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II

(Non-legislative acts)

DECISIONS

COMMISSION DECISION (EU) 2015/1091

of 9 July 2014

on the measures SA.34191 (2012/C) (ex 2012/NN) (ex 2012/CP) implemented by Latvia for A/S Air Baltic Corporation (airBaltic)*(notified under document C(2014) 4552)***(Only the English text is authentic)****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, and in particular the first subparagraph of Article 108(2) thereof,

Having regard to the Agreement on the European Economic Area, and in particular Article 62(1)(a) thereof,

Having regards to the decision by which the Commission decided to initiate the procedure laid down in Article 108(2) of the Treaty on the Functioning of the European Union, in respect of the aid SA.34191 (2012/C) (ex 2012/NN) (ex 2012/CP) ⁽¹⁾,

Having called on interested parties to submit their comments pursuant to the provisions cited above and having regard to their comments,

Whereas:

1. PROCEDURE

1.1. THE PRE-NOTIFICATION — SA.33799 (2011/PN)

- (1) By SANI notification No 6332 of 18 October 2011, registered on 20 October 2011, Latvia pre-notified to the Commission a LVL 16 million (EUR 22,65 million) ⁽²⁾ loan in favour of A/S Air Baltic Corporation ('airBaltic' or 'the company'). The Latvian authorities were of the view that the loan did not constitute state aid but nonetheless pre-notified it for reasons of legal certainty and transparency. This pre-notification was registered with reference number SA.33799 (2011/PN).
- (2) A meeting with the Latvian authorities and their advisers took place on 27 October 2011, after which the Latvian authorities submitted supplementary information by letter of 7 November 2011. The Commission requested additional information by e-mails of 16 November 2011, 17 November 2011, 1 December 2011, and 9 December 2011, to which the Latvian authorities respectively replied by e-mails of 16 November 2011, 22 November 2011, 7 December 2011, and 13 December 2011.

⁽¹⁾ OJ C 69, 8.3.2013, p. 40.

⁽²⁾ Exchange rate of EUR 1 = LVL 0,7063. Average exchange rate for 2011 published by the European Central Bank, available at <http://sdw.ecb.europa.eu/reports.do?node=100000233>.

- (3) On 4 January 2012, Latvia submitted additional information and explained that the LVL 16 million loan — referred to in paragraph 1.1 above — had been provided to the company already on 21 October 2011 without prior Commission authorisation. In addition, on 13 December 2011, the Latvian State decided to increase the capital of the company and on 14 December 2011 it granted a second loan to airBaltic.
- (4) In view of the fact that the measure had been granted to the company and of a complaint received on 9 January 2012 (see section 1.2 below), the Latvian authorities withdrew their pre-notification by e-mail of 21 February 2012. State aid case SA.33799 (2011/PN) was administratively closed on 27 February 2012.

1.2. THE COMPLAINTS — SA.34191 (2012/C) (ex 2012/NN) (ex 2012/CP)

- (5) On 9 January 2012, the Commission received a complaint lodged by the private company SIA Baltijas aviācijas sistēmas ('BAS' or 'the complainant'), former shareholder of airBaltic, in relation to a number of measures allegedly provided to airBaltic by the Latvian State.
- (6) By letter of 23 January 2012, the Commission sent the complaint for comments to Latvia, who replied on 13 March 2012. By letter of 14 May 2012, the Commission requested additional information from Latvia, provided on 16 July 2012.
- (7) By letter of 18 July 2012, registered on 20 July 2012, the Commission received a new complaint from Mrs Inga Piternece, former member of the board of BAS, regarding an additional measure allegedly granted by the Latvian State to airBaltic. By e-mail of 24 July 2012, the Commission sent the new complaint for comments to Latvia, who replied on 22 August and 4 September 2012.
- (8) Meetings with the Latvian authorities, their advisers and representatives of airBaltic took place on 5 July and 17 August 2012.
- (9) By letter dated 20 November 2012, the Commission informed Latvia that it had decided to initiate the procedure laid down in Article 108(2) of the Treaty on the Functioning of the European Union ('TFEU') in respect of the aid ('the opening decision'). Latvia submitted comments on the opening decision by letter dated 23 January 2013. The Commission requested information to Latvia by letter of 6 March 2013, replied to on 8 April 2013. In addition, a meeting with the Latvian authorities took place on 25 June 2013, after which Latvia submitted additional information on 14 August, 18 September, 9 and 25 October 2013. Additional meetings with the Latvian authorities and their legal representatives took place on 22 October and 22 November 2013, as well as on 10 January 2014. Latvia submitted additional information on 7 and 8 November, 2, 13 and 20 December 2013, and on 28 and 31 January, 28 February, 24 and 26 March, 9 April and 16 May 2014.
- (10) The Commission decision to initiate the procedure was published in the *Official Journal of the European Union* ⁽³⁾ on 8 March 2013. The Commission invited interested parties to submit their comments on the measures.
- (11) The Commission received observations from Ryanair and airBaltic, as well as three individuals on behalf of creditors of airBaltic (FLS, AB Jet and Eurobalt Junipro). The Commission forwarded these observations to Latvia, which was given the opportunity to react; Latvia's comments were received by letter dated 27 May 2013.
- (12) By letter dated 4 July 2014, Latvia agreed to waive its rights deriving from Article 342 TFEU in conjunction with Article 3 of the EC Regulation (EC) No 1/1958 and to have the present decision adopted and notified in English.

2. THE LATVIAN AIR TRANSPORT MARKET

- (13) The air transport market in Latvia has rapidly expanded since Latvia joined the EU. Between 2003 and 2007, the annual average growth of passengers at Riga International Airport — including point-to-point and transfer passengers — reached 47 %, passing from approximately 700 000 passengers in 2003 to 3,2 million in 2007. The entry of low-cost carriers, especially Ryanair, contributed to the market growth as substantial new demand was created with the opening of new routes.

⁽³⁾ Cf. footnote 1.

- (14) The global economic crisis of 2008-2009 severely hit the economic growth of Latvia and as a consequence its air transport market. As a result of the crisis, the number of point-to-point passengers in Latvia decreased from 3,2 million in 2008 to 2,7 million in 2009, although the total number of passengers continued to grow thanks to transfer passengers.
- (15) As of 2010, overall market growth resumed, reaching an average 12 % annual growth. While the point-to-point passenger market has increased on average 9 % annually, the increase in the transfer passenger market reached 18 % per year. Going forward, it is expected that the Latvian air transport market will continue to grow at an annual growth rate of 7 % between 2012 and 2015.
- (16) Riga International Airport is the leader in the Baltic region. In 2011, approximately 5,1 million passengers travelled to/from Riga, compared to 1,9 million passengers travelling to/from Tallinn and 1,7 million passengers travelling to/from Vilnius. In 2011, airBaltic carried 66 % of the passengers flying via Riga, while Ryanair, second largest operator and main competitor of airBaltic, carried 20 %. 15 other companies operated to/from Riga (full-service providers and low-cost carriers) accounting for 14 % of all passengers. ⁽⁴⁾

3. THE BENEFICIARY

- (17) airBaltic was established in 1995 through a joint venture between Scandinavian Airlines SAS and the Latvian State. In January 2009, SAS sold its entire stake in the company (47,2 %) to BAS.
- (18) From information published in the press, it appears that BAS was set up as a private company wholly owned by Mr Bertolt Flick until December 2010, when 50 % of its shares were transferred to the Bahamas-registered Taurus Asset Management Fund Ltd ('Taurus'). ⁽⁵⁾
- (19) As of October 2011, airBaltic's shareholders were the Latvian State — through the Ministry of Transport — with 52,6 % of the shares and BAS with 47,2 %, the rest (0,2 %) being held by the Russian airline Transaero. At the time, the president and CEO of airBaltic was Mr Bertolt Flick. Since 1 November 2011, the CEO of airBaltic is Mr Martin Gauss, former CEO of Malév.
- (20) On the basis of the information provided by the Latvian authorities, it appears that BAS had pledged its 47,2 % shareholding in airBaltic as collateral to Latvijas Krājbanka, the Latvian subsidiary of the Lithuanian bank Snoras ⁽⁶⁾. On 16 November 2011, Snoras collapsed and was nationalised ⁽⁷⁾. On 17 November 2011, the Finance and Capital Markets Commission of Latvia ('FCMC') ordered a limitation of the banking operations of Latvijas Krājbanka in excess of EUR 100 000 ⁽⁸⁾. By order of the FCMC of 21 November 2011, the operations of Latvijas Krājbanka were suspended and a management of trustees was appointed ⁽⁹⁾.
- (21) According to the information provided, it appears that BAS defaulted on some of its financial obligations towards Latvijas Krājbanka. As a result, on 30 November 2011, Latvijas Krājbanka sold all except one of the airBaltic shares previously owned by BAS to the Ministry of Transport at their nominal value, totalling LVL 224 453 (EUR 317 787). ⁽¹⁰⁾ As a result, Latvia's shareholding in airBaltic increased to 99,8 %, while BAS retained just one share.

⁽⁴⁾ Source: Riga International Airport Yearbook 2011, available at <http://www.riga-airport.com/en/main/about-company/gada-gramata>.

⁽⁵⁾ See <http://bnn-news.com/airbaltic-shareholders-structure-11608>. The press reports some links between Taurus and a Russian entrepreneur Mr Vladimir Antonov.

⁽⁶⁾ The former main shareholder and chairman of the Lithuanian bank Snoras was Mr Vladimir Antonov.

⁽⁷⁾ The Central Bank of Lithuania explained that it needed to nationalise Snoras because of the failure to meet regulatory requirements, failure to provide requested information, and the poor condition of assets. See <http://en.rian.ru/business/20120523/173624459.html> and <http://www.bloomberg.com/news/2011-12-19/antonov-says-he-invested-50-million-euros-in-latvia-s-airbaltic.html>.

⁽⁸⁾ See http://www.lkb.lv/en/about_bank/news/archyve?item=2022&page=6.

⁽⁹⁾ See http://www.fktk.lv/en/publications/other_publications/2012-02-07_jsc_latvijas_krajbanka_c/.

⁽¹⁰⁾ The Minister of Transport explained that the goal of the acquisition was to protect the depositors of Latvijas Krājbanka. Apparently, BAS' financial problems threatened to prevent the State from investing in airBaltic's capital and thus the Government decided to act in the defence of its interests and take control of airBaltic. See <http://www.bloomberg.com/news/2011-12-01/latvia-buys-out-minority-shareholder-in-airbaltic-ministry-says.html> and http://www.sam.gov.lv/?cat=8&art_id=2598.

- (22) It also appears from the press that the shareholders of BAS had also pledged their shares in BAS as security with Latvijas Krājbanka ⁽¹¹⁾. On 6 February 2012, in the context of insolvency proceedings relating to BAS, ⁽¹²⁾ a subsidiary of Latvijas Krājbanka took over BAS' shares from its prior shareholders and appointed a new management.
- (23) Finally, it appears that on 8 June 2012 the Latvian State purchased from BAS its sole share in airBaltic for LVL 1. Therefore, as of this date, BAS is no longer shareholder of airBaltic ⁽¹³⁾.
- (24) In relation to the financial situation of airBaltic, the Latvian authorities have explained that the difficulties of the company started in 2008, due to the global economic recession and the drastic oil price increase. As a result, in 2008 airBaltic had losses of LVL 28 million (EUR 39,64 million). In 2009, the company however turned back to profits of LVL 14 million (EUR 19,82 million). ⁽¹⁴⁾ In 2010, airBaltic again made losses of LVL 34,2 million (EUR 48,42 million). In June 2011, the Latvian Minister of Economy said that airBaltic operated with a loss of LVL 18 million (EUR 25,48 million) in the first five months of 2011 and was close to bankruptcy. ⁽¹⁵⁾ airBaltic filed for legal protection from its creditors on 21 September 2011. ⁽¹⁶⁾ The audited results for 2011 show a loss of LVL 83,5 million (EUR 118,22 million).
- (25) On 27 August 2012, Latvia published an invitation for potential investors to express their interest in acquiring 50 % minus one vote of airBaltic's capital, (*) although transactions of a different nature were not excluded. The main criteria for choosing an investor would be the ability to support airBaltic's development, the investor's reputation and experience as well as its financial resources. The process is aimed for conclusion during 2014.

4. DESCRIPTION OF THE MEASURES

4.1. THE 3 OCTOBER 2011 AGREEMENT: THE FIRST STATE LOAN AND THE BAS LOAN

- (26) On the basis of an agreement dated 3 October 2011 ('the Agreement'), Latvia agreed to provide to airBaltic a loan of LVL 16 million (EUR 22,65 million) ('the first State loan', **measure 1**) alongside another loan of LVL 14 million (EUR 19,82 million) from BAS ('the BAS loan'). The conditions of both loans were linked and identical, and the initial interest rate was set at [11 — 13] ⁽¹⁷⁾ %. However, at the time of granting the loan to airBaltic, BAS waived its right to have the BAS loan collateralised.
- (27) The Agreement also stipulated that no later than 15 December 2011, the State would grant an additional loan to airBaltic for an undetermined amount in proportion to its voting rights, on identical conditions to the first State loan. Both State loans were to be capitalised if a number of conditions were met, among which the approval by the board of airBaltic of a business/restructuring plan.
- (28) Article 7 of the Agreement provided for the conditions of the future capital increase of airBaltic. In particular, Article 7.3 stated that '*the State loan and BAS loan [...] may be added to the sum to be capitalised*'. Under Article 7.4, BAS undertook to vote for the capitalisation of the loan and for the capital increase. In case BAS would not fulfil its commitments, Article 7.4 provided the State the right to purchase from BAS its shares in airBaltic for LVL 1. ⁽¹⁸⁾

⁽¹¹⁾ See <http://www.baltic-course.com/eng/transport/?doc=54423>. The press also reports that BAS allegedly owed LVL 14 million to Latvijas Krājbanka (see for instance <http://www.baltic-course.com/eng/transport/?doc=53861>).

⁽¹²⁾ According to Latvia, as of August 2013, BAS had not been declared bankrupt despite the attempts of several of its creditors.

⁽¹³⁾ In addition, it seems that at least since 2010 the main shareholders of airBaltic — the Latvian State and BAS — remained in conflict: the press reports on numerous legal actions between the Latvian State and BAS (see for instance <http://atwonline.com/airline-finance-data/news/airbaltic-files-bankruptcy-0921>).

⁽¹⁴⁾ See <http://centreforaviation.com/analysis/airbaltics-restructuring-plan-is-in-full-swing-but-competition-from-estonian-air-is-rising-74754>.

⁽¹⁵⁾ See <http://www.eurofound.europa.eu/emcc/erm/factsheets/18371/Air%20Baltic%20Corporation?Template=searchfactsheets&kSel=1> and <http://www.baltic-course.com/eng/transport/?doc=42089>.

⁽¹⁶⁾ See https://www.airbaltic.com/en/bottom_menu/press-room/press_releases/2011/airbaltic-files-for-legal-protection-airbaltic-to-continue-operations.

(*) The Latvian Ministry of Transport placed an advertisement in the European and British editions of the Financial Times on 27 August 2012 inviting non-binding expressions of interest to participate in the sale of shares issued by airBaltic. See http://prudential.lv/upload_file/27082012-ABC%20ad%20EN.pdf.

⁽¹⁷⁾ Business secret.

⁽¹⁸⁾ The Latvian State apparently exercised this right on 8 June 2012 (see recital 23 above).

- (29) Latvia granted the first State loan to airBaltic on 21 October 2011 (see recital 3 above). BAS granted the BAS loan on 1 November 2011.
- (30) On 13 December 2011, once Latvia's shareholding in airBaltic had increased to 99,8 % (see recital 21 above), the Latvian Government decided to authorise an interest rate cut for the first State loan from [11 — 13] % to [2 — 4] %. Since the first State loan and the BAS loan were linked (see recital 26 above), the same interest rate cut was applied to the latter.

4.2. THE SECOND STATE LOAN OF 13 DECEMBER 2011

- (31) On 13 December 2011, at the same time as the interest rate cut of the first State loan (see recital 30 above), the Latvian Government decided to provide a convertible loan to airBaltic of LVL 67 million (EUR 94,86 million) at an interest rate of [9 — 11] % divided into two tranches ('the second State loan', **measure 2**) ⁽¹⁹⁾.
- (32) The first tranche of the second State loan of LVL 41.6 million (EUR 58,89 million) was immediately made available to airBaltic by agreement of 14 December 2011. The second tranche of LVL 25,4 million (EUR 35,96 million) was made available to the company on 14 December 2012, i.e. after the Commission had adopted its opening decision.

4.3. AIRBALTIC'S CAPITAL INCREASE AGREED ON 22 DECEMBER 2011

- (33) During airBaltic's shareholders' meeting of 22 December 2011, the Latvian State and BAS — despite it having only one share in the company at that time — agreed to a capital increase of LVL 110 million (EUR 155,74 million) ('the capital increase', **measure 3**). This was to be achieved through conversion into capital of the first State loan, the first tranche of the second State loan and the BAS loan, together with a cash contribution from BAS of LVL 37,7 million (EUR 53,38 million).
- (34) The Latvian State executed its decision to participate in airBaltic's capital increase on 29 December 2011 and proceeded to convert into capital the first State loan and the first tranche of the second State loan.
- (35) By letter of 4 January 2012, the Ministry of Transport of Latvia requested that BAS participate in the capital increase by converting the BAS loan and injecting the cash. Despite the requests of the Latvian authorities, BAS did not seem inclined to fulfil the agreement reached at the shareholders' meeting. Indeed, by letters dated 6 to 26 January 2012, BAS contested the State's acquisition from Latvijas Krājbanka of the airBaltic shares that BAS previously owned (see recital 21 above) and requested that the State refrain from adopting decisions concerning changes in airBaltic's capital. On 19 January 2012 the FCMC issued a formal prohibition to BAS and airBaltic on including the BAS loan as part of the capital increase
- (36) By 30 January 2012, i.e. the end of the first stage of the subscription implementation period for the capital increase, BAS had neither converted its loan nor injected the cash.

4.4. THE COMPLAINT FROM BAS AND SUBSEQUENT EVENTS

- (37) The complaint filed with the Commission on 9 January 2012 concerned the first and second State loans as well as the capital increase. In addition, BAS complained about two other measures potentially entailing aid to airBaltic, namely the acquisition by the State of 0 %-coupon bonds from airBaltic in April 2010 (**measure 4**) and the payment of EUR 2,8 million by Latvijas Krājbanka to airBaltic on 21 and 22 November 2011 (**measure 5**).
- (38) Latvia explained that measure 4 entailed the acquisition of LVL 30 million (EUR 42,47 million) of 0 %-coupon bonds from airBaltic in by the majority shareholders of airBaltic at the time, i.e. the Latvian State and BAS. The part corresponding to Latvia was not directly subscribed by the Ministry of Transport — the actual owner of airBaltic's shares — but by the Latvian State Radio and Television Centre ('LVRTC'), a 100 % State-owned company. The bonds were acquired with a nominal value of LVL 1 each and had no interest, and were purchased

⁽¹⁹⁾ Contrary to what is stated in recital 80 of the opening decision, during the formal investigation procedure the Commission observed that BAS was not obliged under the Agreement to provide a convertible loan on *pari passu* terms alongside the second State loan.

by Latvia and BAS in proportion to their shareholding. This would result in the Latvian State acquiring 0 %-interest bonds from airBaltic in an amount of approximately LVL 15,78 million (EUR 22,34 million) and BAS acquiring approximately LVL 14,22 million (EUR 20,13 million). The bonds are to be converted into capital on 1 July 2015, at a rate of one share per bond.

- (39) As regards measure 5, the Latvian authorities explained that no payments were made to airBaltic on 21 and 22 November 2011 as alleged by the complainant. However, airBaltic submitted three payment orders to Latvijas Krājbanka prior to the decisions of the FCMC of 17 November 2011 to limit banking operations above EUR 100 000 and to halt all operations of Latvijas Krājbanka on 21 November 2011 (see recital 20 above). These orders were executed by Latvijas Krājbanka days after. In particular, the operations at stake were two payments of USD [...] million to IATA Clearing House and of EUR [...] million to Riga International Airport executed on 25 November 2011, and a transfer of EUR [...] million to an alternative bank account of airBaltic in Swedbank on 30 November 2011.

4.4.1. The 'reShape' plan of March 2012

- (40) In March 2012, airBaltic adopted a plan entitled 'reShape'. It foresees a number of measures, including the purchase of more efficient planes ⁽²⁰⁾ and the closure of certain routes, which would allow the company to break-even in 2014 in the realistic and optimistic scenarios. However, in the pessimistic scenario, airBaltic would have negative EBIT until at least 2016.
- (41) The reShape plan foresees that on top of the LVL 83 million (EUR 117.51 million) already committed to the company, ⁽²¹⁾ additional financing of LVL [45 — 55] million (EUR [64 — 78] million) will be needed [...] in the realistic scenario. This amount would go down to LVL [5 — 15] million (EUR [7 — 21] million) in the optimistic scenario but would increase to LVL [135 — 145] million (EUR [192 — 206] million) in the pessimistic one.

4.5. THE COMPLAINT OF 18 JULY 2012

- (42) Apart from Latvia and BAS, a number of other investors were also parties to the Agreement. These investors agreed to grant two syndicated loans to airBaltic for EUR 35 million each at an initial interest rate of [5 — 7] %. Syndicated loan 1 was supposed to be provided by Latvijas Krājbanka and the Lithuanian bank Snoras. Syndicated loan 2 was supposed to be provided by several companies, among others Taurus. These syndicated loans were to be granted in order to novate several claims that those private investors held against airBaltic. In case BAS would not fulfil its commitments under the Agreement, in line with its Article 7.4, the investors who were to grant to airBaltic the syndicated loan 2 — including BAS' shareholder Taurus — agreed to *'assign and to hand over to the State or its nominated company for the sum of LVL 1 all claims which stem from [...] the outstanding [syndicated] loan nr 2'*.
- (43) On 18 July 2012, the Commission received an additional complaint (see recital 7 above) regarding the obligation of the investors under Article 7.4 of the Agreement to assign and to hand over to the State or its nominated company all claims stemming from syndicated loan 2 for just LVL 1 (see recital 28 above). The complainant alleges that by letters of 9 February 2012 and 12 June 2012 the Latvian State had decided that a claim of EUR 5 million towards airBaltic for syndicated loan 2 — the part granted by Taurus, out of a total of EUR 35 million — is to be assigned to airBaltic for a price of LVL 1 (**measure 6**).

5. THE OPENING DECISION

- (44) On 20 November 2012, the Commission decided to open the formal investigation procedure. In its opening decision, the Commission came to the preliminary view that airBaltic could be considered a firm in difficulty at the time the measures identified were provided. It also expressed doubts as regards the six measures under assessment and came to the preliminary conclusion that all of them entailed state aid.

⁽²⁰⁾ On 10 July 2012 airBaltic signed a letter of intent with Bombardier to acquire 10 CS300 aircraft and take purchase rights on a further 10 CS300 jetliners. Based on the list price of the CS300 airliner, a firm-order contract will be valued at approximately USD 764 million (EUR 621,74 million), and could increase to USD 1,57 billion (EUR 1,28 billion) should the purchase rights be converted to firm orders. See <http://www.airbaltic.com/public/49780.html>. Exchange rate of EUR 1 = USD 1,2288 — average exchange rate for July 2012 published by the European Central Bank, available at <http://sdw.ecb.europa.eu/reports.do?node=100000233>.

⁽²¹⁾ The first State loan of LVL 16 million and the second State loan of LVL 67 million (including the second tranche of LVL 25,4 million, which following the reShape plan was provided to the company in the second half of 2012).

- (45) The Commission first noted that the first State loan (**measure 1**) was provided by the State at the same time as the BAS loan — in proportion to their shareholdings — and at identical conditions, which at first sight would seem to suggest that the loans had been granted on *pari passu* terms. However, the Commission observed that it could not assess the first State loan and the BAS loan in isolation but in the overall context of the provisions of the Agreement. Accordingly, the Commission noted that from the Agreement it did not result that, in addition to the BAS loan, BAS also had to issue a convertible loan to airBaltic alongside the second State loan and that the State had made commitments that were different and economically more significant than those taken by BAS. The Commission also observed that the decision of BAS to invest in airBaltic was taken in a context in which the public authorities had already demonstrated their willingness to financially support the company.
- (46) In relation to the interest rate of the first State loan and the cut on the interest rate of [5-15] percentage points occurred in December 2011 (see recital 30 above), the Commission considered it doubtful that the rates applied would be at market level in view of the significant difficulties of airBaltic at the time.
- (47) With regard to the second State loan (**measure 2**) the Commission first observed that it was already foreseen in the Agreement, albeit with an undetermined amount and subject to a number of factors. According to the Commission, the second State loan could not be considered *pari passu* since from the Agreement it did not follow — contrary to what Latvia argued — that, in addition to the BAS loan, BAS also had to issue a convertible loan to airBaltic. Moreover, the Commission highlighted that when Latvia decided to provide the second State loan to airBaltic, there was no possible concomitance on the side of BAS since it was under no obligation to provide any other loan to airBaltic.
- (48) In relation to the interest rate of the second State loan ([9 — 11] %), the Commission expressed doubts that a private investor would have provided the company with a loan at such an interest rate in view of the difficulties that airBaltic was facing and the fact that the collateral used was the same as that granted in relation to the first State loan.
- (49) Pertaining to the capital increase agreed on 22 December 2011 (**measure 3**), the Commission noted that at the time the recapitalisation decision was taken, BAS had lost all except one of its shares in airBaltic (since the State had acquired them from Latvijas Krājbanka). As a result, the State increased its shareholding in the company to 99,8 % (see recital 21 above). Therefore, the conversion made little economic sense for BAS, who — in order to regain its former shareholding — was requested not only to convert into capital the BAS loan but also to inject LVL 37,7 million (EUR 53,38 million) in cash, all this with limited possibilities that the equity would provide any return in the short- to medium-term in view of the difficulties of the company. Moreover, the Commission expressed doubts on the date at which measure 3 was actually granted.
- (50) The Commission also noted that BAS and the State had a certain period of time — presumably until 30 January 2012, i.e. the end of the first stage of the subscription implementation period for the capital increase — to inject the capital in airBaltic. The State however did so on 29 or 30 December 2011, while BAS eventually never converted its loan or injected the cash. According to the Commission, before converting the loans, Latvia should have waited until it was reasonably assured that BAS would also do so. On this basis, the Commission was of the view that measure 3 did not appear to be MEIP-conform.
- (51) In relation to the acquisition of LVL 30 million (EUR 42,47 million) of 0 %-coupon bonds from airBaltic in April 2010 (**measure 4**), the Commission highlighted that these bonds, in view of their characteristics, were comparable to a capital injection. Given that profitability was excluded from the outset since no interest was attached to the bonds and that future profitability upon conversion appeared unlikely in view of the difficulties of the company, the situation of the airline industry, and the absence at the time of a plan for bringing the company back to profitability, the Commission raised doubts about the market-conformity of measure 4. In addition, the Commission was not able to exclude that BAS acquired the bonds because of the strong interest shown by Latvia in airBaltic before the bond issuance.
- (52) Concerning the EUR 2,8 million payments by Latvijas Krājbanka (**measure 5**), the Commission could not conclude with certainty whether — at the time these payments occurred — the actions of Latvijas Krājbanka, being a 100 % State-owned bank as, were independent of those of the State. In this respect, the Commission observed that Latvia had provided no evidence that airBaltic submitted the payment and transfer orders before the FCMC decision of 17 November 2011 to limit banking operations per client above EUR 100 000.

