

EU State Aid Policy and the *EC – Airbus* Case

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Abstract

The aircraft manufacturing industry in Europe has seen some substantial governmental interventions in the form of state aids. Airbus has become the market leader in aircraft manufacturing and has outgrown its American competitor Boeing. Questions can be raised on the legitimacy and necessity of these state aids, both under EU law and WTO law. This paper discusses the economic rationale of state aid in general, the applicable economic principles and the question how the European Commission legitimised its authorisation in a respectable number of state aid measures taken by European governments. The paper also focusses on the decision of the Dispute Settlement Body of the WTO in *EC – Airbus*, which has put the European state aids regime to the test. With the growing importance of WTO law, the EU's state aid regime may become susceptible to changes in a global economy, especially when looking at possible future developments in that sector.

Introduction

About half a year ago, we had the opportunity to attend one of Professor Peter Van den Bossche's lectures on the settlement of disputes under the law of the World Trade Organization (WTO). While his profound knowledge of WTO law in general was quite remarkable, of even more interest to us were his experiences with the Dispute Settlement Body (DSB), for which he currently serves as a member of the Appellate Body. During his lecture he briefed us on a large number of cases, including two of the biggest ones in WTO history, the *EC – Airbus* and *US – Boeing* cases, which had been on-going since the first consultations at the end of 2004. Only recently, the Appellate Body handed down its report in both cases and found against the respondents. Yet both claimants seem to be quite happy about each other's successes before the WTO.¹ These developments have caught our interest in the matter and led to our choice for this topic. The aim of this paper is to discuss the rationales of EU state aid law and the background of *EC – Airbus*. In particular we discuss the question of legitimacy of the Airbus subsidies, especially with regard to the European aircraft manufacturers' dominant market share, followed by some considerations on the implications of the reports and the relationship between EU state aid law and WTO law. Finally, we have also looked at the future expectations, in particular the rise of competitors in the aircraft manufacturing industry.

¹ Joshua Chaffin et al., "Twin WTO Ruling on Airbus Has Both Sides in Dispute Claiming Victory," *Financial Times*, 19 May 2011.

The structure of the paper shall be as follows. First, we explain the economic rationale of state aid, where we deal with its use as a policy instrument and effects of strategic market intervention since the Airbus' subsidies served primarily as a European industrial policy instrument. Secondly, we look at the economic principles underlying the so-called balancing test of the Commission. We discuss the objective of common interest and the use of subsidies as the right policy instrument, whereby positive and negative effects are balanced. Thirdly, we mention the political and economic arguments underlying the aircraft manufacturing subsidies. Fourthly, we dive into the *EC – Airbus* case and have a brief look at its facts and the background of the relevant industry. We discuss the EU's subsidy schemes and their validity under EU law, followed by an analysis of the reports of the WTO panel and Appellate Body, including the basis for their assessment, and the responses from the Commission. Finally, we elaborate on the relationship between EU state aid law and WTO law and mention some of the developments that are likely going to change the structure of the aircraft manufacturing industry.

1 The economic rationale of state aid

In order to analyze the question of legitimacy of the Airbus subsidies, which constitutes the first part of the paper, we will examine the economic rationale of subsidies. The impact of market intervention, here subsidies, can be illustrated in the form of their welfare effects, which will be explained further in subpara. 2.1. The legal dispute between Airbus and Boeing will be examined in the following paragraph. Here the issue of subsidy races will form the main part of discussion by illustrating the concept of strategic market intervention in dependence on a game theory approach, outlined in subpara. 2.2.

1.1 A policy instrument – subsidies and their welfare implications

In this subparagraph we investigate the question why governments use subsidies in the first place and how they impact on international trade.

The reasons for granting subsidies are multiple and can be of political, social, economic or strategic nature. However, state aid, here in the form of subsidies, might be possibly only a 'second best solution' with regard to the optimal allocation of resources based on the assumption that besides their intention to correct market failures, they can lead to distortions as well, which means in terms of welfare economics a loss of welfare. When actual price and social-optimal price divert, we talk about a market failure situation. The assumption of a perfectly competitive market forms the starting point in neoclassical economics. Given the

situation of a perfectly competitive market, a governmental interventionist measure such as a subsidy will be inefficient and welfare diminishing. If however the perfect market assumption is relaxed, governmental intervention can be welfare improving and a subsidy might be the efficient instrument to correct the market failure.² In order to be an effective tool to target a market failure, such as a dominant market position, state aid shall create incentive effects and shall be proportionate, which will be further explained in para.3.³ Although the paper makes use of some fundamental aspects of present microeconomics analysis, we essentially aim to emphasise how the economic assumption is legally interpreted.

A welfare loss occurs if, for instance, resources are allocated to inefficient sectors, because a subsidy impacts on the allocation of resources among different sectors. Moreover the application of a subsidy creates a wedge between the optimal price (or world price) and the actual price paid to the producers, which again implies inefficiencies. Thus the domestic output is not determined by the optimal price, but by the subsidy-inclusive price.⁴ However, negative effects do not automatically dismiss possible market intervention. While competitors have to compete against the subsidised exporters, consumer benefit due to cheaper imports. Therefore subsidies may be justified when correcting market failures as long as their welfare improvement is larger than the loss based on the reallocation of resources.⁵ There are a number of different reasons market failures can occur. Imperfect competition is, amongst other reasons, given in the case of monopolistic market structures, where at least one company exercises control over price and output. Moreover imperfect competition is sometimes characterised by increasing returns to scale. The aircraft industry is a typical example for a modern industry characterised by economies of scale. Large fixed cost of entry, high investments in research and development (R&D) as well as the need for highly specialised capital equipment characterises that sector. Within decreasing cost industries, the average production costs decline by each unit the company produces. Since the producer has to set a price in order to recover initial investment, consumers are possibly not willing to pay for a price high like that. If a government however considers that consumer welfare exceeds the losses a producer suffers without a subsidy, a government might encourage production by subsidising the initial investment (static scale of economies).⁶ Evidence of a learning-by-doing effect is also a typical characteristic one can find in the aircraft industry. Each time the

² “The Economics of Subsidies,” in *World Trade Report* (World Trade Organization, 2006), 55.

³ Phedon Nicolaides, *Essays on Law and Economics of State Aid* (Maastricht: Maastricht University, 2008), 92–93.

⁴ “The Economics of Subsidies,” 2.

⁵ This logic is in line with the so-called Kaldor-Hicks efficiency, *ibid.*, 91.

