



## Speech for the Investiture Ceremony as Doctor Honoris Causa of Dr. Robert F. Engle and Dr. Eduardo Schwartz

Prof. Dr. P. Enrique Sanz Gimenez-Rico, SJ.
Rector

Investiture Ceremony as Doctor Honoris Causa May 8, 2024



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HONORARY DOCTORS PROF. ROBERT ENGLE AND PROF. EDUARDO SCHWARTZ,
MARIANNE ENGLE,
GLORIA SCHWARTZ AND FAMILY,
EXCELLENCIES,
PROFESSORS AND MEMBERS OF THE UNIVERSITY STAFF,
RECTOR JULIO MARTÍNEZ,
STUDENTS,
ALUMNI,
DISTINGUISHED GUESTS,
LADIES AND GENTLEMEN.

It is a great honor to stand here in front of you today, especially in front of you both, Robert Engle and Eduardo Schwartz, new members of the academic community of Comillas. As Professor Teresa Corzo and Professor Isabel Figuerola already mentioned, it is a tremendous honor for all the members of Comillas, and especially for those of its Faculty of Economics and Business Administration, to bestow our Doctor Honoris Causa upon both of you. We all are very happy to celebrate this important event, and to celebrate your exceptional contributions in economics, finance and climate related risks, which have already inspired a good number of members of Comillas, both professors and students.

We all are very happy to state that Robert Engle and Eduardo Schwartz are already members of Comillas in 2024, a year in which our University is celebrating its 120<sup>th</sup> anniversary. On March 17<sup>th</sup> 1904 the Holy See approved the awarding of academic grades in our University. At that time the University was located in a small town of Spain called Comillas. At that time three faculties were the core of the University, those of theology, philosophy and canon law. Some decades later, in 1968, Comillas moved to Madrid,

where the Jesuits already ran two important academic centers, ICAI and ICADE, the current University School of engineering, and the current faculties of economics and law. The six of them and the San Juan de Dios University School of Nursing and Physical Therapy, which was integrated in Comillas some years later, are currently the seven main academic centers of our university.

Since the very beginning of Comillas the students are at the center of our University. In doing so Comillas was following the regulations of the educational system of the end of the XVIth century of the Society of Jesus called *Ratio Studiorum*. Educational system which was updated at the beginning of the 80s by an international group of Jesuits meeting in Rome. Let me read one of its main statements:

"The young men and women who are students in a Jesuit school have not reached full maturity; the educational process recognizes the developmental stages of intellectual, affective and spiritual growth and assists each student to mature gradually in all these areas. Thus, the curriculum is centered on the person rather than on the material to be covered. Each student is allowed to develop and to accomplish objectives at a pace suited to individual ability and the characteristics of his or her own personality".

The Ratio Studiorum was also updated by a former General of the Jesuits, Fr. Peter-Hans Kolvenbach, who led the Society of Jesus from 1983 till 2008. Fr. Kolvenbach gave many speeches on the Jesuit universities all over the world. In many of them it is stated and underlined that the students play a central role at the Jesuit universities. He stated at Georgetown that the goal of the Jesuit education is the intellectual development of the talents that God gave to every student and the total development of the person. Some years later he said at Santa Clara University, that "the real measure of Jesuit universities lies in who our students become. For 450 years, Jesuit education has sought to educate «the whole person» intellectually and professionally, psychologically,

morally and spiritually. But in the emerging global reality, with its great possibilities and deep contradictions, the whole person is different from the whole person of the Counter-Reformation, the Industrial Revolution, or the 20th century. Tomorrow's "whole person" cannot be whole without an educated awareness of society and culture with which to contribute socially, generously, in the real world. Tomorrow's whole person must have, in brief, a well-educated solidarity".

Going back to our University, which is already yours, Eduardo and Robert, we can attest that what we have said about our origins and the last decades is still present today. A few years ago, a good number of professors of Comillas prepared the skills profile of a professor from Comillas. One of its chapters is dedicated to the process of teaching and learning. In our University, this is focused on the students, so that they can acquire a deep, reflective, critical, experiential, and collaborative learning, which brings them a comprehensive training, and which allows them to promote changes and improvements in our world today.

