Master Thesis

M&A: Deutsche Post DHL and Austrian Post

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Abstract

The goal of this thesis is to assess how would a potential deal between Deutsche Post DHL (also referred to as DPDHL or simply DHL) and Austrian Post (also referred to as Österreichische Post or simply OP) result in terms of value creation for both companies. In an era of abrupt economical and technological changes, the Transportation and Logistics sector is one of the more affected, and thus the urge to constantly adapt. The top capabilities of DHL as well as geographic proximity with OP could leverage very important efficiencies of many kinds.

Common practices on valuations are used to assess the individual value of both companies, which serve as basis to project future trends based in case a merger would take place. Decreasing traditional Mail volume and opportunities in Express deliveries due to e-commerce are found to be the main factors affecting the value of these companies.

Following the cautious estimation of resulting synergies, an all-cash offer of €39.2 per share was proposed, resulting in a premium on average share price of 25.1% to OP's shareholders.

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1. Introduction

The Postal Services Industry is by nature very cyclical and correlated to prevailing economic conditions. This factor per se has been posing great challenges in the industry, given the deep economic crisis most mature markets face. Adding to this, there has been for the last decade a structural shift in the market, result of the technological changes worldwide. It is thus of utmost importance for companies in the transportation, postal services and logistics to find ways to cope with this new paradigm of globalization and IT era.

After analyzing the aforementioned trends, It will be studied how these trends can affect the businesses of the two companies in question. While traditional mail is decreasing – most likely irreversibly – courier express and parcels are expected to experience a robust growth over the next few years due to the increasing importance of e-commerce in the economy: this trend means that transportation companies will have to find solutions to suit ever increasing demand for high quality services at lower prices. This situation has put some pressure on companies that will seek means of achieving better performance, namely through acquisitions. So is the case of the recent failed attempt from UPS to acquire TNT Express. This consolidation trend may imply that the pioneers in realizing this urge will come on top.

While DHL has a global span, the Austrian company has a more regional focus with interests in surrounding markets in central Europe, namely Germany and South Eastern Europe. This last fact may come as a strong rationale for this transaction going forward as companies have overlapping services and distribution networks in Europe, which could lead to greater efficiency, better quality and cost cuts in a combined company.

In the legal scene, the industry has been deregulating over the recent years and most of the state-owned companies have been, at least, partially privatized. So is the case of Austrian Post (OP), where 47.2% is now free-float. DHL has a longer record as a public company since its IPO occurred in 2000.

2. Literature Review

This section will aim at laying the ground for the intricacies surrounding the proposed transaction. It will firstly look at the main reasons why do companies merge, by understanding the most recent trends in M&A, what drives companies into such complex transactions and what are in fact the outcomes of such transactions for both acquiring and target companies. We will then go through the main elements to consider when analyzing M&A: the valuation of individual companies, synergies involved and special components to cross-border M&A.

2.1. Why do companies merge?

There has been great discussion on the reasons underlying the merger of corporations with very different visions, cultures and ambitions. Given the usual complexity of these transactions and the difficulty in assessing their results, there has been a flow of research studies trying to connect the outcome of M&A with their motivations, industry trends and firm specific aspects.

2.1.1. Recent trends in M&A

M&A activity has been living hard times since the collapse of the global financial system in 2008. After decades of robust growth, transaction levels have faced gigantic drops and some difficulties to comeback to pre-crisis levels. The peak in the growth trend was achieved in 2007 when total value reached $3.5 trillion, going below $2 trillion in 2009 (see **Figure 1**, Source: Mergermarket, 2012).

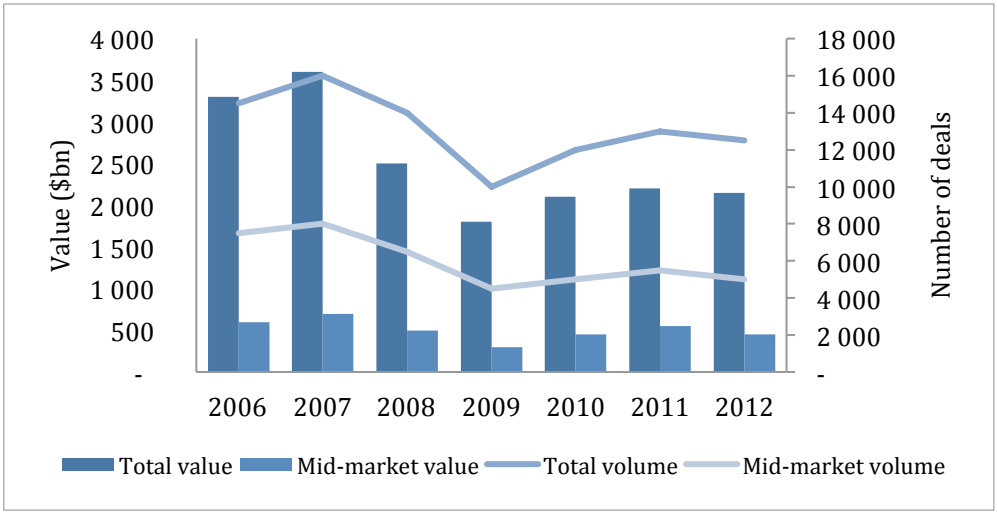


Figure 1: Global M&A, annual trend

A study from Mergermarket (2012) concludes that expectations for 2013 are that value will increase and the market will be more buoyant. In fact, this tendency was noticed in the last quarter of 2012, when there was a great rise in M&A levels as opposed to the first 9 disappointing months. In Europe M&A activity showed small signs of recovery with activity of €530 billion (€681 billion in 2008). Perspectives are that the market will speed up during 2013.

2.1.1.1 The rise of cross-border activity

While the economic downturn is shaping some of the most recent M&A activity various trends were already noticeable. Such is the case of cross-border transactions (see **Figure 2**, source: Dealogic, 2008). More difficult access to credit from private equities in the US, coupled with the reluctance of US corporations to use their excess cash in acquisitions has led to a slowdown of transactions in US.

On the other hand, emerging market companies have been consolidating their internal positions and starting to claim a presence in the global scene, as illustrated by 2007 figures, when 12 out of the 15 biggest non-private equity M&A deals announced were cross-border transactions (Zenner, et. al, 2008).

While the US still account for the largest country in cross-border transactions, its position is changing: it is becoming more an inbound country and less an outbound country in terms of investment flows. BRICM countries on the contrary increased their cross-border share from 0.3% to 1.7% from 2001 to 2007. Despite the trend of becoming more and more acquirers (1.7% of all M&A) they are still more likely to be target (3% of total M&A).

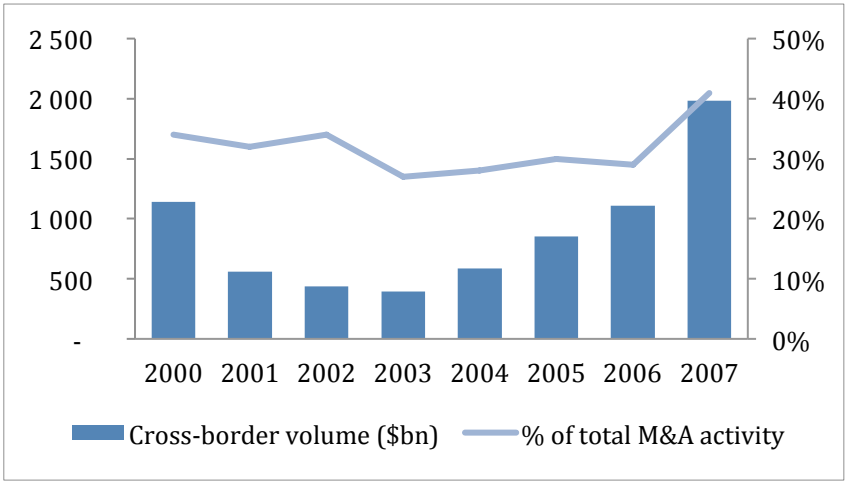


Figure 2: Cross-border Transactions

There are long-term factors that will persist over time, as well as short-term factors that have recently boosted players to seek opportunities abroad. All these factors need to be contextualized since that there are some barriers that still refrain companies and PEs to look for further alternatives cross-border. For instance, the risk of expropriation may still be very high in some countries and investors will thus not pursue opportunities regardless of the soundness of those countries' targets. We can divide these factors in favorable and unfavorable as boosters of this trend (adapted from Zenner et. al, 2008).

Favorable Factors

Structural changes: globalization, meaning that global players have been seeking scale, growth, access to lower production costs and returns in other countries; geographic diversification, in order to reduce "sovereign exposure" or the likelihood of expropriation; deregulation in the last few years has prompted major energy, industrial, banking and transportation companies to enter into M&A after sector deregulation.

Short-term drivers: high equity valuations usually mean high growth prospects and pressure to meet investors' growth expectations force global companies to seek growth through cross-border deals (see Figure **1** and Figure **2**); major currency shifts (weak USD) induce emerging markets players to feel that USD denominated assets are undervalued and thus a good investment opportunity; reduced competition from financial sponsors (PE transactions in U.S were 40% of M&A volume in early 2007 and only 15% by that year-end) and strategic domestic buyers, leaving room to foreign acquirers.

Unfavorable Factors

Short-term drivers may not persist and some degree of protectionism by several countries limiting foreign ownership in sensitive or strategic industries such as defense, media, transportation and certain technologies. The ghost of nationalization increases the political risk for firms investing in emerging markets (recall the case of Repsol in Argentina in 2012). Some acquirers try to mitigate these risks by acquiring non-controlling stakes and financing locally.

2.1.1.2. Emerging or Mature markets, which to target?

The global crisis has set even further apart the trends of the mature countries from the still growing emerging economies. As so, the next few years of M&A activity will be characterized by the trade off between investing in less sound but also less risky mature markets and the growing and risky emerging markets. The main factors to take into consideration when making the investment decision are summarized in **Figure 3** below (adapted from Mergermarket, 2012).

	TARGETING THE EMERGING MARKETS	TARGETING MATURE MARKETS
PRIMARY BUSINESS GOALS	Product Expansion Customer base expansion	Production expansion Market share expansion
REASONS TO ENTER	Economic growth Industry growth	Favourable foreign investment policy Market size and opportunity
MAJOR CONCERNS	Regulatory environment Corruption Culture compatibility	Saturated markets Over-regulation Currency exchange fluctuations
PRIMARY OBSTACLES	Foreign direct investment and tax regimes	Valuation Metrics

Figure 3: Factors affecting expansion decisions

Emerging markets will be the likely target for companies trying to expand their customer base or seeking abnormal growth. This strategy has to be coupled with some cautious measures since factors such as lack of regulation (even if one of the main reasons to enter), may cause immense losses as it has done in less regulated mature markets. Adding to this, cultural differences and inefficient flows of capital may difficult doing business in such environments or even obstruct wealth gains for domestic shareholders.

On the contrary, mature markets will be ideal for companies seeking market share expansion and efficient capital flows. However, the tighter regulations may be a massive hindrance for entrepreneurial and M&A activity (like the case of TNT Express and the failed acquisition attempt by UPS).

2.1.2. Rationale behind M&A

As shown in the last section there are major macro-economic forces that are shaping the World and driving the way companies and investors see business. This section departs from these recent trends and tries to provide an explanation for the overall influences in M&A over time. This amplified look sets the ground

for a deeper understanding on why companies decide to enter into M&A, as well as how those reasons may affect the final outcome on combined companies.

2.1.2.1. M&A depends on macro issues: time and place…

There is a flow of belief that M&A is a lot of times driven by a buoyant market and significant changes in the industry.

A 2001 study, for instance, reported that the M&A activity in 1890-1930 was mostly driven by the diffusion of electricity and internal combustion engine, while in 1971-2001 was often times associated with development of Information Technology (Jovanovic and Rousseau, 2002). A 1996 study found that during the merger wave of the 1980s, the most active industries in M&A activity were the ones experiencing significant shocks like technological innovation, deregulation, demographic shifts and input price shocks (see **Figure 4**, Wasserstein, 1998).

All in all there are forces in given times and regions that force managers to adapt to new realities and M&A comes as one of the most common answers for this need of adjustment.

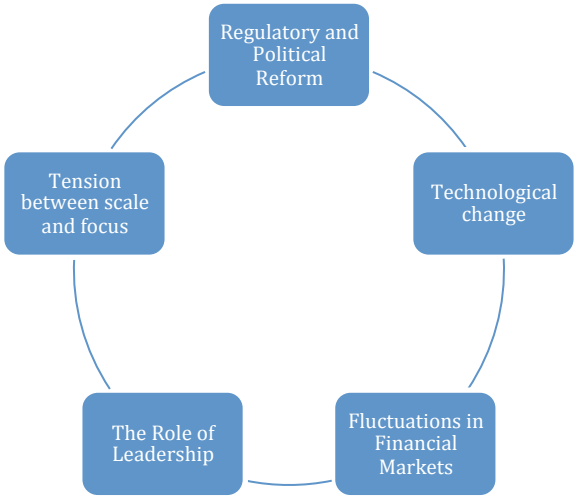


Figure 4: Forces driving M&A

2.1.2.2. …and micro factors: where managers have the say

Companies and managers state several reasons to enter into M&A deals. Some of the most usual ones are described bellow - as well as their most common connection to the transaction outcome. The main areas covered are *Strategy*, *Investment Opportunity* and *Governance* (Bruner, 2004).

Companies' strategy is the path they ought to pursue in the foreseeable run. Since strategy relates to the evolution of a company, M&A is sometimes seen as the pinnacle of corporate realization. Several situations fall within this idea: growth, strategic restructuring, strategic synergies and destination for excess cash.

Companies may want to grow by either focusing on their current core business or by diversifying into other businesses. Focusing usually seeks cost savings, asset reductions and other efficiencies, besides the implicit increase in market share and power. While returns for bidder are reported to increase with market share increase (Gosh, 2002), there is a complement study of 1992 (Ecke, 1992), which shows that stockholders gains are derived from higher efficiency and not increase in product prices. This evidence suggests that increased market share is not necessarily better, unless it translates into increased efficiency.

Diversification is usually a result of search for knowledge transfer, reduced financing costs or the acquisition of a specific differentiating skill from the target (e.g. sales force). In shareholders' perspective, it makes less sense the idea of diversification since they are able to do this by themselves without having to pay for it. One study on diversification returns examined 21 companies (conglomerates) and reported that they earn returns of 18% to 35% through acquisitions (Aslinger and Copeland, 1996). Diversification may also pay when the buyer and target are in information-intensive industries (Morck and Yeung, 1997). Several studies have found that diversified companies tend to have lower relative market values than more focused firms - 8 studies have found a diversification discount, which ranged from 8% to 15% (Berger and Ofek, 1995).

In conclusion, while research is ambiguous, it suggests that focus yields better results than diversification (Rumelt, 1982), at least on a regular basis. This derives from the fact that benefits from connected transactions are more easily deliverable and visible. Unless there are great or very specific management skills across the organization (for instance a private equity), the reality of having very different businesses may become too complicated to cope with.

Strategic restructuring is usually seen as the opposite of growth (especially divestitures). Gains from restructuring may essentially come from increased focus (which should ultimately bring efficiency) or market corrections

on previously undervalued conglomerates. Studies on the announcement of divestitures show significant abnormal returns of 1-3%. These studies also show that what is more important is the actual redeployment of assets and not only the sale – while using the money to pay back creditors seems to have positive effects, there is a neutral effect when it is used to reinvest in the business (Allen and McConnell, 1998). The conclusion of studies on this topic is that *continually reshaping the business to respond to changes in the competitive environment pays*.

The market reacts better when strategic synergies are likely to rise from the deal. The most likely synergies to be delivered are cost synergies and thus the ones that yield better reaction in stock prices. On the other hand, revenue and financial synergies are seen with more skepticism and thus discounted at a higher rate. A 1996 study refers that "the market is readily persuaded by the cost-cutting motive for mergers, while subjecting other rationales to considerable skepticism" (Houston and Ryngaert, 1996).

M&A transactions can be simply the destination for excess cash. This reason by itself seems a weak justification for M&A, unless when used profitably. While oftentimes there is value destruction on the announcement of M&A by cash rich companies, there is a study, which reports that if the post merger company is a result of a cash poor and a cash rich company, the improvement of debt ratio is positively related with gains to buyer´s shareholders (Bruner, 1988).

Underperformance or undervaluation (or both) by targets is often seen as an Investment Opportunity by acquirers. Evidence however is not sufficiently significant to support this idea. Public companies also see an opportunity in private companies, since financing restrictions, low number of competitor bidders and discount for low marketability put buyers in a good bargaining position (Bruner, 2004).

Also, when markets are overvaluing acquiring companies, they offer them a good opportunity for M&A. Not only are they able to acquire targets at a cheap relative price (in case of stock purchasing), as they will be able to transfer some of the prospective wealth losses to new shareholders (if they believe that their shares are overvalued, chances are that the market will sooner or later recognize this as well and price will decrease).

Companies' Governance influences greatly the way strategy is set and it thus plays a crucial role in M&A. When large institutional investors play an active part in influencing the management and board decisions, they can boost value to shareholders, since these more sophisticated and experienced investors are able to see the likely implications of a given proposed transaction and act accordingly, in their own interest (and that of other shareholders).

Reactions to announcement on buyer's stock seem to be related with the equity stake that managers have in the company (Datta et. al, 2004). Having equity interests in the company compels managers to enter only in transactions that will enhance the combined company value with high probability and thus a strong factor on disciplining managers.

2.1.3. Does M&A really payoff?

Regardless whether projected trends will prevail or new ones will arise, or whether companies will merge for management pride or strategic sense, in the end it all comes down to who will indeed win from those transactions: acquiring or target shareholders, or both (or none).

2.1.3.1. How to measure the success of M&A?

Before laying down the results of event studies on M&A - Event studies examine abnormal returns of acquirer´s shares against peers or benchmark; Accounting studies examine the reported financial results of acquirers vs. non-acquiring peers (Net Income, ROE, ROA, EPS, leverage, liquidity, etc.) - it is worth saying that some of the common knowledge on this theme (saying that M&A results in value destruction) comes from the fact that big failed transactions become better known than successes. In fact, it is shown next that, on average, selling shareholders have abnormal excess returns while shareholders of the buyer generally earn about what is the required rate of return on investment, which means that the combined shareholders earn significant excess returns.

This general idea also states that the failure of M&A is widespread and homogeneous, when in truth it depends very much on particular conditions surrounding the transaction, as we will see.

The sobering reality is that only about 20% of all mergers really succeed… most mergers typically erode shareholder wealth… the cold, hard reality is that most mergers fail to achieve any real financial returns… very high rate of merger failure… rampant merger failure (Grubb and Lamb, 2000).

Some studies refer to a specific point in time, which cannot be representative of the situation as a whole. For instance if there is a study on negative abnormal returns between 1998 and 2001, chances are that these transactions are being influenced by the dotcom crisis and it is not accurate in analyzing the true average outcome of M&A transactions.

For instance, there are two recent studies which try to decompose the effects of M&A outcomes and not only showing the average (see Moeller et. al, 2004 and 2005). They show that the adjusted returns for buyers amount on average to -$25.2 million. However in percentage terms, the average adjusted return to buyers was 1.1%. This inconsistency is caused by a few very negative deals, dragging the dollar amount down.

Additionally, most of the losses of 1980-2001 were concentrated in just 87 deals, out of 12,023 without which it would have yielded significantly positive dollar return. Not surprisingly, most of the 87 transactions identified took place in 1998-2001.

In Event Studies there are three (though the last one is merely conceptual) main measures to test the returns for investors (Bruner, 2004):

- Weak form – did the share price rise after the deal? This measure is weak because some moves in the share price may have nothing to do with the deal itself
- Semi-strong form – Did the firm's return exceed the benchmark? It already accounts for the fact that some changes can be driven by the whole economy or the industry in particular and not the deal itself. The problem here is that the peers/benchmark are not perfect
- Strong form – are shareholders better off than they would have been with no deal? This is the true test that will say whether the deal was good for shareholders or not. For instance, a company can decrease in share price and perform worse than the peers/benchmark, but the alternative situation could have been even worse. The problem with this method is

that we can never say what would have happened without the deal and thus this test is impossible to perform

Most of studies focus on the second method since it is the most accurate and still feasible.

What do results show?

Even though one usually refers to M&A as a single term, there are in fact a variety of forms in which the transactions may materialize and which may influence the actual outcome of them.

Transactions can be agreed upon by both management teams, with a friendly tone and non-opposing boards of directors and shareholders, in which case the transaction is said to be a merger. When the tone is more aggressive, there is no shareholder meeting or approval and % of shares sought is used, there is usually used the term of tender offer. Such transactions can either by paid by cash or shares or a combination of both.

Type of Transaction - In a sample of 947 acquisitions between 1970 and 1989 there are some interesting findings (**Figure 5**, Loughran and Vijh, 1997):

	5 year buy-and-hold return		
	Sample Firms	Matching Firms	t-statistic
788 mergers	81.2%	97.1%	Significant
135 tender offers	131.7%	88.7	Significant

Figure 5: M&A returns by type of transactions

These results suggest that while tender offers yield better returns for buyer shareholders, mergers show significant worse results. This may be explained by the idea that tender offers are successful at disciplining target management.

Type of Payment - Reasoning would suggest that companies should pay with stock when they think their shares are overvalued and pay with cash in other cases. This creates some suspicion on investors. Moreover, if companies do believe they will deliver all the gains from the acquisition, why would they want to share it with target shareholders by paying with stock?

Several studies are consistent with the belief that companies tend to acquire with stock when they think their shares are overvalued (Schleifer and Vishny, 2001). Despite this idea, results from a study (Loughran and Vijh, 1997) do not exactly attest this. The positive excess returns for using cash are only true for cash tender offers, while cash mergers show negative (insignificant) excess returns. In light of this study, it seems that excess returns on acquisitions are more linked to type of transactions than mode of payment.

2.1.3.2. Announcement Reactions and Target's Shareholders

Researchers seem to agree acquisitions are good for target shareholders (Jensen and Ruback, 1983 and Dodd, 1980). 13 studies that look at returns on announcement for target shareholders report successful tender offers delivered 30% return and mergers had an average of 20% (Jensen and Ruback, 1983).

The tender offers made between 1962 and 1985 – 663 analyzed – show different average premiums over time: while the 1960s had 19% premium average, in the 1970s this value was 35% and 50% in 1980-1985 (Jarrell et. al, 1988). This evidence may imply that premiums paid on acquisitions may be a reflection of prevailing market conditions at the time and not merely the underlying value of potential synergies.

A study on target company's stock price fluctuation around the announcement (see Dennis and McConnell, 1986) shows that some of the upside from the transaction is already incorporated in the price by the time it comes public, thus advocating that information leaks occur (**Figure 6**).

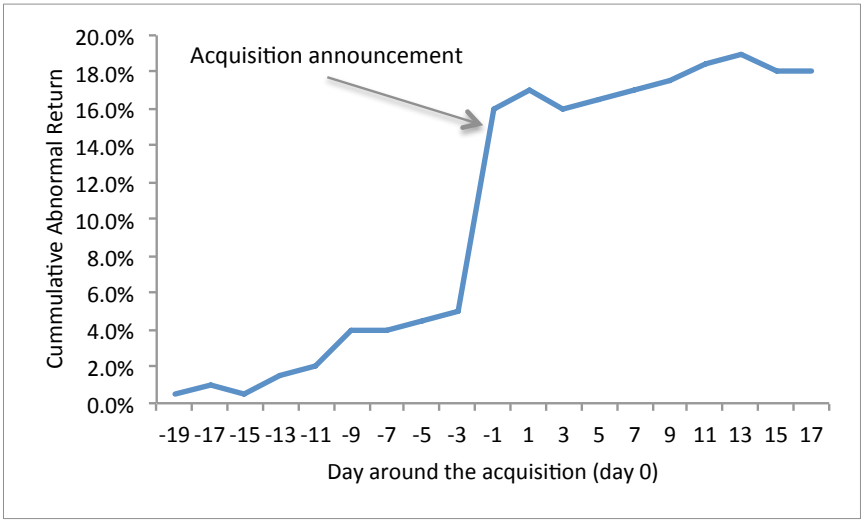


Figure 6: Target's stock fluctuation

Tender offers and hostile takeovers require higher premiums than mergers and friendly takeovers, as we can see in **Figure 7** (Source: Huang and Walking, 1987). This arises from two points: firstly it is more difficult to reach to an agreement when there is no prior management friendly negotiation and thus the higher price to persuade target to sell (management usually requires to be paid for the likely change in control). Adding to this, premiums paid on hostile takeovers are in line with the extra value prospected by the replacement of the target's management.

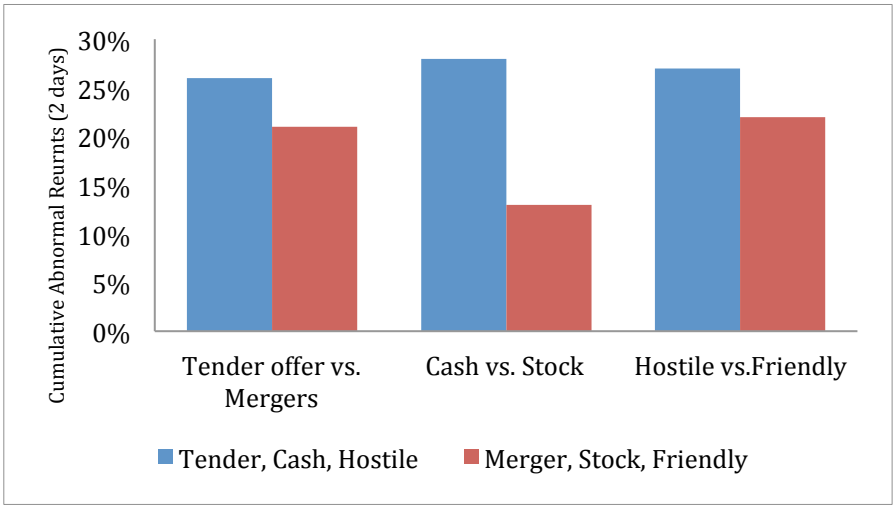


Figure 7: Target Firm Premiums in M&A

2.1.3.3. Buyer's Shareholders

Since the early 1980s until 1996, shareholders from acquiring companies have seen their shares decrease in price right after the announcement of the deal in more than half of the major deals (Sirower and Sahni, 2006).

A study on post-acquisition performance on the 50 largest U.S. mergers in 1979-1984 states that asset productivity of merged companies was higher than for their non-acquiring peers (Healy et. al, 1992). The rates of Capex of those companies were reported to have remained unchanged, which suggests that the higher productivity is result of higher performance and not of higher capital spending. Additionally, this study found that the stock movements to the announcement are related with performance improvements, attesting the idea that stock markets are good at predicting the quality/soundness of the transactions.

In a very recent study (Moeller et. al, 2005) it is shown that shareholders

from acquiring firms lost 12 cents in every acquisition dollar in 1998-2001, which in value terms represents $240 billion in total. The total value lost in the 1908s however represents only $7 billion. This fact gives strength to the idea that M&A can be very cyclical and in times where the market is growing, companies may have expectations way to optimistic on prospective deals that very frequently fail to materialize once the deal is concluded. A deeper analysis on the 1998-2001 figures once again indicates that such losses come from a few very large deals that have gone wrong, like the Time Warner/AOL deal.

If we look to pre-merger valuations of combined companies we assess that oftentimes, acquiring firms do pay a higher premium than the estimated value for the synergies, leaving shareholders in a worse position than they would have been if no transaction were made (Sirower and Sahni, 2006). This piece of information leads to the idea that managers may be aware of the value destroying action they are about to make and still decide to pursue the transaction for reasons other than shareholders' interests.

2.1.3.4. The case of cross-border M&A

Market Response - Academic Studies that compare cross-border and domestic M&A found that cross-border transactions earn higher returns than domestic ones (regarding acquirers' returns), at least in the short-term (Zenner and Shivdasani, 2004 and Chari et. al, 2004). Some of the factors explaining this are:

- Cross-border transactions can be so complex that only the ones that were very thoroughly analyzed do actually proceed
- Investors may value more geographic diversification than other types of diversification
- Emerging market companies may enhance their rating and debt market access which is usually more constrained when they operate only internally (cannot surpass own country rating)
- The majority of cross-border transactions have been cash-financed and the market reacts more favorably for that type of payment overall

Long-term results - If we divide transactions between cross-border and domestic, we observe worse results in international transactions: acquirers overpay more often than within borders. Forces driving these results are

asymmetry of information leading to higher overestimation of the value of the targets and more difficulties in delivering synergies in not so well known markets (Moeller and Schlingemann, 2004).

It is reported that foreign bidders pay higher premiums on U.S. targets than domestic bidders for the same targets (Marr et. al, 1993). This may be induced by the premium paid for the access to a more valuable market like the U.S. (Kohers and Kohers, 2000). As of today, this reality can be true in markets other than US. Should it be an emerging market with wide growth opportunities or other mature markets with preferred regulation, there are a lot of motives for crossing borders.

These contradicting results, suggest that while at first, investors are more enthusiastic on the announcement of cross-border transactions, the usual complexity of such transactions drives the combined company's value down and the initial excess returns soon fade away.

2.1.4. What goes wrong?

2.1.4.1. Inflated premiums

Companies and managers often pay more than they should. There are two main areas that have influence on this: the process of evaluation of the deal and the management itself.

The process of acquiring a company requires external players to evaluate and advise buyers on the best way to complete the transaction. This process often encompasses the recommendation of whether to acquire or not and at what price. The problem here is that external consultants (investment banks, auditors, strategy consultants) are paid on the basis of completion of the deal and often with a variable component, function of the price, which creates massive conflicts of interest towards the success of the transaction.

Adding to this, managers have a high influence on this topic and they are regularly driven by personal preferences without bearing in mind the best interests of shareholders. Hayward and Hambrick (1997) relate the premiums paid on transactions to the assessed ego of high-profile CEOs and found that those with highest relative power within the company do indeed overpay in acquisitions in a consistent basis. This gives strength to the idea that managers

that are too confident do take actions that are not in line with company's goals, and there is added value on disciplining.

2.1.4.2. Value undelivered: the synergy myth

M&A does not provide instant performance improvements for the combined company. Some of the most common mistakes in transactions depart from the assumption these improvements do materialize right away. M&A requires a full cash outlay (or stock) at the beginning while other growth strategies (like capacity expansion or R&D) can be paid overtime, which increases enormously the risks in the former.

Moreover, acquisitions create an opportunity for competitors to deviate human resources in times of uncertainty and once the transaction is completed, it is extremely costly to revert it in the event things do not go as planned (this situation is exacerbated by management pride discussed previously).

Synergy is one of biggest motivations for entering into M&A transactions. Between 1985 and 1986 there were over 25 out of 77 acquisitions whose prime rationale underlying the transaction was the existence of operating synergies (Bhide, 1993). However, synergies do not create by themselves: companies often forget to plan how synergies will actually be delivered (by either cutting costs or investing for new revenues). This will obviously lead to no synergies at all. The failure to plan for the synergies is also an issue even if they do materialize:

- The time value of money means that even if synergies exist, the longer they take to occur, the lower will be the NPV of the investment
- An acquisition shall only pay a premium for synergies if they provide a long foreseeable competitive advantage. Even if there is a short-term profit from the combined company, it can only be accounted for in the long-run if competitors do not have an easy way to replicate that advantage

2.1.4.3. Evidence on failure

There is the common belief that combined companies do in fact increase their value in comparison with their standalone values. There is evidence that market reacts positively to announcements on transactions. For instance,

between 1963 and 1984, 236 mergers reported a significant 7.48% value increase, on average, at their announcement (Bradley et. al, 1988).

These results of increased value are also in line with the hypothesis stated earlier that targets may usually be undervalued or under inefficient management and not necessarily linked to the existence of synergies, which can be misleading.

Studies on the post-merger performance of companies seem to support the idea that reactions on transactions reflect the confidence of shareholders on management disciplining or underlying undervaluation since that synergies fail to materialize. In 115 mergers in the U.K. in the 1990s, 60% of the transactions had return on capital below the cost of capital and less than a quarter earned excess returns (Barron's, 1998). The top deals between 1996 and 1998 proved a similar result: 17% created value, 30% were and the 53% remaining did, after all, destroyed value (KPMG, 1999).

A more complex result than underperforming peers is to undo the transaction after failed prospects. Among the mergers accounted between 1982 and 1986, 20.2% of them were already reverted by 1988 (Mitchell and Lehn, 1990). On the same line of thought, 44% of the mergers of another study followed the same destiny (Kaplan and Weisbach, 1992) because of overvaluation or lack of fit.

2.1.4.4. Mitigating the issue

There seems to exist a higher probability of success in acquisitions of smaller firms, rather than similar size firms. Acquiring small privately held firms is more likely to be successful than large publicly traded firms because the former have more capital constraints and thus an acquisition from a public company who enjoys better access to capital can be very beneficial. Moreover, having a price on the market puts some bias on the valuation. Having to value the company only on its merits rather than market expectations can prevent overpaying more often.

Planned synergies on cost savings are much more attainable and predictable than often very abstract revenue increases. This fact is illustrated by a McKinsey Study (**Figure 8**, Christofferson et. al, 2004). As we can see, over 60% of the acquisitions analyzed delivered at least 90% of the value promised on cost savings while the same degree of success was only achieved by less than 30% in

promised revenue increases. On the other hand, almost a quarter of the cases studied, delivered less than 20% of the projected value on revenue synergies.

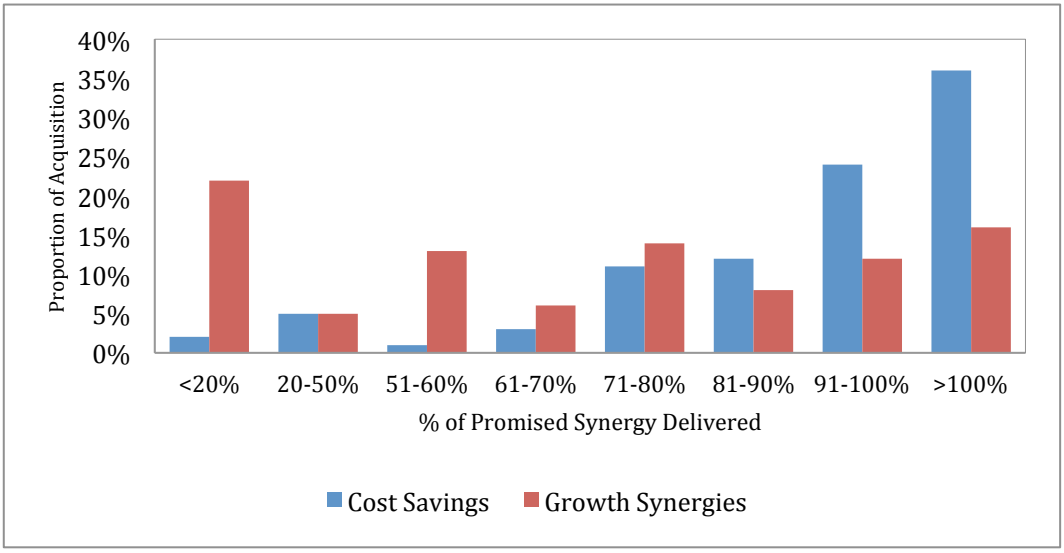


Figure 8: Synergies - Delivered vs. Promised

2.1.5. Conclusion

M&A does pay for target shareholders while most studies report that it at least breaks-even for acquiring shareholders. Even though the average abnormal returns may be close to zero, the distribution is not quite, which implies that some shareholders will in fact observe value destruction on their wealth.

2.2. What do we have to take into consideration?

Given the fact that M&A encompass the creation of a new company, there is more to account for than the Present Value of the Target. These changes will likely add value to the company through new management and its decisions, as well as the synergies that will likely occur.

Valuation of the company: Standalone Value of the Company (as is); no other effects

Synergies: V(AB) > V(A)+V(B); Operating and Financial Synergies

2.2.1. Valuation of the Company

In finding the value of the company as it is now, we can approach it in two ways: the capacity of generating future cash-flows for debtholders and equityholders

and discount it to today's values and assess how comparable companies are valued and use these relatives value to derive the value of the target.

Discounting Cash-flows

One way to understand the value of a given company is to predict how much cash it will be able to generate for the investors with interests in the company. In order to assess that, there are a few steps to be taken:

- Projections – In order to assess the earnings a company will have over the years, there will be computed forecasts on the EBITDA until a period where the company is able to stabilize (either by flat results or stable growth/decrease)
- Adjustments on EBITDA – This measure is often used, as it is the best proxy on the cash-flows a company will generate over the future. However, there are some adjustments that need to be made for cash movements. The most common ones are the deduction of Capital Expenditures (Capex), Changes in Net Working Capital and Taxes

After this analysis, we arrive to the FCF to the firm, which is the unlevered (as if the company was all equity finance – no account for debt and its implications) stream of cash flows that then need to be discounted back to the present, at the appropriate rate.

WACC

This measure departs from the idea that the projected unlevered cash-flows for the firm can be discounted at a rate that is a weighted average of the firm's after tax cost of debt and equity (Bar-Yosef, 1977).

The WACC is then used to discount the projected cash-flows to the present. The formula to the after-tax WACC (Brealey et. al, 2008) is as follows:

$R_d\ (1 - T_c)\ \frac{D}{V} + R_e \frac{E}{V}$, where R_d is the cost of debt, T_c is the corporate Tax Rate and R_e is the cost of equity.

Since the cost of capital derived from this formula is used to calculate the Value of the Company for all the periods in the future, it implies that some conditions hold true, namely constant cost of equity, constant cost of debt and constant leverage ratio, which is oftentimes very difficult to predict or satisfy.

While the cost of debt, the tax rate and the target capital structure of a company are more or less observable, the cost of equity, i.e. the return that investors expect in investments with equal risk, is more troublesome to find.

One way that is frequently used to do so is through the Capital Asset Pricing Model (CAPM):

$r = r_f + \beta (r_m - r_f)$, where r is the return on a given asset, r_f is the risk-free rate, β is the is the sensitivity of the expected excess asset returns to the expected market returns and r_m is the expected return on the market.

