Share Purchase Agreements
Does the chosen purchase price mechanism impact the end price?
Undertaking a professional due diligence exercise has become an established part of the transaction process. The due diligence findings are typically taken into account either in the purchase price, including the price mechanism, in the contractual terms of the Share Purchase Agreement, or in the integration. This brochure provides an overview of (i) the link between the chosen purchase price mechanism and the final price paid, (ii) the importance of a “value accrual” in a locked box mechanism and (iii) current trends in use of a “value accrual”.

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Overview

Over the past few years, Ernst & Young has analyzed a significant number of Share Purchase Agreements (SPA) and published three studies investigating the accounting rules for completion accounts, purchase price mechanisms and current trends in practice.

When it comes to the acquisition of a company in a share deal, two main ways can be considered. Either both parties can agree on an initial purchase price, which is subject to price adjustments at closing or parties can agree on a fixed price (locked box) based on a historical date (e.g. latest audited financial statements).

One factor, which parties find difficult to assess, is which purchase price mechanism (i.e. locked box or price adjustment mechanism) results in the highest end price when all factors are considered and consequently whether an existing difference in end price appropriately reflects the allocation of risk between the parties between signing and closing of the transaction.

This brochure looks at the conditions under which both mechanisms will result in the same purchase price. It will be demonstrated that the key determinant is the value accrual, defined as the compensation paid to the vendor for the additional value created between the locked box date and the completion date. Furthermore, the present brochure examines whether there is a correct theoretical value accrual and its application in practice. We first present the two main SPA mechanisms.

Price adjustment mechanisms based on closing accounts

► Financial due diligence based on the last financial statements e.g. 31 Dec. 2012.
► The final purchase price consists of a headline price plus/minus purchase price adjustments.
► Purchase price adjustments are typically defined in relation to specific target values at the closing date (most frequently NWC and net debt) which generate one-for-one price adjustments.
► Risks and opportunities do not fully pass to the buyer until the closing date.
► The seller retains the risks and rewards associated with issues covered by price adjustments up to the closing date (and hence also the risk of poor trading - to the extent it impacts the price via the price adjustment)
► The buyer assumes the risk for items not covered by price adjustments on signing and will usually seek protection in these areas through “covenants of conduct” or “material adverse change” clauses in the SPA.

Locked box mechanism

► Financial due diligence based on the last financial statements e.g. 31 Dec. 2012.
► Stipulation of a fixed purchase price based on the most recent set of audited financial statements (31 Dec 2012) or on equivalent interim financial statements ("locked box date").
► Risks pass to the buyer as of the locked box date (unless protected by “material adverse change” clauses).
► The buyer will receive the benefits of the target company’s cash flows from the locked box date.
► Clauses in the SPA provide protection against potential value erosion and leakage between the locked box date and the closing date (anti-leakage and pre-completion covenants).
► Payment takes place on the closing date. The seller is typically “compensated” for the time lag between the locked box date and payment date and for the value the seller generates by charging a form of interest on the purchase price for this period (the “value accrual”).

Figure 1 Transaction overview - price adjustments based on closing accounts and locked box mechanisms
In order to demonstrate what conditions are needed so that a locked box mechanism and a purchase price adjustment mechanism lead to the same result, we use below a transaction scenario based on several simple assumptions.

Assumptions

► In our practical case, we assume the sale of a company for an agreed cash and debt free purchase price and with a “normal” net working capital (NWC) level amounting to CHF84m. This price arises from 7x of EBITDA in 2012 (figure 2).

► The signing of the SPA takes place on 31 July 2013 and the closing will be effective as of 30 September 2013. Concerning the locked box case, the last audited financial statements are dated 31 December 2012.

► Our practical scenario assumes simplified definitions of net working capital and net debt as well as no taxes and no capital expenditure (capex).

► It is assumed that the debt target equals zero and that target NWC equals average NWC.

► NWC has recurring peaks of CHF40m in Apr12, low points of CHF10m each September and CHF19m each December year end giving an average of CHF25m as shown in figure 4.

► A cash conversion of 100% of EBITDA before changes in NWC is assumed.

