Brussels, 3.8.2016
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In the published version of this decision, some information has been omitted, pursuant to articles 30 and 31 of Council Regulation (EU) 2015/1589 of 13 July 2015 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union, concerning non-disclosure of information covered by professional secrecy. The omissions are shown thus […]		PUBLIC VERSION This document is made available for information purposes only.

<u>Subject:</u> **State aid SA.41342 (2016/N) – Germany. *Financing of Berlin Brandenburg Airport***

Sir,

1. Procedure

(1) On 28 January 2016, following pre-notification contacts, the German authorities notified the Commission of financing which the public shareholders of *Flughafen Berlin Brandenburg GmbH* intend to provide to that company to complete the new airport Berlin-Brandenburg Airport, pursuant to Article 108 (3) of the Treaty on the Functioning of the European Union (hereinafter 'TFEU'). The German authorities are of the view that the measure does not constitute State aid in the sense of Article 107 (1) of the TFEU but notified it for reasons of legal certainty.

(2) By letter dated 21 March 2016, the German authorities provided further documentation as an annex to the formal notification.

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Bundesminister des Auswärtigen
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(3) By letter of 21 April 2016, the Commission requested further information. By letter dated 9 May 2016, registered by the Commission on the next day, Germany responded to that information request.

(4) On 24 May 2016, the competent services of the Commission and the German authorities held a telephone conference.

(5) By letter of 7 June 2016, the German authorities provided the requested documentation and explanations.

2. DESCRIPTION OF THE MEASURE

2.1. Background

(6) After the reunification of Germany in 1990, Berlin had three airports, two of which were located in former West Germany – Tegel and Tempelhof (the latter of which closed in 2008) – and Schönefeld located in former East Germany. In 1991, the holding company *Flughafen Berlin Brandenburg GmbH* (hereinafter: 'FBB') was founded to operate all three airports, owned by the Länder Berlin and Brandenburg (holding 37 % of the shares each) and the Federal Republic of Germany (holding 26 %).

(7) To cope with the constant rise of passengers, FBB decided to unify the three airports into one airport sizeable enough to carry all air traffic from and to Berlin. As Tempelhof and Tegel are located within the city limits, their expansion was not possible. Therefore, in 1996 the choice fell on upgrading and reconstructing Schönefeld to become the one central airport of Berlin (hereinafter: 'BER').

(8) Since then, two financing measures of the FBB by its shareholders went through State aid review by the Commission: a financing measure in 2009, which was found to be compatible State aid[1], and an equity injection in 2012 amounting to EUR 1.2 billion, which the Commission found not to constitute State aid[2].

(9) The aid received in 2009, during the financial crisis, for the construction of the new BER airport consisted of a capital increase amounting to EUR 430 million, a debt-for-equity swap of EUR 224.5 million and a state guarantee covering a credit of up to EUR 2.4 billion (hereinafter 'the 2009-aid measure'). FBB received a credit composed of a EUR […][*]loan from the European Investment Bank and a syndicated loan of EUR 1.4 billion, which was finalized after the adoption of the Commission decision. The guarantee covered 100% of the credit with a duration of 25 years and a guarantee premium of […]* basis points per year. The aid was approved by the Commission as it complied with the 2005 aviation guidelines[3]. In particular, the aid was found to help avoid an expected capacity shortage in

[1] Commission decision of 13 May 2009 in State aid case SA.28141 (NN 25/2009) – Germany – Berlin Brandenburg International airport, OJ C 139, 1 August 2009, p. 5 (hereinafter "2009-decision").

[2] Commission decision of 19 December 2012 in State aid case SA.35378 (2012/N) – Germany – Financing of Berlin Brandenburg Airport, OJ C 36, 8 February 2013, p. 10 (hereinafter "2012-decision").

[*] Business secret.

[3] OJ C 312, 09.12.2005, p.1.

airports, further the development of the region, and reduce aircraft noise and carbon dioxide emissions.

(10) In 2012, Germany notified a capital injection of EUR 1.2 billion to cover newly arisen costs (hereinafter ‘the previous capital injection 2012’). In June 2012, the higher administrative court of Berlin-Brandenburg *(Oberverwaltungsgericht Berlin-Brandenburg)* had ruled that the noise peak level of 55 dB(A) should be exceeded less than once a day during the six busiest months, which resulted in extra expenses. In addition, planning and construction errors of the fire safety system (*Brandschutzanlage)* had surfaced, causing costs and delaying the opening of the airport from June 2012 to October 2013. The delay itself also caused other additional costs such as damage claims. The Commission found that in that context, the previous capital injection 2012 was in line with the Market Economy Investor Principle as it was granted at market terms, and therefore the measure was found not to constitute state aid.

2.2. Intended financing measure and events leading up to it

2.2.1. The intended financing measure:

(11) Germany has notified a new funding package contemplated by the shareholders of FBB to finance investments amounting to EUR 2.207 billion in total, composed of EUR 1.107 billion to cover new costs for completing the airport and EUR 1.1 billion to extend the capacity.

(12) According to the German authorities, EUR 1.107 billion are required to complete the construction of BER. In a new Court Judgement of 25 April 2013, the higher administrative court Berlin-Brandenburg ruled that the maximum noise level could be exceeded only 0.005 times a day during the six most busy months of the year *(verkehrsreichste Monate)* while the competent authority, in a letter containing executive explanations *(Vollzugshinweise*), had assumed the number to be 0.5 times […]*. As the FBB had relied on the competent authority's interpretation for the construction plans of 2012, additional financing to adapt to the higher standard is needed.

(13) Additionally, problems with the fire safety system turned out to be more serious than assumed in 2012, which forced the FBB to postpone the opening yet again until the second half of 2017. The system was inter alia technologically overloaded, the complex smoke extraction system did not function and the cable routes *(Kabeltrassen)* showed defects. According to the German authorities, both of these circumstances could not have been foreseen at the time of the 2012 decision.

(14) The amount of EUR 1.107 billion also includes costs necessary to finance certain 'immediate measures' *(Sofortmaßnahmen*) which had been anticipated in 2012, like the refurbishment of the northern runway, but were originally expected to be financed through earnings of operating BER after 2013 instead of shareholder financing. Lastly, the EUR 1.107 billion are also planned to cover risk provisioning.

(15) Because estimations of passenger numbers for the future have increased compared to previous forecasts, and because the airport is modelled to fit the passenger number calculated for October 2013 (which has risen since then), a

capacity upgrade of the airport is necessary. Capacity enhancing measures were planned to be performed gradually after the opening of October 2013 and to be paid for by cash inflow. According to the German authorities, these measures and the measures necessary to reflect the new forecasts result in costs of EUR 1.1 billion. Those costs correspond to the construction of a new interim low-cost terminal, extensions of infrastructure such as energy and water supply and IT infrastructure, and the construction and expansion of taxiways.

(16) The notified financing of EUR 2.207 billion is a combination of two financing instruments which are granted as a 'package':

- EUR 1.107 billion hybrid financing through a subordinate shareholder loan (quasi equity),
  - duration: 20 years, depending on FBB's performance;
  - minimum interest rate […]*%, plus a margin of up to […]*%;
  - interest and amortisation due from […]*;
  - target annual amortisation rate: […]*%; shareholders reserve the right to demand higher amortisation depending on FBB's performance.
- a 100% guarantee underwritten by shareholders
  - duration: 10 years, with a termination possibility;
  - the minimum guarantee premium (*Bürgschaftsentgelt*) payable by FBB: […]* basis points per year on the outstanding loan amount;
  - to cover external debt financing of EUR 1.1 billion new bank debt to finance the additional necessary investments, together with the quasi equity provided by public shareholders. The guarantee also covers a EUR 1.4 billion refinancing of a previous bank loan of the same amount which is covered by the guarantee approved as State aid under the 2009 decision.

2.2.2. Main events that led to cost increases

(17) As regards the previous equity injection, the Commission established in its 2012 decision that it was a response to unforeseeable events: the need for an additional budget for noise protection measures going beyond the applicable legal standards, the need for a potential additional budget for finalising and putting into operation the fire safety system, considerable costs and reduced revenues due to the delayed opening of the new airport.[4]

(18) Additional costs to improve the fire protection system:

- The German authorities recalled that they had explained, when notifying the Commission of the previous capital injection in 2012, that the construction of the airport was then 95% complete and the central passenger terminal almost ready for operations. Then, the technical issues

[4] Recitals (26), (31) and (32) of the 2012 decision.

were expected to be solved by October 2013, so that the airport could open on 27 October 2013.[5] FBB had come to that conclusion on the basis of a technical inspection (*Bestandsaufnahme*), which was conducted in 2012 after the functional issues with the fire protection system had been detected. According to the German authorities, the scope of that inspection was determined, firstly, by available technical documentation and secondly the degree of completion.

