Welcome and Keynote Address

Dr. Rajeev Dhawan, Director of the Economic Forecasting Center, Robinson College of Business, Georgia State University

Rajeev Dhawan wears a dual hat as associate professor of managerial sciences and as director of the Economic Forecasting Center at the Robinson College of Business at Georgia State University in Atlanta, Georgia. As director of one of the country's premiere forecasting centers, Dr. Dhawan develops forecasts for the US, Southeast regional, and local metro Atlanta economies. Ranked one of the "most accurate" forecasters in the nation by Bank One Economic Outlook Center at Arizona State, Dr. Dhawan is known for his ability to articulate complex economic issues in terms that are extremely relevant to the business community.

Stephen J. Zoukis

AFIRE Chairman and Partner, JAMESTOWN

Welcome to the 17th Annual AFIRE Membership Meeting. In particular, we welcome our new members and guests. Since our last conference, 23 new members have joined, bringing our total to 177, our highest ever, hence the big attendance.

As you know, the theme of this year's conference is *This Is Not Your Father's Real Estate Business*, a phrase we borrowed from the now-defunct Oldsmobile car company. We could as well have used a line from the great Bob Dylan (who is on PBS tonight): *And Something Is Happening Here But You Don't Know What It Is, Do You Mr. Jones?* We hope we're going to help provide some insight.

I think we all agree that we find ourselves in somewhat unfamiliar circumstances right now, and while we might all generally agree on what the facts are, the significance of the situation is the subject of a lot of debate. Our presentations are intended to help sort this out by addressing new types of deals people are doing, new places they are doing them, and new players entering the real estate market. Tomorrow morning, Mr. Bill Sanders will take a stab at putting this in a big-picture perspective for us.

I'd like to thank the top-notch AFIRE staff, who make my job with AFIRE a piece of cake. Those of you who may one day have the privilege of serving in this position shouldn't fear it, because Jim and Lexie and Soo really take care of everything. They make the chairman's position a very easy job to handle.

I would also like to thank the sponsors of this program. We made the decision some years ago to rely on sponsorships to cover a large part of the cost of conferences such as this, and we have been at it long enough that some are stepping up for the second or even the third time. So special thanks for this conference's sponsors: GMAC, ING, AEW and its European counterpart IXIS AEW, Macquarie, Madison Marquette, and UBS.

With all of that said, I would like to introduce our first speaker, a fellow good old boy from the South. Dr. Rajeev Dhawan is the director of economic forecasting at Georgia State University. (That's the university in Georgia that doesn't have a football team, at least yet.) He develops United States, regional and metro area economic forecasts which are published and presented to business leaders and the media quarterly. Dr. Dhawan has been ranked as one of the most accurate economic forecasters by Arizona State University's Economic Outlook Center and he was recently awarded a major forecasting prize that hasn't yet been announced, so I can't tell you whom it is from. He is also an associate professor of managerial sciences at Georgia State. Previously, he held the position of director of economic forecasting at UCLA's business school.

Dr. Dhawan was educated in India and in California where he received his Ph.D. from UCLA. He combines the ability to write for an academic audience, particularly on the subject of business cycles, and to speak clearly to business audiences. He will not leave you in any doubt about his opinions. Please welcome Dr. Rajeev Dhawan. [applause]

Dr. Rajeev Dhawan

Director of the Economic Forecasting Center, Robinson College of Business, Georgia State University

I've been thinking about changing the advertised title of this session from *As the World Turns* to *As Katrina and Rita Do Damage to Us*.

In that vein, or maybe just to give you an idea about how cheap I am, I have a little

story. My girlfriend demanded that I take her to some place expensive…so I took her to the gas station. That is what Rita and Katrina have done to gas prices. I used to live in LA and had already seen gas at $2.50. I thought I could live with it. But just to shock myself, I filled up three weeks ago at $3.79 a gallon. At that moment I figured out how I could get 20 percent more efficiency. Having to pay the price spurred the insight, so everybody has a price limit somewhere. The specific limit depends upon the person, but the point is, as prices go up we will conserve on energy. The issue is what damage it does to the economy.

So is Katrina, on its own, going to derail the US or the global economies? The answer is no. It is going to cause a temporary problem. (I'll show you a bit later how I came to that decision.) The effect is basically only a one- to two-quarter hit to the gross domestic product (GDP). The mechanism is through the oil prices, followed by natural gas heating prices.

In the last couple of days, the question has been whether Rita, on its own, is going to derail the economy. As it turns out, Rita did not hit head-on as it might have. So far, the report is that refining capacity may be down for a little bit, but nothing seems to be damaged. But remember, when Katrina happened the first impression was that we had dodged the bullet. Only later did the news come that the levees were broken and the water was coming in.

So with Rita still blowing, we don't fully know the extent of the damage, especially to the refineries. If damage there is extensive, then between Katrina and Rita, about 50 percent of the US gasoline production could be affected.

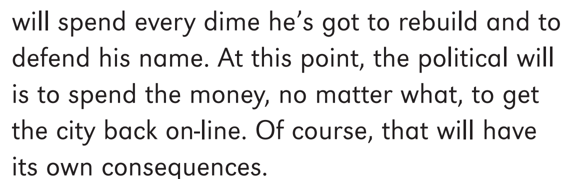
So are Rita and Katrina together going to make for the perfect storm? Still the answer is no. Given the information so far, it's not going to cause any problem. So if you are waiting for a recession to change your business, it's not going to happen. Insurance companies, for example, can't assume they'll see a higher 10-year bond rate resulting from the hurricanes, not that easily.

Let me show you the outline of how I calculate the impact and you can make your own calculations. Factor number one is refinery damage. Figure out how much has been damaged, how much is back online, and what time it will take.

Dr. Dhawan addresses the general session.

The next thing is consumer confidence, which shouldn't be a big factor, but psychologically these events have an impact. The University of Michigan's preliminary reading of consumer sentiment dropped like a rock last month (August), and tomorrow the Conference Board's number will come out.

In my calculation, I have these things happening in September–October and then slowly starting to recover by January, as New Orleans starts to get rebuilt (if it's going to be rebuilt, which is another issue). Here in Washington, it seems so far that the president



will spend every dime he's got to rebuild and to defend his name. At this point, the political will is to spend the money, no matter what, to get the city back on-line. Of course, that will have its own consequences.

One small fact not played up in the media until recently is that about 10 percent of the natural gas capacity is off-line and won't come back for another three to six months. Refineries may be back in service by the end of this month or early next, but not the natural gas. This will of course cause a shock with the bills in December and later. It's definitely coming; the issue is how they slip it in. What kind of a price increase they will be able to do is going to be an issue.