The risk-free rate of return is the return on risk-less assets such as Sovereign Bonds. While this used to be true for most Sovereign bonds (at least in developed markets), the recent financial crisis and rising probability of default in some Government Bonds, have given a more strict meaning of risk-free assets. In euro terms, the most sound and stable economy of recent times is undoubtedly Germany and its Government Bonds are one of the most commonly used to assess risk-free rate. Given that Austrian economy also has relatively stable Government Bonds, they might also be used with some confidence. This being said, these two countries' Government Bonds will be used as r_f. Most scholars and practitioners seem to use 10-year Government Bonds since they are reasonably stable and reflect the most important part of future value of a given project or company (adding to the unpredictability of cash-flows in periods further apart from the present, the time-value of money makes cash-flows after 10 years less important to the present value of any stream of cash-flows).

This higher default risk means that in order to assess the real return required to invest in certain economies, needs to account with higher prevailing risks. This can be done by adding a Country Risk Premium to the required return on equity in CAPM. These values vary from 10.5% in Greece, 4.88% in Portugal and 0% in Austria and Germany (Damodaran, 2013).

According to Ibbotson (2011), the Equity Risk Premium (ERP) is the expected return that investors can earn in excess of bonds while in corporations this figure is part of the cost of capital and in this sense (which is the aim in this work), it is usually the most important ingredient in estimating the WACC and thus the need to assess ideas and trends on this field. Two of the most common ways to estimate the ERP is by analyzing the historical ERPs returns by

comparing past stock and past bond returns and the other is to benchmark the values that active participants in the marketplace are currently using.

In the first area, there is a flow of studies and results. Depending on the definition of ERP used, this value can range from 4.4% (Arithmetic Mean of Large Company Stocks – Arithmetic Mean of U.S. Treasury Bills) to 8.2% (Geometric Mean of Large Company Stocks – Geometric Mean of Long-Term Government Bonds), even for a single time period, 1926-2010 (Ibbotson, 2011).

Other authors (Dimson et. al, 2002) found that from 1900-2006 the average return on common stock in the U.S. was 7.6% in excess of T-bills and 6.4% in excess of Government Bonds. The same authors, in association with Credit Suisse, published a more recent study (Credit Suisse, 2012) in the aftermath of the global financial crisis with the following findings for the period of 1900-2011: Premium vs. Bills of 5.7% p.a. for Germany and 5.2% p.a. for the U.S., while the Premium vs. Bonds was 5.1% p.a. for Germany and 4.1% p.a. for the U.S. Damodaran (2013) uses 5.8% as ERP for all countries, which then adjust for the default risk of each country by the Country Risk Premium mentioned earlier in this section.

The second common way arises from the idea that more than assessing what scholars and studies tells us from the past, one has to understand what has been common among practitioners. A recent study from PwC Economics (2011) states that a reasonable range for the EMRP is 3.0-7.0%. Fernandez et. al (2011) found that the Market Risk Premium used in 2011 was, on average, 5.5% in the U.S., 5.4% in Germany, 6.0% in Austria and 6.5% in Portugal. The same study refers that 476 out of 2,228 people surveyed based their decision of MRP in either Ibbotson or Damodaran, which attests the reliability that these sources enjoy. Internal estimates accounted for 166 answers. All-in-all 5.8% (used by Damodaran) seems to lie on the average of most observations (it is within the 5.4%-6% range that Fernandez et. al found for the two countries in question) and it will thus be used in the upcoming analysis.

Betas

According to Damodaran (1999), the traditional procedure to estimate betas is to regress the returns on an asset against returns for a market index. The slope

of the regression measures the riskiness of the stock and represents the beta. The following formula depicts this relation:

$$Rj = a + b\ R_M$$

Another way to represent this relation comes from the CAPM (Brealey, Myers and Allen, 2008) and is as follows:

$\beta_i = Cov\ (r_i\ ,\ r_m)\ /\ Var\ (r_i)$, where β_i is the beta of an asset (eg. a stock), r_i is the return on the asset, r_m is the return on the market (eg. an index) and Cov means covariance (between the asset and the market) and Var is variance (of the market).

It is often considered that at least 60 observations of monthly returns should be used to compute the betas, which means 5 years of monthly stock returns. Damodaran identifies several drawbacks with using this approach, namely the high standard error, it reflects the firm's business mix over the period rather than the current one and the average financial leverage and not the current leverage. Adding to this, Kothari et. al (1995) found that estimates of betas for small firms are usually too low.

One way to overcome these problems is discussed by Kaplan and Peterson (1998), and states that one can use peer companies to estimate a company's beta. In case the company operates in different business lines, there can be used a market capitalization-weighted industry beta. This approach is in line with the proposed solution by Damodaran (2012) for a firm in multiple businesses, stating that beta for the whole company shall be computed through different groups of peers, weighted by the value of sales in the firm's total revenue. All these approaches recommend unlevering the betas before weighting them, and then add back leverage to the weighted beta. The adjustment for accounting with different capital structures in beta is used according the Hamada formula (Hamada, 1972) that follows:

$$\beta_L = \beta_U\ (1+(1-T_C)(D/E))$$

APV

According to Modigliani and Miller (1963), the value of levered cash flows from a project equals the market value of the unlevered cash flows plus the market

value of the tax savings on interest payments from project's leverage. Myers (1974) has taken an extra step by developing the concept of MM to the new approach called Adjusted Present Value (APV).

The big advantage of APV is that it isolates every effect of the use of leverage instead of accounting for it in a bulk calculation as it occurs with WACC. This means that there is a lower probability that important implications are left unnoticed. The main steps in APV are: Project forecasts, discount CFs w/o leverage, add leverage effects (as seen in **Figure 9**).

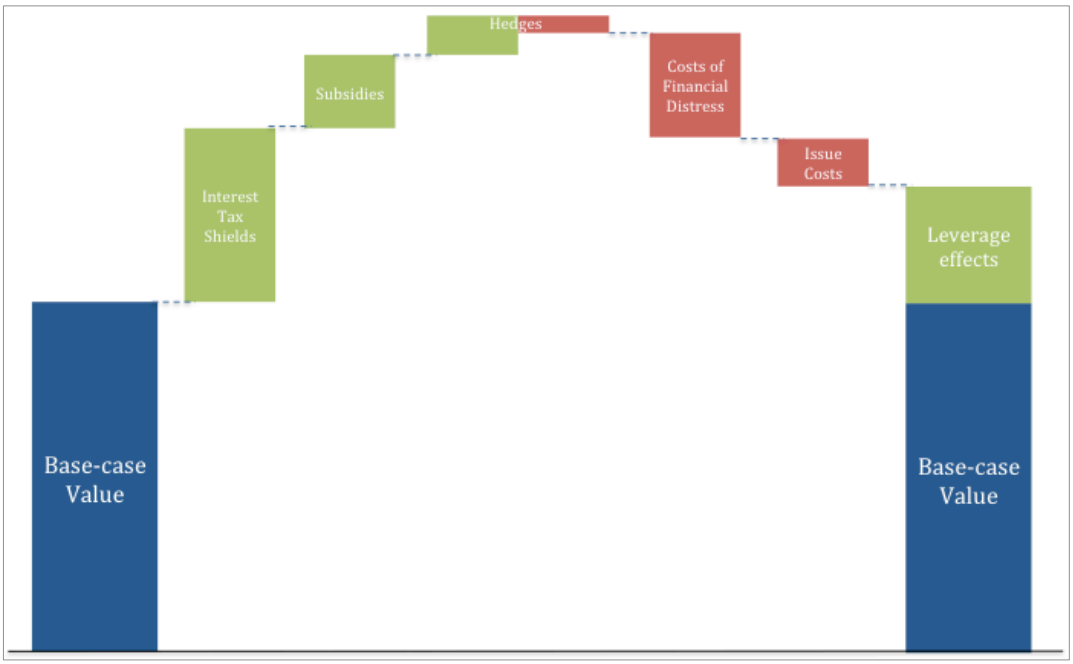


Figure 9: Steps to APV Valuation

The Base-case Value in APV departs from the same cash-flow forecasts of any DCF analysis. The big difference from the WACC starts here, where the free cash-flows are discounted at the unlevered cost of equity, i.e. the return investors required as if the company was completely equity financed. This implies using an unlevered beta for calculating the Cost of Equity. From that point, we start adding the effects that leverage has on the valuation of the company.

The most important part of this analysis will (in principle) be the Interest Tax Shields, and it is thus the effect that requires more attention. There has been much discussion on which discount rate to use in discounting these tax shields:

- Use cost of debt on the theory that tax shields are about as uncertain as principal and interest payments

- Some suggest that tax shields are more uncertain as they are somewhat related with managers' actions and company activity and thus should be discounted at higher rate (closer to risk of activity)

In terms of costs of financial distress, they are very difficult to assess and have drawn some attention from academics. Kortweg (2007) found that, on average, Costs of Financial Distress (CFD) amount to 4% of unlevered firm value. The same study found that for the case of transportation industry, this figure is 3.6% (for a level of leverage between 10% and 30%), which will be used throughout the analysis. Damodaran (2006) states that a cumulative probability of default can be estimated through the credit rating assigned by a company. The formula for the cumulative probability of default for *t* years is as follows:

$1 - (1 - \pi_{Distress})^t$, where $\pi_{Distress}$ is the annual probability of distress.

Almeida and Philippon (2004) discussed that using any rate above the risk-free rate to discount cash-flows related to financial distress would underestimate its true magnitude and it is thus not advisable.

Relative Valuations

Multiples and transaction multiples are two ways to contextualize the results of DCF valuations with what similar companies are valued at and the price at which similar transactions were completed. In this section we will see few considerations when using the first method, given that it is the most widely used relative valuation method.

In order to use multiples, Goedhart et. al (2005) suggest a series of steps: Finding the eligible comparables and final peers – financial reports where companies list their competitors; classification codes disclosed by US government; Global Industry Classification Standards (GICS). It is then time to look at the financials and firms' specifics in order to understand who are the real comparables of the company that can be as low as one. One should take a look at the companies' products, how many businesses do they operate in, what is their cost structure and how do they expect to grow and their ROIC.

Use of forward-looking multiples - valuation principles and empirical evidence suggest that multiples should be based on forecasts and not on

historical profits. If there are no available forecasts, the approach shall be the most recent data released: it should be used the last 4 quarters regardless they constitute the last fiscal year or not. Liu et. al (2002) used a sample of companies trading at NYSE to analyze the performance of historical and forward industry multiples. They found out that dispersion of historical E/P ratios were two times as high as that of forward E/P and that the latter had more pricing accuracy.

Use enterprise-value multiples **-** P/E multiples have two major flaws in reflecting the equity value of a company. For firms with unlevered P/E > 1/cost of debt, the ratio will increase with leverage**.** Earnings include several non-operating items that are usually non-recurring making them less reliable**.** Alternatively to P/E it can be used enterprise value to EBITA. Not only is this measure less susceptible to changes in the capital structure, as the EBITA is a closer metric to the value truly available to both equity and debt and thus relates to the measure of total enterprise value.

Adjust the enterprise-value-to-EBITA multiple:

- Excess cash and non-operating assets – EBITA excludes interest income from excess cash and thus the item should be excluded from EV
- Operating leases are included in the debt of the company and thus the enterprise value is artificially low. Interest expenses from leases are accounted for in EBITA. These two affect the multiple in opposite directions but with different magnitudes and thus the adjustment
- Employee stock options – while the present value of the company should be increased by the present value of all employee grants outstanding, the EBITA should be reduced by the value of the new employee options grants that are reported in the companies' annual reports
- Pensions – the enterprise value should be adjusted by adding the present value of pension liabilities. The pension interest expense should be added and the recognized return on plan assets deducted to the EBITA in order to remove the non-operating gains

The abovementioned measures are summarized in **Figure 10**.

	Adjustments	
	Enterprise Value	EBITA
Excess cash	- Excess cash	-
Operating leases	+ Operating leases	+ Interest expense
Employee stock options	+ PV of grants outstanding	- Value of new employee options (annual report)
Pensions	+ PV of pension liabilities	+ Pension interest expense - recognized return on plan assets

Figure 10: Adjustments to EBITA multiple

There are other multiples that may be useful in certain situations but their use might be stricter on assumptions. For instance, price-to-sales multiples assume (on top of the other assumptions of EBITA multiples) that companies have similar operating margins, which can be too troublesome.

PEG rations are more flexible than traditional ratios as they allow for expected growth rates to fluctuate across companies. However the relation between multiples and growth is assumed to be linear, meaning that companies with low growth forecasts will usually by undervalued using this metric.

Non-financial multiples shall only be used when it is expected to yield better estimates than financial ones. This is only possible when (at least) the measures can be accurately translated into revenue/CFs.

All in all one should bear in mind that multiples are no more than relative valuations and not true valuations of a given company. The dotcom bubble of the late 1990s mirrors a situation where relying too much on relative-valuation methods rather than economic fundamentals can be very far off from reality.

2.2.2. Synergies

The Meet the Premium (MTP) Line is a simple tool to introduce synergie before more thorough DCF valuation. It refers to the mix of %increase/decrease in revenues/costs, that will make the company meet the operating performance target set by the premium paid. The higher the premium paid, the higher will be the minimum synergy mix needed to make the transaction worthwhile.

After drawing the MTP Line, we have to figure out whether we will be able to create at least the amount of synergies to fall above it. For this we have to assess what is the likelihood of generating synergies from this deal, which can be

made by developing a framework where we outline the capabilities of the acquiring and target companies (the more overlapped the capabilities are, the higher cost synergies can we achieve) and their market access (the more different their markets/products are, the higher the expected revenue synergies). This study (Sirower and Sahni, 2006) states that costs are usually easier to change than revenues as the former relates to more tangible and foreseeable measures while external forces such as customers and competitors may affect the latter significantly. Additionally, revenue increase requires a great implementation force, which is only possible when the merged company gets to a more stable situation. For the sake of simplicity here it is assumed that both synergies will be no higher than 10%.

In best-case scenario we expect to have 10% of both Cost and Revenue Synergies. Any value outside that box is unlikely to be delivered. Putting all the information together we have **Figure 11** (adapted from "Avoiding the Synergy Trap", Sirower and Sahni, 2006).

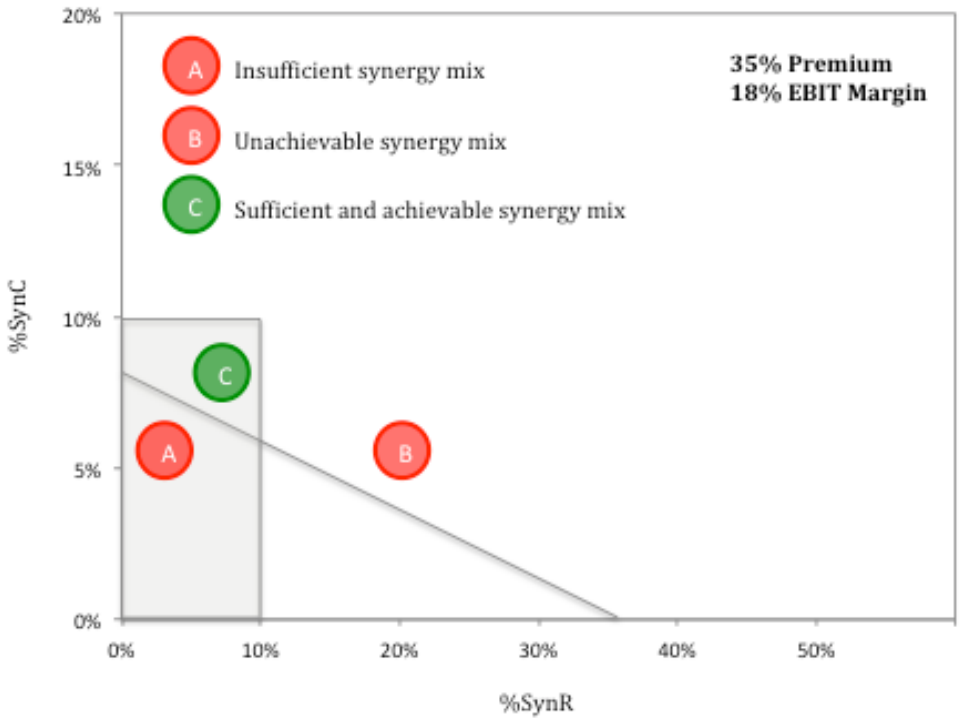


Figure 11: Meet the Premium Line

A. Even though the mix of synergies is within the achievable range, it falls below the MTP Line and thus acquiring shareholders will observe wealth destruction from the transaction

B. This point is above the MTP Line but it is highly unlikely that the combined company will deliver 20% revenue synergies
C. This point (or any other above the MTP Line and within the shaded area) will enable the company to have enough earnings/savings to compensate for the premium paid

In conclusion there are two main questions to be addressed:

- Does the proposed combination of % cost and revenue synergies fall above the MTP line?
- Does that point also fall inside a range that is plausible?

Now that we know how to first approach the issue of the premium paid versus the synergies that we have to generate, we will go deeper in order to assess how we should correctly and accurately value synergies.

2.2.2.1. Valuation

First of all, we have two main kinds of synergies: operational synergies – regarding the operating enhancements (both revenue and costs) that will emerge after the deal is done – and financial synergies – relating to the fact that the combined company will have a different capital structure, tax considerations among others.

Operating Synergies arise because companies together may have tools to leverage higher competitive advantage in various areas: economies of scale from increased capacity, higher bargaining towards suppliers, higher market share and thus higher pricing power in the market, complementary strengths such as sales force and marketing or new growth opportunities available with new available distribution channels or access to different markets. As we have denoted earlier, operating synergies are usually classified as revenue (or growth) and cost.

Discounting CFs

Cost synergies are relatively easy to model. The reduced cost expected will increase the CFs from operating activities in the value expected for the reduction. This value will then be discounted to the present by the cost of capital. If the savings are expected to prevail over the years, their value to the firm may be

quite significant. As it was stated earlier, revenue synergies are very difficult to forecast. They can take much more forms than cost synergies and in a much more unpredictable manner. There are to main ways in which these synergies can show off:

- Increasing the CFs from operating activities – if a company can enter into a new market or develop a new product line due to the expertise acquired with the target company, it will be able to increase its revenues. This increase in revenues may be very difficult to project, not only due to uncertainty regarding the actual value of the increase, but also the time at which they will occur: it is important to bear in mind that the longer the revenues take to be delivered the lower they will account in the overall value of the firm (time value of money). Moreover, if the company enters into new products/regions not available before, there will be needed some Capex that have to be taken into consideration. The ability to increase prices in the combined company is more straightforward realize, as it is done by increase the revenues by the percentage increase in prices. It is important to note that this power may not hold forever.
- Changing the inputs for the terminal value (higher growth rate) – the terminal value is a major part in the valuation of a company (or combined companies). Since the time frame for projections is relatively small, the TV may account for 80% of a valuation (or even more) and changing its inputs will thus have considerable impact. If the company can turn itself more efficient in deploying its current assets (increase in ROIC) or find more investment opportunities (higher reinvestment rate), this will affect positively the expected growth of the company. We have the formulas:

  Growth Rate = Return on Capital x Reinvestment Rate

  TV = FCFF / (Cost of Capital – Growth Rate)

Using Real Options

Some scholars (Childs et. al, 1998) believe that discounting CFs is not the most efficient way to value synergies. Smith and Triantis (1995) state that acquisitions create options to expand the business such as getting the way into emerging markets, new knowledge, better competitive position, more investment

opportunities, etc. and this option, which may be valid for some time, is difficult to capture by discounting cash-flows.

This approach is mostly valid when the advantages that were listed above can only be explored by acquiring the target. If an acquirer buys a company that has little cash but holds a valuable patent it buys not only the patent but also the option to do something with it, which can be very valuable if they have ways to finance (or cash slack) for further investment. But most frequently there will be various manners to have such advantages like buying any firm other than the target to enter into a desirable country, or establish a team to tackle that particular market. In such cases the value of the option embedded in the acquisition is more questionable and hence applying discounted CFs shall still be the more accurate way to account for these synergies.

Financial Synergies arise in the form of higher CFs from more capacity to take on projects (cash slack), more debt capacity, by producing tax advantages from the transaction or by taking operating losses from the target (if that is the case) or the value from diversification, which is especially true for privately held companies.

Cash Slack - The access to capital may be very limited or available at unreasonable price for companies. Moreover, there is the issue of asymmetry of information raised by Myers and Majluf (1984), which states that managers know more than investors and thus when they want to raise capital by issuing stock it sends the signal to the market that the stock may be overvalued. Due to this fact, equity may have to be issued at a lower value than its fair value and good projects will have to be rejected.

The value of the synergy in such cases is the NPV of the projects that would not have happened in pre-merger situation. This assumes that once the company short on cash did not enter to the new projects, they would lose them forever. This may not be completely true: sometimes capital is constrained by some time, after which it becomes accessible. In such cases, instead of adding the whole NPV the added value is the value from starting the project right away rather than deferring it to the future (time-value of money of CFs).

Debt Capacity - When the two firms have CFs that are not perfectly correlated,

their earnings will be less volatile and thus the cost of debt will be lower or a higher amount of debt can be taken at the same cost. Since the probability of default is lower, bondholders may see their wealth increase: if the coupons are not renegotiated the bondholders are receiving returns according to the previous (higher) level of risk of the company. This implies that higher debt capacity can expropriate wealth from shareholders. Lewellen (1971) supports this idea by reporting an increased value of debt after mergers resulting from lower default risk but at the expense of stockholders. He provides no evidence in the study that the overall value the firm increases after the transaction.

On the other hand, Stapleton (1985) uses option pricing to value this phenomenon and states that the effect of larger debt capacity in mergers is always positive and increases as CFs are less correlated and investors are more risk averse. It is important to notice that this analysis takes as given the fact that companies are in their optimal leverage point. In case this does not hold true, there is no synergy from moving the firm to the best point (this a case of bad management and where management disciplining may pay-off). In practical terms, increasing debt capacity will lead to a lower cost of capital (if the benefits from increased leverage outweigh the increase in equity beta).

Tax Benefits - may take the form of tax deductions from negative income companies. The value of this synergy is the present value of the tax savings that result from this merger (subject to tax regulation).

Write-up the depreciable assets of a target firm in an acquisition. This will result in higher tax savings from depreciation in future years (goodwill on the other hand is usually not tax deductible).

In some countries, acquirers get additional benefits that are related to the restated book value of equity in the combined firm. Assume, for instance, that this specified rate of return is 12% and that the book value of equity in the combined firm increases by $2 billion after the merger. This firm will be able to claim $240 million in additional tax deductions in the year after the merger.

In order to value the tax saving synergy in offsetting losses over the years (as opposed to everything in year 1), we would have to discount these cash-flows. Since these cash-flows are of same uncertainty than variability in operating income for the combined firm, we would use the cost of capital of the

combined firm as the discount rate. There are cases where the cost of equity is used to discount these benefits, especially when computing the value of equity in a company directly.

In recent years, the tax code covering asset revaluations has been significantly tightened. While acquiring firms can still reassess the value of the acquired firm's assets, they can do so only up to fair value.

Diversification **-** A takeover motivated only by diversification considerations should, by itself, have no effect on the combined value of the two firms involved in the takeover, when the two firms are both publicly traded and when the investors in the firms can diversify on their own. Markets seem to recognize the failure of diversification to add value. Doukas et. al (2001) report that markets react negatively to the announcements of diversifying acquisitions.

This reduction in earnings variance does not affect value, because it is firm-specific risk, which is assumed to have no effect on expected returns. Betas - measures of market risk - are always value-weighted averages of the betas of the two merging firms.) Firms with lower variability in earnings can increase debt capacity and thus value. This can be the real benefit of conglomerate mergers.

2.2.2.2. Sharing Synergy Gains

Cost savings - if cost savings are unique to the acquiring firm, it will be able to demand a higher percentage of the benefits. If the savings are more general and would be available to any other peer group firm, the target firm stockholders are likely to receive a larger share of the benefits (e.g. when the primary cost savings will come from integrating advertising departments).

Growth synergies (examples) - Coca-Cola buys a small firm and will use its marketing expertise and brand power to increase sales. Cisco buys young technology companies to convert promising technology into commercial products. While there are other companies (Pepsi, Diageo) that have this expertise, Cisco has some expertise much more difficult to replicate and thus it is more likely to retain the synergy benefits than Coca-Cola.

Debt Capacity - given that neither firm has any unique strength, we would expect a fairly equal sharing of synergy benefits.

Cash Slack - it depends on which of these strengths (cash or growth opportunities) is scarcer across the market. Growing markets will benefit more from a cash slack company while a mature market will benefit the most from a company with growth opportunities.

Tax Benefits- if any acquiring firm can write up a target firm's assets after an acquisition, we would expect the target firm's stockholders to get almost all of the synergy benefit. If the acquiring firm participation is essential to the tax benefit being generated, it will command a larger share of the premium.

With private businesses, especially smaller ones, opening up the bidding process to other bidders is much more difficult to do. Consequently, acquirers are far more likely, with any given synergy, to extract a larger proportion of that value.

2.2.2.3. Shareholder Value at Risk (SVAR)

Rappaport and Sirower (1999) provide a simple tool to assess the risk that the acquiring shareholders incur when bidding for the target company, relating the market value of the acquirer with the premium paid, the SVAR. The formula is as follows:

SVAR = Premium Offered / Acquirer's Market Capitalization

This is true for all-cash deals, since stock deals transfer some of the risks of the synergies to be realized (and thus the premium) to the target shareholders, through its new shareholdings. For this reason, some adjustments need to be made in a deal financed with stock.

2.2.2.4. Common Errors in Valuing Synergy

Wrong Discount Rate - we should be using the combined firm's cost of equity and/or capital to discount these cash flows. Cash flows generated by synergies are never riskless and using the riskless rate is inappropriate (even tax savings). If the synergy involves entering new businesses with very different risk characteristics than those in which either the acquiring or target firms are involved in at the time of the merger, the discount rate used for the cash flows should be different from both the acquiring and target firms' cost of capital.

Mixing Control and Synergy - they should not be valued together since control depends only on the target company while synergies may depend on both.

2.2.3. Cross-border M&A

Valuation

While in Multiples valuation it may be difficulty to find peers for both trading and transaction multiples, the DCF method is more flexible not only in adjusting projections according to the specificities of each case as it also can take into consideration tax and accounting differences. Considerations about the exchange rates to use and estimate may also arise in transactions denominated in various currencies, which will not be the case in the Eurozone.

In finding the discount rate, it is often useful to assume that corporate capital providers are home-country investors and thus the cost of equity of the company will be their required rate of return. In this case the rate of return required for investors in a cross-border investment will be the same they will face in their own domestic market. On the other hand, if domestic investors face a set of international investment opportunities the estimation of required rate of return based on the domestic market would prove itself biased. In that situation, using a Global Market Portfolio (if difficult in finding such portfolio, U.S equity market is good predictor as it still accounts for a large part of global equity) may be more appropriate to measure the project's systematic risk and required return. This slight difference may be extremely important in calculating the WACC. Some of the risk that may not be diversifiable in domestic context may be so globally. This case will lead to different cross-border investment's beta. Since global markets offer more diversifying options than country benchmarks, its betas will usually be lower.

Financing

As noted earlier, cash is more often used in cross-border than domestic because of tax, legal and structural complications of stock payment in these transactions.

Equity "Flowback" may also be an important issue: there are some legal situations (or simply a case of interest) where it is not possible for target shareholders to hold foreign stock. In order to overcome this issue, in some large

mergers, the merged entities have maintained dual-listing structure. Sometimes the acquiring company gives target shareholders the choice to opt between stock and cash.

In terms of financing, debt should, in principle, be domiciled in the country of the CFs to support it. Other considerations are the Tax Shields from debt - the country with higher Tax Rate will provide higher Tax Shields. The access of the combined company to debt markets may be different in various markets and some may provide lower cost of debt, which can influence the decision as well.

Taxes

While transaction-related taxes – which relate more to the particular situation of shareholders – may be somewhat important in structuring the deal, post-transaction taxes – corporate taxes for the combined company - are frequently more important as they play an important role in organizational and financing decisions, and affect cost of funding, mobility of capital and overall capital structure efficiency. There are two main tax situations that may arise in cross-border valuations (Kester, 1992):

- Use of a worldwide "tax credit system" – companies subject to this system in their home country have to pay taxes in that country. They may however be credited the amount of taxes paid on foreign country, subject to limitations. A good (conservative) estimate in this case is the highest of the two corporate tax rates in question
- Use of a territorial "tax exemption" system. Companies do not have to pay taxes in their home country if subject to corporate tax in foreign country whose tax rate thus applies

Some countries may provide tax holiday, which is the absence of corporate taxes. It will then depend on whether the home country accepts this regime or applies its own tax rate on foreign income. In terms of the EU, there is special legislation regarding double taxation, as described in the COUNCIL DIRECTIVE (2011/96/EU) "Where a parent company by virtue of its association with its subsidiary receives distributed profits, the Member State of the parent company must either refrain from taxing such profits, or tax such profits while

authorizing the parent company to deduct from the amount of tax due that fraction of the corporation tax paid by the subsidiary which relates to those profits".

Special risks

If there is a reasonable way to incorporate this extra risk by adding an extra risk premium on top of the rate of return required, then this approach should be used. However oftentimes this method is way too arbitrary and does not gauge the actual effects of the added risk in the project. When this is case the adjustment will do more harm than good in the overall output.

An alternative procedure is to adjust this risk in the CFs projections and in the sensitivity analysis. Not only is this more appropriate as to reflect the individual effect of each possibility in the analysis as it is much more intuitive in a readers' perspective. Some of these risks are even insurable by International Banks and thus the premiums on the insurance can be directly deducted from the CFs.

Expropriation risk is better reflected in projections if it is used a scenario bases analysis or discounting directly in projected CFs (as an insurance for expropriation for instance). Adding a premium to the discount rate means that expropriation risk will have the same probability over the time of the project and that is not the case most of the times.

Inflation risk may be especially significant in developing countries. In these unstable economies it is very hard to estimate the long-term evolution of inflation rates. The best alternative in such cases is to compute the calculations in real terms rather than nominal terms. Even though this analysis can be executed in any currency, it is more advisable to do so in a stable currency like USD or EUR to which reliable real discount rates can me estimated.

3. Industry Review

The postal services industry may have different definitions according to regions, companies and regulation that persists in the marketplace. Given this wide and often unclear sector definition, it urges to depart from the broader meaning of postal industry, where we consider other segments not necessarily linked to transportation products and services, such as telecommunications and financial services, and subsequently focus on the more conventional activities in Europe and in DPDHL and OP in particular, namely mail, express and logistics.

These activities need to be put in context in key areas such as Global and European economic trends, forecasts and regulation, which will be done next.

3.1. Worldwide business segments

The Postal Services Industry comprises multiple segments being Mail, Parcels & Express, Logistics & Freight and Financial Services some of the most important. Together they represented industry revenue of €389.5 billion in 2011 (IPC, 2012). Mail still represents the biggest share in overall revenues as seen in **Figure 12** (Source: IPC, 2012), accounting for more than half of the revenues from companies in this sector. This is likely to change in the near future, since companies are trying to diversify their revenue sources as a consequence of the mail segment decline, which will be described later in this section.

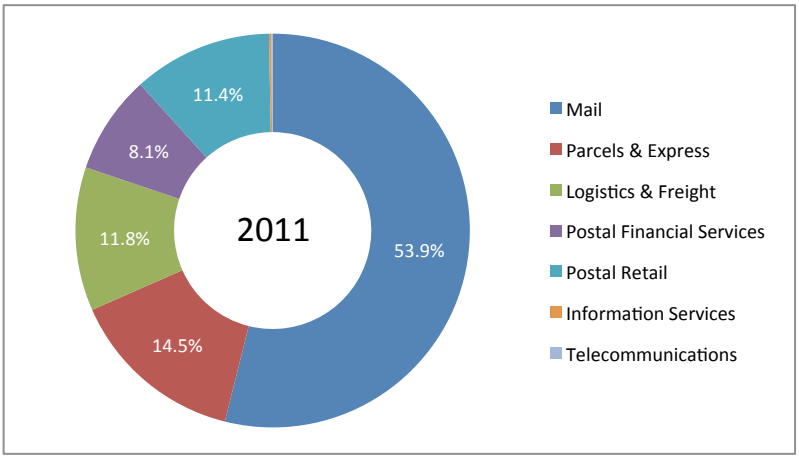


Figure 12: Global postal revenues, by segment

The first three segments in the figure represent the bulk of postal services related with transportation and account for over 80% of industry revenues. They differ mainly in the size of the products they carry: mail products are the

smallest and logistics & freight are the largest and heaviest (this cargo is transported by road, air and sea freight carriers). These services also differ on the length of delivery. Parcels & Express – which may usually be referred to as CEP (Courier, Express and Parcels) – includes Courier, which is the most urgent type of delivery (and the most expensive one), while Parcels are characterized by longer and indefinite delivery times. **Figure 13** (Source: RW Baird, "Global Integrators" January 2007 (adapted)) summarizes these sub-segments. While some companies focus on one or few sub-segments, there are others such as DHL, TNT Express, FedEx and UPS that offer a wider spectrum of services and are thus called "integrators".

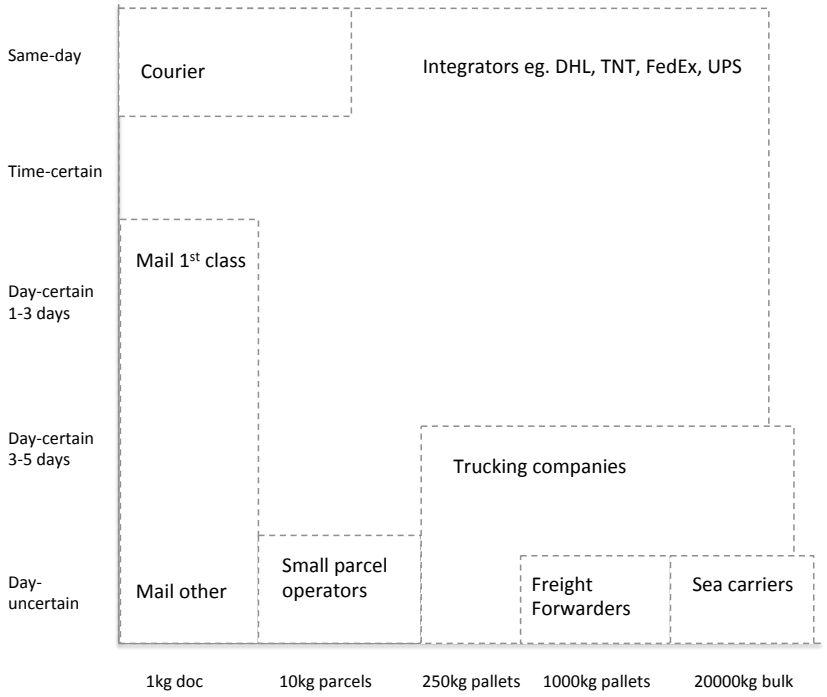


Figure 13: Global transportation industry segmentation

Some postal companies take advantage of the extensive postal network to provide financial services that one would usually find in a bank, like foreign currency deposits, money transfers, bonds, insurance products, etc. Due to both regulatory constraints and tradition, this segment is usually not very large among companies in Europe and the US, where the services are limited to a small range of simple transactions or are non-existent.

Another way to use the postal network is to provide retail services and products. This segment is also small in terms of industry wide revenues, representing only 11.4% of the total. It consists of a wide variety of services

namely foreign currency exchange, travel SIM cards, government services like passport issuance, sale of books, stamps, mobile phones, just to name a few. Companies usually do not report this segment separately as it constitutes a marginal revenue stream within branch activity.

Adding to this, some companies offer information services (such as digitalization and other services) focused on businesses' needs as well as telecommunications services. Even though telecommunications are present within the scope of postal services in some countries, it is usually not very profitable nor successful due to the great degree of specialization required and which telecom companies can deliver and postal companies cannot.

3.2. Career Diversification

Companies are trying to diversify their revenue streams, due to volatile earnings in traditional mail and growth potential in still untapped or less developed segments like parcels and express. TNT Express, FedEx and UPS for instance, are almost pure parcels players, with some interests in logistics (as shown in **Figure 14**). Amongst the national incumbents in traditional Mail, Japan and China focus the biggest in other businesses (Postal Financial Services in their case). European companies on the other hand, do not have significant revenues derived from financial services, as stated previously - Poste Italiane Group is the exception, with its BancoPosta. P&T Luxembourg is an outlier as well since it gets the majority of revenues from telecommunications, which is only possible because the company works as a full range telecom operator with solutions for individuals and companies in TV, mobile and fixed voice and internet.

DPDHL has a large business in Logistics & Freight while Österreichische Post has the largest stake in its revenues from Parcels among the national players analyzed. The next few years are likely to assist to a decrease in stakes of revenue from Mail, as companies acknowledge the growth opportunities in other segments.

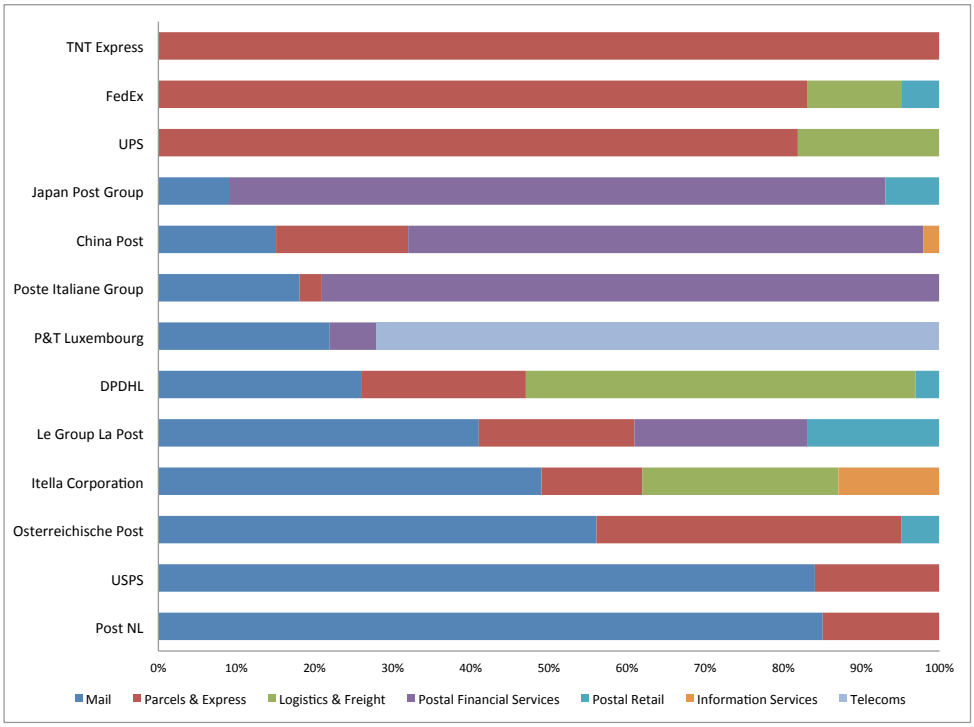


Figure 14: Segment breakdown in postal careers

3.3. Recent trends

The industry as whole has witnessed critical developments in the last few years, driven by three major forces: global economic crisis, technological evolution and changes in regulatory environment.

