

Mario Draghi: Text of the video message given at the award ceremony for the second Luca Pacioli Award

Speech (via video) by Mr Mario Draghi, President of the European Central Bank, at the Ca' Foscari University of Venice, at the award ceremony for the second Luca Pacioli Award, 13 October 2012.

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It is a great honour for me to receive this award today from the university where, at the end of the 1970s, I had my first professional experience as a professor.

It is an honour, above all, because of the grounds on which the award is given: innovation, versatility, an interdisciplinary approach, the integration of research and policy. All of these qualities are necessary if we are to find adequate responses to the current challenges posed by the rapid social and economic transformation undergone in the last few decades.

It is with regret that I cannot be there with you today but international obligations keep me far from Venice, a city of which I have many memories and that I regard with much affection.

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*“Double-entry bookkeeping ... is one of the finest inventions of the human mind and every prudent master of a house should introduce it into his economy”,¹ to quote one of Goethe’s characters in *Wilhelm Meister’s Theatrical Calling*.*

Luca Pacioli, whose name the award bears, was an extraordinary man of science, but also took a keen interest in philosophy and art, a typical representative of our Renaissance. The invention of double-entry bookkeeping is generally attributed to him, although historians agree that he never laid claim to it himself. At the very least, Pacioli defended the value of this practice, probably in use for centuries, right here in this city which welcomed him in 1464 shortly before he turned 20, and which published his key works, including “*De computis et scripturis*”, which was consistently used by researchers of accountancy as a reference work for more than 500 years.

Pacioli could see the potential of double-entry bookkeeping as an instrument for scientific and economic progress in a fundamental profession such as that of a merchant in Venice in the 15th and 16th centuries. On this point, I would like to quote a brief passage from “*De computis et scripturis*”, which forms part of his well-known book “*Summa de arithmetica, geometria, proportioni et porporzionalità*” (Review of arithmetic, geometry, ratio and proportion): “*My method is nothing but an appropriate way of bringing order to the merchant’s fantasy, allowing him to gain an overview of all his affairs and to see easily whether they are in good shape or bad.*”

It seems to me that these few words underscore the crucial role of knowledge and method in business administration and management. This was an attitude that became standard in the course of the following centuries but which must have been revolutionary at that time, a time characterised by a strong spirit of innovation. And what was certainly new and extremely modern was the approach we know today as “quantitative” in matters such as trade, which had until then remained far removed from any scientific concept. The sections that make up his “*Summa*” are evidence of this: arithmetic and algebra, their use in trade, bookkeeping, currency and exchange, pure and applied geometry.

¹ J. W. Goethe, *Wilhelm Meisters theatralische Sendung*, Book 2, Chapter 8.

In his biography of Pacioli, Emmett Taylor sums up his work with these words:

“Pacioli’s great contribution to civilization consisted of digging up old material on mathematics and putting it in shape for the use of modern students. He was the first in modern times to make a science out of mathematics. He accumulated the accepted knowledge on the subject and systematized and formulated it with reference to the discovery of general truths and the operation of general laws.”²

His teachings are still valid today, in more ways than one. It is now generally agreed by economists that the key flaw in macroeconomic models prior to the crisis was the omission of the balance sheets of various players in the economy – banks, households, businesses. The models were built on flows, with little or no attention paid to stocks. But it was precisely from stocks that the irregularities and hence the crisis arose. Non linearities arise on a balance sheet when capital falls to zero and the agent goes into default.

But I think Luca Pacioli was also one of the first figures in history to strive to create common standards for use in complex trade operations, requiring various parties to work together and the sharing of a common language, to the full advantage of economic development and therefore of the common good.

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Fast-forwarding several centuries to today, the consensus seems to be that if the crisis that began in 2007 has taught us anything, it is that there was an extraordinary lack of common rules at the global level, in particular in the field of financial stability. In this regard, a concrete outcome has been the collective acknowledgement that the financial markets need rules. And that as a result of the ever increasing globalisation of markets, national practices need to be set aside to make way for new and, to the extent possible, common rules.