The next factor is monetary policy. The Federal Reserve (Fed) will keep on with its "measured coast." It will keep raising rates, which I think will go up to 4.5 percent by the time Greenspan leaves office in January. The Fed is not going to stop, and may even have to do a stronger hike in the end just to shock the system, because housing construction is getting out of control. Two million housing starts is just way too strong. I will have some opinions about that later on.

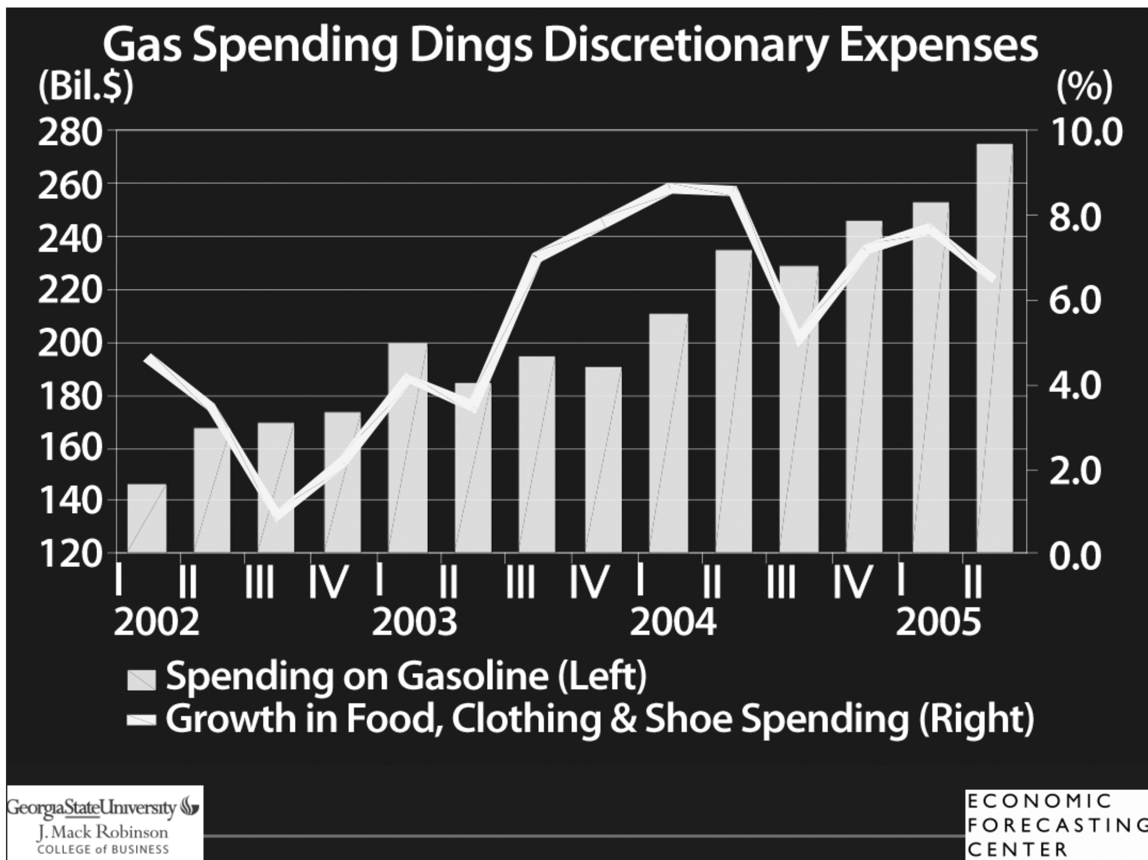
The 10-year bond rate remains a little bit low. I am going to examine in detail today how, in this booming economy where the Fed has been raising rates for the last year or more, the 10-year bond rate has actually come down. Why has that happened? Who is responsible for it? And what is going to keep it going that way for a while? It has given a big break to homeowners and to things like your cap rate calculations.

The first factor I mentioned was the impact of the hurricanes on gas prices. In my calculations, I have put in a spike in gasoline prices, the average rising from $3.00 to $3.25, and then quickly coming down. I was preparing this forecast three days ago, before Rita came in, although the media was after me to talk about the impact of Rita. It's a bit like asking me to do a post mortem on a body where the murder has not even been committed — the event hadn't even happened.

I want to show on this graph (Graph 1) how the oil prices go through the system, and why it should or shouldn't make an impact. The gray bars show, from the GDP income accounts, what we spend on gasoline. The US economy is about $12 trillion. Two years ago about $140 billion went to gasoline. That figure is now at $270–$280 billion, an increase of roughly $130 billion. So we have not driven less. We are addicted to driving the cars, so it seems we're going to drive.

But where are we going to get this extra money? For some of us here it may not be a big increase, but where will average folk, making $50,000–$60,000 a year, get that money? The national income accounts show us spending by very detailed categories. I looked at spending on food, clothing and shoes and it seems that people took the money out of a category called discretionary income spending. It also seems to come from spending on recreation; for a typical guy that means it's coming out of his beer and poker money, which causes a lot of grief. He can't go back to the wife looking for extra money for the gas habit, so he has to take it out of the beer and poker money. Although the real impact is not that much, psychologically it's nasty, and that shows up in consumer confidence, which often leads to a slowdown in spending three to six months later. If arrested, this won't be a problem.

The outright tax cuts in the Bush years have helped us out, particularly in contrast to the 1970s. The oil price shock in the '70s occurred at a time when people were facing increasing taxes caused by "bracket creep." (Taxpayers kept moving up in the tax brackets without actual tax rate hikes.) But now, the Bush tax cuts have absorbed the energy price shocks and helped us along. Additionally, many people have refinanced numerous times in the last two years, blunting the cash-flow issues presented by the hikes in gas prices.



Graph 1

Returning to the impact of the hurricanes, consider the typical pattern. When a local economy is doing well before a hurricane hits, which typically happens in August and September, income in the local area usually takes a big plunge in the third quarter. Then, as the rebuilding begins, it comes back like a rocket. So the farther you fall, the faster you come out.

In the case of hurricane Hugo, income dropped off 19 percent in one quarter, and rose 40 percent the next quarter (Graph 2, page 6). It looks like the impact of the hurricane on the local economy lasted one quarter at the most. In the employment data, you can't even find an impact.

The destruction of a house is not counted as a negative in the GDP, because it affects the capital stock. But when you build it again, it generates income and gets counted in the national income records. So whichever way we count it, it is a one-quarter hit. This storm is going to affect two to three quarters because of the impact on consumer confidence.