- (53) Finally, regarding the EUR 5 million claim attributed to airBaltic (**measure 6**), the Commission explained in its opening decision that by virtue of Article 7.4 of the Agreement, Latvia had decided that a claim of EUR 5 million towards airBaltic for syndicated loan 2 — the part granted by Taurus, of a total of EUR 35 million — was to be assigned to airBaltic for a price of LVL 1. The Commission highlighted that in economic terms this operation was very similar to a debt waiver, by means of which Latvia was freeing airBaltic from its obligation to pay interests and to reimburse part of syndicated loan 2 to the bearer of the claim. In addition, the Commission concluded that measure 6 was not MEIP-conform since airBaltic was not entitled under the Agreement to get the credit in exchange of LVL 1.
- (54) In relation to the rest of the claims under syndicated loan 2 totalling LVL 30 million (EUR 42,47 million) (see recital 42 above), the Commission noted that the reasoning above would apply *mutatis mutandis* to these claims.
- (55) The Commission therefore came to the preliminary conclusion that the six measures under assessment entailed unlawful state aid, since they had been granted in breach of the notification and stand-still obligations established in Article 108(3) TFEU.
- (56) The Commission also expressed doubts on the **compatibility** with the internal market of the six measures under assessment, in particular since the Latvian authorities did not provide any possible grounds for compatibility. Of the possible compatibility grounds, the Commission preliminarily considered — in view of the difficulties of airBaltic — that the only applicable criteria were those concerning aid for rescuing and restructuring firms in difficulty under Article 107(3)(c) TFEU on the basis of the Community guidelines on State aid for rescuing and restructuring firms in difficulty⁽²²⁾ ('the R&R Guidelines'). In this respect, on the basis of the information available at the time, the Commission was of the view that the conditions for rescue aid did not seem to be met, and that the reShape plan did not include any of the necessary elements for it to be considered a restructuring plan in the sense of section 3.2 of the R&R Guidelines.

6. COMMENTS ON THE OPENING DECISION

6.1. COMMENTS FROM LATVIA

- (57) In its comments on the Commission's opening decision, Latvia notes that **measures 1, 2, 3 and 6** were inter-dependent and that they derive from the Agreement, thus constituting essentially one and the same financial transaction which must be assessed at the time when the Agreement was entered into, i.e. 3 October 2011. On this basis, Latvia concludes that these measures are concomitant and MEIP-conform, thereby excluding state aid.
- (58) Latvia argues that BAS was the initiator of the Agreement and actually asked the State to participate in the capital increase. Eventually, the State agreed to the investment subject to strict conditions laid down in the Agreement. One of the key elements of the Agreement was an injection by the State and BAS of around LVL 100 million (EUR 141,58 million) in two stages: (i) LVL 30 million (EUR 42,47 million) in the form of the first State loan and the BAS loan, and (ii) approximately LVL 70 million (EUR 99,1 million) to be provided by the State and BAS according to their shareholding. Therefore, according to Latvia, BAS was under a contractual obligation to inject additional capital into airBaltic in proportion to its shareholding. Latvia derives this conclusion from Article 7.2 of the Agreement, which establishes that the State would provide a second loan to airBaltic '*in proportion to its voting rights*', which in Latvia's view means that BAS had to inject money also in proportion to its shareholding.
- (59) Latvia also notes that the Agreement provides for a number of contingency measures aimed at protecting the financial interests of the State in case BAS would fail not fulfil its obligations: (i) the right for the State to acquire the shares from BAS in exchange of LVL 1, (ii) the obligation for the private investors that granted syndicated loan 2 to airBaltic to attribute their claims against airBaltic to the State under certain circumstances, and (iii) the obligation for the investors to compensate airBaltic for certain off-balance sheets liabilities amounting to approximately EUR [...] million⁽²³⁾. The fact that BAS and the investors accepted these contingency measures is, in Latvia's opinion, proof that the investors were confident that BAS would fulfil its obligations. On this basis, Latvia considers that measures 1, 2 and 3 were concomitant and MEIP-rational. In addition, since measure 6 was a corollary of the contingency measures, Latvia claims that this measure does not entail aid either.

⁽²²⁾ OJ C 244, 1.10.2004, p. 2.

⁽²³⁾ The EUR [...] million figure is claimed by Latvia but does not result from the Agreement.

- (60) In addition, as regards **measure 1**, Latvia adds that the interest rate was in line with the MEIP and the Reference Rate Communication ⁽²⁴⁾ and argues that the lowering of the interest rate from [11 — 13] % to [2 — 4] % was economically rational for the State in order to reduce the funding costs of airBaltic (which at time it already owned at 99,8 %). Concerning **measure 2**, Latvia is of the opinion that the interest rate was in line with the MEIP.
- (61) Concerning **measure 3**, the Latvian authorities argue that the conversion into capital of the first State loan and the first tranche of the second State loan was done on the basis of the concomitant decision by BAS to convert the BAS loan and to inject LVL 37,7 million (EUR 53,38 million) in cash, reached at airBaltic's shareholders meeting of 22 December 2011. The Latvian authorities reiterate that measures 1, 2 and 3 should not be assessed in isolation but only in conjunction with the wider transaction they form an inseparable part of. Since this transaction was agreed by BAS and the State in full concomitance, Latvia excludes the presence of aid. Latvia further argues that the fact that BAS did not fulfil its commitment within the maximum deadline (i.e. 30 January 2012) is irrelevant and that the State had no option but to convert the first State loan and the first tranche of the second State loan into capital — it did so on 29 December 2011. Moreover, Latvia explains that the State took all possible steps towards forcing BAS to fulfil its commitment.
- (62) In what relates to **measure 6**, Latvia adds that the attribution of the claims to airBaltic was a corollary of the measures foreseen in Article 7.4 of the Agreement. According to Latvia, this ensures that the entire Agreement is *pari passu*, since the assignment of the claim to airBaltic guarantee that the private investors make a proportionate contribution to the financial injection into airBaltic.
- (63) Concerning **measure 4**, Latvia is of the opinion that the issuance of 0 %-coupon bonds was carried out concomitantly by the State and BAS under identical conditions and thereby excludes the presence of state aid. Latvia also explains that the decision to issue bonds was taken at the initiative of BAS. As regards the fact that these bonds offered no profit, Latvia claims that the Commission should take into account the so-called 'owner effect' and consider that the State, as shareholder of airBaltic, had different incentives than an outsider investor.
- (64) Finally, as regards **measure 5**, Latvia is of the opinion that no State resources were involved and that in any event the actions of the FCMC would not be imputable to the State.
- (65) In view of its opinion that no state aid was present, Latvia did not initially provide arguments on the compatibility of the measures with the internal market. However, during the course of the formal investigation procedure, Latvia provided arguments in this respect and noted that if state aid was present, it would be compatible restructuring aid under the R&R Guidelines.
- (66) On this basis, Latvia submitted in December 2013 a restructuring plan according to which the restructuring of airBaltic started in April 2011, when a first version of the plan was submitted to the company's management. This document identified some of the weaknesses of airBaltic and established that EUR [175 — 185] million in capital were needed. This first version of the plan evolved into the reShape plan of March 2012, which according to Latvia was a preliminary step to the restructuring plan submitted in December 2013.
- (67) The restructuring plan foresees a 5-year restructuring period from April 2011 to April 2016 and total restructuring costs of LVL [150 — 170] million (EUR [214 — 242] million). The restructuring plan foresees three types of restructuring measures: (i) optimisation of revenues and costs for the existing operations; (ii) network reconfiguration, resulting in adjustment of destinations, frequencies and timing; and (iii) network and fleet optimisation. The restructuring plan includes a total of 26 initiatives addressing revenue and costs, coupled with additional initiatives in the area of network reconfiguration and fleet renewal. As regards the restoration of airBaltic's viability, the plan expects that with these initiatives the company will break-even in 2014 and remain profitable thereafter, with EBIT reaching LVL [1 — 3] million (EUR [1,4 — 4,2] million) in 2014 and LVL [9 — 12] million (EUR [12,8 — 17] million) in 2016. The restructuring plan also includes revised financial forecasts on the basis of realistic, pessimistic and optimistic scenarios, which are subject to a sensitivity analysis in order to assess the risks and their possible impact.

⁽²⁴⁾ 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).

- (68) The plan also puts forward a number of compensatory measures: (i) fleet reduction by 27 %; (ii) the surrender of 14 profitable routes; and (iii) the surrender of [...] slot pairs in coordinated airports. Between 2011 and 2016, airBaltic will reduce its capacity by [17 — 20] % in terms of ASK ⁽²⁵⁾ ([7 — 10] % when considering profitable routes only). According to Latvia, such capacity reduction would be in line with past cases. In addition, the restructuring plan includes the release of [...] slot pairs as the result of the closure of several routes.
- (69) The restructuring plan estimates the restructuring costs at LVL [150 — 170] million (EUR [214 — 242] million), which will be used for repayment of third-party loans, to compensate losses resulting from the phase-out and disposal of certain aircraft, redundancy payments the purchase of new aircraft, etc.
- (70) In view of total restructuring costs, the proposed own contribution of airBaltic according to the restructuring plan amounts to LVL [100 — 110] million (EUR [141 — 155] million), i.e. [60 — 70] % of the total restructuring costs. According to the restructuring plan, the own contribution would result from several injections from private parties (including a liquidity facility and advance payments), private loans, a lease agreement for new aircraft and a partial write-off of debt with two banks.

6.2. COMMENTS FROM INTERESTED PARTIES

- (71) During the formal investigation procedure, the Commission received comments from Ryanair and airBaltic, as well as three individuals on behalf of creditors of airBaltic.
- (72) Ryanair agrees with the Commission's preliminary findings that the measures under assessment are inconsistent with the market economy investor principle ('MEIP') and incompatible with the internal market. Ryanair however argues that the Commission's assessment of the MEIP was not complete in the opening decision, since the Commission should have considered whether a private investor would have opted for liquidating airBaltic upfront instead of providing it with additional capital ⁽²⁶⁾. Ryanair also argues that the Commission should have assessed in its opening decisions whether the liquidation of airBaltic was more profitable for the State than the provision of additional funds. Although Ryanair considers that it had no sufficient information to comment on the reShape plan, it notes its doubts that airBaltic would return to profitability and considered that the company should have been liquidated.
- (73) Ryanair also argues that any aid to airBaltic would harm its market position since Ryanair operates 13 routes from Riga, of which more than half in direct competition with airBaltic.
- (74) airBaltic highlights in its comments that the reasons for the difficulties of the company were due to the conduct of the previous management and the unfortunate decisions of Mr Flick before October 2011, who — according to airBaltic — focused on a commercial strategy based solely on expansion and not on profitability. Also, airBaltic explains that the previous management of the company entered into many disadvantageous contracts and concluded transaction without business rationale, besides setting up an opaque corporate and organisational structure.
- (75) Also according to airBaltic, when Latvia decided to participate and to execute the Agreement, it acted as a rational private investor. airBaltic notes that Latvia's investment was concomitant to that of BAS and that it had required severe sacrifices from BAS and other private investors. In addition, the Agreement included sufficient safeguards to ensure that Latvia's interest were fully protected against BAS; using these safeguards was — according to airBaltic — more rational for Latvia than to breach its investment commitments, thereby causing the company to go bankrupt, destroying the value of the existing shareholders and exposing itself to damage claims by the private investors. On this basis, airBaltic concludes that the decision of Latvia to enter into the Agreement does not contain elements of state aid.
- (76) As regards the acquisition by the State of 0 %-coupon bonds from airBaltic in April 2010 (measure 4), airBaltic is of the opinion that it was economically rational and a fully concomitant investment of the State and BAS and thereby concludes that it did not entail state aid. In relation to the payment of EUR 2,8 million by Latvijas

⁽²⁵⁾ ASK stands for available seat kilometre (seats flown multiplied by the number of kilometres flown). ASK is the most important capacity indicator of an airline as employed by the air transport industry and by the Commission itself in previous restructuring cases in the air transport sector.

⁽²⁶⁾ Ryanair referred to Case C-405/11 P, *Buczek Automotive*, not yet published, at paras 55-57.

Krājbanka to airBaltic on 21 and 22 November 2011 (measure 5), airBaltic considers that these were decisions taken in the course of airBaltic's business and that they concern private funds, thereby excluding the presence of State resources.

- (77) Finally, airBaltic highlights the role of airBaltic in keeping Latvia connected with the rest of the EU and provides some information on the implementation of the reShape plan by the new management of the company.
- (78) As regards the comments provided by three individuals on behalf of creditors of airBaltic, they had a similar structure. The creditors complain in general terms about the measures subject to the opening decision, in particular as regards to measure 6. In addition, they made reference to certain unpaid debts of airBaltic which apparently had their origin in the Agreement and which allegedly had led some of the creditors into insolvency.

6.3. OBSERVATIONS FROM LATVIA ON THE COMMENTS OF INTERESTED THIRD PARTIES

- (79) In its observations on the comments of third parties, Latvia agreed with airBaltic's views that the measures under assessment did not entail state aid.
- (80) In relation to Ryanair's comments, Latvia observes that the case-law highlighted by Ryanair — suggesting that the State should have liquidated airBaltic instead of providing it with funds — is not applicable, since at the time the State was not a major creditor of airBaltic but merely a shareholder. According to Latvia, the private creditor test is not adequate to assess the rationality of the State's investment decisions in this case. In addition, Latvia argues that when it decided to enter into the Agreement it chose to suffer losses in the short-term with a view to return to profitability in the long-term and these investment decisions were taken at the initiative of BAS. Latvia also notes that the losses of airBaltic had been reduced and dismisses the arguments of Ryanair as groundless.
- (81) Finally, in what relates to the comments of the individuals on behalf of creditors of airBaltic, Latvia considers that they are unrelated to the measures set out in the opening decision and that they seemed to be aimed at improving the creditors' position in their commercial litigations with airBaltic.

7. ASSESSMENT OF THE MEASURES

- (82) This decision addresses as a preliminary point the issue of whether airBaltic is a firm in difficulty in the meaning of the R&R Guidelines (section 7.1 below). It then analyses whether the measures under examination entail state aid to airBaltic within the meaning of Article 107(1) TFEU (section 7.2 below) and whether any such aid is lawful (section 7.3 below) and compatible with the internal market (section 7.4 below).

7.1. DIFFICULTIES OF AIRBALTIC

- (83) As already indicated in the opening decision, the Latvian authorities themselves explain that the difficulties of airBaltic started in 2008, due to the global economic recession and the drastic oil price increase. As a result, in 2008 airBaltic made losses of LVL 28 million (EUR 39,64 million). In 2009 the company made profits of LVL 6 million (EUR 8,49 million). However, in 2010, airBaltic once again incurred losses, of LVL 34,2 million (EUR 48,42 million), which increased to LVL 84,7 million (EUR 119,2 million) in 2011. The Commission recalls that the Latvian Minister of Economy stated in June 2011 that airBaltic was close to bankruptcy⁽²⁷⁾, while the press reported that the company filed for legal protection from its creditors on 21 September 2011⁽²⁸⁾.
- (84) The audited annual accounts of airBaltic show that the company had negative equity during the period 2009-2012, which moreover increased every year. Indeed, airBaltic had negative equity of LVL 19,2 million (EUR 27,18 million) in 2009, which increased to LVL 23,3 million (EUR 32,99 million) in 2010, to LVL 105,6 million (EUR 149,51 million) in 2011 and to LVL 125,1 million (EUR 177,12 million) in 2012.

⁽²⁷⁾ See <http://www.eurofound.europa.eu/emcc/erm/factsheets/18371/Air%20Baltic%20Corporation?Template=searchfactsheets&kSel=1> and <http://www.baltic-course.com/eng/transport/?doc=42089>.

⁽²⁸⁾ See <http://atwonline.com/airline-finance-data/news/airbaltic-files-bankruptcy-0921>.

Table

AirBaltic's key financial data 2007 — June 2011 (LVL thousands)

	2009	2010	2011	2012
Net result	6 004	(34 207)	(84 761)	(19 117)
Operating costs	(207 312)	(266 930)	(306 183)	(248 168)
Financial expenses	(2 592)	(3 877)	(17 446)	(4 582)
Shareholders' equity	(19 282)	(23 359)	(105 620)	(125 145)

- (85) Point 10(c) of the R&R Guidelines stipulates that a company is regarded as being in difficulty where it *'fulfils the criteria under its domestic law for being the subject of collective insolvency proceedings'*. This appeared to be the case of airBaltic at least as of 21 September 2011 — if not earlier — when it filed for legal protection from its creditors. The Commission however notes that the court allegedly rejected the legal protection a few days later, apparently because of the negotiations between Latvia and BAS that culminated in the Agreement. Irrespective of this, the Commission considers that, in any event, it would appear that airBaltic is a firm in difficulty within the meaning of point 11 of the R&R Guidelines
- (86) In accordance with that provision, a firm may be considered to be in difficulty *'where the usual signs of a firm being in difficulty are present, such as increasing losses, diminishing turnover, growing stock inventories, excess capacity, declining cash flow, mounting debt, rising interest charges and falling or nil net asset value'*. From the table above it emerges clearly that airBaltic has been loss-making since 2008 (with the exception of 2009). However, it appears that airBaltic was able to achieve a profit in 2009 only due to the extraordinary drop in fuel prices. Therefore, as indicated in the opening decision, it appears that the return to profitability in 2009 was a one-off occurrence due to extraordinary circumstances and not a structural trend. The company's debt and financial expenses increased significantly between 2008 and 2009 but in particular between 2009 and 2010, when the cost of financing increased from LVL 3,8 million (EUR 5,38 million) to LVL 17,4 million (EUR 24,64 million) ⁽²⁹⁾. It also results that the cost-related variables of airBaltic increased at a rate of [5-10] % per year, that is, faster than the revenue-related variables which increased at [2 — 7] % annually. Finally, the Commission reiterates the finding in the opening decision that the losses of airBaltic were of such magnitude that in 2010 its negative equity amounted to approximately LVL 23,3 million (EUR 32,99 million), which increased to approximately LVL 105,6 million (EUR 149,51 million) due the additional losses incurred in 2011. Considering all of the factors mentioned above, it appears that the criteria in point 11 of the R&R Guidelines are met.
- (87) The Commission therefore comes to the conclusion that airBaltic was a firm in difficulty within the meaning of the R&R Guidelines at least from 2011.

7.2. EXISTENCE OF STATE AID

- (88) By virtue of Article 107(1) 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 internal market.
- (89) In order to conclude whether state aid is present, the Commission must assess whether the cumulative criteria laid down in Article 107(1) TFEU (i.e. transfer of State resources, selective advantage, potential distortion of competition and effect on intra-EU trade) are met for each of the six measures being assessed.

⁽²⁹⁾ Source: airBaltic's annual report for 2011.

7.2.1. Measures 1, 2, 3 and 6 as a single transaction

- (90) Latvia argues that measure 1 must be assessed together with measures 2, 3 and 6 since they were agreed on the same date, i.e. 3 October 2011, at a point in time when Latvia and BAS were both major shareholders of airBaltic.
- (91) The Commission agrees with the Latvian authorities that the first State loan (measure 1) and the BAS loan cannot be assessed in isolation and must therefore be viewed as part of the overall context of the Agreement, on the basis of which both loans were provided. However, the Commission disagrees with the argument of Latvia that the other measures must be assessed together as a single transaction.
- (92) The Commission is of the opinion that on 3 October 2011, when the Agreement was entered into, BAS and the State committed with absolute certainty to provide the first State loan (measure 1) and the BAS loan. Those measures may therefore be said to have been granted at that date. However, the exact amounts of the second State loan (measure 2) and of the capital increase (measure 3) cannot be ascertained with certainty from the information in the Agreement. In particular, as regards measure 2, the Agreement merely states that Latvia would provide a loan in proportion to its shareholding but does not quantify it. In this respect, the Commission observes that Article 7.1 of the Agreement states that the foreseeable equity increase (resulting from capitalisation of the first and second State loans and the BAS loan, together with an additional cash contribution from BAS) would not exceed LVL 100 million (EUR 141,58 million). However, the following points should be noted. First, only the first State loan and the BAS loan were quantified in the Agreement, at respectively LVL 16 million and LVL 14 million. The figure of LVL 100 million was merely a forecast, an estimate of what might be required or expected in terms of equity increase by the end of the year; the amount of the equity increase was not clearly determined in the Agreement. Indeed, the actual amount of the equity increase agreed in December 2011 was in fact LVL 110 million (see recital 33 above), i.e. in excess of what had been foreseen in the Agreement. The Commission is of the view that the amounts of Measures 2 and 3 were not determined or ascertainable on 3 October 2011.
- (93) Similarly, as regards measure 6, the Commission observes that when the Agreement was entered into on 3 October 2011, the State did not know whether it would need to make use of Article 7.4 of the Agreement and have the claims of private investors assigned to it. In addition, the State was not obliged to assign to airBaltic the claims resulting from syndicated loan 2. The assignment of the claims of private investors to the State was a mere eventuality subject to BAS not fulfilling its obligations under the Agreement, something which was not known and which there was no reason to suspect on 3 October 2011. For this reason, measure 6 cannot be considered as having been granted at the moment the Agreement was signed and cannot therefore be considered as *pari passu* with the first State loan and the BAS loan.
- (94) In addition, Latvia argues that most of the claims of the private investors which were supposed to be novated in the two syndicated loans were unsecured, and that had the State let the company go bankrupt, the private investors would have sued the State for damages, which would have been more costly for the State than providing the rest of measures to airBaltic.
- (95) In the Commission's view, the claim that the private investors would have sued the State asking for damages is purely hypothetical and not supported by any evidence. In addition, nothing shows that Latvia actually took into account these considerations when providing support to airBaltic.
- (96) In view of the above, the Commission comes to the conclusion that the argument of concomitance raised by the Latvian authorities does not stand. For this reason, the Commission concludes that measures 1, 2, 3 and 6 cannot be considered as constituting a single transaction decided on 3 October 2011 and will therefore assess them separately.

7.2.2. The first State loan (measure 1)

- (97) The Commission notes that the first State loan was provided directly by Latvia through the State Treasury upon request of the Ministry of Transport. This is expressly stated in the Agreement. It is therefore clear that measure 1 entails State resources and that it is imputable to the State. Latvia does not contest this point.

- (98) In order to assess whether measure 1 entailed an undue selective advantage to airBaltic, the Commission first observes that the first State loan and the BAS loan were agreed on 3 October 2011, i.e. the date of signature of the Agreement. At that moment in time, Latvia and BAS were the major shareholders of the company and the loans were provided in proportion to their shareholding (52,6 % and 47,2 % respectively), and with identical and linked conditions.
- (99) As indicated in recital 45 above, the Commission had observed in the opening decision that BAS' decision to invest in airBaltic may have been influenced by the willingness of the public authorities to financially support the company. However, while it is true that the Latvian Government had expressed its interest in maintaining airBaltic as the national carrier, ⁽³⁰⁾ the Commission observes that the support of the Latvian State was under negotiation and was still undetermined and subject to conditions. On this basis, the Commission cannot exclude that the first State loan and the BAS loan were provided concomitantly, thereby excluding the presence of aid. As the General Court has clarified, *'simultaneity cannot in itself, even where significant private investments have been made, suffice for a finding that there has been no aid within the meaning of Article [107(1) TFEU] without taking into consideration the other relevant facts and points of law'* ⁽³¹⁾.
- (100) The Commission has therefore also assessed whether the agreed interest rate of [11 — 13] % for the first State loan (and the BAS loan) can be considered to be at market level.
- (101) During the course of the formal investigation procedure, Latvia submitted evidence regarding the value of the collateral (trademarks and receivables) which was assessed by the independent auditor [...] as part of an audit of the company initiated in the summer of 2011. As the receivables (as of 30 September 2011) were part of the relevant financial information, they were also subject to evaluation by [...]. As regards the trademarks, their value was based on the price at which airBaltic had bought back the trademarks from BAS. In order to determine the liquidation value of the collateral, Latvia applied a [...] % discount rate in accordance with the Latvian Treasury's internal collateral valuation methodology, which the Commission considers to be adequate in view of the nature of the collateral. On this basis, the liquidation value of the collateral was LVL [15 — 25] million (EUR [21,3 — 35,5] million) which was [15 — 25] % higher than the amount of the first State loan.
- (102) In addition, the Commission observes that in view of the significant collateral on the first State loan, applying an interest rate of [11 — 13] % would be in line with the Reference Rate Communication. ⁽³²⁾ The assertion that an interest rate of [11 — 13] % was market confirm is moreover reinforced by the fact that BAS (a private investor) had waived its right to have the BAS loan collateralised (see recital 26 above): the BAS loan was therefore more risky than the State loan but was granted at the same interest rate.
- (103) Bearing in mind the level of collateralisation and the interest rate applied, the Commission concludes that measure 1 did not entail a selective advantage to airBaltic and that the presence of state aid can be excluded, without it being necessary to assess further whether the rest of the cumulative conditions of Article 107(1) TFEU would be met ⁽³³⁾.

