Accounting Antecedents of the Financial Crisis[1]

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Thank you, Luca, Yuri and Jerome. I apologize for speaking to you through video connection from long distance and I appreciate your willingness to accommodate me. In these few minutes, I'd like to talk about some accounting antecedents of the financial crisis.

First, the previous major financial crisis in the United States and in a large part of the rest of the world in the 1930s gave rise to new laws, regulations and attempts to fix financial reporting. Since then we have seen continual growth of written standards of financial reporting. Compared to the pre-1930 era, in which, at least in the United States, financial reporting was based on what was called the "generally accepted accounting principle" (GAAP), practice of accounting has become increasingly dependent on written rules.

The GAAP was a social-norms concept, which meant that with few written standards, accountants and managers used their professional judgment to decide on treatment of transactions and to prepare financial reports. That applied not only to the banks and financial services industry, but also to the other industries. That has changed gradually since 1930s and by now, 75 years later, we have come to depend significantly on standards written by national authorities in various part of the world. In the last decade, in many countries of the world, especially in Europe, this has meant reliance on standard written by the International Accounting Standards Board (IASB). I shall argue that this growth and dependence on written standards of financial reporting is an important element of our recent and current problems.

Second, written standards make financial reporting susceptible to mathematical financial engineering. Developed over the last 30-40 years, financial engineering has created a situation which enables experts to design new transactions, new securities and even new kinds of organizational forms to defeat the purpose of financial reporting standards and regulations. Teachers of accounting, who try to get the students to learn how to prepare good financial reports, cohabit in business schools with our colleagues who teach them techniques of financial engineering to avoid the consequences of financial reporting standards. Financial engineering techniques are directed to finding ways of not showing liabilities on balance sheets, making income statements look better. Some of these methods have acquired familiar labels such as off-balance-sheet financing.

What is off-balance-sheet financing? It is to take off from the balance sheet things that should have been there as liabilities. With such goals, financial engineering stands in direct conflict to financial reporting. I mention it here because, as the accountants increase their dependence on written financial standards, they unwittingly make it easier for financial engineers to evade the intent, and reduce the effectiveness of financial reporting standards.

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When we dispense with social norms, or reduce the scope of professional judgment, or create an environment in which exercise of proper professional judgment becomes less likely, we become more susceptible to financial engineering. I shall argue that a major aspect of the financial crisis had to do with this interplay of financial reporting and financial engineering.

I should point out that it takes many months, even years in some cases, for the bodies writing standards of financial reporting to write a new rules. Yet it probably takes mere hours or minutes for engineers to devise a way around them. This means that written financial reporting standards are almost guaranteed to lose in their battle against financial engineering. And the more financial reporting depends on written standards, the more prone it becomes.

Third, traditionally, and in most walks of our lives, when asked: "What do you understand by risk?" The common sense meaning of risk in most domains of our lives is the possibility of harm, injury or loss. That is true in medicine, sports, engineering, insurance, credit, or regulation. When a creditor mentions risk, it is the risk of default or the chances that the debtor will not pay the creditor. In sports, it is the risk of injury. In insurance, it is the risk of an accident or fire, for which the insurance company may have to pay a claim from the policyholder.

In 1952, Harry Markowitz suggested a new definition of risk based on the dispersion of outcomes. Under this definition, the further apart the various outcomes of an uncertain process are, the more risky the process is supposed to be. Markowitz himself had doubts about whether it is a better concept of risk. But his variance concept of risk has been widely adopted in the equity part of financial literature and in certain branches of economics, in spite of the fact that in insurance and credit markets it's the tail risk--the risk of loss--that matters. This displacement of risk-as-harm to risk-as-dispersion-of-outcomes has had consequences.

One of the consequences is that accountants abandoned prudence. Prudence was the protection against tail risks—the risk of loss, injury or harm. The way the prudence criterion in accounting tried to protect against tail risks was to tell the accountants and managers of corporations not to overstate their revenue, income or assets. When uncertain, they were supposed to err on the side of understating their revenue, income and assets, and overstating their liabilities. The prudence criterion was applied to try to control the exposure to risk of those who relied on financial reports. This is the well-known principle of conservatism in financial reporting.

Equity part of the finance literature switched to the dispersion measure of risk leaving little room for prudence to fit in because prudence meant a downward bias. So logically, prudence went out of the window. Indeed, following the recommendations of the Financial Accounting Standards Board and the International Accounting Standards Boards, accountants dispensed with prudence and conservatism as the criteria to be applied in financial reporting, and claimed to have rendered the financial reports unbiased. Over the recent 15-20 years, this approach has remained largely unchallenged.

Once they abandoned the prudence criterion, accountants joined the bankers to worship at the altar of liquidity. Liquidity became the new god, and market value became the criterion by which accountants were to prepare the financial reports. This was achieved through an old rhetorical trick. With market values relabeled as "fair values", any criticism of market value

accounting was made to appear an argument for *unfair* value accounting! The rhetorical trick worked, and had its consequences.

One of the consequences of accountants using market values—pro-cyclicity—has already been mentioned in the morning session, and need not be repeated. Second, it shifted the focus of accounting from being *for* the markets to *from* the markets. I always thought that accoutning was, is, and should be, *for* markets. It should be a source of data and information on which investors and markets can rely to form market prices. So accounting has to be a determinant of market prices. The market value accounting amounted to accounting *from* markets not *for* markets. We know markets hardly need accountants to tell them what the market prices are. You don't have to wait for the annual report of a bank in March next year to find out the market values; they are available easily on computers at any time, often second by second. Accountants gave up their prudence-based historical cost system in favor of market value accounting. This happened under considerable pressure from the financial services industry, because, in a rising market, bank executives found it attractive to be able to report income on the basis of market values and be compensated accordingly.