I had just released a forecast on August 24 and all of a sudden I had to create a new one. In the revision, I put in about a 10 percent drop in consumer confidence in the coming months. Thereafter, you see recovery as the rebuilding begins. There is a very minor drop in automobile sales — minor because we keep on buying the cars. (And why wouldn't we? If GM, Ford and Chrysler are basically giving you the gas guzzler and offering the $5,000 that pays for your gas for the next four years, why wouldn't you take it? So people are doing that.

Impact of Past Hurricanes

Name	Date	States Impacted	Personal Income Growth		
			Before	After	
			Q2	Q3	Q4
Hugo	1989 Sept	South Carolina	3.2	-19.3	40.6
		North Carolina	5.3	-1.0	10.8
Andrew	1992 Aug	Florida	5.1	-12.7	37.8
		Louisiana	7.6	0.3	12.2
Floyd	1999 Sept	North Carolina	4.2	-1.1	12.5
Charley Frances Jeanne	2004 Aug-Sept	Florida	9.1	2.5	14.8
Ivan	2004 Sep	Alabama	7.9	2.2	10.3

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Graph 2

It's a big game, of course, taking the money out of the shareholders' pocket and giving it to the people, but it's not going to stop.)

Inflation will peak up, which it has already begun to do this quarter, but it is a temporary blip. The Fed will counter it and it will come back to normal. The 10-year bond rate will actually dip a little bit lower than the level I mentioned before. But the biggest impact is on the housing stocks, because availability of supplies will not be easy. They say lumber, cement and other materials are in short supply, which is going to hold back a little bit on building.

In the long run, there is no net loss. What you lose over here in the GDP growth you make up later. The biggest impact is in the fourth quarter, where I see a drop of almost 1 percent in the GDP growth rate. But if you average it out over the four quarters, the drop is only 0.2 percent. So we can say with a straight face it's not a big impact, but a very big quarterly impact for one quarter (Graph 3). So that's the effect of these hurricanes.

Looking at "how the sausage is made," virtually all of the impact is coming from higher gasoline prices cutting into discretionary spending and from the drop in housing starts. Without the drop in housing starts, the economy wouldn't be affected nearly as much.

What else is going on in the economy? The overall economy is fine, though we do have some problems. One of the problems people really care about is the trade deficit. To think about the trade deficit, I go home to India and I go up to the Himalayas to watch the

snowcaps. In this setting, the first thought I come to is about the oil prices. I am thinking about why oil is so high and whether we can blame China for it. (In the newspapers, it is always China and India.) In my thought process, I am trying to differentiate: is it really China and India, or is it China or India, or China with India?

Considering oil production and consumption four years ago and now (i.e., considering the net change in supply), it turns out there are two big contenders putting the pressure on the oil market. One is the US and one is China. India didn't put much pressure on the market; its changes in production and consumption were almost balanced.

The oil market is not like the stock market, where you pick up the phone, call the broker and take the oil. It's about relationships, contracts, politics and geography. China doesn't buy any oil from Russia; it comes from the Middle East. The US can buy oil from the Middle East and other places, but Russian oil typically goes to Europe. Pipelines, boats and infrastructure components like that play a part. So even if you want oil from Russia, you may not have a relationship. The guy over there in the Kremlin may not know who you are, in which case he's not going to write the contract for you.

Taking into account those realities, you find that it was Russia that had the net supply to share, not OPEC. Typically OPEC has been able to produce more supply than it needs. So now when you have the battle between the two guys looking for the last barrel of oil, the current price, the market price, goes up. When the market price goes up, the trader on the futures

National Impact of Hurricane(s)

Change from Base Forecast

Change In	2005Q3	2005Q4	2006Q1	2005	2006
GDP Growth	-0.7%	-0.9%	-0.5%	-0.2%	-0.2%
Cons. Growth	-0.5%	-0.5%	-0.8%	-0.1%	-0.3%
Employment	-51K	-310K	-499K	-90K	-363K
10-Year Bond	-0.3	-0.3	-0.3	-0.2	-0.1
Housing Starts	-4.8%	-10.9%	-6.0%	-3.8%	-3.9%
Auto Sales	-0.6%	-1.2%	-2.4%	-0.6%	-1.8%

Source: EFC Calculations

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Graph 3

Global Current Account Balances (Billions of U.S. Dollars)

Countries	1996	2003
Industrial	46.2	-342.3
United States	-120.2	-530.7
Japan	65.4	138.2
Euro Area	88.5	24.9
France	20.8	4.5
Germany	-13.4	55.1
Italy	39.6	-20.7
Spain	0.4	-23.6
Other	12.5	25.3
Australia	-15.8	-30.4
Canada	3.4	17.1
Switzerland	21.3	42.2
United Kingdom	-10.9	-30.5

Countries	1996	2003
Developing	-87.5	205.0
Asia	-40.8	148.3
China	7.2	45.9
Hong Kong	-2.6	17.0
Korea	-23.1	11.9
Taiwan	10.9	29.3
Thailand	-14.4	8.0
Latin America	-39.1	3.8
Argentina	-6.8	7.4
Brazil	-23.2	4.0
Mexico	-2.5	-8.7
Middle East and Africa	5.9	47.8
E. Europe and ex-USSR	-13.5	5.1

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Source: Remarks by Governor Ben S. Bernanke, March 10, 2005

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Graph 4

desk, knowing that his counterparts were all trained in MBA classes, jacks up the prices on the futures and speculation begins.

At that point, Goldman Sachs feels the pinch, and reasons that in the stock market, managing money for a 3, 5 or 7 percent return is not going to make its high-net-worth individuals happy. So Goldman decides to get onto the bandwagon, into oil trading. All of a sudden you have the speculators, hedge funds, Goldman Sachs and everyone coming in and it builds up momentum. It's like bidding on a house in Los Altos. There are 17 buyers and one house, so it goes on. It becomes a bubble which is going to correct itself.

But in between you are going to think about one thing. You may want to ask Colin Powell today this question. Who in the future will have the excess oil? The answer is Africa — that's the new frontier. So now you can understand why Bush and the British Prime Minister and everybody stood shoulder to shoulder and said we are going to do something for Africa. It's about oil.

There's one reason why Condoleezza Rice visited Sudan — one simple reason. Sudanese production of oil was zero four years ago. Now they are producing half a million barrels per day and it's going to go up. Angola is coming up. South Africa is coming up. These peoples' own consumption is not going to rise that much, but the production has already risen. That is where the new frontier is and it's where the new battlefields will be. China and Russia don't have a pipeline, so China can't go to Russia. China will be in the market too. This is

going to be the reason for high oil prices, because oil without contracts or previous commitments is very limited right now.

The other thing going on right now in Washington is spending with both hands. The government is spending a billion dollars per day right now. How can you do that?! That kind of pattern brings up worries about the 10-year bond rate. Isn't the spending going to cause inflation? Won't it cause interest rates to go up, especially on the 10-year bond?