Major steps have been taken in recent years to strengthen the financial system, both at the European and the global level, in the interests of and in order to protect savers and investors. Both the G20 and the Financial Stability Board have taken on greater importance and have proven to constitute – together with the International Monetary Fund – a useful mechanism for brokering agreement on the launching of an agenda for necessary reforms.

Allow me to mention, in particular, the work carried out by the Financial Stability Board – the organisation over which I had the honour of presiding between 2006 and 2011 – on the regulation of the financial markets. The Board has put forward proposals on how to reinforce banks’ capital without putting their fundamental role in the real economy at risk; on how to reduce the risk of moral hazard for systemically important financial institutions (those that are “too big to fail”); on how to increase transparency in financial markets (in particular in derivatives). Even matters relating to accounting standards have not been overlooked: significant efforts have been made to increase the comparability of methods and concepts at the international level.

Also with regard to Europe, significant progress has been made but much still remains to be done, particularly in relation to devising a new institutional structure for the euro area aimed at creating the necessary conditions for long-lasting prosperity for all countries in the area.

It is clear, however, that we must move towards greater economic integration among the countries which share the euro. No union can be based on the assumption that a country can cause “externalities” and economic damage to other member countries by pursuing its own national economic policy priorities.

Within the European Monetary Union, progress needs to be made in three areas: budgetary policy, structural reforms and financial market regulation. With regard to budgetary policies

² R. Emmett Taylor, *No royal road: Luca Pacioli and his times*, The University of North Carolina press, 1942.

and those aimed at strengthening the flexibility and productivity of the weakest economies, it is vital that there be real multilateral surveillance. The necessary solidarity between economies and countries which share the same monetary unit cannot be disassociated from a deep-rooted sense of joint responsibility. Economic policy decisions have in large part become collective decisions.

With regard to financial markets, centralised authorities must be created in order to limit the excessive risks undertaken on the part of banks and increase the efficiency of common rules. Furthermore, a legal framework for managing and resolving banking crises, which safeguards public finances, needs to be put in place, as is happening in other countries.

In this way, the European Commission's recent proposal for a European Council Regulation which establishes a single banking supervision mechanism for the euro area – in which the ECB will play an important role – is a bold and necessary step towards creating a single financial market which ensures financial stability in the euro area and the European Union

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I would now like to return to the issue of economic structural reform.

When devising new rules for public finances and financial stability, it must not be forgotten that such matters are closely tied to issues of competitiveness and employment. The issue of financial stability in particular cannot be separated from that of competitiveness and of economic development.

As economic theory teaches us, growth is the result of labour and capital dynamics and of their productivity. It is vital to promote innovation, particularly in the European economies in which an ageing population is tending to reduce the size of the working population. An economy's ability to be innovative depends in large part on its human capital. In this sense, improving human capital through high quality education is crucial in increasing productivity and, in this way, creating the necessary conditions for robust and sustainable economic development.

With the rapid advances in technology in recent years and the growing importance of emerging economies in international markets, human capital has played an increasingly important role in guiding the transformation of the productive structure found in advanced countries which, although to varying degrees, have increased their specialisation in activities requiring higher levels of knowledge.

Education improves the quality of the labour force, increasing the efficiency of a fundamental factor in production processes. Moreover, having highly-trained human capital facilitates the assimilation of technological progress and innovative technology, increasing the overall productivity of the economic system.

It is then clear that it is vital for our economies that we exploit the skills and capabilities of our students in order to improve competitiveness and vigour of the firms which offer these students work, or which the students themselves will go on to set up.

Innovation and human capital are all the more important the closer a country is to the technological frontier, and, in order to grow, a country has to know how to innovate. In the 1950s and 1960s, growth meant learning how to use and replicate well-known technology. This is no longer enough. We have to innovate and to do this we need two things: education and competition.

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Allow me to conclude these few brief remarks by reiterating my gratitude for having selected me for this award. I would like to wish the Rector, Professor Carlo Carraro, lecturers and the students at this university a year filled with success; my warmest wishes and all the very best.