The postal industry is by nature, very cyclical due to its close ties to prevailing economic conditions. This means that a slowdown in overall GDP has intimate consequences in industry value. This fact is illustrated by **Figure 15** (Source: IMF (2013) and IPC (2012)), where Global postal revenues follow the trend in World GDP growth. Given that the largest stake of market value in postal services still comes from mature markets, the resilience in GDP growth brought about by emerging economies in 2010 was less noticeable in postal revenues.

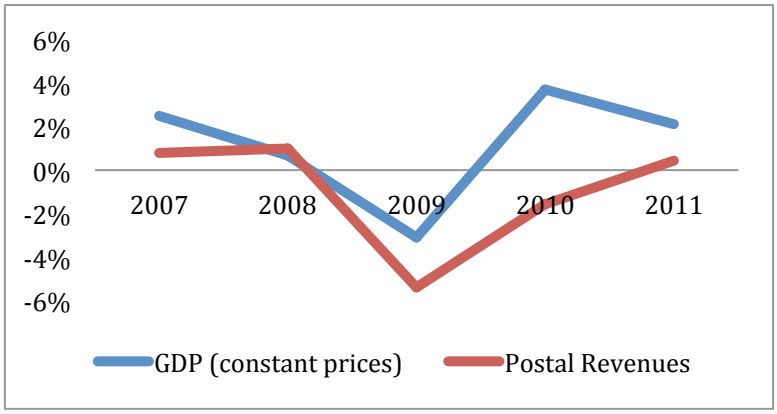


Figure 15: Global growth, percentage

Technological evolution is changing the way individuals, businesses and governments communicate with one another and that has a particular severe impact on mail industry. The rising ability in getting ideas and documents across in a digital support has critically decreased the necessity for traditional mail products. This has put a more than likely irreversible downward pressure on global mail volume, thus creating the paramount need of postal companies to adapt to these changes and find other growth opportunities.

Given the mature stage of most countries in Europe, this trend shall be particularly severe here. However this also means that the opportunities to explore might be more interesting here as well. **Figure 16** (Source: EUROSTAT) presents the Internet penetration in European households as well as the % of individuals using E-commerce in the last 3 months. While the EU average for Internet stands at a fair 73%, Internet purchases are still somewhat not popular among most people, at only 34%. This last indicator is likely to increase as online shopping becomes more attractive due to lower rates and times (the fundamental role of express companies) and safer and cheaper payment methods with the proliferation of PayPal and similar means.

More importantly, most of less developed countries in Europe, especially CEE, lie all below these averages, meaning that an increase in Internet penetration might lead to an increase in online purchases. This being said, CEP market in Eastern European countries might look quite untapped and with great growth potential in the region.

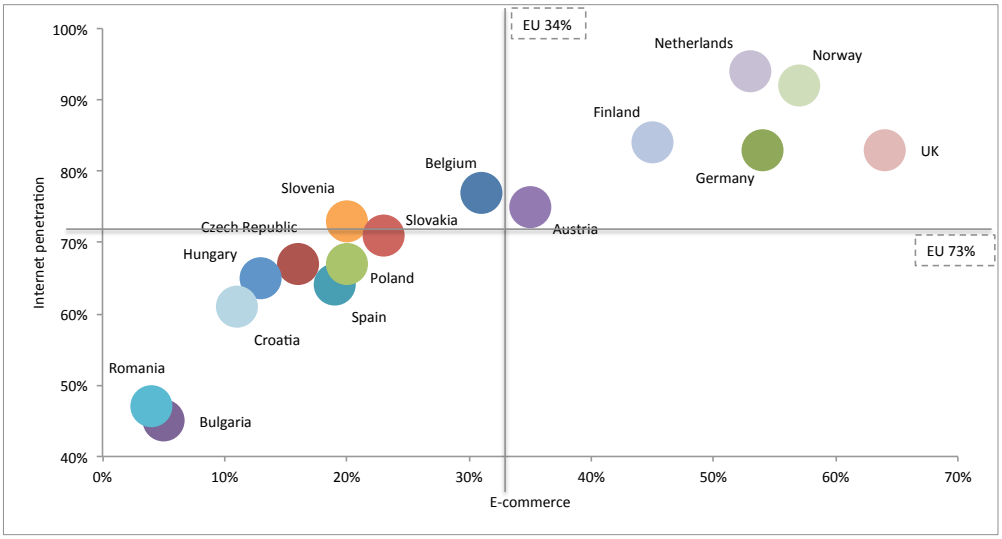


Figure 16: Household Penetration and Internet Purchases, by individuals

3.4. Postal Services in Europe

The Postal Sector employs 5 million in Europe (Stengg, 2011) and has been one of the most vital sectors for economic prosperity. The most developed countries have higher importance in this sector for their GDP (average of EU at 1%). Germany represents the biggest market in Europe, in line with its economic dominance, with shares of 20.5% in Mail and 46% in CEP (Stengg, 2011).

As seen earlier, most European Postal Players concentrate their activities in either Mail or Parcels & Express (or in both), with other business segments still representing little revenues in the Postal Sector in the region.

In most European countries, postal services were provided by state monopolies until the 1990s. This usually meant that services offered had low quality, lack of client focus and companies run with negative profits. Private companies were more efficient and challenged the control of incumbent players, but they were frequently at odds with strict regulations.

This was true until 1997, when the EU published the 1st Postal Directive (97/67/CE), which set out the common rules for domestic market development and quality enhancement in terms of Postal Services in the EU. In 2002, the 2nd Postal Directive (2002/39/CE), established compulsory liberalization for letters of weight >= 100 grams, by 1.01.03 and for letters of weight >= 50 grams by 1.01.06. Adding to this, the 3rd Postal Directive (2008/6/CE) set 31.12.2010 as the limit date for total sector liberalization, though some countries could extend that term to 31.12.2012. This whole process departed from the idea that EU postal markets should be opened through an ongoing liberalization process, having always in mind the guarantee of a minimum standard in the provision of Universal Postal Service, the Minimum Standard of delivery for all regions in a country, with low prices, both established by the regulator.

The full market opening (FMO) anticipated by the EU boosted competition and private players started defying incumbents' leadership. By the end of 2011, the picture of competition made possible by the FMO was as shown in **Figure 17** (Source: Copenhagen Economics, 2012).

		Competition			
		Yes (competitors in brackets)		No	
FMO	Yes	Estonia (SmartPOST) Germany (PostNL) Italy (PostNL) Netherlands (Sandd)	Spain (Unipost) Sweden (Bring Citymail) UK (PostNL)	Austria Belgium Denmark Finland	France Ireland Portugal
	No	Czech Rep (Mediaservis, PostNL) Hungary (Feibra Hungary/OP) Luxembourg (Belgian Post Int., DPDHL, La Poste) Malta (Premiere Post)	Poland (InPost) Romania (PostMaster) Slovakia (OP) Slovenia (OP)	Greece Latvia Lithuania Switzerland	

Figure 17: Competition grouping for mail items

It is observable by the previous figure that FMO does not necessarily translate into competition. In fact, there are 7 fully liberalized countries in the EU that do not have competition in mail items services. This traditional segment is usually not very attractive to players as it provides low margins. Adding to this, the regulations under which the services need to be provided are still frequently stringent, despite liberalization. Other sub-segments within mail, such as unaddressed items usually present higher degree of competition due to more relaxed regulation and higher margins.

All in all the market is highly fragmented, with national companies still enjoying market leadership in domestic scene. However, the FMO experienced in most countries has been dragging down the market shares of national players, even in traditional products like mail items. Trends towards further erosion of market share of national players are likely to be exacerbated as international companies gain scale in countries more open to the competitive market. Such is the case of The Netherlands where there was not only FMO as the state company (PostNL) has become 100% privatized, a tendency explored next.

Figure 18 (Source: Companies' Annual Reports) depicts this market share decrease in the mail segment of several companies, with PostNL's share of the market falling below 85% in 2010 while DPDHL is not far from it. It is these incumbents' job to adapt to new market rules and to become more efficient if they want to sustain their dominance.

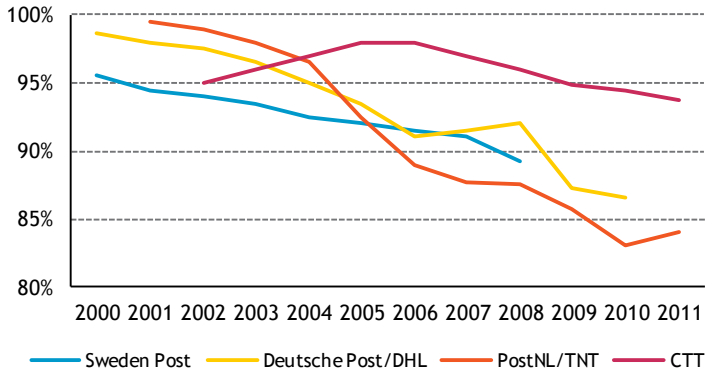


Figure 18: Market share of incumbent players, mail segment

Even before liberalization, some countries had decided to privatize their postal providers, as a means to improve quality and efficiency. This trend is not unique to the Postal Sector but rather a practice in wider sectors and reflects the idea that private players have greater incentives to deliver in economic viable businesses. More countries are to follow, namely Portugal, whose government intends to conclude the privatization of CTT, Correios de Portugal before the end of 2013. In **Figure 19** (Source: Corporate Websites), are shown the various % still owned by the State in privatized (or partially privatized) national postal services, with Greece at one extreme (only 10% free-float) and The Netherlands at the other with 100% free-float. In Germany the Government Share was recently reduced, falling below the 25% blocking threshold (Foxbusines.com, 2013)

Country	% State	% Others
Greece	90%	10%
Austria	52.8%	47.2% free-float
Belgium	50%	50% CVC
Germany	24.7%	75.3% free-float
Malta	0%	67% Lombard Bank 33% free-float
The Netherlands	0%	100% free-float

Figure 19: State shares and postal privatizations

3.4.1. Regulatory environment Germany

The Postal services in Germany can be divided in Mail Market and CEP market, regulation wise. While the former is part of the licensing area, the latter requires only a notification duty.

As opposed to most European countries' legislations, German law does not impose the provision of universal postal service to any specific operator – this is true since 2008 when the exclusive rights for Deutsche Post were lifted

and there was FMO. This fact departs from the Regulator's idea that the universal service will be provided naturally by all operators in the open market. This method requires close monitoring by the Regulator on the actual fulfillment of the basic services the universal service foresees. In case this does happen, the Regulator must ensure its provision by mandating the dominant operator or through call for tender.

3.4.2. Regulatory environment Austria

Licenses are required for the conveyance of letter mail items up to 50g. Companies interested in pursuing such licenses shall make a written request to the National Regulatory Authority (NRA), who then decides on whether to grant it or not (within 6 weeks after all the needed documentation is made available to the Authority). The universal service provider does not need such license.

"The universal service is a minimum range of postal services which are viewed as necessary for the maintenance of a basic user service, are offered throughout the federal territory and are accessible to all users at an affordable price" (The main scope of the Universal Postal Service in Austria is detailed in **Appendix 1**).

In case the provision of universal service is made at loss by the operator, it can request for compensation, in which case the NRA will set up a compensation fund whose contributors will be licensed postal service providers with annual turnover over €1 million, in amounts proportional to their market shares. The NRA analyzes the request and according compensation shall be rendered to the universal service provider.

The universal service provider will be Austrian Post until, at least, 2015-2016, time at which the NRA will assess whether there are other postal service providers able to provide this service under the requirements. If that is the case, there will be a call for tender, to grant the provision to the best option.

3.4.3. Considerations about European Competition Network

Following the collapse of the potential merger between UPS and TNT Express it urges to understand the regulatory constraints that may have hindered this transaction and how they can affect this proposed merger.

One of the main reasons stated by EU regulators was that the transaction would have restricted competition in express-delivery sector in 15 EU countries (WSJ.com, 2013). It further said that the merger would reduce the number of integrators from 4 to 3 (recall **Figure 13** and see **Figure 20**).

Another issue is ownership restrictions and control regarding foreign control in aviation. The EU regulation states that foreign ownership in Aviation Companies is limited to a maximum of 49%, thus restricting some M&A activity and investments (EU External Aviation Policy Package, 2012). This threshold is even lower in the US, at 25%. While TNT Express provided some actions in order to arrange the disposal of its Airline in case the UPS acquisition got through, this regulation shall not constitute an issue in the proposed transaction between DPDHL and OP: while DPDHL has 48% of shareholdings in Germany and 13.8% in UK (equals at least 61.8% within EU), OP is still controlled over 50% by the Austrian Government.

3.4.4. CEP market in Europe

While Mail in Europe has experienced downward pressure, CEP has showed strong and sustainable growth, with volume increases every year in this new century - even during the recent financial crisis. This has resulted in a $CAGR_{00\text{-}11}$ of 3.9% domestic CEP volume, exceeding 1.9 billion objects in 2011. The increasing use of Internet and diffusion of e-commerce presented previously were major drivers for this fact.

However, the rise of international CEP players has resulted in a loss of market share in mail-oriented, incumbent players. This has put much pressure to incumbent players not to further erode their market power. During the last decade, postal integrators have taken over large market shares in international CEP market in Europe as shown by **Figure 20** (Source: Davy Research (2012)). The inefficient national players were not fast enough to react to the market liberalization in this segment and the rise of international players is well denoted in current market share in the region. DPDHL has been the most remarkable exception in this trend: it has even been able to extend its market share in this segment, enjoying an impressive 41% of total revenues in 2012, though it cannot be seen as a pure national player to begin with since it has roots from the

previously US company DHL, that broaden the scope of Deutsche Post. Not surprisingly, the other companies that complete the big 4 in the CEP market are private companies ever since their foundation and thus had higher levels of efficiency and scale when this segment took off.

Other European incumbent are now to follow the leaders as they try to take advantage of this emerging trend. One of these cases is OP, which is focusing more and more on CEP market, especially in Central and Eastern Europe where it is least developed.

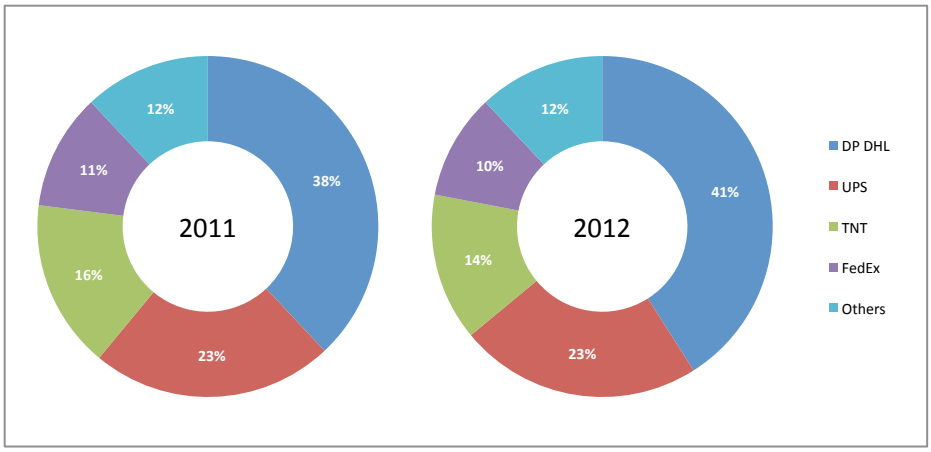


Figure 20: International Express market shares, Europe

4. Company Review

The next section will aim at analyzing both companies, through the assessment of their history, geographic presence, key recent financials - such as revenues by segment, operating expenses, levels of capex, etc. – and recent share price evolution in order to provide a context for their individual valuations as well as for the potential merged company.

4.1. Deutsche Post DHL (DPDHL)

DHL is the World's largest mail and logistics services group. It is the result of the partnership between the German Deutsche Post and the US company DHL, which started in 1998 and has since then become a fully consolidated merger. The national postal player in Germany was named Deutsche Bundespost in 1950. In 1995 it became Deutsche Post AG – one of the three companies that emerged from the previous state company (the other two were Postbank AG and Deutsche Telekom AG) thus separating postal, financial and telecommunication services - and in 2000 the company became public through an IPO.

DHL has 475,000 employees and operates in over 220 countries and territories. It has four main business divisions, namely Mail, Express, Global Forwarding, Freight (GFF) and Supply Chain. The company generates 70% of its revenue overseas (up from 68% in 2011).

Mail division comprises traditional mail services both in Germany and Internationally, as well as Parcel services in Germany. It serves 40 million households and 3 million business customers. It has 62.7% market share in domestic mail communication for business customers and 40.9% market share in domestic parcel market (DPDHL Annual Report).

DHL is world leader in Express services. It has 41% market share in European international express market, as shown previously. European operations represent 42.7% of revenues from this division.

GFF division comprises Air and Ocean Freight (Global Forwarding – total of 850 branches) and Road Freight (Freight – total of 160 branches). It is market leader in Air Freight and in Ocean Freight based in export freight tons.

Supply Chain division offers supply chain logistics solutions such as warehousing, distribution, management and consulting and business process outsourcing. DHL is present in more than 60 countries in this division and it is global market leader in contract logistics with 7.8% (2011, DPDHL Annual Report), a highly fragmented market. This division focus mainly in retail and consumer sectors where 26% and 19% of the revenues come from, respectively. In geographic terms, 62% of revenues are generated in EMEA.

4.1.1. Key Financials

Revenues

DHL netted over €57 billion operating income in 2012 (consolidated), up 5.1% from 2011 (see **Figure 21**). If we go back to the consolidated operating income from 2009, we assist to an accumulated growth of €9.3 billion over the period. This great improvement was largely achieved due to sharp increases in Express (11.7% $CAGR_{09\text{-}12}$) and GFF (8.8% $CAGR_{09\text{-}12}$). The former division showed great evolution, in correlation with EU, as stated earlier. On the other hand, GFF division's revenue was impacted by net M&A of 3 companies in 2011 (5-2).

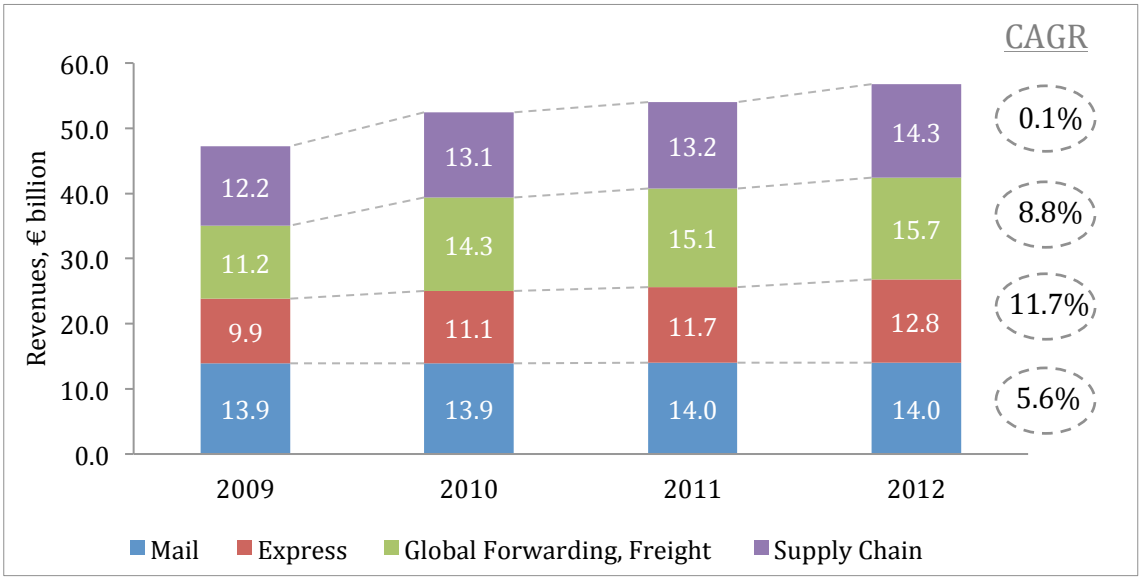


Figure 21: DHL's divisional revenues

Operating Expenses

Industry wide, staff costs such as wages and other related costs rank number one in total operating expenses, with an average of 46.6% weight (IBIS*World*, 2013a). Purchases accrue with 39.3% to total operating costs, being raw materials, fuel, and transportation outsourcing to other companies the most common and important elements. Depreciation & amortization (D&A) and impairment losses usually make up 4.4% while other residual expenses may include rent, utilities, marketing expenses, etc.

Operating expenses in DHL totaled roughly €55 billion in 2012, up 4.9% from 2011, in line with the increase observed in revenues. These expenses comprise two main items, namely Material Expenses and Staff Costs, which account for 58% and 32% of total expenses, respectively (see **Figure 22**). Even though operating expenses have grown over 14% since 2009, this structure has remained fairly unchanged throughout the same period. This would imply that the DHL's cost structure comprises mainly highly flexible (variable) costs.

Materials represent the highest component of expenses (over 57% as a percentage of revenues). Supplies and purchased services is the most important component, since it includes transportation costs – these costs are services outsourced to third parties for the transportation and other activities of DHL. This issue arises the fact that while DHL's network is extremely wide, its fleet cannot be as comprehensive and thus it relies on various other carriers to perform totally or partially some of the company's routes. Transportation costs

are somewhat flexible, mainly due to the great scale and bargaining strength enjoyed by DHL: it can easily adjust outsourcing contracts, lengths, timing and size without affecting the pricing charged by its counterparties. There are factors other than volume that are likely to impact these costs, such as fuel prices and regulatory constraints and thus a word of caution for such risks. Temporary staff is largely related with outsourcing for some services or regions to which the company does not have reach or it is economically better to do that way.

In terms of raw materials, the most important item is fuel used in company's fleet (trucks and airplanes). This item too has risks associated with volatility in global oil prices. Total fuel costs represent 4% of operating expenses.

Staff costs represent 32% of total operating costs, well under industry average (-15pp), especially due to its great scale and ability to dilute senior executives' higher salaries in a much larger bottom layer structure. This fact positions the average annual wage of employees to €33.3 thousand in 2012, up 5.1% from 2011 - if we take into consideration the inflation, which in Germany was 2% for 2012 (OECD Stats), wages in real terms grew by 3%. Depreciation, amortization and impairments represent 2.4% of total costs and are driven by depreciation of PPE, especially of vehicle fleet and aircrafts.

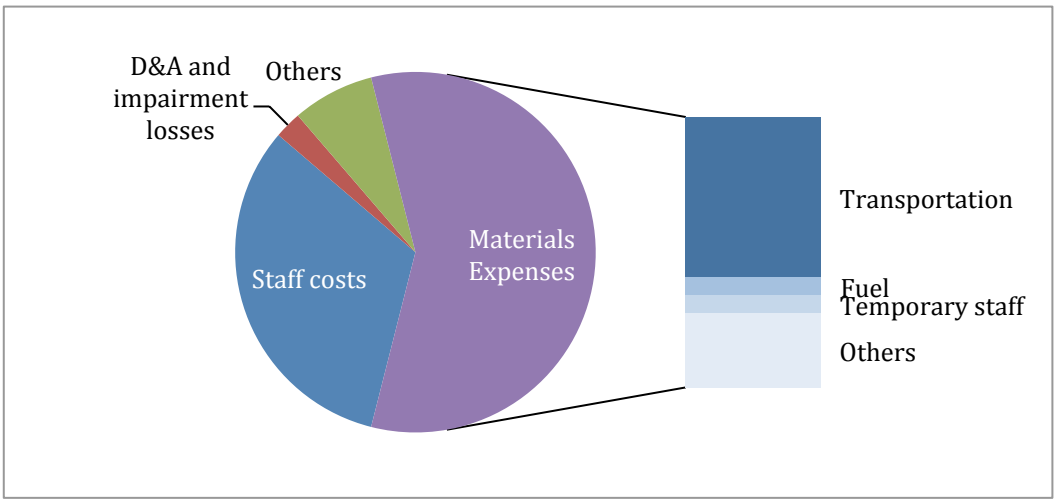


Figure 22: DHL's expenses breakdown, 2012

EBITDA and margins

DPDHL earned an average margin on EBITDA of 7.4% in 2012, up from 7.2% in 2011 (**Figure 23**). This result was due to high margins in mail and express, as opposed to low margins in GFF and supply chain. In fact, while Express was the

lowest revenue stream, it generated the highest EBITDA, due to its 11.8% margin on EBITDA. Mail had 9.9% margin, which represented almost €1.4 billion in EBITDA. GFF and Supply Chain have margins of 4.0% and 4.9%, respectively, well under the first two divisions, thus yielding much lower EBITDAs.

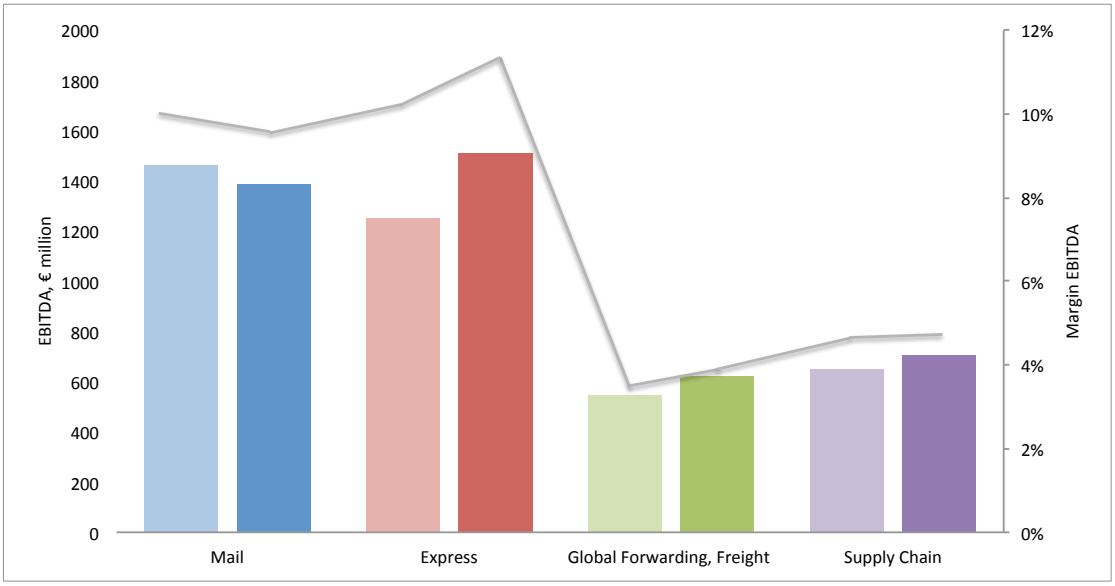


Figure 23: DHL's EBITDA volumes and margins, 2011 and 2012

Capex

Capital Expenditures in 2012 totaled €1.7 billion, slightly lower than 2011 (see **Figure 24**). Germany represents the largest destination, with €979 million, followed by the Americas and Europe, both with €259 million. Division wise, Express represents by far the largest investment in 2012, with €597 billion, followed by mail division, with €332 million. The modernization and expansion of Express division is not only visible in Capex figures alone, but also supported by a reported ratio of Capex to depreciation, amortization and impairment losses of 1.49, the highest in the group, followed by GFF with 1.35. In terms of percentage of sales, the level of Capex is at 3.0%, above the 2.5% in 2009.

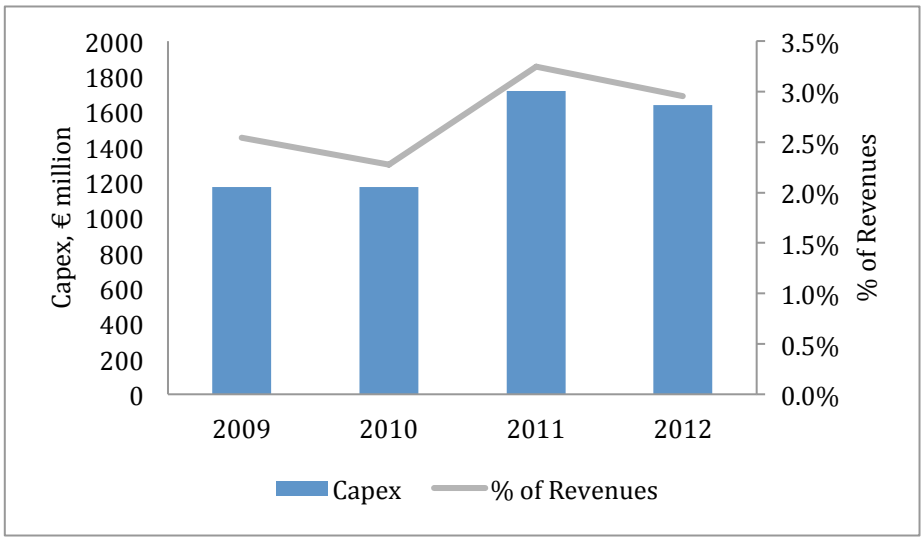


Figure 24: DHL's capex

4.2. Österreichische Post

Österreichische Post is the leading postal services and logistics company in Austria. The company started out as Post und Telekom Austria in 1996 and in became an independent entity in 1999. In 2006 the company was successfully privatized through an IPO that put 47.2% (as of 2013) of its shares free floating in the Vienna Stock Exchange. The remainder is still owned by the Austrian State.

The company has an extensive branch network in Austria, with 1,931 postal service points (well above the 1,650 statutory minimum), of which 555 are OP's owned while postal partners operate the remainder. OP's target is to further decrease its direct holdings to 500, following its strategy of branch restructuring and cost cutting (see **Appendix 2**). Through this network, OP offers mail, banking and telecommunication products and services. OP employs around 23,000 people and it is present in 12 countries in Europe, including Germany and several SEE countries (generating 28% of revenues overseas in 2012 - same as 2011). The company is divided in Mail & Branch Network and Parcel & Logistics.

The first division comprises mail services such as traditional letter mail as well as the distribution of media and marketing materials. Addressed mail items (60% of Mail Revenue) are mainly invoices and communications from the public sector, utilities, financial services, which represent 2/3 of total addressed mail volume in Austrian Post, as C2C mail items continue its structural decline. Infomail (30% of Mail Revenue) relates to marketing volume and it is mainly

unaddressed. Lastly, Media Post (10% of Mail Revenue) includes subscription related materials such as magazines, newspapers and others. Branch Network includes arrangements with third parties for the provision of services in-store, such as the partnership with Bawag SPK, one of the largest banks in Austria: in early 2011 the to companies opened the first joint branch office, under a partnership that allows for Austrian Post to extend the utilization of branches and thus efficiency. As part of this partnership, OP expects to have joint operation of the target 500 company-owned branches.

Parcel & Logistics represent the greatest focus in OP in the last few years. Following the continuous decline in mail, and taking advantage of opportunities in e-commerce, the company has developed efforts to consolidate its presence in Austria, where it holds 75% market share in B2C and C2C and 18% market share in B2B, in 2011. Internationally, OP has explored opportunities in the CEP market in Germany and several SEE countries through a series of M&A in the last few years (see **Appendix 3**). On the other hand, it has disposed the operations in the Benelux, which were running at loss.

Given these ideas, the key strategic orientations for OP currently are: 1. Defend the market leadership in core business, which means mail and parcels business in Austria and 2. Achieve profitable growth in selected markets, meaning exploring growth potential in Parcels & Logistics in CEE. This second point is paramount due to the decline in Mail business, which represents the biggest revenue for OP. This has been possible due to a series of acquisitions in surrounding CEE countries, with special focus on the emerging Parcels segment. The late process of liberalization that was finished in 2013 in some countries, namely Hungary and Romania imply new opportunities in addressed mail items in markets where OP has already an established Parcel network. This being said, there will likely be a further shift from Austrian to International revenues.

4.2.1. Key Financials

Revenues

The trend of focus on Parcel & Logistics denoted previously is well portrayed in the company's revenue mix, with an average annual increase of 3.7% since 2009, culminating at €858 million in 2012 (**Figure 25**). The revenues for 2012 were

affected by the conclusion of divestment of loss-making subsidiaries in Belgium and the Netherlands during 2011. On the other hand, Mail & Branch Network is experiencing reduced revenues with CAGR of -1.7% for the period. All in all, OP had stable revenues, when compared to last year, totaling around €2.4 billion.

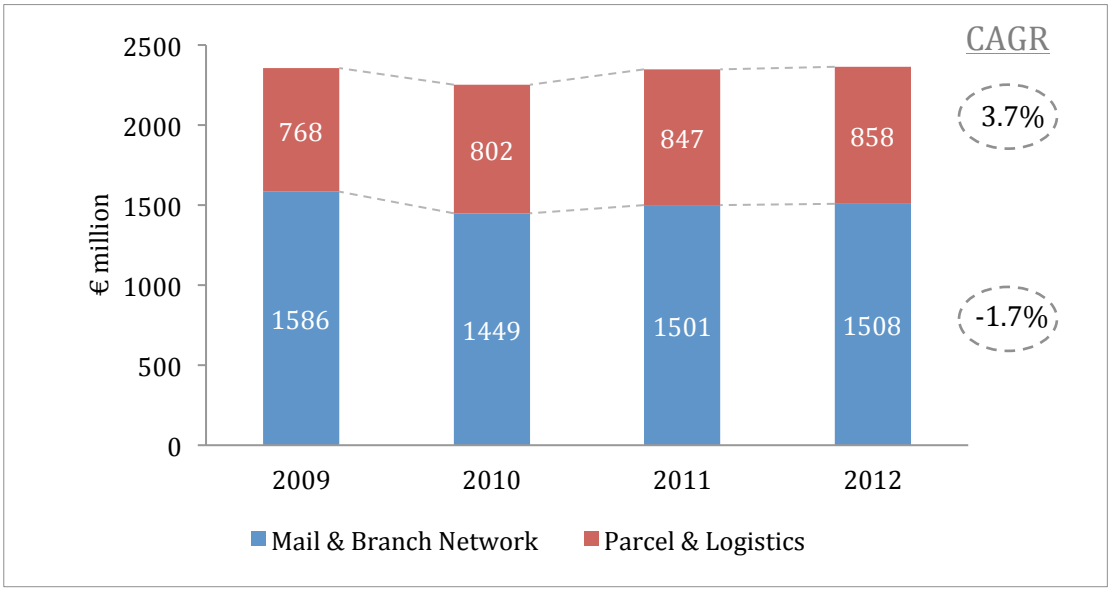


Figure 25: OP's divisional revenues

Operating Expenses

Operating expenses in OP totaled roughly €2.2 billion in 2012, with no significant percentage changes from 2011, following the stabilization observed in revenues. These expenses comprise two main items, namely raw materials, consumables and services (Material Expenses) and Staff Costs, which account for 34% and 49% of total expenses, respectively (see **Figure 26**). Total operating expenses have decreased around -2.6% since 2009, especially due to a -4.2% evolution of staff costs over the same period.

Though materials expenses are a large component in operating costs, it is not as massive as in DHL, representing 32.4% of revenues (vs. 57.4% for the German company). This is not only due to the lower need to outsource transportation costs in a much lighter and less comprehensive network but also caused by a higher reliance on own company labor, as described next.

As previously mentioned, staff costs have been decreasing overtime. This trend is mostly explained by a significant decrease in FTEs over the years. From 2009, the average FTEs for the year has decreased by -2,740, meaning that in 2012 the average FTEs was 23,181. Senior executives presented the highest

percentage drop, at -22.8%. This was especially due to restructuring in labor force and initiated by a performance enhancement process started in the last couple of years. This decrease in the higher hierarchy of the firm is one of the explanations why the average wage has increased very slightly during the period, reaching an annual figure of €35,693. The evolution from 2009 is actually negative - if we take into consideration the Austrian inflation (OECD Stats) as a proxy for the evolution in real terms - at -4.3%. Adding to this, OP has outsourced more of its transportation and branch services needs to third parties, as mentioned previously, thus reducing labor needs.

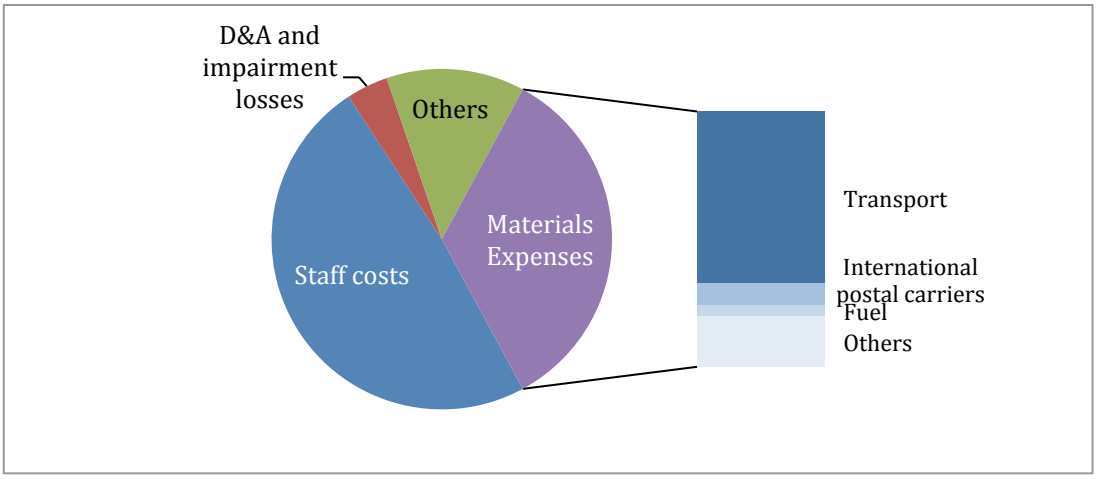


Figure 26: OP's expenses breakdown, 2012

EBITDA and margins

In terms of EBITDA, Mail produced €307 million, 20.4% margin. Due to growth and development of Parcel & Logistics segment, it still presents low economies of scale and high operating inefficiency. The fact that costs are not properly diluted in volume yields a relatively low 5.4% EBITDA margin (see **Figure 27**). This is further explained by the breakdown of EBITDA margins by region, given that Austria represents the highest margin, followed by Eastern Europe and Germany with margins of around 10%, 5% and 1%, respectively. Expectations are that as the business consolidates, margins will move closer to industry practice (recall 11.8% express margin in DPDHL). Moreover, this fact would be extensively mitigated in case the proposed merger would take place, given the colossal difference in scale between DHL and OP.