When you go to an economics class they will tell you what causes the 10-year or the long-end bond to go up. Typically the factors are inflationary expectations, what the Federal Reserve is trying to do, and the liquidity/safety premium. These would come up in a finance class. And the last but not least, according to me, is the trade deficit. I'll show you the statistical indicators later, but let me very quickly build up the argument as to why the trade deficit affects the 10-year bond rate.

My thesis is that high trade deficits keep the US long-term bond rates low. It's the reverse of what they are going to teach you in classes. It's been happening a lot more since the mid-1990s and it really intensified after September 11.

First, you heard about global savings gluts, meaning that there's too much money floating around in comparison to investment opportunities. It turns out economic theory says that money should flow from the high-net-worth, big developed countries to the developing countries where there are frontiers for higher returns. But the reverse has been happening since 1996. Until then, the industrial countries were net loaners of funds and the developing countries were net borrowers (Graph 4).

Now, it's the reverse. Industrial countries, led by the US, have the highest foreign borrowing, and the developing countries have been loaning out money. In the last 10 to 12 years, the United Kingdom (UK), which had great growth, ran a trade deficit, whereas Germany ran a trade surplus. When you run a trade surplus, by definition you are going to invest that money voluntarily abroad. But if you run a trade deficit foreigners have loaned you the money. It's a voluntary thing, no gun to the head.

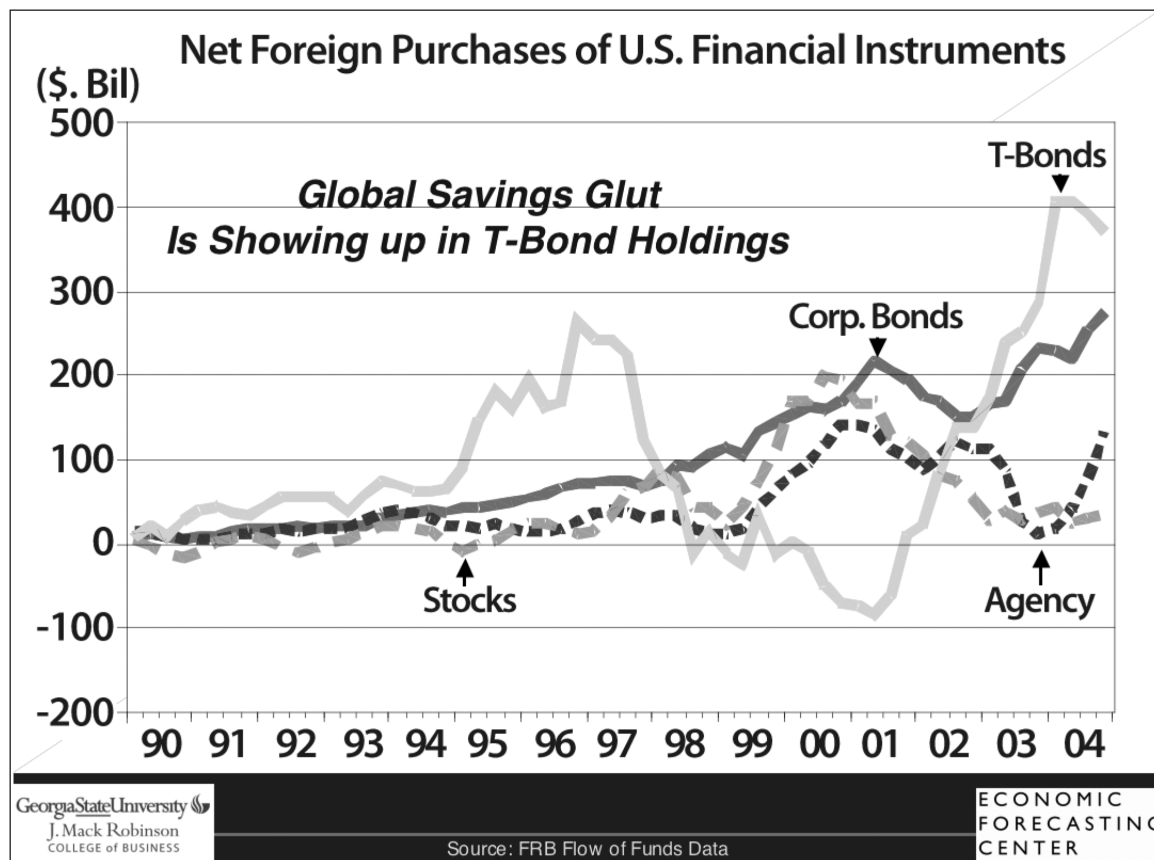
The flip side of a trade deficit is capital inflows. All of you in the business of investing will make portfolio choices and so do these countries. They also have to decide what portfolio to invest in.

What do the foreigners buy over here? Graph 5, page 10, shows the net foreign purchases of US financial instruments from foreign sources. The line showing T-bonds represents the net buying of Treasury bills, the 10-year bonds. It shows that they were in big demand until 1997 or so, when the stock market took off in the US and people ran over to stocks. When the stock market ride was over in about 2001, they went back into Treasury bonds.

Since then the level of foreign activity has changed from net sales of $100 billion, to purchases of $400 billion, a flip of $500 billion. Of course, if you buy more bonds, their price goes up and interest rates come down. That's what's been going on. But the issue is who is buying.

I have shown that when the foreigners have to invest the money in the US because we are running a trade deficit, they have four choices: agency, corporate bonds, stocks and Treasury bonds and they seem to be picking up Treasury bonds. Why? According to Bill Gross at PIMCO, who manages about $200 billion of bonds, the Fed controls short-term rates while intermediate and long-term rates "are determined by institutions, individuals and foreign central banks such as China's, which have been massive buyers of Treasuries." So let's look at whether his hypothesis is right.

Here is the shocker. Looking at the trade in and holdings of US Treasuries by foreign central banks (Graph 6, page 11), we see that in one year the Japanese bought $350 billion



Graph 5

worth of Treasury bonds. But if our trade deficit with Japan only goes up by $10 billion, they need only buy $10 billion more to fund the deficit. So why are they spending $350 billion? That is one issue. And why is the UK, which doesn't run much of a trade deficit with us, buying $120 billion worth of Treasury bonds? The net change in that deficit is only $2 billion. Why did they buy 60 times that amount of Treasury bonds?

Well, it seems they want to keep their currency values low. And if you want to keep your currency low, you need to buy the 10-year bond. The Asian Central Banks do that because of growth in net exports, and so do the UK and Germany.