– According to the German authorities, the scope of that initial inspection was too narrow, as only later engineers found that the technical documentation on divergences from the initial planning was absolutely inadequate. In that context, the German authorities explained the following: When engineers conducted experiments with hot gas fumes (*Heissgas-Rauchversuche*), they found that, contrary to initial assumptions, the overall structure of the building (*baulicher Gesamtzustand*) could not be preserved as the planning of smoke exhaust and air flow systems (*Entrauchung und Nachströmung)* and had to be extensively revised. Further, they found that the entire system was technologically overstrained (*technologisch überreizt*) because due to an enlargement of the original main terminal plan and the addition of adjacent 'pavillon' buildings, tens of thousands of additional sprinklers and data sockets (*Datendosen*) and the smoke-exhausts of additional rooms and buildings had been connected to the same central system during the construction phase. Moreover, a more comprehensive inspection revealed further technical flaws, e.g. concerning the airport's cable routes (*Kabeltrassen*).

– Consequently, in 2012, FBB underestimated the time needed to remedy the technical flaws. FBB then terminated the contract with the responsible general planning contractor. As from 2013, FBB took measures to remedy the situation, summarised as follows: New management; new organisational structure; new coordination, monitoring and reporting procedures; focus on the passenger terminal and piers, given that the rest of the buildings have been definitely cleared under building law (*baurechtlich abgenommen*); developing engineering concepts to address the smoke exhaust, air flow, sprinkler etc. issues.

– FBB estimated the actual costs to remedy the fire protection issue after having conducted a complete survey and technical experiments, and in accordance with amendments to the construction permit. According to Germany, those amendments, firstly, take into account all necessary modifications of the smoke evacuation system, and secondly, rectify all previous planning inconsistencies.

(19) <u>Additional costs to improve noise protection</u>:

– According to the German authorities, the applicable level of noise protection has been increased by judgment of the regional higher administrative court (*Oberverwaltungsgericht Berlin-Brandenburg)*, of 25 April 2013. That court ruled that the maximum noise level of 55 dB(A) in the interior of buildings may not be exceeded more than 0.005 times during

[5] Recital (6) of the 2012 decision.

an average day during the six busiest months of the year (*verkehrsreichste Monate*). The German authorities explained that the judgment *de facto* ruled out even a single exceedance of the maximum noise level.

– The German authorities provided a letter addressed to FBB, issued by the competent authority, the Ministry of Infrastructure and Agriculture of the Land of Brandenburg, dated of 15 August 2012, and thus dated before the above mentioned national court judgment. That letter contains executive explanations (*Vollzughsinweise*), on noise protection measures. According to the German authorities, the letter demonstrates that until the judgment of 25 April 2013, both the Ministry and FBB assumed that the maximum noise level of 55 dB(A) in the interior of buildings may be exceeded, however by less than 0.5 times per day. FBB dimensioned noise protection measures for eligible households accordingly. Indeed, the Ministry's letter contains a passage to that effect: *"...this means that, when applying applicable calculation methods and taking into account the instructions of the Ministry of Interior and Agriculture, of 2 July 2012, the cumulative frequency of the maximum noise level that has been chosen for dimensioning noise protection elements, must be less than a value of 0.5. Mathematical rounding in accordance with DIN* [standard] *1333 will then result in a frequency of zero and thus in no exceedance of the noise limit in the interior of buildings."*

– The German authorities explained that the above mentioned judgment and the preceding executive explanations both imply that the noise limits may be exceeded in an extremely limited number of incidents. The point in which the judgment however did not concur with FBB's interpretation of the executive explanations was that the national court required that a noise level of 55 dB(A) may occur only less than once during the six busiest months of the year, which means less than 0.005 incidents per day.

– As regards the predictability of the costs for installing ventilation systems in eligible households, the German authorities provided a letter containing relevant executive explanations, dated 21 February 2014. By that letter, the competent Ministry informs FBB that such ventilation systems must be in accordance with the German noise protection standard 'DIN 1946-6', so that for each eligible residential building where more than a third of the windows must be replaced respectively more than a third of the roof surface must be soundproofed, an individually adapted ventilation system must be installed in the entire building. According to the German authorities, FBB had until then believed that the land use plan implied that only less expensive anti-noise ventilation shall be installed in bedrooms only. Moreover, the German authorities pointed out, firstly, that the aforementioned noise protection standard had to date not been introduced as a legal standard into national building law and secondly, that the applicability of that standard even as a technical rule was debatable.

– The German authorities conceded that in 2012, a further tightening of noise protection standards could not have been excluded. However, in order to address that risk in a stable business planning, FBB would have needed concrete legal and administrative requirements. In the absence of such requirements, FBB would have based such planning on available requirements, namely both the approved land use plan

(*Planfeststellungsbeschluss*) where noise protection standards are set out and related executive explanations.

– The German authorities explained that after the abovementioned judgment by the regional higher administrative court of 25 April 2013 was rendered (first indent above), FBB came to the following conclusions as regards the legal consequences: Firstly, any further tightening of noise protection standards can be excluded since that judgment has in the meantime become legally binding (*rechtskräftig*). Secondly, the judgment does not concern the number of households eligible for noise protection measures, as the relevant zones (*Anspruchsgebiete*) were not the object of the legal action and had already been confirmed in previous judgments, even though zones may be revised after two flight plan periods.

– FBB provided its noise protection programme (*Schallschutzprogramm*) worth EUR 730 million in order to address financial risks: hardship cases, an extension of the relevant zones after two flight plan periods; additional claims on the basis of the Aircraft Noise Act of 2007 (*Fluglärmgesetz in der Fassung vom 31.10.2007*), general risks. FBB considers this funding sufficient, as the underlying estimates are still valid: i) The financing need was based on the estimated number of 14 000 eligible households in the zone eligible for night-and-day protection (*Tag- und Nachtschutzgebiet*); however, only 12 164 claims (87%) have been filed until 31 March 2016 and for the last years, that number has only marginally increased (82% on 31 December 2013). In the night-protection zone (*Nachtschutzgebiet*), the situation is similar - an estimated 11 500 eligible households, 7 706 claims to date (67%) and 65% of claims on 31 December 2013. ii) Actual average soundproofing costs per household, being EUR […]*, being EUR […]* in the day-and-night zone; the situation in the night-zone is similar – EUR […]* actual costs […]*; the same is valid for indemnities (in cases where soundproofing is disproportionately high compared to property value) – EUR […]* actual costs […]*. iii) The fact that FBB is obliged to pay for soundproofing costs only to up to 30% of the market value (*Verkehrswert*) of a property and otherwise has to pay an indemnity to that amount has a cost-limiting effect.

– The German authorities informed the Commission that after notification of the financing measure in question, the same court rendered another judgment, on 3 May 2016, concerning the applicability of the above mentioned noise protection standard in the night-time protection zone and the necessary time and effort for establishing individual ventilation concepts for eligible households. According to the German authorities, the financial consequences of that judgment can also be addressed by FBB's noise protection programme: FBB estimates that it will be liable for the costs of planning and installation of outlet air ducts in 18 000 households need, the estimated number of households receiving an indemnity being taken into account. According to the German authorities, the […]*, can be covered by the current funding provision.

(20) Additional costs to upgrade the airport's passenger capacity:

– According to traffic forecasts considered by FBB when the previous capital injection was made, the airport would have had to process between 23.9

and 24.1 million passengers per year if it had opened as scheduled in October 2013.[6] The actual number for 2013 however was higher, being 26.3 million. Germany explained that discrepancy as follows: Firstly, an assumed economic downturn did not occur; secondly, neither the new air traffic tax (*Luftverkehrsteuer*) nor the intention to charge higher airport fees at the new airport than at the existing ones had a negative impact on traffic; thirdly, some air carriers expanded their hub and long-haul services; fourthly, increasing long-haul traffic had a positive effect on feeder traffic; lastly, low-cost traffic did not stagnate as had been predicted. Germany further explained that the airport's capacity could have been upgraded successively after an opening in 2013, without additional shareholder financing.

