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down the road (as a result of dropping interest rates too low now, thus causing too much liquidity in the economy), and you know that once interest rates go up, the value of your holdings will be, let's say half; will you wait five months or will you sell it when it's high. So everyone will start selling bonds in this scenario immediately, forcing the price of bonds down and interest rates will go up now instead of five months down the road. This is a rational expectation and it can explain everything that has gone on in the market over the last five years.

Over the last seven months, for example, the markets got a bit jittery about inflation, without any evidence that inflation was worsening, so we saw interest rates jump a lot. This is because the over-selling of bonds which anticipates interest rates going up in the future, but instead forces them up at that point in time. Like in the '70s, you never saw such a drastic move in interest rates in such a short span of time, whereas now you see everything happen in two or three months; rather than waiting one or two years, they sell immediately to get their capital gains, then invest their money in short-term treasury

policies, interest rates will eventually be higher five months EXCALIBUR: What about President Reagan's economic policies and their effect on the economy? Do you feel it's imperative for the two branches of government (Congress and the Executive) to get

together and address the imbalance? ATHANASSAKOS: The question is how to do this; should you raise taxes? But that will be bad for the economy and also bad for industry, because investors don't care about interest rates per se, they care about after taxes interest rates. When you pay taxes and you receive 10% interest, you look at how much will go into your pocket. And if you pay 50% taxes, only 5% will go into your pocket. So if you increase taxes a certain amount, you have to raise the nominal interest rate equally to offset this loss in revenue for investors. Personally, the way I believe the federal deficit should be

EXCALIBUR: But what about the recovery on Wednesday and Thursday (October 21 and 22), how is this taking place?

### ATHANASSAKOS

EXCALIBUR: How similar is the market crash which we experienced last Monday to the one which occurred in 1929?

ATHANASSAKOS: Basically, the main difference is just one word-experience-with the crash of 1929, and second, government influence in the economy at this point in time more than in the past. There are better statistics this time and governments and investment houses have the latest up to date information on what the economy is doing. See, back in 1929, the economy had already plunged, and statistics were reported as of one year ago. Now we have statistics up to the latest week, let's say, and they know (presently) that the economy is strong. The government knows what shape the economy is in, and responds directly to these challenges. For instance, we learned the day after this crash that governments around the world got together and decided to put together a plan to manage the economy so that in case of a liquidity squeeze, people could find money to get out of trouble. Back in 1929, the economy had already plunged, and the statistics were reporting as of one year ago. Now we have statistics up to the latest week, let's say, and they know (presently) that the economy is strong. The government knows what shape the economy is in, and responds directly to these challenges. For instance, we learned the day after this crash that governments around the world got together and decided to put together a plan to manage the economy so that in case of a liquidity squeeze, people could find money to get out of trouble. Back in 1929, governments would not cooperate. Several banks, rather than supplying the necessary liquidity into the market, tried to put the break on more liquidity, or they didn't increase the money supply into the econom

You see when there's a panic, everyone tries to liquidate. A lot of people who borrowed money to buy stock, they're getting calls from their bankers and investment houses that the value of their stock is falling, so they have to purchase more margin . . . If the banks are not willing to lend any money out (to purchase more margin) because they don't have liquidity, then there's total collapse (like in 1929). But this time the government of Canada increased the reserves of the banks, so the banks had a lot of money and accommodated any sort of needs that people had for liquidity at that point in time. So I don't think there's any similarities to that extent with 1929.

EXCALIBUR: You mentioned the technological revolution which has given governments better access to requisite information to manage the economy more effectively. However in some respects, it is computer trading on which many analysts blame the snow-balling effect that forced the record crash to occur on Monday. How do you feel about computer trading?

ATHANASSAKOS: Yes (this took place), but this has nothing to do with the underlying state of the economy. This time, there was no human factor in the crash. In 1929, it's people who traded. This time, it's computers who traded. And computers do trading without looking at the fundamentals in the economy they're just looking at some technical equation which analysts have programmed into the computer.

