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Economic Benefits of ASEAN Single Aviation Market

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Executive Summary

Air transport plays a crucial role in the overall economic prosperity of ASEAN. Aviation connects businesses, tourists, friends and family. It is a key enabler of trade and investment that supports millions of jobs and generates billions in economic growth. Air transport in ASEAN is underpinned by the ASEAN Single Aviation Market which is designed to drive integration and liberalisation of ASEAN's aviation markets.

In this Policy Ideas, we explore the economic benefits of the ASEAN Single Aviation Market, considering both what has been achieved so far and what further potential there is. We also consider the steps needed to progress implementation of the ASEAN Single Aviation Market.

We conclude that:

Market liberalisation, through the ASEAN Single Aviation Market (ASAM) has delivered significant economic benefits to the citizens and businesses of ASEAN. ASAM has lowered prices and increased choice for passengers; ASAM has increased tourism, creating new jobs and wealth; and ASAM has facilitated trade and made ASEAN a more attractive place for foreign investment. This is particularly important as e-commerce in the region continues to expand at a rapid pace.

There are significant further benefits that can achieved if ASAM is implemented in full. Passenger and cargo demands are set to grow, but full implementation of ASAM is crucial if this demand is to be met. We estimate that growth in the air transport industry will support over two and a half million jobs across ASEAN by 2030 and contribute nearly 100bn USD to the economy every year if new passenger demands can be met. We also estimate it will be more than three times easier for ASEAN citizens to travel by air by 2030.

The biggest markets will be the biggest winners. All ASEAN Member States stand to benefit, but large countries like Indonesia and the Philippines can expect to see the biggest increases in new jobs and GDP, given the size of their domestic markets.

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Full realisation of these benefits requires sustained commitment to the implementation of ASAM. Significant achievements have been made but future growth requires an ongoing commitment to the reforms envisioned by ASAM and concerted efforts by all Member States. Implementation of the agreed commitments under ASAM remains slow and uneven.

There are specific steps that ASEAN Member States should proceed with immediately to advance implementation of ASAM. We recommend that ASEAN Member Steps take the following steps:

i) provide a formal platform for the Directors General of all ASEAN Member States' civil aviation authorities to discuss the ways to overcome the specific challenges in achieving the ASEAN Single Aviation Market and work towards a Regional Safety and Oversight Office (RSOO) as per the highest international safety standards and ICAO guidelines;

ii) allow open access to aviation information between the ASEAN Member States;

iii) intensify the process of ASEAN harmonisation by advancing the Mutual Recognition Agreements for aviation-related services as fast as possible ; and

iv) prioritise full implementation of ASEAN Community Carriers.

Introduction

The Association of Southeast Asian Nations (ASEAN) is a unique association which has developed its own methods of achieving economic integration. The comparison is often made to the world's most deeply integrated regional bloc, the European Union (EU). Despite having a less robust institutional structure than the EU to support integration, such as a common currency, ASEAN has been successful in deepening economic links between its Member States. This fact can be seen when considering the volume of trade between ASEAN Member States: in 2017, total intra-ASEAN trade as a share of ASEAN total Gross Domestic Product (GDP) was 21.2% whereas the share of total intra-EU trade over total GDP is 24.4%. This suggests that despite the absence of institutions such as the common currency in the ASEAN region, ASEAN has still managed to integrate to the mutual benefit of all Member States over the past 51 years.

> *Beyond trade, strengthening of the internal market through stronger air transport links also makes ASEAN a more attractive destination for foreign investment.*

In more recent years, the focus on economic integration has included strengthening the common aviation market: since 1995 air connectivity has been a fundamental component to the ASEAN Economic Community (AEC) as part of what is now called the ASEAN Single Aviation Market (ASAM). Improving air transport links is crucial to maximising the potential for trade, particularly with the growth of e-commerce predicted in the future. Beyond trade, strengthening of the internal market through stronger air transport links also makes ASEAN a more attractive destination for foreign investment. Furthering ASAM will also maximise the potential for tourism and travel which has significant economic as well as cultural and social benefits.

There are three objectives of ASAM which are: (1) to develop a unified and single aviation market among ASEAN members in Southeast Asia; (2) to become a vital component of the roadmap for the establishment of the AEC; and (3) to replace existing unilateral, bilateral and multilateral air services agreements among member states which are inconsistent with its provisions.

Advancing ASAM requires concerted efforts on the part of all Member States. ASEAN's consensus-based approach requires constant ongoing discussion to achieve meaningful advances in the level of integration. The Kuala Lumpur Transport Strategic Plan 2016-2025 lays out the steps required to achieve a more integrated aviation market, but already many of the measures are behind schedule. The ASEAN secretariat themselves, stated explicitly that "ASEAN Member States need to undertake a continued discussion on the way forward and identify concrete steps to establish ASAM", recognising the need for ongoing discussion if progress is to be made.

In this paper we consider the economic benefits of ASAM and the steps needed to improve implementation. The paper is organised into three parts:

- In **Part 1** we identify the economic benefits that have been achieved as a result of greater aviation connectivity within ASEAN to date, including in trade, investment and tourism;

- In **Part 2** we consider the potential for further benefits that can be achieved by full implementation of ASAM and the associated growth in the aviation sector;

- In **Part 3** we identify the concrete steps that ASEAN Member States need to pursue if ASAM is to be developed and these economic benefits realised.

Part 1: Economic Benefits of Aviation Liberalisation in ASEAN

Aviation has been an integral component in the establishment of the ASEAN Economic Community (AEC). Since ASEAN designated air transport as one of the twelve priority sectors for economic integration in November 2004, significant integration and liberalization have taken place in the past 15 years.

In particular, intra-ASEAN traffic has increased significantly, and some ASEAN city pairs are now ranked as the busiest international routes worldwide (Lee, 2018). The costs of air transport have also been falling, around 1% a year over the past 40 years, Swan (2007) further contributing to the expansion in the use of air travel within the ASEAN region.

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This expansion has been underpinned by a series of agreements that have provided the foundation for liberalisation of the aviation sector in ASEAN and form the basis of the ASEAN Single Aviation Market. The three agreements are the 2009 Multilateral Agreement on Air Services (2009 MAAS), the 2009 Multilateral Agreement for the Full Liberalization of Air Freight Services (2009 MAFLAFS), and the 2010 Multilateral Agreement for the Full Liberalization of Passenger Air Services (2010 MAFLPAS). The first phase of the ASAM was completed when the 2010 MAFLPAS was ratified by the 1oth state, Indonesia in April 2016

This rapid growth in connectivity coupled with a continuing reduction in the cost of air transport has delivered multiple economic benefits.

Consumers

The liberalisation of air transport has provided greater choice to passengers in the ASEAN region. The number of passengers carried in ASEAN countries has tripled, from 98 million in 2004 to 329 million in 2016. (The World Bank, 2018)

The liberalisation of the aviation market has also provided increased competition, particularly as a result of the emergence of Low-Cost Carriers (LCCs) in the region, which has reduced passenger air fares and facilitated greater choice. A total of 1,009 nonstop services were served in 2004 from ASEAN countries, which increased to 1,683 non-stop services in 2014 – an increase of 674 routes (or 67%) since 2004. (InterVISTAS, 2015) Considering just the case of Malaysia and Thailand, in 2003 there were just five nonstop routes, with a total seat capacity of 723,300 and of these five nonstop routes, only two were offered by more than one carrier. By 2014, this had grown to 17 nonstop routes, with a seat capacity of 2,685,600 (a total increase of 271% compared to 2003), greatly increasing passenger benefits not only by offering more destination choices and higher frequencies, but also by decreasing travel times. (InterVISTAS, 2015)

Another example is the Kuala Lumpur – Singapore route, which was tightly controlled before 2008 and only operated by Malaysian Airlines and Singapore Airlines. In February 2008, this policy was partially relaxed, allowing LCCs to operate on the route. This was followed in December 2008 by a complete relaxation in line with Protocol 5 of MAAS, and there is now unlimited capacity between Singapore and Kuala Lumpur for all designated carriers from the two countries. As a result of this competition, ticket prices dropped from around $180 on average to $30 in the third quarter of 2008 (Zhang et al., 2008).

This is one example of a wider trend. The greater level of competition as a result of market liberalisation has exerted a downward pressure on air fares across ASEAN. Analysis by PwC shows that passenger yields for Full Service Carriers (FSCs) fell consistently from 2012 to 2016, reflecting increasing pressure on prices in the region as a result of market liberalisation (PwC, 2018).

