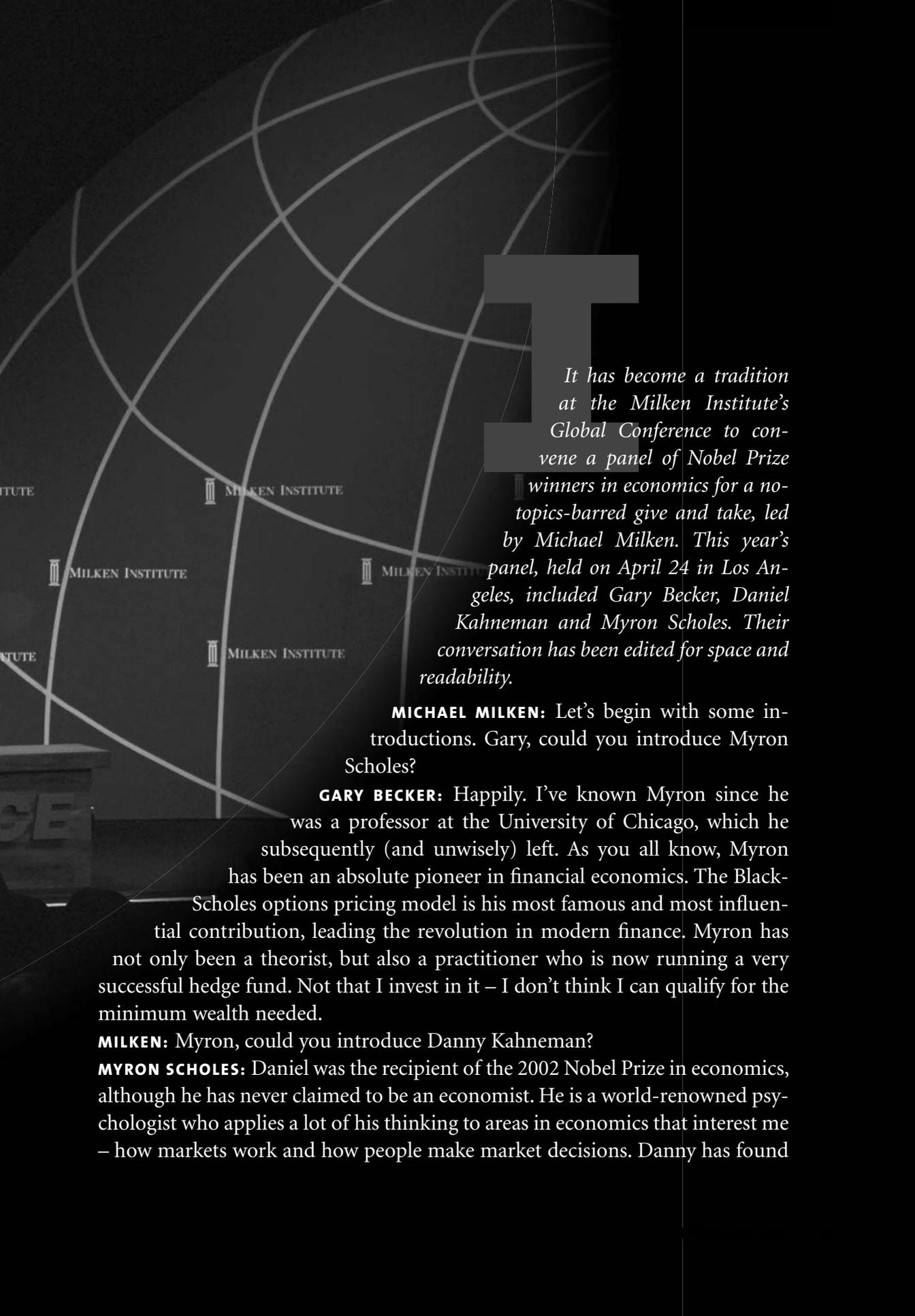


MILKEN INSTITUTE
GLOBAL
conference



FROM global warming
to weight watching:

The Nobel Round Table



T It has become a tradition at the Milken Institute's Global Conference to convene a panel of Nobel Prize winners in economics for a no-topics-barred give and take, led by Michael Milken. This year's panel, held on April 24 in Los Angeles, included Gary Becker, Daniel Kahneman and Myron Scholes. Their conversation has been edited for space and readability.

