Workshop Report:

‘The Future of Financial Regulation’

Research Group Market Regulation/ACLE Workshop, University of Amsterdam (UvA), January 18th 2011, 14.00-18.00, Doelenzaal, Singel 425, Amsterdam

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UNIVERSITEIT VAN AMSTERDAM
Amsterdam Center for Law & Economics

Joint Research Group Market Regulation and ACLE Workshop:

'The Future of Financial Regulation'

New location: Doelenzaal University of Amsterdam,
Singel 425, entry University Library.
Contact: acle@uva.nl

Tuesday, January 18th, 2011: 14:00 – 18:00 (Doelenzaal open at 13.30)

Program

14:00 - 14:15
Introduction by **Adrienne de Moor-van Vugt** (UvA).

14:15 - 15:15*
Zacharias Sautner (UvA): *The Effect of Corporate Governance Regulation on Transparency: Evidence from the Sarbanes-Oxley Act of 2002.*
Discussant: **Arnoud Boot** (UvA).

15:15 - 15:30
Coffee Break.

15:30 - 16:30*
Laurence Kotlikoff (Boston University): *Jimmy Stewart is Dead. Ending the World's Ongoing Financial Plague with Limited Purpose Banking.*
Discussant: **Maarten Pieter Schinkel** (UvA).

16:30 - 17:15
Edgar Du Perron (UvA): *Cleaning Up the Mess Before It Is Made: Resolution Plans and Insolvency Rules for Financial Institutions.*

17:15 - 17:30
Conclusions by **Arnoud Boot** (UvA).

17:30 - 18:00
Drinks.

Organizers: Carmine Guerriero (UvA, c.guerriero@uva.nl);
Marleen Wessel (UvA, m.w.wessel@uva.nl).

*30 minutes are allocated to the speaker, 15 to the discussant, and 15 to the floor.

Workshop Report:[1] **'The Future of Financial Regulation'**

Research Group Market Regulation/ACLE Workshop, University of Amsterdam (UvA), January 18th 2011, 14.00-18.00, Doelenzaal, Singel 425, Amsterdam

Carmine Guerriero, assistant professor of economics (UvA) and co-organiser of the workshop, starts by welcoming the speakers and participants, in particular our guest **Laurence Kotlikoff**, professor of economics at Boston University, and **Adrienne de Moor-van Vugt**, professor of administrative law (UvA), who will be chairing the workshop. Carmine indicates the general subject of this event, current proposals for reform of the financial sector, and briefly states the research aim of the two organising groups: the Amsterdam Center for Law and Economics (ACLE), and the Research Group Market Regulation (Department of Administrative Law). The aim is to bridge the fields of law and economics, and to use the expertise in both areas to study issues concerning regulation, competition, and the common foundations of law & economics.

Adrienne de Moor-van Vugt explains the choice of subject for the workshop: the credit crunch has brought to light that our banking system, and more widely our financial system as a whole, is seriously ill. Newspapers, scholarly journals on economics, law, and finance, and legislators, have proposed various cures. Some of these cures regard better products and banning the toxic ones, or at least forcing financial institutions to open up and tell us what their products are all about. Other remedies aim at creating better institutions, through restructuring the sector, for example through 'narrow banking', or Laurence Kotlikoff's Limited Purpose Banking (LPB). But capital requirements are also considered, as well as good governance of financial institutions, better and more independent credit rating agencies (CRAs), better regulation and supervision, more supervision, higher level supervision, super-supervisors on the level of the European Union: for example, the European Securities and Markets Authority (ESMA).[2] Better cooperation between national supervisors in the European Union would certainly help. And there is Laurence Kotlikoff's proposal to integrate the current 115 US supervisors into one Federal agency.

What these cures have in common is that they all stem from the conviction that serious change is necessary. It would be difficult to discuss them all in one afternoon. That's why we decided to organise our discussion around the book by Laurence Kotlikoff, *Jimmy Stewart is Dead. Ending the World's Ongoing Financial Plague with Limited Purpose Banking*.[3] In this book, Laurence presents his ideas about how to change some key aspects of financial markets, in order to change the whole perspective on the sector. Two

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[1] Reporting by Marleen Wessel, PhD candidate Financial Regulation and Supervision, Department of Administrative Law (UvA. Footnotes, highlights (except in quotes), and errors of representation are mine.

[2] ESMA will be chaired by Steven Maijoor, currently director financial reporting within the Dutch Financial Services Authority (AFM).

[3] John Wiley & Sons, Inc. Hoboken New Jersey, 2010.

concepts are central to his proposals: transparency, and leverage. The first one is to be enhanced,[4] the second banned from all intermediary activity of financial institutions.

Transparency is also the main focus of the first presentation, by **Zacharias Sautner**, assistant professor of finance at the Amsterdam Business School (UvA) and at the Duisenberg School of Finance. The topic of the paper he wrote together with Stefan Arping is the effect of the US Sarbanes-Oxley Act of 2002 on firm-level transparency.[5] Discussant is **Arnoud Boot**, professor of financial markets and corporate finance (UvA). After the coffee break **Laurence Kotlikoff** will present his Limited Purpose Banking (LPB) proposal; we are very happy he has taken the time to be with us for two days.[6] **Maarten Pieter Schinkel**, professor of competition economics and regulation (UvA) will comment on his presentation. Our last speaker is **Edgar du Perron**, professor of private law and dean of the Faculty of Law (UvA), but here in his capacity of professor of private law. He will discuss the framework for action if all else fails: resolution plans and insolvency rules for financial institutions.

The chair lays out the format of the workshop (the speakers will have 30 minutes, the discussants 15, and 15 minutes also are reserved for questions), and invites the participants to take advantage of this unique situation of having researchers present from different perspectives and scholarly backgrounds: economics, finance, and law. It might be difficult to understand each other sometimes as terms - 'institution' for instance - can

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[4] Transparency is more generally the number one concern of regulators. In the EU, the European Commission is currently trying to address the unintended effects of the Markets in Financial Instruments Directive (MiFID, 2007), which was meant to break the monopoly of exchanges by facilitating competition, but ended up 'fragmenting trading across a confusing patchwork of venues, with a lack of transparency in the way prices are reported'. See: Jeremy Grant, 'Transparency fears ahead of Mifid overhaul', *FT.com*, January 23 2011. The article refers to two studies, one by the CFA Institute, which says that '46 per cent of trades in Europe took place on some kind of off-exchange, or "over-the-counter" venue, where trading is only made transparent after deals are executed', and the other - price: $3000 ! - by the Tabb Group, reporting that 'only 65 per cent of trading activity reported in the UK equity market, Europe's biggest, represented trades that were actually done. The rest were trades reported to various reporting services that were "reprints of already-conducted trades" and represent "noise"'. The article further notes that the US has similar concerns. The growth of 'dark pools' was mentioned by William Brodsky, CEO of the Chicago Board Options Exchange, as 'a risk to the transparency of the markets'.
Lack of transparency is furthermore found to be a core factor in causing the financial crisis in: *The Financial Crisis Inquiry Report. Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States*. Official Government Edition, January 2011. This is a finding that, behind all the political posturing, both the majority report and the dissenting views basically seem to agree on. Cf. for example the comments in the Conclusion on the lack of transparency in key *financial* markets (repo, OTC, off-balance sheet entitities, p. XX-XXI), and Peter Wallison's defense of firms, regulators, corporate executives, risk managers and ratings agencies who could not help but fail 'to perceive the losses that lay ahead' because 'it appears that information about the composition of the *mortgage* market was simply not known when the bubble began to deflate' (p. 466).

[5] This presentation is based on the paper Zacharias prepared together with Stefan Arping, Amsterdam Business School & Tinbergen Institute, 'Did the Sarbanes-Oxley Act of 2002 Make Firms Less Opaque? Evidence from Analyst Earnings Forecasts', version November 2010.

[6] On the previous day, Monday, January 17, 2011, Laurence Kotlikoff presented his LPB proposal during the regular, biweekly ACLE seminar in Amsterdam (Faculty of Law). He also gave an interview to *MeJudice*: http://www.mejudice.nl/tv-detail/114 , or: http://www.youtube.com/watch?v=pA3rx1FPW6M

have a different meaning from a law or an economics point of view. But that should not bother us, she says. Ask. Whatever it is that you would like to have cleared up.

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Zacharias Sautner first describes the subject and purpose of his paper.[7] He is going to look at transparency regulation, and contribute to the literature on the question whether this kind of regulation works at all. By doing so, he is also joining the ongoing discussion on methods: what specific approaches - in this case the use of cross-listings - are adequate to measure transparency? More generally, the paper is providing insight in the economic consequences of changes in transparency and corporate disclosure regulation.

The Sarbanes-Oxley Act of 2002 - SOX,[8] for short - is the most important transparency regulation in the US. As stated in the preamble, the Act aims to protect investors 'by improving the accuracy and reliability of corporate disclosures'. The aim of the paper is to see whether SOX achieved this objective.

How did we do this? In order to measure transparency and disclosure, we first have to define the terminology. The two terms mean different things. Disclosure is information that firms release themselves. This is usually what economists call disclosure. Transparency by contrast refers to the law, *requiring* firms to provide information to markets. Transparency - you could also use the word opaqueness, or the lack thereof - thus indicates *rules* on disclosure, the law that mandates companies to rely information to financial markets.

A central challenge for us was the difficulty in measuring the effect of SOX. Why is this difficult? Because the changes in the rules effected all companies, which in turn were subject to all kinds of (other) influences. This created the problem of singling out the SOX effect, and eliminating the contemporaneous effects. We did this by exploiting the fact that SOX not only applies to US domiciled listed firms, but also to European companies that are cross-listed in the US. This fact allowed us to track changes in transparency of cross-listed EU firms before and after 2002.[9] Our control group consisted

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[7] To be downloaded at: http://www.tinbergen.nl/discussionpapers/10129.pdf

[8] Website SEC (sec.gov): 'On July 30, 2002, President Bush signed into law the Sarbanes-Oxley Act of 2002, which he characterized as "the most far reaching reforms of American business practices since the time of Franklin Delano Roosevelt." The Act mandated a number of reforms to enhance corporate responsibility, enhance financial disclosures and combat corporate and accounting fraud, and created the "Public Company Accounting Oversight Board," also known as the PCAOB, to oversee the activities of the auditing profession'.
The Act was precipitated by a number of corporate scandals (Enron, Arthur Andersen, Tyco, Global Crossing, WorldCom), but it was - Arnoud Boot would mention this later on in his comments - 'no rush to judgement'. See: Allison Fass, 'One Year Later, The Impact Of Sarbanes-Oxley', *Forbes*, July 22 2003. http://www.forbes.com/2003/07/22/cz_af_0722sarbanes.html

[9] This is to keep it simple for the presentation, as SOX was enacted in 2002. But the effects of the Act kicked in a few years later, as is explained in the paper (p. 8-9, and 11). This was due in part to the fact that the SEC repeatedly extended the deadline for compliance. Therefore, alternative cut-off dates are explored, and the beginning of 2006 chosen as the date which accounts most for the extensions. So: before SOX actually means before 2006 in this study. See: *infra*, p. 5.

of the non-cross-listed EU firms. In economics this is known as a difference-in-differences approach. It basically means in our case that we measure, as I just explained, the difference in transparency before and after 2002, and within these time periods the difference in transparency between the cross-listed and non-cross-listed EU firms.

There are various ways of measuring transparency at firm level: you can look at market liquidity, you can also look at analysts' forecasts as a proxy for firm-level opaqueness. Our intuition is that, if more information is available, if the law mandates more transparency, forecasts should be more precise. What we do, in a nutshell, is look at forecast error and forecast dispersion. Forecast error is the average earnings per share (EPS) *forecast*, compared to the *actual* earnings per share, while forecast dispersion refers to the extent of disagreement among analysts. Both are measures of transparency. The closer EPS forecast is to realised value, the better is the transparency of the firm. We compare EPS forecast to actual EPS in the above mentioned difference-in-differences setting, i.e. we compare these figures for cross-listed and non-cross-listed EU firms before and after the implementation of SOX.

What we found is that, relative to our control group of non-cross-listed EU firms, the measures of transparency for cross-listed EU firms were substantially higher. Or, formulated differently, the decrease of opaqueness following the passage and implementation of SOX was significantly larger for cross-listed firms. We managed to attribute this effect to SOX, after controlling for a set of variables that may have affected analysts' earnings forecasts.[10] We also find that the transparency effect of SOX is particularly pronounced for firms in industries that are relatively opaque: technology sector, health care, financial sector.

