

**Barcelona School of Economics Graduation Ceremony 2025**  
**Graduation speech**

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## I. Opening

- A warm welcome to everyone here today for the 2025 BSE Graduation — students, families, friends, professors, and BSE staff.
- I would like to begin by congratulating you all on your hard work and achievements during this testing year. Well done.
- I feel privileged to be with you on this special day to celebrate your graduation.
- Thank you president Paulina Beato and director Teresa Garcia-Milà for inviting me.
- I must confess, I am an inexperienced graduation speaker. The last time I graduated was 40 years ago — and back then, there was no speech I can remember, just a polite bow to a British royal; and I have never given a graduation speech before.
- But this makes it all the more exciting.

## BSE

- BSE is a leading academic institution renowned for its unique reputation in economics.
- My first contact with BSE was an email from Andreu Mas-Colell 19 years ago. Andreu said: "I am writing to complicate your life (two meetings a year). Sorry."
- I am proud to have served 17 years as a founding trustee of the BSE Board.
- BSE has been an *innovative* step forward in postgraduate training for professional economists worldwide.
- Its governance model, its intertwined professional and academic master's programs, and its reliance on the academic excellence of the UAB and UPF campuses.
- A vision that has had a transformative impact on European postgraduate economic education, and strengthened the universities and research centers involved.

## **A year to remember**

- This must have been a tough year for all of you. Dealing with a master's program as demanding as BSE's is always tough. But "tough" is not the only word.
- "Excitement" is the other; the excitement of sharing the intensity of the program with your classmates and the life experience that goes with it.
- Comrades from around the world giving and receiving, and the lasting friendships that emerge.
- For many of you, there has also been the excitement of being in a new city and country –and not just any city; Barcelona is as exciting as any city in the world can be.
- I arrived in Barcelona when I was 6, I grew up here, and every time I return, including today, I always feel the same excitement.

## II. Words of advice

It is customary in a speech like this to offer some advice. Let me share three points.

### **On your training**

#### *Combine two modes of thinking*

- You have been trained in economics, econometrics, and data science to start your career. You have learned the tools and have learned to learn.
- In economics, sometimes we observe a disconnect between the theoretical/deductive and the empirical/inductive modes of thinking.
- Combining them feels so challenging that as students or professional economists we may be tempted to opt for one mode to the exclusion of the other.
- My advice is not to do that. Have the ambition to combine both ways of thinking when addressing economic problems, moving back and forth between them.

## On your training (continued)

- As a grad student in the 1980s I witnessed a debate over the direction of applied macro.
  - Some turned away from economic theory towards atheoretical approaches like time series analysis.
  - Others moved away from empirical work, focusing instead on internally-consistent general equilibrium models grounded in theory, rather than empirical fit.
- As a young professor in the 1990s I witnessed another debate, this time in applied micro, about the role of theory in establishing causality. The debate between structuralists and quasi-experimentalists has persisted to this day.
- A more recent debate revolves around the extent to which machine learning can replace, or fundamentally alter, the role of theory and modeling in empirical research.
- As a profession we learned much from these debates, and they generated new tools.
- But in the end, once the debates cool down, we realize there are no shortcuts –we still need to combine both ways of thinking to answer the questions that matter.

## On your training (continued)

### *A field of action*

- What about the application of economics? Well, it is difficult.
- Sometimes, the more we understand a topic, the harder it seems. Yet, economics is, more than any other social science, a field of action –a bit like medicine.
- In government, business, or family life, we must make difficult choices of the kind we study in economics, based on limited understanding, sometimes quickly.
- Are economists sufficiently influential? Do not worry about not influencing enough –worry about influencing too much. Often we are the only concrete answer in town.
- We are trained to give answers to difficult questions that we may not fully understand.

