An Observable typically does not *throw* exceptions. Instead it notifies any observers that an unrecoverable error has occurred by terminating the Observable sequence with an onError notification.

There are some exceptions to this. For example, if the <code>onError()</code> call <code>itself</code> fails, the Observable will not attempt to notify the observer of this by again calling <code>onError</code> but will throw a <code>RuntimeException</code>, an <code>OnErrorFailedException</code>, or an <code>OnErrorNotImplementedException</code>.

Techniques for recovering from on Error notifications

So rather than *catch* exceptions, your observer or operator should more typically respond to onError notifications of exceptions. There are also a variety of Observable operators that you can use to react to or recover from onError notifications from Observables. For example, you might use an operator to:

- 1. swallow the error and switch over to a backup Observable to continue the sequence
- 2. swallow the error and emit a default item
- 3. swallow the error and immediately try to restart the failed Observable
- 4. swallow the error and try to restart the failed Observable after some back-off interval

You can use the operators described in [[Error Handling Operators]] to implement these strategies.

RxJava-specific exceptions and what to do about them

CompositeException

This indicates that more than one exception occurred. You can use the exception's <code>getExceptions()</code> method to retrieve the individual exceptions that make up the composite.

MissingBackpressureException

This indicates that a Subscriber or operator attempted to apply reactive pull backpressure to an Observable that does not implement it. See [[Backpressure]] for work-arounds for Observables that do not implement reactive pull backpressure.

OnErrorFailedException

This indicates that an Observable tried to call its observer's <code>onError()</code> method, but that method itself threw an exception.

 ${\tt OnErrorNotImplementedException}$

This indicates that an Observable tried to call its observer's <code>onError()</code> method, but that no such method existed. You can eliminate this by either fixing the Observable so that it no longer reaches an error condition, by implementing an <code>onError</code> handler in the observer, or by intercepting the <code>onError</code> notification before it reaches the observer by using one of the operators described elsewhere on this page.

OnErrorThrowable

Observers pass throwables of this sort into their observers' onError() handlers. A Throwable of this variety contains more information about the error and about the Observable-specific state of the system at the time of the error than does a standard Throwable.