<table>
<thead>
<tr>
<th>Balance sheet</th>
<th>Dec12</th>
<th>Expected Closing Sept</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MCHF</td>
<td>MCHF</td>
</tr>
<tr>
<td>Cash</td>
<td>10</td>
<td>28.0</td>
</tr>
<tr>
<td>Net Trade receivables</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Inventory gross</td>
<td>30</td>
<td>10.5</td>
</tr>
<tr>
<td>Inventory provision (33%)</td>
<td>-10</td>
<td>-3.5</td>
</tr>
<tr>
<td>Inventory net</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td>Fixed assets</td>
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<td>20</td>
</tr>
<tr>
<td>Total assets</td>
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<td>70.0</td>
</tr>
<tr>
<td>Trade Payables</td>
<td>-10</td>
<td>-12</td>
</tr>
<tr>
<td>Accruals</td>
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<td>-2</td>
</tr>
<tr>
<td>Deferred revenue</td>
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<td>-5</td>
</tr>
<tr>
<td>Bank Debt</td>
<td>-10</td>
<td>-10</td>
</tr>
<tr>
<td>Provisions</td>
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<td>Subtotal</td>
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<td>-34</td>
</tr>
<tr>
<td>Start Equity</td>
<td>0</td>
<td>-28</td>
</tr>
<tr>
<td>Net profit to Sept 2013</td>
<td>0</td>
<td>-8</td>
</tr>
<tr>
<td>Closing equity</td>
<td>-28</td>
<td>-36.0</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>-60</td>
<td>-70.0</td>
</tr>
</tbody>
</table>

Price adjustment

As illustrated below, it is assumed that NWC at closing (Sept13) is identical to the prior year level, amounting to CHF10m.

The expected NWC adjustment derives from the target of CHF25m (average NWC) less the amount at closing of CHF10m, leading to a price reduction of CHF15m (figure 3).

The expected cash/debt adjustment is +CHF18m being:

(i) the net debt position per Dec12 (CHF0m), plus

(ii) the cash generation resulting from the 9 month’s EBITDA (before changes in NWC) until closing (CHF9m) calculated as the 2013 EBITDA forecast of CHF12m multiplied by 9/12 for the 9 months from January to closing, as well as

(iii) the crystallization of CHF9m cash from the swing in NWC between Dec12 (CHF19m) and completion (CHF10m).

Thus, the purchase price is adjusted by NWC of CHF15m and net debt of CHF18m. This gives a final purchase price of CHF87m (figure 4).

Workings

Cash generation (100% conversion) for 9 months

Expected NWC swing Dec12 to Sept 13

Expected cash/debt (Dec12 plus amount Jan-Sept)
Locked box

In the locked box scenario, we also assume an agreed base price of CHF 84m (cash and debt free and with a “normal” NWC). However, the buyer will typically consider the level of net debt or cash as well as the level of NWC at the locked box date (compared to the average) and include “implicit” adjustments in the fixed price bid. These implicit adjustments are then made to the base price to arrive at the fixed locked box price which will appear in the SPA.

We look at these implicit adjustments in turn.

► The balance sheet shows that NWC at Dec12 amounted to CHF 19m (using the implicit SPA definition of accounts receivable, inventory and accounts payable) compared to the average NWC of CHF 25m. Consequently, NWC at the locked box date is CHF 6m lower than average. This reduces the price by CHF 6m (figure 6).

► Net debt at the locked box date amounts to CHF 0m, deriving from the difference between cash (CHF 10m) and bank debt (CHF-10m).

Adding these factors, we obtain a base purchase price of CHF 78m (CHF 84m-CHF 6m). This is the amount which will be presented as the fixed price in the SPA (at the locked box date). This CHF 78m therefore already implicitly includes adjustments for NWC and net cash/debt.

Next, we need to consider the cash or “value accrual” paid by the buyer to the seller, for the period between locked box and closing. In order to make the end price the same as we have under the price adjustment mechanism a balancing amount of CHF9m is needed. This CHF9m (i.e. the required value accrual) equals CHF1m per month for 9 months which is the same as the pro rata EBITDA forecast of CHF 12m for 2013 and an assumed cash conversion of 100% of EBITDA.