This reflects the experience of other regions that have undertaken significant liberalisation of their aviation markets. Liberalisation of the US domestic aviation market – and the lower fares and increased choice it has brought – is estimated to provide airline customers with at least $20 billion of additional value (i.e. consumer surplus) each year (Kahn, 2004). In their analysis of regulatory environments for air transport across the OECD, Gonenc and Nicoletti note the importance of competition in lowering fares, concluding that: "Overall efficiency and the rate of occupancy of aircraft seats tend to increase and all categories of fares tend to decline as the regulatory and market environment becomes friendlier to competition" (Gonenc and Nicoletti, 2000).

These benefits help explain the significant growth in passenger travel in recent years in ASEAN, which accelerated following the agreement to liberalise air transport. Between 2000 and 2008, the total number of air passengers grew at 8.1% annually, but from 2009 to 2012 this increased to an average growth rate of 13.2%.

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Gonenc and Nicoletti, 2000"

Economic contribution of the aviation sector

The liberalisation of the aviation market has also led to the growth of the aviation sector itself, which makes a significant contribution to the economy in a number of ways. First, the "direct" contribution of the sector, which includes the output and employment generated by the airlines and airports themselves in addition to related services, such as air traffic control, ground handlers, airport security, immigration and customs authorities and aircraft maintenance companies. Second, there is the "indirect" impact of the aviation sector, which encompasses the employment and output generated by activity in the wider supply chain of the aviation sector, this can include suppliers of fuel, catering services, travel agents, legal services etc. Finally, there is the "induced" impact, which encompasses the contribution to the economy from the spending of those employed either directly in the aviation sector or connected to the aviation sector's supply chain, such as a pilot spending his monthly salary at a restaurant.

According to these definitions, Oxford Economics have conducted analysis of the aviation sector in Thailand, Malaysia, Philippines and Singapore.

Based on the Oxford Economics (2011a, 2011b, 2011c, 2011d) report, the aviation sector contributed approximately 1.1%, 0.4%, 5.4%, and 1.5% to Malaysia's GDP, Philippines' GDP, Singapore's GDP, and Thailand's GDP respectively in 2009. The breakdown of the contribution can be summarised as follows:

Table 1: Aviation Gross Value Added for selected four ASEAN countries in 2009

Gross Value Added (GVA)*	Malaysia	Philippines	Singapore	Thailand	Total
Direct Contribution	USD 786.24 million	USD 330.27 million	USD 6.4 billion	USD 1.92 billion	**USD 9.44 billion**
Indirect Contribution	USD 638.82 million	USD 182.02 million	USD 2.28 billion	USD 1.32 billion	**USD 4.42 billion**
Induced Contribution	USD 393.12 million	USD 153.88 million	USD 1.76 billion	USD 928.14 million	**USD 3.24 billion**
Total Contribution	**USD 1.82 billion**	**USD 666.17 million**	**USD 10.44 billion**	**USD 4.17 billion**	**~USD 17.1 billion**

**Assuming currency conversion of USD1 = MYR4.07 = PHP53.29 = SGD1.36 = THB33.4*
Source: Oxford Economics (2011a, 2011b, 2011c, 2011d)

Based on Table 1, the total contribution made by the aviation sector from four of the ASEAN countries in 2009 was approximately USD 17.1 billion. Singapore's aviation industry has the highest contribution to national GDP at USD 10.44 billion followed by Thailand, Malaysia, and the Philippines at USD 4.17 billion, USD 1.82 billion, and USD 666.17 million respectively.

In terms of employment, the aviation sector supported a total of 738,000 jobs in 2009 in the selected four ASEAN countries (Oxford Economics, 2011a, 2011b, 2011c, 2011d). The breakdown of the jobs supported can be summarised as follows:

Table 2: Jobs created from Aviation industry in selected four ASEAN countries in 2009

Employment	Malaysia	Philippines	Singapore	Thailand	Total
Direct Contribution	35,000 jobs	44,000 jobs	58,000 jobs	79,000 jobs	**216,000 jobs**
Indirect Contribution	42,000 jobs	42,000 jobs	35,000 jobs	185,000 jobs	**304,000 jobs**
Induced Contribution	25,000 jobs	36,000 jobs	27,000 jobs	130,000 jobs	**218,000 jobs**
Total Contribution	**102,000 jobs**	**122,000 jobs**	**120,000 jobs**	**394,000 jobs**	**738,000 jobs**

Source: Oxford Economics (2011a, 2011b, 2011c, 2011d)

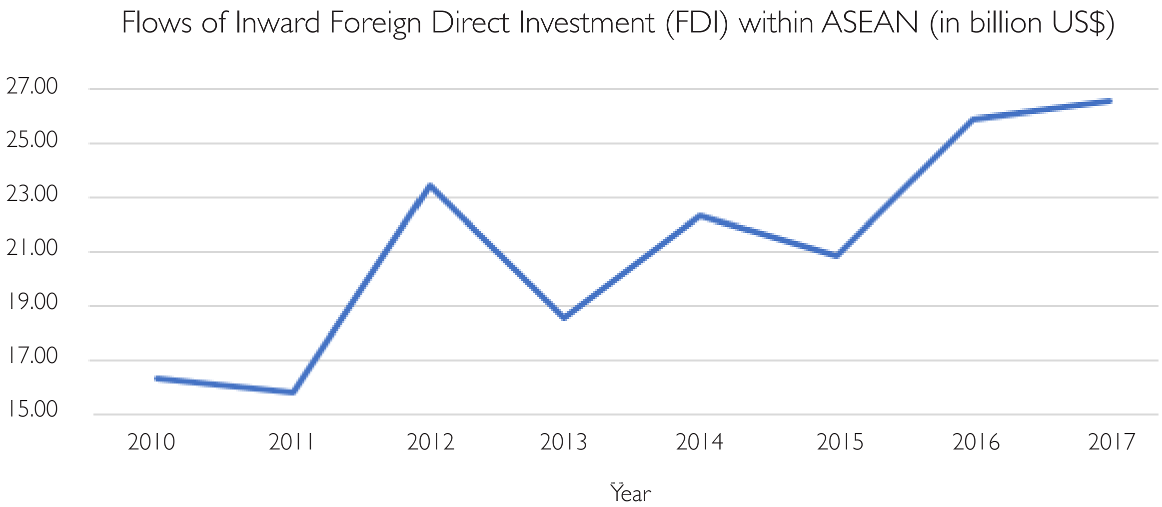
According to Table 2, the country with the highest number of jobs created by the aviation industry in 2009 was Thailand, where a total of 394,000 jobs were created, followed by the Philippines, Singapore, and Malaysia with 122,000 jobs, 120,000 jobs, and 102,000 jobs created respectively. Also, the indirect contribution of the aviation sector yields the most jobs at 304,000 jobs, followed by an induced and direct contribution of the aviation sector which only yield 218,000 jobs and 216,000 jobs respectively.

This contribution is significant, but the economic impact of liberalising the aviation sector in fact goes much wider than this. The aviation sector enables wider benefits to the economy, through attracting foreign direct investment (FDI), facilitating trade, improving productivity and increasing tourism – all of which are improved following the liberalisation of the aviation sector.

Attracting Foreign Direct Investment

Bannò and Redondi (2014) proved that there is a correlation between air connectivity and Foreign Direct Investment (FDI). With new air routes, firms will be able to reduce their transport cost and thus increase the probability of FDI exchange between connected regions. Once a new route is opened, Bannò and Redondi (2014) estimated that FDI would increase by 33.7% in two years time. According to ASEAN official statistics, FDI within ASEAN has risen by 62.9% from USD 16.3 billion in 2010 to USD 26.6 billion in 2017.

Figure 1: Data for FDI inflows within ASEAN from 2010-2017.



Source: ASEAN Statistics Division (ASEANstats)

The aviation industry can also attract businesses to expand their operations by setting up headquarters in the host region (Bel, et al., 2008). Bel and Fageda (2008) argued that a 10% increase in the supply of intercontinental flights would raise the number of headquarters of large firms located in the corresponding host country to around 4%. This suggests if ASEAN manages to ensure a robust aviation policy in the region, more multi-nationals will choose to locate their headquaters there. Therefore, although setting up FDI in the host region depends on various factors such as political stability and the business regulations of the host county, as argued by Hoogvelt et al. (1987), both research made by Bel and Fageda (2008) and Bannò and Redondi (2014) proved that a flourishing aviation industry will contribute to a higher FDI in the host countries in the long run.