## Early work experiences as a formative period

- Many of you will soon start a job or continue your postgraduate training.
- While we all know that where you study matters a great deal, it may not be so obvious that your early labor market experiences are key for your long-term prospects.
- One thing we have learned from matched employer-employee data is how heterogeneous firms are. Firms matter for wage setting and career progression.
- Think of your first job experiences as a formative period, and ask yourself which environments are most conducive to acquiring on-the-job skills.
- Consider relevant attributes such as productivity, use of new technologies, management practices, location, and the quality of your colleagues.
- There is evidence that young employees in higher-quality firms experience greater skill growth than those employed in lower-quality firms.



## Culture of organizations and fields

- Firms and institutions differ in their culture.
- Some are less healthy than others, but they may persist because newcomers embrace them out of a desire to be good citizens wherever they go.
- Research communities also have their own culture.
- It is often said that the culture within the field of economics has traditionally been aggressive—a style of interaction that many women find unappealing.
- What might be called a 'frank scientific exchange' can simply be bad manners.
- The gender consequences are not small. A recent large-scale quantitative study documented gender differences in aggressiveness during presentations.
- However, the profession is gradually evolving, driven by a growing recognition of the value of more gentle forms of engagement.
- Do not uncritically adopt the culture of the organization you join. A better guide is simple, common-sense decency—the kind you would expect from friends or neighbors.
- Behave like decent people.

### III. The future of econometrics

- As Haavelmo put it, econometrics — like music, I would add — is something that should be done, rather than talked about, but here I will ignore this rule.
- Many of you will soon find yourselves using econometric tools in some form.
- As an econometrician, I would like to share some thoughts on the types of econometrics you will likely encounter in your work over the next two decades.
- I use the term *econometrics* in a broad sense — to refer to the analysis of economically relevant data and the methods involved.
- Whenever a new set of techniques emerges, there is a temptation to abandon the word econometrics, as if it were tied exclusively to older methods, and to coin a new term.
- But *econometrics* is too valuable a term to be pushed aside. It is better to use it in an inclusive way, allowing it to encompass new techniques as they develop.

### III. The future of econometrics (continued)

- The econometrics of the future will depend on the available data and the technologies to process them.
- Some types of data that are already in use but that will become increasingly important include:
  - Administrative records
  - Surveys capturing subjective factors
  - Transaction-level data
  - Text and images
  - Satellite and spatial data
- I will provide some remarks on the first two categories, and on the potential of generative AI technologies in economic research.

## Administrative records

- Admin records are not new; in fact, they are central to the very origins of writing.
- Sumerian cuneiform writing does not tell literary events, but rather records of goods paid for, rations given to workers, or agricultural products distributed.
- What is new is the exponential growth in the storage capacity for digitized data and the development of technologies to access gigantic stores of digital information.
- Microchips in the cloud instead of archives in the basement.
- Advances in data storage have led governments to expand their policies and build vast archives on taxes, employment, welfare, health, and education.
- Although these data are stored electronically for purely administrative purposes, it is now technically possible to use them for statistical analysis as well.
- Access to anonymized admin data also provides a new kind of control over the quality of public administration and, ultimately, a deepening of democracy.

## **Administrative records (continued)**

- We have already learnt much from access to admin data –for example, the role of top earners in the income distribution, the long-term value of good teachers, or the importance of neighborhoods for intergenerational mobility.
- With the increasing availability of admin data, the prominence of innovative descriptive measurement studies will continue to grow.
- These studies devise new concepts to measure and the techniques for doing so.
- New measurements sometimes challenge conventional wisdom about the state of the world or shed light on new perspectives that did not previously exist.
- Admin data holds great potential for advancing our understanding of firms by linking theory to observable behavior and revealing new dimensions of firm heterogeneity.

## Surveys and subjective measures

- Following their development in the 20th century, social and economic surveys became an invaluable research method and remain so.
- Surveys have been vital in measuring important variables such as unemployment, income, and demographic characteristics.
- As access to admin records improves, many of these survey functions will be replaced by admin data, simplifying their tasks.
- But not everything. We will continue to need surveys for variables such as:
  - Self-reported market values of heterogeneous assets, like housing or businesses.
  - Job search, propensity to relocate, reservation wages.
  - Subjective expectations and risk measures.
  - Perceptions, beliefs, and attitudes.

