

Corporate Actions in ePOCA

Introduction

Corporate actions can be some of the most complex and time-consuming transactions to book. They may require the transfer of the whole or part of the book value of a position to one or several other positions, i.e. they require the knowledge of the book values of positions. In the case of manual booking the accountant has to first get the corresponding book value before he can book the corporate action. Since these book values are unknown to external feeds, the booking of corporate actions often require a manual intervention. ePOCA's clever combination of corporate action data and preliminary transactions allow a manual booking of corporate actions without prior calculation of book values and a fully automated transaction import.

Some rules have to be followed when booking corporate actions if the investment report must be derived from the accounting data.

Classification

Assume that a corporate action must be booked on a security position, with its quantity and its book value. We call this position the original position. We divide the corporate actions into three types, depending on whether the corporate action has an influence on one or several other security positions or not, and whether the original position remains present or disappears. A cash position may be involved in all three types. No cash flow occurs at the level of the whole investment for all types of corporate action, but there can be cash flows between positions.

First consider the corporate actions that may change the original position (quantity and book value), but do not have any influence on any other security position (no existing position changed, no new position created). We start by giving examples of such corporate actions.



Corporate Actions	Effect		Cash flows
Dividend (without taxes)	The original position (quantity and book value) has not changed. Booked as a cash debit and an income credit on the corresponding security account.		The dividend results in an outflow at the security level.
Capital reduction	Booked as a cash debit and an asset credit on the		The capital reduction

Corporate Actions	Effect		Cash flows
	corresponding security account. The quantity of the original position is not changed, but its book value is decreased.		results in an outflow at the security level.
Stock dividend (without taxes)	Booked as a debit on the asset and a credit on the income accounts of the corresponding security. The original position is changed, both in its quantity and its book value.		There is no cash flow at the security level.
Split (American)	Does not result in account bookings. Only the quantity of the original position is changed, its book value remains unchanged.		There is no cash flow at the security level.

The booking of this type of corporate actions is straightforward, but they must be booked at the exact date of the corporate action, otherwise the valuation of the position may be flawed. This is clearly the case for an American split, for example, after which the price of the security is divided by the split ratio. A booking at the wrong date will result in the valuation of the position being off by a factor close to the split ratio. All these corporate actions have specific transactions in ePOCA. They can be manually entered or imported electronically without special effort.

Next consider the corporate actions having influence on one or several other security positions and the original position disappears.



Corporate Actions	Effect	Cash flows
Conversion	Booked as a credit on the asset account of the original position and a debit on the asset account of the new position. The original position disappears and the new position has the same book value as the original position before the conversion.	Generates a cash flow from the original security to the new security.
Split (European)	Booked as a credit on the asset account of the original position and a	Generates a cash flow from

Corporate Actions	Effect	Cash flows
	debit on the asset account of the new position. The original position disappears and the new position has the same book value as the original position before the conversion.	the original security to the new security.
Merge	A merge of two securities into a third one can be considered as two distinct corporate actions. Each of these corporate actions is booked as a credit on the asset account of the original position and a debit on the asset account of the new position. The original position disappears and book value of the new position is increased by the book value of the original position before the corporate action.	A merge creates a cash flow from the original security to the new security.

In all corporate actions of this type, the book value of the original position must be exactly transferred to the new positions. This means that the book value of the original position has to be known to book the corporate action. This is laborious and time-consuming in the case of manual entry of transactions. It is even more problematic in the case of the electronic import of transactions. The external feed system cannot know the book value of the positions and therefore unwanted manual intervention is necessary in order to book corporate actions of this type.

These difficulties are solved in ePOCA by first defining corporate action as a simple rule for the transfer of book value. In the simple case of a conversion or a European split the definition of a corporate action looks like the following table:

	Outgoing	Incoming
Original security	100 %	
New security		100 %

These numbers simply say that 100% of the book value has to be taken off the original position and that 100% of this value have to be added to the new security position. Once this table is defined, the corporate action can be booked by two simple transactions: a "transfer outgoing" transaction on the original position and a corresponding "transfer incoming" transaction on the new security position. These transactions only comprise the quantities involved; they have no information whatsoever about the book value. They reference the definition of the corporate action and ePOCA automatically computes the corresponding book values. It does not matter if the corporate action is booked with one single transaction on the whole position or if it is split in several transactions on parts of the position: the book value is always computed consequently. Of course, the corporate action can involve several new positions, the definition of the corporate action has to be extended accordingly.

Clearly in an accounting system the book value has to be transferred from the original position to the new position. The cash flow, however, should be based on the market value of the new original position, since it is used to compute performance. So, either the accounting system allows the cash flow of a transaction to differ from its transfer value or the corporate action is booked after a value adjustment of the original position to its market value. This value adjustment can then be reversed in the new position if so desired. Both methods have their drawbacks. The setting of cash flows independent of the transfer values requires supplementary information and the adjustment to market values is more time-consuming. That is why the transfer is often booked with the unadjusted book values. Note that the performance at the level of the whole investment is always independent of two cash flows that offset each other. The same is true for the performance of asset classes when the asset class of the original security is the same as the asset class of the new security, which is often the case. Of course, the performance at the level of individual positions requires cash flows based on market values.

Finally consider the corporate actions that change the existing position, but do not let it disappear, and have influence on one or several other security positions.



Corporate Actions	Effect	Cash flows
Spin off	Booked as a debit on the asset account of the spin off security and a credit on the asset account of the original security. The original position still has the same quantity, but a reduced book value. The new spin off position has a quantity given by the number of securities received and a book value equal to the reduction booked on the original transaction.	Creates a cash flow from the original security to the new spin off security.
Detachment of subscription right in a capital increase	Booked as a debit on the asset account of the subscription right and a credit on the asset account of the original security. The original position still has the same quantity, but a reduced book value. The subscription right position has a quantity given by the number of rights received and a book value equal to the reduction booked on the original transaction.	Creates a cash flow from the original security to the subscription right.

For this type of corporate actions too, a definition of the corporate action allows the computation of the transfer values. In the case of a spin off for example the corporate action definition will look like this:

	Outgoing	Incoming
Original security	s %	
Spin off security		100 %

These numbers simply say that s% of the book value must be taken off the original position and that 100% of this value have to be added to the new spin off security position. Once this table is defined, the corporate action can be booked by two simple transactions: a "transfer outgoing (book value)" transaction on the original position and a corresponding "transfer incoming" transaction on the new security position. These transactions only comprise the quantities involved, they have no information whatsoever about the book value. They reference the definition of the corporate action and ePOCA automatically computes the corresponding book values. The percentage of outgoing book value (s %) is normally computed as the ratio of the market value of the spin off to the market value of the original security.

Extensions

More complex corporate actions can be defined as a combination corporate actions described above and therefore handled the same way.

This method can also be extended to accounting systems where the book value is split into several components. For example a book value can be the sum of an acquisition and an adjustment value.

Corporate actions can be booked in ePOCA as "preliminary" transactions. This considerably enhances the power and flexibility of the method described above, since the book values are automatically recomputed after each change. The transfer values are therefore always up-to-date and the risk of positions having a quantity of zero, but a non-zero book value ("ghost" positions) is practically excluded.

Complete example

See our separate ePOCA document for a complete example of a "capital increase" corporate action.