

2016 AVIATION & TOURISM REPORT

THE VALUE OF STRATEGIC PARTNERSHIPS FOR EUROPEAN AIRLINES - STAYING COMPETITIVE AND INCREASING GROWTH

2016

News, Trends and Topics from the Airline
and Tourism Industry

THE VALUE OF STRATEGIC PARTNERSHIPS FOR EUROPEAN AIRLINES – STAYING COMPETITIVE AND INCREASING GROWTH

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INTRODUCTION

The EU has been dramatically losing direct and intercontinental air connections for some time now, costing the sector around 26,000 jobs¹ across Europe and threatening many more according to a research published by Lufthansa.

One threat for the established carriers is the expansion of low-cost carriers (LCCs) into long-haul routes.

At the same time, networks of some Middle East carriers from the Gulf have taken over a large part of European connections, causing transfer traffic between Europe and especially India or Southeast Asia at EU hubs to drop by up to 50% between 2005 and 2015. The hubs in Dubai, Doha and Abu Dhabi meanwhile, have grown by over 100%!² The so-called “Middle East Three” – Emirates, Qatar Airways and Etihad Airways – are continuing to expand

their service offerings with direct flights to almost every region in the world.

The main question is now: what are European carriers doing to stay competitive in the face of the threat from their Middle East competitors? Do strategic partnerships like Interlining, Code Sharing or even Joint Venture Agreements offer a solution? Are they even effective measures for growth?

Overall, it can be said that there is a strategy behind the expansion of the airlines' international networks and the use of collaborative strategies for this purpose: the airlines are improving their profitability by exploiting new revenue sources, while at the same time reducing marginal costs.



¹https://www.lufthansagroup.com/fileadmin/downloads/en/policy-brief/01_2016/epaper/epaper/LHG_PolicyBrief_2016-1.pdf

² See above

In this direction, multilateral strategic alliances have the potential of achieving diverse benefits from a close collaboration between airlines.

These benefits may vary from those achievable with code-share routes to the potential gains associated with close partnerships that resemble an international multi-brand airline.

Strategic partnerships offer significant opportunities to improve an airlines business prospects. Code-sharing for example is a common partnering tactic and the previous graph illustrates that code-sharing routes have grown by nearly 8% annually during the past decade.

This development indicates that airline partnerships are playing an increasingly important role within the global airline industry.

The airline consultancy PROLOGIS, a company that has been working exclusively for the aviation and tourism industry for over 15 years and now serves over 50 international airlines from more than 30 countries, has taken a closer look at the European airlines' measures to cope with these challenges.

This paper contains official statistics and new analyses that show what is currently taking place and whether there are certain trends which the European carriers are following.

Strategic airline partnerships are strongly increasing and going global

Code-share Growth Outpaces Overall Growth

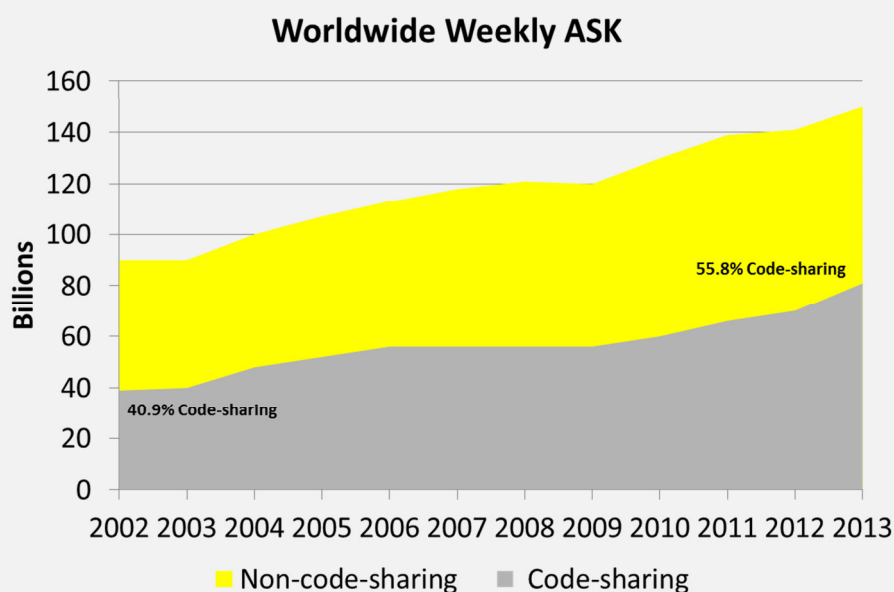


Chart 1: Comparison Worldwide Code-share vs. Non-code-share Growth
data source: Boeing Current Market Outlook 2014, August & OAG

THE EUROPEAN AIRLINE MARKET – A CHANGING MARKET?

European Airline Market – Current Situation and Challenges

The ongoing deregulation in the European market has not only been advantageous for traditional full-service airlines exploring new markets, but open barriers have also enabled market entry of low-cost carriers. Over a prolonged period, this development had a negative impact on the European airlines' capacity developments. However, recent figures show that not only low-cost airlines, but also full-service carriers are starting to grow again by adding capacities. As pictured in the chart below, Turkish Airlines is continuing its significant growth with 16.4%, but airlines like Alitalia, Iberia and British Airways, too, are increasing their capacities. The growth of Alitalia can be attributed to the investment contract that was closed with Etihad in 2014.

British Airways bought BMI in 2010 and has slowly incorporated the airline, resulting in 42 new slots at its hub in London Heathrow. These two airline examples show that cooperation and acquisitions can successfully drive market growth.

European airlines continue growth despite heavy competition from LCC and the "big three" from the Gulf

Capacity Changes of European Airlines 2014 and 2015

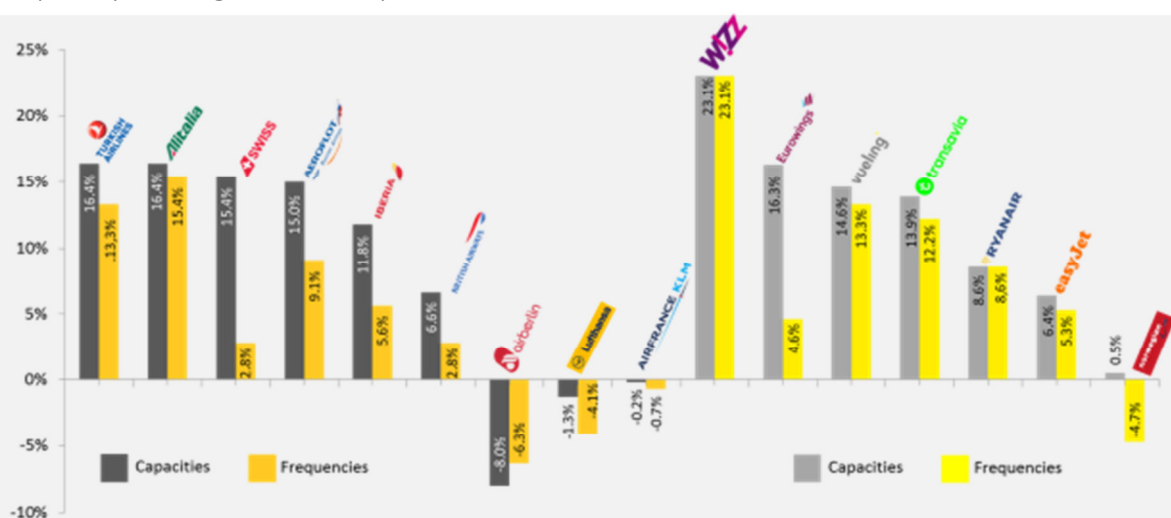


Chart 2: Capacity Changes of European Airlines Separated by Business Model from 2014-2015
data source: CH Aviation & OAG; illustration: PROLOGIS

Nonetheless, low-cost carriers are continuing to grow, especially in Germany. At some German airports like SXF and CGN, low-cost airlines have a market share of more than 70%.³ This figure emphasizes the competition that is coming from low-cost airlines. Still, LCAs are not the only kinds of airlines that the traditional European legacy carriers have to fight against.

Whereas airports like Dubai, Doha, Abu Dhabi or Istanbul have improved their ranking substantially, important European hubs like London or Amsterdam have fallen by several places in this list. This development reflects the recent changes and shows how strongly the Middle Eastern aviation market has developed. Airlines are being forced to shift their capacities to other markets if current routes face heavy competition or are not attractive enough for passengers.

European airports are surpassed by UAE hubs on European routes

Middle Eastern carriers like Emirates, Qatar Airways and Etihad Airways emerged and developed rapidly in the last decade. Their hub airports are geographically well located and give them a unique advantage when it comes to transfer traffic from Europe to the UAE and Asia.