⁶ “The Economics of Subsidies,” 58–60.

company produces one unit, the average cost fall over time due to learning effects (dynamic economies of scale). Governments may want to subsidise industries with steep learning curves, such as the aircraft industry, during the early loss-making production stage in order to benefit the consumer at a later stage. Nevertheless, the relative size of consumer gains to company losses is decisive for a government to intervene.⁷

In the *EC – Airbus* case, the alleged market failures have been the monopolistic position Boeing has occupied in conjunction with substantial *economies of scale* in the LCA sector as well as *spillover effects* triggered by the EU–US subsidy race (the latter will be discussed in subpara.2.2). Monopolistic markets structures as commonly understood bring about lack of competition, which in turn causes allocative inefficiencies due to increased market prices and reduced quantity supplied. A further argument is that also production efficiency is negatively affected since monopolist ‘get lazy’ and loose incentive to innovate.⁸

Nonetheless there are circumstances when monopolies are said to be an appropriate market structure. For instance for industries with substantial economies of scale, a monopoly might be desirable because high profits are required for R&D. In accordance to this, based on large-scale economies in production and the importance of R&D the aircraft industry in particular is likely to be subject to market failures.⁹ The majority of the subsidies received by Airbus have been indeed targeted at R&D. Subsidies to encourage R&D in particular are likely to have positive spill-over effects to other industries and are considered to increase productivity in a social optimal way.¹⁰

The figure shows that by 1995, Boeing had a market share of 81 per cent in the large civil aircraft (LCA) industry. Airbus on the contrary provided only for 19 per cent of that particular market. By 2010 however it can be observed that both large aircraft manufacturers have split the market nearly into two equal pieces. According to the European Aeronautic Defence and Space Company (EADS) commercial review of 2012, Airbus even got ahead of Boeing by now.¹¹

⁷ *Idem.*

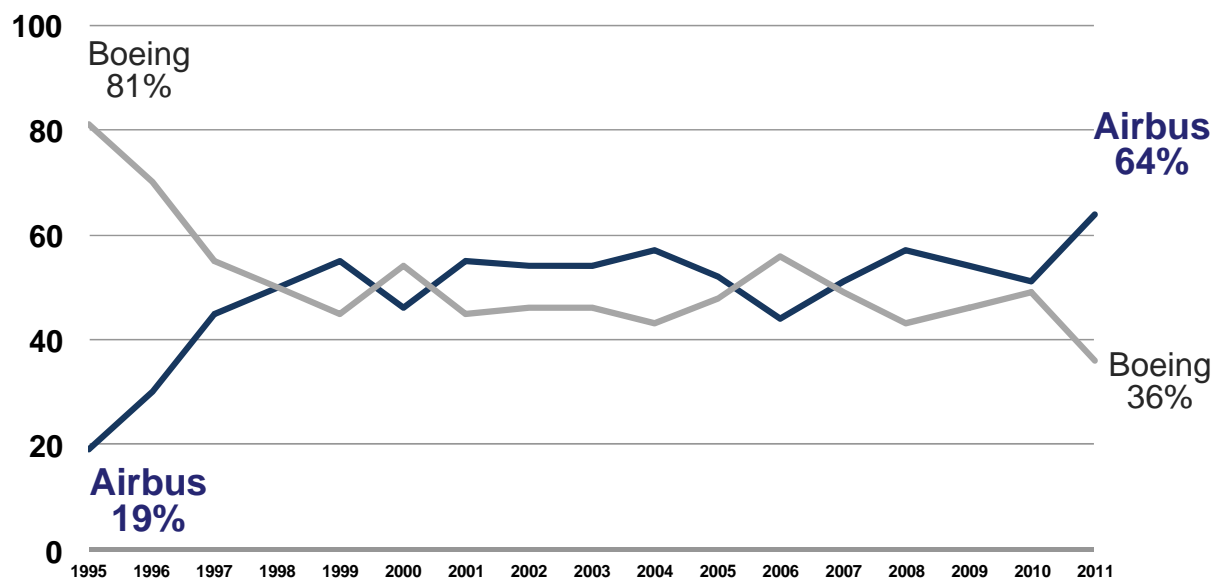
⁸ Richard Pettinger, “Effect of Monopoly Power,” http://www.tejvan.co.uk/economics/as_micro-economic-essays/effect-of-monopoly-power/index.html.

⁹ Damien J. Neven and Paul Seabright, “European Industrial Policy: The Airbus Case,” *Economic Policy* 21(1995): 4.

¹⁰ “The Economics of Subsidies,” 61.

¹¹ See the annual press conference presentation at <http://www.eads.com/eads/int/en/investor-relations/events-reports/Financial-Statements-and-Presentations/2012.html>, last accessed on 2 June 2012.

Figure: gross order share since 1995



Governmental support has been a decisive factor for Airbus' increased market share or even 'the very existence of the project.' Airbus might have survived in the absence of state aid, though probably in a different form.¹² Thus the subsidies received by Airbus have kept the enterprise so to speak artificially alive. An argument which argues against the legitimisation of subsidies could be that of misallocation of resources. Hüppe for example argued that the high-qualified employees such as engineers etc. employed by Airbus might be more efficient in other sectors.^{13 14}

According to a study by Neven and Seabright on the impact of Airbus' subsidies, the effect of Airbus' increased market share has led to lower prices to consumers since Boeing's monopolistic position has been challenged.¹⁵ The WTO has estimated that the entry of Airbus has reduced prices for commercial airlines by 3.5 per cent.¹⁶ Furthermore, spill-over effects to other industries lead also to the adaptability of technological advances in other industries.¹⁷ Neven and Seabright further argued that although Airbus has made increased profits, its market entry had a negative impact on global welfare, when taking into account the profits made as well as consumer surplus, while a positive one on European welfare in terms of industrial development.¹⁸

¹² Neven and Seabright, "European Industrial Policy: The Airbus Case," 8.

¹³ Benedikt Hüppe, *Legitimationsgründe für Subventionen* (Munich: GRIN Verlag, 2009).

¹⁴ *Ibid.*, 10.

¹⁵ Neven and Seabright, "European Industrial Policy: The Airbus Case."

¹⁶ "The Economics of Subsidies," 88.

¹⁷ *Ibid.*, 5.

¹⁸ *Ibid.*, 3. The study and the numbers are an estimate from the year 1995. By that time the presence of

1.2 Strategic market intervention

Domestic subsidies can have international consequences as was said above. When exports of a foreign rival are displaced, the foreign firm will be negatively affected though consumer might benefit. Counteractive behaviour of the foreign firm is then likely to be ‘in the form of subsidies, countervailing duties, or a legal dispute’.¹⁹

The game theory tackles the very important issue of subsidy races, which are likely to occur in such situation. When two or more producers with high fixed cost enter the market, further strategic considerations come to play a role. Governmental intervention, that is, altering the strategic relationship of two firms, can give one firm an advantage over the other within an imperfect market where the firms are dependent on the rivals commercial decisions with regard to output and pricing.²⁰ The game theory is basically concerned with the study of *strategic* decision-making. In order to transform inefficient games into efficient games, the theory concludes that efficient disclosure is needed (through an agreement for instance).

