several commitment periods from Annex I countries would be the same with and without the trading constraint. Given the long residence times of greenhouse gases (on the order of a 100 or more years), the cumulative effect is what is most relevant in terms of changes in the global climate.

To provide a sense of the economic implications of trading constraints, I would like to share with you two examples from work done by EMF modeling teams. First, consider a trading constraint that mandates that at least two-thirds of the emissions reductions necessary for a country to achieve its Kyoto target must occur through domestic actions. Evaluating this trading constraint with the EPPA model based at the Massachusetts Institute of Technology, the permit price for the United States is almost four times higher with the constraint than under an unconstrained global trading system. It is important to note that the effects of this constraint are even more pronounced for the European Union and for Japan. The permit price for the E.U. would be more than five times higher than the unconstrained global trading permit price, and the Japanese permit price would be thirteen times higher. As these results indicate, the trading constraint would result in each country experiencing a different marginal cost of abatement, and there would be no common permit price for a ton of carbon equivalent. Since the constraint restricts opportunities for countries like the United States, Japan, and members of the E.U. to buy emissions allowances, the competitive price for emission allowances from countries like Russia would fall below the unconstrained level.

Second, consider a trading constraint that mandates that acquisitions of permits through international trading could not exceed 10% of a country's emissions allocation. For

example, the U.S. target is approximately 1.5 billion tons of carbon equivalent on an annualized basis. Under this trading constraint, the United States, or private firms in the United States, could not purchase more than 150 million tons on an annual basis from other countries. Researchers at Pacific Northwest National Laboratory assessed this trading constraint with the Second Generation Model and found that the permit price for the United States would more than triple relative to the unconstrained global trading permit price. For the E.U., the permit price would nearly double, and for Japan, the permit price would be eleven times as high as the unconstrained global price.

While trading constraints increase greenhouse gas permit prices (and subsequently, energy prices) in the United States, the European Union, and Japan, they also reduce the gains from trade by the countries likely to be sellers of emissions allowances. For example, Russia and large developing countries that adopt emissions growth targets and participate in international trading, e.g., China and India, would sell fewer emissions allowances at lower international permit prices under such trading constraints than in an unconstrained global trading environment. Such restrictions lessen the benefits of participation by developing countries in international trading.

Estimated reduction in costs from trading across gases

As I noted above, the Kyoto Protocol provides additional flexibility in achieving emissions targets by specifying these targets as a basket of 6 types of greenhouse gases. Countries can effectively trade across gases, based on their global warming potential, so that the aggregate weighted emissions reductions occur at least cost. Most models used to evaluate the Kyoto Protocol have not incorporated this kind of flexibility, although several modeling teams are actively working to modify their models to include emissions of non-CO₂ greenhouse gases. In the Administration's analysis, cost curves for these other gases for the United States were used in conjunction with the SGM model. These simulations suggest that trading across greenhouse gases can lower costs by approximately 15% relative to a situation where no trading across gases occurs.

Complementing this finding, recent work by a group of researchers at the Massachusetts Institute of Technology has found that including the opportunity to abate non-CO₂ greenhouse gas emissions and promote carbon sinks reduces the costs to the United States by about 25% relative to a carbon-only approach (assuming no international trading). On average, they find that Annex I countries' costs would fall by more than 20%. In addition, research by several Dutch analysts presented at the OECD workshop found significant opportunities for the European Union to substitute abatement of non-CO₂ greenhouse gas emissions for carbon dioxide reductions. They found that 27% of the total reduction effort necessary for E.U. countries to achieve their emissions targets could occur through the abatement of these non-carbon gases. Finally, research by scientists at the University of Illinois has found that cost-effectively meeting an emissions target by trading between carbon dioxide and methane reductions could reduce costs by X relative to a case with no intergas trading. [We should receive

a fax of this paper today.]

Accounting for Carbon Sinks

The preceding discussion has emphasized the importance of trading arrangements and the CDM. In reaching an overall economic assessment, it is also important to factor in the potential role of carbon sinks. Again, the U.S. delegation obtained a novel concept, that carbon absorbing activities called sinks could be used to offset emissions. The arrangements concerning carbon sinks in the Kyoto Protocol have received less attention than they merit. The Kyoto Protocol specifies that removals of CO₂ by sinks count toward meeting the target. The Kyoto Protocol counts the net emissions effects of three sink activities --afforestation, reforestation, and deforestation. Very preliminary estimates of the implications for the United States of the Kyoto provision on sinks indicate that carbon sinks could comprise a significant portion of the total required emissions reductions. Moreover, decreasing the required emissions reduction by, for example, 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 substantially reduce the costs of meeting the Kyoto target, 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 activities qualifying as allowable sinks, like some tree-planting.) Because the quantitative uncertainty is so large, we do not yet have an estimate with which we are comfortable. But we expect that complete modeling of the Kyoto provision pertaining to sinks will likely have favorable and potentially large effects on projected costs.

Accounting for the role of improvements in energy efficiency

Another issue in analyzing the Kyoto protocol concerns future improvements in energy efficiency due to innovation and diffusion of existing technology. The parameter that figures most prominently in analysis of energy efficiency 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. A plausible assumption on the AEEI is an improvement of 1.0 percent per year. The developers of the Second Generation Model employ an AEEI of 0.96 percent per year as their default energy efficiency assumption for the United States. The Energy Information Administration's forecasts in the Annual Energy Outlook have an AEEI of approximately 0.9 percent per year. For the purposes of this analysis, the SGM default assumption concerning the AEEI was used. That assumption is not the most optimistic outcome that might occur. Some authorities in the field of energy policy forecast more rapid technological progress. Experts at five national laboratories managed by the Department of Energy, using an engineering approach rather than an economic paradigm, found that a third of the emissions reductions necessary to return to 1990 levels by 2010 could be achieved through the adoption of existing energy-efficient technologies at no net resource cost, or even some savings. The National Academy of Sciences reached qualitatively similar conclusions in a 1992

report.

The President's FY 2000 budget, as I have noted, includes continued funding of tax cuts and R&D investments intended to spur the discovery and adoption of new technologies. If the Administration is successful in this effort, the rate of improvement in energy efficiency could rise and such improvements would lower the cost of meeting our Kyoto target.

Our justification for incorporating into our assessment 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 prudently and conservatively assume that there will be substantial delays between investments in new technology or the diffusion of existing technology, and the returns to such investments.

Non-Climate Benefits

A final factor that should be included in any comprehensive assessment of the economic implications of the Kyoto protocol are the benefits of the agreement. The literature has emphasized that any relative price shifts that prove necessary to reduce emissions should produce non-climate benefits in three areas: traffic congestion, highway accidents, and air pollution unrelated to climate change. These benefits are hard to quantify precisely but are potentially significant: our rough estimates suggest that these three benefits could offset approximately a quarter of the resource cost of the climate change policy.

Synthesis

A comprehensive evaluation of the economic impact of the Kyoto Protocol must integrate all of the factors described above: reliance on flexible market-based mechanisms domestically; international trading and Joint Implementation among Annex I countries; the Clean Development Mechanism; meaningful developing country participation; the potential cost-mitigating role of including six gases and carbon sinks; the benefits of electricity restructuring; and emissions reductions achieved as a consequence of other proposed Administration climate change initiatives. Assuming that effective mechanisms for international trading, Joint Implementation and the Clean Development Mechanism are established, and assuming also that the U.S. achieves meaningful developing country participation, our overall assessment is that the economic cost to the United States in aggregate and to typical households of attaining the targets and timetables specified in the Kyoto Protocol, will be modest.

This conclusion that the impact will be modest is not entirely dependent upon, but is fully consistent with, formal model results. I have previously emphasized the limitations of relying on any single model in assessing the economic impact of the Kyoto Protocol, and continue to

view any such results as just one input into an overall analysis. But it is worth emphasizing that model results reflecting the details of the Kyoto Protocol are consistent with our conclusion. For example, under the assumptions of either trading under the umbrella or within Annex I, the CDM and permit trading with developing countries, estimates derived using the SGM model, which adjust for the inclusion of six gases and assume little banking of credits beyond 2012, suggest that the resource costs of attaining the Kyoto targets for emission reductions might amount to \$7 to \$12 billion per year in 2008 to 2012 (in 1997 dollars). This implies that overall costs, excluding not only climate and non-climate benefits, but also such cost mitigating factors as sinks and payoffs from the President's electricity restructuring and climate change initiatives, would reach roughly one tenth of one percent of projected GDP in 2010.

A more tangible measure of costs is the estimated effects on energy prices. Excluding the impact of electricity restructuring and the ancillary benefits of mitigation and better forest management, the SGM-based estimate, corresponding to the gross resource cost estimate cited above, is an emissions price in the range of \$14 to \$23 per ton of carbon equivalent. This translates into an increase in energy prices between 2008 and 2012 at the household level of between 3 and 5 percent, an increase in fuel oil prices of about 5 to 9 percent, natural gas prices of 3 to 5 percent, gasoline prices of 3 to 4 percent (or around 4 to 6 cents per gallon), and electricity prices of 3 to 4 percent. This increase in energy prices at the household level would raise the average household's energy bill in about ten years by between \$70 and \$110 per year, although such predictions may not be observable because they would be small relative to typical energy price changes, and nearly fully offset by electricity price declines from Federal electricity restructuring. In particular, this increase in energy prices is small relative to the average of *year to year* real energy price changes experienced by U.S. consumers since 1960: such *annual* changes have averaged 3.8 percent. In addition, by 2008-2012, the anticipated 10 percent decline in electricity prices from the restructuring that is part of our climate change agenda is projected to lead to expenditure reductions of about \$90 per year for the average household.