Ranking of Top Airports on Routes to and from Europe

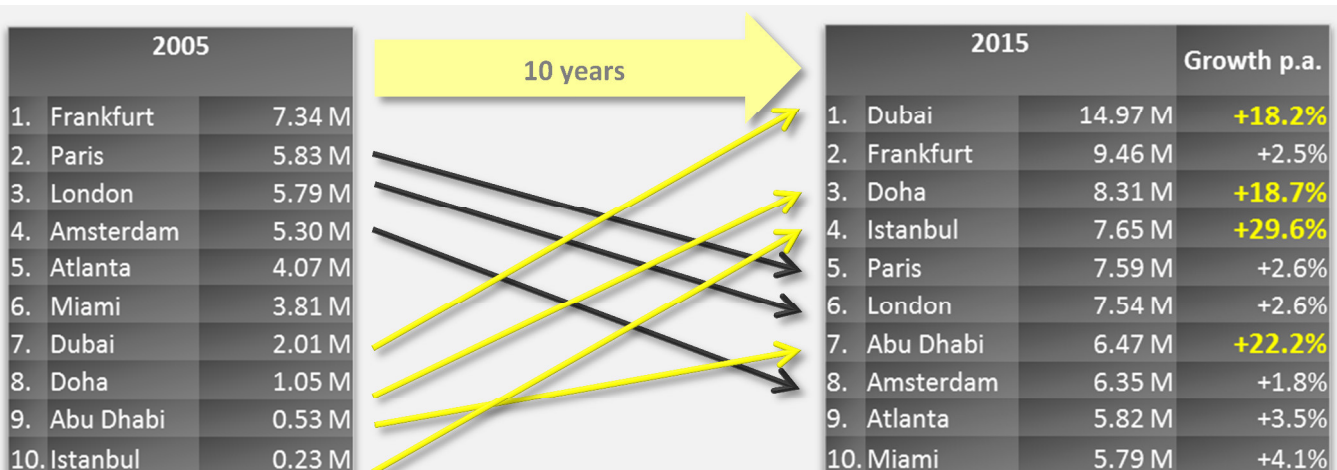


Chart 3: Ranking of Top Airports on Routes to and from Europe from 2005-2015

data source: www.lufthansagroup.com & ch-aviation

³ Low Cost Monitor 2015; www.dlr.de

Seat Growth in Europe over the Last 10 Years

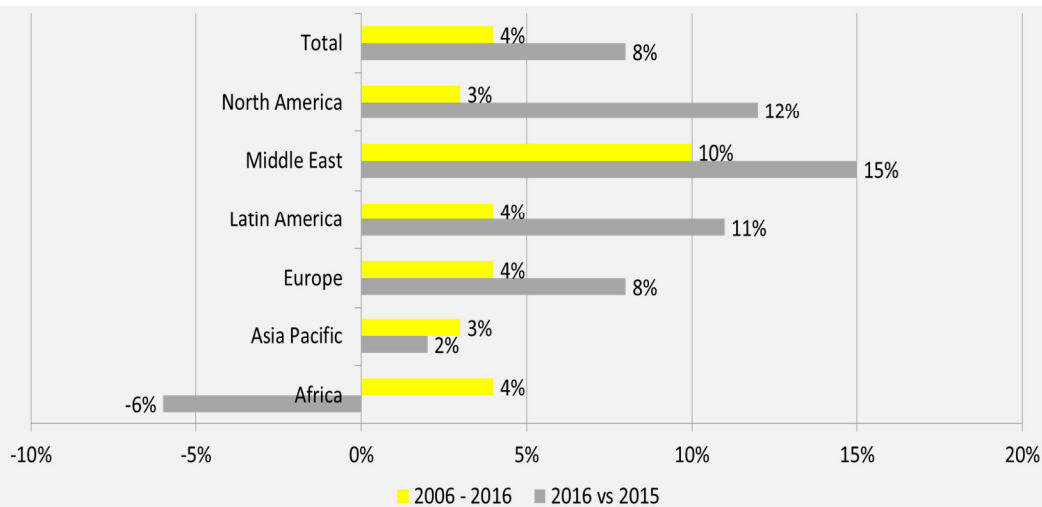


Chart 4: European Seat Growth over the Last 10 Years Compared to Last Year's Seat Growth
data source:CAPA & OAG

A part of that can be observed in the chart: It shows the development of seat capacities in two ways.

The yellow bars show the overall growth from 2006 to 2016 from Europe into the respective region. The grey bars illustrate the growth from 2015 to 2016, thus displaying the more recent trend developments from Europe into the different regions.

According to the chart, the largest growth can be identified for the Middle Eastern market. This is due to the huge capacities that are offered by the UAE carriers. The second largest growth is within the transatlantic market. Due to the shift of capacities, European airlines are concentrating on more profitable markets, such as the routes from Europe to North America. Whereas the African market is currently declining due to increasing terrorism, the Latin American market is prospering.

Development of Strategic Partnerships as Illustrated by the Transatlantic Market

The transatlantic market is dominated by three major strategic collaborations with a joint market share of 75%. Out of these three collaborations, the joint venture of Lufthansa, SWISS, Austrian Airlines, Brussels Airlines, Air Canada and United Airlines, denoted with A++, holds the largest market share of 28%. All of the above mentioned carriers are members of the Star Alliance and formed this cooperation in order to coordinate flights. This has the advantage that the airlines are no longer competing on those routes and share the revenues equally.

Furthermore, the chart shows a joint venture formed by the airlines British Airways, Iberia, American Airlines and Finnair. This partnership alliance holds a market share of roughly 24% on the Europe to North America route.

Last but not least, there is a third strategic cooperation in the transatlantic market. This is the partnership within the SkyTeam alliance. Air France, KLM, Alitalia and Delta Air Lines form the cooperation that makes up 23% of the transatlantic market share.

Among the airlines without strategic partnerships are airberlin, Condor and Singapore airlines. The highest market share achieved by one of these carriers is 7% - a further illustration of the need for joint ventures nowadays.

In the German market, the situation of dominance is even more severe: The A++ cooperation holds 48% of the market share, whereas the other two alliances together contribute to only 35%.

Development of Transatlantic Routes

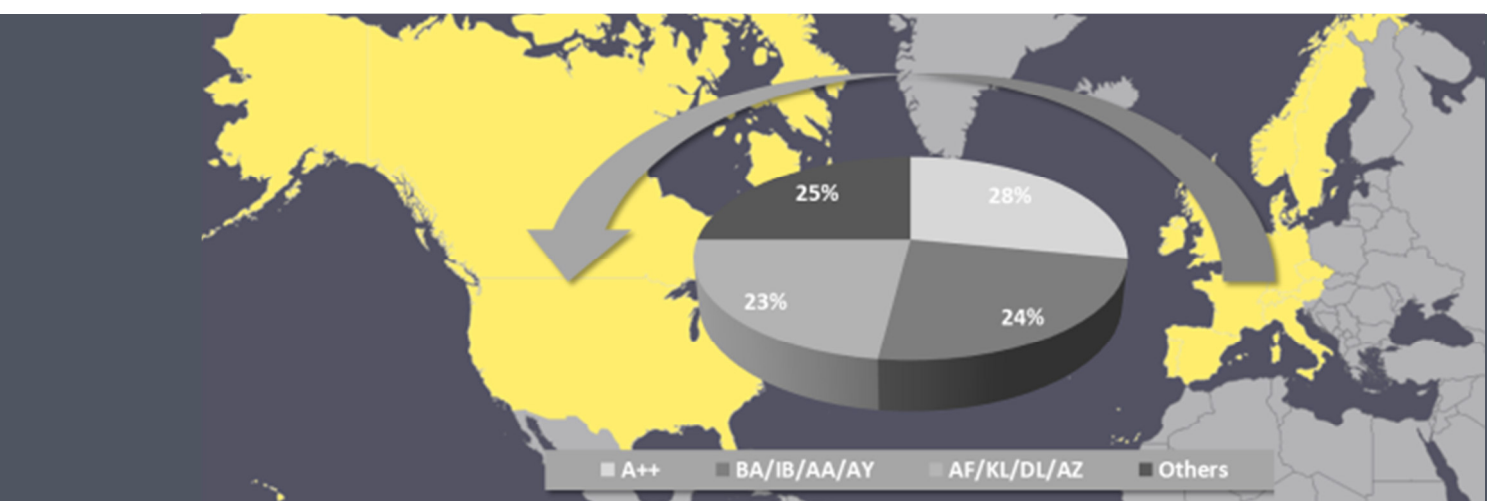


Chart 5: Transatlantic Market Shares 2015 (Seats)

data source & illustration: PROLOGIS

Independent airlines will come under pressure in the Transatlantic market

Airlines not belonging to one of these alliances are left fighting over a mere 17% of the total market from Germany to North America.⁴

These figures express the trend of airlines forming powerful partnerships in order to capture market share and improve their dominant position.