A subsidy race might be triggered by aid with cross-border effects (negative spill-over effects), in which excessive amounts of aid at the expense of the taxpayer will lead to inefficiencies and thus welfare losses in the other country.²¹ In line with a strategic trade policy approach, governments apply an active and protectionist trade policy in which they create a competitive advantage for firms in oligopolistic market structures.²² Here the subsidy works as a profit-shifting instrument. The assumption that each country aims at maximising efficiency, ‘does not preclude subsidy wars in pursuit of beggar thy neighbor objectives.’ In line with the conclusion of the game theory, supranational rules are needed to disable so-called ‘tit-for-tat strategies’ where one country subsidises in order to compete with another countries subsidised industry. The countries’ governments then face the risk of getting ‘caught in a prisoner’s dilemma situation where domestic aid is granted to restore the level-playing field’.²³ Within the game theory, both the EU and the US considered simultaneously to provide launch aid in order to boost their domestic industries. This in turn encourages manufactures in their efforts, while governments have also a greater incentive to subsidise aircraft industry than ordinary investors. The strategic trade policy of both governments has

Airbus has lead to losses for Boeing which counts about 100 billion dollars, whereas Airbus’ profits have lied somewhere between 49 and 52 billion dollars.

¹⁹ *Ibid.*, 64.

²⁰ *Ibid.*, 60.

²¹ Neven and Seabright, “European Industrial Policy: The Airbus Case,” 4.

²² Susan S. Nello, *The European Union: Economics, Policies and History* (London: McGraw-Hill, 2009), 100.

²³ Nicolaidis, *Essays on Law and Economics of State Aid*: 93.

however a competition distorting effect, but at the same time an innovative-growth effect.²⁴ The possible negative factors will often naturally lead to a governmental bargaining stage as it also has been the case when the EU and the US concluded the Agreement on Large Civil Aircraft in 1992, which was targeted at the limitation of governmental subsidies.

2 Economic principles of the balancing test

The paper emphasized that state aid measures can have both positive and negative effects. Member states naturally aim at a positive social and economic development within their territory, such as high levels of unemployment and high tax revenues. However national governments often not consider negative spill-over effects to other countries, which undermine the internal market and are against the common interest of the European Union. Article 107(1) TFEU prohibits therefore state aid measures, which threaten to distort competition. Having said that, art. 107(3) TFEU offers exceptions to the general prohibition of para. 1, if a state aid measure does not unduly distort competition. Accordingly, if a state aid measure falls under art. 107(1) TFEU, the Commission has to assess whether the measure might be compatible with the exemption under para.3.

In order to assess whether the measure would fall under the exception, the Commission announced in its State Aid Action Plan that its assessment had a more refined economic approach.²⁵ Core element for that approach forms the balancing test.²⁶ This paragraph shall outline important principles for an economic assessment under the balancing test. The general principles are also reflected in various guidelines of a particular field such as state aid for R&D. Nonetheless, if an aid measure falls under such guidelines, only its assessment criteria apply. The term balancing test already implies that state aid measures' negative effects shall be balanced with its positive effects. The test investigates (a) whether the aid targets at a well-defined objective of common interest (b) if the aid can deliver the objective of the common interest or market failure and (c) if positive and negative effects are balanced.²⁷ Generally speaking, the test considers the welfare impact of all stakeholders (recipient, competitor, consumer, and supplier). If a measure implied no positive effects at all, it cannot fall under the Article 107(3) exemption.

²⁴ Richard J. Fairchild, "The Airbus-Boeing Launch Aid Dispute – A Game-Theoretic Analysis," (2008), <http://www.bath.ac.uk/management/research/pdf/2008-07.pdf>.

²⁵ COM(2005) 107 final, para. 22.

²⁶ "Common Principles for an Economic Assessment of the Compatibility of State Aid under Article 87.3," http://ec.europa.eu/competition/state_aid/reform/economic_assessment_en.pdf, last accessed on 30 May 2012.

²⁷ *Ibid.*, 3.

2.1 Objective of common interest

A state aid measure may be authorised if falling under at least one of the objectives of Article 107(3) TFEU. Whether it contributes to an objective of common interest can be assessed in terms of efficiency or equity.²⁸ With regard to the first term, the member state needs to demonstrate the existence of a market failure. The countervailing measure should produce positive effects and contribute to an efficient outcome. However, the simple fact that an undertaking can invest in a project only with low profitability does not suffice to constitute a market failure as has been elaborated on in para.2.1. Equity objectives aim at reducing regional inequality, hence a rent-shifting objective. Under this category falls for instance regional aid, which however does not form part in this paper.

2.2 The right policy instrument

An intervention in the economy can be justified if the measure applied is the appropriate instrument to meet public-policy objectives and contributes to at least one of the common interest objectives of the EU. Inappropriate policy instruments do not tackle the efficiency or equity concerns at the best possible rate by creating distortions of competition, which could be avoided. The impact assessment can be undertaken on the basis of cost–benefit analysis, benchmarking, etc.²⁹

Furthermore, state aid must change the behaviour of the recipient in such a way that it contributes to the public-policy objective. The so-called incentive effect ‘can be identified by comparing a situation with and without the aid’.³⁰ The incentive effect and its efficiency in terms of improving market conditions and market failure, can be demonstrated by internal documents of the beneficiary. Efficiency objectives can be shown by means of business plans, risks assessment of the commercial failure, profitability calculations for the indented aid, etc.

The assessment should not only indicate the state aid’s incentive effect, but also whether it is proportionate (what is necessary to change the recipients behaviour?). When not exceeding the minimum needed of what is necessary to achieve the objective, the measure will be found proportionate and not unduly distorting competition (could the same result be achieved with less aid?).

²⁸ *Ibid.*, 6.

²⁹ *Ibid.*, 8.

³⁰ *Ibid.*, 11

2.3 Balancing negative and positive effects

As has been outlined in para. 1 on the economic rational of state aid, Member States need to demonstrate that positive effects outweigh negative effects. This balancing exercise is ‘the last and decisive step in the compatibility analysis.’ Although the assessment takes place on a case-to-case basis, several common principles are set such as the social welfare standard, which gives a description of the different effects on involved stakeholders. Moreover, the direct effect on the changed behaviour of the aid recipient can be assessed. That can be an increase (or decrease) in the output market, which is beneficial to the common interest and consequently qualifies as a positive effect due to a state aid measure. Compared to those possible negative effects of state aid, namely distortion of competition and trade, can be assessed by considering the effects of the aid on other competitors, but also input supplier.

