



Training topics – *proposed in French or in English*

The following programs are subdivided into « basic » and « advanced » contents. All of these programs are illustrated by many examples from real market trades, and with exercises (most of them needing a pocket calculator).

Needless to say, any actual program can be built by combining parts of these contents, to fit with specific client requirements.

1/ financial markets products/instruments

1 - traditional financial markets – basic – 1 day

General presentation of forex market, forward currencies, monetary (short term) rates, bonds, stocks & stock indexes, typology of market participants, exchange vs OTC (interbank) markets, brokerage, bank functions (front office, back office, middle office)

2 - traditional financial markets – advanced – 1 day

Actuarial calculus, discrete vs continuous rates, bonds (pricing, duration, convexity, bond operations on the spot, forward, future and options markets), stocks & stock indexes (correlation; operations : spot, forward, futures & options)

2/ derivatives products

3 - derivatives products – basic – 1 day

A general presentation of forward, futures, swaps & options products (all underlyings)

4 - swaps – basic – ½ day

IRS, CRS, asset swaps, liability swaps

5 - forward & futures products – advanced – 1 day

Forward (currencies, interest rates, FRA); futures: pricing, invoiced amount, conversion factor, cheapest to deliver, implied repo rate; examples of hedging strategies, speculative trading, arbitrage (cash & carry, reverse cash & carry) on financial underlyings

6 - commodities – advanced – 1 day

Specific features of commodities markets, quantitative approach (pricing, etc), commodities futures

7 - swaps – advanced – 1 day

IRS, CRS, asset & liability swaps; swaps pricing, 2nd generation (« exotic ») swaps, other underlyings (volatility, etc), hedging & speculative trading operations

8 - credit derivatives – basic ½ day

Swaps (refresh), credit risk, contractual (documentation) features, credit default swaps, iTraxx & CDX, credit linked notes, total return swaps, payments & cash flows involved in credit derivatives

9 - credit derivatives – advanced – 1 day

Swaps (refresh), credit risk, contractual (documentation) features, credit default swaps, iTraxx & CDX, credit linked notes, total return swaps, equity default swaps, credit spread futures & options, options on CDS, securitization vs synthetic securitization, credit derivatives pricing, risk management, payments & cash flows involved in credit derivatives

10 - options – basic – ½ day

Fundamental technical aspects, exchange & OTC (interbank) markets, application to stocks & stock indexes

11 - options – advanced – 1 day

Fundamental technical aspects, exchange & OTC (interbank) markets, pricing, main options strategies, application to currencies, stocks & stock indexes, interest rates

12 – currency options – advanced – 1 day

13 - options on interest rates products– advanced – 1 day

14 - options on stocks & stock indexes – advanced – 1 day

12, 13 & 14: fundamental technical aspects, pricing, hedging and speculative trading strategies; with a case study

15 - 2nd generation (« exotic ») options – advanced – 1 day

Presentation of main exotic options (average, barriers, digital, etc), application on currencies, interest rates, stocks & stock indexes; comparison with vanilla options; specific pricing aspects

16 - options and structured products – basic – ½ day

Options (refresh), typology of structured products, detailed presentation of most usual structured products (principal protected, reverse convertibles etc) on stocks & stock indexes

17 - structured products – advanced – 1 day

Typology, detailed presentation of structured products on currencies, interest rates, stocks & stock indexes

3/ quantitative finance

18 - the yield curve – advanced – 1 day

Spot rates, forward rates, futures rates, 0-coupon rates, yield curve building & interpolations, riding the yield curve, use in derivative products calculation

19 - financial maths - quantitative finance – basic – ½ day

Actuarial calculus, returns, performance measurement, variance & covariance

20 - financial maths - quantitative finance – advanced – 1 day

Actuarial calculus, discrete vs continuous rates, returns, performance measurement, CAPM, APT, variance & covariance, introduction to stochastic calculus and processes

21 - advanced techniques of modelling & forecasting for financial markets – advanced – 1 day
Modelling or forecasting financial markets? ARMA, ARCH, GARCH, deterministic chaos, genetic algorithms, neural nets, strengths and weaknesses of pricing models for derivatives, behavioural finance, with simultaneous translation algebra → English

22 - options pricing – advanced – 1day

Probabilistic modelling of a financial instrument, Black-Scholes formula and variants, binomial model (CRR), Monte Carlo method, illustrated on stocks & stock indexes, the specific case of interest rates options, parameters sensitivity (the « Greeks »), options book management, fat tails, smile

4/ asset management

23 - traditional vs alternative asset management – basic – 1 day

Traditional asset management & CAPM (refresh); alternative asset management (commodities, hedge funds, managed account, private equity): objective and rationale, comparisons

24 - alternative asset management – advanced – 1 day

Commodities, hedge funds, managed account, private equity, quantitative features, case study about selecting a hedge fund

25 - financial crisis and financial instruments – advanced – 1 day

Market risk with derivatives, financial crisis and risk management, risk associated with structured products, asset management and risks factors, “position risk”

5/ risk management

26 - risk management techniques – advanced – 1 day

Market risk, counterparty risk, liquidity risk, operational risk, including legal and model risks. VaR methods and variants (conditional VaR, relative VaR, etc).

27 - European regulations about funds risk management– advanced – 1 day

Detailed analysis of UCITS IV and AIFMD European regulations