I have mentioned the challenge of eliminating contemporaneous effects, and singling out the effect of SOX through a difference-in-differences approach. A second challenge was to account for survivorship bias. Over our sample period (2001-2007) 'a significant number of cross-listed firms delisted from US exchanges. If these firms were inherently more opaque than firms that did not delist, we might spuriously detect an opaqueness-decreasing effect of SOX merely because over time relatively opaque firms dropped out of the sample of treatment firms. To address this "survivorship bias" problem, we limit the treatment sample in our main regressions to firms that were continuously cross-listed over the entire sample period'.[11]

'The second issue stems from the possibility that the treatment status could, in principle, be endogenous: firms may endogenously choose to delist in an attempt to avoid SOX-compliance. To mitigate this concern, we provide as a robustness check an instrumental variables estimation approach where we instrument the treatment status with cross-listing

[10] In the paper (p. 4), the authors explain: 'This finding is robust to controlling for a wide set of variables that may affect analyst earnings forecasts, to using firm as well as country-year fixed effects, and to accounting for delistings, endogeneity of the treatment status, **and changes in corporate risk taking**. Our results are further robust to removing the time series dimension and aggregating the data into a pre- and post-SOX period in order to address possible downward biases in the standard errors due to serial correlation in the error terms'.

[11] See paper, p. 4.

in the year 2000. In constructing this instrument for the treatment status of a firm, we exploit the fact that SOX was passed and enacted in 2002 in response to a string of accounting and governance scandals in 2001 and early 2002. SOX-avoidance could therefore not have been a reason for firms to delist in the year 2000, as firms could not possibly have been aware of SOX at this point in time. The cross-listing status in 2000 is a viable instrument for the treatment status as it fulfills the relevancy and exclusion conditions. The relevancy condition is fulfilled as cross-listing in 2000 is correlated with cross-listing over the period 2001-2007 (a partial *F*-test of the instrument is highly significant). The instrument is likely to also satisfy the second requirement, i.e., it should not directly affect analyst forecasts in the years 2001-2007, except through its effect on the instrumented variable'.[12]

'The Sarbanes-Oxley Act was signed into law on July 30, 2002. As stated in the preamble of the Act, its aim is "to protect investors by improving the accuracy and reliability of corporate disclosures". The Act applies to both US and foreign companies registered and reporting with the SEC. [..] SOX may reduce the opaqueness of firms through a variety of disclosure requirements and corporate governance mandates [..] Title IV, for example, mandates additional financial disclosures on items such as off balance sheet transactions (Section 401), pro forma figures (Section 401), insider trading (Section 403), and material changes in the financial condition or operations of a company (Section 409). Section 404(a) requires management to assess and certify the effectiveness of the internal control structure and procedures for financial reporting, and to report their findings in a special management's report. Section 404(b) requires an auditor to attest to management's assessment of the effectiveness of internal control over financial reporting'.[13]

'Title III may also affect opaqueness by making requirements for the composition and working of the audit committee (Section 301) and by requiring the CEO and CFO to certify that, based on their knowledge, the annual report contains all material information and represents the financial condition and results fairly (Section 302). Section 906 contains a similar certification requirement, and imposes criminal penalties for knowingly or willingly filing false certifications. Finally, the provisions in Title II on independent auditors and audit partner rotation and the provisions in Title VIII on whistleblower protection may have led to more scrutiny over firms' financial reporting'.

'While many of the provisions and mandates of SOX were effective immediately or over the course of 2003, companies were given more time to put in place internal control systems to be able to comply with Section 404—arguably one of the most important provisions from a transparency perspective. Initially, the SEC required foreign firms to begin to comply with Section 404 for the fiscal year ending on or after April 15, 2005 (SEC Release 33-8328, June 5, 2003). Over the coming months and years, the SEC repeatedly extended this deadline. Ultimately, foreign firms with public floats between USD 75m and 700m ("accelerated filers") had to comply with Sections 404(a) and (b) by July 15, 2006 and July 15, 2007, respectively. Large accelerated foreign filers (public

[12] See paper, p. 4.
[13] This paragraph, as well as the next two, are taken from the paper, p. 8-9.

float above USD 700m) had to comply with Sections 404(a) and (b) by July 15, 2006.12 The timing of events suggests that it may be difficult to pin down an exact cut-off date where SOX started to affect corporate disclosure behavior and analyst earnings forecasts. To account for this, we will consider two alternative cut-off dates in our empirical analysis below. Specifically, we will consider in a first step that the years before 2005 constitute the "before SOX" period and the years 2005 and beyond constitute the "after SOX" period. We will subsequently show that our findings are robust to considering beginning of 2006 as an alternative cut-off date to account for the extension of Section 404 compliance deadlines'.

Why do we think that SOX has any effect? Our multivariate results show that 'relative to the control firms, cross-listed firms experienced a significantly stronger decrease in both *Forecast Error* and *Forecast Dispersion* following the passage and implementation of SOX. The results are robust to using firm fixed effects, country-year fixed effects, and even both firm and country-year fixed effects. While crosslisted firms experienced a stronger decrease in opaqueness according to both measures, the results are particularly pronounced for the forecast error measure'. Our results also 'suggest that the effect of SOX was particularly pronounced for firms operating in informationally sensitive industries', and there is weak evidence that SOX had a stronger impact on forecast dispersion in civil law countries than in common law countries'.[14] We carried out robustness checks for risk taking, for potential endogeneity of the treatment status (firms may delist to evade SOX-compliance), and for different compliance dates, for size, and overrepresentation of firms in the Netherlands.

'To understand a possible channel behind these findings, we conduct a comprehensive textual analysis of the annual reports of the firms in our sample'.[15] The results show that for both cross-listed and non-cross-listed firms 'annual reports became more comprehensive, provided more forward looking information, and discussed more items that are relevant for financial analysts when making forecasts. Most importantly, seven of the eight measures suggest that these changes have been more pronounced for cross-listed firms. These findings provide some indication for a possible channel through SOX could have reduced the opaqueness of firms'.[16]

Conclusion: 'The Sarbanes-Oxley Act of 2002 provides a natural experiment to study the effect of corporate governance and disclosure reform on corporate opaqueness. The reason is that SOX does not only apply to US-domiciled firms but also to cross-listed foreign firms. One can thus devise a clean test where changes in opaqueness of cross-listed firms that are subject to SOX are compared against changes in opaqueness of comparable firms that are not cross-listed and hence not subject to SOX. Following this approach, we find that while both treatment and control firms experienced a reduction in opaqueness following SOX, this decrease was significantly larger for cross-listed firms. We construct proxies for firm-level opaqueness from analyst earnings forecasts. Our findings are robust to controlling for a wide set of variables that may affect analyst

[14] See paper, p. 13.
[15] See paper, p. 16.
[16] See paper, p. 17-18.

earnings forecasts, and to accounting for the potential endogeneity of the treatment status and changes in corporate risk taking. We find that the opaqueness-reducing effect of SOX was particularly pronounced for firms operating in informationally sensitive industries.

'We also provide evidence for a channel through which SOX may have affected opaqueness by studying how disclosure and reporting in annual reports changed after SOX. For a set of qualitative and quantitative measures, we find that annual reports of cross-listed firms became more comprehensive, provided more forward looking information, and provided more information on number of items that analysts deem crucial for conducting accurate forecasts'.[17]

Arnoud Boot has the following comments:
For more than one reason this is an interesting paper. This is a symposium about financial regulation. We are going to talk about what has to happen with the banking sector. One of the main shortcomings in the literature about financial regulation is that there is hardly any empirical evidence. This means that lobbyists have every opportunity to frame the debate. That is what they do. And that is why empirical research is crucial.

The text of SOX was available by the middle of the 1990s. Arthur Levitt, then Chairman of the Securities and Exchange Commission (SEC), had many of these measures on the table that only got implemented in 2002. Levitt had observed the conflicts of interests in financial markets. He was aware of the proliferation of financial markets. The enormous financial gains that could be made. The behaviour on the verge of what is acceptable, and the enormous financial gain that that could entail, and hence the ineffectiveness of existing controls. The response of the US Congress to his proposals in the 1990s was blunt: 'If you don't take this back to the head office, we will cut your SEC budget in half'. He was threatened by Congress: congress was, and is, in the hands of the lobbyists of the financial industry.[18]

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[17] See paper, p. 18.

[18] See also: Allison Fass, 'One Year Later, The Impact Of Sarbanes-Oxley', *Forbes*, July 22 2003 (*supra*, footnote 5): 'Contrary to popular belief, Sarbanes-Oxley was no rush to judgment. Not only did Congress begin hearings for the legislation as early as December 2001, but the act that was signed into law [in 2002] has its core--an accounting oversight board--in legislation introduced in the 1970s, after Penn Central's bankruptcy, by then Sen. Lee Metcalf (D-Mont.) and then Rep. John Moss (D-Calif.). The legislation was picked up again and drafted by Rep. Edward J. Markey (D-Mass.) in the mid-1990s, when tort reform was being debated. But it was pulled at the last minute; in 1999, a series of meetings between Securities and Exchange Commission staffers refined Markey's draft. **Because of the heyday of the dotcoms and the new economy, there was no way it would pass. Who cared about controls when everyone was making easy money?** But when Enron blew up, the senators who first looked at legislation for a new oversight board--Christopher Dodd (D-Conn.), Jon S. Corzine (D-N.J.) and Richard Durbin (D-Ill.)--used that SEC draft, with its 30-year-old roots'.
As to Arthur Levitt, on January 27, 2006, he strongly argued in *The Wall Street Journal* against the 'Misguided Exemption' to SOX, which the Bush Jr. government was about to extend - and did extend - to small businesses.
For a different (political) view on the value of SOX, which possibly inspired policy under Bush Jr., see: Roberta Romano, Yale Law School/NBER/ECGI,'The Sarbanes-Oxley Act and the Making of Quack Corporate Governance', September 25, 2004. On the role of Arthur Levitt in this legislation, she is concurring. See p. 121-122: 'the usually key role of committees in the formulation of legislation was

As said, accounting legislation became possible only in 2001-2002, after Levitt had left as SEC chairman.[19] By then all the bad things he had envisaged had become corporate reality. A week after the enactment of Sarbanes-Oxley, in August 2002, *The Economist* came out with this front page, one of my favourites. It reads: 'I swear that, to the best of my knowledge (which is pretty poor and may be revised in future), my company's accounts are (more or less) accurate. I have checked this with my auditors and directors who (I pay to) agree with me…'.

Basically this is accurate. This is more or less US corporate governance. Being on the board of some US corporations, I can see that it often works as a loose type of governance. Not a model necessarily to be followed in Europe.

But the question Zach is asking is: did SOX help? Its purpose, the main objective of the Act, is stated in the first sentence: protecting investors.[20] Actually, I can recommend S0X to economists who normally do not want to listen to incomprehensible lawyers language. SOX is comprehensible, you can read it; clearly, economists have been involved in writing it.

SOX addresses the whole issue of corporate responsibility. Title II deals with the structure of audit committees, which have to be independent in order to prevent the board, or the executives basically, from making up the numbers. Disclosure, internal control mechanisms are discussed in Title IV: Zach focused on that part, researching the question whether opaqueness came down.

But another part of SOX, Title V, deals with the issue of analysts' conflict of interests. This is important for this paper, because the measures, the proxies for transparency, chosen in Zach's study have directly to do with, are directly linked to, analysts: i.e. forecast error, and disagreement among analysts. Did the improvement happen because

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virtually absolute, and in the committees, the Democrats' drafting was heavily informed by the views of former SEC chairman Arthur Levitt and his former SEC chief accountant Lynn Turner. In a remarkable turn of events, Levitt was able to revive his agenda for accounting regulation (particularly the prohibition on non-audit services) that had failed less than two years earlier when confronted with **bipartisan Congressional support for the accounting profession's position against Levitt's proposals.** No doubt, Levitt's having ready-made solutions for perceived problems with the accounting profession, in conjunction with his long-time support of and affiliation with the Democratic party, and his background in the securities industry and as a regulator who took on the accounting profession, made him a natural and trusted source for advice and guidance among Democrats'.