Challenging for Commission and Member States is however the exact quantification of the economic effects, which come along with industrial policy they pursue. Nonetheless, it is usually possible to estimate the orders of magnitude of positive and negative effects. While short-term effects are usually easier to assess than long-term effects, a measure will not be accepted when solely leading to increased welfare in the short-run. Measurements can be in terms of money, sales, profits or employment, etc. When weighing positive and negative effects, the same measurement unit should be used.³¹

The Commission can also make further use of ‘consumer surveys or marketing research or expert opinion provided by Member States’. Although it can be in some cases difficult to quantify the effects, they should be assessed as precise as possible in order to compare positive and negative effects.³²

3 The legitimization of aircraft manufacturing subsidies

There are multiple reasons for governments to consider state aid measures, which can be of political, economic, social or strategic nature. In this subparagraph we provide two arguments, which are partly interrelated, for state intervention, namely, political arguments and economic arguments. The legal arguments shall follow in paragraph 5.3. Furthermore, we aim at challenging the legitimisation of these arguments to grant state aid.

³¹ *Ibid.*, 19.

³² “The Economics of Subsidies,” 82.

3.1 Political arguments

This subparagraph can best be started with the following quote by Vice President of the Commission and Commissioner for Industry and Entrepreneurship Antonio Tajani:

*Industry is at the heart of Europe and indispensable for finding solutions to the challenges of our society, today and in the future. Europe needs industry and industry needs Europe. We must tap into the full potential of the Single Market, its 500 million consumers and its 20 million entrepreneurs.*³³

The EU's industrial policy aims at a competitive position in the world market based on the belief that 'a strong, competitive and diversified industrial manufacturing value chain is vital for economic well-being in Europe'.³⁴ Thus a competitive European industry forms the basis for growth and jobs as well as a sustainable European economy.³⁵ This is also in line with art. 173 TFEU: 'the Union and the Member States shall ensure that the conditions necessary for the competitiveness of the Union's industry exist.'

Accordingly, a political argumentation for intervention is first of all the protection of the European industry and linked to that the protection of jobs. In addition to that, the protection of the consumer forms a further political aim, which is simultaneously an economic argument since a competitive market allows for lower prices and the creation of new products and improved quality.³⁶

Moreover, industrial growth is seen to be a key source for innovation, giving possible solutions to societal challenges, such as climate change, energy and resource efficiency, faced by the EU. In accordance to that, the Europe 2020 strategy puts importance on R&D promotion and pursues the vision to become an 'Innovation Union' with improved framework conditions for R&D in order to ensure improved products, creating at the same time growth and jobs.³⁷ Since the flagship initiative of Europe 2020 exposes 'smart growth' as one major priority (besides sustainable and inclusive growth) where an economy is based on knowledge and innovation, the Commission proposes that 3 per cent of the EU's GDP should be invested in R&D.³⁸ In its 2010 Communication on a strategy for smart, sustainable and inclusive growth, the Commission calls upon Europe to act and to remain competitive. Compared to

³³ Quote retrieved from http://ec.europa.eu/enterprise/policies/industrial-competitiveness/industrial-policy/index_en.htm, last accessed on 28 May 2012.

³⁴ See the Commission's webpage on industrial competitiveness at <http://ec.europa.eu/enterprise/policies/industrial-competitiveness/>, last accessed on 2 June 2012.

³⁵ *Idem.*

³⁶ *Idem.*

³⁷ COM(2010) 2020 final, 5.

³⁸ *Ibid.*, 6.

2.6 per cent R&D investment in the US, Europe's R&D spending is currently below 2 per cent, which is mainly the result of low levels of private investments.³⁹ Moreover emerging economies such as China are investing heavily in R&D in order to support the growth of their industries, which puts serious pressure on some sectors, the LCA industry included, within the EU to remain competitive.⁴⁰ Therefore we conclude that political motives and aims give legitimacy to the grant of state aid for Airbus.

3.2 Economic arguments

When we speak of economic arguments, the focus is particularly on efficiency arguments as was discussed above under para. 2.1. Under specific circumstances governmental market intervention such as the grant of subsidies can be advantageous for the intervening country by shifting rents from foreign producers to domestic ones. Nonetheless, the requirements for a successful market intervention are high in order to avoid the risk of welfare losses. The industry for LCA, which is characterised by high economies of scale and the need of extensive R&D investments, is a sector where strategic market interventions can have significant positive effects. The coordinated and pan-European governmental intervention in the case of Airbus has certainly led to an industrial policy success for all involved countries. Without the grant of subsidies for Airbus, the EU would have to leave that high-tech sector to its competitor in the US.⁴¹ In the aircraft industry in particular, market entry entails large fixed costs due to significant investments in R&D and expensive capital equipment. Without governmental intervention, no investment or production would take place since the producer could not recover the initial costs. In that situation a government would consider to offer launch aid, which leads us to the infant-industry argument.⁴²

The Airbus Consortium became a declining industry due to Boeing's competitive pressure. A strategic policy was needed to help Airbus to adjust to those economic difficulties. In fact, many of today's developed countries applied infant industry promotion policies in the early stages of their development.⁴³ Industrial policy promotion is in the first place politically motivated. From an economic point of view however, the grant of subsidies is only legitimate when facing the presence of a market failure, while not leading to additional

³⁹ *Ibid.*, 12.

⁴⁰ *Ibid.*, 7.

⁴¹ Thomas A. Zimmermann, "Strategische Handelspolitik in der Flugzeugindustrie im Lichte des GATT/WTO-Regimes unter der Berücksichtigung des Airbus-Projekts," (1998), <http://www.zimmermann-thomas.de/publikationen/PDFstrapol.pdf>.

⁴² "The Economics of Subsidies," 59.

⁴³ *Ibid.*, 66.

distortions. Therefore we conclude that launch aid, which implies only a temporary grant of aid, in form of subsidies do not seem to be legitimate anymore when considering that Airbus is today's global market share leader for LCA. Nonetheless from a society's point of view, Airbus' subsidies are legitimised in the presence of positive externalities triggered by R&D activities that become beneficial for actors not involved in the original R&D activities since private companies would not take into account positive effects for society in general.⁴⁴

4 EC – Airbus

4.1 The role of the WTO

Up to this point we have only discussed general aspects of the EU's state aid policy and only marginally referred to *EC – Airbus*. We have concluded that there are many good (and bad) reasons why the EU should (not) be concerned with the enforcement of state aid rules in the internal market. We would like to take it a step further. Obviously, the EU covers not the entire globe and our analysis can of course be put into consideration when we take the EU as a part of the global economy. It follows therefore that we would need to examine the relationship of the EU's state aid rules with respect to other international rules. One of the legal frameworks we deem to be the most important is of course the bulk of law established by the WTO. The WTO Agreement, to which at least 155 states are members,⁴⁵ contains many rules on non-discrimination principles and barriers to market access for the sake of international trade. For this paper, a recent decision of the DSB, the WTO's arbiter in case of trade disputes between the states, deserves some more attention because it specifically illustrates the challenges national, or European, state aid rules bring in the context of global trade, specifically WTO law. This case is colloquially called *EC – Airbus* and marks an important point in a longstanding dispute between the EU and the US, which has perhaps not come to an end just yet.⁴⁶

In this paragraph, we shall focus on the facts of the *EC – Airbus* case, specifically the range of subsidies that flowed from the EU and the Member States, and consider why the EU's state aid rules were not compatible with WTO law and this means for EU state aid law.