Only South Korea decided not to buy so much — the South Koreans are not too happy with the US policy on North Korea. They don't think they are getting the attention, so they keep making noises about diversification. When they do that, the bond market jumps for a day but then it comes back to reality. Imagine you are a central bank in Asia. You have just gone through a currency crisis six years ago. By definition you cannot suffer capital losses, so you are not going to keep your money in corporate bonds or stocks; you are going to keep it in the riskless asset: the 10-year bond of the US Treasury. You can buy Euro bonds, too, but it's not clear that they are really liquid. In the case of a currency run, could they be used to stop it? The answer is no, the Euro does not develop as a credible, liquid, alternative riskless asset.

In the last four years, we in the US consumed a lot and we financed it by printing the 10-year bond, which the foreigners snapped

up. That's why the interest rates never went up. But we were lucky that what they were buying is what we were printing. The issue is whether this can go on forever.

Let's look at the makeup of the trade deficit: in which commodities, and where, do we run a surplus? It's a bit of an eye opener. One thing is very clear. Oil and vehicles — cars and the stuff needed to run the cars — are causing half the trade deficit. The commodities in which we do run some kind of a surplus are airplanes, chemicals, soybeans, corn, wheat and cotton. These last are agricultural commodities, which surprised me. When I was learning my economics, developing countries, not developed ones, ran surpluses in commodities. And that gave me the idea as to what's going to solve it in the future.

This imbalance cannot go on forever. In real estate you always think about a seven- to 10-year horizon. Well now just go a little bit longer and consider 15 or 20 years out. Are we going to give up our cars and oil with a straight face? No. But if the gas price stays high, we may economize. So we can cut down the gas bill a little bit. That still leaves the cars, which I'll come to. It's not going to be that easy to solve.

On the other hand, if China keeps on producing all the stuff for WalMart, it's not going to have enough people left over to work the agriculture, so it's going to need food. And who's got the food now? We do! You may wonder about somewhere like Brazil, everybody knows Brazil can produce all the grain it wants. But there is one problem. Brazil has no highways, no boats, nothing to move the grain

Trade and Holding of US Treasuries by Central Banks

	Trade in Goods and Services		U.S. Treasury Securities Holdings		Currency
	As of 2004	Change	As of 2004	Change	Appreciation
Japan	–75.2	–9.3	702	353.7	4.3
China	–162	–38.1	196	49.4	0.0
South Korea	–19.8	–6.9	67.1	8.6	13.4
Taiwan	–12.9	1.2	59.1	18.2	6.7
Hong Kong	6.5	1.8	52.9	22.7	0.0
Singapore	4.3	2.9	26.9	4.1	4.1
Germany	–45.8	–6.6	59.5	19.5	8.0
UK	–10.4	–1.7	171	124.0	7.1

In one year Japanese Bought $350+ Bil. worth of Treasuries to Keep their Currency from Appreciating

* All numbers are in billions of U.S. dollars

Source: BEA (Trade) and US Treasury Department

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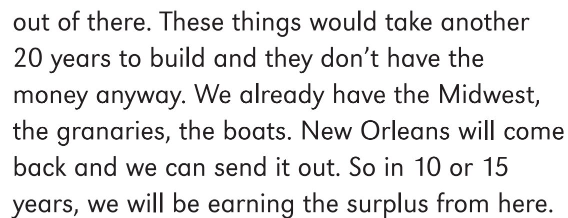
Graph 6



out of there. These things would take another 20 years to build and they don't have the money anyway. We already have the Midwest, the granaries, the boats. New Orleans will come back and we can send it out. So in 10 or 15 years, we will be earning the surplus from here.

Until then, the issue of the cars is left. Trade data show that the US runs the largest deficit in car consumption (we buy more cars than we produce — in 2004 by a margin of 3.5 million vehicles) and Japan and Germany run the largest surpluses (3.8 and nearly 2 million vehicles, respectively). It is a case of bilateral monopoly. We consume the cars and they produce them for us. So if we cut our consumption, where are they going to sell that supply? Think about it.

I recently ordered a BMW and nine months later when it was delivered the price was cheaper and the Euro had gone up by 20 percent. The car was produced in Germany, delivered over here, so I thought it was the foreign worker who had lost out in the process. But later I was joking with the mayor of Düsseldorf, who was visiting Atlanta, telling him his countrymen were paying for my car, cutting into the workers' money to pay for me. But he told me I was mistaken. "We already fired all the workers. It's automated." When you push it, they're going to do that.

What's the next step? When the Japanese were forced to voluntarily restrain exports after 1984, they saw that they were taking on the hassle of currency and political risks. So in the 1990s, they came over to the US, to the South. That's what's going to happen. In response to the deficit in cars, they're going to start bringing the plants over here. We will again become a manufacturing site and that's going to solve it.

One day while I was musing about this concept, my assistant director, who reads the newspaper too, said, "What about China? Why can't China absorb all the cars?" But China doesn't have the purchasing power. It doesn't grow that much. Two months later she came back showing me that Chinese car sales were up by 50 percent. Without telling her what the problem with the data is, I said, "look, it's up by 50 percent in one year. This has to keep on going for five more years before they would be able to absorb those 5 million cars. The NASDAQ has only once gone up by 66 percent. We would be looking for such gains five times in a row," I told her. And three months later the report came in — Chinese sales were down 40 percent.

So there is no option. Why are these people building those cars to sell over here? They are going to bring the plants over here down the road.

Meanwhile, we are going to have our own problem with GM, which right now seems to be in business just to service the pension plans of the workers. I have been working on this issue for the last ten years with a professor friend of mine. We have compared Japanese and US companies' productivity and it's pretty clear which way the arrows go. Starting in 1968, productivity levels were similar. Over the last 30 years one company, Toyota, has moved up to the frontier, out-performing everybody else. The laggards are led by GM.

So what's the issue and what is the solution? There are some steps the laggards could take. First they could follow the Japanese just-in-time practices, increase volume at the plants, steps economists would describe as standard stuff. Second, they could negotiate with the unions. That's obvious. Third would be to bring back some creative designing to appeal to customers.