– The business plan of 2012 already anticipated that operating costs would be driven by infrastructure extensions. According to the German authorities, such extensions were however scheduled at a later point in time and under the presumption that the airport would start operating in October 2013. Consequently, FBB was expected to finance the extensions from accrued cash flow (*angesparter Cash Flow*) instead of additional shareholder financing. According to Germany, neither the length of the delay of operations nor the very strong traffic growth was foreseeable in 2012.

– FBB, based on regularly updated traffic forecasts, then tried to upgrade the airport's capacity with available financial resources, e.g. altering the plans for the North and South Piers, enlargement of check-in and security control points in the pavilion buildings. Nevertheless, the airport would have to cope with approx. 32 million passengers per year upon opening in 2017, thus exceeding its initially planned capacity of 24 million passengers per year. According to the German authorities, departure capacity would be limited to approx. 22.2 million passengers and arrival capacity to approx. 21.6 million passengers/year, account being taken of limiting processors at check-in, security control, entry- and departure control (*Ein- und Ausreisekontrolle*) and gates and aircraft positions.[7]

– When establishing the business plan underlying the new financing in question in January 2015, FBB used an updated traffic prognosis, which forecasts 30.8 million passengers for 2017, the year when the airport is scheduled to start operations. The most recent forecast of October 2015 even predicts slightly stronger traffic growth, with 33.5 million passengers per year in 2017.

(21) <u>Additional costs for the refurbishment of Runway North and the extension of Taxiway Charlie</u>:

– Already when the previous capital injection was planned in 2012, the corresponding business plan, as assessed by the Commission, foresaw

[6] 23.9 million in 2013, 24.1 million in 2014, according to the updated traffic forecast of July 2011, as attached to the notification on the 2012 capital injection.

[7] Limiting processors based on a marginal-capacity analysis (*Grenzkapazitätsanayse*) carried out by an external airport development consultancy.

investments to refurbish the northern runway as well as the apron in the years 2018/19. Those investments were expected to be financed from accrued cash flows.

– The German authorities explained that the runway and taxiway works had to be advanced due to the cumulative effect of both the delayed opening and the unexpected strong traffic growth. Firstly, expected traffic upon opening would not allow closing the north runway for 6 months for refurbishing; refurbishing the runway during operations, only at night, would have been more costly and technically extremely complex. Secondly, a previous simulation showed that limitations due to the short dimension of the taxiway would still be acceptable in 2013, when it would have had to accommodate approximately 230 000 aircraft movements per year. Expected traffic intensity in 2017, however, would result in an unacceptable number of taxiing-conflicts (*Rollkonflikte*).

2.2.3. Decision making process leading to the intended financing measure

(22) The intended financing measure will be provided by FBB’s shareholders. According to the German authorities, shareholders considered both instruments of that measure in combination, as a package (*Paketlösung*). The German authorities provided an outline of the decision-making process that led to the financing package in question:

(23) On 30 June 2014, FBB's management informed the board (*Aufsichtsrat*) that ‘cost-to-complete’ would amount to EUR 1.107 billion and that the necessary financing would exceed that amount, *i.a.* due to debt service.

(24) In the shareholder assembly (*Gesellschafterversammlung*) of 21 July 2014, shareholders decided to instruct FBB's management to analyse the following instruments in order to cover that financing need:

– Contribution from FBB’s own resources;

– External financing, if necessary under shareholder guarantee coverage;

– Capital increase in form of a shareholder loan;

– Equity increase by the shareholders;

– Combinations of aforementioned instruments.

Shareholders further decided that they would be ready to provide the entire additional funding, to the amount of EUR 1.1 billion, if the analysis would show that funding sources other than only shareholder funding would be unavailable. That decision was however taken under the provisions, firstly, that shareholders would create the necessary budgetary means (*haushaltsrechtliche Grundlagen*), and secondly, that the European Commission approves the measure under State aid law.

(25) In a meeting held on 21 January 2015, FBB's management informed the shareholders that the financing needed to open the airport with adequate capacity still in 2017 would even amount to EUR 2.2 billion, under the assumption that capital would be provided and conditional on the approval of the business plan,

which at that time was still being appraised. As regards the financial instruments assessed upon the shareholders' request, FBB's management explained that FBB had not yet gained financial autonomy and would thus be unable to fund interest and amortisation payments from its own resources. Hence, any such payment obligation would increase FBB's financing needs.

(26) In February 2015, shareholders validated FBB's new business plan. That plan confirmed a funding need to the amount of EUR 2.2 billion.

(27) By letter dated 23 March 2015, the German authorities informed the Commission of that funding need. They explained that the shareholders considered providing only a guarantee, so as to enable FBB to obtain the entire funding from external sources. Due to debt service, the overall additional financing need would in that case amount to EUR 2.6 billion.

(28) In their meeting of 17 April 2015, the shareholders decided:

– to provide shareholder loans to the amount of EUR 1.107 billion in instalments according to actual demand (*bedarfsgerechte Zuführungen*),

– to instruct FBB's management to provide, until the next meeting of the board (*Aufsichtsratssitzung*), a written proposal on how to cover – "*with the least impact on the budget*" (*haushaltsschonende Finanzierung*) – the funding need in excess of the EUR 1.107 billion 'cost-to-complete', namely in order to complete the airport with adequate capacity in its first completion stage (*kapazitätsgerechte Inbetriebnahme der ersten Ausbaustufe*),

– that if shareholder guarantees would be considered necessary, the shareholders' competent departments should initiate the corresponding approval procedures (*Bewilligungsverfahren*).

(29) FBB's management subsequently started negotiating loan and guarantee terms with banks. The terms of the intended guarantee were set after a tender procedure, in which FBB approached 19 banks about providing a loan of EUR 2.5 billion under various possible alternative scenarios: no shareholder guarantee, an 80%, and a 100% guarantee. According to Germany, no creditor was willing to provide a loan without a 100% guarantee. In exchange for the guarantee, the shareholders will receive a premium of minimum […]* per annum, on the outstanding loan amount.

(30) In its meeting of 25 September 2015, FBB's board agreed to the loan conditions. The board also agreed to the capacity upgrades as proposed by FBB's management.

(31) In their meeting of 16 October 2015, FBB's shareholders decided to authorise taking out a loan to the amount of EUR 2.5 billion and under the conditions previously accepted by the board, in order to refinance an existing consortium-loan of EUR 1.4 billion as well as to complete the funding needs (*Ausfinanzierung*) identified in the business plan.

(32) According to the German authorities, the shareholders in essence planned that package to benefit from the current favourable climate on capital markets and to reach a long-term balanced financing mix. Such mix had to be balanced because

on the one hand, external funding would increase the return on shareholder capital, while on the other hand, such funding would also increase the financial risk in case of default. As regards the specific elements of the package, the planning was based on the following assumptions:

- The shareholder subordinated loan is a means to provide longer-term financial coverage for up to 20 years while emphasising the temporary character of the financing. As a conversion into equity would not be excluded, the quasi-equity character (*eigenkapitalersetzender*) of the financing should become obvious, so as to not jeopardise the future financial autonomy of FBB after it has started operations.

- The shareholder guarantee:

  - is a lesser burden on the liquidity of a public shareholders than an outright provision of capital through equity or debt.

  - is a means to foster business relations with banks, in view of future, non-guaranteed debt financing.

  - allows FBB to benefit from loan interest rates being at an all-time low.

  - debt financing, which can only be obtained under the guarantee, would enable FBB to benefit from the legally allowed reduction in taxes that results from deducting interest on debt from taxable income (the so-called tax shield) and thereby increase the return on capital (*Eigenkapitalrendite*).

(33) FBB's shareholders compared the impact of a guarantee fee that would be higher than the […]* basis points (hereinafter: 'bps') rate, already charged under the previous guarantee, on the equity value of the company and on its financing need. According to calculations provided by the German authorities, increasing the fee by 100 bps would increase the equity value to EUR […]* million, plus EUR […]* million gains due to the tax shield, while at the same time increasing the funding need, which in turn has to be defrayed by shareholders, by EUR […]* million. On that basis, shareholders dismissed the idea of increasing the guarantee fee in order to enhance project return and decided to apply the […]* bps fee also for the intended guarantee.

(34) According to Germany, the whole funding package provided by FBB’s shareholders – i.e. the quasi-equity in combination with the guarantee – is aid free and the notification was thus made for reasons of legal certainty.