⁴⁴ *Ibid.*, 82.

⁴⁵ An up-to-date list can be found on the website of the WTO at http://wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm, last accessed on 14 May 2012.

⁴⁶ A webpage of the WTO notes that the current compliance proceedings against the EU are still ongoing as of 13 April 2012, see http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds316_e.htm, last accessed on 22 May 2012.

More general considerations on the external dimension shall then be discussed in the next paragraph.

4.2 The background of *EC – Airbus*

EC – Airbus was in several ways a quite remarkable case. It was a lengthy dispute of almost seven years, starting from the initial request for consultation in October 2004, the panel report in June 2010 to the final Appellate Body report in May 2011.⁴⁷ This might not seem that long at first sight, but for a dispute resolution system that prides itself for its efficiency,⁴⁸ it is quite substantial. Furthermore, the reports themselves are very complex and filled with many technical details, spread out over a considerable amount of pages. It goes beyond the aims of this paper to discuss the reports in full detail. Instead, a brief overview of the main facts shall be given here, while the details on the subsidy scheme shall be considered in the next subparagraph.

It should be pointed out that the request for consultations with the DSB was just the tip of the iceberg and that a brief background is required to fully comprehend the implications of the matter. As said, the procedure with the DSB was the result of a longstanding dispute between the Europe-based company Airbus and the American company Boeing. As the US became the world's leading economy after the Second World War, the global aircraft manufacturing industry was dominated by the American companies Boeing, Lockheed and McDonnell Douglas, especially in the 1960s and 1970s.⁴⁹ Concerned in particular was the market for LCA, i.e. aircraft with the capacity of at least one-hundred seats.⁵⁰ It is believed that that European industrial-policy concerns eventually led the French, German and, at first, British governments to band together and to challenge American domination.⁵¹ By 1969, the Airbus Consortium was established,⁵² ten years later Airbus comprised manufacturers from France, Germany, the UK and Spain. Of importance is the fact that these manufacturers were partially state-owned and controlled. But of even more importance is the fact that Airbus was quite

⁴⁷ *Idem*.

⁴⁸ The Understanding on Rules and Procedures Governing the Settlement of Disputes (annex 2 of the WTO Agreement) envisages an efficient procedure with short time limits. In theory, a dispute should be resolved in up to twelve months (including appeal) after the establishment of a panel, which may happen after sixty days of failed consultations. See to that end Peter Van den Bossche, *The Law and Policy of the World Trade Organization* (Cambridge: Cambridge University Press, 2008), 198–200.

⁴⁹ John G. Francis and Alex F. Pevzner, "Airbus and Boeing: Strengths and Limitations of Strong States," *Political Science Quarterly* 121, no. 4 (2006): 636–637.

⁵⁰ "Flight Plan 2010: Analysis of the U.S. Aerospace Industry," (US Department of Commerce, 2010), 5; Simon Lester, "The Problem of Subsidies as a Means of Protectionism: Lessons from the WTO *EC – Aircraft Case*," *Melbourne Journal of International Law* 12, no. 2 (2011): 358.

⁵¹ Francis and Pevzner, "Airbus and Boeing: Strengths and Limitations of Strong States," 637–639.

⁵² A timeline of the company can be found at <http://www.airbus.com/company/history/the-timeline/>, last

heavily subsidised by the European governments, by that time mostly in the form of repayable launch investments.⁵³ By the early 1980s, Airbus slowly started to grow to a worthy competitor for Boeing, which by that time drove Lockheed off the market and swallowed McDonnell Douglas in 1997.⁵⁴ In that year, the share of gross aircraft orders of Airbus and Boeing were respectively 44.7 and 53.6 per cent, thereby forming the duopoly of the global aviation industry.⁵⁵ ⁵⁶ At the end of the 1990s, Airbus caught up and exceeded Boeing in terms of gross aircraft orders.⁵⁷ Yet, the European governments continued to financially support Airbus to continue competing effectively with Boeing. The resulting rivalries led to even more spending over time, also by the US government. Although the total amounts of subsidies are unknown or at least not publicly available, Boeing calculated that Airbus received illegal subsidies in the amount of 18 billion dollars.⁵⁸ By comparison, the Appellate Body held that Boeing had received between five to six billion dollars of WTO-inconsistent subsidies in the years 1989 to 2006.⁵⁹

Why were the subsidies so important here? It should be remembered that this dispute primarily concerned the market of LCA. The industry is very much characterised by excessive development costs, technological risks and steep learning curves. Aircraft development is time consuming and risky and therefore very costly, ranging between 6 to 15 billion dollars for a single aircraft,⁶⁰ while the list prices per unit range between 67,7 to 389,9 million dollars.⁶¹ The rivalry between Airbus and Boeing marked a new point when airlines were offered a discount for the Airbus A320 model, which hindered Boeing from selling its Boeing 757. The allegations and subsequent dispute between the US and the EU ultimately led to the multilateral WTO Agreement on Trade and Subsidies for Civil Aircraft of 1992.⁶² That agreement, among other things, capped the limits of direct government subsidies for the

accessed on 22 May 2012.

⁵³ According to the European Commission's fact sheet, available at http://trade.ec.europa.eu/doclib/docs/2010/september/tradoc_146486.pdf, last accessed on 22 May 2012.

⁵⁴ Nina Pavcnik, "Trade Disputes in the Commercial Aircraft Industry," *The World Economy* 25, no. 5 (2002): 739.

⁵⁵ Airbus and Boeing remain the only two large airframe manufacturers, Nicole Adler and Aaron Gellman, "Strategies for Managing Risk in a Changing Aviation Environment," *Journal of Air Transport Management* 21 (2012): 29.

⁵⁶ Francis and Pevzner, "Airbus and Boeing: Strengths and Limitations of Strong States," 637; Soumyadipta Chanda, "The Battle of the Big Boys: A Critical Analysis of the Boeing Airbus Dispute Before the WTO," (2011), <http://ssrn.com/abstract=1944588>.

⁵⁷ Francis and Pevzner, "Airbus and Boeing: Strengths and Limitations of Strong States," 637; Pavcnik, "Trade Disputes in the Commercial Aircraft Industry," 735–737.

