Financial Crises and Emerging Risks — Lecture Overview

M2 Finance Technology Data (M2 FTD), Sorbonne — April 14, 2026 Antoine Camous — acamous.github.io — Banque de France *The views expressed are solely those of the author and do not necessarily reflect the positions of the Banque de France, the Eurosystem, or the European Central Bank.*

Three modules, one thread: sovereign debt as the nexus of fiscal policy, monetary policy, and financial stability. Module 1 builds the framework. Module 2 applies it to the defining crisis of European integration. Module 3 provides the empirical toolkit used by central banks to read sovereign risk in real time.

Module 1 — What is sovereign debt? What is a sovereign debt crisis?

Sovereign debt is not just a fiscal accounting item — it is embedded throughout the financial system, serving simultaneously as a safe asset, a bank regulatory instrument, a savings vehicle, and the intertemporal link between government fiscal choices and monetary outcomes.

The analytical core is the government budget constraint (GBC) and its intertemporal counterpart (IBC): today's debt must be backed by the present value of all future surpluses plus seigniorage. Sargent & Wallace (1981) show that this constraint implies two regimes — monetary dominance, where the central bank controls inflation, and fiscal dominance, where it cannot. The "unpleasant" result: under fiscal dominance, tighter money today produces more inflation tomorrow.

The debt dynamics equation $\Delta(D/Y) \approx (r-g) \cdot D/Y - s +$ SFA provides the empirical workhorse: four channels reduce debt — growth, primary surpluses, inflation, and default. The OECD decomposition shows how each has dominated at different moments (COVID spike, inflation erosion 2021–23, rising real rates 2024–25).

Eight centuries of data (Reinhart & Rogoff, Mitchener & Trebesch) establish that default is the historical norm, not the exception — partial, serial, and correlated with capital mobility and inflation. A historical vignette closes the module: the French assignat (1790–1796) as a textbook instance of Sargent-Wallace fiscal dominance collapsing into hyperinflation, contrasted with Britain's credible institutions and stable outcome despite identical war financing pressures.

Module 2 — The Eurozone sovereign debt crisis

The eurozone crisis is examined through three mechanisms, each answering a distinct question: what triggered it, why it persisted, and what amplified it.

A sudden stop in a monetary union. A sudden stop — the abrupt reversal of capital inflows — did occur inside the eurozone, but in a mutated form. The single currency masked private capital flight behind silent substitution by public flows (Target2, ECB programmes). The currency changed who absorbed the shock, not whether it happened.

A self-fulfilling debt crisis. For an intermediate range of fundamentals, both a low-spread and a high-spread equilibrium are consistent with rational expectations. Pessimistic investors charge high rates; high rates make default more likely; pessimism is validated. The absence of a sovereign lender of last resort made the bad equilibrium viable — a feature absent for the UK but present for Spain. Three empirical approaches (De Grauwe & Ji econometric test, debt dynamics accounting, Bocola & Dovis structural identification via maturity choice) find quantitatively significant self-fulfilling components in 2011–12 spread dynamics. Resolution came not through purchases but through Draghi's OMT commitment: credibly eliminating the bad equilibrium requires only that the backstop be unlimited in principle.

The diabolic loop. Weak banks hurt sovereigns (bailout costs) and weak sovereigns hurt banks (asset impairment). Home bias meant that during the crisis, bank exposure to domestic sovereign debt *increased*, transmitting the loop directly to corporate lending and the real economy. Banking union — SSM, SRM, and DGS — is the structural fix: Europeanising the banking system severs the national bank-sovereign nexus.

Module 3 — Decomposing sovereign bond yields

When we observe a 6% yield on a 10-year Brazilian bond, or a 200 bps Italian spread over Germany, what is driving that number? The answer requires separating at least two unobservable components: the expectations component $EC_t(\tau)$ — what the market expects future short rates to be — and the risk premium $RP_t(\tau)$ — compensation for credit, FX, liquidity, redenomination, and other risks.

Part A establishes why this decomposition matters and why it requires a model. The

Expectations Hypothesis (long rates = average expected future short rates) fails empirically: long bonds earn excess returns, the yield curve slope predicts bond returns, and the term premium is time-varying. For sovereign spreads, the risk premium fractures further: Corradin & Schwaab (2023) identify five separate components for eurozone sovereigns, exploiting the difference between ISDA 2003 and 2014 CDS protocols to isolate redenomination risk from default risk in an almost pure way.

Part B builds a tractable version of this decomposition from scratch, following Joslin, Priebsch & Singleton (2014) as applied by Burban & Golinski (BdF, 2025) to EME spreads. Five steps: PCA on the spread curve (3 factors explain >99% of variation) → adding unspanned risk factors (CDS and FX volatility, validated by a spanning test) → affine no-arbitrage pricing ($s_t(\tau) = A(\tau) + B(\tau)' Z_t$) → closed-form decomposition via VAR iteration → estimation by factor extraction. Every step is analytically explicit.

Part C shows what the decomposition reveals: risk premia dominate long-term spread variance for Brazil, Colombia, and Mexico, but their composition differs (credit-driven in Brazil, FX-driven in Mexico). For the eurozone, the PEPP announcement of March 18, 2020 reduced Italian yields by 78 bps — decomposed by CS as −35 bps default risk, −14 bps redenomination risk, −16 bps segmentation, −8 bps expected rates. This quantifies the "whatever it takes" logic of Module 2: the ECB's backstop worked by collapsing the bad equilibrium, not by signalling rate cuts.

Slide notes and full derivations available in the companion guides for each module.