

Barclays Capital

Convertible Bonds

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Convertible Bonds...

- Introduction to Convertibles
- Features; Terms and Conditions; Definitions; Payoff and Value Profiles
- Issuers and Investors
- Traditional Valuation Models
- Extended Valuation Models
- Non-Standard Features; Modelling Challenges

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Convertibles: Introduction...

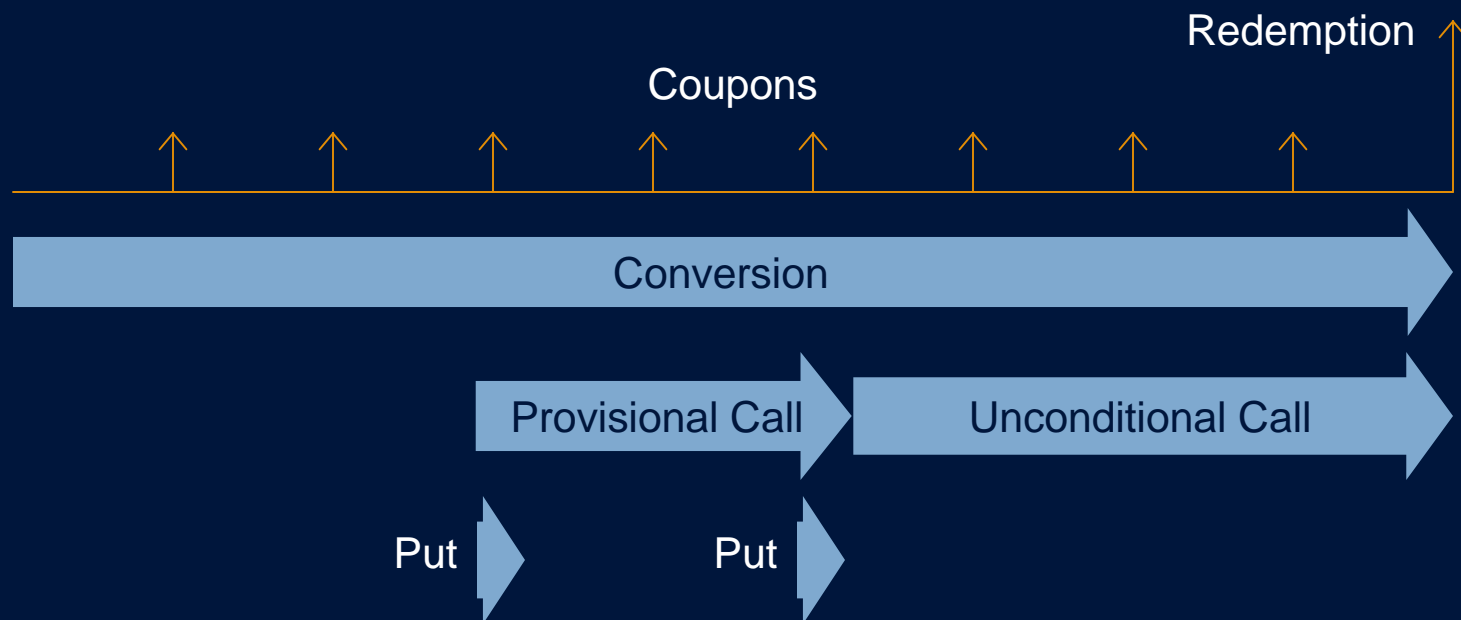
- Convertible bond: corporate bond that can be (irrevocably) converted into the issuer's shares at the bondholder's option
- Exchangeable bond: same, but convertible into shares of a different entity, e.g. sale of a minority stake, parent into a subsidiary, or holding company into an operating company
- Convertibles are 'hybrid' securities, i.e. with debt and equity characteristics: this is reflected in their issuance, investor base, valuation/risk profiles and accounting/regulatory/credit treatments
- They are also derivatives: bondholder usually has an 'American'-style call option on the shares: 'strike' = value of remaining fixed cash flows

Convertibles: Key Features...

