

## Macroeconomics of Risks

Course title – Intitulé du cours	Macroeconomics of Risks
Level / Semester – Niveau / semestre	M2 / S3
School – Composante	Ecole d'Economie de Toulouse
Teacher – Enseignant responsable	Fabrice Collard, Patrick Fève
Lecture Hours – Volume Horaire CM	30
TA Hours – Volume horaire TD	
TP Hours – Volume horaire TP	
Course Language – Langue du cours	English / Anglais
TA and/or TP Language – Langue des TD et/ou TP	

### Teaching staff contacts – Coordonnées de l'équipe pédagogique :

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### Course Objectives – Objectifs du cours :

The aim of this course is to introduce students to the modeling and analysis of the effects of risk on the macroeconomy.

The course will draw the distinction between "*business as usual*" risk and "*major*" (or disastrous) risk. "*Business as usual*" risk will refer to the risk associated with shocks (technology shocks, oil price shocks, aggregate demand shocks, risk shocks, extrinsic shocks ...)—be they macro or micro— that initiate aggregate fluctuations as experienced by most major industrialized economies on a regular basis. *Major* risk will refer to the risk associated with disastrous events that can hit the economy (risk of financial crises, pandemics, wars ...) The course will start by focusing on "*business as usual*" risk showing how to identify shocks from the data using time series techniques, model risk in the macroeconomic workhorse representation and develop different tools to analyze and understand the effects of risk on the macroeconomy (consumption and investment behavior, asset prices, business cycles ...) It will then illustrate how economic policy (monetary and fiscal policies) can be used to curb the effect of risk in the economy and prevent unintended events from throwing the economy into a recession. The course will also provide methods to evaluate the welfare cost associated with this "*business as usual*" risk and will relate it to the evolution of asset returns (and the existence of a risk premium) on asset markets.

The course will then shift attention to the analysis of "*major*" risk, with a particular focus on disaster shocks —disastrous events that occur with low probability. It will show how to model disasters and evaluate the consequences of their introduction for the behavior of economic agents, the aggregate dynamics, and the cost they impose on the economy. Not only will the course consider totally random disastrous events —disasters resulting from bad luck— but also disasters (like financial crises) that are the outcome of the endogenous nonlinear propagation and amplification of "*business as usual*" shocks.

The course will therefore help shedding light on the recent crises that hit the industrialized world: the great recession and the pandemic crisis.

**Prerequisites – Pré requis :**

The prerequisites for this course are

- Macroeconomics (M1/S1) and
- Advanced Macroeconomics (M1/S2).

**Practical information about the sessions – Modalités pratiques de gestion du cours :**

Students are expected to attend and actively participate in all lectures.

**Grading system – Modalités d'évaluation :**

Evaluation will be based on a final exam at the end of the semester (100 %).

**Bibliography/references – Bibliographie/références :**

David Romer « Advanced Macroeconomics », McGraw-Hill, Chap 5, 7 and 8. Fourth Edition.

Further references will be provided as the course progresses.

**Session planning – Planification des séances :**

Note that this plan is indicative and ought to change

- Risks in Macroeconomics: "*Business as usual*" vs "*major*" (or disastrous) risks.
- Aggregate decision in presence of risk.
- Identifying "*Business as usual*" risk.
- Policy making under risk: Stabilization policy.
- Pricing risk: Welfare Cost of fluctuations and the Risk premium.
- Modeling disasters.
- Disastrous risk as the endogenous (nonlinear) amplification and propagation of shocks.
- Revisiting the recent crises.

**Distance learning – Enseignement à distance :**

Distance learning may be provided when necessary by implementing, for example: / En cas de nécessité, un enseignement à distance sera assuré en mobilisant, par exemple :

- Interactive virtual classrooms / Classe en ligne interactive
- Recorded lectures (videos) / Vidéo enregistrée de la présentation du matériel pédagogique
- MCQ tests and other online exercises and assignments / QCM et exercices en ligne
- Remote (online) tutorials (classes) / TP/TD à distance
- Chatrooms / Forums