If the students are at the center of one of the main activities at Comillas, human beings, societies, communities and cultures are at the core of the research that we do in our University. We are a University and we share research efforts, goals and aims with many other Universities all over the world. Comillas is then a research University. As such we try to search for knowledge and truth. Our research gives rigor to our teaching and academic soundness to our institution. It also produces papers and books which offer solutions to current problems. In addition, research allows us to attract and retain internal and external talent. Many of our researchers both senior and junior are very gifted. Some of them have also an international dimension due to their participation in international research activities and projects. Comillas is very interested in reinforcing all these characteristics of our research. Comillas is also interested in continuing its research on different topics and fields: quantitative and qualitative finances, migrants,

different forms of poverty, sustainability, energy, education, mental health, bioethics, gender, pollution, different family topics, theological, philosophical and canonical issues and so on. In doing so we are close to one of the main principles of the Jesuits, the promotion of justice in our Universities. As it is stated in an important Jesuit document published in 2014 entitled «The Promotion of Justice in the Universities of the Society», "University education is a privileged place for the long-term promotion of justice in all the aspects of its work: the *formative education* it offers to students has governing influence on who they will be in the future; the research it carries out helps to analyze the structural causes of injustice and proposes ways to make significant improvements in the lives of the disadvantaged, including means of public advocacy". Following these orientations our researchers, with their own care about our world and their own concern with justice, offer their knowledge, intelligence, imagination and work to the service of our Institutes, Chairs and research groups. In doing so Comillas can both open itself to what is still new and unknown from our world, and question scientifically principles and values which can be evident for some other people.

Let me finish these references to the researchers and research in Comillas mentioning our interest and effort to focus also on different aspects of climate change and environmental issues. The publication in 2015 of Pope Francis' Encyclical Letter Laudato Si' helped us to increase our interest and concern on those important topics which regard to God, its creation, humanity and especially to the most vulnerable people of the world. As Pope Francis states in his own appeal at the beginning of the Encyclica, "The urgent challenge to protect our common home includes a concern to bring the whole human family together to seek a sustainable and integral development, for we know that things can change. The Creator does not abandon us; he never forsakes his loving plan or repents of having created us. Humanity still has the ability to work together in building our common home. Here I want to recognize, encourage and thank all those striving in countless ways to guarantee the protection of

the home which we share. Particular appreciation is owed to those who tirelessly seek to resolve the tragic effects of environmental degradation on the lives of the world's poorest. Young people demand change. They wonder how anyone can claim to be building a better future without thinking of the environmental crisis and the sufferings of the excluded." Laudato Si' focuses on ecology, justice, solidarity; it focuses also, as we can read from LS 189 onwards, on how politics and economy in dialogue can contribute to human fulfilment.

Dear Eduardo and Robert, the mention of Pope Francis' Encyclica and of the important topics of climate change and environmental issues allows all of us to remember your expertise in those areas. Both of you have participated as keynote speakers in our Climate Finance Conference celebrated in Comillas yesterday and the day before. Eduardo and Robert, your speeches entitled «Water as a commodity in hydro power generation» and «CRISK, termination risk and green washing: Measuring Climate Risk Exposure in capital markets» were very much appreciated by the participants of the conference. In addition, you, Eduardo, have mentioned in your speech that in recent years you have dedicated part of your effort to study some financial aspects of climate change, sustainability and environmental and resource economics issues. Effort and studies made in collaboration with professors from Comillas. On your part, Robert, and as Professor Figuerola mentioned in her Laudatio, you are conducting the work of forming portfolios that synthetically hedge climate risk exposure. In addition, you have already shared with our students and with our professors in different seminars your concern on the difficulty to measure climate change, its consequences and their economic costs, as well as on the negative emission policies. You have also shared with us your understanding of Integrated Assessment Models which evaluate the economic consequences of the climate change.

Dear Robert and Eduardo, your expertise in climate change and environmental issues is one of the reasons for the bestowal of the University highest recognition "Doctor honoris causa". Perhaps it is a very important one, but not the main one. Let me though underline the two fundamental reasons why you receive this special award today.

I have been talking in my speech about two important characteristics of Comillas, its research and the centrality of the students in our learning process and the role of our teachers and professors. Both of you are outstanding researchers and teachers. Let me mention, dear researcher Robert, your development of groundbreaking econometric methods that have transformed empirical analysis in Economics and Finance. Let me also mention the high value of the ARCH model, invented in 1979, that you developed for statistical modeling of time-varying volatility, and which allowed you to demonstrate that these techniques capture accurately the properties of many time series analysis. And let me finally make reference to the award of the Nobel Prize in Economics for your studies on volatility. While being with us in Comillas one year ago you stated that "in the markets, volatility was higher during the financial crisis. Also in the late 1990s, with the collapse of the technology sector [the dot-com crisis]. And, even further back, the Great Depression was an extremely volatile period for stocks. There are always periods of high and low volatility, and what really drives volatility is how fast people's expectations are changing: what they read in the news and how that affects their views of the markets".