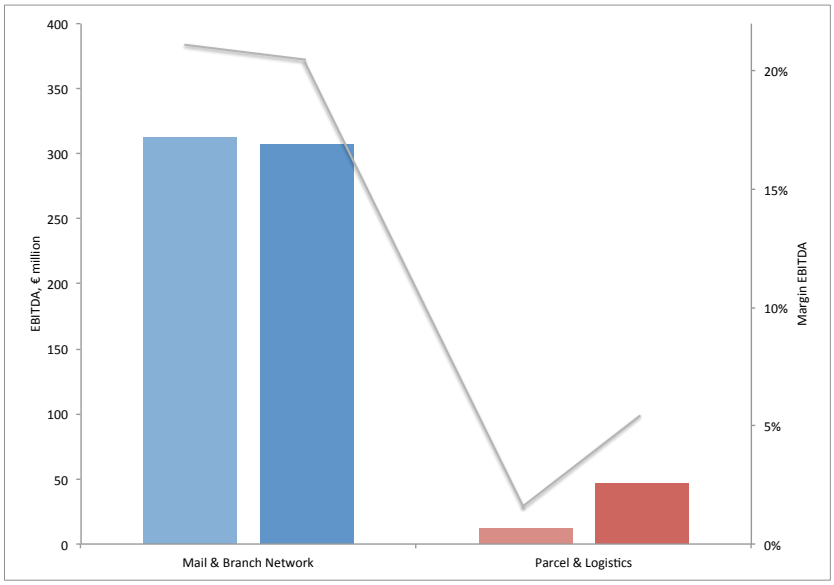


Figure 27: OP's EBITDA volumes and margins, 2011 and 2012

Capex

Capital Expenditures at Austrian Post in 2012 were €97 million, 5.9% more than in 2011 (see **Figure 28**). Mail & Branch represents 50.2% of the total capex, while Parcels & Logistics represent only 20.6%. The remainder of the capex is assigned to OP's Corporate Centre. In terms of the ratio of capex to D&A, the highest value also comes from Mail & Branch, with 1.41. Conversely, the high growth Parcels & Logistics has a figure of only 0.94 (up from 0.46 in 2011). This contradicting fact is largely explained by the fact that the recently disposed operations in Benelux are still impacting negatively the capex figures, since the depreciations of assets in place in this region were not being followed by new investments. In terms of capex as a percentage of revenues, OP posted figures of 3.2%, 2.6%, 3.9% and 4.1% from 2009 to 2012, respectively.

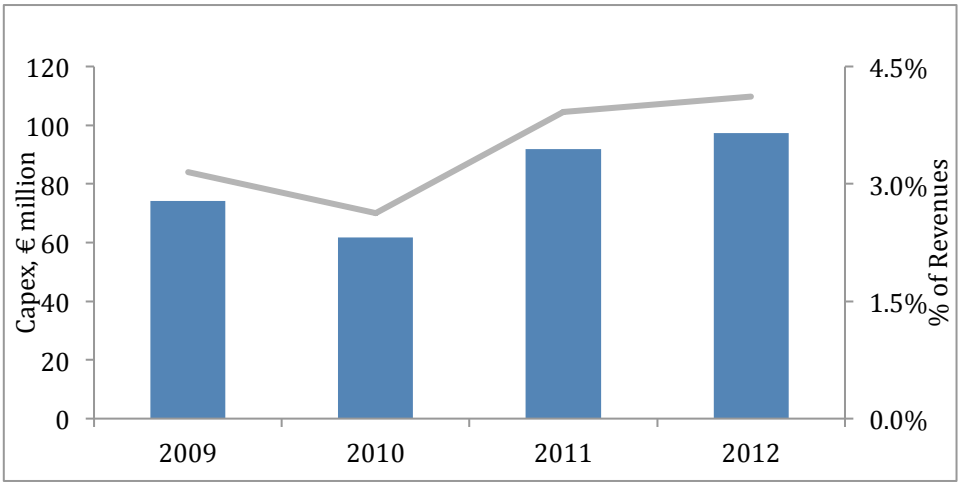


Figure 28: OP's capex

4.3. Share prices

Figure 29 below shows the prices for the shares of the two companies in analysis (DPW code to DHL and O3P to OP), as well as the index points for STOXX TIMTI, the European index for Transportation Industry, which includes - besides DPW and O3P - TNT Express and Flughafen Wien, for instance (Stoxx.com, 2013).

The series reports the last five years of activity, starting in May 2008, time at which the markets were continuing its downward pressure to minimum levels for years. The highest STOXX quote during this period was on 19/05/2008, right in the beginning of the period, at 223.6 points. Since then the index has struggled to return to pre-crisis levels, after hitting a low point 06/03/2009, at 88.2 points. The average points for the Index during these five years was 153.8.

Not surprisingly, the high point of DPW was on 19/05/2008, the same day as Stoxx, at €22.3. From that time onwards, DHL continuously lost market value until €6.6, around one third of its initial value in the period, on 12.03.2009, which again roughly coincided with the date at the Index. The average price for DHL's share during this period was €13.2.

Austrian Post's share has experienced a slightly different behavior since it has already recovered to 2008 levels and established a high point on 18/04/2013, with €33.8. Its lowest value was on 08/09/09, at €18.0. The average share price for O3P was €23.7. The fact that OP has overcome this recent crisis earlier than the market, as shown by its share price evolution, is a could indicator of the healthy forecasts investors foresee for the company and thus a good prospect for the Austrian company as a potential target by DHL.

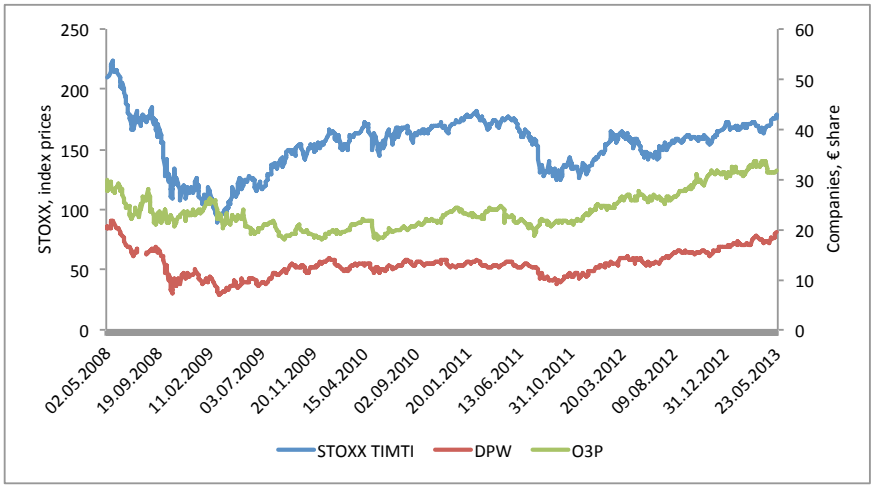


Figure 29: Index and Share prices evolution

5. Rationale for the proposed transaction

A merger between DHL and OP could leverage two main ideas that are especially important in today's world in general and in the postal sector in specific: the search for new regions where markets are still buoyant and with healthy growth prospects and offer integrated services with highest value for both customers and companies. These two ideas are briefly explored in this section.

5.1. Further access to CEE countries

The strategy for Austrian Post in the near term encompasses more than defending the leadership in domestic market, further growth in selected economies in SEE, as referred earlier in **Appendix 3**. This strategy is summarized below and complemented with **Figure 30**.

- Austria – market, cost and quality leadership in multi-channel delivered
- International – market leadership in segments (parcel, combined freight and temperature-controlled logistics) and regions (South East and Eastern Europe) with high growth potential

Figure 30: OP's strategy Map

A merger with DHL would possibly enable a stronger and speedier growth in this region as the privileged access enjoyed by OP could be coupled with the German company's capabilities, namely higher investment and operational capabilities, better access to business customers, etc. On the German side, this is a huge

opportunity for growth in Europe, where the recent economic crisis has flattened progress and which is by far the most important continent for the company.

5.2. Focus on higher value services

The decline in mail has been followed by the increase of express and logistics services, especially due to the advent of e-commerce and rising needs of business customers to have their orders placed and delivered in a convenient and timely manner, as stated earlier. These services require a lot less manpower than traditional mail, giving much more value to companies, for every employee, as shown in **Figure 31**.

While OP's is focusing more and more in the types of services described in the previous paragraph, it is true that there is still a lot of progress to be achieved by the Austrian company. In fact, the average revenue per employee for the company is €87,727, against €133,288 by DHL. This being said, DHL shall be a very strong partner for OP, in its goal to deliver higher value services with increased efficiency.

Adding to this, the increased importance in Express and Logistics services at OP, will not only mean greater value per employee, but also greater pressure on materials expense in this segment. Yet again, the German company comes as crucial player since its bargaining power towards suppliers could enlarge margins in this segment, further extending the benefits of this merger.

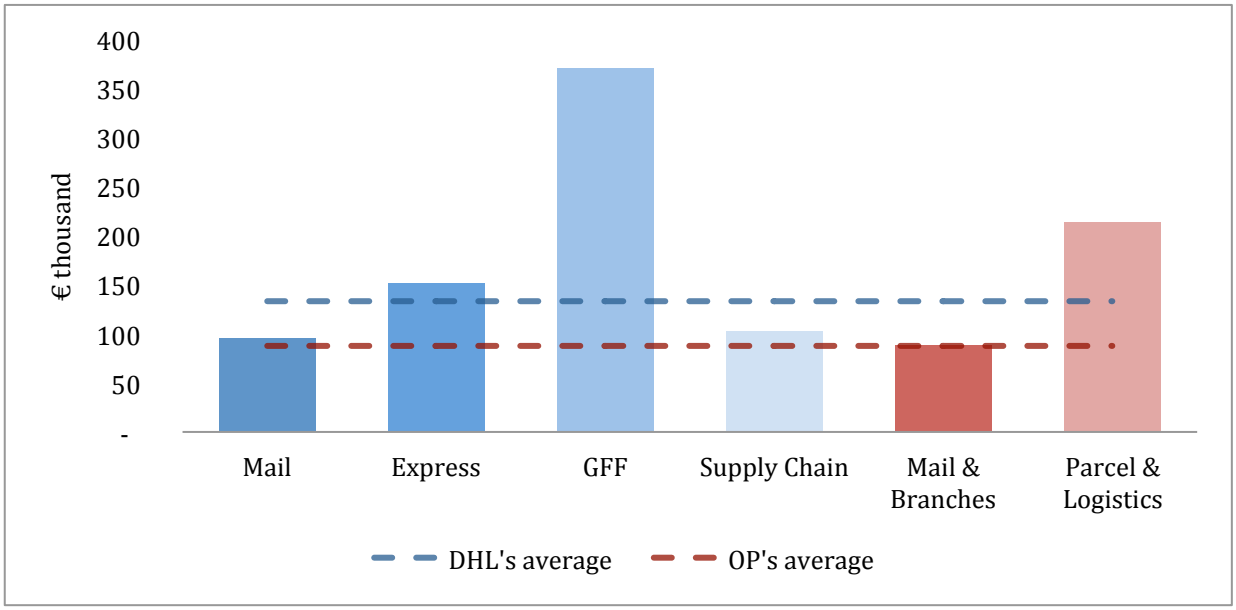


Figure 31: Revenue per employee, by segment

6. Standalone Valuation

The explicit period of analysis for the standalone valuations of both companies will extend itself until 2020. This period is sufficiently long to reach an equilibrium situation from which to compute the terminal value and it also reflects the term until when more accurate estimates are widely available for both macro inputs and industry specific tends. Potential changes in the period onwards will be captured by the sensitivity analysis at the end of the section.

6.1. Macro Inputs

The IMF (2013) has set forecasts for the macroeconomic variables that will be used throughout the analysis. The World's GDP is expected to grow at a faster pace from 2013 onwards. Austria and Germany are important geographies to analyze, home to OP and DHL, respectively. Both countries are forecast to grow at a slower pace than the global figure, with Austria experiencing a nominal growth of 2.7% in 2013, 3.4% in 2014 and stabilize by 2017.

Germany expects a smaller growth with a stable 2.7% starting in 2017 and the same stable rate of inflation, at 1.9%. Central and Eastern European countries are the large bulk of international focus of OP and thus crucial for the subsequent analysis. After some unstable years, brought about by the crisis in mature countries in Europe (on which Eastern emerging economies rely), this region is expected to experience strong growth, with 7.0% in 2013 and a stable 7.4% GDP growth from 2018 onwards. All these figures are depicted in **Table 1**.

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
World	GDP	55827	61364	57983	63468	70221	71707	74172	77805	82147	86906	92094	97599	103432	109615
	Growth	12.9%	9.9%	-5.5%	9.5%	10.6%	2.1%	3.4%	4.9%	5.6%	5.8%	6.0%	6.0%	6.0%	6.0%
Austria	GDP	274	283	276	286	301	310	318	329	340	351	363	374	386	398
	Growth	5.8%	3.2%	-2.3%	3.7%	5.0%	3.1%	2.7%	3.4%	3.4%	3.3%	3.3%	3.2%	3.2%	3.2%
	Inflation	2.2%	3.2%	0.4%	1.7%	3.6%	2.6%	2.2%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
Germany	GDP	2429	2474	2375	2496	2593	2644	2707	2777	2849	2928	3008	3090	3175	3262
	Growth	5.0%	1.9%	-4.0%	5.1%	3.9%	2.0%	2.4%	2.6%	2.6%	2.8%	2.7%	2.7%	2.7%	2.7%
	Inflation	2.3%	2.8%	0.2%	1.2%	2.5%	2.1%	1.6%	1.7%	1.7%	1.8%	1.9%	1.9%	1.9%	1.9%
CEE	GDP	1632	1920	1599	1746	1893	1845	1973	2059	2182	2340	2510	2695	2894	3108
	Growth	25.3%	17.6%	-16.8%	9.2%	8.4%	-2.5%	7.0%	4.4%	6.0%	7.2%	7.3%	7.4%	7.4%	7.4%
	Inflation	6.0%	8.1%	4.7%	5.3%	5.3%	5.8%	4.4%	3.6%	3.5%	3.6%	3.6%	3.6%	3.6%	3.6%

Table 1: Macro forecasts

6.2. DPDHL

As mentioned previously, DHL is divided in 4 segments, each of them with several sub-segments. Adding to this, the company operates corporate centers from where it obtains revenue from intra-company transactions such as outsourcing services, other sales, etc. This additional division operates as an integrator of the 4 main divisions and it contributes to the majority of intra-company revenue, which is then eliminated at consolidation.

6.2.1. Revenue

Mail

The main components of this segment are Mail Communication in both Germany and Internationally. Following the great decline expected in this sector, this segment is likely to assist to deterioration in revenues. In fact, these two components will be strongly associated with decline (or very moderate growth) in revenues during the period. While Mail Communication revenue is expected to decline at an average -3.6% (JPMorgan, 2013) – given the regulatory environment that restricts levels of service to mail items allied to low margins on traditional mail communication, DPDHL is expected to perform just as the average as it sustains its 62.7% market share (Company Information) – Global Mail will show an even more severe drop, at an average of -4.0%, according to BCG (2012), where DHL has 15.8% share of the market (Company Information).

Dialogue Marketing services at DHL focus on mail communication other than traditional, such as mail advertising. This business is adversely affected by the global economic crisis, since marketing and advertising budgets are one of the first to be cut in economic downturn. Moreover, digital media is changing the way companies deliver advertising content, mostly at the expense of print advertising. Such trends are illustrated by the revenue decrease due to print advertising in Germany, that will reach -2.7% in 2014 and 2015 and then stabilize at -1.7%, on an annual basis (PwC, 2012).

Press services consist mainly of press distribution services, which are once again greatly influenced by the negative outlook of the economy in the European Union, over the last few years. Moreover, the technological change affects in a paramount way the circulation of print newspapers and magazines as

content is delivered over the Internet through devices such as PC's, smartphones and Tablets thus exacerbating the decline in physical press. This trend is denoted by PwC's forecasts (PwC, 2012), that show a downward pressure that fluctuates from a -2.3% change in 2013, to a peak of -2.5% in 2015 and a low point at -2.1% in 2020.

Value-added services comprise printing services for corporations and document management and represent a very small share in division's revenues (less than 2%). DHL is not expected to put any emphasis on these segments, which is expected to continue its previous yoy revenue development of -0.8%.

Parcels Germany is the biggest revenue booster within the Mail division in DHL, where it enjoys a 40.9% market share (Company Information). Not only has it shown very strong growth performance (average over 10% in the last three years vs. decline in almost all other sub-segments) as it is expected to grow at 5.5% in the next three years and then at an impressive 7.5% from 2016 onwards (**Figure 32**, BCG, 2012). This expected growth could be even too conservative as DHL is putting an extra effort on this segment, not only through parcel products it delivers, but also through its own online shopping portal MeinPaket.de, which will expand revenues related to the development of e-commerce even further.

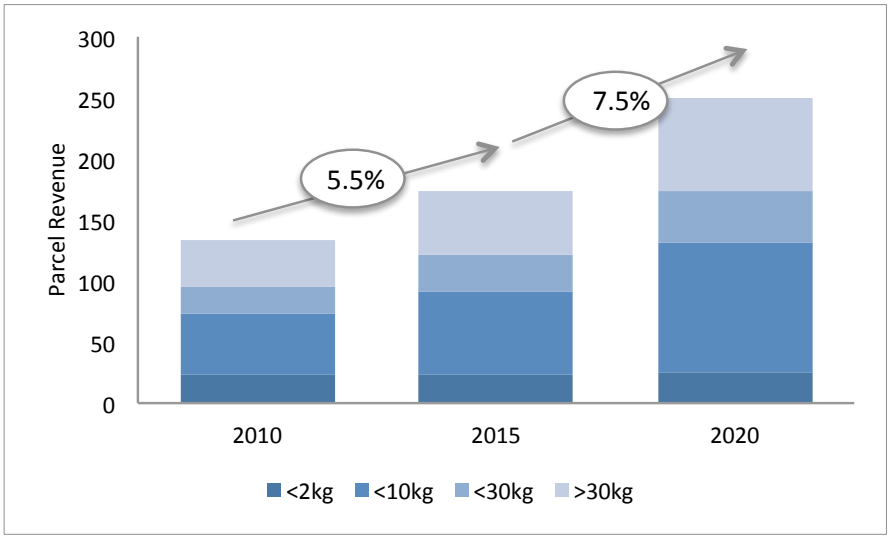


Figure 32: Parcel revenue forecast, 2020

Retail Outlets' revenue relates to sales in post offices. This sub-segment is expected to continue to show a growth between inflation and GDP, with 2.2%

average through 2020. Pension Service comprises database administration and payment processes and is estimated to grow at the same pace as inflation.

This more traditional division will be greatly affected by the mail decline predicted and will thus experience negative growth during the next few years (see **Table 2**). From 2016, this trend will eventually be inverted and division revenue will present modest growth, led by the increasing importance of Parcels in Germany that will continue to expand, as previously predicted.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	13 973	13 972	13 835	13 725	13 639	13 684	13 763	13 876	14 026	14 213
growth	0.4%	0.0%	-1.0%	-0.8%	-0.6%	0.3%	0.6%	0.8%	1.1%	1.3%
Mail Communication	5 430	5 236	5 032	4 851	4 676	4 508	4 345	4 189	4 038	3 893
Dialogue Marketing	2 605	2 497	2 440	2 375	2 312	2 273	2 236	2 199	2 162	2 126
Press Services	782	744	727	710	692	678	663	649	636	622
Value-Added Services	238	236	234	232	230	228	226	224	222	221
Parcel Germany	3 179	3 477	3 669	3 872	4 085	4 392	4 723	5 078	5 459	5 870
Retail Outlets	822	850	867	885	904	923	944	966	989	1 012
Global Mail	1 693	1 712	1 644	1 578	1 515	1 454	1 396	1 340	1 286	1 235
Pension Service	100	101	103	104	106	108	110	112	114	117
Consolidation/Other	- 876	- 881	- 881	- 881	- 881	- 881	- 881	- 881	- 881	- 881

Table 2: DHL's Mail revenue forecast

Express

Express delivery services worldwide have been more resilient than the economy and showed strong and consistent growth throughout the last few years. DHL has put special emphasis in Europe and Asia Pacific, where it is market leader, with market shares of 41% and 40% respectively. In the Americas, DHL has several growth options due to its low market share (16%), which is dominated by the domestic carriers in this segment, FedEx and UPS and together account for 80% of the market. Political unrests in Middle East and Africa create uncertain prospects for business in this part of the globe.

Besides the geographic segmentation, DHL divides its operation through level of service: Same Day – for extra urgent deliveries that require immediate pick-up and delivery –, Time Definite – for door-to-door delivery at a specific time, for time critical situations – and Day Definite – for less urgent and more cost-effective deliveries, scheduled to a specific day. The great bulk of DHL's revenues come from Time Definite International Shipments, the middle level of service, representing over 80% of the revenues.

As already stated, progress in Europe has been solid despite the difficult economic situation. Daily volumes have increased at higher pace than revenues

as companies seek more cost-efficient solutions in times of financial constraints. Positive currency translation effects also impacted such encouraging results in the business in the UK, Switzerland and Scandinavia. Such fact shall be taken as a word of caution as they may represent one time occurrence that inflates figures. This trend is likely to continue for the next few years, as express industry output is expected to grow at 4.9% through 2015 and then at 3.9% per year, while revenues show a more moderate evolution at 3.9% and 3.2% for the same periods, respectively (Oxford Economics, 2011).

The Americas is seen as a high long-term growth potential, especially to expansion of operations in Central and Southern America. The establishment of a new regional hub in Mexico in the last quarter of 2012 grasps this trend. Last year's revenues were positively impacted by currency effects as well as the sale of the Canadian Express business. Revenue growth is thus slightly more optimistic than in Europe. This trend is in line with Oxford Economics' prospects (Oxford Economics, 2011) for express revenue increase, that state a 4% per year development over the period until 2020.

Asia Pacific has the highest growth expectations in international trade and thus it promises to outpace mature regions in wide sectors of the economy and consequently boost express delivery services. Developing Asian countries – including China, Thailand, Malaysia, etc. – have show 9.0% GDP growth last year and are expected to grow at 9.5% during 2013 and over 10% by 2020 thus attesting the importance of this entire region. DHL will surely follow this trend, with ever increasing focus in the region, especially in China, where the company presents a massive Express Network (see **Appendix 4** and **Appendix 5**). As such, Express revenues are forecast to grow at an average 5%/year until 2020.

In Middle East Africa (MEA) DHL faces different challenges from those in not so politically volatile countries. During 2012, DHL was able to continue service in Syria, although branches had to be shut or relocated. The company stands as a reliable player, which is especially important in a region very prone to political unrests. This unstable situation makes growth estimates for this region very difficult and it is thus required an extra degree of prudence in stating them. Given this, growth will assume very prudent figures at half the speed than those expected for Europe in each year.

Prospects of strong economic growth in Asia as well as the available room for growth in the Americas will lead revenue development in the Express segment over next few years while mature markets in Europe and unpredictability of political and social situation in the MEA region will balance those more favorable forecasts and yield divisional growth of 4.3% for the next three years and 3.9% from then onwards. These figures are shown in **Table 3**.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	11 691	12 778	13 321	13 888	14 479	15 046	15 637	16 252	16 891	17 558
growth	5.2%	9.3%	4.3%	4.3%	4.3%	3.9%	3.9%	3.9%	3.9%	3.9%
Europe	5 361	5 614	5 833	6 060	6 297	6 497	6 704	6 918	7 138	7 365
Americas	1 887	2 276	2 367	2 461	2 559	2 661	2 766	2 876	2 991	3 110
Asia Pacific	3 718	4 301	4 516	4 742	4 979	5 228	5 489	5 764	6 052	6 355
MEA	856	961	980	999	1 018	1 035	1 051	1 068	1 085	1 102
Consolidation/Other	- 131	- 374	- 374	- 374	- 374	- 374	- 374	- 374	- 374	- 374

Table 3: DHL's Express revenue forecast

Global Forwarding, Freight

As it happens with all major segments in the wide transportation industry, forwarding and freight is extremely reliant on current economic conditions, which has greatly affected the business over the past few years. The division at DHL that comprises Air, Ocean and Road Freight has seen some paradigm changes that arose from the economic crisis and uneven growth in the globe. While in the Global Forwarding business there was a shift from air freight to more economically appealing ocean freight, the road freight business has assisted to an increasing effort to diversify from the core business in Europe as demand volumes decrease with weak economic activity in the Continent.

Air freight is likely to continue its rebound since its low point in 2009, though companies will continue to pursue less costly alternatives, as mentioned previously. IBIS forecasts a 4.7% increase in 2013, followed by more stable growth around 2.0%-2.7% through 2020 (IBIS*World*, 2012).

Ocean Freight has struggled with slow demand and low freight rates ever since the economic crisis but a few signs of stronger recovery are likely to arise in the next few years as this way of transportation gains traction in detriment of more fuel intensive and lower cargo capacities ways of forwarding. As such, this subs-segment is likely to experience yoy growth rates over 4% with 4.6% in the three years leading to 2020 (IBIS*World*, 2013b).

Since emerging economies have been driving growth during the last few years - which is likely to continue over the next foreseeable future – there has been set a tremendous pressure on road freight business at DHL, which is highly focused in Central Europe. In order to mitigate this scenario, the company has already increased its presence on other regions, as it happened with the purchase of a business in the US in 2011. According to Davy Research (2012) road freight usually increases at a speed between Air and Sea Freight and that metric has also been adopted to forecast the evolution of this sub-segment over the period.

Given the previous facts, Ocean freight will expectedly lead revenue development in the forwarding and freight division, as air freight will struggles with high fuel prices and price pressure by customers demanding lower and lower rates. The nearly stagnant European economy will be overcome by a stronger focus on alternative markets, not only the US as well as with emerging economies in Europe and elsewhere. These trends will result in an average annual growth rate of 4.7% over the period, with peaks during 2013 and later in 2016 (see **Table 4**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	15 118	15 666	16 334	16 889	17 442	18 351	18 893	19 566	20 265	20 989
growth	5.4%	3.6%	4.3%	3.4%	3.3%	5.2%	3.0%	3.6%	3.6%	3.6%
Global Forwarding	11 094	11 604	12 289	13 014	13 781	14 595	15 456	16 368	17 333	18 356
Air freight	5 573	5 517	5 776	5 892	6 010	6 334	6 505	6 681	6 861	7 046
Ocean freight	3 544	3 738	3 874	4 071	4 267	4 476	4 620	4 831	5 051	5 282
Other	1 977	2 349	2 447	2 534	2 620	2 755	2 836	2 939	3 046	3 157
Freight	4 162	4 192	4 367	4 522	4 675	4 916	5 062	5 245	5 436	5 634
Consolidation/Other	- 138	- 130	- 130	- 130	- 130	- 130	- 130	- 130	- 130	- 130

Table 4: DHL's GFF revenue forecast

Supply Chain

Growth in the Supply Chain division was boosted by a series of M&A activity in 2011 and 2012. This division relies in a much smaller number of customers than the previous ones, since contracts are usually much large and involve higher commitment from both parties – clients and supplier. This fact means that revenue development depends much more on the success of existing clients rather than the performance of the economy as whole, though obviously one relates to the other. This acquisition strategy adopted by DHL is seen as a fast and effective way to enlarge its portfolio and thus mitigate this potential risk of few very important clients. The fact that DHL has global logistics capabilities

creates a distinct strategic advantage very appealing to clients and extremely difficult to replicate by competitors.

The Supply Chain sub-division will profit in the next few years from the recent acquisitions as well new contracts – renegotiated contracts with better terms, deeper penetration with existing customers (new logistics center in Germany for Primark, adding to its centers in the UK and Spain) and new customers. Moreover, contracts are set for a period that is usually for 3-5 years, thus providing higher certainty about revenue development. Adding to this, the Asia Pacific region has been gaining importance in this area for DHL, and its expected double-digit growth over the period will further enhance revenue.

The Williams Lea sub-division is a paramount example of the aforementioned M&A strategy as it was a UK company acquired by DHL in 2006. The company operates in the Business Process Outsourcing (BPO) market and focus on document management, marketing and customer correspondence among others. The strength of the DHL brand has allowed Williams Lea to get new clients that were already within the parent company's reach. This trend is likely to accentuate over the years as DHL tries to offer an even wider range of services to its clients. This trend is illustrated by the expected revenue growth for the BPO by IDC (2013) expecting an average annual growth of 5.7%.

Supply Chain expects the strongest growth amongst all DPDHL's divisions as its core business is less correlated with prevailing economic conditions in Europe and North America, from it comes large stake of the company's revenues (despite its global presence): the success of the division requires longer and deeper relationships with clients, which provide less volatility in revenues when long-term contracts are in place as is the case of DHL. Adding to this, M&A activity has expanded the service portfolio the company is able to provide thus allowing to greater growth. Given these facts, Supply Chain will evolve at an average 6.9% per year until 2020 with slight up and down fluctuations in this pace over the period (see **Table 5**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	13 223	14 340	15 197	16 242	17 567	18 672	19 947	21 352	22 864	24 422
growth	1.2%	8.4%	6.0%	6.9%	8.2%	6.3%	6.8%	7.0%	7.1%	6.8%
Supply Chain	11 999	13 000	13 780	14 745	15 983	16 998	18 177	19 481	20 886	22 332
Williams Lea	1 225	1 345	1 422	1 503	1 588	1 679	1 775	1 876	1 983	2 096
Consolidation/Other	-1	-5	-5	-5	-5	-5	-5	-5	-5	-5

Table 5: DHL's Supply Chain revenue forecast

Corporate Centre

Corporate Centre at DHL has been losing importance as some of the revenue previously allocated to this small component is assigned (and thus diluted) in divisions. It is expected that this trend will continue, with average annual decreases in revenue of -4.5%, following what happened in 2012 (see **Table 6**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	1260	1203	1149	1097	1047	1000	954	911	870	831
growth	-3.2%	-4.5%	-4.5%	-4.5%	-4.5%	-4.5%	-4.5%	-4.5%	-4.5%	-4.5%

Table 6: DHL's Corporate Centre revenue forecast

Other Operating Income

Other Operating Income includes small components such as reversal of provisions, remeasurement of liabilities, currency translation effects, among others. None of the individual component represents more than 20% of this the grand total, which means that none of them represent over 1% of total consolidated revenue and will not play a significant role in the Group's bottom line.

In terms of evolution, other income has historically fluctuated less than divisions' revenues and it is expected to show an evolution within the range of inflation and GDP for Germany as it has roughly done so far. Given this, growth forecast for this component is at an average 2.2% for the years through 2020.

6.2.2. Expenses

Staff Costs

Staff Costs increased only slightly in the years leading to 2012 (cumulative 7.7% since 2009), especially due to a cumulative net decrease in FTEs of -2.8% since 2009. As the business evolves and post-crisis perspectives allow larger budget for net additions in FTEs, DHL is expected to increase its staff costs. Nonetheless, these costs are expected to grow at a lower degree than revenues, due to increased production levels.

As such, growing segments are expected to show substantial FTEs increase over the period 2012 through 2020 with cumulative increases of 17.4% in Express (net more 14,739), 6.9% in GFF (net more 2,920) and Supply Chain

with the biggest expansion both in percentage terms at 31.1%, and net more 43,323 employees.

On the other hand, stringent labor laws in Europe as well as strong labor unions make personnel headcount more difficult to adjust, meaning that lower revenues and activity does not immediately translate into lower employees and staff costs. This applies to the mail segment that is expected to have its activity reduced in the next few years. During the period, this division is expected generate net 2,534 FTEs, which corresponds to 1.7%.

Adding to this, average wage will likely evolve to face at least inflation figures. Given that the vast majority of employees work in Germany, the country's inflation (FMI, 2013) will serve as proxy for average increase in wages. All these changes, will make staff costs increase at an average 3.6% annually until 2020. This will represent a slight and progressive improvement in Staff Costs as percentage of total revenues, which will decrease from 30.7% in 2012 to 30.4% in 2020 thus illustrating amplified production levels (see **Table 7**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Staff Costs	16 688	17 724	18 215	18 783	19 425	20 107	20 872	21 694	22 572	23 494
growth	0.6%	6.2%	2.8%	3.1%	3.4%	3.5%	3.8%	3.9%	4.0%	4.1%
% revenue	30.4%	30.7%	30.6%	30.5%	30.5%	30.3%	30.4%	30.4%	30.4%	30.4%
FTEs	421 224	425 816	430 690	436 675	444 064	451 525	459 966	469 176	479 046	489 332
growth	-0.1%	1.1%	1.1%	1.4%	1.7%	1.7%	1.9%	2.0%	2.1%	2.1%
Mail	146 746	146 669	145 226	144 076	143 173	143 642	144 470	145 663	147 235	149 202
Express	85 656	84 681	86 481	88 320	90 199	91 967	93 772	95 615	97 497	99 420
GFF	41 953	42 304	42 658	43 016	43 376	43 740	44 106	44 476	44 848	45 224
Supply Chain	133 760	139 368	143 531	148 469	154 521	159 383	164 824	170 629	176 672	182 691
Corporate	13 110	12 794	12 794	12 794	12 794	12 794	12 794	12 794	12 794	12 794

Table 7: DHL's staff costs forecast

Materials Expense

Total Materials expense has evolved by an average 6.3% during the last four years, following much of the same historical trends of revenues, yoy. This is mostly due to a high correlation between sales volume and transportation costs, the most important of material expenses as seen previously (recall **Figure 22**). This fact implies that the historical structure of materials expenses as percentage of revenues may be a fair approximation of future absolute materials expenses. Nonetheless, there is a word of caution about using last years' percentage only as some non-recurring events may bias the figures. For this reason, it will be used a weighted average with higher factors on recent years, as to grasp the latest trends but not to focus on one-time events.

In terms of cost allocation between divisions, this cost component follows an inverse logic of staff costs: the divisions that require the least amount of people will be the highest in terms of materials expense. In this case, GFF contributes the most for the total amount since forwarding and freight are very reliant on the services of other operators like other cargo airlines, shipping and truck companies and thus the low need of DHL personnel is compensated by other companies' services. This fact impacts strongly GFF's margin, with over 77% of its revenues being used to pay materials expense.

The other divisions represent far less, as measured by the percentage of their revenues. Mail represents less than 40% and it is the lowest figure among the four divisions at DPDHL. This fact is very intuitive if we take into account that much of this division's revenue comes from Germany (especially due to Mail Communication and Domestic parcels), and thus the operations are generated through capacity and network in place, which mitigates the need for sub-contracting/outsourcing. Express division follows the same logic as Mail, with intense use of own resources, though the more global reach requires some degree of external services. Its materials expense as percentage of revenue stands slightly under 53%. In Supply Chain, the company uses an average 47.6% of revenues in this type of expenses.

Given the higher weight of GFF division for the cumulative amount, the average of materials expense as percentage of revenues stands roughly at 55%, above all other divisions' figures. This forecasted stability in margins against materials expenses makes the overall growth of this measure at almost lockstep with revenues evolution as is illustrated by both growth rates and stable percentage of revenues (see **Table 8**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Materials Expense	29 882	31 088	32 516	33 631	34 942	36 495	37 875	39 431	41 091	42 821
growth	2.6%	4.0%	4.6%	3.4%	3.9%	4.4%	3.8%	4.1%	4.2%	4.2%
% revenue	54.5%	53.9%	54.6%	54.7%	54.8%	55.0%	55.1%	55.2%	55.3%	55.4%
Mail	5 650	5 434	5 516	5 454	5 416	5 434	5 464	5 509	5 570	5 644
Express	6 171	6 787	7 072	7 331	7 642	7 944	8 259	8 581	8 919	9 271
GFF	11 778	12 107	12 659	13 099	13 521	14 223	14 646	15 168	15 709	16 270
Supply Chain	6 283	6 760	7 269	7 747	8 363	8 894	9 506	10 173	10 893	11 636

Table 8: DHL's materials expense forecast

Other Operating Expenses

Other operating costs include components such as other business taxes, travel and training costs, expenses for advertising and public relations, among others.

Each component has small relative value to cumulative amount (less than 14%) and thus do not require a differentiated treatment.

Given that these costs are they not visibly linked to any specific metric, they are likely to follow the relative evolution of revenues. This means that its value as percentage of overall revenues will remain practically unchanged over the period, at 7.5%.

6.2.3. Capex and D&A

Capex in DHL is primarily used to invest in Property, Plant and Equipment (PPE) – 83% of total capex in 2011 and 82% in 2012 – while the remainder is used to invest in Intangible Assets. PPE relates to operational needs such as aircrafts, automotive vehicles and equipment and IT equipment while intangible assets mainly relate to goodwill arising from purchases.

Capex has increased in DHL from 2.5% of revenues in 2009 to 3.1% in 2012. This increase was largely achieved due to an increase in capex at the Express division, from 3.7% to 4.7% during the same period. These expenditures, which peaked in 2011, with €601 million that were used to extend its aircraft fleet with 5 more planes (four Boeing 747s and one 777). Supply Chain also enlarged its contribution to capex, from 1.6% of revenues in 2009 to 2.1% in 2012. Expenditures in this segment are being mainly used to support new business (60% in 2011 and 65% in 2012 of all funds invested in the division were applied in new business), thus attesting the effort made in this fast growing business within DHL.

According to DHL annual report, the company is expected to decrease its level of capex to levels closer to the years previous to 2011. This idea comes from the fact that 2011 and 2012 were especially important in bringing the business up after low expectations in the most severe years of financial crisis. This fact shall be especially true for the Express division, where recent large investment in aircraft fleet will no be repeated in the years to come. For that reason, this division will maintain a capex to revenue of 3.7% in the period leading to 2020, the same figure it had in 2009. The other divisions are likely to preserve its capex levels, which result in and average 2.8% revenues invested in capex over the next years.

D&A and impairment losses have historically averaged 7.2% of net fixed assets (Property, Plant & Equipment and Intangible Assets). This situation is not expected to change and depreciations are likely to evolve proportionally. This means that D&A will increase/decrease at the pace of previous years' capex.