MICHAEL MILKEN: Let's begin with some introductions. Gary, could you introduce Myron Scholes?

GARY BECKER: Happily. I've known Myron since he was a professor at the University of Chicago, which he subsequently (and unwisely) left. As you all know, Myron has been an absolute pioneer in financial economics. The Black-Scholes options pricing model is his most famous and most influential contribution, leading the revolution in modern finance. Myron has not only been a theorist, but also a practitioner who is now running a very successful hedge fund. Not that I invest in it – I don't think I can qualify for the minimum wealth needed.

MILKEN: Myron, could you introduce Danny Kahneman?

MYRON SCHOLES: Daniel was the recipient of the 2002 Nobel Prize in economics, although he has never claimed to be an economist. He is a world-renowned psychologist who applies a lot of his thinking to areas in economics that interest me – how markets work and how people make market decisions. Danny has found

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that individuals generally value gains much less than they abhor equivalent losses – that is, they really do not like to lose money, and act accordingly. He has made fundamental contributions to the field of behavioral economics that are now incorporated into much of our thinking.

MILKEN: Thank you, Myron. And Danny, could you introduce Gary Becker?

DANIEL KAHNEMAN: For me, it is a pleasure and an honor to introduce Gary, who is not only a great economist – I mean, I never had a course in economics, so I am really not qualified to speak about that – but also a great social scientist.

MILKEN: You give great hope to other non-economists with an eye on Nobel economics prizes.

KAHNEMAN: You have to befriend the right economists – and they are not the ones on the prize committee. You have to befriend people who will carry your work into other areas.

Gary Becker is probably the most influential social scientist in addition to being one of the most influential economists alive. His theory of human capital has been enormously important. His way of thinking about ratio-

nal decision making – though in many ways the opposite of the way I am inclined to think – has had a profound impact. The first hypothesis that we entertain when we are looking at puzzling behavior is, “Might there be a subtle, but perfectly rational, explanation for it?” This is the style of thinking that I associate with Gary Becker.

MILKEN: Let’s begin with what is really a new topic for us – climate change. Projections about the economy and environment have often been wrong. Not so long ago, many scientists believed we would run out of food for a growing population. At one point, it took one farmer to feed two people. But today, one farmer feeds about 300, and we are no longer concerned about the ability to feed the world’s population.

Back to climate change, and the prediction that unchecked global warming will destroy our civilization. The downside: there is, as Myron and Danny would say, more risk than most of us are willing to take. So Gary, maybe you want to start.

BECKER: Let me say, in general, that it is very difficult to make forecasts, and the food forecasts illustrate this. Some of these doom-and-gloom forecasts go back only 35 years, to Paul

left to right: Daniel Kahneman, Gary Becker, Michael Milken, Myron Scholes



Ehrlich and his book, *The Population Bomb*, which predicted that in five or six years, hundreds of millions of people would be starving.

MILKEN: And the oceans would be dying ...

BECKER: As it turned out, per capita food consumption has gone up a lot. I do not want to criticize Ehrlich in particular, because many economists' forecasts are way off, too. It is hard to forecast, and we have to bear that in mind when we evaluate climate forecasts.