As highlighted earlier, there are substantial but unavoidable uncertainties surrounding estimates like these. For example, the estimate just discussed is predicated, among other things, on the developing country participation that we are insisting upon as a condition for our ratifying the Kyoto Protocol, but which is not yet part of that Protocol, and on effective international trading. Moreover, other models will yield other answers and much work remains to be done by the modeling community to test the robustness of these results. Preliminary comparisons of the SGM model to the few other models that have attempted to evaluate the Kyoto accord, suggest that its predictions concerning the impact of the Kyoto Protocol on carbon permit prices are neither the most conservative nor the most optimistic of the models that have been developed. The predictions of the SGM model are robust in the sense that virtually all energy models reveal the potency of effective, flexible, domestic and international trading mechanisms to reduce substantially the cost and energy price impact of meeting the Kyoto targets.

Of course, the most important factor that has been left out of the above assessment 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, explained repeatedly above, is the difficulty in coming up with a number to capture the monetary benefits. But nobody should lose sight of our ultimate objective -- keeping our planet the hospitable home that we enjoy today.

Effects on employment and aggregate output

So far we 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, we do not anticipate any significant aggregate employment effect if we achieve the conditions we have discussed. The effects on energy prices described above will occur only 9 to 13 years in the future. Not only are these effects small relative to historical variations in energy prices, and offset by other policies like electricity restructuring, they would occur sufficiently far in the future to enable monetary policy to keep the economy operating at its potential. In energy-intensive sectors some employment reduction could occur, 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.

VII. Conclusion

In conclusion, the Kyoto Protocol and the President's general approach to climate change reflect the insight of economic analysis. The Kyoto Protocol 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 investments, and then later with a market-based system of tradeable permits -- to ensure that our objectives are achieved as efficiently as possible.

Our overall conclusion is that the economic impact of the Protocol will be modest under the conditions we have identified. The purpose of this testimony has been to explain the reasoning underlying this conclusion, which draws insights from not only the forecasts of individual models, any one of which has its own strengths and limitations, but also a broad variety of additional analyses.

I look forward to continuing to work with members of this Committee, as well as other interested parties, in further analyzing the Kyoto Protocol 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: Lawrence W. Hush (CN=Lawrence W. Hush/OU=OMB/O=EOP [OMB])

CREATION DATE/TIME:23-MAR-1999 11:31:50.00

SUBJECT: Attached Draft Talking Points for IPM NEC meeting

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

READ:UNKNOWN

TO: Charles R. Marr (CN=Charles R. Marr/OU=OPD/O=EOP@EOP [OPD])

READ:UNKNOWN

TO: william.dinkelacker@treas.sprint.com@inet (william.dinkelacker@treas.sprint.com@inet [UNKNOWN])

READ:UNKNOWN

TO: Richard P. Emery Jr. (CN=Richard P. Emery Jr./OU=OMB/O=EOP@EOP [OMB])

READ:UNKNOWN

CC: Philip R. Dame (CN=Philip R. Dame/OU=OMB/O=EOP@EOP [OMB])

READ:UNKNOWN

TEXT:

In addition to the more detailed material in the briefing book, attached are some draft talking points that may be helpful in the discussion with the President's Commission to Study Capital Budgeting.

Bill, please share them with Dave Wilcox and the Secretary if you think they would find them useful.

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D96]MAIL41611529U.036 to ASCII,
The following is a HEX DUMP:

Draft, March 23, 1999

**NATIONAL ECONOMIC COUNCIL MEETING
WITH THE PRESIDENT'S COMMISSION TO STUDY CAPITAL BUDGETING**

TALKING POINTS

- o Appreciation. We appreciate the work of the Commission on this very important subject and we are pleased to have its report.
- o Distinguished group. It is very useful to have the views of such a distinguished, thoughtful group from such varied backgrounds, including private finance, State and local governments, Federal budgeting, economics, and other areas.
- o Broad view. The *Report* takes a broad view of the issues involved: a) in the definition of capital and investment; b) in the question of macro and micro bias; c) in the role of capital budgeting as part of overall budgeting and resource allocation; d) in the impact on the economy in general; and e) in the impact on the Nation's future.
- o Unique Federal role. By recommending neither revolutionary change nor wholesale adoption of budgeting techniques used by other entities, the *Report* acknowledges to some degree the unique role of the Federal Government and its special responsibilities in resource allocation. The explanations in the *Report* of the differences among the Federal Government, State and local governments, and private corporations, in the areas of budgeting for and financing capital are very useful.
- o Guide to the future. The *Report* makes some excellent suggestions on how to improve budgeting for capital -- in this sense the *Report* can prove to be a useful guide for the future in some areas. These areas include better strategic planning, expanded use of benefit-cost analysis, better information on the condition of existing assets, and better management of existing assets.
- o Next steps. The next steps are for OMB and others to consult with executive agencies to understand better the implications of the Report's recommendations, and to continue to work with the Congress to improve planning and budgeting for capital.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:23-MAR-1999 15:46:41.00

SUBJECT: Eastern Economic Assn speech

TO: Douglas W. Elmendorf (CN=Douglas W. Elmendorf/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.D88]MAIL472992390.036 to ASCII,
The following is a HEX DUMP:

The Clinton Economic Agenda: Progress and Prospects

Dr. Janet Yellen
Chairman, President's Council of Economic Advisers
Eastern Economics Association
Boston, Massachusetts
March 13, 1999

Thank you. It is a pleasure to be here. I'd like to discuss the connection, if any, between economics as practiced at academic institutions and economics as practiced in Washington. My focus will be on the macroeconomic policy goals laid out in the Employment Act of 1946, which created the Council of Economic Advisers. When I started to think about how to organize such a talk I did the standard academic thing and looked at the literature. And I found some useful models, all either prepared for or subsequently reprinted in the *Journal of Economic Perspectives*.

In a lecture entitled "What Central Bankers Could Learn from Academics—and Vice Versa" Alan Blinder asks two pertinent questions: 1) Is the training we give and the research we do in the academy useful in actual policymaking (in his context monetary policymaking)?; and 2) Could it be more useful if academics and policymakers would change their ways? After giving a "yes, but..." answer to each question, Blinder concludes by quoting Alfred Marshall to the effect that exact scientific reasoning seldom brings us very far on the way to the conclusion for which we are seeking, but that it would be foolish not to use it at all. "Trained common sense" is Marshall's phrase for what is needed, and Blinder suggests that we would be better off if policymakers paid more attention to the training part and academics paid more attention to the common sense part. This conclusion is echoed in Charlie Schultze's essay prepared for the JEP's symposium on the fiftieth anniversary of the Council of Economic Advisers entitled, "The CEA: An Inside Voice for Mainstream Economics." Schultze describes his continuing amazement at how few participants in Washington policy debates have a grasp of fundamental economic principles and how different from economists they analyze issues. He concludes that while it is important for the

CEA to be well acquainted with the latest research, its greatest value added may be the injection of basic principles, well back from the frontiers of that research, into the debate.

So what is the “trained common sense” that academic economists have to offer? In microeconomics, the answer is fairly straightforward and pretty uncontroversial among economists. It revolves around the value of efficiency as a policy goal and the importance of getting incentives right. How successful economists have been at injecting these principles into the policy debate is less clear. In his 50th anniversary review essay, former CEA chairman Herb Stein concludes that microeconomic advice from the CEA has been important and successful. Schultze also identifies some important long-term successes, but more typically, he argues, the outcome is to convert a policy from, say, fifth-best to third-best by suggesting more efficient ways of achieving some objective, or making the achievement of a “bad” objective less harmful. My immediate predecessor as CEA chairman, Joe Stiglitz, wrote an essay based on his experiences in which he asked why it is so difficult to implement even Pareto improvements.

The CEA's role in nudging the policy process toward efficiency is important, and I am proud of our ongoing efforts in that regard. But the main role of the CEA as envisioned in the Employment Act is to give the President advice on macroeconomic policy. Indeed, as my friend and teacher James Tobin once observed, it takes a lot of Harberger triangles to fill an Okun gap. In the rest of my remarks I would like to discuss some of the major macroeconomic developments of the past few years, and the challenges going forward, within the framework of trained common sense that I believe is appropriate for advising Presidents.

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. Preparation of this report is a central function of the Council of Economic Advisers, and it is always a worthwhile endeavor because it gives us a chance to reflect in an organized way on economic developments in the American and world economy and to explain the economic logic of the

Administration=s agenda.

In addition to giving us the responsibility for producing an annual report, the Employment Act, together with its later amendments, also 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. Last year was a year for baseball home-run records, and it was also a year for economic records. We were especially happy to be able to report this year--the fifty-third year after the Act--that we achieved the longest peacetime economic expansion on record and the records go back to 1854. You might think of the red cover of this year=s *Economic Report* as symbolizing the Ared-hot economy.@

In our view, the Nation's economy is the strongest it has been in a generation. In 1998, growth was impressive, and job creation was vigorous while inflation declined. Real GDP grew 3.9 percent. Nonagricultural jobs increased by about 2.9 million during the year, and the average unemployment rate for the year dropped to 4.5 percent, its lowest level since 1969. The consumer price index rose by only 1.6 percent, its smallest increase since 1964, and other measures of inflation were even more muted.

As you all know, this year the Federal budget moved strongly into surplus. In the 1992 fiscal year the budget deficit was \$290 billion and expected to rise further with no change in policy. But beginning in 1993, the deficit began to decline steadily as a consequence of a shift to fiscal discipline. In 1998, the budget *surplus* was \$69 billion, the largest surplus as a share of GDP since 1957, and surpluses are projected well into the future: the Administration now projects surpluses in the unified Federal budget amounting to about \$4.5 trillion over the next 15 years. I will return to the budget and the use of those surpluses to address demographic challenges in a few minutes.

