

The Best of NERA 2013

Current Economic Issues in Financial Regulation

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Reena Aggarwal: Good afternoon and welcome to The Best of NERA 2013 broadcast live on www.sechistorical.org. I'm Reena Aggarwal, Robert E. McDonough Professor of Finance and Director of the Georgetown Center for Financial Markets and Policy at Georgetown University's McDonough School of Business, and moderator for today's program.

The Best of NERA is a joint program of the SEC Historical Society and NERA Economic Consulting and is the longest running program series in the virtual museum and archive of the history of financial regulation at www.sechistorical.org. Today's broadcast is the 10th annual program in the series.

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Since the inaugural The Best of NERA broadcast in 2004, the series has examined issues such as regulation of high-frequency trading, market manipulation, implications of options backdating, economies of scale in mutual funds, hedging restricted stocks and quantifying SEC settlements. All of the previous The Best of NERA broadcasts are available in both audio and edited transcript formats in The Best of NERA section under Programs in the virtual museum and archive. I encourage you to check them out at the end of this broadcast.

On behalf of the SEC Historical Society, I would like to thank NERA Economic Consulting for its generous and sustained sponsorship for this series and recognize Dr. Marcia Mayer and Dr. Pat Conroy for their assistance in planning today's program.

It is now my pleasure to welcome four senior consultants from NERA Economic Consulting. Timothy McKenna will give his insights into the Argentinian debt crisis. Erin McHugh will look at contingent capital securities. Jorge Baez will discuss the effects of short sales on damages in securities class actions. And finally, Dr. Alan Grant will examine insider trading issues. Each of our presenters will offer a brief summary of the topic. We will then conclude the program with a general discussion of the issues. Let's begin with Tim discussing the Argentinian debt crisis.

Timothy McKenna: Thank you. Today I'll discuss the recent history of litigation involving Argentina's default and subsequent restructuring in 2001. The story is interesting in and of itself, as could be expected of any story that involves a seizure in an African port of a three-masted sailing ship armed with cannons, and also touches on important issues regarding the law on sovereign debt.

First, I will go over the backstory to the current litigation. Beginning in 1994, Argentina issued a set of bonds governed by New York law under a fiscal agency authority. These bonds are commonly known as the FAA bonds. In 2001 Argentina stop paying interest on these bonds and, in the 2005 exchange offer and 2010 exchange offer, entered into exchanges where Argentinian bondholders swapped their holdings into new bonds. Parties in the exchange saw their principal reduced by up to 66%. Bondholders that did not take part in the exchange were assured by Argentina that they would not receive any more payments and Argentina even passed laws that forbid any payments on the bonds. Ultimately, roughly 93% of Argentina's bondholders took part in the exchange. So far, Argentina's not missed a scheduled interest or principal payment on the new bonds. However, it is these payments by Argentina that have attracted the attention of some holders of the un-exchanged FAA bonds.

A group of holders of FAA bonds, including hedge funds that purchased the bonds well after Argentina stopped paying interest on them, have sued Argentina in the U.S. Southern District of New York for failure to pay interest or principal. In December 2011, the district court ruled in favor of these holdout bondholders. In essence the court's ruling held that Argentina could pay both the FAA bonds and the new bonds, or could pay neither. They cannot keep re-doing what they had been doing, which is paying interest and principal on the new bonds while not paying the interest and principal on the FAA bonds. Since the ruling, these cases worked its way through the legal system. On appeal, the circuit court upheld the ruling in part and remanded the case in part. The case was remanded as the court of appeals wanted the district court to determine exactly how Argentina was to pay both the exchange and holdout bondholders. The district court in 2012 issued a ruling with the proposed payment regime. Essentially any payments made by Argentina must be prorated between the current and holdout bondholders based on what each group was entitled to receive at that point.

The legal justification for the ruling that the payments can be made to either both or neither group of bondholders is based on what is known as the "pari passu" clause in the FAA bonds. In part, the clause reads, "the securities will constitute direct, unconditional, unsecured, and unsubordinated obligations of the Republic, and shall at all times rank pari passu without any preference among themselves. The payment obligations in the Republic under the securities shall at all times rank at least equally with all its other present and future unsecured and subordinated external indebtedness." And here "external indebtedness" is a defined term that meets obligations payable in a non-Argentinian currency.

The circuit court held that the first sentence of the clause prevented Argentina, as a debt issuer, from issuing new debt that subordinated the FAA bonds. The court held that the second sentence, often referred to as the "equal treatment provision," prevented Argentina as a bond payor from giving priority to other foreign denominated payment obligations over the FAA bonds. As noted by the district court, "it would be difficult to imagine anything that would reduce the rank,

reduce the equal status, or simply wipe out the equal status of these bonds" more than the laws Argentina passed that forbid the government from making payment on these bonds. The circuit court notes that in a sovereign bankruptcy, the equal treatment provision protects the bondholders against Argentina choosing to pay one set of bond holders instead of the FAA bonds.

