

AMADEUS IT HOLDINGS

INFORMATION SERVICES

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COMPANY REPORT

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Tough times to fly high

Europe macroeconomic conditions remain blur

Global leader in distribution and IT sector

Amadeus IT Holdings is still a global leader in both the distribution and the IT solution sector. In the distribution sector also known as GDS sector the company has 37% of market share and expects to increase this lead to 39% by 2016. In the IT sector the company already possess 30% of the market share with 372M passengers boarded and expect to almost double this number by 2014.

Current Macroeconomic conditions pose a challenge

With all the turbulence around the European sovereign debt, especially Spain where the company is established the company has been under a lot of pressure to perform well. Despite the difficulties we still believe the company is the best positioned player in both the distribution and IT sector.

Bookings expected to pick up to pre-recession levels

The number of booking processed by Amadeus is expected to grow to pre-recession levels. This will only happen though, because the emerging economies will offset the current slowdown in Europe and North America.

Diversity in the IT solutions sector

Amadeus is currently developing solutions to increase their product offering in the hotel, rail and airport sector.

Recommendation

According to our valuation the company is the global leader in both sectors where operates and still has room to grow, especially in the IT sector. Therefore we issue a Buy recommendation on Amadeus IT Holdings with an expected price per share of 16.04€, representing a potential upside of 27.60%

Recommendation: BUY**Price Target FY12:** 16.04 €**Price (as of 5-Jan-12)** 12.60 €

Reuters: AMA.MC, Bloomberg: AMS:SM

52-week range (€) 11.21-16.39

Market Cap (€m) 5500

Outstanding Shares (m) 447.58

Source: Reuters



Source: Yahoo Finance

(Values in € millions)	2010	2011E	2012F
Revenues	2593	2792	3002
EBIT	311	735	795
Net profit	137	676	475
EPS	0.30	1.51	1.06
P/E	41.3	8.21	11.7

Source: Nova Equity Research

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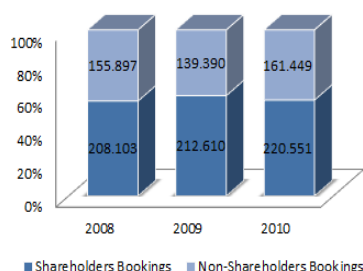
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Executive summary

This document presents a detailed valuation of Amadeus IT Holdings. A DCF valuation was used in order to obtain the best possible estimate of a fair value of the company. In order to evaluate the company, the company was split in two sectors: the distribution sector and the IT sector. The total valuation was obtained as a sum-of-the-parts valuation. Due to the current economic conditions multiple scenarios were accounted for where the key growth drivers of each sector grew at a different pace. A brief comparison was done between Amadeus and their main competitors in order to access the company's strengths and weaknesses in the market. Finally the result were able to show the company is the global leader in both the distribution and the IT sector, and is still very well positioned in both markets with decent margins to grow.

Company overview

Exhibit 1: Shareholders bookings



Source: IATA

Amadeus IT Holdings was originally created in 1987 by a consortium of airline companies, composed by Air France, Iberia, Lufthansa and SAS. Their main purpose was to connect providers' content with travel agencies and consumers in real time. The company is divided in two business segments: distribution and IT solutions.

In the distribution segment the Amadeus Computer Reservation System is the largest GDS provider serving the worldwide travel and tourism industry, and has an estimated market share of around 37%. Amadeus CRS already gives access to bookable content from 435 airlines (including 60 low cost carriers), 29 car rental companies (representing 36000 car rental locations), 51 cruise lines and ferry operators, 280 hotel chains and 87000 hotels, 200 tour operators, 103 rail operators and 116 travel insurance companies. Due to this position in the market the company is able to focus in distributing both global and local travel content. From the total number of bookings made by Amadeus around 58% of the total bookings are what could be called guaranteed bookings since they come from airlines who are shareholders of Amadeus, leaving the company in a great position to acquire new markets without having to worry about their core market.

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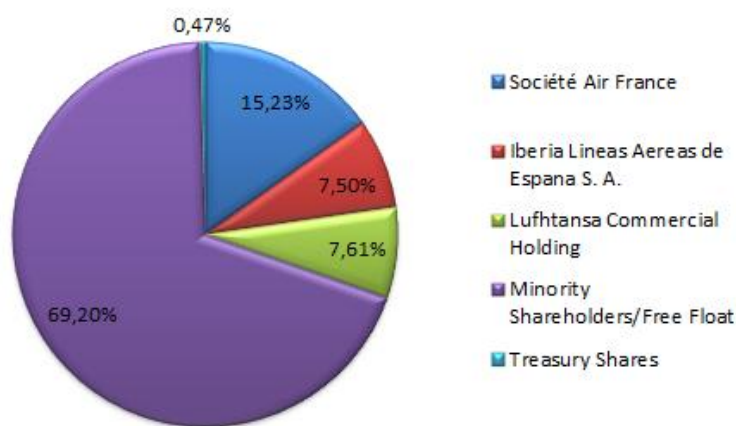
The IT Solutions business segment aims at the development and the provision of IT solutions to travel providers. The current product offering of this sector primarily addresses the passenger service systems (PSS) segment of the airline IT market, and is called Altéa software suite. Regarding this segment, the company is seeking to grow their market-share within the non-airline IT solutions markets, including the hotel, rail and airport IT markets.

Shareholder structure

On the 29 of April of 2010 Amadeus IT Holdings become publicly listed in the Madrid stock exchange, in an IPO that was the biggest in Europe during 2010, where the company raised 1.32B€ by selling 120M of shares at 11€ a share. It was also the biggest IPO in Spain, since 2007 when Iberdrola Renovables went public.

As of December of 2011 the current shareholder structure is the following one:

Exhibit 2: Shareholder structure



Source: Amadeus

Distribution Sector

Amadeus IT Holdings has their business divided in two sectors: the GDS sector and the IT sector. GDS stands for global distribution systems, and is mainly a computer reservation system (CRS) that is able to sell through internet gateways a multiple diversity of tickets, from a multiple diversity of operators. Regular

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operators of this kind of system are: airline companies, hotel companies, rental car companies, railway companies and ferry companies.

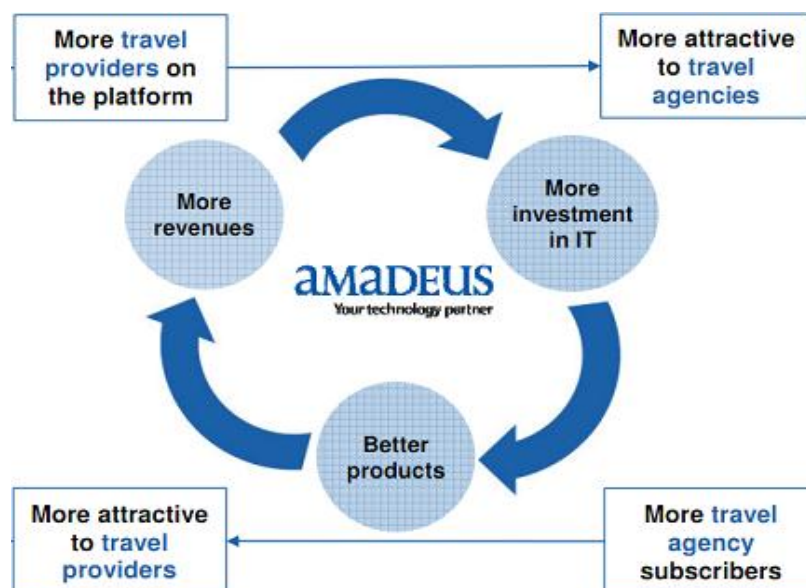
By connecting a large number of travel providers with a large number of travel agencies, Amadeus is able to create value in the travel distribution chain for both travel providers and travel agencies. *Exhibit 3* shows that the number of travel providers using the distribution system is directly proportional to the number of travel agencies already connected to the system.

The rationale behind this correlation is quite easy to understand from both points of view: travel providers and travel agencies.

From the travel providers perspective it makes more sense to choose a distribution platform that is already connected to a large number of travel agencies in order to be able to sell their products to a broader audience, essentially international markets they could not reach on their own and niche markets.