But the ultimate step I suggest is, instead of giving the top management stock options, give them the company's 30-year bonds. That ties their reward to long-term results. If they screw up right now in hiring practices and other areas, 30 years down the road they won't get their pensions. Make the incentive profile 30 years. Part of the problem is that the typical CEO of a big company serves only about two and a half years. They're likely to be fired by

10-Year Bond Rate and Trade Deficit

10-Year Bond Regression

$$10YrBond_t = \alpha + \beta_1 * NetExports_{t-2} + \beta_2 * Oil_t + \beta_3 * \Delta Emp_t + \varepsilon_t$$

$$10YrBond_t = \underset{(32.02)^\ddagger}{5.703} + \underset{(12.70)^\ddagger}{8.047} * NetExports_{t-2} + \underset{(5.79)^\ddagger}{0.063} * Oil_t + \underset{(2.19)^\ddagger}{0.683} * \Delta Emp_t$$

$R^2 = 0.703$ t = March '92 – April '05

Source: May 2005, Forecast of the Nation

10-Year Bond Rate	4.3	4.3	4.9	5.5
CPI Inflation	2.7	3.5	3.0	1.8
Core	1.8	2.3	2.2	2.0

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Graph 7

the board, get their severance and go home and retire. Why would they want to make any decisions with implications 15 years down the road? They have no incentive; they only live for the short term. So we need to change that structure. Instead of compensating them through stock options, compensate them through bonds. By tying the CEO's compensation to the company bond, if he hires somebody and they mess up later on, they'll pay the price.

Getting back to the 10-year bond rate and the influence of the trade deficit, I offer the regression equation (Graph 7). My forecast is that the 10-year bond rate won't touch 5 percent until the middle of next year. Inflation is not going to be a problem, so the Fed will not have to really step on the brakes.

I've only talked about the commodity side of the dollar so far, but what about the value of the dollar? Two things can happen. If you can't sell them the other goods, you can sell them real estate. In the national income accounts, real estate shows up as a statistical discrepancy in the flow of funds — there's no category for real estate. I have been talking to Federal Reserve Bank officials, trying to figure out how to track when somebody in Germany invests over here to buy a building, but there's no tracking it. We just know the money came in. It goes into the pot.

To give you an example, our trade with Venezuela is barely $10 to $15 billion, $25 billion at the most. But the statistical discrepancy runs $50 billion. That means they are spending more money over here than we

TOP 20 MSAs with HIGHEST House Price Appreciation

MSA	1-Year	1-Qtr	5-Year
1. Las Vegas, NV	**36.23**	**1.67**	**84.09**
2. Bakersfield, CA	30.46	5.15	92.41
3. Reno-Sparks, NV	**30.09**	**4.52**	**79.48**
4. Riverside-San Bernardino-Ontario, CA	29.58	3.83	112.14
5. Visalia-Porterville, CA	27.23	3.97	67.44
6. Palm Bay-Melbourne -Titusville, FL	**26.25**	**3.79**	**85.86**
7. Salinas, CA	25.71	3.28	116.19
8. Los Angeles - Long Beach - Glendale, CA	25.19	2.73	102.73
9. Fresno, CA	25.10	3.99	103.49
10. Santa Barbara - Santa Maria-Goleta, CA	24.98	3.21	121.06
11. Santa Ana-Anaheim-Irvine, CA	24.56	1.88	106.48
12. Merced, CA	24.45	5.12	115.10
13. San Diego-Carlsbad - San Marcos, CA	24.41	1.99	119.40
14. Oxnard-Thousand Oaks - Ventura, CA	23.90	1.65	105.53
15. Yuba City, CA	23.80	5.54	111.57
16. West Palm Beach-Boca Raton-Boynton Beach, FL	**23.36**	**2.90**	**94.38**
17. Sacramento-Arden-Arcade-Roseville, CA	23.19	2.80	111.79
18. Stockton, CA	23.16	4.32	104.98
19. Port St. Lucie-Fort Pierce, FL	**22.87**	**3.00**	**97.29**
20. Punta Gorda, FL	**22.87**	**4.31**	**92.18**

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Source: OFHEO Report, 4th quarter 2004

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Graph 8

can even figure out from the national income accounts. That money is going to Miami to buy condos and homes. The new buyers there are Argentineans and Venezuelans looking to escape chaos and turmoil in their countries. When the money leaves the country, it gets invested in real estate.

Ultimately, the value of the dollar will fall if you keep on running this kind of deficit. We'll need to sell them something, so there have even been jokes that the world can come and get its plastic surgery here, [laughter] we'll sell services.

But there's another issue. What creates jobs? I came across a Dilbert series about outsourcing. (Only I can get away with this stuff about India!) Dilbert comes to the boss to report the "disturbing news" that the company outsourced its service function to India a few years ago. "So?" retorts the boss. "Apparently they subcontracted the job to Mexico. Then Mexico subcontracted to Vietnam who subcontracted to the Philippines who subcontracted it to us. What goes around comes around." Happily now the revenue of the big companies is beginning to grow in the US, as is job growth, trends I expect to continue notwithstanding Katrina and Rita. Alan Greenspan faces the dilemma of reconciling fundamental pressures such as that job growth, possible incipient inflation and productivity. But the biggest challenge is the super-hot housing market.

Looking at the housing market, I have a crazy chart (Graph 8). It shows activity in the markets with the fastest home price increases, and they are all in three states: Florida, California and Nevada. The top three markets

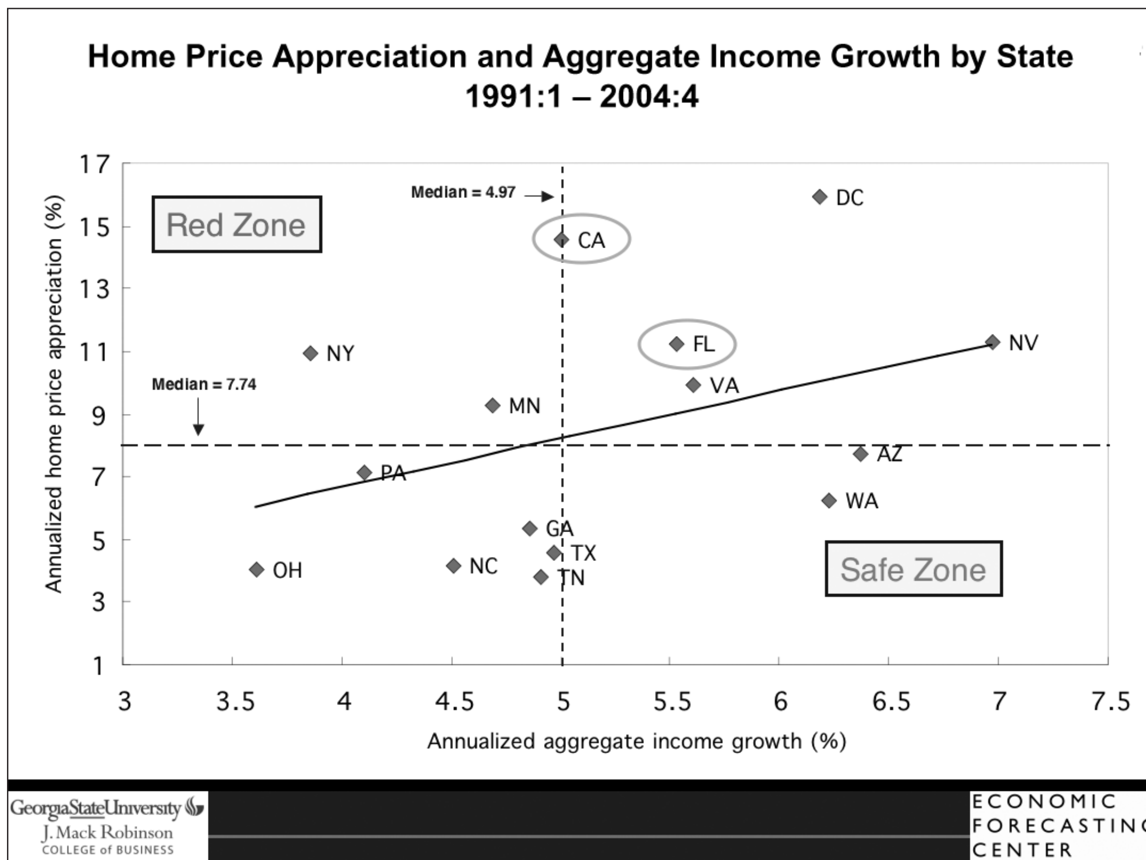
show 30 percent home price appreciation in a year. That defies some logic, doesn't it?