Before delving into some of the implications of the ruling, I'd be remiss if I did not at least quickly talk about one of the more unusual events that I see related to sovereign debt disputes. In October 2012, an affiliate at one of the hedge funds involved in the FAA bond case, Elliott Management, obtained a ruling in Ghanaian High Court ordering that a training ship of the Argentinian Navy, a large three-masted sailing ship, be detained while it was in the port of Tema Ghana. Ultimately the ship was released from a port following the ruling by the International Tribunal for the Law of the Sea. Among other considerations the tribunal found that warships were generally considered to have immunity and "that any act which prevents by force a warship from discharging its mission and duties is a source of conflict that may endanger friendly relations among States." While the ship is now free, it should be noted that recently Argentina's president chose to rent a jet for a trip to several other countries instead of flying the state-owned plane typically used for such events. This episode, while not directly related to the bond case, illustrates the lengths to which the funds will go to try to recover money from Argentina. The principal and interest payments that Argentina has been making on the new bonds go through financial firms in New York and so are much more directly assessable than a naval ship bought a goodwill tour throughout Africa.

The FAA bond case is on appeal before the Second Circuit. There have been numerous amicus curiae briefs filed by parties not directly involved in litigation, including one by the United States government. In the brief, the U.S. government objects to the circuit and district court's interpretation of the pari passu clause. In effect, the U.S.'s objection is that the clause is about changes to the legal rank of the bonds relative to the legal rank of other obligations and that the clause is not related to the actual real-world payments of the bonds. What is interesting to economists is that the U.S. government is arguing that the ruling, in addition to being incorrect, is against the interest of the United States, because the ruling would make it more difficult for countries to implement debt exchanges and restructuring.

For a sovereign, restructuring is typically a method that is used to reduce the present value of their bond obligations. It is rarely, if ever, something that the bondholders of a sovereign would find attractive relative to being paid what they are already owed. In this case, holders of defaulted New York law bonds have found a legal remedy in the New York courts. The U.S. is arguing that this result, the enforcement of a bondholder's legal rights against the issuer, is undesirable.

It is not even clear that holdouts to restructuring are necessarily so disruptive to the process. In their brief, the U.S. discusses the case of Greece, where recently some holdouts refused to have their bonds restructured. While Greece was admittedly not a model of an orderly restructuring, it is not clear that the holdout bondholders are the reason for that. More importantly, Greece did manage to restructure much of their debt, even though some of the stubborn bondholders refused to ignore the legal protections granted to buy them holding foreign law bonds.

The U.S. also argues that the pari passu ruling could disrupt the leading role that New York, along with London, plays in the worldwide bond market. The U.S. asserts that issuers might be reluctant to issue debt under New York law as a consequence of the ruling.

While the exact consequences this ruling on issuer incentives are impossible to know for certain, it does seem as though the U.S. might have the effect backwards. It is very likely that in 1994 Argentina issued its debt under New York laws so that they could obtain better terms on the bonds than they would have obtained if they had issued Argentinian law bonds. The likely reason that the terms were better for Argentina is that investors felt that they had a better chance of being paid back with the bond governed by New York law. While it was impossible to know what investors were thinking when the bonds are issued, it is plausible that the investors in the FAA bonds believed that they provided more protection for the actions of the Argentinian government because they were issued under New York law. In general, the fact that New York law offers more protection from capricious governments probably attracts investors, and thus the issuers to New York. Thus, removing this protection by striking down the district court's interpretation of the pari passu clause, would result in New York being less desirable for issuers in the future, not more, as the U.S. government argues. The case is currently still pending on appeal before the U.S. Circuit court, but one can be sure that the two sides will have more tricks up their sleeve. In fact, Argentina has already taken the step of appealing to the U.S. Supreme Court even before the Circuit court issues their final ruling. However the case turns out, it seems likely to have important implications for sovereign debt issuers in both New York and the rest the world.

Reena Aggarwal: Thank you Tim. Now, Erin will discuss contingent claim securities.

Erin McHugh: Thank you. Today, I will be discussing contingent capital securities, or "CoCos," which have drawn attention from policymakers, market participants and academics as a means to mitigate systemic risks and moral hazard in the financial sector. Because of the increasing interconnections between financial institutions, the failure of any one institution can affect others throughout the global financial markets. The recent financial crisis exposed shortcomings in both the quantity and loss-absorbing quality of bank capital. In the face of substantial losses, several financial institutions, which may have been considered "too big to fail," received government bailouts.

In addition to the direct cost of government bailouts, there is also the risk that bailouts may cause moral hazard. Financial institutions may take increased risks under the assumption that they will be supported by the government should those risks be realized. Bondholders may not monitor such risks adequately, should they view the prospect that their securities will be protected as likely.

Contingent capital securities have been presented as a means of reducing systemic risk and the need for government bailouts. For the purposes of this discussion, I define contingent capital securities as instruments that absorb losses by generating additional equity capital for the institution upon the occurrence of pre-specified, stress-related trigger events. The manner in which contingent capital securities generate additional equity capital when triggered can vary.

The securities may convert to equity or their principal may be written down, in part or in full, thereby reducing the bank's liabilities. Prior to a trigger event, the securities are hybrid instruments with debt-like characteristics.

Bank-issued contingent capital securities were first issued in the aftermath of the financial crisis. Lloyds' November 2009 offering of enhanced capital notes, or ECNs, is generally recognized as the first of these offerings. However, contingent capital securities bear similarities to securities previously issued by insurance companies, including catastrophe bonds and the soft capital facilities used by financial guarantors.

