

Getting clear of the clouds

Will the upward trajectory continue?



Table of contents

Introduction	3
Report highlights	4
Growth	8
Risk	16
Disruption	20
Diversity	26
Methodology	28
Contacts	29

About the survey

Now in its 18th year, PwC's Global CEO Survey gives company leaders, governments and the world's business community a unique insight into the vision and decisions of the global CEO. This year's report includes the findings from 1,322 surveys of business leaders across 77 countries. In this supplemental study we benchmarked the responses of 26 airline CEOs among the top 100 airlines in the world. The CEOs and companies included are representative of the wider top 100 of the industry in terms of company size, location and CEO tenure. This year's airline edition seeks to assess the level of confidence across the industry, current strategic priorities and challenges, technologies airlines are investing in and benefiting from, and the impact that diversity strategies are having on companies' performance.

Introduction

Welcome to our 2015 Global Airline CEO Survey. The survey comes during a period of particular confidence among many in the airline industry. Optimism about growth is running at high levels in most regions of the world. The industry is moving closer than ever to earning its cost of capital and delivering long-sought competitive returns to its investors. But it's also clear that many clouds remain on the horizon. The course airlines set during this current period will dictate whether the return on investment improvements we've seen in the sector can become sustainable or prove just to be temporary.

The survey provides an insight into top executive thinking about how airlines are set to respond to these key issues. We see an industry that has learnt from the boom and bust cycles of earlier periods. While CEOs are very confident about future growth, they are taking a relatively conservative approach to reinvestment. This generation of airline CEOs is taking its cue from the need for business discipline rather than responding to cycles.

We also find that airline CEOs rate the level of disruption coming from factors such as competition, regulation, distribution channels, technology and customer behaviour far higher than those of CEOs from other sectors. And risks such as cybersecurity are much more elevated concerns for airline CEOs, reflecting the highly sensitive security context in which they operate. Some trends are opportunities – for example, in contrast to other sectors, the disruption in distribution channels has the potential to transform the airline industry.

The survey focuses on the strategic priorities and challenges being addressed by the industry. We take a particular look at the decisions that airlines are and will be taking as a result of lower fuel prices and the importance of getting the balance of priorities right. We also discuss how airlines are responding to the risks and disruptive forces that are affecting them. We conclude with a look at how talent diversity and inclusiveness strategies are becoming an increasingly important consideration for airline CEOs.

PwC works with leading airline companies and other organisations in the aviation sector worldwide. This survey is just one part of the dialogue that we have on current and future industry challenges. We welcome follow-up on any topics that are of interest.



Julian Smith

Global Transportation & Logistics Leader



Jonathan Kletzel

U.S. Transportation & Logistics Leader



Report highlights

Confidence is high but is strategy matching it?

Airline CEOs are expressing a high level of confidence about growth prospects for their own airlines and the sector as a whole, outstripping the level of confidence among CEOs in other industries. But are they putting too much faith in overall traffic growth and not enough in product or service innovation when it comes to their own airline growth strategies? Only around a third (35%) rank product or service innovation first or second as a growth driver for their airline. Product and service innovation is more likely to come in third place behind generalised strategies that tap into the overall external market growth trends, such as expanding capacity and increasing market share.

Shareholder returns feel the benefit from lower fuel prices

The lower fuel price environment has given airlines greater balance sheet flexibility but it also poses dilemmas. Should the fuel cost savings be used to reward shareholders? Would they be better directed to lowering the cost base, such as by paying down debt or investing in new fuel-efficient aircraft? Or should the priority be more customer-facing: lowering fares or investing in improved customer service? Each airline will have a different answer depending on its individual circumstances. We found that CEOs expect shareholder returns will be the main beneficiary of lower fuel prices, with options such as paying down debt and capital investment some way behind.

Are they getting the balance right?

Airlines will be mindful of the need to balance risk and reward in the use of fuel cost savings. If the aggregate results from our survey were translated onto an individual airline, it could be treading a potentially dangerous path. The highest priorities for the use of the fuel cost savings all carry the hazard of taking the money out of the business or eroding margins. After shareholder returns, the next highest choices are reducing fares or cargo rates and stepping up aircraft

utilisation. Price reductions can deliver competitive advantage but carry obvious risk if judged wrongly and more endangers the capacity discipline that has gone a long way to getting many airlines onto a healthier financial footing. On the other hand, lower fuel prices can bring previously marginal aircraft and flights back into profitability and, if pricing and capacity are addressed carefully, such risks can be avoided. Companies will need to get the balance right between shorter-term strategies and longer-term investments that can deliver sustainable cost and competitive advantage.

Caution is the watchword for future fuel prices

The need for caution and a balanced approach to fuel cost savings is highlighted by the finding that over three-quarters (77%) of airline CEOs remain concerned about the risk of high fuel prices or price volatility in the next 12 months. Fuel hedging is an important part of managing this risk and more than twice as many CEOs said they expect to increase rather than reduce hedging in the current fuel price environment. One impact of lower fuel prices could be to dampen the transition to new, more fuel-efficient aircraft and, instead, extend the life of older aircraft. But the picture that emerges from the survey is that airline CEOs understand the need to maintain and continue their fleet renewal strategies.

Risk levels shift to reflect new concerns

Airline CEOs have raised their level of concern about some key risks at the top of their agenda but are becoming more comfortable with the outlook for more medium to lower-level risks. Cybersecurity, rising labour costs and exchange rate risk all record higher levels of concern in our 2015 survey compared with 2014. But concern levels fell for all of the other 18 risks we tested. Recent cyber breaches have highlighted the vulnerability of flight systems and passenger data and cybersecurity is a much more elevated risk in the minds of airline CEOs than CEOs as whole.

Airline CEOs face up to the threat and opportunity of disruption

In the minds of airline CEOs, their industry is being disrupted more than most. Across all five forces of disruption that we benchmarked - competition, regulation, distribution channels, technology and customer behaviour - airline CEOs' assessments of the level of disruption are higher than those of CEOs from other sectors. But they are also making moves to turn disruption to their advantage, most notably in the areas of digitalisation of customer relationships and a shake-up in distribution channels.

Is the full value of digital technology being realised?

There is a strong appreciation of the advantages of digital technology for customer-facing processes but we wonder if airline CEOs are underestimating the potential of digital inside their organisations? Only 38% attached a high value to using mobile technologies for enterprise/employee purposes and 12% to the use of social media internally to improve business process collaboration. When we delved deeper and asked about the application of digital technology to key internal and supply chain processes, we found that airline CEOs were less likely than CEOs in other sectors to see digital technology as being of high value. This is surprising given the potential for initiatives such as digital airline maintenance management to reduce costs and improve fleet utilisation.

Talent diversity and inclusiveness move to the fore

Airlines are using talent diversity and inclusiveness strategies to strengthen their talent bases. Most airline CEOs have, or intend to adopt, a strategy that promotes diversity and they are indeed slightly ahead of CEOs in other sectors in embracing such strategies. Eighty-four percent of airline CEOs have a strategy in place or are intending to adopt one compared to 77% of all CEOs. And with tightening supply of pilots and other key skills combined with rising wage pressures in local markets, we expect global talent mobility programmes to be an increasingly important element in airlines' talent strategies.





Global Airline CEO Survey

Key results at a glance

62%

of airline CEOs say they are 'very confident' about their company's prospects for revenue growth over the next 12 months. It's far more than the 39% of CEOs across all sectors reporting the same high level of confidence and a big leap up from the 29% of airline CEOs that said they were very confident in 2014.

62%

rank cost control a first or second top strategic priority as the importance of the cost base continues to dominate airline CEO agendas.

77%

remain concerned about the risk of high fuel prices or price volatility in the next 12 months, including nearly a quarter (23%) who say they are 'extremely concerned'.

85%

expect lower fuel prices to impact shareholder returns, much more than the 54% who highlight paying down debt or increasing capital investment.

85% vs 61%

cybersecurity risk is a much more elevated risk in the minds of airline CEOs than CEOs as whole, according to the percentage expressing concern about this risk.

88%

of airline CEOs are concerned about exchange rate risk with currency volatility helping elevate this to the top risk in CEO minds (displacing fuel price risk and over-regulation).