The current economic expansion is only the third on record that has lasted at least 7 years. This year's report puts the expansion in its historical context by comparing it with the other two long expansions--the 106-month long expansion of the 1960s (the longest in peace or war) and the 92-month long expansion of the 1980s. Judged in terms of overall economic performance this expansion has been not only long but excellent--especially with respect to inflation and unemployment. By this time in the expansion of the 1960s, for example, inflation was rising sharply and was much higher than now, at about 5%. In the 80s expansion, inflation was also rising at this stage and had reached 5%. By contrast, inflation now is much lower and has been coming down. Since the need to combat high or rising inflation is what typically brings an expansion to an end, this greatly raises the prospects for a continuing expansion.

This is also an expansion that is investment-driven--to a far greater extent than in either of the other two long expansions. This investment is contributing to improvements in productivity and future growth and it is working to hold inflation down.

Finally, continued strong growth in 1998 is all the more remarkable because it took place at a time of considerable stress to the world economy. A third of all world economies were in outright recession or experiencing markedly slower growth by late 1998. After growing at 4.2% in 1997, world economic growth slowed to an estimated 2.2 percent in 1998, a pace comparable to the growth rates registered during the pronounced world slowdowns of 1974-75, 1980-83, and 1990-91. Our trade deficit rose and exports declined, particularly to countries in East Asia, producing a drag on economic growth and inflicting hardship on some sectors of the U.S. economy. The international environment remains exceptionally risky, with the prospects for growth in Europe, for a recovery Japan and for a pickup in activity in crisis afflicted countries highly uncertain. Even so, we believe that the U.S. economy has entered 1999 on course to continue growing and the chances are good that next year at this

time we will be on the verge of marking the longest economic expansion, whether in peace or war, ever.

I believe that the macroeconomic performance that I've described and the policies that have been pursued since 1993 can be understood within a relatively simple macroeconomic policy framework. Right from the start, the Administration chose to pursue a policy of deficit reduction. The objective was to accelerate the sluggish recovery from the 1990-91 recession by bringing down interest rates and stimulating private investment. Although this has been the only one of the three long post-war expansions in which fiscal policy was contractionary, our standard IS-LM model teaches us that an appropriately accommodative monetary policy can allow the economy to expand under such circumstances. And this is just what happened. The model also teaches us that the combination of a tight fiscal policy and an accommodative monetary policy--a switch in the monetary/fiscal mix--should produce lower interest rates, tilt the composition of output toward investment and thereby promote long-term growth. And, as I have mentioned, the contribution of investment to GDP growth has been quite substantial in this expansion.

One of the pleasant surprises of this expansion has been the continued good behavior of inflation. Based on standard statistical estimates of the NAIRU, the economy had entered incipient inflationary territory by the end of 1994 when the unemployment rate fell to 5.5 percent, yet actual inflation continued to fall well into 1998 as the unemployment rate fell another point. Although the NAIRU is an indicator of the risk of inflation, estimates of the NAIRU have a wide band of uncertainty and should not rigidly dictate policy. The recent behavior of inflation and unemployment provides a good example of the limits of rigorous science and the importance of the prudent application of trained common sense, especially in formulating the Administration's economic forecast.

The economic forecast is a key ingredient in the preparation of the budget. Back in 1993 this Administration consciously decided to establish a reputation for using credible economic forecasts so that budget balancing

efforts--and now proposals to use the emerging budget surpluses--would not be based on rosy scenarios. This means that, as we go about making our forecast, we would prefer to err on the conservative side. That means that we do not turn our backs on our training and assume that we are in a new era in which all the old economic relationships no longer hold. But common sense suggests giving modest weight to recent experience with tame inflation even as the unemployment rate is well below central tendency estimates of the NAIRU and with uncharacteristically strong late expansion productivity growth.

On balance, however, our forecast projects slower growth with a slight rise in the unemployment rate and a modest pickup in inflation. GDP is projected to grow at a 2.0% rate on average over the next 3 years in comparison with the roughly 3.9% average pace of the last three years. We project that unemployment will edge up slightly. We also anticipate that the CPI will rise at a 2.3% annual rate next year and thereafter--close to the increase in the core CPI over the past year. This reflects our expectation that some of the special factors, including plunging oil and import prices, which depressed inflation this year will contribute less in containing inflation next year and thereafter. After 2001, we project that real GDP growth will resume growth at our estimate of trend--2.4%, and the unemployment rate is projected to stabilize at 5.3%.

Our forecast is similar to the Congressional Budget Office, the Blue Chip, and other private forecasts, although perhaps a touch on the conservative side in its assumptions about the pace of sustainable growth. A natural question is why we forecast a slowdown in growth when the extent of momentum in domestic demand has been extraordinary and we ended the year with GDP growing at a stunning 6.1% pace in the fourth quarter. Our forecast of more moderate growth going forward reflects our view that several components of domestic demand may be poised to grow at slower rates, for reasons that are articulated in standard macroeconomic courses. In particular, consumption, which constitutes two-thirds of output, has been growing well in excess of income, so that the personal

saving rate has declined to zero. In our view, this largely reflects stock-market gains via the wealth effect. Unless the stock market continues to surge, the impetus from wealth on consumption is likely to wane, so that consumption will moderate to match the growth of income. As for business investment, the usual accelerator model suggests that slowing consumption growth, coupled with a capacity utilization rate which is now below its historical average, may exert some restraint on the demand for new investment goods. The past year's boom in housing starts reflects strong income gains and the impact of lower mortgage rates, but it has elevated housing starts well above their demographic fundamentals. We therefore expect some restraint going forward in this component of demand as well.

One of the key questions in preparing the forecast concerns the trend pace of productivity growth. The official measure of productivity in the nonfarm business sector has grown at about a 2% annual rate over the past 3 years, substantially above the 1.1% annual growth rate between the business cycle peaks of 1973 and 1990 and the approximately 1.3% pace from 1990 thru 1998. Investment growth has been exceptional, and capital accumulation should work to boost productivity. However, cyclical factors also affect productivity. Productivity growth is usually slow during recessions, rapid in the middle of an expansion and tapers off in advance of the business cycle peak. Strong productivity growth over the last three years could reflect strong output growth. On the other hand, productivity has grown even faster than would be anticipated based on cyclical factors and it is perfectly possible that the growth rate of trend productivity has risen. The extraordinarily low rates of inflation as measured by the price indexes for GDP and personal consumption expenditures in the national income and product accounts, combined with healthy profits also suggest faster productivity growth than our forecast assumes. In this sense, our productivity growth assumption is conservative and I can only hope that reality shows that we were wrong.

Nothing matters more to living standards over the long run than the pace of productivity improvement, and an

increase in the trend pace of productivity of even a tenth or two is of enormous importance for the long-term outlook for real wages and per capita income.

This brings up another encouraging development in the current expansion: the favorable impact of a strong labor market on low-wage and minority workers. It was once commonly accepted that an economic expansion is a rising tide that lifts all boats, so that the most surefire way to alleviate poverty and help disadvantaged groups was to keep the economy expanding. However, in the late 1970s, a new, long-term trend toward widening inequality began to afflict the economy, most likely as a consequence of pervasive technological changes raising the demand for skilled labor and lowering the demand for unskilled workers. In addition, productivity growth declined substantially, for reasons that are still not well understood. During the expansion of the 1980's, real wages declined, particularly among less skilled men. During the current expansion, we saw real wages continue to stagnate for the first five years of the expansion. However, this has finally become an expansion in which a rising tide is lifting all boats. Wage growth has been particularly strong for historically disadvantaged groups. After years of decline, the real wages of black men began to increase in 1993, and they have risen by 5.8 percent in the last 2 years (since 1996). Black women and Hispanic men and women have also experienced recent gains. The tight labor market of the 1990s appears to be helping even young minority workers, who suffered greater wage declines than others in the 1980s. In 1998 alone, the real wages of young black men aged 16-24 rose by 6.2 percent.

It is too early to declare victory in reversing adverse long-term trends in wages for less skilled workers and to parse out just how much of this turnaround is due to particularly favorable business cycle conditions. Beyond strong labor market conditions, the Administration, right from the beginning, has emphasized the importance of investments, not only in plant and equipment but also in the education and training of the labor force to reverse the trend toward rising wage inequality.

Let me turn in the time I have left to two very important issues that we currently face: maintaining fiscal discipline in an era of budget surpluses, and meeting the international challenge.

Preserving fiscal discipline is critical if we are to prepare our nation to meet the needs of an aging population. The ratio of employed workers to retirees has fallen from about 5 to 1 in 1960 to 3-1/2 to 1 today. In only 30 years time, it will be just 2 to 1 and still falling. The same demographic effects that have impaired the finances of Social Security also impact Medicare and Medicaid.

As you know, in his State of the Union the President proposed a plan for how to use the currently projected unified budget surpluses and how to address the financial imbalance of the Social Security system. He proposed devoting 62% of the surpluses over the next 15 years--about \$2.8 trillion with a small portion, about 1/4, devoted to equity purchases--to extend the solvency of the Social security system until 2055. Further reforms would be needed to achieve full 75 year actuarial balance, which is the most commonly used measure of financial soundness.

Assuming that a solution for social security can be achieved, the President has also proposed using 15% of the projected surpluses for Medicare, ensuring the Medicare Trust Fund is secure for another 20 years. The President has emphasized the need to utilize the extra funding as part of a broad effort to strengthen the Medicare program. He also proposed creating a new system of universal savings accounts (USA Accounts) outside of Social Security with 12 percent of the surplus to help working Americans build wealth to meet their retirement needs--a way of strengthening the current pension system and helping Americans save. The government would provide an equal dollar contribution for most working individuals and provide matches for individual contributions with larger matches going to lower income workers. Finally, the President would reserve 11 percent of the projected surpluses for military readiness and education and research.