In summary, the transatlantic market is filled with capacity from the three big strategic partnerships through their individual alliances. Joint ventures seem to be the only way of capturing market share and improving market position in the transatlantic market. Individual airlines like the ones mentioned above will not be able to increase their market share further by operating independently, especially considering the increase in low-cost long-haul operations in that market.



⁴ PROLOGIS research

Growth Market Asia? – How to Retain the Market Share of European Carriers

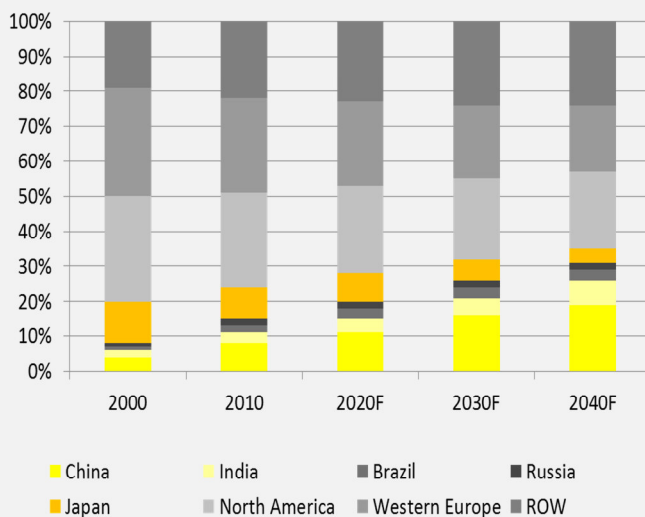
Asia has become one of the biggest aviation markets in the world. A billion passengers travel to, from and within the region each year. The fact that the Asia-Pacific region – led by China – and the Middle East deliver the strongest growth rates is not surprising. It is estimated that Asia Pacific (APAC) will account for up to half of the total annual increase in air traffic by 2020.⁵

“Asia is expected to be the largest travel market in the world, growing at 6.1% annually.”⁶ In 2015, for instance, the number of domestic air passengers in the APAC region grew by 10.5%, while the number of international air passengers rose by 8.2%.⁷

One factor in this growth and the sharp increase in airline passenger numbers is the region’s GDP – notably in China and India – which is expected to grow by 4.3% annually over the next 20 years.⁸

The development of capacity (Available Seat Kilometer, ASK) from different departure regions to Asia has been quite divergent over the last five years.

Global Share of GDP



Regional Share of Asian GDP

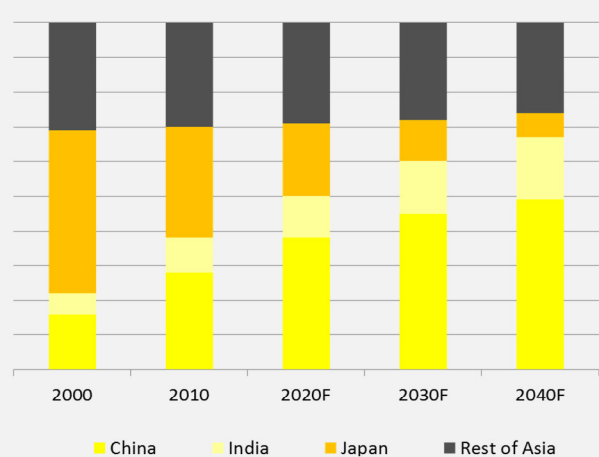


Chart 6: Development of Global vs. Asian GDP Share in Comparison

data source: SGF_TransSupp-Study_AsianMarket-final.pdf

⁵ Defense-aerospace.com

⁶ <http://www.boeing.com/commercial/market/long-term-market/world-regions/.com>

⁷ <http://www.dw.com/en/asias-aviation-industry-flying-high/a-19049866> 15.02.2016

⁸ <http://www.boeing.com/commercial/market/long-term-market/world-regions/.com>

Development of Competitive Situation to Asia

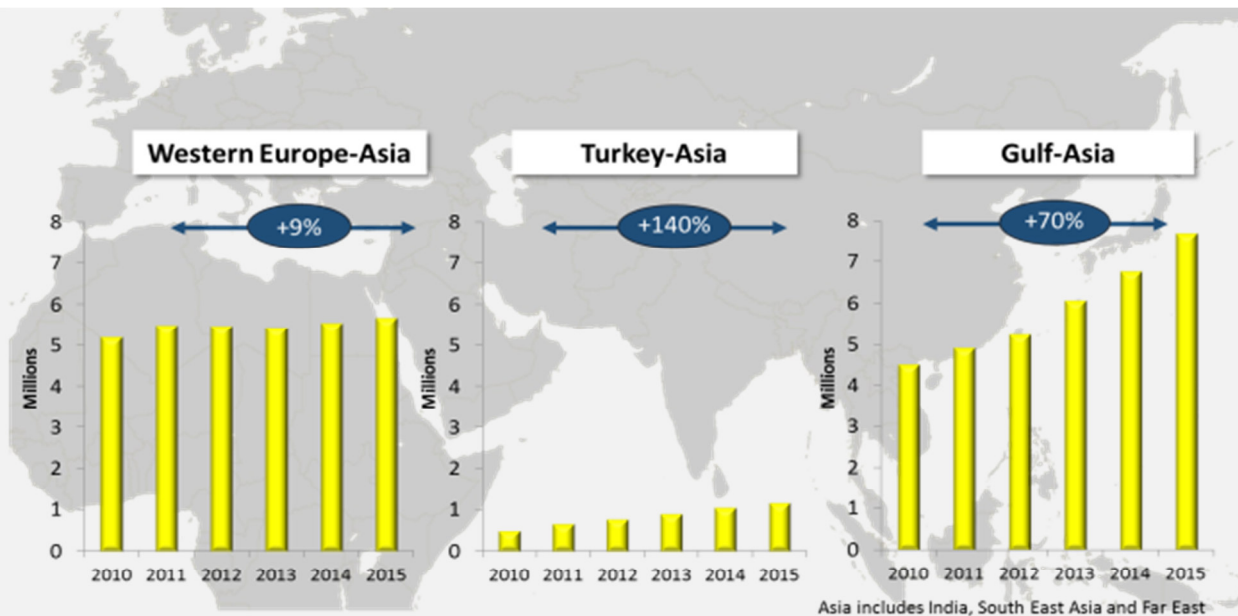


Chart 7: Capacity Changes (ASK) to Asia from 2010-2015

data source & Illustration: PROLOGIS

The comparison above shows that the offered capacity is growing in total. But the differences between the departure countries are enormous. ASK from the Gulf region to Asia grew by almost two-thirds, whereas the capacity growth rate from Western Europe to Asia is only single digit by 9% within the last five years. The growth rate from Turkey to Asia sounds enormous, but refers to a much smaller base in comparison just touching the 1 Million ASK in 2015.

But the growth of Gulf airlines continues to force competitors to innovate and adapt to the new market, sometimes forgoing long-standing partnerships and business views.

One possibility to retain market shares is to target secondary airports in Asia as niche player Finnair does. First of all, Finnair has the advantage to use its specific geographic location to underpin its current hub and link intraregional opportunities.

In addition, it is the only carrier flying non-stop between Europe and Chongqing, which is a fast growing industrial center in China and the location of many western companies. Therefore, this industrial base has strong local business traffic to Europe, which Finnair can capture.

However, the Lufthansa Group is taking measures across its three full-service brands to recalibrate in East Asia, which is its second largest long-haul market by ASKs after North America – with the highest growth potential. New Joint Ventures will enable the Lufthansa Group to fill white spots – such as Malaysia and Indonesia – and improve offline connections – such as Australia, the group's largest offline market. Many of these opportunities are markets where Gulf airlines have already penetrated the market.

Another reaction may be a joint strategic partnership between AF and SIA, the two of which are reportedly in talks. Both airlines are suffering from the competition coming from the Gulf and France is a significant market for

SIA. However, the exact terms of partnership have yet to be established, as both of the carriers belong to different alliances. However, their partnership does mean that alliances will no longer be a limitation for JV.

GENERAL REACTIONS & ACTIONS DUE TO COMPETITIVE DEVELOPMENT

In the following chapter, general actions and reactions of European carriers will be described with the help of examples.