[19] SEC website (sec.gov): 'First appointed by President Clinton in July 1993, the President reappointed Chairman Levitt to a second five-year term in May 1998. On September 9, 1999, he became the longest serving Chairman of the Commission. He left the Commission on February 9, 2001'. Levitt considers that Congress, in passing the Dodd-Frank Act in July 2010, again 'ducked' on financial regulation, calling the Act an 'irrational mess'. See: William Alden, 'Arthur Levitt, Ex-SEC Chairman, SLAMS Financial Reform Bill', *The Huffington Post*, October 20, 2010. His main point is that rule-making is left to the various regulators, embroiled in 'turf battles', and thus an easy prey to lobbyists.

[20] The long title of SOX is: 'An Act to protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws, and for other purposes'.

analysts became honest and behaved better, or did the *firms* become better behaved? These channels need to be distinguished. My main comment about the paper is that there is no distinction between these transmission mechanisms.

A small part of SOX - I read it again this morning – points at the conflict of interests that Credit Rating Agencies (CRAs) face. The Act states that one more investigation had to be conducted by the SEC on CRAs within six months after the date of enactment.[21] It came in March 2003, confirming all the bad things that were suspected in SOX already, and conforming to all the things we know today. Nothing happened with it. The lobbyists were back at the table, the crisis had passed. No way to do a serious reform of the CRAs. We have seen the results of that omission today.

The question in this paper is: did SOX make firms less opaque? Answer: Yes, analysts' earnings forecast error and dispersion did come down, and more so for firms subjected to SOX. This last thing is important, because they came down for all firms. It looks obvious that after 2002 opaqueness, forecast error and dispersion (disagreement among analysts) would come down. But it is not necessarily obvious. Because what was the typical behaviour of corporations before SOX? It was to give earnings guidance. Before SOX, firms were in the business of giving earnings expectations. These expectations had to be exactly met. If not, the firm was penalised. An expectation game was going on between firms and financial markets. At all cost you had to hit expectations. If earnings remained below expectations, you opened a few drawers to get the numbers anyway. You had to. If not, the share price would drop quite a lot. And that was fully rational. If the market realised you had taken every manipulative action imaginable, opened all the drawers, and still did not make expectations, that was really bad news. Firms were really forced to make expectations. This expectation game, inviting manipulation, effectively came to an end in 2001.

I personally would have expected, given the fact that the expectation game and smoothing ended, that forecast error and dispersion would go up. Thus, I would have expected the opposite result, even if SOX by itself would increase transparency/reduce opaqueness.

I'm not absolutely convinced that forecast error and disagreement among analysts coming down means that there is less opaqueness. I would like to see somewhat more discussion in the paper on whether these measures (forecast error and dispersion) really measure less opaqueness because this is not necessarily the case. Yet, I have been proven wrong by this paper, but some discussion about it is important. If a perfect match

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[21] Title VII, Sec. 702. Commission study and report regarding credit rating agencies. Sec. 702 (a)(2): 'The study required by this subsection shall examine— (A) the role of credit rating agencies in the evaluation of issuers of securities; (B) the importance of that role to investors and the functioning of the securities markets; (C) any impediments to the accurate appraisal by credit rating agencies of the financial resources and risks of issuers of securities; (D) any barriers to entry into the business of acting as a credit rating agency, and any measures needed to remove such barriers; (E) any measures which may be required to improve the dissemination of information concerning such resources and risks when credit rating agencies announce credit ratings; and (F) any conflicts of interest in the operation of credit rating agencies and measures to prevent such conflicts or ameliorate the consequences of such conflicts'.

between expectations and earnings outcome would lead to very low forecast errors, then these are the wrong measures. This is also important because the forecasts measure transparency on a one year basis only: they are one year forecasts, and that can be manipulated. You cannot manipulate for ever, i.e. for the long term. Smoothing is always short term, related to short term behaviour. This leads to a perfect match between earnings outcome and analysts' expectations and forecast. Longer term measures could be more related to opaqueness. Is there a way to distinghuish short term behaviour from longer term behaviour?

The approach used in this paper is a multivariate difference-in-differences approach. The language may be difficult, but in the end it is very simple. You study different points in time, before and after SOX, in a *relative* way. That is, looking after SOX at cross-listed European firms versus firms not subjected to SOX (i.e. only subjected to home country rules). You do the same before SOX. And you compare the relative results, before with after.

As to methodological problems, my main comment I already made: were the transmission mechanisms the *firms themselves*, or the *analysts* (the measures of transparency used in the paper are analyst related)? Other methodology issues: the paper tries to address all of them. *Survivorship bias* for instance. The public opinion was: firms will delist in the US, they will no longer be cross-listed. There is still disagreement on whether that happened. There is a certification benefit for being listed in a country with good rules. Not sure SOX was bad, it might be the lobbyists making something bad out of it. Survivorship bias means: if the more opaque firms dropped out, disappeared from the US market, then the *sample* became less opaque, *not* necessarily the individual firms. Delisting could happen exogenously, due to changes in the economy. Firms die out. But in all likelihood they were endogenous decisions. I'm not sure you take care of the *endogenous behaviour*. How do you control for it? Explain again. This is an empirically important question. Spend a few words on it.

I'm almost finished. Another issue: SOX looked like an American phenomenon, but similar measures were introduced everywhere else after 2002. The question is whether in cross-listed firms, subjected in Europe to IFRS,[22] SOX did have impact on top of IFRS. On average we know that SOX did have an impact on top of IFRS. It might be that for whatever reason cross-listed firms are to some extent different, and therefore SOX has a different impact on cross-listed firms. Zach looked at this. So it looks like SOX did something, but actually it might have been the effect of IFRS. This is something that Zach tried to control for.

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[22] 'IFRS are International Financial Reporting Standards, which are issued by the International Accounting Standards Board (IASB). Nearly 100 countries use or coordinate with IFRS. These countries or groups of countries include the European Union, Australia, and South Africa'. Source: suite101.com
On July 19, 2002, Regulation 1606/2002 of the European Parliament and the Council concerning the use of International Accounting Standards (IAS) was adopted. This regulation requires companies, publicly traded and domiciled in the EU, to prepare their consolidated financial statements in accordance with IFRS as of January 01, 2005.

This is an interesting thing Zach is doing (with Stefan). They try to get more detailed information about what opaqueness really means by studying the annual reports. Looking at your descriptive statistics, I see that cross-listed firms are about 20 times bigger than the non-cross-listed ones, so their annual report must also be bigger. Is this taken into account in this type of analysis?

Finally, summing up. Considering the role of analysts, which is important given the empirical measures used in this paper, my analyst and expectations based thoughts would have given the opposite of the results presented here. Still more can be done. Did the nature of the activities of the firms change? This is an important issue. After 2002, firms became less opaque. Was this the case because a climate in which you have to reveal everything may no longer be inducive to innovation? Rather than because firms were revealing more information? Did firms become more myopic? Focused on short terms decisions? This is a big risk we face with the impact of financial markets on firms. Has something changed? Short term behaviour is less opaque. You probably could say something about it. Perhaps by looking at variances in risk measures.

My last comment is somewhat broader. SOX had an impact on firms via a variety of channels. A possibly important indirect channel is missing. When I'm dealing with another corporation, and I'm subjected to IFRS, I am subjected to all kinds of rules that force me to understand my suppliers, my customers, and my counterparties better, I'm imposing market discipline on my trading partners. In such a situation it is *not SOX* affecting the disclosure and transparency of Philips electronics *directly, but it is the firms that deal with Philips*, with their own accounting practice, which impose discipline. I would like a discussion of these other mechanisms as well.

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Adrienne: We have learned from Arnoud's comments, among many other things, that there seems to be a link between transparency and the number of pages in the firm's annual report, that there might not be a link between transparency and forecast error, but that there certainly is a link between transparency and the involvement of economists in writing legislative language. We now have time for questions; please state your name and, if you are not from the University of Amsterdam, your affiliation.

Iman van Lelyveld, Dutch Central Bank (DNB): I used to be from the University of Amsterdam. Following up on Arnoud's point of reduction of smoothing over time. Is the change of forecast dispersion and forecast error picked up by fixed effects in your estimation? I did not read the paper, so you may be clear about this. Is the change of level caught up by the fixed effects? You have results?

Mark Mink, also from DNB: Your measure of opacity might also be a measure of firm risk. Dispersion of earnings around expected or forecasted failure can be seen as variance in equity returns, to make my comment more general. If it is, can these two components be distinghuished from transparency? The market was booming, never thought there would be a crisis. To what extent can your results be driven by firm risk, instead of by firm transparency?

Jan Achten, Novaa: Just checking, I could not find in your paper whether the non-cross-listed firms were listed in Europe. Yes? OK. The point is that across Europe, as of 2005, application for IFRS is different, and the provisions are even more different. Did you take this into account?

Laurence: This is a fascinating paper, and the comments by Arnoud were also terrific. Does this measure of forecast error connect to the value of the firm? Does it raise its value? Do we need a theory of transparency? They could have done it on their own, they did not, why? If they could raise the value of their firm? Did SOX lower profitability and value? Because they were not able to lie as well? What I'm getting at is that, if your variable is the right one, a different way to get at it is what happened with valuation.

Zach: These are all very useful comments, Arnoud, thank you very much. To start with you, one approach to tackling the survivorship bias was to only look at firms that remained cross-listed from 2002-2007. As to the endogeneity bias: in the end we need an instrument, a variable correlation of cross-listings over the time period, but unrelated to transparency. Imperfect, but let's look at whether the firm was cross-listed in 2000, or not, and correlate that with our sample period 2002-2007. Cross-listings in 2000, before SOX was discussed (although I now learned there was an early discussion of it), should not have any relation to transparency after SOX. How to do this better? Suggestions would be great. We're not perfectly happy with it. This is really an issue we should address.

As to Laurence's question, indeed in the end we're going after the firm value. There is interesting related evidence: better capital allocation, investment decisions. There is evidence that there is a positive effect on transparency, but not a lot of research has been done that looks at firm value. It also would be interesting if we would not find anything. Maybe then this really would have to do with what Arnoud was saying, channels.

In reaction to Jan's comment, we are using country-fixed effects. Separately for each country for cross-listed and non-cross-listed firms. Or a two by two matrix. There may still be variation with IFRS having different effects. That IFRS effect – this is our hypothesis - should be particularly strong for firms that are less opaque to begin with, which could be the non-cross-listed firms.

With regard to risk taking (Mark): SOX reduced risk taking. How could we address the question, apart from controlling for that, to what extent the results are due to what mechanism? By looking at firm fixed effects, by trying to account for all other factors at the firm level that have changed. And by comparing with non-cross-listed firms,

Maarten Pieter: To conclude, I would like to link your paper to the title of this workshop. Could you speculate about what your results might teach us for the future of financial regulation?

Zach: The results motivate us to look at financial regulation, and implement it. They provide arguments against lobbyists, and should motivate us to ask for more transparency regulation in the financial sector.

Adrienne: We are enlightened by this discussion about the different factors that play a role in the effects of regulation. For us lawyers a bit complicated, but all the more important to try and understand.

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Coffeebreak

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Adrienne presents our guest from Boston University, **Laurence Kotlikoff**. While sketching his long and distinghuished career -- she mentions his PhD in economics from Harvard (1977), his early university jobs in UCLA and Yale, and his position in the President's Council of Economic Affairs in 1981-1982 -- Laurence interjects: 'you're just saying he is very old'. Which Adrienne was not, but the comment did remind Arnoud of his own research in the 1990s on bank restructuring, as we will see in his concluding remarks. What Adrienne did point out was that the fact that Lehman Brothers was missing in the list of financial institutions and organisations Laurence has served as a consultant, was a good thing.

Laurence:
Steps have been taken to fix the financial system in the United States, the European Union, and in the United Kingdom. In the UK, the government-appointed Independent Commission on Banking is currently considering structural changes in the financial sector.[23] All steps so far have not addressed the central problem, which is fraud, compounded by lack of transparency. The 2008 crisis was a fraud based run.[24] There was concern that institutions were holding less valuable assets than thought. There was concern that *other* people were concerned that this was true. Runs on institutions happen because of actual fraud, or because other people think there is fraud.

[23] In the words of the Commission's Chairman Sir John Vickers, 'possible structural and related non-structural measures to promote stability and competition in UK banking' are being considered. See his lecture of January 22, 2011: 'How to regulate the capital and corporate structures of banks?'. The Independent Commission on Banking (ICB), set up in June 2010, just published on its website, on January 26 2011, the 150 responses to its Issues Paper of September 2010. The summary includes: 'There was little support for the notion of narrow or limited purpose banks, for reasons including the lack of feasibility and the value destruction such a measure might bring. However, some did view fractional reserve banking as a problem, and called for the Bank of England to be the only creator of money in the economy'.