The final purchase price of CHF 87m derives from the fixed price of CHF 78m plus a cash accrual payment of 9MCHF for the 9 months from locked box to closing (figure 6).

<table>
<thead>
<tr>
<th>Locked Box Price</th>
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<tbody>
<tr>
<td>Equity price per Dec12</td>
<td>84</td>
</tr>
<tr>
<td>Less assumed debt per Dec12</td>
<td>0</td>
</tr>
<tr>
<td>Less amount Dec12 NWC below average</td>
<td>-6</td>
</tr>
<tr>
<td>Base purchase price (listed as price in SPA)</td>
<td>78</td>
</tr>
<tr>
<td>Plus cash accrual</td>
<td>9</td>
</tr>
<tr>
<td>Total Net Price Paid</td>
<td>87</td>
</tr>
</tbody>
</table>

Figure 5 Locked box mechanism result

Conclusion

► This scenario shows that under these conditions the price achieved through the locked box mechanism equals the price determined by the purchase price adjustment mechanism (figure 4 and 5). Furthermore it can be observed, that if a seller does not obtain a cash accrual which is close to the target company’s earnings/cash generation then it is advantageous for the Seller to choose the purchase price adjustment mechanism. Indeed, the purchase price mechanism ensures a 100% recognition for cash and NWC generated until closing.

► The next complication is to understand how to estimate the cash accrual amount when we introduce more complicated cash flows such as capex, interest, changes in other working capital items, provisions and dividends. We do this by considering several scenarios in the next section.

► In this simplified scenario, whether closing actually takes place in September or is postponed by a few months does not impact the monthly value accrual of CHF1m required to ensure purchase price method parity. This is due to the fact that the EBITDA is assumed not to be seasonal. It should however be noted that the value accrual needs to be quoted in the SPA on a monthly, weekly or daily basis in order for the amount to be easily calculated once the final closing date is known.
Is there a correct theoretical value accrual in the locked box mechanism?

As previously demonstrated, the existence of a cash or value accrual is of great importance for the buyer. The following section aims to derive the correct theoretical cash or value accrual method by introducing several scenarios.

Base scenario

The transaction scenario presented in the previous section makes the assumption that the cash conversion is 100% of EBITDA before changes in NWC (based on the NWC definition per SPA) and that for reasons of simplification no capex and no taxes are included. In this case, the theoretically correct cash accrual (i.e. in order to have price parity between purchase price mechanisms) equals the EBITDA of CHF 1m per month.

Scenario A – What happens if capex is expected between the locked box date and closing?

The investment in capex between the locked box date and closing leads to lower cash at Sept12. The resulting increase in net debt, will lead to a lower purchase price determined by the price adjustment mechanism. In contrast, the locked box mechanism does not deduct capex from the price as a debt like item, as the change in capex takes place after the locked box date. In order to keep the end price result of the locked box mechanism and price adjustment method the same, the value accrual amount should be calculated after expected capex between locked-box date and closing.

Scenario B – What happens if interest payments are expected between locked box date and closing?

Interest payments between locked box date and closing will lead to lower cash at Sept12. Similar to scenario A, lower actual cash will reduce the final price in the case of a purchase price adjustment mechanism. In order to keep the results of the two methods the same the value accrual should therefore be calculated after expected interest payments.

Scenario C – What happens if changes in defined NWC are expected between locked box date and closing?

In the price adjustment method a change in NWC (within the implicit SPA NWC definition) is offset by the net debt adjustment (as NWC crystallizes into cash, or “locks-up” cash). To keep the result of the two methods the same the value accrual is calculated excluding expected changes in defined NWC.

Scenario D – What happens if changes in account items outside the implicit NWC definition are expected between locked box date and closing (e.g. other accounts receivables or prepaid items)?

Changes can also occur outside the definition of NWC, e.g. decreases in other accounts receivables. In the price adjustment method these changes increase cash which leads to a higher final price. No compensation in NWC Adjustment takes place, as the relevant items are outside NWC target definition. To keep both methods equal, the value accrual should be calculated after expected changes in other receivables.