Rather than commenting in detail on the President's Social Security plan, let me talk about the overall

macroeconomic impact of this plan. Here the simple Solow growth model helps keep us focused on the key issues of national saving and investment and provides a framework for estimating economic payoffs. For the nation as a whole, the central problem in coping with an aging population is to provide a high standard of living for both workers and retirees even though a smaller share of the population will be in the workforce. A natural solution is to make workers more productive by increasing investment in both physical and human capital, which will, in turn, raise labor productivity. In doing so, we can boost the size of the total economic pie, which is the prerequisite to meeting the retirement costs of the baby boom generation without unduly burdening future workers. The key to accomplishing this is to increase national saving, a goal to which continued fiscal discipline would contribute.

National saving increased from 3.1 percent of gross domestic product in 1992 to 6.7 percent in the first three quarters of 1998, but the improvement is accounted for entirely by the elimination of the federal budget deficit, as private saving actually declined relative to total output with the personal saving rate hitting zero in the last quarter of the year. The framework offered by the President for the use of emerging budget surpluses would dramatically increase national saving. Evaluated from a macroeconomic perspective--from the perspective of national savings--this plan saves, in essence, between 77 and 89 percent of the projected surpluses, depending on one's evaluation of the saving impact of the USA accounts. The transfers to Social Security and Medicare amount to 77 percent of the federal budget and about 2 percent of GDP, and they are pure additions to national saving. The USA accounts amount to 12 percent of the unified budget surpluses and could be viewed as a tax cut that is highly likely to add to personal saving. Only 11 percent of the surpluses are devoted to additional government spending.

Dedicating the surpluses to Social Security and Medicare serves two purposes. First, it helps to lock in the surpluses so they are not used for tax cuts or wasteful spending. Second, it gives these critical programs a "first call" on the benefits of our fiscal discipline. And these benefits will be large.

This is a fiscally conservative, pro-growth plan that comes close in its macroeconomic impact to a plan of simply paying off debt. Publicly held debt is projected to fall from 44 percent of GDP today to about 7 percent in 2014. That would represent the smallest burden of government debt on the economy since the United States entered World War I in 1917. In addition, some of the surpluses will be used to purchase equities, which will represent an asset of the government. The dramatic decline in national debt would increase private capital investment, keep interest rates low or drive them lower, raise future national income, free up government resources by reducing debt servicing costs and fuel economic growth. We have estimated, for example, that in comparison with the exploding ratios of debt to GDP forecast back in 1993, the President's plan, which substitutes productive capital assets in private portfolios for unproductive debt would lower interest rates by about 2.5%. Even compared to a more optimistic baseline, in which we assume that the political process would have achieved budget savings sufficient to hold the debt to GDP ratio at 50%, the President's plan lowers interest rates by 1-1.25% by 2014 and would raise GDP by 3.5-4.5%--a substantial increase in the size of the pie.

Let me conclude by saying just a few words about the challenges we face on the international economic front and then stop and take a few questions.

A critical challenge for the United States now is to insure that, at this time of economic fragility in so many regions, we do not build new walls of protectionism here, that could set off a dangerous chain reaction around the world, imperilling the world's prospects for growth while harming our own exporters and consumers. The crisis has taken a toll on some sectors in the United States, steel being notable example. U.S. trade law recognizes that imports can sometimes be associated with labor displacement and it provides for several kinds of relief. We recognize that as the crisis countries recover their demand for U.S. goods and services will revive, once again fueling our own export growth.

Beyond keeping markets open, the Administration believes that a serious program of reform is needed to strengthen the underpinnings of international financial system to make it less crisis prone and to improve the mechanisms available for dealing with any crises that may nevertheless occur. Unfortunately, there is just no silver bullet--no simple solution that would guarantee countries the benefits of global capital flows while eliminating the risk that a crisis of confidence could once again result in the painful withdrawal of that access. Nor have reform efforts fully come to grips with the policy implications of an unpleasant impossibility theorem enshrined in most macro texts. According to standard open economy macroeconomic models three key policy goals of many emerging market countries -- capital mobility, scope for an independent monetary policy, and stability of exchange rates-- are mutually incompatible.

Even so, international agreement is finally emerging on the steps that can and should be taken to strengthen the architecture of the financial system so that it is less crisis-prone going forward. The needed steps include measures to increase transparency and accountability in the operations of individual countries, of financial and corporate institutions and of the international financial institutions themselves to enhance the availability, relevance and reliability of information available for evaluating risk in lending. Reforms are also needed to strengthen the prudential supervision and regulation of banks and other domestic financial institutions: *to create stronger incentives for borrowers and lenders to weigh risk and act with appropriate discipline, thereby reducing the odds of a crisis. Countries will need to reassess implicit and explicit government guarantees which create moral hazard and exacerbate risktaking, including the implicit promise of bailouts of corporations considered too big to fail, and semi-fixed exchange rate regimes which reduced the perceived riskiness of foreign currency exposure. Finally, measures are needed* to improve creditor coordination in crises and to promote the orderly, cooperative and equitable resolution of international financial crises that may occur in the future. The United States is working

intensively with key emerging markets, with other industrialized nations, and the relevant international organizations, to put in place the building blocks of this new architecture to ensure that the unprecedented growth, increase in welfare and opportunity experienced in the 50 years after the creation of the Bretton Woods system are maintained in the future.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Douglas W. Elmendorf (CN=Douglas W. Elmendorf/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:23-MAR-1999 08:58:22.00

SUBJECT: USAs and pension crowdout

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

TEXT:

The Employee Benefit Research Institute has just released an analysis of the possible effect of USAs on employer-provided DC pension plans. EBRI has no information about the actual design of USAs, so their conclusions are really not relevant. (Treasury tried unsuccessfully to get EBRI to hold off releasing the paper.) I don't think you should bother reading the report itself, but I thought you should see Len's suggested response to press inquiries, in the following email:

----- Forwarded by Douglas W. Elmendorf/CEA/EOP on
03/23/99 08:55 AM -----

"BurmanL%DOM13.DOP07" <LEONARD.BURMAN @ MS01.DO.treas.sprint.com>
03/22/99 06:22:18 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: Attached EBRI analysis of pension crowd-out

Date: 03/22/1999 06:30 pm (Monday)
From: Leonard Burman
To: team usa
CC: Peggy
Subject: Attached EBRI analysis of pension crowd-out

The paper makes the obvious point that people might drop employer plans if USAs are more generous than employer plans. It speculates vainly about ways in which we might be trying to address this problem, and then has an analysis of crowd-out under assumptions unrelated to the actual program design. It will be interesting to see if the press picks up.

If we get questions about this report, I think the answer should be:

EBRI's paper is a nice theoretical analysis, but the actual USA account proposal is designed to strengthen the employer pension system, not weaken it. (Details will be available soon, and

then we can have an informed debate on the subject.)

The EBRI document is in 2 PDF files attached to the message from Salisbury. Both must be opened using the Adobe Acrobat Reader (available free for download on the internet). Peggy can make a copy for you if you cannot read the attachments.

Subject: Re: Analysis of USA Proposal as described in the State of the Union Fact Sheet

To:

Message-id: <"54329122309991/150079 MONEY*"@MHS>

MIME-version: 1.0

Content-type: MULTIPART/MIXED;

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I thought you might be interested in this as well.

Dallas L. Salisbury
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www.ebri.org
salisbury@ebri.org