⁵⁸ See *supra* 1.

⁵⁹ See *supra* 53.

⁶⁰ Francis and Pevzner, "Airbus and Boeing: Strengths and Limitations of Strong States," 639–640.

⁶¹ The Airbus list prices for 2012 can be found at <http://www.airbus.com/newsevents/news-events-single/detail/new-airbus-aircraft-list-prices-for-2012/>, last accessed on 29 May 2012.

⁶² Chanda, "The Battle of the Big Boys: A Critical Analysis of the Boeing Airbus Dispute Before the

development of LCA and prohibited production subsidies. Furthermore, part of the subsidy had to be issued in the form of loans with a regulated payment scheme, as Airbus previously tended to postpone repayment. The dispute reached a climax when Airbus started to develop the ‘superjumbo’ Airbus A380 that required development financing and thereby opened yet another can of worms.⁶³ In October 2004, the US unilaterally withdrew from the Agreement and requested consultations under the Dispute Settlement Understanding (DSU).⁶⁴ The EU filed a counterchallenge and as such two large cases were pending before the DSB. While *EC – Airbus* was finally decided on appeal in March 2011, *US – Boeing* followed a year later. The DSB found in both cases against the respondent and required both the US and the EU to bring their subsidy schemes into conformity with WTO law. *US – Boeing* shall not be discussed further.

4.3 The subsidy scheme and EU state aid rules

In so far the essential facts of *EC – Airbus*. What is more of interest to us now, is the question of the types of subsidies Airbus had received from the Member States and why these were allowed by the European Commission to be given. The decision of the WTO panel and the Appellate Body shall be considered in the next paragraph.

4.3.1 THE AIRBUS SUBSIDIES

According to the panel report,⁶⁵ Airbus had been supported primarily by the European Union (at that time the European Communities), France, Germany, the UK and Spain. The subsidies amounted to more than 300 separate measures over a period of almost forty years. The panel distinguished between five groups of subsidies. First, launch aid given by France, Germany, Spain and the UK to finance the R&D of LCA. The benefits allegedly comprised below-market interest rates and generous repayment obligations that were only due on successful sales. Secondly, design and development financing loans from the European Investment Bank (EIB) for several purposes, including R&D, and design. Thirdly, infrastructure and related grants by the EU and the Member States for the development of the infrastructure and facilities for the benefit of Airbus. Fourthly, corporate restructuring measures, which comprised the forgiveness of launch-aid debts and the provision of equity infusions and

WTO,” 8–9.

⁶³ Pavcnik, “Trade Disputes in the Commercial Aircraft Industry,” 741–745.

⁶⁴ See *supra* 53.

⁶⁵ For a brief of the report, see the Dispute Settlement Commentary (DSC) of WorldTrade Law.net.

grants. Finally, R&D contributions by the EU and the Member States for aeronautic-related R&D.⁶⁶

Of further relevance is the fact that Airbus was a legal shell created on the basis of a partnership arrangement with French, German, UK and Spanish companies, which later became part of the European Aeronautic Defence and Space Company (EADS) in 2000. The LCA were manufactured together by the abovementioned companies, each bringing in important parts and expertise. EADS acquired Airbus SAS in 2006, which at that time owned all Airbus-related assets and operations. This means that the subsidy scheme is essentially more complex as both the EU and the Member States have contributed at different stages and with different types of subsidies that benefited Airbus.⁶⁷

4.3.2 THE APPLICABLE STATE AID RULES

Such a subsidy scheme must have had the potential of friction with the EU's state aid rules, especially the ones contained in the Treaties. On the face of it, there appears to be a good cause for the application of Article 107(1) TFEU, especially for a subsidy scheme of that size. However, it should be recalled that art. 107(3) TFEU provides for a list of exemptions on which the Member States may rely. Of specific interest are subparas. (b) and (c) under which state aids may be allowed for the purpose of, respectively, aid for the promotion of an important project of common European interest or for the remedy of serious disturbances in the economy of the Member States, and aid to facilitate the development of certain economic activities or areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest.

In case of subpara. (b), the question is whether the Airbus subsidies may be considered as a common European interest, taking into account that the subsidies were not given to a single undertaking, but a consortium comprising several companies, specifically subsidiaries in the participating Member States. This would be different where there is only one single relevant undertaking in the EU, regardless whether it operates in only one Member State. Whether or not the subsidies remedy serious economic disturbances in the economy of the Member States depends on the question if the economy of a Member State as a whole is affected, not merely

⁶⁶ *Idem.*; Lester, "The Problem of Subsidies as a Means of Protectionism: Lessons from the WTO *EC – Aircraft Case*," 358; Mark Wu, "Why Not Brussels? European Community State Aid Rules and the Boeing–Airbus Dispute: Comment on Piet Jan Slot," in *Law and Economics of Contingent Protection in International Trade*, ed. Kyle W. Bagwell, George A. Bermann, and Petros C. Mavroidis (New York: Cambridge University Press, 2010), 186.

⁶⁷ Lester, "The Problem of Subsidies as a Means of Protectionism: Lessons from the WTO *EC – Aircraft Case*," 358–359.

a specific sector or area. This follows, for example, from the Commission's decision in *Olympic Airways*.⁶⁸ In the light of this, it appears to be rather unlikely that the Airbus subsidies meet these requirements.⁶⁹

Subparagraph (c) seems to be more promising, as it frequently served as a basis for the Commission to authorise state aids. The exemption comprises two distinct types of aid, industrial policy and regional aid, of which the former is the more important one here. The rationale lies in the benefit of the industrial sector as a whole, not just the receivers.⁷⁰ The Court of Justice held in respect to this point that the exemption may be relied upon to the extent in which the problems of the industry sector are solved.⁷¹ In the *Olympic* decision, the Commission also noted that industry growth may outweigh the adverse effects of state aid.⁷² As we explained above (subpara. 4.2), economic intervention has proven to be vital for a sustainable European aircraft manufacturing industry and the creation of jobs in that sector. A parallel can be drawn with the air transport sector, where the Commission appeared to be much more lenient towards Member States' interests in protecting national industry, even though the market would have made the required industry adjustments itself.⁷³ That leniency seems to support the Commission's political ambitions as well, rather than economic efficiency as such.

4.3.3 THE COMMISSION'S REASONING

When looking at some of the more recent authorisations by the Commission to let Germany and Spain grant subsidies to Airbus' subsidiaries, the Commission relied on subpara. (c) on the basis of the fifth R&D Framework.⁷⁴ Whether the Commission was allowed to authorise these subsidies is, however, still questionable. Thompson argues that the Commission's stance on state aid policy is inconsistent for the aircraft manufacturing industry and that rules were bent to promote Airbus' global competitiveness to the detriment of the market at large and the EU's trade relations with the US.⁷⁵ If these concerns bear some truth, then the

⁶⁸ Commission Decision of 7 October 1994, OJ 1994 L273/22 (94/696/EC).

