

ExtendedBlackVarianceSurface(3)

QuantLib

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NAME

ExtendedBlackVarianceSurface – Black volatility surface modelled as variance surface.

SYNOPSIS

```
#include
<ql/experimental/volatility/extendedblackvariancesurface.hpp>
```

Inherits **BlackVarianceTermStructure**.

Public Types

```
enum Extrapolation { ConstantExtrapolation, InterpolatorDefaultExtrapolation }
```

Public Member Functions

```
ExtendedBlackVarianceSurface (const Date &referenceDate, const Calendar &calendar, const
std::vector< Date > &dates, const std::vector< Real > &strikes, const std::vector< Handle<
Quote > > &volatilities, const DayCounter &dayCounter, Extrapolation
lowerExtrapolation=InterpolatorDefaultExtrapolation, Extrapolation
upperExtrapolation=InterpolatorDefaultExtrapolation)
```

```
DayCounter dayCounter () const
```

the day counter used for date/time conversion

```
Date maxDate () const
```

the latest date for which the curve can return values

```
Real minStrike () const
```

the minimum strike for which the term structure can return vols

```
Real maxStrike () const
```

the maximum strike for which the term structure can return vols

```
template<class Interpolator > void setInterpolation (const Interpolator &i=Interpolator())
```

```
void accept (AcyclicVisitor &)
```

```
void update ()
```

Additional Inherited Members**Detailed Description**

Black volatility surface modelled as variance surface.

This class is similar to **BlackVarianceSurface**, but extends it to use quotes for the input volatilities.

Member Function Documentation

```
void update () [virtual]
```

This method must be implemented in derived classes. An instance of Observer does not call this method directly: instead, it will be called by the observables the instance registered with when they need to notify any changes.

Implements **Observer**.

Author

Generated automatically by Doxygen for QuantLib from the source code.

