

Withdrawal/Redaction Sheet

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DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	Joseph E. Aldy to Jeffrey A. Frankel and Janet L. Yellen at 17:11:49.00. Subject: vacation and Snowmass. (1 page)	08/05/1998	b(6)

COLLECTION:

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

FOLDER TITLE:

[07/30/1998 - 08/21/1998]

2013-0723-F
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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
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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
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b(4) Release would disclose trade secrets or confidential or financial
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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: Todd Stern (CN=Todd Stern/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:30-JUL-1998 18:44:47.00

SUBJECT: qs and as

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:

As you requested. ===== ATTACHMENT 1 =====

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D87]MAIL47720861B.226 to ASCII,

The following is a HEX DUMP:

Economic Analysis

Q: What portion of reductions does your analysis anticipate will be made in the U.S.?

A: The President is committed to significant emissions reductions here at home. This report does not specify what percentage of our reductions would be made at home. However, we think that percentage could be quite substantial. The illustrative model we used -- on the assumption of international trading with industrialized and key developing countries -- assumes 25% domestic action, but that is *not* an accurate representation of what we think will be done domestically because it explicitly excludes domestic policies that we think will have a large impact on the amount of reductions accomplished at home. Those policies include:

- *Electricity restructuring.* We conservatively estimate 25-40 million tons of reductions, or 4-7% domestic;
- *Sink mitigation activities.* Large potential here. We cite two studies that claim very large possibilities. With good interpretive provisions negotiated and reasonable policies, could have sizable reductions -- perhaps in 5-10% range or higher. **[Awaiting EPA backup]**
- *Technology.* Many experts believe that the rate of technology improvement could be enhanced through policies. The President has offered a \$6.3 billion R&D and tax initiative to spur technology, and that will presumably be other policies offered in the 10-year period between now and 2008. We have assumed a rate of technology of improvement of .96/year. Each additional .1 would add about 2% to our domestic reductions.
- *Industry consultations, federal energy.* Other efforts, like voluntary agreements with industry sectors and federal energy reform could further increase amount of domestic reductions.

Let me say finally that we need to view these estimates of reductions at home and abroad with a good deal of humility. We can no more expect precision on these estimates than we could in estimating what the budget deficit will be in 2008; and since we all know that our year to year budget projections are commonly way off, you can get some idea of the range of uncertainty here. Clearly, trading may be less robust than the SGM model assumes, causing the domestic percentage to increase substantially, while low-cost domestic opportunities may be very prevalent.

In short, Further, the whole business of predicting the domestic/international split is highly imprecise at best.

Q: If your model does not account for key factors like domestic initiatives, carbon sinks, or electricity restructuring, why did you use that model?

A:

Q: What about your \$14/ton estimate? Doesn't that assume even more trading from abroad?

A: The answer is the same as for the \$23/estimate, except that at \$14/ton, the model would start off assuming more trading. However, it is our policy to work out acceptable trading rules with the European Union so that they will join us in a trading system -- the assumption underlying the \$23/ton case.

Q: Why didn't you devise some way to factor those elements into your analysis, rather than putting them aside?

The SGM model we used cannot assess the affect of domestic actions -- e.g., whether with respect to technology, sinks, voluntary actions -- directly [**What does this mean?**]. Moreover, we try to be conservative in our approach and while we think the domestic policies can be quite important, their effects are still imprecise enough that we didn't think it appropriate to include them in our model.

Q: Isn't the real problem here that you haven't proposed domestic policies that are likely to have any real effect? Like increased CAFE standards, or a cap and trade on CO2 in the electricity restructuring bill? If you were proposing serious domestic policies instead of a lot of toothless, voluntary initiatives, you could probably estimate the domestic impact better. How can you on the one hand keep saying this is the great environmental challenge of the 21st century, and on the other propose such weak measures to meet it? When are you going to put your money where your mouth is?

A: The President has proposed a good initial set of policies to start us on the path of reducing emissions, while recognizing that we do not yet have a ratified treaty. It would be premature to propose a set of mandatory measures explicitly tailored to meet our Kyoto target before the treaty is ratified. But our \$6.3 billion R&D/tax incentive package is an excellent first step, which the Congress should be endorsing instead of trying to gut. Our proposal on electricity restructuring is a serious one that can make a real difference. We think there is important potential in our industry consultation program and that that potential will grow when the elements of an early credit system are fleshed out more, and

we also think we can help push the ball forward through the example and procurement power of the federal government. Finally, we think that there is great potential for reducing carbon through forestry and soil activities, once some further diplomatic work is accomplished regarding the “sink” provisions of the treaty. So we reject the notion that we aren’t doing enough yet. We think the President has struck just about the right balance.

Q: Is this CEA’s analysis or the Administration’s analysis? If it’s the Administration’s analysis, why does it not reflect any of the bottom-up perspective that DOE has used in the past?

A: This is an Administration analysis in which CEA had the lead.

Q: Why is there only one scenario? Didn’t you think it appropriate at least to represent other views?

The Administration’s analysis presents the economic implications of a scenario that best reflects the U.S. government’s position on international trading and global participation.

Q: Why are you so optimistic about international trading but conservative about technology?

A: Our conservative approach on technology is intended to avoid rosy scenarios, the same way we try to do that in budgeting. I think our trading assumption is appropriate because it is consistent with both the provisions of the Kyoto Protocol itself and the United States’ firm position on how trading rules should be worked out.

Q: Isn’t your program based on buying up the so-called “hot air” tons from Russia -- which will do absolutely nothing for the environment? Unless you commit to real, serious domestic action, with credible limits on the amount of permits you buy from abroad, won’t this whole effort be a sham?

A: The “hot air” tons from Russia are no less legitimate than similar tons that Germany will be using from the former East Germany. This is a treaty in the real world and targets were negotiated with former East Bloc countries with full knowledge of what their anticipated emissions would be. We think it makes a lot more sense to get on with this process and work with the Russians and others to make sure they have adequate monitoring and verification processes and, hopefully, that funds they earn through the sale of permits will be at least partially plowed into clean and green activities. The alternative is to try to undo the Kyoto Protocol and start renegotiating it -- and we think that is a road to disaster.

Q: How much money would be sent abroad? Isn't this a tax on American business and government transfers to Russia?

A: There will be no taxes on Americans or government transfers to Russia. U.S. firms -- not the U.S. government --- may choose to purchase international emissions permits. That will be up to them and they will undoubtedly do so only if they think it is in their economic interest to do so. We think our companies should have maximum flexibility to meet their emissions obligations in ways that will be cost-effective. U.S. firms interested in international investment and emissions credits will have an incentive to ensure that other countries meet the international standards for adequately monitoring and reporting their emissions of greenhouse gases. Russia will have a significant incentive to use the revenues to invest in modern, climate-friendly plants and equipments so that as its economy recovers, it continues to produce emissions reductions for sale on international markets.

Q: Why don't you present a view that does not include the optimistic assumption that China, India, and other developing countries assume emissions targets?

The scenario we analyze is consistent with our policy. The report illustrates, by the way, how developing countries can maintain sustainable growth while participating in an international system of emissions reductions and trading. By participating in international trading, developing countries could attract investment for cleaner energy and technologies while generating cost-effective abatement opportunities for firms in industrialized countries.

Q: You have essentially assumed an international trading system that operates as seamlessly as the New York Stock Exchange. Have you found a single outside validator to support an assumption that is this extraordinarily optimistic?

A: Because we are still engaged internationally on trading rules, we have the opportunity to develop a system that would promote active private sector participation with minimal transaction costs. Given the interest in climate change by such major actors like the World Bank, the Chicago Board of Trade, and the International Petroleum Exchange in London, and the efforts we have undertaken to learn from traders in other markets, we believe the potential exists to transform the concept of international trading into a practical, workable system. **[WE HAVE TO HAVE SOMEONE TO POINT TO; HOW ABOUT SANDOR]**

Q: Has this analysis been peer-reviewed? Why not?

A: It has not been peer-reviewed. CEA had the lead in preparing the document and CEA, as a matter of policy, does not submit its reports for peer review.

Q: How did you model “meaningful participation by key developing countries”?

A: As the Administration has noted on numerous occasions, meaningful participation varies according to the circumstances of each developing country. (Insert standard response)

In this analysis, the \$14 to \$23/ton scenarios reflect an assumption that some developing countries take on emissions targets and participate in trading. Emissions targets in the first commitment period would surely constitute meaningful participation.

Q: Your analysis includes “key developing countries” with emissions targets. Are China, India, Mexico, and Korea the only key developing countries?

A: These are key countries modeled in the Second Generation Model. While each would certainly qualify as a “key developing country” for the Administration, there are many other countries that would constitute “key developing countries” as well.

Q: Your analysis assumes that “key developing countries” take on targets at their 2010 BAU emissions level -- this implies that they do not have to undertake any emissions reductions to comply with their targets. Is this consistent with Byrd-Hagel? Is this “meaningful participation”?

A: As we have said previously, there is no one-size-fits-all for meaningful participation. We have used targets set at 2010 BAU simply for illustrative purposes. It should not be

construed as a statement on either Byrd-Hagel or meaningful participation, but simply as an illustration.

Q: How much will it cost if you don't get "key developing countries" to take on targets?

A: We have made it clear that we're not submitting this treaty to the Senate without meaningful participation by key developing countries. We think that emission targets that would permit developing countries to engage in trading would be very much in their interest and would certainly satisfy the meaningful participation standard.

Q: How much will it cost if there are restrictions on international trading?

A: It is contrary to U.S. policy to accept restrictions on trading. We do not discuss scenarios that are contrary to our policy. The U.S. position is to secure effective trading rules to promote low-cost emissions reductions. We have stated repeatedly our opposition to trading restrictions as both inefficient and infeasible. Since a ton of CO₂ emitted in New York has the same environmental effect as a ton emitted in Poland, we see no environmental justification for placing restrictions on trading.

Q: Costs in other studies are more than 10 times yours. Why should we believe your estimates?

Those studies reflect neither the flexibility measures we secured in the Kyoto Protocol nor Administration's policies for future action. These studies, some which even claim to be analyses of Kyoto, do not include many of the important flexibility mechanisms in the Kyoto Protocol, such as international emissions trading, the Clean Development Mechanism, or the potential to trade across greenhouse gases. Further, these analyses do not account for the Administration's position on developing country participation. As I have said before, we can do it dumb, or we can do it smart. Doing it dumb means that we would ignore many of the cost-effective opportunities to reduce emissions.

You have provided direct costs. The economic literature indicates that total costs of a policy like this should be 2 - 4 times the direct costs. What are the total costs of your policy?

What are the benefits of Kyoto?

Would a less stringent alternative capture most of the benefits of this approach? Why didn't you assess any such alternatives?

In your analysis, you modeled a tradable permit scheme. Isn't such a scheme modeled the same way as a carbon tax? Doesn't this mean that a tradable permit scheme is just a euphemism for higher energy taxes?

In the model, aren't permits auctioned? Does the Administration intend to auction permits?

The Protocol includes a provision on banking. Did you assess the effect of banking on costs in the first commitment period? Why not?

Why can't you estimate sinks? You agreed to something in Kyoto, and you don't understand its implications 6 months later?

Battelle has recently released a draft paper of its assessment of Kyoto. It indicates that the permit price with full global trading would be \$25/ton. Why is their estimate higher than yours with the same model?

You used only 1 model. With all the same assumptions, what would the likely permit prices be using other models?

Last summer, you said that relying on 3 models would be futile. Yet, now you deliver an economic analysis relying on just 1 of the 3. What has happened since then that allows you to more comfortably rely on SGM?

The report indicates that electricity restructuring will lower carbon emissions by up to 40 MMTCE. How can making electricity cheaper result in lower emissions? Won't people consume more electricity if the price falls?

These additional provisions in the Administration's proposal on electricity restructuring result in some emissions reductions. Do you have an estimate of their costs? If so, do you know what the cost per ton (average and marginal) is for those emissions reductions?

The report indicates a range of ancillary benefits. Why the large range?

Isn't the upper bound of the ancillary benefits estimate derived from EPA's 812 report methodology? Isn't it true that the Administration's economic agencies do not accept that methodology as legitimate? Why then is it in the report?

The testimony presented on March 4 before House Commerce and at several hearings since indicated that, in addition to improved air quality, the ancillary benefits include reduced congestion and traffic fatalities. However, there is no mention of these benefits in the report. Why not? Further, why would congestion and traffic fatalities decrease with a tradable permit system?

Isn't it true that the permit price without trading would be \$193/ton? Wouldn't this be about \$0.50 per gallon in higher gasoline taxes?

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Dirk Forrister (CN=Dirk Forrister/OU=WHCCTF/O=EOP [WHCCTF])

CREATION DATE/TIME:30-JUL-1998 16:31:14.00

SUBJECT: Final Draft Papers for Tomorrow's Meeting w/Utility CEOs

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D61]MAIL43810761O.226 to ASCII,
The following is a HEX DUMP:

CLIMATE EVENT

Roosevelt Room

3:40pm - 3:55pm July 31, 1998

[Meeting time is 3:00pm - 4:30pm]

Briefing prepared by Todd Stern and Dirk Forrister

EVENT

You are doing a drop-by to meet with 14 chief executives from the electric power industry to discuss cooperative efforts to reduce greenhouse gases. This meeting is part of a series of meetings with top executives of energy intensive industries and follows a series of scoping meetings between Administration staff and company representatives. The industry consultations are an element of the President's climate change policy, announced last October.

LOGISTICS

- The meeting will be chaired by Todd Stern, Assistant to the President for Special Projects. He will introduce YOU when you arrive;
- YOU will deliver remarks and ask Mr. Linn Draper, CEO of American Electric Power to summarize meeting;
- Mr. Draper will summarize meeting results.
- YOU comment on results and encourage them to show bold leadership as they develop voluntary agreements for this Fall;
- YOU depart.

PROGRAM NOTES

- In August 1997, 10 chief executives met with you and the President to discuss the climate challenge. They proposed that the Administration allow them to offer voluntary plans to reduce emissions before imposing mandatory requirements, much as the utility sector had already begun for the year 2000 under the *Climate Challenge*. The President included this approach in his October 1997 policy address on climate change.
- You will show appreciation for what they've done and encourage them to be bold leaders in doing more. You will offer our support in providing technology incentives and credit for early action.
- Linn Draper, CEO of American Electric Power, who is attending this meeting also attended the August 1997 meeting with you and the President. He is also a member of the President's Council on Sustainable Development.

ATTACHMENTS

- Draft Remarks
- Industry Briefing
- Participant List
- Company Profiles

Talking Points for Vice President Gore
Meeting with Investor-Owned Utility CEOs
July 31, 1998 -- 3:40 pm
The Roosevelt Room

- I hope you don't mind if I join your discussion. You might have heard that climate change is an issue I care about.
- Last August, the President and I met with ten chief executives of Fortune 500 companies. Linn Draper was there (*NB: he is here today*), along with Fred Buckman of PacifiCorp (*NB: He could not be here today*).
- Linn and Fred were the "resident experts" on one of the key themes of the discussion -- the important role that voluntary action can play in addressing climate change. Several executives at that meeting stressed that, given the opportunity, the American private sector will rise to the occasion to address national environmental challenges voluntarily -- and they wanted to be given the opportunity on climate change. Those executives -- from steel, chemicals, oil and gas, forest products, and aluminum -- urged that they be given the chance to do what you have already been doing.
- The President and I thought this idea had great merit, and it now stands as a key feature of our near-term national action agenda. We are confident that you and your colleagues in other sectors can make a profound difference in showing leadership on this environmental challenge -- and that we can advance this effort better through cooperative partnerships than through the old ways of confrontation or inflexible mandates. Our team -- led by Todd Stern -- has been meeting with chief executives from a variety of sectors to move this effort forward.
- I know that we have you to thank -- among others -- for proving the viability of this approach. We have history together here. I stood with many of you on a stage near the Capital on the National Mall in 1994 to launch the "Climate Challenge" program with Secretary O'Leary. And I want you to know that we appreciate your achievements. When we signed that original accord that led to so many actions across the nation, I'm not sure any of us could have expected the wide reach of that program -- to over 650 electric utilities with goals of improving emissions by over 47 million metric tons by the year 2000.
- Given your strong track record in the "Climate Challenge," you are well positioned to demonstrate the kind of national leadership toward this global problem that you have shown on so many local problems.
- And Linn -- as I've said to you before -- not only do we appreciate it, but we recognize the importance of providing appropriate credit for early actions. As I told you at our national conference last fall, the President and I support this idea. We included this as another key feature of our near-term agenda.

- I understand that this is one of the toughest issues facing the electric power sector. And it comes at a time when you are striving to address more immediate concerns, like industry restructuring, reducing costs, and meeting Clean Air Act requirements. The President and I believe strongly, however, that we need to work together to address climate change at the same time.
- This calls on all of us to do better -- for you to summon your ingenuity and for us in government to provide more flexibility. And the sooner we get started, the better.
- I also want you to know how much we appreciate your support for the market based policies that we are working to achieve internationally. Most of the joint implementation expertise that the United States gained in pilot projects grew from your projects -- from those sponsored by several of you around the table.
- I'm sure we have our areas of disagreement -- but I hope we can continue to narrow our differences over time. The science will continue to improve. The technologies will continue to get better. And the public will continue to learn and probably expect more and more of us.
- All of this will be occurring as you will be entering a new, more competitive relationship with your customers -- and we all know that one of the marks of excellence in energy is environmental quality. By acting as responsible leaders on climate change, your companies will be contributing to a brand name image that will endure for a long time.
- Again, I appreciate what you've done. And I hope we can work together to do even more.
- Now, you've been talking with our team for a while here -- I'm interested in hearing for myself some of the highlights of your discussion. Linn, could you describe the potential of this effort and where you see the greatest opportunities and challenges?
- [As time allows, you could recognize others --
 - Craven, I know that TVA has been reviewing climate change action over several years. How are you thinking of addressing this need along side the other pressing clean air goals?
 - Dick [Abdoo, Wisconsin Electric] -- you've been a pioneer in the area of Joint Implementation with your projects in the Czech Republic and Belize. How do you see this fitting in with your larger portfolio of actions?
 - Tom [Casten, Trigen] -- I know you're working hard on a variety of combined heat and power projects around the country. As you see an era of more competition in the power sector, how will these types of projects fare?

- I wish I could spend more time here. I'd like to leave you with one thought: This is a time for bold leadership from your industry. What you do today may become the model for others to follow. You can be part of a proud legacy to bestow on your companies, your communities, and on our Nation.
- Thank you for being here today. I'll leave you in Todd's capable hands to finish your discussions.

OVERVIEW OF ELECTRIC POWER MEETING

I. PURPOSE

To meet with 14 chief executives from the electric power industry, including the CEOs of Tennessee Valley Authority, American Electric Power, Southern Company, Texas Utilities and Illinova Corporation, to discuss cooperative efforts to reduce greenhouse gases.

This meeting is part of a series of meetings with top executives of energy intensive industries. The meeting follows a series of scoping meetings between Administration staff and company representatives and is part of the industry consultations that are an element of the President's climate change policy, announced last October. The idea of encouraging industries to develop their own plans for reducing greenhouse gases, with support and assistance from the government, was discussed last August in the President's meeting with the CEOs of 10 Fortune 500 companies. *[NB: Linn Draper, CEO of American Electric Power, who is attending this meeting also attended the August 1997 meeting with the President and Vice President and is a member of PCSD.]*

The key objective for the meeting is to begin a productive dialogue that will have the buy-in of top level industry management. The meeting will include a discussion of (1) our approach to climate change, (2) the industry's perspective on the issue, and (3) how we can work together to make real progress.

We are looking to enter into the first set of voluntary agreements with a number of industries in the fall. They should include four simple elements:

- an agreement to do an emissions **inventory** and to establish ongoing emissions **measurement** by a date certain;
- an agreement to review energy practices and **options** for improving emissions by a date certain;
- a statement of an initial "**stretch goal**" for emissions reduction or improved energy efficiency; and
- an agreement to formulate an **action plan** by a date certain for achieving the goal.

II. BACKGROUND

Highlights on Industry and Actions

- The electric power industry is comprised of three primary elements: investor-owned (or shareholder-owned), municipal, federal or state-owned or controlled (public power); and not-for-profit rural electric cooperatives. Two other newer elements are privately-owned unregulated non-utility generators and wholesale power marketers. This sector represents about 1/3 of greenhouse gas emissions in the U.S. *[NB: The White House held a consultation with municipal utilities and rural cooperatives on July 10.]*

- Electric power, with 39% growth, is the second fastest growing sector between now and 2008-2012 (the first is transportation at 45%).

- In 1996, sources of electricity for the U.S. consisted of the following mix:

	<u>Investor-owned</u>	<u>Total U.S.</u>
Coal	54%	52%
Nuclear	26%	20%
Natural Gas	10%	14%
Hydro	10%	10%
Oil	3%	2%
Renewables	0.3%	2%

- Electric utility sales in 1996 reached \$212 billion (investor-owned utilities were \$167.5 billion, public power was \$27.1 billion and electric cooperatives were \$17.4 billion).
- Investor-owned utilities generate and distribute about 75% of the nation's electricity, and serve over 91 million customers. Industrial customers use 33.4% of electricity generated by IOUs (but represent only 0.4% of customers), commercial customers use 31.5% of electricity (representing 11% of customers), and residential customers use 32.4% of electricity (representing 88% of customers).
- In 1996, total utility emissions were 517MMTce, an 8.4% increase over 1990 levels. Of this, investor owned utilities emissions are about 86.4%(447MMTce), public power emissions are about 9.7% (50MMTce), and electric cooperative emissions are about 3.9% (20MMTce).
- Total electric power emissions are expected to grow to 574MMTce in 2000, an 11% increase over 1990 levels, and 663MMTce in 2010, a 39% increase. Restructuring could reduce greenhouse gas emissions by 25-40 MMTce by 2010 under the Administration's restructuring proposal.
- Investor-owned utilities, public power, and rural cooperatives entered into the *Climate Challenge* with the Administration in 1994 at an event on the National Mall. An umbrella agreement was signed by the heads of each trade association (EEI, APPA, NRECA, LPPC) and the Tennessee Valley Authority and Secretary O'Leary. At the request of the crowd, Vice President Gore also signed the accord (more or less as a witness).
- Under *Climate Challenge*, utilities agree to reduce, avoid or sequester greenhouse gas emissions voluntarily by 2000. Companies and DOE/EPA developed a workbook of reduction options that was widely circulated. Individual companies entered agreements, and the commitments ranged from reductions from 1990 levels to improved carbon efficiency to the simple pledge to undertake a set of reduction projects.
- The Department of Energy estimates 47.6 MMTce reductions by 2000, some of which are admittedly "anyway" tons. (The Edison Electric Institute, the association representing

180 investor-owned utilities, reports reductions as 170MMTCO₂e, which translates to the 47.6MMTce.)

- In terms of greenhouse gas emissions, 70% of the entire electric power industry (not including the newer unregulated non-utility generators and wholesale power marketers) entered into *Climate Challenge* agreements. Most utilities agreed to undertake a list of specific emissions reductions projects, but only a few agreed to company-wide strategies to stabilize emissions. (Public Service Electric & Gas, Niagara Mohawk Power, and Tennessee Valley Authority are the three companies attending the meeting who developed company-wide strategies.)
- Other Federal programs supporting greenhouse gas reductions in the electric power sector are EPA's *Greenlights Program*, *Energy Star Transformer*, *Landfill Methane Program* and DOE's *Motor Challenge Program* and *Rebuild America*.
- The electric power sector is facing restructuring and deregulation as a result of the need to increase the economic efficiency of the sector and a diminution of economies of scale in generation. The wholesale market was restructured under the Federal Energy Regulatory Commission's Order 888 which turned investor-owned transmission grids into common carriers. Retail market restructuring is currently being debated in Congress, but is not expected to be fully addressed until the next Congress. Several States (AZ, CA, NV, MT, OK, IL, VA, PA, ME, MA, NJ, NH, RI) have already mandated retail competition through legislation with more committed to follow.
- As the industry is restructured, companies are concerned about entering costly voluntary programs when competition for customers will largely be based on price -- a departure from past regulated monopoly status. That said, large generating companies also recognize the importance of a good environmental reputation as customers form "brand name" images for energy suppliers.
- There is interest in how the industry could integrate Kyoto goals and Clean Air Act requirements for traditional pollutants at least cost. If taken piecemeal, Clean Air (Nox, SO₂) compliance strategies could employ technologies that look only at Nox and SO₂ reductions and possibly increase or have no impact on carbon emissions. Other strategies, such as fuel-switching or improving generator efficiency, can reduce emissions of both local pollutants and greenhouse gases.

Overview of Stretch Goal

- With the massive changes underway in this sector due to restructuring, it is particularly difficult to predict a stretch goal. It will vary greatly across companies, and our decisions on credit for early action and regulatory flexibility will have dramatic impacts on the companies' pledges.

- With regard to the four elements of our plan, this industry has a head start:
 - Inventory and Monitoring: Most companies already have an inventory and are required to monitor CO₂ under the Clean Air Act.
 - Options Review: Under the Climate Challenge, industry and government collaborated on a menu of options that every company agreed to review.
 - Stretch Goal: Companies set individual goals for 2000 under *Climate Challenge*, but few represented the type of stretch we now need. However, individual companies are already thinking about bolder commitments that extend to 2008-2012.
 - Action Plan: Companies agreed to action plans in the past, but only a few adopted company-wide action plans. We will need to push the others to adopt company-wide strategies (beyond “cream skimming” through a small list of projects while ignoring other parts of their business).
- Assuming full penetration by 2010 of existing and new technology options addressed in DOE’s *Five Lab Study* and a \$50/ton carbon trading average price, electric power emissions would range from 546-583 MMTce, still 14-22% above 1990 levels of 477MMTce.
- Restructuring could result in a 25-40 MMTce by 2010 under the Administration’s proposal.
- Emissions reduction opportunities for sulfur hexafluoride (SF₆) are possible assuming adoption of best management practices to minimize leaks and to recycle and could reduce projected 2010 emissions by 7.5MMTce--2MMTce below 1990 levels.

Primary Issues of Concern

Utility companies have raised the following issues which need to be addressed by the Administration before the industry as a whole will commit to another emissions reductions goal:

- Well defined **credit for early action** program which recognizes actions already undertaken in Federal voluntary programs, especially for documented voluntary actions under the *Climate Challenge* program;
- Recognition that the electric power industry is facing multiple requirements and large investments from current EPA pollution reduction requirements. These requirements are coming due prior to the Kyoto target and potentially drive carbon emissions higher (Nox requirements in 2002, Ozone in 2003, Regional visibility in 2003, and PM 2.5 targeted for 2005. Mercury is to be determined). Some utilities are exploring strategies that

would address all of these pollutants in one package provided there is room for government flexibility to enable them to install the technologies;

- Consideration of policies to preserve current generation options and diversity of supply (i.e. nuclear operations currently in their supply mix (20% of U.S. supply) are nearing the end of their licensed operations, and some may become uneconomic in an increasingly competitive marketplace);
- Incentives for implementation of efficient technologies (such as expansion of the Climate Technology Initiative, additional tax credits, etc.); and
- Flexibility mechanisms better defined under the Kyoto Protocol (i.e. emissions trading, joint implementation, clean development mechanism).

PARTICIPANTS

Administration:

Vice President (15 minutes)

Todd Stern, Assistant to the President for Special Projects

Gene Sperling, Assistant to the President for Economic Policy (invited)

Janet Yellen, Chair, Council of Economic Advisors (invited)

Dirk Forrister, Chair, White House Climate Change Task Force

Dan Reicher, Assistant Secretary Renewable Energy and Energy Efficiency, DOE

Robert Perciasepe, Assistant Administrator for Air and Radiation, EPA

David Gardiner, Assistant Administrator for Policy, EPA

Bill White, Senior Advisor to the Administrator, EPA

Janet Anderson, White House Climate Change Task Force

Elizabeth Arner, White House Climate Change Task Force

Paul Stolpman, EPA

Utility Participants:

Richard (Dick) Abdoo, Chief Executive Officer & President, Wisconsin Energy Corporation

Charles Bayless, Chairman, President & Chief Executive Officer, Illinova Corporation

Wayne Brunetti, Vice Chairman, President & Chief Operating Officer, New Century Energies

Thomas (Tom) Casten, President & Chief Executive Officer, Trigen Energy Corporation

Lawrence (Larry) Codey, President & Chief Operating Officer, Public Service Electric & Gas

Craven Crowell, Chairman, Tennessee Valley Authority

A.W. (Bill) Dahlberg, Chairman, President & Chief Executive Officer, Southern Company

Linn Draper, Chairman, Chief Executive Officer & President, American Electric Power

Erle Nye, Chairman & Chief Executive Officer, Texas Utilities

Thomas Baron, Vice President, Fossil /Hydro/Environmental Affairs, Niagara Mohawk Power

Peter Burg, President, FirstEnergy Corporation

Pamela (Pam) Strobel, Senior Vice President, Unicom Corporation/Commonwealth Edison

Joe Turnage, Senior Vice President for Technology Resources, U.S. Generating Corporation

Dennis Welch, Vice President, Environmental, Safety & Ethics, Northeast Utilities System

Thomas (Tom) Kuhn, President, Edison Electric Institute

COMPANY PROFILES

Richard Abdoo, Chief Executive Officer & President, Wisconsin Energy Corporation

Wisconsin Energy Corporation provides electric, natural gas and/or steam service to about 2.3 million people in Wisconsin and Michigan's Upper Peninsula. The company celebrated 100 years of service in 1996. They have invested in two joint implementation projects: the Decin Fuel Switching and Cogeneration project in the Czech Republic and the Rio Bravo Carbon Sequestration Pilot Project in Belize. Mr. Abdoo has been CEO since 1990 and has been with the company since 1975.