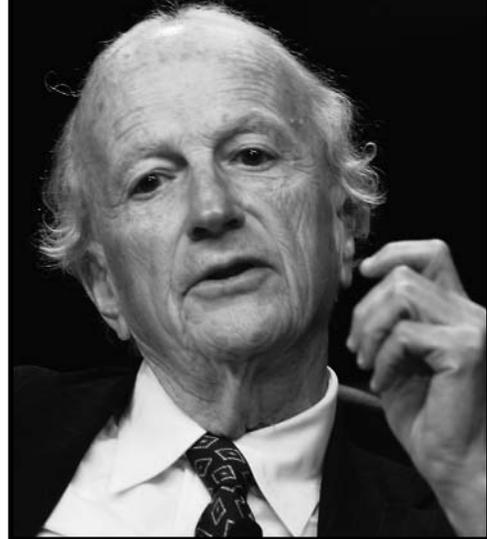
I am no scientist, but I have the feeling that scientists in this area are more like economists who must make judgments from non-experimental evidence. And the model that is most common among the scientists now is that to project global warming we just have to project man-made carbon dioxide emissions. I think there is some truth to that view, but I want to stress that it is still not proven.

Remember, too, that any climate change is going to have pluses and minuses. There are clearly people in a city like Chicago (where I live) who are going to enjoy a lot milder winters. Meanwhile, people on the coasts will have a problem with what is happening to the sea level. All told, though, I think the problem is serious enough – and the evidence is strong enough – to contemplate forceful action.

SCHOLES: We can never know how the economic time series or the carbon emissions time series or any of these time series actually will go – or whether current interventions will cause the underlying processes to change. As Gary was saying, I think that this is a most difficult problem – one in which even a few hundred years of data may be insufficient.

Is that data really useful in predicting the future? Note, too, that global warming is an endogenous process and that society responds to climate changes with governments and private markets mediating the response. We know that prices are a very important factor in the response and that economic actors

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adjust to scarcity by altering behavior.

MILKEN: Danny, do you believe that people are motivated by this issue?

KAHNEMAN: From the perspective of a psychologist, this really looks like a very hard problem. The potential consequences of climate change are completely abstract, so far as the population is concerned. Nobody is feeling a thing, yet. And to mobilize public opinion to get anything done is extremely difficult. This, it seems to me, is one of those situations in which one has to question whether the social arrangements by which we live are adequate to cope with the threat.

Suppose, there were scientific consensus about measures that could be taken now that

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would have an effect 100 years from now; it would take extraordinarily inspired leadership to get the population behind such an activity. A lot of people would say, "Well nothing has happened yet, and scientists have been wrong before, and we do not need to trust them," even if, in this case, they might

Somebody used the word "irreversible climate change." Well, it is not irreversible if you can devise methods to draw CO₂ out of the atmosphere, and people are actively working on this approach.

be closer to the point than Paul Ehrlich was in 1968.

BECKER: Look at the Kyoto Protocol [the international agreement to limit greenhouse gas emissions]. It is a very flawed agreement: Some 140 countries are excluded, including China and India. So among the artificial incentives provided by the agreement is to shift production of the most polluting type of activities into the developing world. A dollar's worth of production in China or India is going to be more polluting than a dollar of production in the developed world.

Under Kyoto, the way you reduce emissions is to tax them. The other potential solution is to get the job done through future technological advances. Somebody used the word "irreversible climate change." Well, it is not irreversible if you can devise methods to draw CO₂ out of the atmosphere, and people are actively working on this approach. It could prove to be extremely effective, because it does not merely cut down the rate at which you are introducing carbon into the atmosphere; it reduces the stock.

MILKEN: If we take a look at statistics, you will

see that, after the United States, China is set to become the largest consumer of energy and eventually may pass the United States in carbon emissions. Thus, any agreement that doesn't include the United States, India and China isn't going to be effective. Myron, do you see the development of market-based solutions to the problem?

SCHOLES: With markets that allow exchanges in rights to emit carbon, those with the most valuable uses at stake would be willing to pay for others to make equivalent reductions. By contrast, the worst thing would be to say, "Let's everyone stop emitting today," because it makes old investments obsolete overnight and introduces more uncertainty in future investment plans. So an evolutionary process to reduce the emissions by saying, "Let's cap the total and then be able to buy and sell the rights," is the way to shift from one regime to another.