[24] The speaker indicates on a slide that the 'proximate cause of financial debacle' is not leverage, nor proprietary trading, securitisation, the size of banks, the lack of funeral plans, or derivatives. The proximate cause is 'the systematic production and sale of trillions of dollars in fraudulent securities, including liar loans, insuring the uninsurable, management theft, phony pricing, etc.

Let's look at the analogy between what happened to investment bank Bear Stearns in March 2008, and to Johnson & Johnson after the Tylenol affair in 1982. Bear Stearns saw the value of its shares go down in one week from $57 to $2. They ended up $10 a share, but this was due to a mistake on JPMorgan's side, not a real market price.[25] In October 1982, we had the Tylenol affair.[26] A few bottles of the pain-killer on the shelves in stores in Chicago were cyanide-laced. Seven people died. That made 30 million bottles suspect, all over the world. This was a toxic asset; there was real poison in *certain* bottles. In two days the world-wide market for bottles of Tylenol collapsed.[27] This was a case of non-transparency, non-disclosure, of fear of fraud, i.e., fear that the contents of the bottles were fraudulently conveyed. Johnson & Johnson's reaction was to remove all bottles from the shelves, throw them away, and replace them with Tylenol packaged in safety triple-sealed containers. The firm suffered no permanent damage from this episode. It acted to provide disclosure. This in contrast to Wall Street's practice of providing full non disclosure, leaving no one able to check what's on its financial shelves.[28]

The problem with Johnson & Johnson was not in selling Tylenol with cyanide. The problem was selling Tylenol with cyanide and calling it simply Tylenol. Tylenol with cyanide is a legitimate product for those who, for example, who want to kill rats in a humane manne. But these bottles were sold for what they were not, which made them illegitimate as well as deadly. If the Tylenol with cyanide had been labeled appropriately, there would have been no problem. After all, there are plenty of deadly products for sale in drug stores – all of which are properly disclosed.

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[25] Both shareholders and employees were furious and forced JPMorgan to revise the merger plans and pay out $10 a share. Only one year earlier, in March 2007, Bear's shares traded at $170. Globalresearch.ca reports: 'Mergers, buyouts and leveraged acquisitions have been the *modus operandi* of the Morgan empire ever since John Pierpont Morgan took over Carnegie's steel mills to form U.S. Steel in 1901. The elder Morgan is said to have hated competition, the hallmark of "free-market capitalism." He did not compete, he bought; and he bought with money created by his own bank, using the leveraged system perfected by the Rothschild bankers known as "fractional reserve" lending. On March 16, 2008, this long tradition of takeovers and acquisitions culminated in JPMorgan's buyout of rival investment bank Bear Stearns with a $55 billion loan from the Federal Reserve. [..]The "rescuer" was not actually JPMorgan but was the Federal Reserve, the "bankers' bank" set up by J. Pierpont Morgan to backstop bank runs; and the party "rescued" was not Bear Stearns, which wound up being eaten alive. The Federal Reserve (or "Fed") lent $25 billion to Bear Stearns and another $30 billion to JPMorgan, a total of $55 billion that all found its way into JPMorgan's coffers. It was a very good deal for JPMorgan and a very bad deal for Bear's shareholders, who saw their stock drop from a high of $156 to a low of $2 a share. **Thirty percent of the company's stock was held by the employees, and another big chunk was held by the pension funds of teachers and other public servants.** The share price was later raised to $10 a share in response to shareholder outrage and threats of lawsuits, but it was still a very "hostile" takeover, one in which the shareholders had no vote'.

[26] See: *Jimmy Stewart is Dead*, p. 23.
[27] In 1982, Tylenol controlled 37 percent of its market with revenue of about $1.2 million. Immediately after the cyanide poisonings, its market share was reduced to seven percent. Source: iml.jou.ufl.edu. The Tylenol case is used here as a responsibility based model for crisis management programs.
[28] See: *Jimmy Stewart is Dead*, p. 25-26: 'Share prices move for a reason – the arrival of new information. In the case of the financial sector, the new information was that there was no information – that nobody, including, it appears, the top executives of these companies, knew precisely what assets these companies were holding and the true risks they were accepting'.

Selling a mortgage that lists the home's value as $300,000, when it's really only $100,000 is no less a lie than selling Tylenol with cyanide as regular Tylenol. As we learned, Wall Street, with the help of rating companies on the take and regulators on a break, sold trillions of dollars in fraudulent mortgage-backed securities in the run up to the financial crisis. The industry not only made up appraised values. It also made up the employment statuses, incomes, and credit histories of countless numbers of borrowers.

No market operates well in the dark. And the financial system has been using the claim of proprietary information to hide its creation and sale of snake oil for far too long.

But there is a way ahead. Limited purpose banking would reform the financial system in large part by making it provide full disclosure and forcing it to operate with full transparency.

That is key element of Limited Purpose Banking --- ending the sale of snake oil. In so doing, Limited Purpose Banking will put something into the financial system it badly needs -- the rule of law.

The other part of the proposal is to get financial intermediaries to operate without leverage. The job of financial intermediaries is to intermediate. Their job is not to borrow money, promise full repayment, gamble with it, and leave the taxpayer to pay for their losses, while taking the upside when their gambles succeed.

In the movie, *It's a Wonderful Life*, we're taught that bankers are honest and trustworthy and that we can faithfully leave the system in their experienced hands. But Jimmy Stewart (the movie's honest banker and hero) is dead. Today's bankers aren't to be trusted. Consider, the Jimmy Cayne, who was the head of Bear Stearns before it collapsed.[29] Cayne's qualifications for working on Wall Street were four. He was a college drop out, a salesman of scrap metal, a salesman of copying machines, and a bridge player. His bridge playing was his best credential. He was hired by Alan 'Ace' Greenberg because of his bridge game. Greenberg, like many prominent Wall Street bankers in the 1960s, was an avid bridge player who felt Jimmy could help him beat other bankers at the bridge table.

Over time, Jimmy Cayne managed to move Greenberg out of power and take over the company. His ability to understand risk as economists and finance experts do, was quite limited since he's had no formal training in the subject.[30] Yet he was running a company

[29] See: *Jimmy Stewart is Dead*, p. 34 and following.

[30] See the interview with Nancy Cook, *Newsweek*, June 22 2010, when Greenberg's book, *The Rise and Fall of Bear Stearns*, was published: '**What about the idea that certain financial products need to have greater transparency?** I think people should understand what an adjustable-rate mortgage is. I don't think they did. I think it's a disgrace that the banks sold this to people who couldn't pay. **Whose fault is that, then?** I think it's the banks' fault. I don't think you should sell anything to a person who can't pay. In many cases, it was the mortgage brokers who were doing it—who packaged the stuff and sold it. The banks and firms like Bear Stearns took the word of the mortgage brokers that the stuff was correct, and it wasn't. They

with a $500 billion balance sheet. Traders within the bank could not look at one another's trading business. The only person allowed to see all of the company's assets and liabilities was Jimmy Cayne and a few of his top execs. Bill Cohan, the financial writer, documents this fact in his book, *House of Cards*.[31]

What about JP Morgan, which ended up buying Bear Stearns with the backing of the Federal Reserve and the Treasury? Did JP Morgan know what Bear Stearns was worth on Friday, March 14th 2008, before they spent the weekend looking at the company's books?[32] The answer is absolutely no. Bear had highly complicated assets and liabilities, and a telephone book full of them. So, the bet on Bear Stearns became the bet on Jimmy Cayne. Trusting the guy at the top. If he is a Jimmy Stewart, OK. But the market decided, in the end, that Jimmy Cayne was not Jimmy Stewart, and that the assets and liabilities sitting on his store's shelves might be financially deadly.

We need a system that is fail proof and fool proof – that prevents small numbers of bankers borrow huge sum, times GDP in the case of Ireland, lay down highly risky bets, lose vast sums and hand the bill to the public saying: 'Oh sorry, we messed up'. And we can no longer tolerate rogue traders like Nick Leeson, who singlehandedly 'detonated' Barings Bank, founded in 1762. And, he did so all in one day: January 17th 1995. 'Nick's explosive device was a short straddle that entailed taking a huge bet that the Tokyo stock market would not drop in value from the close of the market on January 16 to its opening on January 17. But Nick missed a black swan - the Kobe earthquake that struck Japan at 5:46 a.m., well before the Tokyo market opened sharply lower and well before Nick could sell out his position anywhere near its former price'.[33]

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were saying that a person had an income of $65,000, when he actually had an income of $5,000 a year. Well, we were taken, and people did something that was illegal'.

[31] William D. Cohan, *House of Cards. A Tale of Hubris and Wretched Excess on Wall Street*. Random House, Inc., March 2009. See the review by Michiko Kakutani, 'The Tsunami that Buried A Wall Street Giant', *The New York Times*, March 9 2009: 'Mr. Cohan writes that Mr. Cayne "had only a vague understanding" of the exotic securities that would imperil the firm's liquidity, and that he alienated (and eventually forced out) Warren Spector, the man most familiar with these financial instruments, and that, in any case, the firm exerted little oversight over the hedge funds run by Ralph Cioffi, who had heavily loaded them with toxic investments in subprime mortgages despite assurances to the contrary to investors. Mr. Cohan also notes that Mr. Cayne left to play in a bridge tournament during the crucial period in the summer of 2007 when the firm closed its failing hedge funds, and that in the midst of the March 2008 crisis he was again out of town at a bridge tournament'.

[32] Martin Wolf, *Financial Times* columnist, and currently a member of the UK Banking Commission of John Vickers, commented two weeks later: 'Remember Friday, March 14, 2008: it was the day the dream of global free-market capitalism died. For three decades we have moved towards market-driven financial systems. By its decision to rescue Bear Stearns, the Federal Reserve, the institution responsible for monetary policy in the US, chief protagonist of free-market capitalism, declared this era over. It showed in deeds its agreement with the remark by Joseph Ackermann, chief executive of Deutsche Bank, that "I no longer believe in the market's self-healing power". Deregulation has reached its limits'. See: Martin Wolf, 'The limits of liberalisation', *Financial Times*, March 27 2008.

[33] See: *Jimmy Stewart is Dead*, p. 160.

Or consider Jerôme Kerviel, who ‘just wanted to help his company’, the French bank Société Générale, and lost $7.2 billion ‘at a rather unpropitious moment, namely in 2008’.[34]

What we need is an honest banking system that makes Wall Street safe for Main Street. This alternative reform is called limited purpose banking’ (LPB).[35] Under LPB ‘all financial and insurance companies with limited liability [..] that are engaged in financial intermediation would operate as *pass-through* mutual fund companies’, i.e. as management companies ‘which sell mutual funds - safe as well as risky’. Mutual funds would never be backing anything to the buck, except cash mutual funds. Cash mutual funds would hold only cash[36] and represent the only feature of LPB that resembles ‘narrow banking’.[37] Apart from a service fee, these cash mutual funds would be valued dollar for dollar and be used for our payment system.

All other mutual funds, including insurance mutual funds that share individual and aggregate risk with no liability to the general public, would float on the market. Because we decide which type of mutual funds to invest in, limited purpose banks let *us* gamble. They don’t gamble for us. And because they are 100 percent equity financed, the individual mutual funds cannot fail. Neither can the mutual fund holding companies issuing the mutual funds. Hence, Limited Purpose Banking delivers a finance system that can never fail. And since no financial company operating with limited liability will be able to operate in any way except as a non-leveraged mutual fund, there is no possibility of shadow banks emerging. If Jimmy Cayne wants to operate a traditional bank, he’ll have to operate without limited liability, meaning that every penny he owns, every car, house, yacht, private jet, you name it, will be subject to forfeiture if he tries to bet the farm and loses his shirt.