- att1.txt
- att2.txt

Message Sent

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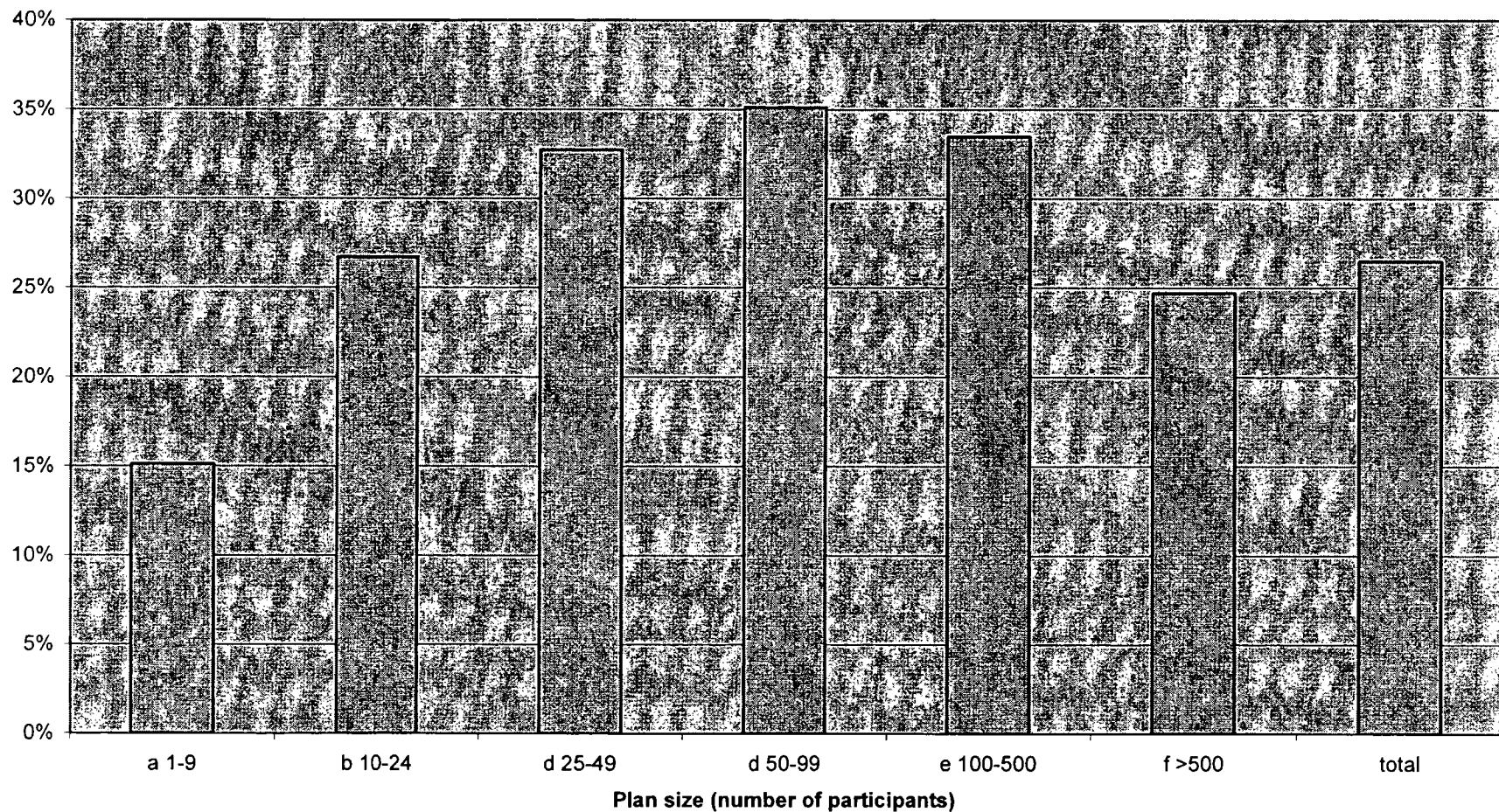
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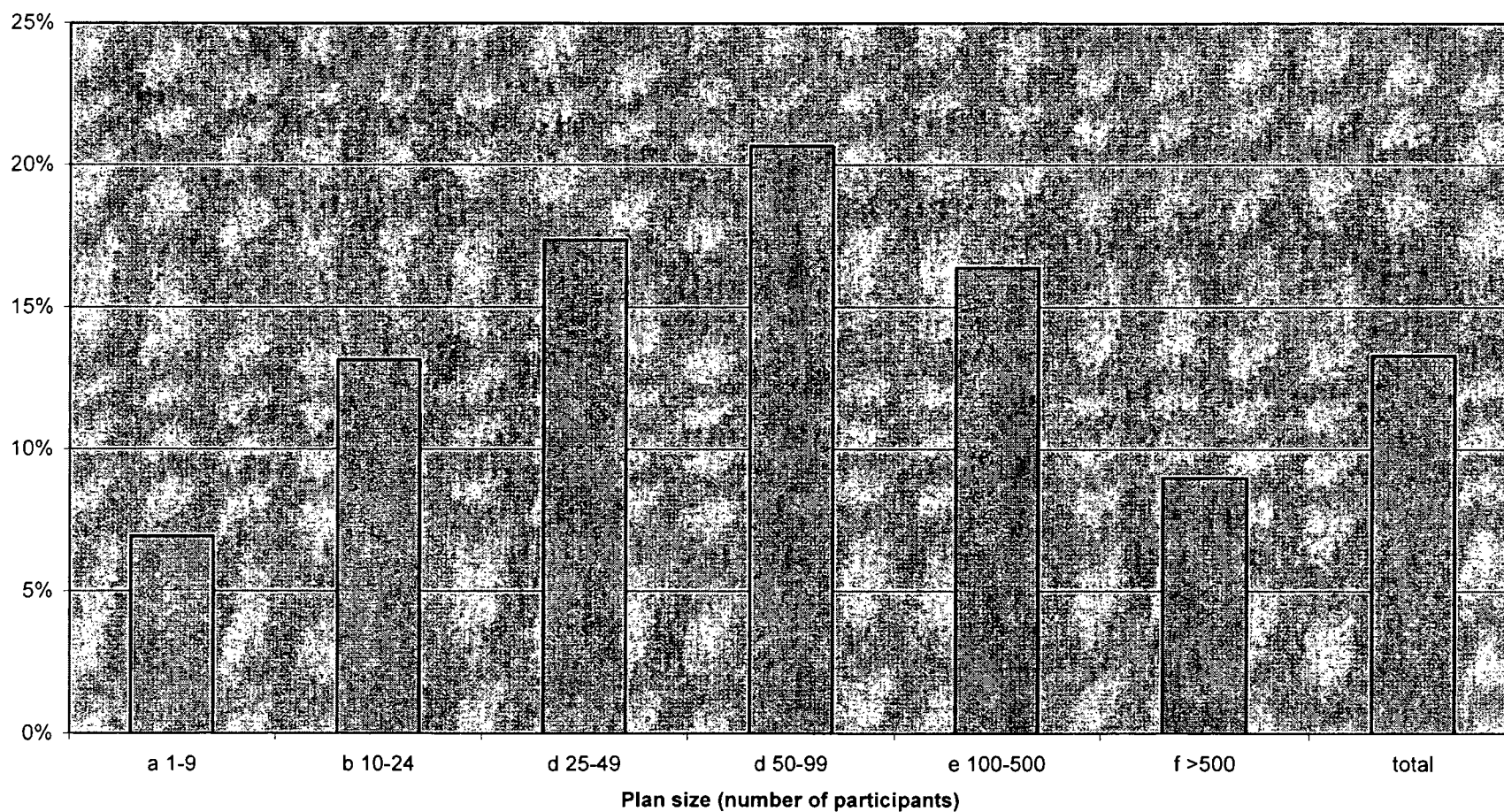
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The following is a HEX DUMP:

Chart 1: Percentage of 1996 401(k) plans "at risk" for ADP compliance under 50% match assuming complete migration for NHCEs and none for HCEs, by plan size



Source: EBRI tabulations based on EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. See accompanying text for caveats and assumptions.

Chart 2: Percentage of 1996 401(k) plans "at risk" for ADP compliance under 50% match assuming \$600 transfer of contributions for both NHCE and HCE, by plan size



Source: EBRI tabulations based on EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. See accompanying text for caveats and assumptions.

USA Accounts and Employer Plans: Design Issues to Avoid Destruction

Employee Benefit Research Institute

March 22, 1999

Whenever a public or private employer wants to create a retirement program they must make a number of decisions. Since most employers have more than one retirement plan, part of the reason for careful analysis is to avoid causing harm to other programs. Depending on how it is designed, a Universal Savings Account (USA) could be designed to avoid adverse consequences for employer plans, or it could potentially cause nondiscrimination problems for a significant percentage of employer plans. It is premature to predict what the eventual outcome of these "testing problems" may be on a plan specific basis; however, most sponsors would need to consider a redesign – perhaps a drastic one—of their plans and there will undoubtedly be some plan sponsors that would seriously consider the elimination of their plans.

The primary employer design factors are as follows:

Possible USA Features	Option	Alternative
1. Employer Contributions	Taxable Now	Tax Deferred
2. Worker Contributions	Taxable Now	Tax Deferred
3. Investment Earnings	Taxable Now	Tax Deferred
4. Matching Contributions	Amount of Match (50%; 100%)	Amount of Contribution Matched (x% of pay or some flat amount)
5. Timing of Contributions	End of Year	Each Pay Period
6. Investment Options	None/Few	Many

The characteristics in bold are the most common in employer-sponsored individual account plans today. To the degree that a new mandatory universal government program were *less generous* than employer plans, one would expect that employees would continue to participate in the employer plan. For example, if the employer plan offers no match but payroll deduction each pay period and several investment options, while the government plan offers no match, few investment options, and a contribution once each year, the worker would likely prefer the employer plan.

However, to the extent that a new mandatory universal government program were *more generous* than employer plans, one would expect that employees would stop or reduce their participation in the employer plan. For example, if the employer plan offers no match, payroll deduction each pay period and several investment options, while the government plan offers a 50% match up to \$600 in worker contributions, few investment options, and a contribution once each year, the worker would likely drop out of the employer plan and move funds to the government plan in order to get the match.

To the extent that the new plan has the worker's contribution come out of taxable income, so that taxes are not deferred, then the balance shifts back in favor of the employer plan, ceteris paribus. For example, if an employer has no matching contribution, a government program with a match could affect participation in the employer plan.

Why Would It Matter If Workers Reduce Their Participation In Employer Plans?

The tax laws which apply to employer plans are extensive and complex. Most relevant here are the "nondiscrimination rules," which, put simply, "test" 401(k) plans for relatively equal deferrals (expressed as a percentage of compensation) between lower-paid and higher-paid workers. In general, for "highly

compensated employees" (known as HCEs, or those paid \$80,000 a year or more), to contribute to a retirement plan, the "non-highly compensated employees" (NHCEs, or those paid less than \$80,000 a year) also must do so.¹ Further, what the HCEs can contribute to the plan is a direct function of what the NHCEs contribute. This means that if the lower-paid workers choose not to participate or contribute, the higher-paid workers would be substantially frozen out -- and there would be no reason for the employer to sponsor the retirement plan.

As a matter of public policy, Congress could also make this issue irrelevant by **repeal** of the nondiscrimination rules that apply specifically to 401(k) plans.² If this happened, the level of participation by the NHCE group would not matter to the HCE group. But since repeal is not certain, we provide analysis.

The Clinton administration has been meeting with many groups in an effort to complete the design of its USA program. It is our hope that design decisions will be made which minimize or avoid any adverse impact on employer-based plans.³ For example, a USA-type plan design that:

- Provides an automatic (non-matched) employer/government contribution that was tax-deferred (the same as in a 401(k) plan);
- Allows employee contributions to be taken from taxable income (while 401(k) contributions are tax-deferred); and
- Provides no matching contribution;

would clearly provide a set of incentives sufficient that most employees would consider themselves to be better off contributing to the employer plan (where available) than to the government plan.