On your part, dear researcher Eduardo, we can remember again the beginning of your extraordinary academic career with so many excellent papers. In your own words "My work since has been rooted in mathematical modeling and an interest in stochastic modeling and uncertainty". We can also remember that you count yourself among the group of researchers who gave the initial push to what is now called *real options theory*, which is now attracting great attention from researchers belonging even to fields not directly in finance. We can finally remember your revolutionary contribution "Valuing American options by simulation: a simple least- squares approach", and the big amount of papers and book chapters in the main journals and publishing companies all over the world.

Let's move to the second important characteristic of Comillas already mentioned, the centrality of the students in our learning process and the role of our professors and teachers. If we look back at your careers, we can state that both of you are extraordinary professors, experts and masters of a good number of students. Professor Figuerola said about you, master Robert, that you have established an extraordinary legacy, marked by the creation of pioneering analytical tools, as well as your co-authorship and mentorship of numerous PhD students. Your significant influence has greatly enriched their professional and personal lives. You have also imparted your ideas and insights, and you have nurtured a generation of leading economists across the globe. How about yourself, master Eduardo? As Professor Corzo stated, Eduardo is an enthusiast and passionate professor. He has always been extremely generous in receiving young teachers and researchers becoming for all of them their best mentor. He is excellent at putting always the right questions. He is excellent too at giving the thorough and careful feedback to his students. In your own words, Eduardo, taken from your web from UCLA University, "I see my job, mainly, as teaching students how to think. The specific material, they'll forget. But if they learn to think they will learn to solve the problems they'll face later in their careers".

Dear Eduardo and Roberto, it is a tremendous honor for all the members of Comillas to bestow our Doctor Honoris Causa upon both of you. From now onwards you are full members of our academic community. Your gifts and talents for many academic activities have accompanied many of us during the last years. Your scientific excellence, especially in both teaching and research, has inspired a good number of professors and researchers from Comillas, and especially those of its Faculty of Economics and Business Administration. We are very happy today because our University, which is mainly a teaching and research University, is enriched and fortified with your skills and expertise in teaching and research. You make Comillas a better and more international University. This is really a great news for all of us. Thank you very much for that. At the same time, we count on both of you to help us to develop the new missions that our University has started to carry out in the last years, which in the interest of time I shall only list: the transfer of scientific and technological knowledge to the productive fabric, the lifelong learning, the social leadership, the entrepreneurial spirit. Thank you very much in advance for all the help that we will receive from you in the future in all those different fields.

I am about to finish my speech. A week ago Robert, Eduardo, their families and some members of our academic community paid a visit to the Galería de las Colecciones Reales, The Royal Collections Gallery. That day we all were invited to take an extraordinary journey through five centuries of art and culture in a remarkable building. This gallery is an open window onto all the royal sites managed by Patrimonio Nacional (El Escorial, Aranjuez, La Granja, Yuste, Descalzas Reales and many more), but it also shows our efforts to research, restore, preserve and promote Spain's heritage. On Level -1, dedicated to the

Habsburgs, the itinerary starts with the last of the Trastámara dynasty, showing how the Catholic Monarchs began the custom of royal collecting. One of the most memorable Habsburg reigns was undoubtedly that of Philip II, a great patron of the arts who launched many ambitious projects, including the iconic site of El Escorial. This floor also offers a rare glimpse of Madrid's origins: the remnants of the ninth century city wall. Level -2, dedicated to the Bourbons, explores themes such as music, royal factories and workshops, or the construction of the royal palaces of Madrid and La Granja. The end of the itinerary explains Patrimonio Nacional's role as custodian of this vast cultural legacy.

Comillas' history is not as long as Spanish's history under the Habsburgs and the Bourbons. In fact, and as I mentioned before, we were born 120 years ago in the small town of Comillas, in the North of Spain. Comillas though has a vast academic and university legacy. As well as Patrimonio Nacional plays an important role as custodian of the vast cultural legacy of the Habsburgs and the Bourbons, Comillas needs members of its academic community to become custodians of that legacy, to become its own "Patrimonio Nacional". Dear Robert, dear Eduardo, let me invite you to become members of the "Patrimonio Nacional" of Comillas. As new and full members of the Universidad Pontificia Comillas let me invite you to help us guard our academic and university legacy for many more decades. Be your wisdom and your inspiration the best companionship to all the members of our university, students, professors, staff and Alumni, in order to achieve that particular goal.

Thank you very much!

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