The trigger event for contingent capital securities can vary. The main types of triggers that have been discussed include market-based triggers, accounting-based triggers and those subject to regulatory discretion. An example of a market-based trigger would be if the market value of the bank's equity dropped below a certain level or if the credit default swap spread increased above a certain level. Concerns have been raised with this type of trigger regarding the potential for unnecessary conversions and/or market manipulation. An example of an accounting-based trigger would be if a capital ratio dropped below a specified level. Here, concerns have been raised about the timeliness and accuracy of reporting in reflecting the financial condition of the firm. For example, Lehman Brothers reported a Tier 1 capital ratio of 11% shortly before it filed for bankruptcy. This level was almost three times the regulatory minimum of 4% and was deemed satisfactory by Standard & Poor's. Finally, the last type of trigger I mentioned gives the regulator discretion to determine when a trigger event has occurred. To date, most issuances of CoCos have had accounting-based triggers combined with some degree of regulatory discretion to cause and/or avert a trigger event.

The level of the trigger depends on whether the contingent capital securities are intended to provide going-concern (or precautionary equity) capital or gone-concern equity capital. A higher capital ratio-based trigger provides additional equity capital at an early intervention point, allowing the bank to continue operating as a going concern. In comparison, a lower capital ratio-based trigger may not provide equity capital early enough to help the bank avoid financial distress; however the additional equity capital may assist in effecting an orderly resolution. In either case, contingent capital securities have the potential to reduce the need and/or amount of government bailouts and the risk of contagion in the financial markets.

The presence of contingent couple securities within a bank's capital structure may in fact make their conversion less likely. A trigger event may provide the market with a negative signal about a bank's financial condition. For this reason, management may be incentivized to raise capital and/or sell assets proactively, rather than risk a trigger event. Management may also discourage excessive risk-taking.

Investors in contingent capital securities will have an incentive to carefully analyze a bank's downside risks. Current equity holders may be similarly incentivized if they risk dilution upon an equity conversion. Thus, management concerns and additional market discipline may serve to mitigate the moral hazard problem that I previously discussed. However, some have noted that contingent capital securities may increase rather than decrease systemic risk. For example, if financial institutions invest in each other's contingent capital securities, a trigger event for one

bank may cause losses for others. This problem may be exacerbated if, due to correlations in the banks' risks, trigger events occurred at the same time at several financial institutions. Note however, that it is unclear whether these potential concerns would outweigh the potential benefits of contingent capital in mitigating systemic risk.

Currently, more than \$40 billion of CoCos are outstanding, issued by at least 16 financial institutions. Most of these CoCos were issued by European banks in order to meet capital requirements. There's likely to be further issuance of contingent capital as financial institutions move to the capital requirements of Basel III and prepare for the next round of EU-wide bank stress tests in 2014. Market participants have estimated that the size of this market may ultimately grow to more than \$300 billion.

The tax treatment of contingent capital securities may be an obstacle to issuance by U.S. banks. There are substantial challenges in characterizing these products as debt under the U.S. income tax rules. If they cannot be characterized as debt, then interest payments on the securities are not tax deductible for the issuer, and this reduces the attractiveness of issuing contingent capital relative to equity. It is possible that U.S. income tax rules could be amended in the future to make issuance of contingent capital securities more attractive to U.S. banks. Also, a requirement for minimum levels of contingent capital is under consideration. The Dodd-Frank Act required the Financial Stability Oversight Council to submit a report to Congress evaluating a contingent capital requirement for certain financial institutions, including large, interconnected bank holding companies. The report concluded that contingent capital securities remain an area for continued private-sector innovation and that further study was required before recommending a minimum requirement to the Federal Reserve.

Contingent capital securities appear to have gained increasingly widespread acceptance among investors. Lloyds' ECNs were initially traded largely among hedge funds. Since then, contingent capital securities have been successfully marketed to other types of investors, including retail and institutional investors, sovereign wealth funds and private banks. UBS successfully tapped demand from U.S. institutional investors to place much of its \$2 billion issue in August 2012, as did Barclays more recently with its \$1 billion issue in April 2013. The Barclays issuance, with a coupon rate of 7.75%, was reported to be purchased almost entirely by institutional investors, with more than 50% in the U.S.

Investors' search for yield amidst a low interest rate environment has likely played a role in investors' willingness to accept the risks associated with contingent capital securities. For an investor in contingent capital securities, key considerations include the probability of a trigger event and the potential losses upon trigger. In order to evaluate the probability of a trigger event, the transparency of the trigger mechanism is important. Credit rating agencies' stances toward contingent capital securities vary and have changed over time. The three main credit rating agencies -- Moody's, Standard & Poor's and Fitch -- rated the first issuance of Lloyds' ECNs. Moody's and Standard & Poor's subsequently adopted moratoria on rating further contingent capital issuances, citing modeling difficulties. Standard & Poor's ended its rating moratorium in November 2011. Moody's recently decided to end its moratorium for low-trigger (or gone-concern) CoCos, but maintains its moratorium for high-trigger (or going-concern) securities.