Sitting in the travel agencies shoes, it is pretty obvious that it will be better to work with a distribution platform that already has a large number of travel providers connected to it, since travel agencies work as an intermediary between travel providers and the final customer and therefore the larger the offer spectrum, the larger their base clientele.

Exhibit 3: Distribution business model



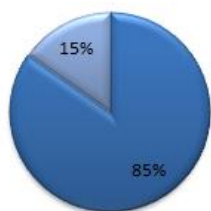
Source: Amadeus

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This sector is susceptible to a phenomenon called network effect that basically says the following; the value of a product is dependent on the number of others using it. In our case, every time a travel provider or a travel agent joins Amadeus platform it will be adding value without intending to travel agents/providers that already use the platform, since the final customer will tend to use a travel agency that is connected to a platform with a lot of travel providers and is more likely to pick a travel provider that is connected to a platform with plenty of travel agencies. This phenomenon also has an impact in the commissions received and paid by Amadeus. The average fee charged by Amadeus to travel providers is directly proportional with the amount of travel agencies present in the platform, while the average incentive fee paid by Amadeus to travel agencies is inversely proportional with the number of travel providers linked to the platform.

Exhibit 4: Distribution Sector Revenue

■ Booking Revenue ■ Non-Booking Revenue



Source: Amadeus

The GDS sector is more and less a natural oligopoly, in the sense it has very high barriers to enter such as, the technology content replication and the network infrastructures needed for this kind of operation. Amadeus has one of the largest and most complex datacenter in Europe in order to be able to process the required amount of transactions needed. Also the company spends heavily in both electronic and physical security of their system and low latency algorithms to keep improving their system functionality. Finally after the massive investments that have to be made one of the biggest challenges for someone who wants to enter this market is the know-how required to elaborate complex travel itineraries and at the same time do it without adding extra costs to the final customer.

GDS systems are responsible for bringing in some of the most important innovations in the travel industry, features like e-ticketing, graphic seat selection, travel e-commerce and best price fares only exist nowadays in the travel market due to them.

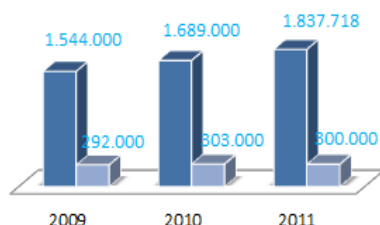
Inside this sector companies usually recognize their revenues by dividing this item in booking revenue and non-booking revenue. Booking revenue comes strictly from bookings made through the system, while non-booking revenue comes from the fees paid to have access to the distribution platform.

Since part of this sector operates on a fee-per-transaction basis, it is important to get the big picture of the transaction processing model used by the companies operating on this sector.

Exhibit 5: Distribution Sector

Distribution sector revenue

■ Booking Revenue ■ Non-booking revenue



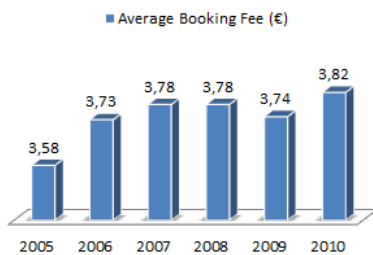
Source: Amadeus

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TRANSACTION MODEL FEES

As described on the *Exhibit 6* there are three players in the transaction processing model: the travel providers, the travel agencies and the distributor.

Exhibit 7: Average Fee per Booking (€)



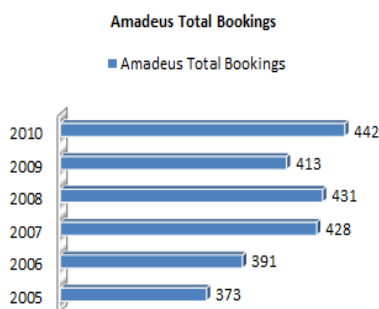
Source:Amadeus

Exhibit 6: Transactional Model Fees



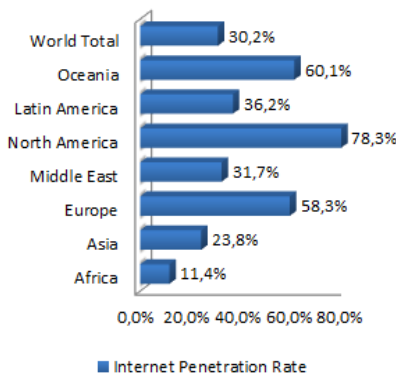
Source: Amadeus

Exhibit 8: Amadeus Total Bookings (M)



Source:Amadeus

Exhibit 9: Internet Penetration 2011 (%)



Source:Internet World Stats

The travel provider is responsible for paying a fee to the distributor for each transaction made in the distributor's platform and these fees are recognized as booking revenue. Travel agencies have to pay a platform access fee to be able to make any kind of transaction on the distributor's platform, they are not charged though on fee-per-transaction basis like travel providers. Finally the distributor acquire all the contents from the travel providers free of charge and as was said above, charges on a fee-per-transaction basis for each booking made through their system. The relation with travel agencies is different though, here the distributor receives a fee from travel agencies for making the technology to access their system available but also as to pay an incentive fee to the travel agency for each booking made through the distributor's platform. The incentive fees paid by the distributor are inversely proportional to the distributor's product offering.

The average fee per booking received by the distributor, from the travel provider is calculated dividing the total amount of revenues that come from bookings by the total amount of bookings made. The net fee which is obtained by subtracting all the operating costs related with the booking tends to be in the 45%-50% range.

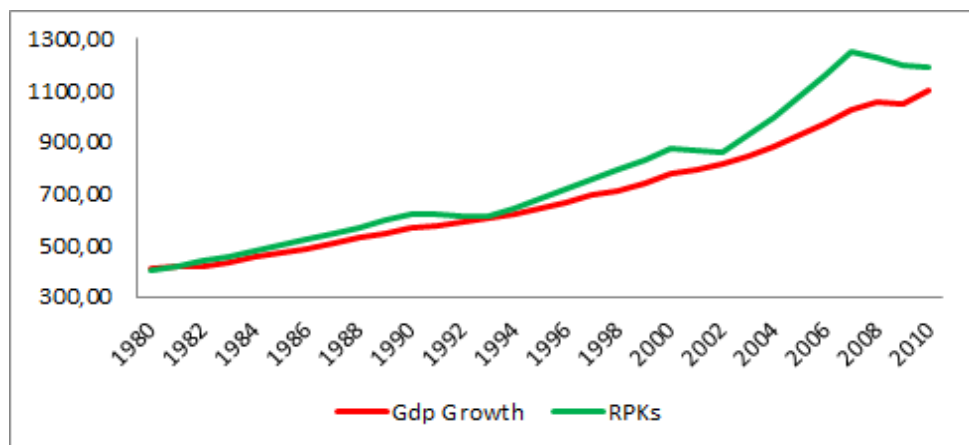
KEY GROWTH DRIVERS

The main key growth drivers of the GDS sector are: air traffic growth rate, world GDP growth rate and the internet penetration rate. The historical ratio between growth in air travel and growth in GDP is between 1.3x-1.6x. This value was obtained by regressing the returns from RPK's growth rate against the world

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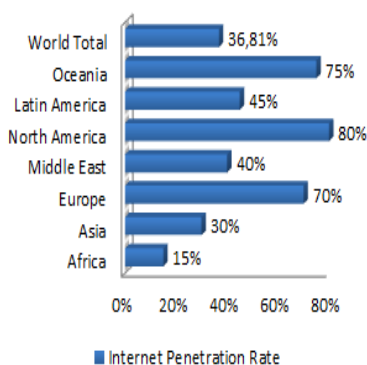
GDP growth rate, therefore if the GDP growth rate starts picking up there will be direct positive consequences in the air traffic growth rate.