Let me now return to part one of my proposal, disclosure and transparency. Let’s say I’m a mutual fund manager, and Carmine wants to take out a mortgage. I want to have an appraisal of his property and credit history. This can be done by a single federal regulator, the Federal Financial Authority, which ‘would verify, supervise custody, fully disclose, and oversee the rating and trades of all securities purchased, held, and sold by the LPB

[34] See: *Jimmy Stewart is Dead*, p. 159.
[35] See: *Jimmy Stewart is Dead*, p. 123.
[36] The second new type of mutual funds proposed in *Jimmy Stewart is Dead* is insurance mutual funds, that ‘can help society allocate aggregate risk’. Which is not the same as eliminating risk: ‘unlike our current system, it doesn’t pretend to be able to insure the uninsurable, which represents a standing invitation for another financial disaster’ (p. 138).
[37] See: *Jimmy Stewart is Dead*, p. 133: ‘Narrow banking is a small feature of limited purpose banking and would hardly suffice to deal with today’s multifaceted financial problems. The problem is not that banks are borrowing just from those [lenders] with FCIC-insured deposits and then gambling, at our potential expense, with simply those borrowed funds. The problem is that banks are *also* borrowing from many other lenders (including sovereign nations) whose loans are implicitly guaranteed by our government because the banks individually or as a group are too big to fail’.
In a similar vein, but now focusing on - the nature of - financial instruments, the author argues against reenactment of a Glass-Steagall type of regulation: ‘.. with today’s financial instruments, there is no way to tell one financial enterprise from another. We need a common set of modern and very simple rules to govern all financial companies’. See: *Jimmy Stewart is Dead*, p. 151.

mutual funds.'[38] The Federal Financial Authority would hire private companies, who would work only for it, to do these tasks. Hence, we would have rating companies operating with no conflicts of interest. Gee, imagine that. And since the Federal Financial Authority would, itself, have a very limited set of tasks to perform, the need for financial regulators to carefully babysit banks goes away.[39]

Liquidity would be enhanced under LPB. Open end funds would be invested in highly liquid assets, as they are today, permitting easy redemption of their shares. And the shares of closed end funds would be bought and sold on the secondary market, even though the underlying assets held by the closed end funds would be illiquid. More importantly, 'uncertainty is the real villain when it comes to liquidity'.[40] We have seen this in the latest crisis. Under LPB, it will be clear precisely what each open- or closed end fund is holding. This reduces transacting out of fear or panic. To properly assess the merits of LPB compared to the current system 'it is important to focus on the tail risk and not simply how different systems would operate under normal circumstances'.[41]

Under the current leveraged system,[42] one bank's assets are the other bank's liabilities. This creates potential for a domino effect. By contrast, 'LPB creates a firewall around each mutual fund. The losses of any mutual fund have no impact on any other mutual fund'.[43]

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[38] See: *Jimmy Stewart is Dead*, p. 126 and following for a discussion of the FFA, which would be hiring private rating companies to look into Carmine's case, but without any financial conflicts of interests.

[39] See: *Jimmy Stewart is Dead*, p. 161: 'Limited purpose banking will deliver on President Obama's September 14, 2009, pledge: "We will not go back to the days of reckless behavior and unchecked excess that was at the heart of this crisis… Those on Wall Street cannot resume taking risks without regard for consequences". **The trouble is that the president's own financial reform agenda cannot deliver on this pledge without having the government oversee Wall Street's every move on a literally millisecond-by-millisecond basis.** That's one heck of a lot of oversight and would leave us with the worst of all worlds - a financial regime that's so tightly regulated that Wall Street can't sneeze without getting approval from Pennsylvania Avenue'.

See also: *Jimmy Stewart is Dead*, p. 132, where the author explains that with LPB there is no need for deposit insurance, nor capital requirements, because cash mutual funds, which would have checking accounts just like the existing money market mutual funds in the US, would function on a 100% reserve basis: 'we can eliminate essentially the entire financial regulatory system and do just fine with a single regulator'.

Note that this regulator would be tasked with key functions for LPB to work: providing transparency in the relevant markets (see *Jimmy Stewart is Dead*, p. 126 and 143). If it fails to do so, i.e. if there is another 'government failure to provide [this] critical public good', we're back to scratch. This puts the full weight on assuring the independence and proper funding of the watchdog, so that it can't be muzzled by Congress or the Street.

[40] See: *Jimmy Stewart is Dead*, p. 166.

[41] See Laurence Kotlikoff's response to the September 2010 Issues Paper of the Independent Commission on Banking in the UK: http://bankingcommission.independent.gov.uk/bankingcommission/responses/. Published on January 26 2011.

[42] For a discussion of the Modigliani-Miller Theorem which, according to Laurence Kotlikoff, showed that 'absent bankruptcy costs, leverage doesn't matter one iota', see: *Jimmy Stewart is Dead*, p. 16-18: '… getting the leverage out of the banks*, but not out of the financial system*, is the essence of Limited Purpose Banking'.

[43] See also Laurence Kotlikoff's answer to Adair Turner's remarks on LPB in the first Chapter in the *Future of Finance*, *FT.com*, 19 and 20 July 2010: http://blogs.ft.com/economistsforum/2010/07/laurence-kotlikoff-replies-to-lord-turner-part-1/

Other financial business (venture capital, private equity, trading desks of nonfinanicial companies) would also operate through mutual funds.[44] Idem dito for the insurance business, 'given that today's insurance companies are fundamentally engaging in the same business as today's banks'.[45]

There are two types of such insurance mutual funds. The first is the tontine structure, covering idiosyncratic risk. Tontines go back to the 1600s. They were used to pool longevity risk. Life insurance mutual funds are 'reverse tontines', 'paying the pot to those contributors who die, rather than to those who live'.[46] Two important features of these tontine-like mutual funds are that 1) winning shareholders collect from the pot in proportion to their share holdings, and 2) the 'size of the pot is given'.[47] Again, this is a natural firewall. If swine flue breaks out, and a lot of people die, no-one will add to the pot. There will be a downward adjustment of the amount paid out. Contrast this with the way the insurance system is set up today, in which a major epidemic could cause the collapse of major insurance companies throughout the developed world. A major epidemic is uninsurable, but our current financial system is, nonetheless, pretending to insure it.

The second type is 'parimutuel betting', which we see at the race tracks.[48] This type of mutual fund lets us bet safely, with one another, on aggregate outcomes, like IBM's defaulting on its bonds, without there being any liability to third parties. Just think of IBM's defaulting as horse A and IBM's not defaulting as horse B, and you'll get the picture.[49] Whether the bet is on a company default (a Credit Default Swap market, in effect) or on whether a company's stock rises above a certain price (an option) or whether there is a hurricane in New Orleans, the betters owe money only to themselves and no one outside the betting pool is responsible for making up losses. Parimutuel funds let us share aggregate risk, but don't attempt to insure aggregate risk, which is impossible.[50]

To conclude, LPB is not as new, or 'radical', as it seems. In the US there are currently 8000 mutual funds, which cover a third of the financial mediation industry.[51] The glass is already one third full with respect to full equity based, mutual fund banking.[52] The idea is

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[44] See: *Jimmy Stewart is Dead*, p. 178-179. Except hedge funds, but they would be operating with unlimited liability.
[45] See: *Jimmy Stewart is Dead*, p. 137.
[46] See: *Jimmy Stewart is Dead*, p. 142-143.
[47] See: *Jimmy Stewart is Dead*, p. 137.
[48] Definition in Merriam Webster Dictionary: 'a betting pool in which those who bet on competitors finishing in the first three places share the total amount bet minus a percentage for the management'. Apparently, this form of probability calculation as a means of hedging core risk is already in use by the financial sector, be it not in the context of mutual funds. See: Frédéric Koessler, Charles Noussair, Anthony Ziegelmeyer, 'Parimutual Betting under Asymmetric Information', March 7, 2006.
[49] See: *Jimmy Stewart is Dead*, p. 146.
[50] *Ibidem*.
[51] Kotlikoff to Turner, *FT.com*, 19 and 20 July 2010.
[52] See for an early history of mutual funds, including a discussion of tontines: K. Geert Rouwenhorst, Yale School of Management, 'The Origins of Mutual Funds', Yale International Center For FinanceWorking Paper No. 04-48, December 12, 2004. The Netherlands appears to have pioneered with mutual fund type of

not to eliminate (aggregate) risk, but to stop insuring the uninsurable,[53] to take man-made risk, i.e. manipulation and fraud, out of the equation. Then we can start growing, and you on your side of the ocean as well.

Maarten Pieter Schinkel comments as follows:
I might be slightly miscast for this task. I'm not a finance guy. My area is antitrust. But I am grateful for the opportunity. It forced me to read this wonderful book. It is a great read, I can tell you. Very fluidly written. Also, it allowed me during work time to study from a banking point of view the classic film *It's a wonderful life*. This film regularly shows in the US around Christmas. This movie is what Laurence Kotlikoff's book draws it's title from, as well as parts of the analysis.

I must say that the book invites to disagree with it. I think. This is in part because of the slightly over the top popular prose, all these statements like 'It's a Horrible Mess', 'A Big Con', 'Uncle Sam's Dangerous Medicine'. This hides the message, which is limited purpose banking, discussed at the end of the book - also at the end of your presentation - and that's where you would like more of the intricate details. Plus, who would not want to take the chance to disagree with just about every Nobel Prize winning economist that is alive today? Because such is the praise for the book on the back cover. They all think this is a fantastic book.

Laurence: A lot of these guys are my friends. Because we are kind of the same age. So that's why we survived.

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investments: 'Eendragt Maakt Magt' (1772, Van Ketwich, Amsterdam), and 'Voordeelig en Voorsigtig' (1776, consortium of Utrecht bankers).
Of particular interest for our discussion of LPB is that these two funds seem to have been a response to the financial crisis of 1772-1773, 'which bankrupted British banks due to overextension of their position in the British East India Company. When the crisis spread to Amsterdam, several banking houses were pushed to the brink of default' (p. 9-10).
Noteworthy are also the historical roots of securitisation and stock substitution, see p. 2: 'Mutual funds emerged gradually, as merchants and brokers learned how to expand the range of investment opportunities to the general public during the eighteenth century. **The two principal innovations that took place were securitization and stock substitution. Securitization uses the cash flows of illiquid claims as collateral for securities that can be traded in financial markets. In a stock substitution, existing securities are repackaged individually or as part of a portfolio to make them easier to trade, either in smaller denominations or at a lower cost than the underlying claims.** Often these innovations were designed to overcome barriers associated with investing abroad, such as foreign registration requirements and the costs of collecting interest or dividends, which prevented smaller investors from participating in securities markets. This broadening of the Dutch capital market eventually led to the introduction of the forerunners of today's closed-end mutual funds and depository receipts'.
See for the rapid emergence of money market mutual funds in the US since 1970, 'which were a response to interest-rate ceilings on demand deposits': Gary Gorton and Andrew Metrick, 'Regulating the Shadow Banking System', Yale/NBER Working Paper, September 10 2010.
[53] See: *Jimmy Stewart is Dead*, p. 147, where the author explains that LPB can help assuring that aggregate risk would be 'borne by those who are best suited to do so'.

Maarten Pieter:
Also, it is hard to disagree with the main message. There is much talk now about narrow funded types of banking. Many people think that banks went out on a limb, and should not be allowed to do it again. Laurence Kotlikoff's book is a wonderful book, an accessible plea for just that, a type of narrow banking. Not narrow banking in the classic sense, but very much akin to it.

Let me lay out the basic premises of the book. The first observation is that 'there is no safe storage for wealth'. This reflects the awareness – for example in Smith's *Wealth of Nations* and Debreu's *Theory of Value* - that value is something mystical between supply and demand, and not something you can store.[54] My generation might have forgotten about this. *It's a wonderful life* is actually great as an historical document in this regard. It was released in 1946,[55] and staged in the late twenties and early thirties. It is interesting to see that bank runs were at the time a regular worry. The topic of Hollywood films, and also Broadway shows.

Laurence goes on and says that modern banking is not the same as the old way, where you could fine tune with interest rates, but centers around 'multiple equilibria and coordination failures'. Actors in the financial sector should not be allowed to beat this mechanism into a bad equilibrium. The 'Big Con', that's the banks. Banks are to be blamed, that's for sure. This is because of their leveraging, but also because they lied, as he calls it, about the risks that were taken, without installing firewalls.

The next chapter claims that the US regulators don't understand this. They provided 'dangerous medicine', i.e. buying up problematic assets or whole banks, and then regulating the sector in the wrong way.

LPB is then proposed as a structural solution, consisting of setting up pass through mutual fund companies. Banks are middlemen. They act as auctioneers, trying to make demand and supply meet on the spot for each individual project. Under LPB banks cannot borrow. They will also not be allowed to offer savings accounts as we know them. These are replaced with cash for cash mutual funds. Investment in risky assets would be possible in other types of mutual funds. The insurance business would also be organized in mutual funds. And there is a single Federal Financial Authority whose primary task is that the banks don't borrow. Because that is where they fraudulently can make money. Thus the freedom of banks as it exists today will be severely limited under LPB.