Were there to be a government-provided match, however, then workers in an employer plan with no match might be better off in the USA, depending on the level of the match and whether the contribution is made on a before-tax or after-tax basis.

For a number of design and administrative reasons, the Clinton administration is unlikely to propose what was mentioned in the State of the Union Message and described through examples in a White House fact sheet. However, we have used that plan for this analysis to show how much of a difference plan design can make.

USA Analysis

Recently the Employee Benefit Research Institute and the Investment Company Institute have completed a two year study of the 401(k) market⁴ which has yielded detailed individual participant records (including demographic information and contribution behavior) from more than 27,000 plans. Due to strict confidentiality standards, no information on the plan sponsor's identity was included. However, the database does break out source of contributions (e.g., employee before tax, employee after tax, employer matching, qualified non-elective contributions (QNECs), etc.) and we are currently working on a set of computer algorithms to classify each plan by the types of incentives provided to employees at various

¹ Technically it is possible for plan sponsors to also use non-elective contributions to satisfy these tests as long as these contributions satisfy special vesting and withdrawal restrictions.

² While the analysis below focuses exclusively on the ADP tests, a complete analysis of the public policy implications would require similar analysis on employee after-tax and employer matching contributions as well as the multiple use test and the potential for 401(k) sponsors to adopt the newly implemented safe harbors. See Chapter 11 of Allen, Melone, Rosenbloom and VanDerhei (1997) for an explanation.

³ It is important to note that we are referring exclusively to private 401(k) plans in the analysis below and that Section 403(b), Section 457 and public plans may or may not have similar consequences based on this proposal.

⁴ See VanDerhei, et. al. (1999). Analysis of account balances and loan information was provided in addition to asset allocation information.

contribution levels (e.g., a 2 percent QNEC plus 100 match for the first 3 percent of compensation and a 50 percent match for the next 3 percent of compensation).

When completed, this analysis will provide unique insight into how participating employees at various compensation levels may be expected to react to various formulae adopted by the employer. It will also provide the basic framework for sensitivity analysis into the likely impact of modifications in the 415(c) and/or 402(g) limits.

Given the political timeline, we do not have the luxury of completing the pattern recognition algorithms necessary to identify the contribution formulae of 27,000 plans. However, we have taken a random sample of 6700 plans to provide some initial insights into this policy. While this is just a small fraction of the year-end 1996 information we have collected, we believe it is still much more comprehensive than any other research database in existence.⁵

It is important to note that for the preliminary analysis we are substituting the participant-specific average employer match for the marginal match.⁶ The analysis conducted by Yakoboski and VanDerhei (1996) and Kusko, Poterba and Wilcox (1994) both demonstrate the need to consider the incentive effects of the employer's matching formulae. Our final analysis of this proposal will provide a general framework for each plan in which the total participant's contribution is modeled as follows:⁷

Total contribution = employee deferral + employer match + QNEC, where:

- Employee deferral will be subject to 402(g), 415(c), and potential ADP/ACP restrictions,
- Employer match will attempt to replicate the contribution formula in place for plan x in year t (e.g., 100 percent match on employee contributions up to the first 3 percent of employee compensation plus 50 percent match on additional employee contributions up to the next 3 percent of employee compensation),⁸ and
- QNECs are determined as the amount of employer contribution that is provided regardless of employee deferral (e.g., 2 percent of compensation)

This substitution of variables would be expected to bias the results if we were attempting to analyze contribution behavior at the margin for the types of formulae seen in actual 401(k) plans where there is expected to be a significant decrease in contribution incentives after approximately the first six percent of compensation and a complete ban on deferrals after the first \$10,000.⁹ However, as long as our analysis reflects only the relatively small level of employee contributions discussed thus far (i.e., no more than \$600 per year), this substitution is not likely to be significant.

We are in the process of an extremely labor-intensive effort to classify each of the 27,000 401(k) plans in our database in a manner that will allow direct assessment of their relative generosity vis-a-vis a USA proposal. However, in the interim we have taken a random sample of plans that do not involve non-elective contributions (i.e., pure match plans) and categorized each of their participants by the average match received.

For purposes of passing a nondiscrimination test unique to 401(k) plans (the so-call ADP tests) it is of utmost importance that non-highly compensated employees choose to participate in the sponsor's plan. It

⁵ Both Yakoboski and VanDerhei (1996) and Clark and Schieber (1998) had a large number of participants but what matters in this type of analysis is that a sufficient number of plans be available to determine the distribution of match rates by salary.

⁶ This variable has been used extensively in the academic literature on an aggregate basis; however, our data provides more powerful analysis since we are able to look at the average match for a particular individual and observe their specific deferrals.

⁷ We will also control for the impact of both before-tax and after-tax employee contributions. Note this is likely to be extremely important if the final government plan design involves after-tax employee contributions.

⁸ N.B.: some plans involve a more complex function, possibly incorporating the sponsor's profits.

⁹ For purposes of the 1996 data used in this analysis, the 402(g) limit was \$9,500.

is logical to assume that if any employee with limited investible funds finds an alternative arrangement with a higher match rate that they may choose to reallocate some or all of their future contributions from the 401(k) plan to the USA plan. To what extent is this likely to happen in the existing plan population? Our findings are summarized below.

Methodology

The analysis consisted of the following steps:

1. A representative random sample of approximate 6,700 401(k) plans was taken from the EBRI/ICI 401(k) database in which there was sufficient information to determine employee deferral percentages and employer match rates for at least 90 percent of the participants in the plan.
2. Average match rates for each participant with the requisite information were computed .
3. Each participant was categorized as to whether they were a highly compensated employee (HCE) or non-highly compensated employee (NHCE).¹⁰
4. Each participant was categorized as being “at risk” or not. We defined a participant to be in the former category if the employer average match rate was < 50 percent.
5. Average deferral percentages were computed for each plan for the HCEs (ADP_H) and the NHCEs (ADP_N)
6. Each plan was tested to see if it passed the basic ADP test: $ADP_H \leq ADP_N * 1.25$
7. Each plan was tested to see if it passed the alternative ADP test: $ADP_H \leq \min(ADP_N * 2, ADP_N + 2\%)$
8. Any plan that did not pass either of the above two tests was excluded from further analysis.¹¹

At this stage of the analysis, there are several potential methods of modeling the likely impact from a competing plan with matching contributions. Two methods were chosen to illustrate the importance of behavioral assumptions in quantifying the likely impact.¹²

- **Method one: assume any NHCE that is “at risk” drops out of the employer’s 401(k) plan while HCEs continue their current contribution**

This “all or nothing” response to a governmental competing matching plans could be justified on several grounds. First, HCEs may not be eligible to benefit from a government match due to AGI constraints. Second, it is highly unlikely that employees with salaries of at least \$80,000 would leave the employer plan for a 50 percent match on only \$600 (at most 0.75 percent of compensation).

The ADP’s are recomputed and the percentage of plans that would be in violation of both the basic and alternative tests (assuming no corrective measures were taken) are tabulated and shown in Chart 1.

- **Method two: allow the substitution to be quantified**

Given that a significant percentage of NHCEs are deferring more than \$600, a problem with method one is

¹⁰ See Internal Revenue Code Section 414(q) for a definition. Technically, the simplified definition of HCEs implemented by the Small Business Job Protection Act of 1996 had not taken effect as of year end 1996 however we used the new definition to be more relevant for predictions of impact on plans in the post 1996 environment. Moreover, no information on the 5% owner classification is available in this database.

¹¹ This accounted for less than 1 percent of all plans in the sample. Technically, 401(k) plans now have the flexibility to use the ADP generated by NHCEs in the previous year to test whether the current year’s ADP for HCEs is too high. This was ignored in the current analysis since the database only has 1996 contribution information at the current time.

¹² A third method will be attempted as soon as the database is expanded to include information on eligible employees that choose not to contribute. Although the two methods used in these illustrations produce conservative estimates of the impact, they are not precise in that we are currently unable to observe non-participant eligibles that drag the ADP for NHCEs down further than HCEs.

that if a NHCE were already putting in \$1000 for a 25 percent match with the employer's current plan, why not assume that they would put in \$600 to a 50 percent match for the government's plan and leave the other \$400 in the employer's 401(k) plan? This method subtracts \$600 (or the participant's current deferral, if less) from each participant and recomputed their ADP's.

The percentage of plans that would be in violation of both the basic and alternative tests (assuming no corrective measures were taken) are tabulated and shown in Chart 2. It should be noted that this estimate of the number of plans impacted would need to be re-estimated if AGI thresholds were imposed for eligibility in the government's matching program.

Preliminary results

Chart 1 illustrates the estimated percentage of 401(k) plans that would be in violation of the ADP tests assuming any NHCE that is "at risk" drops out of the employer's 401(k) plan while HCEs continue their current contribution. Overall, 26 percent of all private 401(k) plans are expected to be impacted under this assumption. The percentage of plans is obviously a function of plan size with only 15 percent of plans with 1-9 participants being impacted, increasing to 35 percent of the plans with 50-99 participants. The impact decreases for larger plans and slightly less than 25 percent of the plans with more than 500 participants were estimated to be impacted.¹³

Chart 2 illustrates the estimated percentage of 401(k) plans that would be in violation of the ADP tests assuming all employees with a match rate of less than 50 percent transfer up to \$600 of their contributions from the employer's 401(k) plan to the government's plan. The estimated impact is obviously much smaller since some NHCEs that are assumed to be making zero contributions in method one would still have some contributions in method two (leading to a higher ADP_N) and all HCEs considered to be "at risk" in the second method would have a smaller deferral than in method one (leading to a smaller ADP_H).

Approximately 13 percent of all 401(k) plans are estimated to be impacted under method two. This varies from a low of 7 percent for plans with less than 10 participants to a high of 21 percent for plans with 50-99 participants.