84%

of airline CEOs have a talent diversity and inclusiveness strategy in place or are intending to adopt one, compared to 77% of all CEOs.

73% vs 50%

airline CEOs appear ahead of their counterparts in other sectors as measured by the number attaching a high value to the role that digital technology can play in the customer relationship

Growth

Optimism is running high among airline CEOs. After a number of years when the global downturn and high fuel costs hit airline business strategies hard, airlines are benefiting from a favourable fuel cost environment and more benign, but still uneven, global economic conditions. Allied with strong longer-term industry growth forecasts, this outlook is contributing to a higher level of confidence among airline CEOs than in the wider CEO community.

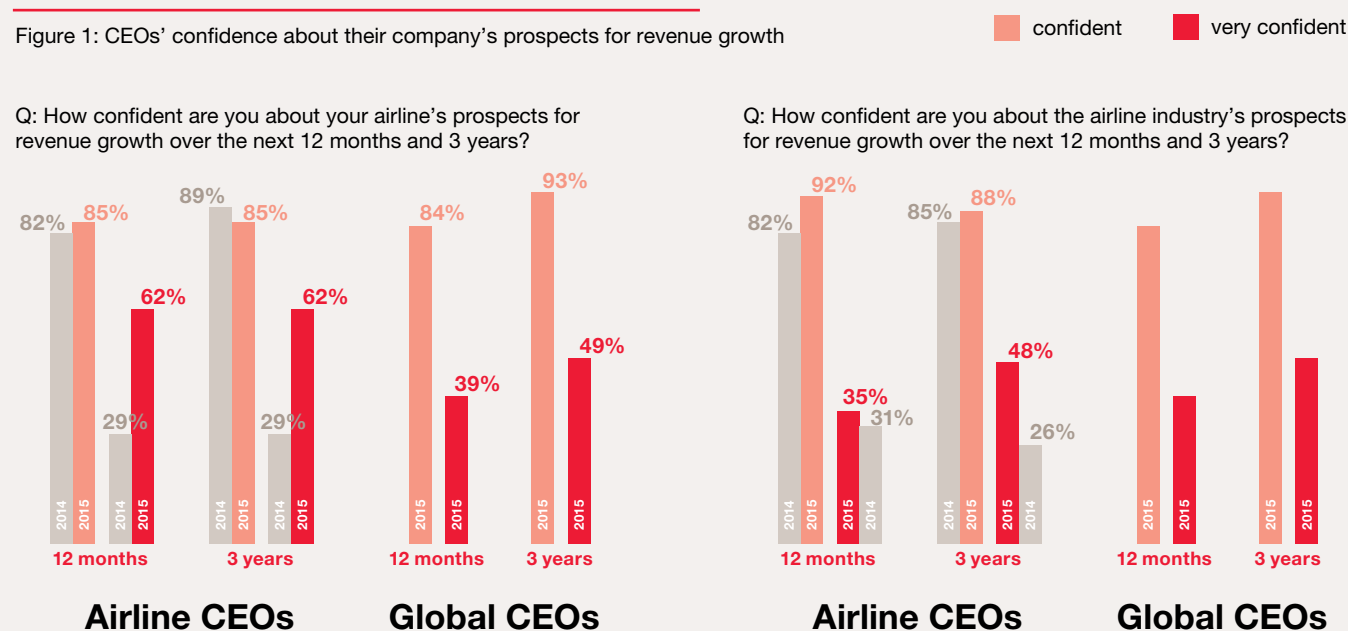
Nearly two thirds (62%) of airline CEOs in our survey reported they are very confident about their company's prospects for revenue growth over the next 12 months. It's a big leap of confidence compared with our 2014 airline CEO survey when just 29% said they were 'very confident'. It also compares with just 39% of CEOs from all sectors reporting this level of confidence. There is a similar contrast between airline CEOs and their wider peer group when asked about the more medium-term outlook over three years (figure 1).

Above trend growth

This confidence is striking but, in some respects, not surprising. It comes after three consecutive years when the global airline industry grew at or above its long-term growth rate. And, in the most recent of these years, 2014, airline passenger traffic grew by nearly 6% despite relatively weak global GDP growth.¹ Moreover, the longer-term growth outlook is very strong. Boeing is forecasting a doubling of the world's commercial passenger and cargo fleet to 43,560 aircraft over the next 20 years and a rise in the annual number of passengers from three billion to seven billion.² But much of the optimism is skewed toward the passenger side. Cargo yields remain weak and the longer-term outlook for cargo is clouded by technological developments that are bringing manufacturing and supply chains closer to end customer markets.

How confident are you?

Figure 1: CEOs' confidence about their company's prospects for revenue growth



Source: Airline CEOs – PwC Global Airline CEO Survey 2015. All CEOs – PwC 18th Annual Global CEO Survey.

¹ Boeing, Current market outlook, 2015–2034. http://www.boeing.com/resources/boeingdotcom/commercial/about-our-market/assets/downloads/Boeing_Current_Market_Outlook_2015.pdf.

² Ibid.

The International Air Transport Association (IATA) anticipates the industry will achieve a US\$29.3bn profit in 2015 and is reporting that returns on capital will exceed the cost of capital for the first time since the organisation started studying the metric in the early 1990s.³ As we discuss later, many airlines are taking the opportunity to reward investors. But these are aggregate figures for the industry. Many airlines continue to run at a loss and, even on an industry-wide basis, airline economics remain fragile. IATA emphasises that “while exceptional for the airline industry, it (the current industry return on capital) is really only just sufficient to pay investors a ‘normal’ return for risking their capital” and that much of the outperformance that has taken place is limited to North America.

Growth drivers and strategic priorities

Globally, scheduled passenger miles are forecast to grow almost 7% in 2015, the largest one-year increase since 2010. This is a strong factor in CEO minds when they come to identify the factors they expect to drive growth for their airline over the next year (figure 2). Only around a third (35%) rank product or service innovation first or second as a growth driver for their airline. Although receiving a lot of overall mentions, product and service innovation is more likely to come in third place behind strategies that tap into the overall external market growth trends, such as expanding capacity and increasing existing market share. These two external market growth drivers were ranked in first or second place by 66% and 50% of CEOs respectively.

The top 3 growth drivers?

Figure 2: Airline CEOs' ranking of top three **growth drivers** for their airline over the next 12 months