⁶⁹ Alan Ryan and Trevor Soames, "State Aid and Air Transport," *European Competition Law Review* 16, no. 5 (1995): 300.

⁷⁰ See the opinion of Advocate General Sir Gordon Slynn in case C-84/82 *Federal Republic of Germany v Commission (textiles)* [1984] ECR 1451.

⁷¹ Case C-303/88 *Italy v Commission (ENI/Lanerossi)* [1991] ECR 1433.

⁷² Ryan and Soames, "State Aid and Air Transport," 302.

⁷³ *Ibid.*, 300–303.

⁷⁴ The Commission's motivation can be found in the letters to the Member States under case numbers N533/2002 and N165/2003 respectively at http://ec.europa.eu/competition/state_aid/register/, last accessed on 1 June 2012.

⁷⁵ Jason Thompson, "Aerospace and Antitrust: How the European Union Supports Its Interests to the Detriment of United States' Companies," *University of Miami International & Comparative Law Review* 14, no.

question arises why Boeing has not taken action against the Commission itself. Since it owns subsidiaries in the EU, Slot suggested that it could have filed complaints before the Commission and even challenge the Commission before the General Court with an action for a failure to act under art. 265 TFEU.⁷⁶ In its *Sytraval* judgment, the Court of Justice held that such a procedure is possible, even though the Commission's decision was addressed to a Member State.⁷⁷ Needless to say, whether such a challenge would be successful is doubtful, considering the overall tendency in the EU to boost Airbus' growth.⁷⁸

4.4 The reports of the panel and the Appellate Body

As said before, on 20 June 2010, the panel issued its report, followed by the Appellate Body report roughly a year later. Both reports concluded against the EU and Airbus. In this paragraph we shall have a look at the relevant obligations under WTO law and the outline of the decision.

4.4.1 THE SCM AGREEMENT

Under the Agreement on Subsidies and Countervailing Measures (SCM Agreement), which is a multilateral agreement that is part of Annex I and is as such binding on all WTO members under art. II of the WTO Agreement, the WTO members are subject to a framework that limits their freedom to grant subsidies. It served as the basis of the *EC – Airbus* case, although it has been argued that it would not adequately fit its purpose for the aircraft manufacturing industry.⁷⁹ The SCM Agreement distinguishes between prohibited subsidies (art. 3), permissible subsidies (art. 8) and actionable subsidies (art. 5), i.e. subsidies which are generally allowed, but may be prohibited if they have adverse effects.⁸⁰ Specifically the latter type of subsidies was central in the *EC – Airbus* case, which meant that a detailed review of the Airbus subsidies had to take place.⁸¹

2 (2006): 331–336.

⁷⁶ Piet Jan Slot, "The Boeing–Airbus Dispute: A Case for the Application of the European Community State Aid Rules?," in *Law and Economics of Contingent Protection in International Trade*, ed. Kyle W. Bagwell, George A. Bermann, and Petros C. Mavroidis (New York: Cambridge University Press, 2010), 182.

⁷⁷ *Idem.*, case C-367/95 *Sytraval* [1998] ECR I-1719.

⁷⁸ See footnote 146 in Thompson, "Aerospace and Antitrust: How the European Union Supports Its Interests to the Detriment of United States' Companies," 334.

⁷⁹ Chanda, "The Battle of the Big Boys: A Critical Analysis of the Boeing Airbus Dispute Before the WTO," 7.

⁸⁰ Claus-Dieter Ehlermann and Martin Goyette, "The Interface between EU State Aid Control and the WTO Disciplines on Subsidies," *European State Aid Law Quarterly*, no. 4 (2006): 705–706.

⁸¹ Chanda, "The Battle of the Big Boys: A Critical Analysis of the Boeing Airbus Dispute Before the WTO," 7–8.

4.4.2 THE FINDINGS OF THE PANEL AND THE APPELLATE BODY

Turning to the findings of the panel and the Appellate Body, it should once again be pointed out that the list of findings was, unsurprisingly, quite extensive. Thus only a brief summary shall suffice.⁸² First of all, the Appellate Body held that several forms of aid were not compatible with art. 5(c) of the SCM Agreement. More specifically, the launch aid given by the Member States and the EU was said to have a prejudicial effect against the US that would not conform the rules of said provision. The loans undercut market rates and had very lenient repayment terms. Also the infrastructure grants were incompatible, which comprised, among other things, the provision of the Hamburg Mühlenberger Loch industrial site to Airbus. The Appellate Body also reversed several findings of the panel. It found that it had no jurisdiction to properly assess the compatibility of the subsidies given by Germany, Spain and the UK to develop Airbus A380 with art. 3.1(a) and footnote 4 of the SCM Agreement, while reversing the findings of panel. As such there is no finding on these subsidies and whether they should be considered as prohibited export subsidies. As matters of fact, the Appellate Body concluded that the Airbus subsidies were detrimental to Boeing's sales, exports and market in the LCA industry. On the other hand, the Appellate Body allowed the R&D subsidies under art. 5(c) of the SCM Agreement. It also disagreed with the findings of the panel with respect to the detrimental effects against the industries in Brazil, Mexico, Singapore, Chinese Taipei and India. Finally, it directed the EU to remove the adverse effects or to withdraw the subsidies.⁸³

4.4.3 THE AFTERMATH

In spite of the number of incompatibilities found, the Commission seemed to be quite positive about the outcome. It welcomed the decision of the Appellate Body on several points, notably the compatibility of the subsidies for the development of the Airbus A380, which fell outside the scope of the terms of reference, the compatibility of R&D subsidies in general and the qualification of the EU's repayable launch investment schemes.⁸⁴

As the compliance proceedings against the EU are currently still pending a year after the Appellate Body report, it remains to be seen whether the EU is eventually going to give in. Given the fact that the DSB has a poor track record in the dispute resolution between the EU

⁸² See *supra* 65 for a more detailed analysis.

⁸³ John Olienyk and Robert J. Carbaugh, "Boeing and Airbus: Duopoly in Jeopardy?," *Global Economy Journal* 11, no. 1 (2011): 3–4; Chanda, "The Battle of the Big Boys: A Critical Analysis of the Boeing Airbus Dispute Before the WTO," 12–14.