I have some observations. The actor Jimmy Stewart is indeed dead (he died in 1997). But George Bailey, the OK banker? Is he dead as well? I have some doubt.

Just to put all the blame on the banks, I wonder if this is fair. Raghuram Rajan from Chicago has pointed out that borrowing, and allowing this type of borrowing to happen

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[54] Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776; Gerard Debreu, *Theory of Value. An Axiomatic Analysis of Economic Equilibrium*, Yale University Press, New Haven and London, 1959.
[55] Produced and directed by Frank Capra.

by central banks, can be seen as a form of redistribution perpetrated by cowardly politicians.[56] It would be political suicide for politicians to actually redistribute wealth through taxes, or other types of income inequality reduction. So the ones who borrowed, and the politicians who let them, seem also to deserve part of the blame.

The lesson I took from *It's a Wonderfull Life* is that Bailey Building & Loan Association has merit because it is a small firm, with local knowledge of how the system works. Think of the clip where George Bailey prevents a bank run by explaining, literally to customers gathered in his bank building, how 'your money is in his house, and your's is in her chocolate shop'.[57] Bailey thus explains the fundamental underlying system of leveraging. Then a hero comes forward and says: 'OK, I will not take all my savings. I'll just take out $17,50 to get me through the next week'. No moral hazard here, in the sense of too big to fail.

Plus, being in antitrust, I noticed that there is a villain in the film, Mr. Potter. Mr. Potter owns about everything in the village. He wants to get rid of Mr. Bailey and own his bank too. He tries to send him on a trip around the world, tries to kill him. He actually sets off the bank run, and later steals from Bailey's associate, almost causing bankruptcy. It seems therefore there is also an important competition problem in this financial sector.

I'll speed up.– I have two more slides: I do see the big macro-risk in the current system. What you essentially are proposing, I think, is to roll this macro-risk over into a micro-risk. No longer will I put my money in a savings account where it is backed up by the government. Instead you are asking everybody to conscientiously invest. Isn't this a big hurdle for the general public? I'm not sure for example that Amsterdam apartments – the example you gave just now - are safe as an investment; the municipal and national government are tinkering a lot with the housing market.

On the subject of borrowing and leveraging generally: what about Matthew 25, 'The Parable of the Talents', where it says you should not bury your talents, but invest them, and get returns? Doesn't this imply they cannot be kept liquid? I do not see if limited

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[56] See: Raghuram Rajan, 'How Inequality Fueled the Crisis', July 9, 2010: http://www.project-syndicate.org/commentary/rajan7/English : '.. the political response to rising inequality – whether carefully planned or the path of least resistance – was to expand lending to households, especially low-income households. The benefits – growing consumption and more jobs – were immediate, whereas paying the inevitable bill could be postponed into the future. Cynical as it might seem, easy credit has been used throughout history as a palliative by governments that are unable to address the deeper anxieties of the middle class directly. [..] The problem, as often is the case with government policies, was not intent. It rarely is. But **when lots of easy money pushed by a deep-pocketed government comes into contact with the profit motive of a sophisticated, competitive, and amoral financial sector, matters get taken far beyond the government's intent**'. [..] The broader implication is that we need to look beyond greedy bankers and spineless regulators (and there were plenty of both) for the root causes of this crisis'.

[57] See: *Jimmy Stewart is Dead*, p. 37, where this speech of George Bailey, with which he managed to restore calm, win back trust, and save the bank, is contrasted with the scene in September 2008: 'There was George Bush in a daze, Hank Paulson and Ben Bernanke pulling out their remaining hairs, and Jimmy Cayne playing bridge'.

purpose banking wouldn't violate this. How is liquidity of assets guaranteed? Everybody can ask for his or her money. In cash mutual funds it is dollar for dollar, you say, but some money is going to be tied up longer. You take away from banks liquidity creation, money creation. Banks can no longer leverage.

As far as I know, there is not enough understanding yet what exactly the function of liquidity creation by commercial banks is. This may be an important function, I'm not aware of any study that shows eliminating it can be done without risk to the economy. Banks may have a smoothing function. Limited purpose banking puts money creation firmly in the hands of central banks. No longer we will have banks as a cushion in between, that accommodates demand and supply. I'm wondering if we are not running some unknown risks if we go to limited purpose banking overnight.

My final slide is about funding. Your proposal shows limited regard of the 'building' part in Bailey's Building & Loan Association. What are good and bad projects and assets? It is one of the functions of banks to figure that out. I personally know of entrepreneurs who had good ideas, but could get no funding for their plans to start them up, even in the old days. This is a problem of asymmetric information. Would LPB not create a bigger type of error: no funding for good projects?

Finally, it seems to me that some of the present functions of banks will be taken over by others if banks cannot do it themselves anymore. Doesn't this create a risk, I wonder, even with the single Federal regulator, of a black market developing, with loan sharks on the prowl? After all, before you know it, money is borrowed – for example from a supplier. There are always people who need money for a day, a week, an hour. Never fully liquid all the time.

A remedy to my concerns, or more a question actually, might be this: would it not be a sufficiently reasonable objective to allow banks to differentiate their products? So that with full disclosure of the risks involved, they offer accounts with and without longer-term investments? In your proposal you are cutting them really short. But if firewalls could be installed, and full disclosure enforced, we could have the LPB bank accounts of the type you propose, but also allow banks to do some of the other functions that may have socially beneficial effects?[58]

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Adrienne: I was not aware of the fact that Potter could be a villain. I thought he was a good guy, at least in the films and books bearing his name: Harry Potter, creation of the British writer J.K. Rowling. I'm promoting these films and books everywhere, to my students, and now also to you. I think there is time for three questions, with answers.

[58] See: *Jimmy Stewart is Dead*, p. 187 for a reference to reform proposals that are similar to LPB, by Anat Admati and Paul Pfleiderer, Stanford University, 'in which banks are broken into two parts. One part is 100 percent equity financed (can't borrow), has limited liability, and one part that's partly debt financed that has unlimited liability'. See: Anat Admati and Paul Pfleiderer, 'Increased Liability Equity', version of March 1, 2010, see: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1532484

Mike Anderson: The capitalist system is known to be selfish. It is for public authorities to regulate that.

Gregory Frigo (AFM): What sort of products would mutual funds be offering? What if a mutual fund does not understand these products, or if the investing public does not understand them? How to make people understand what they are getting into?

Mark Mink (DNB): Couldn't we just change the incentives in the banking sector, rather than changing the entire structure of it? Also, what is the crucial difference between banks and nonbank firms?

Laurence: A comment on the last point first: we have to safeguard the economic infrastructure. Consider gas stations. Without them, no one would be able to drive. Same thing with credit. We should not allow these functions to get in trouble when there is a simple way to prevent that from happening. With respect to the complexity of products, we would no doubt see simpler products under LPB. Whenever you see complexity, you find fraud. Or most of the time. LPB is about the rule of law. About property rights. If there is no transparency, it is hard to have rights. We should reimpose the rule of law into this market place.

As to the slides of Maarten Pieter: these are excellent comments. Concerning liquidity, all mutual funds are liquid. Open-end funds can be redeemed on a daily basis; within a day or two you'll receive payment. In the case of closed-end funds, there is a secondary market. I'll believe that LPB would deliver more liquidity than we find in today's financial markets, particularly in periods of financial stress, during which the current system's liquidity vanishes.

By the way, in the secondary market there is no requirement to sell the houses. Or the tulip bulbs, for that matter. These commodities would be sold on the basis of a schedule. It could take twenty years. But the shares of the closed-end funds holding the houses or tulip bulbs would be readily sold or purchased.

Maarten Pieter: There could still be a type of run. If all owners of a fund would want to get out of it and liquefy their savings, the price of the fund would drop. So there will always be that risk.

Laurence: There are and will be bubbles and panics. But under LPB, such bubbles and panics wouldn't be caused by fear of *fraud*.[59]

Adrienne: One quick last thing, if possible

Laurence: No credit for good projects? I think it is the other way around. Suppose I am a small company: rate me, verify me, and then in an auction get my paper to the market,

[59] See: *Jimmy Stewart is Dead*, p. 120-121.

without going through Goldman Sachs. It has advantages, this kind of modern financial infrastructure. But I appreciate your comments. I really do.

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Adrienne: Now Edgar promised us to clean up the mess…

Edgar du Perron:
We are short on time, so I will abbreviate my lecture a bit. Cleaning up the mess is not exactly what I'm doing. I'm talking about recovery plans. Which are attempts at cleaning up the mess before it is made. The question is – and I would like to have ample time to debate this together, because what I am saying might be in support of what we have just seen and heard - whether the only *real* solution to the problem is limited purpose banking, or a variant of it.[60]

About the two names on my first slide: I have a co-author.[61] Our paper, which is forthcoming in a couple of weeks on SSRN, will contain more detail on the proposals, and on legislation already enacted, in the EU, the UK and the US. Here I'm going to stick to the basics because that's what we can most fruitfully discuss.

There is a nice scene in the Monty Python film, *The meaning of life*:[62] The doorbell rings, a man opens up and two doctors announce: 'We come to collect your liver'. The man refuses, there is a struggle, and one of the doctors produces a donor card from the unwilling donor's wallet. He protests: but it says 'in case of death'. The answer: 'Nobody has ever survived when we took out his liver'.

That is what we are going to talk about: triggering events, and how to define them. The problem in the financial sector is how to take out a part of it without endangering the entire system. The European Commission puts it this way: 'A crisis management framework [..] should ensure that banks in difficulties exit the market without jeopardising financial stability. Without such a framework, there may be no realistic alternative in a future crisis to bailing out financial institutions again'.[63] The previous speaker would say: 'since this crisis management framework will not work, there is no

[60] See: *Jimmy Stewart is Dead*, p. 123: 'There is a better way to restore trust in our financial system and get our economy rolling than by having Uncle Sam pledge always to clean up the mess, which he can't actually do. The better way is not to let the mess happen to begin with. [T]his alternative reform is called *limited purpose banking* (LPB)'.
[61] Marleen Wessel, PhD candidate Financial Regulation and Supervision, Department of Administrative Law (UvA), and co-organiser of this workshop.
[62] The film dates from 1983; the scene is called 'Live organ transplants'.
[63] See: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Central Bank, *An EU Framework for Crisis Management in the Financial Sector*. Brussels, October 20, 2010, COM(2010) 579 final, p. 4.

realistic alternative', so we should 'do something completely different', to quote Monty Python again.

Financial institutions are too big to fail? Look at this cartoon; it shows the Titanic, half sunk, with a heli hovering over the people in the water. Someone leaning out with a megaphone. The caption runs: 'Attention, if you're the ship's captain, its investors, or manufacturers, we're here to rescue you'.[64] This is more or less what happened.

Or are they too systemically important to fail? The plumbing system of the financial sector consists of interconnected pipes; if an essential part of it fails, or - worse - a part that is *perceived* to be essential, the whole system goes down the drain. It is not just a question of too big, it is the *systemic* importance that counts. These institutions are also *politically* too big to fail. It is not considered acceptable to leave consumers without their savings. That's another risk.

Normally, when a company gets into trouble, ordinary insolvency laws cover the unwinding process. This does not really work for banks. The main problem is that the procedure takes a long time. Even if creditors will get (some of) their money back, they have to wait for it for too long. So they try to get it out as soon as possibly, sparking a bank run. This risk of bank runs causes fragility in the system, threatening disruption of essential banking services. A contemporary George Bailey would not need to talk to his customers directly, but would have to send text messages. Because his customers are taking their money out electronically, overnight, immediately. That's what you want to prevent. Here is where the difference between a real and a nominal guarantee of deposits is relevant.

Another reason why normal insolvency rules don't work is counterparty risk, contagion. There does not have to be a real connection. Just fear spreading. The same applies to countries, as we are seeing in the sovereign debt crisis in some parts of the EU and US. I'm not going into as much detail as I would like here on insolvency law. Important is that in normal insolvencies the triggers are balance sheet problems, or they might be liquidity problems. We'll see that for banks, this is far too late to either restructure the institution, or to let it fail without causing a panic. We need other triggers. We are going to talk about that in a second.