Charles Bayless, Chairman, President & Chief Executive Officer, Illinova Corporation

Headquartered in Illinois, Illinova Corporation is an energy services holding company which consists of three subsidiaries: a power marketing company to deliver natural gas, a gas and electric utility with 4100MW of capacity with 650,000 customers in Illinois, and an independent power producer with ownership of 730MW of electric generation. Illinova is a partner in a 20MW wind facility in Costa Rica and is a national pioneer in burning of waste fuels in coal boilers. Mr. Bayless has been Chairman and CEO for a few weeks. Previously, he was CEO of Tucson Electric.

Wayne Brunetti, Vice Chairman, President & Chief Operating Officer, New Century Energies

New Century Energies is headquartered in Denver and is the parent company of Public Service of Colorado and Southwestern Public Service Company in Amarillo. Neither New Century or its two subsidiaries are Climate Challenge partners. e-prime, another subsidiary, is a partner in the BEL/Maya Biomass Power Generation Project in Belize. Mr. Brunetti also serves as CEO of Public Service of Colorado, Southwestern Public Service Co., and Cheyenne Light, Fuel & Power Co. He is also director of e-prime. He is a member of the CEO "CAST" group. He recently agreed with the State of Colorado to cut SO₂ and Nox emissions far beyond federal minimum requirements.

Tom Casten, President & Chief Executive Officer, Trigen Energy Corporation

Trigen, based in White Plains, NY, is an independent power producer that produces electricity, heat and power with ½ the fossil fuel and ½ the pollution of conventional generation. Trigen combines heat and power generation, producing electricity as a by-product, for 1,500 customers in Baltimore, Philadelphia, St. Louis, London and Ontario. Trigen and Pepco are currently negotiating a deal for them to provide combined heat and power to the District of Columbia. Mr. Casten has been in his current capacity since 1986.

Lawrence Codey, President & Chief Operating Officer, Public Service Electric & Gas

PSE&G is a publicly traded diversified energy company with annual revenues of about \$6billion and serves electricity and gas to over 2.2 million customers in New Jersey. They entered into an aggressive company-wide commitment to reduce GHG gases in partnership with the Environmental Defense Fund. They agreed to reduce emissions of CO₂ by 2.5 million tons below its baseline of 23.5 million tons (which is a four-year average of emissions between 18987-1990). PSE&G advocates a "generation performance standard" as a method to

implement a fixed cap CO₂ trading program. Mr. Cody became President and COO in 1991 and has been with the company since 1973.

Craven Crowell, Chairman, Tennessee Valley Authority

TVA is a government-owned corporation and the nation's largest single power producer. TVA operates and maintains 28,417MW of generating capacity and manages the nation's fifth largest river system for flood control, navigation and recreation. TVA serves nearly 8 million customers in most of Tennessee and parts of Mississippi, Alabama, Georgia, North Carolina, Virginia and Kentucky. They have 11 fossil, 29 hydro and 3 nuclear plants. TVA's company-wide commitment was emissions of 22.7MMTCO₂ by 2000. They have also committed to improving the efficiency of four coal plants to add 163MW of capacity with no additional coal supply, a biomass cofiring test program at its fossil plants, and the development of a green pricing program. Mr. Crowell was appointed as chairman and confirmed by the Senate in 1993 and has been with TVA for 14 years.. Previously, he served as chief of staff to former Tennessee Senator Jim Sasser and was a reporter for the Nashville Tennessean.

A.W. (Bill) Dahlberg, Chairman, President & Chief Executive Officer, Southern Company

Southern Company is comprised of Alabama Power, Georgia Power, Gulf Power, Mississippi Power, and Savannah Electric and is the largest producer of electricity in the U.S. with 157 billion kWhrs. Southern Co. serves about 11 million customers in most of Georgia and Alabama, southeastern Mississippi and the panhandle of Florida. As part of *Climate Challenge*, Southern Co. pledged \$5M for EEI's Envirotech venture capital funds. The company announced in 1997 that it would build two gas-fired plants totaling 1,800MW. Mr. Dahlberg has been in his current position since 1995 and with the company since 1960.

Linn Draper, Chairman, Chief Executive Officer & President, American Electric Power

AEP, based in Columbus, provides energy to 3 million customers in Indiana, Kentucky, Michigan, Ohio, Tennessee, Virginia, and West Virginia and posted revenues of \$6.2 billion in 1997. AEP operates 37 coal and hydro plants and one nuclear plant with a total capacity of 23.8 million kilowatts. AEP is a partner with BP America in the Noel Kempff Sustainable Land Use Joint Implementation project in Bolivia. They also pledged \$5M for EEI's Envirotech capital venture fund and announced the first solar energy system under the Million Solar Roofs Initiative. Their coal plants have high efficiency rates. Mr. Draper attended the August 1997 meeting with the President and Vice President and has been CEO since 1993. He is also a member of the President's Council on Sustainable Development.

Erle Nye, Chairman & Chief Executive Officer, Texas Utilities

Texas Utilities, based in Dallas, provides electric and natural gas utility services, energy marketing, telecommunications, and other energy-related services and serves 2.5 million customers (1/3 of the Texas population) and posted revenues of \$6.6billion in 1996. TU increased its original pledge under *Climate Challenge* by 1.5 million tons by 2000. Recently, TU purchased the United Kingdom's Energy Group, with utility distribution in the UK and Australia. Mr. Nye is also CEO of TU Electric (its principal subsidiary).

Thomas Baron, Vice President, Fossil /Hydro/Environmental Affairs, Niagara Mohawk Power
With a reliability rating that is among the highest in the country, Niagara Mohawk Power Corporation serves the energy (electricity and natural gas) needs of more than 1.5 million customers throughout upperstate New York. Under *Climate Challenge*, NMPC committed to limit CO₂ emissions to its 1990 baseline level and maintain that level through 2000. NMPC partnered with CFE in Mexico to develop a mini-grid project utilizing solar and wind to supplement diesel power. NMPC has also done two carbon trades: one with Suncor in Canada, and another with Arizona Public Service Co. In which they received 20,000 SO₂ allowances in exchange for 2MMTCO₂ reductions. Mr. Baron is responsible for corporate environmental affairs.

Peter Burg, President, FirstEnergy Corporation

FirstEnergy Corp., headquartered in Akron, Ohio, was formed by the merger of Ohio Edison and Centerior Energy Corp. and is now the nation's 12th largest investor-owned electric system. The company serves 2.2 million customers in northern and central Ohio and western Pennsylvania and generates \$5billion in revenue. Ohio Edison is reporting that they will achieve their goal of reducing CO₂ emissions by 1million short tons by 2000 early (in 1996, they reported 931,000 tons of CO₂ reductions). Mr. Burg is a member of the Board of Directors of Ohio Edison and Pennsylvania Power Co. and has been at Ohio Edison since 1968.

Joe Turnage, Senior Vice President for Technology Resources, U.S. Generating Corporation

U.S. Generating Corp., based in Bethesda, is the competitive power generation subsidiary of PG&E Corporation and is one of their four unregulated energy businesses. The company operates and manages PG&E's competitive generating assets and markets electricity to large industrial customers and wholesale customers. Dr. Turnage is responsible for environmental affairs.

Pam Strobel, Senior Vice President, Unicom Corporation/Commonwealth Edison Company

Unicom/ComEd serves customers in Illinois and generated revenues of \$7.1billion in 1997. The company is branching out into distributed energy solutions with an alliance with AlliedSignal, joint ventures with Sonat Marketing for natural gas and energy services, but has substantial nuclear and coal facilities. Though the company has not been extremely active in Climate Challenge, John Rowe, their new CEO, plans to lead the company in a new direction. Rowe was recently honored at the Alliance to Save Energy's Annual Awards dinner for his leadership at New England Electric Service, one of the most aggressive utilities to cut greenhouse gas emissions.

Dennis Welch, Vice President, Environmental, Safety & Ethics, Northeast Utilities System

Northeast Utilities is an electric utility holding company of the largest utility system in the Northeast (comprised of Connecticut Light & Power, Hartford Electric Light Co, Western Massachusetts Electric Co., and Public Service Co. of New Hampshire). NU serves 1.7 million customers in territory that stretches from Connecticut to western Massachusetts and New Hampshire. Mr. Welch is the Chairman's point person for climate and will be delivering a letter of commitment to the process from the Chairman.

Tom Kuhn, President, Edison Electric Institute

Edison Electric Institute (EEI) is an association representing 180 investor-owned electric companies. Under *Climate Challenge*, EEI developed five initiatives for collective utility action. The initiatives include two venture capital funds under the *EnviroTech* charter, with over \$50 million committed to accelerate commercialization of renewable energy technology and energy-efficient electrotechnologies; the *Earth Comfort Program*, to increase annual sales of energy-efficient geothermal heat pumps from 40,000 to 400,000; the *Utility Forest Carbon Management Program*, with over \$2 million funding several domestic and international forestry projects through the non-profit *UtiliTree Carbon Company*; and the *International Utility Efficiency Partnerships*, with ten joint implementation projects under development. Mr. Kuhn has been President since 1990.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:30-JUL-1998 12:34:41.00

SUBJECT: Revised capital controls paper attached

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

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

TO: Rebecca M. Blank (CN=Rebecca M. Blank/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:

Here is the revised article on capital controls. Let me know.

Nouriel===== ATTACHMENT 1 =====

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

TEXT:

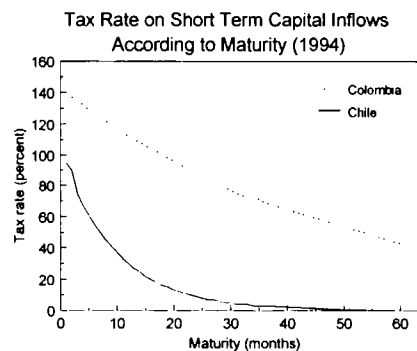
Unable to convert ARMS_EXT:[ATTACH.D99]MAIL42312561W.226 to ASCII,
The following is a HEX DUMP:

SPECIAL ANALYSIS

Comment [COMMENT1]: WEB-formatted file

Controls on “Hot Money” Inflows in Chile and Colombia: A Vaccine Against the Asian Flu?

Why “hot money” can burn you. The Asian currency and financial crisis has rekindled a broad debate on whether controls on short-term capital inflows, such as those implemented by Chile and Colombia in the 1990s, have helped them withstand international currency crises. Such controls take the form of a tax on capital inflows that depends on the maturity of the inflows: as the chart shows, short-term inflows are taxed more while longer term ones are taxed increasingly less. The arguments in favor of such controls are several. First, large inflows of short-term capital or “hot money” can be destabilizing: if ‘fickle’ investors become suddenly pessimistic about the



economic prospects of a country, the large inflows of yesterday suddenly become the massive capital outflows of today that may lead to the collapse of a currency. Second, large capital inflows may also lead to a perverse cycle: under flexible exchange rates they initially cause a currency appreciation as investors buy the country's financial assets; under fixed exchange rates, they cause an increase in foreign reserves, rapid monetary growth and inflationary pressures that lead to a real appreciation. In both regimes, over time this appreciation leads to a loss of competitiveness that in turn causes a widening current account deficit. As this external imbalance grows, the country is forced to rely even more on capital inflows to finance the deficit. Eventually, the accumulation of this foreign debt may become unsustainable, especially if these liabilities are short-term, foreign-currency denominated and unhedged. In fact, as international investors become nervous about the country's ability and willingness to service such a large foreign debt, sudden capital outflows may ensue leading to a currency collapse.

You should not “play with fire” if you are not a grown-up. Is there evidence that short-term debt makes a country more vulnerable to a crisis? Yes, but with an important caveat. A number of recent studies suggest that a large amount of short-term liabilities (relative to the size of the foreign reserves) increases the probability of a crisis or leads to a more severe crisis if one occurs but only if the country has weak economic fundamentals. Such weaknesses include large current account deficits and real appreciation, an excessive bank lending boom, weak

financial systems and a large amount of non-performing loans. So, short-term debt is particularly dangerous only in an otherwise fragile country with unsound economic policies.

If it feels too hot, take a cold shower. While short-term portfolio flows can be dangerous as they can be suddenly withdrawn and cause a crisis, foreign direct investment, long-term bonds and equities are argued to be stabilizing as they represent longer term capital inflows. So, if you do have an external imbalance, you may be less vulnerable if you finance it with long-term capital. Chile and Colombia introduced their controls exactly to avoid these boom and bust cycles of capital flows. A number of recent studies suggest that such controls are only partially effective. They do not seem to affect the overall level of capital inflows and current account imbalances but they do affect the composition of such inflows: short-term borrowing is discouraged while there is greater reliance on long-term borrowing.

If it gets too cold, should you turn the hot water back on? However, the Asian has recently caught up with both countries. Contagion from Asia, together with growing current account deficits has forced the monetary authorities to defend their falling currencies by giving up foreign reserves and sharply increasing interest rates. This has led to a severe slowdown in growth, especially in Colombia. So, both countries have recently substantially trimmed their controls on short-term inflows as a way to stimulate capital inflows, as they now need all the inflows they can get - even short-term ones - with their currencies being under pressure. Some infer that this policy reversal shows that the rationale for controls was weak to begin with. But this is not necessarily the case. If the controls are intended to address a problem of excessive short-term inflows at one stage of the cycle, followed by excessive reversal at another stage, temporary controls may make sense.

Some like it hot. There are, however, several arguments against these controls. First, the reason why Chile and Colombia have been able to be sheltered until recently from speculative attacks may not be the controls but rather the existence of a strong financial system with solid prudential regulation and supervision; i.e. if you have strong banks, you may not need capital controls. Second, if short-term inflows are that dangerous, why should you allow them in periods of currency pressure such as those recently experienced by Chile and Colombia? Third, over time investors find ways to avoid them, i.e. they tend to leak. Fourth, they may reduce incentives to invest as they increase borrowing costs for firms via a raise in domestic interest rates.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:30-JUL-1998 08:44:27.00

SUBJECT: press statement

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

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

READ:UNKNOWN

TEXT:

Janet,

Last night, Todd and Bill both told me that your press statement should be short. Bill and Todd suggested that we go off of the talking points that have been written. So, as a good thief, I have plagiarized largely from the talking points. This is now 2 double-spaced pages. Let me know what you think, and I will then circulate it to Bill and Todd.

Regarding your press briefing, it appears that it might be primarily a conference call. Most of the enviro reporters at the papers they want to brief (NYT, WA Post, LA Times, WSJ) will be in North Carolina today for the naming of our Natural Heritage Rivers, so they would call in for the briefing. When I get more details, I'll let you know.

Joe

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D3]MAIL46569261L.226 to ASCII,
The following is a HEX DUMP:

I am pleased to have this opportunity to discuss the report of the Administration's economic analysis on the Kyoto Protocol and the President's policies to address climate change. This report elaborates on the testimony I presented in Congressional hearings this spring. It details how the United States can achieve its greenhouse gas reduction target under the Kyoto Protocol at a relatively modest cost. With the market-based, flexibility measures in the agreement, the participation of key developing countries, and smart policies at home, we can meet the challenge of climate change while maintaining a strong economy.

There is a powerful scientific rationale for taking action on global warming; taking action amounts to an insurance policy against a serious risk. Greenhouse gases are rapidly building up in the atmosphere and at current rates will reach levels not seen in 50 million years by 2100. The nine hottest years on record have occurred since 1987. Our leading scientists warn of serious consequences, like severe droughts and floods and health problems, if global warming is ignored.

In 1992, the National Academy of Sciences said: "...even given the considerable uncertainties in our knowledge of the relevant phenomena, greenhouse warming poses a potential threat sufficient to merit prompt responses....Investment in mitigation measures acts as insurance protection against the great uncertainties and the possibility of dramatic surprises."

The costs of meeting our Kyoto target should be modest. Even without counting the impact of domestic policies or the benefits of acting to mitigate climate change, estimates derived using the Second Generation Model (SGM) suggest an emissions price in the range of \$14 to \$23 per ton of greenhouse gases. In 2010, that would translate into an increase of \$70-\$110 per year for an average family's energy bill, although such increase would be substantially offset by the

decline in electricity prices resulting from restructuring the electricity industry, as the Administration and others have proposed.

Domestic actions -- which are not factored into the SGM model -- can further reduce costs and substantially increase the amount of reductions made at home. These include federal electricity restructuring; efforts to increase the rate of technology improvement, such as the President's \$6.3 billion budget package; forestry activities like tree planting, which can sequester carbon; industry consultations; and initiatives to reform federal energy use and procurement.

Doing it smart: The Kyoto Protocol is based upon flexibility measures that reduce costs. At U.S. insistence, the Kyoto Protocol allows emissions to be reduced where such reductions are cheapest. Key provisions include international trading of emissions permits as well as measures that allow our companies to share credit for emissions-reducing projects abroad.

The benefits of acting to address climate change could be very large. Monetary estimates of damages from the environmental, health, and economic impacts of global warming projected to occur by the end of the next century have been estimated by noted economists to be in the range of 1% of GDP or more -- over \$80 billion a year in today's terms. Moreover, in the short term, ancillary benefits of reducing greenhouse gas emissions -- such as reduced air pollution -- could produce savings equal to one quarter of the costs of meeting our Kyoto target.

I welcome any questions you may have about the Administration's economic analysis.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:30-JUL-1998 12:49:52.00

SUBJECT: Another Revision!

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

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

TO: Rebecca M. Blank (CN=Rebecca M. Blank/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:

Following Chad's suggestions, here is my further revision. Discard the previous one.

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D94]MAIL43303561T.226 to ASCII,
The following is a HEX DUMP:

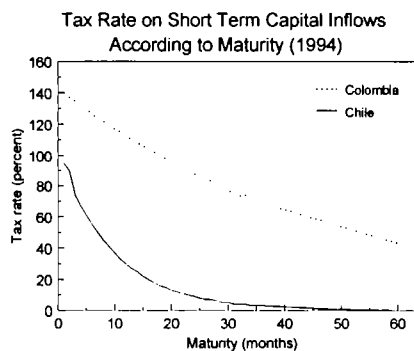
SPECIAL ANALYSIS

Comment [COMMENT1]: WEB-formatted file

Controls on “Hot Money” Inflows in Chile and Colombia: A Vaccine Against the Asian Flu?

The Asian currency and financial crisis has rekindled a broad debate on whether controls on short-term capital inflows, such as those implemented by Chile and Colombia in the 1990s, have helped them withstand international currency crises.

How do you limit inflows of “hot money”? While controls on inflows can be imposed with a variety of policies, in these two countries they have taken the form of a tax on capital inflows that depends on the maturity of the inflows: as the chart shows, short-term inflows are taxed more while longer term ones are taxed increasingly less.



Why “hot money” can burn you. The arguments in favor of such controls are several. First, large inflows of short-term capital or “hot money” can be destabilizing: if ‘fickle’ investors become suddenly pessimistic about the economic prospects of a country, the large inflows of yesterday suddenly become the massive capital outflows of today that may lead to the collapse of a currency. Second, large capital inflows may also lead to a perverse cycle: under flexible exchange rates they initially cause a currency appreciation as investors buy the country’s financial assets; under fixed exchange rates, they cause an increase in foreign reserves, rapid monetary growth and inflationary pressures that lead to a real appreciation. In both regimes, over time this appreciation leads to a loss of competitiveness that in turn causes a widening current account deficit. As this external imbalance grows, the country is forced to rely even more on capital inflows to finance the deficit. Eventually, the accumulation of this foreign debt may become unsustainable, especially if these liabilities are short-term, foreign-currency denominated and unhedged. In fact, as international investors become nervous about the country’s ability and willingness to service such a large foreign debt, sudden capital outflows may ensue leading to a currency collapse.

You should not “play with fire” if you are not a grown-up. Is there evidence that short-term debt makes a country more vulnerable to a crisis? Yes, but with an important caveat. A number of recent studies suggest that a large amount of

short-term liabilities (relative to the size of the foreign reserves) increases the probability of a crisis or leads to a more severe crisis if one occurs but only if the country has weak economic fundamentals. Such weaknesses include large current account deficits and real appreciation, an excessive bank lending boom, weak financial systems and a large amount of non-performing loans. So, short-term debt is particularly dangerous only in an otherwise fragile country with unsound economic policies.

If it feels too hot, take a cold shower. While short-term portfolio flows can be dangerous as they can be suddenly withdrawn and cause a crisis, foreign direct investment, long-term bonds and equities are argued to be stabilizing as they represent longer term capital inflows. So, if you do have an external imbalance, you may be less vulnerable if you finance it with long-term capital. Chile and Colombia introduced their controls exactly to avoid these boom and bust cycles of capital flows. A number of recent studies suggest that such controls are only partially effective. They do not seem to affect the overall level of capital inflows and current account imbalances but they do affect the composition of such inflows: short-term borrowing is discouraged while there is greater reliance on long-term borrowing.

If it gets too cold, should you turn the hot water back on? However, the Asian has recently caught up with both countries. Contagion from Asia, together with growing current account deficits has forced the monetary authorities to defend their falling currencies by giving up foreign reserves and sharply increasing interest rates. This has led to a severe slowdown in growth, especially in Colombia. So, both countries have recently substantially trimmed their controls on short-term inflows as a way to stimulate capital inflows, as they now need all the inflows they can get - even short-term ones - with their currencies being under pressure. Some infer that this policy reversal shows that the rationale for controls was weak to begin with. But this is not necessarily the case. If the controls are intended to address a problem of excessive short-term inflows at one stage of the cycle, followed by excessive reversal at another stage, temporary controls may make sense.

Some like it hot. There are, however, several arguments against these controls. First, the reason why Chile and Colombia have been able to be sheltered until recently from speculative attacks may not be the controls but rather the existence of a strong financial system with solid prudential regulation and supervision; i.e. if you have strong banks, you may not need capital controls. Second, if short-term inflows are that dangerous, why should you allow them in periods of currency pressure such as those recently experienced by Chile and Colombia? Third, over time investors find ways to avoid them, i.e. they tend to leak. Fourth, they may reduce incentives to invest as they increase borrowing costs for firms via a raise in domestic interest rates.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jeffrey A. Frankel (CN=Jeffrey A. Frankel/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:31-JUL-1998 19:22:20.00

SUBJECT: Early Action Credit

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

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

READ:UNKNOWN

TEXT:

I attended a Todd Stern meeting Friday on Early Action, in preparation for a meeting they are having Wednesday with some outside groups (Environmental Defense Fund, CAST, and Center for Clean Air Policy). Treasury (in particular, Bob Cumby, picking up where Jon Gruber left off) has had the lead on a background memo (Administration Principles for EC Mechanism); we made sure it said "EAC design should not pre-judge emissions trading system," tho I don't know to what extent this will stick

.

Todd is 100 % aware of our views on Early Action Credit.

JF

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:31-JUL-1998 09:26:16.00

SUBJECT: Re: China-Korea trip: Who and when

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

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

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

CC: Lisa D. Branch (CN=Lisa D. Branch/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:

I'd obviously like State to pay. But, if they don't, I think CEA should still send someone. Janet has taken a lead on engaging the Chinese and Koreans on the issue of Climate Change. And I think it would be a shame for CEA not to be included in future efforts and discussions. In my view, taking part in the follow-up discussions with China and Korea should be a priority when we are allocating travel \$\$\$. And I have asked Cathy to factor that in to our budget. Before any decision is made NOT to send someone, I think we need to have further discussions.
Michele

Jeffrey A. Frankel
07/31/98 09:19:07 AM
Record Type: Record

To: Alan S. Polasky/CEA/EOP
cc: Joseph E. Aldy/CEA/EOP, Michele Jolin/CEA/EOP, Lisa D. Branch/CEA/EOP
Subject: China-Korea trip: Who and when

The dates for the Kimble-led trip are apparently departure Sun. Aug. 30, return Sat. Sept 5.

Neither Wilcox nor Cumby is going (due to pre-planned vacations, like mine). Treasury is going to offer Ray Squitieri.

At this point, the position I have taken with State (Susan Gordon) is that

they might be able to have a CEA senior staff member (you, Steve) on the trip if they are able to pay, but can't have anybody if they are not able to pay. My guess is greater than 50% that on those terms they will settle for Squitieri alone.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:31-JUL-1998 15:43:25.00

SUBJECT: BEA's typo on effect of GM strike on Q2 GDP

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

Some news accounts have are quoting the BEA as saying that the GM strike took 1 percentage point off of GDP growth.

The origin of this estimate is the BEA "Technical Notes" (which we receive on the morning of the release), and which says, "The strike at a motor vehicle manufacturer in June reduced GDP growth by about 1 percentage point in the second quarter; the impact of the strike is reflected largely in inventory investment, exports, and imports."

Bob Parker at the BEA says that the statement contains a typo, and should read, the strike at a motor vehicle manufacturer in June reduced GDP growth by about 1/2 to 1 percentage point in the second quarter...

The typographical error has no impact on BEA's estimate of second-quarter GDP.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:31-JUL-1998 16:01:19.00

SUBJECT: OTAG NOx SIP Call

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

READ:UNKNOWN

TEXT:

Janet: I spoke with Art Fraas today. He told me that the possible EPA offer involving a several year delay for implementing the .15 standard may be off the table. It may be that you will need to get involved. This should become clear next week or the week following. I will let you know.

I do not envy having to answer questions from the press. I thought you did a great job. Steve

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME: 3-AUG-1998 18:59:15.00

SUBJECT: Speeches

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

TO: Nouriel Roubini (CN=Nouriel Roubini/OU=CEA/O=EOP @ EOP [CEA])
READ:UNKNOWN

TEXT:

Attached are: Last year's speech to the NABE (trade3); a talk to the Council on Foreign Relations (cfr4); a longer version I gave at Brown which is very close to A speech I gave at the University of Hartford (brown.rev); and some talking points/rough notes from some more recent presentations (outlokt6.doc and iecma2) The notes in iecma2 are extremely rough thoughts on what to say to a group of executives from Japanese firms in the electronics industry operating in the United States like Sony, Hitachi, etc. and it focused heavily on Japan. Finally, ogle2 is a talk I gave in Atlanta to a large, lay audience as part of a symposium on challenges in the 21st century. Thanks for all of the help. =====

ATTACHMENT 1 =====

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D61]MAIL40053191T.226 to ASCII,
The following is a HEX DUMP:

The Continuing Importance of Trade Liberalization

Janet L. Yellen, Chair
Council of Economic Advisers
15 September 1997
National Association of Business Economists
New Orleans, Louisiana

The basic goals of the Clinton Administration's economic policies are simple and uncontroversial. First, to secure rising living standards now and in the future. And second, to ensure that the benefits of a rising standard of living are extended to all Americans. To attain these ends, the Administration's economic agenda has been based on three key policy initiatives: deficit reduction, investing in people through education and training, and opening markets worldwide to U.S. goods and services.

It is this third initiative--promoting free and fair trade--that I will focus on today. From his first days in office, President Clinton has advocated an outward-looking, "internationalist" trade policy. During the first four years of the Clinton Administration, over 200 trade agreements were ratified and implemented, some relatively large in scope--such as NAFTA and the Uruguay Round of GATT--others relatively small, but all vital to our nation's competitive future. President Clinton intends to extend and build upon this record during the Administration's next four years.