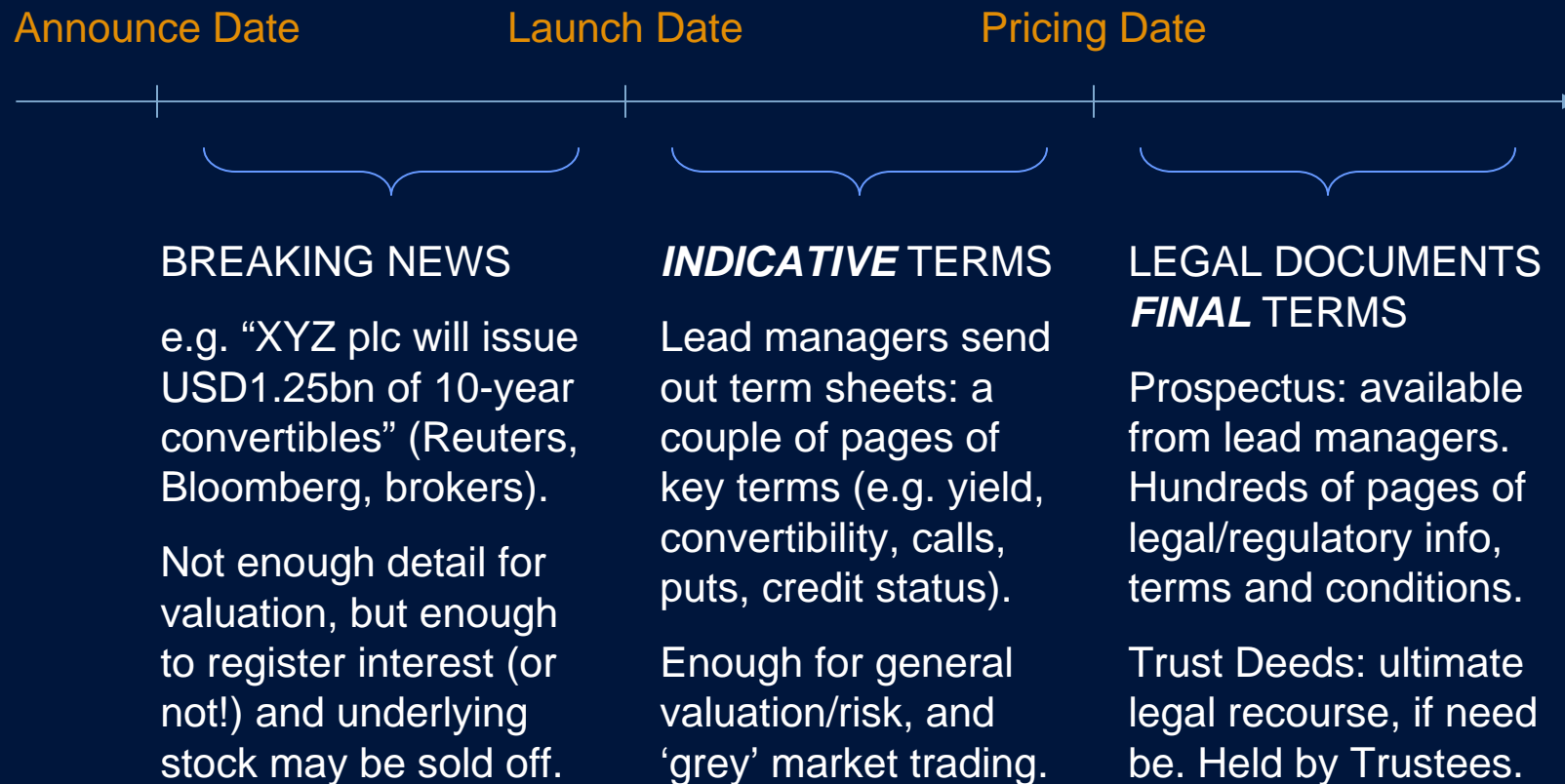
- Deal info: issuer, underlying, size, currency, yield, premium, etc
- Structure: calls, puts, conversion terms, coupon/dividend rights
 - ▶ Calls: issuer's call option to repurchase their bonds at a specified price (or yield), normally from several years after issue until maturity ('American'); for some/all of this time, call may be provisional, i.e. underlying share price must exceed a 'trigger'
 - ▶ Puts: holder's put option to sell bonds back to issuer at a specified price (or yield), less common than calls, and normally on a few discrete dates during the life of the bond ('Bermudan')

Convertibles: Example...