Scenario E – What happens if changes in NWC items which are (i) outside the implicit NWC definition and (ii) not leading to a crystallization of cash (e.g. release of provision) are expected between locked box date and closing?

Another scenario of NWC changes outside the target definition can notably be a warranty provision release or deferred revenues release which does not generate a crystallization of cash. If deferred revenues decrease, no changes in cash and hence in price can be observed. As this change in NWC is outside the NWC definition, no impact on the price can be observed under the price adjustment mechanism. In order to achieve the same result for both mechanisms, the value accrual calculation needs to either:

(i) check the provision release is included in the expected EBITDA or cash flow starting point (if it is, then this release is netted-off by the change in provision in the cash flow calculation); or

(ii) if the provision release is not included in the expected EBITDA, then the expected change in provision / NWC items which don’t crystallize into cash should be excluded from the value accrual estimate.

Scenario F – What happens if there are changes in NWC (within the implicit NWC definition) which are non-cash transactions between locked box date and closing (e.g. reduction in bad debt provision)?

In the price adjustment mechanism, a non-cash-crystallizing change in defined NWC for example a decrease in the accounts receivables provision lead to an increase in NWC while cash remains stable. Consequently, the price would rise if the provision release is not prevented through the SPA closing accounts preparation rules. For both SPA mechanisms to give the same end price, the locked box mechanism value accrual would need (similar to scenario E) to check the provision release is included in the expected EBITDA.

Scenario G – What happens if dividends are paid between locked box date and closing?

In the price adjustment mechanism the payment of dividends would reduce cash at closing and hence reduce the price. To keep the result of the two methods the same the value accrual is calculated after expected dividend payments (in the SPA any amount of dividend needs to be regulated through a specific “permitted leakage clause”).
Conclusion on value accrual calculation

The scenarios demonstrate that for the two SPA price mechanism to give the same result the locked-box value accrual should:

(i) be a cash based accrual method rather than one based on debt or equity-like rates of return; and
(ii) it should be estimated as free cash flow before changes in balance sheet items which are already included the NWC or net cash/debt lines already implicitly taken into account in the base price determination at the locked-box date.

Justifiable price changes?

In scenarios D and F we see that the end price is increased via decreases in other receivables (outside the NWC definition) or by reductions in inventory or receivable provisions. While we have outlined how the locked-box value accrual can be calculated to ensure price parity between SPA mechanisms in such situations, it could be argued that neither situation should economically lead to an increase in price. In the case of the price adjustment mechanism, the solution lies in setting tighter accounting rules for the closing balance sheet preparation. In the case of the locked-box value accrual: (i) provision releases within the NWC definition should be excluded from the EBITDA cash flow start point; and (ii) the impact of changes in NWC items outside the implicit SPA NWC definition should be excluded from the value accrual estimate.

Seasonality

It should be noted that uncertainties over the duration of the locked-box period, e.g. if closing moved from September 2013 until April 2014 would not change the “best theoretical” value accrual estimate provided that:

(i) the NWC definition used for the implicit price adjustment taken into the base price at the locked box date includes all materially seasonal NWC account lines (i.e. the NWC analysis and price setting should use a wide NWC definition); and
(ii) The EBITDA is not seasonal

Where the target company has seasonal EBITDA or there are balance sheet lines which are seasonal and neither included in the implicit NWC nor in net debt definitions the value accrual calculation should be performed monthly and for enough months into the future to allow for some possible closing date slippage.

Current trading

So far, we have not factored into our scenario the possibility of current trading data between locked box date and closing. If current trading data indicated lower performance than originally expected, this would also change the expected EBITDA and cash generation until closing and with it the expected net price from the purchase price adjustment method. Therefore in order to keep price parity between methods, the value accrual calculation should also use the latest cash flow and EBITDA forecasts including the current trading data available.
Analysis

Ernst & Young analyzed 70 SPAs with locked box mechanisms between 1999 and 2013 in order to identify trends in value accrual techniques.

Value accrual techniques in practice

► The “value accrual” represents the compensation to the vendor for the additional value created in the business between the locked box date and the completion date.