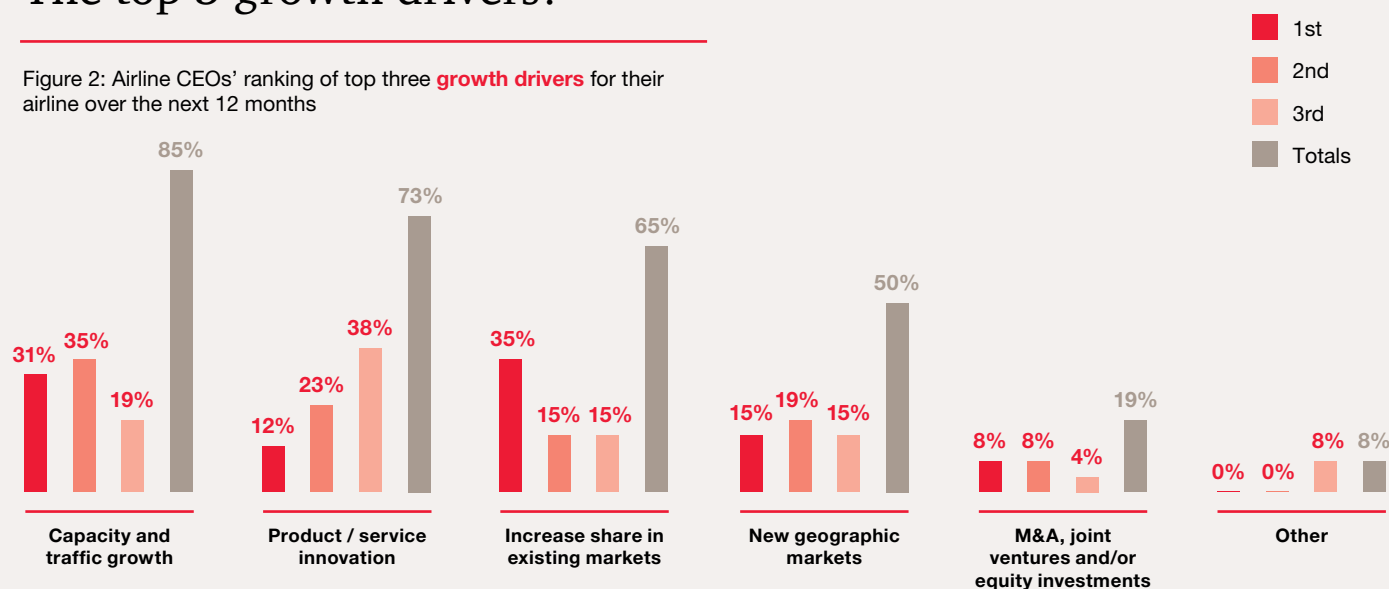
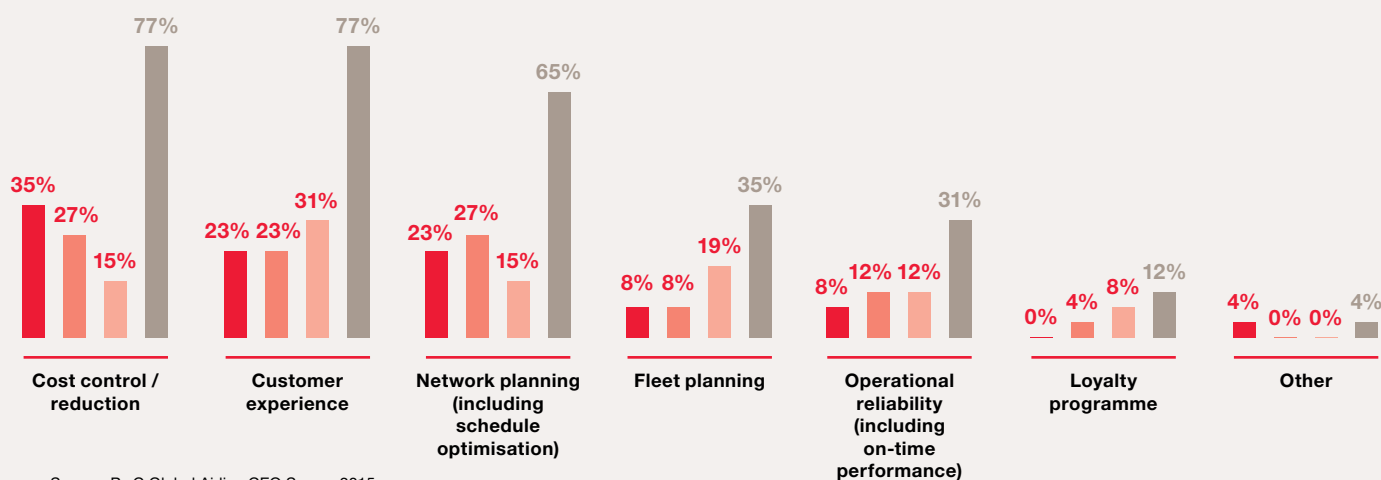


Figure 3: Airline CEOs' ranking of top three **strategic priorities** for their airline over the next 12 months



Source: PwC Global Airline CEO Survey 2015.

³ IATA, *Economic Performance of the Airline Industry*, 2015 mid-year report. <https://www.iata.org/whatwedo/Documents/economics/IATA-Economic-Performance-of-the-Industry-mid-year-2015-report.pdf>.

Nonetheless, a minority of airline CEOs put product and service innovation as their number one growth driver (figure 2). Similarly, just under a quarter (23%) report that customer experience is number one in their list of strategic priorities (figure 3). And customer service tops the list of organisational capabilities for which CEOs intend to step up investment, with 85% reporting increased investment in this area in the next 12 months (figure 4).

Clearly, a significant minority of airline CEOs are putting their faith in creating a better product and service for customers and making this their lead growth strategy. Many more are making customer service an investment priority. This emphasis is important because, with all carriers to a greater or lesser extent focusing on cost control and reduction, product innovation and customer service offer a route to differentiation and competitive advantage.

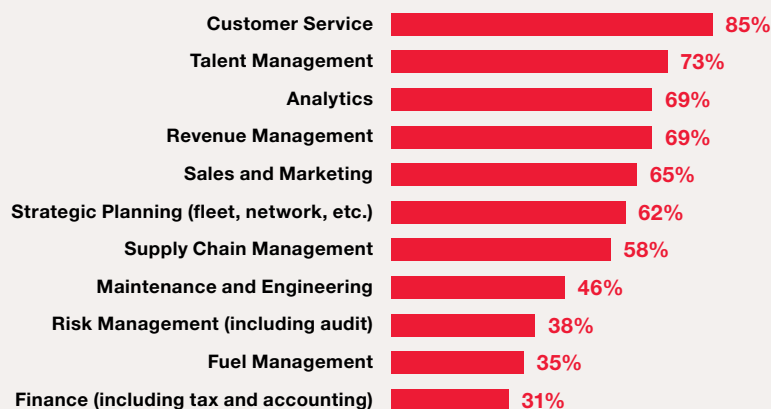
But we need to recognise that improved customer experience is challenging for carriers to address.

Upgrading the ‘hard product’ — the aircraft and airport facilities — is an expensive way for airlines to differentiate themselves, and the payback could be long in coming. Enhancing the ‘soft product’ — through a welcoming and seamless customer experience across all aspects of air travel, from reservation to touchdown and beyond — is cheaper, but often more difficult to implement. Typically, such enhancements entail wholesale behavioural and cultural shifts within the organisation, particularly for frontline, customer-facing employees. As we see in a later section, digitalisation offers opportunities to accelerate these shifts.

Given this context, cost control continues to edge out enhancements in customer experience as the top strategic priority in the minds of most airline CEOs. It was ranked first or second place as a priority by 62% of CEOs compared to 46% for customer experience. Network planning also rivalled customer experience as a CEO strategic priority, placed first or second place by 50% of CEOs (figure 3).

How do you anticipate investment?

Figure 4: Airline CEOs’ expectations of investment in organisational capabilities over the next 12 months



Source: PwC Global Airline CEO Survey 2015.



“With carriers focusing on cost control and reduction, **product innovation and customer service** offer a route to differentiation and competitive advantage.”

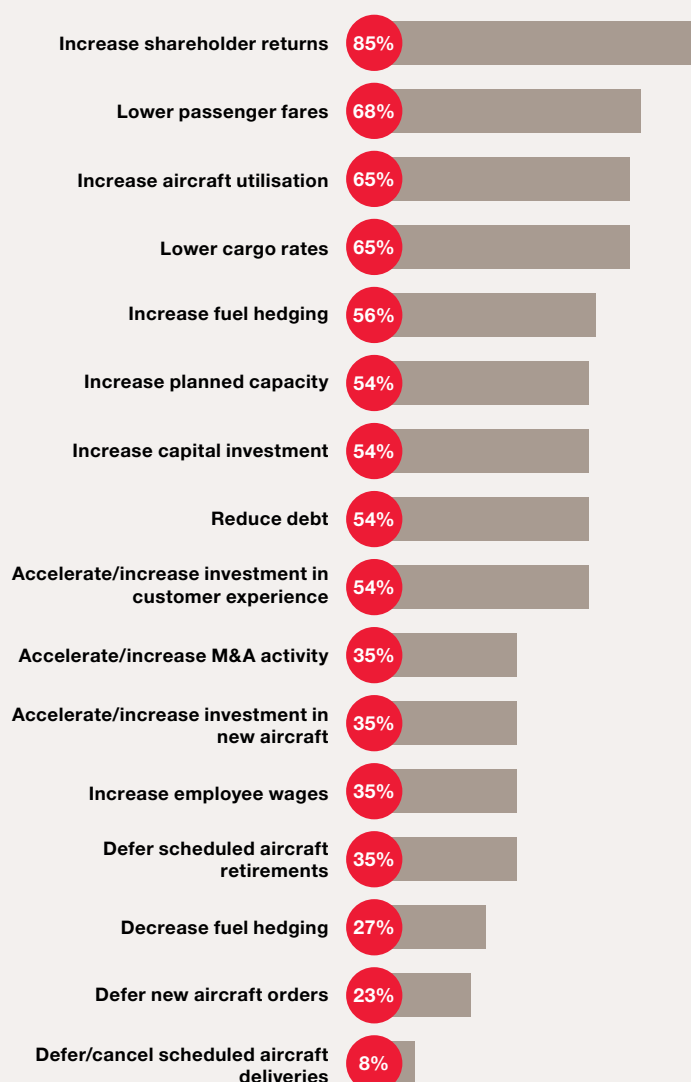
Lower fuel prices

Along with labour costs, fuel is the biggest component in an airline's cost base. Jet fuel prices have fallen substantially - from approximately US\$125 per barrel at the start of 2014 to approximately US\$63 per barrel in October 2015.⁴ This price fall has significantly helped airline profitability but, in some cases, will have been partly offset by currency and hedging effects. Nonetheless, lower prices mean that airlines globally will spend an estimated \$86bn less on fuel this year than in 2014, according to IATA.⁵