The reduction of the interest rate of the first State loan from [11 — 13] % to [2 — 4] %

- (104) On 13 December 2011, i.e. once Latvia's shareholding in airBaltic had increased to 99,8 % (see paragraph (21) above), the Latvian Government decided to authorise a cut in the interest rate on the first State loan — and thus also of the BAS loan — of [9 — 11] percentage points corresponding to the risk premium, from [11 — 13] % to [2 — 4] %.

⁽³⁰⁾ See for instance the press release of the Cabinet of Minister of Latvia of 7 September 2011 (<http://www.mk.gov.lv/en/aktuali/zinas/2011/09/070911-cm-01/>), where the Prime Minister at the time is reported as having stated that 'it is essential to maintain airBaltic as the national air operator which creates substantial advantages for Latvia in the area of logistics, tourist attraction and as a significant employer, however, emphasizes the need to choose the solutions which are most favorable to the public interest'.

⁽³¹⁾ Case T-565/08 *Corsica Ferries v Commission*, judgment of 11 September 2012, not yet reported, at para 122.

⁽³²⁾ See footnote 24. The base rate for Latvia on 3 October 2011 was 2,2 %. To this figure a margin of 400 basis points should be added, considering the difficulties of airBaltic at the time and the significant level of collateralisation of the loan, resulting in a rate of 6,2 %.

⁽³³⁾ The Commission nonetheless observes that the first State loan was capitalised on 29 December 2011 as part of measure 3. The assessment of measure 3 is presented in section 7.2.4 below.

- (105) Latvia considers that the reduction of the interest rate was justified because the loan was risk-free, given that the liquidation value of the collateral was estimated to be LVL [15 — 25] million (EUR [21,3 — 35,5] million), i.e. [15 — 25] % higher than the amount of the first State loan (see recital 101 above).
- (106) The Commission is not convinced by the arguments of Latvia when it claims that by lowering the interest rate, the State reduced the funding costs of airBaltic (since the interest rate of the BAS loan was also reduced), which at the time was almost exclusively owned by the State at 99,8 %. This was — according to Latvia — a rational decision for the State since the foregone revenues for the State in the form of interest were compensated by the advantage that the State, as a majority shareholder of airBaltic, derived from the company having to pay lower interest.
- (107) On the other hand, the Commission recalls that at the time the first State loan and the BAS loan were granted, the Agreement stipulated that the conditions of both were identical and linked, and therefore any change in one of the loans would result in an identical change on the other loan. The reduction of the interest rate is therefore mirrored for both loans and the very significant level of collateralisation of the loan and the fact that the BAS loan was not collateralised remain unchanged. Since BAS had agreed up front to link the conditions of the BAS loan to those of the first State loan, the Commission has no reasons to consider that this would not be a market-conform decision.
- (108) On this basis, the Commission concludes that even taking into account the reduction of the interest rate, measure 1 did not entail a selective advantage to airBaltic and the presence of state aid can be excluded.

7.2.3. The second State loan (measure 2)

- (109) The second State loan was provided directly by Latvia through the State Treasury, by means of a decision of the Latvian Government of 13 December 2011 authorising the Ministry of Finance to provide in the State budget for a convertible loan to airBaltic of LVL 67 million (EUR 94,86 million). Therefore, measure 2 entails State resources and is imputable to the State.
- (110) The Commission observes that at the time when the second State loan was provided, i.e. 13 December 2011, BAS had lost its entire shareholding in airBaltic, with the exception of one share, and the State now owned 99,8 % of the company. Therefore, the State and BAS were no longer in a comparable position as shareholders.
- (111) Latvia argues that pursuant to Article 7.2 of the Agreement, which states that Latvia would provide a loan to airBaltic ‘*in proportion to its shareholding*’, BAS was obliged to provide funds to airBaltic in an amount corresponding to its number of shares. This was to be done by BAS at the time of the capital injection of December 2011 in the form of cash. The Commission notes, however, that on 13 December 2011 BAS only had one share in airBaltic. It follows that the State should have adopted the position of a prudent market economy investor and assessed whether, given the change in circumstances concerning the shareholdings, BAS had any incentive to inject cash into the company at the time of the capital increase. In fact, the State had foreseen this possibility and included in the Agreement several contingency measures — in particular in Article 7.4 — in case BAS failed to fulfil its commitments. Moreover, as Latvia acknowledges, the second tranche of the second State loan was to be released in the event that BAS failed to provide additional funds.
- (112) Article 7.4 of the Agreement gave the State the right to purchase from BAS all its shares in airBaltic for LVL 1. At the time the Agreement was signed, this meant a guarantee for the State that BAS would fulfil its commitments or else would lose all its shares in airBaltic. However, the situation changed radically on 30 November 2011, when Latvijas Krājbanka sold all except one of the airBaltic shares owned by BAS to the Latvian State (see recital 21 above). In this new context, Article 7.4 was deprived of its meaning. Indeed, with only one share, BAS had little incentive to fulfil its obligations: the consequence of not doing so would simply mean losing its only share in airBaltic. A prudent market operator would have carefully considered providing additional funds to airBaltic under those new circumstances and, at the very least, would have asked the other party (i.e. BAS) for

assurance that it would indeed commit funds to the company. The Commission notes in addition that it seems unlikely that such assurance would have been given since BAS would have needed to inject a very high amount of money — much more than it could have originally estimated — in order to regain its former shareholding of 47,2 % or any other meaningful level of shares in airBaltic.

- (113) Latvia also indicates that the second State loan was granted at market terms, thereby excluding any undue advantage to airBaltic.
- (114) As regards the collateral, Latvia noted that the second State loan had the same collateral as the first State loan, i.e. receivables and the trademarks of airBaltic. As explained in paragraph (101) above, the liquidation value of the collateral was estimated at LVL [15 — 25] million (EUR [21,3 — 35,5] million). It thus appears that the level of collateralisation available for the second State loan would be low. Moreover, there is no reason to suppose that a private market operator would accept that security already in place on the first State loan would be reduced below at least 100 %.
- (115) In order to ascertain the market conformity of the rate applied to the first tranche of the second State loan, the Commission will use as the best available proxy the rate resulting from the application of the Reference Rate Communication. The base rate for Latvia on 13 December 2011 was 2,2 %. To this figure, a margin should be added depending on the rating of the beneficiary and the collateralisation of the loan. As indicated in the preceding paragraph, the level of collateralisation is low. Given the difficulties of airBaltic at the time, it follows from the Reference Rate Communication that a margin of 1 000 basis points should be added to the base rate, resulting in a rate of 12,2 %. It therefore appears that the interest rate of [9 — 11] % on the first tranche of the second State loan cannot be considered to be market conform.
- (116) The second tranche of the second State loan was made available to the company on 14 December 2012 at an interest rate of [6 — 8] %. Latvia argues that this interest rate is above the one resulting from the Reference Rate Communication and is therefore MEIP-conform.
- (117) According to the Reference Rate Communication, the applicable base rate for Latvia on 14 December 2012 was 1,91 %. The margin to be added to that base rate depends on the rating of the beneficiary and the level of collateralisation. As explained in section 7.1 above, the Commission is of the view that airBaltic was a firm in difficulty since at least 2011. In addition, the second tranche had as collateral the receivables and the trademarks of airBaltic. The arguments about the insufficiency of the collateral would apply *mutatis mutandis*, and thus a margin of 1 000 basis points should be added. The resulting reference rate would therefore be 11,91 %, well above the [6 — 8] % actually applied.
- (118) Bearing all of the above in mind, the Commission considers that a prudent market economy operator would not have provided the second State loan to airBaltic.
- (119) On this basis, the Commission concludes that measure 2 conferred an undue advantage on airBaltic. This advantage was selective in nature given that its sole beneficiary was airBaltic.
- (120) The Commission must also consider whether measure 2 was likely to distort competition and affect trade between Member States, by providing airBaltic with an advantage over competitors not receiving public support. It seems clear that measure 2 was able to affect intra-EU trade and competition as airBaltic competes with other EU airlines, in particular since the entry into force of the third stage of liberalisation of air transport ('third package') on 1 January 1993. In addition, for travel of relatively shorter distances within the EU, air travel is in competition with road and rail transport, and therefore road and rail carriers might also be affected.
- (121) Measure 2 thus enabled airBaltic to continue operating so that it did not have to face the consequences normally deriving from its difficult financial situation. Based on the considerations set out above, the Commission comes to the conclusion that measure 2 involved state aid for the benefit of airBaltic within the meaning of Article 107(1) TFEU.

7.2.4. The capital increase agreed on 22 December 2011 (measure 3)

- (122) As indicated above, the first State loan and the first tranche of the second State loan entail State resources and are imputable to the State. Their conversion into capital was decided by the Ministry of Transport of Latvia, i.e. 99,8 % shareholder in airBaltic since 30 November 2011. Therefore, measure 3 also entails State resources and is imputable to the State.
- (123) The Commission does not share the views of the Latvian authorities that measure 3 does not entail aid. In the first place, the Commission reiterates that the conclusions reached in section 7.2.1 above are applicable to measure 3. In addition, the Commission considers that measure 3 was granted not on 22 December 2011 (i.e. the date of the shareholders' meeting of airBaltic) but on 29 December 2011, date on which the State converted its loans. Indeed, according to the information provided by the Latvian authorities during the formal investigation procedure, according to the applicable rules BAS and the State had until 30 January 2012 to formalise the conversion decided at airBaltic's shareholders meeting.
- (124) The Commission also notes that on 29 December 2011, Latvia could have had reasonable doubts as to the willingness of BAS to fulfil its commitments. Indeed, BAS had already given indications that it would not convert its loan: Latvia itself admits that the second tranche of the second State loan, decided on 13 December 2011, was foreseen precisely to account for the eventuality that BAS would not fulfil its commitments. Moreover, since 30 November 2011 the State and BAS were no longer in a comparable position as shareholders since BAS had lost its entire shareholding in airBaltic with the exception of one share and the State owned 99,8 % of the company.
- (125) In view of those developments, the State, before actually converting the State loans, should have inferred — or at least had reasons to suspect — from BAS' actions that it did not intend to fulfil its obligations (see recital 35 above). Moreover, since BAS had lost all its shares in airBaltic except one, the remedy provided for in Article 7.4 of the Agreement — i.e. the right for the State to purchase from BAS all its shares in airBaltic for LVL 1 — had been deprived of meaning: the State had lost the means by which it could have forced BAS to abide by what it had agreed to.
- (126) Bearing the elements indicated above in mind, the Commission comes to the conclusion that a prudent market economy operator would not have converted its loans into capital before being sure that the other party would convert its loan and inject the cash, and in that context would have carefully assessed the incentives of the other party to fulfil its commitments.
- (127) Moreover, the Commission observes that, even if it had respected the agreement reached at the shareholders meeting, BAS would not have regained its former shareholding in airBaltic. In order to reach a 47,2 % stake, BAS would have had to invest much more than the amounts agreed to at that meeting. Therefore, the Commission is of the view that the State, had it acted in accordance with the MEIP, should have carefully considered whether BAS would invest significant amounts of money — the BAS loan and cash amounting to LVL 37,7 million (EUR 53,38 million) — in order to get a minority shareholding in airBaltic.
- (128) As an additional argument, Latvia explains that BAS' obligation to inject the cash and convert the BAS loan was confirmed by the existence of a guarantee by a Russian entrepreneur, Mr Vladimir Antonov, who agreed to make the necessary payments on behalf of BAS. ⁽³⁴⁾ However, it appears from the information available to the Commission that the guarantee was never in fact provided.
- (129) Latvia also indicates that the preconditions for the capitalisation of the State loans required by Article 7.2 of the Agreement were met on 13 December 2011, when it was presented with a business plan showing a return to profitability of airBaltic in 2015 and suggests that the decision to convert the State loans into capital was therefore MEIP-conform. The Commission however remains unconvinced of Latvia's arguments, since the plan was not complete and would not have been relied upon by a rational private operator in order to inject significant amounts of capital into a firm in difficulty.

⁽³⁴⁾ The guarantee letter, dated 3 October 2011, states that the guarantee is void if the State 'has used its rights according to [...] Clause 7.4 [of the Agreement] and the State has become no less than 99,78 % shareholder of voting shares of [airBaltic]'. Indeed, Latvia became 99,8 % shareholder of airBaltic on 30 November 2011.

- (130) On the basis of the above, the Commission concludes that Latvia did not act on *pari passu* terms when converting its loans and therefore increasing airBaltic's capital. The State's behaviour was moreover not in line with the MEIP test. Therefore, airBaltic received an undue advantage resulting from measure 3, which is selective as the company was the sole beneficiary.
- (131) The Commission must also consider whether measure 3 was likely to distort competition and affect trade between Member States, by providing airBaltic with an advantage over competitors not receiving public support. The conclusions reached in recital 120 above apply *mutatis mutandis*.
- (132) The Commission thus concludes that the conversion into capital of the first State loan and the first tranche of the second State loan entailed State aid to airBaltic within the meaning of Article 107(1) TFEU.

7.2.5. The 0 %-coupon bonds (measure 4)

- (133) As already indicated in the opening decision, it follows from the 30 April 2010 agreement formalising the purchase of the 0 %-coupon bonds that the purchaser LVRTC (see recital 38 above) acted on behalf of the Latvian State. In addition, Latvia has argued that bonds were purchased by the LVRTC for budgetary reasons. It is therefore clear that measure 4 entails State resources and that it is imputable to the State, points which furthermore Latvia does not contest.
- (134) In the course of the formal investigation procedure Latvia provided evidence demonstrating that both the State and BAS acquired the bonds in proportion to their shareholding in airBaltic and on the same conditions. In addition, it appears that the State did not provide funding to airBaltic before April 2010, while BAS had actually invested significant amounts in the company before that date. Finally, it emerged from the investigation that the bond issuance agreement was adopted at the initiative of BAS and airBaltic's management, which had already suggested to the State in April and June 2009 a capital increase in the company in proportion to their shareholdings.
- (135) As highlighted in the opening decision, the Commission is of the opinion that the purchase of 0 %-coupon bonds was not a typical investment by a prudent market operator. However, the Commission notes that Latvia and BAS were at the time major shareholders of airBaltic and their investment decision should be assessed from this perspective and not from that of a purely external investor. Indeed, it appears rational to conclude that the owners of airBaltic were not looking for short-term profit at the time but were interested in keeping the company afloat.
- (136) On the basis of the above, the Commission comes to the conclusion that Latvia acted as a prudent market operator when purchasing 0 %-coupon bonds together with the private investor BAS. The Commission therefore excludes the presence of an undue advantage in relation to measure 4, and assessment of the other cumulative conditions laid down in Article 107(1) TFEU concerning the presence of state aid is superfluous.

7.2.6. The EUR 2,8 million payments by Latvijas Krājbanka (measure 5)

- (137) Measure 5 relates to the payment of EUR 2,8 million by Latvijas Krājbanka to airBaltic on 21 and 22 November 2011. As explained in recital 39 above, airBaltic submitted three payment orders to Latvijas Krājbanka prior to the decisions of the FCMC of 17 November 2011 to limit banking operations above EUR 100,000 and of 21 November 2011 to halt all operations of Latvijas Krājbanka. Latvia considers that no State resources were involved given that the operations concerned three payment orders of airBaltic to IATA Clearing House, Riga International Airport and an alternative bank account of airBaltic in a different bank (see recital 39 above). These were, according to Latvia, mere common banking operations concerning private funds of airBaltic. Latvia also argues that the decisions of the FCMC were not imputable to the State.
- (138) Latvia has explained that the transfer of funds had their origin in payment orders submitted by airBaltic before the FCMC ordered the suspension of the activities of Latvijas Krājbanka on 21 November 2011. Latvijas Krājbanka executed the transactions on 25 and 30 November 2011.

- (139) Moreover, pursuant to the Law on the FCMC of 1 June 2000, the FCMC takes its decisions without having to take account of any requirement or instruction of any other public authority. In addition, the funding of the FCMC is not dependent upon the State, as the FCMC's activities are financed through payments by parties active on the Latvian financial and capital markets. It also appears from the applicable laws that the State is not involved in the execution of the enforcement powers and rights of the FCMC relating to its supervision of credit institutions.
- (140) On the basis of the evidence before it, the Commission is of the view that the trustees appointed by the FCMC acted independently of the State, which would exclude imputability of their actions to Latvia.
- (141) On the basis of the above, the Commission concludes that measure 5 did not entail state aid within the meaning of Article 107(1) TFEU.

7.2.7. The EUR 5 million claim from Taurus attributed to airBaltic (measure 6)

- (142) The follow-up complaint received on 18 July 2012 refers to the obligation of the investors under Article 7.4 of the Agreement to hand over to the State or its nominated company — under certain circumstances — the outstanding claims stemming from syndicated loan 2 in exchange for LVL 1 (see recital 42 above).
- (143) In accordance with Article 7.4 of the Agreement, Taurus assigned to Latvia a EUR 5 million claim it had against airBaltic for LVL 1. Subsequently, Latvia assigned the claim to airBaltic.
- (144) In relation to the remaining claims, amounting to EUR 30 million (EUR 42,47 million), which were supposed to be novated within the framework of syndicated loan 2, the Latvian authorities requested the investors by letter of 9 February 2012 to assign to it their respective claims in exchange for 1 LVL each. Furthermore, Latvia brought an action before the Riga Regional Court in relation to three of the investors in order to enforce Article 7.4 of the Agreement. Latvia has indicated its intention to also attribute these claims to airBaltic.
- (145) Latvia argues that the assignment of the EUR 5 million claim to airBaltic was a contingency measure aimed at protecting the State's financial interests and should be seen as a *pari passu* measure under the Agreement, and thus exclude State aid.
- (146) The Commission notes that it follows clearly from Article 7.4 of the Agreement that the relevant claims were to be assigned or handed over '*to the State or its nominated company for the sum of LVL 1*'. Therefore, since the decision to attribute the EUR 5 million claim to airBaltic was taken by the State, this decision is imputable to it and entails State resources.
- (147) It emerged during the course of the formal investigation procedure that the agreements for the syndicated loans were never signed. However, it appears from the evidence submitted by Latvia that the courts recognised the validity of the Agreement as regards the obligation of the private investors to assign to the State or its nominated company the claims resulting from syndicated loan 2.
- (148) In this respect, Latvia indicates that, according to several judgments of the Latvian courts, the owner of the EUR 5 million claim is not entitled to request repayment of this amount but only to claim shares in airBaltic reflecting a EUR 5 million advance payment into the share capital of the company. Since the State already owned 99,8 % of the shares of airBaltic, Latvia argues that the entitlement to additional shares does not represent any meaningful economic value for the State.
- (149) The Commission notes that contrary to what Latvia suggests, while the courts may have recognised the right of the State to take over the claims resulting from syndicated loan 2 in line with Article 7.4 of the Agreement, this does not mean that Latvia was obliged to attribute this claim to airBaltic. The Commission notes that a prudent market economy operator would have not assigned the claim to airBaltic for LVL 1. Latvia has not provided evidence as to why the State was better off granting the claim to airBaltic than keeping it or using it for some other purpose. As a result of the assignment, Latvia placed the company in a more favourable position than its competitors.

- (150) Furthermore, the Commission does not agree with the arguments of the Latvian authorities and highlights that any additional share in airBaltic would have an additional value to the State, even if small, such that the presence of aid cannot be excluded. ⁽³⁵⁾ In addition, by granting the claim to airBaltic, the State gave up not only to the claim but also any right to interest at a rate of [5 — 7] % thereon.
- (151) Finally, Latvia argues that measure 6 should be considered as having been granted, for State aid law purposes, on 3 October 2011, i.e. at the date of signature of the Agreement, together with measures 1, 2 and 3.
- (152) The Commission reiterates the conclusions reached in section 7.2.1 above, that is, when the Agreement was entered into on 3 October 2011, the State did not know whether it would need to make use of Article 7.4 of the Agreement. In addition, the State was not obliged to assign to airBaltic the claims affected by the application of that provision.
- (153) Finally, the Commission observes that Latvia has not substantiated its claim that the purpose of Article 7.4 of the Agreement was to safeguard the State's investment in airBaltic by preventing any harm to the State in case of default of BAS.
- (154) The Commission thus concludes that by providing measure 6, the State did not act as a market economy investor, nor was the operation *pari passu* with measures 1, 2 and 3. Therefore, the Commission is of the opinion that measure 6 conferred an undue advantage on airBaltic. This advantage was selective in nature given that its sole beneficiary was airBaltic.
- (155) For the reasons set out in recital 120 above, measure 6 was likely to distort competition and affect trade between Member States.
- (156) On account of the arguments above, the Commission comes to the conclusion that measure 6 involved state aid for the benefit of airBaltic within the meaning of Article 107(1) TFEU.

7.2.8. Conclusion on the existence of aid

- (157) The Commission concludes that measures 1, 4 and 5 did not entail state aid for the reasons set out above.
- (158) However, the Commission considers that measures 2, 3 and 6 constituted state aid to airBaltic. In order to determine the amount of aid already disbursed to airBaltic, the Commission observes that measure 3 consisted of the capitalisation of the first State loan of LVL 16 million (EUR 22,65 million) and the first tranche of the second State loan of LVL 41,6 million (EUR 58,89 million). The second tranche of the second State loan of LVL 25,4 million (EUR 35,96 million) made available to airBaltic on 14 December 2012 — i.e. the remaining part of measure 2 which had not been capitalised — should be added to that amount, together with the EUR 5 million attributed to airBaltic as measure 6. The overall total amount of State aid granted to airBaltic is therefore approximately LVL 86,53 million (EUR 122,51 million).

7.3. LEGALITY OF THE AID

- (159) Article 108(3) TFEU states that a Member State shall not put an aid measure into effect before the Commission has adopted a decision authorising this measure.
- (160) The Commission observes that Latvia granted measures 2, 3 and 6 to airBaltic without notifying them to the Commission for approval. The Commission regrets that Latvia did not comply with the stand-still obligation and therefore violated its obligation according to Article 108(3) TFEU.
- (161) As regards the intention of the Latvian authorities to grant to airBaltic EUR 30 million resulting from syndicated loan 2 and linked to measure 6, the Commission recalls the obligation of the Latvian authorities under Article 108(3) TFEU to inform the Commission, in sufficient time to enable it to submit its comments, of any plans to grant aid.

⁽³⁵⁾ Case C-280/00, *Altmark Trans GmbH and Regierungspräsidium Magdeburg v Nahverkehrsgesellschaft Altmark GmbH (Altmark)*, [2003] ECR I-7747, para 81.

7.4. COMPATIBILITY OF THE AID

- (162) Insofar as measures 2, 3 and 6 constitute state aid within the meaning of Article 107(1) TFEU, their compatibility must be assessed in the light of the exceptions laid down in paragraphs 2 and 3 of that Article. As indicated in the opening decision, in view of the nature of the measures and of the difficulties of airBaltic, the only relevant compatibility criteria appear to be those concerning aid for rescuing and restructuring firms in difficulty under Article 107(3)(c) TFEU on the basis of the R&R Guidelines, and in particular the provisions regarding restructuring aid.
- (163) The Latvian authorities were initially of the view that none of the measures entailed state aid. However, on the basis of the doubts raised by the Commission in its opening decision, Latvia provided compatibility arguments and argued that the measures constitute compatible restructuring aid.
- (164) In particular, Latvia provided an updated restructuring plan in December 2013, complemented by submissions of 28 January, 28 February and 24 March 2014. Latvia notes that the restructuring of airBaltic started on 18 April 2011, when a first plan was submitted to the company's management. This first plan, which was submitted to the Commission, identified some of the weaknesses of airBaltic and established that approximately EUR [175 — 185] million in share capital was needed to allow the company to renew its fleet and allow it to compete effectively with low-cost carriers. Latvia argues that as of April 2011, several actions were taken, including the closure of airBaltic's hub in Vilnius and the cancellation of routes, thereby starting airBaltic's restructuring process. In order to guarantee airBaltic's return to profitability, a comprehensive set of initiatives covering revenues, operations, network, fleet and overall organisation were developed at the later stage (the reShape plan).
- (165) This first plan was developed in 2011, and included the principal financial aspects of the restructuring. According to Latvia, this led to entering the Agreement and eventually resulted in the reShape plan of March 2012.
- (166) The arguments of Latvia will be assessed in the following sections.

7.4.1. Eligibility

- (167) According to point 33 of the R&R Guidelines, only firms in difficulty within the meaning of points 9 to 13 of the R&R Guidelines are eligible to receive restructuring aid. The Commission has already concluded that airBaltic was a firm in difficulty from at least 2011 (see recital 87 above).
- (168) Point 12 of the R&R Guidelines states that a newly created firm is not eligible for rescue or restructuring aid even if its initial financial position is unsecure. A firm is in principle considered as newly created for the first three years following the start of operations in the relevant field of activity. airBaltic was established in 1995 and cannot be regarded as a newly created firm. Also, airBaltic does not belong to a business group within the meaning of point 13 of the R&R Guidelines.
- (169) The Commission therefore concludes that airBaltic is eligible for restructuring aid.

7.4.2. The validity of the restructuring plan

- (170) The Commission notes that the restructuring of airBaltic started in April 2011, when the company's management prepared a first restructuring plan. This plan mainly focused on fleet optimisation and the need to replace the company's aircraft by more efficient planes, which is also a cornerstone of the later ReShape plan. At the same time, the Vilnius hub was closed. Several weeks later, upon review by [...], the management of airBaltic included in the plan a headcount reduction of [8 — 12] %.
- (171) The 2011 plan was updated in the form of the reShape plan, referred to above and formally adopted during the first quarter of 2012. As noted in recital 164 above, the Latvian authorities submitted a restructuring plan to the Commission in December 2013, updating the reShape plan.