EXCALIBUR: So if the economy is sound, why did it happen? What is the market indicative of, if it is not indicative of the economy?

ATHANASSAKOS: I have to start at the beginning of this year to show you what led to this crash. The markets started the year on a very positive note and they started well, because the fundamentals of the economy were positive. Now the institutional traders who dominate trading on the stock market did very well over the first three months of this year. Then, interest rates started to rise and the US dollar did not behave very well. Some inflationary pressures started to build in the economy and even though there was nothing out there that was excessively negative in the economy, these institutional investors got a little bit nervous and said, "Okay, now that we have realized 40-50% of our portfolio, what do we do now? Do we sell and liquidate or do we hang in there with our big returns"... But let's say the group had already made 50% of their returns, and they don't want to risk the return. So what they did was they bought portfolio insurance. So rather than selling the portfolio, what they do is they sell a futures contract. They engage in some kind of agreement whereby they are able to sell the portfolio three months down the road at a fixed price. So no matter if the stock falls below this level, they can still sell it at that price.

Now, as through the summer interest rates started to rise, and the uncertainty about the Gulf War and oil shipments grew, these traders started to buy this portfolio insurance more

For the past five years, the market has been riding on a wave of prosperity, inflating stock exchange indexes to record highs around the world. Then came Black Monday when small investors stormed the markets to sell off their portfolios, causing a huge snow-balling effect which slashed over 500 points off the Dow Jones and eliminated over 22% off the value of stocks.

The markets, however, did show some resilience in the following three days of trading, but the volatility in stock prices remains, scaring many small investors out of the market. If the market is a forecaster for the health of world economics, then certainly it is clearly indicating severe economic times ahead. But according to economists and world leaders, economic fundamentals remain intact, despite the market's gloomy performance, and that the crash is merely a correction to over-inflated stock prices. To debate this issue and the the implications of the crash, Excals James Flagal and Jeff Shinder spoke with York Professor of Finance in the Administration Studies Department George Athanassakos and Economics Professor Meyer Burstein.

productive.

## **ORCORRECTION?**

deficits as reasons for the crash?

started to fall . . . Another index not so widely known is the futures index ... Now there is a fundamental relationship between the spot market, that means the TSE index that we observe everyday, and the futures index. In theory, there is supposed to be an equality . . . Now people were selling the futures contracts forcing the futures index to fall. So, this equality between the spot and futures index was broken. Now the computers were following the spot market and the futures market. As soon as the seriousness in this equality grew to a point where the computers wanted to break this inequality. And we can make the TSE spot lower by forcing the prices of stock down in order to achieve equality between the futures and the spot index.

**EXCALIBUR:** So, it was the computers not the people who were making the decision to trade the stock?

ATHANASSAKOS: First of all, there are computers that follow the markets around the world. What I am going to explain now is arbitrage. The first and more straightforward application of arbitrage is when you have a computer track all the stocks in (let's say) New York, Toronto, and Montreal. For instance, Bell Canada is trading at \$40 in Montreal, Toronto-\$41, and New York at \$42. Now, as soon as the computer sees this, it will highlight this discrepancy to the trader. The trader will buy Bell Canada stock for \$40 in Montreal and sell it in New York for \$42. By doing this, you put upward pressure in Montreal and downward pressure in New York and eventually, prices in both markets stabilize.

The same idea also applies to trading between spot and futures, so you have the computer following the spot TSE and the futures index. So the computer is using the human and no human decision is involved in looking at the fundamentals in the

EXCALIBUR: So you're saying that the human decision to make the futures lower was what eventually caused the crash and it was the computers which started this dramatic drop because of this quest to equalize the spot and futures index.

ATHANASSAKOS: Exactly, this started the fall. Then, once this started, the small investors said, "Stock prices are falling, let's get out." This started the snowball effect.