MILKEN: If we try to estimate the true cost of oil to the United States, it is very difficult to do because we have to factor in the cost of protecting the shipping lanes as well as the cost of carbon emissions. If the cost of a barrel of oil is substantially above what it is selling for today, do you believe the two could be brought in line?

BECKER: Not all our military costs should be attributed to protecting the security of oil. I suspect the big numbers being thrown around are big overestimates.

MILKEN: And the basis of that analysis is that

the United States is investing substantially more, obviously, in defending shipping than any other country, and that it is essentially protecting the shipping lanes of the whole world.

BECKER: Yeah, some of that is related to oil, but a lot of it, I think, is not. Still, the principle is right: there are externalities to fuel use, and you want to factor them into the real price. Are we doing it the right way? Well, we may be under-pricing the tax on gasoline, although people who estimate what the externalities are with regard to gasoline use in the United States – particularly with regard to global warming – say the current tax is not far off the mark. On the other hand, look at other ways we could be reducing carbon emissions – in particular, nuclear energy. France gets 70-75 percent of its electric power from nuclear, while we get just 20 percent. China has something like 30 nuclear plants under construction. Uranium is a clean fuel, particularly if you recycle the waste.

So our energy policies are a mixed bag. We are blocking off a sector that could be very important – particularly in electric power – and maybe we are under-taxing gasoline use, which is a big user of the oil. I think a more consistent energy policy could help a lot, and without drastic changes in the economy. But we do have to have a more sensible policy about nuclear power.

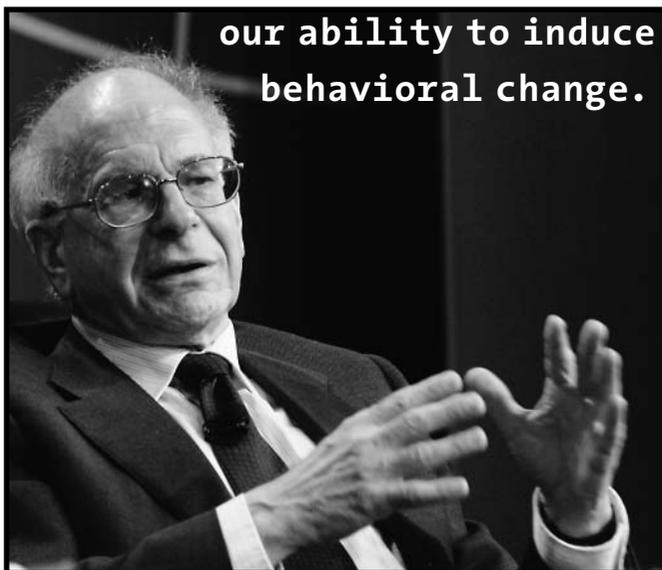
MILKEN: Let's switch subjects to medical care. It represents 16 percent of the GDP of United States and maybe 10 percent of the rest of the world's GDP. Danny, I turn to you. We do not seem to have been overly successful in focusing attention on preven-

tive measures. The stigma associated with being obese doesn't seem to have affected behavior – it is an ever-growing problem. Only 15 years ago there were only a handful of National Football League players who weighed 300 pounds; this year, there are more than 300 in the NFL over that figure.

KAHNEMAN: As a psychologist, I tend to be pessimistic about our ability to induce behavioral change. So when you look at that picture of the child in front of the television, who is going to intervene? Are we going to tax children, or their parents? Are we going to regulate eating and exercise?

We have been successful in educating people on some subjects – the germ theory of disease, for example. And there has been a

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lot of success in the United States in reducing smoking. But this has taken generations.

MILKEN: Well earlier today, we had Mireille Guiliano, the author of *Why French Women Don't Get Fat*, autograph books for everyone

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here. Have you seen any difference from your studies between the French and ...