Exhibit 13: GDP Growth vs. RPK Growth (RPK's)



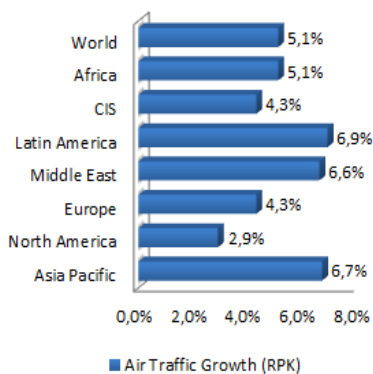
Source: ICAO

Exhibit 10: Internet Penetration 2015 (%)



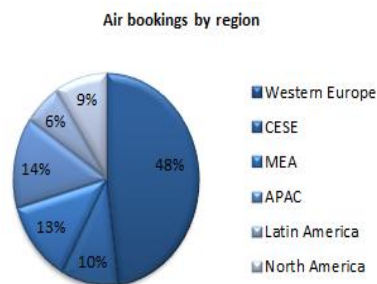
Source: Internet World Stats

Exhibit 11: Air Traffic Growth Rate (%)



Source: IATA

Exhibit 12: Air Bookings by region (%)



Source: Amadeus

Also due to the rise on the OTA market vs. offline travel agencies a very significant number of bookings are currently made online, meaning the internet penetration rate in emerging economies such as the Asia-Pacific and the Latin America will play a critical role on how the distribution sector will perform in the near future. *Exhibit 10* shows a statistics chart with the expected internet penetration rates for the near future worldwide.

ONLINE BOOKINGS MARKET FORECASTS

In order to forecast the total number of bookings Amadeus will process in the future, first we had to forecast the total number of bookings that will be processed by the GDS market. Since the total number of air bookings processed by GDS systems represent 85% of the total market and non-air bookings only account for 15%, we decided our best key driver to forecast the future number of bookings would be the air traffic growth rate. Firstly we divided all the bookings processed by region and found out the weights of each of the regions when compared with the total market, secondly we found out the future air traffic growth rate for each of the regions who had bookings processed and finally we did a weighted average of the future air growth rate by region taking into accounts the weights obtained in the first step. To obtain the number of bookings that will be processed by Amadeus we multiplied the total number of booking processed, by the market share forecast for Amadeus. Our Amadeus market share predictions were made solely by looking to past performance, and due to the nature of the business we

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decided to adjust the market share of Amadeus by 0.5% a year for the next two years and after by 0.3%. The main reason for this assumption was the fact the market is an oligopoly with only two more players and due to the maturity the market is reaching, the trends within the sector are very well defined and therefore none of the players is expected to have a lot of volatility market share wise. Forecasts for the average fee per booking were made by incorporating in the current average fee per booking, the expected inflation for the future years. The rationale behind this decision is related to Amadeus policy of not wanting to increase their margins in the average fee per booking, but to gain share from the offline bookings market and relief the pressure on the airline industry. Below is a table with all the information regarding the operating data of the sector.

Table 1: Booking statistics

(In millions)	2012	2013	2014	2015	2016
Online Market Total Bookings	1377	1473	1576	1686	1803
Online Market Air Bookings	1128	1184	1243	1304	1369
Online Market Non-Air bookings	199	209	219	230	242
Amadeus Total Bookings	491	515	541	568	596
Amadeus Air Bookings	417	438	460	483	507
Amadeus Non-Air Bookings	74	77	81	85	89

Source: Nova Equity Research

Putting together all the variables explained above, Amadeus is expected to outgrow their main competitors regarding the total number of bookings and the type of booking trend is expected to remain the same, with the majority of bookings coming from air bookings.

THE DISTRIBUTION SECTOR SWOT ANALYSIS

STRENGTHS

The global distribution system main strengths are the following: global reach to new markets and new targets, allowing airline companies to make bookings outside of their home market and of higher standard (business and first-class bookings). This kind of system also allows companies to establish partnerships among them like code-sharing and interlining. GDS systems are also responsible for improved travel agency efficiency and travel agency network management. Finally another important advantage of the GDS system is the ability it gives travel providers to make their current inventory available to their customers in real-time.

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WEAKNESSES

The main weaknesses that tend to appear in a centralized system like this are the huge costs the company has to spend to be able to replicate and store in different physical areas worldwide, to be able to prevent themselves against catastrophic events. Also in the event of a technical glitch every travel provider and every travel agency will be directly affected during the time the system is down or is showing incorrect information to their customers. A final critic usually made to these systems, is how they are not ready to deal with complex logistics travelling like the ones we are used to see in the business travel market.

OPORTUNITIES

GDS systems still have a lot of room to grow in emerging economies like the Asia-Pacific region and the Latin America region. Looking at the Amadeus case this will happen through an increase in the number of travel agencies in these regions, and an increase in the purchasing power of these populations, which will allow them to fly more and therefore increase the total number of bookings made through Amadeus distribution system. These systems also have a lot of markets where they can increase their presence such as: hotels, railway companies, ferry companies and rental car companies.

THREATS

Disintermediation is one of the most feared words for GDS companies, since it means travel providers choosing direct channels of distribution, instead of using an indirect channel of distribution like Amadeus GDS system to be able to avoid the GDS fees. Despite being vulnerable to disintermediation risk Amadeus believes this risk has suffered a slowdown, due to the costs of a GDS fee for a domestic booking being very similar with the direct channel costs for the same booking and also due to the inefficiencies of having a direct distribution channel in international markets.

SALE OF OPODO

Amadeus used to be directly involved in the travel agencies business by owning an OTA called OPODO. OPODO is one of the top players in the very competitive online travel market and its main competitors are Expedia and Priceline. Despite the good financial results disclosed by the company during the last years, Amadeus decided in February 2011 to sell the company to AXA Private Equity and Permira Funds for a total profit of around 275M.

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IT SECTOR

The IT Solutions sector aims to develop custom made IT solutions for travel providers, such as system integration and migration services, application hosting, training and other consulting services.

Amadeus current product offering mainly addresses the passenger services system (PSS) segment of the airline IT market, by enabling processes such as central reservation, inventory management, departure control, e-commerce and direct distribution technology.

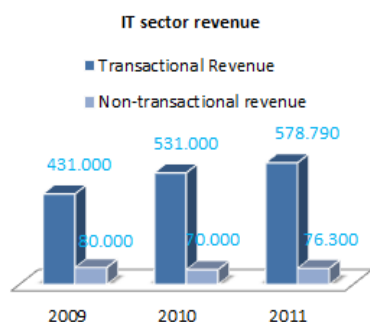
Historically travel providers have developed many of their core systems in-house but due to increasingly complexity in these systems it became extremely inefficient to develop their own in-house legacy systems price wise. Amadeus Community PSS most attractive features include the following: high economies of scale having a core platform designed to support multiple customers, customization capability by allowing individual customers to identify functional requirements they may need on their system, the functional richness of the platform and the seamless integration with alliances and partners.

One of the main reasons for the airline companies to migrate from out-dated legacy systems to scalable next-generation technology platforms like Amadeus is the ability to respond to changing market conditions, while reducing their spending on-going maintenance of their legacy systems by converting their fixed costs in variable costs. Since 2007 Amadeus has almost tripled the number of airline companies who have migrated to their software suite (from 34 to 94) and has already confirmed a decent amount of companies who are expected to migrate in the near future. The number of passengers boarded processed by Amadeus software have also increased in an exponentially way from 2007 until 2010 as can be seen in *Exhibit 17*. This phenomenon happened mainly because of two reasons: the steady increase in the number of contracted airlines by Amadeus and the ability this software gives the airline companies to get rid of their inventory in a much faster and reliable way.

The main software suite of this business sector is called Amadeus Altéa, a new generation passenger management suite which addresses airlines mission critical operating functions.

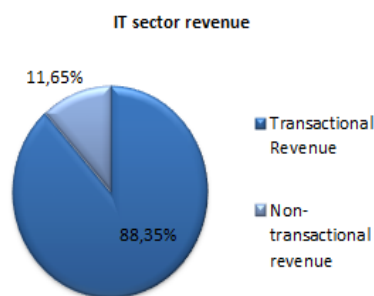
The Altéa software suite is currently composed by: Altéa Reservation, Altéa Inventory, Altéa Departure Control and Altéa e-commerce. Altéa Reservation enables airline customers to manage all their bookings, fare prices and ticketing

Exhibit 14: IT sector revenue (thous)



Source: Amadeus

Exhibit 15: IT sector revenue (%)



Source: Amadeus

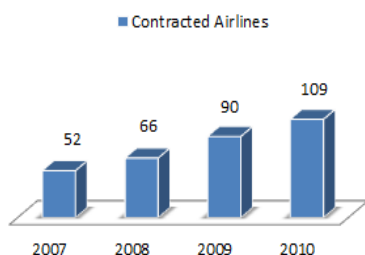
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through a single interfaces and is compatible with distribution via direct and indirect channels, both online and offline. Altéa Inventory permits airlines to create and manage schedules, seat capacity and associated on a flight-by-flight basis. Altéa Departure Control covers many aspects of flight departure, including check-in, issuance of boarding passes, gate control and other functions related to passenger flight. Altéa e-commerce seeks to improve the profitability and efficiency of the airline e-commerce sales and support process. Amadeus also provides stand-alone IT solutions to support airlines in certain critical customer-related processes such as, ticketing platform, customer loyalty, revenue integrity and payment solutions.