The single most important next step in the Administration's effort to open markets abroad and expand trade is for Congress to renew the President's authority to negotiate trade agreements on a "fast track" basis. This so-called "fast-track authority" allows the President to negotiate

trade agreements with other countries, and then requires Congress to take an up or down vote on the *entire* agreement. In other words, Congress cannot in effect reopen negotiations by adding or deleting individual provisions of a trade agreement by amendment during Congressional debate. Instead, Congress must vote on the agreement as a whole. Of course, the final decision as to whether the trade agreement--in its entirety--is approved or disapproved is still in the hand's of Congress. Fast-track authority simply allows the President to seek approval or disapproval for the agreement as a whole.

Every President since 1974 has gotten fast-track authority from Congress. Why is it so important? The answer is that fast track lends credibility to trade negotiations. Under fast track, the parties to a trade agreement know that any provisions that are agreed upon cannot later be renegotiated individually, nor can such renegotiation be threatened.

History tells us that fast-track negotiating authority is critical: in the early 1970s, Congress failed to ratify the Kennedy Round GATT agreement in its entirety, and, as a result the Europeans refused to negotiate further trade agreements with the United States. For this reason, in 1974, Congress developed and passed legislation providing the President with fast track negotiating authority, and giving the President the credibility he needs to negotiate international trade agreements.

So, why do we need fast track authority today? And, what would the Administration use it for? The Clinton Administration would focus on three key areas for its use.

The first use for fast-track negotiating authority would be to complete the agenda that was established in the Uruguay Round of GATT negotiations. At the end of the Uruguay Round negotiations, the United States, along with other countries, pushed for a timetable at which negotiations in different areas would resume. We did that, as did Europe and other countries, because we wanted more out of the Uruguay Round than we got. This year, we begin again the negotiations on government procurement; next year, we will begin intellectual property rights discussions; then we will begin talks on agriculture; then on services. Government procurement is a trillion-dollar market for the United States in Asia alone over the next decade; agriculture, a \$600-billion market globally; services, \$1.2 trillion market. The United States wants better access to those markets. And, we must have fast track authority before beginning discussions in these areas, otherwise countries will not put meaningful offers for market access on the table.

The second major use for fast-track authority is to extend the information technology agreement or ITA. The recently concluded ITA will reduce to zero tariffs on a range of information technology products: semiconductors, computers, telecommunications equipment, faxes, phones, integrated circuits -- a huge array of products in which U.S. firms tend to be highly competitive. The U.S. tariff barriers in those areas are either very low or zero. Asia's tariffs in these areas averaged 30 percent. With the ITA, the United States agreed -- with 43 other countries -- that tariffs on information technology products should be brought to zero across the board in all countries, by roughly the year 2000. We already have agreement among our trading partners for an ITA-2 -- which would expand the scope of the products encompassed by this extremely ambitious initiative. And, fast-track authority would be needed

to expand that arrangement.

We are also considering seeking similar kinds of agreements in a number of other individual sectors where the United States is very competitive but global barriers tend to be high -- areas such as environmental equipment and services, medical equipment and technology, and transportation equipment. In all of these areas, it would be necessary to have fast track authority to negotiate a reduction of trade barriers.

Finally, the third area that fast-track will be used is for more comprehensive market access agreements with individual countries. Thus far, Chile has been identified as the first and most likely country for this kind of arrangement. Today, every major economy in this hemisphere--save the United States--has a preferential trade agreement with Chile. In practice, this means that U.S. firms face tariffs in Chile that make their goods 11 percent more expensive than those of competing firms from other countries. This is a serious competitive disadvantage.

The pace with which preferential trade agreements are being negotiated between and among countries around the world is fast. The United States could easily be left behind through inaction. Since 1992, other countries have negotiated 20 preferential trade agreements in Latin America and Asia that exclude the United States. The European Union has begun a process that will culminate in a free trade agreement with Brazil, Argentina, and other MERCOSUR nations; President Chirac of France has even gone so far as to declare that the economic interests of Latin America "lie not with the United States, but with Europe." And within South America itself, the

four MERCOSUR countries are attempting to extend their preferential trade arrangements to encompass the entire continent. Moreover, other countries are aggressively pursuing expanded foreign trade. For example, China has targetted a number of Latin American countries--including Chile, Mexico, and Brazil--for increased bilateral trade.

It is clear: now, more than ever, continued engagement with the global economy will require an active effort on the part of the United States. And, an extension of fast track authority must be an integral component of this effort. But, let's go back to a fundamental and important question: why is free trade so important? Why should we be concentrating so much effort in pushing for more open foreign markets, and how does freer trade contribute to the Administration's goal of securing higher living standards for all Americans? In short, what are the benefits of free trade for the U.S. economy? I will use the remainder of my time to address this question--which, in fact, speaks to my own comparative advantage as an economist.

I would begin by first saying that one of the benefits of free trade is not, as is sometimes supposed, an improved overall current account or trade balance. The Administration's policies do indeed affect the current account, but it is its budget, saving, and investment policies, not its trade liberalization policies, that do so. The current account is a macroeconomic phenomenon that reflects the gap between what we as a nation invest and what we save. The large budget deficits of the 1980s and early 1990s reduced the amount of saving that was available to cover the nation's investment in plant and equipment (investment was choked off too, but not by as much), and this shortfall had to be filled by importing goods from abroad. In an important

sense, the nation was overconsuming in the 1980s, financing its consumption binge by borrowing output from foreigners. The result was a large and persistent trade deficit.

Today, we still face a trade deficit, but for a very different reason. Reducing the government's budget deficit has left more room for investment in plant and equipment by the private sector. And invest it has: since 1993, real business fixed investment has grown nearly nine percent per year on average, a much faster rate than that of the preceding ten years. This rate of investment is above the rate at which Americans save--even with the federal government dissaving less by virtue of its smaller budget deficit. So, once again the shortfall is made up for by borrowing output from abroad, with the result being a current account deficit. But there is a big difference between borrowing in order to invest--as the economy is doing now--and borrowing in order to consume, as we did in the 1980s. In fact, running a trade deficit in order to expand the nation's productive capacity is not new to American history--in the 1800s, we did much the same thing in order to build up the nation's infrastructure, most notably during the railroad construction boom a century ago.

So, it is not the gap between imports and exports that is relevant as far as trade policy is concerned. But the level of trade--the "openness" of the U.S. economy--does matter. In recent years, the United States has seen rapid growth in its degree of exposure to the world economy: real U.S. imports of goods and services grew at an average rate of 11 percent over the past four years, while real exports grew at an average rate of 10 percent per year. In the current recovery, export growth has been responsible for roughly a third of overall GDP growth. The United

States now exports an amount equal to 13 percent of its GDP every year and imports an amount equal to 15 percent of GDP; to put these figures in perspective, the corresponding figures for the 1960s were four and five percent, respectively. The American economy is now more open than at any time in its history.

What are the benefits of an open economy? Economists generally recognize two broad classes of benefits, the first being static, the second dynamic. I would like to discuss each in turn.

Ever since the work of Adam Smith and David Ricardo, economists have recognized that trade helps an economy by allowing it to specialize in what it does best. Adam Smith argued that specialization--the division of labor--enhances productivity, but noted that the degree to which an individual or a nation could specialize depended critically on the extent of its market. We all know the story of Robinson Crusoe, who, alone and isolated, had to do everything for himself: farm, weave cloth, build shelter, and so on. But if a group of Robinson Crusoes can trade amongst themselves, each can specialize in the production of what he or she is best at doing--thus producing more than would be possible were their attentions divided among goods which they are less skilled at making--and then can trade with his or her neighbors for the goods which they in turn are good at producing.

It might even be the case that one individual (or country, to drop the Robinson Crusoe

analogy) is better than anyone else at producing *every* good. Such an argument is often invoked in order to “prove” that the U.S. cannot benefit from trade with a country such as Mexico. But it turns out that the argument in favor of free trade still carries the day. All that is required is for a country to be *relatively* less skilled than another in the production of some good in order for it to benefit from trade. This is, of course, the doctrine of comparative advantage--the fundamental (if perhaps counterintuitive) principle that underlies the theory of international trade.

This, in a nutshell, is the “classical” view of the benefits of free trade. It is important to note that the benefits from trade under the classical doctrine are primarily static in nature--that is, they affect the *level* of output. Moving from a situation in which there is less trade (or no trade) to one in which trade is freer raises output, but this is more along the lines of a one-time increase (even though it might take a number of years for the benefits from trade to be fully felt). This is not to dismiss the significance of these static benefits: for example, some economic historians have argued that most of the economic growth that occurred in the classical world was rooted in the expansion of markets that took place as a result of increased sea trade around the Mediterranean.

Recently, a new view of international trade has emerged which argues that increased trade actually raises an economy's *rate of growth*. If this is in fact the case, it makes the case for trade liberalization an even more compelling one. Raising the growth rate of the nation's economy, even by a few tenths of a percentage point per year, has vastly more significance for long-run living standards than even a relatively large one-off increase in the level of output; the reason, of

course, is that a small increase in the economy's rate of growth cumulates over time to yield large gains.

What is the rationale behind the new trade theory--in other words, what is the source of the "dynamic" benefits from trade? Well, we know that economic growth has two sources: either we can increase the amount of inputs (capital, labor, and raw materials) that we feed into the productive process, or we can make those inputs more productive, through innovations in technology, better education and training, and so on. (In fact, this latter factor is necessary if the economy is to grow in per-capita terms in the long run, as sooner or later simply accumulating more inputs will run up against the law of diminishing returns.) The static benefits of trade represent a one-off increase in this latter factor: specialization lets us allocate labor and capital to the production of goods that we are relatively good at producing, making a given amount of labor and capital more productive in a manner that is not unlike an improvement in managerial technique.

The new view of international trade also focusses on this second factor, but argues that international trade can actually increase the rate of innovation and technological change. One economist has summarized the argument with the following catena:

- International trade leads to greater competition;
- Competition induces greater innovation; and,
- Innovation (*i.e.*, technological change) drives economic growth.

(It's a simple notion once you think about it--though it will probably win the economists who thought it out a Nobel prize some day.)

In a sense, the emphasis of the new trade theory on the dynamic benefits of international trade comes full circle to Adam Smith. Although Smith's contribution to trade theory is generally seen as providing an argument in favor of free trade that highlighted the role of specialization in raising productivity, he also pointed out that specialization, by acquainting workers with a specific productive process, could give them insight into how such processes might be improved--thus fostering innovation. New trade theory also incorporates elements of Joseph Schumpeter's theory of "creative destruction," in which the competition that is a fundamental feature of a capitalist economy serves as a motive force for the economy's progress.

The new view of international trade represents a valuable contribution to academic economics. But theory alone cannot provide an airtight argument in favor of trade liberalization.

There is, however, a large body of empirical literature which attempts to determine what drives economic growth across countries. Unsurprisingly, investment in physical capital--plant and equipment--and investment in human capital--education, for instance--are two factors which have a profound influence on economic growth. But these same studies have also found that an economy's degree of openness--as proxied, say, by the amount that it imports and exports relative to its overall output--has an effect on its rate of growth.

In an ideal world--the world in which economists live--free trade unambiguously benefits the economy *taken as a whole*. This is true in the real world as well, although the ideal case

masks the fact that some will gain from freer trade, but others may lose--even though on net the winners could compensate the losers and still have something left over. In practice, increased globalization will induce reallocations of labor and capital across sectors as the focus of American industry moves to the production of those goods and services which we are relatively good at producing. Because our economy is not frictionless, these adjustments sometimes involve lengthy periods of dislocation until the reallocation of labor and capital across industries is complete.

Policy makers advocating freer trade must be aware of this fact, and the Clinton Administration has realized from the beginning that it is the government's duty to minimize the impact of this dislocation by speeding up the adjustment process however it can. For example, one of the key provisions of NAFTA involved monitoring those industries that were in danger of being adversely affected by the free trade agreement, and the Administration committed itself early on to providing for dislocated workers through retraining programs. And, more generally, the Administration's commitment to investing in people through education and training serves as a strong complement to its policy of trade liberalization: since freer trade tends to benefit skilled workers most, the United States enjoys greater benefits from trade to the extent that more of its workers are highly skilled. In the end, though, those who would point to the short-term adverse effects of trade liberalization should not lose sight of an important point: Trade liberalization might adversely affect a small fraction of American workers in their role as producers, but it benefits all workers in their role as consumers.

Bottom line is: the benefits of increased openness and increased international trade are wide ranging -- more efficient utilization of resources, faster productivity growth, higher quality goods, and lower prices, all of which raise living standards.

Finally, in closing, I would note that I have said nothing of the benefits of trade that arise simply from the fact that it links the economic interests of nations more closely. John Maynard Keynes once argued that the greatest tragedy visited upon Europe by the First World War was the disruption of the system of international trade that was a hallmark of the European economy before 1914. The eventual breakdown in the world trading system and resulting deterioration of Europe's economy was a proximate cause of the Second World War, and kept living standards in Europe and the U.S. much lower for much longer than was necessary by prolonging the Great Depression. It is only in recent years that the scope of international trade has returned to the level seen before the Great War.

The United States is now more closely tied to the rest of the world by trade than at any other time in its history. How the U.S. economy performs relative to the economies of other nations will depend critically on how we promote our commercial interests abroad. Aggressive pursuit of trade liberalization, for which fast track authority is a prerequisite, is the best way to ensure that the U.S. maintains its position as the strongest and most innovative economy in the world.

Speech to IEMCA

Want to talk about the economic outlook for the U.S. and the world economy as well as the Asian crisis and the risks relating to Japan.

1. U.S. doing well--growth, inflation, unemployment

- Growth has averaged 4% over the last six quarters. Job growth has averaged 260,000 for the last six months. The unemployment rate at 4.3% is the lowest in 27 years. Groups that are disadvantaged in the labor market are benefitting disproportionately (Blacks, Hispanics, Female heads of households). Productivity growth has picked up, which is surprising at this stage of an expansion and a sign that our massive investments in investment and computer technology may finally be paying real dividends, although it is hard to tell. Inflation has increased at 1.7% over the last year and there is no immediate threat of a pickup, although labor markets are very tight and vigilance is needed. There are a number of favorable supply shock like factors that have been holding inflation down, including, benefits containment, declining import prices, lower oil prices. However, we are not seeing the kind of labor aggressiveness that is common in a tight labor market. Note that the fraction of job leavers is unusually low and although we are in the midst of a strike now, the level of strike activity is quite low.
- At present, one of the key questions is whether the economy is likely to slow down on its own to a more sustainable pace. The key factors likely to result in a slowdown are inventories, government spending and trade, particularly the spillovers due to the Asian crisis, a factor I'd like to discuss in some depth in a few minutes.. Expect some drag from business inventories, which have been rising at an unsustainable pace. (Although I/S ratio remains low).

2. Have made huge progress reducing the budget deficit. Positions us to move ahead on Social Security.

- Fiscal situation has changed massively. Projecting a 39 billion surplus for 1998 with total surpluses of 1.5 trillion over the next decade. This could give us a good start on preparing for an aging population. Anxious to use this as a window to make progress on Social Security reform. President hopes to achieve a resolution next winter. U.S. personal saving rate is disturbingly low and a case can certainly be made for raising national saving. Using some portion of the surplus to shore up Social Security would both strengthen SS and also raise national saving.

Major risks domestically relate to overheating and a profit squeeze. Profit growth has been weak and below analysts' expectations. We may also see pick up in benefits costs and some acceleration in labor costs, which are possible inflationary concerns, although there is no imminent danger of a pickup in inflation.. The major risks now are external and relate to the Asian crisis and the Japanese situation.

3. On balance, I would say that from a domestic growth standpoint, the prospects for continued growth of the U.S. economy look good in spite of the Asian crisis. The Asian crisis does pose risks to the United States, but perhaps the most important of which relate to our rising trade deficit and the possibility that it will give rise to protectionist pressures. I know this is of concern to this group and I hope we can discuss this this morning.

- Asian crisis has made a clear dent in our trade performance and it will only get worse. Data for the first three months of this year show that our exports to the five most affected countries are down between \$17 billion and \$21 billion at an annualized rate since the crisis began. Roughly two thirds of the lost sales were to Korea. Exports to Japan are down another \$6 to \$8 billion over this period. Thus the total adverse movement across all six countries has been \$23 to \$29 billion. We expect the loss in sales to worsen during the remainder of the year, especially if the Asian economies continue to contract. Furthermore, we have not yet seen the large increase in imports from the Asian countries that their devaluations are likely to produce. The trade deficit was \$114 billion in 1997; It is likely to rise to \$160-170 in 1998 and about \$200 in 1999 according to consensus forecasts. And the current account deficit, now at \$166 billion (2.1% of GDP) is likely to reach 3% by 1999.
- We are well positioned to absorb the impact of the Asian crisis on aggregate demand. The economy is so robust--due to consumer and investment demand--that growth is occurring in the face of a substantial external drag and also a fiscal drag. The consensus among forecasters is that the East Asian crisis may be serving as a brake that subdues growth toward a more sustainable pace--a substitute for higher interest rates--permitting stronger investment spending than otherwise. I am often asked how much I think the Asian crisis will subtract from growth. This is the wrong way to look at things. We have an economy that is operating now against supply constraints in the labor market. Those supply constraints are likely to mean that growth at 4% cannot continue much longer--because, in spite of somewhat higher productivity growth, the 4% growth we have had has required ever falling unemployment. There are great virtues in that, but there are also limits. Thus, something on the demand side has got to give. Likely, it will be our net exports that will be the drag that serves not to halt growth but to slow it down toward a more sustainable pace. Were it not for the crisis, something else would slow us down--likely we would have higher long term interest rates and reduced interest sensitive spending. The Asian crisis has served to lower long term rates--that is the market's natural response to the recognition that the Asian crisis will do the work of equating supply and demand. Put differently, the market no longer believes that the Fed will need to tighten interest rates. Lower rates are a cushion for us in absorbing the Asian impact.. We are also experiencing a flight to quality--a safe haven effect.
- With respect to inflation, the Asian crisis is holding down import prices. This is beneficial with respect to inflation.
- What we are going to see over the next year or two, almost certainly, is a rise in the trade deficit. In the view of most economists, the rise in the trade deficit should not be a

source of great concern. Trade deficit occurs when a country's investment exceeds its saving and it borrows abroad. The flip side of our trade deficit is foreign borrowing. Investment is strong--it is the driving force behind U.S. growth--and saving has increased due to the conquering of the budget deficit. Nevertheless, it has not risen as much as investment. In my view, the trade deficit is a sign of our strong economy, not of U.S. weakness. For example, if investors lost confidence in our economy and were unwilling to lend, that would eliminate our trade deficit--as in Korea and East Asia or in Mexico. Capital flight would produce a weaker dollar and higher interest rates--curtailing investment and improving the trade deficit. That would be a much worse outcome than we have now, with lower interest rates and stronger investment. When a trade deficit is used to finance productive investment the debts that are undertaken serve to raise national income, which create the means to repay them.

- However, history suggests that such a large deterioration in our trade situation could lead to an increase in protectionist pressures and trade tensions. If we go through a period similar to that in the early 80s when the U.S. trade deficit reached all time highs relative to GDP, there will be consequences, even though our economy is at full employment. Our strong export sectors have already seen a decline in their foreign sales and this will only worsen. Imports will also rise. Autos, steel, textiles and apparel, semiconductors and other electronics are likely to see a significant swing in their trade balances. This will harm workers in those sectors and likely be blamed on adverse competition from low wage countries and likely, from Japan as well. Many American workers already suffer from globalphobia in that they blame international trade for adverse wage trends. We are likely to see more charges of unfair competition and pressure to step up enforcement of antidumping and 301 protections.
- I know that a protectionist trend in the United States is of concern to this group and it is also of enormous concern to the Administration. The Clinton Administration is committed to outward looking, internationalist policies because we are convinced that trade is beneficial and in the long run best interest of this country and the world--it is not a zero sum game--we benefit when we lower our own trade barriers and when other countries lower theirs. Thus, we will fight hard to keep markets open and to pursue a market opening trade agenda. But it is becoming a more difficult struggle. However, Congress chose not to grant fast track, and has yet to fund the IMF quota increase and a rising trade deficit will only make success on these fronts harder.

Let me say just a bit about developments in the rest of the world, particularly Japan, whose performance is a great worry to policymakers in the United States and around the world.

Japan:

Japanese economic situation very worrisome. This is a major concern to the United States because as the world's second largest economy, weak Japanese performance could destabilize the entire world economy. We risk an intensification of the financial crisis now afflicting East Asia and a spread of the crisis to Latin America and other regions that have thus far been spared. The drop in the yen and the weakness of economic activity are worrisome. Japan has taken some helpful steps but we think that more needs to be done and the Japanese response has been slow in coming.

- Japan has entered a full fledged recession/deflation. Japan's real growth slowed for FY 1997 ended up at -0.7%. And in the first quarter of 1998, real GDP was down 1.3% qoq or 5.3% at an annual rate--far worse than expected. Both domestic demand (due to weak investment and public sector spending) and external demand contributions were negative. Now Japan is in recession. Apparently descending into a spiral from which it is very difficult to extricate itself. Deflation makes real interest rates higher and further discourages spending. Interest rates are already at very low levels so we are in the classic situation of pushing on a string. There is some evidence that the weakness of financial institutions is also causing a credit crunch.
- The weak yen may be a stimulus to exports but it also harms financial institutions. The weak yen is a beggar thy neighbor policy which threatens to harm Asia and China. Weak exports of East Asian countries to Japan reduce their FX earnings. The only logical policy option is fiscal policy to stimulate the economy in the short term. Clearly the increase in the consumption tax harmed growth and so tax policy would work.
- Japan has announced a fiscal stimulus package which is substantial and a welcome step in the right direction, but the situation is deteriorating, the 2 percentage point increase in the consumption tax last April had a very negative effect; and Japan is unwilling to look to permanent tax cuts. The package hopefully will be sufficient to produce some growth later this year if passed. But it is probably insufficient to promote a lasting recovery. There are, as yet, no permanent measures that financial markets perceive as key to restoring confidence
- The Asian Crisis is Hurting Japan. Japan has been disproportionately harmed by the Asian crisis. Exports to the ASEAN countries and the Asian NIEs account for about 2.5% of Japanese GDP. Japanese banks also have significant outstanding loans to many East Asian countries. Consequently, the economic and financial crisis in Asian emerging markets is likely to have a substantial effect on Japan. (And Japan's weakness harms Asia). Japan, like the U.S., has seen a dramatic fall in its exports to the Asian region. Japan has been hit harder than the United States. Japanese exports to the crisis countries are down 30% in 98Q1 versus 97Q1. This decline would amount to 0.6% of GDP. At this point, U.S. imports from the Asian crisis countries have not surged--they have grown in line with overall U.S. imports. Japanese imports, in contrast, have actually fallen by 15%.
- But Japan is also hurting Asia. Japan's weak economy is a drag on Asia and the world

economy. Making recovery in Asia more difficult. If current falls in Japanese imports from the crisis countries are sustained, the fall in Japanese imports will more than offset the projected increase in U.S. imports from the region. Because of weakness in intra-regional trade, the crisis countries will need large increases in their exports to the US and EU to generate strong growth in export revenue. Current rates of export growth to the U.S. are insufficient.

- Japan's Financial Institutions: The financial system in Japan remains extremely vulnerable with a substantial number of the major banks quite weak. Declining equity prices harm the capital of the banks and threaten them. Japan's weak banking organizations pose a threat to international financial stability in addition to resulting in a credit crunch.
- Japan's approach: Japan has taken some helpful steps, particularly the announcement in December of a ¥30 trillion stabilization package for use by the Deposit Insurance Corporation and for injection of government funds into commercial banks. The new depositor protection money has been useful in reassuring depositors and other bank creditors. But the approach has been too much in our view to protect existing institutions rather than on promoting restructuring.
- Many IMF member countries have had significant banking sector problems in the last 15 years and have learned some lessons from them. Thus, we think that further steps are needed. We think GOJ should close down the weakest banks (allow insolvent banks to fail); require full disclosure and transparency by banks of their financial conditions to dispel investor fears (the market is skeptical about the true state of balance sheets); Strengthen financial supervision (the new Financial Supervisory Agency needs stronger enforcement powers; Prompt Corrective Action standards should be strengthened; Need to address the bad asset problem quickly and forcefully to restore bank balance sheets and develop an asset backed securities market. There is an overhang of bad debt which needs to be eliminated to restore lending activities. The collateral underlying the bad loans must be sold to establish a market clearing price and sufficient liquidity for the real estate market to recover. Development of an asset backed securities market would help. To the extent that public funds are used to purchase bad loans from solvent institutions, those institutions must be subject to strict conditionality that there are management changes, matching capital raising in the market, and restructuring. banks require adequate conditionality: managers and directors haven't been removed.

- What do we want Japan to do?

- We consider it essential for Japan to reestablish long-lasting and sustainable growth and to pursue that growth in a manner which is not harmful to its neighbors in Asia or to us. That means domestic demand led growth. We welcome the GOJ fiscal stimulus package and urge rapid implementation of its components. We want to see Japan resolve the banking system's bad debt problem and to move decisively on deregulation and opening

of Japan's markets.

- Although we have always said that a strong dollar is in the U.S. interest, we share the Japanese government's own concern about the yen's weakness. It is not helpful for restoring economic growth and stability in other Asian countries--indeed it is beggar thy neighbor. A weak yen is not good for us and it is not good for Japan or Asia. There are risks to China from the weak yen, and a Chinese devaluation would probably trigger further rounds of competitive depreciations.
- A greater sense of urgency about the seriousness of the Japanese problem.

IMF and Trade Balance

- We are very anxious to bolster the financial resources of the IMF. Without the IMF's presence in East Asia, the economic contractions in these countries would be worse, the currencies would depreciate even more and the financial systems would be further weakened.
- For countries in balance of payments crises, there is often a tendency to close markets to foreign goods and services. This is a natural temptation. IMF programs promote open markets in both goods and services and capital. Thus, over the long-term, the IMF is helping maintain open markets.
- We need to shore up the IMF to prevent contagion from spreading to other developing nations. Yet as a result of the Asian crisis, the IMF's normal financial resources are approaching a historically low level and the IMF does not have sufficient funds to deal with a truly major crisis, for instance if the Asian crisis were to worsen or a new crisis were to develop. The probability of such events occurring is low but we cannot afford to take the risk that such events could start to unfold and the IMF would not have the capacity to cope.

Europe:

- The European countries will not be entirely insulated from the crisis. Exports to the ASEAN countries and the Asian NIEs account for around 1.2% of the GDP of both the US and EU as a whole. Japan's difficulties will have a negative impact on the EU, although not as large as on the US, since we are a more important trade partner. There have been encouraging recent signs that domestic demand growth is picking up in Europe and European recovery is no longer being driven by exports. We hope this trend continues.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Howard A. Shelanski (CN=Howard A. Shelanski/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME: 3-AUG-1998 17:00:50.00

SUBJECT: Memo on U.S./Japan insurance issue attached

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

READ:UNKNOWN

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

READ:UNKNOWN

CC: Nouriel Roubini (CN=Nouriel Roubini/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.D33]MAIL453077810.226 to ASCII,
The following is a HEX DUMP:

MEMO

To: Janet Yellen, Jeffrey Frankel
cc: Nouriel Roubini
From: Howard Shelanski
Re: U.S./Japan Insurance Agreement
Date: August 3, 1998

I attended two meetings last week on the Japanese insurance issue. Today we received notice of a deputies' meeting chaired by Ambassador Fisher tomorrow at 12:30 and a principals' meeting chaired by Gene Sperling on Wednesday evening, 8/5, at 6:15 p.m. The issues now before the interagency group are the following:

1. Did the USTR correctly decide that INA's alliance with Yasuda, and the resulting conduct of INA and Yasuda in the "third sector" of Japan's insurance market, did not violate the U.S./Japan insurance market agreement?
2. Do the allegations of misconduct by Yasuda and INA warrant further factual investigation and the establishment of a more formal and specific compliance mechanism than currently exists?

Background. This matter concerns an alliance between INA, a U.S. company that is a subsidiary of CIGNA, and Yasuda, a major Japanese life insurance company. Yasuda owns 10% of INA and CIGNA holds the remaining 90%. Two American companies active in the Japanese insurance market, AIG and AFLAC, claim that Yasuda controls INA as a *de facto* subsidiary through which it enters prohibited markets in violation of a bilateral trade agreement between the United States and Japan.

The Japanese insurance market is the largest in the world. Foreign companies have only 4% or 5% of that business. Japanese regulation divides the insurance market into two principal sectors: life insurance (the "first sector"), which includes endowment insurance and whole life insurance, and non-life insurance (the "second sector"), which includes fire and automobile insurance. Second sector companies are prohibited from entering the first sector except through a separate subsidiary, and vice versa. The "third sector" is a small market that forms a subset of the very large first and second sectors. On the life side, the third sector consists of medical insurance and special cancer insurance. On the non-life side, the third sector consists of personal accident insurance. By administrative rule in Japan, life insurance companies (*i.e.* first sector companies) are not allowed to enter the life side of the third sector, which is the market at issue here. American companies have done well in the life side of the third sector, with AFLAC and AIG having dominant shares. INA had a very small market share that has recently grown substantially, although we have not yet received exact data on how much.