- (172) The Commission notes that the April 2011 restructuring plan set out the main needs of airBaltic. Although it was not fully developed, that plan constituted a first basis for determining the restructuring needs of airBaltic and ensuring that it would return to viability. It moreover constituted the basis for the reShape plan, which was under preparation at the time the Agreement was signed (i.e. 3 October 2011) and was finalised in March 2012.
- (173) In its past practice, the Commission has accepted that restructuring plans are defined over time and considered the initial plans as the starting point of the restructuring period. For instance, in the *Varvaressos* decision ⁽³⁶⁾ the Commission considered that the measures granted to this firm between 2006 and 2009 were to be assessed as part of a restructuring continuum on the basis of a restructuring plan dated 2009 (covering the period 2006-2011). Similar to the airBaltic case, the 2009 restructuring plan of Varvaressos was the evolution of a '*strategic and business plan*' dating from 2006.

7.4.3. Restoration of long-term viability

- (174) According to point 34 of the R&R Guidelines, the grant of restructuring aid must be conditional on implementation of a restructuring plan which must be endorsed by the Commission in all cases of individual aid. Point 35 explains that the restructuring plan, the duration of which must be as short as possible, must restore the long-term viability of the firm within a reasonable timescale and on the basis of realistic assumptions as to future operating conditions.
- (175) Pursuant to point 36, the plan must describe the circumstances that led to the company's difficulties and take account of the present state and future market prospects with best-case, worst-case and base-case scenarios.
- (176) The plan must provide for a turnaround that will enable the company, after completing its restructuring, to cover all its costs including depreciation and financial charges. The expected return on capital must be high enough to enable the restructured firm to compete in the marketplace on its own merits (point (37)).
- (177) The Commission observes that the restructuring plan describes the circumstances that led to airBaltic's difficulties, which were mainly caused by the global economic crisis of 2008-2009, which had a significant impact in the Baltic region, affecting also the airline sector.
- (178) In addition, the restructuring plan explains that the commercial strategy pursued in the past as well as a number of decisions by airBaltic's former management contributed further to the company's difficulties. In particular, as regards the commercial strategy of airBaltic, the restructuring plan highlights that in the past it had focused solely on expansion and not on profitability, thereby exposing the company to unsustainably high expenditure. The costs were moreover very much increased by reason of the fleet, which included four different types of aircraft, as well as the high costs of aircraft leasing. Routes were opened without adequately assessment of their profitability, and many of them were loss-making.
- (179) The restructuring plan covers a 5-year restructuring period starting in April 2011 and assumes a return of airBaltic to long-term viability by April 2016 at the latest, although according to the base-case scenario, airBaltic is expected to return to profitability in 2014. The duration of the restructuring is thus of a maximum of 5 years, in line with previous case practice in the passenger air transport sector ⁽³⁷⁾. Indeed, the Commission has consistently been of the view that, in the current economic circumstances, it is important to avoid a mere short-term turnaround and instead create a solid base for future growth. In that context, the necessary stabilisation of operational and services performance will take several years.

⁽³⁶⁾ Commission Decision 2011/414/EU of 14 December 2010 on the State aid C 8/10 (ex N 21/09 and NN 15/10) implemented by Greece in favour of Varvaressos S.A. (OJ L 184, 14.7.2011, p. 9).

⁽³⁷⁾ See Commission decision in case SA.30908 — CSA — *Czech Airlines — Restructuring plan*, at para. 107 and Commission decision in case SA.33015 — *Air Malta plc.* at para. 93. See as well Commission Decision 2010/137/EC of 28 August 2009 on State aid C 6/09 (ex N 663/08) — *Austrian Airlines — Restructuring Plan* (OJ L 59, 9.3.2010, p. 1) at para. 296 and Commission Decision 2012/542/EU of 21 March 2012 on the measure SA.31479 (2011/C) (ex 2011/N) which the United Kingdom plans to implement for Royal Mail Group (OJ L 279, 12.10.2012, p. 40), at para. 217.

- (180) The restructuring plan emphasises the change in the commercial strategy of airBaltic, which aims at becoming a hybrid airline, targeting higher yield customers through most of the services traditionally offered by network carriers while seeking cost efficiencies typically developed by low-cost carriers. This strategy has already been implemented to a very significant extent by the new management of the company since October 2011. In addition, the restructuring plan envisages three main types of restructuring measures: (i) optimisation of revenues and costs for existing operations; (ii) network reconfiguration, resulting in adjustment of destinations, frequencies and timing in order to optimise RASK and CASK ⁽³⁸⁾ at route level; and (iii) network and fleet optimisation, with the objective to review and define the optimal network and fleet size. In total, 13 initiatives addressing revenues and 13 initiatives addressing costs were developed, while two additional initiatives were developed in the area of network reconfiguration and fleet renewal.
- (181) Concerning fleet optimisation, the Commission observes that the diverse and ageing fleet of airBaltic is less fuel efficient and more maintenance intensive than that of competitors, which translates into increasing costs. During 2012 and 2013, airBaltic decided to operate only part of its available aircraft in order to decrease costs. In 2013, in order to partly compensate the loss in capacity resulting from the removal of the Fokker and Boeing 757 fleets, airBaltic added two Q400 Bombardier planes to its fleet. Moreover, with a view to replacing the fleet, the current leasing contracts have been renegotiated at more favourable terms until the new Bombardier CS300 becomes available in [...] or [...]. By the end of 2014, airBaltic will operate 25 aircraft and it will continue at this level until the end of the restructuring period in 2016. In overall terms, there will be a 27 % reduction of the aircraft fleet during the restructuring period.
- (182) As regards the network reconfiguration, the Commission observes that in 2013 the new network delivered an extra LVL [16 — 21] million (EUR [22,7 — 29,8] million) at C1 level ⁽³⁹⁾ compared to the previous year, inter alia, due to the cancellation of unprofitable routes (e.g. [...]) and reduction in frequencies ([...] on [...], [...] and [...]).
- (183) The revenue initiatives include the introduction of new fare structures or the optimisation of the baggage fee structure. In addition, online check-in will be promoted, while the cabin crew and the sales force will operate on flexible remuneration. As regards the costs initiatives, they include the renegotiation of fuel prices with current suppliers and of the contracts for engine checks and overhauls, leasing optimisation, and reduction of hangar costs and costs relating to crew hotel stays. Also the current agreements with ground-handling providers will be renegotiated.
- (184) Most of the restructuring measures described in the preceding paragraphs have already been implemented. As a result of the revenue optimisation initiatives and the initiatives to reduce costs, as well as the fleet renewal and the network reconfiguration, airBaltic finished 2012 with a negative EBIT of LVL 30 million (EUR 42,47 million) as opposed to a budgeted negative EBIT of LVL 38 million (EUR 53,8 million). In 2013, the negative EBIT was reduced to LVL 7,7 million (EUR 10,9 million), also above target. It is expected that the company will break-even in 2014 and will remain profitable thereafter, with EBIT reaching LVL [1 — 3] million (EUR [1,4 — 4,2] million) in 2014 and LVL [9 — 12] million (EUR [12,8 — 17] million) in 2016. The return on equity (ROE) is expected to reach [3 — 6] % by 2014 and [18 — 21] % by 2016.
- (185) The restructuring plan includes revised financial forecasts on the basis of realistic, pessimistic and optimistic scenarios based on reliable assumptions. For instance, the realistic scenario assumes a market growth of [6 — 8] %, while it limits the growth of airBaltic to [1 — 3] % in 2014 and to [2 — 4] % in 2015 and 2016, with an inflation rate of [1 — 3] % per year and increasing fuel costs, passing from [950 — 1000] USD/t in 2014 to [1 000 — 1 050] USD/t in 2016. The load factor ranges from [69 — 71] % in 2014 to [71 — 75] % in 2016. In this scenario, the implementation of the initiatives will allow airBaltic to break even in 2014 (with EBIT of LVL [1 — 3] million (EUR [1,4 — 4,2] million)), while the company will remain profitable thereafter, with EBIT of LVL [6 — 9] million (EUR [8,5 — 12,8] million) in 2015 and of LVL [9 — 12] million in 2016 (EUR [12,8 — 17] million).

⁽³⁸⁾ Respectively revenue per available seat kilometre (RASK) and cost of available seat kilometre (CASK).

⁽³⁹⁾ See recital 194 below.

- (186) In all scenarios, airBaltic's EBIT would be positive by 2016, ranging from LV [10 — 15] million (EUR [14,2 — 21,3] million) in the optimistic scenario to LVL [5 — 10] million (EUR [7,1 -14,2] million) in the pessimistic one. The scenarios are also subject to a sensitivity analysis in order to assess the risks and their possible impact by 2016, in particular considering currency risks (appreciation/depreciation of USD against LVL and EUR) and changes to the load factors, fuel market price, yield and number of passengers.
- (187) The Commission has assessed the restructuring plan and is of the view that it should enable airBaltic to achieve the expected return to long-term viability by April 2016 at the latest. The restructuring plan includes a detailed assessment of the circumstances leading to the difficulties of airBaltic, which are duly addressed as a result of the restructuring measures in the form of revenue and costs initiatives as well as initiatives in the area of network reconfiguration and fleet renewal.
- (188) In addition, the Commission considers that the restructuring plan submitted by Latvia duly quantifies the impact of the different restructuring measures, that the assumptions are adequate and appropriate to the context of the passenger air transport sector, and that viability is foreseen at adequate levels under all scenarios during the entire restructuring period. The sensitivity analysis is adequate and shows that the impact on EBIT of the factors taken into consideration would be limited.
- (189) Therefore, in view of the significant restructuring measures undertaken and the progress made to date, the Commission considers that the restructuring plan will enable airBaltic to restore its long-term viability within a reasonable timescale.
- (190) In addition, the evidence provided by Latvia shows that airBaltic is currently on track to meet most of the objectives fixed in the restructuring plan, which is an additional indicator of the reliability of the plan.

7.4.4. Avoidance of undue distortions of competition (compensatory measures)

- (191) According to point 38 of the R&R Guidelines, compensatory measures must be taken in order to ensure that the adverse effects on trading conditions are reduced to an acceptable level. These measures may comprise divestment of assets, reductions in capacity or market presence or reduction of entry barriers on the markets concerned (point (39)).
- (192) In this regard, closure of loss-making activities which would at any rate be necessary to restore viability will not be considered as a reduction of capacity or market presence for the purpose of the assessment of the compensatory measures (point (40)).
- (193) Latvia proposes as compensatory measures for airBaltic the cancellation of profitable routes, which leads to a reduction in capacity, and the surrender of slot pairs at coordinated airports.
- (194) In addition to the abandon of unprofitable routes as required for a return to viability, the restructuring plan provides for the surrender of 14 profitable routes⁽⁴⁰⁾ in terms of the C1 contribution margin. It is the Commission's practice, to consider routes as profitable if they had a positive C1 contribution margin in the year preceding their surrender⁽⁴¹⁾. The C1 contribution takes account of flight, passenger and distribution costs (i.e. variable costs) attributable to each individual route. The C1 contribution is the appropriate figure since it takes into account all costs which are directly linked to the route in question. Routes with a positive C1 contribution not only cover the variable costs of a route, but also contribute to the fixed costs of the company.
- (195) As regards capacity, the restructuring plan therefore provides that the total capacity of the company was [5 — 5,5] billion ASK in April 2011, while at the end of the restructuring period in April 2016, airBaltic's capacity is expected to be [4 — 4,5] billion ASK, i.e. an [17 — 20] % reduction. The Commission notes in this respect that mainly in the context of the return to long-term viability the fleet will be reduced from 34 aircraft in April 2011 to 25 aircraft by the end of 2014 and will remain at that level until the end of the restructuring period in April 2016 (see recital 181 above). When only profitable routes are considered, the capacity reduction is of [7 — 10] %.

⁽⁴⁰⁾ Namely the routes between [...]. The Commission understands that the closures of these routes are pure compensatory measures since nothing suggests that they were closed as a necessary consequence of the reduction of the fleet.

⁽⁴¹⁾ See Commission decision in case SA.30908 — CSA — Czech Airlines — Restructuring plan, at para.130 and 131.

- (196) In addition, the Commission observes that airBaltic has cancelled a number of routes operating from the fully coordinated ⁽⁴²⁾ airports of [...]. As a result, [...] slots pairs in fully coordinated airports have been released in 2011 and 2012, which creates new business opportunities for competing airlines to operate routes to and from these airports and to increase their presence in them.
- (197) When assessing whether the compensatory measures are appropriate, the Commission will take account of the market structure and the conditions of competition to ensure that any such measure does not lead to deterioration in the structure of the market (point 39 of the R&R Guidelines). The compensatory measures must be in proportion to the distortive effects of the aid and, in particular, to the size and the relative importance of the firm on its market or markets. The degree of reduction must be established on a case-by-case basis (point 40 of the R&R Guidelines).
- (198) The Commission observes that airBaltic is a very small player in the European aviation market, representing 0,5 % of the output of the entire European airline industry.
- (199) In addition, the Commission comes to the view that the [7 — 10] % capacity reduction of airBaltic is not insignificant considering the relatively small size of airBaltic compared to the European airline industry's productive capacity and output in terms of passengers. For a relatively small carrier like airBaltic, further fleet and capacity reductions could endanger its return to long-term viability without providing any meaningful market opportunities for competitors. Moreover, although airBaltic is the largest air carrier in Latvia, its market share in Riga will decrease from [65 — 70] % in 2011 to [55 — 60] % in 2016.
- (200) Furthermore, the Commission observes that Latvia is an assisted area for regional investment aid purposes under Article 107(3)(a) TFEU ⁽⁴³⁾. According to point 56 of the R&R Guidelines, *'the conditions for authorising aid [in assisted areas] may be less stringent as regards the implementation of compensatory measures and the size of the beneficiary's contribution. If needs of regional development justify it, in cases in which a reduction of capacity or market presence appear to be the most appropriate measure to avoid undue distortions of competition, the required reduction will be smaller in assisted areas than in non-assisted areas'*.
- (201) The Commission has also taken into account the particularities of the present case when assessing the appropriateness of the proposed compensatory measures, bearing in mind Latvia's peripheral geographical situation and its accessibility to the rest of the European Union. In this respect, the Commission notes that the large majority of Latvia's railway system uses Russian gauge which is wider than the Standard gauge used in most of the EU, thereby creating interoperability problems with neighbouring EU countries. Sea transport also appears to offer a limited degree of substitutability with air transport, in particular for passenger transport. Finally, the Commission observes that the closest international airports reachable by land transport are those of Vilnius and Tallinn, which are around 300 km away from Riga, thereby not constituting convenient alternatives hubs, in particular for business passengers.
- (202) Therefore, the Commission is of the view that the compensatory measures adopted by airBaltic, i.e. the [7 — 10] % capacity reduction and the surrender of slots in coordinated airports, are acceptable in the circumstances of the present case. The compensatory measures proposed by Latvia are therefore sufficient under the R&R Guidelines in order to ensure that the adverse effects on trading conditions resulting from the granting of restructuring aid to airBaltic are reduced to an acceptable level.

7.4.5. Aid limited to the minimum (own contribution)

- (203) According to point 43 of the R&R Guidelines, in order to limit the amount of aid to the strict minimum, a significant contribution to the restructuring costs from the beneficiary's own resources is necessary. This can include the sale of assets that are not essential to the firm's survival, or external financing at market conditions.

⁽⁴²⁾ Fully coordinated airports are defined in Article 2(g) of Council Regulation (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports (OJ L 14, 22.1.1993, p. 1). According to Article 3(4) of Regulation (EEC) No 95/93, these airports experience, at least during certain periods, capacity constraints.

⁽⁴³⁾ See Commission decision of 13 September 2006 in State aid case N 447/2006 — Latvia — Regional aid map 2007-2013.

- (204) The own contribution must be real, i.e. actual, excluding all future profits such as cash flow (point 43 of the R&R Guidelines). Inherently, the own contribution must not include any further state aid. For large firms, the Commission usually considers a contribution of at least 50 % of the restructuring costs to be appropriate. However, in exceptional circumstances and in cases of particular hardship, the Commission may accept a lower contribution (point 44 of the R&R Guidelines).
- (205) The restructuring plan estimates the restructuring costs at LVL [150 — 170] million (EUR [214 — 242] million), based on the funds required for repayment of third-party loans (LVL [5 — 15] million (EUR [7,1 — 21,3] million)), compensation of losses resulting from the phase-out and disposal of certain aircraft (LVL [15 — 25] million (EUR [21,3 — 35,5] million)), provision for bad debts that the company would not be able to recover (LVL [5 — 10] million (EUR [7,1 — 15,3] million)), redundancy payments (LVL [1 — 4] million (EUR [1,4 — 5,6] million)), the purchase of new aircraft, in particular [...] Bombardier Q400NG and [...] Boeing 737-500 (for a total of LVL [50 — 60] million (EUR [71,1 — 85,3] million)), the repurchase of trademarks from BAS (LVL [5 — 15] million (EUR [7,1 — 21,3] million)), unforeseen off balance sheet liabilities resulting from a claim from [...] (LVL [5 — 15] million (EUR [7,1 — 21,3] million)), and LVL [45 — 55] million (EUR [64 — 78,2] million) to buffer the expected losses until airBaltic returns to profitability.
- (206) In view of total restructuring costs of LVL [150 — 170] million (EUR [214 — 242] million), the proposed own contribution of airBaltic according to the restructuring plan amounts to LVL [100 — 110] million (EUR [141 — 155] million), i.e. [60 — 70] % of the total restructuring costs. The own contribution breaks down as follows:
- (i) Private financial injections of LVL [20 — 30] million (EUR [28,4 — 42,6] million) granted by BAS and the private investors THC and [...] in the period April-September 2011. This amount includes LVL [...] million (EUR [...] million) in the form of a liquidity facility granted by [...] in March and May 2011 for the purchase of spare parts from airBaltic; LVL [...] million (EUR [...] million) and LVL [...] million (EUR [...] million) of advance payments into the equity of airBaltic respectively made by [...] and [...]; and LVL [6 — 8] million (EUR [8,5 — 12,3] million) from Transatlantic Holdings deriving from a share purchase agreement.
 - (ii) Private loans of LVL [20 — 30] million (EUR [28,4 — 42,6] million) granted by BAS after the Agreement, namely the BAS loan (LVL 14 million (EUR 19,82 million)) and a vendor loan of LVL [5 — 15] million (EUR [7,1 — 21,3] million) for the repurchase of trademarks.
 - (iii) Lease agreements for new aircraft valued at LVL [45 — 55] million (EUR [64 — 78] million).
 - (iv) LVL [...] million (EUR [...] million) from a partial debt write-off resulting from the restructuring of the debt of airBaltic agreed with Latvijas Krājbanka and Snoras in March 2014.
- (207) Regarding the private financial injections mentioned in point (i) above, Latvia has demonstrated that BAS made advance payments into the equity of the company of LVL [7 — 9] million (EUR [10 — 13] million) between June and July 2011. The Commission is of the view that these payments constitute an own contribution within the meaning of point 43 of the R&R Guidelines, since BAS was a private market operator and the Commission has no reasons to consider that it was not acting in accordance with market logic. The same conclusion applies to the LVL [6 — 8] million (EUR [8,5 — 12,3] million) provided by Transatlantic Holdings in exchange for [...] outstanding unpaid shares in airBaltic, which took place in September 2011.
- (208) As regards point (ii) above, the Commission is of the view that the loan of LVL 14 million (EUR 19,82 million) granted by BAS, i.e. the BAS loan, constitutes external financing at market terms which can be accepted as own contribution from a private investor that was shareholder of the company at the time.
- (209) As regards the lease agreements for new aircraft in the amount of LVL [45 — 55] million (EUR [64 — 78] million) (point (iii) above), the restructuring plan explains that in March 2013 airBaltic concluded new lease agreements for aircraft with private counterparties as part of its fleet reduction and optimisation programme. The agreements relate to the net-lease of [...] Bombardier Dash 8 Q400NG aircraft for a period of 10 years for a total amount of approximately USD [...] million (EUR [...] million), i.e. a monthly rent of approximately USD [...] (EUR [...]).

- (210) According to the restructuring plan, the lease was granted at market conditions by [...]. The monthly rent is intended to cover the amortisation of the purchase price minus residual value at the end of year 10 of the relevant aircraft (plus a certain mark-up to cover [...] financing and operating costs as well as a profit margin), thereby effectively equalling the purchase price of the new aircraft.
- (211) The Commission notes that lease arrangements as such are a standard form of financing in the airline industry and may be equated to loans provided to a company undergoing restructuring. The fact that there is collateral covering a significant part of the loan does not preclude that the loan be considered as 'own contribution'. In addition, Latvia has confirmed that the lease arrangements are subject to standard collateralisation (i.e. the ability to seize the plane in case of a default and a cash security deposit). Therefore, the lessor runs a certain degree of creditor risk given that it would suffer considerable losses in the event of a default by airBaltic, i.e. the immediate loss of income from rent, which continues until the aircraft can be re-leased to a new customer, as well as the costs incurred to reconfigure the aircraft for the next operator. ⁽⁴⁴⁾
- (212) On the basis of the above, the Commission notes that the lease agreements show that airBaltic was able to obtain external financing at market conditions. Therefore, the lease agreements can be regarded as proof that the market believes in the long term viability of airBaltic, given that the agreements are only secured by the standard type of collateral and the financier still runs a certain degree of risk. This is in line with point 43 of the R&R Guidelines, which states that the own contribution should originate from external financing at market conditions and is a sign that the market believes in the feasibility of the envisaged return to viability. The Commission hence considers the LVL [45 — 55] million (EUR [64 — 78] million) leases as part of the own contribution. This is moreover in line with past practice of the Commission, in, for example, the *Czech Airlines* case. ⁽⁴⁵⁾
- (213) However, the Commission has doubts as regards some of the types of own contribution proposed in the restructuring plan, as explained below.
- (214) As regards the advance payment into the equity of airBaltic of LVL [...] million (EUR [...] million) made by [...] in July 2011, it appears from the information submitted by Latvia that this is directly related to measure 6, which, it has been concluded, entails state aid. Therefore, the advance payment into equity of airBaltic made by [...] cannot be considered as own contribution, which must necessarily be free of aid.
- (215) In relation to the liquidity facility of LVL [...] million (EUR [...] million) granted by [...] between April and June 2011 for the purchase of spare parts, the Latvian authorities have not provided evidence allowing the Commission to have a clear understanding of this measure and its significance in terms of belief in a return to viability of the beneficiary. The Commission is therefore unable to conclude with certainty that this facility is acceptable as own contribution.
- (216) As regards the vendor loan of LVL [5 — 15] million (EUR [7,1 — 21,3] million) from BAS to airBaltic for the repurchase of trademarks, Latvia has not provided any evidence that the loan was actually provided.
- (217) On the basis of the above, the Commission does not consider acceptable as own contribution the advance payment into the equity of airBaltic of LVL [...] million (EUR [...] million) made by [...] in July 2011, the liquidity facility for LVL [...] million (EUR [...] million) granted by [...] between April and June 2011 for the purchase of spare parts, and the vendor loan of LVL [5 — 15] million (EUR [7,1 — 21,3] million) from BAS to airBaltic for the repurchase of trademarks and the partial debt write-off of LVL [...] million (EUR [...] million). The Commission also doubts, in particular on the basis of the inconclusive information provided in that respect (unclear nature of the debts at issue, including several claims and the trademarks of airBaltic) whether the LVL [...] million (EUR [...] million) partial debt write-off by the two banks can count as own contribution.
- (218) In any event, the Commission notes that the other measures proposed as own contribution are nevertheless in line with point 43 of the R&R Guidelines and that the level of own contribution is therefore acceptable. They amount to LVL [75 — 85] million (EUR [107 — 120] million), which is equivalent to approximately [48 — 50] % of the restructuring costs. For a large firm like airBaltic, the level of own contribution should

⁽⁴⁴⁾ The total costs for transitioning the aircraft from an operator in default to meeting the delivery requirements for a new customer can easily run up to [...] % of the aircraft's book value.

⁽⁴⁵⁾ See *Czech Airlines* decision, para.119 and 145.

normally be 50 %. However, according to point 56 of the R&R Guidelines, the Commission may be less stringent as regards the size of the own contribution in assisted areas, as was the case for Latvia at the time the measures were granted (see recital 200 above).

- (219) Therefore, the Commission considers that the requirements of point 43 of the R&R Guidelines have been fulfilled.

7.4.6. The 'one time, last time' principle

- (220) Finally, point 72 of the R&R Guidelines, which provides that a company that has received rescue and restructuring aid in the past 10 years is not eligible for rescue or restructuring aid (the 'one time, last time' principle), must be respected.
- (221) Since measures 1, 4 and 5 do not entail state aid, they are not to be taken into account for the purposes of the 'one time, last time' principle. Moreover, the Latvian authorities have confirmed that airBaltic has not benefited from any rescue or restructuring aid in the past 10 years. The Commission therefore considers that the 'one time, last time' principle is respected.

7.5. CONCLUSION AS REGARDS MEASURES 2, 3 AND 6

- (222) In view of the above, the Commission finds that Latvia unlawfully implemented measures 2, 3 and 6 in favour of airBaltic, in breach of Article 108(3) of the Treaty on the Functioning of the European Union. However, the Commission considers that the measures and the restructuring plan meet the conditions required by the R&R Guidelines. The Commission therefore considers the aid compatible with the internal market.
- (223) Finally, the Commission notes that Latvia agreed to have the present decision adopted and notified in English.

HAS ADOPTED THIS DECISION:

Article 1

The first State loan of LVL 16 million which the Republic of Latvia granted to airBaltic in 2011, as well as the acquisition by the State of 0 %-coupon bonds from airBaltic in April 2010 and the payment of EUR 2,8 million by Latvijas Krājbanka to airBaltic in November 2011, do not constitute aid within the meaning of Article 107(1) of the Treaty on the Functioning of the European Union.

Article 2

The second State loan of LVL 67 million and the capital increase of airBaltic, which the Republic of Latvia implemented in 2011, as well as the attribution to airBaltic of a claim of EUR 5 million, which the Republic of Latvia implemented in 2012, constitute aid within the meaning of Article 107(1) of the Treaty on the Functioning of the European Union.