Despite currently developing the majority of their IT solution for airline companies, Amadeus is seeking to grow their market share within the non-airline IT solutions market, including the hotel, rail and airport IT markets.

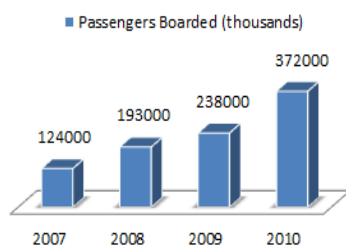
Within this sector revenue is recognized as transactional revenue or as non-transactional revenue, where the transactional revenue represents fees paid by the companies for each passenger boarded processed by Amadeus software suite and the non-transactional revenue represents the other costs associated with the implementation of the Amadeus technology.

Exhibit 16: Contracted Airlines



Source: Amadeus

Exhibit 17: Passengers Boarded



Source: Amadeus

IT SECTOR FUNDAMENTALS

The IT sector performance is strongly correlated with the air traffic growth and with the number of companies contracted. Due to this correlation, using both drivers is the fairest way to forecast future performance of the IT sector.

Amadeus currently has 109 contracted airlines and according to them they were responsible for processing 372 million boarded passengers, which represents around 30% of the total number of passengers boarded. As can be seen in *Exhibit 16* Amadeus is pursuing a very aggressive growth in the number of airlines contracted and the consequence of that is an outrageous growth rate in the number of passengers boarded processed by Amadeus software. Despite the growth rate achieved from 2007-2010 in the number of contracted airlines, it would be imprudent from our point of view to imagine this growth rate would be the same as the sector approaches maturity. Currently exist around 1900 active airline companies worldwide but it would be demagogic to think Amadeus would anytime soon achieve the cap in this sector since they only hold a market share

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of 5.7%. Taking that into account we decided to use a moderate 9% growth rate in the number of contracted airlines for the near future.

According to an IATA study the profitability of Amadeus IT business model is not correlated with the airline industry profitability, therefore the profit margin shrinking, that is currently happening in the airline industry is not expected to bring direct consequences to the IT sector, where Amadeus operates.

As was said above, currently almost the entire revenue generated in the IT sector comes from airline companies but in order to diversify their presence in this sector Amadeus is already developing solutions for other markets that also have a shortage in product selection such as: the hotel, rail and airport market.

Comparables

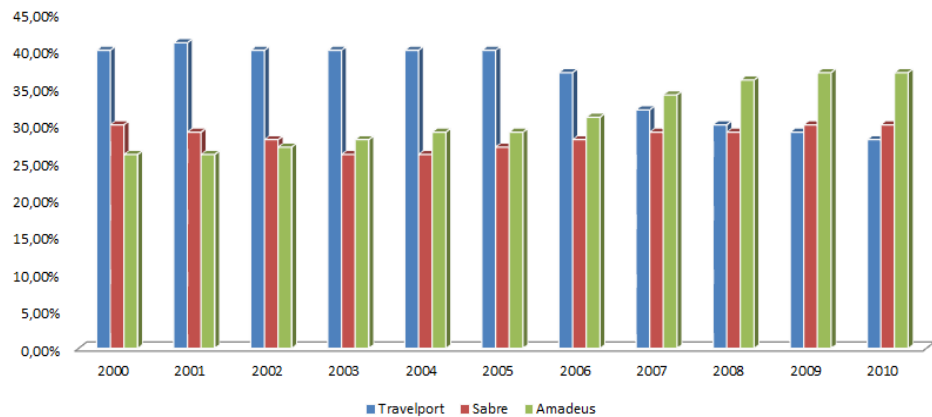
Due to the high barriers to enter both distribution and IT solution sector, there are only another two main players who also operate in both sectors.

The main competitors of Amadeus IT Holdings are Sabre Holdings and Travelport. Sabre Holdings was founded by American Airlines in order to automate the way they booked reservations and is currently used by companies such as: American Express, BCD, Carlson Wagonlit, Expedia, Frontier, Last Minute, JetBlue, and Travelcity. Travelport is a private company owned by The Blackstone Group, One Equity Partners, Technology Crossover Ventures and Travelport management. Both Sabre Holdings and Travelport are private-owned so we only have unaudited data from them to compare the three companies but accordingly to studies developed by Amadeus and PhoCusWright, Amadeus holds a significant lead in both sectors. Below *Exhibit 18* shows us the performance obtained by the three main players in the distribution sector.

When comparing the operating data from Amadeus with the same data from their main competitors is quite easy to draw a conclusion on why they have been the market leader in the distribution sector for the last four years and why they expect to increase their market share in the sector.

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Exhibit 18: Distribution sector market share



Amadeus has a clear better management of their cost of revenue when compared with Travelport (an average of 33.16% of their revenue vs. 55.87%) and their EBIT is also much higher than Travelport's when measured as a percentage of revenue (24.32% vs. 14.47%). Regarding the fees paid and received we found large discrepancies between the companies. For instance Amadeus pays an average incentive fee of 1.49€, while Travelport pays 3.29€ and Amadeus receives an average booking fee of 3.78€ while Travelport receives 4.8€. This only happens because Amadeus is very well established in the market and therefore does not have to reward travel agencies as well as their main competitors and this gives them the advantage of charging less for every booking made. In the total bookings front Amadeus also holds a significant lead over Travelport with a total number of bookings of 442M vs. 337M making them the overall leader in the segment.

Travel Industry Trends

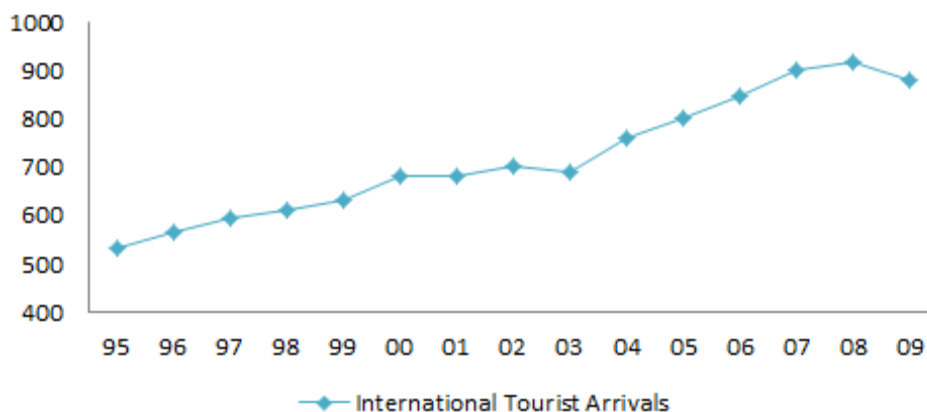
TOTAL INTERNATIONAL ARRIVALS VS. GDP

In a recent study elaborated by Oxford Economics in partnership with the main players of the travel information systems sector including Amadeus, it was possible to unveil the major trends within the travel industry for the near future (until 2020). According to the study historically there is a strong relationship between the GDP growth rate and the travel demand growth rate. In order to prove that correlation *Exhibit 20* presents the GDP growth rate from 1995 until

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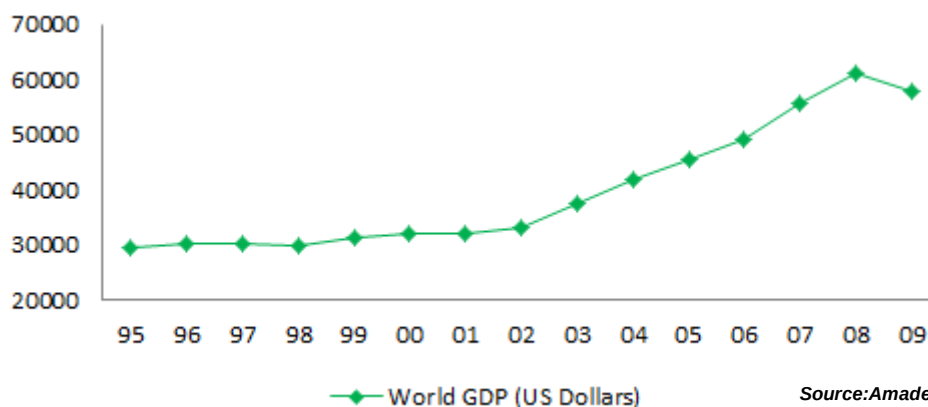
2016 and *Exhibit 19* presents the international tourist arrivals also for the same period.