Concerned about the inability of foreign companies to penetrate the Japanese insurance market, the U.S. several years ago entered into negotiation with Japan for market-opening measures. The result was the 1994 Framework Agreement on Insurance Sector Measures ("the Agreement"). Supplementary measures were incorporated into the Agreement in 1996 to resolve interpretive disputes. The relevant provisions of the Agreement prohibit subsidiaries of large first and second sector insurance companies from entering the third sector market until 2 ½ years after the first and second sectors meet specified standards of deregulation. Those standards have not yet been met. The purpose of that provision is to prevent subsidiaries of major Japanese companies from overwhelming smaller competitors in the third sector. The Agreement furthermore states that "radical change in the business environment" of the third sector due to "new or expanded introduction of products" is to be avoided. It is unclear what this provision really means, but staff consensus is that it in no way prevents firms already in the third sector market from competing vigorously and expanding their market shares.

The claims. AFLAC and AIG contend Yasuda (and the Japanese government by permitting Yasuda to do so) has violated the 1994 Agreement because it has in fact entered the third sector market through a subsidiary by virtue of its relationship with INA.

Yasuda purchased 10% of INA in 1993. The transaction was publicly announced and explicitly grandfathered into the 1994 Agreement. Similarly, Yasuda's public announcement in August 1996 that it had signed a contract to purchase another 50% of INA at a later date was known to negotiators when the 1994 Agreement was supplemented in December 1996. Yasuda's mere agreement to purchase additional shares was deemed not to render INA a subsidiary. (Actual purchase of 51% or more would under Japanese law make INA a subsidiary of Yasuda.)

AFLAC and AIG allege that conduct beyond mere ownership shows INA to be a *de facto* subsidiary of Yasuda. The principal allegations are: (1) Yasuda has assigned an increasing number of its agents to sell INA products; (2) Yasuda actively manages those agents, effectively cross-subsidizing INA's marketing by carrying overhead and incentive costs for INA; (3) Yasuda has incorporated INA into its "keiretsu" family, enhancing INA's market exposure -- this has been partly accomplished by getting INA to change its name in Japan to INA-Himawari, which means sunflower, so that INA would benefit from association with Yasuda's corporate sunflower symbol; (4) key managerial personnel at INA are on loan from Yasuda; and (5) integrated computer systems have been developed by the companies for sales and marketing.

AFLAC and AIG contend the above conduct has not only made INA a Yasuda subsidiary, but has also created "radical change" in the third-sector market. The evidence of radical change identified by INA's competitors includes the following: (1) between Q4 1995 and Q4 1997, there was a seven-fold increase in cancer policy sales and a four-fold increase in medical policy sales for INA; (2) by March 1998, INA had a 15% share of the market for new cancer and medical policies, representing a tremendous increase since 1995; (3) INA's premium income has risen at rates much higher than the industry average over the past few years; and (4) INA had registered

enormous numbers of new agents, many of whom are Yasuda agents who now generate 70% of INA's revenue.

Action taken so far by USTR. In June, USTR met with AIG, AFLAC and INA to exchange information and try to forge an agreement among the companies. When these efforts proved unsuccessful, an interagency process began which culminated in a decision by USTR that INA should not be considered a subsidiary of Yasuda and that neither Yasuda nor the Japanese government had violated the 1994 Agreement. No agency objected to this course of action.

Apparently, AIG and AFLAC then took their complaints to Congress, where several members asked USTR to revisit its decision. The current interagency group was convened to decide whether the initial USTR decision should stand. There has been no support the last 3 meetings for reversing the decision outright. Nonetheless, presentations last week by AIG and AFLAC alleged certain conduct that, if true, might present a problem under the 1994 Agreement. The Commerce Department staff therefore voiced strong reservations about restricting the task force to an up or down vote on USTR's ruling. They urged further fact finding by Commerce personnel in Japan to determine whether Yasuda has gone beyond serving as a mere distribution network for INA and is in fact acting for its own benefit by discriminating in INA's favor against third sector competitors like AFLAC and AIG. There was some support for Commerce's proposal, although no definitive consensus emerged.

Analysis. It is useful to separate the evidence against INA and Yasuda into the categories of uncontested facts and contested allegations. The uncontested facts are: (1) Yasuda owns 10% of INA; (2) Yasuda has a contract to purchase an additional 50% of INA at a known price; (3) INA changed its name in Japan to INA-Himawari, perhaps associating the company with Yasuda and its sunflower symbol; (4) INA has drastically increased its use of Yasuda agents to sell INA policies; (5) INA's market share has increased markedly in the past 2 or 3 years; (6) Yasuda has seconded personnel to INA for various corporate positions; and (7) there is some integration of Yasuda and INA information systems.

The main contested allegations are: (1) Yasuda cross subsidizes INA by paying for agent overhead and by paying incentives to agents for selling INA policies; (2) Yasuda discriminates against other third sector competitors by requiring its "captive" agents to sell INA policies, whereas it is a voluntary matter for those agents to sell other third sector life policies; (3) Yasuda pressures its keiretsu members to replace existing medical and cancer insurance with INA policies; and (4) Yasuda violates Japanese insurance law by effectively joint marketing its first sector life policies with INA third sector policies.

The uncontested facts do not support reversal of USTR's initial decision. Yasuda's 10% ownership of INA and its contract for a future purchase of an additional 50% were known to negotiators when the 1994 Agreement was initially signed and later supplemented. USTR states that the 1996 supplements, which advanced U.S. interests, would not have been possible without USTR's acceptance of the 50% contract. In any case, it seems hard to second-guess now a

contract that was known before the finalized agreement. As to the other facts, the evidence before the task force indicates that a U.S. company's use of a Japanese company's distribution network or information systems is not uncommon, and that AFLAC and AIG both have such arrangements to varying degrees. Finally, the growth in INA's market share may just as well stem from its decision to become more aggressive in a market that AIG and AFLAC dominate. INA previously had a minuscule share of the life side of the third sector. By AIG's own estimates, INA still only has a 15% share of *new* policies. Although no data was provided, it seems clear that when total existing policies are considered, INA's share is much less. So given the uncontested facts, USTR's decision that there has been no violation is reasonable. The facts do not show that INA is acting as Yasuda's *de facto* subsidiary or provide grounds for reversing the decision that the relationship was not legally one of parent-subsidiary. Absent such contrary evidence, the case that there has been "radical change" in the third sector, which the Agreement prohibits, rather than successful competition, which the Agreement promotes, is weak.

The contested allegations, if proven true, might lead to a different outcome. If Yasuda is favoring and bearing costs for INA, then there is a strong argument that Yasuda is participating in the third sector for its own future benefit. Yasuda has incentive to do so: its contract for the purchase of an additional 50% of INA is at a known price. Any valuation of INA above that price at the time of purchase accrues to Yasuda. So there is a future benefit to Yasuda from any actions it now undertakes to benefit INA over its third-sector rivals. Because Yasuda will be able to participate in the third sector through a subsidiary once deregulation of the first and second sectors is completed, Yasuda has an interest in strengthening INA as much as possible. Given these incentives, it would be troubling, and arguably contrary to the purpose of the 1994 agreement, to find that Yasuda was in fact strong-arming keiretsu partners to buy INA policies and undertaking other such anticompetitive actions.

At present, there are only assertions and anecdotes by AIG and AFLAC to support their claims of illegal conduct. In my view they do not give sufficient basis for reversing the USTR's decision. AIG and AFLAC still dominate the third sector and they have every interest in blocking an aggressive competitor. Moreover, there is some indication that Yasuda is hesitating to exercise its option to purchase more of INA and will let the contract expire. But I agree with the Commerce department staff that further investigation is warranted, especially given Yasuda's economic incentives to favor INA if Yasuda does plan to go forward with its 50% purchase.

Recommendation. I would therefore recommend supporting USTR's ruling based on the facts at hand, but also supporting a contingency for revisiting the question if an investigation is undertaken and reveals that Yasuda has been acting anticompetitively through INA to advance its own future interests. I see no reason to oppose further investigation.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME: 3-AUG-1998 09:12:58.00

SUBJECT: Marcus Alexis

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

READ:UNKNOWN

TO: Jonathan Orszag (CN=Jonathan Orszag/OU=OPD/O=EOP @ EOP [OPD])

READ:UNKNOWN

TEXT:

This is just to let you know that on Friday I received a call from Senator Sarbanes urging us to appoint Marcus Alexis of Northwestern to the Fed Board. As I mentioned last week, Senator Moseley Braun had earlier called me with the same suggestion. I indicated that we would give the suggestion serious consideration.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME: 3-AUG-1998 22:53:05.00

SUBJECT: Qs and As

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

TEXT:

Janet,

Treasury has asked for a copy of the Qs and As that were worked up for the release of our report -- apparently Larry is meeting with someone on the Hill, and they believe that among other things, climate change may come up. If you modified the version from Todd, could you email me your revised file and I'll send it over to Treasury? Thanks,

Joe

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Howard A. Shelanski (CN=Howard A. Shelanski/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME: 4-AUG-1998 17:43:23.00

SUBJECT: Today's deputies' meeting -- memo attached

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

READ:UNKNOWN

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

READ:UNKNOWN

CC: Nouriel Roubini (CN=Nouriel Roubini/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.D43]MAIL41463102S.226 to ASCII,
The following is a HEX DUMP:

MEMO

To: Janet Yellen, Jeffrey Frankel
cc: Nouriel Roubini
From: Howard Shelanski
Re: Deputies' meeting on the U.S./Japan Insurance Agreement
Date: August 4, 1998

I attended the deputies' meeting today on the Japanese insurance issue. There was consensus to reaffirm USTR's decision that the evidence reveals no violation of the 1994 Agreement. Ambassador Fisher circulated some proposed language that will be revised by USTR's counsel in light of criticisms from the group. The main objections to the circulated draft were that it: (1) said there was "no basis" for finding a violation, (2) referred to "Japan" as the alleged violator, and (3) said there had been no violation by Yasuda. The revised version will probably say USTR finds there was no violation by virtue of INA's conduct in the Japanese market.

The group also agreed to a second statement about careful attention to activities in the third sector market as part of the review process established by the 1994 Agreement. USTR plans to add language saying that Japan has not met its obligations thus far to open the far larger first and second sector markets, thereby delaying opening of the third sector market. There was no objection to this proposal.

USTR proposed a third statement to the effect that Congress, USTR and DOJ would be available to work with AIG, AFLAC and INA to resolve the issue voluntarily among the parties. This met with some resistance, particularly on the part of DOJ. USTR says that House members requested that some such option be proposed and is reconsidering what to do.

Three factual clarifications were also made at the meeting. First, INA's market share in the third sector now stands at 3 ½ percent. Second, if Yasuda does exercise its option to buy an additional 50% of INA, INA will legally be its subsidiary and will not be able to participate in the third sector unless the first and second sectors meet the Agreement's criteria for deregulation. Third, the fast time line for a decision has been driven by the fact that one member of Congress has, at the request of AFLAC, proposed a \$6 million cut in USTR's annual \$24 million budget if this issue is not "satisfactorily" and quickly resolved. Another member is apparently drafting his own proposal for a \$1 million cut. USTR is very concerned that it not be seen to cave into such pressures unless it has made a genuine error. The complaining companies have apparently now changed their minds about wanting a fast decision, today telling Commerce they would turn off the political pressure if USTR would undertake further investigation before reaching its decision rather than after. The group agreed with USTR's decision to resolve the matter quickly.

There were still plans to hold a principals' meeting tomorrow evening at 6:15 pm, location to be announced.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME: 4-AUG-1998 16:19:53.00

SUBJECT: climate change report on WH web

TO: Mary Fibich (CN=Mary Fibich/OU=CEA/O=EOP @ EOP [CEA])

READ:UNKNOWN

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

READ:UNKNOWN

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

READ:UNKNOWN

TO: Raymond P. Guiteras (CN=Raymond P. Guiteras/OU=CEA/O=EOP @ EOP [CEA])

READ:UNKNOWN

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:

Regarding the web page, it appears that we could do something like the following:

1) Post the climate change report on the What's New Page on the White House site.

2) Have a link from the CEA site to ths What's New site. The link could read:

"Link to What's New page to access The Kyoto Protocol and the President's Policies to Address Climate Change: Administration Economic Analysis"

After about a month, the report would be moved to the What's New archive. Let me know if you have any questions or comments about this.

Joe

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Nora E. Gordon (CN=Nora E. Gordon/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME: 4-AUG-1998 15:36:09.00

SUBJECT: Back to School Events

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,

The Department of Education is putting together its fourth annual "America Goes Back to School" effort. The goal of this program is for Cabinet-level officials to participate in events that bring attention to the importance of education and to the Administration's education agenda. ED is requesting that each agency participate in at least two events. There are some planned events, which are mainly out of town or seem to already have enough name recognition at them.

I have been thinking ways for you to participate, and have spoken with the principal of a charter school which will be opening September 2 in Southwest DC. The theme of the charter school is public policy. The school will be starting with 60 ninth graders, and has instituted stringent standards and graduation requirements, including public policy internships and the writing of a senior thesis. The principal is very excited about the possibility of your visit, though she knows that it is only a possibility at this stage. She would be happy for you to teach an economics class or speak about whatever you want, and is very flexible about scheduling.

If this is something you would like me to go ahead and arrange, I would be happy to do so, or if you have other ideas I can look into them as well. From my discussion with the principal, there seems to be a lot of energy in this school. They have overcome a lot of obstacles to get their funding from the District, and will be in a temporary space this year. They seem incredibly determined, though, and she was thrilled to have the opportunity to send such a strong message to the students about how they are valued and the importance of education. This school also seems to be particularly aligned with many of the Administration's education goals.

If there are any other types of schools or educational programs you would like to visit, please let me know.

Thanks.

Nora

Withdrawal/Redaction Marker

Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	Joseph E. Aldy to Jeffrey A. Frankel and Janet L. Yellen at 17:11:49.00. Subject: vacation and Snowmass. (1 page)	08/05/1998	b(6)

COLLECTION:

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

FOLDER TITLE:

[07/30/1998 - 08/21/1998]

2013-0723-F
ab1282

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

CREATION DATE/TIME: 6-AUG-1998 13:13:02.00

SUBJECT: Financial Mkts Working Group status report

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

READ:UNKNOWN

CC: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

READ:UNKNOWN

TEXT:

At this morning's meeting, two possible outlines for the derivatives study were passed around, and I'll leave copies with Alice for you.

Details:

1. They're aiming for a Feb. 1st completion. They hope to have a consensus outline in the next few weeks, so if we have suggestions we should offer them soon.
2. The tentative plan is to write one study. Some sections would describe the current situation and identify issues; hopefully we can all agree on this material; other sections would give recommendations, and we would disagree on that. The possibility of separate studies (a la Supreme Court decisions) was discussed, but most people felt that meeting the ambitious schedule would be easier if a lot of the words were only written once.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

CREATION DATE/TIME: 6-AUG-1998 09:28:12.00

SUBJECT: ERP macro ideas

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

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

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

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

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

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

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

TEXT:

In preparation for this afternoon's meeting, I thought I'd pass along a few rough ideas for possible ERP topics in macro:

1. The Stock Market

Of course, the details here would change depending on what the market does in the next 6 months, but whatever happens, the following topics seem interesting:

- * effect on consumption, housing, business fixed investment
- * effect on household saving, DB pension saving
- * changing distribution of household wealth
- * traditional valuation measures, what might be different now

2. The Investment Boom

- * invest. very strong in this expansion
- * the role of computers, esp. in real invest. numbers
- * factors encouraging invest., such as reduced federal borrowing
- * resulting capital deepening and its effect on labor productivity and maybe TFP

3. Saving

I realize that last year's ERP covered this topic in some depth, but the downward revision to the saving rate for the past two years could justify another look (this overlaps with the stock mkt stuff above):

- * data revision
- * causes of a low saving rate, such as wealth runup
- * intl. comparison
- * implications
- * something about pensions?

4. Interest Rates

- * why are they so low?
- * real vs. nominal, including a review of the TIPS experience to date
- * private rates vs. govt. rates; why are risk premia so low?

5. The Y2K problem

- * effect on productivity
- * why it won't cause a recession
- * possible financial system issues, possible govt. issues

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jeffrey A. Frankel (CN=Jeffrey A. Frankel/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME: 6-AUG-1998 11:51:57.00

SUBJECT: feasibility of limits on trading

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

READ:UNKNOWN

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

A first attempt to write down my thoughts. It's a pretty different track than Todd has been on, but more consistent with the thoughts of at least some others. In any case, we need to figure out what we really think.

I need to send something to Cumby soon, so reactions are solicited.===== ATTACHMENT
| =====

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D11]MAIL46888222O.226 to ASCII,
The following is a HEX DUMP:

Are limitations on trading institutionally workable?

1. What minimal institutional framework is needed for monitoring of the Kyoto Agreement, including trading?

We have consistently emphasized the central role of the private market in doing the work of Kyoto, and properly so. For example, it is important that trades be undertaken voluntarily by U.S. private firms and citizens, not by the US government with taxpayer money. Nevertheless, it is also recognized that there is some need for monitoring by a government agency, at the domestic level if not international. The minimum is probably a national registry of all international permit trades, probably to be kept by the same agency that monitors domestic emissions. (One assumes that an international UN body would “monitor the national monitors,” but that it would not be acceptable to have a UN body keep the original registry.)

One possibility is that the government acts as a central broker/auctioneer/clearinghouse/market-maker. This would probably facilitate the growth of the market and make it more efficient. The government posts the going market price in \$/metric ton of carbon, and stands ready to buy and sell at that amount, adjusting the price frequently to clear the market. If that “market-maker” role is thought to be too active, the government could instead act as a simple broker, matching every would-be seller with a would-be buyer.

It is probably not feasible to have the private market undertake trades freely across national borders, without any government involvement whatsoever. (1) Imagine that every country planned on implementing its Kyoto commitments through a comprehensive system of tradeable permits. Even in this case, problems of counterfeiting, balance of payments statistics reporting, and so on would suggest a role for some government registry. (2) It is in fact clear that not every country plans on implementing its Kyoto commitments through a comprehensive system of tradeable permits, i.e., a system in which all emitters must have permits and the government issues the number of permits corresponding to its Kyoto target. In a country that implements in any other way (including even any hybrid involving tradeable permits on some subset of sectors in its economy), the government will have to carry out its international trading directly. Thus we are necessarily not in a world where “a permit is a permit” regardless of country of issuance. Rather, there are French permits, Russian permits, US permits, etc.¹

¹ Having said that, if one were dead-set on minimizing government involvement in trading, perhaps the monitoring of trading could be done purely at the level of domestic monitoring, without even a national registry of trades: a firm is required to have *either* a valid US permit or a “valid” foreign permit.

2. What greater institutional framework would be needed to make workable a limitation on international trading (leaving aside the high economic cost of such limitations)?

Certainly some amount of government involvement would be necessary to make a limitation on trading workable, but not necessarily an insurmountably large increment relative to the level of involvement that would be necessary for regular monitoring as described above. Essentially, Japanese permits would have to trade for American permits at a market-determined “exchange rate” that was not one-to-one.

There are a number of ways to implement the limit institutionally. Here we consider one that may be the simplest. Let us say that (heaven forbid) the US agrees to purchase no more than 500 MMTs. The US government could simply issue 500 M “right to import” certificates. Anyone who wants to buy a permit internationally would have to acquire one right-to-import certificate and combine it with one foreign permit, to make up the equivalent of one domestic emissions permit. (They would be “*net* import” certificates: An American who sold a permit abroad would receive a net-import certificate, which he would be free either to use or sell.) If the 500 MMT constraint were not binding, then the going price for the net-import certificates would be zero.²

If there were a limit on selling, then countries could issue the appropriate number of “right-to-sell” permits.

3. Does this undermine the case against limitations on trading?

Not necessarily. Limitations are not inherently “infeasible,” but they *are* distortionary. One could make an analogy with a “parallel market” in foreign exchange (a black market that is not entirely illegal). If the US import constraint were binding, foreign permits would circulate at a premium to domestic permits. The premium would be a tangible illustration that companies are being forced to make expensive reductions when the costs are cheaper abroad, and that the system would be more efficient without the trading restriction. One could bemoan an extra degree of complication/awkwardness/inefficiency/distortion/government intrusion.

But the main point of this memo is that it would be going too far to say that a restriction on trading would be institutionally unworkable.

² Corresponding to the preceding footnote, the minimum-level of government involvement would entail a rule that a firm is required to have *either* a valid US permit *or* a valid foreign permit plus right-to-import permit. In other words, this could perhaps be done without even a national registry; the only monitoring takes place in the same way that firms are monitored to see that they have the permits needed for emitting.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME: 6-AUG-1998 09:28:18.00

SUBJECT: ERP macro ideas

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

READ:UNKNOWN

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

READ:UNKNOWN

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

READ:UNKNOWN

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

READ:UNKNOWN

TO: Rebecca M. Blank (CN=Rebecca M. Blank/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: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

READ:UNKNOWN

TEXT:

In preparation for this afternoon's meeting, I thought I'd pass along a few rough ideas for possible ERP topics in macro:

1. The Stock Market

Of course, the details here would change depending on what the market does in the next 6 months, but whatever happens, the following topics seem interesting:

- * effect on consumption, housing, business fixed investment
- * effect on household saving, DB pension saving
- * changing distribution of household wealth
- * traditional valuation measures, what might be different now

2. The Investment Boom

- * invest. very strong in this expansion
- * the role of computers, esp. in real invest. numbers
- * factors encouraging invest., such as reduced federal borrowing
- * resulting capital deepening and its effect on labor productivity and maybe TFP

3. Saving

I realize that last year's ERP covered this topic in some depth, but the downward revision to the saving rate for the past two years could justify another look (this overlaps with the stock mkt stuff above):

- * data revision
- * causes of a low saving rate, such as wealth runup
- * intl. comparison
- * implications
- * something about pensions?

4. Interest Rates

- * why are they so low?
- * real vs. nominal, including a review of the TIPS experience to date
- * private rates vs. govt. rates; why are risk premia so low?

5. The Y2K problem

- * effect on productivity
- * why it won't cause a recession
- * possible financial system issues, possible govt. issues

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

CREATION DATE/TIME: 6-AUG-1998 13:08:52.00

SUBJECT: Social Security status report

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

The technical working group has a tentative list of topics to pursue in parallel in the next few weeks (I'll leave a copy with Alice).

Some details:

1. National saving is not on the list because Jeff, David and I are just going to do it ourselves. Our twin goals remain a memo for the President (which I'm going to write another draft of) and a methodology for calculating national saving effects for alternative plans as part of our other calculations and scoring.
2. Gene thinks that working on integrative plans (indiv accts and traditional SS in combination) is our most important next step and is the likely topic for the next meeting with the President. The first meeting on this topic is this afternoon, and I'll attend.
3. Gene says the President may do something in September (like another roundtable) about women and Social Security just to draw attention to the issues involved. This may also be the area where we have ideas that will appeal more to Dems in Congress.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME: 6-AUG-1998 13:08:23.00

SUBJECT: Social Security status report

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

READ:UNKNOWN

CC: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

READ:UNKNOWN

TEXT:

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RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

CREATION DATE/TIME: 6-AUG-1998 13:14:11.00

SUBJECT: Financial Mkts Working Group status report

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

At this morning's meeting, two possible outlines for the derivatives study were passed around, and I'll leave copies with Alice for you.

Details:

1. They're aiming for a Feb. 1st completion. They hope to have a consensus outline in the next few weeks, so if we have suggestions we should offer them soon.
2. The tentative plan is to write one study. Some sections would describe the current situation and identify issues; hopefully we can all agree on this material; other sections would give recommendations, and we would disagree on that. The possibility of separate studies (a la Supreme Court decisions) was discussed, but most people felt that meeting the ambitious schedule would be easier if a lot of the words were only written once.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME: 7-AUG-1998 18:39:27.00

SUBJECT: consumer financial services

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

READ:UNKNOWN

CC: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

READ:UNKNOWN

TEXT:

Hi Janet,

In late June, Sarah Rosen created a new working group to consider an array of policy initiatives related to consumer financial services. (This group is partly a spinoff of the bankruptcy working group.) The group has subcommittees dealing with different topics, and the question du jour is which groups I should be involved with. Here are the possibilities and some of the interested parties:

1. Privacy. (This is related to a broader working group on privacy which produced recommendations just announced by the Vice President, but some of this stuff may be attached to the financial modernization bill in September.) Treasury, Commerce, FTC, OCC, OTS.
2. Changes in Credit Card Disclosure Rules. Treasury, DPC, OCC.
3. ATM and Other Service Fees. Treasury, DoJ, DPC.
4. Consumer Education. Treasury, FTC, DPC.
5. Enforcement. (Do existing laws provide adequate enforcement authority for consumer protections?) DoJ, OCC, OTS.

My quick reaction is that I'm inclined away from 5, 1, and 2, but more interested in 3 and 4. I'd rather not get involved in the legal enforcement issues. The privacy boat has basically sailed at this point, so that is less interesting. Better credit card disclosures are a good idea, but I may not have much to contribute. Any restrictions on ATM fees seem like an economic issue that we should be involved with. Consumer education is more open-ended; it may amount to nothing, but it may also be the best or only thing the government can do to save people from themselves.

Overall, I'd rather focus my energies more on Social Security and ERP chapter writing than on financial services, because the bang for the buck seems larger. But I think the CEA should be involved with these financial issues, so maybe following a few of the sub-committees (and attending overall working group meetings) is a good compromise. What do you think?

Doug

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Howard A. Shelanski (CN=Howard A. Shelanski/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME: 7-AUG-1998 13:45:30.00

SUBJECT: Memo on satellites attached

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D86]MAIL45881732B.226 to ASCII,
The following is a HEX DUMP:

MEMO

To: Janet Yellen, Jeff Frankel
Re: Quick update on Intelsat/Inmarsat privatization
From: Howard Shelanski
Date: August 7, 1998

The NEC is working to coordinate the Administration's response to H.R. 1872, the Communications Satellite Competition and Privatization Act of 1998, which passed the House this Spring. The principal goal of the bill is to put pressure on Intelsat and its signatories to change the company from an intergovernmental organization to a private corporation in a manner that opens Intelsat's markets to competition and prevents Intelsat from leveraging its incumbent advantages into new markets for satellite services. Related provisions apply to Inmarsat. The administration strongly favors privatization of both companies and several agencies have voiced preliminary approval of H.R. 1872. Closer analysis of the competitive conditions the bill would impose on Intelsat, however, show that several provisions would be anticompetitive and harm American consumers in important markets. I offered an analysis of the House bill reflecting these concerns at an interagency staff meeting yesterday. NEC is currently drafting a letter, probably addressed to the Senate Commerce Committee which is reviewing the House bill, praising the goal of privatization but criticizing potentially anticompetitive aspects of H.R. 1872. There will likely be one further staff-level meeting and then a deputies' meeting. In brief, the main economic problems raised by the bill are the following:

1. Section 622(1) bars Intelsat from providing "additional services" beyond transport of voice telephony until "the number of competitors in the markets served by Intelsat . . . shall be sufficient to create a fully competitive market."

The problem with this standard is that "fully competitive" is vague and potentially too stringent for the market at issue. The satellite market will at best contain a few large players. It is likely that some services will be served by a duopoly of Intelsat and PanAmSat, and perhaps a tight oligopoly of three depending on Loral's progress in the next couple of years. Because H.R. 1872 puts the burden on Intelsat to prove its core markets have become "fully competitive" before it provides "additional services" -- which, as I will discuss below, are the most important markets -- PanAmSat and other competitors have an opportunity to game the system through litigation and an incentive strategically to avoid entering Intelsat's core lines of business. It is hard to imagine how Intelsat would prove its markets are fully competitive. If Intelsat reduces prices to some measure of incremental cost in the absence of many competitors, it is susceptible to accusations of predatory conduct or some form of limit pricing. On the other hand, if prices are above costs, competitors who wish to keep Intelsat tied up will point to the margins as evidence that the market is not "fully" competitive. The standard is thus so vague as to invite strategic behavior, or else is too stringent given the nature of the market.