This is a substantial boost for airline finances and our survey explored with CEOs the impact it would have on decision-making. Improved shareholder returns emerged as the stand-out priority in the minds of CEOs. A large majority (85%) said lower fuel prices would make a difference to shareholder returns, significantly more than the impact on other priorities (figure 5). Balancing shareholder and other concerns is difficult. Investors in many airlines have had to face some very tough times so it is understandable that CEOs and their boards will be looking to actions like share repurchases and dividends as a way of rewarding shareholder patience. Nonetheless, the difference between using the money for shareholder returns and other options that would reinvest the money back into the business is striking.

Decreases in fuel prices

Figure 5: Airline CEOs' view on the impact of fuel price decreases on their airline's decisions in the next 12 months



Source: PwC Global Airline CEO Survey 2015.

⁴ IATA jet fuel price monitor. <http://www.iata.org/publications/economics/fuel-monitor/Pages/price-analysis.aspx>

⁵ IATA jet fuel price monitor. <http://www.iata.org/publications/economics/fuel-monitor/Pages/price-analysis.aspx>

After shareholder returns, the next three highest choices are reducing fares or cargo rates and stepping up aircraft utilisation. This is not surprising as lower fuel prices enable marginal aircraft and flights that were unprofitable before to become profitable even if prices have to come down to stimulate demand. The interplay between lower fuel prices, fares and fleet utilisation is complex and CEOs will be mindful of the need for disciplined judgements. Price reductions can deliver competitive advantage but carry obvious risk if judged wrongly and flying the fleet more endangers the capacity discipline that has gone a long way to getting many airlines onto a healthier financial footing.

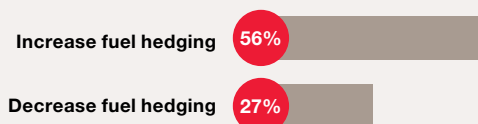
In contrast, priorities such as capital investment and paying down debt are relatively low priorities, with only 8% and 19% respectively of CEOs saying these would be significantly improved by the fuel price gain compared to 42% expecting shareholder returns to be significantly impacted. Other priorities, such as investing in better passenger experience which could improve competitive advantage, are also towards the back of the queue for the benefits from lower fuel costs.

The emphasis being given to shareholder returns reflects the continued evolution of many airlines towards being managed as a business. Return on invested capital (ROIC) is now much more of a leading metric than it has been in the past. It is an important priority as any publicly traded company needs to be mindful of the cost of equity, and even those airlines that are in government or private ownership must make use of opportunities to return money to investors.

But the key consideration for investors and airlines alike will be the sustainability of such returns and the extent to which the benefits of lower fuel prices are likely to persist in the longer term. The relatively lower price environment continues to offer a hedging opportunity and it is noteworthy that more than twice as many CEOs expect to increase hedging as a result of the decreased fuel price environment than expect to reduce their hedging (figure 6). And as we report in subsequent sections, lower fuel prices are not translating into cancellation of investment in new, more fuel-efficient aircraft. Indeed, 77% of airline CEOs remain concerned about the future threat of high or volatile fuel prices.

Impact of fuel prices decreases

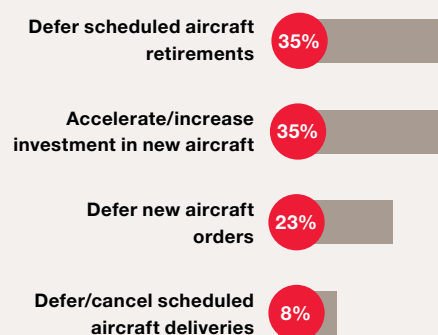
Figure 6: Airline CEOs' view on the impact of fuel price decreases on fuel hedging over the next 12 months



Source: PwC Global Airline CEO Survey 2015.

Impact of fuel prices decreases

Figure 7: Airline CEOs' view on the impact of fuel price decreases on fleet planning



Source: PwC Global Airline CEO Survey 2015.

One impact of lower fuel prices could be to dampen the transition to new, more fuel-efficient aircraft and, instead, extend the life of older aircraft. Decisions to invest in a more fuel-efficient fleet and whether or not to hedge fuel costs are vital building blocks in an airline's business strategy. Airlines that choose to rely more on older aircraft or that misjudge their hedging strategy could find themselves facing a significant cost base disadvantage in the event of an upturn in fuel prices. While operating an older fleet offers financial benefits, airlines that employ this strategy must possess a sophisticated and cost-effective maintenance programme to sustain desired operational reliability and on-time performance. And airlines that elect not to hedge fuel costs must have an agile operating model that can react swiftly to changing market conditions.

None of the airline CEOs in our survey reported that the lower fuel price environment was having any significant impact on cancelling or deferring new aircraft deliveries. Just under a quarter (23%) said it might have some (but not a significant) impact on the deferral of new aircraft orders. Around a third (35%) said it could have some impact in terms of delaying retirements of older aircraft but this was offset by exactly the same percentage saying it could actually accelerate or increase investment in new aircraft (figure 7). The picture that emerges is that lower fuel prices are not a significant factor in fleet planning decisions.



“The key consideration for investors and airlines alike will be the sustainability of such returns and the extent to which the benefits of lower fuel prices are likely to persist in the longer term.”

Risk

Although airline CEOs are optimistic about growth prospects, they are also more concerned about some key risks compared to CEOs in other industries, reflecting the challenges of the particular environment in which international aviation operates (figure 8). Top of the list of concerns is exchange rate volatility, which also is one of only three risks that have intensified as a concern in CEOs' minds compared to our previous annual survey in 2014 (figure 9). The others are cybersecurity and rising labour costs.

Currency risk

With the drop in fuel prices over the past year concern about exchange rate volatility has ascended to the top risk reported by airline CEOs. With the strengthening of the US dollar (USD) over the past year many airlines have seen their USD-denominated costs rise, which includes fuel for most airlines and aircraft financing for many others. For airlines based in the US and in

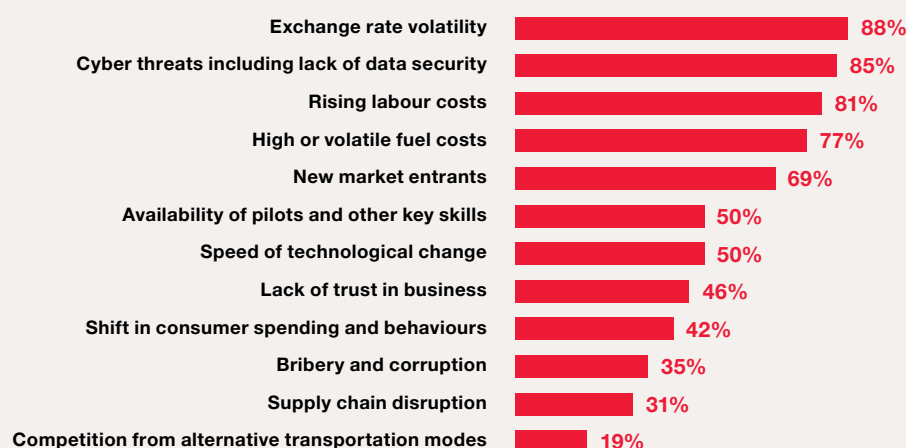
countries which formally or informally peg their local currency to the USD, the strengthening USD has negatively impacted demand, prices and yields in their foreign markets.