Contingent capital securities are still fairly new to the market and have experienced limited issuance to date. I'm not aware of any that have had trigger events. It will be interesting to see how these securities perform in practice during times of stress. Will governments allow the holders of contingent capital to suffer losses rather than absorb those losses through bailouts? Will the securities have the intended effects of reducing systemic risk and moral hazard? And will the pricing of these securities provide useful information to market participants regarding perceived risks associated with financial institutions? These are all questions that only time will answer.

Reena Aggarwal: Erin, thank you very much. Next, we go to Jorge, who's going to discuss the effect of short sales on damages in securities class actions.

Jorge Baez: Thank you and good afternoon. My topic is going to be on the effect of short sales on damages in securities class actions. NERA has recently worked on a number of cases where this has come up as an issue.

We're often asked to estimate how many shares are damaged by the fraud in a securities class action. In some cases, this question can wait until the resolution of the case, for it answers itself when claims are made. However, in practice, estimates of damaged shares are needed beforehand. Negotiating strategy, resource allocation, and the size and structure of settlements are all influenced by the defendants' perception of their exposure and plaintiffs' perceptions of their potential gain, both of which turn on aggregate damages. Damage per share and number of damaged shares together determine this aggregate, so developing an accurate estimate of damaged shares is important.

In our recent project work, we have found that accounting for short sales can have a considerable effect on the estimation of damages. In particular, I'm going to talk about three ways that accounting for shorts could reduce damages in securities class actions. First, excluding damages on purchases that cover short positions; second, offsetting fraud-related profits of shorts from damage claims of long purchases; and third, excluding damages on purchases of what I'll call "artificial shares," and which I will describe later.

Let me first start by giving a quick background on how short sales work. The typical investor purchases a stock hoping the price will rise so that he can then sell it at a profit. A short seller takes the opposite position, first selling a stock hoping that the price will fall. If the price indeed falls, the short seller would then be able to purchase the stock at this lower price and close out the transaction with a profit.

Short selling is typically facilitated through an accompanying borrowing transaction. The short seller enters into an agreement to borrow a share from one investor in order to sell it to another investor. The short seller hopes to be able to purchase a share at a later date at a lower price. He can then return the share to the investor from whom he had originally borrowed a share. This is known as covering the short position. If the stock does indeed fall in price, the short seller's profit is the difference between the initial high selling price and the subsequent low buying price.

Now let's start with the first way that accounting for shorts could reduce damages in a securities class action: excluding damages on purchases that cover short positions. At least two courts have concluded that short sellers themselves should not be included within a plaintiff class of purchasers. Purchases that are covers for short positions should be excluded from damages.

In general, we've seen that experts estimating damages use trading models that attempt to exclude purchases that are short covers from damageable purchases. One way to do this is to remove volume identified as short covers from the purchase volume using publicly available short interest data. The problem with the publicly available data on shorting is that it is only for the total short position in a stock at a given point in time: the middle of the month and the end of the month. Some of the exchanges also provide data on daily short sales, but not on purchases that are covers for short sales. As a result, we know very little of how many purchases are covers for short sales on any given day. Recently the SEC's Division of Risk, Strategy and Financial Innovation estimated, using data made public by certain self-regulatory organizations, that orders marked "short" under the current regulations account for nearly 50% of listed equity share volume. The SEC found this 50% estimate to be consistent across all of the months that were examined and the results vary little from day to day.

So what can be done about this? One potential source of data on short transactions could come as part of reforms brought by the Dodd-Frank Act. The SEC is currently considering requiring all trades of public companies' shares to be marked "long," "short," "market maker short," "buy," or "buy to cover," and reported as such through the consolidated tape. This level of reporting can provide data to identify purchases that are covers for short positions and exclude those purchases from estimates of damaged shares.

The second way that accounting for shorts could reduce damages in a securities class action is offsetting fraud-related profits of shorts from damage claims of long purchases. For example, a hedge fund with a long/short trading strategy might have profited from a short position during the class period due to the alleged fraud and also had a long position that might be part of the class and eligible for damages. One could argue that offsetting gains and losses from the short and long positions of this investor would be more appropriate in estimating damages.

The issue with this potential adjustment is that there is no publicly available data on investor's short positions like there is for long positions. Institutional investors that manage over \$100 million in assets must file with the SEC each quarter a form disclosing their long positions in all U.S. exchange-traded stocks. However, there is no such requirement for short positions.

Dodd- Frank reforms may also lead to more disclosure and transparency on investor short positions. The SEC is currently conducting a study of short position reporting that could result in regulation that would require that investors report outstanding short holdings at a point in time. As such, institutional investors could be required to disclose their short positions in the same way that they have to disclose their long positions.

Finally, the last type of purchases that could be excluded from damages due to related short sale activities are purchases of what I'll call "artificial shares." Let me go back to how short sales work, so I can explain what I mean by artificial shares. In a typical short sale, the short seller

borrowed a share from a brokerage firm. The brokerage firm can lend a share from the margin account of a customer without notice to that customer. The short seller then sells the borrowed share to the market and another investor purchases the share. The short sale transaction creates an additional “artificial” share because the brokerage firm's customer, the lender, and the investor that purchased the borrowed share from the short seller both believe they own the same share. There are different notions of who exactly owns the “artificial share.” Is it the investor that purchased the borrowed share? Is it the lender? Or is there even really an “artificial share” since both investors own a share? What is clear is that the practice of short selling creates ownership of more shares than there are shares outstanding.