2. The definition of core services to which Intelsat is restricted during the transition

period (until 2002), and to which it will be restricted for even longer if the bill's conditions are not met, is too narrow and will likely harm American consumers. Intelsat may only provide wholesale transport of switched voice telephony as well as some private transport services during its transition to a competitive, private entity. It is barred from providing video programming delivery, Internet service, or data transport. These "additional" services, far from being marginal to voice delivery, actually comprise the fastest growing, most important, and soon (if not already) the largest market for satellite services. Keeping Intelsat out of those services could give PanAmSat a near monopoly over the space segment for that market, disciplined only by smaller players like Loral. Consumers will not benefit if Intelsat is cordoned off from competing against PanAmSat and other possible entrants.

I would not recommend that Intelsat be allowed unconstrained entry into these important new services. It has a large satellite network and sufficient incumbency advantages that could give it unwarranted market power. The answer, however, is to rely on the bill's provisions limiting capacity expansion by Intelsat, but to let Intelsat use its allowed capacity however it sees fit. If it enters the "additional service" markets, it will have to perhaps forego some voice telephony business. This will in turn provide an opportunity for PanAmSat to enter what it portrays as Intelsat's traditional monopoly. (It is unlikely, however, that PanAmSat really wants to enter the wholesale voice market. The most lucrative international voice routes are already contested by under-sea cables owned by major telecom companies.) With limited capacity, Intelsat will be able to serve some of the market for video, Internet and data services, and thereby discipline that market without dominating it. To have the new services restriction on top of the capacity constraint goes too far the other way and gives large entrants like PanAmSat an advantage that will work to the detriment of consumers.

3. Inmarsat is required under the bill to return its spectrum allotments to relevant authorities in 2006. The idea behind the rule is to wipe the slate clean for competition in maritime communications. The problem, however, is that the spectrum give-back makes it harder to do exactly what the bill purports to encourage: to privatize Inmarsat. Investors will obviously be less interested in buying a company whose essential asset will disappear in a few years.

There are a number of other, smaller issues of concern in the bill and some additional aspects to the provisions discussed above. There are also provisions with possible WTO implications that the USTR is currently reviewing. I am happy to go into further detail at your convenience. I will update you after the staff meets to review the draft letter.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME: 7-AUG-1998 19:10:56.00

SUBJECT: Talent Qs and As

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

READ:UNKNOWN

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

READ:UNKNOWN

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

READ:UNKNOWN

TO: Alan S. Polasky (CN=Alan S. Polasky/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:

Attached are the draft answers that Randy did on the Talent Qs and As. I made some edits, but for the most part, I left it as his draft. This set of questions is short (about 3 pages for Qs and As). Why don't we compile internal comments and then circulate through OMB review.

Joe

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D70]MAIL46622142V.226 to ASCII,
The following is a HEX DUMP:

**Draft Answers to Questions From Chairman Talent
to Dr. Yellen, Chair of the CEA**

1) In your written testimony, you referenced the increase in an average household's energy bill. What is your estimate of the impact of the Kyoto Protocol for the following cases:

a) Energy costs for an average household assuming that emissions trading is not allowed (approximately \$200/metric ton based on the SGM model). This data should include the components from oil (heating and gasoline), natural gas, and electricity.

This question does not apply to the Kyoto Protocol because Article 17 of the Protocol establishes the right to trade emissions among parties with emissions targets. However, our informal analyses of such a policy suggest that the effects on energy prices would be nearly 10 times greater than under the policy conditions that were identified in Dr. Yellen's testimony. The testimony indicated that effective international trading and meaningful developing country participation could result in permit prices of about \$14 to \$23/ton. We believe that this difference of nearly a factor of 10 underscores the importance of international permit trading and developing country participation, two cornerstones of the Administration's climate change policies.

This data should include a typical household in the following regions: Northeast, Southeast, South, Mid-West, Northwest and Southwest.

We have no data on spending by region and have not undertaken such analysis.

b) Direct energy costs for an average small business of 50 employees under the same conditions as listed in Item a above.

We have no data on spending on energy by small businesses and have not undertaken such analysis.

2) In addition to the direct energy costs, what is your estimate of the indirect costs of the policy for the cases described above?

We do not have quantitative estimates of indirect compliance costs.

[3)] Please provide the following:

1) At the time of the President's policy statement in October the reduction target for carbon stabilization at 1990 levels was approximately 375 million metric tons (Mmt). Since this announcement the EIA outlook has added another 80 Mmt to the target and the Kyoto reduction of 7 percent has added another 95 Mmt. The total reduction for energy alone is now 550 Mmt. If you add the other gases the Kyoto target for reduction is 650 Mmt. Since the total amount of emissions is critical to any economic analysis, please provide the assumptions used in your analysis for the amount of emissions to be traded. Also confirm which of the analyses you used

were performed after Kyoto.

As with any conventional economic model, our model assumed simply that the amount of emissions permits to be traded would be determined by the supply and demand for emissions permits among the trading countries. All of the quantitative analyses underlying Dr. Yellen's testimony were developed after Kyoto.

2) What are the Clinton Administration's assumed further emission reduction targets for the period 2013-2020?

We have made no assumptions about the emissions targets for the periods beyond 2012. The Administration has not proposed emissions targets for the second or subsequent commitment periods. Although Kyoto is a first step, and the President in October said that we must work toward further reductions in the years beyond 2012, the Administration is not prepared to propose an emissions target for these years.

3) What analysis of the total impact on the economy (both direct and indirect costs) of the U.S. has been performed using these assumptions?

The analysis that we have performed is summarized in Dr. Yellen's testimony to Congress and in the July 1998 report titled "The Kyoto Protocol and the President's Policies to Address Climate Change: Administration Economic Analysis."

How are total costs reflected in your analysis since the SGM analysis you referenced in your testimony only treats direct costs, which is recognized to underestimate total costs by a factor of 2-4?

Our approach follows the practice of the researchers who have developed the SGM model and is consistent with other uses of this model. This same approach is also used by researchers at the Massachusetts Institute of Technology lead by Dr. Henry Jacoby. It reports costs as the sum of 1) the cost of emissions reductions achieved in the United States, calculated to reflect only the incremental cost of each reduction, i.e., the minimum compensation that a profit-oriented firm would need as compensation for such reductions, and 2) the total value of payments to firms outside of the United States for emission permits acquired through international trading.

Although we have followed a practice accepted by many modelers the measurement of total costs in the computable general equilibrium models used to assess the economic impacts of mitigating climate change is an area of ongoing study. For example, researchers within the Energy Modeling Forum recognize that modelers need a better understanding of why the costs are so different across models and some way to decompose the many components contributing to the overall cost of mitigation. Differences in cost have not yet been decomposed into distinct components in a manner that lets independent researchers evaluate the validity of such claims.

4) Estimates of the U.S. demand for emissions credits by year for the period 2008-2012 and the potential supply from Russia and the Ukraine based on

A) Projected demand relative to the Kyoto target.

B) Projected demand relative to the assumed additional reductions targets.

The Administration has no estimates of the demand for emission credits by year for the period 2008-2012. Demand will be sensitive to a variety of factors that are quite difficult to forecast 10 to 14 years in advance, especially the rate of technological innovation and the diffusion and adoption of current innovations and those placed on the market over the next ten years. For the same reason we have no estimates of the supply of emission credits.

In addition, as mentioned above, the Administration has not proposed additional reductions targets for periods beyond 2012.

[4)] Given this strong opposition by developing nations to even consider voluntary commitments and given the lack of progress on fleshing out the skeletal flexibility provisions (such as trading) in the protocol, isn't it unrealistic to expect savings from these areas and isn't the Kyoto Protocol likely to cost America substantially more? Please elaborate in your answer and supply details of your calculations.

Estimating the economic effects of international treaties is necessarily more complicated than in the case of domestic legislation because the effects are likely to depend in part on the actions of other countries over which the United States has no direct control. While there has been no recent news about breakthroughs concerning developing country participation it is important to keep the right perspective on this lack of news.

First, the breakthroughs at Kyoto were largely unanticipated given the reports about diplomatic standoffs during the months prior to December 1997. At Kyoto, the U.S. achieved provisions for trading (Article 17), coverage of six greenhouse gases (Article 3.1 and Annex A), the Clean Development Mechanism (Article 12), and credit for sinks (Article 3.3). The inclusion of these four provisions in the Kyoto Protocol, despite previous objections by some countries, adds flexibility in implementing the emission targets that will substantially lower costs.

Second, although the cost with full implementation of the Kyoto agreement itself would be greater than with the developing country participation outline in Dr. Yellen's testimony, it would be many times less than the estimated cost reflected in your question 1. For example, effective trading of permits among Annex I countries and participation of developing countries only through the Clean Development Mechanism --two provisions already included in the Kyoto Protocol, would yield permit prices comparable to \$23/ton estimate, provided that the European Union did not compete with the U.S. in buying inexpensive emission reductions from Eastern Europe. For details of this calculation see the discussion surrounding Table 4 (p. 52) in "The Kyoto Protocol and the

President's Policies to Address Climate Change: Administration Economic Analysis."

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

CREATION DATE/TIME: 7-AUG-1998 18:40:41.00

SUBJECT: consumer financial services

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

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RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME: 10-AUG-1998 18:22:34.00

SUBJECT: would individual accounts crowd out other private saving?

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

READ: UNKNOWN

CC: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

READ: UNKNOWN

TEXT:

I discussed this question with Karl Scholz (as you suggested) and with Bill Gale.

As you recall, I had argued that the IRA/401k evidence has limited value for judging the crowding-out that would be induced by Social Security individual accounts. Rational people might well offset a large share of additional tax-deferred saving with reduced taxable saving, because the tax deferral often does not apply to a marginal dollar of saving. But similarly rational people would not offset new IA saving if that saving simply substituted for previously expected traditional SS benefits.

Both Karl and Bill agree with this point, but raised other issues:

1. What do people currently expect? If people expect SS benefits to be cut more than they end up being cut, that additional wealth could lead to saving reductions.
2. Crowding-out may be more important for IAs than traditional SS benefits. (This is partly analogous to crowding-out from private DC vs. DB pension plans, but not entirely so because private DC plans are usually voluntary and SS IAs would not be.) One reason is tangibility; people may understand less about DB benefits than about a growing pile of money under their noses. Another reason may be liquidity; if IA funds can be accessed for some non-retirement purposes, then they are better substitutes for private saving than otherwise.

I think these issues deserve a brief hearing in the memo on saving effects of SS reform. David Wilcox had a few comments on my earlier draft, and I'll produce another draft when I get a chance.

Doug

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

CREATION DATE/TIME:10-AUG-1998 18:23:24.00

SUBJECT: would individual accounts crowd out other private saving?

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

READ:UNKNOWN

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

READ:UNKNOWN

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As you recall, I had argued that the IRA/401k evidence has limited value for judging the crowding-out that would be induced by Social Security individual accounts. Rational people might well offset a large share of additional tax-deferred saving with reduced taxable saving, because the tax deferral often does not apply to a marginal dollar of saving. But similarly rational people would not offset new IA saving if that saving simply substituted for previously expected traditional SS benefits.

Both Karl and Bill agree with this point, but raised other issues:

1. What do people currently expect? If people expect SS benefits to be cut more than they end up being cut, that additional wealth could lead to saving reductions.
2. Crowding-out may be more important for IAs than traditional SS benefits. (This is partly analogous to crowding-out from private DC vs. DB pension plans, but not entirely so because private DC plans are usually voluntary and SS IAs would not be.) One reason is tangibility; people may understand less about DB benefits than about a growing pile of money under their noses. Another reason may be liquidity; if IA funds can be accessed for some non-retirement purposes, then they are better substitutes for private saving than otherwise.

I think these issues deserve a brief hearing in the memo on saving effects of SS reform. David Wilcox had a few comments on my earlier draft, and I'll produce another draft when I get a chance.

Doug

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:10-AUG-1998 12:45:26.00

SUBJECT: Re: Revised McIntosh Questions

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

READ:UNKNOWN

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

READ:UNKNOWN

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

I have made some revisions to the McIntosh answers and am ready for them
to be circulated through OMB clearance.===== ATTACHMENT 1 =====

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

TEXT:

WPCW

C/xALVBsSsOo] baI^*;P[aFVYIFqGKWP\{#o8K~*dNgy73pu?`[gv^9NV;s+_]"F}%_WTRGOBoUB:
f,\(%zCB6`6;Vf\6%-g"hlr=a58q*>i8X

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:11-AUG-1998 09:28:26.00

SUBJECT: Social Security reform

TO: Rebecca M. Blank (CN=Rebecca M. Blank/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: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

READ:UNKNOWN

TEXT:

Jeff Liebman is delighted to have our participation in analyzing the microeconomic aspects of various reform proposals that have been put forward. He admits that these issues have gotten fairly short shrift to date but says this is a deliberate strategy by the working group to tackle the individual account and equity investment topics first. He will keep us in mind and in the loop as the process moves forward.

On the "retirement age" front, we talked with Mark McClellan yesterday, and Corky and Bob agreed to outline an analysis of changing job characteristics in a Thursday morning conference call with Mark and me (and maybe others).

On the "women and minorities" front, Jane Ross at SSA is writing an initial draft based on her work in this area, and Jeff intends to edit that draft. He has a deadline of next Friday for this first pass, because the President will probably have an "event" on this topic in September. Jeff feels fairly comfortable in this area, but if Becky wants to work on this draft, he'd be pleased to have comments and/or writing help. I think Becky should contact Jeff directly (6-5358) to coordinate on this.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

CREATION DATE/TIME:11-AUG-1998 09:28:58.00

SUBJECT: Social Security reform

TO: Rebecca M. Blank (CN=Rebecca M. Blank/OU=CEA/O=EOP [CEA])

READ:UNKNOWN

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

Jeff Liebman is delighted to have our participation in analyzing the microeconomic aspects of various reform proposals that have been put forward. He admits that these issues have gotten fairly short shrift to date but says this is a deliberate strategy by the working group to tackle the individual account and equity investment topics first. He will keep us in mind and in the loop as the process moves forward.

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RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Robert F. Schoeni (CN=Robert F. Schoeni/OU=CEA/O=EOP [CEA])

CREATION DATE/TIME:11-AUG-1998 08:49:46.00

SUBJECT: LTC Initiative

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

CC: HUANG_B@A1@CD@VAXGTWY (HUANG_B@A1@CD@VAXGTWY @ VAXGTWY [UNKNOWN])
()
READ:UNKNOWN

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

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

TEXT:

Janet, I received the long-term care memorandum late yesterday. I discussed my reactions with Becky, and the one dimension that needed clarification was whether children (and other non-elderly) who meet the disability criteria would be eligible for the credit.

We were asked to provide comments by 6pm yesterday, and you were attending a meeting when I stopped by your office to discuss this issue. Because of the tight deadline, I called Jeanne Lambrew, and although she was not in her office, I left our comments in her voicebox.

It looks like Jeanne incorporated our comment into the revised memorandum that we received this morning-- you will now see in bold on page 3 that "Over half of the chronically ill individuals benefiting from this credit are elderly..." Therefore, children (and all non-elderly) who are chronically ill are indeed eligible, and they represent a substantial share of the disabled population who will benefit from the policy.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:12-AUG-1998 19:42:12.00

SUBJECT: Asia crisis speech attached

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

READ:UNKNOWN

TEXT:

Janet,, I attach the speech on Asia.

I will prepare on Russia tonite to discuss it with you in the morning.

Nouriel

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D21]MAIL44037372J.226 to ASCII,

The following is a HEX DUMP:

The Asian Crisis and International Financial Architecture Reform

A. Currency and financial turmoil in the 1990s

The currency and financial crisis in Asia has brought to the fore the issue of whether we need to reform the international monetary system – or international financial architecture. In order to discuss whether and how such architecture might need reform, it is useful first to understand the sources and causes of such a widespread and recurrent financial turmoil.

At the outset, note that the Asian crisis of 1997–98 is already the third episode of major currency and financial turmoil in the 1990s. First, in 1992–93 the currencies of the European Monetary System experienced severe speculative attacks that led to the devaluation of the Italian lira and British pound in the fall of 1992; these were followed by the sequential devaluation of several other ERM members and the eventual loosening of the ERM exchange rate bands in the summer of 1993. Next, the collapse of the Mexican peso in December 1994 led to a severe “Tequila effect” with several Latin American currencies under attack. Finally, the devaluation of the Thai baht in July 1997 triggered the Asian currency and financial crisis that rapidly spread like a domino to other regional currencies; directly and indirectly, the Asia flu has had contagious effects as far as Russia, South Africa and Latin America.

1. Common elements of the 1990s crises

While each of these crises has its own characteristics and specific causes, we can see several common elements; identifying these is important to understand the issues we face when trying to reform the international architecture. In summary, such common elements are as follows:

1. All three crisis episodes occurred under a regime of semi-fixed exchange rates. While ERM currencies and the Mexican peso were clearly on a peg, the same was true – with some degree of variety – for most Asian currencies. This leaves open the question of which exchange rate regime can minimize financial turmoil in a world of volatile capital flows.
2. In all three episodes there has been significant contagion with domino-like devaluations spreading from one country to the other. Therefore, traditional views of currency crises as single country events have to be significantly modified.
3. While the process of global financial integration has been occurring for several decades now, it has picked up speed in the 1990s as the size and speed of international capital flows has dramatically increased and the range of assets traded internationally (including exotic derivative instruments) has mushroomed. Nowadays, international capital flows are clearly

hotter than ever and as volatile as ever.

4. Such financial turmoil has been preceded by a significant liberalization of the capital account and progressive elimination of capital controls. Italy and France had fully liberalized their capital account right before the onset of the 1992 ERM crisis. Mexico had progressively liberalized its domestic and international financial regime in the early 1990s. And East Asian countries had gone through a process of significant financial liberalization – both domestic and international – throughout the 1990s.

5. Currencies crises have been associates with financial sector and banking crises. This is most clearly evident in the Asian crisis episode and the Mexican peso crisis when severe banking crises occurred. But it has also been partly a feature of the ERM episode: in countries such a Sweden, Finland and Italy, banking crises emerged close to the currency turmoil episodes.

Indeed, the Asian crisis shows that there may be a serious link between currency and banking crises. In this regard, Diaz-Alejandro had already pointed out 20 years ago – in his seminal “GoodBye Financial Repression, Hello Financial Crash” – the possible link between financial liberalization in an environment of financial market distortions and the emergence of currency and financial crisis. Indeed, one of the lessons of the Asian crisis is that weaknesses and fragility in the financial and banking sector make a country very vulnerable to severe currency and financial turmoil.

6. In each of these episodes there has been a heated intellectual and academic debate in whether the crisis was caused by poor economic fundamentals or irrational speculative panic. In the case of the Asian crisis, this debate has been particularly interesting as the Asian countries did not fit the traditional model of what causes a currency and debt crisis, i.e. the “usual suspects” do not show up. Your garden variety currency/debt crisis has the following suspects: you got a country with a large budget deficit and high public debt; inflation is high as these deficits are monetized; economic growth is low, savings and investment rates are low. In Asia you got the reverse before the crisis: low budget deficit, low public debt, single digit inflation rates, high economic growth and high savings and investment rates.

Since the usual suspects did not show up, many authors were led to believe that the crisis was due to irrational panic, fickle investors, volatile hot money, self-fulfilling bad equilibria, non-fundamental speculative capital flight and irrational bank runs.

2. Fundamental causes of the Asian crisis

In spite of these “irrational panic” explanations of the Asian crisis, we have realized by now that, below the surface of apparently good macro fundamentals, serious weaknesses and

fragility, macroeconomic policy mistakes and severe distortions were lurking; such crack eventually undermined the so called Asian economic model.

The ingredients of this new fundamentalist interpretation of the crisis are by now reasonably clear but it is worth summarizing them in some detail:

1. A combination of financial sectors weaknesses and distortions (moral hazard, relationship banking, corrupt credit practices, directed credit and political distortions in the allocation of credit) led to a lending boom and overinvestment in investment projects and sectors that were very risky and of low profitability (real estate, non-traded sectors, speculative purchase of assets in fixed supply). Poor corporate governance and crony capitalism exacerbated the distortions in this system and fueled the excessive investment boom.

2. Domestic and international capital liberalization also aggravated the original distortions and wrong incentives faced by banks and firms as it allowed them to borrow more and at cheaper rates in international capital markets.

3. In turn, the excessive investment boom led to large and growing current account deficits that were financed mostly via the banking system and the accumulation of short-term, foreign currency-denominated and unhedged liabilities.

4. The fixed exchange rate regimes exacerbated the problem in two ways: first, they led to real appreciation that worsened the current account problem; second, they were a symptom of a the broader moral hazard problem as fixed rates led banks and firm to have a lower cost of foreign capital. While budget deficits were apparently low, the implicit and explicit government guarantees of a bailout of the financial system in a crisis implied a large and growing unfunded public liabilities that emerged once the currency crisis triggered a wider banking crisis.

5. In 1997, the asset bubble started to burst, the stock markets started to drop and the emergence of wide losses and/or outright defaults in the corporate sectors signaled the low profitability of past investment projects. Then, the firms, banks and investors that had heavily relied on external borrowing were left with a large stock of a) short-term b) foreign currency-denominated c) unhedged foreign debt that could not be easily repaid.

6. The exchange rate crisis that ensued exacerbated the problem as the currency depreciation dramatically increased the real burden of the debt that was denominated in foreign currencies and led to further financial crisis for banks and firms. The free fall of currencies was intensified by the sudden rush of firm, banks and investors to cover their previously unhedged liabilities in foreign currency; in turn, this accelerated depreciation aggravated the original foreign currency debt problem creating a vicious circle.

7. Contagion was itself more the result of fundamentals than irrational panic. Specifically, a vicious circle of "competitive devaluations" explains part of the contagion. The first wave of depreciations in the summer of 1997 modified the 'effective' real exchange rate and worsened cost-competitiveness in all the countries in the region that had initially maintained their nominal exchange rate fixed. As one after the other, the currencies of countries that were competing in the same world markets came under attack and depreciated sharply, the equilibrium fundamental

value of the other currencies that had not depreciated yet started to deteriorate. Therefore, contagion may not be the result of irrational panic but the result of: a) trade spillovers and competitive devaluations; b) common domestic and external shock hitting many economies at the same time; c) financial, investment and real links that transmit the real shocks of one country to the asset values (stocks, exchange rate) of other countries.

8. The behavior of weak and not very credible governments that were not committed to structural reforms worsened the policy uncertainty, led to widespread capital outflows and worsened the currency depreciation.

9. Rapid reversals of the capital inflows occurred as domestic and international investors sometimes panicked and dumped currencies, stocks and other regional assets and international banks rapidly withdrew their short-term loans to Asian financial institutions. While the crisis was triggered by fundamentals, at some point currencies and stock market overreacted and fell more than warranted by the initially weak fundamentals and misalignments.

3. A more detailed analysis of the causes of the crisis [section to be used in a longer speech]

In Asia, the large current account deficits were driven by high rates of investment rather than low and falling public and private savings. While common wisdom holds that borrowing from abroad to finance the accumulation of domestic capital should not raise concerns about external solvency, the evidence for the Asian countries in the mid-1990s highlights that the profitability of new investment projects was low. For instance, in Thailand, Indonesia, Korea and Malaysia the share of non-performing loans before the crisis was large. In Korea, 20 of the largest 30 conglomerates displayed in 1996 a rate of return on invested capital below the cost of capital. By mid-1997, 8 of the 30 largest conglomerates were effectively bankrupt. At the macroeconomic level, evidence that investment efficiency was already falling before the crisis is provided by the dynamics of the incremental capital output ratio, defined as the ratio between the rate of investment (as percentage of GDP) and the rate of growth of the economy. In all countries but Indonesia and the Philippines, this indicator increased sharply between the two sub-periods 1987-1992 and 1993-1996.

Why did investment rates and capital inflows in Asia remain high even after the negative signals sent by the indicators of profitability? In part, the fall of interest rates in industrial countries (especially in Japan) lowered the cost of capital for firms and motivated large financial flows into the Asian countries. But at the very root of the sustained capital accumulation was the structure of incentives under which the corporate and financial sectors operated in the region. The so-called 'moral hazard' problem in Asia exhibited three different, yet strictly interrelated dimensions at the corporate, financial, and international level. Political pressures to maintain high rates of economic growth had led to a long tradition of public guarantees to private projects, some of which were effectively undertaken under government direction, directly subsidized, or supported by policies of directed credit to favored firms and/or industries. Even in the absence of explicit promises of 'bail-out', the production plans and strategies of the corporate sector largely overlooked costs and riskiness of the underlying

investment projects. With financial and industrial policy enmeshed within a widespread business sector network of personal and political favoritism, and with governments that appeared willing to intervene in favor of troubled firms, markets operated under the impression that the return on investment was 'insured' against adverse shocks.

The financial counterpart of the 'moral hazard' problem in investment was the strong tendency for national banks to borrow excessively from abroad and lend excessively at home, thus playing a key role in channeling funds toward projects that were marginal if not outright unprofitable from a social point of view. Lax supervision and weak regulation of the financial system, low capital adequacy ratios, lack of incentive-compatible deposit insurance schemes, insufficient expertise in the regulatory institutions, distorted incentives for project selection and monitoring, and outright corrupt lending practices, all contributed to the build-up of severe structural weaknesses in the undercapitalized financial system, whose most visible manifestation was a growing share of non-performing loans. The distortions generated by such behavior were enhanced by the rapid process of capital account liberalization and financial market deregulation in the region during the 1990s, that had increased the supply-elasticity of funds from abroad. The extensive liberalization of capital markets was consistent with the policy goal of providing a large supply of low-cost funds to national financial institutions and the domestic corporate sector.

The same goal motivated exchange rate policies aimed at reducing the volatility of the domestic currency in terms of the US dollar, that translated into low risk premiums on dollar denominated debt. The international dimension of the moral hazard problem hinged upon the behavior of international banks, that over the period leading to the crisis had lent large amount of funds to the region's domestic intermediaries, with apparent neglect of the standards for sound risk assessment. Underlying such overlending syndrome may have been the presumption that short-term interbank cross-border liabilities would be effectively guaranteed by either a direct government intervention in favor of the financial debtors, or by an indirect bail-out through IMF support programs in the event of a crisis. A very large fraction of foreign debt accumulation was in the form of short-term, unhedged, foreign-currency denominated liabilities: by the end of 1996, a share of short-term liabilities in total liabilities above 50% was the norm in the region. Moreover, the ratio of short-term external liabilities to foreign reserves – a widely used indicator of financial fragility – was above 100% in Korea, Indonesia and Thailand. As a result of the cumulative effects of the fundamental financial and real imbalances considered above, by 1997 the Asian countries appeared quite vulnerable to financial crises, either related to sudden switches in market confidence and sentiments, or driven by deteriorating expectations about the poor state of fundamentals.

The external balance counterpart of the excessive investment boom were large and

growing current account deficits. At the end of 1996 Thailand, the Philippines, Malaysia and Korea ran current account deficits of the order of 5% of GDP or higher, while the Indonesian deficit was slightly less sizable. There were a number of country-specific and global factors underlying these large external imbalances:

1. Several adverse shocks had caused a significant export slowdown from the region. The long period of stagnation of the Japanese economy in the 1990s had contributed to the deterioration of the trade balances; in the months preceding the eruption of the crisis, the hopes for a Japanese recovery were shattered by a sudden decline in economic activity in this country. Sector-specific shocks such as the fall in the demand for semi-conductors in 1996, and adverse terms of trade fluctuations, had also contributed to decelerate export growth in several Asian countries between 1996 and 1997.

2. The sharp appreciation of the US dollar relative to the Japanese yen and the European currencies since the second half of 1995 had led to deteriorating cost-competitiveness in most Asian countries whose currencies were effectively pegged to the dollar. Competitive pressures were enhanced by the increasing weight of China in total export from the region.

Also, expectations of a monetary contraction in the US in the summer of 1997 may have played a role in precipitating the crisis.

3. To some extent, the external deficits reflected currency misalignment. Based on standard real exchange rate measures, many Asian currencies had appreciated in the 1990s, although the degree of real appreciation had not been as large as in previous episodes of currency collapses (such as Mexico in 1994). The dynamics of the real exchange rate had been asymmetric across countries: by 1997 the extent of real appreciation was evident in Malaysia and the Philippines, while in South Korea, Thailand and Indonesia, real exchange rate indicators had not moved significantly relatively to 1990.

B. International financial architecture reform

Given this analysis of the causes of the crisis, how should we reform the international financial system?

First, note that after the Mexican peso crisis there was a broad debate on reforming the international financial system to prevent Mexican-type of crises from occurring again or being so virulent. The official process, named Halifax I after the G-5 summit meeting there in 1995, led to the Rey Report suggesting a number of reforms of the system.