3. ASSESSMENT OF THE MEASURE UNDER ARTICLE 107 (1) OF THE TREATY ON THE FUNCTIONING OF THE EUROPEAN UNION

(35) By virtue of Article 107(1) of the Treaty of the Functioning of the European Union ("TFEU"), “*any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market.*"

(36) The criteria laid down in Article 107(1) TFEU are cumulative. Therefore, in order to determine whether the notified measures constitute State aid within the meaning of Article 107(1) TFEU and thus fall under the general prohibition of State aid, public support must fulfil all of the following conditions:

– it is granted by the State or through State resources,

– it favours certain undertakings or the production of certain goods (selective economic advantage),

– it distorts or threatens to distort competition, and

– it affects trade between Member States.

(37) The intended financing will be granted from the budgets of the Federal Republic of Germany as well as the Federal *Land* of Brandenburg and the Federal *Land* of Berlin, which are regional authorities. The notified measure will thus be financed through State resources. Moreover, the decision to grant that funding has been taken by national or regional authorities and the measure is thus "imputable to the State" within the meaning of State aid law.

(38) The Commission assessed whether the notified financing favours FBB, i.e. grants it an economic advantage which it would not have obtained under normal market conditions. To that end, the Commission had to take into account all relevant features of the measure and its context.[8]

(39) In order to establish whether the notified measure grants FBB an advantage that it would not have received under normal market conditions, the Commission has to assess whether in similar circumstances a private market investor would have provided the measures in question (the 'market economy investor test', MEIT). If this is confirmed, the measures would not constitute State aid.

3.1. Severability of the notified measures from previously granted State aid of 2009

(40) As a first step of the assessment, the Commission has to assess whether the notified measures can be severed from State aid previously granted to FBB for the construction of the new airport, or if they must be considered together with such previous aid.

(41) As was described above, recitals (8) and (9), the Commission had approved State aid in favour of FBB by the 2009 decision.

(42) In its subsequent decision of 2012 on the capital injection by the public shareholders into FBB, the Commission concluded that "*although the notified measure serves the same purpose of making the new Berlin airport operational as the measures assessed in the 2009 decision, the notified measure can reasonably be severed from the measures approved in its 2009 decision, as it has become necessary only a considerable time after the first measure has elapsed and it relates to the financing of costs that reasonably could not have been foreseen when the investment plan of the airport was set up and when the Commission took*

[8] Case T-196/04 *Ryanair v Commission* [2008] ECR II-3643, paragraph 59.

its 2009 decision. Consequently, the envisaged measure can be assessed separately from the measures approved by the 2009 decision".[9]

(43) That finding was based on a non-exhaustive list of elements as developed by the General Court in *BP-Chemicals*[10] to determine whether a given measure can be reasonably severed from previous ones:

– the chronology of the measures;

– their purpose;

– the financial and risk situation of the beneficiary undertaking concerned.[11]

(44) As regards the severability of the new notified measures from the 2009-aid measure, the Commission notes the following: Firstly, even more time has lapsed since the award of the 2009-aid measure; secondly, between the 2009-aid measure and the new notified measures, a capital injection had been made which, pursuant to the 2012 decision, was related to costs and risks arising from unforeseeable events and did not constitute State aid to the benefit of FBB.

(45) Consequently, the notified new measures can be assessed separately from the State aid measures that were approved by the 2009 decision.

3.2. MEIT on the shareholder guarantee for refinancing

(46) As described above in point (16), the shareholder guarantee covers both new debt to finance additional investments as well as debt to refinance a previous loan. The previous loan was covered by a guarantee which is existing aid in the sense of Art. 1 (b) (ii) of the Council Regulation (EU) 2015/1598[12], as the Commission had authorised it by the 2009-decision.

(47) Concerning the part of the guarantee that covers the refinancing of a previous loan of EUR 1.4 billion, the Commission observes the following: Firstly, the restructured loan by nature is the economic continuation of the previous loan. Secondly, the guarantee that covered the previous loan constituted state aid. Thirdly, FBB would not have obtained that previous loan without that state aid measure. Fourthly, the same public bodies that underwrote the previous guarantee will also underwrite the new one. Lastly, the guarantee fee remains unaltered.

(48) Pursuant to the *ING* case, when a Member State agrees to amend the terms under which a measure of compatible aid has been granted, that amendment may not constitute aid if a market economy operator would have also agreed to such an amendment in a similar situation.[13]

(49) Accordingly, the guarantee provided by shareholders to cover the refinancing of the EUR 1.4 bn. loan is a new measure amending an existing compatible aid measure, and it does not constitute aid because it complies with the market economy investor principle. Indeed, FBB needs a 100% shareholder guarantee to

[9] Recital (33) of the 2012-decision.
[10] Case T-11/95 *BP Chemicals Limited v Commission*, [1998] ECR II-3235.
[11] Case T-11/95 *BP Chemicals Limited v Commission*, [1998] ECR II-3235, paragraph 171.
[12] OJ L 248 of 24.9.2015, p.9.
[13] Case T-29/10 *Netherlands and ING Groep v Commission* EU:T:2012:98.

obtain from lenders the EUR 1.4 bn capital necessary to refinance the existing loan of the same amount. In that context, it is rational for FBB's shareholders to grant a 'new' 100% shareholder guarantee to cover the 'new' EUR 1.4 bn loan resulting from the refinancing operation, since the alternative to this option would be to maintain in place both the previous EUR 1.4 bn loan with its less beneficial terms, and the previous guarantee covering it.

(50) In view of the above, the guarantee provided by shareholders to cover the refinancing of the EUR 1.4 bn loan does not constitute State aid.

3.3. MEIT on the shareholder guarantee for new debt and on the quasi-equity injection

(51) As was described above, recital (16), the notified additional financing under assessment consists of a EUR 2.207 billion package which consists of i): a subordinate shareholder loan (quasi-equity injection), to the amount of EUR 1.107 billion and ii) a 100% shareholder guarantee, to cover additional external debt financing to the amount of EUR 1.1 billion.

(52) For the purposes of the market economy investor test, the Commission assessed whether, in view of the previous capital injection subject to the 2012-decision that took place on market-conform terms, FBB subsequently faced unpredictable circumstances and responds with the notified measures in a manner that a market economy operator would have responded in similar circumstances.

(53) In order to determine whether the notified measures grant FBB an advantage that it would not have received under normal market conditions, the Commission has to compare the conduct of FBB’s shareholders to a market economy investor who can be guided by prospects of profitability in the long-term.[14] When assessing such measures, the Commission has to take into account all the relevant features of the measures and their context. [15]

(54) In order to examine whether or not the State has adopted the conduct of a prudent investor operating in a market economy, it is necessary to place oneself in the context of the period during which the financial support measures were taken in order to assess the economic rationality of the State's conduct and thus to refrain from any assessment based on a later situation.[16] Consequently, the Commission has to take account of the available information and foreseeable developments at the time when the financing was actually granted.[17]

3.3.1. Predictability of cost increases

(55) The Commission assessed whether a rational market economy investor could have foreseen the technical and legal issues described in point 2.2.2 above, so as to avoid delays and the additional financing need.

(56) <u>As to the fire protection system,</u> the Commission concludes that when in 2012 FBB shareholders, on the basis of available documentation, established the

[14] Case C-305/89 *Italy v Commission* (*Alfa Romeo)* [1991] ECR I-1603, paragraph 20; Case T-296/97 *Alitalia v Commission* [2000] ECR II-3871, paragraph 84.

[15] Case T-196/04 *Ryanair v Commission* (*Charleroi*) [2008] ECR II-3643, paragraph 59.

[16] Case C-482/99 *France v Commission* (*Stardust Marine*) [2002] ECR I-04397, paragraph 71.

[17] Case C-482/99 *France v Commission* (*Stardust Marine*) [2002] ECR I-04397, paragraph 72.

business case for the previous capital injection including risk provisions, they could not have anticipated the profound technical flaws that were to be discovered after the Commission had taken the 2012-decision. This assumption is corroborated by the facts that, firstly, risk provisions then seemed adequate, secondly, the business case passed the Commission's sensitivity check and thirdly, FBB immediately took comprehensive structural and technical measures to address the technical issues after their actual magnitude had been discovered.

(57) As regards the noise protection system, the Commission finds that in 2012, FBB had made an assessment of the factual and legal situation as regards noise protection standards. On the basis of that assessment, FBB and its shareholders upheld their interpretation of applicable noise limits, although they were aware that this interpretation might be challenged in the future. The Commission assumes that a market economy operator in a situation comparable to the public shareholders of FBB cannot be expected to anticipate the course of legal action and the judgments ultimately rendered. Available information thus indicates that until the regional administrative court rendered its judgement on 25 April 2013, and until the competent Ministry on 21 February 2014 demanded that ventilation systems be in accordance with noise protection standard 'DIN 1946-6', FBB had reason to assume that its initial noise protection measures were sufficient.