We actually have seen very clear evidence this occurs in practice, especially for companies that have a high short interest. We have seen many companies where reported institutional holdings were much greater than the issuer's total shares outstanding, a fact that could be explained by accounting for “artificial shares” created by short sales.

From the point of view of the issuer, these “artificial shares” are very different. First, the issuer neither sells nor receives value for these shares. Second, these shares are not registered with the SEC. Third, the issuer does not pay a dividend to these shares. The short seller will pay a dividend to the brokerage firm from which it borrowed a share, who in turn pays a dividend to the customer that lent the share. And lastly, these shares do not have the right to vote.

In fact, defendants have tried to argue during the class certification of securities class actions that buyers of “artificial shares” have no standing. For example, in *Ganesh v. Computer Learning Centers*, defendants argued that there is no right to bring or maintain a federal securities action based on the holding of artificial shares, that it is all but impossible to distinguish between real and “artificial shares,” and that the class certification in these circumstances will lead to an enormous volume of false claims for damages. This case settled before the court made a decision and to my knowledge, no court has ruled on how to deal with “artificial shares.”

“Artificial shares” may increase the number of claims in a securities class action suit and the potential amount of damages. Defendants have argued that since purchases of “artificial shares” have no standing, the issuer should not be liable for those damages. One way to adjust damage estimates for these “artificial shares” is to limit the class to buyers who instruct their brokers not to lend their shares. Alternatively, one could apply a pro rata discount in damages based on the total short interest as a proxy of the amount of potential “artificial” purchases.

So to conclude, there are three ways that accounting for shorts could reduce damages in securities class actions. First, excluding damages and purchases that cover short positions. Second, offsetting fraud-related profits of shorts from damage claims of long purchases. And third, excluding damages on purchases of “artificial shares.”

Reena Aggarwal: Thank you Jorge. And now we move on to Dr. Alan Grant who's going to discuss insider trading.

Dr. Alan Grant: Thank you. Insider trading has been in the news much lately. The SEC has increased its focus on insider trading violations and has even posted a list of actions on its

website. In the last three years, the SEC has filed more actions in this area, 168, than in any other three year period in the agency's history. Moreover, the government has won high-profile convictions and jail sentences for individuals in these cases. I'll provide an overview of insider trading, including what defines insider trading. I also will discuss how changes in financial products and the breadth of financial markets are effecting the scope of insider trading investigations. Throughout, I will discuss how financial economists help define the issues and analyze allegations of insider trading.

First, what is insider trading and how was the term commonly used? Certainly trading activity by insiders is, in general, not prohibited. Instead, insider trading commonly refers to illegal trading activity that is thought to harm financial markets. The SEC views insider trading as generally referring to the purchase or sale of a security in breach of a fiduciary or other relationship of trust and confidence, while in possession of material, non-public information about that security. This definition has no requirement that any party to the trade actually be an insider to the firm or security stratum. While corporate insiders are not the only ones subject to prohibitions on insider trading, the term won its name through classical cases involving corporate insiders. In these cases, a company insider who is in possession of material, non-public information trades on his own account. The classic case includes such examples as when an insider becomes aware of bad financial results or of advanced merger discussions. In either case, that information is generally not publicly available. Then, the insider buys or sells stock in his company.

An easy extension of this classical case involves another party. Instead of trading at his own account, the insider passes material, non-public information onto another, who then trades. This latter case is an example of the tipper/tippee relationship. Examples of this type are numerous. For example, an insider in a firm's finance department tips a friend at a hedge fund about that firm's quarterly earnings ahead of a public release. If the hedge fund then trades on the basis of that information, it has violated insider trading prohibitions. Both examples of the classical view of insider trading include cases where there is an actual insider at the company in question, but insider trading is not restricted to these cases. Consider, for instance, a lawyer drafting merger documents before the public announcement, a scientist and an outside testing firm privy to the results of an anticipated drug trial, or a reporter sharing the text of a popular column before it is published. These cases are also subject to insider trading prohibitions under the "constructive insider" or the "misappropriation" theory. In these examples, the individual is in a relationship of trust or confidence, is exposed to material, non-public information, and is therefore barred from trading the relevant company securities.

Beyond these types of insider trading, there have been other avenues where insider trading issues have arisen. Consider, for example, if someone steals a company's confidential financial documents through computer hacking, or some other means. That individual owes no confidence to the company. The trading activity based on the stolen information would also violate insider trading laws, but what about a member of a creditor's committee who learns of financial productions and then trades on those financial productions before they are public on its own account? These, as well as other examples with slightly different fact patterns, have been alleged as violations of insider trading prohibitions. These types of allegations have also sometimes inspired significant debate. No matter the party accused of insider trading, there are two elements