That aid is compatible with the internal market within the meaning of Article 107(3)(c) of the Treaty on the Functioning of the European Union.

Article 3

This Decision is addressed to the Republic of Latvia.

Done at Brussels, 9 July 2014,

For the Commission
Joaquín ALMUNIA
Vice-President

COMMISSION DECISION (EU) 2015/1092**of 23 July 2014**

on the State aid SA.34824 (2012/C), SA.36007 (2013/NN) SA.36658 (2014/NN), SA.37156 (2014/NN), SA.34534 (2012/NN) implemented by Greece for National Bank of Greece Group related to:

- **Recapitalisation and restructuring of National Bank of Greece S.A.,**
- **Resolution of First Business Bank S.A. through a transfer order to National Bank of Greece S.A.,**
- **Resolution of Probank S.A. through a transfer order to National Bank of Greece S.A.,**
- **Resolution of Cooperative Bank of Lesvos-Limnos, Cooperative Bank of Achaia, and Cooperative Bank of Lamia**

(notified under document C(2014) 5201)

(Only the English text is authentic)

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, and in particular the first subparagraph of Article 108(2) thereof,

Having regard to the Agreement on the European Economic Area, and in particular Article 62(1)(a) thereof,

Having called on Member States and other interested parties to submit their comments pursuant to those provisions,

Whereas,

1. PROCEDURE

1.1. PROCEDURE RELATED TO THE NATIONAL BANK OF GREECE GROUP ⁽¹⁾ ('THE BANK').

- (1) By decision of 19 November 2008 the Commission approved a scheme entitled 'Support Measures for the Credit Institutions in Greece' (the 'Greek Banks Support Scheme') designed to ensure the stability of the Greek financial system. The Greek Banks Support Scheme allows for aid to be granted under its three constituent measures, a recapitalisation measure, a guarantee measure and a government bond loan measure ⁽²⁾.
- (2) Recital 14 of the Decision of 19 November 2008 recorded that a restructuring plan would be notified to the Commission in respect of the beneficiaries of the recapitalisation measure.
- (3) In May 2009, the Bank was recapitalised under the recapitalisation measure of the Greek Banks Support Scheme.
- (4) On 2 August 2010, the Greek authorities submitted a restructuring plan in respect of the Bank to the Commission. The Commission registered that plan, its subsequent updates as well as additional information submitted by the Greek authorities as Case SA.30342 (PN 26/10) and then Case SA.32788 (11/PN).
- (5) In December 2011, the Bank was again recapitalised by Greece under the recapitalisation measure. On 22 December 2011, the Commission approved the second recapitalisation of the Bank ⁽³⁾.

⁽¹⁾ National bank of Greece S.A. and all its subsidiaries

⁽²⁾ Commission Decision of 19 November 2008 in State aid N 560/08 'Support Measures for the Credit Institutions in Greece' (OJ C 125, 5.6.2009, p. 6). It was attributed the number SA.26678 (N 560/08). That scheme was subsequently prolonged and amended as described in footnote 4.

⁽³⁾ See Commission Decision of 22 December 2011 in State aid SA.34064 (11/N) 'Second rescue recapitalisation of NBG under the Greek recapitalisation scheme' (OJ C 99, 3.4.2012, p. 4).

- (6) The Bank has repeatedly benefited from State guarantees on debt instruments and government bond loans under the Greek Banks Support Scheme ⁽⁴⁾. It also benefited from State-guaranteed emergency liquidity assistance ("State-guaranteed ELA").
- (7) On 18 March 2012, the Bank of Greece proceeded with the withdrawal of the licenses of three Cooperative Banks ('the three Cooperative Banks'), namely the Cooperative Bank of Lesvos-Limnos ('Lesvos-Limnos Bank'), the Cooperative Bank of Achaia ('Achaia Bank') and the Cooperative Bank of Lamia ('Lamia Bank') and put them into liquidation.
- (8) The Commission registered the information informally received from Greece on the resolution of the Cooperative Banks as Case SA.34534 (12/NN).
- (9) On 23 March 2012, the Bank of Greece proceeded with the transfer of selected liabilities of the three Cooperative Banks to the Bank and determined the amount of the funding gaps ⁽⁵⁾ which would be covered by the Hellenic Financial Stability Fund ('HFSF') pursuant to the law 4051/2012 ⁽⁶⁾. The funding gaps were equal to the value of the transferred liabilities since there was no transfer of assets of the three Cooperative Banks.
- (10) On 20 April 2012, the HFSF provided the Bank with a letter committing to participate in a planned share capital increase of the Bank. On 28 May 2012, the HFSF granted a bridge recapitalisation of EUR 7 430 million to the Bank ('the first bridge recapitalisation').
- (11) In May 2012, the Greek authorities notified to the Commission the commitment letter that had been provided by the HFSF to the Bank. The Commission registered it as a non-notified aid (Case SA.34824 (12/NN)) as the measure had already been implemented.
- (12) On 27 July 2012, the Commission opened a formal investigation procedure on the first bridge recapitalisation ('the NBG Opening Decision') ⁽⁷⁾.

⁽⁴⁾ On 2 September 2009, Greece notified a number of amendments to the support measures and a prolongation until 31 December 2009 that were approved on 18 September 2009 (See Commission Decision of 18 September 2009 in State aid N 504/09 'Prolongation and amendment of the Support Measures for the Credit Institutions in Greece' (OJ C 264, 6.11.2009, p. 5)). On 25 January 2010, the Commission approved a second prolongation of the support measures until 30 June 2010 (See Commission Decision of 25 January 2010 in State aid N 690/09 'Prolongation of the Support Measures for the Credit Institutions in Greece' (OJ C 57, 9.3.2010, p. 6)). On 30 June 2010, the Commission approved a number of amendments to the support measures and an extension until 31 December 2010 (See Commission Decision of 30 June 2010 in State aid N 260/10 'Extension of the Support Measures for the Credit Institutions in Greece' (OJ C 238, 3.9.2010, p. 3)). On 21 December 2010 the Commission approved a prolongation of the support measures until 30 June 2011 (See Commission Decision of 21 December 2010 in State aid SA 31998 (10/N) 'Fourth extension of the Support measures for the credit Institutions in Greece' (OJ C 53, 19.2.2011, p. 2)). On 4 April 2011 the Commission approved an amendment (See Commission Decision of 4 April 2011 in State aid SA.32767 (11/N) 'Amendment to the Support Measures for the Credit Institutions in Greece' (OJ C 164, 2.6.2011, p. 8)). On 27 June 2011 the Commission approved a prolongation of the support measures until 31 December 2011 (See Commission Decision of 27 June 2011 in State aid SA.33153 (11/N) 'Fifth prolongation of the Support measures for the credit Institutions in Greece' (OJ C 274, 17.9.2011, p. 6)). On 6 February 2012, the Commission approved a prolongation of the support measures until 30 June 2012 (See Commission Decision of 6 February 2012 in State aid SA.34149 (11/N) 'Sixth prolongation of the Support Measures for the Credit Institutions in Greece' (OJ C 101, 4.4.2012, p. 2)). On 6 July 2012, the Commission approved a prolongation of the support measures until 31 December 2012 (See Commission Decision of 6 July 2012 in State aid case SA.35002 (12/N) — Greece 'Prolongation of the Support Scheme for Credit Institutions in Greece' (OJ C 77, 15.3.2013, p. 14)). On 22 January 2013, the Commission approved a prolongation of the Guarantee Scheme and the Bond Loan Scheme until 30 June 2013 (See Commission Decision of 22 January 2013 in State aid case SA.35999 (12/N) — Greece 'Prolongation of the Guarantee Scheme and the Bond Loan Scheme for Credit Institutions in Greece' (OJ C 162, 7.6.2013, p. 6)). On 25 July 2013, the Commission approved a prolongation of the Guarantee Scheme and the Bond Loan Scheme until 31 December 2013 (See Commission Decision of 25 July 2013 in State aid case SA.36956 (13/N) — Greece 'Prolongation of the Guarantee Scheme and the Bond Loan Scheme for Credit Institutions in Greece' (OJ C 141, 9.5.2014, p. 3)). On 14 January 2014, the Commission approved a prolongation of the Guarantee Scheme and the Bond Loan Scheme until 30 June 2014 (See Commission Decision of 14 January 2014 in State aid case SA. 37958 (13/N) — Greece 'Prolongation of the Guarantee Scheme and the Bond Loan Scheme for Credit Institutions in Greece', not yet published).

⁽⁵⁾ 'Funding gap' is a term which refers to the difference between the value of the assets and the value of the liabilities transferred to the bank.

⁽⁶⁾ Law 4051/2012 on the rules related to pensions and other urgent rules related to the application of the Memorandum of Understanding of the law 4046/2012.

⁽⁷⁾ See Commission Decision of 27 July 2012 in State aid SA. 34824 (12/C), 'Recapitalisation of National Bank of Greece by the Hellenic Financial Stability Fund' (OJ C 359, 21.11.2012, p. 4).

- (13) In December 2012, the HFSF granted a second bridge recapitalisation of EUR 2 326 million to the Bank ('the second bridge recapitalisation') ⁽⁸⁾. The Greek authorities notified that measure to the Commission on 27 December 2012. The Commission registered those measures as case SA.36007 (13/NN).
- (14) In June 2013, the Bank announced the successful completion of its EUR 1 079 million rights issue ⁽⁹⁾ while the HFSF partially converted the first and second bridge recapitalisations into equity ('the Spring 2013 recapitalisation', which includes both the EUR 1 079 million rights issue and the conversion of the first and second bridge recapitalisations). The total amount of the Spring 2013 recapitalisation was EUR 9 756 million, out of which EUR 8 677 million was injected by the HFSF (the 'HFSF's participation in the Spring 2013 recapitalisation').
- (15) On 19 December 2013, the Greek authorities submitted information to the Commission regarding the terms of the Spring 2013 recapitalisation.
- (16) On 25 June 2014, the Greek authorities submitted a final restructuring plan for the Bank ('the restructuring plan') to the Commission. On the same date they provided information on the State-guaranteed ELA. They indicated that they wanted to continue providing the Bank with such liquidity support, as well as State guarantees on debt instruments and government bond loans under the Greek Banks Support Scheme. The Commission registered the notification under number SA.34824 (12/C).
- (17) The Commission had numerous meetings, teleconferences and electronic mail exchanges with representatives of the Greek authorities and the Bank.
- (18) Greece accepts that exceptionally this Decision is adopted in English only.

1.2. PROCEDURE RELATED TO THE ACQUIRED BUSINESSES

1.2.1. Procedure related to First Business Bank S.A.

- (19) In July 2009, First Business Bank S.A. ('FB Bank') was recapitalised by Greece under the recapitalisation measure of the Greek Banks Support Scheme ⁽¹⁰⁾, for an amount of EUR 50 million.
- (20) In spring 2013, the Bank of Greece decided to proceed with the resolution of FB Bank through a Purchase & Assumption procedure ⁽¹¹⁾.
- (21) On 1 May 2013, the Bank of Greece invited the four largest banks in Greece to submit non-binding offers for a portfolio of FB Bank's assets and liabilities. The Bank of Greece, in its letter to the bidders, stated that the HFSF would, on top of the funding gap, cover the capital needs of the acquirer which were related to the assets transferred from FB Bank.
- (22) On 8 May 2013, the Bank and another bank submitted their preliminary bids.
- (23) On 10 May 2013, the Bank revised its offer.
- (24) On the same date, the Bank of Greece proceeded with the resolution of FB Bank and the transfer of selected assets and liabilities to the Bank.
- (25) On 11 May 2013, the Greek authorities submitted information to the Commission regarding the resolution of FB Bank. The Commission registered that information and the subsequent submissions by the Greek authorities as Case SA.36658 (14/NN).
- (26) On 28 June 2013, the HFSF disbursed two-thirds of the funding gap as it was initially estimated.

⁽⁸⁾ HFSF press release, 24 December 2012, available online at: http://www.hfsf.gr/files/press_release_20121224_en.pdf

⁽⁹⁾ The Bank's interim financial report of 30 June 2013, August 2013, p. 9 available online at: https://www.nbg.gr/english/the-group/investor-relations/financial-information/annual-interim-financial-statements/Documents/Annual%20and%20interim%20financial%20statements/Financial%20Report%20NBG%20GROUP-BANK%2030%2006%202013_EN%20FINAL.pdf

⁽¹⁰⁾ See footnote 2.

⁽¹¹⁾ A Purchase & Assumption is a resolution procedure which consists of identifying, in a legal entity under liquidation, the assets and liabilities of high quality and auctioning them in order to transfer them to a viable company.

- (27) On 29 July 2013, the Greek authorities notified to the Commission the financing of the funding gap for a total amount of approximately EUR 524 million, as estimated at the time of the resolution on the basis of data at 31 March 2013.
- (28) On 7 November 2013, the Bank of Greece finalised the calculation of the total funding gap, which amounted to EUR 457 million ⁽¹²⁾.
- (29) On 13 November 2013, the HFSF paid the remaining balance of the funding gap to the Bank.
- (30) On 25 June 2014, the Greek authorities notified the Commission that the Bank does not intend to ask the HFSF to inject the amount of capital needs created by the acquisition of FB Bank's assets into the Bank.

1.2.2. Procedure related to Probank S.A.

- (31) On 10 May 2013, the Bank of Greece appointed a Commissioner at Probank S.A. ('Probank').
- (32) In July 2013, the Bank of Greece decided to proceed with the resolution of Probank through a Purchase & Assumption procedure.
- (33) On 22 July 2013, the Bank of Greece invited the four largest banks in Greece to submit offers for a portfolio of Probank's assets and liabilities. The Bank of Greece, in its letter to the potential bidders, stated that the HFSF, would, on top of the funding gap, cover the capital needs of the acquirer which were related to the assets transferred from Probank.
- (34) On 24 July 2013, a bank submitted a draft offer and on 25 July 2013 the Bank submitted its binding offer.
- (35) On 26 July 2013, the Bank of Greece proceeded with the resolution of Probank and the transfer of selected assets and liabilities to the Bank.
- (36) On 29 July 2013, the Greek authorities notified to the Commission the financing of the funding gap for a total amount of EUR 238 million, as estimated by the Bank of Greece on the basis of data at 31 March 2013. The Commission registered that notification and subsequent information submitted by the Greek authorities as Case SA.37156 (14/NN).
- (37) On 9 August 2013, the HFSF disbursed two-thirds of the funding gap as it was initially estimated.
- (38) On 30 December 2013, the Bank of Greece finalised the calculation of the total funding gap, which amounted to EUR 563 million.
- (39) On 31 December 2013, the HFSF paid the remaining balance of the funding gap to the Bank.
- (40) On the same date, the Bank of Greece provided the Commission with further information on the finalisation of the funding gap.
- (41) On 25 June 2014, the Greek authorities notified the Commission that the Bank does not intend to ask the HFSF to inject the amount of capital needs created by the acquisition of Probank's assets into the Bank.

⁽¹²⁾ HFSF, Annual Financial Report for the year ended 31 December 2013, June 2014, p. 8.

2. DESCRIPTION

2.1. THE BANK AND ITS DIFFICULTIES

2.1.1. General context of the Greek banking sector

- (42) Greece's real gross domestic product ('GDP') fell by 20 % from 2008 to 2012, as shown in Table 1. As a result, Greek banks faced a rapidly increasing default rate on loans to Greek households and companies ⁽¹³⁾. Those developments have adversely affected the performance of the assets of Greek banks and generated large loan losses.

Table 1

Real GDP Growth in Greece, 2008-13

Greece	2008	2009	2010	2011	2012	2013
Real GDP growth, %	- 0,2	- 3,1	- 4,9	- 7,1	- 6,4	- 3,9

Source: Eurostat, available online at: <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00115>

- (43) In addition, in February 2012, Greece implemented a private sector bond exchange known as Private Sector Involvement ('the PSI programme'). Greek banks were involved in the PSI programme, in the course of which the Greek government offered existing private bondholders new securities (including new Greek Government Bonds ('GGBs'), GDP-linked securities and PSI payment notes issued by the European Financial Stability Fund ('EFSF')) in exchange for existing GGBs, with a nominal discount of 53,5 % and longer maturities ⁽¹⁴⁾. The Greek authorities announced the results of that exchange of bonds on 9 March 2012 ⁽¹⁵⁾. The exchange resulted in significant losses for the bondholders (estimated by the Bank of Greece at 78 % of the face amount of old GGBs on average for the Greek banks) and capital needs which were retroactively booked in the Greek banks' 2011 financial statements.

Table 2

Total PSI losses of the main Greek banks (EUR million)

Banks	Face amount of GGBs (1)	Face amount of state related loans (2)	Total face amount (3) = (1) + (2)	PSI loss on GGBs (4)	PSI loss on state-related loans (5)	Total gross PSI loss (6) = (4) + (5)	Total gross PSI loss/Core Tier 1 ⁽¹⁾ (Dec 2011) (%)	Total gross PSI loss/Total assets (Dec 2011) (%)
NBG	13 748	1 001	14 749	10 985	751	11 735	161,0	11,0
Eurobank	7 001	335	7 336	5 517	264	5 781	164,5	7,5
Alpha	3 898	2 145	6 043	3 087	1 699	4 786	105,7	8,1

⁽¹³⁾ European Commission — Directorate-General Economic and Financial Affairs. The Second Economic Adjustment Programme for Greece — March 2012, p. 17, available online at: http://ec.europa.eu/economy_finance/publications/occasional_paper/2012/pdf/ocp94_en.pdf

⁽¹⁴⁾ See section II 'The restructuring of the Greek Sovereign Debt' of the Report on the Recapitalisation and Restructuring of the Greek Banking Sector, Bank of Greece, December 2012, available online at: http://www.bankofgreece.gr/BogEkdoseis/Report_on_the_recapitalisation_and_restructuring.pdf

⁽¹⁵⁾ Press release of Ministry of Finance of 9 March 2012, available online at: <http://www.pdma.gr/attachments/article/80/9%20MARCH%202012%20-%20RESULTS.pdf>

Banks	Face amount of GGBs (1)	Face amount of state related loans (2)	Total face amount (3) = (1) + (2)	PSI loss on GGBs (4)	PSI loss on state-related loans (5)	Total gross PSI loss (6) = (4) + (5)	Total gross PSI loss/Core Tier 1 (1) (Dec 2011) (%)	Total gross PSI loss/Total assets (Dec 2011) (%)
Piraeus	7 063	280	7 343	5 686	225	5 911	226,0	12,0
Probank	415	0	415	295	0	295	105,1	8,7
FB Bank	70	0	70	49	0	49	33,8	3,1

Source: Bank of Greece, *Report on the Recapitalisation and the Restructuring of the Greek Banking Sector*, December 2012, p. 14.

(1) The Core Tier 1 ratio of a bank is one of the regulatory capital ratio watched by the banking supervisor in the framework of the Capital Requirement Directive.

- (44) Since the Greek banks faced substantial capital shortfalls as a result of the PSI programme and the continuing recession, the Memorandum of Economic and Financial Policies ('MEFP') of the Second Adjustment Programme for Greece between the Greek government, the European Union, the International Monetary Fund ('IMF') and the European Central Bank ('ECB'), dated 11 March 2012, made funds available for the recapitalisation of those banks. The Greek authorities estimated the total bank recapitalisation needs and resolution costs to be financed under that programme at EUR 50 billion ⁽¹⁶⁾. That amount was calculated on the basis of a stress test performed by the Bank of Greece for the period starting December 2011 and ending December 2014 ('the stress test of 2012'), which relied on the loan losses forecast performed by Blackrock ⁽¹⁷⁾. The funds for the recapitalisation of the Greek banks are available through the HFSF. Table 3 summarises the calculation of capital needs for the main Greek banks as they result from the stress test of 2012.

Table 3

Stress test of 2012: Capital needs of the main Greek banks (EUR million)

Banks	Reference Core Tier 1 (Dec 2011) (1)	Total gross PSI loss (Dec 2011) (2)	Provisions related to PSI (June 2011) (3)	Gross Cumulative Loss Projections for credit risk (4)	Loan loss reserves (Dec 2011) (5)	Internal capital generation (6)	Target Core Tier 1 (Dec 2014) (7)	Capital needs (8) = (7) - (1) - (2) - (3) - (4) - (5) - (6)
NBG	7 287	- 11 735	1 646	- 8 366	5 390	4 681	8 657	9 756
Eurobank	3 515	- 5 781	830	- 8 226	3 514	2 904	2 595	5 839

⁽¹⁶⁾ See footnote 13, p. 106.

⁽¹⁷⁾ See footnote 14.

Banks	Reference Core Tier 1 (Dec 2011) (1)	Total gross PSI loss (Dec 2011) (2)	Provisions related to PSI (June 2011) (3)	Gross Cumulative Loss Projections for credit risk (4)	Loan loss reserves (Dec 2011) (5)	Internal capital generation (6)	Target Core Tier 1 (Dec 2014) (7)	Capital needs (8) = (7) - (1) - (2) - (3) - (4) - (5) - (6)
Alpha	4 526	- 4 786	673	- 8 493	3 115	2 428	2 033	4 571
Piraeus	2 615	- 5 911	1 005	- 6 281	2 565	1 080	2 408	7 335
Probank	281	- 295	59	- 462	168	147	180	282
FB Bank	145	- 49	0	- 285	167	- 29	116	168

Source: Bank of Greece, *Report on the Recapitalisation and the Restructuring of the Greek Banking Sector*, December 2012, p. 8.

- (45) According to the MEFP, 'banks submitting viable capital raising plans will be given the opportunity to apply for and receive public support in a manner that preserves private sector incentives to inject capital and thus minimises the burden for taxpayers' ⁽¹⁸⁾. The Bank of Greece found only the four largest banks (Eurobank, National Bank of Greece, Piraeus Bank and Alpha Bank) to be viable ⁽¹⁹⁾. They received a first recapitalisation from the HFSF in May 2012.
- (46) Domestic deposits in the banks in Greece decreased by 37 % in total between the end of 2009 and June 2012 due to the recession and political uncertainty. Those banks had to pay higher interest rates to try to retain deposits. The costs of deposits increased, reducing the net interest margin of the banks. As Greek banks were shut out from wholesale funding markets, they became entirely dependent on Eurosystem financing ⁽²⁰⁾, a growing portion of which was in the form of State-guaranteed ELA granted by the Bank of Greece.
- (47) On 3 December 2012, Greece launched a buy-back programme on the new GGBs received by the investors in the framework of the PSI programme, at prices ranging from 30,2 % to 40,1 % of their nominal value ⁽²¹⁾. The Greek banks participated in that buy-back programme which crystallised further losses on their balance sheets, since most of the accounting loss (that is, the difference between market value and nominal value) booked on those new GGBs at the time of the PSI programme became definitive and irreversible ⁽²²⁾.
- (48) In December 2012, the four largest Greek banks received a second bridge recapitalisation from the HFSF.
- (49) In spring 2013, the bridge recapitalisations of the four banks were converted into permanent recapitalisations in ordinary shares, with the HFSF holding more than 80 % of the shareholding of each of the four banks. For the banks which succeeded in attracting a pre-determined amount of private capital, the HFSF received non-voting shares and private investors who injected new money along with the HFSF were granted warrants on the shares acquired by the HFSF.

⁽¹⁸⁾ See footnote 13, p. 104.

⁽¹⁹⁾ See footnote 14.

⁽²⁰⁾ The European Central Bank and the national central banks together constitute the Eurosystem, the system of central banks of the euro area.

⁽²¹⁾ Press release of Ministry of Finance of 3 December 2012, available online at: <http://www.pdma.gr/attachments/article/248/Press%20Release%20-%20December%2003.pdf>. That buy-back of its own debt at a price deeply below face value generated a significant debt reduction for Greece.

⁽²²⁾ In the absence of such a buy-back, the market value of those new GGBs could have increased depending on the evolution of market parameters such as interest rates and the probability of default of Greece.

- (50) In July 2013, the Bank of Greece commissioned an advisor to carry out a diagnostic study on the loan portfolios of all Greek banks. That advisor carried out credit loss projections ('CLPs') on all domestic loan books of the Greek banks as well as on loans carrying Greek risk in foreign branches and subsidiaries over a three-and-a-half-year and a loan-lifetime horizon. The analysis provided CLPs under two macroeconomic scenarios, a baseline scenario and an adverse scenario. The CLPs for foreign loan portfolios were estimated by the Bank of Greece using some input from the advisor.
- (51) Based on the advisor's assessment of the CLPs, the Bank of Greece launched a new stress test exercise in autumn 2013 ('the stress test of 2013') to assess the robustness of the Greek banks' capital position under both a baseline and an adverse scenario. The Bank of Greece conducted the capital needs assessment with the technical support of a second advisor.
- (52) The key components of the capital needs assessment under the stress test of 2013 were (i) the CLPs ⁽²³⁾ on banks' loan portfolios on a consolidated basis for Greek risk and foreign risk, net of existing loan reserves, and (ii) the estimated operating profitability of banks for the period from June 2013 to December 2016, based on a conservative adjustment of the restructuring plans which had been submitted to the Bank of Greece during the fourth quarter of 2013. Table 4 summarises the calculation of capital needs for the main Greek banks on a consolidated basis under the baseline scenario for that stress test of 2013.

Table 4

Stress test of 2013: Capital needs of the Greek banks on a consolidated basis in the baseline scenario (EUR million)

Banks	Reference Core Tier 1 (June 2013) (1)	Loan Loss reserves (June 2013) (2)	CLPs for Greek risk (3)	CLPs for foreign risk ⁽¹⁾ (4)	Internal Capital Generation (5)	Stress test Core Tier 1 ratio (December 2016) (6)	Capital needs (7) = (6) - (1) - (2) - (3) - (4) - (5)
NBG ⁽²⁾	4 821	8 134	- 8 745	- 3 100	1 451	4 743	2 183
Eurobank ⁽³⁾	2 228	7 000	- 9 519	- 1 628	2 106	3 133	2 945
Alpha	7 380	10 416	- 14 720	- 2 936	4 047	4 450	262
Piraeus	8 294	12 362	- 16 132	- 2 342	2 658	5 265	425

Source: Bank of Greece, 2013 Stress Test of the Greek Banking Sector, March 2014, p. 42.