(58) Concerning capacity upgrades, the Commission concludes that the necessity to upgrade the airport's capacity was in principle taken into account in FBB's business plan already in 2012, when the previous equity injection was planned. The necessity to finance such upgrades prior to the opening of the airport, and with resources provided by external sources instead by own resources, were not foreseeable, for the following reasons: Firstly, FBB had no reason to doubt available updated traffic forecasts which did not predict the very strong above-average growth of Berlin traffic. Secondly, FBB could not have predicted the length of the delay in the airport opening, which in essence was due to unforeseeable grave technical problems.

(59) As regards runway and taxiway refurbishments, on the one hand, FBB knew that the runway and the taxiway had to be refurbished respectively extended but on the other hand, the combined effect of, firstly, the above described unforeseeable delay, and secondly, unexpected traffic growth forced FBB to advance the relating investment, so that the need to finance those investments through shareholder funding rather than resources generated by the operation of the new airport, was not foreseeable in 2012.

(60) In view of the above, the Commission concludes that the necessity for shareholders to grant the notified measures was not foreseeable in 2012.

3.3.2. MEIT on the shareholder guarantee for new debt

(61) In light of the decision making process that led to the financing measure in question, as described above in recitals (23) – (33), the Commission observes the following.

(62) On 21 July 2014, FBB's shareholders decided that in principle, the project should be continued. The above described decision making process suggests that shareholders explored early on a number of instruments in order to reduce their exposure to financial risks.

(63) By defraying the ‘cost-to-complete’ alone, the desirable scope of capacity upgrades would not be possible. As was described in recital (15) above, in addition to certain investments to complete the project (EUR 1.107 billion), further investments were necessary in order to keep up with traffic development (EUR 1.1 billion, e.g. a new interim low-cost terminal, extensions of infrastructure, construction and expansion of taxiways). Hence, in order to complete the project with the least impact on shareholder resources, FBB's management had to secure sources other than direct shareholder funding.

(64) As was described above in recital (16), a public shareholder guarantee, covering 100% of the outstanding amount of an external new loan, forms part of the financing package. The market economy investor test applicable to an individual State guarantee is expounded in the Commission Notice on the application of Articles 87 and 88 of the EC Treaty to State aid in the form of guarantees[18] (hereinafter ‘the Guarantee notice’). The Guarantee Notice is based on the principle that the borrower obtains an advantage through State resources if it does not need to pay an appropriate premium to cover the risk associated with a guarantee that is provided by the State.[19]

(65) In line with the Guarantee Notice[20] a state guarantee can be deemed to be market conform if a market-oriented price is paid for it. In its practice, the Commission uses various methodologies to analyse whether a guarantee price is market conform and, if not, for establishing the aid element therein. It may be possible to compare the guarantee price to the price for a guarantee of a similar amount, duration, collateral and risk level, provided by a private bank to the same company, or even in relation to the same loan (*close comparator method*). In case there is no such readily available information, then a guarantee premium benchmark can be searched on the financial markets (*benchmarking*). For example, credit default swaps (CDS)[21] or bond spreads of a comparable group of companies can provide a market benchmark for the risk premium[22]. In case the guarantee premium is equal to or exceeds the benchmark (plus a normal administration fee) it could be deemed market conform. Alternatively an indirect approach based on a comparison of interest rates with and without state guarantee can be envisaged (*rate differential approach*). According to that approach the market conform guarantee premium is determined such that the total financial remuneration paid by the beneficiary (the sum of the remuneration for the received funding from private third parties, the guarantee premium plus any fees) is equal to or higher than the total interest rate that the company would pay should

[18] OJ C 155, 20 June 2008, page 10.

[19] Points 2.1, 2.2 of the Guarantee Notice.

[20] Commission Notice on the application of Articles 87 and 88 of the EC Treaty to State aid in the form of guarantees, OJ C 155/10, 20.6.2008, art.3.2(d)

[21] A credit default swap (CDS) is a (tradable) credit derivative contract between two counterparties, the protection buyer and the protection seller, transferring the credit risk on an underlying reference entity from the protection buyer to the protection seller. The protection buyer pays every period a premium to the protection seller until maturity of the CDS contract or until a pre-defined credit event occurs on the underlying reference entity (whichever occurs first). The periodic premium paid by the protection buyer (expressed as a percentage or in terms of basis points of the protected amount, the "notional") is called the CDS spread. CDS spreads can be used as a close proxy for the price of credit risk.

[22] In order to have proper benchmark, it is important however that not only the *group of companies* is comparable (notably in terms of rating), but also that the *state guarantor* in question has a good enough credit standing. If this is not the case, the guarantee premium benchmark obtained on the basis of CDS is likely to overstate the value of the guarantee to the company (and bank/loan provider) in question, as CDS spreads typically relate to guarantors with a very strong credit standing.

it raise equivalent but non state-guaranteed funding from third parties[23]. In other words, it defines the market conform guarantee premium for a state guarantee as the difference in financing cost with and without state guarantee.

(66) Consequently the market conform guarantee remuneration can be estimated according to the following formula:

Guarantee price = (guarantee premium + guarantee fees) ≥ interest rate on the loan without state guarantee - interest rate on the loan with state guarantee

(67) The interest rate of a loan usually consists of a risk margin, a base rate and loan fees. As the base rate and the loan fees could be identical in both cases with and without a state guarantee the above formula can be written as:

Guarantee price ≥ risk margin of a loan without state guarantee – risk margin of a loan with state guarantee

(68) According to the Guarantee Notice in order to determine the market price of a state guarantee the characteristics of the guarantee and the underlying loan should be taken into account, including the amount and duration of the financing, the security offered, the rating of the borrower.

(69) The rating agency Moody's has published a rating evaluation of FBB for the first time on 16.02.2016[24]. It assigned an issuer rating of A1 to the company. According to Moody's the rating of A1 reflects (i) the expectation that the shareholders will continue to step in with timely financial support (ii) that more than 90% of its indebtedness will continue to be covered by guarantees from its shareholders and (iii) FBB's very high indebtedness and weak financial profile on a standalone basis reflected in a Baseline Credit Assessment (BCA) of b3.

(70) In other words, according to Moody's the credit rating of FBB is A1 based on the rating of its shareholders[25] and their existing and expected support to the company. As pointed out in the Moody's press release if the rating of any one shareholder deteriorates or the level of support provided by them through guarantees and expected cash injections changes, this will have a downward effect on the rating of FBB.

(71) In the case of Berlin airport there are no close comparators for the market guarantee price because a similar guarantee provided by a private party to FBB does not exist. Therefore the Commission has examined the following options for estimating the market conform guarantee price based on the rate differential approach.

(72) First, the Commission considered market data in the form of CDS spreads to estimate the risk margins of a loan with the state guarantee and a loan without this

[23] Where no good market benchmarks for the interest rate exist, a costing approach can be used to establish the different cost elements of the loan interest rate.

[24] See Moody's press release: "Rating Action: Moody's assigns A1 issuer rating to Flughafen Berlin Brandenburg GmbH, stable outlook" at https://www.moodys.com/research/Moodys-assigns-A1-issuer-rating-to-Flughafen-Berlin-Brandenburg-GmbH--PR_343694

[25] The rating of Germany is Aaa (assigned by Moody's in February 2014), the rating of the Land of Berlin is Aa1 (by Moody's in March 2014), the rating of the Land of Brandenburg is Aa1 (by Moody's in March 2014).

guarantee. The envisaged duration of the bank loans is 10 years. For that reason, a sample of 10-year CDS rates is considered.

(73) The risk margin of a *loan without state guarantee* can be derived by CDS rates of companies rated A1. The CDS sample[26] of 27 companies rated A1 has an interquartile range of 0.59%-1.09% with a median at 0.84%. Hence the risk margin of a loan without state guarantee to a company rated A1 will be approximately 0.84% p.a.

(74) According to information provided by the German authorities FBB has been offered the following loan terms if a shareholder guarantee is provided as collateral:

Tranche A – EUR […]* billion at a fixed base rate plus a risk margin of […]*% p.a.

Tranche B – EUR […]*billion at 3-months EURIBOR plus risk margin of […]*% p.a.

(75) This means that a loan of EUR 2.5 billion with the state guarantee can be assumed to have a risk margin equal to the average of the two risk margins offered by the banks, which is […]*% p.a.