I can explain it in Las Vegas, since people who can't buy in California move there. But what's going on in California and Florida, two coastal areas? Statistically I cannot prove there is a bubble. But I've charted income growth and home prices since 1991 and characterized the activity into some zones (Graph 9). The red zone, in which annual home price appreciation has been high (over 8 percent) and income growth has been very low, includes the Bay Area. In the safe zone, income growth has been high (over 5 percent annually) and appreciation low (under 7 percent). California is sitting on the border of the red zone! Florida is not even in the bad zone, but poor Minnesota is. [laughter] You think there is a bubble going on in Minnesota? [laughter]

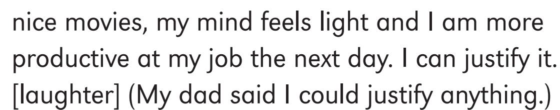
What this shows is that if you try to go to statistics to prove there is a bubble, you cannot. Statistically, bubbles are nothing but non-fundamental solutions to a different situation. It's like beauty. You can't define it but when you see one, you know.

The public has used houses as a bank and taken money out in the form of home equity credit. But the productivity of this depends on the use to which the money is put. If you take the money out to pay down expensive debt, I like it. That's the beginning of entrepreneurship. That's how people build new businesses. I love that activity.

What about the consumption of durable goods — a big- screen TV, for example — is that investment or consumption? Economists will classify it as consumption, but I say it might be investment. When I watch the TV and I see those



Graph 9



nice movies, my mind feels light and I am more productive at my job the next day. I can justify it. [laughter] (My dad said I could justify anything.)

What about using the money to take a vacation to Bahamas? I make the same point. If I take a vacation, I feel refreshed, come back and work harder.

One thing I do not recommend you should do, which you probably won't like, is to take the money out and send your kids to Ivy League schools. Why? Has any kid ever paid back their parents? [laughter] The homeowner is taking the risk. The kid eventually earns a great income, hopefully, so the household as a whole benefits, but the inter-household dispersion of risk is different. So save your money, send them to the state and local colleges. (Send them to Georgia State. We give a good education.)

One thing everybody wants to talk about these days is Social Security. Private accounts, is it going bankrupt, what's going on? This is a problem that is going to happen in 2042. Do you care? Neither do I. Okay.

Health care is hitting us right now. If we keep on growing and aging when there are not enough young people, then, as a proportion of GDP, the 9 percent of your paycheck you are giving for Medicare and Medicaid will go to 13 under simple assumptions. If I blow the forecast a little bit, it goes to 21 percent; a little bit more, it goes to 30 percent. Are you going to pay one-third of your salary as taxes for Medicare and Medicaid? No.

So how do you solve this problem? A politician will recommend tax hikes and benefit reductions, as will an economist. For the other recommendation you must blame my mentor, who is a Texan. That solution is to ship the boomers to India. Outsource it! [laughter] Of course, there are some problems involved.

The technical solution is to bring in hundred million immigrants. That means 10 million per year. Right now legal immigration is less than three-quarters of a million a year, at which level it's causing social and political problems. Ten million is impossible. Additionally, even if it was possible politically and socially, there are not enough people in the world, not even in Mexico, India or China, to achieve it. So to solve this problem you have to think outside the box.

Some years ago, I heard my mentor talking about this problem. He noted that 90 percent of lifetime medical expenses happen in the last six months of your life. If you could eliminate the last six months, this would never be a problem. [laughter] But how do you do that? If I live to be 85, I want to be going to work in the morning, doing my nice job, coming back home to light up a Cuban cigar and have my nice scotch and drop dead of a heart attack. Done. Gone.

Of course that's too radical. But luckily economists came along and distinguished between medical advances that prolonged the productive life span and those that prolonged the actual life span. We're already able to prolong the actual life span. What we need is techniques to prolong productivity. With that I will end, leaving time to take some questions.

Question

Thank you very much for that very delightful presentation. You talked about some structural imbalances in the US economy, taxes and Social Security, but what about the budget deficits? What about the impact of spending by the government? No doubt it's about the accounts directly behind the imbalance of the foreign accounts, but what about the mechanisms in the budget deficit?

Dr. Dhawan

The question is what about the current big budget deficits, which will be exacerbated with Katrina.

As I said, the budget deficit turned out to be not a problem because we financed it by printing the 10-year bond. We monetized it and the foreigners were holding that bond. So we were very lucky the last five years, given that the world economy needs a certain amount of

dollars, in the form of the 10-year bond, to make it work, kind of like the grease. So as long as we keep the deficit around $300–$400 billion at the most, not forever but for a few years only, you can pass on the extra bonds. For that reason, I am saying that for a year the 10-year bond will remain low. Ultimately, with all this spending, it will catch up. There is a limit to how much the foreigners can absorb. But as long as a substantial part of Asia and quite a few other countries want to have an export-led growth at any cost, and as long as they have the US as the ultimate consumer, this game can go on for another four or five years easily. The issue would be that it can't go on for 20 years.

Follow-up Question

...Which makes the US economy fairly sensitive to the savings rates in those countries supplying the capital, doesn't it? Because if their economic growth and their tendency to consume turn around...