Four possible measures can be taken to react to the current competitive development:

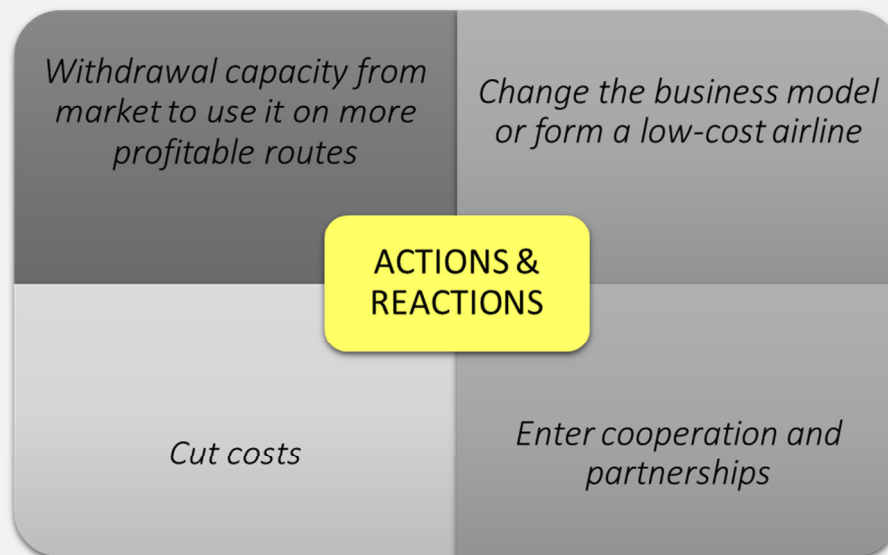


Chart 8: Overview of General Airline Actions & Reactions Due to Competitive Situation
 illustration: PROLOGIS

Pullback

One possible option to stay competitive is the pullback or withdrawal of capacity from markets in order to concentrate on profitable markets and routes.

In concrete terms, for the airlines this means that they can either cut frequencies on loss-making routes or terminate the complete

route from the network – or even both if necessary.

A very good example for pullback in the European area is the termination of the Munich-Dubai route from Lufthansa recently, caused by the expansion of Emirates on that route. Emirates had started a third daily

Dubai-Munich service in February 2016 and Qatar Airways recently launched a dual A350 service between Doha and Munich.

On the other hand, airlines can try to further expand their market leadership in order to stay competitive in the face of direct threats from LCCs. Germanwings, for example, initiated a connection between Cologne and Berlin Schönefeld (three daily frequencies) in October 2015 in addition to their eleven frequencies per day to Berlin-Tegel as a direct reaction to Ryanair introducing this route (five daily frequencies).

But what is happening on the routes between Asia and Europe? European and Asian airlines could pull back from the hotly contested markets. But this seems unlikely, as Asia-Europe routes are strategically important to both. Asian carriers are trying to develop their home markets and European carriers are craving exposure to the high-growth market region.

Due to rising costs and stiff competition, the pressure on yields is increasing and could be playing a role in forcing an airline to review its strategy. This was the case with Lufthansa, which decided to suspend its flight

operations to Kuala Lumpur International Airport. Back in December 2015 the Kuala Lumpur route was already reduced from a five-times-a-week service to a three-times-a-week service. The entire service to Kuala Lumpur was then suspended effective March 1st, 2016.

Air France stopped flying the Paris-Kuala Lumpur route less than six months ago (OCT 2015) and Malaysian Airlines, too, stopped service to Paris and Amsterdam in early February 2016.

With Emirates providing European feed to Kuala Lumpur for Malaysia Airlines, based on their partnership, the survival of this route would have depended on strong traffic – which never appeared, it seems.

Lufthansa is offering alternatives to service the traffic to and from Malaysia now. In cooperation with several airline partners, Lufthansa continues to offer connectivity from German cities to Singapore and Bangkok.

This is already the second time Lufthansa has suspended flights into Kuala Lumpur.

Diversification of Business Model

The problems faced by all air carriers, such as strongly fluctuating fuel prices and airport taxes, as well as the increased competition on the aviation market, have led to the creation of a more so-called “hybrid” business model approach that combines the best features of the LCA (Low-Cost Airlines) and FNSA (Full Network Scheduled Airlines) business models.

Some carriers underwent the process by either outsourcing their point-to-point business to subsidiaries or converting their business into this business model.

The difference between the business models will become smaller and smaller, the more operating costs increase; Ticket prices will increase in correlation with the service increase on board, which, in turn, will continue to be attractive for business travelers, and less for “leisure” travelers.

This model has been widely accepted and combines the cost-saving methodology of the LCCs with the service, flexibility, and en-route structure of the FNSA business model.

The emergence of this hybrid model does not imply the disappearance of the established business models of traditional and low-cost airlines. However, due to the necessary adjustment to new market conditions, it is certain that, in the near future, more airlines will base their development strategy on the features of the hybrid business model. LCCs will still remain the dominant carriers in a point-to-point network model for destinations within three hours of flight. On top of this, there are some indications for an opening of long-haul flights, also based on the hybrid air transport model, which should introduce further competitiveness to the already weakened group of network air carriers on a global level.

Two Ways of Getting There...

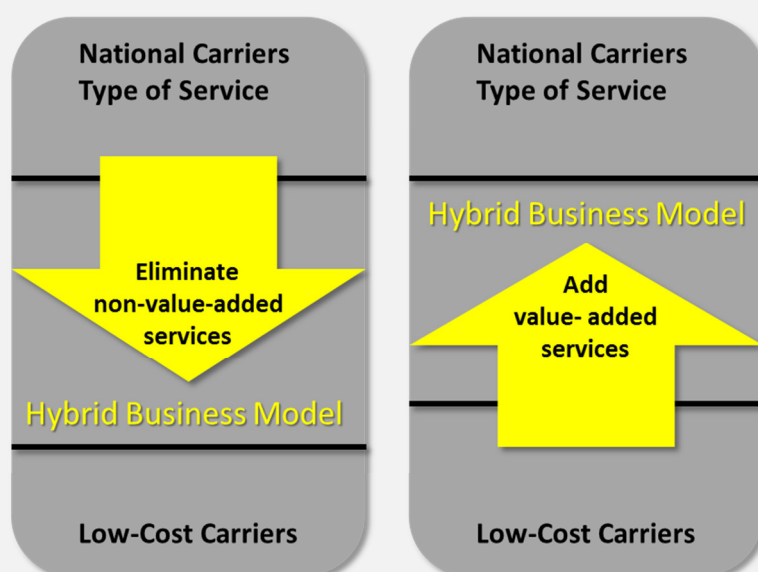


Chart 9: Schematic Diagram of the Change to a Hybrid Business Model

illustration: PROLOGIS

Cost Reduction

The global airline industry continues to grow rapidly, but consistent and robust profitability is elusive. “Measured by revenue, the industry has doubled over the past decade, from US\$369 billion in 2004 to a projected \$746 billion in 2014, according to the International Air Transport Association (IATA)⁹.”

However, the benefits are getting smaller, especially during a downturn. That’s why traditional network airlines tried to trim costs aggressively a few years ago.

How to overcome the cost gap?

Another measure of being able to compete with the emerging threats in the aviation industry is that airlines started to introduce

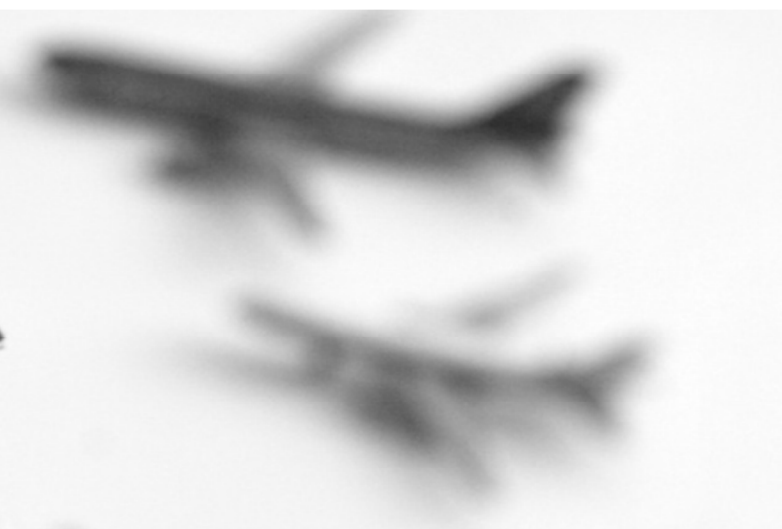
cost reductions in order to offer more attractive and competitive fares for their customers.

This includes seat reservation fees, abandoned in-flight-magazines and selling food and drinks on-board.

Here, the important point is not only to cut costs, but where to cut costs. In general, cost reductions should not have any negative impact on safety, branding or customer value.