(76) Applying the formula in recital (67) above provides the market conform price of the state guarantee of […]*% p.a. (= 0.84% - […]*%).

(77) Instead of using market data the loan margins published by the Commission in its Reference Rate Communication can be used. The rating of A1 falls into the category Strong (AAA-A) in the Reference Rate Communication. The loan margin with the state guarantee is […]*% (equal to the average of the offered bank rates) as explained above. The difference between the two rates is […]*% (=0.75% - […]*%). This result is similar to the result from the rate differential approach based on market data.

(78) A natural alternative to the rate differential approach is to directly consider CDS spreads in order to obtain a guarantee premium benchmark for a company. Considering the rating of FBB (A1), as explained in recital (67) the corresponding CDS range would be 0.59% - 1.09% with a median at 0.84%[27].

(79) The calculations of the different approaches presented above are summarised in the following table (yearly rates):

Approach	Guarantee rate
Rate differential approach CDS spreads	[…]*
Rate differential approach RRC	[…]*

[26] The data source is CapitalIQ. In order to get a meaningful number of observations the sample consists of CDS rates traded on companies registered in Europe and the USA. The sample includes companies from all sectors except for government and financial. The observation date is 14.04.2016.

[27] The Commission also notes that a […]*% guarantee fee would correspond to the market rate that a Baa1 (corresponding to BBB+) company could obtain. This means that even considering a notching down of about 3 notches to take into account the expected future public support for FBB included in the A1 rating, the envisaged fee is market conform. This represents a notching down in the same proportion as the proportion of new guarantee foreseen in the total amount guaranteed (existing and new guarantees).

Direct benchmarking with CDS rates	0.84%

(80) All results are below the minimum guarantee premium of […]*% p.a. intended to be charged by the public shareholders.

(81) On the basis of above, the Commission concludes that a guarantee premium of […]*% p.a. intended to be charged by the public shareholders can be considered to be market conform and thus State aid free.

3.3.3. MEIT on the quasi-equity injection

(82) The Commission first assessed whether the shareholder loan is a debt-financing instrument or a quasi-equity instrument. For that purpose, the Commission had regard to the economic substance of the instrument. In particular, the Commission took into account the degree of risk and losses borne by FBB's shareholders, the presence of any performance dependent element versus mere fixed remuneration, and the level of subordination in the event of FBB's bankruptcy. In this case, the following elements are essential:

- Interest payment and redemption of the shareholder loan will be deferred for a relatively long period of time, namely […]* years;
- the duration of the shareholder loan is 20 years;
- The shareholder loan is unsecured;
- Both the duration of the loan and the amortisation plan may be modified according to FBB's performance;
- The shareholder loan is subordinated to all other debt and thus is available to cover losses in the case of insolvency or liquidation;
- The German authorities explained that the shareholder loan was planned to have a quasi-equity character (*eigenkapitalersetzender Charakter*). According to the German authorities, shareholders might even convert the shareholder loan to equity at a later point in time.

(83) The Commission concludes that the long duration of the investment, the performance-related repayment schedule, the absence of collateralisation, the level of subordination and the possibility for a subsequent conversion into pure equity make that shareholder loan rather akin to a *quasi-equity* instrument than to debt financing. The Commission therefore abstracts from the particular conditions of the hybrid loan and, subsequently, analyses the subordinated loan as an equity injection based on the underlying business plan. This approach is a conservative one in the context of the MEIT.

(84) In order to evaluate the market logic of the notified financing package, the Commission considered the effect of the financing on the equity value of the company. Equity value is the value of a company available to its shareholders. It corresponds to the net present value of the amounts that shareholders can obtain over time from their stakes in FBB either through dividends or the sale of their shares. For a shareholder of a given firm, using the firm's equity value as a metrics to assess the profitability of equity or quasi-equity injection in favour of

that firm is a standard financial method, also in line with the Commission Notice on the notion of State aid as referred to in Article 107 (1) TFEU.[28] The firm's equity value is calculated by subtracting the value of the firm's debt from the enterprise value. The enterprise value is calculated by summing all future cash flows (free cash flows to the firm) discounted at the appropriate return. The discount rate generally used is the appropriate weighted average cost of capital (hereinafter 'WACC') that reflects the risk of the cash flows. This method is applied as described below in recital (93) *et seq*..

(85) In the case in question, as argued by Germany, a market economy investor would have considered various scenarios and the respective equity value of the company under each scenario:

- 'Base scenario': The new airport is put into operation with augmented passenger capacity; there are two variations:
  - capacity upgrades achieved through continued operations at the previous Schönefeld-airport site;
  - capacity upgrades achieved through temporary continuation of the Schönefeld site and early extension of the new airport 'midfield';
- 'Completion as planned': Completion of the new airport for the initially planned capacity; under this scenario, capacity upgrades would be implemented only after opening; there are two variations:
  - Capacity upgrades according to the 2012 business plan, in 2018/2019 and again in 2022/2023, and 2029/2030;
  - Phased capacity upgrades depending on the availability of own financial resources;
- 'Discontinuation of the project': The existing two Berlin airports continue operating, and the single airport project is abandoned.

(86) The German authorities declared that the shareholders preferred the base scenario. If FBB's equity value is higher in that scenario than the equity value in the counterfactual scenarios […]* the financing measure can be considered market-conform.

Equity value under the base scenario

(87) FBB considered the following options for upgrading passenger capacity:

- continued operations at the previous Schönefeld site;
- temporary continuation of the Schönefeld site and early extension of the new airport 'midfield'.

(88) As regards the first option, on the basis of traffic simulations, FBB established that continued operations at the Schönefeld site would imply significant legal,

[28] Not yet published

technical, organisational and safety risks. The main reason for those risks is the location of the site, which is not organically integrated into the new BER site which has a so-called 'midfield' configuration.[29] Hence, a completely new concept for connecting the Schönefeld site to road and rail transport, for system infrastructure such as IT-services, workshops etc., for operating processes such as passenger transfer and runway and taxiway usage would have to be developed. Nevertheless, taxiing times would be extremely long, e.g. up to 18 minutes from the southern runway to the Schönefeld site, and would thus impact airline schedules. Moreover, a traffic simulation showed that the increased number of crossings while taxiing towards the Schönefeld site would not only reduce the northern runway's capacity by around 10-15 %, but would also increase safety risks. FBB concluded that those implications would counterbalance the operations and infrastructure synergies that the new site's 'midfield' configuration was expected to generate. The German authorities also pointed out that the permanent adaptation of taxiways and other infrastructure is not covered by the current land use plan and thus would have to be subject to a completely new land-use planning process, the outcome of which cannot be safely predicted.

(89) The German authorities also explained that operating the Schönefeld terminal for longer than […]* would require significant investments. According to the German authorities, the Schönefeld terminal, which was built in the 1970's, has already reached the end of its life span and is no longer up to modern standards. For example, the A-Terminal does not even possess an integrated X-ray control unit and the control unit that presently is connected upstream is being operated on the basis of a special permit. According to FBB's calculation, refurbishment costs, in particular for safety and security, would equal the costs of demolishing the previous terminal and building a new one.

(90) In light of these findings, FBB's shareholders chose the second option, namely to temporarily continue operations at the Schönefeld site while expanding the new airport's capacity 'midfield' at the terminal's north pier. That new capacity, which in essence would be provided by a new temporary low-cost terminal, would then replace Schönefeld's capacity.

(91) The German authorities provided the 2015 business plan which FBB had established and on which the shareholders based their decision to provide the financing measure in question. That plan has a 21-year time horizon, 2015-2035. Its essential presumptions are summarised hereunder:

– Passenger traffic: FBB uses updated traffic forecasts, provided by external experts.

  For the purposes of the business plan, FBB used consolidated forecasts, based on a report of 2013 which was updated in 2014 and further developed in 2015, to adapt it to the postponed opening in the second half of 2017, with expanded airport capacity. Moreover, FBB reduced the growth rates for […]*. The most recent updated forecast was provided by an independent consultancy firm on 20 October 2015. According to that

[29] 'Midfield' means that the new airport's terminal and all corresponding land-side and air-side infrastructure are located between the airport's two runways. The Schönefeld location is located to the north of the northern runway and thus outside that midfield configuration.

report, figures for the years 2013 until October 2015 show that passenger traffic grew stronger than forecast by previous reports. In essence, that recent report forecasts passenger traffic to reach […]* million passengers by 2017, […]* million by 2020, […]* million by 2030 and […]* million by 2040. The number of air transport movements is forecast to reach […]* by 2020, […]* by 2030 and […]* by 2040. Cargo tonnage is forecast to reach […]* tonnes by 2020, […]* tonnes by 2030 and […]* tonnes by 2040. Most of the growth at Berlin is expected to come from international passengers (CAGR 2014-2040: +[…]*%), while domestic air traffic is expected to grow at an average rate of […]*% per annum, facing also additional rail competition from 2018 onwards. Overall CAGR is expected to be […]*% in the period 2014-2020 and […]*% in the period 2014-2040.