⁽¹⁾ The impact of the foreign risk CLPs was calculated after foreign tax and taking into account the disposal commitments discussed with the Commission's Directorate-General for Competition Policy at that time.

⁽²⁾ NBG loan loss reserves at 30 June 2013 pro-forma of the provisions of First Business Bank and Probank.

⁽³⁾ Eurobank loan loss reserves at 30 June 2013 pro-forma of the provisions of New Hellenic Postbank and New Proton Bank, which were acquired in August 2013.

- (53) On 6 March 2014, the Bank of Greece announced the results of the stress test of 2013 and requested the banks to submit, by mid-April 2014, their capital raising plans to cover the capital needs under the baseline scenario.
- (54) Between the end of March 2013 and early May 2014, the four banks proceeded with capital increases.

⁽²³⁾ The CLPs include the expected losses from the new loan production in Greece over the period from June 2013 to December 2016.

2.1.2. The beneficiary

- (55) The Bank provides universal banking services mainly in Greece, Turkey and other countries of Central, Eastern and South-Eastern Europe (Cyprus, Romania, Bulgaria, Serbia, Albania and the Former Yugoslav Republic of Macedonia ('FYROM')). It offers a full range of banking and financial products and services to households and businesses. It is active in retail, corporate and private banking, asset management, insurance, treasury, capital markets and other services. The Bank is incorporated in Greece and its shares are listed on the Athens Stock Exchange. On 30 September 2012, the Bank employed a total of 37 831 people ⁽²⁴⁾, of which around one-third were employed in Greece, and one-third in Turkey, while the remaining third were employed in other countries, mainly in South-Eastern Europe.
- (56) The Bank participated in the PSI programme, exchanging GGBs and State-related loans with a face value of EUR 14 749 million. Its total PSI-related charge amounted to around EUR 11 735 million before tax and was entirely booked in its 2011 accounts ⁽²⁵⁾. During the buy-back programme of December 2012, the Bank sold the new GGBs it had received in the framework of the PSI at a deep discount to nominal value. That sale crystallised its losses on the new GGBs.
- (57) The key figures of the Bank in December 2010, December 2011, December 2012 and December 2013 (consolidated data as per annual financial statements) are presented in Table 5.

Table 5

National Bank of Greece key figures, 2010, 2011, 2012 and 2013 ⁽¹⁾

Profit and loss (EUR million)	2010	2011	2012	2013
Net Interest Income	4 148	3 843	3 365	3 157
Total Operating Income	4 639	4 372	3 527	3 771
Total Operating Expenses	- 2 512	- 2 541	- 2 322	- 2 547
Pre Provision Income	2 127	1 833	1 205	1 224
Impairment Losses to cover credit risk	- 1 450	- 3 439	- 2 966	- 1 373
Impairment losses on GGBs and loans eligible to PSI	0	- 11 783	- 187	0
Net profit/loss	440	- 12 325	- 2 131	807
Selective Volume figures (EUR million)	31 December 2010	31 December 2011	31 December 2012	31 December 2013
Total Net Loans and Advances to Customers	77 262	71 496	69 135	67 250
Deposits	68 039	59 544	58 722	62 876

⁽²⁴⁾ http://www.nbg.gr/wps/wcm/connect/91c0c238-1219-4f87-b0d6-0a3e9c62f4c3/Summary+financial+data+30+09+2013_EN.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=91c0c238-1219-4f87-b0d6-0a3e9c62f4c3.

⁽²⁵⁾ See Table 2.

Profit and loss (EUR million)	2010	2011	2012	2013
Total Assets	120 745	106 870	104 798	110 930
Total Equity ⁽²⁾	10 905	– 253	– 2 042	7 874

⁽¹⁾ Sources:

2012 and 2013: Financial results 2013 — Consolidated financial statements, pp. 42-43

2011: Financial results 2012 — Consolidated financial statements, pp. 44-45

2010: Financial results 2010 — Consolidated financial statements, pp. 42-43.

⁽²⁾ Those amounts of equity include:

— for 2010, EUR 350 million of preference shares granted by Greece in 2009;

— for 2011, 2012 and 2013, EUR 1 350 million of preference shares granted in 2009 and 2011;

Those amounts do not include the bridge recapitalisation received by the Bank in 2012, for an amount of EUR 9 756 million.

- (58) Table 5 illustrates that, apart from the huge losses it booked in 2011 due to the PSI programme (EUR 11 735 million ⁽²⁶⁾), the Bank suffered from declining income (due, among other reasons, to the higher costs of deposits) and from high and rising impairment losses on its loan portfolios in Greece and abroad. The liquidity position of the Bank was hit by deposit outflows but its net loan-to-deposit ratio remained relatively low compared to other Greek banks (118 % at 31 December 2012 ⁽²⁷⁾).
- (59) Following the stress test of 2013, according to which the capital needs of the Bank were estimated at EUR 2 183 million in the baseline scenario, the Bank sought to raise EUR 2,5 billion of capital on the market.
- (60) On 6 May 2014, the Bank announced the launch of the book-building exercise ⁽²⁸⁾ for an amount of EUR 2,5 billion ⁽²⁹⁾.
- (61) On 9 May 2014, the Bank announced the issue and placement of 1 136,4 million new ordinary shares, at a price of EUR 2,20 per share, for total gross proceeds of EUR 2,5 billion ⁽³⁰⁾. The share capital increase was carried out through the cancellation of pre-emption rights for existing shareholders, as decided by the general meeting of shareholders held in Athens on 10 May 2014 ⁽³¹⁾. The HFSF approved the share capital increase on the basis of two valuations reports carried out by independent experts as per law 3864 ⁽³²⁾.

2.2. THE BANK'S ACQUISITIONS OF GREEK BANKING ACTIVITIES

2.2.1. Acquisition of selected liabilities of the three Cooperative Banks

- (62) On 18 March 2012, the Bank of Greece noted that the three Cooperative Banks did not meet the capital adequacy requirements and concluded that they would not be able to increase their capital. Therefore, the Bank of Greece decided to withdraw their licenses and put them into liquidation.
- (63) The Bank of Greece considered that taking resolution measures and in particular the auctioning of the deposits in the context of the resolution framework (Article 63(D) of law 3601/2007) and the financing of the relevant funding gap was crucial to maintain the increases in depositors' confidence that had occurred in the aftermath of the successful conclusions of the PSI and the Second Adjustment Programme and that, despite the recent turnaround of the market sentiment, such sentiment was fragile. The Bank of Greece estimated that on 19 March 2012 the total amount of customer deposits (based on unaudited data at 30 September 2013) in those three Cooperative Banks amounted to approximately EUR 325 million.

⁽²⁶⁾ See Table 2.

⁽²⁷⁾ As per consolidated financial statements for year 2012.

⁽²⁸⁾ A book-building exercise consists of contacting potential investors in order to register their purchase orders in the order book, in view of the completion of the capital increase.

⁽²⁹⁾ https://www.nbg.gr/english/the-group/press-office/press-releases/Documents/Launch_press_release.06.05.2014.pdf

⁽³⁰⁾ https://www.nbg.gr/english/the-group/press-office/press-releases/Documents/20140509%20Pricing%20Press%20Release_%ce%95%ce%9d.pdf

⁽³¹⁾ <https://www.nbg.gr/en/the-group/press-office/press-releases/update-regarding-the-egm-10-5-14>.

⁽³²⁾ http://www.hfsf.gr/files/press_release_20140509_en.pdf

- (64) The Bank of Greece proceeded with a Purchase & Assumption procedure whereby all deposits, including interbank deposits, and the claims and liabilities towards the Hellenic Deposit and Investment Guarantee Fund ('HDIGF') but no loans would be transferred to an acquirer. On 20 March 2012, the Bank of Greece invited the five largest Greek credit institutions at that time to submit their offers. The Bank and three other banks submitted binding offers. The Bank's offer was the preferred one, in terms of consideration and time required for the conclusion of the transfer. The Bank offered to pay as consideration an amount equal to [...] (*) % of the transferred deposits and estimated that the transfer could be completed within one working day.

2.2.1.1. Cooperative Bank of Lesvos-Limnos ('Lesvos-Limnos Bank')

- (65) On 23 March 2012, the Bank of Greece decided that the deposits and the claims and liabilities of Lesvos-Limnos Bank towards the HDIGF were to be transferred to the Bank ⁽³³⁾. According to the Bank of Greece ⁽³⁴⁾, the fair value of the transferred liabilities amounted to EUR [...] million, while no assets were transferred. The consideration was calculated ⁽³⁵⁾ at EUR [...] million, that is to say, [...] % of the transferred deposits. The funding gap was covered by the HFSF pursuant to Article 63D(13) of law 3601/2007. On 10 April 2012, the HFSF disbursed two-thirds of the total funding gap in EFSF Notes while it committed that the remaining amount would be paid upon the final determination of the funding gap. On 22 June 2012, the Bank of Greece determined that the final funding gap of Lesvos-Limnos Bank amounted to EUR 56,6 million. The HFSF covered the undisbursed part of the funding gap on 20 July 2012.
- (66) At the time of its resolution, Lesvos-Limnos Bank employed 37 people and had 3 branches. The Bank took over no branches of Lesvos-Limnos Bank and its employees were laid off.

2.2.1.2. Cooperative Bank of Achaia ('Achaia Bank')

- (67) On 23 March 2012, the Bank of Greece decided that the deposits and the claims and liabilities of Achaia Bank towards the HDIGF were to be transferred to the Bank ⁽³⁶⁾. According to the Bank of Greece ⁽³⁷⁾, the fair value of the transferred liabilities amounted to EUR [...] million, while no assets were transferred. The consideration was calculated ⁽³⁸⁾ at EUR [...] million, that is to say, [...] % of the capital of the transferred deposits. The funding gap was covered by the HFSF pursuant to Article 63(D)(13) of law 3601/2007. On 10 April 2012, the HFSF disbursed two-thirds of the total funding gap in EFSF Notes while it committed that the remaining amount would be paid upon the final determination of the funding gap. On 22 June 2012, the Bank of Greece determined that the final funding gap of Achaia Bank amounted to EUR 212,9 million. The HFSF covered the undisbursed part of the funding gap on 20 July 2012.
- (68) At the time of its resolution, Achaia Bank employed 103 people and had 13 branches. The Bank took over no branches of Achaia Bank and its employees were laid off.

2.2.1.3. Cooperative Bank of Lamia ('Lamia Bank')

- (69) On 23 March 2012, the Bank of Greece decided that the deposits and the claims and liabilities of Lamia Bank towards the HDIGF were transferred to the Bank ⁽³⁹⁾. According to the Bank of Greece, the fair value of the transferred liabilities amounted to EUR [...] million, while no assets were transferred. The consideration was calculated ⁽⁴⁰⁾ at EUR [...] million, that is to say, [...] % of the capital of the transferred deposits. The funding gap was covered by the HFSF pursuant to Article 63D(13) of law 3601/2007. On 10 April 2012, the HFSF disbursed two-thirds of the total funding gap in EFSF Notes while it committed that the remaining amount would be paid upon the final determination of the funding gap. On 22 June 2012, the Bank of Greece determined that the final funding gap of Lamia Bank amounted to EUR 56,3 million. The HFSF covered the undisbursed part of the funding gap on 20 July 2012.
- (70) At the time of its resolution, Lamia Bank employed 47 people and had 5 branches. The Bank took over no branches of Lamia Bank and its employees were laid off.

(*) Confidential information.

⁽³³⁾ Decision 1/4/23.3.2012 of its Resolution measures Committee of the Bank of Greece.

⁽³⁴⁾ Decision 1/6/23.3.2012 of the Resolution Measures Committee of the Bank of Greece.

⁽³⁵⁾ Decision 1/5/23.3.2012 of the Resolution Measures Committee of the Bank of Greece.

⁽³⁶⁾ Decision 1/1/23.3.2012 of its Resolution measures Committee of the Bank of Greece.

⁽³⁷⁾ Decision 1/3/23.3.2012 of the Resolution Measures Committee of the Bank of Greece.

⁽³⁸⁾ Decision 1/2/23.3.2012 of the Resolution Measures Committee of the Bank of Greece.

⁽³⁹⁾ Decision 1/7/23.3.2012 of its Resolution measures Committee of the Bank of Greece.

⁽⁴⁰⁾ Decision 1/8/23.3.2012 of the Resolution Measures Committee of the Bank of Greece.

- (71) The amounts of the funding gaps of the three Cooperative Banks are set out in Table 6.

Table 6

Final funding gaps of the three Cooperative Banks

	Final funding gap (in EUR million)
Lesvos-Limnos Bank	56,6
Achaia Bank	212,9
Lamia Bank	56,3
Total	325,8

Sources: Decisions 3/1/EC, 3/2/EC, 3/3 of 22 June 2012 of the Resolution Measures Committee of the Bank of Greece.

2.2.2. Acquisition of selected assets and liabilities of First Business Bank

- (72) FB Bank was a small bank with a total balance sheet of EUR 1,4 billion at the time of its resolution, and a market share of less than 1 % in loans and in deposits. FB Bank had 19 branches across Greece and employed 260 employees at 31 December 2012.
- (73) Under the Greek bank Support Scheme FB Bank received (i) a capital injection of EUR 50 million from the Greek State in July 2009, (ii) Greek Government Securities amounting to EUR 60 million in May 2012 ⁽⁴¹⁾ and (iii) a State guarantee for issued bonds with a nominal value of EUR 50 million in March 2011.
- (74) FB Bank participated in the PSI programme, exchanging GGBs with a face value of EUR 70 million. As illustrated in Table 2, its total PSI-related charge amounted to around EUR 49 million before tax. As illustrated in Table 3, the capital needs of FB Bank were estimated at EUR 168 million in the stress test of 2012.

Acquisition of First Business Bank

- (75) On 8 November 2012, the Bank of Greece requested FB Bank to complete the capital increase by 30 April 2013 in order to restore its Core Tier 1 ratio.
- (76) As FB Bank failed to raise the required capital by 30 April 2013, the Bank of Greece decided to proceed with the withdrawal of the license of FB Bank and put it into liquidation.
- (77) The Bank of Greece considered that taking resolution measures through a Purchase & Assumption procedure, in particular the financing of the relevant funding gap and the associated coverage of the capital needs related to the transferred assets, was crucial to maintain the depositors' confidence in the Greek banking system and thus to preserve financial stability. The Bank of Greece estimated that on 31 December 2012 the total amount of customer deposits in FB Bank amounted to approximately EUR 1 278 million, of which only EUR 830 million were guaranteed by the HDIGF. Therefore, if FB Bank had been put into liquidation without the application of resolution measures, around EUR 448 million of deposits would not have been covered.
- (78) For those financial stability considerations, the Bank of Greece proceeded with the auction of the selected assets and liabilities of FB Bank, including deposits. However, the acquisition of FB Bank's assets could have created further capital needs for the acquirer and hence no bank would accept to acquire the selected assets and liabilities. The Bank of Greece, in its letter to the HFSF dated 8 May 2013, indicated that it considered it to be appropriate that the HFSF should cover those capital needs as part of the resolution costs. In its final binding bid dated 10 May 2013, the Bank requested that the capital needs created by the acquisition of the assets transferred from FB Bank be covered by the HFSF. The amount of those capital needs was estimated at around EUR 100 million by the Bank of Greece at the time of the resolution ⁽⁴²⁾.

⁽⁴¹⁾ FB Bank had received Greek Government Securities in January 2009, which matured in December 2011.

⁽⁴²⁾ Electronic mail of the Bank of Greece to the Commission, 11 May 2013.

- (79) On 8 May 2013, only the Bank and another bank submitted non-binding offers. The bids of both banks were based on the understanding that the HFSF would cover both the funding gap and the capital needs related to the transferred assets. On 10 May 2013, the Bank submitted its final offer. The Bank of Greece decided to transfer the assets and liabilities of FB Bank to the Bank, whose offer was considered to be the preferred one.
- (80) Customer loans (other than those permanently in arrears) and most cash balances, as well as intangible assets and goodwill, property rights, contracts related to the lease or purchase of property, interbank liabilities and customer deposits were transferred to the Bank.
- (81) According to the initial assessment of the Bank of Greece at the time of the resolution ⁽⁴³⁾, the value of the liabilities transferred from FB Bank to the Bank was estimated at EUR 1 402 million while the value of the transferred assets was estimated at EUR 878 million, the difference being the funding gap of EUR 524 million. The funding gap was covered pursuant to Article 63D(13) of law 3601/2007 by the HFSF, which on 28 June 2013 disbursed the two-thirds of the estimated funding gap, meaning EUR 349,6 million. After the finalisation of the calculation of the funding gap by the Bank of Greece on 7 November 2013 ⁽⁴⁴⁾ at EUR 457 million, on 13 November 2013 ⁽⁴⁵⁾ the HFSF paid to the Bank the balance of EUR 107,4 million.

2.2.3. Acquisition of selected assets and liabilities of Probank

- (82) Probank had a network of 112 branches across Greece and employed 1 087 people ⁽⁴⁶⁾ at 31 March 2013.
- (83) The balance sheet of Probank was around EUR 3,2 billion at 30 June 2013 ⁽⁴⁷⁾. Probank had a market share of 1,1 % in loans and a market share of 1,7 % in deposits at 31 March 2013.
- (84) Probank participated in the PSI programme, exchanging GGBs with a face value of EUR 415 million. As illustrated in Table 2, its total PSI-related charge amounted to around EUR 295 million before tax. As illustrated in Table 3, the capital needs of Probank were estimated at EUR 282 million in the stress test of 2012.

Acquisition of Probank

- (85) On 26 October 2012, the Bank of Greece requested Probank to increase its capital by EUR 282 million.
- (86) As Probank failed to increase its capital, in July 2013 the Bank of Greece decided to proceed with the withdrawal of its license and put it into liquidation ⁽⁴⁸⁾. More precisely, the own funds of Probank were negative and were estimated at around EUR – 16 million based on data at 31 March 2013 on a consolidated basis. Therefore, Probank did not meet its minimum capital requirements and its own funds were lower than the minimum share capital for any bank, as set at Article 5(4)(a) of law 3601/2007.
- (87) The Bank of Greece considered that resolution measures were crucial to maintain depositors' confidence in the Greek banking system and thus to preserve financial stability. The Bank of Greece estimated that on 31 March 2013 the total amount of customer deposits in Probank amounted to approximately EUR 3 123 million, of which only EUR 1 998 million were guaranteed by the HDIGF. Therefore, if Probank had been put into liquidation without the application of resolution measures, around EUR 1 125 million of deposits would not have been covered.
- (88) For those financial stability considerations, the Bank of Greece proceeded with the auction of selected assets and liabilities of Probank, including deposits. However, the acquisition of Probank's assets could have created further capital needs for the acquirer and hence no bank would accept to acquire the selected assets and liabilities. Therefore, in its final binding bid dated 25 July 2013, the Bank requested that the capital needs created by the acquisition of the assets transferred from Probank be covered by the HFSF. The requested commitment to cover those capital needs was taken into account by the HFSF when assessing the bids received. The amount of those capital needs was estimated at EUR [180 to 280] million ⁽⁴⁹⁾.

⁽⁴³⁾ Decision 10/2/10.5.2013 of Resolution Measures Committee of the Bank of Greece.

⁽⁴⁴⁾ Decision 13/1/7.11.2013 of Resolution Measures Committee of the Bank of Greece.

⁽⁴⁵⁾ Report of the Hellenic Financial Stability Fund's Activities for the period July — December 2013, available online at: http://www.hfsf.gr/files/HFSF_activities_Jul_2013_Dec_2013_en.pdf

⁽⁴⁶⁾ The Bank's bid of 25 July 2013, based on data provided by the Bank of Greece, as of 31 March 2013.

⁽⁴⁷⁾ Data submitted by the Bank of Greece on 2 April 2014.

⁽⁴⁸⁾ Decision 85/1/26.7.2013 of the Credit and Insurance Committee of the Bank of Greece.

⁽⁴⁹⁾ HFSF, Probank — Review of submitted offers, 25 July 2013.

- (89) On 24 July 2013 another large Greek bank submitted a draft offer and on 25 July 2013 the Bank submitted its offer. The bids of both banks were based on the understanding that the HFSF would cover both the funding gap and the capital needs created by the transferred assets. The Bank of Greece decided to transfer the assets and liabilities of Probank to the Bank, whose offer was considered to be the preferred one.
- (90) Customer loans (other than the loans permanently in arrears) and most cash balances, as well as intangible assets and goodwill, property rights, contracts related to the lease or purchase of property, interbank liabilities and customer deposits were transferred to the Bank.
- (91) According to the initial assessment of the Bank of Greece at the time of the resolution ⁽⁵⁰⁾, the value of the liabilities transferred from Probank to the Bank was estimated at EUR 3 198,9 million while the value of the transferred assets was estimated at EUR 2 961,4 million, the difference being the funding gap of EUR 237,6 million. The funding gap was covered pursuant to Article 63D(13) of law 3601/2007 by the HFSF, which on 9 August 2013, disbursed in cash two-thirds of the estimated funding gap, meaning EUR 158,4 million. The funding gap, the calculation of which was finalised by the Bank of Greece on 30 December 2013, amounted to EUR 562,7 ⁽⁵¹⁾. On 31 December 2013, the HFSF paid the Bank the balance of EUR 404,4 million in cash ⁽⁵²⁾.

2.3. AID MEASURES

2.3.1. Aid measures granted to the Bank under the Greek Banks Support Scheme (measures L1 and A)

- (92) The Bank obtained several forms of aid under the recapitalisation measure, the guarantee measure and the government bond loan measure of the Greek Banks Support Scheme.

2.3.1.1. State liquidity support granted under the guarantee measure and the government bond loan measures (measure L1)

- (93) The Bank has benefited and continues to benefit from aid under the guarantee measure and the government bond loan measures. That aid will be described in this Decision as 'measure L1'. As of 30 November 2013 ⁽⁵³⁾, the guarantees granted to the Bank amounted to around EUR 14,8 billion. At that date, the outstanding loans of government bonds to the Bank amounted to EUR 847 million. As of 15 April 2011, the Bank had received loans of government bonds amounting to EUR 787 million and State guarantees amounting to EUR 12,9 billion.
- (94) In the restructuring plan for the Bank submitted by the Greek authorities to the Commission on 25 June 2014, the Greek authorities signalled their intention to continue granting guarantees and lending government bonds to the Bank under the Greek Banks Support Scheme during the restructuring period.

2.3.1.2. State recapitalisation granted under the recapitalisation measure (measure A)

- (95) In May 2009 and December 2011, the Bank received from Greece under the recapitalisation measure capital injections of EUR 350 million and EUR 1 000 million respectively, totalling EUR 1 350 million (measure A), equivalent to around 2 % of the risk weighted assets ('RWA') of the Bank at that time.
- (96) The recapitalisation took the form of preference shares subscribed by Greece which had a coupon of 10 % and a maturity of five years. In 2010 the duration of the preference shares was extended while their remuneration was increased. From the end of the initial five-year period, if the preference shares are not redeemed and no decision has been taken by the general meeting of shareholders as to the redemption of those shares, the Greek Minister of Finance will increase the coupon by 2 % a year on a cumulative basis (that is to say, a coupon of 12 % for year six, 14 % for year seven, etc....).

⁽⁵⁰⁾ Decision 12/2/26.7.2013 of Resolution Measures Committee of the Bank of Greece.

⁽⁵¹⁾ The difference stemmed mainly from the fact that the actual amount of gross loans transferred was less than that initially estimated by the amount of EUR 197 million, the fact that provisions for loans also increased by EUR 141 million, the decrease in the valuation of the equity and bond portfolio and the decrease of the valuation of liabilities and mainly deposits.

⁽⁵²⁾ Report of the Hellenic Financial Stability Fund's Activities for the period July — December 2013, available online at: http://www.hfsf.gr/files/HFSF_activities_Jul_2013_Dec_2013_en.pdf

⁽⁵³⁾ According to the report on the use of the guarantee measure and the bond loan measure submitted by Greece on 13 December 2013.

2.3.2. State-guaranteed ELA (measure L2)

- (97) ELA is an exceptional measure enabling a solvent financial institution, facing temporary liquidity problems, to receive Eurosystem funding without such an operation being part of the single monetary policy. The interest rate paid by such a financial institution for ELA is [...] basis points ('bps') higher than the interest it pays for regular ECB refinancing.
- (98) The Bank of Greece is responsible for the ELA programme, which means that any cost of, and the risks arising from, the provision of ELA are incurred by the Bank of Greece ⁽⁵⁴⁾. Greece granted the Bank of Greece a State guarantee which applies to the total amount of ELA granted by the Bank of Greece. The adoption of Article 50(7) of law 3943/2011, which amended Article 65(1) of law 2362/1995, allowed the Minister of Finance to grant guarantees on behalf of the State to the Bank of Greece in order to safeguard the Bank of Greece's claims against the credit institutions. The banks benefiting from ELA have to pay a guarantee fee to the State amounting to [...] bps.
- (99) At 31 January 2012 the Bank had benefited from EUR 8,6 billion of State-guaranteed ELA ⁽⁵⁵⁾, while at 31 December 2012 the Bank had benefited from EUR 30,9 billion of State-guaranteed ELA ⁽⁵⁶⁾.

2.3.3. Aid measures granted to the Bank through the HFSF (measures B1, B2 and B3)

- (100) Since 2012, the Bank has benefited from several capital support measures granted by the HFSF. Table 7 provides an overview of those aid measures.

