

Extended LIBOR Market Models in a Multiple-Curve Framework

Abstract

The subprime mortgage crisis started in August 2007 produced strong anomalies in the quotes of the market, making some reference spreads that had almost been negligible until that moment, significantly higher. The changes observed revealed that the LIBOR could not be considered risk-free any longer reflecting credit instability of the banks belonging to the LIBOR panel.

In this talk we start by introducing the new practice of considering multiple curves for generating future cash flows and discounting in order to account for the new features of the market, namely the *multiple-curve approach*. Then we discuss how researchers have extended the class of LIBOR models under this new approach, focusing, in particular on two ways to extend the classic LIBOR Market Model. The former introduces new interest rates to be modelled, enlarging in this way the dimension of the setting, and the latter resorts to a 2-curves-1-currency analogy. Under both the approaches we shall see how simple interest rate derivatives can be priced.

References

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