Exhibit 19: International Tourist Arrivals (M)



Source: Amadeus

Exhibit 20: World GDP (\$)



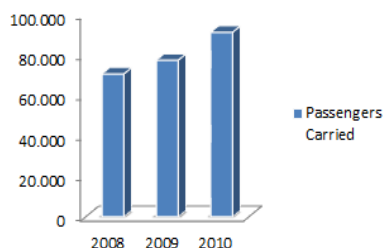
Source: Amadeus

Despite the charts not looking exactly the same, there is a strong similarity between the periods when there was a slowdown in the GDP growth rate and when the total amount of international tourist arrivals also suffered a slowdown. For instance the periods between 2001-2002 and 2009 reflect the hypothesis explained above. Another important conclusion to retain from this data is that travel demand, tends to have an income elasticity above 1.0, which means during good times it will increase faster than the GDP growth but correspondingly will drop faster during a recession. The general conclusion that should be reached from the data above provided is that the leisure travel market is expected to take some time to re-establish itself from the recessive economy but the business travel market will keep showing a strong demand.

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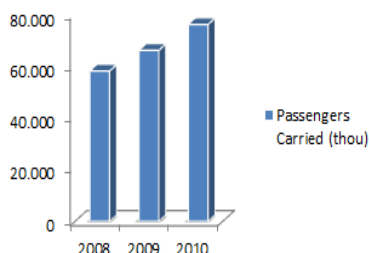
AVIATION INDUSTRY TRENDS

Exhibit 21: Lufthansa Group Stats



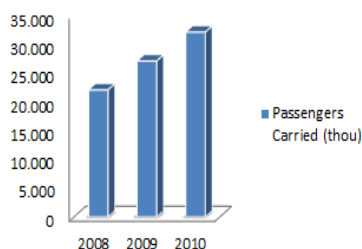
Source: Lufthansa Group

Exhibit 22: China Southern Air Stats



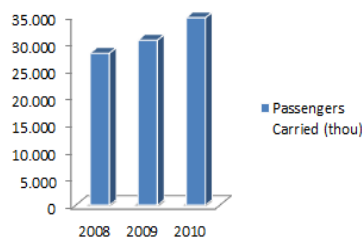
Source: China Southern Airlines

Exhibit 23: Emirates Air Stats



Source: Emirates Airlines

Exhibit 24: TAM Stats



Source: TAM

Recent data disclosed by IATA, shows the global aviation industry returning to net profits and levels of passenger traffic already picking up to pre-recession levels. Despite this good news the current net profit margins have been shrinking and data from 2010 shows a net profit margin of only 0.5%. Also if we start looking locally instead of taking a peak at the big picture we discover that, the more developed economies such as Europe and North America still present big losses and the big picture is only positive because these losses are offset by the emerging markets profit. Despite the gloomy outlook for the airline companies Amadeus portfolio of travel providers is already very well diversified by region and has been gradually increasing. In Europe Amadeus have long-term full content agreements with the top three carriers: Lufthansa Group which is composed by Lufthansa, Austrian Airlines, Swiss Airlines, Air Brussels and by their low cost carrier GermanWings, Air France – KLM and with the International Airlines Group who is composed by Iberia and British Airways. In North America despite being the player with less market share (from the three main players of the sector) the company have been conquering market share and recently signed an agreement with two top carriers: American Airlines and United Airlines. The Middle East region is also very important for Amadeus and evidence of that are the long-term agreements the company currently has with Emirates Airlines, Etihad Airlines, Saudi Arabian Airlines, Turkish Airlines and Royal Jordanian Airlines. Amadeus has also signed three very important companies in Asia, Air Asia, Singapore Airlines and China Southern Airlines, already predicting this region will become one of the most important international hubs for passengers. Finally in Latin America the company has also signed a major deal with TAM, who is the largest carrier in Latin America.

TRAVEL AGENCIES TRENDS

Travel agencies market share have been migrating in recent years from offline agencies to OTA (online travel agencies) as can be seen in the graph below.

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Exhibit 25: OTA vs. Offline Travel Agencies

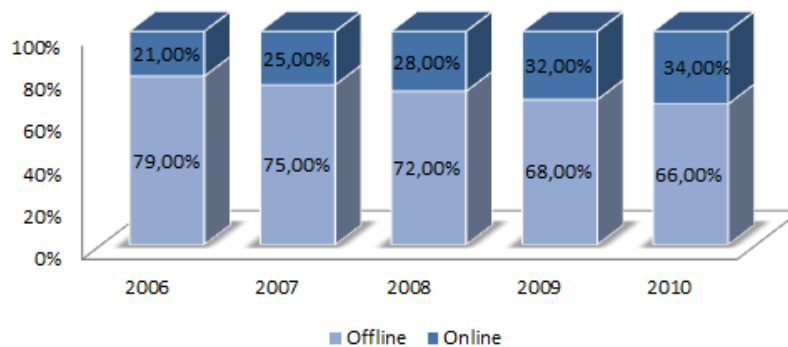
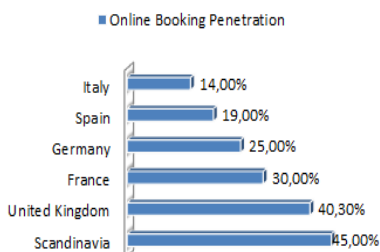


Exhibit 26: Online Booking Penetration



According to the statistics present in *Exhibit 26*, there are large differences in market maturity among different countries, meaning that despite the Internet penetration rate increase, the online market maturity is in a different growth cycle in each of the countries. OTA's have been rapidly gaining market share in previous years but accordingly to a study elaborated by PhoCusWright this market is expected to mature in the near future, meaning we will have a stable market share in this sector. Regardless of what was said before, Amadeus is expected to strongly benefit from the situation, since they have a dominant position in Europe, and according to *Exhibit 10* in the near future the areas where we will see a serious increase in the internet penetration rate are areas that already have developed infra-structures and still have room to grow like Europe and Oceania. On the other hand the North American market is not expected to largely contribute to a possible increase in the future market share of OTA's due to already having a massive internet penetration rate.

Despite the adversities offline agencies will face in the near future, F2F business will still play a major role in the business travel market due to the complexity of travel arrangements usually inherent to this segment of the travel market, and will always have the advantage of having the option to reschedule entire travel itineraries without any concerns for the consumer.

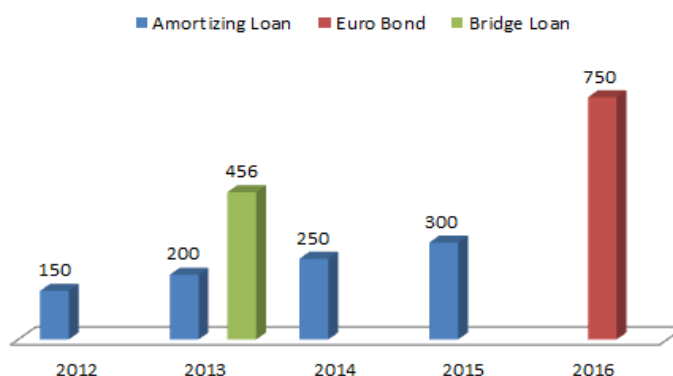
Concluding is safe to say the OTA market will improve their position vs. offline travel agencies in the leisure travel market and at an extreme point could conquer the entire leisure market but F2F business will still account for a large position (around 80%) in the business travel market due to the complexities existent in this segment.