⁸⁴ See *supra* 53.

and US, especially when the stakes are high, notably because of the number of jobs involved and the sheer size of the aircraft manufacturing industry, chances are that the EU might not be willing to accept every detail of the report.⁸⁵ Another likelihood is another agreement between the EU and the US to settle the dispute once and for all. However, given the failure of the 1992 Agreement on Trade in Large Civil Aircraft and the US' strict condition to quit with the Reimbursable Launch Aid programme, which has so far received little interest by the EU, the prospects might not be too promising.⁸⁶

5 The external dimension of state aid

5.1 EU state aid law and WTO law

The *EC – Airbus* case has shown that the EU's state aid policy is not infallible, specifically in a global context. The condemnation of parts of the authorised subsidies bear some interesting remarks to the question of the EU's state aid policy should be qualified in a global setting, which shall be briefly outlined in this subparagraph.

It has been argued that the EU's state aid rules and the SCM Agreement overlap in certain aspects. First and foremost, the EU's concept of state aid appears to be much more narrow than the WTO's concept of subsidies. This is partially explained by the differences in scope between the two. While the Commission is much more concerned with a severe competition policy for the internal market on the one hand, it also aims at making the EU more competitive on a global stage.⁸⁷ Furthermore, the EU seeks to have more economic, monetary and political integration, which leaves plenty of room for measures to facilitate these aims. This is contrasted by the subsidy rules of the WTO, which are much more aimed at reducing unfair trade practices. This divergence creates the situation in which the Commission may find a subsidy compatible with its own rules, which might be at odds with the SCM Agreement. Thus the risk that a subsequent panel decision may find such incompatibility is definitely given, as illustrated by *EC – Airbus*.⁸⁸ Here the point can be made that with respect to enforcement of such rules, another important gap can be found. While the Commission has plenty of tools available to combat illegal subsidies, most notable the

⁸⁵ Chanda, "The Battle of the Big Boys: A Critical Analysis of the Boeing Airbus Dispute Before the WTO," 11.

⁸⁶ Stephan Wittig, "The WTO Panel Report on Boeing Subsidies: A Critical Assessment," *Intereconomics* 46, no. 3 (2011): 152.

⁸⁷ Michael Blauberger and Rike U. Krämer, "European Competition vs. Global Competitiveness: Transferring EU Rules on State Aid and Public Procurement Beyond Europe," (2010), <http://ssrn.com/abstract=1656961>.

⁸⁸ *Ibid.*, 7.

obligation to prior notification and to recover illegal aid, the WTO has no such remedies available and must compel the responding state to amend or withdraw the subsidy scheme in question.^{89 90} What is presented then is a legal framework that might be hard to enforce. The Commission's reluctance so far to respond adequately to the DSB's report might be an indicator that the problem lies much deeper than the WTO could solve.⁹¹ The question remains how the EU's state aid policy shall develop in the future in the context of the WTO and whether a global competition policy may eventually develop.⁹²

5.2 Future outlook: a new competitive market

With regard to the forthcoming development of the aircraft industry, we want to emphasise that the Airbus and Boeing dispute is only one part of a much larger issue. The market for LCA is divided between Airbus and Boeing (duopoly market form). Nevertheless, competition in this sector is likely to change in the future. Aircraft manufacturers such as Bombardier (Canada) or Embraer (Brazil) dominate the market for aircrafts with less than one-hundred seats and start to compete with Airbus and Boeing at the lower end of 100+ airplanes. Prototypes of the fuel-saving jetliners are scheduled for 2012 and will be with regard to the type of the airplane in direct competition with the Airbus A320 and Boeing 737.⁹³ Above all, the 'China factor' seems to become the major direct competitor of the Airbus–Boeing duopoly. Being successful in the aircraft industry has become an important part of the Chinese government's vision. Therefore it has introduced to the market the Commercial Aircraft Corporation (COMAC), a consortium of Chinese aircraft producers. The Jetliner C919 has a capacity of 168 to 190 seats, being at the same time 15 per cent more fuel-efficient than comparable Airbus and Boeing jetliner and therefore turns out to be a serious competitor for the 'big two' in the LCA sector.⁹⁴ Moreover, one can expect a substantial transfer of knowledge from foreign (western) supplier to the Chinese aircraft industry since the engine and internal system supplier are mostly European or American firms, but also due to the fact that Airbus and Boeing adhere to subcontracts with several Chinese firms. Having

⁸⁹ See Commission Communication to Member States, *OJ C* 156/5, 22 June 1995, and Notice "Towards an effective implementation of Commission decisions ordering Member States to recover unlawful and incompatible State aid," *OJ C* 272/4, 15 Nov. 2007.

⁹⁰ Blauburger and Krämer, "European Competition vs. Global Competitiveness: Transferring EU Rules on State Aid and Public Procurement Beyond Europe," 19–22.

⁹¹ Ehlermann and Goyette, "The Interface between EU State Aid Control and the WTO Disciplines on Subsidies," 714–717.

⁹² See Alison Jones and Brenda Sufrin, *EU Competition Law* (Oxford: Oxford University Press, 2011), 1261–1264.

⁹³ Olienyk and Carbaugh, "Boeing and Airbus: Duopoly in Jeopardy?," 4.

⁹⁴ *Ibid.*, 6.

in mind the whole industry and current developments within that sector, the WTO ruling in the Airbus-Boeing dispute may have implications for the industry in general.

6 Conclusion

It is evident that in the absence of state aid measures, Airbus would exist today in a much different form, if at all. Without being held artificially alive, the Airbus Consortium could not have achieved to become global market share leader in the LCA industry. Its American counterpart was obviously not pleased with Airbus' increasing competitive pressure and started proceedings before the WTO's dispute settlement body in 2004, claiming that Airbus had received illegal subsidies.

In how far is Boeing actually right with its claim? From an industrial policy perspective, it seems rather legitimate for the EU to aim at industrial competitiveness, growth and job creation. Since the American aircraft industry had significant market power from the 60s onwards, European manufacturers had to react resulting in the Airbus Consortium and appropriate launch aid. In fact, most developed countries applied the infant-industry arguments in order to promote their industries during economic difficulties. In face of Airbus' current market power however, the infant industry argument does not seem to be valid anymore. Nonetheless, with regard to positive externalities of R&D activities, governmental intervention in form of granting subsidies is legitimate from a society point of view. Furthermore, the subsidies are legitimate under European state aid rules as they qualify as aiming at a common European objective and therefore fall under the EU state aid exemption rules. In opposition to that, the WTO's Appellate Body has confirmed in its last ruling that several subsidies granted to Airbus were indeed in breach with international agreements. Accordingly, the Airbus subsidies failed to comply the WTO's SCM agreement, which might indicate a certain degree of pre-eminence of global competition to EU competition law. This legal interpretation in turn backs up the economic reasoning that measures having beneficial effects for European welfare can be detrimental to global welfare.

Finally it must be stated that the LCA industry will become more competitive in the future, in particular with regard to the consortium of Chinese aircraft producers and the Canadian-based manufacturer Bombardier. Therefore we believe that the WTO ruling on Airbus and Boeing has implications for the industry in general.