common in the definition that must be met in all cases. First, the relevant information must be material and second, that the information is non-public. Material information is information such that there is a substantial likelihood that a reasonable investor would consider the omitted fact important in deciding whether to buy or sell securities. Non-public information is as it sounds. It is information not widely distributed or available. Public investors must have an opportunity to act. Issues of materiality are often contested. Is a given piece of information alone material? Economists can contribute by analyzing how the companies traded securities react to the public disclosure of the information. If the security trades in an efficient market, then only new and relevant information will affect the securities return across market movements. Therefore, price movements could help shed light on the importance of information. This analysis can be complicated by the fact that a single bit of information may be included in a wider release of company news. For example, suppose an insider informs a friend that his company failed to win a contract, however, later when the company discloses that information, it also announces that its CEO is retiring. In this case, how does one solely measure the impact of the lost contract? Is that information material? Moreover, one could question if the information was already public. For example, what happens if there's already public speculation that the contract was lost? Would've endless expectations already modeled the company assuming the absence of the contract? Finally, suppose the company has different classes of securities. Maybe preferred stock to common equity and perhaps also lists in multiple venues. Will then news affect all those securities similarly? Will it even affect all of them? These and numerous other questions can arise in analyzing materiality of non-public information.

But it is not just materiality that can be contested. In other instances, those accused of insider trading may argue that they did not know the information provided was confidential, that the provided information did not affect their trading decisions, or that they were bound by no obligation of confidence or fiduciary duty mapped to act with the information. Although the arguments may be complex and require significant analysis, they tend to rest strongly on the particular facts of the case and may need to be sorted out by the finder of fact. Particularly with hedge funds and other sophisticated market participants, complex trading strategies or algorithms could also be at work. Suppose, for example, that a hedge fund was a member of creditor's committee and privy to material non-public information. The fact that the hedge fund later sold junior debt positions might be because information it learned as a member of the committee, but it may also be part of a complex trading strategy based on an algorithm of signals derived from prices of traded senior debt, equity and the junior debt. If the algorithm was determined before the receipt of non-public information, then those trading decisions were not impacted by the alleged inside information. The analysis in a case like this may require processing thousands of trading records from multiple different securities to understand the hedge fund's true exposure to different parts of the bankrupt entities capital structure. Such analysis may be required in these sorts of complex situations in order to gain a thorough understanding of the relevant trading activity and strategy.

These sorts of complex strategies have also been furthered by recent changes in financial markets and the proliferation of more exotic financial products. Historically, most prominent insider trading cases have involved equities; debt securities however, are not immune from trading prohibitions. In fact, the SEC brought a case against bond traders in 1934, but in modern markets the universe of financial instruments is not solely limited to a given company's debt and equity. It

also includes derivative securities. Imagine, for instance, a trader selling protection on a company with the credit default swap. That trader will collect premiums in exchange for making a payment if the company defaults on the referenced debt. Credit default swaps are an alternative investment for the trader to gain exposure to a given company. However, if the trader knew through inside information that the firm is going to win a new contract and thus become more creditworthy, he could also act on that information with the credit default swap instead of resorting to the equity or bond markets.

There are many examples besides a trader using a credit default swap to take a position on a company's debt. For instance, the trader could use complex option strategies or total return swaps to take equity like positions. Derivatives offer economic benefits such as more efficient risk transfers and potentially reduce transaction costs for some trading strategies. The derivative market is also enormous and provides a wide range of financial products tailored to meet different needs, but, as in the traders credit default swap I referenced, these complex synthetic positions, like any financial instrument, could also be used to act on inside information. Is a particular trade part of a more complex synthetic strategy or is that synthetic position designed to capture gains from insider trading while avoiding detection.

While financial products have gotten more complex, so too has interconnectedness of financial markets. Today, all countries with developed capital markets have limitations on insider trading, but this is a relatively recent change. Before, the U.S. was virtually alone in prosecuting insider trading and still the U.S. regulatory regime remains the most restrictive. Interconnected financial markets and the availability of similar securities across different regulatory regimes can make the analysis of insider trading more complex. It could also allow wrongdoers access to additional trading venues, even though of late, there has been increased cooperation among regulatory agencies, there is no guarantee regarding such cooperation. Again, this complexity makes insider trading harder to find and harder to analyze. With all the complexity of financial markets, the government has not stood still. With its increased focus on insider trading the government has also brought new tools to bear. Historically, it has been challenging to prove that an individual traded on the basis of material non-public information. In recent cases, however, the government has used recordings from wiretaps as evidence. It remains to be seen how the use of evidence from wiretaps will change future insider trading investigations.

As I stated in the beginning of this talk, the government has increased its focus on insider trading violations, which has manifested itself in recent prosecutions and convictions. Insider trading, however, is still widely discussed and debated. In 1998, then SEC Chairman Arthur Levitt remarked that "It's not as if insider traders wander innocently into grey areas near the boundaries of legality, they willfully stride across the bright line of the law." However, given the size and scope of modern financial markets and the history of insider trading enforcement, it is not always clear that line is so bright. In many cases, questions arise about the materiality of information, the substance of trading and the obligations one has after receiving information. Because of these issues, and the government's focus, it is also likely there will be more disputes and issues that arise in enforcing insider trading prohibitions.

Reena Aggarwal: Thank you Alan. At this point, we will have an open discussion and follow up on the issues. So, Tim I'm going to start with the question for you. The Argentinian bond case is

really interesting. I'm wondering what are the implications going to be if the case is lost or the bondholders win the case. What will be the consequences in terms of how sovereign bonds are designed in the future? How they're structured? What types of covenants should we expect? And related, what will happen to the New York's position for these types of bonds if this case is lost?