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Overview of Amadeus debt structure

Amadeus used different types of debt instruments to finance their operations. The rationale to use different instruments is the flexibility, maturity extension and cost reduction these instruments provide to the company. The current debt structure is composed by an emission of an Eurobond in the amount of 750€M, maturing in July 2016, with a coupon of 4.85% and with an assigned rating of BBB- by S&P (last level of investment grade bonds), by a bridge loan in the amount of 456€M maturing in May 2013 in order to provide flexibility to approach markets in due course and finally an amortizing term loan in the amount of 900€M maturing in Nov 2015. Below *Exhibit 27* shows a visual description of Amadeus debt structure.

Exhibit 27: Amadeus Debt Structure



Source: Amadeus

The company has also secured a 300€M credit, that is currently unused with the goal of using it to cover working capital needs.

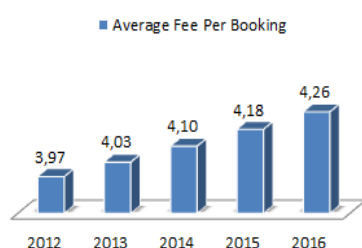
The only debt that was publicly issued was the 750€M Eurobond, with a coupon of 4.85% if the company is able to keep their investment grade rating otherwise there would be a penalty where the company would have to pay 1% more in the coupon or 5.85% total. The yield paid by Amadeus in the remaining 1354€M is not disclosed by the company but is possible to make an estimate using the current yield paid by the Euro Area 5y BBB- Composite Index which is around 5.05%. We thought using a five years maturity was the best match for our scenario since we have a debt average maturity of 3.4 years. The current market value of Amadeus debt is 2.396B€.

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In order to guarantee these credits the company had to sign two covenants, where the first says the company can only have a maximum of 3x Net Debt/EBITDA and the second says the company needs a minimum of 3x interest coverage. According to our forecast the company will not have any problem meeting these requirements as the current Net Debt/EBITDA ratio is 1.1 and is expected to get lower in the future and the current interest coverage is 4.3 and is expected to increase in the short term.

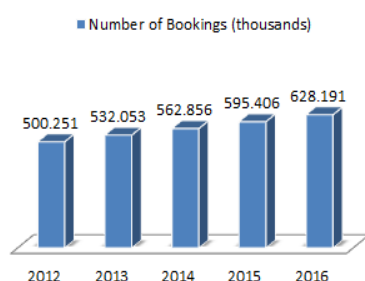
Valuation

Exhibit 28: Average Fee per Booking (€)



Source: Nova Equity Research

Exhibit 29: Amadeus Number of Bookings



Source: Nova Equity Research

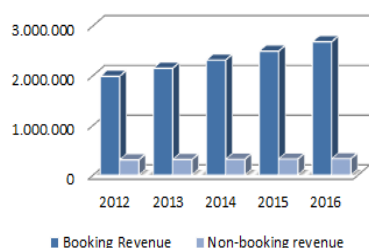
The valuation model used to estimate the fair value of Amadeus IT Holdings was an enterprise discounted cash flow model that uses weighted average cost of capital as a discount factor. The main reason for using this type of model was the relatively stable debt-to-value ratio the company expects to maintain in the future. Amadeus currently has a market value D/V ratio of 30.85% and consequently a 69.15% E/V ratio and expects it to remain stable in the near future. Despite having more than one method to implement the enterprise discounted cash flow model we decided to use a four step model. Firstly the total value of the company's operations was obtained by summing up all the discounted free cash flows of the company for the next five years (2012-2016) and adding to that a terminal value of the company. Secondly the calculation of the net debt market value was calculated by adding up the market value of the long term and short term debt and subtracting the cash and cash equivalents. The next step was the subtraction of the net debt value from the company value of operations that resulted in the equity value of the company and the last step but not the least was the division of this result by the total number of shares outstanding.

In order to obtain the most accurate estimate of the company value, we decided to value the company in a sum-of-the-parts basis instead of taking the company as a whole approach. To be able to execute such task each sector of the company was separately valued and future forecasts were made using different growth drivers depending on the sector where they were performed. Both of the sectors where the company operates: the distribution sector and the IT sector were also subdivided, the distribution sector in booking and non-booking, and the IT sector in transactional and non-transactional segment.

To be able to predict the percentage that each of this sectors and sub-sectors will account for in the future of the company we had to estimate the future revenues of each one of this sectors and sub-sectors.

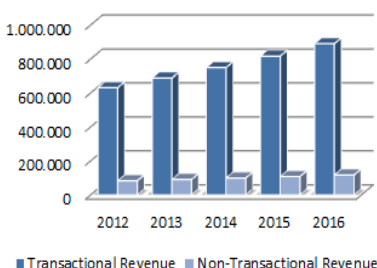
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Exhibit 30: Distribution Sector Revenue



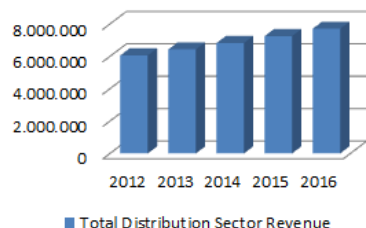
Source: Nova Equity Research

Exhibit 31: IT sector Revenue



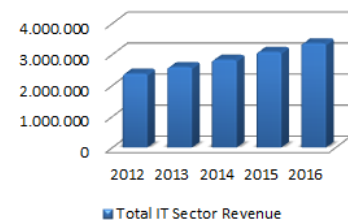
Source: Nova Equity Research

Exhibit 32: Total Distribution Rev (thou)



Source: Nova Equity Research

Exhibit 33: Total IT Rev (thou)



Source: Nova Equity Research

REVENUES FORECAST

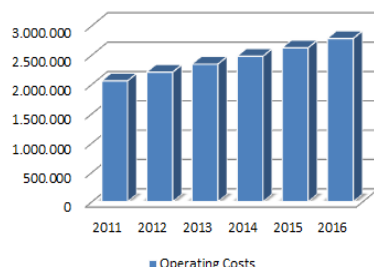
We started by forecasting the revenues of the booking segment, which were obtained by multiplying the predicted average fee of each booking by the total number of booking predicted for that year. The average fee of each booking was forecasted by adding the inflation rate expected for that period of time while the number of booking was estimated by first calculating the total number of bookings in the travel market using the formula $N^{\circ}Bookings(n) = N^{\circ}Bookings(n-1) * (Air\ Traffic\ Growth\ Rate\ Weighted\ Average)$ and finally multiplying this value by the expected market share of Amadeus in the distribution sector. Since the non-bookings segment revenue derivate from fees charged to only have access to the technology content available on the Amadeus platform we decided to forecast this revenue by only adding the inflation rate expected for that period to the value of the previous year. In the IT sector, revenues were forecasted as a whole instead of being divided by segments, because the non-transactional revenue is very unstable and only accounts for a minor percentage of the total revenue of the sector, therefore the total revenue for the sector for the next years was calculated using as a growth rate a weighted arithmetic average of the last three years. The reporting currency of Amadeus is the Euro and as a result of the multinational orientation of the business it is subject to foreign exchange rate risks derived from the fluctuations of many currencies. Their foreign exchange hedging strategy is to protect the EUR value of the consolidated foreign currency denominated operating cash flows. In order to do that their strategy for USD exposures is to use a natural hedge by matching future USD denominated operating cash flows with the USD payments of principals of the USD denominated debt. The other main foreign currencies the company is exposed are expenditures denominated in GBP, AUD and SEK and in order to hedge a significant amount of the short exposures (net expenditures) the company uses derivative contracts with banks such as: currency forwards, currency options and combinations of currency options.