Although that recent forecast is more optimistic than the consolidated forecast, FBB decided to use the latter for the business plan. Below is a comparison of both forecasts (million passengers):

Year	2015	2016	2017	2018	2019	2020	2002	2030	2035
Consolidated forecast (February 2015)	28.8	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*
Recent forecast (October 2015)	29.4	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*

– Aviation revenue: Revenue forecasts are based on the new airport’s fee regulation (*Entgeltordnung*), which has already been approved by the German authorities, increased by EUR […]*, and regularly adjusted for annual inflation. The fee increase was planned on the basis of the following factors: i) FBB will be able to demonstrate, in the mandatory consultation prior to the increase, that the new fee is cost based; ii) traffic forecasts provided by external experts had taken the higher fee into account and thus confirmed that the market would accept the increase; iii) the higher fees resulted from a benchmarking exercise with other major German airports (e.g. Frankfurt / Main, Munich, Stuttgart, Düsseldorf). In order to calculate average revenues per passenger per airline, FBB used the following indicators: Pier usage, average seating capacity per aircraft, services and infrastructure usage.

– Operating costs are expected to increase in line with the evolution in passenger traffic and infrastructure extensions. According to cost estimates provided by the German authorities, this concerns personnel costs, maintenance costs, costs for supply services (*Versorgungsleistungen*) such as energy, water, air conditioning, heating, waste and wastewater disposal or cleaning, external services such as passenger information services, call centres or VIP-services, and security costs such as security patrols in the terminal or security checks.

– The business plan takes into account the costs to complete the airport as well as the costs to upgrade the airport's passenger capacity, in accordance with traffic forecasts. On top of the previously estimated costs to complete, being EUR […]* billion, the following additional costs to complete are taken into account: Construction costs (EUR […]* million); noise protection (EUR […]* million); certain immediate measures (*Sofortmaßnahmen*) to upgrade capacity (EUR […]* million) prior to the start of operations; risk provisions (EUR […]* million); capacity upgrades until 2019 (EUR […]* million);

– Cumulated debt service until 2020, being EUR […]* billion, consisting of interest, fees and amortisation related to the […]* billion external debt financing;

– Cumulated own contribution from FBB, being EUR […]* million, of which EUR […]* million are available to cover completion and upgrade costs (the remaining EUR […]* million had already been pledged as FBB's own contribution to the previous financing measure);

– Cash on hand, to the amount of EUR […]* million in 2020, in order to maintain a EUR […]* million minimum cash on hand and to avoid bridge-financing in the initial phase of access to the capital market;

– Amount retained by creditor banks, being EUR […]* million.

(92) The Commission assessed the above assumptions and finds them sufficiently realistic and conservative. Firstly, the assumed […]*% CAGR 2014-2040 is below the 3.6% rate predicted by the aviation industry for the European aviation market.[30] Furthermore, the business plan assumes that […]* is unlikely to expand further, […]*; moreover, […]* is facing increasing competition […]*. Thirdly, assumptions on the evolution of the personnel costs are in line with the presumed growth of air traffic. Finally, investments that are already predictable are entirely included in the business plan. Lastly, available information indicates that the assumptions on construction and noise protection costs were made on the basis of a meticulous evaluation of the technical and the legal situation respectively.

(93) For discounting future cash flows generated by the airport, FBB used a WACC of […]*%. The German authorities declared that FBB had calculated this WACC with the same method as already used for the previous equity injection and described in recitals (42)-(49) of the 2012 decision. Then, FBB's WACC was […]*%. Germany explains that the difference between this previous and the current WACC is due to the situation on the capital market. The WACC is calculated with the following formula:

equity ratio * cost of equity + debt ratio * cost of debt * (1-tax rate) = […]*% * […]*% + […]*% * […]*% * (1-[…]*%)

(94) The assumptions underlying the cost of debt are a risk free rate of 1.57% (based on the yield of 10-year German government bonds *Bundesanleihen*) and a risk

[30] Airbus, Global Market Forecast 2015, p.72: 3.6% CAGR 2014-2034 overall (intra-regional, domestic and inter-regional).

premium of […]* bps based on the 2008 Reference Rate Communication[31] grid, assuming a "[…]*" credit rating and low collateral.[32] That rating was the current rating of FBB at the time when it established the business plan.

(95) The risk premium of […]* bps is above the actual risk margin comprising of a […]*% (average of the two credit margins offered by banks) and the guarantee fee of […]*%. Therefore the cost of debt used for the calculation of the WACC is higher than what would be the actual cost of debt if the loans were unguaranteed.[33] If the lower actual cost of debt had been used for the WACC calculation, the resulting WACC would have been lower. Hence, the resulting equity values in all scenarios would have been higher but would not change their rank order.

(96) For that reason, the Commission finds that FBB's costs of debt are based on conservative assumptions.

(97) As for the previous business plan for the 2012 equity injection, FBB calculated its cost of equity based on the Capital Asset Pricing Model ("CAPM"), which is standard market practice. The CAPM model provides that the cost of equity of a company would be equal to the risk free rate plus a 'beta coefficient', multiplied by the general market risk premium. The beta-coefficient indicates the market risk a company is facing.

(98) As for the previous business plan for the 2012 equity injection, FBB established its beta-coefficient based on historical beta coefficients of a peer group of European airports, which are listed on the stock exchange: […]*. [34]

(99) The German authorities explained that the difference between the cost of equity in 2012 and the current one is due to the capital market situation as of 1 January 2015, as well as a modified beta-coefficient, base rate and applicable tax rate.

(100) A beta coefficient of 1 suggests that equity carries the same risk as the overall market and will earn market return only. A coefficient below 1 suggests a below average risk and return (where the average means the overall market) while on the other hand a coefficient above 1 suggests an above average risk and return. The

[31] Communication from the Commission on the revision of the method for setting the reference and discount rates, OJ C 14, 19.1.2008, p. 6

[32] When Germany notified the measure, the rating of FBB was '[…]*' according to one bank. On 16 February 2016 the rating agency Moody's assigned FBB an issuer rating (taking into account the shareholder support) of "A1" , while without the shareholder support the issuer rating would have been 'b3'.

[33] This confirms that the quasi-equity injection is assessed separately from the guarantee.

[34] In simple terms, a beta coefficient shows how risky a stock is relative to the market. The betas are estimated using stock returns (as observed on the exchange). The beta is therefore based on market information. The beta coefficient is calculated on the basis of the following formula:

Beta = Covariance (rs, rb) / Variance (rb) where rs is the return on the stock and rb is the return on a benchmark index.

Any difference in the debt-to-equity ratio of the airports in the peer group is corrected for. The observed betas are "levered" betas. However, before calculating the appropriate beta for BER airport, the beta coefficients of each of the airports in the peer group was first "unlevered".

After un-levering the betas of the airports in the peer group, the appropriate "industry" beta (e.g. the mean or median of the comparable unlevered betas) was re-levered to take into account the capital structure of FBB. This levered beta is used in the CAPM formula to calculate cost of equity.

Commission is of the opinion that, in principle, the estimate of the beta coefficient is to be based on a forward looking basis.[35]

(101) Although FBB based itself on historical beta coefficients, it tested extreme beta-values far above average market risk. The sensitivity test showed that the base case would pass the MEIT even with a beta-coefficient of up to […]*. In other words, up to that risk, the equity value of the company would still be higher than the equity values under the counterfactual scenarios presented below.

(102) FBB set a […]*% general market risk premium, being at the low end of the 5.5 – 7% range recommended by the German Institute of Chartered Accountants' technical committee on enterprise valuation and business (*Institut der Wirtschaftsprüfer* IdW - *Fachausschuss für Unternehmensbewertung und Betriebswirstchaft* FAUB). FBB chose that lower rate due to the pronounced long-term nature of the project. A sensitivity test however showed that even with an extreme market-risk premium of […]*%, the base case would be economically viable. According to the German authorities, there is neither sufficient empirical proof for such rate, nor is it covered by FAUB-recommendations.