Given all this, Mail division at DHL is expected to post negative net capex[2] every year, over the period, which is in line with what happened in 2012 (see **Table 9**). This fact departs from the slow development of the division and less requirements to make new investments. All other divisions will present positive net capex over the years, a fundamental factor to support the growth estimated in revenues. Corporate Centre will also be boosting investments, due to an increasing need to manage the ever-increasing operations of the Group in an appropriate manner. As the DHL deepens its presence in some regions, such as Asia Pacific, there is the need of more and more supporting infrastructures.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Capex	1 716	1 697	1 628	1 685	1 751	1 819	1 888	1 965	2 047	2 133
growth	36.0%	-1.1%	-4.0%	3.5%	3.9%	3.9%	3.8%	4.1%	4.2%	4.2%
% revenue	3.2%	3.1%	2.8%	2.8%	2.8%	2.8%	2.8%	2.9%	2.9%	2.9%
D&A and Impairments	1274	1339	1365	1384	1405	1430	1458	1489	1523	1560
Mail	433	332	329	326	324	325	327	330	333	338
D&A and Impairments	354	334	334	333	333	332	332	331	331	331
Express	601	597	497	518	540	561	583	606	630	655
D&A and Impairments	334	400	414	420	427	435	444	454	465	477
GFF	136	150	156	162	167	176	181	187	194	201
D&A and Impairments	104	111	114	117	120	123	127	131	135	139
Supply Chain	252	300	318	340	368	391	417	447	478	511
D&A and Impairments	287	288	289	291	294	300	306	314	324	335
Corporate	294	318	328	339	352	366	380	395	411	428
D&A and Impairments	195	206	214	222	231	239	248	258	268	278

Table 9: DHL's capex and D&A forecast

6.2.4. Net other financial income/finance costs

This component in the balance sheet at DHL comprises much more than interest costs of debt. This arises from the fact that DHL has an unfunded pension position of around €5 billion (DPDHL, 2013) from which arise interest expenses.

On the income side, the main items are interest income, arising from financial assets, and other financial income, that accounts for events such as interest expense on additional VAT payments and side effects from M&A activity of the company.

On the cost side, interest expenses are breakdown between interest from financial liabilities and interest on pension provisions. This fact is especially

[2] Net Capex = Capex – D&A and Impairments

important for predicting the amount of interest expense over the years. While interest costs from financial liabilities will be tied to levels of financial liabilities throughout the period, pension provisions will remain fairly stable as they relate to unfunded obligations that are not expected to fluctuate significantly over the next few years (DPDHL, 2013). Such trend is illustrated in **Table 10**, below.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Interest Expenses	-660	-642	-552	-504	-620	-572	-525	-641	-593	-545
Financial Liabilities	-361	-290	-200	-152	-268	-220	-173	-289	-241	-193
Provision Expenses	-299	-352	-352	-352	-352	-352	-352	-352	-352	-352

Table 10: DHL's interest expenses forecast

6.2.5. Taxes

Expected taxes for DPDHL (Annual Reports, DPDHL) have achieved a rate in the range of 29.2%-29.8% in last four years, with an average 29.6%. However, the effective tax rate was much lower, with a range 5.4%-23.7% and an average of 14.1%. These differences are due tax loss carryforwards from the negative profit before tax of € -1,066 million recorded in 2008. This effect was particular significant in the two years following 2008, with an average effective tax rate of 6.2%.

Given that tax loss carryforwards from 2008 have been used up in the years following their record and that no more negative profit before taxes are estimated, the expected tax rate will be an accurate approximation of effective tax rate. This means that income taxes every year will amount to 29.6% of taxable income (profit before taxes).

6.2.6. Consolidated Income Statement

The revenue projections discussed previously will result in an average 3.7% annual growth over the period from 2013 to 2020. In the near term this growth will be less significant, especially due to slowdown of Mail division.

In terms of operating expenses, the average growth in the period is nearly the same as revenues, at 3.8%. The slight difference in this pace will result in a decrease of operating margins at DHL and it is mainly explained by the evolution of Staff Costs, mainly tied to inflation. In terms of EBITDA margin, the company will present 6.4% in 2013 and 5.8% in 2020, while the average will stand at 6.1% over the period (see **Table 11**). This margin erosion is in line with BCG (2012),

which states a steady decline in operating margins for postal operators in the following years, due to mail volume decline.

EBIT margins follow the same trend as EBITDA, given that capex as a percentage of revenue will remain quite stable. This fact results in an average margin of 4.0% in 2013-2020. Net finance costs will fluctuate over the years, with higher interest expenses in the years following debt issues and lower immediately before these issues. These fluctuations will represent an average annual Net Profit increase of 3.8% over the period 2013 to 2020, with high volatility.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	54 879	57 680	59 520	61 488	63 771	66 294	68 687	71 389	74 281	77 305
growth	2.4%	5.1%	3.2%	3.3%	3.7%	4.0%	3.6%	3.9%	4.1%	4.1%
Divisions	52 829	55 512	57 309	59 230	61 464	63 934	66 272	68 919	71 753	74 719
Mail	13 973	13 972	13 835	13 725	13 639	13 684	13 763	13 876	14 026	14 213
Express	11 691	12 778	13 321	13 888	14 479	15 046	15 637	16 252	16 891	17 558
GFF	15 118	15 666	16 334	16 889	17 442	18 351	18 893	19 566	20 265	20 989
Supply Chain	13 223	14 340	15 197	16 242	17 567	18 672	19 947	21 352	22 864	24 422
Corporate	1 260	1 203	1 149	1 097	1 047	1 000	954	911	870	831
Consolidation/other	- 2 436	- 2 447	- 2 526	- 2 611	- 2 709	- 2 818	- 2 921	- 3 038	- 3 163	- 3 294
Other Income	2 050	2 168	2 211	2 259	2 307	2 360	2 415	2 471	2 528	2 587
Operating Expenses	51 169	53 676	55 133	56 969	59 101	61 533	63 865	66 454	69 216	72 104
growth	1.4%	4.9%	2.7%	3.3%	3.7%	4.1%	3.8%	4.1%	4.2%	4.2%
Staff costs	16 688	17 724	18 215	18 783	19 425	20 107	20 872	21 694	22 572	23 494
Materials Expense	29 882	31 088	32 516	33 631	34 942	36 495	37 875	39 431	41 091	42 821
Other operating expenses	4 050	4 257	4 401	4 556	4 734	4 931	5 118	5 328	5 553	5 789
Consolidation/other	549	607	600	610	621	632	644	656	668	681
EBITDA	3 710	4 004	3 788	3 909	4 049	4 130	4 178	4 280	4 397	4 520
margin	6.8%	6.9%	6.4%	6.4%	6.3%	6.2%	6.1%	6.0%	5.9%	5.8%
D&A and Impairment losses	1 274	1 339	1 365	1 384	1 405	1 430	1 458	1 489	1 523	1 560
EBIT	2 436	2 665	2 423	2 525	2 644	2 700	2 720	2 791	2 874	2 960
margin	4.4%	4.6%	4.1%	4.1%	4.1%	4.1%	4.0%	3.9%	3.9%	3.8%
Net Finance Costs	- 777	- 427	- 361	- 241	- 531	- 411	- 292	- 581	- 462	- 342
PBT	1 659	2 238	2 062	2 284	2 113	2 288	2 428	2 210	2 412	2 617
Income taxes	393	458	611	676	626	678	719	655	714	775
Net Profit	1 266	1 780	1 452	1 608	1 487	1 611	1 709	1 555	1 698	1 842

Table 11: DHL's P&L forecast

6.2.7. Net Operating Working Capital

Working Capital will identify how the short-term financial situation of the company will be, my measuring short-term funding needs against short-term funding sources. This analysis will be made through the calculation of Net Operating Working Capital, whose formula will be as follows:

NWC = Accounts Receivable + Inventories – Accounts Payable

The first two items in the equation represent short-term financing needs, as both Accounts Receivable and Inventories are current assets not yet translated into cash inflows. On the other hand, Accounts Payable is a source of funding since it is a current liability not yet translated into a cash outflow.

In terms of Accounts Receivable, DHL has reported outstanding balances for the last four years that average 16.5% of revenues, in a range of 15.5%-17.2%. Given this small variability, it is not expected that significant fluctuations will arise in terms of credit policy to customers in the future: a figure of 16.4% of revenues, relating to Accounts Receivable in 2012 will be used to calculate outstanding balances over the period until 2020.

DHL is primarily a services company and that explains the small amounts of inventory recorded each year: the average inventory as percentage of operating expenses for the last four years was 0.5%, in a range of 0.4%-0.6%. The figure for 2010 was 0.6% and it will be used for the explicit period in the analysis.

Accounts Payable have averaged 11.2% of operating expenses, ranging from 10.5% to 12.1%. As with the other working capital components, Accounts Payable is expected to maintain the same trend as historically. This being said, the outstanding values are forecast to be 11.2% of operating expenses, the same as 2012.

These figures will make projected Net Working Capital to grow at an average 3.8%, annually (see **Table 12**). In absolute terms, the needs for Net Working Capital will increase at an average €151 million, which will represent negative cash adjustments every year for DHL, against revenues and operating expenses.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Net Working Capital	3 194	3 443	3 584	3 705	3 847	3 996	4 133	4 294	4 468	4 649
growth	1.2%	7.8%	4.1%	3.4%	3.8%	3.9%	3.4%	3.9%	4.0%	4.1%
changes	37	249	141	121	142	149	137	161	173	182
Accounts Receivable	9 089	9 112	9 407	9 722	10 089	10 494	10 878	11 313	11 778	12 265
Inventory	6 168	5 991	6 154	6 359	6 597	6 868	7 128	7 417	7 725	8 048
Accounts Payable	273	322	331	342	355	369	383	399	415	433

Table 12: DHL's NWK forecast

6.2.8. Dividends

DHL has distributed dividends to its shareholders that averaged €0.66 per share on the last four years reflecting dividends per share of €0.6, €0.66, €0.7 and €0.7 in 2009, 2010, 2011 and 2012, respectively. This dividend policy yielded payout

ratios[3] of 112%[4], 31%, 73% and 51% for the same years. As a general rule, DHL aims at distributing 40%-60% of its Net Profit, to a target of 50%.

Besides the facts mentioned previously, DHL tries as much as possible to give consistent return to its shareholders, including attractive dividends, regardless of the company's bottom line. Such strategy can be traced back in 2008, time at which the company paid €0.6 per share, despite the negative net profit for the period of roughly €1.7 billion. This information is very useful to forecast future dividends, as the company will expectedly not reduce its dividends, even if suffers from Net Profit reductions. This policy means that dividends will equal 50% of Net Profit in case Net Profit increases and equal last year's dividend in other cases. The company will continue to pay dividends in the year following the reported Net Profit to which it relates.

6.2.9. Cash Flow from Operating Activities

The trend previously outlined for EBIT will dictate much of the evolution of the CFO through 2020. The EBIT for DHL will grow at an average 2.9% starting in 2013 and until 2020. The fact that income taxes paid will grow at a higher pace that the previous metric will slow down the growth in the CFO. Changes in working capital will follow the revenue trend and will not be very significant for the bottom line of this cash-flow map. All these effects are shown in **Table 13** and outline a CFO of €3,053 million in 2013 growing to €3,556 million in 2020, at an annual average of 2.2%.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Net Profit	1 266	1 780	1 452	1 608	1 487	1 611	1 709	1 555	1 698	1 842
Income taxes	393	458	611	677	626	678	719	655	714	775
Net finance costs	837	429	363	243	533	413	294	583	464	344
Net income from associates	60	2	2	2	2	2	2	2	2	2
Profit from operating activities (EBIT)	**2 436**	**2 665**	**2 423**	**2 525**	**2 644**	**2 700**	**2 720**	**2 791**	**2 874**	**2 960**
D&A and impairment losses	1 274	1 339	1 365	1 384	1 405	1 430	1 458	1 489	1 523	1 560
Others	- 1 021	- 3 258	- 60	- 61	- 62	- 63	- 64	- 66	- 67	- 68
Income taxes paid	455	527	534	611	677	626	678	719	655	714
Cash flow before WK changes	**2 234**	**219**	**3 194**	**3 237**	**3 311**	**3 440**	**3 436**	**3 495**	**3 675**	**3 737**
Changes in working capital	37	249	141	121	142	149	138	161	174	182
Net cash from/used in operating activities	2 197	- 30	3 053	3 116	3 169	3 292	3 299	3 334	3 502	3 556

Table 13: DHL's CFO forecast

[3] Payout Ratio = Dividend/Net Profit
[4] Relates to Net Profit including discontinued operations

6.2.10. Cost of Capital

Cost of Equity

As mentioned in the *Literature Review*, the 10-year Government Bond for Germany will be used as the input of risk-free rate for Germany and DHL. Over the last ten years, we have assisted at a gradual decrease in the yields for Government Bonds in Germany, especially after the 2008 financial crisis (see **Figure 33**). These values reached its high at 4.68% and the low point at 1.17%. The average yield on this Bond was 3.3% on the last 10 years, starting in 2003, while this average stood at 2.1% during the last three years. The most recent value for this yield was at 1.7% in the end of the first half of 2013. In order to smooth out such significant volatility, the last three years' average will be used in computing the cost of equity for DHL. This average, while not too different from most recent values, does reflect more stable investors' prospects than those shown by very volatile markets.

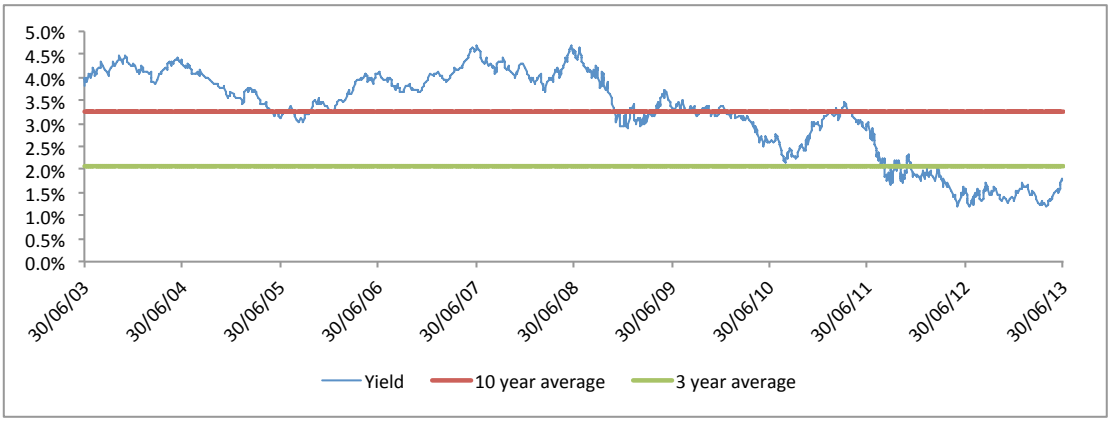


Figure 33: German 10-year T-bill

The risk premium utilized is in line what was discussed in the *Literature Review* and will stand at 5.8%. The effective corporate tax rate, as mentioned previously, is expected to be 29.6%.

The Beta for DHL was estimated following the approach by Kaplan and Peterson (1997) of full-information to estimate market capitalization-weighted industry beta, which yielded a beta unlevered of 0.87 (see **Appendix 6** for full list of segment-peers and weights and **Appendix 7** for their description).

The following formula (Hamada, 1972) was used to convert the unlevered beta into the levered beta:

$$\beta_L = \beta_U (1+(1-T_C)(D/E))$$

The final beta levered resulted in 0.94. Following the approach of the CAPM (Brealey, Myers and Allen, 2008) the beta for DPDHL is 1.11 (see **Appendix 8**).

All these inputs result in a Cost of Equity of 7.6%.

Cost of Debt

The Cost of Debt will have as inputs the risk-free rate for Germany, as well as the credit default spread estimated for the Company. This estimation is given by Damodaran (2013, in **Appendix 9**), which can be matched with the company's Credit Rating, as stated in its Corporate Website. These figures will represent an after-tax cost of debt of 2.6%.

WACC

These inputs result in a 7.0% WACC, as illustrated in **Table 14**.

Cost of equity	7.6%
10 year Germany T-bond	2.1%
Market risk premium (Rm-Rf)	5.8%
Levered beta	0.94
WACC	**7.0%**

Cost of debt	2.6%
Risk-free	2.1%
Spread	1.7%
Pre-tax cost of debt	3.7%
Corporate income tax	29.6%

Table 14: DHL's WACC summary

6.2.11. Valuation

6.2.11.1. Discounted Cash-flows

While the last five years of explicit period will show a free cash-flow growth of only 0.2%, the last couple of years are expected to present 2.0% average annual growth (see **Table 15**). These facts lead to an estimated terminal growth rate of 1.0%, as to take into account the trend expressed in the end of the period.

These figures will result in am Enterprise Value of €22,420 million, which after deducting net debt, leads to Equity Value of €20,256 million. Given the 1,209 million shares outstanding, the implied share price with this valuation is €16.8 (see **Table 16**).

The average share price for DPW during 2012 was €14.4 (see **Appendix 10**), which implies a market undervaluation of -13.9%. The fact that DHL has seen significant improvement in its share performance over the year, reflects in an average share price of €16.4 in December. This latter figure is much closer to the DCF valuation and results in a market undervaluation of just -1.9%. Analysts preview a target price of €21.0 (Goldman Sachs, 2013) for the end of 2013, driven by more promising growth prospects in the years to come.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
CF from Operations	3 673	3 755	3 587	3 726	3 846	3 918	3 976	4 053	4 156	4 270
Taxes Paid	455	527	534	611	676	626	678	719	655	714
Capex	1 716	1 697	1 628	1 685	1 751	1 819	1 888	1 965	2 047	2 133
Free cash-flow	1 502	1 531	1 424	1 431	1 418	1 473	1 410	1 369	1 455	1 423
discount factor			93.4%	87.3%	81.6%	76.3%	71.3%	66.6%	62.2%	58.2%
Present Value			1 331	1 249	1 157	1 123	1 005	912	906	828
Terminal Value										13 910

Table 15: DHL's FCF forecast

Enterprise Value	22 420
Net Debt	2 164
Equity Value	20 256

Shares Outstanding	1 209
Share Price	16.8

Table 16: DHL's DCF summary

6.2.11.2. APV

The APV uses different inputs for measuring the cost of capital. The Unlevered Cost of Equity for DHL is 7.1%, while the pre-tax cost of debt will be 3.7%.

The Unlevered cash-flows are computed by deducting the tax shields arising from financial liabilities to the free cash-flow calculated in the DCF approach. Since the growth pattern is similar to the DCF approach, the same terminal growth rate (1.0%) will be used. These inputs will yield an Unlevered Value for the firm of €21,119 million (see **Table 17**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Free cash-flow	1 502	1 531	1 424	1 431	1 418	1 473	1 410	1 369	1 455	1 423
Tax Shields	107	86	59	45	79	65	51	85	71	57
Unlevered CF	1 395	1 445	1 365	1 385	1 339	1 407	1 359	1 284	1 384	1 366
discount factor			93.4%	87.2%	81.4%	76.0%	70.9%	66.2%	61.8%	57.7%
Present Value			1 274	1 207	1 089	1 069	964	850	855	788
Terminal Value										13 021

Table 17: DHL's Unlevered CF forecast

As discussed in the *Literature Review*, most authors agree that Interest Tax Shields are about as uncertain as the debt payments that relate to, meaning that they should be discounted at cost of debt. This approach is used to compute the Present Value of these tax shields, which gives us a Total Value of €2,018 million (see **Table 18**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Tax Shields	107	86	59	45	79	65	51	85	71	57
discount factor			96.4%	92.9%	89.6%	86.4%	83.3%	80.3%	77.4%	74.6%
Present Value			57	42	71	56	43	69	55	43
Terminal Value										1 582

Table 18: DHL's Tax Shields forecast

As stated previously Kortweg (2007) found evidence that on average, the Costs of Financial Distress for transportation companies will amount to 3.6% of their unlevered value, which will be used as a proxy for Bankruptcy Costs. In terms of probability of Bankruptcy, Damodaran (2006) states that a company with the same credit rating as DHL will have cumulative probability of default of 3.3% over ten years (see **Appendix 11**). The following formula (derived from *Literature Review*) yields the annual probability of distress, $\pi_{Distress}$:

$\pi_{Distress} = 1 - \sqrt[t]{(1 - \text{Cumulative Probability of Distress})}$, where t is the number of years of the analysis.

This formula yields an annual probability of distress of 0.34%.

Almeida and Philippon (2004) set the approach for discounting the expected CFD at risk-free rate (or lower), since anything higher will underestimate their true value. This being said, the risk-free rate was used in the subsequent analysis, which gives us a total Present Value of €237 million (see **Table 19**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Value Unlevered			21 256	21 383	21 565	21 692	21 876	22 148	22 340	22 564
% of costs			3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%
CFD			765	770	776	781	788	797	804	812
Probability			0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Expected CFD			3	3	3	3	3	3	3	3
discount factor			98.0%	96.0%	94.0%	92.1%	90.2%	88.4%	86.6%	84.9%
Present Value			3	2	2	2	2	2	2	2
Terminal Value										217

Table 19: DHL's CFD forecast

These inputs result in a Levered Value of €22,900 million, which is very similar from what was obtained in the DCF approach (2.1% higher than at DCF). This figure translates into an Equity Value of €20,736 and a Share Price of 17.2 (see **Table 20**).

Unlevered Value	21 119	Enterprise Value	22 900	Shares Outstanding	1 209
PV of Tax Shields	2 018	Net Debt	2 164	Share Price	17.2
PV CFD	237	Equity Value	20 736		

Table 20: DHL's APV summary

As discussed previously, the APV uses some figures in its estimates that are particularly difficult to estimate or observe – the bankruptcy costs and the probability of default. Given this fact, it is no surprise that this approach yields slightly different results when compared to DCF (since both approaches use different inputs and assumptions they could often result in different values, even if these two components were easily observable).

For this reason, it is interesting to understand how changing the inputs of these two components would alter the valuation using APV. One can observe from **Table 21** that while the lowest Cost of Bankruptcy (as % of Unlevered Value) and Probability of Default yield €20,966 million Equity Value while the higher end gives us €19,349 million (see **Table 21**). From this analysis it is observable that should these components present slightly worse terms for DHL and the valuation would be virtually equal to that obtained in the DCF. In fact, five of the higher end values yield lowers Equity Values than in the first approach (recall €20,256 million).

		Bankruptcy Costs				
		1.0%	2.3%	3.6%	4.9%	6.2%
Probability of Default	0.04%	20 966	20 957	20 948	20 939	20 930
	0.19%	20 936	20 889	20 842	20 795	20 748
	0.34%	20 907	20 822	**20 736**	20 651	20 565
	0.84%	20 809	20 596	20 383	20 170	19 957
	1.34%	20 711	20 370	20 030	19 690	19 349

Table 21: DHL's APV sensitivity analysis

6.2.11.3. Multiples

In order to understand how the companies analyzed are valued in comparison to what the market is valuing similar companies, a relative valuation shall be developed in the multiples analysis. One factor that makes this analysis

particularly troublesome is the several businesses in which DHL operates thus hindering the search for accurate peers. Since most of the peers of DHL analyzed are in businesses other than mail constitutes an important issue: traditional Mail has much lower multiples due to lower growth prospects and price-to-book ratios. DHL is highly penalized because its ratios reflect some of the characteristics of pure mail players, which its peers do not. Adding to this, there is the fact often associated with conglomerate discount (Berger and Ofek, 1995), which can further explain this lack of fit.

Given the problems that we would encounter if computing simple multiples with the peers of **Appendix 7**, a second one was tested: instead of using a simple geometric mean, the divisions at DHL were separated to find the value of each division, thus allowing to adopt more accurate peers to each one. This second method yields figures shown in **Table 22**.

The EV/Sales has an Implied Equity Value of €31,973 million, which is not very significant (recall the value of €20,256 million Equity Value obtained in the DCF). The fact that DHL has much lower margins than most of its peers – the average EBITDA margin for Global Courier and Delivery Services is 12.3% (IBIS*World*, 2013a), while it was 6.9% in 2012 for the German company - is one of the explanations why this measure is not very significant: it takes DHL a much larger amount of sales to get the same EBITDA and thus to Free Cash-flows.

Given this rationale, it would be expected that the EV/EBITDA and EV/EBIT would show more significant results. In fact, the former ratio results in an Implied Equity Value of €19,012 million, -6.1% than the DCF while the latter shows a figure of €22,250 million, 9.8% higher (see **Table 22**). From this analysis it is seen that the adjusted relative valuation for the specific segments of DHL – which is especially important in this company, given the extremely different characteristics of each of them in terms of margins, growth rates, etc. – has an Implied Equity Value of €19,012-€22,250 (excluding the non-significant EV/Sales).

	EV/Sales	EV/EBITDA	EV/EBIT
Mail	8 137	6 456	9 046
Express	3 195	3 016	3 656
Logistics + SC	22 805	11 704	11 711
Implied EV	**34 137**	**21 176**	**24 414**
Net debt	2 164	2 164	2 164
Implied Equity Value	**31 973**	**19 012**	**22 250**
Difference to DCF	57.8%	-6.1%	9.8%

Table 22: DHL's adjusted multiples analysis

6.2.12. Sensitivity Analysis

The sensitivity analysis was computed having as departing point the DCF valuation since it will be the preferred method from here onwards. There will be analyzed three sensitivities to the base-case assumptions: changes in revenues, changes in costs and changes to the inputs on the Terminal Value (Terminal Growth Rate and WACC).

6.2.12.1. Operating changes

While the changes to revenues will also impact in the corresponding amounts of operating costs (as to keep the margins unchanged) the costs changes will directly affect the overall margins of the company. For this reason, it is expected that the same magnitude of variation in costs will have much greater impact on the Equity Value of the company.

Figure 34 shows the changes in equity value arising from changes in revenues. A 3.0% decrease in the revenues of the entire company would lead to an Equity Value of €17,429 million. On the other hand, an increase in the overall revenues by the same magnitude would lead to an Equity Value of €23,083 million, an increase of 14.0% from the Base Case.

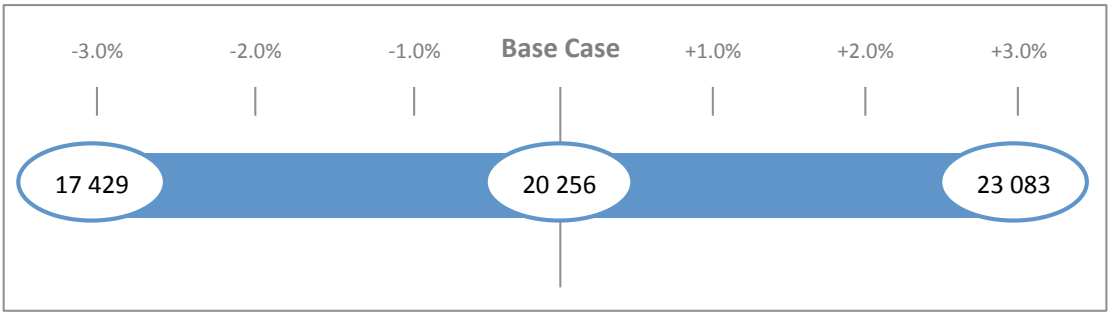


Figure 34: DHL's sensitivity - changes to revenues

As predicted previously, a change in the costs of the company would have a more severe impact: from **Figure 35** we see that +1.5% in overall costs (operating costs excluding D&A and Impairment losses) would result in an Equity Value of €8,634, a severe drop of -57.4%; on the opposite direction, a decrease of -1.5% would translate into €31,879 million in Equity Value, meaning a +57.4% in value.

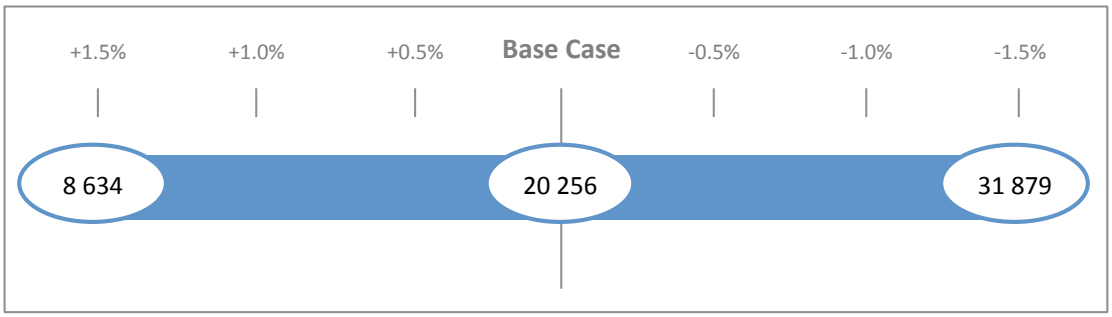


Figure 35: DHL's sensitivity - changes to costs

6.2.12.2. Changes to Terminal Value

In terms of inputs to the Terminal Value, the most severe drop would occur with no growth and 8.0% WACC, with an Equity Value of €15,619 million, while the biggest upside would result from maximum growth, at 2.0% and minimum WACC, at 6.0%, which would deliver an Equity Value of €29,383 million, as seen in **Figure 36**.

		Terminal Growth Rate				
		0.0%	0.5%	1.0%	1.5%	2.0%
WACC	6.0%	21 532	22 960	24 674	26 767	29 383
	6.5%	19 713	20 883	22 265	23 923	25 948
	7.0%	18 154	19 124	**20 256**	21 594	23 198
	7.5%	16 802	17 616	18 555	19 651	20 946
	8.0%	15 619	16 308	17 097	18 006	19 067

Figure 36: DHL's sensitivity - changes to TV

Both the upper and lower end of the sensitivity analysis are observed in the changes to costs, which thus requires special caution when projecting estimates. Nonetheless, since the costs assumptions for the Base Case valuation were given mainly by historical and consistent patterns, it is reasonable to assume the values calculated are fairly accurate.

6.3. Österreischiche Post

OP is divided in 2 segments, which of them with several sub-segments. Additionally, OP has a small corporate division that operates company wide services much like the corporate centres at DPDHL. This results in mostly internally generated sales that are reduced through consolidation.

6.3.1. Revenue

Mail & Branch Network

Mail division at OP was able to slightly turn the situation of severe decline in mail volumes that happened in the last few years. Despite this recent performance, outlook continues grim for this segment as electronic substitution progresses, leading to lower mail volumes and revenues. On the other hand direct marketing budgets for companies are expected to increase as economy picks up, even though the gradual shift to online media will impose slower terms to this trend.

Letter mail volumes are being hit by the structural changes previously discussed and this fact will likely continue over the period of analysis. After two years of modest growth in letter mail revenue at OP, driven by better economic prospects after low points in 2009 and 2010, the volumes are likely to continue their downward trend and putting pressure on overall revenues. In line with this idea, estimates by JPMorgan (2013) predict an average -5.1% annual evolution in addressed mail volumes in Austria, which is likely to be captured entirely by OP, the domestic market leader.

Direct mail communication at OP focuses on addressed and unaddressed mail advertising. The company has been able to grow revenues in this segment as customers change from standardized unaddressed items to more personalized and higher value advertising. This departs from individuals' increasing needs to have tailor-made messages to their appeal: online media has enable more personalized advertising delivery and print advertising is trying to cope with that. One such example is the introduction of Kuvert in February 2012. Kuvert is a collective advertising envelope that gathers several advertising brochures and flyers in a neat and more convenient way to households and corporations. Estimates from PwC (2012) predict an average 3.3% in print advertising market in Austria, which is consistent with the trends stated earlier.

Branch Network - formerly independent division and integrated in Mail division since January 2012 - has assisted recent restructuring (even before 2012), as previously mentioned, which has put a downward pressure in its revenue that has decreased by 24.0% over the last four years or a CAGR of -6.5%. It is expected that this transformation trend will persist and diminish sales even further. These changes will certainly affect costs in this segment as well, especially through personnel reductions and cost sharing, as is the case of branches operated under the partnership with Bawag SPK.

The negative effects of traditional mail and branch network decline will outweigh the benefits of increasing direct mail advertising and will yield negative annual growth rates of -1.3% on average over the period ending in 2020. By the end of the period, negative growth shall be situated just at -0.6% as direct mail gains traction and negative growth sub-segments become less important for the overall division (see **Table 23**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	1 501	1 508	1 476	1 452	1 430	1 410	1 388	1 374	1 364	1 356
growth	3.6%	0.5%	-2.1%	-1.6%	-1.6%	-1.4%	-1.6%	-1.0%	-0.8%	-0.6%
Mail	1 348	1 374	1 350	1 334	1 319	1 307	1 292	1 284	1 280	1 277
Letter	764	785	745	707	671	636	598	568	539	511
Direct	584	589	606	628	649	671	693	717	741	766
Branch Network	153	135	126	118	110	103	96	90	84	79

Table 23: OP's Mail & Branch revenue forecast

Parcels & Logistics

The clear focus in European emerging economies has changed the strategy of this segment in recent times. As previously mentioned, OP has successfully entered in several CEE countries through a series of acquisitions. Following this plan, the company has fully divested its Benelux business with Trans-o-Flex, which was running at loss. As with DHL, much of new parcel business will be driven by e-commerce trends and thus similar prospects apply.

An important stake in the increase in the domestic market was brought about by the extension of B2B market share to 22% in 2012. The company expects this figure to reach 25% threshold in the near feature. B2C (namely online shopping related deliveries) also, is expected to show robust growth as the economic situation improves and e-commerce expands. Given this, forecasts are in line with BCG's report (BCG, 2012), with 6.8% through the period with highest growth in 2016, with 7.5%.

The German parcel's market revenue for OP represent the largest stake in revenues (58% in 2012), which is one of the reasons why it has showed slower in recent years. Moreover, trans-o-flex has a strong component (50% of total revenues) of special temperature controlled logistics for the pharmaceutical industry, which despite its growth does not take full advantage of online shopping boom. Over the period of analysis this trend is likely to persist and the German business will show solid development but at a slower pace than what is expected in Austria. As a proxy for growth differential it is used the difference in GDP forecasts for Austria and Germany (IMF, 2013) throughout the period.

As already stated, the business in the Benelux countries was running at lost and thus the decision to dispose this segment in Belgium and Netherlands, which happened during 2012, drove sales in this region down to 0 and there is no signs of prospective business to be initiated.

The SEE countries are going in the opposite way of Benelux, with a frenetic acquisitions pace (recall map of acquisitions, **Appendix 3**), leading to significant revenue development. As the activity in these countries gains traction - from technological and e-commerce evolution allied with enhanced operations in years to come – the revenues from this region will increase over double digit on average until 2020. These estimates are in line with those to Austrian parcel and are amplified by a factor measuring different GDP growth forecasts (IMF, 2013) for Austria against Central and Eastern Europe.

The disposal of Benelux operations impacted negatively total division growth in 2012 and 2013 when overall increases will be 1.4% and 2.7% respectively. In the subsequent years, starting in 2014 when growth is expected to stand at 5.1% (see **Table 24**). These positive prospects will be driven by the business in Austria and especially in the SEE countries where recent acquisitions are still waiting to consolidate and deliver their full potential.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	846	858	881	926	976	1 049	1 129	1 217	1 311	1 412
growth	5.5%	1.4%	2.7%	5.1%	5.3%	7.6%	7.6%	7.7%	7.7%	7.8%
Austria	238	264	278	294	310	333	358	385	414	445
Germany	492	495	521	545	571	611	653	700	749	802
Benelux	44	25	0	0	0	0	0	0	0	0
SEE	72	75	82	87	94	105	118	132	147	165

Table 24: OP's Parcel & Logistics revenue forecast

Corporate Centre

Conversely to the case of DHL, the Corporate Centre at OP is not diminishing its importance in terms of revenue. While it does not represent a significant portion of the company's total turnover, it is worth mentioning that this component is expected to grow at a pace between inflation and GDP for Austria through the period until 2020 (see **Table 25**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	5	15	16	16	17	17	18	18	18	19
growth	5.9%	185.2%	2.4%	2.7%	2.6%	2.6%	2.6%	2.5%	2.5%	2.5%
Corporate	5	15	16	16	17	17	18	18	18	19

Table 25: OP's Corporate Centre revenue forecast

Other Operating Income

Other Operating Income includes mainly rents and leases – which represents 33% of Other Operating Income – and other smaller components that individually do not represent more than 10% of Other Operating Income, namely Disposal of Property, Plant and Equipment, Unchargeable Expenses, among other. AS with DHL, none of these items individually account for more than 1% of total consolidated revenue, meaning they will not play a significant role in the Group's bottom line.

Other income has historically been unrelated to divisions' revenues and its value will thus be derived form pure macroeconomic trends, rather than any industry specific factors. This being said, this item is expected to grow at a pace between inflation and GDP from Austria, resulting in an average 2.3% growth in the period from 2013 to 2020.

6.3.2. Expenses

Staff Costs

Staff Costs decreased in the four years leading to 2012 (cumulative -5.7% since 2009), especially due to a cumulative net decrease in FTEs of -10.6% since 2009. This large decrease in FTEs arose from the restructuring of Branch Network and its partnership with Bawag PSK (recall **Appendix 2** – statutory limits for post offices and company owned offices and **6.3.1.Revenue**), decreasing significantly the number of employees needed to operate OP's branches. On the opposite

direction, Parcels & Logistics reported a net increase in FTEs by cumulative 1.2% over the same period.

This trend in the first division is very likely to continue, as Mail continues its decline in sales volume and Branch Network advances in its restructuring. The pace at which this decline will happen is estimated to an average -3.4% per year. This will be due to a continued significant decrease in the number of FTEs in Mail & Branch from 2012-2015, of -2,062 (-2,759 in 2009-2012), time during which branch restructuring is expected to be more pronounced. This fall shall mean a reduction of 3,592 FTEs in absolute terms from 2012 to 2020.

On the other hand, Parcels & Logistics is likely to sustain the growth in FTEs seen in the last couple of years, at a yet slower pace than revenues in this division, as to account for increased production levels. Given this, this growing segment is expecting an average increase in FTEs of 1.3% annually through 2020, representing 433 people than in the end of 2012.