EXCALIBUR: How does such a drastic drop in the price of a stock affect a corporation

ATHANASSAKOS: (Essentially), this has no immediate effect on the company. Companies usually worry about their stock values, because it effects the image. So when the stock is falling, people wonder what is happening with that company; are profits good, for instance. Also, if the price is down and the company wants to issue shares, it has to issue many more shares. This is called dissolution of profits. But many times, when prices of stocks of a company fall, they will delay major investment projects, because they have to issue too many shares to raise that kind of capital.

**EXCALIBUR:** If the government responds and drops interest rates (as it did on October 22, the Bank of Canada rate fell by more than 1.5% to 8.26%) and increases liquidity in the economy, will that not cause a long-term inflationary pull on the economy?

ATHANASSAKOS: My fear now is that the government will overdo it, in that, to avert a recession, the government opens the doors of the Central Bank wide open and prints money. This will have a deleterious effect on the market. In the short-term, yes, we will see rates go down which will stimulate the economy. But then we'll start to see the investor getting concerned about the over excess in liquidity and the prospect for increasing inflation and the value of the dollar. This is something which has been talked about by academics for years called rational expectations. That is, the markets are able to analyze all the information very fast and know what the long-term effect of what's happening now, will be.

Now, if you are a bond trader and you know that by these

intensively. By buying this insurance, the futures contract **EXCALIBUR:** And this kind of action will keep inflation down?

ATHANASSAKOS: Yes, if this is the case, we shouldn't see inflation accelerating very fast. Once the first signs of inflation become apparent, the markets drive the interest rates up very fast and this dampens inflationary pressures. So when you sell the bonds, rates go up, taking some steam off the economy, which forces buying activity down. This brings inflationary expectations down and back into line with current inflation; it doesn't let the economy overheat like you used to see in the '70s when growth rates of 10% were reported in one year. The GNP in the US though, in particular, has stayed around 3%, and this is why the stock markets were doing well; because if you have a stable environment of growth, then all this affects profits positively. And these are good quality profits, not profits that are damaged by inflation like in the '70s when you had companies reporting very high profits rather than actual money. Now, when inflation is low, profits are good quality-real money. It has a lot to do with accounting tendencies and depreciation of inventories and this exaggerates profits for the firm during nflationary times.

ATHANASSAKOS: These recoveries, once again, are generated by computers. This is what led to the collapse and we witnessed governments coming in and dropping interest rates, thus forcing the futures market to rise; the spot market will then be forced to increase and equalize with the futures market.

over the past five years going to return? ATHANASSAKOS: I think so.



BURSTEIN: Well, I think that you'd want to compare October 23, 1929, to October 19, 1987. Considering what could have been going on in October 23, and what we think we know now and other obvious differences which I think exist. like in the banking system, there is no way that the banking system in the United States will collapse like it did in 1929. Because the banks now are insured and after all, they're only obligated to repay paper that the government can print. But in 1933, there was a fantastic banking collapse in the United States, much less so in Canada, in which all the banks in Detroit failed, for instance, There is one thing in common though, the international debt

EXCALIBUR: Why do analysts constantly cite the trade and budget ATHANASSAKOS: First of all, the US economy, because it needs money to finance its deficit and since the level of savings are so low, have to turn to European and especially Japanese markets because Japan has an excess of liquidity, or, so much money. Now if foreign investors know that the US dollar will fall, then they will not put their money into the US economy, because they know that they will lose whatever they gained in interest a crisis, and there is no question that the international banks are rates. In the US economy, they will lose in the depreciation of in a dangerous position that even under General Accepted



because they associate this with high interest rates.