Table 7

Aid measures granted to the Bank through the HFSF

	1st bridge recapitalisation — May 2012 (EUR million)	2nd bridge recapitalisation — Dec 2012 (EUR million)	Spring 2013 recapitalisation — May 2013 (EUR million)
Measure	B1	B2	B3
Amount (EUR million)	7 430	2 326	8 677

2.3.3.1. The first bridge recapitalisation (measure B1)

- (101) Recitals 14 to 33 of the NBG Opening Decision give a detailed description of the first bridge recapitalisation of May ⁽⁵⁷⁾ 2012 (measure B1). The background and main features of that measure are set out in this section.
- (102) On 20 April 2012, the HFSF provided a letter to the Bank committing to participate in a planned share capital increase of the Bank for an amount of up to EUR 6,9 billion.
- (103) Under measure B1, the HFSF transferred EUR 7,4 billion of EFSF bonds to the Bank on 28 May 2012, in line with the provisions for bridge recapitalisations laid down in the law 3864/2010 establishing the HFSF (the 'HFSF law'). The Commission has already established in recital 50 of the NBG Opening Decision that '*The bridge recapitalisation finalised on 28 May 2012 is the implementation of the obligation undertaken in the commitment letter and thus a continuation of the same aid*'. Both the amounts provided in the commitment letter and in the first bridge recapitalisation were calculated by the Bank of Greece to ensure the Bank reached a total capital ratio of 8 % at

⁽⁵⁴⁾ According to the letter of the Bank of Greece of 7 November 2011, 'Guarantees apply on the total amount of Emergency Liquidity Assistance (ELA)'.

⁽⁵⁵⁾ Information submitted in the notification on 25 June 2014.

⁽⁵⁶⁾ Restructuring plan submitted on 25 June 2014, Annex I, p. 24.

⁽⁵⁷⁾ As explained in recital 101 and 102, the commitment was granted in April 2012, and the recapitalisation actually took place in May 2012.

31 December 2011, the date of retroactive booking of the bridge recapitalisation in the Bank's records. As can be seen from Table 3, measure B1 did not cover entirely the capital needs identified by the stress test of 2012. The Bank was supposed to raise the capital through a future capital increase and the bridge recapitalisation was only intended to preserve the Bank's eligibility for ECB financing until that capital increase had taken place.

- (104) For the period between the date of the first bridge recapitalisation and the date of the conversion of the first bridge recapitalisation into ordinary shares and other convertible financial instruments, the pre-subscription agreement between the Bank and the HFSF stipulated that the Bank had to pay to the HFSF a 1 % annual fee on the nominal value of the EFSF notes and that any coupon payments and accrued interest to the EFSF notes for that period would count as an additional capital contribution by the HFSF to the Bank ⁽⁵⁸⁾.

2.3.3.2. *The second bridge recapitalisation (measure B2)*

- (105) The Bank booked further losses in the autumn of 2012. Its capital therefore fell again below the minimum capital requirements for it to remain eligible for ECB refinancing.
- (106) A second bridge recapitalisation became necessary as a result. On 21 December 2012, the HFSF implemented a second bridge recapitalisation of EUR 2 326 million (measure B2), which was again paid by transferring EFSF bonds to the Bank.
- (107) The total of the two bridge recapitalisations (measures B1 and B2) meant that the total capital needs identified by the stress test of 2012 (EUR 9,76 billion ⁽⁵⁹⁾) were already disbursed by the HFSF at 21 December 2012.

2.3.3.3. *HFSF's participation in the Spring 2013 recapitalisation (measure B3)*

- (108) On 22 May 2013 the Board of Directors of the Bank announced the issue of 2 274,1 million new shares with a nominal value of EUR 0,30 at a price of EUR 4,29 per share ⁽⁶⁰⁾.
- (109) On 21 June 2013 ⁽⁶¹⁾ the Bank announced the full payment of the total increase in shares for a total amount of EUR 9 756 million, including premium amounts. The total private participation in the Bank's share capital increase amounted to EUR 1 079 million ⁽⁶²⁾. The participation of the HFSF in the share capital increase of the Bank therefore amounted to EUR 8 677 million (measure B3).
- (110) That amount is equal to the sum of measures B1 and B2, after deduction of the amount of private participation. By means of the Bank's share capital increase, the first and second bridge recapitalisations (measures B1 and B2) were partially converted into a permanent recapitalisation.
- (111) The price of new shares was set at 50 % of the volume-weighted average stock price over the 50 trading days preceding the determination of the offer price. As a result of a reverse stock split and of a reduction of the Bank's share capital, both decided by the extraordinary general meeting of shareholders on 29 April 2012 ⁽⁶³⁾, the price of new shares was set at EUR 4,29 per share.
- (112) Immediately after the Spring 2013 recapitalisation, the HFSF became the majority shareholder of the Bank with a stake of 84,39 % ⁽⁶⁴⁾. The HFSF issued 245 779,6 million warrants and granted private investors one warrant for each share subscribed, for no consideration ⁽⁶⁵⁾. Each warrant incorporates the right to buy 8,23 shares of the HFSF, at specified intervals and strike prices. The first exercise date is 26 December 2013, and then the warrants

⁽⁵⁸⁾ The pre-subscription agreement provided that: 'The Effective Risk payable to the Bank shall include the EFSF bonds and any coupon payments and accrued interest to the EFSF bonds for the period from the issuance of the bonds until the conversion of the Advance into share capital and other convertible financial instruments as prescribed herein'.

⁽⁵⁹⁾ See Table 3.

⁽⁶⁰⁾ http://www.nbg.gr/wps/wcm/connect/71b1f08a-2c84-4cfe-a368-f985c93d2da9/20130523_Announcement_Cut+Off+Date+and+Subscription+Period_final+clean+...%283%29_EN.pdf?MOD=AJPERES.

⁽⁶¹⁾ <http://www.nbg.gr/wps/portal/en/the-group/Press-Office/Press-Releases/content/Press-Releases/anakoinosi-21-6-2013>.

⁽⁶²⁾ http://www.hfsf.gr/files/HFSF_activities_Jan_2013_Jun_2013_en.pdf

⁽⁶³⁾ <http://www.nbg.gr/wps/portal/en/the-group/Press-Office/Press-Releases/content/Press-Releases/reverse-split>.

⁽⁶⁴⁾ http://www.hfsf.gr/files/HFSF_activities_Jan_2013_Jun_2013_en.pdf

⁽⁶⁵⁾ http://www.nbg.gr/wps/wcm/connect/af79cd67-5fd6-4811-bd70-2b493cf5c205/Announcement+Commencement+of+Trading_EN.pdf?MOD=AJPERES.

are exercisable every six months until 26 December 2017. The exercise price is equal to the subscription price of EUR 4,29 increased by an annual interest rate (4 % for year one, 5 % for year two, 6 % for year three, 7 % for year four and then 8 % annualised for the last six months) ⁽⁶⁶⁾.

- (113) The HFSF law as amended in 2014 provides that only the warrant strike prices may be adjusted in the event of a rights issue. Additionally, the adjustment must take place *ex post* and only up to the amount of the proceeds realised from the sale of pre-emption rights of the HFSF. No adjustment is provided for in the event of a non-pre-emptive share capital increase.

2.3.4. Aid measures to the acquired businesses

2.3.4.1. State support to the three Cooperative Banks

- (114) As already mentioned in section 2.2.1, the funding gaps of Lesvos-Limnos bank, Achaia Bank and Lamia Bank of EUR 56,6 million, EUR 212,9 million and EUR 56,3 million respectively, were covered by the HFSF. Therefore, the total amount of the funding gaps was EUR 325,8 million.

2.3.4.2. Aid measures to FB Bank

- (115) Since 2009, FB Bank has benefited from several aid measures. Table 8 provides an overview of those aid measures.

Table 8

Overview of the aid measures to FB Bank

Aid beneficiary	Measure	Description	Entity which granted the aid	Date	State aid amount (in EUR million)
FB Bank's activities	FB1	Preference shares granted under the Greek Banks Support Scheme	State	July 2009	50
	FB2	Lending of Greek government bonds under the Greek Banks Support Scheme	State	From January 2009	60
	FB3	State guarantee for issued bonds under the Greek Banks Support Scheme	State	March 2011	50
	FB4	Financing of the funding gap for assets transferred from FB Bank to the Bank	HFSF	10.5.2013 (Date of the resolution)	456,97
	FB5	Commitment to cover the capital needs related to the assets transferred from FB Bank to the Bank	HFSF	10.5.2013 (Date of the resolution)	100
		Total amount FB4 and FB5			556,97

2.3.4.2.1 State recapitalisation received by FB Bank (measure FB1)

- (116) In July 2009, Greece injected EUR 50 million into FB Bank, equivalent to around 3 % of its RWA at that time. That capital injection was made under the recapitalisation measure which is part of the Greek Banks Support Scheme. The recapitalisation took the form of preference shares.

⁽⁶⁶⁾ For instance, the exercise price on 26 December 2013 was EUR 4,3758, on 26 June 2014 it will be EUR 4,4616, on 26 December 2014, it will be 4,5689, on 26 June 2015, it will be EUR 4,6761 and so forth.

2.3.4.2.2 State liquidity support received by FB Bank (measures FB2 and FB3)

- (117) FB Bank has also benefited from liquidity support under the guarantee measure and the government bond loan measures which are part of the Greek Banks Support Scheme. In January 2009, FB Bank received Greek government securities amounting to EUR 60 million, which matured in December 2011 (Measure FB2). In May 2012 it received Greek government securities amounting to EUR 60 million, which were supposed to mature in April 2015 but were cancelled on 23 May 2013 (Measure FB3) ⁽⁶⁷⁾. In March 2011, FB Bank also received a State guarantee for issued bonds with a nominal value of EUR 50 million.

2.3.4.2.3 Measures related to the resolution of FB Bank (measures FB4 and FB5)

- (i) Coverage of the funding gap of assets transferred from FB Bank to the Bank for an amount of EUR 456,97 million (measure FB4)
- (118) The HFSF covered the funding gap ⁽⁶⁸⁾ of assets transferred from FB Bank to the Bank. In line with the decisions of the Bank of Greece of 10 May and 7 November 2013, the HFSF paid the total amount of EUR 456,97 million in two instalments, on 26 July and on 13 November 2013 ⁽⁶⁹⁾.
- (ii) Commitment of the HFSF to cover the capital needs related to the transferred assets (measure FB5)
- (119) Under the resolution procedure, the HFSF committed to cover the capital needs arising from the acquisition of the assets transferred from FB Bank. Therefore the HFSF would be required to inject an amount of capital equivalent to 9 % of the transferred RWA into the Bank. At the time of the resolution, the capital needs related to the transferred assets were estimated at around EUR 100 million.
- (120) As already mentioned in recital 30, the HFSF will not inject any further capital into the Bank, as the Bank in its restructuring plan waives its right to request the HFSF to cover potential capital needs related to the transferred assets.

2.3.4.3. Aid measures to Probank

- (121) Probank has not benefited from any aid measure under the Greek Banks Support Scheme. Table 9 provides an overview of the other aid measures from which Probank has benefited.

Table 9

Overview of the aid measures to Probank

Aid beneficiary	Measure	Description	Entity which granted the aid	Date	State aid amount (in EUR million)
Probank's activities	PB1	Financing of the funding gap of assets transferred from Probank to the Bank	HFSF	26.7.2013 (Date of the resolution)	562,73
	PB2	Commitment to cover the capital needs related to the assets transferred from Probank to the Bank	HFSF	26.7.2013 (Date of the resolution)	[180 to 280]
		Total amount PB1 and PB2			[742,73 to 842,73]

⁽⁶⁷⁾ That amount of EUR 60 million of Greek government securities was allocated and granted to the Bank in September 2013, following decision 73/1/10.5.2013 of Credit and Insurance Committee of the Bank of Greece and decision 10/1/10.5.2003 of the Resolution Measures Committee of the Bank of Greece.

⁽⁶⁸⁾ The name 'funding gap' may therefore be misleading since it describes a capital support measure and not a liquidity support.

⁽⁶⁹⁾ HFSF, Report of the Hellenic Financial Stability Fund's Activities for the period July-December 2013, March 2014, p. 4, available online at: http://www.hfsf.gr/files/HFSF_activities_Jul_2013_Dec_2013_en.pdf

2.3.4.3.1. Coverage of the funding gap of the assets transferred from Probank to the Bank for an amount of EUR 562,73 million (measure PB1)

- (122) The HFSF financed the funding gap of the assets transferred from Probank to the Bank. In line with the decisions of the Bank of Greece of 26 July and 30 December 2013, the HFSF paid the total amount of EUR 562,73 million in two instalments, on 9 August and 31 December 2013.

2.3.4.3.2. Commitment of the HFSF to cover the capital needs related to the transferred assets (measure PB2)

- (123) Under the resolution procedure, the HFSF committed to cover the capital needs of the buyer arising from the acquisition of the assets of Probank. Therefore the HFSF would be required to inject an amount of capital equivalent to 9 % of the transferred RWA into the Bank. At the time of the resolution, the capital needs related to the transferred assets were estimated at around EUR [180 to 280] million.
- (124) As already mentioned in recital 41, the HFSF will not inject any further capital into the Bank, as the Bank in its restructuring plan waives its right to request the HFSF to cover the potential capital needs related to the transferred assets.

2.4. THE RESTRUCTURING PLAN

- (125) On 25 June 2014, Greece submitted the restructuring plan of the Bank, which explains how the Bank, as a combined entity resulting from the acquisitions of FB Bank, Probank and the three Cooperative Banks, intends to restore its long-term viability.

2.4.1. Domestic operations

- (126) Through the restructuring plan, the Bank will focus on its core banking activities in Greece and in Turkey.
- (127) Regarding Greece, the key priority of the Bank is to bring its Greek banking operations back to strong profitability and viability by the end of the restructuring period, namely 31 December 2018. To that end, the restructuring plan includes a number of measures aimed at improving the Bank's operational efficiency and net interest margin, as well as measures enhancing its capital position and balance sheet structure.
- (128) As regards operational efficiency, the Bank has already started a vast programme of rationalisation. From 31 December 2009 to 30 December 2012, the Bank reduced its physical presence in Greece. It reduced its number of branches from 575 in 2009 ⁽⁷⁰⁾ to 511 in 2012 ⁽⁷¹⁾ and also reduced the workforce of the Greek banking activities (from 12 534 in December 2009 ⁽⁷²⁾ to 11 230 in December 2012 ⁽⁷³⁾).
- (129) From December 2012 until the end of 2017, the Bank plans to further decrease the number of employees in Greece (from 13 675 to [...]) ⁽⁷⁴⁾ despite the impact of the acquisitions of FB Bank and Probank that employed 260 and 1087 employees ⁽⁷⁵⁾ respectively. The difference between the workforce of the Greek banking activities at 31 December 2012 (11 230) and the total Greek workforce at the end of 2012 (13 675) is due to the headcounts of non-banking activities such as insurance (Ethniki Hellenic General Insurance S.A.), tourism (Astir Palace Vouliagmenis S.A.) or real estate (NBG Pangaea Reic).
- (130) From December 2012 until the end of 2017, the Bank will pursue the rationalisation of its domestic network. The number of branches will increase by [...] from 511 to [...]. It is recalled that in 2013 the Bank acquired the FB Bank and Probank networks with 19 and 112 branches respectively.

⁽⁷⁰⁾ 2010 Annual Report https://www.nbg.gr/english/the-group/investor-relations/annual-report-offerring-circular/Documents/73301T05_CNB.pdf

⁽⁷¹⁾ 2012 Annual Report, <https://www.nbg.gr/english/the-group/investor-relations/annual-report-offerring-circular/Documents/NBG%20Form%2020-F.PDF>

⁽⁷²⁾ 2010 Annual Report https://www.nbg.gr/english/the-group/investor-relations/annual-report-offerring-circular/Documents/73301T05_CNB.pdf

⁽⁷³⁾ 2012 Annual Report, <https://www.nbg.gr/english/the-group/investor-relations/annual-report-offerring-circular/Documents/NBG%20Form%2020-F.PDF>

⁽⁷⁴⁾ Restructuring plan submitted on 25 June 2014, p. 30 (figures refer to the domestic operations, including for instance subsidiaries active in insurance, real estate and tourism).

⁽⁷⁵⁾ See recitals 72 and 82.

- (131) The increased efficiency in terms of branches and personnel will help to bring down the total cost of its Greek activities by [...] % from EUR 1 301 million on a pro forma basis in 2012 to EUR [...] million in 2017 ⁽⁷⁶⁾. As a result, the expected cost-to-income ratio of its Greek banking activities will fall below [...] % at the end of the restructuring period.
- (132) The restructuring plan also describes how the Bank will reduce its funding costs, which is key to the restoration of viability. The Bank expects to be able to pay lower interest rates on its deposits on the back of the more stable environment and, in particular, the anticipated stabilisation and recovery of the Greek economy, which is expected to grow again from 2014 onwards. Spreads on deposits (average of time deposits, sight deposits and savings rates) are expected to decrease in Greece. Similarly, the Bank's reliance on the State-guaranteed ELA and wider Eurosystem funding will decrease during the restructuring period.
- (133) The restructuring plan anticipates that the Bank will also strengthen its balance sheet. Its net loan-to-deposit ratio in Greece will further decrease, while its capital adequacy will improve (from a Core Tier 1 ratio of 8,4 % at group level at 31 December 2013).
- (134) Another priority of the Bank is the management of non-performing loans. The Bank will enhance its credit processes regarding both the origination of loans (better collateral coverage, reduced limits) and the management of non-performing loans. The rate of non-performing loans will [...], with an expected rate of [...] % at the end of the restructuring period ⁽⁷⁷⁾. The cost of risk (loan loss impairments) will decrease from EUR 2 billion in 2012 to EUR [...] billion in 2018 ⁽⁷⁸⁾.
- (135) The improvement of operational efficiency, the increase in the net interest margin, and the decreasing cost of risk will enable the Bank to increase its profitability. The Bank anticipates that its profits in Greece will amount to EUR [...] million and EUR [...] million in 2014 and 2018 respectively. The return on equity will reach [...] % in 2017 for the Greek activities ⁽⁷⁹⁾, which is sufficient given the risk profile of the Bank at that date ⁽⁸⁰⁾.

2.4.2. International banking activities (except Turkey)

- (136) The Bank has already started to deleverage and restructure its international network. The number of branches in South-Eastern Europe has been reduced by 170 since 2009 ⁽⁸¹⁾.
- (137) The Bank will continue to restructure and deleverage its international network. In particular, the Bank will sell its foreign subsidiaries in [...] and divest its branches in [...]. Those divestments represented [...] % of the Bank's assets outside Greece and Turkey, that is to say EUR [...] million out of EUR 12,101 million at the end of 2012.
- (138) Branches in the [...] and [...] as well as the subsidiary in [...] will be [...].
- (139) As a result of those divestments, the net parent funding will be eliminated by the end of the restructuring period.

2.4.3. Turkey

- (140) The Bank intends to reduce its ownership in Finansbank to 60 % [...].
- (141) [...] will provide Finansbank with [...] and enhance the commitment of the Bank to provide [...] to Finansbank over the restructuring period.
- (142) The Bank plans that Finansbank will grow significantly during the restructuring period. It will also implement a cost control plan. In 2014, Finansbank intends to [...] and to [...]. In the following years, the [...], resulting in a decrease in the cost-to-income ratio from [...] to [...] at the end of the restructuring period ⁽⁸²⁾.

⁽⁷⁶⁾ Restructuring plan submitted on 25 June 2014, p. 30.

⁽⁷⁷⁾ Restructuring plan submitted on 25 June 2014, Annex I, p. 11.

⁽⁷⁸⁾ Restructuring plan submitted on 25 June 2014, Annex I, p. 9.

⁽⁷⁹⁾ Restructuring plan submitted on 25 June 2014, Annex I, p. 11.

⁽⁸⁰⁾ The return on RWA, which is not adversely affected by the high capital adequacy of the Bank, will reach [...] % at the end of the restructuring period.

⁽⁸¹⁾ Restructuring plan submitted on 25 June 2014, p. 13.

⁽⁸²⁾ Restructuring plan submitted on 25 June 2014, p. 34.

- (143) The restructuring plan foresees close scrutiny of risks taken by Finansbank. It is expected that impairments will amount to less than [...] % of customer loans from 2014 to 2018, with a return on assets expected at [...] % in 2018. The return on equity of Finansbank will remain high throughout the period.
- (144) The Bank sold its Turkish insurance business (life and non-life) in 2012 at a capital gain of EUR [...] million ⁽⁸³⁾.

2.4.4. Non-banking activities: sale of [...] real estate activities

- (145) The Bank has reduced its ownership in its real estate subsidiary Pangea below 35 % with a positive impact on the Core Tier 1 ratio of the Bank ⁽⁸⁴⁾. The Bank also plans to sell [...] by [...] and its private equity subsidiary by [...].

2.4.5. Private capital raising and contribution by existing shareholders and subordinated creditors

- (146) The Bank succeeded in raising significant amounts of capital on the market and reduced thereby the State aid which it needed.
- (147) First, the Bank raised private capital in 2009 with a rights issue of EUR 1 247 million. In 2010 the Bank again raised EUR 1 815 million ⁽⁸⁵⁾ in private capital from the market. As mentioned in recital 109, the Bank also managed to raise EUR 1 079 million in capital from private investors through the Spring 2013 recapitalisation. The shareholders, which included those who participated in the 2009 and 2010 capital increases, were heavily diluted by the Spring 2013 recapitalisation: the HFSF received 84,4 % of the Bank's shares and the new investors received 10,5 % of the shareholding, leaving the pre-existing shareholders with a shareholding of only 5,1 %. No dividend has been paid to ordinary shareholders since 2007 or to US preference shareholders since 2009 ⁽⁸⁶⁾.
- (148) The Bank raised EUR 2,5 billion in capital from the market in May 2014. The Bank intends to [...].
- (149) Regarding the contribution by hybrid and subordinated debt holders, on 3 January 2012 the Bank offered to buy back preferred securities at prices ranging from 45 % to 70 % of the nominal value of those securities. On that occasion, the Bank also bought back covered bonds. For each of those buy-backs, the price was determined on the basis of the market value of the instruments and contained a premium of not more than ten percentage points, which was added to encourage investors to participate in the buy-back. The acceptance rate was 44 % and the overall increase in capital amounted to about EUR 302 million ⁽⁸⁷⁾.
- (150) Later in 2012 and 2013 the Bank launched additional liability management exercises on securities issued to investors, including covered bonds, hybrid instruments, Tier 2 instruments and preference shares issued in the United States. Those buybacks generated additional capital of EUR [...] million. Overall, the Bank indicates that the total amount of capital generated by liability management exercises over recent years amounts to approximately EUR [...] million ⁽⁸⁸⁾. As a result of those buy-backs, the outstanding amount of subordinated and hybrid debt decreased to EUR 293 million at 31 December 2013.

2.5. COMMITMENTS OF THE GREEK AUTHORITIES

- (151) On 25 June 2014, Greece gave a commitment that the Bank and its affiliates will implement the restructuring plan submitted on 25 June 2014 and gave further commitments regarding the implementation of the restructuring plan ('the Commitments'). The Commitments, in the Annex, are summarised in this section.
- (152) First, Greece has given a commitment that the Bank will restructure its commercial operations in Greece, setting a maximum number of branches and employees as well as a maximum amount of total costs to be achieved by 31 December 2017 ⁽⁸⁹⁾.

⁽⁸³⁾ Restructuring plan submitted on 25 June 2014, p. 12.

⁽⁸⁴⁾ The gain in the Core Tier 1 ratio is estimated at 35 bps in 2013, according to the submission of the Greek authorities on 21 November 2013.

⁽⁸⁵⁾ Financial Report 2010, p. 44.

⁽⁸⁶⁾ Restructuring plan submitted on 25 June 2014, p. 12.

⁽⁸⁷⁾ <http://www.barchart.com/plmodules/?module=secFilings&filingid=8338505&type=HTML&popup=1&override=1&symbol=NBG>.

⁽⁸⁸⁾ Restructuring plan submitted on 25 June 2014, p. 11.

⁽⁸⁹⁾ See Commitments in the Annex, chapter II.

- (153) Greece has also given a commitment that the Bank will reduce the cost of deposits collected in Greece and will comply with a maximum ratio of net loans-to-deposits ⁽⁹⁰⁾ by 31 December 2017 ⁽⁹¹⁾.
- (154) Regarding the Bank's foreign subsidiaries, Greece has given a commitment that the Bank will not provide [...], and that it will divest a minority stake in that subsidiary. Greece has also given a commitment that the Bank will deleverage a number of foreign subsidiaries by 30 June 2018 ⁽⁹²⁾.
- (155) Greece has given a commitment that the Bank will divest [...] and its private equity subsidiary, as well as a number of securities. In addition, the Bank will not purchase non-investment grade securities, with limited exceptions ⁽⁹³⁾.
- (156) Greece has given a number of commitments related to the corporate governance of the Bank. It gave a commitment to limit the remuneration of the Bank's employees and managers, [...] ⁽⁹⁴⁾.
- (157) Greece has also given a commitment that the Bank will enhance its credit policy, in order to ensure that decisions on granting and restructuring loans aim at maximising the viability and profitability of the Bank. Greece has given a commitment that the Bank will comply with high standards regarding the monitoring of credit risk as well as the restructuring of loans ⁽⁹⁵⁾.
- (158) A number of commitments deal with the operations of the Bank with connected borrowers. Those commitments aim at ensuring that the Bank does not deviate from prudent banking practices when granting or restructuring loans to its employees, managers and shareholders, as well as to public entities, political parties and media companies ⁽⁹⁶⁾.
- (159) Finally Greece has given a commitment that the Bank will comply with some behavioural limitations, such as a coupon and dividend ban, an acquisition ban and a ban on advertising State support ⁽⁹⁷⁾.
- (160) Those commitments will be monitored until 31 December 2018 by a monitoring trustee.
- (161) Separately, Greece has indicated that it would seek the approval of the Commission prior to any buy-back of the warrants by the Bank or by any State entity including the HFSF ⁽⁹⁸⁾.

3. GROUNDS FOR INITIATING THE FORMAL INVESTIGATION PROCEDURE ON THE FIRST BRIDGE RECAPITALISATION

- (162) On 27 July 2012, the Commission opened the formal investigation procedure in order to verify whether the conditions of the 2008 Banking Communication ⁽⁹⁹⁾ were met regarding the appropriateness, necessity and proportionality of the first bridge recapitalisation provided by the HFSF in favour of the Bank (measure B1).
- (163) Regarding the appropriateness of the measure, since the aid came after prior recapitalisations and liquidity aid and given the protracted rescue period, the Commission expressed doubts as to whether all actions possible had been taken by the Bank to avoid a need for aid in the future ⁽¹⁰⁰⁾. In addition, the Commission was not clear who would control the Bank once the first bridge recapitalisation was replaced by a permanent recapitalisation ⁽¹⁰¹⁾ as

⁽⁹⁰⁾ The interest rate swaps agreed with the Hellenic Republic under an ISDA agreement, including those securitized through Titlos Plc, will be excluded from the net loans for the purpose of the calculation of the net loan-to-deposit ratio.