With higher structural costs – poor fuel hedging, lower labor productivity and inefficient ticket distribution – traditional carriers cannot compete on price without eating into their already-slim margins.

This is critical, particularly for European legacy carriers. Lufthansa still needs to reduce costs on flights to Southeast Asia by 40% to stay competitive, while Air France and IAG have 30% higher unit costs on flights to Southeast Asia than Asian competitors Turkish Airlines and Emirates.¹⁰



⁹ <http://www.strategyand.pwc.com> 17.05.2016

¹⁰ <https://www.thefinancialist.com/the-rise-of-the-gulf-carriers/> 02.01.2015

Strategic Partnerships & Alliances

A central approach for the increase of competitiveness is the intensification of cooperation through Joint Business Agreements (JBAs). Airline partnerships and alliances are not a new phenomenon, but they have become powerful tools for expanding networks, enhancing revenue, and reducing costs. Potential cost savings lie in the sharing of sales offices, maintenance and operational facilities, operational staff, etc. Furthermore, strategic partnerships build and strengthen relationships between industry stakeholders.

Currently, the three major alliances (Star Alliance, SkyTeam, and oneworld) already provide more than 60% of global capacity.

There are different types of airline partnerships, depending on the level of collaboration. Interlining and code-sharing are the “loose” way of collaborating.

Today, carriers that participate in airline alliances almost always have interline agreements and code-sharing partnerships with each other. However, it is not only full-service network carriers that are using this way of collaboration, but also regional airlines such as Bangkok Airways – as well as common LCCs (Transavia.com with Delta and KLM).

Many airlines have also entered joint ventures, some with antitrust immunity that allows them to operate more closely on applicable routes. Once focused on modest collaboration such as selective code-sharing and reciprocal frequent-flyer benefits, joint venture agreements today have in many cases become so tight as to be virtual mergers.

Understanding airline collaboration

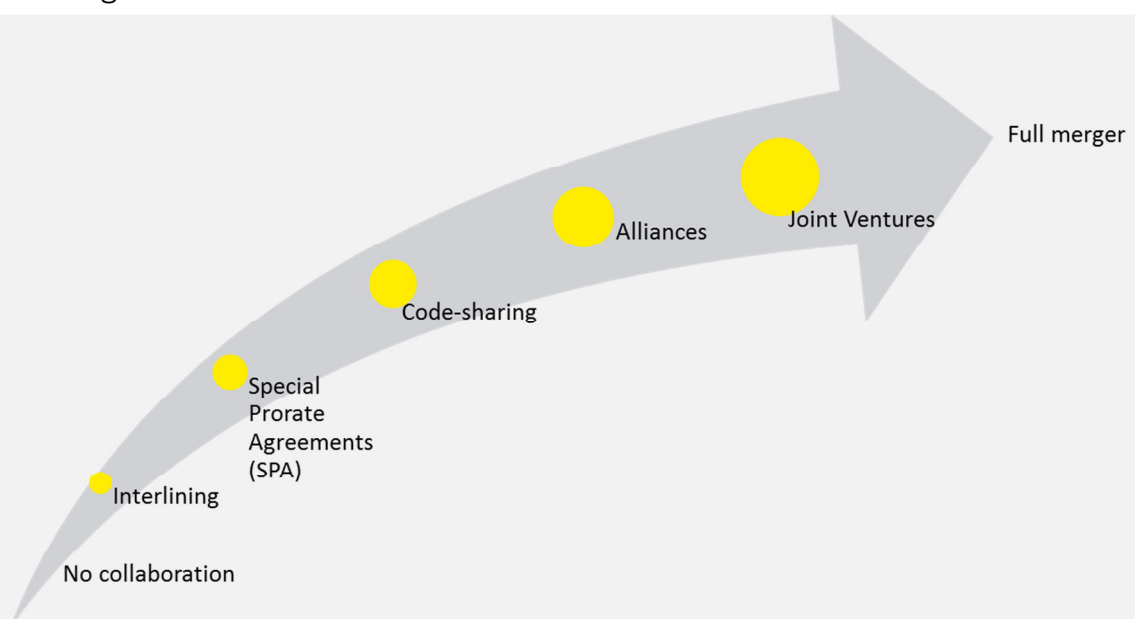


Chart 10: Different Levels of Airline Cooperation

Illustration: PROLOGIS

Emboldened by the spread of Open Skies agreements, which provide the foundation for airlines wishing to coordinate activities, a growing number of carriers are seeking the synergies of a merger even as they stop short of full unification. More than 15 airlines now participate in immunized joint ventures.

Almost 50% of global long-haul traffic will fall under JV agreements by 2023

In some cases, immunized JVs occur between large, global airlines, such as the recent market-disrupting tie-ups between Qantas and Emirates, and Delta and Virgin Atlantic.

In other cases, executives for flagship carriers pursue JVs with regional airlines to gain access to growth markets – a proposition that appeals to regional airlines because of the economies of scale offered by a global partner. Japanese carrier ANA recently purchasing an equity stake in Myanmar Airlines and Delta’s innovative partnership with GOL are examples of such symbiotic relationships between big and small carriers.

“Such arrangements were responsible for an astonishing 30% of all global long-haul traffic in 2013, up from only 9% a decade ago.”¹¹

Seats Falling Under JV Agreements; by Region (2003-2023F)

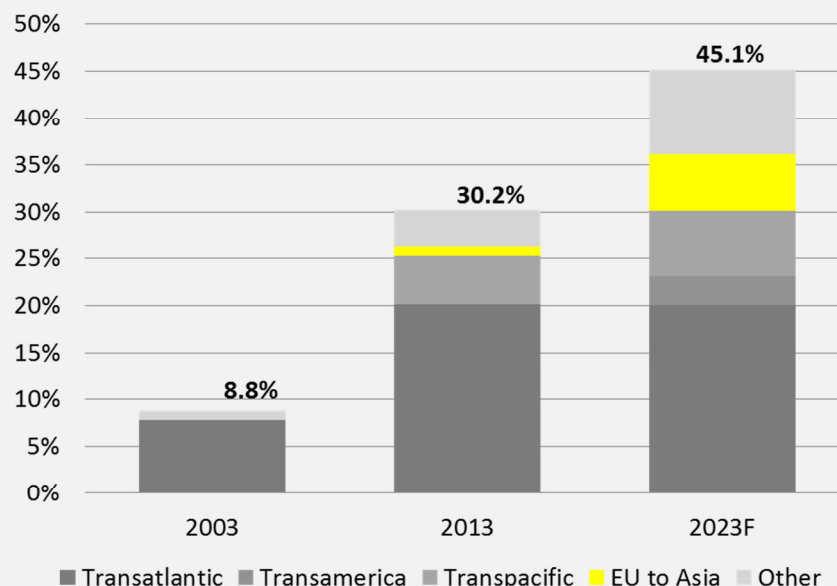


Chart 11: Forecast of Seats Falling Under JV Agreements by Region from 2003-2023

data source: LEK analysis

¹¹http://www.lek.com/sites/default/files/LEK_AirlinesJointVentures.pdf

TRENDS & OUTLOOK OF STRATEGIC PARTNERSHIPS

Two trends appear to be well-established: increased breadth and increased depth in cooperation between members of existing global airline partnerships.

Breadth is important for the global network reach of a partnership. Alliances recruit new members to fill so-called “white spots” in their networks, where an alliance does not yet have coverage. Such white spots remain, inter alia, in Russia (for Star Alliance), India (for SkyTeam) and Brazil (for oneworld and SkyTeam). On the downside, while growing in size is important for the network, a large alliance unavoidably increases the complexity

of governance, and risks rendering it less efficient in decision-making and more difficult to integrate. Alliances, therefore, balance the trade-off between an increment in global network and increased revenue synergies on the one hand and the risk of inefficiencies due to the increased size of the alliance on the other hand.

The following section provides an outlook and describes trends for strategic partnerships by region.



America

European carriers have established numerous forms of cooperation in recent decades. Whereas cooperation with North American airlines is very extensive due to the various members in different alliances, partnerships

with South American carriers are still very limited. With regard to the forecasted growth of that region, further partnerships are only a matter of time.



North America – LCC Against Established Cooperation

One of the recent trends that one can observe in the aviation industry is the beginning of low-cost long-haul operations. In Asia, carriers like Cebu Pacific or Air Asia X have been running such operations for a long time already. In Europe, some carriers are trying to establish themselves in certain markets by entering into direct competition with traditional legacy carriers.

The transatlantic market is one of those markets. Norwegian, Eurowings and WOW Air have started low-cost long-haul operations from Europe to North America with the aim of

capturing market share from the large carriers and their strategic partnerships. Will they succeed?