KAHNEMAN: Actually, we recently did a study on 800 women in Columbus, Ohio, and 800 women in a comparable city in France – how they spend their time and how they feel about it. And there are two pretty dramatic differences between these groups. When you look at the percentage of time that people spent eating as their focal activity, it is 10 percent in France, and just 5 percent in the United States. That is, people in the United States eat without thinking about it. And when you eat without knowing that you are eating, you eat more. This is not something that you can very easily change.

MILKEN: So Danny, if we could decrease productivity in the United States, so that if you are eating you are not allowed to do anything else, we could lose weight. Is that what you are telling us?

KAHNEMAN: If people paid more attention to eating as an activity and did not multitask, that would improve things.

BECKER: One of the aspects of obesity that often gets neglected is that weight gain is a worldwide phenomenon. The real explosion in weight among teenagers as well as adults has taken place since 1980. So when one looks for explanations, you have to ask what has changed since 1980? It is not that people are eating that many more calories ...

MILKEN: You probably have not been to the movie theater lately, Gary, but if you see the size of the drinks, they have increased dramatically.

BECKER: Mike, you and I like data. You look at the actual data on calorie consumption, and it is up, but not by enough to explain the increase. Nor has there been a dramatic shift toward more sedentary occupations since 1980. The one big change has been the shift in the

way people – especially teenagers – spend their time. We are watching a little less television today than in 1980. But we are spending a lot more time on the computer, playing games, in chat rooms – and mainly at the expense of time spent in physical exercise. You can explain a good part in the growth in weight among teenagers by this factor.

I am a little more optimistic than Danny. Social change is difficult. But the health industry will come up with way to make the consequences of being overweight much less serious. I mean, look at cholesterol drugs.

MILKEN: So Gary, it sounds like you are an advocate of the morning-after pill. No matter how much you eat, you could take your pill.

BECKER: That would be great, right? You would enjoy the eating and then you would take your pill. So people now, they take Lipitor, and they are eating a little more. That is pretty good.

SCHOLES: It's true that we got heavier, and then at the same time we use our computers more. But myriad other variables have come into play. The one I was thinking about is that we moved away from a manufacturing economy to a service economy.

BECKER: No, that has been going on steadily for many decades, so it cannot explain this dramatic shift.

KAHNEMAN: The biology is quite complicated on weight gain, because there is a “set point” for weight. So we are talking of what causes the set point to shift, and I am not sure this is well understood.

I want to come back to the issue of culture in weight gain. The average portion size in restaurants is 30-35 percent larger in the United States than in France. That is something in the culture. Whether or not you serve seconds is in the culture. So there is a lot that is cultural in the obesity issue.

BECKER: No question. I just do not think it ex-

plains the sharp growth in U.S. weight gain since 1980.

MILKEN: When we look at health care costs today, two major trends explain the rise in demand. One is the aging of the population in the United States, Europe and Japan – people over 65 spend four times as much on health as people in their 20s. The other is the growth in the middle class, particularly in China and India – they demand more health care, too.

BECKER: Health care costs will continue to grow. In the United States, it is partly the aging problem, but it is related to the fact that

impetus to shovel as much compensation as possible into untaxed fringe benefits. That is a bad system, in my judgment. It is a system that has led to General Motors paying over \$5 billion a year in health expenses, one of the forces driving GM toward bankruptcy.

MILKEN: We are not suggesting that GM will go bankrupt, though.

BECKER: No, I am not suggesting it.

MILKEN: Just wanted to make sure.

BECKER: In principle, the link between employment and health insurance could be broken easily enough. You could make any tax

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we are spending more on every age group. Now on the whole, that is good. We may be able to spend money on care more efficiently, but the value of the improvements in health that are linked to better medical care have been enormous. Calculations by my University of Chicago colleagues Kevin Murphy and Bob Topel show that these have a tremendous value. So yes, health spending is going up. But the value is there.

The question is what we can do to make the system more efficient. The United States got into the habit of tying a lot of the health expenditures to corporate employment. I think that came out of World War II as a way around price controls: If you offered medical insurance as a fringe benefit, you could improve compensation without raising wages and breaking the wage cap.