A large number of derivative securities are actually offsprings of written accounting standards. As I mentioned earlier, they are financial engineering products, which are designed to bypass accounting standards. Take lease accounting as an example. Accounting standard setters have struggled with lease accounting for more than forty years. They hardly finish writing any rule for capitalization of leases before financial engineers design new kinds of leases to effectively bypass that rule.

Liquidity of the markets in which these securities are traded, are at least in part controlled by the issuers of the securities. The amount of money that the issuers/market-makers of derivative securities earn depends on the market being sufficiently illiquid, but not too illiquid. Profit is the product of the bid-ask spread in the market for derivatives times the volume of trading. If the volume of trading becomes very large and the bid-ask spread very narrow, the product of the two is small. Also, if the bid-ask spread is large and the volume is small, their product is small. They maximize their profits at an intermediate level of bid-ask spread and volume. When the market becomes too liquid, they issue new derivative securities–CDS, followed by CDS-1, CD-2, and CDS-3, etc--to control the liquidity and maximize their profits.

To summarize, we have talked briefly about four issues. First, the increasing dependence of financial reporting on written rules, moving away from social norms and professional judgment. Second, is the intensive gaming between written financial reporting rules and financial engineering which the former is guaranteed to lose through creation of new transactions and derivative securities by the latter. Third, the consequences of the dispersion concept of risk displacing loss concept for accounting in the form of rejection of conservatism in favor of "unbiased" market values under the guise of "fair value" accounting. Fourth is the endogeneity of liquidity of derivative markets (which are engineered financial products), because it is managed to maximize the profits from issuance and making markets for these securities.

It is interesting to note that little has been done to date by way of reforms to address any of these four issues. To the extent the recent crisis involved these four elements, we have done little to prevent their continuation or reoccurrence in the future. I believe we need to do some re-

thinking about our financial reporting system. I think we could allow more room for professional judgment and social norms to reduce our dependence on written standards. We also need to specify strict limits on what the banks with access to the public money are allowed to do.

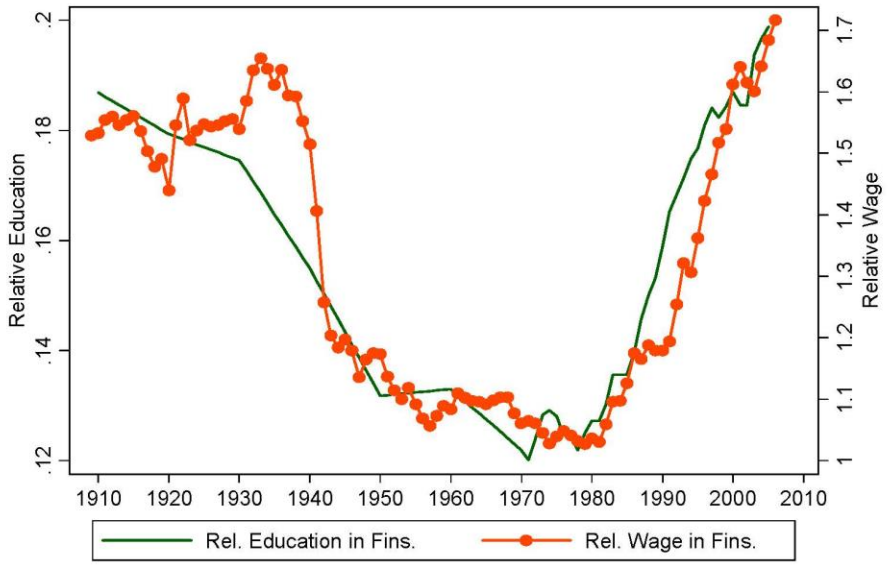
Good accounting and good finance, like good plumbing and electrical wiring, are boring and low-paid businesses. When they are functioning well, we rarely think about them, taking them for granted. Banking and accounting should not be exciting like fire-fighting or skiing. When they becomes exciting and highly paid, we get into trouble.

I will end by showing a chart from a paper by Philippon and Reshef (2009, Figure 1). This is a figure about the relative wage and education in financial services industry over the last hundred years. You see what happened to the wages and education in the financial industry. Look at 1910, 1920, 1930. Wages rose and a lot of talented people came into the business. There was a huge market crash, a new system was put in place, new regulations was put in place, including Glass-Steagall Act in the U.S. And for the next 40 years banking became a low-paid, boring business. You see the trough from about 1940 to about 1980. Then the financial industry was deregulated, wages started rising, and as wages rose the financial industry attracted more and more talented and educated people. And this chart goes up to about 2007-08. I don't need to tell you what happened. There have been two times when wages and financial industry talents were high. We had a crash and seriousmalfunctioning of the financial system. When wages are low, not very smart people go into the industry and things functioned much better.

References

Philippon, Thomas, and Ariell Reshef, 2009. "Wages and Human Capital in the U.S. Financial Industry," NBER Working Paper 14644.

Figure 1: Relative Wage and Education in the Financial Industry



Notes: Fins. includes finance and insurance. Our concept of education is the share of employees with (strictly) more than high school education. Education (1910-2005) is computed from U.S. Census data, and from the Current Population Survey. Relative education is the difference in educated shares between Finance (Fins.) and the Non Farm Private sector. Wages (1909-2006) are computed from the Industry Accounts of the U.S., Kuznets (1941) and Martin (1939). The relative wage is the ratio of wages in Finanace (Fins.) to Non Farm Private wages.