A previous study, conducted by PROLOGIS investigated in great details the advantages and disadvantages of low-cost long-haul operations. One part of the study was analyzing the degree to which LCCs can transfer their competitive advantages from short-haul point-to-point routes to long-haul operation. The result was that the majority of the competitive cost advantages of LCCs are not valid for long-haul operation.

For example, a purely point-to-point network is not suitable for long-haul operations. Only a few markets have enough local demand to fill the seat capacity of a wide-body long-haul aircraft. Furthermore, these markets are usually highly competitive and not easy to penetrate. Therefore, the need for feed and connectivity is inevitable and should be considered by low-cost airlines when planning the network.

Another success factor of LCCs is the single-class seat configuration. Here, too, the cost advantage on long-haul routes is very low. Not only does cross-subsidization play a great role here, but seasonal demand may require a business or at least a premium economy class to capture some business traveler share. Without any cross-subsidization, it will be difficult to offer cheap tickets in the all-economy seating.

LCC's lose some of their competitive advantages when flying long-haul

However, the aspect of a homogenous fleet is still very advantageous for LCCs compared to the diversified fleet of FSNCs.

Scandinavian airline, Norwegian, trying to establish itself in the market with low-cost long-haul operations, has a standardized fleet of new Boeing 787 Dreamliner aircraft. This is an ideal fleet for that kind of operation since its range is perfect for long-haul as well as medium-haul operations and very fuel efficient.

Overall, there are some cost advantages that LCCs can retain from short-haul operations.

Nevertheless, the benefits are minor and the operational cost advantages for low-cost carriers in comparison to full-service airlines are becoming smaller. Therefore, it will be a great challenge for the newcomers to undercut the ticket fares of the established airlines in the transatlantic market. Not only do numerous independent airlines already serve this market, but strategic partnerships entailing close schedule coordination already claim a market share of currently 75% for themselves. In the end, the deciding factor for low-cost airlines will be whether they are capable of undercutting the fares of the established carriers so significantly that price-sensitive travelers would choose to fly with them instead of the well-known legacy airlines.



South America – Political and Economic Influences

From an aviation perspective, the South American market has been prospering in recent years. This is attributable to several different factors. On the one hand, an economic growth; on the other hand, an improvement of the political situation. In past and present times, some European airlines have already entered partnerships with carriers originating from the Latin American continent in order to penetrate this market. Nevertheless, the amount of collaborations is much lower than with carriers from North America. As an example, Lufthansa cooperated with TAM during the time TAM belonged to Star Alliance. After TAM merged with LAN to form LATAM and the two airlines joined oneworld alliance, the cooperation ended.

TAMs leaving resulted in a decreased market share for Star Alliance in South America

Currently, the only airline that Lufthansa collaborates with in South America is Avianca. In contrast, British Airways benefited from LATAMs joining oneworld. Now, the two airlines are members of the same alliance and were able to begin a code-share partnership starting October 1st, 2015. Furthermore, members of the third big alliance, too, started cooperating with a South American airline: Aerolineas and KLM / Air France initiated a frequent-flyer cooperation due to their common membership in SkyTeam.

For Lufthansa, the exit of TAM was a great loss in terms of partnership in South America. The chart below shows the overall market share that the three big alliances have from Europe to South America. As one can see, Star Alliance had a share of 20% of total seats before TAM moved to oneworld.

Now, this share has fallen to 15.3 %, while that of oneworld has increased by roughly 4 %. Overall, Star Alliance's presence in the South American market is very low in comparison to that of SkyTeam or oneworld. This would suggest further partnerships to be

accomplished in order to increase market share on these routes.

What is the reason behind the limited cooperation between carriers of the two continents?

The two main influencing factors could, again, be the economic and political situation. While, as mentioned above, the aviation market has prospered in recent years, South America's economy as a whole has experienced downturns and upswings. Due to the fall of oil prices, oil-producing countries like Venezuela and Ecuador have suffered significant downturns. Other countries like Chile have experienced economic growth due to their independence from oil production. As the economy has a direct impact on the development of aviation growth, the overall strongly fluctuating economic situation in South America may prevent European airlines from entering long-term partnerships with South American carriers.

On the other hand, the political situation in South America is still more or less instable.

As with economic fluctuations, riots and escalating political demonstrations influence the attractiveness of an area for passengers. Countries with a high crime rate are unlikely to become popular destinations. Even worse, six countries in or near South America (Mexico, Dominican Republic, Brazil, Trinidad and Tobago, Colombia, Venezuela) are among the 25 countries with the highest murder rate, which has an even stronger negative impact on the attractiveness of the region.

Nevertheless, the aviation market in South America is expected to grow significantly in the next years. Boeing has forecast a yearly growth rate of on average 6% over the next 20 years. Even though there are some difficulties preventing the airlines from cooperating, joint businesses will take place in the near future in order to penetrate this market and increase market share.

Share of Seats in South America of the Three Strategic Alliances

Alliance	Pre TAM move to oneworld		Currently	
	Seats	% of total	Seats	% of total
Skyteam	178,375	34.6%	178,375	34.6%
oneworld	114,444	22.2%	138,852	26.9%
Star Alliance	103,130	20.0%	78,722	15.3%
Other	119,994	23.3%	119,994	23.3%
Total	515,943	100%	515,943	100%

Chart 12: Shares of Seats in South America of Three Strategic Alliances
data source: CAPA-Centre for Aviation & Innovata

Asia

Europe-Asia routes have not developed the same depth in partnerships as Europe-North America, but they are growing significantly.

Nevertheless, it seems that partnerships are seen as the only solution for stemming – but not stopping – over-capacity and strong competition in Asia.



Middle East – Stimulating Worldwide Airline Business

For years, European hubs and their local carriers have been losing tremendous market shares to state-funded airlines, particularly from the Gulf region.

By strengthening their presence in Europe, the Gulf carriers are increasingly flying passengers who would have previously flown with European airlines or their partners, through their already popular hubs to destinations in India and Asia. Emirates, Etihad Airways and Qatar Airways have each grown rapidly in Europe over the past decade, increasing their market share in Germany, France and other regions in Europe.

The “Middle East Three” will increase the number of seats offered on their Europe-to-Asia flights from 8% to 18% between 2015 and

2020, bringing a lot of airborne pain to the competition in the process.¹²

Middle Eastern airlines, which are expanding in major European cities such as Paris and Frankfurt, are also ramping up service in secondary cities like Barcelona and Brussels, meaning that they’re going after the European carriers not only at their hubs, but also at their spokes.

¹² <https://www.thefinancialist.com/the-rise-of-the-gulf-carriers/> 02.01.2015

A shift in international passenger flow

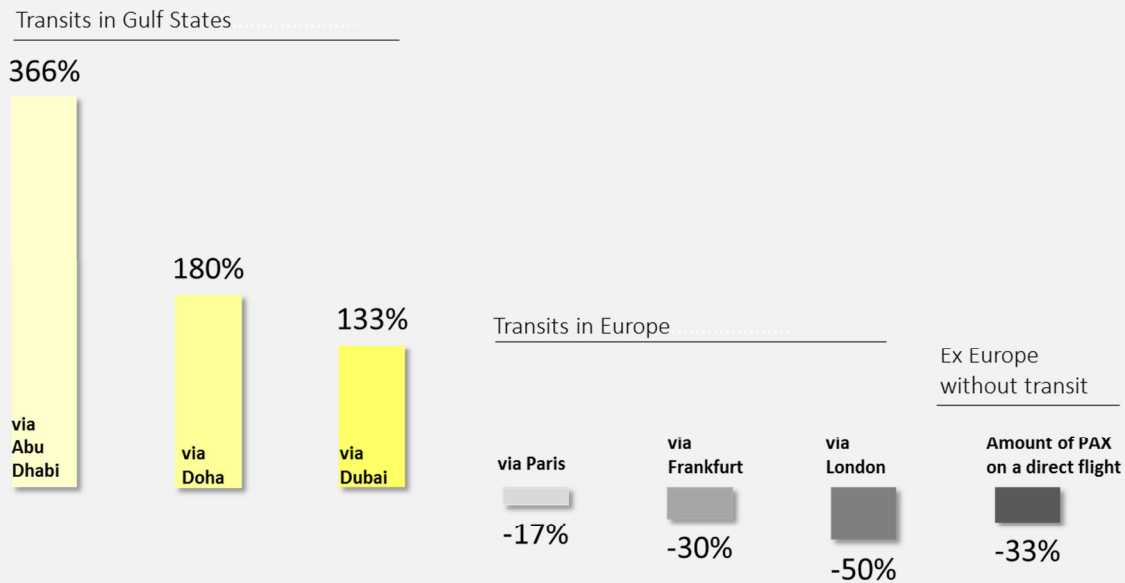


Chart 13: Development of Transit Hubs between 2005-2015

Data source: Lufthansa; DATAVIEW O&D Marketview

The chart above clearly shows that the growth rate of the hubs in the Middle East region is enormous. In contrast, the former world transit hubs in Europe have a negative development. Additionally, the amount of passengers on direct flights from Europe is also declining, which implies that passengers are using the transit hubs in the Middle East.