Like fuel, many airlines hedge their exchange risk but this comes at a cost. However, unlike volatility in fuel prices, which affects all airlines similarly, volatile exchange rates affect airlines unequally, based on their national currency and the foreign markets they serve. Therefore, unlike fuel, it is more difficult for airlines to pass exchange risk on to consumers.

Given the mix of short-term impacts (e.g. fuel costs) and long-term impacts (e.g. aircraft financing) from increasing exchange rate volatility, airline CEOs will be challenged to navigate in this environment while currencies find a more stable equilibrium.

Potential business threats

Figure 8: CEOs' concern about the key potential threats to their company's growth prospects over the next 12 months



Source: Airline CEOs – PwC Global Airline CEO Survey 2015. All CEOs – PwC 18th Annual Global CEO Survey.

Regulation and infrastructure concerns

Over-regulation is a continuing concern of airline CEOs, registering second highest in terms of overall concern and highest as measured by the proportion (38%) of airline CEOs who are 'extremely concerned'. The airline industry is an international and global business, but regulation remains predominantly national or regional. Taxes, infrastructure cost, state aid provision, bankruptcy protection, consumer protection and other regulatory costs vary considerably from location to location, leading to concerns about an uneven playing field.

But the extent of concern about over-regulation has abated somewhat compared to the time of our 2014 Global Airline CEO Survey. The overall proportion of CEOs expressing concern fell from 95% in 2014 to 85% in 2015. Indeed, among that number, the proportion expressing 'extreme concern' fell from 58% to 38%. This is despite high-profile disputes and debates over the application of 'open skies'

agreements that have emerged over the past year and which have divided industry stakeholders without regard to borders, size or status.

Infrastructure frustrations are also a particular concern. Inadequate infrastructure was cited as a concern by 73% of airline CEOs compared to 53% of all CEOs. In some locations, governments have prioritised airport infrastructure while in other places airport development has been constrained. This not only results in bottlenecks for growth but is also another contributor to an uneven international playing field.

Air traffic control is another key infrastructure concern. Airspace is global but airspace provision and control is largely national. A global interoperability standard remains a politically distant hope. And the European Commission's 'single European sky' initiative continues to be very slow to progress and, indeed, the Council of the European Union has heavily diluted the original ambitions. Likewise, implementation of the Next Generation Air Transportation System ("NextGen") in the U.S. remains chronically delayed.

3212	Munich				145-152	B05	1305
296	Moscow SVO					A07	1310
7953	Frankfurt				145-152	B07	1325
748	Cairo				079-082	A01	1330
269	London LHR				102	A23	1330
090	Abu Dhabi				011-015	A03	1335
990	Istanbul				118-142	A21	1345
7452	Limnos				079-100	B22	1345
5968	Thes/niki				126-128	B15	1400
224	Kos				118-136	B29	1400

Infrastructure limitations will likely be felt most acutely in the rapidly developing markets of Brazil, China, India, Indonesia, the Philippines and Turkey — countries that are projected to see the biggest jumps in the number of air passengers and that are in need of significant infrastructure upgrades. Since the large surge in Asian airport development in the 1990s, development has not kept up with demand. Traffic at most major Asian hubs already exceeds capacity, and even secondary hubs are starting to show capacity strain.⁶

Cybersecurity concerns heighten

Concern about cybersecurity, the third most important risk in the minds of airline CEOs, has edged up, from 82% in 2014 to 85% in 2015. And it is a much more elevated risk in the minds of airline CEOs than CEOs as whole. The past year has been frequently punctuated by high-profile cybersecurity breaches affecting industries as diverse as electricity generation and online music retailing, and the airline industry has not been immune. In June 2015, a European airline had to ground planes when its flight plan system went down for around five hours following what was reported as a ‘capacity attack’. In 2014, an Asian airline discovered that a cyberattack may have led to the theft of up to 750,000 customer details from its computer systems.

The 2015 attack prompted one aviation security researcher to comment that “it is likely to be a signal of a new trend rather than an isolated incident,” pointing out that satellite communications used to support industries including aviation, the military and emergency services are often vulnerable to exploitation

and flaws including backdoors, hardcoded credentials, insecure protocols and weak encryption algorithms.⁷

Whether part of a trend or a one-off, these incidents further heighten concern in the industry given the mission-critical nature of flight security and of personal identity data.

Rising labour costs are a key concern

Labour is the second-largest operating expense for airlines after fuel, and the largest operating expense for many carriers in mature markets, so it is no wonder that airline CEOs rate concerns about rising labour costs very highly. Just over four-fifths (81%) report that they are concerned about the wage bill rising in the next twelve months and nearly a third (31%) are ‘extremely concerned’.

Increased concern about rising labour costs is arising from both short-term and long-term factors. In the short term, a number of key labour markets are tightening and pressure for wage increases is building up as economies emerge from more constrained times. Organised labour remains a strong force at many traditional carriers and – after many years of wage stagnation – are seeking increases commensurate with improving bottom lines. In the longer term, airlines also face the challenge of hiring nearly three million new employees overall in the next ten years.⁸

Competition between airlines in the ‘war for talent’ is intensifying, both in developing and in developed markets, which is likely to accelerate the upward pressure on wages in the near to medium term. It’s no surprise then that CEOs also report that investment in better talent management capabilities is set to be near the top of their agenda as they seek to strengthen their organisational capabilities in the coming 12 months (see earlier figure 4).

⁶ PwC, Connectivity and growth, 2015. <http://www.pwc.com/gx/en/industries/capital-projects-infrastructure/publications/airport-investment.html>

⁷ ZDNet, airline hack signals the first in emerging cyberthreat trend, 23 June 2015. <http://www.zdnet.com/article/lot-airline-hack-signals-the-first-in-emerging-cyberthreat-trend/>

⁸ Tailwinds: 2015 Airline Industry Trends, PwC, 2015. <https://www.pwc.com/us/en/industrial-products/publications/pwc-tailwinds-rising-passenger-demand.html>