EXCALIBUR: How would you describe this crash internally in the Accounting Principles, would be found to have, at best, market? seriously impaired capital positions. BURSTEIN: The best way to explain the internal action of the Another major difference is that governments are more apt market is to compare it with Las Vegas and to point out how much sounder Las Vegas is as a gambling centre. Sports gam-bling, for instance, is clearly fundamentally based. There is no to exaggerate the debt crisis, rather than minimize it. And the very fact that 1929 and 1933 occurred, public policy failed so disastrously, will make public policy so different now. People in way the odds will go wild. For example, it is very unlikely that a position of policy today are transfixed by how their predecesthe odds for a baseball team winning the world series will jump sors are blamed and are so determined not to carry that blame from 80 to one to two to one within a week. Nothing like that into history. And they simply know more, and it's regarded as

addressed is by cutting taxes and making the system more



EXCALIBUR: So, then is the bull market which we have witnessed

## EXCALIBUR: Is this like the crash of 1929, and if not, in what way is



avoidable in retrospect. Herbert Hoover, for example, was severely criticized by Franklin Roosevelt in the campaign of 1932, because he ran an unbalanced budget and Roosevelt promised to cut public spending and there was great pressure on Hoover to raise taxes, because the budget was unbalanced. Just think of the difference (of a President being criticized for essentially increasing the amount of liquidity in an economy during bad economic times).

There is no way the public sector will make the same mistakes it made last time. Quite the contrary, there's much more of a chance that there's a desperate attempt to make money easy to borrow, so the errors they are likely to make could lead to higher inflation.

EXCALIBUR: Why did this happen, and are we now headed towards a recession

BURSTEIN: I don't think anyone will tell you that a 22% drop in the Dow Jones in one day is a way that the market is telling us that we're headed towards a recession. You've got to remember that the mild post World War Two business cycle is factored into everyone's expectations. If it's telling us anything substantive, it's speaking of something far more serious than a recession. This sort of thing is totally out of line in the way that stock markets forecast recessions. So there's the possibility that if something is dramatically wrong, it's some sort of combination of the Third World Debt and an unsound condition of the great banks and I would not play down the silliness in the Gulf. That reflects a silliness people have that if you fear nuclear attack, you want to be in cash. People want to hold gold, if they fear superpower confrontation, but in reality, it makes no sense-it's an emotional reaction. And I don't take this connection (the Gulf connection to the crash of the market) that seriously, because the American administration sees its interests very clearly in an apparent accommodation with Russia.

Conventional business forecasting does not show anything in the future worse than a recession and as a matter of fact, pinion has been shifting recently towards the belief that economies will be stronger than that and there was a worry about inflation. You always have to remember what people were saying before this happened, and people were shifting from believing there was going to be a recession to believing there was going to be inflation, and that is why interest rates went up. I don't think this event was called for. The fact that it happened, forces one to be modest about these things. It has to shake the confidence of any economist. What we have here is a collapse of market which becomes a classic example of materialism, greed and hysteria run wild. Remember in 1929, there was a recovery and the bottom wasn't reached until much later. Only a fool would say that the New York Stock Exchange lost 22% in one day and nothing real is involved. I don't know what is involved.

EXCALIBUR: What about the US budget deficit?

BURSTEIN: The public sector deficit in the US is 3.4% of the GNP. In Canada, it's 5.5%. That of Italy is 11.4% and Japan runs around 8%. So the United States deficit has not been out of line with world ratios and it can be corrected overnight by a small tax increase. One reason why it's been so easy for the US to get finance for this debt from abroad is that US securities, for some years now, have been extremely popular in the world, because the US is seen as an oasis of stability of private ownership economies. To a very large extent, the US has been almost encouraged by the rest of the world to make available huge quantities of securities which they have been delighted to acquire. No person in their right mind would write a scenario that the US deficit would go out of control. It's obvious that Congress is worried about it.

#### **EXCALIBUR:** What about the trade imbalance?

BURSTEIN: Very simple answer. Any Keynesian would tell you that it has been a source of great buoyancy for the rest of the world, especially Ontario. From an American point of view, this situation is disturbing because in future years, Americans will have to run trade surpluses to service this debt which foreigners cease to want to accumulate. At some point, the Japanese will want to increase their living standards. But of course that creates a certain buoyancy in the US economy, because they will require greater American exports.