SCHOLES: And also not have the employee taxed on the increased compensation.

BECKER: Then there is the issue of the tax rate. Growth in the tax rate gave corporations the

saving you get independent of whether you are employed at a company.

Now the second thing that I would like to comment on is the problem of treating older people. Even in an ideal world, older people are going to use more health care.

MILKEN: Are we still calling older people “older people?”

BECKER: Danny and I are in early middle-age, let’s say. So those of us in early middle-age are going to use more health care. But we do not have to use care in the quantity and form we are getting it today. I think that is something that should be corrected, but is hard to correct.

We would like to be able to say that if you reach a certain age and the prospects of living longer are low while the costs are treating you extremely high, that somehow you would not be entitled to treatment. Some countries in Europe – the Netherlands, in particular, and, I think, France – are doing that better than us. So we are giving a lot of expensive treatment

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to very old people, which, by any rational calculation, makes little sense.

MILKEN: I do not want you to cut off my health care benefits when I reach 85.

BECKER: And I do not want to cut off mine either, so we agree on that. But I have another solution ...

MILKEN: From now on, anyone who presents a problem has to come up with the solution.

BECKER: So I do have a solution – at least a partial solution. I am going to distinguish three classes of health care: drugs, hospitaliza-

said, “I always recommend gum surgery.” So obviously, the economist should say, maybe your teeth falling out at a certain age is less costly than going through surgery.

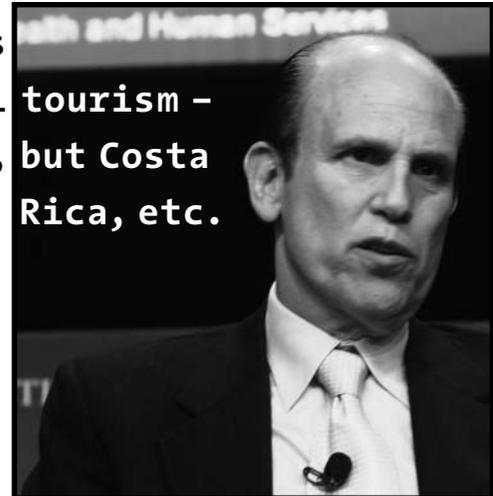
MILKEN: I think an area worth revisiting in future years is the question of personal savings accounts for health care. No one wants to pay for health care. No one believes they should pay – not even for parking when they visit the doctor. But some people believe that deposits in personal health care savings accounts will someday exceed those in 401(k) and other pension funds.

There are now 14 countries that are advertising medical tourism – not just India and Thailand, but Costa Rica, etc.

tion and physician services. For the last two, costs rise in rough proportion to how many people are using the care. By contrast, drugs have a great advantage. It is costly to develop a drug in the United States – maybe \$600-700 million in the current environment. Once you get the drug, however, it is very cheap to make more of it to treat more people.

I strongly favor the principle of getting drug coverage under Medicare. In fact, I think that shifting treatment toward drugs will be a way of extending medical care to older people without proportionately large increases in medical expenditures.

SCHOLES: In the current legal environment, it would be very hard for doctors to base medical decisions on economic factors because the cost for the doctor of making the wrong decision is much higher than the cost of recommending expensive treatment. I asked my periodontist, for example, at what age he would not recommend gum surgery, and he



SCHOLES: We always think of health care as being separate from retirement savings. We are going to need to develop more comprehensive programs. The person who lives a long time needs a life annuity; the person who does not live as long maybe needs health care and the like. So the idea of combining the products will be something that will evolve in the future.

BECKER: The health savings account is the most important innovation in the provision of health care in recent years, and it is gradually catching on. It is very different from “cafeteria plan” accounts, where you must use

the benefit or lose it. Health savings accounts have a carryover provision, so if you do not use deposits you can accumulate money indefinitely – even into retirement. Patients thus have greater incentive to economize. So, while health savings accounts have been heavy going politically, I think we can expect them to greatly improve the efficiency of health care.