Timothy McKenna: Well, that is an interesting question. I think, to have this in two parts. I think if the case is won by the bondholders, you will see the sovereign issuers be very careful about issuing in the New York market, but I think the New York market will still retain this attraction to them of giving them the opportunity to get better terms in their bonds. Right now the main attraction, as I mentioned, is that I think the bondholders like having New York law bonds or London law bonds because they get this assurance they're going to get paid. If the bondholders lose, it's not clear what's going to happen. I think you might see a reduction in the amount of issuance you see in New York and London. A big attraction for the bondholders is going to be gone. If they're not able to actually use New York law to enforce their rights in the bonds, then why would they give a discount on the coupon payments?

Reena Aggarwal: Are the London market and the New York market quite similar in terms of size or is a preference for one versus the other?

Timothy McKenna: They're roughly the same. The law is different but the effect is, I think, roughly the same. The Greek bonds that I mentioned in my talk are typically London law bonds and so they're probably similar. They're not domestic bonds - domestic for the issuer. Either way, I think you're definitely going to see parties paying a lot more attention to what are called "collective action clauses," which are the clauses put in the bonds that let the governments restructure. That's usually the manner in which they affect these restructurings. That's what happened in Greece. What those are is a clause in the bond that lets the issuers call them back and restructure the bonds after they'll go to the bondholders. They are going to have to pay a lot more attention to this. The FAA bonds do not have a collective action clause in them, so they were not restructured. Some of the Greek bonds did have a collective action clause, but there was a clause limited just to that issuance. Like each individual bond offering, some of the bonds were held by enough individual investors that they could vote not to restructure the bonds.

Reena Aggarwal: Thank you Tim. Erin, we now have a list of global SIFIs and these financial institutions are considered to be interconnected and so they have to put up more capital. New regulations are coming for global SIFIs. U.S. banks and non-U.S. banks and even non-banks are part of global SIFIs. You talked about how U.S. banks have not issued these products because of the tax treatment. Does that place the U.S. bank at a competitive disadvantage?

Erin McHugh: It appears that the reason they may not have issued to date is the tax treatment. There's still uncertainty around how these are going to be treated under the U.S. tax laws, but it seems like it's very difficult for them to be considered debt. In terms of how it affects their competitiveness, as I discussed in my talk, it does reduce the attractiveness of issuing contingent capital securities as compared with regular equity. Equity thought to be more expensive, and if you're making it not much more expensive, then it could lead to reduced issuance of contingent capital and increased issuance costs.

Reena Aggarwal: How serious are the talks about making the interest tax deductible in the U.S.?

Erin McHugh: My understanding is that it is still at an early stage, because I think the U.S. is taking a wait-and-see approach to see how these securities perform in the European markets.

Reena Aggarwal: Is it also the case that European banks have had to go ahead and issue these securities because in some ways they're in more need of capital than U.S. banks?

Erin McHugh: I know that the capital requirements in Europe are different than the capital requirements in the U.S. In particular, there are some countries that have much higher capital requirements even above and beyond the normal Basel III standards. For example, Switzerland has pretty high capital standards for some of its large banks because as a small country, it doesn't have the capacity to bail them out should it need to. Switzerland has been very proactive in putting through a requirement for these types of contingent capital securities.

Reena Aggarwal: I have another question about these instruments. So there's been a pretty good interest from investors in these instruments, partly as you said, because of the low interest rate environment. So institution investors are able to get slightly higher yields, but what happens in an environment when interest rates go up? What will demand for these products look like?

Erin McHugh: That's an interesting question. In the recent low interest rate environment, these products have seemed to be pretty attractive, but they're issued at a spread of sometimes a few hundred basis points over other types of subordinated debt without this contingent trigger. I think should interest rates across the board increase, we'd expect that on these products, commensurate with their place on the capital structure, the rates would have to increase as well. In terms of how that will affect demand for these products, I think it's going to depend on what opportunity is in the market and how investors assess the risk-reward profile.

Reena Aggarwal: On the short selling issue, I have to ask Jorge, you talked a lot about the data not being available. What are the obstacles to collecting this data? Is the industry opposed to it? Of course there are costs but beyond cost are there reasons that the industry doesn't want to provide the data? Or does the industry also want additional data?

Jorge Baez: Well, in general I think they're opposed. I think they don't want to reveal their positions. I think that investors don't want to show their hand, and more reporting would probably do that, but I think there is a lot of pressure to have better reporting on shorts. I think it stemmed from the credit crisis in 2008 when there was a lot of talk that certain short sellers were going after certain banks and bringing them down with speculation. If you remember, the SEC banned short selling for several large financial institutions initially and then extended it to all financial institutions in 2008. So there really is a lot of pressure to have better reporting about that. I do think that the problem can be shorting is good for the market, it helps the efficiency of the market, so having more disclosure in it can potentially push investors away from doing short sales which help the efficiency of the market. So, we'll have to wait and see exactly how the SEC is going to handle this. I think they've been really looking at this for quite a long time now and I think that decision is going to come soon.