## Subjective measures (continued)

- Historically, the dominant view in economics has been a deep skepticism about the credibility of subjective statements of any kind.
- Economists are taught to believe only what people do, not what they say.
- But there are limits to what can be inferred from revealed preference alone, especially in the context of forward-looking decisions under uncertainty.
- However, surveys have increasingly collected subjective probabilities, showing that people can form meaningful expectations about variables that matter to them.
- There has been a recent explosion in the collection of these 'invisible' variables, elicitation methodologies, and research using these data.
- Again, there is a two-way intimate connection between the development of new observable subjective measures and the progress of theory.
- Let me give you two examples from my own research.

### *Example 1: Measuring inequality of security*

- An example of the complementarity of admin records and subjective survey expectations arises in the measurement of inequality of security.
- Admin records allow us to predict individual future incomes and associate prediction errors with uncertainty, but cannot be certain that we capture all the information people have.
- From subjective expectations, we can directly ask about income risk in surveys, but we might be concerned about the meaning of the responses or the quality of elicitation.
- But if the results from the two perspectives agree, our confidence in both will increase.
- We did this using Spanish social security records to construct individual income risk measures, which we validated against self-reported expectations from the EFF.
- We found that half of Spaniards know with great certainty what they will earn in the coming year; but a large group, especially younger people, face massive insecurity, with expected deviations from their average income of 30% or more.
- With this kind of uncertainty, it is hard to make plans. The important plans that one is supposed to make in their late 20s and 30s.



## *Example 2: Unraveling self-selection in labor markets*

- Self-selection has long been a challenging problem in many areas of economics.
- In the labor market, this issue occurs when we try to know the effect of a skill or policy on wages, but only observe wages for the employed –who may have decided to work or not depending on factors related to the mechanism under study.
- Subjective probabilistic reports on *wage offers*, along with individuals' stated probabilities of accepting *hypothetical* wage offers, provide an empirical foundation for identifying and estimating models with self-selection.
- This is an instance where the theoretical and empirical modes of thinking merge to provide interpretable results from new data analysis.

## Artificial intelligence

- Generative AI is significantly expanding the scale, scope, and speed of economic and social science research.
- Let me mention some areas of potential impact.

### *Synthetic data for surveys*

- Generative AI can produce virtual substitutes for human survey data, which may be especially valuable for pre-testing survey instruments or imputing missing data.
- These tools offer new possibilities for experimentation and robustness checks before investing in costly data collection.

### *A revolution underway in quantitative macro*

- Generative AI holds the potential to transform applied macro research, particularly the study of heterogeneous-agent models for policy analysis.
- In the past, progress in developing quantitative macro models has been slow and labor-intensive, with the limitations of the models only gradually becoming apparent.
- AI can accelerate this process, allowing us to assess model credibility and robustness to misspecification at an unprecedented pace.

### *Advances in text analysis*

- AI will enhance the scope and speed of transforming unstructured text—across multiple languages—into structured data.
- This opens new avenues for narrative-based empirical research, with AI enabling the systematic conversion of historical documents, reports, and narratives into data.
- More broadly, economic research fundamentally relies on learning from the past as encoded in data.
- Large language models (LLMs) offer the potential to convert vast bodies of past behavior, experience, and sentiment into structured, usable data.

## Conclusion

- Let me conclude by returning to where I began.
- Today marks the end of a demanding journey, also the beginning of new paths ahead.
- You are stepping into a world where the challenges are immense, but you will also find opportunities — for discovery, for contribution, and for positive impact.
- The training you have received here at BSE has prepared you well — not just with technical tools, but you have also grown as individuals.
- Whether you continue in academia, policy, or business, remember that economics is ultimately a field about people —how we live, make choices, and organize society.
- We live in a world where data, technology, and ideas move faster than ever. But do not feel pressured to rush. Keep your own pace.
- In the end, it is what you contribute from your own insight that will truly matter.
- Stay curious. Stay kind. Work hard. And enjoy the journey ahead.
- Congratulations again to all of you. Thank you.