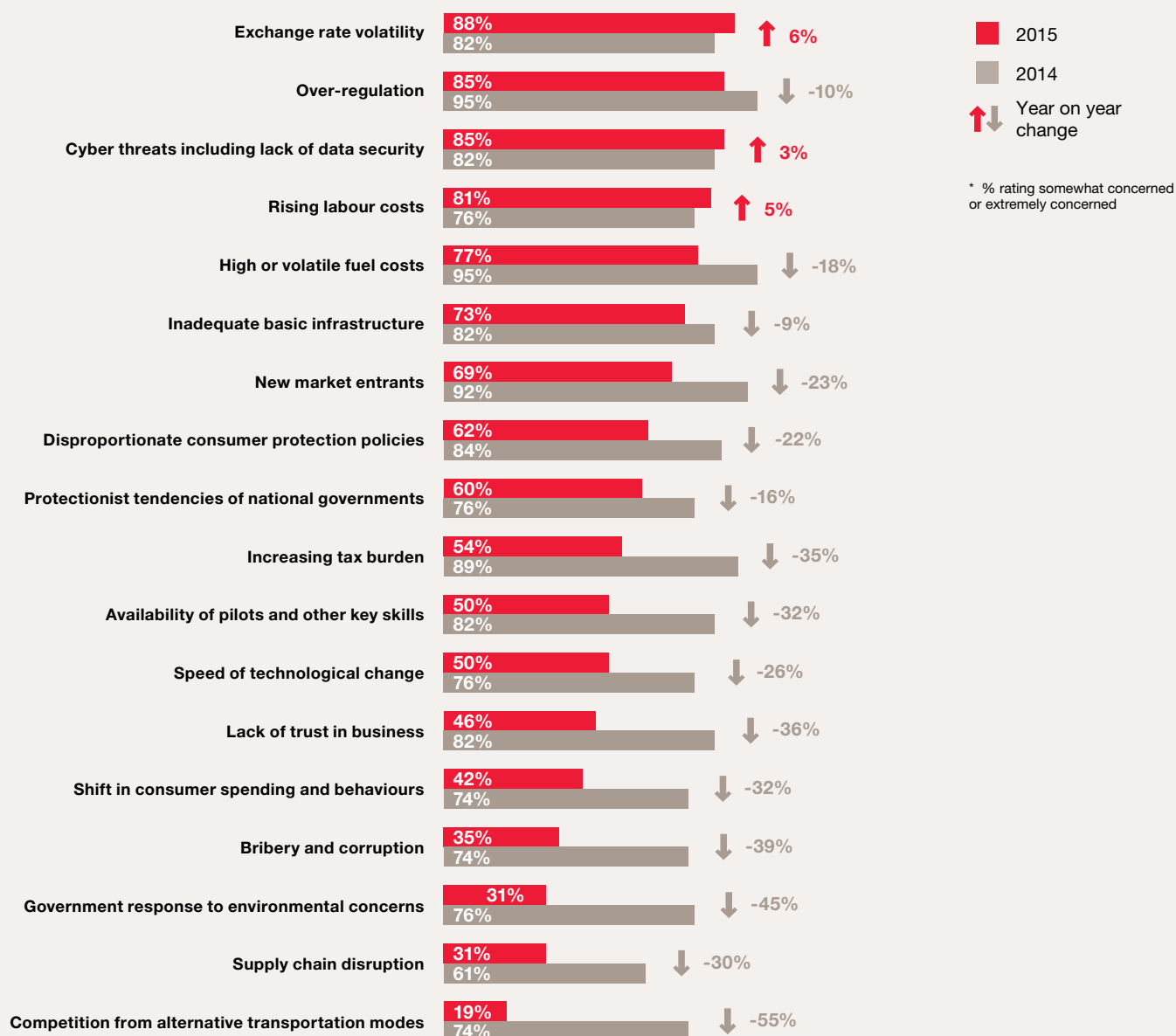
Concerns reduce for many other risks

But perhaps the most striking aspect of the 2015 airline CEO risk radar is the downward shift in the level of concern about a large number of risks. We tested airline CEOs' views on 18 different risks in the 2014 and the 2015 surveys. For all but three of the risks, concern levels fell between 2014 and 2015 (figure 9). The three risers are all in the top four risks but, below that level, the concern level fell for all other risks. In broad terms, the size of the fall increased the further down the ranking that the risk was placed. So airline CEOs have slightly elevated their concerns about some key risks at the top of their agenda but are becoming more comfortable with the outlook for more medium to lower-level risks.

If we delve deeper behind the headline results and focus on the proportion of airline CEOs who are 'extremely concerned' about each risk, we find that across the board, for all 18 risks that we asked about, the proportion expressing 'extreme concern' fell between 2014 and 2015. Rising labour costs, the speed of technological change and new market entrants recorded the smallest falls (just 3%) in the level of 'extreme concern'. At the other end of the spectrum, the proportion of airline CEOs 'extremely concerned' about high or volatile fuel costs fell from 74% in 2014 to 23% in 2015 (although a further 54% remain 'somewhat concerned').

Potential economic, policy and social threats

Figure 9: A changing risk radar – CEOs' risk concern levels decrease



Disruption

Business leaders are keenly aware that fundamental forces of change will impact their industries over the long term. Megatrends such as shifts in global economic power, technological advances and demographic changes – and the interplay between them – are transforming the macroeconomic landscape. As businesses respond to these shifts, the competitive environment across a broad range of industries is being disrupted.

In the minds of airline CEOs, their industry is being disrupted more than most. Across all five forces of disruption that we benchmarked - competition, regulation, distribution channels, technology and customer behaviour - airline CEOs' assessments of the level of disruption are higher than those of CEOs from other sectors (figure 10). We discussed regulatory concerns in the previous section. Here we look at some of the other disruptive forces.

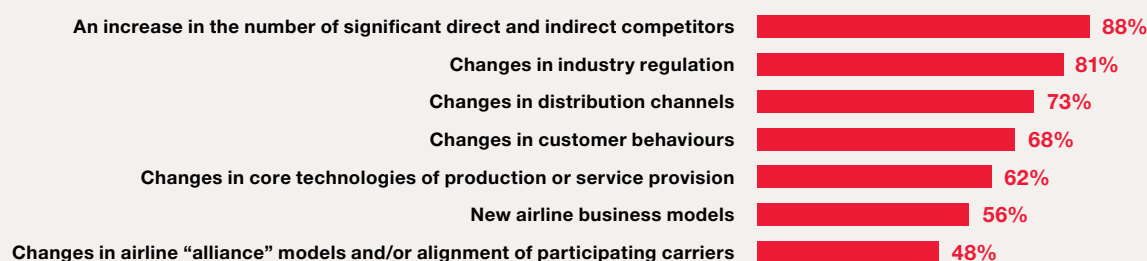
Competition

Foremost among the disruptive forces is greater and newer forms of competition. The vast majority (88%) of airline CEOs rated an increase in the number of direct and indirect competitors as likely to be a significant disruptive threat over the next five years compared to 66% of CEOs in all industries. The rapid growth of air travel in developing markets, including Asia, Latin America and the Middle East, is shifting the industry's centre of gravity.

Arabian Gulf-based carriers and a few others are taking a growing portion of the lucrative Europe–Asia traffic from those continents' legacy airlines and posing an increasingly competitive threat to North American airlines.

Disruptive trends

Figure 10: CEOs' assessment of the impact of key disruptive trends on their industry over the next 5 years



Source: Airline CEOs – PwC Global Airline CEO Survey 2015. All CEOs – PwC 18th Annual Global CEO Survey



“Airlines that elect **not to hedge fuel costs** must have an agile operating model that can react swiftly to changing market conditions.”

The Arabian Gulf carriers are highly dependent on connecting traffic, because their home markets are limited by the smaller population of their region. Yet their unique geographic location — most of the world's population is within eight hours' flying time — means they are positioned to capture a disproportionate share of long-haul market growth. Similarly, low-cost carriers (LCCs) continue to experience above-average growth rates for the industry, particularly in emerging economies with many first-time fliers and a growing middle class. Also noteworthy are renewed efforts to extend the LCC model to intercontinental routes.

In the U.S. and other mature markets, ultra low-cost carriers (ULCCs) are growing faster than any segment and represent an increasingly competitive threat to legacy and even mature low-cost carriers.

Distribution channels

Like other disruption factors, airline CEOs are more likely to see changes in distribution channels as a source of disruption than their counterparts in other sectors - 73% of airline CEOs rate these changes as disruptive compared with 50% of all CEOs. But in contrast to other sectors, the disruption in distribution channels has the potential to benefit airlines rather than take business away from them.

Aviation is an industry where distribution channels have been historically indirect. Computer Reservation System (CRS) services provided by the Global Distribution Services (GDSs), travel agents and freight forwarders all stand between airlines and end customers. These intermediaries often erode the value creation available to airlines by inflating the cost of sales. But the advent of online and mobile digitally-based communications technology offers airlines the prospect of reclaiming some of the distribution channel for themselves. Of course, seeking to secure bookings direct and online is nothing new, but what is new is the mobility and personalisation offered by new digital technologies. Creating more direct relationships offers the prize of margin enhancement as well as greater customer loyalty.

We are also seeing the industry mounting major new challenges to the GDSs. IATA describes its New Distribution Capability (NDC), which is currently in development, as “a revolution in airline distribution... (that) will transform the way air travel products are retailed through travel agents.”⁹ By offering a global open data standard, the hope is that it will better enable the growth in sales of ancillary and personalised service through both direct and indirect channels.

In another attempt to reclaim value and reduce associated costs from GDSs, Lufthansa has imposed a €16 fee on all fares booked through GDSs from the start of September 2015. How this will impact Lufthansa and to what extent other airlines will follow this approach remains to be seen and will be closely watched by industry observers.