Additionally, average wage will develop to face inflation. Since most employees work in Austria, the company is likely to adopt wage increases in line with the development of this country's inflation (FMI, 2013), which will then be used as proxy for average wage growth. All these changes, will make staff costs decrease at an average -0.2% annually until 2020. This will represent an enhancement in Staff Costs' weight in total revenue, going down from 44.5% in 2012 to 38.3% in 2020, once again denoting slightly improved production levels (see **Table 26**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Staff Costs	1 057	1 086	1 067	1 057	1 055	1 057	1 057	1 066	1 078	1 093
growth	-4.8%	2.7%	-1.7%	-1.0%	-0.2%	0.2%	-0.1%	0.9%	1.1%	1.4%
% revenue	43.6%	44.5%	43.9%	43.0%	42.5%	41.6%	40.7%	39.8%	39.1%	38.3%
FTEs	23 369	23 182	22 297	21 668	21 227	20 877	20 476	20 266	20 117	20 024
growth	-6.4%	-0.8%	-3.8%	-2.8%	-2.0%	-1.6%	-1.9%	-1.0%	-0.7%	-0.5%
Mail & Branch	17 482	17 192	16 285	15 615	15 130	14 718	14 253	13 978	13 761	13 600
Parcels & Logistics	4 057	4 022	4 044	4 085	4 128	4 191	4 255	4 321	4 387	4 455
Corporate	1 830	1 968	1 968	1 968	1 968	1 968	1 968	1 968	1 968	1 968

Table 26: OP's staff costs forecast

Materials Expense

Total Materials Expense has evolved at an average 1.7% during the last four years, following the historical trends of revenues, yoy (0.1% revenue growth for the same period). As with DHL, transportation costs (the most important item in Materials Expense - over 60% of the total, every year) moves in much of the

same direction and relative amount as revenues, yielding fairly stable relative weight of this type of expense as percentage of revenue. Given this, we can predict that Materials Expenses will continue to present the same structure as a percentage of divisional revenues. The same process of weighted average with stronger factors on recent years that was used in DHL, was followed her, for the same reasons of non-bias towards one-time events that happened recently.

As one would expect, the relative amount of Materials Expenses in the divisions at OP are the contrary of what is observed in Staff Costs. The Mail & Branch Network, which required greater personnel in the delivery of traditional and direct mail, branches, etc., has far fewer needs to outsource transportation, purchase other services and raw materials and thus its spending in those items represented only 13.8% of division's revenues in 2012. As previously said, this figure is not likely to change significantly and the weighted average approach gives us a similar amount of Materials Expense over revenues of 13.3% by 2020.

Parcels & Logistics required a far less amount of FTEs due its nature of higher outsourcing of transportation services, as well as other purchased services. This type of expense accounted for 60.1% of divisional revenue in 2012, and is predicted to weight 60.6% of divisional revenues by 2020.

As revenues in the Mail segment decline and Parcels & Logistics head in opposite direction (with solid growth), the revenue mix also moves to a greater dependence on the latter division's revenues. This fact will implicate that Materials Expense will also be a much more important slice of consolidated revenues. This fact is illustrated by the cumulative percentage of these expenses as percentage of revenues, which comes from 29.7% in 2012, to 36.3% in 2020.

All these effects will mean an average annual growth rate of 4.6% in Materials Expense, with special importance as the period moves to 2020 (see **Table 27**). Another fact worth noticing from this analysis is that as OP moves from a Mail focused company, to more balanced mix with emphasis on CEP and logistics, the cost structure will gradually evolve from a highly dependent on Staff figures to a more flexible structure with a larger stake of variable costs given by transportation costs and other purchased services.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Materials Expense	756	723	726	754	783	823	868	920	975	1 036
growth	15.8%	-4.3%	0.4%	3.8%	3.9%	5.1%	5.6%	5.9%	6.0%	6.2%
% revenue	31.2%	29.7%	29.9%	30.7%	31.5%	32.4%	33.4%	34.4%	35.3%	36.3%
Mail & Branch	211	207	194	192	191	187	184	183	181	180
Parcels & Logistics	545	516	533	562	592	635	684	737	794	856

Table 27: OP's materials expense forecast

Other Operating Expenses

Other operating costs comprise Leasing and Rental payments, IT services, maintenance, among others. Each element does account for very small parts of total operating costs. In relative terms, these costs have followed a very linear trend of average 12.5% of total divisions' revenues during the last four years. Moreover, the variability of this figure was less than 0.1pp on a yearly basis, meaning a very low volatility. Given this fact, we can project other operating costs at the same relative amount.

6.3.3. Capex and D&A

Capex at OP, similarly to DHL, is mainly used to acquire PPE, accounting 87.9% and 89.3% of total capex in 2011 and 2012 respectively. The remaining funds are invested in the purchase of Intangible Assets. The major component in PPE is Property and Buildings, which accounts for € 390 million, out of € 600 million in total PPE. However, this importance has been decreasing substantially, especially following the restructuring of Branches. The total value of Property and Buildings has had a cumulative decrease in net carrying amount of -18.4% since 2009, time at which it was € 478 million. The other important items in PPE are Technical plant and machinery and Other equipment, furniture and fittings. Intangible Assets relate to customer relationships measured at Multi-period excess earnings methods and trademarks measured at royalty method (see **Appendix 13**).

Capex at OP has increased from 3.2% of revenues in 2009 to 4.1% in 2012. This was achieved through an increase in the percentage of Mail & Branch network applied in capex, which grew from 1.7% in 2009 to 3.2% in 2012. Such increase was due to an effort in 2011 and 2009 to come back to pre-crisis capacity levels, time when capex was extremely refrained. As an example of this effort, a new flatsorter facility (Open Mail Sorter (OMS)) was installed in Letter Centre Vienna in 2012, which enables an enormous throughput.

On the opposite direction, investments in the Parcels & Logistics as a percentage of revenues declined from 3.o% in 2009 to 2.3% in 2012. This trend does not mean a lower focus on this segment, but it is simply the result of a very high investment in 2009 as means to face the huge decrease in capex in Mail & Branch that year. The level of capex has been fairly stable during the last three years, with an average 2.2% as a percentage of revenues. The main destinations of such investments are SEE countries, where OP is placing extra funds and focus, as stated earlier. As an example of this trend, the company has opened two new state-of-the-art logistics hubs throughout 2012, one in Hungary and one in Slovakia.

Two of the strategic views of OP, as stated earlier (see 4.2. Österreichische Post) are to defend market leadership in the core business and to grow profitably in selected markets. A more thorough analysis view of these goals, as explained in the company's Annual Report (Austrian Post, Annual Report 2012, Part I) sets the strategy for capex in 2013 and following years. In regards the Mail & Branch Network, the company will keep its capex levels in order to: first renew its technology, namely sorting facilities in Austria, to maintain its undisputed dominance in the domestic mail market, with leadership also in technological terms; and second the continuing renewal of branches to accommodate more capabilities and services such as financial services provided by Pawag PSK. Capex levels at Parcels & Logistics are also likely to stabilize as it complements its M&A strategy ("*The focal point of the Parcel & Logistics Division will be to expand its market presence in the CEE region on the basis of further expansion steps, and if appropriate, through further acquisitions.*" (Annual Report, 2012), with the necessary investments in recently acquired subsidiaries.

Corporate Centre will develop as to balance the expansion of the Group and will thus be expected to place the same 1.2% of total consolidated revenue as capex. Consolidating considerations will have no significant effects in the years to come as capex and depreciations will cancel-out. All these facts will result in an average 4.1% of annual revenues invested in PPE and Intangible Assets from 2013 to 2020. In divisional terms, Mail & Branch Network is expected to have slower net capex (but still positive) each year, as investment needs in this more traditional segment, while Parcels & Logistics will have every

year greater positive net capex (reaching 33-24 = €9 million in 2020). Corporate Centre will not have a significant impact in net capex since the cumulative capex for the period will roughly equal D&A and Impairments. All this is summarized in **Table 28** below.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Capex	92	97	97	97	98	100	102	104	107	110
growth	49.1%	5.9%	-0.6%	0.5%	0.8%	1.8%	1.8%	2.5%	2.7%	3.0%
% revenue	3.9%	4.1%	4.1%	4.1%	4.1%	4.1%	4.0%	4.0%	4.0%	4.0%
D&A and Impairments	114	89	90	91	92	93	94	95	96	98
Mail & Branch	52	49	48	47	46	46	45	45	44	44
D&A and Impairments	35	35	37	38	39	40	41	42	42	42
Parcels & Logistics	18	20	21	22	23	25	26	28	31	33
D&A and Impairments	40	21	21	21	21	21	22	22	23	24
Corporate	21	29	29	30	30	31	31	32	33	34
D&A and Impairments	39	33	33	32	32	32	31	31	32	32
Consolidation	0	-1	-1	-1	-1	-1	-1	-1	-1	-1
D&A and Impairments	0	-1	-1	-1	-1	-1	-1	-1	-1	-1

Table 28: OP's capex and D&A forecast

6.3.4. Taxes

The average annual effective tax rate for the last four years at OP was 24.8%. This value is in line with Corporate Tax Rate for Austria that has been stable for several years, at 25% (KPMG, 2013).

Nonetheless, as the company increases its international presence, there are some tax considerations that arise due to Austrian tax law, especially due the possibility of cross-border loss utilization. This means, that loss-making subsidiaries may provide a chance for lower effective tax rates. Moreover, tax rates used to calculate deferred tax assets in these countries (namely the SEE) are usually lower than in Austria (see **Appendix 14**). In the event these tax assets are actually used, the effective tax rate can become even smaller.

In order to use a more cautious approach, it will be used the standard Corporate Tax Rate, which is in line with its historical average of OP's effective tax rate.

6.3.5. Consolidated Income Statement

The revenue projections for OP show a much slower growth than at DHL (average 2.0% from 2013 to 2020 vs. 3.7% for the Germany company). Such difference is explained by the greater importance of the mail segment in this company, meaning this segment's decline will have a larger impact on the

evolution of the company. As with DHL, the growth in revenues will be more significant over time, as mail becomes less important in the revenue mix.

The average increase in operating expenses will be lower than revenues, at 1.9%, leading to an enhanced EBITDA margin, which will increase from 11.1% in 2012 to 11.6% in 2020. The EBIT margin will show much of the same trend, with an average percentage of 8.5%, reaching its height in 2015 at 8.8% (see **Table 29**).

The average increase in the bottom-line in Austrian Post from 2013 to 2020 will be 1.4%, resulting from the higher margins, as previously described. The fact that decline in FTEs will be less significant from 2015 onwards will result in less expressive cost savings in the later years of the analysis.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	2 423	2 438	2 433	2 455	2 483	2 540	2 599	2 675	2 760	2 856
growth	3.4%	0.6%	-0.2%	0.9%	1.2%	2.3%	2.3%	2.9%	3.2%	3.5%
Divisions	2 349	2 366	2 359	2 380	2 407	2 461	2 519	2 593	2 676	2 770
Mail & Branch	1 501	1 508	1 476	1 452	1 430	1 410	1 388	1 374	1 364	1 356
Parcels	846	858	881	926	976	1 049	1 129	1 217	1 311	1 412
Corporate	5	15	16	16	17	17	17	18	18	19
Consolidation/other	- 4	- 16	- 14	- 15	- 15	- 15	- 16	- 16	- 17	- 17
Other Income	75	72	73	75	77	78	80	82	84	86
Operating Expenses	2 141	2 167	2 130	2 150	2 181	2 231	2 284	2 355	2 435	2 524
growth	2.9%	1.2%	-1.7%	0.9%	1.4%	2.3%	2.4%	3.1%	3.4%	3.7%
Staff costs	1 057	1 086	1 067	1 057	1 055	1 057	1 057	1 066	1 078	1 093
Materials Expense	756	723	726	754	783	823	868	920	975	1 036
Other operating expenses	294	298	297	299	303	310	317	326	337	348
Consolidation/other	35	60	40	40	41	42	43	44	45	47
EBITDA	282	271	303	305	302	309	315	320	325	332
margin	11.6%	11.1%	12.5%	12.4%	12.2%	12.2%	12.1%	11.9%	11.8%	11.6%
D&A and Impairment losses	114	89	90	91	92	93	94	95	96	98
EBIT	168	182	213	214	211	216	221	225	229	234
margin	6.9%	7.5%	8.8%	8.7%	8.5%	8.5%	8.5%	8.4%	8.3%	8.2%
Net Finance Costs	- 5	- 31	- 2	- 2	- 2	- 2	- 2	- 2	- 2	- 2
PBT	162	152	211	212	208	214	219	222	227	232
Income taxes	39	28	53	53	52	53	55	56	57	58
Net Profit	123	123	158	159	156	160	164	167	170	174

Table 29: OP's P&L forecast

6.3.6. Net Operating Working Capital

The case of OP is similar to what happened in DHL in terms of computing Net Operating Working Capital. However, while the German company had only current receivables and payables, Austrian Post has also non-current balances of both accounts receivable and payable. Since these accounts also create financing needs/sources and change the actual cash inflows/outflows to and from the company, they will also be considered in this measure, as follows:

NWC = AR (current) + AR (non-current) + Inventories – AP (current) – AP (non-current)

In terms of Accounts Receivable, OP has had a slightly lower average of outstanding balance as percentage of revenue of the last four years than DHL, with 14.7% (vs. 16.5%), in a range of 14.0%-15.2%. There are no changes expected to recent customer credit policy, and thus estimated Accounts Receivable will follow the 15.2% percentage of revenues reported in 2012.

Inventories represent a higher value as percentage of operating expenses than DHL, with an average 0.8% over the four last years (vs. 0.5%). The range was 0.7%-1.0% in the same period. This difference is explained by a stronger importance of retail products in inventory that are sold in Branch Network at OP. The weight of inventories is forecast to keep at 2012 levels, at 0.7% through the period until 2020.

Accounts Payable at OP averaged 17.4% of operating expenses from 2009 to 2012, much higher than DHL (11.2%) and ranged from 16.4% to 18.6%. The expected percentage of payables equals the value from last year, at 18.6% and is projected to stay at the same level throughout the period until 2020.

Given the high level of payables and lower level of receivables the net operating working capital at OP presents negative levels. Even the relative higher degree of inventories than what was presented at DHL does not make up for the other two components. This fact is extremely useful in short-term financial planning for OP since the operating cycle of the company is generating financing sources rather than financing needs, thus creating a stable situation in terms of liquidity. Since payables and receivables are likely to grow at the same relative paces, the cumulative amount of NWK will exhibit more and more negative values each year. The changes in this figure will amount, on average, to €-0.3 million annually.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Net Working Capital	-8	-27	-22	-22	-24	-24	-25	-27	-28	-30
growth	-12.4%	251.3%	-20.5%	1.9%	6.7%	2.8%	3.2%	5.7%	5.8%	6.0%
changes	1	-20	6	0	-1	-1	-1	-1	-2	-2
Accounts Receivable	350	359	358	361	365	374	382	393	406	420
Inventory	14	16	16	16	16	17	17	17	18	19
Accounts Payable	372	403	396	399	405	414	424	438	452	469

Table 30: OP's NWK forecast

6.3.7. Dividends

Austrian Post has been able to deliver an attractive dividend policy, with dividends per share of €1.6, €1.7 and €1.8 (Bloomberg.com, 2013) in 2010, 2011

and 2012 respectively. These dividends have represented a payout policy of 127%, 91% and 93% for the same years. In its strategy towards shareholder return, the company aims at distribute at least 75% of its Net Profit as dividends (Annual Report 2012).

Given these facts, the forecasted dividend policy will never be lower than 75% of Net Profit for the period. Since the Net Profit for the period will gradually decline over the period from 2013 to 2020, Austrian Post will not be able to maintain its absolute value of dividend per share over the years. In order to continue to return as much as possible to its shareholders, from 2015 onwards (time at which the Net Profit will be lower than the current dividend), the company is expected to apply a payout ratio of 100% over Net Profit. As it has happened historically, OP is expected to pay the dividend relating to one reporting year entirely in the next following year.

6.3.8. Cash Flow from Operating Activities

As with DHL, the great booster in CFO at OP will be the EBIT line, which will grow at an annual average of 1.4% from 2013 to 2020. The stabilization of the effective tax rate will have impact on taxes paid by smoothing them after 2014, in line with EBIT growth. D&A will increase 1.2% on average annually, in the same period described for EBIT, meaning a very similar growth pace. Other non-cash effects as well as working capital changes will not have significant impact on the overall CFO, which will then grow at an average 2.1% throughout the period staring in 2013. Given this, the CFO for OP will be €251 million in 2013 and €270 million in 2020 (see **Table 31**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Net Profit	123	123	158	159	156	160	164	167	170	174
Income taxes	39	28	53	53	52	53	55	56	57	58
Net finance costs	5	31	2	2	2	2	2	2	2	2
Profit from operating activities (EBIT)	**167**	**182**	**213**	**214**	**211**	**216**	**221**	**225**	**229**	**234**
D&A and impairment losses	114	89	90	91	92	93	94	95	96	98
Others	9	35	- 11	- 11	- 11	- 11	- 11	- 11	- 11	- 11
Income taxes paid	- 42	- 52	- 39	- 53	- 53	- 53	- 54	- 55	- 56	- 57
Cash flow before WK changes	**249**	**255**	**254**	**242**	**239**	**245**	**250**	**253**	**258**	**263**
Changes in working capital	20	8	3	- 4	- 5	- 5	- 5	- 6	- 7	- 7
Net cash from/used in operating activities	228	247	251	246	244	250	255	260	265	270

Table 31: OP's CFO forecast

6.3.9. Cost of Capital

Cost of Equity

Following what was discussed in the *Literature Review*, the 10-year Government Bond for Austria is the risk-free rate for OP. As with Germany, the Austrian Government Bonds yields have decrease significantly over the last decade, especially after the 2008 financial crisis. The yield for the 10-year sovereign bond has reached its high of 4.9% at in June 2008 and its low of 1.5% in April 2013. The average yield for the last ten years was 3.6% and the average for the last three years was 2.7% (see **Figure 37**). As with what happened with DHL, the three years' average will be used as the input for the risk-free rate.

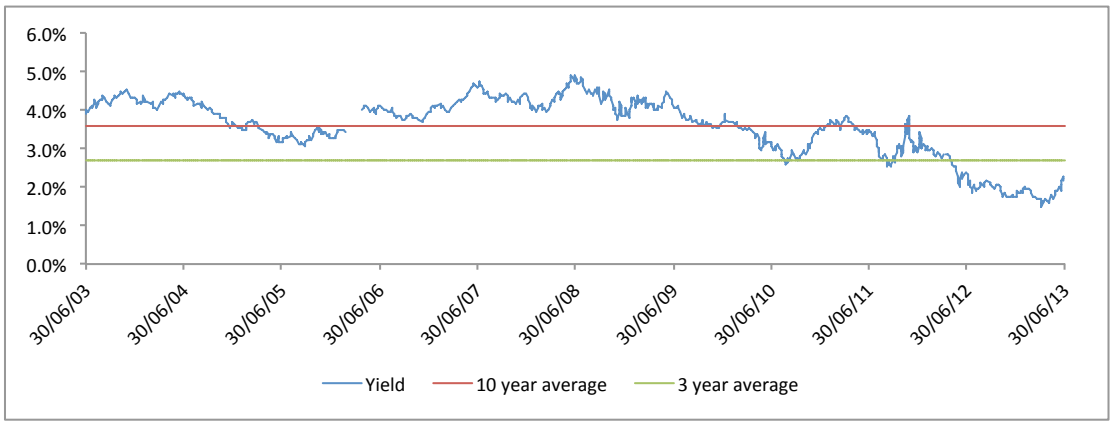


Figure 37: Austrian 10-year T-bill

The market risk premium, as mentioned previously, will be 5.8% while the expected effective tax rate is 25%.

The Kaplan and Peterson approach, which has been previously described, was also used in the case of OP. The market capitalization-weighted industry beta was computed and its value is 0.75 (see **Appendix 15**) and the Hamada formula was used to obtain a levered value of 0.82. Following the approach of the CAPM (Brealey, Myers and Allen, 2008) the beta for Austrian Post is 0.20 (see **Appendix 17**). This great difference is in line with the evidence pointed out by Kothari et. al (1995) that beta estimate through regression to small firms are extremely low and not significant (in this case, R^2 of 2.9% vs. 47.5% for DHL, **Appendix 17**and **Appendix 8**, respectively).

All these inputs result in a Cost of Equity of 7.7%.

Cost of Debt

The Cost of Debt will have as inputs the risk-free rate for Austria and the credit default spread estimated for the Company, which was already used for DHL. The fact that the Austrian Post has far less financial liabilities than the Germany Company has provided them a higher credit rating, resulting in a default spread of only 1.3% (see **Appendix 9**). Given all this, the after-tax cost of debt of 2.6%.

WACC

These inputs result in a 7.0% WACC, as illustrated in **Table 32**.

Cost of equity	7.7%
10 year Austria T-bond	2.7%
Market risk premium (Rm-Rf)	5.8%
Levered beta	0.82
WACC	**7.0%**

Cost of debt	3.0%
Risk-free	2.7%
Spread	1.3%
Pre-tax cost of debt	4.0%
Corporate income tax	25.0%

Table 32: OP's WACC summary

6.3.10. Valuation

6.3.10.1. Discounted Cash-flows

Free-cash flows at OP will grow at an average 1.1% annually for the last five years of the explicit period. This figure is thus a good proxy for the expected terminal growth that will stand at 1.0%.

Given these inputs, the Enterprise Value for Austrian Post is €2,429 million. After subtracting Net Debt from the previous value we obtain an Equity Value of €2,219 million, which translates into a share price of €32.8.

The average share price for O3P during 2012 was €26.8 (see **Appendix 18**), meaning a market undervaluation of -18.4%. However, OP's shares showed a gradual price increase over the year 2012, as illustrated by monthly averages (**Appendix 18**). If we take into consideration the average price for December - €31.4 – the undervaluation is only 4.5%. This undervaluation is in line with what analysts foresee as growth prospects for Austrian Post, setting a target price for the end of 2013 at €35.4 (Goldman Sachs, 2013).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
CF from Operations	262	325	287	295	294	299	305	311	316	323
Taxes Paid	42	52	39	53	53	53	54	55	56	57
Capex	92	97	97	97	98	100	102	104	107	110
Free cash-flow	128	176	152	145	143	146	149	151	153	155
discount factor			93.5%	87.4%	81.7%	76.4%	71.4%	66.8%	62.4%	58.4%
Present Value			142	127	117	112	107	101	96	91
Terminal Value										1 538

Table 33: OP's FCF forecast

Enterprise Value	2 429
Net Debt	211
Equity Value	2 219

Shares Outstanding	68
Share Price	32.8

Table 34: OP's DCF summary

6.3.10.2. APV

In the case of OP, the unlevered cost of equity is 7.0% and the pre-tax cost of debt is 4.0%.

After deducting the tax shields related to financial leverage, the discounted Unlevered cash-flows of Austrian Post yield an Unlevered Enterprise Value of €2,389 million (see **Table 35**).

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Free cash-flow	128	176	152	145	143	146	149	151	153	155
Tax Shields	1	0	0	0	0	0	0	0	0	0
Unlevered CF	127	175	151	145	143	146	149	151	153	155
discount factor			93.4%	87.3%	81.5%	76.2%	71.2%	66.5%	62.1%	58.0%
Present Value			141	126	116	111	106	100	95	90
Terminal Value										1 503

Table 35: OP's Unlevered CF forecast

The interest tax shields discounted at the pre-tax cost of debt give us a Present Value of €15 million (see **Table 36**). This value is small relative to Unlevered Value, as expected, since the company does have a low amount of financial liabilities in its Balance Sheet, which is forecast to continue.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Tax Shields	1	0	0	0	0	0	0	0	0	0
discount factor			96.2%	92.5%	88.9%	85.5%	82.2%	79.1%	76.1%	73.1%
Present Value			0	0	0	0	0	0	0	0
Terminal Value										12

Table 36: OP's Tax Shields forecast

Similarly to DHL, a 3.6% of Unlevered Value will be used to estimate the magnitude of CFD. The same approach (Damodaran, 2006) was used to ascertain

the probability of default, which is 0.24% in annual terms and was derived from the 10 years cumulative probability of 2.4%.

The risk-free rate for Austria was used, following what was done for DHL and thus we arrive to a Present Value of €13 million. Though this value is relatively low relative to Unlevered Value, it does seem too high when compared to the Present Value of Tax shields. Having in consideration that the probability of default may not be only derived from the credit rating of a company - especially in this case where the credit rating of Austrian Post may be penalized by the fact that it is a small company – other ways to compute the probability of default of were sought. Emery (1999) proposes to assess a company's probability of default in a given year through its "Cash amount expected to be available divided" by its "Typical unexpected cash requirement", given by the following formula:

$\lambda = [L + E(CF)] / S(CF)$, where L is the initial liquid reserve (Cash), E(CF) is the average cash-flow from operations form the last four to five years and S(CF) is the standard deviation of the average cash-flow from operations. In order to get to the probability of Bankruptcy, the following formula complements the previous calculation:

$\pi_{Distress} = 1 - N(\lambda)$, where $N(\lambda)$ is the cumulative probability given by the Normal Standard Distribution.

By using this approach for both companies we can observe different results. In the case of DHL, this new technique results in an average annual probability of default for the first two years of analysis – 2013 to 2014 – of 0.37%, vs. 0.34% for the first calculation. At OP, this new approach results in an average of annual probability of default of virtually 0 (see **Table 37**). This new approach is in line with Emery's idea that cash situation may yield very different results than a company's credit rating in assessing its probability of default, since credit rating is influenced by other factors like reputation and size of the company. While for DHL the two approaches resulted in similar figures, for the much smaller OP the figures were very different. Nonetheless, and in order to follow a more cautious approach, the CFD will be used with a higher probability, as given by the credit rating, bearing in mind that other approaches could be used.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Value Unlevered			2 406	2 431	2 459	2 486	2 513	2 539	2 565	2 590
% of costs			3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%
CFD			87	88	89	90	90	91	92	93
Probability			0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Expected CFD			0	0	0	0	0	0	0	0
discount factor			97.4%	94.8%	92.4%	89.9%	87.6%	85.3%	83.1%	80.9%
Present Value			0	0	0	0	0	0	0	0
Terminal Value										11

Table 37: OP's CFD forecast

The Levered Value for OP is thus €2,391 million, which is very similar from what was found in the DCF (-1.6%). The Equity Value obtained is €2,180 million, leading to a share price of €32.3 (see **Table 38**).

Unlevered Value	2 389
PV of Tax Shields	15
PV CFD	13

Enterprise Value	2 391
Net Debt	211
Equity Value	2 180

Shares Outstanding	68
Share Price	32.3

Table 38: OP's APV summary

The same analysis used in DHL regarding the sensitivity analysis to Bankruptcy Costs and Probability of Default. However, this analysis shall not be as significant as the previous one since the resulting value was closer to the DCF (only -1.6%) than at DHL. The lower end yields €2,193 million Equity Value while the higher is €2,147 million (see **Table 39**). In this case, the value from DCF was higher than APV and thus the lower end the sensitivity analysis is roughly the same result as the DCF (recall €2,219 million).

		Bankruptcy Costs				
		0.8%	2.1%	3.6%	5.1%	6.6%
Probability of Default	0.00%	2 193	2 193	2 193	2 193	2 193
	0.12%	2 192	2 189	2 187	2 184	2 181
	0.24%	2 190	2 186	**2 180**	2 175	2 170
	0.36%	2 189	2 182	2 174	2 166	2 159
	0.48%	2 187	2 178	2 168	2 158	2 147

Table 39: OP's APV sensitivity analysis

6.3.10.3. Multiples

In the Austrian Post case, there is less of an issue regarding the various businesses of the company, since Mail and Express have a much narrower range of activities than for instance the Supply Chain division of DHL. This being said,

one first approach followed was using a peer group collected in computing the betas through capitalization-weighted beta (recall **Appendix 16**). The metrics used are the most common ones in a multiples analysis, as discussed in *Literature Review*: EV to sales, EV to EBITDA, EV to EBIT and Price-Earnings Ratio. The results are shown in **Appendix 19**.

The EV/Sales resulted in an Implied Equity Value of €2,124 million, 4.3% lower than the DCF analysis – at €2,219 million. The EV to EBITDA is very similar to the last ratio, at €2,147 while EV/EBIT shows a 15.3% higher result than the DCF, with €2,559. Price-earnings ratio is the highest of them all, with €2,738. All in all the range is €2,124-€2,738 million (see **Table 40**). The fact that the EBITDA margin of Austrian Post is much closer to industry values (11.1% in 2012) also helps to explain why all the ratios are relatively meaningful.

	EV/Sales	EV/EBITDA	EV/EBIT	P/E
Implied Equity Value	**2 124**	**2 147**	**2 559**	**2 738**
Difference to DCF	-4.3%	-3.2%	15.3%	23.4%

Table 40: OP's multiples summary

The second method was also adopted in analyzing multiples in Austrian Post. Oppositely to DHL, the segments at Austrian Post are much more heterogeneous and each one has somewhat different sub-segments that makes it more difficult to find accurate segment peers. For instance, the Parcels & Logistics division at the Austrian Company joints Parcels and Logistics operations and while peers of both business lines are put together in the analysis it does not provide an accurate result as if the two business lines were considered together with parcels/express peers on one side and logistics peers on the other.

This being said, it is expected that the results from the divisional analysis are not as good as the simpler approach. The very different business combinations in this company make it harder to find separate peer groups than what was achieved in the blended mix of all peers together. In fact, all metrics show results farther apart from the DCF valuation. The Implied Equity Value using Sales is €1,915, -13.7% and in relation to EBITDA is €1,925 (-13.2%). While these first two methods show lower values than the DCF, the EV to EBIT shows a higher value than the DCF, which is coherent with the results in the

simple Multiples Valuation. The value for the latter is €2,729 (23.0% higher). The range of values for this second approach is €1,915-€2,729 million (see **Table 41**). This range fluctuates by €814 million, much more than €614 for the first approach, illustrating the higher accuracy of the first method, as expected.

	EV/Sales	EV/EBITDA	EV/EBIT
Mail	878	1 432	2 345
Parcels & Logistics	1 247	704	594
Implied EV	**2 125**	**2 136**	**2 940**
Net debt	211	211	211
Implied Equity Value	**1 915**	**1 925**	**2 729**
Difference to DCF	-13.7%	-13.2%	23.0%

Table 41: OP's adjusted multiples analysis

6.3.11. Sensitivity Analysis

Similarly to what with DHL, the sensitivity analysis departed from the DCF valuation and comprised changes to revenues, costs and inputs to the Terminal Value.

6.3.11.1. Operating changes

The effect of higher sensitivity to costs rather than in revenues is also expected for the Austrian company. In the first case, the lowest increase recorded was -11.7%, corresponding to an Equity Value of €1,958 million, with -3.0% in revenues. On the other extreme, we have €2,479 million, with 3.0% extra revenue growth, as seen in **Figure 38**.

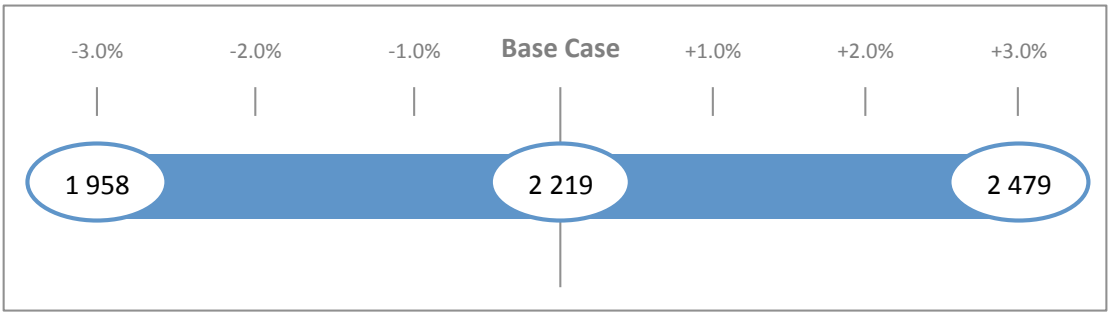


Figure 38: OP's sensitivity – changes to revenues

As with DHL, the sensitivity analysis to costs brings more significant changes to the overall Equity Value of the company. In fact, **Figure 39** shows a variation of -

19.4% in Equity Value, to €1,788 million, following +1.5% in costs and €2,649 million for the decrease in costs (+19.4%).

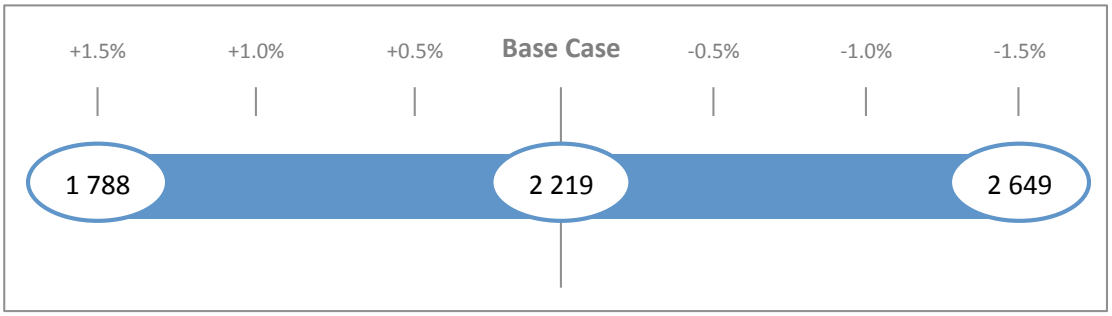


Figure 39: OP's sensitivity - changes to costs

6.3.11.2. Changes to Terminal Value

Regarding the changes to Terminal Value, the lowest point is €1,705 million, representing a -23.1% to Equity Value (see **Figure 40**). The highest value arising from this sensitivity analysis was €3,236 million, which is +45.9% than the Base Case value.

		Terminal Growth Rate				
		0.0%	0.5%	1.0%	1.5%	2.0%
WACC	6.0%	2 358	2 517	2 709	2 943	3 236
	6.5%	2 157	2 287	2 441	2 626	2 853
	7.0%	1 985	2 092	**2 219**	2 368	2 547
	7.5%	1 835	1 926	2 030	2 152	2 297
	8.0%	1 705	1 782	1 869	1 970	2 089

Figure 40: OP's sensitivity - changes to TV

In this case, the most significant are observed in the sensitivity analysis to the Terminal Value inputs. For this reason, it urges to devote extra attention to the underlying inputs in order not to jeopardize OP's valuation accuracy.

7. Valuation of the Merged Entity

7.1. Valuation with no Synergies

After valuing the two companies separately it urges to first find the value of the simple consolidation of them, as if no forces both internal and external affect the value of the new merged entity. This means that this first approach will not take into consideration any effects of synergies, integration cost or any other kind of variation.

This being said, the Enterprise Value that one should arrive to is €24,849 million, resulting from the Standalone Valuations of €22,420 million and 2,429 million from DPDHL and OP, respectively. Discounting the Net Debt of each company - €2,164 million from the German company and €211 million from the Austrian counterpart. All these effects are pictured in **Figure 41**.

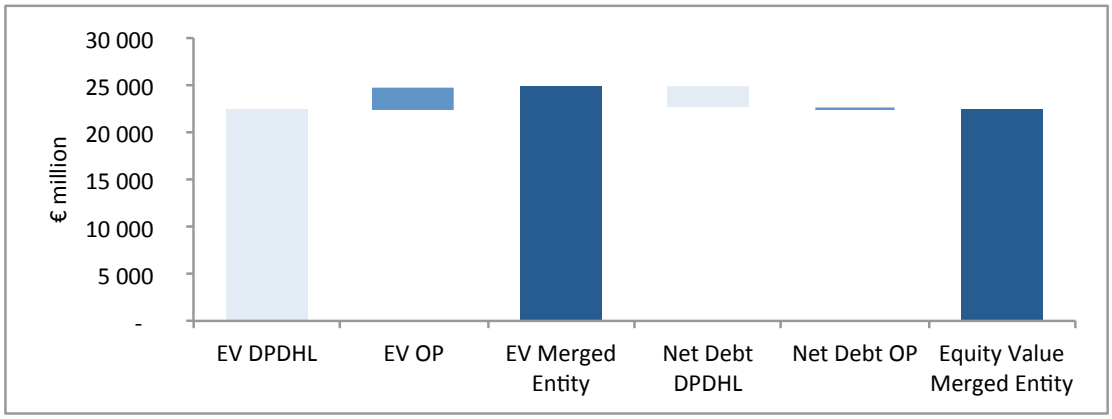


Figure 41: Merged valuation (no syn.) - Waterfall

Although the valuation of the Merged entity departs from the abovementioned simplifying assumptions, it is worth taking a closer look to some consolidation figures, which will lay the ground for the next section, *7.2.Synergies*.

This being said, it first matters to arrive to the Merged P&L by adding the values of each company's Income Statement. While most operations in both companies are similar, their split among divisions is quite different. Due to impossibility to consolidate most of divisions in terms of revenues, they will be maintained separate, reporting wise, with the exception of the Mail division, which performs similar activities in both companies (though the Branch Network is more important in OP than in DHL). All lines further down the P&L Statement are fairly straightforward to consolidate given the similarity of both

companies, especially in terms of operating expenses. The resulting effective tax rate from the merged entity will thus be 29.2%, very close to the Effective Tax Rate of the German company, the main contributor Profit before Taxes. These results are summarized in **Appendix 20** - Merged Entity P&L.

The joint EBIT constitutes the departing point for the cash-flow from operations for the entity. After realizing the needed adjustments, the CF from operations will be as follows in **Table 42**. Similarly to the standalone valuations, Taxes Paid and Capex are included afterwards, as to depict the true liquidity created by operating activities, excluding tax and investment effects. The WACC which corresponds to the Merged Entity Enterprise Value of €24,849 million is 7.0%, virtually equal to that of DHL (the actual difference is *Merged WACC – DHL WACC* = -0.008%). Adding to the fact that most of the value in the Merged Entity is created by DHL, OP's WACC is not much different from the German one – only a few decimal points lower – which together explain why this corresponding Merged WACC does not differ much from DHL's cost of capital.

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
CF from Operations	3 935	4 080	3 873	4 021	4 139	4 216	4 281	4 363	4 472	4 592
Taxes Paid	497	579	573	664	729	679	732	774	711	772
Capex	1 808	1 794	1 725	1 782	1 849	1 919	1 990	2 069	2 154	2 243
Free cash-flow	1 630	1 707	1 575	1 575	1 561	1 618	1 559	1 520	1 607	1 577
discount factor			93.5%	87.3%	81.6%	76.3%	71.3%	66.6%	62.3%	58.2%
Present Value			1 472	1 376	1 274	1 235	1 111	1 012	1 001	918
Terminal Value										15 450

Table 42: Merged Entity's DCF forecast

7.2. Synergies

A merger between these two companies operating in transportation and logistics opens a wide range of possibilities in terms of operating and financial efficiencies that are not available for them separately. Such efficiencies may come in several forms such as better supplier terms, access to different markets and clients (especially corporate clients), integration of central costs such as consulting services or marketing efforts, etc. These benefits have been one of the leading factors for M&A deals in this sector, like the offer for TNT Express by UPS that seek higher penetration in the European market.