Dr. Dhawan

It makes it a little more risky, but I point to one thing. You hear a lot about the risk of the Japanese and Chinese deciding to dump the Treasuries. But what would they buy instead? That's the answer. I would love to hold Australian bonds in my portfolio, they are rock solid, and they pay well. But I think one bank in Pittsburgh can buy up the entire supply. The issue is the amount of liquidity. The only market that is liquid is the 10-year bond. Finance professors talk about markets, but they forget one thing. In a stock market, there is one market-clearing mechanism, one central trader matching the buyers and the sellers. It's called the market maker. And it typically works for every stock — when you place an order your broker goes to the market maker and the liquidity allows you to get it done.

But a bond market is totally fractious. There is no central clearing place. All you see on the Bloomberg terminal is what trade happened and at what price, and that is only 40 percent of the market. It's like trading in islands. I have a relationship with you. You are in JP Morgan. I am a hedge fund with 10-year bonds I want to sell. I have been dealing with you, so I come to you. You give me almost 99 cents to the dollar.

When the LTCM collapsed it was because, when they were making money, they were lording it over all these Wall Street guys and ticked them off. When the day came for their collateral to be liquefied, the Wall Street guys weren't too happy with them and offered 80 cents to the dollar for the bonds they were holding. When they balked at that, the Wall Street guys got even tougher and paid only 60 cents to the dollar. Unlike in a stock market where there is a central market clearing mechanism, in bonds it's nebulous. There is no market clearing.

Mark Preston, Grosvenor; Mark Baillie, Macquarie Real Estate, Inc.; Gen. Colin Powell; and Steve Zoukis, JAMESTOWN, at lunch.

So as long as that is the case, what's going to happen? Suppose 10 years down the road I see the Japanese selling Treasuries and taking the money back to their country because the economic prospects have suddenly changed. You know what you are going to do? You're going to follow the same trail and go where the best return is. At that point, you may suffer capital

losses by selling the 10-year bond, planning to make it up on the investments from Japan.

In the end, it's all a question of economic opportunities. Why does the European money flow over here for real estate? Because the returns at home don't look too good. The 4.5 percent return over here on the 10-year bond looks great compared to the 3.2 for the German one. It's a case of what kind of risk you want to take, where the returns are and how the money goes.

Capitol Steps imitate Bill and Hillary Clinton.

Question

Could you comment on the likelihood of an inverted yield curve? Since in the past we've seen a fairly good connection between sustained inverted yield curves and recession, if the yield curve were to invert what are the risks of a recession in the US?

Dr. Dhawan

I think you answered most of the question yourself. Sustained inverted yield curve. A yield curve did invert a little bit a few years ago and there was no recession. The issue is separate from the inversion of the yield curve; the absolute level of the interest rate matters. The best example is 1990. Iraq invaded Kuwait. At that time, the federal funds rate was 7.5 percent, the 10-year bond was around 8.5 percent. Then the fed funds rate went up, inverting the yield curve. At that level it doesn't matter whether it was inverted or not. At 7.5 percent interest rate, with inflation only 2 or 3 percent, that's a very high real interest rate.

Right now, any inversion would be happening because of the trade deficit. I firmly believe when I build the models, that every time you grow the GDP, your imports have to grow in proportion. When the imports grow, so do your inventories and so does your consumption, so there's always going to be some kind of a deficit. That's why I put up that global savings chart. If you notice, Germany runs a trade surplus. German growth in the last three years cannot be said to be a great one. So I think trade deficits are good for growth, as long as the foreigners are willing to hold your 10-year bond. Any other country that tries to run this one is going to get into trouble because they are not the international reserve currency.

Also, as long as you have other assets to sell, real estate, parks, land, beachfront in California, you can sell those assets. As long as there are Argentineans and Venezuelans in the market, rich Iranians who want to buy in Beverly Hills, your assets have value, location has a value.

Question

Back in the 1970s, you heard a lot about the challenge of recycling petro dollars. Today I haven't heard too much about that. I wondered if you have looked at where the excess capital from high oil prices is going.

Dr. Dhawan

The trouble is the Treasury data for last year didn't show much because things are only happening in the last nine months. Only when the data come out in another six to eight months will we know how they recycled it.

But one thing does show. Middle Eastern oil is priced in dollars and commodity trading is in dollars. But only 10 percent of Middle East imports are from the US. Sixty percent are from Europe. The recent increase in oil prices, from $25 to $50, can be explained by a need for more dollars, because the Euro had appreciated so much. They just raised the price and the market took it. So if they are also spending a lot of it in Europe, there's not much left over to recycle.

Question

You mentioned that the deficit is not a problem as long as investors are willing to hold the 10-year Treasury. And you made the good point about Australian bonds — there are not enough of them. Ten or 15 years from now, what would it take for the Chinese to have a 10-year bond that the whole world wanted to hold and what would the world look like if they had one?

Dr. Dhawan

I think your question is very good, but you have to tell me. They are still playing with a pegged currency, almost a basket of goods. They don't have a currency people automatically want to trade in. First you have to have a currency investors will willingly hold and a central bank with a reputation as an inflation fighter. There are a lot of ifs there. The best thing China did was to peg its currency to the dollar in the early 1990s. If you don't have a central bank with a reputation, buy somebody else's reputation. The moment you peg the currency, however, you have to accept that your inflation rate is going to become that of the country to which you've pegged. That's why you could see the Chinese and US inflation rates converging.

Their biggest mistake was to give in to the political demand from here to take away that coupling. Having implemented the coupling because they didn't have the reputation, why give it up without having an independent central bank, with the government still running a commodity economy and without knowing what's going on? Technically, they have only upped the currency by 2 percent, but if they allow it to float by 0.3 percent every day, technically in a year it will appreciate by 20 to 30 percent. At that point, it will become a problem for them because Malaysia and other places are also selling goods over here, and China needs the break. But WalMart is not going to give them the break. China will have to eat the cost to supply the same goods to WalMart if the currency appreciates that much.

It's another case of a big buyer and a big supplier, a bilateral monopoly. The solution is indeterminate; it all depends upon bargaining power, but who has the guns? So I don't see China becoming a force in that sense. I'd rather put a little bit more money towards Europe if they can get their act together.

I say that because Europe has a problem: 11 independent elections, 11 independent fiscal policies and one monetary policy. They are trying to balance 11 equations with only one free variable. You need 11 free variables. In the US we have a union. None of the states are allowed to run a deficit technically on paper, but they run it somehow. But still they cannot print their own money. There's one national election, one national fiscal policy and one national monetary policy. There exists a solution. I see that as a problem for Europe. For the Euro to become an international reserve currency, the EU will have to show that these countries can somehow manage that equation. So far, in the verifying of those constitutional treaties, it didn't work out. ◆