This is further corroborated by the direct views of industry: in 2005, IATA surveyed 625 businesses in five countries (China, Chile, United States, Czech Republic and France). The survey found that 25% of surveyed businesses in five countries indicated that 25% of their sales were dependent on good air transport links; 30% of Chinese firms reported that they had changed investment decisions because of constraints on air services. (IATA, 2005)

Facilitating Trade

Air transport in ASEAN is also a critical component for trade. In 2017 alone, total trade volumes within ASEAN were USD585.3 billion which is 21.2% of ASEAN GDP. This amount of trade volume indicates the importance of intra-ASEAN trade to the ASEAN market, and air transport is a crucial enabler of this.

Air transport has become an increasingly important feature of global trade. Research by Oum, Zhang, and Fu (2010) showed that lower air transport costs increased trade volumes. Furthermore, Oum et al. (2010) indicated that as a result of a relative decrease in air travel costs, air cargo is growing more important in cargo logistics which now makes up 40% of international trade by value. Cech (2004) used a cross-section statistical comparison method to investigate how air cargo services affect the economies of 125 U.S. counties and concluded that higher levels of air cargo services contribute to increased earnings and increased employment. A study by EUROCONTROL (2005) estimated that the contribution of air transport to trade in Europe was €55.7 billion in 2003 across the 25 EU members at that time.

Liberalisation of air services has enabled air transport's positive impact on trade to be maximised. Oum (2015) considered the effects of air transport liberalisation on foreign visitor inflow and international services trade in Canada and concluded Canada's Open Sky's Agreements have had significant positive effects on increasing traveller inflow into Canada. In turn, traveller inflow into Canada had positive effects on Canada's total service exports. In their analysis of the impact of Open Skies agreements in the US, Micco and Serebrisky (2006) conlcuded that Open Skies Agreements had reduced air transport costs by 9% and increased the share of imports arriving by air by 7%.

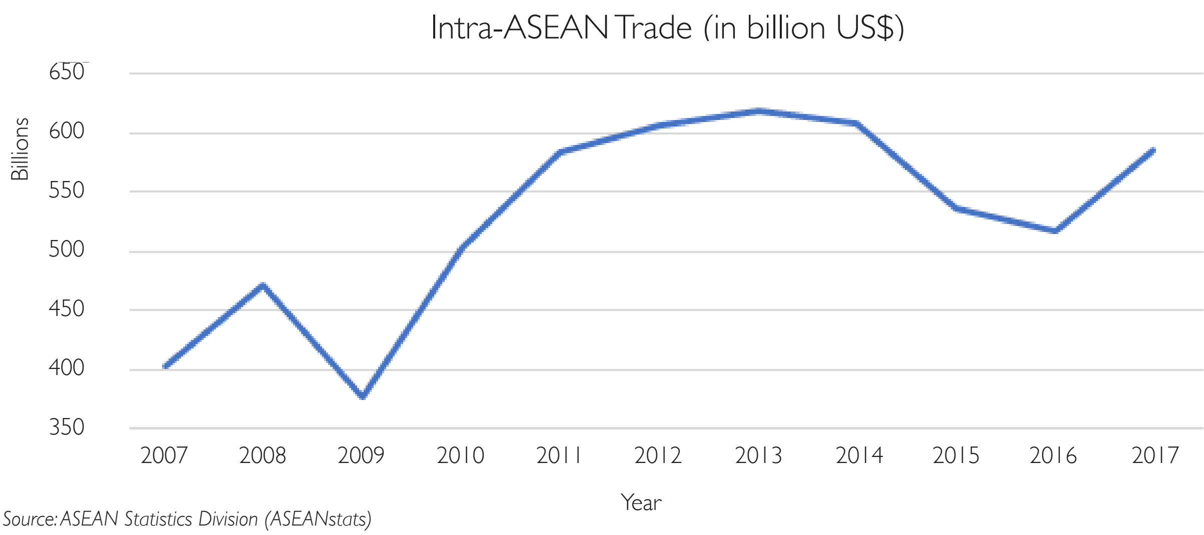
Air transport is set to play an increasingly important role as e-commerce develops. According to Euromonitor (2017), internet sales are projected to remain the fastest growing channel for retail sales globally. The International Post Corporation (IPC) reported in its annual survey that between 2013 and 2015, e-commerce from Asia Pacific to Europe grew by 66% (IATA, 2017). In their White Paper on e-commerce logistics, IATA identifies that "E-commerce is a future growth driver for the air cargo industry, as online shopping boosts demand for parcel delivery services worldwide" (IATA, 2017).

Air transport is set to play an increasingly important role as e-commerce develops. According to Euromonitor (2017), internet sales are projected to remain the fastest growing channel for retail sales globally.

Crucially, the consumer expectation for speed when it comes to e-commerce, regardless of whether the transaction is cross-border, means air transport is often best placed to service the needs of this growing demand. International Civil Aviation Organisation (ICAO) Secretary General, Dr Fang Liu aid that almost 90% of business-to-consumer (B2C) global e-commerce transactions are delivered by air. She went on to emphasise the importance of countries ensuring the right infrastrucutre and regulation is in place to ensure aviation industries can meet this growing demand.

These findings reflect the experience in ASEAN, where liberalisation of air transport under ASAM has contributed to a sustained increase in intra-ASEAN trade is vital for the region. For the last ten years, intra-ASEAN trade has increased by 45.2% from USD 403.2 billion in 2007 to USD 585.3 billion in 2017.

Figure 2: Data for Intra-ASEAN Trade from 2007-2017.



Source: ASEAN Statistics Division (ASEANstats)

Improving Productivity

We have noted the important role that liberalisation of air transport under ASAM has had in attracting FDI and facilitating trade in ASEAN and both these functions serve an additional benefit: increase productivity. As ASEAN's exporters gain access to new markets their products and services face new competition internationally which spurs growth in productivty. Oxford Economics (2011a) noted that trading through global value chain makes modern economies highly dependent on air transport.

Likewise, FDI brings new technologies and practices which enhance productivity in the local economy. Demonstrating this point, Oxford Economics (2011a) argued that there is a positive correlation between air connectivity and long-term economic growth, as it was estimated that connectivity could lead to better long-run productivity and hence GDP. Research by Oxford Economics (2011a) claimed that there would be an increase of RM 434 million per annum in the long-run GDP from a 10% improvement in Malaysia's air connectivity (relative to GDP).

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Again, this argument is corroborated by research from other countries. Button, Lall, Stough and Trice (1999) used data from 321 US metropolitan areas in 1994 to regress high-tech employment against a number of controlling factors including a dummy indicating that the region was served by a hub airport. The analysis found that the presence of a hub airport increased high-tech employment by an average of 12,000 jobs in a region.

So, there is a virtuous circle between liberalisation of air transport and the facilitation of trade, FDI and improvements in productivity.

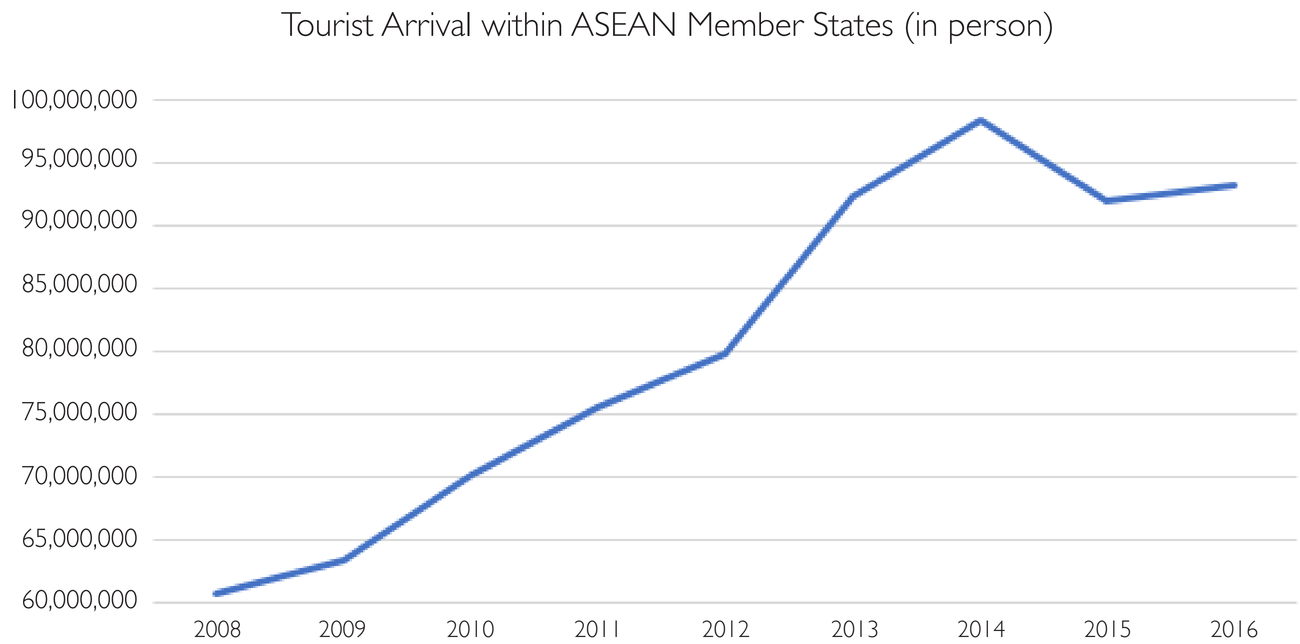
Increasing Tourism

Aside from facilitating greater trade and investment, air transport is also a crucial enabler of tourism, which is a major component of the economy across ASEAN. The aviation industry is complementing the tourism sector by providing a means for tourists to travel from one country to another. The aviation industry connects the world's cities with more than 36,000 routes and transports approximately 2.8 billion passengers each year (Perovic, 2013). In the same year, Perovic (2013) argued that the aviation sector contributed to the growth and supported the operations of the tourism industry by generating at least 34.5 million jobs in the tourism sector and contributing around USD 762 billion per year to world GDP.

Air transport now accommodates the highest share of international tourist arrivals (Dimitriou & Sartzetaki, 2018). According to Dimitriou and Sartzetaki (2018), most tourists travel using air transportation. This is particularly true in the ASEAN region, where member states do not share the same landmass as in the European Union (EU). For example, a tourist may not necessarily travel from Germany to France using air transport, but may instead opt for other alternatives such as high-speed train, buses, and cars. However, in the case of ASEAN, it is impossible for a tourist to travel from Malaysia to the Philippines using land transportation alone. Therefore, air transportation is essential for tourism ASEAN, and it is a part of the engine of growth in the region.

As with trade and investment, there is evidence that liberalisation of air transport further increases the role it can play in supporting tourism. For example, a study by Dobruszkes and Mondou (2013) showed that the open sky agreement signed by the EU and Morocco boosted Morocco's international tourist arrival by 118.74% from 4.27 million tourists in 2000 to 9.34 million tourists in 2011. ASEAN itself also can be an example of this. As we have already noted, between 2009 and 2010, ASEAN member states have signed three multilateral agreements: i) the ASEAN Multilateral Agreement on the Full Liberalisation of Air Freight Services and its Protocol (MAFLAFS); ii) the ASEAN Multilateral Agreement on Air Services and its Protocol (MAAS), signed on 20 May 2009 (The ASEAN Secretariat, 2015) and iii) the ASEAN Multilateral Agreement on Full Liberalisation of Passenger Air Services and its Protocol (MAFLPAS) signed on 12 November 2010 (The ASEAN Secretariat, 2015). These three multilateral agreements are the foundation for ASEAN Single Aviation Market and the best cutoff point to observe whether there is an impact on the volume of international tourist arrivals in ASEAN. According to ASEAN Statistics Division (ASEANstats), the number of international tourist arrival within ASEAN has increased by 53.6% from 60.6 million tourists in 2008 to 93.1 million tourists in 2016.

Figure 3: Data for Intra-ASEAN Tourism from 2008-2016.

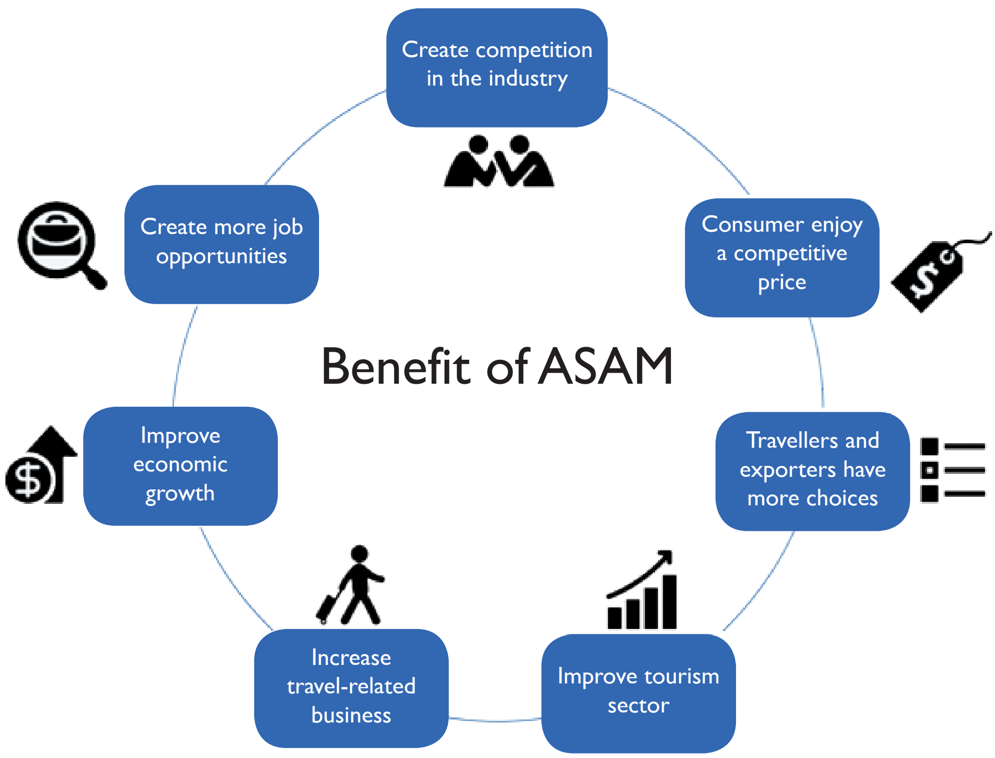


Source: ASEAN Statistics Division (ASEANstats)

International tourist arrival has the potential for further growth with the expansion of LCCs. As we noted earlier, LCCs started to develop when deregulation of the aviation industry lifted restrictions on market entry, capacity and frequency, and subsidies for airlines to fly charter were introduced. In the Japanese aviation market, for instance, LCCs and charter regional airlines are now the primary providers of charter flights which led to cheaper charter airline tickets (Wu, 2016). As a result, Japan managed to encourage the development of tourism in the region by fulfilling the demand from Korea, Taiwan, and China (Wu, 2016). The success of LCCs indicates that when the aviation industry was deregulated, economic growth and increased competition pushed the market to an optimum level and thus, consumers can benefit from the cheaper fares. The cheaper ticket will lead to a higher travel count as consumers with lower income now has the ability to travel by air. Therefore, with the advancement of the aviation industry through LCCs, the tourism sector will grow stronger and contribute to the national economy.

The tourism sector is particularly important in ASEAN, as ASEAN is a melting pot of diverse diverse cultures, religions, and arts, it has immense potential to be a leading tourist destination in the world. Strengthening ASEAN aviation policy will drive the tourism industry in ASEAN forward, and have a major economic impact. For example, Greece and Cyprus experienced economic growth through increased air connectivity and tourism activity, in which the total national national GDP increased by 5% and 6% respectively (Dimitriou & Sartzetaki, 2018). Thus, aviation and tourism complement each other, and the development of the aviation industry will benefit the ASEAN region as a whole.

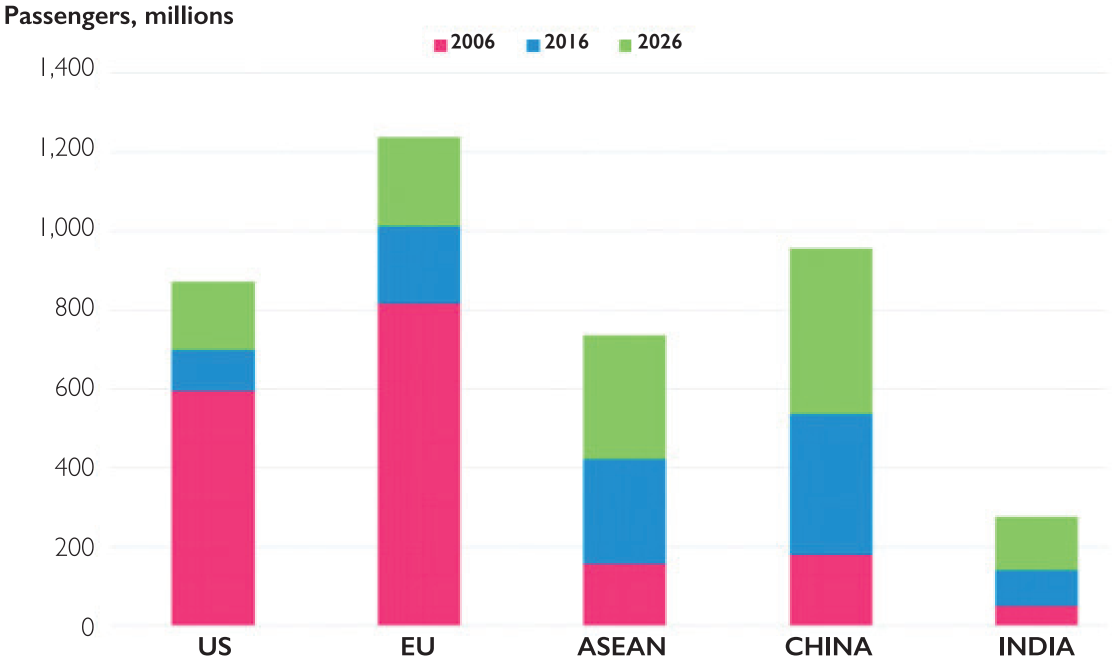
Figure 4: Summary of Benefits of ASAM



Part 2: ASEAN Single Aviation Market Potential

In Part 1, we considered the significant economic contribution of the aviation sector in ASEAN and how that contribution is maximised by the liberalisation of the sector under ASAM. But there remains further to go. IATA forecasts that passenger numbers in Asia, including ASEAN, will continue to grow significantly over the next 10 years.

Chart: IATA Passenger Forecasts[1]



Source: IATA Economics using data from IATA/Tourism Economics 20 year passenger forecast

Looking further ahead, air passenger traffic in Asia Pacific is predicted to outpace that of both Europe and North America up to at least 2034, rising to a total of 4.3 billion passengers (InterVISTAS, 2015).

Despite the recent improvements under ASAM, air transport in ASEAN still has unfulfilled potential. According to the IATA Air Connectivity Index, of the top 10 most connected airports in Asia Pacific, only two are in ASEAN: Singapore Changi Airport and Kuala Lumpur International Airport. Hub airports in Jakarta, Manila and Bangkok should be competing to be high on this list. As we will explore further in Part 3, progress with further measures to liberalise air transport in ASEAN is slow and uneven. Ultimately, the ability of ASEAN's air transport industry and infrastructure to respond to the expected rise in demand will be constrained if the air transport market is not further liberalised. As we discussed in Part 1, the liberalisation of air transport markets in ASEAN facilities greater competition which in turn increases capacity and reduces costs which enables the air transport system to meet the growing demand of passengers and cargo. If future demand is to be accommodated, then the process of liberalisation must be maintained.

[1] *Taken from presentation by IATA, accessed from: https://www.iata.org/publications/economics/Reports/Presentations/GAD_Asia2017_AnjaparidzeSept_Final.pdf*

Quantifying the potential benefits of air transport liberalisation

In order to articulate the benefits of further liberalisation in line with ASAM, we want to estimate the potential future economic contribution of the air transport industry, if future demand can be met – which, as we discussed above – will in part depend on the extent of future liberalisation. In order to do this, we adapt a methodology used by InterVISTAS (2015), in their estimate of future contribution of air transport across Asia Pacific.

Box 1. Estimate of potential future economic contribution of air transport in ASEAN

Based on InterVISTAS (2015) methodology, we will estimate the future contribution of the air transport market in ASEAN. Given the projected ASEAN total air passengers in 2016 and 2026 provided by IATA, the average Compound Annual Growth Rate (CAGR) can be computed to calculate the annual growth rate for air passengers.

$$\text{CAGR} = \left(\frac{\text{Final Value}}{\text{Initial Value}}\right)^{1/N} - 1 \text{ ; N: Number of Period}$$

	2016 ASEAN total air passengers (Million)	2026 ASEAN total air passengers (Million)	CAGR
ASEAN	420	750	5.9696%

InterVISTAS (2015) provide estimates for the number of jobs and GDP created by the air transport sector in each ASEAN Member State in 2014, including the direct, indirect and induced employment and output effects. The air passenger CAGR in ASEAN can then be used to calculate percentage change in employment in ASEAN in the aviation sector based on formula provided by InterVISTAS Consulting Inc (2015). It is important to taper the growth in employment to reflect the fact that eficiency and productivity in the air transport sector will likely increase. We therefore apply an elasticity provided by InterVISTAS to the growrth rate in passenger values. Where % increase in *Employment = % Increase in Passenger Traffic x Elasticity.* Note that InterVISTAS Consulting Inc (2015) suggested the elasticity at coefficient at 0.667

	% Increase in passenger traffic (Air Passenger CAGR)	% Increase in Employment (Employment in the Aviation Sector CAGR)
ASEAN	5.9696%	3.9817%

Then, aviation economic impacts on GDP and jobs for 2030 can be estimated with air passenger CAGR and employment CAGR at 5.9696 % and 3.9817% respectively by using future value formula

Future Value = Present Value x (1 + CAGR)^{N}; N: Number of Period

The resulting estimates for future jobs and GDP supported by air transport sector as provided in the table below. This includeds the "direct", "indirect" and "induced" output and employment.

ASEAN Member States	Aviation economic impacts on GDP in 2014 (USD Million)	Aviation economic impacts on Jobs in 2014 (No. of people)	Aviation economic impacts estimate on GDP for 2030 CAGR at 5.9696%	Aviation economic impacts estimate on Jobs for 2030 CAGR at 3.9817%
Brunei Darussalam	410	4,200	1,000	7,800
Cambodia	56	13,100	140	24,500
Indonesia	8,500	400,900	21,500	748,800
Lao PDR	50	5,600	125	10,500
Malaysia	3,800	229,600	9,600	428,800
Myanmar	55	10,100	140	18,900
Philippines	1,900	202,800	4,800	378,800
Singapore	17,100	171,400	43,200	320,100
Thailand	5,900	309,600	14,900	578,200
Viet Nam	900	111,700	2,300	208,600
Total	**38,671**	**1,459,000**	**98,000**	**2,724,000**

**Total may not sum due to rounding*

These estimate suggests that if the projected future demand for air transport can be met, over one million more jobs will be created across ASEAN and an additional 100bn USD in output will be generated.

These economic benefits only account for the contribution of a larger air transport sector; they do not include the significant potential benefits that would arise form the increased trade, investment, tourism and productivity that would follow growth in passenger and cargo demands. Various attempts have been made to quantify these economic "multiplier" effects, but further research is required to reach definitive conclusions about these potential benefits.

We also want to consider the benefit of further liberalisation of air transport for the individual. The Malaysian Aviation Commission (2018) studied the relative connectivity of ASEAN Member States. This Connectivity Indicator is adapted from IATA methodology to measure a country's integration into the global transport network, by measuring the number of passenger seats, frequency of flights and international destinations served. We believe this measure of connectivity can be adapted to provide an indication the relative ease with which individual citizens can travel by air – "Connectivity per Capita".

A high "Connectivity per Capita" suggests that citizens of that city can acesss the global transport network more easily, and will therefore have more options to travel overseas . Note, this does not take account of the affordability of air transport in diffferent cointries

This estimate suggests that if the projected future demand for air transport can be met, over one million more jobs will be created across ASEAN and an additional 100bn USD in output will be generated.

Box 3. Estimating connectivity per capita

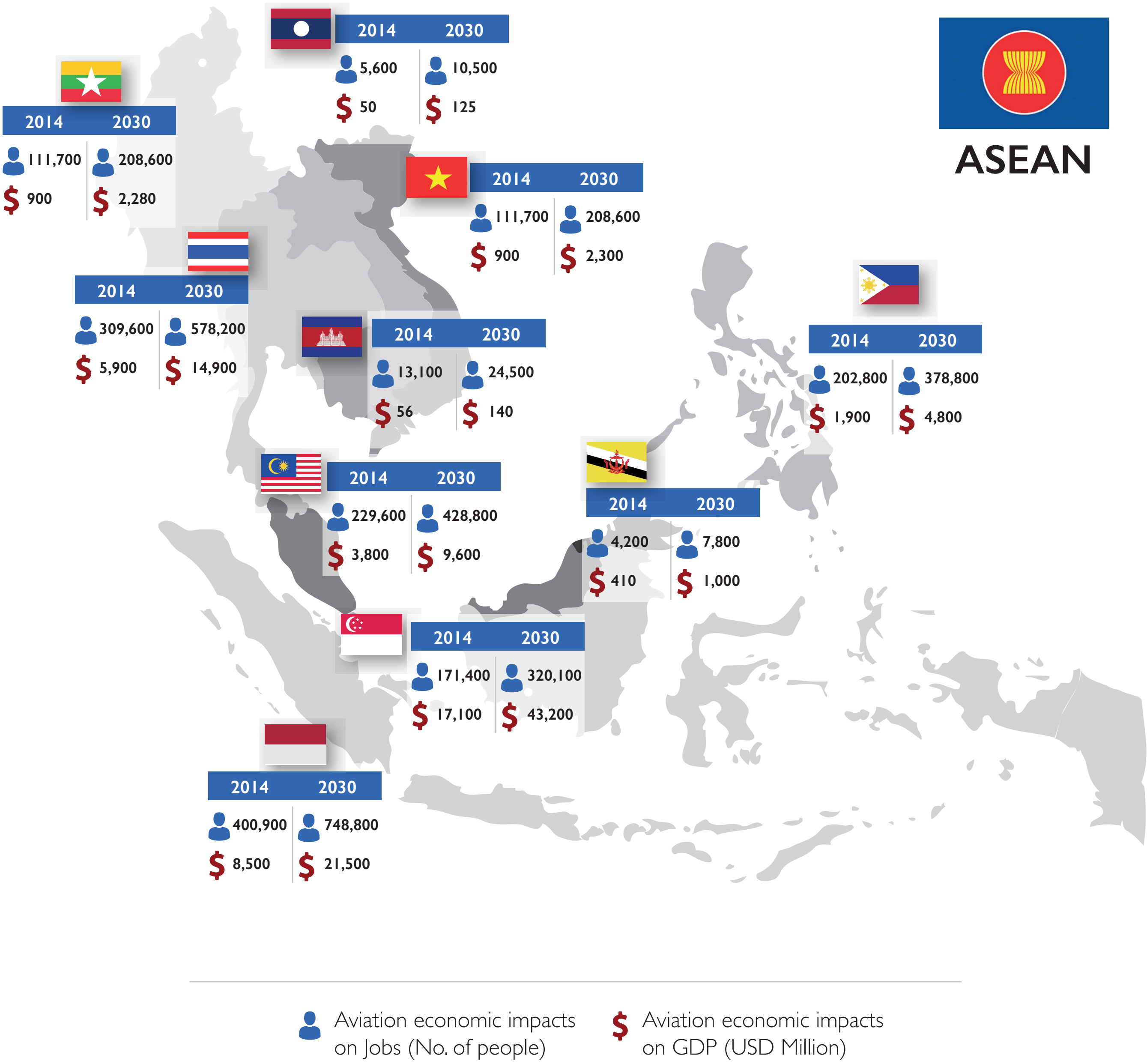
MAVCOM (2018) estimated the air connectivity index score for each ASEAN member states in 2017. With the given score and the air passenger CAGR previous calculated, the air connectivity index score for 2030 can be estimated. In addition, to enhance the quality of the calculation, air connectivity per capita can be calculated by using UN estimates on the number of population in 2030 for each ASEAN member states.

ASEAN Member States	Air Connectivity Index Score in 2017	Air Connectivity per Capita 2017 (Index Score/ Million)	Air Connectivity Index Score in 2030 with CAGR at 10.8449%	Population Projection in 2030	Air Connectivity per Capita 2030 (Index Score/ Million)
Brunei Darussalam	5	12.36	20	490,000	41.25
Cambodia	21	1.34	82	18,798,000	4.34
Indonesia	99	0.38	379	295,595,000	1.28
Lao PDR	6	0.80	21	8,049,000	2.61
Malaysia	89	2.81	339	36,815,000	9.20
Myanmar	15	0.28	56	60,489,000	0.93
Philippines	78	0.74	296	125,372,000	2.36
Singapore	108	19.24	412	6,342,000	64.94
Thailand	153	2.22	583	69,626,000	8.38
Viet Nam	74	0.78	284	106,284,000	2.67

This estimate suggests that if future demand for air transport can be met, then individuals across ASEAN will be more than three times more connected to the global transport network – increasing their ability to work, travel and study in other countries.

These various economic benefits, including new employment, economic growth, and ability to travel, can only be realised if the future demands on the air transport system in ASEAN can be met. This is turn will depend on further liberalisation of the market as envisioned under ASAM.

Figure 5: Summary of 2030 job and GDP estimates in ASEAN



Part 3: Implementing ASEAN Single Aviation Market

According to IDEAS analysis, out of the 45 measures outlined in the framework, at least 16 measures have no evidence of having been updated.

To achieve the benefits identified in the previous section, there is a need to give severe consideration to the gap in the implementation of the ASEAN Single Aviation Market.

On December 2011 in conjunction with the 17th ASEAN Transport Minister Meeting, an implementation framework was published with detailed goals to advance ASAM. However, as of writing there are significant gaps between the expected outputs with a specific timeline and today's actual outputs. For instance, the framework document targeted the development of a mutual recognition instrument such as the Mutual Recognition of Aviation Related Certification Agreement by 2012. Unfortunately, this development could only be seen during the 23rd ASEAN Transport Meeting in October 2017 when member states agreed to pursue the Mutual Recognition Agreement (MRA) on Flight Crew Licenses. This is part of wider pattern of delays and demonstrates that ASEAN is currently lagging at least five years behind in implementing a key component of ASAM.

According to our own analysis[2], out of the 45 measures outlined in the framework, at least 16 measures have no evidence of having been updated. One possibility is that the measures achieved their target, but this is not in the public domain, the other possibility is that the objective has not been achieved as stated in the implementation framework. Either way, there is a need for ASEAN to clarify the progress of the implementation framework. Achieving targets may not be the ultimate solution for advancing the ASAM, but member states should stick to the implementation framework that has been agreed and come out with a written report on the progress of each measure from the framework every year. In the remainder of this paper we highlight the priority actions ASEAN Member States should take to further advance ASAM and deliver the benefits identifed in the previous parts.

Based on expert interviews conducted by IDEAS over the course of 2018 and the outcome of the roundtable discussion on Advancing ASEAN Seamless Skies held on the 27th of April 2018, we believe that these recommendations will assist ASEAN member states to tap into the full potential of ASAM.

[2] *IDEAS conducted a gap analysis in April 2018, updated throughout the year*

I. Enhanced Aviation Standards Monitored by Joint Oversight Office

This research paper recommends setting up a formal annual meeting of Directors General (DGs) of all ASEAN Member States' Civil Aviation Authorities (CAA) for more effective decision making on aviation regulatory matters. As of the time of writing this paper, there is an absence of a formal meeting platform for all the DGs of civil aviation authorities the ASEAN region to discuss aviation regulatory matters. Today, most the regulatory matters regarding advancing ASAM are being discussed in the ASEAN Senior Transport Officials Meeting (STOM) and ASEAN Transport Working Group (ATWG). STOM and ATWG play an important important role in making sure there is progress for ASEAN to have an effective single sky policy. However, the DGs of all ASEAN member states' civil aviation authorities are not formally involved in STOM and ATWG. This makes it difficult to have discussions pertaining to regulatory and technical matters.

One of the best practices adopted by the ASEAN Secretariat when it comes to preparing a platform for regulators to meet can be seen in the financial sector.

DGs of ASEAN CAA requires a regular platform to move forward the implementation of the ASEAN single aviation market policy. Such meetings will allow more in-depth discussions and efficient execution. The meeting of DGs of CAA for all ASEAN Member States can be linked with the ASEAN Transport Ministers (ATM) and should complement the work of the ASEAN Senior Transport Officials Meeting (STOM) and ASEAN Transport Working Group (ATWG).

One of the best practices adopted by the ASEAN Secretariat when it comes to preparing a platform for regulators to meet can be seen in the financial sector. ASEAN created an ASEAN Finance Ministers' and Central Bank Governors' Meeting (AFMGM) in 2015 where all finance ministers and central bank governors of the ASEAN region would meet every year. This provided a framework for ASEAN countries to enhance cooperation and facilitation in the areas of finance. On the 19th AFMM conducted in 2015, the first ASEAN Finance Ministers' and Central Bank Governors' Joint Meeting was held to support activities under the Roadmap for Monetary & Financial Integration of ASEAN (RIA-FIN) and to develop plans for post-2015 ASEAN Financial Integration.

The participation of central bank governors from all ASEAN member states indicates a shift towards deeper financial integration in the region, which resulted in several significant initiatives between ASEAN member states, including:

a. Roadmap for Monetary & Financial Integration of ASEAN (RIA-FIN)

RIA-FIN is an initiative to liberalise capital account as well as financial services in the region. Removing restrictions in the current account, foreign direct investments, portfolio investments and other flows will facilitate the free flow of capital among ASEAN member states, whereas the removal of restrictions on ASEAN financial services providers in the domestic markets of other ASEAN countries will liberalise the financial market and benefit the region.

b. ASEAN Capital Market Forums (ACMF)

The motivation behind the ACMF initiative was to develop a deep, liquid and integrated capital market in the region. The ASEAN Trading Link (ATL), which currently connects the exchanges in Malaysia, Singapore and Thailand, provides investors with easier and seamless access into ASEAN markets from one single access point. The ASEAN Corporate Governance Scorecard aims to raise corporate governance standards and practices, showcase and enhance the visibility of well-governed ASEAN publicly listed companies (PLCs), and promote ASEAN as an international asset class.

c. ASEAN Banking Integration Framework (ABIF)

ABIF initiative was introduced to facilitate operationalisation of banking integration process in ASEAN, and formulate actions to improve banking regulatory frameworks and financial stability for regional financial integration.

d. Payment & Settlement systems (PSS)

PSS is a system introduced by AFMM which aims to be an ASEAN payment system that is safe, effective and interconnected by adopting international standards, multilateral payment system linkages and developing settlement infrastructure.

These four initiatives are an indicator of how effective it can be if the heads of the regulators meet and discuss the technical and regulatory issues in their respective countries. According to a joint Statement of the 4th ASEAN Finance Ministers' and Central Bank Governors' Meeting on April 2018, it is stated that AFMGM managed to integrate its banking, finance, and capital market to a higher level as compared to 21 years ago. Because of AFMGM, ASEAN managed to complete two ASEAN Banking Integration Framework (ABIF) negotiations to date that aim to facilitate regular market access and operational flexibility for Qualified ASEAN Banks (QAB). QABs offer a broader suite of banking products and services at the same level as local banks; they act as particular banks with preferential treatment over non-QABs. Countries that have multi-layered banking licensing regime QABs reap more benefits due to operational flexibility. For instance, in the Philippines, the Philippines government has taken very significant steps in banking liberalisation where they removed caps on foreign ownership in 2014.

Therefore, if the meeting between finance ministers and the central bank governors can lead to great strides in the financial industry. This paper urges the ASEAN Secretariat to create a platform for aviation regulators, especially the DGs of all ASEAN member states' civil aviation authorities, to meet at least two times a year. The scope of discussion can range from aviation safety to harmonising standards so that the agenda of advancing ASAM single aviation market will be prioritised and progresses as fast as possible.

Once there is a formal platform for DGs to meet, the next phase should be establishing a Regional Safety Oversight Organisation (RSOO). This as an oversight office of ASEAN guided by the standards of International Civil Aviation Organization (ICAO). The RSOO should be chaired alternately by DGs of CAA from each ASEAN Member State. The RSOO should set common standards and implement them as per the highest international safety standards and ICAO guidelines. While the jurisdiction of such measures would still be within member states, each ASEAN Member State would need to follow the rules and guideline agreed and overseen by the RSOO.

II. *Fostering Connectivity within and without ASEAN*

In this policy paper, we recommend intensifying the process of ASEAN harmonisation by addressing more complicated issues of security, safety and sovereignty. There are four major areas that can be reinforced to progress ASAM

a. Advance the Process of Mutual Recognition Agreement on Flight Crew Licensing
ASEAN has been lagging behind from its original plan of harmonising the aviation market in the region. For instance, the Mutual Recognition Agreement (MRA) in the aviation sector is far behind its implementation timeline. According to the officila document of "Implementation Framework of The ASEAN Single Aviation Market", the MRA aims to develop a mutual recognition instrument by 2012. However, it was not until the 23rd ASEAN Transport Minister (ATM) Meeting in October 2017 that the ATM agreed to pursue the MRA on Flight Crew Licenses and started to develop the Implementing Protocols (IPs) which will contain the detailed procedures and scope for implementation of the MRA.

An MRA is an agreement among ASEAN Member States to facilitate trade in services through recognition for professionals who are authorised, licensed or certified by respective authorities within the frameworks of MRAs. MRAs aim to facilitate the mobility of skilled or professional labour in ASEAN and offset surpluses and shortages of professionals between different countries. Although all 10 ASEAN member states are already participating members of seven MRAs, the implementation of some of these MRAs has slowed and even ceased to exist. The earlier seven MRAs that were committed initially by all 10 ASEAN member states involved engineering services, architectural services, nursing services, accountancy services, tourism professionals, medical practitioners, and dental practitioners. MRAs on engineering services and architectural services are among the most progressed MRA relatively as compared to the other 8 MRAs. MRA for aviation-related certification came later and has been lagging behind since 2012. Hence, MRAs for aviation-related services should have a detailed implementation framework that imitates some features of MRAs that were proven successful, such as the MRAs on engineering services and architectural services.

ASEAN's MRA on engineering services is an excellent example of MRAs where all ASEAN member states have joined initiatives to ease the movement of engineers within the ASEAN region. For any professional engineer from any ASEAN member states, they can apply as an ASEAN Chartered Professional Engineer (ACPE) as long as they meet the prescribed qualifications, such as having an engineering degree, owning a national registration or certification, having 7-years of work experience with 2-years experience of significant engineering work, compliance with Continuing Professional Development standards, and do not have a record of serious violation of technical, professional or ethical standards. Once they have received the ACPE accreditation, they are eligible to apply and become a Registered Foreign Professional Engineer (RFPE) in the host country, albeit with some restrictions such as having to work in collaboration with local professionals. Due to the fact that MRA on engineering services is well-implemented, there are nearly 800 ASEAN Chartered Professional Engineers registered from all 10 ASEAN member states, except Cambodia, Laos, and Thailand.

Besides MRA on engineering services, MRA on architectural services has also made significant progress. For instance, a professional architect registered and certified in the home country is eligible for regional registration as an ASEAN architect. Once the architect registers as an ASEAN architect, they are eligible to apply in the host country as a Registered Foreign Architect (RFA) and work in the host country with some restrictions such as being required to work with local partners in the long term. Nations that accommodate RFA through the MRA have seen progress in the movement of professionals when compared to countries that don't establish the RFA registration system. So far, there are more than 170 registered ASEAN architects from Brunei, Indonesia, Malaysia, Philippines, and Singapore.

Although there are some flaws in the MRAs for engineering services and architectural services, such as hesitation in allowing ASEAN-registered professionals to practise independently in the host country and the use of local language in professional exams, both implementations of MRAs for engineering services and architectural services led to the creation of regulatory bodies and the adoption of new professional standards in Cambodia, Laos, and Myanmar. Besides the language barrier, the lack of incentives to work outside of the home country is one the few challenges against the effective implementation of the MRA. There are still many gaps in the MRAs on engineering services and architectural services for the ASEAN policymakers to address. However, the overall implementation of MRAs in these two sectors is commendable and should be expanded to include the aviation sector.

In regards to the aviation sector, it was agreed in the ATM that a framework for the MRA of pilot licences would be developed. Hence, developing and implementing the IPs is now essential. The next step is to develop the Implementing Protocols (IPs) which will contain the detailed procedures and scope for implementation of the MRA. The following IPs are to be developed sequentially:

IP1: Qualification of Flight Simulation Training Devices (FSTD);
IP2: Aviation Training Organisations (ATO);
IP3: Oversight Capability; and
IP4: Licences and ratings.

At the 24th Meeting of the ATM in November 2018, Ministers welcomed the decision by the relevant STOM working group to conclude IP1 by the time of the 25th ATM meeting in 2019. The Ministers further encouraged ASEAN Member States to continue working on the subsequent IPs. This is welcomed progress, and the remaining IPs should also be developed as fast as possible.

b. Full Implementation of ASEAN Community Carriers

ASEAN Member States should prioritise the implementation of ASEAN Community Carriers, under the supervision of the STOM and ATWG. Specifically, STOM and ATWG should ensure that all ASEAN Member States recognise the Community Carriers without neglecting the issue of sovereignty. For instance, Country A may continue to apply national ownership and control requirements for its own national carriers but it should also recognise a Community Carrier designated by Country B for purposes of flying to the Country A. The STOM and ATWG need to amend Article 3(2)(a)(ii) in the ASEAN multilateral agreement on the full liberalisation of passenger air services by deleting the phrase "subject to acceptance by a Contracting Party receiving such application". The amendment will remove the individual states' discretion to deny access by other member states' Community Carriers. Ideally, each ASEAN Member State will allow Community Carriers from other ASEAN Member States to operate within the region.

In the medium to long run, STOM and ATWG need to lead the member states to amend their laws – the "internal lock" - to allow other ASEAN nationals to hold a majority stake in the ASEAN Member States' non-national airlines. With the amendment of the "internal lock", ASEAN Community Carrier can be realised without limitation and having the opportunity to be better capitalised with more liberal foreign ownership caps following the ASEAN Framework Agreement on Services (AFAS). The foreign ownership rule can be structured in a way that ASEAN nationals own 70% of it while the rest are foreign owned.

c. Consolidating Freedom of the Air

At the ATM in November 2018, ministers singed Protocol 4 on Co-Terminal Rights. Now the ASEAN Member States need to start thinking about liberalising 7th freedom of the air for air cargo services to improve trade between ASEAN. Cargo air transport is less complicated than passenger air transport, and it provides speedy and efficient acess to supply chains that reduce logistics costs. Ultimately ASEAN Member States should start a discussion on liberalising 7th freedom of the air for passenger services. It does not require a timeline, but a forum should be conducted to begin conversations on 7th freedom of the sky to understand concerns and allow for the transparent exchange of thoughts before deciding the next steps.

d. Sustainable Agreement with Dialogue Partners

ASEAN Member States should review wording and conditions used in ASEAN agreements with dialogue partners to take long-term implications into account. To secure a viable long-term agreement for ASEAN and its carriers, the Association should be able to designate carriers from all member states allowing them to utilise the traffic right to fly to the dialogue partner from any point in ASEAN which would ensure fairness in the long term.

Then, there is a need to add a new clause in ASEAN agreements with its dialogue partners to oblige the latter to allow ASEAN community carriers to enter the dialogue partners' country. Despite the ASEAN Single Aviation Market blueprint provided for ASEAN Community Carriers, destinations are still subject to negotiations with each separate member state. This includes destinations outside ASEAN, which the Community Carrier would need to negotiate with each jurisdiction separately.

III. Open Access to Aviation Information within ASEAN

Information sharing is critical in the aviation industry. With the exchange of information, each ASEAN Member State can ensure more safety and security within the industry. As of the time of writing research, there is an absence of open access to aviation information between ASEAN member states. It is essential that critical information regarding the aviation industry is freely available to all ASEAN member states. The data should also be shared with third parties such as research institutions for them to make a critical assessment on ASEAN aviation market. With the right information, these research institutions may conduct a more robust study which can assist ASEAN in enhancing ASEAN aviation market in the long run.

There are a few best practices for information sharing in the EU that ASEAN might want to emulate. One of the best practices is the establishment of the European Centre for Cyber Security in Aviation (ECCSA). It provides a secure means for aviation stakeholders to exchange relevant cybersecurity information such as vulnerabilities and weaknesses that can be used for malicious purposes. Besides, the ECCSA operational team of analysts will provide additional input to the information shared by the participants. Hence, ECCSA provides an information exchange and aviation cyber-intelligence sources platform. At the time, it also raises awareness on attacks and offers on-demand operational means to face cybersecurity threats.

Besides setting up the ECCSA, one of the best practices for information sharing in the EU is the establishment of European AIS Database (EAD), which is a centralised reference database of aeronautical information in the EU. EAD is a single source for aeronautical data needs and aims to be a safer, faster, more accurate, and cost-effective solution than non-harmonized methods of Aeronautical Information Service (AIS) data collection and delivery. EAD will increase the availability and accessibility of AIS information between the EU member states. Thus, EAD enables the EU member states to have a reliable source of real-time aeronautical information with significantly improved quality through constant data checking, an additional cross-border data coherence verification, a secure channel for timely and efficient electronic distribution of information, a reduction of workload through the entire AIS process, and a lower investment cost for developing and maintaining local systems.

Another best practice of information sharing is setting up the Aeronautical Information Regulation and Control (AIRAC) by the EU to collect a series of common dates and to act as an associated standard aeronautical information publication procedure for all EU member states. This information will ensure pilots, air traffic controllers, air traffic flow managers, flight management system and aviation charts all have the same data set for airspace structure and routes revision, navigation aids, and runaway and taxiway change information.

One of the initiatives of information sharing in the EU is the System-Wide Information Management (SWIM). SWIM is an advanced technology programme designed to facilitate aeronautical information sharing regarding airport operational status, weather information, flight data, the status of particular airspace, and national airspace restrictions. There are some movements in ASEAN to establish SWIM, but the system has yet to be fully operational as of the time of writing this research. SWIM can be implemented by creating a dedicated centralised flight data processing system that acts as a server and connects individual flight data processing systems into an extensive array of the network. Note that the SWIM system includes all tenets of cybersecurity (confidentiality, integrity, availability and protection of data, networks and control systems, continuity of operations, and secure, interoperable communications). Therefore, SWIM ensures information can be shared securely on a system-wide basis and data can be personalised, filtered, and accessed.

Consequently, the ASEAN secretariat needs to take up this initiative and provide a conducive platform for ASEAN Member States to collect and share aviation information easily with one another. Aeronautical information should be readily available for each ASEAN Member State just like in the EU to ensure a more efficient aviation industry in the region. Also, the information also needs to be readily available for third parties to assist them in conducting active research into the ASEAN aviation industry, which can then be utilised by ASEAN Member States' policymakers. Hence, with the right implementation of aviation information sharing system, ASEAN will have a better and safer aviation industry in the long run.

The ASEAN secretariat needs to take up this initiative and provide a conducive platform for ASEAN member states to collect and share aviation information easily with one another. Aeronautical information should be readily available for each ASEAN member state just like in the EU to ensure a more efficient aviation industry in the region.

Conclusion

Previous research has demonstrated the positive impact of the aviation industry on trade, investment, tourism, and economic performance. With an efficient aviation industry, goods can be traded quickly, and thus higher trading activity will occur in that country. A well-developed aviation industry will also attract foreign investors to invest in the host country. Besides that, the competitive environment of the aviation industry will push down prices, which will allow consumers to benefit from the cheaper airfares and also increase the tourism activity to and from the country. The aviation sector itself has also contributed directly and indirectly towards the nation's GDP as well as created thousands of jobs through the industry.

Further liberalisation of aviation market through imolementation of the ASEAN Single Aviation Market (ASAM) will enable future growth in the air transport market in ASEAN, dealing futher economic benefit. We estimate that is future demand can be made, air transport will support over two and half million jobs by 2030 and contribute nearly 100billion USD to the economy every year.

Finally, we recommend the ASEAN Member state bulid on progress to accelerate implementation of ASAM. First we recommend that every Director General of each ASEAN Member States civil aviation Authority to meet at least once evry year to discuss issues regarding ASAM. Second, all ASEAN Member States need to be ready to share aeronatucail information with each other for the saftey of the industry. Third, with the growing aviation market, there is a need for free movement of professionals in the aviation industry. Therefore, ASEAN Member States should advance the implementation of Mutual Recognition Agreement (MRA) for aviation related services as fast as possible. Fourth, ASEAN Member States should prioritise full implementation of ASEAN Community Carriers. These steps will enable faster realistion of ASAM and the full benefits of liberalisation of the aviaiton market to be acheived.

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