Also, judges are involved in ordinary insolvency procedures. Nasty things have been said about lawyers: they don't write clearly, or judges do not know anything about banks. They would think in terms of coffers with money, and suppose that the money is actually there to cover deposit withdrawals the next day. What *is* a problem though is that judges do not act with the speed you want for banks. Their actions could even worsen the crisis,

[64] The cartoon, by Mike Luckovich, was first published on April 8, 2008. Which makes it a likely comment on the government assisted takeover of Bear Stearns.

as they are not required to take the public policy objective of financial stability into account.[65] You want something different.

The objective of a special bank insolvency regime is to avoid credit losses and liquidity losses. You also want to avoid contagion, spreading of the losses. You want more than the normal insolvency triggers. What is important from a legal point of view is the question who is determining when these triggers are met. A supervisor? Problably. Not a judge. This gives enormous powers to the supervising authorities.[66]

But let’s look at the order of things. What comes first of course is prevention: in the Titanic example that might mean no ice bergs. Or no ships, as Laurence Kotlikoff would prefer. If you have no ships they can’t run into an iceberg. You only have rafts, and they cannot sink because they have nothing under water; that might be a fair enough analogy with limited purpose banking. Also, you need financial regulation (capital and liquidity requirements), and you need adequate management. A lot of work is being done on these issues. The question is: will it help? The basic problem with leveraging is that there will always be too little money. If panic strikes you have a problem.

As to management, if you have read Laurence’s book you would have seen that the testosteron behaviour was even worse: it involved $1700 helicopter rides to smoke the $200 cigars Laurence mentioned.[67] How will we get the good managers? Or will we still have people who are willing to gamble with other people’s money. I am very much in favour of these liability rules for CEOs, and clawbacks. So that they would have to give back their bonuses. But if you want to *avoid* hiring high risk-taking testosteron driven people, you need a supervisor who is really able to say: ‘this is the type of girl who can safely run a bank, this is the type of guy who should not touch it with a ten foot pole’.[68]

Regarding capital and liquidity, the question is: can a bank survive bad times under conditions of good times? The moment a bank runs into trouble, its assets are valued less, so it ends up in even more trouble. Do we take this effect into account, do we apply bad times conditions to determine whether a bank is safe or not? The latest Basel agreements

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[65] This is the EU ‘public interest test’ the speaker refers to on one of his sheets. He mentions the article by Peter Brierley, ‘The UK Special Resolution Regime for failing banks in an international context’, Bank of England, *Financial Stability Paper* No. 5, July 2009.

[66] See for a similar concern: Mark A.Mc Dermott, ‘Analysis of the Orderly Liquidation Authority, Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act, June 21 2010: ‘… many of the provisions of the Act and the powers delegated to the FDIC and other government authorities may be Draconian when implemented. The right to decide whether to initiate receivership proceedings is vested in government authorities, not in financial companies’ boards and management or financial companies’ stakeholders, and is subject only to very limited judicial review that is highly deferential to such authorities’.
Url: http://www.skadden.com/newsletters/FSR_A_Analysis_Orderly_Liquidation_Authority.pdf

[67] See: *Jimmy Stewart is Dead*, p. 36.

[68] On this issue, see the inaugural address of Adrienne de Moor-van Vugt, May 28th 2010: *Buiten twijfel. De bestuurderstoets in de financiële regelgeving.* Vossiuspers UvA, Amsterdam, 2010.

are better,[69] but are they enough? I'm just raising questions, I'm just a lawyer, we need economists to answer these questions.[70]

Requesting recovery plans might be an option. These plans, also called 'living wills', are designed and implemented by the banks themselves. They involve steering away from the iceberg (although that was a stupid thing to do with the Titanic), and could contain features of limited purpose banking: compartmentalising. In front of the ship, way under the water line, you run a high risk. If anything happens, you drown. Other compartments would be less risky and - let's say the sea is rather shallow – you will still be above water. But you have to prepare all these things beforehand. This is where these restructuring plans come in as a way to unravel systemic complexity in advance. So that when you hit the iceberg, you can push a button and the watertight doors close.

If the recovery plan fails, a resolution plan might help, designed and executed by the authorities. In this stage the life boats are lowered. You need money for this. Resolution funds need to be set up. How to fund them?[71] European member states quarrel on this issue.[72] In the literature, the distinction is not always made between real, *intrinsic* problems, bad banks, and situation where there are unreasonable fears and you have to put the bank on temporary life support. Not all banks are bad, and some might be rescuable. It might be possible in some cases to provide money to sing out bad times.

In the end, like with limited purpose banking, what is important is to be transparent about the kind of risk people take. To be able and willing to say: 'You will lose in this and this situation'. The main problem is that the categories are not clear, because people have expectations that they are going to be bailed out anyway. An in-between solution could be early intervention by supervisors. This involves giving supervisors the powers to take the management decisions. They could prohibit, for instance, payment of dividends and coupons of hybrid instruments which are eligible as regulatory capital.[73] Or they could require the replacement of managers, or directors. Or they could tell a bank to divest itself of activities or business lines that pose an excessive risk to its financial soundness.

These are the key legal questions: powers, and triggers. Let's first talk about the powers. Legal rules are in the end not important. In law you can do anything you want, as long you are clear about it in advance. You can say: 'I promise to pay you a hundred euro,

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[69] Basel III, September 12 2010, see: http://www.bis.org/press/p100912.pdf

[70] Meanwhile, central bankers form Switzerland and Canada, Philipp Hildebrand and Mark Carney, have already told bank executives 'to expect more global financial rules, especially for the largest institutions'. See: Phil Mattingly, Yalman Onaran, 'Central Bankers Say Basel Is a "Minimum", More Needed', *Bloomberg.com*, October 10, 2010.

[71] Very critical, because of the difficulties to assess the severity of future crises: Dirk Schoenmaker, 'Do we need a separate resolution fund?', *Voxeu.com*, January 14 2010. Schoenmaker is more positive about a 'Pigouvian tax' to internalise the costs of financial crises, referring to E. Perotti and J. Suarez, 'Liquidity Risk Charges as a Macro-Prudential Tool', *CEPR Policy Insight*, No. 40, London.

[72] Sweden already has a privately funded 'bank resolution' fund, and Germany is ready to follow suit. But France and the UK are opposed to such funds. The financial industry is divided as well. See: Nikki Tait, Ben Hall, George Parker, 'Europe faces bank resolution fund debate', *FT.com*, May 26, 2010.

[73] See on contingent capital, known as 'CoCos': Frederick Ryan Castillo, 'The Coconumdrum', *Harvard Business Law Review*, Vol. 1, 2011, p. 29-32. See also: 'CoCo nuts', *The Economist*, November 5, 2009.

unless I change my mind'. There is only a problem when I decide with *hindsight* to give you less than what you were entitled to at the start. If you are designing the system up front, the law is usually not a problem. The *real* problem is the market, the economy. For instance, the reaction of bondholders. Rules can be made, new bond contracts designed. But the question is: will anyone buy them?

So new rules only become a problem if people already have a stake in the bank, and then part or all of their property is taken away, without advance notice. In the new regulation this is possible in cases in which you say 'would you have been better off if this had not happened?' That is the test. If the bank would have failed anyhow, you would have gotten nothing as an equity holder. Like in this other Monty Python film (1979), *Life of Brian*, 'You know, you come from nothing - you're going back to nothing. What have you lost? Nothing!' When I studied with the commission the failure of the Dutch DSB Bank,[74] we debated this question for days: 'what would have happened if'? You can never answer it. There is a lot of room to think that it could have gone better, or worse.

A legal question is: do we give all determining powers to the supervisor, or should there be the possibility of legal review afterward? You need speed. But from a fundamental rights perspective, you also need to have some form of judicial review, leaving a wide discretionary margin for the supervisor.[75] To ensure legal certainty, you would need guidelines, a formal indication how supervisors would make use of their discretionary powers. The main point meanwhile remains with the economy, the market. In law it is all possible. But what will happen to the market if there is too much room for the supervisor, or a *perception* of too much room? Will people buy that? The same holds true for the triggers. Again, in law it is possible to give broad margins and discretionary room to the supervisor. But what is the market reaction?

Two last points, one on deposit guarantees schemes (DGSs), the other on cross border issues. The new EU proposal requires to repay depositors within one week.[76] This is probably not possible if you cannot use the IT systems of the original bank. There should be a scheme in place where supervisors can take over these IT systems. Or, alternatively, we might opt for a limited purpose banking payment system as national infrastructure, separate from the institutions which are making use of it. Banks can tap into it. Paying

[74] Edgar du Perron was a member of the 'Commission Scheltema', named after its chairman Michiel Scheltema, which was established by the Minister of Finance to study the causes of the failure of DSB Bank. The final report was presented on June 23, 2010: 'Rapport van de commissie van onderzoek DSB Bank'. Url: http://www.commissiedsbbank.nl/upload/20.pdf

[75] Under the Dodd-Frank Act of July 2010, systemic risk determination - the trigger for using the Orderly Liquidation Authority created by the Act - by the Secretary of the Treasury is subject to *ex post* judicial review by the US District Court for the District of Columbia in case the financial company in question 'does not acquiesce or consent' to the appointment of the Federal Deposit Insurance Corporation (FDIC) as receiver. This review is limited to determining whether the determination of the Secretary is 'arbitrary and capricious'. See: Section 202 (a)(1)(A)(iii). The Senate's version, subjecting systemic risk determination to an *ex ante* review by a special panel of three judges from the Delaware Bankruptcy Court, which had 24 hours to determine whether the judgement of the Secretary was supported by 'substantial evidence', has been scrapped.

[76] See: Articles 7 and 8 of the Proposal for a Directive ../../EU of the European Parliament and of the Council on Deposit Guarantee Schemes [recast], Brussels, July 12 2010, COM(2010) 368 final.

systems are so important that they should be nationalised, or rather Europeanised, if that word does not yet exist.

In any case, we do need EU harmonisation. Otherwise we end up anew in horrendous situations, as there exist perfect ways for institutions to game the system. Think of Iceland. Because of the difference in compensation schemes we created enormous hostility between governments. Also, the Icelandic people now are in the position of the Irish people, thanks to our fine deposit guarantee scheme.[77]

That is the real problem, cross-border issues: if we do not give up our national autonomy, we will again be in trouble. Almost all bank failures will be in the end cross-border: we need, I've said this a long time ago, another crisis for people to accept that the only real way to deal with the European banking market is power at EU level. The same applies to insolvency rules. We can have all the recovery and resolution plans we want, but if there is no transfer of power, we will have a new crisis. If there are no (bank) insolvency rules at EU level, it will be a horrible mess if a bank goes bankrupt. This is only a happy message for lawyers, who will charge enormous bills for the clean-up.[78]

Cleaning up the mess before it is made? The mess would possibly be a little less with advance preparation. Whether such preparation would be really sufficient to contain the next crisis, I wonder. That would be a point of debate, also in relation to the alternative of limited purpose banking and the effect *that* will have on the economy, because one of the real issues might be: How much risk are we willing to take to have somewhat more leverage in the economy?

Adrienne: We are a bit pressed for time. Edgar, you elegantly cut your presentation short. So we can now turn to questions from the audience. Maybe there are questions about optimism and pessimism. Edgar just mentioned 'living wills', Laurence talked about 'funeral plans',[79] and I think you meant the same thing. What are the possibilities to prevent problems occurring?

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[77] The Icelandic President refused twice to sign a bill agreeing to repay losses, incurred by the United Kingdom and the Netherlands, when both countries decided to indemnify depositors in the failed branch of Landsbanki, IceSave. A referendum is on the agenda for April 2011. See: http://uti.is/2011/02/some-icesave-aspects/; and Omar R. Valdimarsson, 'Iceland's Voters Get Final Say on Repaying British, Dutch Depositor Debt', *bloomberg.com*, Febrary 21 2011: 'Yesterday's announcement marks the second time Grimsson has rejected an agreement designed to compensate the U.K. and Netherlands for depositor losses stemming from the October 2008 failure of Landsbanki Islands hf. His Jan. 5, 2010, refusal to sign a prior accord prompted Fitch Ratings to cut Iceland's credit grade to junk. Moody's Investors Service and Standard & Poor's give Iceland's debt the lowest investment grade'.
Edgar du Perron is co-author, together with Adrienne de Moor-van Vugt, of a report on the supervisory powers of the Dutch Central Bank (DNB) on IceSave. See for both the report and a reaction of DNB: http://www.dnb.nl/nieuws-en-publicaties/nieuwsoverzicht-en-archief/persberichten-2009/dnb218656.jsp
[78] The bankruptcy of Lehman Brothers, 'the most expensive in history', has cost almost $2bn in legal fees so far. See: Francesco Guerrera, Kara Scannell, 'Madoff clean-up fees set to top $1.3bn', *Financial Times*, February 18 2011, p. 13.
[79] See *supra*, p. 13, footnote 23.