This being said, this analysis - that will be divided in Operating and Financial Synergies, which is the approach most commonly adopted, as

portrayed in the *Literature Review* – is of utmost importance in identifying the true value that can potentially be created by this proposed consolidation and that could not be achieved individually be any of the companies.

7.2.1. Operating Synergies

As discussed throughout the *Literature Review*, operating synergies can be divided into Revenue Synergies and Cost Synergies. While cost synergies are relatively easy to model since they relate to variables that are usually within firms' ability to affect, revenue synergies are much more dependent on external forces. Additionally, revenue synergies may require extra implementation efforts, meaning more time to take place and thus lower present value.

Regardless the type of operating synergy, they always require a cautionary approach, according to Sirower and Sahni (2006): acquirers more than often pay a premium that is higher than the estimated synergies for the deal. One of the first measures to cope with the shortcomings of M&A deals is to be very prudent in forecasting synergy gains. While the minimum 100-day approach – wait at least 100 days to forecast any operating improvements (Sirower and Sahni, 2006) – is mainly advisable to revenue synergies, it will be used for both revenues and costs, in line with prudent methodology adopted. This method suggests that no improvements will be in place before the end of 2013, year during which the transaction will take place.

7.2.1.1. Revenue Synergies

Accelerate growth process in SEE

As described during the *Rationale for the Proposed Transaction*, one of the main strategic advantages of Austrian Post is its increasing presence in SEE countries, where growth potential is still underexplored in comparison with other mature regions in Europe. An acquisition by DHL would allow for a timelier revenue increase, since its investment and implementation capacity outpaces by largely that of the Austrian Company.

The abovementioned capabilities could create an accelerated growth process in these countries, in the Parcels & Logistics segment where OP's position is stronger. This process would materialize through an increased capex, followed by higher revenues every year. In these estimates the level of revenue of €165 million projected for 2020 in the standalone valuation will be achieved two years earlier, in 2018, as seen in **Figure 42**. Over the period in analysis this improvement will represent additional €163 million in revenues.

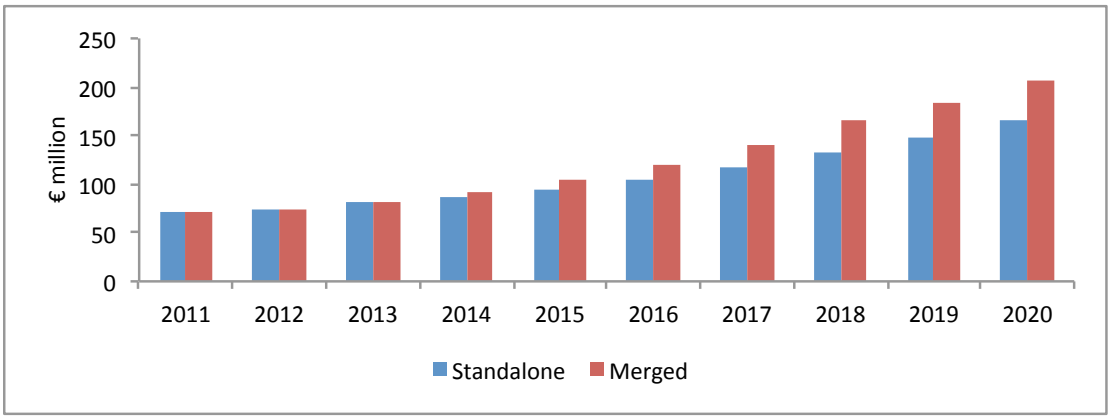


Figure 42: Synergy forecast – revenue in SEE

Larger revenues in this segment will necessarily mean higher operating costs. In this case, the operating expenses that one needs to account are Staff Costs, Materials Expense and Other Operating Expenses. In Staff Costs, there will be a slight increase in the FTEs, to cope with higher level of activity, which will translate into €6 million extra cost in 2014-2020. In terms of Materials Expense, the added cost will be €99 million, while other operating expenses will represent extra €20 million. Together these effects represent €126 million in extra operating expenses.

The new pattern in revenues and expenses will create different working capital needs. In this case, given that revenues will grow at a higher pace than costs, it is expected that receivables will require more financing than the extra funding provided by payables. In fact, during the period from 2014 to 2020, the merged company will expectedly invest €2 million in working capital. This investment in working capital arises from €20 million in inventories and receivables vs. €-18 million in payables.

As mentioned previously, the investment in the parcel segment in the SEE countries comes with higher capex levels every year. The levels of investment needed are not expected to change significantly from what is observed in the standalone valuation and thus the levels of capex (on revenues) will be at the same weight as before. This means that capex levels as a percentage of revenues for the parcel segment will continue to be 2.2%. Such policy will represent an extra €4 million in capex over the years until 2020. Adding to this, D&A and Impairment Losses will also increase. The cumulative extra D&A for the years leading to 2020 will be of €1 million. The two trends identified are shown in **Figure 43**.

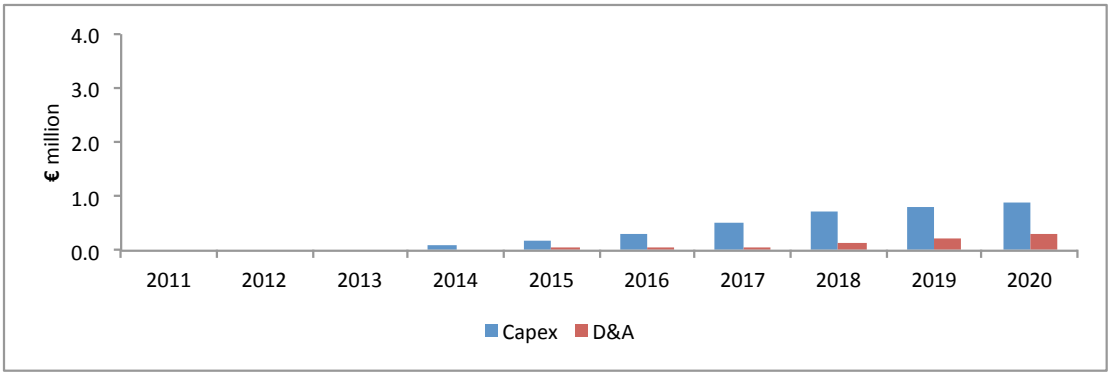


Figure 43: New revenue implications - capex and D&A

7.2.1.1. Cost Synergies

Parcels (Costs of Raw Materials and Purchased Services)

DHL is the biggest Transportation & Logistics player in the World and it derives from that fact one of the most important competitive advantages in the sector: the ability to source materials and services at a minimal cost. The relative importance of DHL to its suppliers is commonly much more important than their importance to DHL, meaning that the German company's bargaining power is massive. Such a power is only enjoyed by a few others super players in the sector such as UPS and FedEx and thus it is quite unique.

Austrian Post can benefit from this fact, since its margins in the Parcel segment are much lower, mainly due to higher Materials Expense, as a percentage of revenues. It is expected that the Austrian company will be able to benefit from the same terms and prices that DHL enjoys currently. This will

result in an improved margin in this segment, which is very intensive in terms of Materials Expense.

These terms will mean that OP will decrease its weight of Materials Expense from around 61% of revenues to 53% (see **Figure 44**). A cautionary approach shall be used in forecasting synergies, as previously discussed, and in this case these improvements are expected to materialize in 2014, to allow for renegotiation of contracts between OP and its suppliers. These cost savings are forecast to amount to €603 million until 2020.

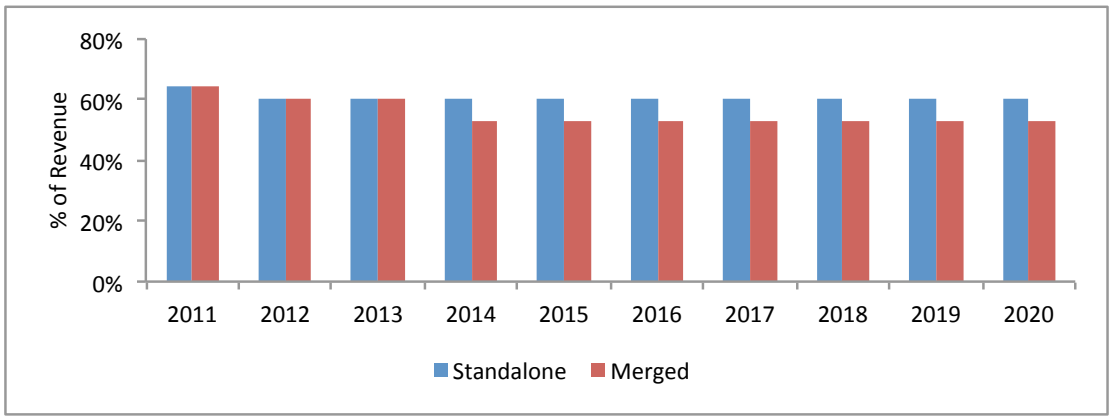


Figure 44: Synergy forecast – cost of raw materials and purchased services

In terms of Working Capital Needs, the fact that there are less payables outstanding will increase the changes in Net Working Capital, which the lower inventory levels will not offset. This being said, an adjustment of €108 million will arise from the lower Materials Expense.

One should note that this more profitable margin will also impact the materials expense arising from the revenue synergies. The abovementioned costs of €99 million in materials expense (**page 119**) will decrease to account for this change, to €87 million (€12 million difference). These effects are summarized in **Appendix 21**, relating to the revenue synergy.

On its turn, the decrease in materials expense will impact the net working capital of the company, which will require an adjustment to account for these lower expenses. The results from the different scenarios along the analysis are illustrated in **Appendix 22**. The net result in working capital needs from materials expense is €92 million.

Central Costs

While individual other operating expenses represent a small proportion of revenues in both companies, they may add significant value in terms of synergies if we account for perpetual savings in some overlapped expenses.

By taking a closer look in other operating expenses we identify several costs that can be brought down to lower levels. These components include Travel Expenses, Consulting Services and Cleaning and Security Services. All these expenses represent higher values as a percentage of revenues in Austrian Post than at DHL. This departs from the fact that economies of scale in outsourced services can be achieved in large companies. This being said, it is expected that the weight of such costs in revenues will decrease with the proposed merger, at least to DHL's levels.

In the case of Travel Expenses the trend stated previously will imply a decrease of 1.1% of revenues to 0.6%, starting in 2014. This reduction will amount to €93 million until 2020. The same assumptions are realized for Consulting Services, which yields a cumulative cost enhancement of €30 million (from 0.5% to 0.4% of revenues), while developing this analysis for Cleaning and Security Services represents €116 million, from 1.2% of revenues down to 0.5%. These three components together are expected to generate €238 million in cost synergies in the period 2014-2020 (see **Figure 45**).

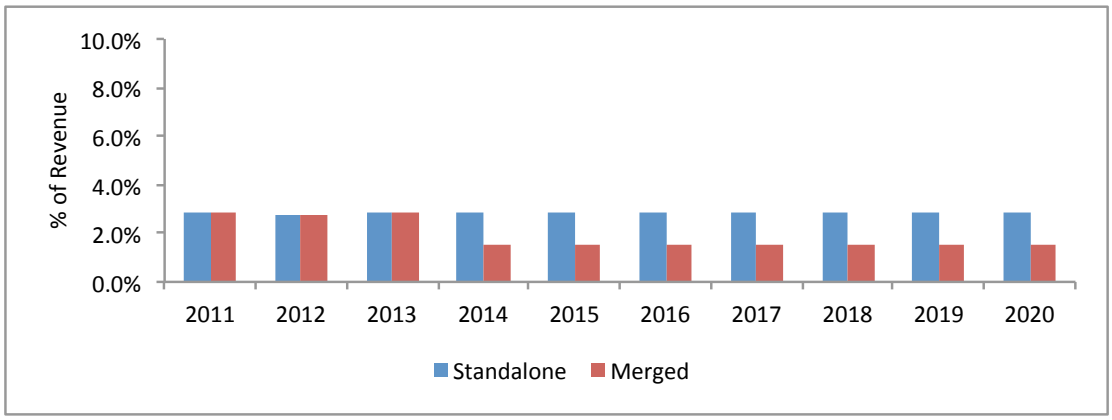


Figure 45: Synergy forecast - central costs

As with the changes analyzed previously, these lower operating expenses will require an adjustment in net working capital, which will amount to €43 million over the years until 2020.

Head Office Expenses

The merger of any companies means overlapping of head office facilities and personnel. While acquiring companies cannot completely eliminate such components, significant cost reductions can arise. One such example of these savings is the estimations in the proposed acquisition of TNT Express by UPS (RBC Capital Markets, 2012). The analysis suggests potential cost savings with head office expenses at TNT Express of 0.9% of total Staff Costs. Given that this transaction lies in the same sector, with the bigger company trying to rip the benefits of integrating its central systems together, we can accurately apply these estimates for the case of DHL and Austrian Post.

This being said, a 0.9% reduction in the overall Staff Costs at Austrian Post represents roughly €67 million worth of savings at an average of €9 million every year. This figure represents roughly 9.5% of total Staff Costs related to the Corporate Centre. These forecasts, as with the other cost synergies, predicts 2014 as the year where they start taking place.

Once again, there are working capital adjustments to be made. These lower staff costs represent an investment in working capital of €12 million from 2014 to 2020.

7.2.2. Financial Synergies

As discussed in the *Literature Review*, there are many ways in which financial synergies may take form, being the most common ones, Cash Slack, increased Debt Capacity, Tax Benefits and Diversification. While the latter has proven itself a weak reason for adding value in M&A and will thus not be explored, the others are worth analyzing.

One would expect that a much bigger firm like DHL would have access to lower cost debt than OP, but the truth is that OP's access to debt happens at a lower spread than the German firm. This is true because OP utilizes very few amounts of debt, given that its operating activities provide for most of liquidity needs of the company. In this sense, even though it may be true that DHL will provide a cash slack for the new company (extended access to capital markets at same cost), it is assumed that this fact will not create direct value to the merged entity since Austrian Post had already some spare capacity to take on new

projects. Adding to this, any potential gains from increased ability of making new investments has been accounted for in the revenue synergies, where there was considered higher levels of capex.

The fact that CFs from both firms are less than perfectly correlated provides less volatile earnings and thus the ability to increase leverage whilst preserving the same cost of debt. Both companies have been decreasing its leverage rations, as a means to maintain their financial flexibility as well as to keep low probability of default, which affects cost of debt, especially in these tight financing times. DHL for instance, has grown its market value of equity over total enterprise value by 8% annually, for the last two years (Bloomberg, 2013). It would be expected that the merger of the companies would enable some increased leverage while still preserving their financial health and flexibility. This being said, it will be assumed that the target capital structure for the merged company will increase its equity over enterprise value at about 8%, reaching 81%. Adding to this, the beta of the Merged Entity will also suffer a change. The approach used to estimate the new beta is to calculate an industry-wide beta, based on 19 peers from both companies' peer group. The result from this approach is 0.85 (see **Appendix 23**). Another alternative to find the new beta would be to compute a weighted average with the Enterprise Value of both companies, with no synergies, against the Merged Entity Enterprise Value. This method yields 0.86 (see **Appendix 24**). While the first method will be privileged over the latter as it reflects better the systematic risk of the industry, it is worth mentioning that they show very similar results and thus coherence.

The major tax benefit that arises from mergers relates to tax loss carryforwards from previous negative earnings. However, none of the companies shows significant negative net profits in most recent years nor will they do in the foreseeable future, and thus this effect does not provide any synergy in this deal.

7.2.3. Other Potential Synergies

7.2.3.1. Mail Communication of OP

(taking advantage of corporate clients' network of DHL)

Since Letter Mail has been decreasing at significant rates, the direct Mail advertising has been the sole revenue booster in OP's Mail segment (recall **Table**

23). This trend would be likely intensified if the Austrian company could leverage DHL's large business network to do business in Austria as well. This fact departs from the idea that international corporations based in Germany and which had interests in Austria (one of Germany's most important trade partners), could use OP's services to deliver advertising in the country, adding to the services of DHL in Germany. The difficulty in assess how many clients of DHL would indeed be interested in such services as well as how much extra revenue would each one provide, make the assumptions for any revenue synergy projection far too inaccurate to be considered. Nonetheless, it is unquestionable that benefits from this corporate clients' network could be explored in case of a merger.

7.2.3.2. Revenue synergies of OP in Germany

The fact that Austrian Post explores a Logistics and Distribution company in Germany (Trans-o-Flex) – which is included in the Parcels & Logistics Segment - could provide further synergies in this area either by increased investments and consequently revenues, or lower costs. Nonetheless, the fact that this company operates in the tempered distribution business makes it very hard to estimate any near term benefit from the actions of DHL since this is not its core area of expertise. Additionally, a decrease in materials expense was already taken into consideration for the whole Parcels & Logistics Segment and thus a further increase in margins is not only less likely, as it conflicts with the idea of cautiousness employed throughout the forecast of synergies. This being said, it is worth to mention that even though the prospects of additional synergies in the German business at Austrian Post are not materially relevant to be included in the analysis, they could provide ground for further exploitation should the merger take place.

7.2.3.3. Capex of Corporate Centre in OP

Apart from the savings in Central Costs, it would be expected that the merged entity would not need the same amount of capex for central functions (developed by the Corporate Centre), as much as both companies did individually. Though some of these gains were already taken into consideration

in Head Office expenses, these savings discussed now are mainly related to less investment needs for the Corporate Centers and not layoffs, for instance. As with the other potential synergies, the savings in this case are hard to estimate and thus it is not advisable to include them. Additionally, it seems particularly hard to anticipate when would these savings place and as they could be postponed, the gains could eventually erode due to time value of money.

7.2.4. Integration Costs

So far, there have been analyzed positive effects from the consolidation of these two companies. However, there are also expenses arising from this whole process, which need to be account for.

First of all, there are upfront fees that are incurred once the deal starts taking shape. Among these are lawyers structuring the deal, investment banks, consulting firms, etc., which are likely to happen within the few months before and after the deal is completed, meaning they will have the earliest impact on the merged entity projections. Additionally, there are forces that need to be consolidated when two companies joint efforts, namely, corporate headquarters, human capital training, other company facilities, compensation for contract termination in case of layoffs and others. While some of these costs might occur during the first year of the merged entity's operations, they span for a wider period of time.

All the components listed above are very difficult to estimate, especially in case there is no access to inside information about the planned restructuring process. One way to overcome this burden is to use as a proxy costs for similar transactions. One such transaction, which was already discussed in this work, is the UPS and TNT Express merger. While this deal eventually was not completed, it provides a leeway to project the integration costs that an acquisition of Austrian Post by DPDHL would represent. Adding to the fact that this transaction is very recent, the estimates are provided by internal sources, conferring a higher degree of accuracy. The estimated €1,000 million integration costs (UPS, 2012) represent 14% of TNT's revenue and would span throughout 4 years.

Two factors that may impact the actual integration costs faced by DPDHL and OP deal, vs. those estimated to UPS and TNT Express merger are the

geographic proximity of both companies and the nature of the companies' business. In conclusion, these two factors affect the extent of integration costs in opposite directions and it is thus fair to assume that the costs as a percentage of target's revenues will be identical.

This being said, the estimated integration costs for this deal are €336 million, distributed in the following way: 40% in year 1 (2013), 20% in the next three following years.

7.2.5. Valuation with Synergies

After having outlined comprehensively the effects on the P&L as well as cash adjustments leading to the Free-cash flow in the beginning of the section, one is in position to take the valuation of the Merged Entity, this time including synergies. This analysis excludes the integration costs

The operational benefits of such improvements are readily observable in the Margins on EBITDA presented in this new scenario, against what the combined Standalone Valuations show (see **Figure 46**). It is notorious the enhanced margin that synergies would potentially bring to this merger: Austrian Post would be capable of posting an average extra 0.2 pp. during 2013-2020 and onwards.

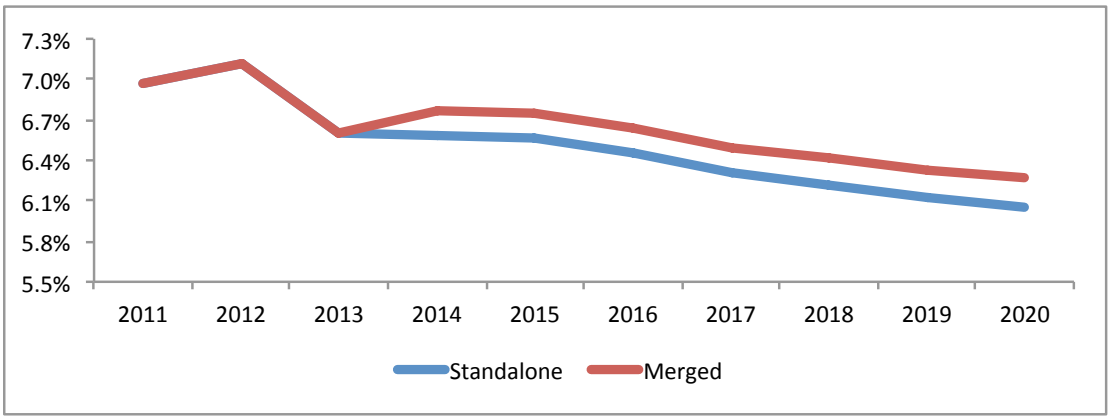


Figure 46: Margins on EBITDA

Following what was projected previously, it was already expected the new margin of Materials Expense will account for the biggest slice in value creation. In fact, this component represents 46% of all synergies, meaning €762 million extra equity value. The next biggest item is Parcels Revenue, with €353 million

(21%). Other Operating Expenses together represent roughly the same amount translated from the cost savings, with an estimated value of €342 million. As discussed previously, these Expenses can be broken down in Travel & Mileage, Consultancy and Cleaning & Security, which individually account for 8%, 3% and 10% respectively. Head Office Expenses in their turn represent additional €92 million in Equity Value, 5% of all synergies. Lastly, Financial Synergies, boosted by the new beta and higher debt capacity create €118 million in extra value for the merged company.

All these effects are illustrated in **Figure 47** below. The total synergies are thus of €1,667 million that represent 75.1% of total Standalone Equity Value of Austrian Post, attesting the significant benefits a merger could boost.

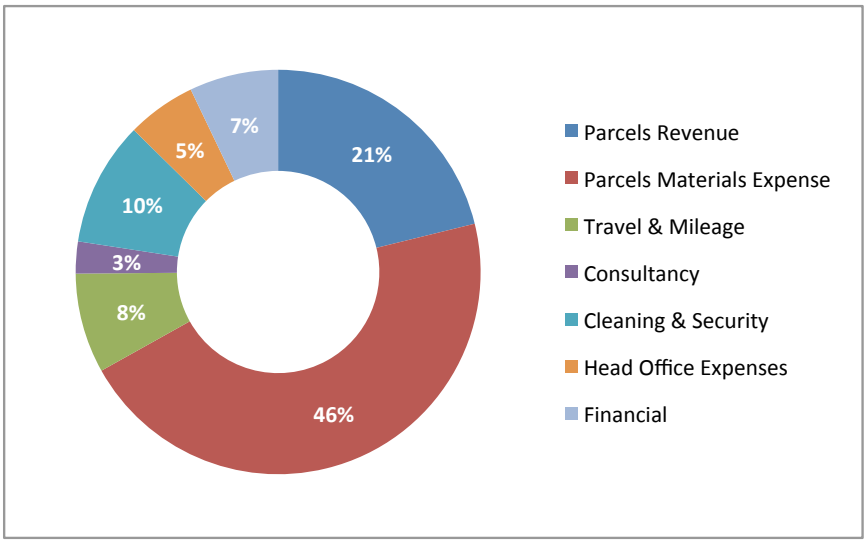


Figure 47: Synergies summary

After valuing the benefits arising from the merger, it still lacks to account for the costs that the merger of these two companies will potentially represent. As stated earlier, the total amount of such costs is estimated at €336 million, distributed over the 4 first years of deal, starting in 2013. The present value of these cash-flows is €291 million.

Putting together all the effects estimated for the proposed transaction (illustrated in **Figure 48**), the Net Synergies will stand at €1,376 million, which is 62.0% of the Equity Value of Austrian Post.

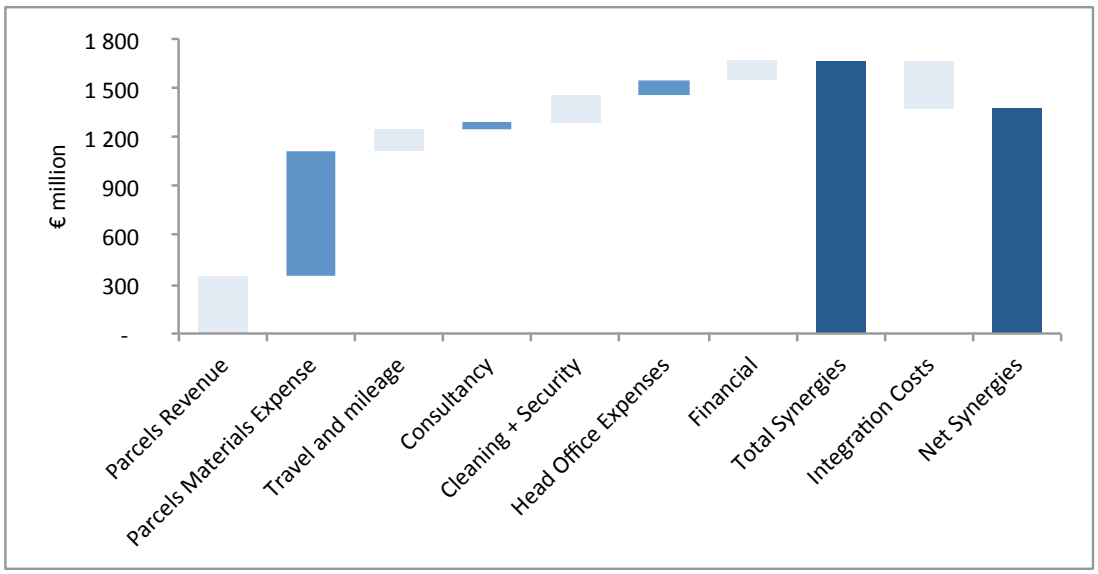


Figure 48: Net synergies breakdown - Waterfall

The net synergies forecasted previously will lead to an Equity Value of €23,851 million. This is a 6.1% increase from the previous Merged Company Equity Value, calculated with no synergies.

7.2.5.1. Sharing Synergies

As discussed in the *Literature Review*, synergies shall be allocated to the company that brings the most to the delivery of synergies. For instance, if the acquirer has a unique strength that no other acquirer would be able to replicate, then it makes sense that it will rip most of benefits from synergies directly linked to that uniqueness.

Following that rationale, and in terms of revenue synergies, the contracts already in place with Austrian Post in the revenue segment in SEE countries is a uniqueness very hard to replicate. On its turn, there are other players as nearly as powerful as DHL that could easily bring the additional investment strength to explore those opportunities. This being said, these synergies will be allocated completely to Austrian Post, due to its strong contracts and relationships, which enable the value-added in extra revenue projected.

While investment capacity does not require much of experience in the field that is not completely true in terms of enhanced margins in Materials Expense. Even though other companies like UPS and FedEx could improve Austrian Post margins with better conditions, they would hardly be as good as DHL, especially in Europe where the German company is much stronger than its

American competitors. Given this, it would not be fair to assign all the synergy benefits in this cost cutting only in OP, which is why they will be split equally between the two companies in the deal.

Following much of the same rationale applied to the previous component, all other savings related to cost reductions are not provided exclusively by any of the firms and the same values will be allocated to both firms

Lastly, and as discussed in the *Literature Review*, debt capacity does not arise from specific strengths of any of the companies so the benefits shall be equally split. Likewise, both companies will share the integration costs as they have similar roles in achieving the consolidation.

All these effects are shown in **Table 43**. The total amount assigned to DHL will be €521 million, while Austrian Post will have €864 million. In relative terms, the German company has 37.2% of total synergies and OP 62.8%.

	DPDHL	OP
Parcels Revenue	-	353
Parcels Materials Expense	381	381
Travel and mileage	67	67
Consultancy	21	21
Cleaning + Security	83	83
Head Office Expenses	46	46
Financial	59	59
Integration Costs	- 146	- 146
Total	**512**	**864**

Table 43: Synergy allocation

7.2.6. Operating sense of Synergies

While revenue synergies are extremely unpredictable and frequently not projected in forecasts of potential deals, cost synergies are often cited, which provides some benchmark to understand whether the estimated cost synergies are in line with other deals in the sector.

One such case is the already discussed proposed transaction between UPS and TNT Express. According to UPS (2012), the range of annual cost synergies that the deal could deliver when full integration was achieved was €400 to €550 million. These figures represent 5.4% to 7.5% of total operating costs of TNT Express (Company's Annual Report), as illustrated in **Figure 49**.

Another comparable transaction was concluded in 2008, when Posten AB and Post Danmark – the national postal players in Sweden and Denmark, respectively – merged. Following the deal completion CVC Partners (2008), issued a press release stating estimated annual cost synergies of SEK1 billion. These synergies represent 6.6% of Post Danmark's operating costs (Company's Annual Report), which is the smallest company and thus considered the target.

As illustrated in **Figure 49**, the cost synergies projected for DHL and OP deal are below the estimated cost reductions for the most recent and significant transactions to which it compares. This piece of evidence gives extra strength to the idea that the synergies were computed on the basis of cautiousness and further cost reductions could actually materialize, as shown by sector comparables.

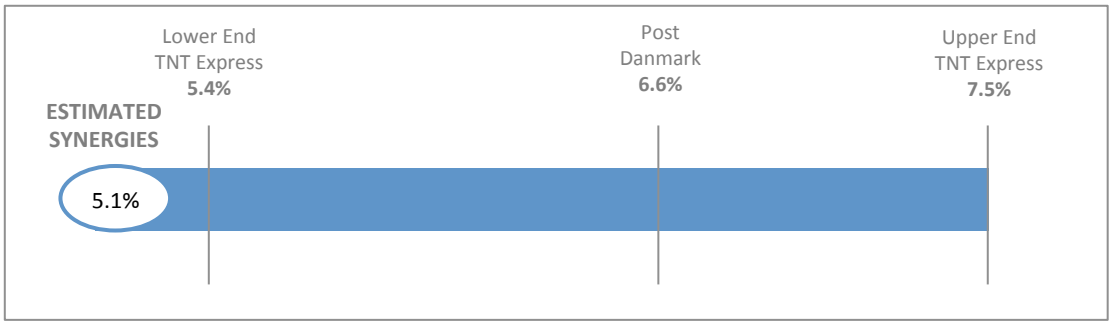


Figure 49: Cost synergies benchmarking

8. The acquisition

8.1. Acquisition Price

As discussed throughout the *Literature Review*, there is a very frequent problem with acquirers paying much more for the target than the value that they are able to realize once the deal is done. With this in mind, it is important to set a reservation price above which the bidding company will drop any negotiations. Given that synergies were projected on the basis of prudence, and as stated earlier, the probability that at least net synergies of €1,376 million (recall **Figure 48**) will arise is extremely high. This being said, a maximum Equity Value of €3,595 (see **Table 44**, third column – Total Synergies, Proposed Price) million will be set, corresponding to 69.6% of OP's December 2012 average share price.

Despite the calculations set for the maximum price, this outcome can hardly be considered a good outcome for DHL, especially after taking into consideration that not all the net synergies shall be attributable to Austrian Post alone. In fact, and as mentioned in **Table 43**, only €864 million of net synergies shall be directly credited to the Austrian company. Based on this forecasted value for Austrian Post synergies, a price of €39.2 per share will be proposed for the tender (**Table 44**, first column – Half of Synergies for OP, Proposed Price). This proposed share price reflects an upside potential of €99 million in equity value, as assessed in the DCF valuation, as well as €432 million in synergies, which corresponds to half of the full synergy amount of OP. This offer represents 25.1% on the average share price for December 2012 and 46.4% premium on the average share price for the full year of 2012.

The fact that this considerable 25.1% premium is still short on the Full Synergies forecasted for OP leaves some room for negotiation between the two parties. It is considered that any agreement in the range of €39.2-45.6 per share would be extremely beneficial for both companies.

	Half of Synergies for OP		Full Synergies for OP		Total Synergies	
	Total Value	Per Share	Total Value	Per Share	Total Value	Per Share
Avg. Price Dec	2 119	31.4	2 119	31.4	2 119	31
Implied Undervaluation	99	1.5	99	1.5	99	1
DCF Valuation	**2 219**	**32.8**	**2 219**	**33**	**2 219**	**33**
Synergies	432	6.4	864	12.8	1 376	20.4
Proposed Price	**2 651**	**39.2**	**3 083**	**45.6**	**3 595**	**53.2**
Total Premium on avg. Price	531	7.9	964	14.3	1 475	21.8
%	25.1%	25.1%	45.5%	45.5%	69.6%	69.6%

Table 44: Proposed price and alternative scenarios

8.2. Method of Payment

Following what was discussed in the *Literature Review*, it seems that initial reactions to M&A announcements are much more favorable in cases where the transactions are financed with cash rather than stock. In the absence of any other particular reasons, it would be thus advisable to purse a cash-sponsored acquisition.

Despite the previous rationale, there should be analyzed some nuances of this particular deal. First off all, DHL's stock may be undervalued, as reflected in the DCF analysis, against the average share price for December 2012 (and even

more against the whole year average). This means that a stock issue would result in dilution for the current shareholders.

Adding to the previous fact, the synergies were forecasted following a cautions approach and may well be larger than estimated. In case there is a stock issue and OP's current shareholders hold a stake in the merged entity, they will also get some of the gains from the stronger synergies realized, in detriment of DHL's current shareholders.

These two previous reasons support the initial view that cash (excess cash or raising debt) should be the primary source of financing for the deal. Nonetheless, there is another important issue regarding the method of payment, which is the actual ability for the merged company of taking extra amounts of debt without harming its capital structure and financial flexibility.

One can look at the interest coverage ratio as a proxy to estimate how much debt can a company take before seeing its investment grade downgraded (Damodaran, 2013). An important issue which is discussed later in the *Limitations* section is the fact that Austrian Post has a better credit rating than DHL which makes it hard to estimate the benefits of the merged company debt capacity and interest coverage ration estimation, due to which this analysis will be carried forward only considering the interest coverage of DHL alone that represents the bulk of debt capacity of the new entity.

DHL has a BBB+ rating, with a current standalone interest coverage ratio of 4.2, while the minimum requirement before BBB rating is 2.99. This means that the German company still has some slack to issue new debt before reaching the lower end of its investment level. In fact, DHL is able to issue €2,306 million new debt at the same cost, before reaching the abovementioned threshold. This value accounts for 87.0% of the total price offered for the acquisition. The remaining part of tender offer, roughly €344 million represent just 14% of Cash and equivalents, year-end balance for 2012. Thus the use of a small portion of excess cash shall make up for remainder needed to finance the deal.

Given the new debt issue and use of 14% of DHL's excess cash, it is fair to say that the company's financial flexibility will continue as strong as it was before the transaction. Moreover, while the analysis does not consider the

benefits of OP's debt capacity and better interest coverage to analysis, it will only provide further consistency to this all-cash offer.

8.3. Offer Summary

Figure 50 matches the offer details with the proposed method of payment. The €2,651 million of the deal – translated to a share price of €39.2 – will be completely financed by debt, as it will be the preferred method of payment, over equity. This debt will be made up of a new issue of €2,306 million – 87.0% of the offered price – and use of excess cash of €344 million – 13.0% of transaction value.

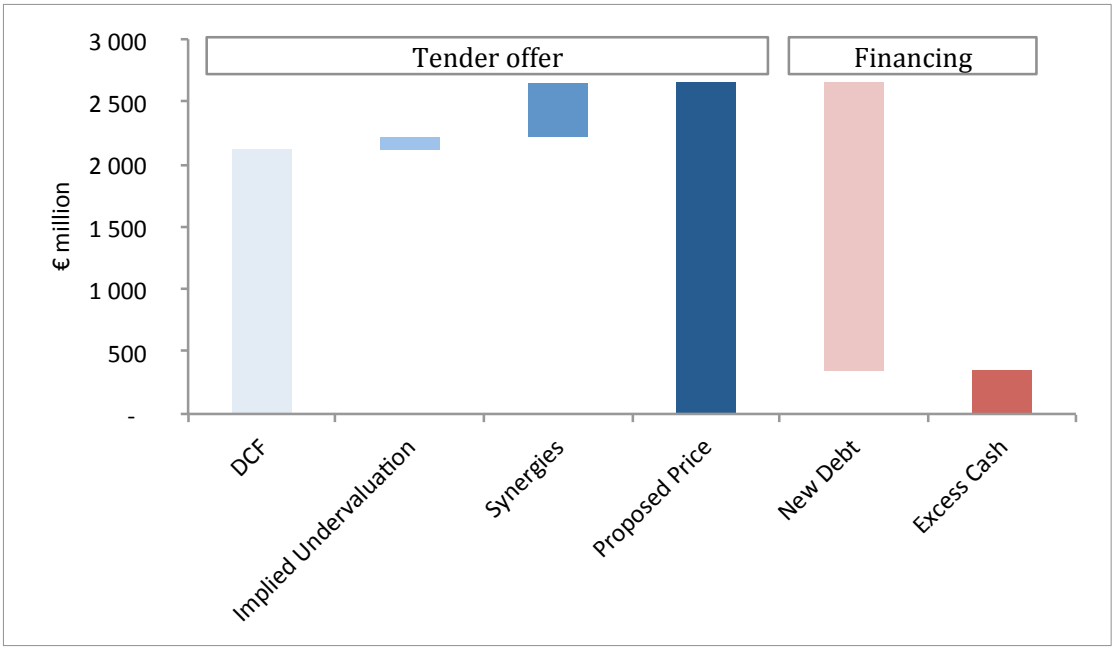


Figure 50: Offer summary

8.3.1. SVAR

The extent to which the acquiring shareholders are putting their holdings at risk will be measured by the formula outlined by Rappaport and Sirower (1999), as discussed in *Literature Review*. The results are shown in **Table 45**. The analysis departs from the three scenarios projected in **Table 44**, where the proposed price includes €531 million premium on the average price for DHL. With this offer, the SVAR for DHL shareholders is just 2.7%. This low number is explained by the fact that the value of the German company is much greater than OP's value as well as the premium offered. This gives strength to DHL's view of M&A that can create value to its shareholders without putting at risk major value to them.