Ten years ago, the clear epicenters of aviation activity were London, New York and Tokyo. "The Middle East was [more of] an afterthought [geared toward] servicing oil company executives and sheiks on shopping trips than providing any cohesive global connection."¹³ That has changed.

Between 2005 and 2013, average annual departures out of the three Gulf hubs increased by 11% a year and between them, the three airlines now service more departures each year than Hong Kong.

Overcapacity! A reason to join a strategic partnership or alliance?

But their aggressive growth plans and full order books are quite challenging, as is placing all new equipment onto new routes worldwide.

¹³ <https://www.thefinancialist.com/the-rise-of-the-gulf-carriers/> 02.01.2015

From the European airlines' perspective, dark clouds are gathering on the horizon. One possible solution could be partnerships – aligning with once sworn enemies in the Middle East as well as crossing alliance lines to find more strategic and profitable partners.

If you can't beat them, join them!

A code-share agreement already exists between Etihad Airways and Air France-KLM to support closer commercial ties and build an expanded global network. In December 2015, Etihad Airways, the national airline of the UAE, expanded its strategic cooperation with Air France-KLM through a component maintenance agreement worth several hundred million US Dollars.

Air France-KLM meanwhile, has a loose partnership with Etihad Airways for access to Greater Asia – and beyond – but no JV has yet emerged, despite many rumors.

It is not just European carriers that are looking for opportunities to establish new partnerships though. In 2013, Qatar Airways joined oneworld alliance as the first of the “big three” Gulf carriers, to strengthen their competitive offering and to find a possibility to fill the huge amount of capacity. “Qatar Airways Chief Executive Officer Akbar Al Baker said: “Alliances are playing an increasingly important role in the airline industry today – and that will continue long into the future!”¹⁴

But Qatar Airways joining oneworld drew a lot of partnerships into question. For example, American Airlines partners with Etihad Airways – so what will happen with this relationship now? Also, Qatar Airways recently increased its stake in IAG, owner of British Airways, to 12%.¹⁵

There is a similar situation with Qantas, which is a key member of oneworld and has a joint business venture with Emirates.

To date, Qatar's decision has not led to other major Gulf airlines joining alliances or other carriers leaving an alliance to focus on joint ventures.

¹⁴ <http://www.scoop.co.nz> 19.05.2016

¹⁵ <http://www.bloomberg.com> 25.05.2016



Northeast Asia – Dominance of local carriers with European partners

Due to the geographical location, European carriers are definitely in a better position to join partnerships with carriers from the North Asian territory compared to carriers from the Gulf region. This is a clear advantage because routes to and from Europe via the Gulf are circuitous.

Japan is still the focus of European partnerships in Northeast Asia

The current crop of Europe-Asia partnerships is focused, and most intense, in Japan.

IAG and Finnair are cooperating with Japan Airlines. To stimulate growth Lufthansa has a JV with All Nippon Airways (ANA) and Eurowings to secure growth. Korean Air has an evolving partnership with Czech Airlines, and ANA has expanded its partnership with Turkish Airlines as well. The strategy of the North Asian carriers is clear: They are trying to expand partnerships and collaboration with

new hubs to use them to open new destinations in Eastern Europe, the Middle East and Africa. However, the challenge is to sustain existing relationships – like the JV between LH and ANA for example.

Despite the competition from the Middle East, Cathay Pacific has a Europe-focused partnership with Qatar and Turkish Airlines.

In contrast, Lufthansa decided to further develop its relationship with strategical partners from the North Asian region due to the Middle East competition. The airline wants to extend and strengthen its position in this market. Therefore, Lufthansa has signed a mutual understanding agreement with Air China, which should pave the way for the creation of a joint venture between the two carriers. In the near future both Star Alliance members want to harmonize and organize their Chinese traffic together. “Between them, the two account for 35% of Europe-China flights, and 84% of Germany-China flights.”¹⁶

¹⁶ <http://centreforaviation.com/analysis/air-china-lufthansa-group-jv-will-control-35-of-europe-china-market-while-easing-growth-tensions-176266>
08.07.2014

The IATA airline industry forecast 2013-2017 estimates that routes within or connected to China will be the single largest driver of growth, accounting for 24% of new passengers during the above-mentioned forecast period.¹⁷

Of the anticipated 227.4 million additional passengers, 195 million will be domestic and 32.4 million will be international.¹⁸

A Europe-China JV will achieve bigger gains for European carriers than Europe-Japan

European carriers such as Lufthansa, British Airways and Air France-KLM are seeking stronger ties into growth markets such as China to offset shrinking European business. Strengthening direct ties to China is also seen as a way of keeping passengers from defecting

to the high-growth Persian Gulf carriers, like Emirates Airline.

Also Air France-KLM wanted to secure a “piece of the cake” as Asia becomes a larger market than North America, but it is being left behind. A longstanding code-share agreement with JAL ended and has not been extended. So Air France-KLM has lost an important partner in this region and is having trouble finding a new one, as many airlines have existing partnerships and the number of candidates is growing. One positive development, however, is that KLM and Xiamen Airlines are intensifying their partnership with a long-term maintenance agreement and more code-shares.

Ultimately European airlines have one major advantage: the Gulf carriers are not-the-primary target for JV’s for Chinese carriers – their access in China, for example, is still relatively restricted.

Differences in Capacity Growth to North Asia

Origin	Destination	Capacity Growth in % 2014-2015
Fankfurt	Tokyo	12.4%
Doha	Tokyo	-4.1%
Paris	Shanghai	10.9%
Doha	Shanghai	-5.4%
Paris	Seoul	15.6%
Abu Dhabi	Seoul	-9.3%

Chart 14: Capacity Growth European vs. Middle East Hubs to North Asia from 2014-2015

data source: ch-aviation

¹⁷ <http://www.iata.org/pressroom/pr/pages/2013-12-10-01.aspx>

¹⁸ <http://www.ainonline.com/aviation-news/2013-12-10/iata-projects-31-percent-rise-passenger-demand-2017>



Southeast Asia – JV's with European airlines to challenge the Middle East's superiority

European carriers are generally under-represented in Southeast Asia, leaving Asian and Gulf carriers to transfer the majority of passengers between Western Europe and Southeast Asia. But the Southeast Asian network carriers – Singapore Airlines, Thai Airways and Malaysian Airlines – who are

already fending off competition from regional low-cost carriers, are the most vulnerable.

The Gulf carriers are seizing their opportunity by driving a major increase in traffic between the Middle East and Southeast Asia.

Differences in Capacity Growth to Southeast Asia

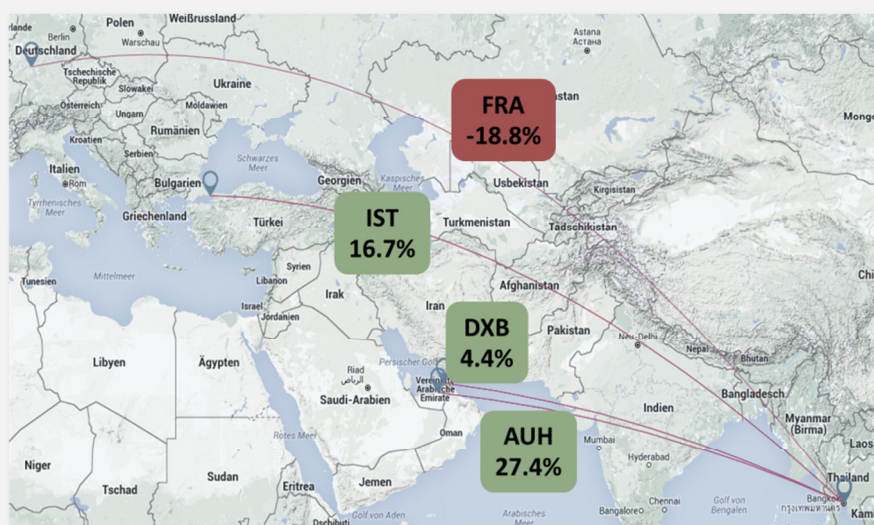


Chart 15: Capacity Growth FRA vs. Middle East Hubs to BKK from 2014-2015

data source: ch-aviation; illustration: PROLOGIS

“Flight capacity between Thailand and the Gulf states has increased 80% over the past year, while capacity to Europe has grown just 4%, suggesting that European tourists and Thai residents are increasingly stopping in the Middle East when traveling between their respective regions.”¹⁹

“Thai Airways fills just 5% of the seats between Thailand and the United Arab Emirates, and the three Gulf carriers control the lion’s share of the rest.”²⁰ The outlook for European carriers is in a sense more positive, but it is getting uncomfortable for them, too.