KAHNEMAN: I want to respond at the risk of never being invited back and losing the affection of my colleagues here. A lot of the world has a very different way of dispensing health care. A lot of the countries that we consider civilized have single-payer systems. They are not ideal, but they certainly cost less to administer than the system we live with. They are much more effective at the kind of difficult rationing decisions – for example, the decision to make dying cheaper. So one thing that always strikes me in these conversations is how little interest there is contemplating the adoption of a very different delivery system for health care.

Many of these systems may not be sustainable over, say, 50 years – something we frequently say about the European welfare system in many of its manifestations. But then, there are lots of things that do not look sustainable over 50 years. The Swedish welfare state did not seem sustainable 50 years ago, but the Swedes have done pretty well. So I think we are not looking enough at the way the rest of the world does things.

MILKEN: There are now 14 countries that are advertising medical tourism – not just India and Thailand, but Costa Rica, etc. And so yes, if I am in Canada and need a hip replacement, I can get it free. I have to wait two years and I could feel a little pain, or I could just go to India and get my hip replacement for a few thousand dollars and visit the Taj Mahal on the side.

BECKER: I do not think we have the final word on which health care system is best. But it used to be that Canada was put up as the great example, and now you find tremendous discontent with the Canadian single-payer system. There are queues for a lot of procedures, so if you are rich enough, you opt out and come to the United States for treatment. Canadians pay low prices for drugs because they are free-riding on the United States. The United States is doing most of the R&D in the drug area, and Americans are paying most of the cost through higher prices. If Americans didn't pay for the R&D, who would?

MILKEN: Since we only have a few minutes left, let's change the subject to international finance. We now have a number of countries around the world that have built up tremendous foreign currency reserves relative to the size of their economies – Singapore, Norway, Taiwan, the United Arab Emirates, etc. And many of them have not made the mistakes of Japan, where deploying the capital at home created stock and real estate bubbles. Japan's stock market still sells for less than half of what it sold for 16 or 17 years ago.

There is at least \$25 trillion in the world today that is invested short-term, and it is pretty hard to find anything to put \$1 trillion into except the U.S. government or mortgage-backed securities. Where do you see this capital being deployed?

SCHOLES: Actually, if you take the various countries that have large surpluses, basically, it pays them to invest in bonds – U.S. bonds, or other assets that earn more than capital at home. That is what has happened over many, many generations. When countries run surpluses, basically that means there is a deficit of consumption. China and other Asian countries have \$1 trillion worth of surpluses to be spent over time through consumption or domestic investment. So gradually over

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time, you will see a change in the currency reserve mix as countries start spending their excess reserves on consumption.

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BECKER: If you factor the United States into this picture, you see a sort of specialization going on. Some countries are saving a lot – Norway because of the high price of oil and gas exports, China for other reasons, maybe partly due to their exchange rate – and the United States is borrowing these surpluses at relatively low interest rates.

People lament what the United States is doing. But if you look at total interest payments on our debt – total payments relative to GDP – I think you find the ratio has actually fallen. The lament is thus misplaced, I think.

You have some countries saving a lot, and other countries naturally are going to – if you have a well-functioning international system – be borrowing that money. That seems like an efficient arrangement all around. You could say maybe that is pretty rational in terms of this international specialization. The United States has done pretty well by engaging in a policy of importing this capital – having a trade deficit as a result – and running some deficit on our current budget.

MILKEN: Well maybe next time we will discuss whether the United States could eliminate all of its debt by selling a few million citizenships and raising \$8-\$10 trillion. Danny, in closing here, would you like to talk about your recent work on wellness – is there anything that is particularly surprising you?

KAHNEMAN: What is surprising everybody in research on what makes people happy is how much is determined by genetics, and how little we as individuals and as societies have control over. We have got to reorient ourselves as to how much we can accomplish to improve the well-being of people. It is marginal relative to the enormous variability that is just built into the human organism by the way we have evolved.

MILKEN: Thank you all for coming. **M**