(103) The cost of equity is thus […]*%, calculated as follows according to CAPM:

rf + β-coefficient × (rM – rf) = […]*% + […]*×[…]*% = […]*%

(104) In view of the above, the Commission notes that the WACC as discounting factor is based on conservative assumptions taking adequately into account the risk profile of the undertaking concerned and the expected return on investment.

(105) Discounting the expected cash flows based on the *ex ante* business plan of BER airport by the […]*% rate gives an enterprise market value (cumulated cash-flow) of EUR […]* billion. The equity value of FBB is then calculated by subtracting the debt value of EUR […]* billion from the enterprise value, giving EUR […]* billion.

<u>Equity value in the counterfactual scenario 'Discontinuation of the project'</u>

(106) The German authorities presented the cash flows and the equity value of the company for a hypothetical scenario where FBB's shareholders would not provide any further financing.

(107) In that case, FBB would halt construction works and abandon the BER-airport project. Instead, FBB would continue operating the existing Tegel and Schönefeld airports as they stand today. According to the German authorities, both airports have reached the limits of their capacity and thus cannot accommodate future traffic growth. Hence, both airports would generate markedly lower revenue than the new airport would. Moreover, FBB would have to make significant investments to refurbish those sites, as it has invested only the minimum necessary for maintenance, with a view to opening the new BER-airport.

(108) The German authorities explained that revenue from a sale of the BER-site would not even cover debt service on the bank loans that FBB had taken in 2009 to finance the construction of the new airport. Moreover, FBB would in all

[35] See Commission decision of 8.5.2012 in State aid case SA.22668 *Ciudad de la Luz studios*, recital 73 and annex to the decision, OJ L 85 of 23.3.2013.

likelihood have to finance land rehabilitation measures. Consequently, the burden on FBB’s operating cash-flow would be such that shareholders would have to provide financing in any case.

(109) Based on the expected cash flows under this scenario and the assumed discount factor of […]*%, the equity value in that scenario is negative and amounts to minus EUR […]* billion.

<u>Equity value in the scenario ‘completion as planned’</u>

(110) The German authorities further presented the cash flows and the equity value for a hypothetical scenario where FBB's shareholders would not provide any further financing but proceed with the completion of the airport and subsequent capacity upgrades according to the business plan 2012, i.e. the plan underlying the previous capital injection.

(111) Under that scenario, FBB assessed the following options:

– Capacity upgrades according to the 2012 business plan, in 2018/2019 (terminal, check-in facilities, luggage handling, apron) and again in 2022/2023 (check-in, luggage, gates); moreover, a first ‘satellite’ terminal was scheduled for completion in 2029/2030;

– Phased capacity upgrades, depending on the availability of own financial resources.

(112) As regards the first option, FBB established the following: Firstly, revenues after the delayed opening would not suffice to cover the 2018/2019 and 2022/2023-works. Hence, shareholders would have to finance, or pre-finance, those works, since complete external debt financing would not be available so soon after the start of operations. Secondly, the burden on cash-flows in that scenario would put at risk the financing of the satellite terminal in 2029/2030.

(113) The German authorities explained that FBB’s shareholders discarded that first option, as it would not give any cost advantage compared to the base-case capacity upgrades. Therefore, in order to explore a more viable alternative, FBB developed the second option.

(114) The second option implies that the airport would open as was planned in 2012, with an initial effective capacity of 22.2 million passengers per year and that the Schönefeld site, with an additional 10 million passenger capacity, would keep operating for […]*. For the reasons described further above (recital (89)), FBB considered operating Schönefeld for a duration longer than […]* as not sustainable. As capacity upgrades would only be made when sufficient own resources are available, capacity for several million passengers per year would be lacking for a number of years after closing Schönefeld site. According to the German authorities, not serving that potential demand for several years would result in the relocation of low-cost traffic as well as of traffic of airlines which had envisaged establishing a hub at the new airport. Consequently, also this option would curb FBB’s future growth and thus have a negative impact on the company’s equity value. Shareholders came to that conclusion even assuming that, despite lacking capacity and thus limited service quality, FBB would be able to charge higher airport fees than presently.

(115) Based on the expected cash flows under the second option of this scenario, and with the […]*% discount factor, the equity value of FBB would be positive and amount to EUR […]* billion.

Comparison of scenarios (2016) – intermediate conclusion

(116) Economic and technical information provided by the German authorities shows that the equity value in the basic scenario, being EUR […]* billion, is significantly higher than the equity values in the two conceivable counterfactual scenarios, being minus EUR […]* billion and EUR […]* billion respectively. Consequently, the decision of FBB's shareholders to provide the notified financing appears to be the most preferable option for shareholders, from a profitability perspective.

Sensitivity analyses of the results of the market economy investor test

(117) However, even though BER airport's *ex ante* business plan is based on conservative assumptions, the Commission is of the opinion that to assess the profitability of a funding package of such magnitude, a market economy investor would undertake sensitivity analyses of the basic scenario, i.e. assess the impact of possible developments, negative, as well as positive, on the business plan and consequently the expected return on investment.

(118) The Commission services accordingly invited the German authorities to test the base case's sensitivity to certain changes in economic parameters. The German authorities analysed the following changes:

(119) Sensitivity of the base case to changes of certain economic parameters

Parameter	**Variation(s)**	**Effect on equity value (billion EUR)**	**Equity value (billion EUR)**
WACC:	[…]*%, […]*% or […]*%	[…]*	[…]*
Traffic growth:	20% less growth than forecast ([…]*% instead of […]*%) 2015-2035	[…]*	[…]*
Traffic growth:	Sustained weak traffic growth 2015-2035, […]*%, due to weak economic activity and market exit of one major airline	[…]*	[…]*

Operating costs	+ 10%	[…]*	[…]*
Start of operations	+ 12 months delay	[…]*	[…]*
Costs of capacity upgrades:	+ 10%	[…]*	[…]*
Costs to complete:	+ EUR 100 million	[…]*	[…]*
Airport fees:	On average + 1 EUR per passenger, 2018 until 2035	[…]*	[…]*
Non-aviation revenues:	+ 1 percentage point, 2018-2035	[…]*	[…]*

(120) In order to test the sensitivity of the results to a combination of events, the Commission services invited the German authorities to stress-test the calculated results by considering a more optimistic (best case) and two more pessimistic scenarios (worst cases) as well as variations of the worst case scenarios:

- 'Best Case': a lower WACC, […]*%, stronger annual traffic growth, […]*%, no market exit of any major airline, airport opening without further delay in the second half of 2017, no increase in construction costs

- '<u>Worst case (i)</u>': a higher WACC, […]*%, weaker annual traffic growth, […]*%, opening delayed by 6-months, construction costs 25% higher than estimated in the business plan as notified to the Commission

- 'Worst case (ii)': a higher WACC, […]*%, exit of one major airline, no delays and no cost increase

- <u>'Worst case – variation a)'</u>: a higher WACC, […]*%, exit of one major airline, no delay, costs are 25% higher than estimated

- <u>'Worst case – variation b)'</u>: the WACC is […]*%, weaker annual traffic growth, […]*%, no airline exit; opening is delayed by 6 months and construction costs are 25% higher than estimated.

The Commission observes that under the optimistic scenario (best case) the equity value of FBB would be positive amounting to EUR […]* billion (compared to EUR […]* billion in the basic scenario / base case). Even under the most pessimistic assumption (worst case variation a)), the equity value in the basic scenario, i.e. when implementing the envisaged financing measure, is still positive:

Scenario	Equity value (billion EUR)
Best case	[…]*
Worst case (i)	[…]*
Worst case (ii)	[…]*
Worst case variation a)	[…]*
Worst case variation b)	[…]*

<u>Comparison of scenarios (2016) – overall conclusion</u>

(121) That comparison is to be seen in the light of the evolution of the underlying very large and complex project. The Commission found that this particular project is characterised by a combination of technical and management issues that resulted in delays and cost overruns which in turn required shareholder intervention to remedy these issues. FBB's shareholders and FBB-management intervened by taking measures to address these issues. That is why in this specific case, a market economy investor who has taken appropriate measures to limit technical and financial risks would proceed with the financing measure in question in order to complete the project.

3.3.4. Conclusion on the MEIT on the shareholder guarantee for new debt and the quasi-equity injection

(122) In view of the above, the quasi-equity injection and the shareholder guarantee for new debt are in line with the MEIT.

4. CONCLUSION

(123) In the light of the above, the Commission has accordingly decided:

– that the notified measure does not constitute aid.

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Yours faithfully,
For the Commission

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