Customer behaviour

People have grown accustomed to seeing significant improvements in their experiences with things they buy. Large and small products alike are more reliable and more user-friendly than ever before. Consider how cars have progressed even in the past decade, with upgraded safety and entertainment features, far better handling and fuel efficiency. Airline travel has also changed and offers a much wider choice of experience than in the past but, for many, the end-to-end experience is still seen as unsatisfactory.

Digital technology offers airlines a chance to improve this perception. Greater personalisation of the customer journey becomes possible through the use of social, mobile, analytics, cloud and other rapidly maturing technologies. Airlines are already using mobile technology for flight updates, check-in and transfer information. The goal will be to go far beyond this and turn the passenger experience into one where the passenger feels informed, in control and is able to get everything sorted out easily and instantly. Better and more sophisticated use of data analytics will also enable airlines to optimise pricing and service to different customer segments and even to individual customers, enabling a move from capacity-driven to customer-driven pricing based on a personalised and desirable mix of products and services.

⁹ IATA Annual Review 2015

The role that digital technology can play in the customer relationship is well appreciated by a majority of airline CEOs in our survey and they are ahead of their counterparts in other sectors. Seventy three percent of airline CEOs rate mobile technologies for customer engagement as likely to be of very high value for their organisations in the next 12 months compared to 50% of CEOs from all sectors. Similarly, data mining and analysis are given a very high value rating by 65% of airline CEOs compared to 48% of all CEOs (figure 11).

Technology

The rapid acceleration of technology developments adds both extra complexity and opportunity to airlines' decision-making on investment. Judging the right timing in the evolution of technology is critical but is just one aspect to consider. The integration and convergence that comes with digitalisation means the scope of the cost-benefit equation and technological design considerations needs to be much wider. Innovations in sensors, tracking, the internet of things and wider digitalisation are fast expanding the possibilities for preventative maintenance and operational efficiencies, reaching up and down the

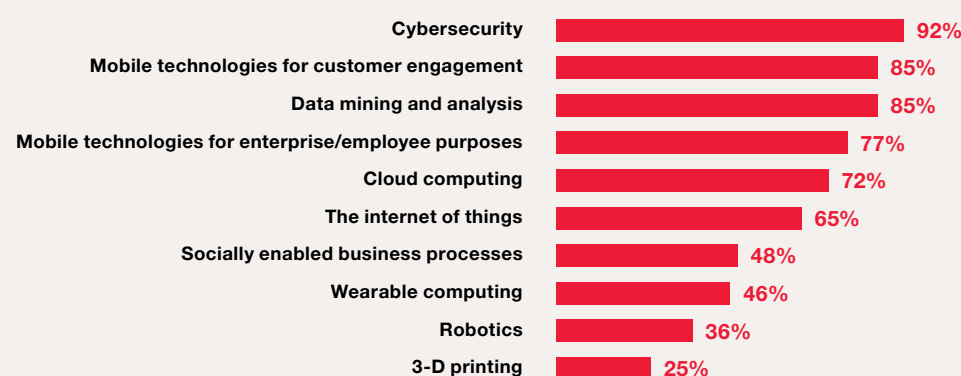
supply chain and way beyond that, right out to the customer.

Technology is also central to the aviation industry's number one focus on safety. Flying is safer than ever. Despite recent high-profile incidents the industry achieved its lowest ever global jet accident rate in 2014. Safety, and the technology that can help achieve it, has never been far from the headlines and it is clear that the technological investment and choices that airlines make can have consequences that make or break reputations.

Better tracking of aircraft has been an issue that has caught the media imagination. The industry has considered a number of established aircraft tracking solutions but industry agreement on a common solution remains outstanding. IATA is cooperating with and supporting the International Civil Aviation Organisation's efforts to establish global standards, including monitoring of aircraft every 15 minutes. If adopted, this rule could come into effect as early as November 2017. In the meantime, individual airlines are taking proactive measures on their own to improve their monitoring capabilities.

Digital technologies

Figure 11: CEOs' view of the strategic importance of key digital technologies for their organisation over the next 12 months



Source: Airline CEOs – PwC Global Airline CEO Survey 2015. All CEOs – PwC 18th Annual Global CEO Survey.

Given the importance of technology to the industry, it is no surprise to find that airline CEOs are more likely to be appreciative of the potentially high value of digital technologies to their organisation on a number of fronts than CEOs in other sectors (figure 11). Such appreciation is particularly to the fore in the context of customer engagement, cybersecurity and data analysis.

But it may be that airline CEOs are underestimating the potential of digital technologies inside their organisations. Only 38% attached a high value to using mobile technologies for enterprise/employee purposes and 12% to the use of social media internally to improve business process collaboration. When CEOs were asked about the application of digital technology to key internal and supply chain processes (figure 12), it was revealed that airline CEOs were less likely than CEOs in other sectors to see digital technology as being of high value.

This is surprising. For example, the application of emerging digital tools in airline maintenance enables the capture and analysis of operating and reliability data to improve fleet utilisation and reduce delays. Many airlines are already starting to utilise aircraft prognostics tools, which predict when a fault is due to occur and can be integrated in real time with ground maintenance teams. Such integration allows immediate work to an aircraft as soon as it lands or its quicker replacement with a substitute plane. Based on our industry research we estimate the savings to airlines from digital airline management could be substantial – over US\$100m per annum for a large carrier with a fleet of around 500 aircraft. This splits roughly evenly between savings from the elimination of unnecessary maintenance and the profit opportunity that comes from improved aircraft availability.

Digital technologies

Figure 12: Behind the curve?

CEOs' viewpoint on whether digital technologies can enhance key internal and supply chain capabilities for their organisations



Source: Airline CEOs – PwC Global Airline CEO Survey 2015. All CEOs – PwC 18th Annual Global CEO Survey.



“Talent diversity and inclusiveness is no longer seen as a soft issue. It’s now a core component of competitiveness.”

Diversity

Diversity in the talent pool is becoming a crucial quality that CEOs are finding valuable to help them to compete and outperform. The size of the commercial aviation workforce is expected to almost double by 2032.¹⁰ But looming shortages of pilots and other key skills overshadow workforce planning. An estimated 558,000 new commercial airline pilots and 609,000 new maintenance technicians will be needed to fly and maintain the world fleet over the next 20 years.¹¹

Against this background, talent diversity and inclusiveness is no longer seen as a soft issue. It's now a core component of competitiveness. Most airline CEOs have, or intend to adopt, a strategy that promotes diversity and, indeed, they are slightly ahead of CEOs in other sectors in embracing such strategies. Eighty four percent of airline CEOs have a strategy in place or are intending to adopt one compared to 77% of all CEOs.

Strengthening the talent base

Formal diversity strategies can help to broaden the mix of talent; CEOs who do have such strategies in place are more likely to hire in different markets, industries and demographic segments, use different recruitment channels, search for a wider range of skills, and equip employees with new skills.

In turn, having a good diverse mix of talent – and the ability to alter the mix depending on business needs – is critical as companies look to apply their capabilities in more innovative ways, partner successfully and harness technology effectively. These approaches require people who can think and work in highly different ways: those who can imagine and those who can implement, all-rounders and deep specialists, as well as those who can lead cross-functional, cross-sector, cross-cultural initiatives. Equally important are people who can adapt the way they think and work, as circumstances require.

These benefits are reflected in a broad range of ways in which airline CEOs report that their organisations are benefiting from diversity and inclusivity (figure 13) – innovation and enhanced business performance leads the list but also high are better collaboration, customer service, brand strength and strengthening the organisation's ability to attract talent. The last is a key consideration. With many employees reaching retirement age, a significant number of incremental new hires will be required to take the place of these employees. In some of the largest economies, the aviation growth rate is projected to outpace the workforce growth rate. Airlines will have to become more competitive in the 'war for talent' and diversity strategies give them a good footing on which to wage that war.