The fact that another major crisis erupted in Asia just two years later does not

imply that the proposed reforms were misguided. Quite to the contrary, as a number of the recommendation of the Rey Report were never implemented. The report was clearly aware of domestic and international moral hazard issues and stressed the need for better market-based debt workout procedures. For example, reforms of bond contracts (such as sharing clauses, majority voting and creditors committees) were suggested as well as changes in IMF rules such as a policy of “lending into arrears”.

The eruption of the crisis in Asia renewed the need to revisit the unfinished business of Halifax I and has led to Halifax II, an official process the involves the G-22 group of advanced and emerging economies.

There are three basic building blocs of the Halifax II international architecture reforms:

1. Greater transparency.
2. Strengthening financial systems.
3. Better crisis resolution and debt workout mechanisms.

1. Greater transparency.

There is a broad consensus on the need for greater transparence both on the part of debtor countries and official institutions such as the IMF. However, it is not obvious that transparency alone will be enough to prevent another major crisis from occurring. While the lack of information in Asia on issues such as the countries’ net foreign reserves and the offshore liabilities of the financial and corporate system may have exacerbated the investors’ uncertainty and concerns, it is hard to argue that information was lacking. For example, the size of the current account imbalances, the level of short-term foreign currency denominated liabilities as well as myriad of other data were well known and regularly published. Still, until the onset of the crisis, investors appeared to ignore the warning signals coming from a number of indicators.

Moreover, while everyone is in principle in favor of greater transparency, there is still a wide divergence of opinion on how much information should be released. For example, would a more systematic public release by the IMF of country documents lead debtor countries to be less frank and open in their dealings with the Fund?

2. Reforming and strengthening domestic financial institutions.

Our discussion above suggests that financial sector weaknesses were central causes of the crisis. National banks and other financial institutions borrowed excessively from abroad and lent excessively at home, thus playing a key role in channeling funds toward projects that were marginal if not outright unprofitable. Lax supervision and weak regulation of the financial system, low capital adequacy ratios, lack of well designed deposit insurance schemes, insufficient expertise in the regulatory institutions, distorted incentives for project selection and monitoring, and outright corrupt lending practices, all contributed to the build-up of severe structural weaknesses in the undercapitalized financial system, whose most visible manifestation was a growing share of non-performing loans. The distortions generated by such behavior were enhanced by the rapid process of capital account liberalization and financial market deregulation in the region during the 1990s, that had increased the supply-elasticity of funds from abroad.

2.1 How to strengthen financial systems

Given this analysis and now evident and recurrent link between currency, debt and banking crises, a central element of the Halifax II reforms will have to be a radical reform and strengthening of domestic financial systems. The task is haunting and, in the best scenario, it will take years to accomplish the long list of overdue reforms. A partial list of such reforms includes: strong prudential regulation and supervision of bank and non-bank financial institutions; application of Basle (or Basle-enhanced) capital adequacy ratios; design of incentive-compatible deposit insurance schemes; design and implementation of disclosure rules, bankruptcy and foreclosure laws; development of liquid and deep financial markets, especially securities (bond and equity) markets; national implementation of the Basle core principle of banking supervision; coordination and cooperation among international organizations and international supervisory entities in strengthening financial systems; technical assistance and training to government official and regulators; improving corporate governance both in the financial and non-financial sector; implementing efficient insolvency and debtor-creditor regimes; structuring an orderly capital account liberalization, and in particular prudential controls in light of the current size and speed of capital flows.

2.2. The debate on capital controls.

Each of the above complex issues would require a detailed discussion but one of them - capital controls - will have to be addressed very soon. In general, there is an agreement that, once strong financial systems are in place, there are no strong arguments in favor of capital controls as the benefits of international capital mobility are quite compelling. The issue, however, is whether some capital controls may be useful in the transition to such strengthened financial system, i.e. what is the optimal speed of capital account liberalization when financial systems are still weak and in the process of being reformed.

The arguments in favor of some capital controls, especially on 'hot money' short-term capital inflows, are several. First, large inflows of short-term capital or "hot money" can be destabilizing: if 'fickle' investors become suddenly pessimistic about the economic prospects of a country, the large inflows of yesterday suddenly become the massive capital outflows of today that may lead to the collapse of a currency. This is especially true in countries with weak economic fundamentals and fragile financial systems. Second, large capital inflows may also lead to a perverse cycle: under flexible exchange rates they initially cause a currency appreciation as investors buy the country's financial assets; under fixed exchange rates, they cause an increase in foreign reserves, rapid monetary growth and inflationary pressures that lead to a real appreciation. In both regimes, over time this appreciation leads to a loss of competitiveness that in turn causes a widening current account deficit. As this external imbalance grows, the country is forced to rely even more on capital inflows to finance the deficit. Eventually, the accumulation of this foreign debt may become unsustainable, especially if these liabilities are short-term, foreign-currency denominated and unhedged. In fact, as international investors become nervous about the country's ability and willingness to service such a large foreign debt, sudden capital outflows may ensue leading to a currency collapse.

There are, of course, strong arguments against these controls. First, free capital mobility leads to a market allocation of savings to the best investment opportunities. Such free mobility should not be restricted unless there is a very strong distortion in the market allocation of capital. Second, the reason why Chile and Colombia - countries that have introduced controls on short-term capital inflows - have been sheltered until recently from speculative attacks may not be the controls, but rather the existence of a strong financial system with solid prudential regulation and supervision. A country with strong banks, does not need capital controls. Third, advanced market economies with solid policies, good fundamentals and sound financial systems do not have capital controls and are not subject to devastating financial crises. Fourth, over time, investors find ways to avoid them, that is they tend to become ineffective. Fifth, controls increase borrowing costs and may reduce firms' investment. Finally, approval of targeted controls might lead countries to use capital controls indiscriminately, thus insulating unsound policies from the discipline of the marketplace. These arguments suggest a presumption in favor a principle of free capital mobility.

Is there evidence that short-term debt makes a country more vulnerable to a crisis? Yes, but with an important caveat. A number of recent studies suggest that a large amount of short-term liabilities (relative to the size of the foreign reserves) increases the probability of a crisis or leads to a more severe crisis if one occurs but only if the country has weak economic fundamentals. Such weaknesses include large current account deficits and real appreciation, an excessive bank lending boom, weak financial systems and a large amount of non-performing loans. So, short-term debt is particularly dangerous only in an otherwise fragile country with unsound economic policies.

While short-term portfolio flows can be dangerous as they can be suddenly withdrawn and cause a crisis, foreign direct investment, long-term bonds and equities are argued to be stabilizing as they represent longer term capital inflows. So, if you do have an external imbalance, you may be less vulnerable if you finance it with long-term capital. Chile and

Colombia introduced their controls exactly to avoid these boom and bust cycles of capital flows. A number of recent studies suggest that such controls are only partially effective. They do not seem to affect the overall level of capital inflows and current account imbalances but they do affect the composition of such inflows: short-term borrowing is discouraged while there is greater reliance on long-term borrowing.

One possible idea is to place the penalty only on *banks'* short-term borrowing from abroad, in the form of higher reserve requirements on their foreign-currency borrowing than on domestic borrowing. This would fall well within the kind of enhanced prudential banking regulation that the United States and the IMF have for some time urged on developing countries. Wider capital controls policies – covering most short-term inflows, not just banks ones – such as those implemented by Colombia and Chile will have to be studied in more detail to assess their effectiveness.

3. Better crisis resolution and debt workout mechanisms.

While strengthening financial system may prevent some crises or make them less virulent if they do occur, we cannot expect that such crises will be eliminated altogether. Therefore, if a crisis occur, the issue becomes: how to make sure that the crisis resolution is achieved with a minimum amount of cost in terms of economic growth and overall economic performance ? This very broad question represents the third pillar of a new architecture. Indeed, the questions here are more than one.

A first set of questions deals with policies to prevent crisis and to limit their scope and issues of creditor coordination:

1. How can we limit the domestic and international moral hazard issues? I.e. how can we limit the markets' expectations that, if a crisis occurs, debtor countries governments and/or international financial institutions will bail out the financial institutions and/or the corporate sector?

2. How can we credibly limit government guarantees to private sector - both financial and corporate sectors - prior to and during crises?

3. Is there an important role for private insurance, either in the form of contingent credit lines (such as those arranged by Mexico and Argentina) or other forms of true insurance where countries structure their external assets and liabilities with a greater degree of explicit risk sharing than has been the case in the past ? Also, if the private sector does not provide these credit and insurance facilities, is there are role for international financial institutions to do so?

4. Which institutional arrangements can we design to promote creditor coordination during a crisis? Should we change debt contract to introduce sharing rules, default clauses,

majority voting and creditor steering committees? Is there a role for coordination before and during a crisis between creditors, debtors and broader international community?

A second set of questions deals with how to improve the crisis management:

1. What is the role of government of country at risk of a balance of payments crisis?
2. What should be the role of international official community during a crisis, both in terms of the scale of international assistance and the amount of policy adjustment (conditionality) requested from the debtor?
3. What should the private sector financial contribution be as the design of a Fund program may show the need for a financial contribution from private creditors, which could take the form of the provision of new credits, a debt rollover or a debt rescheduling?

A third and quite delicate set of questions regards the issue of a suspensions of payments (or debt standstills).

1. Should only cooperative solutions be pursued where debtors and creditors agree on a temporary debt payments suspension? Or, as purely voluntary solutions may not always be feasible, is there a role for unilateral mandatory debt suspensions? In certain circumstances, mandatory suspensions may be unavoidable.
2. What should be the scope of any payments suspension? You need to select which type of obligations to suspend, whether to use or not capital controls in a partial suspension and whether to employ comprehensive exchange controls in some cases.
3. What are the features of an effective payments suspension as several countries have suspended payments on all or a portion of their external debt in the past?
4. Should there be an informal or formal official sanction for a standstill? Should this sanction take the form of IMF 'lending into arrears' or something stronger such as a formal IMF approval of such standstill? What are the legal implications of such a sanction?
5. How to make sure that the impact of a standstill is limited, i.e. it does not severely limit for a long time access to international capital markets and it does not lead to contagion to other countries?
6. Which mechanisms could protect debtors from legal action if payments are suspended? Could the IMF Article VIII.2.b be interpreted to achieve these objectives? If not, should the international community consider amending Article VIII.2.b to help achieve these objectives?

A final set of questions concerns the design of orderly workout negotiations that lead to debt restructuring:

1. Could the mechanisms already existing for restructuring inter-governmental debts and syndicated bank loans owed by governments in the context of IMF programs (Paris and London Clubs) be a model for broader private debt restructuring?

2. Which ex-ante measures will encourage the provision of new credit after the imposition of a de facto standstill?

3. Which mechanisms will encourage the prompt extension of private debt maturities and/or provision of new credit?

4. How to design schemes that encourage private debt restructuring if and when appropriate?

The above questions are very complex and a rich set of answers can be given on each of them. Arguments pro and con each proposal can be made but there are usually no easy answers to these very difficult questions.

Here, we will make a few general observations on some of these points.

First, international bailout-related moral hazard might not have been the reason why international banks lent to Asia but, right now, after 5 major bailouts (Mexico, Thailand, Indonesia, Korea and Russia), it is certainly a bigger issue than before. So, being clear about the fact (and conditions under which) official financing is truly exceptional seems necessary to prevent a belief in the markets that everyone will be bailed out. Of course, letting one or more countries go under (sooner rather than later) would be the best credible signal we could send to the markets that bailouts are not going to become the norm. The international community needs to regain its credibility on this important question.

Second, in the case of a debt standstill, it is clear that a voluntary debt suspension should be preferred to a mandatory one. However, there is always a serious risk of a destructive “race for the door” before the negotiations for a voluntary agreement are even started, let alone before an agreement is even reached (see what happened in Mexico, Thailand, Korea, Indonesia). These examples suggest that, by the time you even start to negotiate a voluntary agreement you have usually already lost most of your reserves and suffered a severe currency collapse that turns a liquidity problem into a solvency one. Do we believe that any future crisis will be orderly worked out (i.e. not lead to a severe financial crisis) via voluntary agreements? Experience suggests that they usually arrive too late after the mayhem has already occurred.

Third, there is a clear tradeoff between costs (moral hazard, domestic bailouts and unlimited use of international resources) and benefits (they may help crisis resolution) of government guarantees. Then, the question is how do you decide what is the sensible middle ground? One influential view is that the (domestic) moral hazard deriving from such implicit and explicit government guarantees (especially before the onset of a crisis) were a crucial cause of the crisis. To simplify the argument: a corporate/financial system with implicit/explicit deposit insurance, little risk capital, little prudential supervision and regulation - and excessive domestic and external liberalization went on a excessive lending boom to risky projects knowing

it will be bailed out in the case of a crisis.

Then, if one believes in this analysis of the crisis, one should be biased in favor of limiting as much as possible the scope of government guarantees, before the crisis, during the crisis and during the workout process. Banks may be special and in need of support to avoid a major economic collapse but we should deal with that distortion/externality at the prevention stage (strong banking system with strong prudential regulation and supervision and serious capital adequacy ratios), not through ex-post guarantees that validate the moral hazard incentives of banks and firms.

4. Conclusion

In conclusion, preventing altogether future currency and financial crises may not be possible but there is a lot that we can do to limit the frequency of their occurrence, the magnitude of their effects and their pernicious contagious spread once they do occur. The reforms of the international financial architecture being discussed in the Halifax II process would go a long way, if implemented, towards achieving such goals.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:12-AUG-1998 09:58:08.00

SUBJECT: speech

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

READ:UNKNOWN

TEXT:

Here's the file.

As for the introductory paragraphs on current economic conditions, I'd prefer to work on that over the weekend rather than this week if that's okay with you. There are lots of Social Security and consumer financial services meetings in the next few days, and I've agreed to write up a methodology for calculating the national saving effects of alternative SS reforms. Let me know what you want.

Doug

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D63]MAIL400795624.226 to ASCII,
The following is a HEX DUMP:

Draft Speech on Social Security
8/12/98

[introductory comments about challenges facing the U.S. economy in the 21st century]

I would like to begin by talking about Social Security reform. The President and Vice-President have participated in several of a series of Social Security fora scheduled for this year, in which Americans have had--and will have--the opportunity to explore alternative solutions to the problems facing Social Security. The President proposes to begin bipartisan negotiations with Congressional leaders in January 1999 to devise a comprehensive plan to strengthen Social Security so that it can continue providing financial support to retirees, survivors, and the low income disabled for many generations to come.

Before talking about the problems facing Social Security, I want to emphasize how important Social Security is to the lives of Americans and how successful it has been as a social program. For almost 60 years, Social Security has provided Americans with income security in retirement and protection against loss of family income due to disability or death. Social Security benefits are the major source of income for 2/3 of those over age 65 and virtually the only source of income for 1/3 of the elderly. The system has enjoyed dramatic success in reducing poverty rates among older Americans. In addition, Social Security provides valuable survivors' and disability benefits to the 1 in 3 beneficiaries who are not retirees.

The central problem facing Social Security is the determination by the Social Security actuaries that the current balance in the trust fund together with projected revenues over the next 75 years will be insufficient to fund the benefits promised under current law. Of course, future taxes and benefits depend on a variety of economic and demographic factors that cannot be

predicted perfectly, so the actual problem may be smaller or larger than we now believe.

Nevertheless, the intermediate projections of the actuaries imply that the imbalance in the Old Age, Survivors' and Disability Insurance program over the next 75 years amounts to around 2-1/4 percent of taxable payroll, or about 1 percent of GDP. The President has enumerated five principles for Social Security reform. His first principle is to strengthen and protect Social Security for the 21st century, which means that we should consider only comprehensive reforms that eliminate this actuarial imbalance.

The key factor contributing to the projected imbalance in the OASDI program is that improvements in life expectancy, coupled with a decline in birth rates, have put us on a path of rapid declines in the number of employed workers for every retired American. In 1960, that ratio was 4.5 to 1; today it is 3.3 to 1, and in 30 years time, it will be just 2 to 1 and still falling. In addition to the aforementioned effects on OASDI, this demographic transition will have important effects on the Medicare and Medicaid programs as well as on the economic environment outside the government. For the nation as a whole, the central problem 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. The 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 these steps is greater national saving.

Thus, another of the President's principles for Social Security reform is to maintain fiscal discipline. National saving increased from 3.4 percent of net national product in 1992 to 7.9

percent in the first quarter of 1998 [number for first half of 1998 will be available soon], but the improvement is accounted for entirely by the elimination of the federal budget deficit, as private saving actually declined relative to total output. If the projected budget surpluses are saved, they will add to national saving; if they are dissipated, they will neither help to strengthen Social Security nor add to national saving.

The President listed three other principles to guide Social Security reform. One principle is to maintain universality and fairness. The current program provides benefits on a progressive basis, and ensuring progressivity is an important standard by which reform proposals should be judged. Another principle is to provide a benefit that people can count on. I will come back to this principle of retirement income security when I discuss some prominent reform proposals. Finally, the President has said that we must preserve financial security for low-income and disabled beneficiaries.

The President's principles will provide a framework for Social Security reform, but they do not precisely determine its outcome. Even within this framework, difficult issues and tradeoffs arise. I cannot discuss specific reform ideas at this time, because the Administration does not want to prejudge the public debate or hinder bipartisan consideration of alternative proposals. But I would like to highlight some of the hard choices that we will face in the coming months.

[I'm afraid that some of the following paragraphs are too explicit, even though I've tried to be careful. You can skip some topics and I can rewrite others. Dropping these ideas altogether and padding the previous material would avoid controversy but might be too vacuous for this audience.]

One overriding question is whether to stick with the traditional defined-benefit structure of Social Security or switch to a defined-contribution structure with individual accounts. Some people argue that individual accounts could earn a higher rate of return than the trust fund can, pointing to the difference between returns on average private portfolios and projected rates of return on Social Security. But this comparison is misleading in two crucial ways. First, most of today's payroll tax goes to current beneficiaries. If current workers put their payroll tax contributions into individual accounts for their own retirements, we would need to raise some other tax to pay current benefits. Put differently, the Social Security system paid benefits to some past generations of retirees that greatly exceeded their contributions; this policy created an implicit debt that must be paid somehow by current and future generations. The second way that comparing rates of return between average private portfolios and Social Security is misleading is that most private portfolios invest in riskier assets than does the Social Security trust fund. These riskier assets--equities in particular--have paid higher returns on average than government bonds, but they do involve risk.

Some reformers propose investing part of the trust fund in equities in order to capture their higher expected return. Let me mention three concerns that have been raised about this approach. One is the risk that I just mentioned. Because this risk can be spread across many people in different generations, the risk faced by any individual beneficiary or taxpayer would be small, but it does exist. A second possible concern is that swapping bonds for equities in the trust fund involves a corresponding swap of equities for bonds in private portfolios. If the total supplies of equities and bonds were unchanged, this swap would raise the return earned on Social Security contributions but reduce the return earned on people's other retirement savings. A third

concern is that the government would gain potential control over a significant share of the nation's equities. The task of designing institutions that would minimize political interference in our market economy is not simple.

The creation of individual accounts raises a different (though not unrelated) set of concerns. One issue here involves the risk that individuals would face if their chosen investments performed poorly. The government could guarantee some minimum level of benefits, but if individuals were allowed to keep all of their returns above that level, people might be encouraged to invest their accounts in excessively risky ways. The government could also restrict individuals' investment options, but that might raise again the problem of government involvement in financial markets. Another concern with individual accounts is how to ensure that Social Security remains a progressive program that is fair to all Americans. It seems that progressivity would require, at the least, that contributions to these accounts be a larger share of payroll for lower-income Americans.

Yet a further prominent issue related to individual accounts is administrative costs. These costs in the current Social Security system are less than 1 percent of benefits paid, but the costs of individual accounts--which include both managing the funds and making the correct contributions to millions of separate accounts--could be much more significant. Note that many individual accounts would be quite small, especially during the early years of such a program. For 1/3 of workers, 2 percent of their wages would be less than \$500 per year [I made this up, but it's close to the correct fact which I will track down]. Even administrative costs of \$20 per account per year might absorb a significant share of the annual investment return for many people. Restricting investment options and services would help to keep down costs, but might

disappoint people accustomed to receiving more elaborate services in their private portfolios.

[I have not included any discussion of raising the retirement age or of the challenge of annuitizing individual accounts. I also didn't pursue the issue of whether IAs would lead to more saving (depending on the private response and the implicit budget rules) because it seemed too controversial. But I could add more on these topics if you'd like.]

I do not intend this discussion of difficult choices to imply that no solution can be found to the challenges posed by an aging society. Indeed, I am confident that a bipartisan effort to reform Social Security can succeed next year. But to achieve this goal, and to prepare the nation for the retirement of the baby boomers, we must continue to ask hard questions about alternative reform proposals. There is no magic bullet for Social Security reform, but careful analysis and thought can help guide us to the best decisions.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Maria Echaveste (CN=Maria Echaveste/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-AUG-1998 18:34:21.00

SUBJECT: Hispanic Business

TO: Rebecca M. Blank (CN=Rebecca M. Blank/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: Maritza Rivera (CN=Maritza Rivera/OU=WHO/O=EOP @ EOP [WHO])

READ:UNKNOWN

TEXT:

Janet and Becky--would you help us identify the right person from CEA to participate in this meeting--talk to Maritza if you need more info.

Thank.s

----- Forwarded by Maria Echaveste/WHO/EOP on 08/13/98

06:30 PM -----

Maritza Rivera

08/13/98 04:17:59 PM

Record Type: Record

To: Maria Echaveste/WHO/EOP

cc:

Subject: Hispanic Business

Hispanic Business is having a meeting for its Board of economists on September 15th. This meeting is separate from the CEO roundtable they are having also in september. This Board meeting is smaller and they would like someone from CEA to addresss them and talk about what the administration sees the future of the economy to be and where Latino Business fits in. Who would you recommend? Thank you!!

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:13-AUG-1998 17:05:45.00

SUBJECT: McIntosh Q/A

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:

Bob Tuccillo just called. He was waiting on comments from Julie Anderson of WHCCTF. Bob said they had a number of comments, mostly about use of terms. I will have the comments shortly. I will work through the comments and come to you if there are substantive questions. Steve

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

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

CREATION DATE/TIME:14-AUG-1998 18:02:04.00

SUBJECT: McIntosh Q/A

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

READ:UNKNOWN

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

READ:UNKNOWN

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

READ:UNKNOWN

TEXT:

Here is the final(?) version after spell check and grammer check, comments from Jim Rubin and Michele. I won't be here on Monday so I will leave this in Michele and Joe's capable hands. Steve

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D12]MAIL442947826.226 to ASCII,
The following is a HEX DUMP:

**Draft Answers to March 13 Questions To CEA
from Representative McIntosh
Chair of the House Subcommittee
on National Economic Growth, Natural Resources, and Regulatory Affairs**

C. Dr. Yellen's Testimony before the House Commerce Committee on March 4, 1998

15. *Please provide any and all analyses that support the Administration's conclusion that impacts on the U.S. economy of complying with the terms of the Kyoto Protocol are likely to be "modest".*

Response: Dr. Yellen's testimony concluded that the net costs of the Administration's 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. The analyses supporting this conclusion are presented in The Kyoto Protocol and the President's Policies to Address Climate Change: Administration Economic Analysis, July 1998, (hereafter, the AEA). (see pp. 39-68)

15. Continued. *Also, explain fully how the Administration can make such a forecast responsibly when as Dr. Yellen stated, "it is not yet possible to provide a full authoritative analysis of the Kyoto Protocol." Among other things, Dr. Yellen noted that there is still "much that we do not know" because much has been left unresolved by this treaty (for example, implementation issues, the rules and procedures governing international emissions trading, joint implementation projects, and the Clean Development Mechanism, and future emissions reduction obligations). Moreover, Dr. Yellen asserted that to her knowledge, "no [economic] model --whether used inside the government or not --has yet been set up to analyze the implications of the Kyoto Protocol, since this agreement is only a few months old."*

Response: As mentioned in Dr. Yellen's testimony, many analyses estimating costs of the Kyoto Protocol have generally not taken into account the specific provisions of the Kyoto agreement and the Administration's policies with respect to reducing greenhouse gas emissions. In particular they have omitted the cost savings likely to result from international permit trading, the Clean Development Mechanism, meaningful participation by key developing countries, trading across six categories of greenhouse gases, and the flexibility provided by including carbon sinks. Omitting these elements will raise the estimated cost. The Administration's conclusion, and the supporting but illustrative numerical estimates, incorporate these policies and mechanisms.

16. *Please provide any and all analyses that support the following estimates:*

a. *U.S. electricity restructuring "will offer approximately \$20 billion in cost savings".*

Response: The derivation of this estimate is explained in the AEA in the section entitled potential electricity restructuring cost-savings. (see Appendix C)

b. *Emissions trading among the Annex I countries “can reduce the cost to the United States of achieving its targets for 2008-2012 emissions by about half.”*

Response: Please see the section on the effects of climate change policy on the United States in the AEA. (see pp. 27-32, 45, 48, 51-52)

c. *Emissions trading among a subset of Annex I countries (for example, the United States, Australia, Canada, New Zealand, and Russia) “can reduce costs by an estimated 60-70 percent.”*

Response: Please see the section on the effects of climate change policy on the United States in the AEA. (see pp.27-32, 45, 48, 51-52)

Also, based on the estimates presented in Janet Yellen’s testimony, please explain and fully document how more limited trading among this subset of countries would produce greater cost reductions than from either trading among all Annex I countries or trading with the full participation of Non-Annex I countries.

Response: The market clearing price for greenhouse gas permits in an international trading system result from the supply and demand for internationally traded permits. If a country that is expected to be a seller decided not to sell, then the actual supply falls, and the permit price and associated cost increases. If a country that is expected to be a buyer decided not to buy, then demand falls, and the permit price and associated cost falls. In the case of trading under the Kyoto Protocol, both the United States and the European Union are projected by many economic models to be buyers. If the European Union decides not to participate in international trading, then the demand for permits on the international market would decline, and the permit price and costs would fall, thereby benefiting countries that continue to buy permits internationally. Please also see the section on the effect of climate change policy on the United States in the AEA (see pp. 51-53).

d. *The Clean Development Mechanism “might shave costs by roughly another 20 to 25 percent”.*

Response: The United States is seeking to ensure that the Clean Development Mechanism becomes a cost-effective way to allow developed country firms to give financing and technical assistance for projects to lower emissions and to receive credit for the reductions. Our best professional judgment, based on discussions with a variety of informed analysts, is that CDM could achieve at least 20 percent of the emissions reductions available under full global trading. The statement that costs would fall by roughly another 20 to 25 percent is based on the SGM

results given an assumption of 20 percent “effectiveness,” and is further explained in the AEA. (see pp. 35, 48)

e. *Overall costs “would reach roughly one-tenth of one percent of projected GDP in 2010” (resource costs of achieving Kyoto targets for emissions reductions were estimated to be \$7 to \$12 billion per year in 2008 to 2012).*

Response: The forecasted changes in GDP were taken from the SGM model output based on certain assumptions. Please see the section on the effects of climate change policy on the United States in the attached AEA for a brief summary. (see pp. 51-53)

Also, please explain how it is possible that compliance with the Kyoto Protocol, which has been projected by independent economists to be the most expensive environmental undertaking ever, could cost less than compliance with the recently issued U.S. air quality rules for particulate matter and ozone (the final Regulatory Impact Analysis for those rules estimated costs of \$46 billion).

Response: As mentioned in Dr. Yellen’s testimony, many analyses estimating costs have generally not taken into account the flexibility mechanisms included in the Kyoto Protocol and the Administration’s policies with respect to reducing greenhouse gas emissions. In particular they have omitted the cost savings likely to result from international permit trading, the Clean Development Mechanism, meaningful participation by key developing countries, trading across six categories of greenhouse gases, and the flexibility provided by including carbon sinks. Omitting these flexibility mechanisms raises the cost estimates of these analyses.

f. *The assumption that the rate of improvement in energy efficiency (AEEI) will be 1.0 percent per year (which is greater than that assumed by the EIA).*

Response: 1.0 percent per year is only slightly higher than the AEEI estimate of the Energy Information Agency. The increment can be viewed as a modest allowance for the effects of intensified research and development, technology dissemination, and cooperative government-business partnerships. We also note that Battelle’s SGM model is typically run with a default value for the AEEI of 1.0.

In particular, please reconcile this assumption with the statement of the CEA in its 1998 Annual Report that “[u]ntil an emissions cap and trading system are in place, however, the economic incentive to use [technologies supported by the Administration’s budget] may be low.”