Even if the price of the deal is pushed as high as to the total value of the synergies forecasted (€1,475 million in premium), the SVAR is just 7.4%, a still low value.

	Half Syn	Full Syn	Total Syn
Premium	531	964	1 475
Mkt Value DHL	19 871	19 871	19 871
SVAR	**2.7%**	4.8%	7.4%

Table 45: SVAR

8.4. Considerations on OP's Shareholders

The Austrian State has conducted a series of privatizations in its state-owned enterprises (controlled through ÖIAG), after several amendments to the ÖIAG Act 2000 (setting the ground for partial privatizations of state holdings in some companies such as Telekom Austria AG and Flughafen Wien AG. In 2003 for instance, the government laid further privatization mandates such as further privatization of Telekom Austria, which by the end of 2003 had a state control of 42.2% (Telekom Austria Annual Report), which has come down to 28.42% (as of 31 December 2012, Telekom Austria, 2013). This departed from two main reasons: the need for some cash inflow for the state treasury as well as improved business performance by the entrance of a strategic partner in the shareholder structure, which was achieved through a large stake of America Móvil. On the same line, the Vienna International Airport had 50% of free-float by 2001, down from only 27%, when the company had its IPO in 1992.

The same mandate has recommended the search for a strong strategic partner for Österreichische Post AG, as stated in the Tallinn Conference (2008). Though this claim has not yet been realized, it does state further evidence that the entrance of a strategic partner, allied to a decrease in ÖIAG holding would be welcomed, should the level of service - especially of the Universal Postal Service - remain at same level, if not higher. This view is also supported by the fact that additional revenue would be extremely helpful for the Austrian State in times of financial constraints, as referred by Heinrich Schaller (board member at Wienner Börse) "one could also reduce the stakes held by the state in the already partially privatized listed companies", as means to boost state revenue.

These facts allow some confidence that a takeover offer by DHL would serve Austrian's wishes of added business strengths for incumbent players- without jeopardizing public service – whilst following the deeper privatization models set out in the beginning of the new millennium.

Other shareholders at OP do not hold more than 5% of shares individually. Even if Austrian State decides not to sell its entire stake at the company there are good chances that DHL achieves at least 50% shareholding of the company. This departs from the fact that the 25.1% premium offers current shareholders a great exit opportunity from the investment. For instance a shareholder that bought OP's share in early 2010 when the price was €19.0 (recall **Figure 29**), would have a total return of 106.3%[5] while a investor holding the stock since early 2012 when the price was 23.9, realizes 64.2% of its initial investment.

8.5. Other Potential Bidders

8.5.1. Strategic Bidders

The idea for the proposed transaction between DHL and OP was firstly motivated by the prospective acquisition of TNT Express by UPS. While this deal did not eventually realize, it did uncover a prospective trend of consolidation in this tremendously challenged sector. While small M&A has been always present in Transportation & Logistics, the magnitude of deals is prone to extend to larger amounts, as companies seek ever more alternative ways to overcome the stagnation in organic growth in some areas.

Given this trend, other players are likely to analyze further integration with regional players like Austrian Post. One such case is undoubtedly UPS, which may search for different targets for Parcel growth in Europe, once the deal with TNT has been turned down by competition authority. The fact that the Parcel Segment in Austrian company shows an immense growth potential would definitely be appealing to UPS. Nonetheless (and similarly to TNT Express), OP has a great deal of Mail services, which would not be as attractive for UPS. This could impose some restrictions in the integration of both companies - or overcome by an offer only to the Parcel Segment. This factor makes UPS less an

[5] Return = $Price_n / Price_{n-1} - 1$

attractive acquirer than DHL, since the latter would be more willing to integrate the entire company, thus increasing the price received by OP's Shareholders.

Other big Global and European players such as FedEx, DPD La Poste, etc., could also be interested in acquiring the Austrian company, following this consolidation trend and search for scale that characterize these players' strategy for the near to medium term.

8.5.2. Financial Players

Adding to this, the large committed amounts Private Equity funds left outstanding following the boom and bust of financial sponsors in the years leading to Global Financial Crisis leaves a lot of room for new investments, since the recent pick-up in investment trend from such funds. After an all-time high of roughly $60 billion invested by Financial Investors in Transportation & Logistics sector in 2006 (see **Figure 51**, Source: KPMG (2012)), this figure hit a low point in 2009 with slightly over $10 billion. The unapplied amounts are likely to raise the trend to Private Equity investment in the sector, especially as economic prospects show better views on the business of this sector.

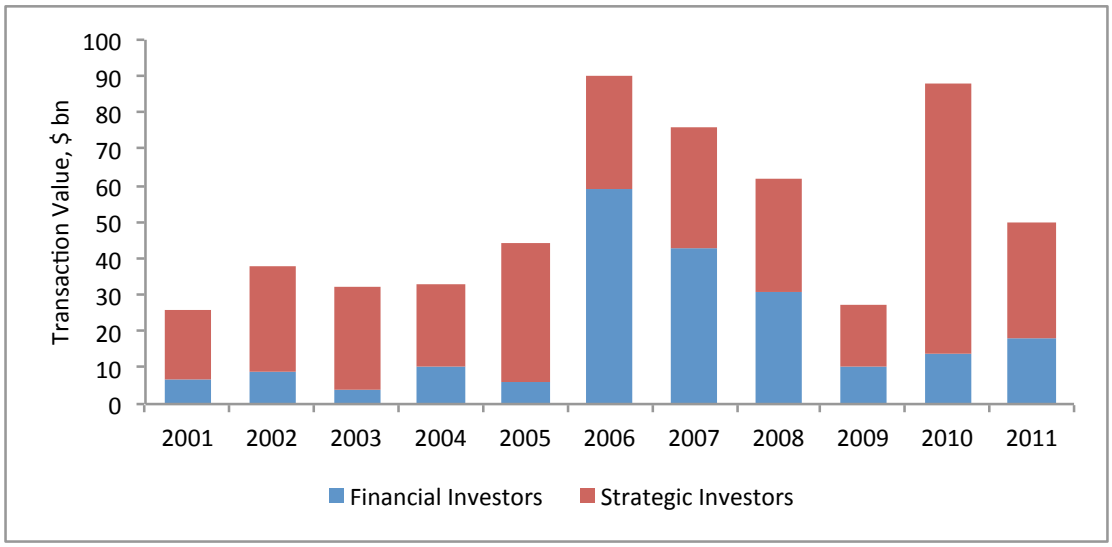


Figure 51: Emergence of Financial Players

8.6. Execution Risk

The three main steps that require analysis regarding the risk of execution are the initial assessment of the potential deal, the structuring of the deal and operating capabilities of the merged company and then the actual integration of the two

companies once the deal is completed. The two last steps offer greater intricacies, while the first one can be more easily overcome with a thorough analysis.

In structuring the deal, there are crucial issues such as the price paid, financing the deal, legal implications, among others. One of the most important and not yet completely examined is the Competition Authority's legislation on the deal. As discussed in *Industry Review* section, the regulatory body of the EU for competition, the European Competition Network revealed some reservations about the deal between UPS and TNT Express. While this transaction was in the same sector as the proposed deal between DHL and OP, it has hardly the same characteristics. In fact, the issue raised by the Authority concerns the diminished competition in several regions given that the current four main integrator careers in Europe (recall **Figure 20**), would be then reduced to three, which is not the case in this one. This being said, there is no significant evidence to believe that the Authority would block the deal.

In the later stage of the merged entity there is the often cited but rarely understood case of cultural differences from the previously individual companies. This deal is no exception and thus a word of caution on the problems that may arise from merging these two different workforces. Besides the operating differences and working habits, there are important issues regarding wages and pension schemes. This may be especially burdensome in the case of workers from the two companies working in the same country (e.g. both companies have employees in Germany and they would expect similar levels of benefits now they are a single company).

9. Limitations

9.1. Tax Issues on cross-border deals

There would need to be a further analysis on tax considerations required to model the acquisition in the way assumed in the projections. While EU legislation implies that foreign subsidiaries may be able to apply double taxation tax treaties not to pay taxes in the parent's company home country, such possibility should be studied in a deeper sense in order to fully understand the implications

of such measures. Though this analysis does not fall within the scope of this work, it would certainly improve the accuracy of the projections and analysis taken.

9.2. Merged Cost of Debt

The fact that the smallest company, Austrian Post, has a more favorable credit rating – especially due to its large interest coverage ratio that makes up for the fact that the company is relatively small, makes it hard to predict the extent of benefits in terms of debt capacity and cost that would the deal would entail.

While in a merger where the larger company has better credit rating it seems relatively straightforward that the target could borrow at least at the same conditions as the acquirer, that view does not make sense if the target would be worse off in such situation. In the other hand, it also seems unreasonable to think that a company 10 times smaller than the acquirer would have significant influence in order to allow for an upgrade of the large company's credit rating.

This being said, even though there are undeniable benefits in debt sourcing and cost in the merger of the two companies, it is quite difficult to assess a accurate outcome for it. Further analysis would have to be conducted to predict with more certainty this issue, which is outside the scope of this work.

10. Conclusion

The failed attempt of UPS to acquire TNT Express unveiled a trend of larger M&A in the Transportation and Logistics sector, as a means to provide further growth platforms to global players. This transaction differs from many others due to the size and importance of the two parties involved. DHL, as the World's leading logistics provider, shall anticipate this consolidation trend and impose its supremacy.

The analysis of the sector gave a clear view of how companies are trying to mitigate the risks of mail decline by diversifying their portfolios of services to other business lines, as well as geographies. The courier, express and parcels market arises as one of the crucial responses to such concerns. The advent of e-commerce and ever increasing global footprint of business clients require integrated and timely deliveries that are only possible to larger integrated networks. Adding to this, the liberalization of markets everywhere, especially in Europe, opens the marketplace to wider competition, demanding investors' expectations and the scrutiny of the capital markets, which requires even greater operating excellence.

While Austrian Post has already adapted its strategy to cope with such frenetic environment by focusing in parcels delivery and in South Eastern Europe countries, it could take paramount advantage of DHL's capabilities in terms of sourcing of raw materials and services, investment capacity and broad network of business clients.

The likely advantages arising from this merger are portrayed in the merged entity Equity Value that is projected to reach €23,851 million, 6.1% higher than the value without synergies. Most of these synergies (78%) arise from cost efficiencies that bringing the two companies together would allow. The projections were made prudently and fall below the projections for cost cutting in other similar transactions in Europe.

In order to attract OP's shareholders to sell their shares, an all-cash offer of €39.2 per share is considered and translates into a premium of 25.1% on the average share price.

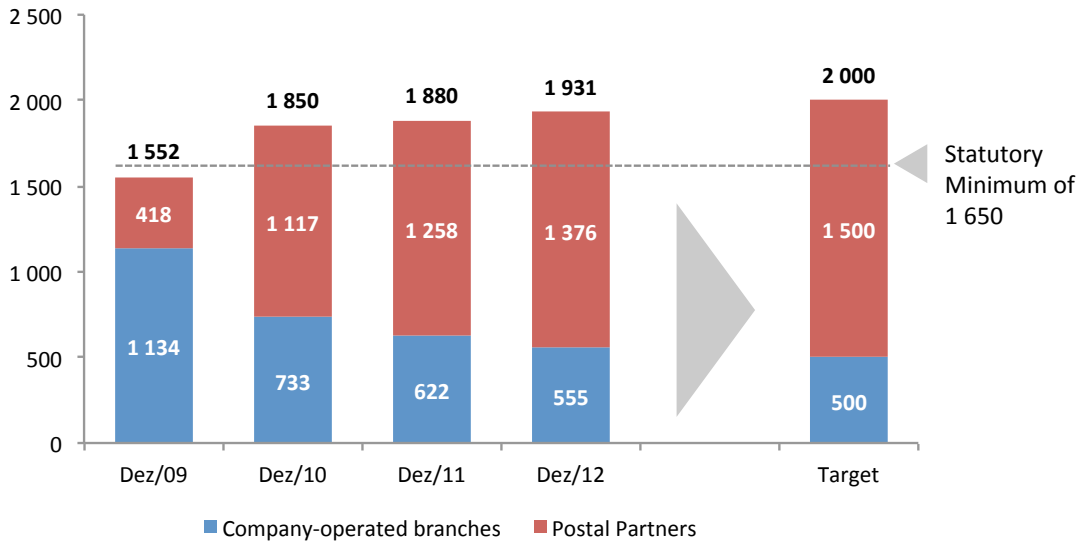
11. Appendices

Appendix 1: Main scope of Universal Service - Austria

Austrian Postal Market Act
Main scope of universal service:

- At least 1650 postal service points throughout the country, opened daily at least 5 days per week
- Letter boxes shall be emptied at least once daily during weekdays
- Deliver letter mail items and parcel items to be conveyed in the scope of the universal service as a rule on five working days per week
- Domestic letter items to be delivered in the scope of the universal service and submitted (consigned) by closing time on a working day, shall be delivered on an annual average of at least 95% on the first working day following the day of consignment

Appendix 2: OP's Target branch restructuring



Appendix 3: Austrian Post's acquisitions Map

2002 – entry in Slovakia's Parcels with IN CIMS logistics and SPS
2003 – entry in Parcels business in Croatia, through Overseas Express
2005 – entry in unaddressed direct mail in Hungary with Feibra
2006 – acquisition of Kolos (unaddressed direct mail) of Slovakia
2007 – acquisition of MEILLERGHP, opening operations in Czech Republic: entry in Serbia as well as Montenegro, with City Express
2008 – entry in Bosnia and Herzegovina with acquisition of 24 VIP Logistics
2011 – entry in Romania through acquisition of 26% of PostMaster
2012 – entry in Bulgaria with M&BM Express; 100% shareholding of PostMaster, Romania; entry in Poland with Kolportaź Rzetelny

Appendix 4: DHL's Network in China

Appendix 5: DHL's Express Network China in figures

Offices	Hubs	Gateways	Distribution Centers	Other Facilities	Sales Representatives	Call Center Agents	Retail Outlets	Service Points
12	1	10	23	136	712	672	1	133

Appendix 6: DPDHL beta estimation

Company	Current Mkt Cap	2012	2011	2010	Avg Mkt Cap	Current Debt	2012	2011	2010	Average Debt
UPS	82 450	70 265	70 482	71 927	73 781	12 666	12 870	11 128	10 846	11 878
Fedex	31 402	28 257	29 684	26 216	28 890	2 242	1 667	1 685	1 930	1 881
Expeditors	8 293	8 163	8 684	11 578	9 179	-	-	-	-	-
PostNL	810	1 284	965	7 429	2 622	1 614	1 618	1 670	1 585	1 622
UTi Worldwide	1 642	1 533	1 531	2 233	1 735	375	375	360	309	355
Agility	775	507	376	524	545	76	79	63	129	87
Aramex	3 367	2 928	2 635	3 045	2 994	228	39	41	20	82
Singapore Post	2 569	2 355	1 927	2 229	2 270	537	537	506	503	520
Yamato Holdings	932 379	737	550 158	566 743	512 504	93 779	93 779	92 778	101 372	95 427
Forward Air	1 182	1 022	915	824	986	0	0	1	52	13
JB Hunt	8 896	7 018	5 270	4 958	6 536	593	685	749	654	671
Kuehne & Nagel	13 032	13 171	12 587	15 486	13 569	68	68	87	107	83
DSV A/S	25 128	25 944	19 121	25 462	23 914	7 097	7 113	6 952	6 235	6 849

Company	R2 - 5 Years (M)	R2 - 5 Years (M)	Adjusted Beta	# observations	Adjusted Levered	Tax Rate	Avg Mkt Cap	Avg Net Debt	Unlevered Adjusted
UPS	0.73	0.53	0.94	60	0.94	11.0%	73 781	11 878	0.82
Fedex	0.74	0.55	1.18	60	1.18	36.1%	28 890	1 881	1.13
Expeditors	0.57	0.32	0.91	60	0.91	39.3%	9 179	-	0.91
PostNL	0.58	0.34	1.20	60	1.20	0.0%	2 622	1 622	0.74
UTi Worldwide	0.63	0.39	1.23	60	1.23	0.0%	1 735	355	1.02
Agility	0.54	0.29	1.23	60	1.23	17.2%	545	87	1.09
Aramex	0.65	0.42	0.84	60	0.84	9.4%	2 994	82	0.82
Singapore Post	0.61	0.37	0.64	60	0.64	18.2%	2 270	520	0.54
Yamato Holdings	0.60	0.36	0.81	60	0.81	46.0%	512 504	95 427	0.74
Forward Air	0.67	0.45	1.09	60	1.09	35.1%	986	13	1.08
JB Hunt	0.71	0.50	1.03	60	1.03	38.5%	6 536	671	0.97
Kuehne & Nagel	0.49	0.24	0.93	60	0.93	21.6%	13 569	83	0.93
DSV A/S	0.77	0.59	1.23	60	1.23	28.9%	23 914	6 849	1.02

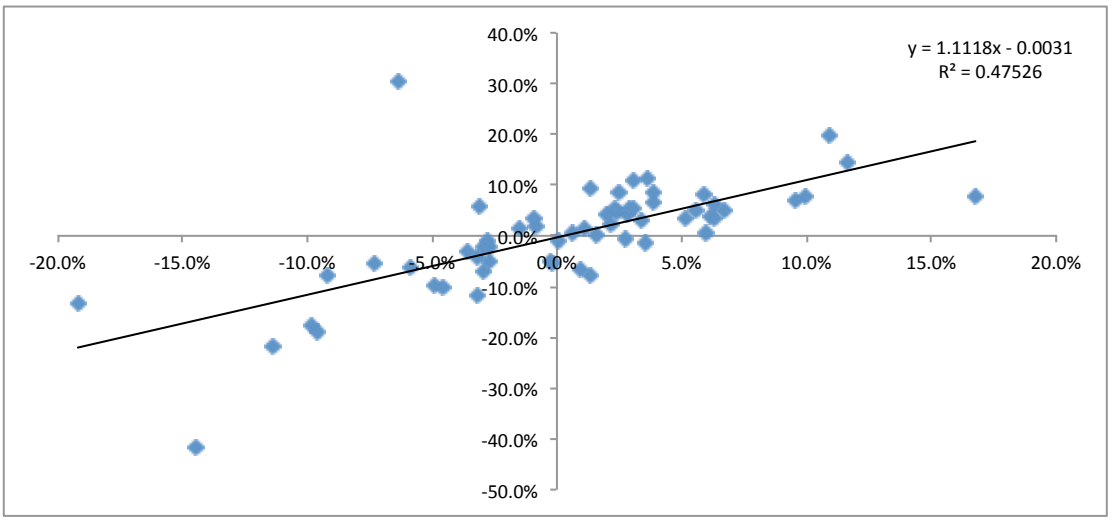
	Mail	Express	Logistics & Supply C.
UPS	-	0.82	-
Fedex	-	1.13	-
Expeditors	-	-	0.91
PostNL	0.74	-	-
UTi Worldwide	-	-	1.02
Agility	-	-	1.09
Aramex	-	-	0.82
Singapore Post	0.54	-	-
Yamato Holdings	-	0.74	-
Forward Air	-	-	1.08
JB Hunt	-	-	0.97
Kuehne & Nagel	-	-	0.93
DSV A/S	-	-	1.02
Average	**0.64**	**0.90**	**0.98**

	Revenue	Weighted Beta
Mail	12.5%	0.11
Express	29.3%	0.19
Logistics & Supply Chain	58.2%	0.57
Consolidated	100.0%	0.87

Appendix 7: DPDHL Peers' Description

Company	Description
UPS	United Parcel Service, Inc.(UPS) delivers packages and documents throughout the United States and in other countries and territories. The Company also provides global supply chain services and less-than-truckload transportation, primarily in the U.S. UPS's business consists of integrated air and ground pick-up and delivery network
Fedex	FedEx Corp. delivers packages and freight to multiple countries and territories through an integrated global network. The Company provides worldwide express delivery, ground small-parcel delivery, less-than-truckload freight delivery, supply chain management services, customs brokerage services, and trade facilitation and electronic commerce solutions.
Expeditors	Expeditors International of Washington, Inc. is a global logistics company. The Company provides air and ocean freight forwarding, vendor consolidation, customs clearance, marine insurance, distribution, and other international logistics services.
PostNL	PostNL NV collects, transports, stores, sorts, and distributes letters, printed matter, parcels, documents, and freight items. The Company provides mail and logistics services domestically and internationally.
UTi Worldwide	UTi Worldwide, Inc. is a global, non-asset-based supply chain management business providing supply chain logistics services and planning and optimization solutions. The Company's services include freight forwarding, customs brokerage, and warehousing services such as the coordination of shipping and the storage of raw materials, supplies, components, and finished goods.
Agility	Agility Public Warehousing Co K.S.C. offers freight storage, distribution, and transport services. The Company provides trade financing and third party customs services and offers e-commerce services enabling its customers to place orders and make payments online.
Aramex	Aramex PJSC (formerly Arab International Logistics) provides transportation services. The Company invests in the freight, express, logistics and supply chain management business through acquiring and owning stakes in one or more existing companies in the Middle East, particularly the UAE.
Singapore Post	Singapore Post Limited is the national postal service provider in Singapore. The Company provides domestic and international postal and courier services including end-to-end integrated mail solutions covering data printing, letter-shopping, delivery and mailroom management, and others. Singapore Post also offers end-to-end e-commerce logistics solutions.
Yamato Holdings	YAMATO HOLDINGS CO., LTD. mainly provides door-to-door parcel delivery services. The Company has developed a nationwide delivery system specializing in time-specified delivery. Yamato Holdings offers moving services and other comprehensive transportation services including logistics services for both domestic and overseas customers.
Forward Air	Forward Air Corporation provides transportation services to air freight forwarders, air cargo carriers, and domestic and international airlines. The Company also operates a truckload business that is an irregular route, high service-level carrier that transports a wide range of commodities in both interstate and intrastate commerce.
JB Hunt	J.B. Hunt Transport Services, Inc. and its subsidiaries provide transportation and logistics services in the United States, Canada, and Mexico. The Company transports a variety of products including automotive parts, department store merchandise, paper and wood products, food and beverages, plastics, chemicals, and manufacturing materials and supplies.
Kuehne & Nagel	Kuehne + Nagel International AG transports freight worldwide. The Company operates sea, land, and rail freight transportation businesses and warehousing and distribution facilities. Kuehne + Nagel also provides related special services.
DSV A/S	DSV A/S is the parent company for a group of companies that offer transport and logistics. The Group provides truck, ship, and plane transport services, as well as warehousing and logistic services. DSV operates in Europe, North America, and the Far East.

Appendix 8: DPW return against DAX, last 60 months



Appendix 9: Credit Default Spreads (S&P grading system)

http://people.stern.nyu.edu/adamodar/New_Home_Page/datafile/ratings.htm

Rating	Spread
AAA	0.40%
AA	0.70%
A+	0.85%
A-	1.30%
BBB+	1.65%
BBB	2.00%
BB+	3.00%
BB	4.00%
B+	5.50%
B	6.50%
B-	7.25%
CCC	8.75%
CC	9.50%
C	10.50%
D	12.00%

Appendix 10: Annual and Monthly average share price DPW

January	February	March	April	May	June	Average 2012
12.5	13.2	14.0	14.2	13.6	13.3	
July	August	September	October	November	December	14.4
14.3	15.4	15.5	15.6	15.4	16.4	

Appendix 11: Cumulative probability of default

(Source: Damodaran, 2006)

Rating	Cumulative Probability of Distress (10y)
AAA	0.03%
AA	0.25%
A+	0.40%
A	0.56%
A-	2.42%
BBB+	3.30%
BBB	4.27%
BB	16.89%
B+	24.82%
B	32.75%
B-	42.12%
CCC	51.38%
CC	60.40%
C+	69.41%
C	77.44%
C-	87.16%

Appendix 12: DPDHL's Peers Multiples

	EV/Sales	EV/EBITDA	EV/EBIT	P/E
UPS	1.4x	23.5x	56.1x	87.1x
Fedex	0.6x	5.0x	8.2x	13.9x
Expeditors	1.2x	12.1x	13.0x	24.5x
PostNL	0.6x	4.7x	8.6x	1.9x
UTi Worldwide	0.3x	11.0x	18.9x	-15.3x
Agility	0.3x	6.6x	11.5x	14.8x
Aramex	0.9x	7.2x	9.0x	12.0x
Singapore Post	3.3x	10.7x	12.4x	17.3x
Yamato Holdings	-0.1x	-1.0x	-1.6x	0.0x
Forward Air	1.6x	8.7x	10.9x	19.4x
JB Hunt	1.5x	10.1x	14.5x	22.6x
Kuehne & Nagel	0.7x	13.8x	18.3x	27.2x
DSV A/S	0.7x	10.6x	12.8x	18.2x
Average	**1.0x**	**9.5x**	**14.8x**	**18.7x**

Appendix 13: Customer Relationships and Trademark (Annual Report 2012, page 57)

For the valuation of customer relationships (customer list), the multi-period excess earnings method is used, which measures the current value of the cash flows resulting exclusively from the intangible assets. The valuation of a trademark is carried out on the basis of the relief from royalty method, in which the value of the intangible asset is determined as a fictive current value for the respective license payments, based on the assumption that the corresponding asset is owned by a third party.

Methods Definition[6]

Excess-earnings method: this brand valuation methodology calculates the earnings above the profits required to attract an investor – which uses the estimated rate of return based on the current value of the assets employed. These excess earnings are assumed to be attributable to the intellectual property, or brand.

Relief from royalty method: this brand valuation method is based on how much the brand owner would have to pay to use its brand if it licensed the brand from a third party. It uses discounted cash flow analysis (DCF) to capitalize future branded cash flows

Appendix 14: Prevailing Tax Rates in OP's international markets

Country	Tax rate
Bosnia and Herzegovina	10%
Bulgaria	10%
Croatia	20%
Montenegro	9%
Germany	26%-31%

Country	Tax rate
Hungary	10%
Poland	19%
Romania	16%
Serbia	10%
Slovakia	23%

Appendix 15: OP beta estimation

Company	Current Mkt Cap	2012	2011	2010	Avg Mkt Cap	Current Debt	2012	2011	2010	Average Debt
UPS	82 450	70 265	70 482	71 927	73 781	12 666	12 870	11 128	10 846	11 878
Fedex	31 402	28 257	29 684	26 216	28 890	2 242	1 667	1 685	1 930	1 881
PostNL	810	1 284	965	7 429	2 622	1 614	1 618	1 670	1 585	1 622
Agility	775	507	376	524	545	76	79	63	129	87
UK Mail Group	279	207	134	145	191	1	1	3	5	3
Singapore Post	2 569	2 355	1 927	2 229	2 270	537	537	506	503	520
Yamato Holdings	932 379	737	550 158	566 743	512 504	93 779	93 779	92 778	101 372	95 427
JB Hunt	8 896	7 018	5 270	4 958	6 536	593	685	749	654	671
Kuehne & Nagel	13 032	13 171	12 587	15 486	13 569	68	68	87	107	83

[6] http://www.brandvaluation.co.uk/Brand-Valuation-Issues/Brand-valuation-methods~14.html

Company	R2 - 5 Years (M)	R2 - 5 Years (M)	Adjusted Beta	# observations	Adjusted Levered	Tax Rate	Avg Mkt Cap	Avg Net Debt	Unlevered Adjusted
UPS	0.73	0.53	0.94	60	0.94	11.0%	73 781	11 878	0.82
Fedex	0.74	0.55	1.18	60	1.18	36.1%	28 890	1 881	1.13
PostNL	0.58	0.34	1.20	60	1.20	0.0%	2 622	1 622	0.74
Agility	0.54	0.29	1.23	60	1.23	17.2%	545	87	1.09
UK Mail Group	0.19	0.03	0.58	60	0.58	24.2%	191	3	0.57
Singapore Post	0.61	0.37	0.64	60	0.64	18.2%	2 270	520	0.54
Yamato Holdings	0.60	0.36	0.81	60	0.81	46.0%	512 504	95 427	0.74
JB Hunt	0.71	0.50	1.03	60	1.03	38.5%	6 536	671	0.97
Kuehne & Nagel	0.49	0.24	0.93	60	0.93	21.6%	13 569	83	0.93

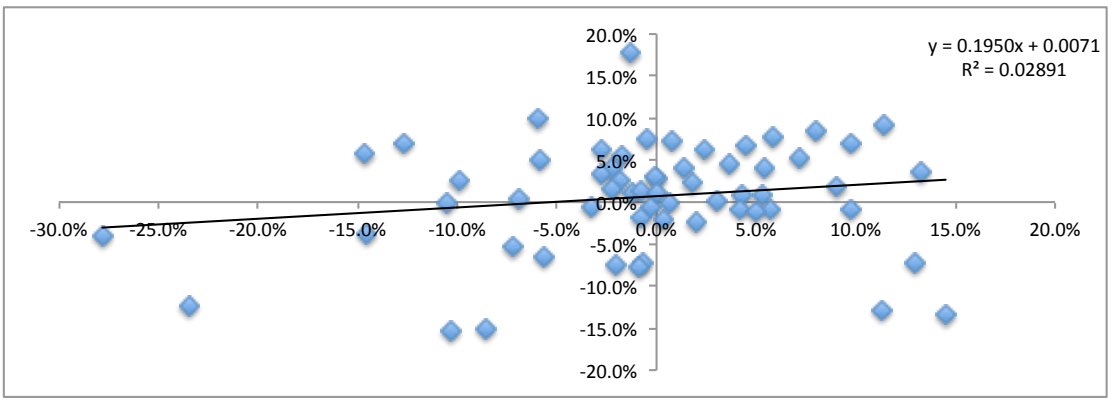
	Mail	Parcels & Logistics
UPS	-	0.82
Fedex	-	1.13
PostNL	0.74	-
Agility	-	1.09
UK Mail Group	-	0.57
Singapore Post	0.54	-
Yamato Holdings	-	0.74
JB Hunt	-	0.97
Kuehne & Nagel	-	0.93
Average	**0.64**	**0.89**

	Revenue	Weighted Beta
Mail	56.3%	0.36
Express	43.7%	0.39
Consolidated	100.0%	0.75

Appendix 16: OP Peers' Description

Company	Description
UPS	United Parcel Service, Inc.(UPS) delivers packages and documents throughout the United States and in other countries and territories. The Company also provides global supply chain services and less-than-truckload transportation, primarily in the U.S. UPS's business consists of integrated air and ground pick-up and delivery network
Fedex	FedEx Corp. delivers packages and freight to multiple countries and territories through an integrated global network. The Company provides worldwide express delivery, ground small-parcel delivery, less-than-truckload freight delivery, supply chain management services, customs brokerage services, and trade facilitation and electronic commerce solutions.
PostNL	PostNL NV collects, transports, stores, sorts, and distributes letters, printed matter, parcels, documents, and freight items. The Company provides mail and logistics services domestically and internationally.
Agility	Agility Public Warehousing Co K.S.C. offers freight storage, distribution, and transport services. The Company provides trade financing and third party customs services and offers e-commerce services enabling its customers to place orders and make
UK Mail Group	UK Mail Group PLC provides overnight parcel and express mail services to commercial customers in the United Kingdom.
Singapore Post	Singapore Post Limited is the national postal service provider in Singapore. The Company provides domestic and international postal and courier services including end-to-end integrated mail solutions covering data printing, letter-shopping, delivery and mailroom management, and others. Singapore Post also offers end-to-end e-commerce logistics solutions.
Yamato Holdings	YAMATO HOLDINGS CO., LTD. mainly provides door-to-door parcel delivery services. The Company has developed a nationwide delivery system specializing in time-specified delivery. Yamato Holdings offers moving services and other comprehensive transportation services including logistics services for both domestic and overseas customers.
JB Hunt	J.B. Hunt Transport Services, Inc. and its subsidiaries provide transportation and logistics services in the United States, Canada, and Mexico. The Company transports a variety of products including automotive parts, department store merchandise, paper and wood products, food and beverages, plastics, chemicals, and manufacturing materials and supplies.
Kuehne & Nagel	Kuehne + Nagel International AG transports freight worldwide. The Company operates sea, land, and rail freight transportation businesses and warehousing and distribution facilities. Kuehne + Nagel also provides related special services.

Appendix 17: O3P return against ATX, last 60 months



Appendix 18: Annual and Monthly average share price O3P

January	February	March	April	May	June	Average 2012
23.8	24.6	24.9	26.5	26.4	26.1	
July	August	September	October	November	December	26.8
26.2	26.2	27.6	28.9	29.9	31.4	

Appendix 19: OP's Peers Multiples

	EV/Sales	EV/EBITDA	EV/EBIT	P/E
UPS	1.4x	23.5x	56.1x	87.1x
Fedex	0.6x	5.0x	8.2x	13.9x
PostNL	0.6x	4.7x	8.6x	1.9x
Agility	0.3x	6.6x	11.5x	14.8x
UK Mail Group	0.4x	7.3x	10.5x	15.3x
Singapore Post	3.3x	10.7x	12.4x	17.3x
Yamato Holdings	-0.1x	-1.0x	-1.6x	0.0x
JB Hunt	1.5x	10.1x	14.5x	22.6x
Kuehne & Nagel	0.7x	13.8x	18.3x	27.2x
Average	**1.0x**	**9.0x**	**15.4x**	**22.2x**

Appendix 20: Merged Entity P&L

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	57 302	60 118	61 953	63 943	66 255	68 834	71 286	74 064	77 041	80 161
growth	2.4%	4.9%	3.1%	3.2%	3.6%	3.9%	3.6%	3.9%	4.0%	4.0%
Divisions	55 178	57 878	59 668	61 610	63 871	66 396	68 791	71 512	74 429	77 489
Mail	15 474	15 480	15 311	15 177	15 069	15 094	15 150	15 251	15 390	15 569
Parcels	846	858	881	926	976	1 049	1 129	1 217	1 311	1 412
Express	11 691	12 778	13 321	13 888	14 479	15 046	15 637	16 252	16 891	17 558
GFF	15 118	15 666	16 334	16 889	17 442	18 351	18 893	19 566	20 265	20 989
Supply Chain	13 223	14 340	15 197	16 242	17 567	18 672	19 947	21 352	22 864	24 422
Corporate	1 265	1 218	1 164	1 113	1 064	1 017	972	929	888	850
Consolidation/other	- 2 440	- 2 463	- 2 540	- 2 625	- 2 724	- 2 834	- 2 937	- 3 054	- 3 179	- 3 311
Other Income	2 125	2 240	2 285	2 334	2 384	2 438	2 495	2 553	2 612	2 672
Operating Expenses	53 310	55 843	57 862	59 729	61 903	64 396	66 793	69 465	72 319	75 310
growth	1.4%	4.8%	3.6%	3.2%	3.6%	4.0%	3.7%	4.0%	4.1%	4.1%
Staff costs	17 744	18 809	19 282	19 839	20 480	21 164	21 929	22 760	23 650	24 588
Materials Expense	30 638	31 811	33 242	34 385	35 725	37 317	38 743	40 351	42 066	43 857
Other operating expenses	4 344	4 554	4 698	4 855	5 037	5 241	5 435	5 655	5 890	6 137
Consolidation/other	584	668	640	650	661	673	686	700	714	728
EBITDA	3 992	4 275	4 091	4 214	4 352	4 438	4 493	4 599	4 722	4 852
margin	7.0%	7.1%	6.6%	6.6%	6.6%	6.4%	6.3%	6.2%	6.1%	6.1%
D&A and Impairment losses	1 740	1 401	1 388	1 428	1 455	1 474	1 497	1 523	1 551	1 583
EBIT	2 604	2 847	2 636	2 740	2 855	2 916	2 941	3 016	3 103	3 194
margin	4.5%	4.7%	4.3%	4.3%	4.3%	4.2%	4.1%	4.1%	4.0%	4.0%
Net Finance Costs	- 782	- 458	- 363	- 244	- 533	- 414	- 294	- 584	- 464	- 345
PBT	432	486	663	729	678	731	774	710	771	833
Income taxes	432	486	663	729	678	731	774	710	771	833
Net Profit	1 389	1 903	1 610	1 767	1 644	1 771	1 873	1 722	1 868	2 016

Appendix 21: Parcel Materials Expense Synergy - Summary table

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2014-2020
Initial Situation											
Materials Expense	545	516	533	562	592	635	684	737	794	856	4 861
New Margin											
Materials Expense	545	516	533	492	518	557	600	646	696	750	4 258
Improvement	-	-	-	- 70	- 74	- 78	- 85	- 91	- 98	- 106	- 603
New Revenue (w/o syn)											
Change in Materials Expense	-	-	-	2	5	9	14	20	23	25	99
New Revenue (w/ syn)											
Change in Materials Expense	-	-	-	2	5	8	12	18	20	22	87
Improvement	-	-	-	- 0	- 1	- 1	- 2	- 2	- 3	- 3	- 12
Final Situation											
Materials Expense	545	516	533	494	523	565	612	663	716	772	4 344

Appendix 22: Working Capital changes from Materials Expense

€ million	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2014-2020
New Margin											
Changes in Working Capital	-	-	-	13	13	14	15	16	18	19	108
New Revenue (w/o syn)											
Changes in Working Capital	-	-	-	- 0	- 1	- 2	- 2	- 4	- 4	- 4	- 18
New Revenue (w/ syn)											
Changes in Working Capital	-	-	-	0	0	0	0	0	0	1	2
Final Situation											
Changes in Working Capital	-	-	-	12	12	13	13	13	14	15	92

Appendix 23: Merged Entity Industry-wide beta estimation

	Unlevered Beta
UPS	0.82
Fedex	1.13
CH Robinson	0.76
Hyundai Glovis	0.61
Expeditors	0.91
PostNL	0.74
UTi Worldwide	1.02
Agility	1.09
UK Mail Group	0.57
Aramex	0.82
Singapore Post	0.54
Yamato Holdings	0.74
Forward Air	1.08
JB Hunt	0.97
Echo Global	0.78
Kuehne & Nagel	0.93
DSV A/S	1.02
Average	**0.85**

Appendix 24: Merged Entity weighted average beta estimation

	Enterprise Value		Unlevered Beta	
DHL	20 256	90.1%	0.87	0.86
OP	2 219	9.9%	0.75	

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