

## **Lecturer in economics and risk management in the agricultural and food sectors**

institut Agro Rennes-Angers

DISCIPLINE: ECONOMICS OR MANAGEMENT SCIENCES

CNECA N°9

SESSION 1

N° RENOIRH: A2ACO00066

### **WORK ENVIRONMENT**

Since 1 January 2020 and the merger with the Institut Agro Montpellier, INSTITUT AGRO RENNES-ANGERS (the national school of agronomic, agri-food, horticultural and landscape sciences) has been part of the Institut Agro (French Higher Education Institution in Agriculture, Food, Horticultural and Landscape Sciences), the new large establishment for agriculture, food and the environment overseen by the French Ministry of Agriculture.

In the midst of Europe's leading agricultural and food-processing region and located across two training and research campuses in Rennes and Angers, the INSTITUT AGRO RENNES-ANGERS has a team of 130 faculty members providing expertise to 2,000 students enrolled in four engineering degrees and other courses ranging from bachelor's degree to doctorate (115 doctoral students, co-accreditation in four doctoral schools). The INSTITUT AGRO RENNES-ANGERS conducts academic and applied research in close partnership with INRAE and transfer and development activities in conjunction with three competitive hubs (Mer Bretagne, Végépolys, Valorial).

The appointed Senior Lecturer will work towards the institution's objectives and will be part of the Department of Economics, Management and Society in Rennes.

### **BACKGROUND AND PURPOSE OF THE POSITION**

Agricultural risks concern i) the volatility of both agricultural goods and input prices ii) climate and health events, iii) environmental hazards sometimes amplified by media scares. It is acknowledged that these risks tend to increase with climate change and the globalisation of trade. Lastly, agricultural markets have become financial markets, with the emergence since the 2000s of investment funds that treat cereals, oilseeds, sugar or animal products as portfolio diversification assets like any other. Consequently, new players have entered the markets, namely investors and/or speculators, whose practical and theoretical impact on price levels and market instability is highly debated.

For several years, public policies have progressively disengaged from market management, which means that the public instruments for price stabilisation are being dismantled. In the European Union, the abolition of milk quotas in 2015 and sugar quotas in 2017 confirms that European agriculture has become integrated into the global market and is therefore subject to the same volatility.

This situation has resulted in a very strong demand from the food industry, from agricultural production to distribution, for risk management tools and methods. The range of instruments includes both agricultural insurance for independent risks and agricultural finance for systemic risks. These growing areas are underpinned by new public policies, such as support for agricultural insurance, mutual funds and other income stabilisation tools. They are also regulated by the public authorities to ensure the fair determination of reference prices on the futures and physical markets.

Agricultural risk assessment and the study of suitable management tools have become major topics in agricultural economics, both in France and abroad. In this respect, information technologies provide new opportunities for risk analysis and instrument design, but also raise new questions (information imbalance due to big data, microstructure of electronic markets).

### **TEACHING DUTIES**

The lecturer will teach specialisation courses at Master 2 level on market finance applied to the agricultural and food sector. These will first deal with how prices are determined on the leading markets (futures) and on the physical derivatives markets, along with the associated trade and public regulation issues. The teaching will then look at the optimal management of risks by stakeholders facing price and margin volatility. Risk management instruments currently available in the financial and insurance sectors will be presented, as well as their outlook with regard to new technologies and ongoing research. In this respect, the lecturer will also have to develop future topics, such as hybrid insurance policies (revenue or margin insurance), index insurance policies and financial derivatives which have been emerging in recent years (structured contracts with deferred delivery, options and commodity swaps). The public policy aspect will be integrated through the study of market failures and the instruments designed to mitigate and/or prevent them. This last part of the course is linked to the Common Agricultural Policy.

These specialisation courses will be preceded by M1 level courses in quantitative methods of market analysis. Time

series analysis helps to develop an understanding of price dynamics in key markets and price transmission dynamics in physical derivatives markets. It applies to all agricultural commodity markets in developed and developing countries.

Finally, the candidate will contribute to the teaching at L3 level, by presenting the operation and organisation of physical markets for crop and livestock production: (1) price formation methods on organised markets and over-the-counter markets (2) information channel, and (3) methods of managing market information by the players in their sectors. It will also support the international marketing course at L3 level of the agri-foods course (and trainees) with regard to foreign exchange risk management and the corporate strategy course at M1 level, by developing financial strategies on equity and fixed-income markets.

Finally, the candidate will support business management courses and will be involved in the educational follow-up of engineering/master's projects, internships and dissertations.

## **RESEARCH AND TRANSFER ASSIGNMENTS**

The candidate will be able to conduct research within the Agricultural Production and Markets (PMA) unit of the SMART research team. The Agro-Finance agreement developed with the UMR SMART will also be a professional research link with companies in the agri-food sector dealing with market risk.

The research will focus on risk markets, i.e. the demand and supply of risk management instruments and associated public policies.

Analysis of the demand for risk management instruments may include the evaluation and management of specific agricultural risks in different market conditions (e.g. storable or non-storable products, seasonal or non-seasonal products, developed or undeveloped countries). The different management strategies both at the individual company level and at the value chain level depending on the prevailing environmental conditions (e.g. private company versus cooperative, size of the company, degree of diversification of the product portfolio, availability of instruments) will also be studied.

Analysing the supply of risk management instruments will focus on their efficiency and coordination: insurance policies, financial contracts, but also individual precautionary savings and occupational mutual funds. The research could also address the possible need for public reinsurance and/or the possible underwriting of climate and health risk when the traditional private reinsurance capacity is reached.

Finally, the research will consider public policy aspects with a view to helping to bridge the current gap in the risk markets and thereby promote the economic stability of the agri-food sector. It will thereby be able to deal with changes in the European Common Agricultural Policy, but also with the public policies of major economic groups around the world. Financial regulation of agricultural markets to control speculative activity or systemic risk of default may be included.

## **CANDIDATE PROFILE**

The candidate must have a PhD in economics or finance. They will have shown an aptitude for modelling and agricultural markets through noteworthy activities during their thesis or post-doc and/or during their earlier career.

## **For further information**

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