What can European and Southeast Asian airlines do in response to the competitive threat? The growth of Gulf airlines continues to force competitors to innovate and adapt to the new market, sometimes forgoing long-standing partnerships and business views. European and Asian airlines could reduce competition and protect pricing by developing mutually beneficial partnerships – either with airlines they already have a relationship with or even with long-time competitors like the Gulf carriers.

Sometimes, making friends is the most effective way to neutralize the threat at the door

Another option may be a partnership between Air France and Singapore Airlines, the two of which are reportedly in talks. Such a partnership would be symbolically significant: both are anchor members of opposite

alliances – Star and SkyTeam – and are bitter about the growth of Gulf airlines. Air France is boisterous in its remarks while Singapore Airlines keeps complaints out of the public realm.

It appears that SIA thinks that France is a significant market, and connections from Lufthansa Group hubs are not sufficient. As Air France and SIA move towards a partnership, Gulf airlines continue to be denied French traffic rights: they have one quarter as many flights to France as to the UK. Air France has cut Southeast Asia capacity but KLM has grown, indicating that the group is seeking new strategic solutions.

On November 17th 2015, Lufthansa agreed to share revenue with Singapore Airlines on routes from Singapore to Germany and Switzerland, in order to compete with carriers from the Persian Gulf and expand its presence in South Asia. From a Lufthansa perspective 17% of East Asian seats are currently covered by a JV. Once the JVs with Air China and SIA come into force this figure will rise to 64% – which is still less than JV coverage in North America.

¹⁹ <https://www.thefinancialist.com/the-rise-of-the-gulf-carriers/> 02.01.2015

²⁰ <https://www.thefinancialist.com/the-rise-of-the-gulf-carriers/> 02.01.2015



Africa – The Disregarded Market?

Airline industry consolidation is quickly gathering pace across the world, with carriers in North America, Europe and Asia clearly taking the lead. Africa is no exception, but at present, only a few African airlines have the necessary critical mass of business or strategic positioning to attract the attention of airline partnerships. There is a real challenge in finding partners to expand beyond the small number already accounted for, like Egypt Air, South African Airways and Ethiopian Airways (Star Alliance)

The number of interesting African candidates is rather small

Today, there are only about 12 African airlines that have intercontinental operations, and over the last 12 years, 37 airlines were launched in Africa, almost all of which failed.²¹ Many African nations have lost their national

flag carriers, including Nigeria Airways, Ghana Airways, Cameroon Airlines, Zambia Airlines and East Africa Airlines, and many other airlines have been liquidated. Most of the ones, currently operating, are fighting for survival, including the recently established ones. South Africa Airlines, one of the leading airlines in Africa, is also in bad shape. It is receiving state funding to run its daily operations.

On the other hand, with many businesses using Gulf cities as a gateway into Africa, Gulf airlines are expanding their routes into the continent to meet demand.

Royal Air Maroc and Qatar Airways, for example, signed a joint venture agreement in 2015 to create connections to western and central Africa. This was also significant because, it signaled future developments: each carrier wanted to work more with partners.

Furthermore, in 2014, Emirates Airline signed a partnership agreement with Nigeria's Arik Air in a deal that opened up new routes throughout western Africa for the carrier. The

²¹<http://www.thisdaylive.com/index.php/2016/05/20/challenging-times-for-african-airlines/>

deal reflects the UAE's growing popularity as a base for multinational companies serving the African market.

Etihad Airways and South African Airways have extended their strategic partnership with measures including more code-share routes and further integration of their frequent-flyer programs.

But what about European-African partnerships?

Due to the unstable political situation in some African nations, the relatively unfavorable geographical location and the lack of promising business opportunities, the likelihood of new partnerships between European airlines and African carriers is rather small, with a few exceptions.

New start-up carrier Rainbow Airlines from Zimbabwe was seeking strategic partnerships with European- and Asian-bound airlines to boost its Harare – Johannesburg route in 2015. The airline was aiming to create synergies to grow its business by tapping into its partners' huge market base. To date, no partnership with either a European or an Asian carrier has been entered.

SUMMARY & CONCLUSION

The worldwide airline market is always subject to rapid changes due to increasing competition and unsteady cost structures combined with political and governmental regulations.

The following years are expected to bring additional mergers and acquisitions, along with increased collaboration between alliance partners around the world.

*The future is consolidation
and deeper partnerships*

We believe that deeper integration between JV partners of all sizes is inevitable, and that "virtual mergers" will become increasingly popular around the world. "By 2023, 45% of all global long-haul traffic will be part of a JV."²² With transatlantic markets largely mature, this substantial growth is likely to come from increased collaboration between developed and developing markets.

As airlines find themselves in this new and relatively uncharted territory, they must seek to integrate their new partners with existing ones – a complex and contradictory process. Overlap will be common, giving rise to mistrust between the different partners of respective airlines. Incredible potential and

synergies could be unlocked from them all, but airlines must test the limit: can Qantas, aligned with Emirates, work with Qatar? Can Emirates cooperate with American Airlines and JetBlue? American Airlines bypass British Airways for Qatar's African network? How promiscuous can the airlines be?

European legacy carriers face two main challenges for remaining competitive: firstly, expanding their global networks – which are an important comparative advantage over the Gulf carriers – and secondly, making their overall costs more competitive.

To address these challenges, European legacy carriers continue to broaden and deepen their global network integration with alliance partners, tapping traffic flows that are not yet subject to the "Middle East Three".

As a result the borders within the alliances are becoming blurred. Depending on the relevance of each geographical region, all options are possible. New cooperation with non-alliance members or members from other alliances, with LCC's or even Middle East Carriers are to be expected in the future.

In particular, due to the change in the low-cost carriers' business model, it is expected that more LCC's will be joining strategic partnerships and alliances soon. Ryanair and Easyjet for example are showing interest in taking over the feeder service for non-European long-haul airlines. Another possibility is the commercial airline platform "Wings Connect" by Eurowings, to be launched in 2017, where different partner airlines will be operating under one roof but Eurowings will be responsible for Marketing, Sales and Network Planning. The partner

²²http://www.lek.com/sites/default/files/LEK_AirlinesJointVentures.pdf

airlines will profit from cost savings but will lose their own brand.

A few years ago, the LCC business model was absolutely incompatible with an alliance or a network carrier. But with the LCCs' need to improve their service and connectivity on the one hand, and the network carriers' need to cut cost on the other hand, they are somehow meeting halfway. The contours of the business models are fading within the partnerships.

The winners will be those airlines with relevant partners for their customers in the main target areas, which are able to cut their overall costs in a competitive way and can handle the complexity of JV with the help of state-of-the-art technology.



List of Abbreviations

AA	American Airlines
AF	Air France
ANA	All Nippon Airways
APAC	Asia Pacific
ASK	Available Seat Kilometer
AUH	Airport Abu Dhabi
AY	Finnair
AZ	Alitalia
A++	Atlantic ++
BA	British Airways
BMI	British Midlands
CGN	Airport Cologne Bonn
DL	Delta Airlines
DXB	Airport Dubai
EU	European Union
FNSA	Full Network Scheduled Airlines
FRA	Airport Frankfurt
FSNC	Full Service Network Carrier
GDP	Growth Domestic Product
GOL	Gol Linhas Aéreas
IAG	International Airlines Group
IATA	International Air Transport Association
IB	Iberia
IST	Airport Istanbul

JAL	Japan Airlines
JBA	Joint Business Agreements
JV	Joint Venture
KL	KLM Royal Dutch Airlines
LCA	Low cost airlines
LCC	Low Cost Carrier
LH	Lufthansa
ROW	Rest of World
SIA	Singapore Airlines
SPA	Special Prorate Agreement
SXF	Airport Berlin Schönefeld
UAE	United Arab Emirates
UK	United Kingdom

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With more than 15 years of experience and serving more than 50 airline clients worldwide, PROLOGIS is one of the leading aviation consultancies in the world. All PROLOGIS consultants have an average of 7 years of active experience in the airline industry; they are experts on Distribution & Revenue Management, Ground Operations & Airport Processes, Revenue Accounting, Network Planning & Scheduling, IT-Services (System Migration, Evaluation and Implementation). As a result of the international consultancy projects at network, low-cost and charter airlines in more than 34 countries, PROLOGIS knows best practice and can help to implement it into every client's existing structures.

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