Response: No reconciliation is needed. The comment from the 1998 ERP implies simply that in the absence of a cap and trade system that would lower the price of using carbon-lean technologies relative to carbon-rich technologies, the incentives to adopt such carbon-lean technologies will be less than in a world with the target and trade system in place. Moreover, the AEEI represents the autonomous rate of technological improvement, i.e., the rate that would occur in the absence of price changes that the target and trade system might lead to, due merely

to the greater availability of new technologies. Thus its value is a comment on the extent of one's technological optimism, and not about optimism of private parties to respond to price incentives.

Is the Administration assuming that such a system will be put into place in the short-run?

Response: The Administration's position on the timing of a target and trade system has not changed. The Administration maintains that the system should be established in the 2008-12 time-frame with the benefit of 10 years of additional experience with similar market based mechanisms.

g. The estimated effect on energy prices will range from \$14 to \$23 per ton of carbon equivalent.

Response: Please see the section of the AEA that describes the effects of climate change policy on the United States (see pp. 54-58)

h. "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."

Response: According to standard economic analysis, in the long run, total employment is determined by the size of the labor force, incentives to work, and the productivity of labor. Changes in prices -- which result from developments in technology, trade, energy markets, or many other areas -- tend to have their effects on the composition of employment across sectors, more than on total employment.

As explained in Dr. Yellen's testimony and in the AEA, the energy price changes expected to result from the Kyoto protocol are likely to be modest. In particular, these price changes over the next decade are less than the average of year-to-year absolute price changes observed since 1960. Thus there is little reason to believe there will be large changes in employment even in the energy-intensive sectors. In the less energy-intensive sectors, there is no reason to expect any decline in employment at all due to climate change policies. Most economic models would not predict changes in the overall level of employment resulting from such small energy price changes 10 years in the future. (see pp. 54-62)

Furthermore, the United States has a strong competitive advantage in a variety of high-tech sectors. For example, recent innovations in battery technology, and in fuel cells were announced by U.S. companies. These innovations, and future ones expected from U.S. companies, will be in demand worldwide. The growth in associated production is likely to lead to growth in high-wage jobs in this country.

i. As to each analysis, please indicate who prepared the analysis and provide records of

comments from other federal agencies.

Response: All of the analysis for Dr. Yellen's testimony on climate change and the AEA was prepared by current and former CEA staff under the direction of the Members of the Council, with the collaboration of staff at several other government agencies.

Documents responsive to this request reflect internal deliberations of the Executive Office of the President with regard to ongoing policies of the Administration. As to such materials, please contact the Office of the Counsel to the President.

17. Please provide any and all analyses that support the Administration's estimate that benefits relating to traffic congestion, highway accidents, and air pollution unrelated to climate change "could offset approximately a quarter of the resource cost of the climate change policy."

Response: This analysis is summarized in the section of the AEA describing ancillary benefits. (see pp. 66-68)

Documents responsive to this request reflect internal deliberations of the Executive Office of the President with regard to ongoing policies of the Administration. As to such materials, please contact the Office of the Counsel to the President.

As to each analysis, please indicate who prepared the analysis and provide all records of comments from other federal agencies.

Response: All of the analysis for Dr. Yellen's testimony on climate change and the AEA was prepared by current and former CEA staff under the direction of the Members of the Council, with the collaboration of staff at several other government agencies.

Documents responsive to this request reflect internal deliberations of the Executive Office of the President with regard to ongoing policies of the Administration. As to such materials, please contact the Office of the Counsel to the President.

18a. In her testimony, Dr. Yellen stated that, in evaluating the "likely net economic impact of the Kyoto Protocol," the Administration has "drawn upon a broad array of analytical tools", and a "wide range of models of the energy sector and economy over the next 25 years" to assess the various possible costs and non-climate benefits of the Administration's emissions reduction policy. Please specify all of the models and analytical tools that the Administration has used and describe in detail their strengths and weaknesses.

Response: As explained in Dr. Yellen's testimony, the existence of modeling difficulties means that we should treat any model results with the caution that is warranted -- not that we should abandon rigorous economic analysis. We have employed a broad set of economic tools to analyze the policy options. Such tools include models of the energy sector and economy over

the next 25 years, including but not limited to the results of the Stanford Energy Modeling Forum exercises, the IPCC's review of the economic and social dimensions of climate change, and the staff-level Interagency Analytical Team effort last year. Other tools include simple relevant statistics, "meta-analyses" of existing models (such as that undertaken by Robert Repetto and David Austin of Resources for the Future), historical and sectoral examples, univariate and multivariate regression analysis, simulations, Hotelling-type theoretical models, CEA staff econometric forecasts of emissions in developing countries, stylized models of perfect competition and monopoly, basic economic reasoning and the various other sorts of theoretical and empirical tools of analysis that abound in the scholarly literature. Drawing on this broad array of analytical tools allowed a useful evaluation of the policy alternatives.

We have considered and evaluated the following specific large econometric and computable general equilibrium models of the economics of climate change mitigation: Second Generation Model, G-cubed, MERGE, and DICE. We have also looked at the results from many other models, such as GREEN, DRI, Markal Macro, Megabare, EPPA, FUND, MiniCAM, CETA, RIVM, and CETM/MRT.

18b. According to the testimony, the Administration has relied particularly on the Second Generation Model of Battelle Laboratories for many of its estimates. However, the IAT report indicated that the SGM model "focusses on long-term transitions and measures the economy in 5 year intervals," so that it risks racing past short-term transition issues, such as GDP loss and impacts on specific industries.

Specify all of the Administration's estimates that were derived from this model.

Response: The Administration used this model's estimates as one of several inputs in its calculations of likely permit prices and resource costs for the different emissions trading scenarios. Please see the methodology section in the AEA. (see pp. 42-49) Information of the marginal abatement cost curves of non carbon greenhouse gases was missing from the SGM output and added to reflect provisions in the Protocol. Numerical estimates of expenditure changes and ancillary benefits used estimates of likely permit prices or emissions reductions as inputs.

Also, indicate why many of the Administration's key estimates were derived from this model.

Response: Each model has strengths and weaknesses and answers some questions better than others. Some, for example, model the energy sector in detail. Some allow for the fact that a coal-fired power plant cannot costlessly be converted to one that runs on natural gas. Some have enough policy detail to distinguish alternative ways of redistributing revenues that would result if emission permits were to be auctioned. Some are capable of showing short-term macroeconomic disequilibria. Some include a long-term "carbon cycle" model that can keep track of the accumulation of greenhouse gas concentrations in the atmosphere and their climatological effects. Some break down the rest of the world into regions and so can model

international trade. No one model does everything, and therefore we must not rely on the results of any one model or set of models. Professional judgement, economic intuition and experience, based on careful analysis, are also crucial.

The SGM model, unlike many economic models of climate change, has an explicit model of emissions reductions in other countries, and so is exceptionally well suited for estimating emissions permit prices given international trade in permits. In addition, it has modules reflecting several major developing countries and data on all other developing countries as a group. Thus, it is well suited to address the effects of developing country participation on permit prices. Finally, the timely availability of sufficient information about a variety of SGM model runs made its use practical between the time the Kyoto Protocol was developed in December 1997 and our first testimony in March 1998.

Finally, please identify the corresponding estimates derived from each model that the Administration has used in assessing the impacts of the Kyoto Protocol.

Response: The development of corresponding estimates is a complicated technical task that is beyond the abilities of our small staff to complete in a timely manner. We expect that the Stanford Energy Modeling Forum, which conducts exercises with a set of energy-economic models to assess hypothetical energy policy scenarios, will continue to produce comparisons of various climate change models' forecasts of the effects of the Kyoto Protocol. Although some of these models have not yet incorporated the five categories of non-CO2 gases directly into their models, these comparisons should provide a full comparison of the SGM predictions with those of other models.

19. *What are the 1990 baseline, the Fiscal Year 1997, 1998 and 1999, data, and the annual outyear estimates until 2012 for the following outcome performance measures mentioned in Dr. Yellen's testimony: morbidity rates for some diseases, mortality rates for some causes, monetary damages from temperature increase, consequences from some catastrophes, traffic congestion, highway accidents, and air pollution unrelated to climate change.*

Response: The AEA provides baseline data for traffic congestion, highway accidents, and air pollution unrelated to climate change. These data are for 2010, or for 1995, if post 1995 data do not exist and no published 2010 forecasts were available. For all these data we have no information on outcome performance measures for the Fiscal Years requested, or for year-by-year estimates through 2012. (see pp. 66-69)

20. *Why does the Administration maintain that the U.S. acid rain program experience "clearly demonstrates 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"?*

Response: Emissions trading programs and other market mechanisms, provide continuous

economic incentives to reduce emissions further, which generally lead costs to be much lower than would be the case under a variety of more traditional regulatory approaches. The acid rain program, for example, has resulted in compliance costs far below those originally estimated.

Why does the Administration believe that it is appropriate to extrapolate from that experience to the global arena.

Response: The basic principle that there is gain from the ability to trade emissions permits is of quite wide applicability. Indeed the textbook theory of gains from trade is perhaps most familiar and well established at the international level. Economic incentives generally have similar effects in different countries and cultures: people everywhere are interested in higher incomes. International permit markets will lower compliance costs in all participating countries, because they provide financial incentives for sources to reduce emissions. These incentives will have the effect of lowering the costs of emissions cuts relative to what would be the case without any trading of emissions permits.

Won't the effectiveness of the international system, joint implementation, and the Clean Development Mechanism depend on different factors, such as the rules and procedures governing these mechanisms, the extent of participation by other countries, including developing countries?

Response: The Administration believes that effective rules on trading, joint implementation and the Clean Development Mechanism are critical to the success of these mechanisms, and has asked other parties to support such rules.

21a. In her testimony, Dr. Yellen stated that part of doing it smart (i.e., lowering the costs of reducing greenhouse gas emissions) under the Kyoto Protocol means "taking serious and responsible steps in the short-run to prepare us to meet our obligations in the longer-term." She indicated that these steps include a \$6.3 billion program of tax cuts and R&D investments, industry-by-industry consultations to prepare emission reduction plans in key industrial sectors, and legislation to restructure the electrical industry. Under what authority is the Administration pursuing this unilateral executive branch course of action in furtherance of the treaty's emissions reductions targets and without Senate Ratification?

Response: The programs you describe are not unilateral executive branch actions to implement the Kyoto Protocol. For example, the \$6.3 billion Climate Change Initiative (CCTI) is a 1999 budget proposal to Congress. Similarly, the electricity restructuring plan is a legislative proposal. Voluntary actions to reduce greenhouse gas emissions, such as exemplified by the CCTI and industry consultations are fully consistent with the U.S. obligations under the 1992 Framework Convention on Climate Change and existing agency authority. Moreover, these programs are not specifically intended to implement the Kyoto Protocol. Rather, they are meant to keep the United States on a path toward cleaner and more efficient energy use and promote a more competitive electricity industry.

21b. *If the Administration is delaying the submission of the treaty to the Senate until it obtains meaningful participation by developing countries, doesn't that decision also require the Administration to delay any unilateral executive branch action to address global warming until that cooperation is forthcoming.*

Response: The Administration is not embarking on unilateral Executive Branch action to implement the Kyoto Protocol without ratification. To the contrary, steps to ensure compliance with the Protocol's requirements will be undertaken only with the full advice and consent of the Senate. However, the Administration is pursuing a variety of policies that make good sense even independent of concerns about climate change and that has the additional desirable property of reducing greenhouse gas concentrations. Examples of such policies include the CCTI. These policies all reduce energy consumption, and thereby reduce dependence on foreign oil and emissions of air pollutants unrelated to climate change, policy goals that have enjoyed bipartisan support in Congress and have been a long standing priority of this and previous administrations. The 1992 Framework Convention on Climate Change adopted by the Bush Administration and ratified by the Senate requires the United States to take measures to reduce its greenhouse gas emissions.

c. *Given that the Kyoto Protocol seeks to address a global issue, isn't [it] harmful to U.S. interests to proceed without the full participation of developing countries.*

Response: The President has said that he will not submit the Kyoto Protocol for Senate ratification without meaningful participation by key developing countries.

d. *Besides being unconstitutional, isn't it also premature and harmful to U.S. interests to take such unilateral actions, without ratification, when the Administration has characterized the Protocol as a "work in progress" a Protocol that is not yet fully complete nor ready for the President's submission to the Senate?*

Response: The President has clearly stated that the Administration will not circumvent the Congress and implement the Kyoto treaty before it is ratified. However, this does not mean that ongoing efforts to promote energy efficiency, reduce our reliance on foreign oil or improve our air quality should be rolled back. As stated above, these initiatives have enjoyed bipartisan support in Congress and are consistent with our obligations under the 1992 Framework Convention on Climate Change.

D. Cost/Benefit Analysis of the Kyoto Treaty

22a. *Please provide any and all analyses that the Administration or any federal agency prepared (or had prepared) or is preparing (or is having prepared) of the costs and benefits of imposing on the U.S. the binding targets and timetables set forth in the Kyoto Protocol for reducing greenhouse gas emissions, taking into account the global implications of the way in which this*

agreement is structured.

Response: Please see the AEA for additional detailed information about the economic analysis of the Kyoto Protocol. (see pp. 39-72)

Also please analyze and document the following:

22b. Whether the benefits of implementing this Protocol are justified by the costs.

Response: It is extremely difficult to quantify the long-term economic benefits of climate change mitigation. We have not calculated a monetary value of these benefits. Although we do not think the benefits of mitigating climate change are, at this stage, quantifiable with adequate precision, they are nonetheless likely to be real and large in the long run. Estimates of costs for the United States to meet its Kyoto emissions targets are likely to be modest if these reductions are undertaken in an efficient manner. (see AEA pp. iii.- iv.)

22c. Evaluate the effectiveness of this agreement by comparing the marginal abatement costs of the most plausible alternative scenarios for meeting the Kyoto targets, given the way in which this agreement is structured, with the marginal costs of other reasonable alternative compliance schemes.

Response: The Kyoto Protocol is a work in progress. The Administration has said that it will not submit the treaty for ratification without meaningful participation by key developing countries. Such participation, along with effective international trading of permits among countries with emissions targets would lower costs substantially. The effect of such participation, and of trading is outlined in Dr. Yellen's testimony, and described in detail in the results section of the AEA. (see pp. 26-35, 51-53)

22d. With respect to each scenario that is analyzed, identify the assumptions used, explain any uncertainties concerning the assumptions, and examine the sensitivity of net effects to the different compliance strategies, using a range of plausible assumptions about future economic development and about fundamental climate processes.

Response: Please see the methodology section of the AEA. (see pp. 42-50)

22e. Evaluate the opportunity costs of pursuing the Administration's strategy for the abatement of greenhouse gas emissions under the terms of the treaty;

Response: As the Protocol is a work in progress its opportunity costs cannot be evaluated without also considering the additional flexibility mechanisms included as a result of continued United States efforts in ongoing diplomatic discussions. The opportunity costs of the Protocol and the flexibility mechanisms are extensively discussed in prior testimony by Dr. Janet Yellen, and in the AEA. (see pp. 51-68)

22f. *Evaluate how the benefits and burdens of complying with this treaty would be distributed on the national and household levels, describing, among other things, the disparate regional and industrial impacts, and the effects on different income levels.*

Response: We do not have estimates of the distribution of impacts across regions or industries, with the exception of some information on coal sector production, which is discussed in the AEA. (see p. 62)

23a. *In evaluating alternative scenarios, please examine the following.*

23b. *Compare the economic and environmental effects of not including developing countries in the effort to reduce global emissions (with the potential for binding developed countries to even greater obligations, without limiting developing countries at all) against the effects of addressing greenhouse gas mitigation on a global scale by the international community.*

Response: Climate change is a global problem, so policy approaches encompassing more countries will likely be both more effective and more cost-effective than approaches involving only a few countries. Including developing countries will lower costs and permit prices substantially because of the many low cost abatement opportunities in these countries. Estimates from the Battelle Laboratory's Second Generation Model, which are in line with other models, suggest that developing country participation through the Clean Development Mechanism (CDM) along with trading among developed countries with emissions targets could reduce resource costs by 66 percent compared to a domestic only approach. Trading among developed countries with emissions targets without CDM could reduce resource costs by 57 percent compared to a domestic only approach. The model suggests that including key developing country participation through adopting emissions targets and participating in international permit markets along with developed countries could lower costs by nearly 80 percent. (see AEA pp. 51-53)

23c. *Compare the economic and environmental effects of complying with the timeframes set forth in the Kyoto Protocol with the effects of complying over longer time periods.*

Response: The AEA focuses on assessing the economic and environmental effects of complying with the Kyoto Protocol and the President's policies to address climate change, which are the relevant parameters.

23d. *Compare the impacts of reducing greenhouse gas emissions using international emissions trading, joint implementation, and the Clean Development Mechanism with the impacts of relying upon domestic emissions permit trading. In this regard evaluate alternative international trading scenarios: trading only among Annex I countries, trading that extends to a number of key developing countries, and trading in which all countries are fully participating.*

Response: Please see the results section of the AEA. (see pp. 51-68)

24. *With respect to any analysis provided, please identify and explain the basis for assumptions used regarding such factors as the rate of improvement in energy efficiency, the effectiveness of market incentives in increasing the market share of fuels that emit less carbon, and economic and demographic growth. Also, explain fully any assumptions on how emissions reductions will be achieved as, for example, through the early retirement of coal plants or nuclear plant life extensions.*

Response: In developing the illustrative estimates using the SGM model we have used an autonomous energy efficiency index of 1.0, and baseline assumptions of the SGM model. Information about the use of energy from coal and nuclear plants is summarized in the AEA. (see pp. 54-58, 64) The assumptions used in the analysis are summarized in the AEA. (see pp. 50-51)

25. *In considering the opportunity costs, evaluate the extent to which the Administration's climate change strategy will require the diversion of funds from savings and/or investments which would have provided other benefits, such as saving social security, or more funding for education, health care, etc.*

Response: The resource costs that are described in Dr. Yellen's testimony reflect the opportunity cost as it is usually understood by economists. The apportionment of these costs to foregone spending, whether on apples and oranges or social security or education, is an unconventional analysis that we have not undertaken.

26. *In assessing the impacts on the U.S. of complying with the Kyoto targets and timetables, please explain in detail the potential effects on the following indicators of economic performance: gross domestic product (GDP), per capita GDP, unemployment, income and real wages, trade competitiveness, and energy prices.*

Response: Projected percentage changes in GDP, per capita GDP, energy prices and competitiveness, are outlined in Dr. Yellen's testimony, and discussed in the results section of the AEA. (see pp. 54-61) Given the Administration's policies, complying with the Kyoto targets should not have significant effects on aggregate employment. (see AEA p. 62 and the answer to Question 16h)

27. *In assessing the benefits of complying with the Kyoto treaty, please evaluate fully the potential offsetting negative effects of exempting developing countries and of "carbon leakage".*

Response: Exempting all developing countries would amount to a hypothetical departure from the President's policy. The Kyoto Protocol establishes a Clean Development Mechanism whereby Annex I countries such as the United States or their firms may undertake projects that reduce emissions in developing countries and receive credit for such reductions. CDM is likely to provide a broad range of cost savings to the United States, and this conclusion is consistent

with our interpretation of SGM model results that suggest that CDM would reduce resource costs by about 20 to 25 percent relative to scenarios in which there is permit trading either among all or a subset of Annex I countries. Inclusion of developing countries in the CDM and in international emissions trading would mitigate carbon leakage.

28. President Clinton has suggested that the U.S. economy can continue to grow under this agreement. Please indicate at what rate the Administration expects that the economy will continue to grow during the next 10 to 20 years if the treaty is ratified and at what rate it is expected to grow if the treaty is not ratified.

Response: As shown in a figure on GDP in 2010 in the results section of the AEA (see p. 59), the effect on the GDP growth rate of the Kyoto Protocol, given the assumptions that we have elsewhere described, is minimal relative to the anticipated growth in GDP between now and 2010. Under business as usual, the Second Generation Model projects U.S. GDP to grow 2.0859% annually between 1995 and 2010. With a permit price of \$14/ton, SGM projects the annual growth rate to be 2.0851%, and less than \$23/ton, the annual growth rate is projected to be 2.0822%. (see p. 59)

29. Have any of the cost-benefit analyses performed by the Administration or any agency been peer-reviewed?

Response: With the exception of the IAT report, and some of the studies by the Department of Energy's National Labs, we are unaware of any peer-review of Administration estimates. It is not the policy of the CEA to submit its analyses or reports for peer review.

30. In connection with these cost-benefit analyses, fully explain how the baseline(s), against which costs and benefits were calculated, was determined.

Response: Please see the AEA. (see pp. 42-50)

31a. Please provide all records of written or oral comments from other agencies on each of the cost-benefit analyses that were performed.

Response: Documents responsive to this request reflect internal deliberations of the Executive Office of the President with regard to ongoing policies of the Administration. As to such materials, please contact the Office of the Counsel to the President.

31b. Please provide all records of comments submitted by federal agencies on Dr. Yellen's draft testimony about the economics of Kyoto for the hearing before the House Commerce Committee on March 4, 1998.

Response: Documents responsive to this request reflect internal deliberations of the Executive Office of the President with regard to ongoing policies of the Administration. As to such

materials, please contact the Office of the Counsel to the President.

32a. Given the significant economic costs projected by private sector studies, why did the Administration abandon a year and a half-long effort to develop cost estimates of the President's proposed policies to reduce greenhouse gas emissions?

Response: First, the significant costs projected by private sector studies are not derived from analyses of emissions reduction scenarios that include the whole range of flexible elements that comprise both the Kyoto Protocol and Administration policy. The Interagency Analytical Team work to which the question refers was a modeling effort that produced some useful lessons, but as we found from the peer reviewers' comments, it also suffered from some shortcomings. The Administration Economic Analysis (AEA) builds on the IAT exercise and also the insights of a wide range of models and other relevant literature to derive its conclusion that, with the flexibility mechanisms included in the treaty, and with sound domestic policies, the economic impacts of complying with the Kyoto Protocol should be modest.

32b. Please identify any and all private parties that are currently performing economic analyses of the Kyoto treaty or any aspect of it for the Administration. Describe their work and provide all products of their work in draft or final form.

Response: CEA has no list of parties doing economic analysis of the Kyoto Protocol or any aspect of it for the Administration. Moreover, CEA has no contract or cooperative agreement with any modeler or modelers to undertake specific analyses regarding the Kyoto Protocol.

E. International Emissions Trading

33a. Even assuming that effective rules and procedures can be developed for an international emissions trading system and for joint implementation projects and that key developing countries agree to participate, isn't there a real risk that these mechanisms could effect an enormous transfer of wealth and jobs out of this country overseas, especially to the countries of the former Soviet Union, China, India, South Korea, Brazil, and Mexico (i.e. that this system would be essentially a foreign aid program)? Some studies have estimated that more than 50% of our reductions would have to be purchased from other countries.

Response: The Administration is committed to achieving as many cost-effective emissions reductions domestically as possible. At the same time, our analysis does suggest that for the 2008-2012 time frame it makes sense for the United States to pursue low cost emissions reductions abroad, as would happen with the full implementation of an international emissions trading program. The key point is that trading will be economically beneficial to U.S. firms. We expect the Annex B parties of the former Soviet Union and key developing countries will provide significant investment opportunities for U.S. firms to capture gains from emissions trading as those countries restructure and develop their economies. Developing countries will represent the greatest share of new energy, transportation, and building infrastructure investment

worldwide in the coming decades, and U.S. firms can help provide clean technologies and financing that will build those economies and markets, help stave off disruptive climate effects, and allow U.S. firms to capitalize on their investments in environmentally superior products and processes.

Our analysis does not suggest that emissions trading will have a significant negative impact on U.S. employment. If anything, the lower costs associated with a comprehensive trading program will help protect American jobs.

33b. Please provide and document estimates of the percentage of U.S. emissions reductions that might have to be purchased from other countries to minimize the costs of reducing emissions and which countries likely would be the beneficiaries.

Response: Our analyses provide illustrative estimates of how emissions trading and other flexibility mechanisms can lower costs, but ascribing with precision the emissions reduction to any particular country is impossible. The trades and emissions reductions undertaken by U.S. firms will depend on a whole host of factors such as the costs (including transactions costs) of emissions reductions in participating countries, the extent to which emissions can be cost-effectively offset through sinks at home and abroad, the role of the six categories of gases, and the development and deployment of climate-friendly technology. Further, the “beneficiaries” of trading would include the United States, particularly U.S. firms, due to the lowered costs of achieving our target.

34a. What real incentive do developing countries have to participate in the international emissions trading system, which would require them to commit to mandatory reductions, when they can transfer emissions reductions credits in connection with joint implementation projects and obtain financing through the Clean Development Mechanism?

Response: Developing countries would experience significant gains from trading in emissions permits. The economic and environmental rationales for a target and trade approach by developing countries include:

- Greater economic benefits to developing countries: With targets at or only slightly below their business-as-usual (BAU) projected emissions growth, emissions reductions in developing countries would produce many billions of dollars through the international sale of emission reductions achieved at lower cost than the world price.
- Target and trade yields greater benefits than CDM: While the Clean Development Mechanism will result in benefits for developing countries, an effective target and trade system can produce far greater benefits to developing countries. In contrast to the CDM, which is project based, countries that agree to emissions targets can employ a wide variety of measures to reduce emissions, and need not rely exclusively on project-based reductions. Nor do they always need to establish a baseline against which projects

generate reductions. Like other trading parties, developing countries that agree to a target and trade system would need to follow the rules and guidelines for trading, but are otherwise free to pursue emissions reductions and sequestration in any and all sectors in the way they see fit. The advantage of trading is that they can be compensated for those reductions in a way in which they cannot be without a binding obligation, and the opportunities are more comprehensive than with CDM alone.

- Environmental benefits: Reducing carbon dioxide emissions generates ancillary air quality benefits through lower particulate matter, sulfur dioxide, and nitrogen oxides emissions. Air quality is a key environmental concern in many developing countries

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SUBJECT: A JPM note on Argentina's debt conversion in 1989 as it relates to Russia

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

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

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CC: Matthew R. McBrady (CN=Matthew R. McBrady/OU=CEA/O=EOP @ EOP [CEA])

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Nouriel

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

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Market brief

Revisiting Argentina's Bonex Plan

Review in light of today's events in Russia

- In light of events in Russia today, it might be useful to review Argentina's forced restructuring of its domestic debt in December 1989 – the Bonex Plan
- The experience led to the second bout of hyperinflation in a year in February–March 1990, following the first in July 1989
- Argentina was in default of its external debt then and had no agreement with or support from multilateral agencies, such as the IMF
- However, since the Bonex Plan was just part of a comprehensive structural reform process, the short-term pain quickly turned into an impressive success story
- For investors, the best strategy was to buy aggressively right after the restructuring; for those holding long-maturity debt going into the restructuring, the losses were smaller than for those with shorter maturities
- However, a restructuring does not guarantee success and high returns; the Bonex Plan was preceded by another debt restructuring in July 1989 that was a significant failure

In light of developments in Russia today, it might be useful to review, in detail, the mechanics of the forced restructuring Argentina conducted of its domestic debt in 1989–1990. This plan was known as the “Bonex Plan.”

In 1989, Argentina faced arguably its worst economic crisis ever. GDP dropped 7%; extremely high inflation (405% in 1988) turned into hyperinflation (5,000% in 1989); the fiscal deficit topped 10% of GDP for the third straight year; and, as monetary aggregates collapsed (monetary base reached US\$1 billion, about 1% of GDP, in February 1990), the government switched to debt financing. Because the international financial markets were still basically closed to Argentina as a consequence of its 1982 external debt default (still unresolved by 1989), the government was left to finance itself in the domestic markets at very high real rates (above 50% in short-term dollar bonds). The total size of the debt was not particularly large either in absolute levels or as a percentage of GDP, but given the extremely weak fiscal situation and high interest rates, the debt was exploding and its dynamics

became clearly unsustainable; interest payments were too high as a proportion of fiscal revenues. For instance, the stock of government bonds grew 25% in dollars in the first quarter of 1989.

Under these circumstances, the government decided to declare a forced restructuring of its domestic liabilities; this became known as the “Bonex Plan.” These liabilities consisted mostly of Argentine banks' mandatory remunerated deposits held by the central bank. Banks captured short-term deposits (most were just for one week) from the public at very high rates and then deposited them in the central bank at an even higher rate. When the restructuring came, the government paid back to the banks their remunerated deposits in newly issued Bonex 89s and decided that the banks could use them to pay back the deposits from the public. The Bonex 89s were issued in December 28, 1989; the original issue size was \$3.1 billion.

