

# Instrument Coverage

## Interest Rate

### Money Market Instruments

- Interest at maturity
- Discount securities

### Futures & Fowards

- Forward Rate Agreement (FRAs)
- In-arrears futures (overnight)
- In-advance futures (IBOR)
- Interest rate futures options

### Interest Rate Notes

- Floored/capped floating rate notes (FRNs)
- Callable/puttable floored/capped floaters
- Callable/puttable inverse floaters

### Structured Interest Rate Notes

- Vanilla and user defined
- Callable and puttable
- Amortizing/accreting
- Range accruals
- Inverse floaters
- Capped floaters
- Flexible FRNs

### Swaps & Swaptions

- Vanilla/amortizing
- Tenor basis
- IMM
- Percentage of IBOR
- Floored/capped swap
- Averaging
- Brazilian
- In-arrears
- Compounded
- Zero coupon
- Municipal/tax exempt
- User-defined

### Other Swaps & Swaptions

- Asset swap
- Cash settled swaption with forward premium
- Credit contingent swaption
- Trigger (knock-out) swap
- CMS/CMT (constant maturity index/treasury)
- Range accrual CMS/CMT (constant maturity index/treasury)
- Range accrual
- Cancellable
- Cancellable range accrual
- Cancellable floored/capped
- Cancellable inverse
- Mid-curve swaption

### Caps/Floors

- Vanilla
- Averaging
- Digital
- Constant maturity spread option
- Constant maturity
- User-defined

### Option Styles

- American
- Bermudan
- European

# Fixed Income

## Money Market Instruments

- Discount securities
- Interest at maturity

## Bond Forwards, Futures and Options

- Bond forwards
- CTD (Cheapest to Deliver) bond analysis including cash-settled
- Conversion Factor for bond futures
- Treasury lock
- Bond options

## Fixed Rate Bonds (Bullet and Level Coupon)

- Coupon Step-up/down/rollercoaster
- Amortizing/accreting
- Yield vs discount factor approaches supported
- Equity-indexed
- Municipal/tax exempt
- Hybrid fixed/float instruments
- Zero coupon
- 33 country-specific/jurisdictional bonds

## Fixed Rate Bonds (Inflation Indexed)

- Coupon Step-up/down/rollercoaster
- Amortizing/accreting
- Yield vs discount factor approaches supported
- 11 countries supported in jurisdictional specific bonds

## Callable Bonds

- Calculate callable/puttable bond and option price
- Yield to best/worst analysis
- Option adjusted spread
- Hybrid fixed/float instruments

## Convertible Bonds

- Coupon step-up/down/rollercoaster
- Amortizing/accreting
- Implied spread/volatility

## Mortgage-backed Securities

- IO/PO Bonds
- Adjustable Rate Mortgage (Hybrid ARM)
- PAC & TAC bonds
- Companion PACs/TACs
- Accrual/Sequential bonds
- Fixed rate pass-throughs or pools
- Prepayment analysis
- Prepayment utilities
- Spread analysis
- Utilities for creating prepayment vectors (PSA, ABS, CPR <-> SMM)

## Swaps

- Vanilla
- Asset swap
- TRS (total return swap) on bond
- Municipal/tax exempt

## Option Styles

- American
- European

# Credit

## Credit Default Swaps (CDS)

- Credit Default Swap (single asset)
- Asset-Backed Security (ABS) CDS
- Loan Credit Default Swap (LCDS)
- CDS/CDX options
- Constant Maturity Default Swap (CMDS)

## Basket CDS

- Cash flows
- First-to-default, nth-to-default, n-out-of-m to default
- Binary payoffs
- Basket CDS options

## Cash Flow CDOs

- Simulate waterfall
- Notes can have the same or different payment frequencies

## Collateralized Debt Obligation (CDO) and Indices

- CDO tranches (synthetic & standard)
- CDO tranche cash flows
- CDO tranche linked notes
- CDS on indices
- CDS index options
- First loss CDS and CDO tranches
- Credit Index Basis Adjustments

## Other Credit

- Recovery Rate swap
- Credit linked and rating sensitive notes
  - Fixed and/or floating
- Asset swap
- Credit spread options, forwards
- Total return swap
  - Underlying bond can have user defined payment schedules
- Credit contingent swaption

# Foreign Exchange

## Futures & Forwards

- Outrights - points and foreign currency curve approach
- Implied repo

## Swaps & Swaptions

- Vanilla/amortizing
- Basis
- IMM
- Quanto
- Cross currency
- NDS (non deliverable swap)
- Vanilla/amortizing MTM xccy (cross currency basis swap)

## FX Volatility Derivatives

- Variance swap
  - Conditional variance swap
  - Corridor variance swap
  - Capped/floored variance swap
- Volatility swap
- Variance option

## Options - Exotic and Vanilla

- Asian
- Average strike
- Double average
- Forward start
- Chooser
- Compound
- Lookback
- Power & quotient
- Quanto
- Spread
- Barriers:
  - Single & double
- Binary:
  - Single barrier
  - Digital
  - Binary spread
- Multi-asset:
  - Baskets
  - Cliquets
  - Napoleon

## Option Styles

- American
- Bermudan
- European

# Equity

## Equity Derivatives

- Forwards and futures
- Swaps, swaptions
- Employee Stock Option (ESO)
- Warrants – various structures
- Total return swaps

## Options - Exotic and Vanilla

- Asian
- Average strike
- Double average
- Forward start
- Chooser
- Compound
- Lookback
- Power & quotient
- Quanto
- Spread
- Barriers:
  - Single & double
- Binary:
  - Single barrier
  - Digital
  - Binary spread
- Multi-asset:
  - Baskets
  - Cliquets
  - Napoleon

## Convertible Bonds

- Coupon step-up/down/rollercoaster
- Amortizing/accreting
- Implied spread/volatility

## Equity Volatility Derivatives

- Variance swap
  - Conditional
  - Corridor
  - Capped/floored
- Volatility swap
- Variance option

## Option Styles

- American
- Bermudan
- European

# Inflation

## Fixed Rate Bonds (Inflation Indexed)

- Coupon Step-up/down/rollercoaster
- Amortizing/accreting
- Yield vs discount factor approaches supported
- 11 countries supported in jurisdictional specific bonds

## Swaps

- Zero coupon
- YoY (year-on-year)

# Commodity

## Commodity Derivatives

- Forwards and futures
- Options on commodity futures
- Swaps, swaptions
  - Vanilla and user-defined parameters

## Options - Exotic and Vanilla

- Asian
- Average strike
- Double average
- Forward start
- Chooser
- Compound
- Lookback
- Power & quotient
- Quanto
- Spread
- Barriers:
  - Single & double
- Binary:
  - Single barrier
  - Digital
  - Binary spread
- Multi-asset:
  - Baskets
  - Cliquets
  - Napoleon

## Commodity Volatility Derivatives

- Variance swap
  - Conditional
  - Corridor
  - Capped/floored
- Volatility swap
- Variance option

## Option Styles

- American
- Bermudan
- European

Vancouver  
New York  
London  
Dublin

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### Contact Sales or Support Toll-Free:

USA/Canada 1 800 304 0702 Europe 00 800 4400 5060 Email [info@fincad.com](mailto:info@fincad.com)

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