¹⁰ Aviation Benefits Beyond Borders, Air Transport Action Group, April 2015. http://aviationbenefits.org/media/26786/ATAG_AviationBenefits2014_FULL_LowRes.pdf

¹¹ The 2015 Boeing Pilot & Technician Outlook. <http://www.boeing.com/resources/boeingdotcom/commercial/boeing-edge/assets/brochure/edge-flight-services/pilottechnicianoutlook.pdf>

Global talent mobility

Another increasingly important response to the challenge of finding and retaining good talent is the adoption of global talent mobility strategies. In some respects, airlines have long tapped into a global talent pool for specific roles. Pilots, for example, are already to a certain extent a global resource pool. Historically, pilot supply exceeded demand so it hasn't been a major issue for most airlines. But, as the supply/demand ratio diminishes and possibly flips, it will impact both operational reliability and growing wage pressure. In other talent areas, airlines face a tighter market supply and, in response, some are recruiting globally away from their home bases, accessing a wider labour pool and freeing themselves up from home labour market constraints.

As we saw earlier in the report, airline CEOs see new geographic markets as a strong growth driver over the next 12 months (figure 2). Entering new geographic markets typically involves deploying talent to the new location in a number of different capacities. Senior

personnel are often required on a short-term basis to help broker deals and set up operations, whilst others are required to fill skills gaps, to provide oversight and control, or even as part of a development programme. Each of these different types of international movement will bring their own complexities and considerations.

A growing number of companies are using global mobility assignments as a method of attracting and retaining talent. Over 70% of graduates now seek and expect global mobility as part of their career.¹² It is also an increasingly critical capability for upwardly mobile senior executives, who often need and desire international assignment experience, to provide them with the global acumen required for their current roles and for their aspirations to be tomorrow's leaders. For an industry built on travel and mobility, this should provide airlines with a natural advantage for recruiting and retaining talent.

Talent diversity and inclusiveness

Figure 13: CEOs' viewpoint on what diversity and inclusiveness makes their organisation better at



Source: Airline CEOs – PwC Global Airline CEO Survey 2015. All CEOs – PwC 18th Annual Global CEO Survey.

¹² PwC, Talent mobility: 2020 and beyond, 2012. <https://www.pwc.com/gx/en/issues/talent/future-of-work/global-mobility-map.html>

Methodology

The content of this report is based on an online survey among 26 airline CEOs around the world. All participating airlines are among the top 100 global airlines in terms of revenue and are representative of the industry in terms of size, business models and geography. All quantitative information was collected on a confidential basis. Research was conducted by PwC between May and June 2015. While most questions follow the exact questionnaire of PwC's 18th Annual Global CEO Survey, some questions have been added or modified to address the special environment of the airline sector. PwC's extensive network of airline experts and specialists has provided input into the analysis of the survey.

Note: Not all figures add up to 100%, due to rounding of percentages and exclusion of 'neither/nor' and 'don't know' responses.

Contacts

For further information on the survey content, please contact:

Julian Smith

Global Transportation & Logistics Leader
+62 21 52890966
smith.julian@id.pwc.com

Jonathan Kletzel

US Transportation & Logistics Leader
+1 312 3717946
jonathan.kletzel@pwc.com

Stefan Stroh

Partner, Strategy&
+49 69 9585 5440
stefan.stroh@strategyand.pwc.com

Edward Clayton

Senior Executive Director, Strategy&
+60 3 2173 1866
edward.clayton@strategyand.my.pwc.com

Bernd Roese

Global Airlines & Airports Leader
+49 69 9585 1162
bernd.roese@de.pwc.com

Bryan Terry

US Transportation & Logistics Director
+1 678 419 1540
bryan.terry@pwc.com

Peter Kauschke

Director, Global Transportation & Logistics
+49 211 981 2167
peter.kauschke@de.pwc.com

Editorial, research and project team

Bryan Terry
Peter Kauschke
Dominic Byrne

Editorial contribution

Andreas Hilz
Bernd Roese
Richard Wysong
Stefan Stroh
Thomas Pellegrin

Contacts

Joseph Carrozzi (Australia)
+61 2 8266 1144
joseph.carrozzi@au.pwc.com

Teet Tender (Baltics)
+372 614 1800
teet.tender@ee.pwc.com

Peter van den Eynde (Belgium)
+32 3 259 33 32
peter.van.den.eynde@be.pwc.com

Marcio Lutterbach (Brazil)
+55 11 3674 2780
marcio.lutterbach@br.pwc.com

Ilya Bahar (Canada)
+1 416 815 5014
ilya.bahar@ca.pwc.com

Tibor Almassy (Central Africa)
+254 20 2855373
almassy.tibor@ke.pwc.com

Jonathan Yeomans (Chile)
+56 2 940 0034
jonathan.yeomans@cl.pwc.com

Alan Ng (HK)
+852 2289 2828
alan.ng@hk.pwc.com

Thomas Leung (China)
+86 10 6533 2838
thomas.w.leung@cn.pwc.com

Yiangos Kaponides (Cyprus)
+357 25 555 200
yiangos.kaponides@cy.pwc.com

Bo Schou-Jacobsen (Denmark)
+45 39 45 36 39
bo.schou-jacobsen@dk.pwc.com

Mikko Nieminen (Finland)
+358 20 7877 257
mikko.nieminen@fi.pwc.com

Vincent Gaide (France)
+33 1 56 57 8391
vincent.gaide@fr.pwc.com

Dietmar Pruemm (Germany)
+49 211 981 2902
dietmar.pruemm@de.pwc.com

Socrates Leptos-Bourgi (Greece)
+30 210 687 4630
socrates.leptos.-bourgi@gr.pwc.com

Manish Sharma (India)
+91 124 3306007
manish.r.sharma@in.pwc.com

Julian Smith (Indonesia)
+62 21 52890966
smith.julian@id.pwc.com

Guido Sirolli (Italy)
+39 06 57083 2125
guido.g.sirolli@it.pwc.com

Tatsu Watanabe (Japan)
+81 90 9816 3683
tatsu.t.watanabe@jp.pwc.com

Azizan Zakaria (Malaysia)
+60 3 2173 1188
azizan.zakaria@my.pwc.com

Martha Elena Gonzalez (Mexico)
+42 55 52 63 58 34
martha.elena.gonzalez@mx.pwc.com

Anil Khurana (Middle East)
+971 4 304 3652
anil.khurana@ae.pwc.com

Isis Bindels (Netherlands)
+31 88 7923606
isis.bindels@nl.pwc.com

Pip Cameron (New Zealand)
+64 9 355 8253
pip.cameron@nz.pwc.com

Rita Granlund (Norway)
+47 95 26 02 37
rita.granlund@no.pwc.com

Michal Mazur (Poland/CEE)
+48 227 464684
michal.mazur@pl.pwc.com

Jorge Costa (Portugal)
+351 213599275
jorge.costa@pt.pwc.com

Imelda dela Vega (Philippines)
+63 2 8452728
imelda.dela.vega@ph.pwc.com

Kok Leong Soh (Singapore)
+65 6236 3788
kok.leong.soh@sg.pwc.com

Andrew Shaw (South Africa)
+27 11 797 5395
andrew.shaw@za.pwc.com

Bong-Jun Baeg (South Korea)
+82 2 709 0657
bong-jun.baeg@kr.pwc.com

David Samu Villaverde (Spain)
+34 915 684 013
david.samu.villaverde@strategyand.es.pwc.com

Johan Malmqvist (Sweden)
+46 317931132
johan.malmqvist@se.pwc.com

Thomas Bruderlin (Switzerland)
+41 58 792 5579
thomas.bruderlin@ch.pwc.com

Cenk Ulu (Turkey)
+90 212 355 5852
cenk.uldu@tr.pwc.com

Charles Lai (Taiwan)
+886 2 2729 6666 25186
charles.lai@tw.pwc.com

Coolin Desai (UK)
+44 20 721 24113
coolin.desai@uk.pwc.com

Jonathan Kletzel (US)
+1 312 298 6869
jonathan.kletzel@pwc.com

PricewaterhouseCoopers has exercised reasonable care in the collecting, processing, and reporting of this information but has not independently verified, validated, or audited the data to verify the accuracy or completeness of the information. PricewaterhouseCoopers gives no express or implied warranties, including but not limited to any warranties of merchantability or fitness for a particular purpose or use and shall not be liable to any entity or person using this document, or have any liability with respect to this document. This report is for general purposes only, and is not a substitute for consultation with professional advisors.

© 2015 PwC. All rights reserved. PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details.