In terms of the number of participants impacted, the plans estimated to be impacted under method one covered 9.7 million participants at the end of 1996 (approximately 26 percent of the universe). Method two suggests that the impacted plans had 3.9 million participants at the end of 1996 (approximately 11 percent of all 401(k) participants).

References

1. Allen, Jr., Everett T., Joseph J. Melone, Jerry S. Rosenbloom and Jack L. VanDerhei, *Pension Planning: Pensions, Profit Sharing, and Other Deferred Compensation Plans*, Eighth edition, Homewood, Illinois: Richard D. Irwin, Inc., 1997.
2. Clark, Robert L. and Sylvester J. Schieber, "Factors Affecting Participation Rates and Contribution Levels in 401(k) Plans," in Olivia S. Mitchell and Sylvester J. Schieber, eds. *Living with Defined Contribution Pensions: Remaking Responsibility for Retirement* (Philadelphia: University of Pennsylvania Press, 1998).
3. Kusko Andrea L., James M. Poterba, David W. Wilcox. *Employee Decisions with Respect to 401(k) Plans: Evidence From Individual-Level Data*. NBER Working Paper No. 4635, 1994
4. VanDerhei, Jack L., Russell Galer, Carol Quick and John D. Rea. "401(k) Plan Asset Allocation, Account Balances, and Loan Activity," *EBRI Issue Brief*, January 1999.

¹³ Technically, the smaller plans are more likely to have no HCEs among their participants and therefore relatively immune to the impact of a competing governmental plan. This influence appears to give way to the fact that larger plans appear to have more generous matches and thus are less likely to have NHCEs considered to be "at risk."

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5. Yakoboski, Paul J. and Jack L. VanDerhei, "Contribution Rates and Plan Features: An Analysis of Large 401(k) Plan Data." *EBRI Issue Brief*, June 1996

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Joseph E. Aldy (CN=Joseph E. Aldy/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:24-MAR-1999 10:18:04.00

SUBJECT: oral testimony

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

Janet,

I made some minor revisions to the oral testimony from October. Please let me know what you think, and if we need to shorten it (I think it may be more like 7 minutes instead of 5). I will bring by hard copies.

Joe

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D16]MAIL40868349W.036 to ASCII,
The following is a HEX DUMP:

**ORAL TESTIMONY OF DR. JANET YELLEN
CHAIR, COUNCIL OF ECONOMIC ADVISERS
BEFORE THE
U.S. SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES**

MARCH 25, 1999

Thank you, Mr. Chairman. I appreciate having this opportunity to discuss with you the economics of climate change and the Administration's efforts to address this significant environmental challenge. As you know, the Administration released a report last July, entitled "The Kyoto Protocol and the President's Policies to Address Climate Change: Administration Economic Analysis." In addition, since the Kyoto Conference, a variety of research on the economics of Kyoto, and especially on the economics of Kyoto's flexibility mechanisms, has been undertaken. Today, I will provide a brief summary of the Administration's Economic Analysis and review several of the key findings in the recent economic literature on climate change.

Administration Economic Analysis

The Administration's Economic Analysis found that, assuming that effective mechanisms for international trading, joint implementation, and the Clean Development Mechanism are established, and assuming also that the United States achieves meaningful participation by key developing countries, the economic cost of attaining the targets and timetables specified in the Kyoto Protocol will be modest for the United States in aggregate and for typical households.

An illustrative assessment using the Second Generation Model that accounts for effective trading and developing country participation yields permit price estimates ranging between \$14/ton and \$23/ton, and direct resource costs to the U.S. between \$7 billion and \$12 billion/year. Under the assumptions of the Administration's analysis, permit prices in the range of \$14/ton to \$23/ton translate into energy price increases at the household level between 3 and 5%, but this would be roughly offset by the Administration's electricity restructuring proposal. I would be happy to further discuss this analysis during the question and answer period.

Recent Research on the Economics of Climate Change

Since December 1997, many economists have conducted and made available their analyses of the Kyoto Protocol. For example, the Stanford University Energy Modeling Forum (EMF), a long-running model comparison exercise involving many of the leading climate and energy models, has coordinated full scale analyses of the Kyoto Protocol with 10 global models. Further, the Organisation for Economic Co-operation and Development (OECD) has published the proceedings of the economic modeling workshop it sponsored this past fall. The modeling results from EMF and OECD provide very useful context for the Administration's economic analysis. First, the illustrative model used by the Administration, the Second Generation Model of the Pacific Northwest National Laboratory, tends to fall in the middle of the range of the EMF models in terms of U.S. permit prices. Under Annex I trading the SGM permit price is at the median of this set of models and under full global trading it is just below the median permit price. Second, both modeling exercises found that the reduction in permit prices as trading

expands from no trading to Annex I trading to full global trading is robust. On average, the EMF models found that Annex I trading would cut the U.S. permit price by 53% relative to a no trading scenario, while the OECD models found a 57% average price reduction. In full global trading, the permit price would be, on average, 80% lower than the no trading price.

Several EMF modeling teams have considered the impact of constraints on the opportunity to buy or sell emissions allowances in an international market. While the United States is unambiguously opposed to trading restrictions, several parties to the agreement have indicated support for some form of a trading constraint. Trading restrictions would generate no benefit for the global climate while they could significantly increase the costs of achieving the Kyoto targets. In my written testimony I describe two examples of trading constraints where the U.S. permit price would increase by up to four times higher than the unconstrained price.

Most models used to evaluate the Kyoto Protocol only focus on carbon dioxide emissions and do not account for the 6 types of greenhouse gases comprising Kyoto targets and the opportunity to trade across gases. However, recent work by a group of researchers at MIT has found that including the opportunity to abate non-CO₂ greenhouse gas emissions and promote carbon sinks reduces the costs to the United States by about 25% relative to a carbon-only approach (assuming no international trading). Other recent research has found similar results.

The EMF modeling indicates that economic and environmental benefits could accrue to some developing countries if they adopt emissions targets. Setting a binding emissions target would generate climate benefits by reducing global emissions below what they would otherwise have been. In addition, if the target is set not too far below the business as usual emissions

level, the participation of the country in a global trading system would produce economic benefits or “gains from trade” for both the developing country and its trading partners, such as the United States. Annex I countries (and private firms in these countries), who would purchase these emissions allowances in the world market, would achieve their targets at lower cost than without the participation of the developing countries.

Conclusion

The Administration’s overall conclusion is that the economic impact of the Protocol will be modest under the conditions we have identified in our economic analysis. The purpose of this testimony has been to summarize the analysis we have presented in the Administration Economic Analysis on climate change and to provide a brief update of recent analytic efforts outside of the government.

I look forward to continuing to work with members of this Committee, as well as with other interested parties, in further analyzing the Kyoto Protocol 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: Steven N. Braun (CN=Steven N. Braun/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:24-MAR-1999 14:10:52.00

SUBJECT: Senator Moynihan & the CPI

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

CC: Rebecca M. Blank (CN=Rebecca M. Blank/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

CC: Robert Z. Lawrence (CN=Robert Z. Lawrence/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TEXT:

Background:

1) In private correspondence with Senator Moynihan, the CEA (Janet Yellen) has written that we guessed that if the Boskin Commission were to reassemble, it would lower its estimate of CPI bias by 0.29 percentage point to 0.81 percentage point (from 1.1 percentage point).

2) In a letter to Robert Rubin, dated 3/17/99, Senator Moynihan wrote that, [John Podesta] "...had been advised that the BLS has now corrected seven-tenths of the 1.1 percentage point overstatement. And he had this on good authority: the Budget and the Economic Report." (The letter goes on to cite the correspondence with Janet Yellen declaring that only .29 ought to be subtracted from the Boskin Commission estimate.)

Senator Moynihan is upset about the discussion of the CPI on page 8 of Analytic Perspectives: The Boskin 1.1 p.p. estimate is mentioned in one paragraph, while the next paragraph discusses the 0.7 percentage point of methodological changes "...compared with the methodologies used in 1994." Although nowhere does it say so, he (and his staffer David Podoff) think the the conjunction of these statements creates the impression that the 0.7 percent ought to be subtracted from the Boskin's Commission's 1.1 percentage point estimate.

To a lesser extent, he is not happy with the ERP either, because it lists the 0.7 percentage point of CPI methodological adjustments without mentioning that only some of them would count against the Boskin Commission's 1.1 percentage point. This is a sin of omission according to David Podoff.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Joseph E. Aldy (CN=Joseph E. Aldy/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:24-MAR-1999 14:38:02.00

SUBJECT: electricity Qs and As

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

READ:UNKNOWN

CC: Alan S. Polasky (CN=Alan S. Polasky/OU=CEA/O=EOP @ EOP [CEA])

READ:UNKNOWN

TEXT:

Attached are electricity Qs and As that Steve drafted.