OPERATING COSTS FORECAST

The cost of revenue was forecasted by using a percentage target of the total revenues, since it is internal policy of the company to aim at a total cost of revenue around 25.2% of the entire value of the revenues. Personnel and related

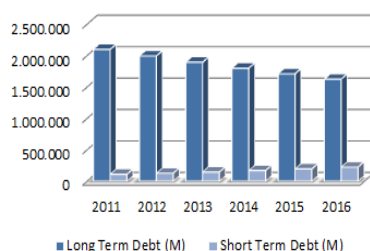
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Exhibit 34: Operating Costs



Source: Nova Equity Research

Exhibit 35: Debt Forecast



Source: Nova Equity Research

expenses are expected to be stable in the near future; therefore the values forecasted for this item were only accounted for small tech hubs development. It is important to say the values used to predict future values were adjusted by excluding extraordinary IPO costs. Depreciation and amortization were estimated using the tangible assets growth rate of the transact year, since this field is usually strongly correlated with the increase/decrease of the tangible assets item. Finally other operating expenses were also forecasted by using a target of 14.05% of the total revenues.

INTEREST EXPENSE AND INCOME TAXES FORECAST

In order to correctly forecast the interest expense that will be paid by the company in the future, we had to correlate this item with the evolution of the long and short term debt estimates. The forecast was made by finding which percentage of the total debt was paid as interest and multiplying that value by the total debt estimate for the following year.

In the income taxes item, was harder to find a fair value, due to fiscal regulation being different among different countries and also due to the temporary basis of some of the regulation. Therefore we decided our best effort would be to do a weighted average of the tax rate where Amadeus has revenues. First we had to find out the percentage of the total revenues generated in each one of the countries. Afterwards we were able to obtain the weighted average tax rate by multiplying the effective tax rate in each of the countries by the percentage of their contribution to the total revenues.

CALCULATION OF THE DISCOUNT FACTOR

In this section we will decompose the discount factor used to value the free cash flows and the terminal value. All the rates used are nominal and the official currency is the Euro. The discount factor used was calculated using a WACC approach, where $WACC = (K_d * (D / V)) + (K_e * (E / V))$. Now let's analyse in detail each of the parameters used in the WACC equation. The cost of debt was obtained by the following formula $K_d = \text{Cost of Debt} * (1 - \text{Marginal tax rate})$, where the value of the cost of debt was obtained using the formula $\text{Cost of Debt} = \% \text{Default} * \text{Recovery Rate} + \% \text{Non-Default} * \text{BBB- Corporate Bonds Yield}$, where the probability of default used was 1%, the recovery rate was 49,5% and the yield was 5.05%. The marginal tax rate used was 30.33%. To be able to calculate the cost of equity we decided to use the CAPM equation, which states that $K_e = r_f + \beta * (\text{Market Premium} + \text{Country Risk})$, where the value of the risk

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free rate used was the German bunds yield, the levered beta for Amadeus was obtained by regressing the stock returns against EuroSTOXX50 index returns. After calculating the regression the value founded to the beta was 0.65, which tells us that Amadeus tends to have smaller oscillations in their stock price than the EUROSTOXX50 index. The widely accepted range for market premium values tends to be between 4%-6%, therefore due to the macroeconomic environment currently lived in Europe and the strong correlation between recession scenarios and high market risk premiums we decided to use the top value of our range: 6%.

Country risk was obtained by measuring the sovereign debt yields of the countries Amadeus is exposed to, and after subtracting the yield of the German bunds to the value of the sovereign debt yields. The sovereign debt yields were measured over a period of two years in order to reduce the volatility of recent spikes in the yields of sovereign debt. In our case our gross revenues are only recognized in three different countries: Spain, France and Germany, so to be able to obtain only one value as our country risk premium we had to make a revenue-weighted average of the yields of each country. Below there is a table with all the data used to process all the calculations above explained, regarding the country risk premium.

Table 2: Discount Factor parameters

Risk Free Rate (German Bunds yield)	Market Premium	Country Risk Premium	Beta	g
2.75%	6%	2.15%	0.65	2.15%

Source: Nova Equity Research

Table 3: Discount Factor parameters

Cost of Debt	Cost of Equity	E/V	D/V	WACC	Spain Sov. Debt	France Sov. Debt
3.84%	8.03%	69.15%	30.85%	6.74%	5%	3.23%

Source: Nova Equity Research

TERMINAL VALUE

In order to determine the terminal value of the company also known as disposable value, we used the following formula: $Terminal\ Value = FCFF * (1 + g) / (WACC - g)$, where g is the constant rate the company will grow in the future. To obtain a good estimate of g we decided the best approach would be to forecast the future values of the nominal GDP growth rate for the near future and after, forecast what will be the exposure of Amadeus to each region. Our

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assumptions regarding the GDP growth of Amadeus were that the company will have an exposure to the Euro Area GDP growth of 80% and an exposure to the World GDP growth of 20%. Below there is a table with all the forecasts regarding g.

Table 4: GDP Growth Rate

GDP Growth (%)	2012	2013	2014	2015	2016	Avg
Euro Area	1.09%	1.53%	1.69%	1.71%	1.72%	1.55%
World	4%	4.47%	4.69%	4.80%	4.86%	4.56%

Source: Nova Equity Research

As can be seen by all data provided at *Table 4* we arrive at a final value for g of 2.15%. Our terminal value accounts for around 80% of the enterprise value, which is not uncommon for companies that are tech dependent like Amadeus and are present in markets that have not matured yet.

MULTIPLE SCENARIOS

Due to the volatility currently present in the economy we decided it would not be prudent to only use a base scenario to predict our future cash flows where everything goes as expected and historical data proves to be reliable. Instead we developed three different scenarios: a crisis scenario with 15% of probability of happening, a better than expected scenario with 5% of probability and a base scenario where everything goes accordingly to plan as was said before with a probability of 80%. The main parameters that were changed from scenario to scenario were the drivers that are responsible for increasing or decreasing the revenue of each sector. In the distribution sector the key driver that was accounted for was the air traffic growth and in the IT sector the key driver was the total number of contracted airlines. Below we have a table with the growth rate of the key drivers for each one of the scenarios developed.

Table 5: Key Drivers Growth rate for multiple scenarios

%	Air Traffic Growth Rate	Contracted Airlines Growth Rate
Crisis Scenario	0.51%	4.5%
Base Scenario	4.97%	9%
Boom Scenario	5.97%	11%

Source: Nova Equity Research

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The final FCFF considered for our valuation was obtained by doing a weighted average of the FCFF calculated in each scenario accordingly to weights previously defined. We have also included all the data used to obtain the final value of the FCFF as an annex.

Conclusion

Current macroeconomic conditions are not what could be called stable at the moment, from the Europe sovereign debt turmoil to the emerging markets growth slowdown a lot of uncertain is still pairing in the air. Despite all this turbulence there are good news for Amadeus IT Holdings, since the World GDP growth is expected to pick up from 2012 onwards and as was explained above there is a strong correlation between GDP growth and the key drivers responsible for the growth in the sectors the company operates.

Taking a closer look to both sectors where Amadeus operates: distribution and IT solutions we can easily see the company is the global leader in both of them and not only expects to remain the global leader but also to increase the margin of their lead. In the distribution sector Amadeus already holds a market share of around 37% and this value is expected to grow to 39% until 2016. In the IT sector the company is also the global leader with 30% of the passengers boarded during 2010 being processed by Amadeus software and expecting to almost double this number to 700 million in 2014. In spite of already having this advantage in the IT sector the company still has a lot of room to grow since they are currently working on expanding their portfolio of IT solutions to the hotel, rail and airport business in the very short term.

On the debt front the company has also used the money collected during the IPO and from the sale of OPODO to substantially reduce their debt levels. In the last two years the company went from having 4.3€ billion of debt to 2.2€ billion.

Finally after taking into account every variable we thought should be accounted for we arrived at an expected value per share of 16.04€, which represents a potential upside of 27.6% from the current price of the company. Despite not yielding a huge premium our valuation took into account moderate scenarios, which means we used mild forecasts for each of the growth drivers and therefore if the valuation falls short of the expectations it should be on the low side.