Daniel Mügge, I'm also from this University.[80] I am very thankful that you switched to the slide that was about conversion of debt to equity. Your point was about cleansing the core nodes of the financial system of debt. You suggested that if we have fixed *ex ante* rules about the terms under which that conversion would happen, you would not have the problem of unkeepable promises, if I may modify your words. You would know that you might loose part of the principal, even before the debtor defaults. So my question to you is: to which degree do you feel that having clear *ex ante* debt-to-equity-conversion rules for the whole gamut of debt would work? Much like you have in a CDO with different tranches, in which the senior trancheholders expect that under good conditions they can get 4 per cent out of it, and if things go sour, they are the last ones to have some equity. Would that be a solution you could live with, and if not, why not?

Adrienne: We will collect a few more questions.

Maarten Pieter: At some point, Dutch politicians suggested to outlaw bank runs.[81] It was laughed away. But maybe we could do something similar to what is done in the solvency rules; we don't allow people to steal computers from a bankrupt company. Maybe we should not allow account holders to take money out of a cripple bank either.

Mike Anderson: Is it not a question of life that, no matter what you do, the next problem appears? We had racial judgement, the next was homosexuality. **Adrienne**: Is this a pessimistic point of view? **Mike**: Realistic

René Smits, University of Amsterdam.[82] Thank you for allowing me the last question. I have one or two comments. First of all, I'm fully in agreement with Edgar about the need for Europeanisation of payment systems. If not, there will be another failure. But I would like to add two things: all the supervisory mechanisms we can invent will not help, if we do not implement some sort of limited purpose banking, or narrow banking along the lines John Kay has set out,[83] or those that perhaps will come out of the British commission on banking (Vickers) in the fall of this year.

The other thing is that perhaps the whole current system setup permits the financial industry to work with a myriad of legal entities that actually obscure who is doing what within a financial concern. What is necessary is more vigourous enforcement to prevent a

[80] Daniel Mügge is assistant professor in International Relations and International Political Economy at the political science department (UvA).
[81] Following the advice of the 'commissie Scheltema' (see *supra*, footnote 74), the Minister of Finance, Jan Kees De Jager (CDA), and the Minister of Safety and Justice, Ivo Opstelten (VVD), announced that they would prepare a legislative proposal. See: *NOS.nl*, December 23, 2010: 'Kabinet: oproep tot "bankrun" strafbaar stellen'. The reason for the commission's suggestion is the failure of DSB bank where depositors, responding to a call from Pieter Lakeman, withdrew € 600 million in eleven days. See also the *Kamerbrief*: http://www.rijksoverheid.nl/documenten-en-publicaties/brieven/2010/12/22/brief-tk-aanbeveling-commissie-dsb-bank-inzake-het-oproepen-tot-een-bank-run.html
[82] Jean Monnet Professor of the Law of the Economic and Monetary Union.
[83] See: John Kay, 'Narrow Banking. The Reform of Banking Regulation', September 15, 2009. Url: http://www.johnkay.com/2009/09/15/narrow-banking . For a reaction, see: Martin Wolf, 'Why narrow banking alone is not the finance solution', *FT.com*, September 29, 2009. Also by Martin Wolf, 'Why cautious reform is the risky option', *FT.com*, April 27, 2010.

recurrence of these Lehman kind of hazes, in which you really do not know who is owing what, posing this systemic risk supervisors are fearful of. Thank you very much.

Carmine: Nice that different countries are debating to have limited purpose banking. If countries can compete, it can bring pressure on reform.

Adrienne: Edgar will first answer, and then, as he is our guest, Laurence will have the last word.

Edgar: As to the question of life: we try for the best. You are right in theory, but not right in practice: we can all discuss our problems under a tree until we die. As to Maarten Pieter's remark about bank runs, you can pull the plug out of internet. Whether at DSB they did it or not is a point of discussion. Or you could pay people extra if they keep their money in the bank. Create an incentive.

I would actually like to hold a vote: how many people believe that the reform under way will seriously alter the risks and the consequences thereof, and solve our problems? [No hands are raised] We will not make a picture and send it to your employers. How many would opt for LPB? [A few hands go up] And how many of you don't know what to do with your money?

Final observations: if you want watertight compartments, why not make the whole financial system so in the first place? And install Titanic watertight bulk heads, based on transparency.

Laurence: I appreciate your invitation, and I really enjoyed this conference. As to the leverage and risk in our current system, I think you cannot be little bit pregnant. Reform proposals are heading towards limited purpose banking, but they are not getting there. With a 10% capital requirement, all you need is a 10% decline in asset values for all banks to be insolvent. This can happen. And enforcing higher capital requirements requires a complex edifice of regulation. As soon as some leveraging is allowed in the system, the possibility arises that the intermediation – our financial plumbing --starts breaking down. There is nothing in economic theory that says that financial intermediation must be or should be leveraged. Nor is there any magical extension of credit arising from fractional reserve banking and money multipliers that exceed one. Credit extension ultimately depends on the supplies and demands for funds by households and firms, not on how the funds are moved from suppliers to demanders.

Milton Friedman has pointed out that the cause of the Great Depression was the contraction of the base money supply (M1).[84] The Fed did not react. In this latest episode, we saw something similar. Had the Fed not responded so vigourously, there would have been a contraction. So, as Friedman stressed, having a money multiplier that's endogenous to the state of the economy holds significant risks. Under LPB, the money multiplier is always 1. And if it's above 1 when LPB is introduced, its reduction can

[84] See: *Jimmy Stewart is Dead*, p. 135.

easily be offset, in terms of maintaining the size of the money supply, via the government increasing the monetary base, on a one-time basis.

I would like to end on this note: the current financial system, to quote Bank of England Governor Mervyn King, is the worst possible. It holds enormous risks to society. Thanks to this system, governments have made massive explicit and implicit guarantees to guarantee financial sector liabilities. The public believes these guarantees are real, not nominal. But governments don't print goods and services. They print money and if push comes to shove, they will be forced to print enormous quantities of money to cover what amounts to fraudulent promises they should never have made. The result, of course, would be hyperinflation with all the attendant economic damage it would entail.

This is man-made tail risk. It's remote, but given what we've just witnessed and seen over the centuries, it's significant. This crisis began with the sale of snake oil – securities that were toxic because they were said to be X, when they were in fact Y. When governments say they can do A and can only do B, this too is conveyance of a fraudulent product or financial claim. Limited purpose banking moves us away, and for good, from the financial abyss to which we remain perilously close.

Arnoud: The most important thing of a workshop is that it ends on time. Are there going to be drinks? Yes? Then it is even more important to stop in time. I have a few observations. This was a law and economics workshop. All the important issues that hit society recently are located on the interface of law and economics, whether it is public policy (financial regulation), corporate governance, government *versus* market questions ('marktwerking', in Dutch), or bankruptcy law. This covers quite a big piece of the most pressing issues in modern societies.

We have been rethinking today the basic institutions, the basic structures, within the financial sector. In our university environment, this collaboration between economists and legal researchers is long overdue. I really enjoyed this workshop, with both perspectives present.

Obviously I knew that by bringing in Maarten Pieter, I would bring in movies and that movies would move things. Look at the movies about antitrust, in which the FBI are filming people. In his inaugural address, Maarten Pieter showed us a meeting of the Dutch competition authority (NMa).[85] The chief economist thought it was real, that his people were caught on tape, discussing all kinds of issues they were not supposed to discuss in the open, and that definitely should not have been broadcasted. This brings law and economics close to the people.

[85] Maarten Pieter Schinkel, 'Market Oversight Games', October 15, 2010, ACLE Working Paper No. 2010-11. Url: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1692733 The paper contains a transcript of this staged meeting, as well as of the disclaimer.

We have been talking about regulators, and the banking sector. I was caught by Laurence's remark about being old. Adrienne was saying something else: that he has experience and a distinghished career. But being old, I feel that as well. I was at Chicago Northwestern University when there was much discussion of the US savings & loan crisis, Sweden's crisis, and the Barings disaster (February 1995).[86] In the 1990s, I wrote that proprietary trading, and all these various financial activities, should be put in fully capitalised subsidiaries. Wim Duisenberg, later head of the European Central Bank but at that time still president of the Dutch central bank (DNB), had to respond to my presentation, in Tokyo. 'It would be inefficient for banks if they had to do what you have suggested', was his answer. This tells you a lot, not to be negative on Duisenberg, but to indicate how very difficult it is to discuss structural changes in banking. Duisenberg commented further: 'You make it very difficult for banks to be efficient. If banks are at risk with a variety of activities, they are safer'. What he said was that it is better to have this variety within one bank, in one pile of capital, than segmenting these activities in different parts in order to make banks safer. Efficiency, was his argument, hence no subsidiaries, and no insulation.

What is positive today is that regulators think more about the possibility of limiting the banks' activities. But the Dodd-Frank Act, the Volcker-rule for instance, is difficult to implement because basically regulators need the industry to go along. Banking is a specialised business. The sector has the knowledge. In that type of environment, nothing can get implemented unless we precisely know what we want. And that we do not. That's where we are today. So we need another crisis, I agree with Edgar. One more crisis.

Laurence, it was great you were here. Remember my remark yesterday in the Academische Club: we did not have a blueprint when the crisis hit. Like with Sarbanes-Oxley. All sorts of research on narrow banking stopped in 1995. Why? Because the market did not appreciate the research.[87] And the regulators told us: 10.000 bankers could not be wrong.[88] They were wrong.

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[86] On Nick Leeson and Barings: 'Barings' obvious organization design error was a failure to separate trading from settlement, but there were other mistakes that were equally important. Leeson was not closely supervised, and it appears that none of his local managers audited his trading activities, or attempted to understand the source of his success. In addition, nowhere up the line within Barings, or with its outside auditor, did Leeson's extraordinary success set off alarm bells, although internal audit reports condemned the financial control risks of his dual responsibilities'. See: Marc Gerstein, 'Flirting with Disaster'.
Url: http://flirtingwithdisaster.net/the-collapse-of-barings_284.html

[87] This sentiment is clearly expressed in the US Senate Report (Committee on Banking, Housing, and Urban Affairs, April 28, 1999) on the Financial Services Modernization Act of 1999, also known as the Gramm-Leach-Bliley Act. This law scrapped the separation of investment and commercial banking, enacted by the Glass-Steagall Act of 1933. See for instance the testimony of Hjalma Johnson, CEO of East Coast Bank Corp, quoted at p. 5: 'The virtually unanimous agreement among financial service providers that the time has come to modernize our financial structure is perhaps the most obvious evidence of the need to reform'.
Federal Reserve Board Chairman Alan Greenspan is quoted as follows: 'Unless soon repealed, the archaic statutory barriers to efficiency could undermine the competitiveness of our financial institutions, their ability to innovate and to provide the best and broadest possible services to US consumers, and ultimately, the global dominance of American finance'.

[88] This is reminiscent of a comment purportedly made in 1998 by Laurence Summers, Deputy Treasury Secretary in the Clinton administration, to Brooksley Born, then Chair of the Commodity Futures Trading

Adrienne: This reminds me of yet another movie: 'Back to the future'.[89] I would like to thank the organisers of this workshop, Carmine and Marleen. And now drinks and snacks are waiting for us in the foyer.

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Commission (CFTC) and about to publish a 'concept release' with questions about possibly strenghtening derivatives regulation: 'I have thirteen bankers in my office and they say if you go forward with this you will cause the worst financial crisis since World War II'. What happened in short was that Congress, at the request of Fed chairman Alan Greenspan, Treasury Secretary Robert Rubin, and Arthur Levitt, then Chairman of the Securities and Exchange Commission (SEC), stripped the CFTC of its powers to regulate derivatives. Levitt came to regret his part in this action later on. Compare recent statements by Brooksley Born: http://www.pbs.org/wgbh/pages/frontline/warning/interviews/born.html and Mark A Calabria, 'Did Deregulation Cause the Financial Crisis? , *Cato Policy Report*, July/August 2009. The quote from Summers was used by Simon Johnson and James Kwak in the title of their book: *13 Bankers. The Wall Street Takeover and the Next Financial Meltdown.* Pantheon Books, New York/Toronto 2010.

[89] A science fiction trilogy directed by Robert Zemeckis, 1985.