The final depositors saw their one-week peso deposits (actually, the currency at the time was still the austral) transformed into ten-year dollar bonds overnight. The depositors were given dollar paper equivalent to the face value of the capital (not the interest, which made little difference since deposits were for one week) at the spot exchange rate. However, some exceptions were made in the restructuring to alleviate the impact of the liquidity crunch. First, depositors were allowed to withdraw a maximum of about \$800 in cash, and the remainder was restructured. If a similar constraint on bank deposits were to be introduced in Russia, it would likely become a relevant issue, since the average size of Russian bank deposits is less than \$200. Second, Argentine corporates were later allowed to pay some of their tax obligations with Bonex 89s, increasing the demand for them. And given that the real monetary aggregates collapsed, some dollar assets were sold to get pesos (australes then). **Most likely, a restructuring into peso rather than dollar assets would have resulted in even more pressure on the currency.**

Since there were myriad settlement issues, the first trades – in an extremely illiquid market – were done after two weeks, around January, 10 1990. The first transactions were made at 25–28 cents on the dollar, resulting in a YTM of 30%. A few weeks later, by late February and early March, the price was

40 cents on the dollar, returning 50–60% over the lowest prices.

At the same time that the deposits were restructured, the government also restructured some of its outstanding bonds. The bond market was very small by December 1989. The bond restructuring involved less than \$1 billion of the total of \$3.1 billion of Bonex 89s issued. Those exchanged were from different series of the Bocons (Bocon1s and Bocon2s), which had dollar and peso versions. They were of short maturities, most of them concentrated in the 90–180 day tenors, although there was a very small portion of longer-maturity paper. Before the Bonex restructuring, the shorter maturities' YTM in dollars was from 50–100%. The secondary market prices ranged from 94 cents (for the 30-day paper with 100% dollar YTM) to 81 cents on the dollar (for the 180-day paper with dollar YTM of 50%). Holders of the Bonex 89 got a price of 25–28 cents on the dollar (as mentioned above).

In no way should it be assumed that a debt restructuring guarantees a successful investment. The Bonex Plan was actually the second compulsory restructuring of domestic debt in Argentina in 1989. Lacking a comprehensive strategy and the implementation of structural reforms that came later, this plan failed to solve the problems Argentina faced. In July of that year – the month in which President Menem took office – the domestic debt was consolidated into Bocons, although the losses to bond holders were limited, due to the deep discount at which government debt was trading (July 1989 was the month with the highest inflation ever in Argentina, at 196%). Investors who bought

after the July restructuring suffered continued losses through the Bonex Plan aftermath in December 1989–March 1990.

Most of the domestic debt that was restructured originated in the Plan Primavera, launched in the second half of 1988 with the intention of fixing the exchange rate through the presidential election. As fiscal deficits remained rampant and were financed with this debt, the stock and interest payments increased rapidly. The Plan Primavera collapsed early in 1989; on February 6, the peso suffered the first of its many, major devaluations in 1989.

Going into the Bonex Plan, the best strategy was for investors to stay out until the restructuring and then buy aggressively; for investors forced to have positions before the restructuring, the losses were lower, the longer maturities they held. Although the losses were massive for holders of any paper, the best deal on a relative basis was to be invested in the longest-maturity paper available, with the lowest dollar prices. Investors all received the same face value for different-maturity Bonex 89s; for example, they received \$100 for Bonex 89s, whether they had bought one-month paper for \$94 or six-month paper for \$80 only two days ago.

At the same time, the government let the fixed-exchange rate float. Even with a monetary base of US\$1.9 billion (less than 2% of GDP) in December 1989, there was a frantic currency substitution that caused the dollar to go from 650 pesos on December 27 to 5,890 at the end of February 1990. The monetary base was just US\$1 billion by then, and

Exhibit 2

Argentina 1986–1993

	Nominal GDP	Inflation	Fiscal Deficit	M3	M3	Overnight Rates
	US\$ Billion	%	% of GDP	US\$	% of GDP	Year avg, %
1985	88	385	-8.2	11614	13	84.6
1986	106	82	-5.8	15010	14	80.6
1987	109	175	-10.1	11644	11	130.0
1988	127	405	-10.0	17690	14	174.0
1989	77	4924	-10.5	3623	5	442.7
1990	141	1344	-6.1	10045	7	313.6
1991	190	84	-0.7	12838	7	69.2
1992	229	17	0.3	20584	9	15.8
1993	258	7	1.2	29113	11	6.4

Exhibit 3

Russia 1994–98

	Nominal GDP	Inflation	Fiscal Deficit	Domestic Debt	Domestic Debt	Overnight Rates
	US\$ Billion	%	% of GDP	US\$ Billion	% of GDP	Year avg, %
1994	277	204	-11.4	4.3	1.6	275.4
1995	357	131	-5.7	8.7	2.4	208.5
1996	440	22	-7.8	17.8	4.0	101.0
1997	463	11	-6.5	25.3	5.5	29.2
1998	476	9	-4.7	70.0	14.7	86 (*)

even though that was just 1% of GDP, it was still more than double the country's international reserves of just US\$440 million at the end of February. Argentina suffered its second bout of hyperinflation then, with prices increasing by 95% in March 1990 alone (*not* annualized).

However, some extremely important developments at that time allowed Argentina to evolve from the extremely traumatic Bonex Plan to the impressive success of the Convertibility Plan, implemented on April 1, 1991. No inference should be drawn from the fact that the Convertibility Plan was announced on April Fool's Day. Regardless, President Menem had launched this century's most ambitious and successful structural reform program, allowing Argentina to grow at an average of 8.5% for the next four years and drastically reduce its fiscal deficit from 10.5% of GDP in 1989 to just 0.7% of GDP in 1991. The Convertibility Plan introduced the law that established a currency board (preceded by a major devaluation) in Argentina, enforcing the 1:1 dollar exchange rate that still exists.

The Bonex Plan certainly reduced significantly the stock problem that Argentina faced; however, without the resolution of the flow problem brought about by the drastic reduction of the public deficit, the forced restructuring would have been just another transitory solution, like the many that had previously failed in Argentina. The aggressive buying strategy, which was the correct one in hindsight, certainly benefited from the structural reforms (fiscal consolidation, privatizations, deregulation of the economy, the opening to foreign capital and trade, etc.) – and this factor should not be underestimated.

Exhibit 1

The Bonex Plan was preceded and followed by hyperinflationary bouts

	Monthly Inflation	Peso/US\$	Peso Depreciation	Central Bank Reserves	Monetary Base (pesos)	% Change in MB	Monetary Base (US\$)
Jan 89	8.9	0.001389	4.2	2202	6.9	-1.4	4964.8
Feb 89	9.6	0.001473	6.0	1273	7.3	5.4	4934.9
Mar 89	17	0.001564	6.2	665	7.5	3.6	4817.4
Apr 89	33.4	0.007850	401.9	369	9.6	27.2	1220.9
May 89	78.5	0.017600	124.2	547	20.0	108.4	1134.7
Jun 89	114.5	0.026100	48.3	112	36.8	84.2	1409.1
Jul 89	196.6	0.065250	150.0	1038	90.0	144.6	1378.9
Aug 89	37.9	0.065250	0.0	1506	116.8	29.8	1789.7
Sep 89	9.4	0.065250	0.0	1801	167.4	43.4	2565.8
Oct 89	5.6	0.065250	0.0	1784	217.0	29.6	3326.0
Nov 89	6.5	0.065250	0.0	1318	271.4	25.0	4159.0
Dec 89	40.1	0.194000	197.3	784	368.8	35.9	1901.2
Jan 90	79.2	0.186500	-3.9	745	499.8	35.5	2679.9
Feb 90	61.6	0.589000	215.8	440	594.5	18.9	1009.3
Mar 90	95.5	0.464000	-21.2	620	930.1	56.5	2004.6
Apr 90	11.4	0.497000	7.1	1053	1229.2	32.2	2473.2
May 90	13.6	0.501500	0.9	1499	1410.0	14.7	2811.5
Jun 90	13.9	0.531000	5.9	1964	1820.9	29.1	3429.1
Jul 90	10.8	0.546000	2.8	1893	1966.0	8.0	3600.7
Aug 90	15.3	0.616500	12.9	1804	1976.5	0.5	3206.0
Sep 90	15.7	0.555500	-9.9	2298	2298.6	16.3	4137.9
Oct 90	7.7	0.552500	-0.5	2371	2526.1	9.9	4572.1
Nov 90	6.2	0.504500	-8.7	2770	2940.9	16.4	5829.4
Dec 90	4.7	0.573000	13.6	3242	3617.1	23.0	6312.6
Jan 91	7.7	0.940000	64.0	3160	3562.7	-1.5	3790.1
Feb 91	27	0.978000	4.0	2623	3775.9	6.0	3860.8
Mar 91	11	0.962500	-1.6	5450	4316.9	14.3	4485.1
Apr 91	5.5	0.990000	2.9	5540	4922.7	14.0	4972.4
May 91	2.8	0.990500	0.1	6022	5235.1	6.3	5285.3
Jun 91	3.1	0.997000	0.7	6386	5581.1	6.6	5597.9
Jul 91	2.6	0.992500	-0.5	6620	6037.8	8.2	6083.4
Aug 91	1.3	0.996000	0.4	6598	6137.6	1.7	6162.2
Sep 91	1.8	0.990500	-0.6	7299	6213.8	1.2	6273.4
Oct 91	1.4	0.990500	0.0	7292	6677.1	7.5	6741.2
Nov 91	0.4	0.990500	0.0	7883	7005.7	4.9	7072.9
Dec 91	0.6	0.998500	0.8	8974	7608.4	8.6	7619.9

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

CREATION DATE/TIME:21-AUG-1998 18:57:12.00

SUBJECT: update on Social Security

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

READ:UNKNOWN

CC: Douglas_W._Elmendorf@oa.eop.gov (Douglas_W._Elmendorf@oa.eop.gov [UNKNOWN])

READ:UNKNOWN

TEXT:

Janet:

Since I'll be away next week (reachable at 252-261-4669 if you need me), I want to update you on the Social Security reform process. As you know, the Technical Working Group has spawned a large number of sub-groups, and Jeff Liebman and David Wilcox are pulling together a binder of materials that summarize what these groups have accomplished in the past two weeks. (The binder is intended for Gene and Larry, and it's not clear that it will be distributed to the whole working group, but I've asked Jeff to give you a copy.)

Here are the main topics:

1. Women. Becky and Jeff are in touch on this. The President will have an "event" on women and SS in September.
2. Integration of Individual Accounts with Traditional Benefits. This is about clawback rates, minimum guarantees, tax rates, etc. I've been working with Jeff, David, and others on this, and Steve Goss is running the numbers for various types of plans.
3. Effect on Saving. I've written (with significant input from Jeff and David) a description of how to calculate these effects under various assumptions. (This is attached.) Steve Goss is implementing this. The next step in this area is to finish the memo for the President about how to think about this topic, and I'll try to make that a priority when I get back.
4. Retirement/Health. Corky and Bob are working on this, and I've been kibitzing in meetings with Mark McClellan (David's deputy who is coordinating this group and generating a bunch of the health information from the Treasury staff).
5. Annuities. I wrote (with Gillian Hunter from OTA at Treasury) a description of the current annuities market. (This is attached.) David is integrating this memo with other information and numbers produced by OMB.

6. Non-IA options, or what is the best Ball/Aaron/Reischauer plan we can devise? This topic is stalled until Jeff and I have time to talk about it, and we'd like your input. I've been able to learn a lot about the Swedish system, which may be helpful in this process.

7. The Return on Equities. David's staff has produced a memo arguing that the return to equities over the next 75 years will be well below what we've been assuming. I've had several conversations with Jeff (and one with David) about whether this is right. A bit on this topic is included in the attachment on saving.

I'd love to tell you more about all of these topics when you have a chance. I may also need some guidance on how to set priorities between this work and other things. For example, I'm also preparing several things for a group on consumer financial behavior and education, and Chad wants me to write a WEB piece when I get back.

Doug

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

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

TEXT:

Unable to convert ARMS_EXT:[ATTACH.D63]MAIL450655334.226 to ASCII,
The following is a HEX DUMP:

The Current Annuity Market
Doug Elmendorf and Gillian Hunter
8/18/98

1. Almost all of the “annuity market” involves tax-sheltered investing rather than insurance about length of life.

- a) With *immediate* annuities, payments begin immediately. With *deferred* annuities, payments are deferred. In fact, almost everybody who owns a deferred annuity “cashes out” before receiving any annuity payments--they use deferred annuities for tax-sheltered saving (the tax treatment is parallel to after-tax IRAs).
- b) Total premium payments for individual annuities in 1995 were \$99 billion, of which payments for immediate annuities represented only \$6 billion. (Other ways of comparing these markets suggest that immediate annuities are even less important.)

2. Few people choose “pure” annuity payouts.

- a) *Single life* annuities make payments for the length of one person’s life. *Two life* or *joint and survivor* annuities make payments to a surviving spouse. *Period certain* or *term certain* annuities make payments for at least n years (with *installment refund* annuities as a variant).
- b) In a 1993 survey, 93% of annuitants chose single life. Only 8% chose no refund or guarantee option. In 1994 in TIAA-CREF, roughly half of annuitants chose single life. Among them, 1/3 took no guarantee, with the rest split fairly evenly among 10-, 15-, and 20-year guarantee periods.
- c) Pure annuities seem less popular today than several years ago. This may be related to the stock-market boom.

3. Variable annuities are mostly a new phenomenon in the immediate annuity market.

- a) *Fixed nonparticipating* annuities pay a predetermined amount each year. *Fixed participating* annuities guarantee a minimum amount but pay more if the insurance company does well. *Variable* annuities are complicated (see (b)).

- b) Variable annuities work in the following way: Assume an “investment rate” (say 5%). Given that investment rate, your life expectancy, and your lump sum of money (say \$100,000), calculate the fixed annuity payment you would receive (say \$9000). Choose investments for the lump sum. Then:

payment in 1st year = \$9000

payment in 2nd year = $\$9000 \times (1 + \text{actual return}) / (1 + \text{assumed investment rate})$

payment in 3rd year = $\text{payment in 2nd year} \times (1 + \text{actual return}) / (1 + \text{assumed investment rate})$

Some implications are:

- i) If your lump sum grows at exactly the assumed investment rate each year, your annuity is a fixed amount.
- ii) If your lump sum grows faster than the investment rate each year, your annuity grows each year.
- iii) If your lump sum falls in half in one year, your annuity falls roughly in half as well.
- iv) Changes in portfolio value are essentially smoothed over your remaining life.

4. Adverse selection is a serious problem.

- a) Warshawsky (1988) estimated the quantitative importance of this phenomenon by comparing mortality probabilities of the general population to those of annuity purchasers. He found the average cost over 1941-84 to be 13 percent of the amount invested. Mitchell, Poterba, Warshawsky, and Brown (1998) updated the calculation with some improvements through 1995; they found that for the 1970s, early 1980s, and 1995, the cost of adverse selection was about 9 percent. The explanation for the decline is unclear.
- b) A question for Social Security reform: Would reducing current annuitized benefits reduce the adverse selection problem? Walliser says “only slightly.”

5. Transactions costs are high.

- a) Warshawsky (1988) estimated that over 1941-84, transactions costs on fixed annuities averaged 9 percent of the amount invested. These costs include marketing, corporate overhead, income taxes, and profits. Costs varied significantly over time, with higher costs when interest rates were high or rising. MPWB estimated that transactions costs fell to 4 percent by 1995, which Warshawsky (1997) attributes largely to the interest-rate cycle.
- b) Variable annuities have an extra level of administrative costs, because they have asset management fees (e.g., mutual fund fees) in addition to insurance fees.

- c) Some of this load is explicit. The rest arises implicitly from choosing mortality tables that are too conservative.
- d) Costs vary across companies. Warshawsky (1998) presents the payouts on a \$100,000 purchase of a fixed annuity for men age 65 in 1996:

	monthly	annual
first quartile payout:	\$730	\$8760
average payout:	760	9120
third quartile payout:	790	9480

- e) A question for Social Security reform: Are these transactions costs socially wasteful? Not entirely. Explanation of annuities is probably valuable. Provision for investment risk and return to capital are unavoidable. Taxes go to the government.
- f) A question for Social Security reform: Would these transactions costs decline over time? Maybe, as people become more familiar with annuities. Mutual fund fees have fallen. (What is different about this market and the markets for mutual funds and financial services and products more generally?)
- g) A question for Social Security reform: Can these costs be effectively regulated? New York State limits marketing costs to 7% of premiums. Maybe the federal government could limit costs and force insurers to use a standard life table of its choosing (to avoid the implicit load). But how would this affect current state regulation and insurance of insurers?

Issues to Keep in Mind:

1. Should annuity purchase be mandated?
 - a) adverse selection
 - b) moral hazard of running down one's assets and then needing public assistance
 - c) if mandated, it's easier to require unisex pricing or ban risk underwriting if we want to (but it's not completely easy if people can choose among insurers)
 - d) do people understand why annuities don't seem to pay much?
 - e) what about the age 64-1/2 vs. Age 65-1/2 problem?
2. Should annuity purchase be handled privately or by the government?
 - a) are marketing costs and commissions socially wasteful?
 - b) what about insuring insurance companies?

- c) will the government innovate?
 - d) avoiding adverse selection across insurers
3. Different reform proposals handle annuitization differently.
- a) Advisory Council's IA proposal required annuitization with a one-year guarantee to survivors regardless of when annuitant died.
 - b) Advisory Council's PSA proposal did not require annuitization.
4. Insuring the Insurers
- a) State guarantee funds currently provide some backup in case insurance companies go bankrupt. But they might be unable or unwilling to back huge amounts of new funds.

References:

Brown and Poterba (1998), "Joint Life Annuities and Annuity Demand by Married Couples"
 CBO (1998), "Social Security Privatization and the Annuities Market"
 Friedman and Warshawsky (1988), "Annuity Prices and Saving Behavior in the United States"
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 Mitchell, Poterba, Warshawsky and Brown (1998), formerly MPW (1997), "New Evidence on the Money's Worth of Individual Annuities"
 Poterba (1997), "The History of Annuities in the United States"
 Walliser (1997), "Understanding Adverse Selection in the Annuities Market and the Impact of Privatizing Social Security"
 Warshawsky (1988), "Private Annuity Markets in the United States, 1919-1984"
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The Effect on National Saving of Potential Social Security Reforms

8/21/98

The first part of this memo describes the proposed formulas for Steve Goss to use to calculate the effect on national saving of alternative Social Security reform proposals. The second part of the memo explains the methodology and assumptions underlying those formulas.

1. Formulas

Let: DNW_t = deviation of national wealth in year t from its value in the absence of reform
 DNS_t = deviation of national saving in year t from its value in the absence of reform
(Both are calculated in nominal terms and should be shown as shares of GDP.)

Then: $DNW_1 = S_1$
 $DNW_t = S_t + DNW_{t-1} * (1+m)$ for $t > 1$
where S_t is defined below, and m is the marginal product of capital (.07 plus inflation).

And: $DNS_t = DNW_t - DNW_{t-1}$

We define S_t in two different ways that correspond to alternative views of the political economy of the federal budget:

Political economy rule #1: On-budget spending and taxes are unaffected by reform.

$$S_t = DSSTaxes_t - DSSBenefits_t - (Consumption from IAs)_t$$

$DSSTaxes$ = deviation of traditional Social Security taxes (i.e., excluding any clawbacks) from value in the absence of reform

$DSSBenefits$ = deviation of traditional SS benefits from value in the absence of reform

$Consumption from IAs$ = withdrawals from IAs - clawed-back amount
= $(1 - \text{clawback rate}) * (\text{withdrawals from IAs})$

Political economy rule #2: On-budget spending and taxes adjust to maintain the baseline unified surplus/deficit. (Also, equity purchases and transfers of the unified budget surplus to the trust fund both reduce the unified surplus, although if you use the surplus to buy equities, you can't count it twice.)

$$S_t = \text{Maximum of (Trust fund net purchases of equities, Transfers of UB surplus to trust fund)}_t \\ + (\text{Contributions to IAs} - \text{Withdrawals from IAs})_t$$

2. Methodology and Assumptions

The first part of this section describes our simplifying assumptions. Many of these assumptions could be relaxed, but at the price of additional complexity and reduced clarity. The second part of the section gives an intuitive description of the formulas on the previous page, and the third part reviews our choice of the marginal product of capital. The last part of the section provides further background on the formulas.

Worrisome Shortcuts

We assume that private saving is unaffected by Social Security reform. For example, we assume that all withdrawals from individual accounts are spent, and we assume that any tax cuts are spent. We could add more sophisticated behavioral responses later if people are interested. (We are ignoring any voluntary contributions to IAs, because including these contributions and later withdrawals without allowing for changes in other private saving seems silly.)

We assume that the political economy rules are symmetric. One could imagine a situation where surpluses are entirely spent away but deficits do not generate sufficient spending cuts to restore budget balance.

We ignore taxes on capital by assuming that the pre-tax marginal product accrues entirely to the sector that owns the capital. One implication is that we ignore fiscal effects on state and local governments. Once again, we could add the effects of taxes if people want, and we describe some of the appropriate modifications to our formulas on the next page.

Description of Formulas

The formulas we propose involve two basic steps:

- 1) for each year, calculate the increment to the capital stock out of non-capital income (S), and
- 2) cumulate those increments over time assuming that the incremental capital generates a marginal product (m).

We generated these formulas in two ways that provided a useful check on each other. One approach was simply to think through the logical structure of the problem and the way that different sectors would interact. The other approach was to build a spreadsheet that explicitly calculates income flows and net worth for each of these sectors and then develop shortcuts to determine effects on national wealth.

Now consider the intuition behind the formulas. Begin with the effects of changing social security taxes or benefits. Under political economy rule #1, these changes have one-for-one effects on national saving because both private saving and other government saving are unchanged. Under rule #2, these changes have no effect on national saving because on-budget taxes or spending are changed by an exactly offsetting amount.

Consider the effects of creating individual accounts. Think about the effect of IAs on two sectors: the government and the IAs themselves. (Because other private saving is fixed, we can ignore it.) The effect on government saving is: $-\text{contributions} + (\text{clawback rate} \times \text{withdrawals})$. The effect on saving in IAs is: $\text{contributions} - \text{withdrawals}$. Under rule #1, on-budget taxes and spending are unaffected, so we can ignore them. Then, summing across the government and IA sector, contributions cancel out, leaving $[(\text{clawback rate} - 1) \times \text{withdrawals}]$ as the net saving effect. Under rule #2, on-budget taxes and spending adjust to keep government saving unchanged. That leaves just the IA saving, which equals $[\text{contributions} - \text{withdrawals}]$.

Consider the effects of swapping bonds for equities in the trust fund. Under rule #1, the reduction in the unified surplus has no effect on taxes or government spending. This is purely an asset swap, which has no effect on national saving. Under rule #2, the reduction in the unified surplus reduces spending or raises taxes by an exactly offsetting amount, which creates additional saving in that amount.¹

(As an aside, separating out the federal corporate tax piece of the marginal product of capital would be straightforward. Suppose that political economy rule #1 were interpreted to mean that on-budget spending and taxes *excluding capital taxes* are unaffected by the unified surplus. Then, any extra corporate tax revenue from additional capital is saved by the government, and national wealth compounds at the pre-tax rate as we have assumed; our formulas require no modification. In contrast, under political economy rule #2, the additional corporate tax revenue is consumed. Our formulas would need to be modified to subtract this amount from S for each year.)

(Adding personal capital taxes would be more complicated for two reasons. First, private saving might respond to changes in capital taxes paid. Second, the amount of capital taxes paid would depend on the portfolio allocation of IAs as well as of the trust fund.)

The Marginal Product of Capital

We use .07 as our estimate of the real marginal product of capital. Elmendorf and

¹ It might seem that one could measure the effect of reform on national wealth by calculating its effect on debt held by the public and on equity holdings of the trust fund. But that captures only the government's wealth, and ignores private wealth. If people hold less equities and more debt, their wealth grows more slowly, and that effect must be included.

Mankiw (1998) used BEA data on national income and the capital stock to calculate that the MP_k has averaged about .06 over the past 35 years. But they admitted that their calculation excludes the return to capital that accrues to state and local governments through property taxes; according to Feldstein, Poterba and Dicks-Mireaux (1983) and Poterba (1997), allowing for such taxes boosts the return by roughly .01. Note that our chosen value of .07 is less than the marginal product of *nonfinancial corporate* capital, which is often cited as the return to additional national saving. Because corporate capital is more heavily taxed than other capital (such as housing), it earns a higher pre-tax return, estimated by Poterba (1997) to be .085. Yet, we find no reason to assume that any addition to the capital stock would flow disproportionately to corporations.

There are two reasons to expect the return to capital to decline over time, although we have not attempted to quantify these effects to use in the simulations.² One reason is the aging of the population, which will depress the MP_k by reducing the number of workers. However, the amount of capital will change as well, as saving responds to aging directly and to changes in the return to capital, so calibrating the overall effect of aging on the MP_k is quite difficult. Another reason that the MP_k might fall is that the nation regularly adds to the capital stock every year through national saving, and would add even more under some Social Security reform proposals; a larger capital stock means a lower return to a marginal unit of capital.

As an aside, our assumed rate of return on equities should be consistent with our view of the marginal product of corporate capital. Suppose that the present value of \$1 of expected future corporate earnings is unchanged on average over long periods.³ Then, the return to holding equities will equal the return to the underlying corporate capital after paying corporate taxes (where the effective tax rate is about 27 percent, according to Auerbach, 1996). If we expect the marginal product of that capital to average 7.5 percent in the future (1 percentage point below the past average), then the real return to equities will be 5.5 percent. Combined with Steve Goss's assumption of 3.5 percent inflation, the nominal return to equities will be 9 percent.

More About the Formulas

We assume a closed economy with four domestic sectors and four assets/liabilities:

- sectors: the Social Security trust fund, the rest of the federal government, individual accounts, the rest of the private sector

² Elmendorf and Mankiw also noted that their measure of the capital stock excludes inventories and land; including these elements would depress the estimated return on capital even in the historical period.

³ In other words, assume that Tobin's q must average 1 in the long run, even if it can deviate substantially in the short run.

- financial instruments: special government bonds issued only to the trust fund, other federal bonds, corporate bonds (these are included in the spreadsheet but we have not yet considered any reforms that involve them), equities

This mechanical approach provides a useful check on rules of thumb that occur to us, and will be especially useful if we add capital taxes or behavioral offsets or other complicating factors.

The income on special govt bonds is based on our chosen interest rate; the income on equities depends on our chosen equity return.

We calculate private and public wealth separately, but not private and public saving. Doing so would be more complicated than it first appears, because some of the return to equities takes the form of revaluations that do not appear in the NIPA. Suppose that a private firm retains earnings that raise the price of equities owned by the government; the gain in wealth is the government's, but the NIPA will label the saving "private saving." On the other hand, if a private firm pays those earnings to the government as dividends that are then used to purchase new shares, the gain in wealth will still be the government's, but the NIPA will label the saving "public saving."

The trust fund's balance sheet is:

Assets	Liabilities
special govt bonds	
equities	

The trust fund balance in period t equals: [the balance in period $(t-1)$] + [income from the $(t-1)$ balance] + [Social Security taxes] + [clawbacks] - [Social Security benefits].

The rest of the government's balance sheet is:

Assets	Liabilities
	special govt bonds
	other federal bonds

The ROG balance in period t equals: [the balance in period $(t-1)$] + [income from the $(t-1)$ balance] + [corporate taxes] + [personal capital taxes] - [IA contributions] + [other taxes less spending].

Other federal bonds equals debt held by the public (DHBP). Capital income equals the negative of interest payments. Corporate taxes equal $\tau_c / (1 - \tau_c) * e * K$, where τ_c is the corporate tax rate, e is the after-corporate tax return to equity (the rate at which equity holdings grow from year-to-year), and K is the incremental capital stock. Personal capital taxes are partly $[\tau_e * e * K_{ps}]$, where τ_e is the effective personal tax rate on equity and K_{ps} is the capital stock owned by the other private sector (which is taxable). Personal capital taxes also include taxes on bond income, but the net effect is small (private bond interest payments are deductible; interest receipts on private holdings of private and government bonds are taxed).

The individual accounts balance sheet is:

Assets	Liabilities
other federal bonds	
corp bonds	
equities	

The IA balance in period t equals: [the balance in period $(t-1)$] + [income from the $(t-1)$ balance] + [contributions] - [withdrawals].

The balance sheet of the rest of the private sector is:

Assets	Liabilities
other federal bonds	
equities	
corp bonds (whatever's not held by IAs)	corp bonds

The other private sector's balance in period t equals: [the balance in period $(t-1)$] + [income from the $(t-1)$ balance] + [income] - [consumption].