EXCALIBUR: So the trade and budget deficits are not the cause of the

BURSTEIN: Absolutely. And I have a very sound scientific basis been around for the entire boom. I mean the banks have been unsound, the budget deficit was much higher and recently, the trade deficit was much higher. And in fact what has happened is that the physical exports have risen and physical imports have declined, but due to dollar depreciation, the money amount of the trade deficit has not changed dramatically. Not one of these can explain this, especially in the last month when indicators seem to be forecasting stronger inflation rather than a recession. This thing is either telling us nothing or it's telling us something big.

#### EXCALIBUR: What could that big thing be?

BURSTEIN: I would have to say a financial collapse at a very high level. And do remember that there is widespread belief that the collapse of the major bank of Austria was the true trigger of the world crisis which began in 1929 and culminated in 1932. It collapsed and those banks which lent money to the Austrian banks (followed suit).



BURSTEIN: "There's no way the public sector will make the same mistakes it made last time . . The errors they are likely to make could lead to higher inflation."

happens because the betting is solidly based in baseball fundamentals. Gamblers in Las Vegas gamble on fundamentals. All this gambling is equivalent to Wall Street gambling being strictly confined to the fundamental soundness of the company, their sales, the prices you expect this company to receive and the success you expect its new products to have and so on. This is the kind of gambling you see in Las Vegas (based on fundamentals), the only thing that changes is the volume of betting, but the quality of Las Vegas stocks is always very high.

Now on Wall Street, there's a very different story. To start with, the equivalent of the Las Vegas fundamentals cannot be known. Nobody in his right mind can pretend to have any precision about the nature of IBM business five years from now. The future of the economy (just like the prospects of IBM stocks) is shrouded. The most you could say about the stock market is that you can't beat it. You can't expect to beat it. In other words, its fluctuations are very large and it operates in a crazy way. But whatever it's doing, you can't learn about what it's going to do next. The stock value is often very detached from the performance of a certain company. Roughly the same information that caused them (stock investors) to put a value of 800 on the Dow Jones led them to put a value of 2700 on the Dow Jones. You ask yourself: what could they have learned, what did they find out (to make the index increase like that). But you could have argued that historically 2700 is as a price earnings ratio, not crazy. It was much higher in 1962. The numbers which were being reached were not crazy numbers.

EXCALIBUR: What about the psychology associated with the crash and is this sort of a cleaning process within the market?

BURSTEIN: To start off with, you have ruin. You have an emotion that is concerned with being hanged. You have people that are looking at total bankruptcy and we're not just talking about the margin customer of a retail broker. We're talking about people that had huge accumulations of shares partly because they were betting on takeover possibilities or partly just as part of their business because you have to have an inventory to make markets and so on. You have the emotion of coming down there as a multimillionaire and possibly going away bankrupt.

The rise from 800 to 2700 up until this year was not an emotional rise in the market, but there has been a euphoria this year. What I'm trying to emphasize is how effectively weakly held these shares are. If you look at some great institutions like insurance companies and pension trusts who hold these shares, that might make you think that these shares are strongly held. but remember that these shares are managed by little mediocrities who are in competition with each other and who are afraid of losing their jobs and will lose their jobs if they underperform the market

EXCALIBUR: So you mean that they will be more apt to act very quickly and sell rather than being more cautious and experienced?

BURSTEIN: That's right, These guys are in tune with the market and nothing else. (That is why I say these shares are weakly held.) So your first question is: does this signify an external event, is the market a barometer of an external event or is this something the market has brought on itself? My best guess is that this is something the market has brought on itself.

EXCALIBUR: How should governments respond in this situation? BURSTEIN: The guy on Monday who had no idea that this was going to happen cannot tell you what the government should do, because if I don't know what's happened, how can I tell the governments what to do.

EXCALIBUR: What's your forecast for the future?

BURSTEIN: If I had to make a forecast, it would be that the financial crisis which perhaps was looming will be ground out in money-in a flood of paper-and we're now likely to be on a rather uncontrollable inflationary path.

"This time there was no human factor in the crash. In 1929, it's people who traded. This time it's computers . . . "

ATHANASSAKOS: