



Civil Aviation  
Economic  
Guidelines  
(CAEG)

Civil Aviation Economic Guidelines – 201

# Aviation Service Market Definition

**ASMD**

Civil Aviation Authority of Malaysia

**Issue 01**

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## Introduction

In exercise of the powers conferred by section 36ZF of the Civil Aviation Authority of Malaysia Act 2017 [Act 788] (“the Act”), this Civil Aviation Economic Guidelines 201 – Aviation Services Market Definition (CAEG 201 – ASMD) is issued to provide guidelines on the definition and identification of aviation service market in relation to Part VB of the Act.

### Non-compliance with this CAEG

Any person who contravenes any provision in this CAEG may be imposed a financial penalty under Subsection 36ZF (4) of the Civil Aviation Authority of Malaysia Act 2017 [Act 788].



**(Dato' Captain Norazman bin Mahmud)**  
Chief Executive Officer  
Civil Aviation Authority of Malaysia



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## 1 General

### 1.1 Citation

1.1.1 This Guideline is the Civil Aviation Economic Guideline 201 – Aviation Services Market Definition (CAEG 201 – ASMD), Issue 01/Revision 00, and comes into operation on 1 July 2026.

1.1.2 This CAEG 201 – ASMD, Issue 01/Revision 00 will remain current until withdrawn or superseded.

### 1.2 Revocation

1.2.1 This CAEG 201 – ASMD revokes the guidelines issued pursuant to the Malaysian Aviation Commission Act 2015 [Act 771]:

- a) Guidelines on Aviation Service Market Definition (First published 19 January 2018).

## 2 Background

2.1.1 These Guidelines are issued by the Authority in the exercise of its power pursuant to section 36ZF of the Act to provide explanation on the definition and identification of an aviation service market when implementing Part VB of the Act.

2.1.2 The factors which may be considered by the Authority in defining and identifying an aviation service market provided in these Guidelines are not exhaustive and the examples are for illustrative purposes only. The Authority will consider the specific facts and circumstances of each case and may take into account any other factors that the Authority deems relevant in the implementation of Part VB of the Act.

2.1.3 These Guidelines serve to supplement Part VB of the Act or any regulation relating to the same. These Guidelines should be read together with all other guidelines issued by the Authority pursuant to section 36ZF of the Act.

2.1.4 The concepts and principles in these Guidelines are based on the domestic and international best practices relating to competition law.

2.1.5 The Authority may revise these Guidelines from time to time taking into account developments in competition law and the civil aviation industry.

2.1.6 Any enterprise in doubt about how its commercial activities may be affected by Part VB of the Act may wish to seek independent legal advice.

### 3 The Purpose of Market Definition

- 3.1 In general, the first step in carrying out a competition analysis is to define and identify the relevant aviation service market. An aviation service market refers to a market for aviation services in Malaysia or in any part of Malaysia which would include a group of services which are substitutable or competitive with one another.
- 3.2 Market definition is an analytical tool to systematically identify the relevant aviation service market and the scope of competition. A relevant aviation service market definition may assist in identifying and determining —
- a) the services that are substitutable and competitive with each other in a certain geographical area;
  - b) the enterprises that compete with each other in an aviation service market and their respective market share;
  - c) the competitive constraints that the enterprises face in an aviation service market; and
  - d) the effect of the applicable commercial activity, agreement or merger towards competition in an aviation service market or to any other ancillary market.
- 3.3 The Authority, in enforcing the prohibitions under Part VB of the Act, may define and identify a relevant aviation service market in order to analyse —
- a) whether an agreement has the object or effect of significantly preventing, restricting or distorting competition in any aviation service market;
  - b) whether an enterprise is dominant or has substantial market power in an aviation service market and whether such enterprise's conduct amounts to an abuse of a dominant position;
  - c) whether a merger or an anticipated merger have resulted or may be expected to result in a substantial lessening of competition in an aviation service market; and
  - d) the amount of financial penalty to be imposed on an enterprise for infringement of any prohibition under Part VB of the Act<sup>1</sup>.
- 3.4 The Authority may apply an aviation service market definition analysis in conducting any aviation service market review under section 36ZD of the Act to determine whether any feature or combination of features of the aviation service market prevents, restricts or distorts competition in a market.
- 3.5 From an enforcement perspective, the aviation service market definition may be used by the Authority as a tool to analyse complaints, either in deciding whether to initiate a

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<sup>1</sup> Consideration would be given to the turnover of the enterprise in the relevant aviation service market in determining the amount of the financial penalty.

formal investigation or in making a finding on whether there is any infringement of a prohibition under Part VB of the Act. The Authority may decide not to initiate a formal investigation if the complained agreement, conduct or merger clearly falls below any applicable threshold for an infringement of a prohibition. For instance, where a vertical agreement involves two enterprises providing different aviation services in an upstream and downstream market that have a low combined market share such as two percent and low turnovers relative to the aviation service sectors, the Authority may conclude in its initial assessment that there is no reason to suspect that such agreement would have the object or effect of significantly preventing, restricting or distorting competition in an aviation service market.

- 3.6 The definition and identification of a relevant aviation service market would require considerable practical judgement and its precise definition might not be possible or even necessary in every case. In practice, the definition and identification of a relevant aviation service market is used as a frame of reference upon which evidence of competitive constraints could be gathered and examined for the purpose of competition analysis under Part VB of the Act.

## **4 The Hypothetical Monopolist Test**

- 4.1 A relevant aviation service market definition generally has two dimensions i.e. the service market and the geographic market. Both the service market and the geographic market dimensions should be considered in order to define and identify the relevant aviation service market in a comprehensive manner.
- 4.2 The HMT may be applied in defining and identifying a relevant aviation service market. The HMT is usually applied to determine the service market first and subsequently, the geographic market.
- 4.3 The HMT seeks to establish the relevant aviation service market by including in the market all the services provided by enterprises within a geographical area that would constrain the market power of an enterprise which is the hypothetical monopolist.
- 4.4 The HMT defines and identifies a relevant aviation service market as the smallest group of services, which may consist of aviation services only or a combination of aviation services and substitutable non-aviation services, in a certain geographical area that a hypothetical monopolist controlling that group of services in that area could profitably sustain a small but significant, non-transitory increase in price above the competitive price.
- 4.5 A price increase of five to ten percent (5 – 10%) above the competitive price is commonly used in the SSNIP test. However, a different percentage of price increase may be used as the applicable SSNIP on a case-by-case basis. The SSNIP must also be non-transitory in nature i.e. sustained over a period of time and not merely a temporary or short-term price increase. Generally, a price increase may be regarded

as non-transitory if it lasts for at least one year. A different period of time may be applied for the SSNIP based on the relevant facts of the case.

- 4.6 The HMT uses the competitive price as the base price for the analysis. In theory, the competitive price is equal or close to the marginal cost of providing a particular aviation service. In practice, the actual competitive price may be difficult to identify. For practical reasons, the prevailing price may be used as a base price in evaluating an agreement under Section 36O of the Act or a merger under Section 36T of the Act. Using the prevailing price as a base price is useful in defining and identifying the relevant aviation service market and determining whether the agreement or merger in question would allow enterprises to raise prices above the prevailing price which would exist in that market in the absence of the agreement or merger.
- 4.7 However, caution must be exercised in using the prevailing price as a base price in applying the HMT to evaluate an alleged infringement of the prohibition of abuse of a dominant position under Section 36S of the Act. In abuse of a dominant position cases, consideration would be given to whether an enterprise has already used its dominant position to set the prevailing price above the competitive level in order to maximise its profits, especially when it involves an allegation of excessive pricing. This is to avoid the “Cellophane fallacy” which is coined after the case of *United States v El du Pont De Nemours & Co* 351 US 377 (1956) involving cellophane products.
- 4.8 In principle, if it is found that the prevailing price is set above the competitive level by a dominant enterprise’s exercise of market power, then the base price to be applied in the HMT should be the competitive price and not the prevailing price. It also follows that if the prevailing price set by a dominant enterprise exceeds the competitive level and any further increase in such price would cause buyers to switch to other services, these other services should not be regarded as substitutes in the relevant market because they did not prevent the hypothetical monopolist from exercising its market power and pricing above competitive levels in the first place. Excess profits and past price movements may be used as evidence to indicate whether prices are set above competitive levels.

## **5 The Service Market**

- 5.1 As stated in Part 3, in defining and identifying a relevant aviation service market, the HMT may be used to determine the service market dimension.
- 5.2 In essence, the service market dimension considers the services which provide an effective competition constraint on the Focal Aviation Service.
- 5.3 The determination of a service market involves the following steps:
- a) The identification of the Focal Aviation Service.

- b) The evaluation of the Focal Aviation Service i.e. whether a hypothetical monopolist of a service market for the Focal Aviation Service would be able to profitably raise the price of the service by a SSNIP<sup>2</sup>.
- c) If the SSNIP of the Focal Aviation Service would not result in a significant number of buyers switching to other services as substitutes of the Focal Aviation Service, then the answer to the question in paragraph (b) is yes<sup>3</sup>. Hence the Focal Aviation Service is the only service in the service market.
- d) If the SSNIP of the Focal Aviation Service would result in a significant number of buyers switching to other services as substitutes of the Focal Aviation Service, then the answer to the question in paragraph (b) is no<sup>4</sup>. In this situation, the service group should be widened to include both the Focal Aviation Service and the identified substitutable services. This wider service group is then tested through the SSNIP test in paragraph (b).
  - 1) If the answer is yes, then the service market is the service group consisting of the Focal Aviation Service and the identified substitutable services.
  - 2) If the answer is no, this means that there are other substitutable services that need to be included into the service group and thus, the service group would need to be widened again to include these other substitutes and is then tested through the SSNIP test. This step may need to be repeated until a point where a significant number of buyers would not respond to the SSNIP test by switching to services outside of the tested service group.

5.4 For the purpose of defining and identifying a service market, the competitive constraints faced by the enterprises in question may be considered in terms of the demand-side substitution and the supply-side substitution

## 5.5 Demand-side Substitution

5.5.1 The demand-side substitution in a service market refers to the extent to which buyers consider other services as effective substitutes to the Focal Aviation Service. The application of the HMT shows that the demand-side substitution would constrain the ability of a hypothetical monopolist from profitably sustaining a price above competitive level.

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<sup>2</sup> To answer this question, the consideration is whether a significant number of buyers would switch to other services as substitutes to the focal aviation service if the price of the Focal Aviation Service is raised in a non-transitory manner by five to ten percent above the competitive price.

<sup>3</sup> In this situation, the hypothetical monopolist would be able to profitably sustain such SSNIP because its buyers would mostly continue purchasing the Focal Aviation Service even with a SSNIP, instead of switching to other services. This means that the other services are not substitutes to the Focal Aviation Service and do not provide an effective competition constraint on the Focal Aviation Service.

<sup>4</sup> In such situation, the SSNIP would result in a larger loss of sales and revenues to the hypothetical monopolist relative to the increase in its profit due to SSNIP, rendering such price increase unprofitable. In this situation, there are substitutable services competing with the Focal Aviation Service in the market.

- 5.5.2 In determining the demand-side substitution for the Focal Aviation Service, the following relevant factors may be taken into consideration:
- b) Timeliness of the demand-side substitution
    - 1) The ability of buyers to quickly switch from the Focal Aviation Service to other substitutable services would provide a greater constraint on the exercise of the hypothetical monopolist's market power.
    - 2) A longer switching period may indicate that the other services do not provide an effective and immediate constraint on the hypothetical monopolist's ability to price above competitive level.
    - 3) The appropriate time frame applied to assess the timeliness of the demand-side substitution would depend on the service market in question. Each case will be examined on its merits. In general, one (1) year may be considered as the appropriate time frame for this purpose.
  - c) High switching costs
    - 1) Consideration will be given to whether there is a high switching cost involved in order for buyers to substitute one service for the Focal Aviation Service. Switching costs may be in monetary or non-monetary form. High switching costs may deter buyers from switching to substitutable services in response to a price increase for the Focal Aviation Service.
  - d) Own-price elasticity and cross-price elasticity
    - 1) Own-price elasticity measures the degree to which demand for a service changes in response to a change in its own price.
    - 2) Cross-price elasticity measures the degree to which demand for a service changes in response to a change in the price of another service.
    - 3) A change in demand for the Focal Aviation Service due to a change in its own price (i.e. own-price elasticity) or a change in the price of another service (i.e. cross-price elasticity) may indicate that there are other services that are substitutable. Adversely, if a change in price for the Focal Aviation Service or other services has minimal effect on the level of demand, this could indicate that there is limited demand-side substitution in that service market.
  - e) Service characteristics
    - 1) In general, services with similar characteristics or purposes are more likely to be considered as close substitutes by buyers. However, services may not have to be identical or have the same characteristics to be substitutable. What matters is whether the buyers themselves see other services as substitutes when the price of a Focal Aviation Service increases. For example, buyers may consider full-service air services as

substitutable with low-cost air transport services on a particular route although the characteristics of these two services are not identical.

- 2) It must be noted that the extent to which services with different characteristics are substitutable with each other would depend on the nature of the aviation service in question. For example, the service market for scheduled air services may include other modes of transport such as trains, buses or even ferries. On the other hand, ground handling services, such as aircraft maintenance and fuel and oil handling, are only substitutable with services having identical or similar characteristics.

f) Brand loyalty

- 1) Demand-side substitution may be hindered in situations where there is a strong brand loyalty by buyers. For example, consideration may be given to a frequent flyer program to assess whether and to what extent it influences buyers' loyalty to a particular airline or alliance of airlines and whether it hinders buyers' willingness to switch to services by other airlines in reaction to price increase.

## 5.6 Supply-side Substitution

5.6.1 Supply-side substitution in a service market refers to the extent to which other enterprises could provide the Focal Aviation Service or its substitutable services with ease and in a timely manner in response to a hypothetical monopolist increasing its price above competitive level.

5.6.2 Supply-side substitution may prevent a hypothetical monopolist from profitably sustaining prices above competitive level. In the event there is supply-side substitution in a service market, then the enterprises that could potentially provide the Focal Aviation Service or its substitutable services may be considered as competitors in the service market.

5.6.3 Supply-side substitution is likely to occur in a service market if —

- a) other enterprises could provide the Focal Aviation Service or its substitutable services in a timely manner<sup>5</sup>;
- b) other enterprises could provide the Focal Aviation Service or its substitutable services on a scale that is large enough to affect the demand or prices in the service market;
- c) the provision of the Focal Aviation Service or its substitutable services does not involve substantial sunk investments or costs<sup>6</sup>;

<sup>5</sup> The appropriate period for such supply-side substitution may be determined. In general, supply-side substitution may be considered if it could occur within one year.

<sup>6</sup> Sunk investments or costs are investments or costs incurred upon entering an aviation service market which are not recoverable upon exiting that market.

- d) other enterprises have existing capacity to provide the Focal Aviation Service or its substitutable services in addition to their existing volume of services;
- e) the supply-side substitution could be carried out with ease by the other enterprises taking into account factors such as the technical feasibility and substitution costs involved; and
- f) there is no strong buyer preference or loyalty towards existing services and enterprises.

5.6.4 Supply-side substitution may be taken into account in defining and identifying a service market when it could be reasonably concluded that supply-side substitution is likely to occur and would be a factor for existing enterprises to take into account in their decision-making process.

5.6.5 If the supply-side substitution could not be carried out with ease and in a timely manner, the service market will then be defined and identified only on the basis of demand-side substitution.

5.6.6 On the other hand, any potential new entry into the service market on a longer-term basis will be considered when assessing the barriers to entry as part of the competition analysis on the relevant prohibitions under Part VB of the Act.

## 6 The Geographic Market

6.1 Once the service market has been defined and identified in Part 4, the geographic market dimension of a relevant aviation service market may be subsequently determined.

6.2 In essence, a geographic market refers to the area over which substitution would occur.

6.3 As stated in Part 3, the HMT will be used to define and identify the geographic market. The determination of a geographic market involves the following steps:

- a) The identification of the Focal Area.
- b) The evaluation of the Focal Area by asking this question i.e. would a hypothetical monopolist of a relevant service that is operating within that Focal Area be able to profitably raise its prices by a SSNIP<sup>7</sup>?
- c) If the SSNIP of the relevant service in the Focal Area would not result in a significant number of buyers switching to services in other areas as substitutes,

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<sup>7</sup> To answer this question, the consideration would be whether a significant number of buyers would switch to services in other areas, as substitutes to the aviation services in the focal area, if the price of the Focal Aviation Service is permanently raised by five to ten percent above the competitive price.

then the answer to the question in paragraph (b) is yes. Hence, the Focal Area is the geographic market<sup>8</sup>.

- d) If the SSNIP of the relevant service in the Focal Area would result in a significant number of buyers switching to services in other areas as substitutes, then the answer to the question in paragraph (b) is no<sup>9</sup>. Consequently, the geographical area should be widened to include both the Focal Area and the identified substitutable aviation areas. This wider geographic area is then tested through the SSNIP test in paragraph (b).
- 1) If the answer is yes, then the geographic market is the geographic areas consisting of the Focal Area and the identified substitutable areas.
  - 2) If the answer is no, this means that there are other areas that need to be included into the geographic market and thus, the geographic area would need to be widened again to include these other areas and is then tested through the SSNIP test. This step may need to be repeated until a point where a significant number of buyers would not respond to the SSNIP by switching to services outside of the identified geographic area.

6.4 For example, consider a situation where airport A and airport B are located within the same city and airport X is located in a separate city which is 400 kilometres from airport A and airport B. In analysing the geographic market for scheduled air services between airport A and airport X, consideration may be given to whether a SSNIP for such services between these two airports would cause buyers to switch to scheduled air services operating between airport B and airport X. If the answer is yes, then the geographic market would be A-X and B-X.

6.5 Similar to service market definition in Part 4, the definition and identification of a geographic market may require the assessment of competitive constraints faced by the enterprises in question in terms of demand-side substitution and supply-side substitution

## 6.6 Demand-side Substitution

6.6.1 Factors to be considered in determining the demand-side substitution of a geographic area are generally similar to service market definition and identification in Part 4. In addition, the following factors may also be considered to determine the demand-side substitution for a geographic market:

<sup>8</sup> In this situation, the hypothetical monopolist would be able to profitably sustain such SSNIP because its buyers would mostly continue purchasing the relevant aviation services in that Focal Area even with a SSNIP, instead of switching to services in other areas. This means that the services in other areas are not substitutes to the relevant aviation services in the Focal Area.

<sup>9</sup> This is because, in such a situation, the SSNIP would result in a larger loss of sales and revenues to the hypothetical monopolist relative to the increase in its profit due to SSNIP, rendering such price increase unprofitable and unsustainable. In this situation, there are substitutable services in other areas competing with the relevant aviation service in the Focal Area.

- a) Characteristics of the relevant aviation service
  - 1) The degree of the demand-side substitution may differ from one aviation service to another depending on the characteristics of the aviation service in question.
  - 2) As illustrated in paragraph 5.4, buyers of scheduled air services between airport A and airport X may switch to other scheduled air services from another neighbouring airport in response to a price increase in the tickets for flights between airport A and airport X. However, the demand-side substitution for scheduled air services between airport A and airport X may be less likely in situations where there is no other neighbouring airport.
  - 3) The demand-side substitution for a geographic market for ground handling services such as baggage handling may be unlikely in situations where the needs of an airline as a buyer for such aviation services are specific to a particular airport where they operate and the airline is unable to switch to similar services outside of this airport. In such circumstances, the geographic market may be quite narrow and limited.
- b) Price of the services
  - 1) In general, buyers are more willing to travel further to access cheaper services if the price of the relevant services in a Focal Area is high. This is because the buyers would have to offset any additional costs incurred in traveling to another area for the services against the price of the services in a Focal Area.

## 6.7 Supply-side Substitution

- 6.7.1 Supply-side substitution in terms of a geographic market refers to the potential of other service providers in neighbouring areas to provide the relevant services to the buyers with ease and in a timely manner.
- 6.7.2 Factors that indicate supply-side substitution in a service market in Part 4 are generally applicable to a geographic market as well.
- 6.7.3 Regulatory requirements may also be considered in determining the ability of other service providers to provide the relevant services in another area with ease and in a timely manner. For example, an aviation service provider with an existing licence to provide certain ground handling services may need to get the necessary regulatory approvals to provide such services in another airport. In such situations, consideration would be given to whether and to what extent such regulatory requirement would affect the supply-side substitution in a geographic market.

## **7 The Temporal Market**

- 7.1 Time may be of the essence in certain relevant aviation service markets. For example, for scheduled air services, the provision of the services during peak and off-peak hours of a day may be of relevance in defining and identifying a relevant aviation service market. Similarly, scheduled air services may be affected by seasonality with certain periods being peak seasons such as during festivities and school holidays.
- 7.2 The temporal market would be of relevance where there is low demand-side and supply-side substitution between different time periods. The question to be asked is whether it is possible for buyers or service providers to substitute between different time periods. For example, it might not be possible for buyers to substitute scheduled air services during peak seasons with scheduled air services during off-peak seasons.

## **8 Other Important Issues**

### **8.1 Aviation Service Market Definition Where There is Service Differentiation**

- 8.1.1 The HMT works best when services are homogeneous. However, some aviation service markets contain differentiated services where it may not be possible to identify clear boundaries in defining and identifying a relevant aviation service market.
- 8.1.2 An aviation service market definition would vary depending on the facts of each case. Thus, even if two services are not within the same aviation service market in one case, they may be in the same aviation service market in another case.
- 8.1.3 Where there is a high degree of service differentiation, the Authority may consider to focus directly on the constraints to the exercise of market power and whether these differentiated services are substitutable.

### **8.2 Competition Cases Previously Decided**

- 8.2.1 Decisions by other competition authorities may provide guidance in defining and identifying a relevant aviation service market.
- 8.2.2 However, total reliance on an aviation service market definition previously decided by other competition authorities may not be appropriate in other cases because aviation service market definition requires fact-specific analysis. The relevant competition conditions may have changed over time. In addition, an aviation service market definition regarding an area outside Malaysia would not necessarily apply to Malaysia because the factual basis for determining competition in Malaysia or in any part of Malaysia may be different.

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## 9 Glossary

Act	=	Civil Aviation Authority of Malaysia Act 2017 [Act 788] as amended by the Civil Aviation Authority of Malaysia (Amendment) Act 2024 [Act A1723]
Buyer	=	A consumer or an enterprise that acquires or uses any aviation service primarily for the purpose of resupplying the service or providing any aviation service.
Authority	=	Civil Aviation Authority of Malaysia
Focal Area	=	The narrowest area in which the services in a relevant service market complete
Focal Aviation Service	=	The aviation service that is the focus of the investigation or assessment
Guidelines	=	Guidelines on Aviation Service Market Definition
HMT	=	Hypothetical Monopolist Test
SSNIP	=	Small but Significant, Non-transitory Increase in Price