- Nine-year convertible, callable subject to trigger after year four and unconditionally after year six, puttable on the third and fifth anniversaries



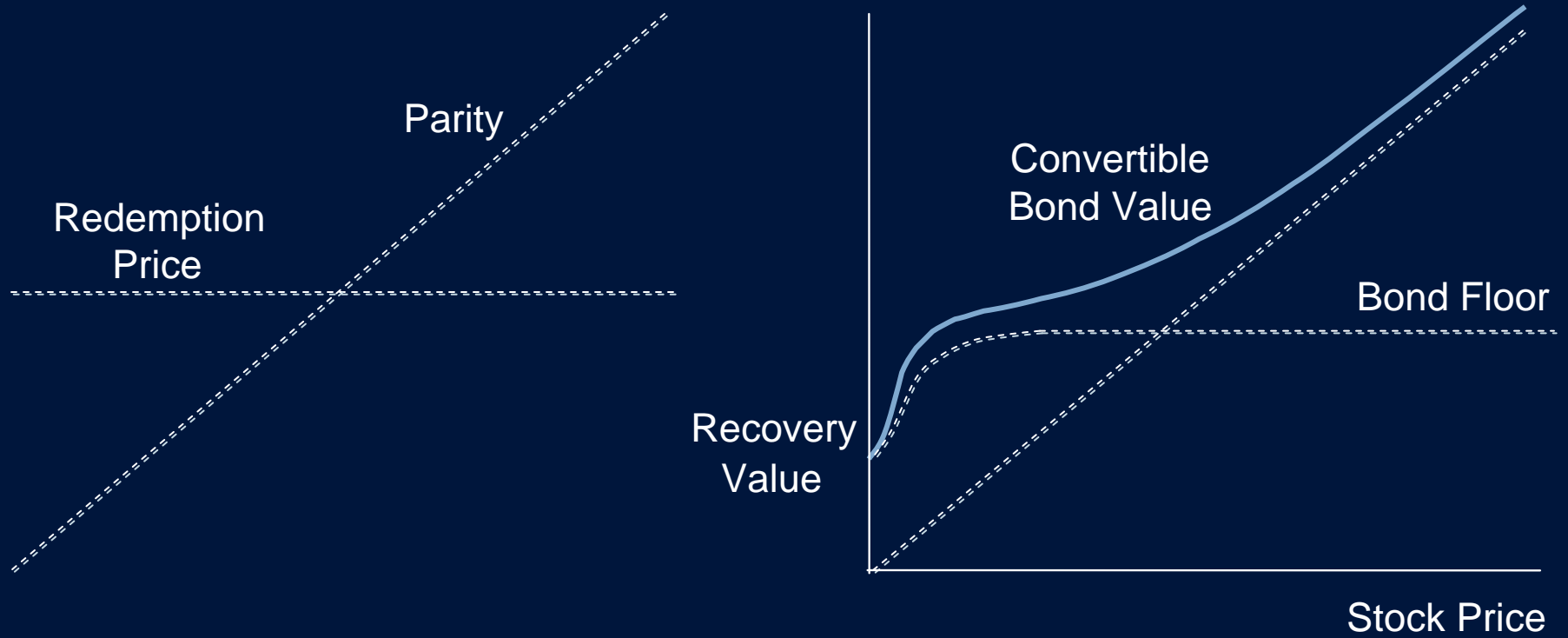
Convertibles: Terms and Conditions...



Convertibles: Definitions...

- Conversion ratio: number of shares into which one bond converts
- Parity: conversion ratio x spot share price (x spot exchange rate)
- Conversion premium: $(\text{convertible price} - \text{parity}) / \text{parity}$; also, the extra amount an investor must pay to own shares via the convertible
- Bond floor or investment value: net present value of the fixed cash flows of the convertible, maximised for early redemptions (puts)

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Source: Barclays Capital.

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