Reena Aggarwal: Thank you. Alan, let me follow up with you about insider trading and you've talked about how the markets have become more complex. There are many more products out there. So, insider trading is not done just using equity and stocks, there are a lot of other options. What are the trends in insider trading? It's hard to gauge because part of it is that if the SEC is paying more attention to it then maybe there are more cases brought forward by the SEC. Overall, in terms of the number of cases, in terms of the dollar amounts involved, how's the market evolving?

Dr. Alan Grant: Well, I mean that's a good question, because one of the real challenges with insider trading is, I think, there's strong suspicion that insider trading goes undetected. So, trying to measure how much actually occurs in the market place is probably not possible. Now, there's certainly been much larger cases recently that the SEC's actually brought and in many ways those are cases that have come about through investigations gone on for years through techniques that have not really been brought to bear on these kind of financial market cases before. The recent hedge funds that have been involved in insider trading have been caught up a lot through their sort of expert networks and people have sort of turned government witness and talked about the information they were providing and the government has receive wiretaps and has recordings of conversations that they're alleging are inside information. So, certainly in the realized casework there are substantially more, but sort of the amount that goes on undetected? It's sort of anyone's guess, because as these markets are so large and so many people are potentially in possession of information that is material and non-public, it's almost impossible to measure.

Reena Aggarwal: I'd like to open it up to any of the panelists if you have any questions or comments before we close.

Jorge Baez: I'd like to ask Alan a question about SEC settlement trends. We saw that the SEC was really trying to hold individuals more accountable than companies. They've been saying that for a few years and now the actual settlements that have been coming out lately have really shown that. So, do you think that that's partly why all these insider trading cases are going on? That it's not really that there are more insider trading cases; that it's really just the SEC really trying to make individuals more accountable for their actions and insider trading seems like a perfect place to go for that?

Dr. Alan Grant: I think there's a couple things, because I think that insider trading, particularly when you have individuals involved and they have disposable cell phones and they're given these secret tips, it sort of speaks to the basic fairness in the market. So, I think it's also, from a rather diverse perspective, it's sort of crimes people can relate to really well, particularly going after individuals where you actually have somebody who you know threw away their cell phone or something to effect these trades. I think that focus of seeing these bigger numbers and I think in many cases the inside trading cases focused on individuals because individuals are the ones executing the trades and that's the ones responsible for a particular decision. You as a trader have a responsibility not to act on material, non-public information and while the firm might have a culture in place to prevent or encourage it, at the end of the day, you're making the decision on that trade. But, I still think as far as the overall measure of how often it's happening, it's not clear

to me that there's more happening now than there was 10 years ago, 20 years ago. I am just not sure anyone can make that strong of an argument because it's hard to find, just by its very nature.

Reena Aggarwal: Alan, you were talking about other countries that have made insider trading illegal only in the last couple of years. What is the reason, why did these countries not make it illegal before? Was it just a cultural thing?

Dr. Alan Grant: Sort of the regulatory convergence is actually a good question. It's not really clear. The U.S. has had insider trading prohibitions as far as common law essentially forever and it's been codified through the SEC since the '30s. But it has really developed into the rest of the world since the last 10, 20, 30 years. It's not really clear why there was that breakdown. Certainly now I think there's a better story about because the markets were more connected having more unified regulations avoids sort of regulatory arbitrage, but why it sort of developed here first versus developed in a country like the United Kingdom, with similar legal tradition, it's not really clear why that happened.

Reena Aggarwal: Right and I think over the years there has been a lot of cooperation in making the rules across countries similar. Exchanges have their own organizations that are trying to make rules similar. As we saw for many decades, cross listing was a big deal, and firms cross-listed in the U.S. We had lots of IPOs taking place in the U.S., global IPOs listed in the U.S. Now we have this debate about why we are not having that many IPOs in the U.S.; firms are not listing in the U.S. Part of the reason is that everybody else has caught up. There was the U.S. regulatory regime that firms could adopt; now the world doesn't see it as necessary maybe to adopt the U.S. regulatory regime, because it is available around the world. The convergence is happening, so it's very interesting to see the changes taking place in the market. Do you think that technology has also played a role in terms of the SEC going after insider trading? Has technology made it easier?

Dr. Alan Grant: I think in both directions, right? I think it's really made detecting... just think of the number of trades that are executed in one day and across all the exchanges. On the one hand you have all that data is electronically available, so you can in theory, monitor it. On the other hand you have terabytes of data generated on a daily basis you have to analyze. So, I think it's not clear which way it's going and you know as you mentioned with sort of the convergence across financial markets, if I'm trying to execute something I could execute it in London, I can execute anywhere in the world.

Reena Aggarwal: Erin, Jorge, Alan and Tim, thank you for sharing your insights into these issues that bear so closely on financial regulation. It's been a pleasure talking with you today. Today's program will be available in audio format in the virtual museum and archive at www.sechistorical.org. An edited transcript will be added later. The broadcast will be accessible both in Programs and in the Best of NERA section under Programs beginning August 1st.

On behalf of the SEC Historical Society, let me again thank NERA Economic Consulting for its generous funding in making today's program and the series possible. Thank you for being with us today. Good afternoon.