► Our analysis was based on the following categorization tree:

[Diagram: Categorization tree with options for value accrual: Fixed interest rate, Lump sum, Cash accrual (based on future CF), Equity-like rate, Debt-like rate, Other 9%]

Figure 6 Categorization

► We observed that only 16% of the analyzed locked box SPAs contained a value accrual.

Figure 7: Analysis of locked-box SPA’s

► We observed that the SPAs included only an interest-based value accrual. The parties neither applied lump sums (at least not explicitly in the SPA) nor cash accruals.

Figure 8: Analysis of locked-box SPA’s with value accrual

► In practice, there are three ways of estimating the amount:

1) An interest rate based on the purchase price can be applied. This is based on the argument that instead of paying on the locked box date, the buyer only pays at closing and therefore compensates the time value of money by an interest rate. The parties typically argue between (i) an equity-like rate and (ii) a debt-like rate. From the seller’s perspective the higher the interest rates the better, leading to a preference for an equity-like rate.

2) Parties can also agree to include a lump sum in the equity price.

3) The cash accrual, which is an estimate of the cash which the company will generate per month from the locked box date until closing.

► In only 82% of the SPAs including a value accrual, the compensation covered the period from the locked box date to closing. The remaining SPAs contained a value accrual between signing and closing.

► The majority of value accruals applied a debt-like interest rate (>5%).

► Several of the debt-like value accruals made reference to Euribor or Libor plus a typical market premium.

The first use of explicit value accruals in SPA’s which we identified was in 2006.

Figure 9: Analysis of use of value accrual in our sample 1999-2013
Conclusions

When entering into a transaction to buy or sell a business, consideration should be given to which type of price mechanism is most desirable. The agreed mechanism will influence, among other things, the likelihood of post-closing disputes, the level of resources required to manage the closing process, the timing of risks assumed and exposure to the risk of value erosion and value leakage.

The present brochure has demonstrated that the chosen purchase price mechanism (locked box or purchase price adjustment) has no impact on the end price of the target company only if a number of assumptions are met, notably around the value accrual estimation.

For the two mechanisms to give the same price result, the compensation to the seller from locked-box date until closing should (i) be a cash based value accrual; and (ii) the cash accrual should be estimated as expected free cash flow before changes in balance sheet account items already included in the implicit NWC and net debt adjustments built into the locked-box base price.

In reality, applying a value accrual method which should lead to the same price as a price adjustment mechanism passes all earnings / cash generation to the seller until closing, even though the buyer is taking on (per the signing date) significant risks from the locked box date. Indeed the buyer in a locked-box mechanism takes on more risk earlier in the transaction than the buyer using a price adjustment mechanism. This implies the “locked-box buyer” should pay a lower end-price and hence have a value accrual which aims to do this. The theoretical cash accrual required to give price parity between SPA mechanisms can be seen as a maximum. Value accruals which are too low or give no compensation to the seller from locked-box until closing incentivize the seller to switch to a price adjustment mechanism so the seller is paid for the actual net cash/debt present at closing.

When arguing between types of interest based compensation methods, buyers should highlight that they take on effectively all trading risk between locked-box date and closing (as of the signing date). This implies that an equity-like rate of compensation on the purchase price would over-reward the seller.

In our view, the range of suitable value accruals is therefore from a debt based interest on the purchase price (minimum) up to a cash based value accrual which would give SPA method parity, as outlined in this brochure (maximum).

In practice, we see that value accruals are used in only a minority of locked-box transactions and when they are used are based on debt-like interest rates. In our view, the reasons for this include:

(i) A lack of clarity on how the value accrual should be calculated

(ii) Unawareness of the price impact when choosing between locked-box and price adjustment mechanisms and the role the value accrual plays in this

(iii) A lack of visibility on the timing of closing which leads to confusion around the impact this could have on the value accrual estimation and discussion.

As a consequence, sellers accepting locked-box mechanisms have, based on the SPA sample we analyzed, left “cash on the table” by accepting a low or no value accrual.

In our other SPA brochures we have provided our view on factors to consider in the selection between locked box and price adjustment methods and current trends in their use. We hope this brochure can allow buyers and sellers to be more comfortable in the use and estimation of a value accrual in locked box deals.
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