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Appendix

Financial Statements

Table 6: Income Statement

(in thousands)	2012	2013	2014	2015	2016
Revenue	3.002.604	3.232.892	3.473.366	3.734.835	4.010.732
Cost of Revenue	(756.656)	(814.689)	(875.288)	(941.178)	(1.010.704)
Personnel and related expenses	(665.901)	(679.219)	(692.803)	(706.659)	(720.792)
Depreciation and Amortization	(362.562)	(394.008)	(421.112)	(449.104)	(485.079)
Other Operating Expenses	(421.754)	(454.100)	(487.878)	(524.605)	(563.358)
Operating Income (EBIT)	795.732	890.876	996.284	1.113.288	1.230.798
Interest Expense	(123.537)	(118.646)	(114.145)	(110.120)	(106.541)
Exchange Gains	-	-	-	-	-
Other Income	815	1.510	1.667	1.774	1.954
Profit before Income taxes (EBT)	673.011	773.740	883.807	1.004.943	1.126.212
Income Taxes	(202.377)	(232.377)	(265.764)	(302.190)	(338.656)
Profit after taxes	470.634	541.073	618.043	702.753	787.555
Share in profit from associates and joint	5.000	5.000	5.000	5.000	5.000
Profit from continuing operations	475.634	546.073	623.043	707.753	792.555
Profit from discontinuing operations	-	-	-	-	-
PROFIT FOR THE YEAR	475.634	546.073	623.043	707.753	792.555

Source: Nova Equity Research

Table 7: Cash Flow Statement

(in thousands)	2012	2013	2014	2015	2016
(+)Net Income	475.634	546.073	623.043	707.753	792.555
(+)Depreciation	362.562	394.008	421.112	449.104	485.079
(+)Change in Operating Assets	(32.520)	(35.000)	(33.226)	(39.798)	(41.106)
(+)Change in Operating Liabilities	45.873	47.834	42.187	55.614	56.099
CASH FLOW FROM OPERATING ACTIVITIES	851.549	952.915	1.053.116	1.172.673	1.292.628
(-)Capex	(390.052)	(429.063)	(479.341)	(515.500)	(552.329)
(-)Other Financial Investments	(19.912)	(35.128)	(39.229)	(19.093)	(29.974)
(+)Other cash flows from operating activities	79.010	88.274	92.487	104.930	108.136
CASH FLOW FROM OPERATING ACTIVITIES	(329.952)	(375.917)	(426.083)	(429.664)	(474.168)
(+)Change in equity	(135.634)	(429.073)	(509.043)	(601.753)	(688.555)
(+)Increase in Debt	(87.512)	(80.545)	(72.024)	(64.043)	(55.923)
CASH FLOW FROM FINANCING ACTIVITIES	(223.145)	(509.619)	(581.066)	(665.796)	(744.478)
Change in cash	298.451	67.380	45.967	77.213	73.982
Initial cash	350.000	648.451	715.831	761.798	839.011
Ending cash	648.451	715.831	761.831	839.011	912.9

Source: Nova Equity Research

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Table 8: Balance Sheet Statement

	2012	2013	2014	2015	2016
Goodwill	2.000.000	2.000.000	2.000.000	2.000.000	2.000.000
INTANGIBLE ASSETS	1.590.547	1.600.749	1.633.312	1.666.722	1.700.947
TANGIBLE ASSETS	361.268	386.120	411.786	444.772	477.797
Investments in joint ventures and associate	17.313	18.589	20.145	21.572	23.170
Other non-current financial assets	44.825	48.850	53.007	56.606	60.774
Non-current financial derivative financial assets	0	0	0	0	0
Deferred tax assets	61.692	65.448	70.152	75.933	81.442
Other non-current assets	0	0	0	0	0
TOTAL NON-CURRENT ASSETS	4.075.645	4.119.757	4.188.403	4.265.604	4.344.130
Trade accounts receivable	247.060	266.655	281.567	305.217	327.787
Income taxes receivable	45.569	50.668	56.164	58.981	63.398
TRADE AND OTHER RECEIVABLES	292.629	317.323	337.731	364.198	391.185
Other current financial assets	9.909	14.589	15.703	16.591	17.863
Current derivative financial assets	7.240	7.771	8.659	9.122	9.811
Other current assets	154.236	164.541	177.360	190.691	204.810
Cash and cash equivalents	648.451	715.831	761.798	839.011	912.993
Assets classified as held for sale	167.828	188.687	215.498	222.433	239.172
TOTAL CURRENT ASSETS	1.280.292	1.408.743	1.516.748	1.642.047	1.775.834
TOTAL ASSETS	5.355.937	5.528.500	5.705.151	5.907.652	6.119.964
EQUITY	1.440.000	1.557.000	1.671.000	1.777.000	1881.000
Non-current provisions	37.356	40.838	44.377	47.277	50.785
Non-current debt	1.995.000	1.895.000	1.800.488	1.710.463	1.624.940
Other non-current financial liabilities	34.983	37.517	40.397	43.405	46.622
Other non-current derivative financial liabilities	78.999	79.993	78.719	89.250	96.084
Deferred tax liabilities	640.888	687.887	734.740	793.351	851.697
Other non-current liabilities	42.207	45.415	51.108	53.794	57.727
TOTAL NON-CURRENT LIABILITIES	2.829.433	2.786.900	2.749.830	2.737.540	2.727.855
Current Provisions	27.424	29.472	31.439	33.886	36.418
Current Debt	128.040	147.244	169.983	195.964	225.565
Other current financial liabilities	146.555	159.418	171.317	183.774	197.372
Other current derivative financial liabilities	35.064	36.854	41.590	43.765	47.047
Trade accounts payable	600.196	647.770	688.941	743.423	798.767
Income taxes payable	10.007	10.267	11.283	12.416	13.171
Other current liabilities	74.291	80.820	86.525	92.938	99.843
Liabilities associated with assets classified as held for sale	64.928	72.755	83.244	86.947	92.927
TOTAL CURRENT LIABILITIES	1.086.505	1.184.600	1.284.321	1.393.112	1.511.109
TOTAL LIABILITIES	3.915.937	3.971.500	4.034.151	4.130.652	4.238.964
TOTAL EQUITY AND LIABILITIES	5.355.937	5.528.500	5.705.151	5.907.652	6.119.964

Source: Nova Equity Research

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Table 9: Boom Scenario FCFF

(thousands)	2012	2013	2014	2015	2016
EBIT*(1-t)	571.793	653.865	746.052	850.597	958.289
Depreciation	362.562	394.008	421.112	449.104	485.079
Capex	(390.052)	(429.063)	(479.341)	(515.500)	(552.329)
Net Working Capital	(193.787)	(224.143)	(232.427)	(248.936)	(264.725)
FCFF	350.516	394.668	455.396	535.265	626.314
Terminal Value					13.944.223
Discounted FCFF	328.388	346.412	374.482	412.373	452.058

Source: Nova Equity Research

Table 10: Crisis Scenario FCFF

(thousands)	2012	2013	2014	2015	2016
EBIT*(1-t)	509.758	521.552	534.795	550.248	558.671
Depreciation	362.562	394.008	421.112	449.104	485.079
Capex	(390.052)	(429.063)	(479.341)	(515.500)	(552.329)
Net Working Capital	(193.787)	(224.143)	(232.427)	(248.936)	(264.725)
FCFF	288.482	262.355	244.139	234.916	226.696
Terminal Value					3.642.906
Discounted FCFF	270.270	230.277	200.761	180.981	163.624

Source: Nova Equity Research

Table 11: Base Scenario FCFF

(thousands)	2012	2013	2014	2015	2016
EBIT*(1-t)	556.452	622.452	696.698	778.518	860.692
Depreciation	362.562	394.008	421.112	449.104	485.079
Capex	(390.052)	(429.063)	(479.341)	(515.500)	(552.329)
Net Working Capital	(193.787)	(224.143)	(232.427)	(248.936)	(264.725)
FCFF	335.174	363.788	406.042	463.186	528.717
Terminal Value					11.771.326
Discounted FCFF	294.193	299.151	312.819	334.316	357.524

Source: Nova Equity Research

Table 12: Multiple Scenarios Valuation

	Crisis Scenario	Base Scenario	Boom Scenario
Enterprise Value	3.675.272	10.094.252	11.978.306
Net Debt	2.046.598	2.046.598	2.046.598
Equity Value	1.628.674	8.047.655	9.931.708
Value per Share	3.64	17.98	22.19
Potential Upside	(71.12%)	42.70%	76.11%

Source: Nova Equity Research

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Research Recommendations

Buy	Expected total return (including dividends) of more than 15% over a 12-month period.
Hold	Expected total return (including dividends) between 0% and 15% over a 12-month period.
Sell	Expected negative total return (including dividends) over a 12-month period.

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