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D11]MAIL43200059R.036 to ASCII,
The following is a HEX DUMP:

- Q: When will the Administration's electricity restructuring bill be presented to Congress?
- A: Secretary Richardson has announced that he expects to introduce the Administration's Comprehensive Electricity Competition Plan when Congress reconvenes after its upcoming recess.
- Q: How will electricity restructuring affect greenhouse gas emissions?
- A: Under the Administration's Comprehensive Electricity Competition Act proposal of last year, the estimated reduction in greenhouse gas emissions were between 25 and 40 million metric tons of carbon. We expect this year's Administration proposal to result in equal or greater reduction in greenhouse gas emissions.
- Q: How will increases in the renewable portfolio standard affect carbon emissions? How will increases in the renewable portfolio standard affect costs to consumers?
- A: Administration policy on the renewable portfolio standard provision has not been finalized. Electricity produced from renewable energy sources rather than from burning fossil-fuels lowers the contribution of greenhouse gas emissions from the electricity sector. In last year's Administration proposal and again in this year's proposal, utilities could purchase credits from the Department of Energy for 1.5¢/kwh. This provision limits the cost increase to consumers and protects the savings from electricity restructuring. With the Administration proposal, we would expect consumers to enjoy approximately \$20 billion per year in cost-savings.
- Q: What will be the overall cost to consumers of electricity restructuring?
- A: The electricity restructuring proposal provides potential cost-savings in four areas: dispatch efficiency, improved capital utilization, savings in capital additions and cost reductions in fuel and non-fuel operations and maintenance. These four categories of savings, when translated to consumers are likely to reach or exceed \$20 billion annually.
- Q: Will electricity restructuring hurt rural consumers?
- A: Electricity restructuring will result in savings to consumers in total but not all consumers will benefit. Whether, and how much, a consumer will benefit from restructuring depends primarily on the region in which the consumer lives and not upon whether the consumer lives in a rural or urban area. In the event that it is determined that rural areas are hurt by electricity restructuring, the Administration plan authorizes the Secretary of Energy to implement a rural safety net.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Ryan D. Edwards (CN=Ryan D. Edwards/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:24-MAR-1999 15:14:22.00

SUBJECT: Ministerial business on "Links" paper

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

READ:UNKNOWN

TEXT:

Hi Janet,

I still haven't entirely gotten my head wrapped around it all, but here's the story on recent Ministerial "Links" paper developments:

Apparently there's a draft of the Links paper, requested by the Ministers at the 1998 Ministerial and made available only last March 8, 1999. As near as I can tell, this Links paper is meant to serve as a framework document for part of the 1999 Ministerial; its working title is "Trade and Investment and Development: The Challenges of Policy Coherence in a Global Economy."

The US Mission has requested that agencies look at it and reply, and Bob Winship at State has coordinated this. He'd only recently included me in the loop on it all, so I haven't read the draft paper yet and haven't yet talked personally about any of the issues with John Weeks or anyone else at the Mission.

A comment list has now been formulated by US agencies, and we have an opportunity to comment, but it seems clear that we don't have to. I think the US Mission wants this comment list reviewed so that they may take it to the Secretariat and talk with them about it; that is, I think we're (CEA is) not really in the loop on the issue.

The comments, however, seem pretty strong: basically, they suggest:

the Secretariat delete the first part, called "Links Between Trade and Investment and Development," ostensibly because it "duplicates the paper requested by the ECSS on benefits of open economies for developing countries"

keeping part II (there are only two parts), "Policy Coherence in OECD Countries," but imparting a rejoinder: that the US would be unable to recommend endorsement of the paper as currently drafted. The claim is that the paper argues OECD countries should use development as a major, if not the determining factor in setting policies --- and that's labeled unrealistic.

So it looks to me like we're basically tearing this document completely to shreds. Not having read it, I don't really know whether that's good or

bad, but the seemingly exteme nature definitely made me prick my ears up.

Let me know if you'd like me to take any particular course of action.
Otherwise, we'll just wait and watch the fur fly.

-Ryan

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Ryan D. Edwards (CN=Ryan D. Edwards/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:25-MAR-1999 16:43:56.00

SUBJECT: More on Links paper

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

READ:UNKNOWN

TEXT:

Hi Janet,

I talked with Bob Winship on the Links paper issues just now, and his view is that things are pretty well in hand, with USOECD and the State people taking care of getting the issue dealt with. Bob didn't think that we had to get involved; the reason he alerted me to everything was more because of a desire to inform rather than get input. He said the wrangling on this front may well proceed up until the last minute before the Ministerial.

If you'd like to take a more active role in the discussions involving this, please let me know. Otherwise we'll stand back and watch.

Best,

-Ryan

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Steven N. Braun (CN=Steven N. Braun/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:25-MAR-1999 15:09:25.00

SUBJECT: to Podesta on Moynihan

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

READ:UNKNOWN

CC: Alice H. Williams (CN=Alice H. Williams/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.D47]MAIL43674669E.036 to ASCII,
The following is a HEX DUMP:

March 25, 1999

Dear John,

Senatory Moynihan is correct in quoting me concerning our guess (0.29 percentage point) of how much the recent BLS methodological changes would reduce the Boskin Commission's estimate of CPI bias. Of course, this is only a guess, and it is not our role to speak for the Boskin Commission.

The Administration has never endorsed the Boskin Commission's estimate of 1.1 percent bias in the CPI, and this estimate has always been controversial. Although some bias remains, the Senator's implication that the remaining bias is 0.81 percentage point, is something that the Administration probably would not want to endorse either--insofar as it remains subject to widely divergent opinion.

Moynihan views Administration documents as implying that 0.68 percentage point of the Boskin Commission's 1.1 percentage point figure has been eliminated, although the Administration material makes no such statement. However, the Senator is correct in noting that the neither the *Economic Report of the President* nor the *Budget: Analytic Perspectives* addressed how the Boskin Commission's estimate would be revised. These documents were not intended to mislead anyone, but simply to document the impact on some of the recent and forthcoming changes in the CPI compared with pre-1995 methods. Again, we did not regard it as our role to keep score for the Boskin Commission.

Janet L. Yellen

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:25-MAR-1999 17:48:51.00

SUBJECT: Roger Ferguson

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

READ:UNKNOWN

TEXT:

Roger Ferguson's appointment at the Fed ends on February 1, 2000. I propose that we proceed now, if he is willing, to nominate him for a reappointment. He is doing an outstanding job as a Fed Governor, and I would love to insure that he is reappointed. I understand that there is no reason he could not be nominated early; indeed, there is a precedent for it. What would you think of sending up a renomination for Roger along with the Carol Parry nomination? I will be away for a week but hope to talk with you about this when I return.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:25-MAR-1999 18:03:54.00

SUBJECT: Second Panel of Senate Energy Hearing

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

READ:UNKNOWN

TEXT:

----- Forwarded by Michele Jolin/CEA/EOP on 03/25/99
06:04 PM -----

Julie M. Anderson
03/25/99 05:18:41 PM
Record Type: Record

To: See the distribution list at the bottom of this message

cc:

Subject: Second Panel of Senate Energy Hearing

The Second Panel included: Cecil Roberts, UMW; Margo Thorning, American Council for Capital Formation; Mary Novak, WEFA; and Jay Hakes, EIA.

The Senators who were present for the 2nd panel included: Murkowski, Craig and Bayh

The second panel was pretty brief. There was no mention of "apples and oranges" or "doing it dumb v. doing it smart". However, all of the panelists were very careful to claim that their analysis addressed in some fashion the impact of the flexibility mechanisms on the costs. Novak claimed that CEA and EIA agreed with WEFA that with no trading the permit price would be \$250/ton and with only Annex I trading the permit price would be \$70/ton. Thorning attacked the use of the SGM because it purportedly cannot analyze near-term impacts. Thorning also declared that economic impacts of implementing the PProtocol will severely impact the budget surplus, thus our ability to save social security.

Murkowski asked all 4 witnesses whether the assumptions used by the Administration were realistic. 3 said no; Hakes said that it is not realistic to assume complete, unlimited trading or to assume no trading at all. Murkowski jumped on the proposition that social security would be at risk if we implement this protocol and encouraged the panelists to convey that word to the entire Senate. In addition, Murkowski indicated he was going to send a letter to the Administration because as he understands it the Dept. of Labor agrees with the employment impacts estimated in the DRI study. (I'll follow up on that one.) At the end, Murkowski noted that it is "necessary" to reduce greenhouse gas emissions but that we should be

doing it through long-term technology investments. He also lamented the fact that Dr. Yellen did not want to be on the same panel so that we could have a dialogue.

Bayh asked one question of Hakes about the impact on utility rates which turned into a brief discussion on electricity restructuring.

Message Sent

To:

Todd Stern/WHO/EOP

Roger S. Ballentine/WHO/EOP

Michele Jolin/CEA/EOP

Joseph E. Aldy/CEA/EOP

David B Sandalow/CEQ/EOP

Ronald Minsk/OPD/EOP

**Clinton Presidential Records
Automated Records Management System
[EMAIL] and Tape Restoration Project [Email]**

This is not a presidential record. This is used as an administrative marker by the William J. Clinton Presidential Library Staff.

This marker identifies a responsive email, already made available within another collection.

Collection: 2014-0316-F

Bucket: CEA

Creation Date: 1999-03-31

Subject: Q4 profits

Creator: Douglas W. Elmendorf CN=Douglas W.
Elmendorf/OU=CEA/O=EOP [CEA]

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME: 1-APR-1999 18:31:13.00

SUBJECT: Re: Possible CEA report on Census data and US businesses

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

READ:UNKNOWN

TEXT:

Below is Karen's e-mail regarding the request for CEA to do a report on Census data. I am going to ask Alice to set up a meeting for the early part of the week when you are back.

Also, at the bottom of her message, she asks for time to talk about the follow-up from the labor economists meeting. Maybe you could both talk after the other meeting.

Michele

----- Forwarded by Michele Jolin/CEA/EOP on 04/01/99
06:29 PM -----

Karen Tramontano

03/31/99 06:20:03 PM

Record Type: Record

To: Michele Jolin/CEA/EOP

cc:

Subject: Re: Possible CEA report on Census data and US businesses

fine. this is the right way to approach. also, kathy wallman at omb has some concerns/thoughts --- would janet mind including kathy in the meeting -- if there is a concern -- i can certainly meet w/ cathy separately. let me know,
thanks

also, i'd like to meet/discuss w/ janet where she thinks we can take the next steps w/ the labor economists ----- i've got some thoughts and i think david smith has followed up w/ her and kitty is putting together some material at the labor dept --

letme know when this is possible. thanks