⁽⁹¹⁾ See Commitment in the Annex, chapter II.

⁽⁹²⁾ See Commitments in the Annex, chapter II.

⁽⁹³⁾ See Commitments in the Annex, chapter II.

⁽⁹⁴⁾ See Commitments in the Annex, chapter III, section A.

⁽⁹⁵⁾ See Commitments in the Annex, chapter III, section A.

⁽⁹⁶⁾ See Commitments in the Annex, chapter III, section A.

⁽⁹⁷⁾ See Commitments in the Annex, chapter III, section C.

⁽⁹⁸⁾ Letter of Greece to the Commission dated 25 June 2014: 'Finally, as regards the warrants issued by the HFSF, it should be clarified that Hellenic Republic will seek the approval of the European Commission prior to any buy-back to the warrants by NBG or by any State entity (including the HFSF), so that the European Commission can verify that the envisaged buy-back of the warrants is not contrary to the State remuneration requirements under State aid rules.'

⁽⁹⁹⁾ Communication from the Commission — The application of State aid rules to measures taken in relation to financial institutions in the context of the current global financial crisis (OJ C 270, 25.10.2008, p. 8).

⁽¹⁰⁰⁾ Recital 59 of the NBG Opening Decision.

⁽¹⁰¹⁾ Recital 63 of the NBG Opening Decision.

the Bank might come under the control either of the State or of minority private owners. The Commission noted that it would wish to ensure that the quality of the Bank's management and in particular its lending process should not deteriorate in either case.

- (164) Regarding the necessity of the first bridge recapitalisation, in recital 67 of the NBG Opening Decision the Commission questioned whether all the measures possible had been taken to avoid the Bank again needing aid in the future. Moreover, since the duration of the bridge recapitalisation period was uncertain the Commission could not reach a conclusion as to whether the remuneration was sufficient and complied with the remuneration and burden-sharing principles under State aid rules. Furthermore, as the terms of the conversion of the first bridge recapitalisation into a permanent recapitalisation were not known at the time the NBG Opening Decision was adopted, the Commission could not assess them.
- (165) Regarding the proportionality of the measure, the Commission expressed doubts as to whether the safeguards (State support advertisement ban, coupon and dividend ban, call option ban and buy-back ban as described in recital 71 of the NBG Opening Decision) were sufficient in relation to the first bridge recapitalisation. Furthermore, in recital 72 of the NBG Opening Decision the Commission stated that distortions of competition could be caused by the lack of rules preventing the HFSF from coordinating the four largest Greek banks (namely, the Bank, Alpha Bank, Eurobank and Piraeus Bank) and the absence of adequate safeguards to avoid them sharing commercially sensitive information. The Commission, therefore, proposed the appointment of a monitoring trustee, who would be physically present in the Bank.

4. COMMENTS FROM INTERESTED PARTIES ON THE FORMAL INVESTIGATION PROCEDURE ON THE FIRST BRIDGE RECAPITALISATION

Comments from a Greek bank

- (166) On 3 January 2013, the Commission received comments from a Greek bank on the NBG Opening Decision. That Greek bank commented that the recapitalisation of Greek banks by the HFSF constituted, in principle, a welcome step towards a healthier and more viable banking system and expressed no objection to the recapitalisation of the Bank.
- (167) However, while expressing its entire support for the principle of the recapitalisation of Greek banks by the HFSF, that Greek bank explained that, in order to minimise distortions of competitions and to avoid discrimination, it expected recapitalisation by the HFSF to be open to all banks operating in Greece under similar conditions.

5. COMMENTS FROM GREECE ON THE FORMAL INVESTIGATION PROCEDURE ON THE FIRST BRIDGE RECAPITALISATION

- (168) On 5 September 2012, Greece submitted comments which had been prepared by the Bank of Greece and the HFSF.

5.1. COMMENTS FROM THE BANK OF GREECE

- (169) Regarding the appropriateness of the first bridge recapitalisation, the Bank of Greece noted that the amount of EUR 18 billion of capital with which the HFSF recapitalised the four largest Greek banks in May 2012 was less than the final amount which was needed in order for those banks to gradually reach and maintain a Core Tier 1 ratio set at 10 % and Core Tier 1 ratio set at 7 % under a three-year adverse stress scenario. It also noted that the first bridge recapitalisation was temporary given that the recapitalisation process would be concluded with share capital increases by those four banks.
- (170) The Bank of Greece also observed that the recapitalisation of the largest Greek banks is part of the longer term restructuring of the Greek banking sector. It noted that where a bank remains in private hands, the management will most probably remain the same, while if a bank becomes State-owned (that is to say, owned by the HFSF), the HFSF may appoint new management which, in any case, will be assessed by the Bank of Greece. The Bank of Greece noted that it assesses the corporate governance framework, the adequacy of management and the risk profile of every bank on an ongoing basis in order to ensure that excessive risks are not taken. It also pointed out that the HFSF had already appointed representatives in the Board of Directors of the recapitalised banks.

- (171) Regarding the necessity of the first bridge recapitalisation, the Bank of Greece observed that the Bank's recapitalisation was limited so as to ensure that the then applicable minimum capital requirements (8 %) were met. It also stated that the protracted period of time prior to the recapitalisations was due to the sharp deterioration of the operating environment in Greece and the impact of the PSI programme, to the complexity of the whole project and to the need to maximise private investors' participation in the share capital increases.
- (172) Regarding the proportionality of the first bridge recapitalisation, the Bank of Greece pointed out that the full implementation of the restructuring plan to be submitted to the Commission is safeguarded by the fact that the suspension of the voting rights of the HFSF will be lifted if, inter alia, the restructuring plan is substantively violated. The Bank of Greece also observed that the Bank's difficulties were not due either to an underestimation of risks by the Bank's management or to commercially aggressive actions.

5.2. COMMENTS FROM THE HFSF

- (173) Regarding the appropriateness of the first bridge recapitalisation, to address the issue of potential State interference if the State provides high amounts of State aid through the HFSF and the HFSF has full voting rights, the HFSF stated that the HFSF-funded banks are not considered to be public entities or under State control and that they will not be controlled by the State after they have been permanently recapitalised by the HFSF. The HFSF pointed out that it is a fully independent private-law legal entity with autonomy of decision. It is not subject to government control, pursuant to Article 16C(2) of the HFSF law, according to which the credit institutions to which the HFSF has provided capital support are not part of the broader public sector. It also referred to the governing structure of the HFSF.
- (174) As regards the intervention of the HFSF in the Bank's management, the HFSF noted that it would respect the Bank's autonomy and not interfere with its day-to-day management given that its role is limited to that laid down in the HFSF law. It stated that there would not be any State interference or coordination and that the decisions of the Bank regarding the lending process (inter alia on collateral, pricing and solvency of borrowers) would be taken on the basis of commercial criteria.
- (175) The HFSF pointed out that the HFSF law and the pre-subscription agreement set appropriate safeguards in order to prevent existing private shareholders from excessive risk-taking. It pointed to elements such as (i) the appointment of HFSF representatives as independent non-executive members of the Board of Directors of the Bank and their presence at committees, (ii) the HFSF carrying out due diligence in the Bank and (iii) the fact that, after the final recapitalisation, its voting rights would be restricted only for as long as the Bank complied with the terms of the restructuring plan.
- (176) Regarding the necessity of the first bridge recapitalisation and specifically regarding the level of the remuneration of aid, the HFSF stated that the remuneration had been agreed with the representatives of the Commission, the ECB and the IMF. That agreed level took into account that the first bridge recapitalisation would be converted into a permanent recapitalisation before 30 September 2012, a deadline which was set in March 2012 in the MEFP between the Commission, the ECB, the IMF and Greece.
- (177) Regarding the proportionality of the first bridge recapitalisation, the HFSF noted that the measures it adopted, such as those described in recital 175, are sufficient safeguards in view of the large amounts of aid received and the protracted rescue period. Moreover, the HFSF stated that there are appropriate measures in place in order to ensure that banks in which the HFSF participates do not share commercially sensitive information between them. Such measures include the appointment of different HFSF representatives to those banks, the mandates addressed to those representatives which specifically safeguard against the flow of information from one representative to another and clear internal instructions to those officers not to transmit commercially sensitive information of the banks. Moreover, the HFSF stated that it does not exercise its rights in relation to the banks in a manner which may prevent, restrict, distort or significantly lessen or impede effective competition. Lastly, the HFSF pointed out that the members of its Board of Directors and its employees are subject to strict confidentiality rules and fiduciary duties and are bound by provisions concerning professional secrecy with regards to its affairs.

6. ASSESSMENT OF AID RELATED TO THE ACQUIRED BUSINESSES

6.1. ASSESSMENT OF THE STATE SUPPORT RELATED TO THE RESOLUTION OF THE THREE COOPERATIVE BANKS

6.1.1. Existence and the amount of aid

- (178) The Commission first has to assess whether the State support related to the resolution of the three Cooperative Banks (meaning the financing of the funding gaps which enabled the transfer of the deposits) constitutes State aid within the meaning of Article 107(1) of the Treaty. According to that provision, State aid is 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, in so far as it affects trade between Member States.
- (179) The Commission will start by assessing whether or not there was an advantage for the following potential beneficiaries: (i) the Cooperative Banks and the potentially transferred 'activities' to the Bank; and (ii) the Bank.
- (i) Existence of aid to the three Cooperative Banks and to the activities potentially transferred to the Bank.
- (180) With regards to the three Cooperative Banks, the Commission notes that Lesvos-Limnos Bank, Achaia Bank and Lamia Bank have been put in liquidation and their banking licenses withdrawn. Therefore, they will no longer carry out economic activities on the banking market.
- (181) The State support, that is to say the financing of the funding gaps, would constitute State aid to the transferred claims and liabilities within the meaning of Article 107(1) of the Treaty only if they together constitute an undertaking. The concept of an undertaking encompasses every entity engaged in an economic activity, regardless of legal status and the way in which it is financed. Any activity consisting in offering goods or services on a given market is regarded as an economic activity. Therefore, in order to conclude whether there is aid to an undertaking, it should be assessed whether the transfer of claims and liabilities entail the transfer of an economic activity.
- (182) As already mentioned in section 2.2.1, following the resolution of the three Cooperative Banks, only the deposits and the claims and liabilities towards the HDIGF were transferred to the Bank. The three Cooperative Banks employed 187 employees and had 21 branches in total. It should be noted that there was no automatic transfer of branches or employment contracts or loans between the three Cooperative Banks and the Bank. Therefore, the fact that loans are not transferred to the Bank but remain with the three Cooperative Banks in liquidation, the fact that no branches were transferred and the lack of automatic transfer of labour contracts contribute ⁽¹⁰²⁾ to the conclusion that there is no transfer of economic activity. The transferred liabilities (that is to say deposits) cannot be considered to be the beneficiary of State support, as they do not constitute an undertaking.
- (183) In summary, the three existing legal entities have been put into liquidation and no longer carry out any banking activities. At the same time, the transferred liabilities do not constitute an economic activity.
- (184) It is therefore concluded that the grant of EFSF bonds by the HFSF to the Bank to cover the funding gap of the acquired assets and liabilities of the three Cooperative Banks does not allow the continuation of the latter's economic activities. Therefore, the HFSF support does not constitute either aid to the liquidated entities or aid to the transferred assets and liabilities.
- (ii) Existence of aid to the Bank
- (185) With regards to whether the sale of the three Cooperative Banks' assets and liabilities entails State aid to the Bank, the Commission must assess whether certain requirements are met and in particular whether (i) the sale process was open, unconditional and non-discriminatory; (ii) the sale took place on market terms; and (iii) the State maximised the sale price for the assets and liabilities involved ⁽¹⁰³⁾.

⁽¹⁰²⁾ See Recital 146 of the Commission Decision of 12 November 2008 in State aid Case SA. 510/08 — Italia 'Vendita dei beni della compagnia aerea ALITALIA' (OJ C 46, 25.2.2009, p. 6).

⁽¹⁰³⁾ See point 49 of the 2008 Banking Communication and point 20 of the Restructuring Communication.

- (186) As already mentioned in recital 64, the Bank of Greece only contacted the five largest Greek credit institutions operating in Greece at that time. The limited set of buyers contacted cannot exclude that the tender was open given that they were the only credit institutions likely to be interested in submitting an offer. Indeed, the package for sale only included deposits. Therefore, to benefit from synergies on those deposits, it is necessary to operate in the geographical area concerned. A bank with no presence in those areas could not offer services to depositors, thus deposit retention would be minimal and the acquirer would support the cost of acquiring the deposits for no benefit. The Bank of Greece could therefore reasonably assume within the short timeframe available to resolve the three Cooperative Banks that only credit institutions whose business models were consistent with being able to service those depositors would have an interest in acquiring those assets. The Bank and three other banks submitted binding offers. The Bank's offer was the preferred one in terms of consideration and time required for the conclusion of the transfer. The Bank offered to pay as consideration an amount equal to [...] % of the transferred deposits and estimated that the transfer could be completed within one working day.
- (187) On the basis of the above, the Commission concludes that State aid to the Bank can be excluded, in line with point 20 of the Restructuring Communication and the Commission's decisional practice ⁽¹⁰⁴⁾.
- (iii) Conclusion on the existence of aid
- (188) The State support involved in the sale of the three Cooperative Banks does not constitute State aid to the three Cooperative Banks, to the transferred assets or to the Bank. Therefore, the measure does not constitute aid within the meaning of Article 107(1) of the Treaty.

6.2. ASSESSMENT OF AID RELATED TO FIRST BUSINESS BANK

6.2.1. Existence and the amount of aid

- (189) The Commission has to assess whether the measures constitute State aid within the meaning of Article 107(1) of the Treaty.

6.2.1.1. Existence of aid in the measures granted under the Greek Banks Support Scheme (measures FB1, FB2 and FB3)

- (190) The EUR 50 million capital injection by Greece into FB Bank in July 2009 (measure FB1), the Greek government securities amounting to EUR 60 million in May 2012 (Measure FB2) and the State guarantee given to FB Bank for issued bonds with a nominal value of EUR 50 million in March 2011 (measure FB3) were granted under the Greek Banks Support Scheme ⁽¹⁰⁵⁾. In the decision approving that scheme, the Commission concluded that measures granted under that scheme would constitute State aid.
- (191) Therefore, the Commission notes that the transferred activities would no longer exist without those measures. Those measures have contributed to the stabilisation and the continuance of the economic activities which were later transferred to the Bank and therefore the Commission considers that they have benefited the economic activities of FB Bank which were later transferred to the Bank and constitute State aid within the meaning of Article 107(1) of the Treaty.

6.2.1.2. Existence of aid in the measures granted in view of the resolution of FB Bank (measures FB4 and FB5)

- (192) The Commission notes that the HFSF is an entity set up and financed by Greece to support banks, and therefore measures FB4 and FB5 involve State resources. The Commission also notes that measures FB4 and FB5 are selective in nature, since they only benefit FB Bank's activities.
- (193) Moreover the Commission considers that measures FB4 and FB5 provide FB Bank's activities with a clear advantage by keeping them alive. The transfer order in that case is indeed a sale 'en bloc'. While the equity and subordinated debt will not be transferred, the key productive banking assets will be transferred (branches, deposits and loans). Measure FB4 therefore provides the transferred activities with an advantage as it provides sufficient assets to cover its deposits and the transferred activities continue to exist due to the sale of FB Bank's assets en bloc.

⁽¹⁰⁴⁾ See Commission decision of 25 January 2010 in State aid case NN 19/09 — Restructuring aid to Dunfermline Building Society, recital 47 (OJ C 101, 20.4.2010, p. 7). Commission decision of 25 October 2010 in State aid case N 560/09 — Aid for the liquidation of Fionia bank, recital 55 (OJ C 76, 10.3.2011, p. 3). Commission decision of 8 November 2010 in State aid case N 392/10 — Restructuring of CajaSur, recital 52 (OJ C 357, 30.12.2010, p. 12).

⁽¹⁰⁵⁾ See footnotes 2 and 4.

- (194) Moreover, without measure FB5, the sale would not be possible because the transfer would have a potential negative impact on the acquirer's capital adequacy ratio. Therefore, the transferred activities would no longer exist and measures FB4 and FB5 thus provide them with a clear advantage.
- (195) The Commission considers that measures FB4 and FB5 do not comply with the market economy investor principle ('MEIP'). In fact, the HFSF has no prospect of making a profit on its contribution: in exchange for its contribution, it received no claim against the Bank but only a claim against the entity under liquidation, that is to say FB Bank ⁽¹⁰⁶⁾. Therefore, the HFSF will not probably fully recover the money contributed.
- (196) The selective advantage which measures FB4 and FB5 provide distorts competition by keeping one banking activity alive, allowing it to operate on the market and to compete with other banks, including subsidiaries of foreign banks, which are active in Greece or potentially interested in entering the Greek market. Hence, measures FB4 and FB5 have an effect on trade between Member States and potentially distort competition.
- (197) The Commission therefore concludes that the coverage by the HFSF of the funding gap of EUR 456,97 million related to the assets transferred from FB Bank to the Bank and the commitment of the HFSF to cover the capital needs related to those assets, which may amount to EUR 100 million, constitute State aid within the meaning of Article 107(1) of the Treaty.

Beneficiary of measures FB4 and FB5

- (198) As already explained in recital 193, the Commission considers FB Bank's activities as the beneficiary of measures FB4 and FB5, as the aid allowed the continuation of those economic activities within the Bank.
- (199) As to whether the sale of FB Bank's activities entails State aid to the Bank, in line with point 49 of the 2008 Banking Communication, the Commission needs to assess whether certain requirements are met. It needs to examine in particular whether (i) the sale process was open and non-discriminatory; (ii) the sale took place on market terms; and (iii) the financial institution or the government maximised the sale price for the assets and liabilities involved.
- (200) The Bank acquired the package of the assets and liabilities of FB Bank because it submitted the preferred offer in the framework of a non-discriminatory tender procedure open to other banks. The Bank of Greece decided to contact only the four largest banks operating in Greece, of which only the Bank and one other bank submitted non-binding offers. The Bank of Greece invited the two bidders to submit improved offers. The Bank of Greece selected NBG because its offer entailed lower resolution costs ⁽¹⁰⁷⁾.
- (201) The Commission observes that the Bank of Greece only contacted four banks ⁽¹⁰⁸⁾. The limited set of buyers contacted cannot exclude that the tender was open given the lack of other banks operating in Greece with sufficient size to absorb the tendered assets and with adequate capital at the time of resolution and given the limited interest, at the time of resolution, shown by foreign credit and financial institutions in engaging in banking activities in Greece. Moreover, the Bank of Greece determined in advance the portfolio of the assets and liabilities to be transferred and the timetable the offers should meet in order to be valid. The Commission considers that the sale process was open and non-discriminatory.
- (202) The negative price (that is to say, taking into account the funding gap and the coverage of the aforementioned capital needs) for the assets and liabilities of FB Bank does not preclude that the sale price reflects the market value of the business ⁽¹⁰⁹⁾. The Commission has no reason to consider that the offer made and the price paid did not reflect the market price of the business. It is recalled that, under Greek law, the fair value of the transferred assets is initially estimated by the Bank of Greece and then verified and adjusted by external experts during the

⁽¹⁰⁶⁾ See Article 9(15) of Law 4051/2012 and Article 13A(4) of Law 3746/2009.

⁽¹⁰⁷⁾ Letter of Bank of Greece to the European Commission dated 14 May 2013.

⁽¹⁰⁸⁾ In contrast with what was done for the resolution of the three Cooperative Banks, Emporiki Bank was not contacted since in the meantime it had been taken over by Alpha Bank.

⁽¹⁰⁹⁾ See also recital 82 of Commission Decision of 28 November 2012 in State aid SA. 34053 (12/N) — Spain Recapitalisation and Restructuring of Banco de Valencia S.A. (OJ C 75, 14.3.2013, p. 3).

following six months. As a result, the Commission considers that the sale took place on market terms. On the basis of the above, in line with point 49 of the 2008 Banking Communication, point 20 of the Restructuring Communication and its decisional practice ⁽¹¹⁰⁾, the Commission concludes that State aid to the Bank can be excluded.

6.2.1.3. Conclusion on the existence and total amount of aid received

- (203) On the basis of recitals 190 to 197, the Commission considers that measures FB1, FB2, FB3, FB4 and FB5 all fulfil the conditions laid down in Article 107(1) of the Treaty and constitute State aid.
- (204) Therefore, the Commission concludes that the activities of FB Bank have received State aid in the form of capital support of EUR 606,97 million (measures FB1, FB4 and FB5), in addition to loans of Greek government securities of EUR 60 million (measure FB2) and State guarantees of EUR 50 million (measure FB3), as summarised in Table 10.

Table 10

Overview of the total aid to FB Bank's activities

Aid beneficiary	Measure	Nature of aid	Amount of aid (in EUR million)
FB Bank's activities	FB1	Recapitalisation	50
	FB4	Financing of funding gap from FB Bank to the Bank	456,97
	FB5	Commitment letter to cover the capital needs related to FB Bank's transferred assets to the Bank	100
Total capital aid granted			606,97
Total capital aid eventually disbursed			506,97
Aid beneficiary	Measure	Nature of aid	
FB Bank's activities	FB2	Bond loan	60
	FB3	Guarantee	50
Total liquidity aid granted			110

6.2.2. Legal basis of the compatibility assessment

- (205) Article 107(3)(b) of the Treaty empowers the Commission to find that aid is compatible with the internal market if it is intended 'to remedy a serious disturbance in the economy of a Member State'.
- (206) The Commission has acknowledged that the global financial crisis can create a serious disturbance in the economy of a Member State and that measures supporting banks may remedy that disturbance. This has been confirmed in the 2008 Banking Communication, the Recapitalisation Communication, and the Restructuring Communication. The Commission still considers that requirements for State aid to be approved pursuant to Article 107(3)(b) of the Treaty are fulfilled in view of the reappearance of stress in financial markets. The Commission confirmed that view by adopting the 2011 Prolongation Communication ⁽¹¹¹⁾ and the 2013 Banking Communication ⁽¹¹²⁾.

⁽¹¹⁰⁾ See footnote 103.

⁽¹¹¹⁾ Communication from the Commission on the application, from 1 January 2012, of State aid rules to support measures in favour of financial institutions in the context of the financial crisis ('2011 Prolongation Communication') (OJ C 356, 6.12.2011, p. 7).

⁽¹¹²⁾ Communication from the Commission on the application, from 1 August 2013, of State aid rules to support measures in favour of banks in the context of the financial crisis ('Banking Communication') (OJ C 216, 30.7.2013, p. 1).

- (207) With respect to the Greek economy, in its decisions approving and prolonging the Greek Banks Support Scheme as well as in its approvals of State aid measures granted by Greece to individual banks, the Commission has acknowledged that there is a threat of serious disturbance in the Greek economy and that State support of banks is suitable to remedy that disturbance. Therefore, the legal basis for the assessment of the aid measures should be Article 107(3)(b) of the Treaty.
- (208) In line with point 15 of the 2008 Banking Communication, in order for an aid to be compatible under Article 107(3)(b) of the Treaty it must comply with the general criteria for compatibility:
- (a) Appropriateness: The aid has to be well-targeted in order to be able to effectively achieve the objective of remedying a serious disturbance in the economy. It would not be the case if the measure were not appropriate to remedy the disturbance.
 - (b) Necessity: The aid measure must, in its amount and form, be necessary to achieve the objective. Therefore it must be of the minimum amount necessary to reach the objective, and take the form most appropriate to remedy the disturbance.
 - (c) Proportionality: The positive effects of the measure must be properly balanced against the distortions of competition, in order for the distortions to be limited to the minimum necessary to achieve the measure's objectives.
- (209) During the financial crisis, the Commission has developed compatibility criteria for different types of aid measures. Principles for assessing aid measures were first laid down in the 2008 Banking Communication.
- (210) The Recapitalisation Communication sets out further guidance on the level of remuneration required for State capital injections.
- (211) Finally, the Commission has explained in the Restructuring Communication how it will assess restructuring plans. In its assessment of the restructuring plan of the Bank under the Restructuring Communication, the Commission will take into account all the measures listed in Table 10.

6.2.3. Compliance of the aid measures with the 2008 Banking Communication and the Recapitalisation Communications

6.2.3.1. Compliance of measures FB1, FB2 and FB3 with the 2008 Banking Communication

- (212) Measures FB1, FB2 and FB3 were granted under the Greek Banks Support Scheme. The measures included under that scheme have already been assessed as compatible with the internal market in the Commission's Decision of 19 November 2008.

6.2.3.2. Compliance of measures FB4 and FB5 with the 2008 Banking and Recapitalisation Communications

6.2.3.2.1. Appropriateness

- (213) As regards the appropriateness of measures FB4 and FB5, the Commission considers that those measures are appropriate because they safeguarded the depositors of FB Bank and therefore safeguarded financial stability. Those activities would not have been able to continue without the aid from the HFSF, as FB Bank had a negative equity at the time of the resolution and in the then prevailing difficult market conditions no bank would have acquired a portfolio of assets and liabilities with negative value and which would have worsened its capital adequacy position. The measures thereby ensured that financial stability in Greece would be maintained. On that basis, the Commission finds that the measures are appropriate as rescue aid.

6.2.3.2.2. Necessity

- (214) According to the 2008 Banking Communication, the aid measure must, in its amount and form, be necessary to achieve the objective of the measure. It implies that a capital injection must be of the minimum amount necessary to reach that objective.

- (215) As the Bank of Greece stated in its letter of 8 May 2013, despite the small size of FB Bank, the withdrawal of its license without the application of resolution measures could have damaged depositors' confidence in the Greek banking system and thus an impact on financial stability. Moreover, the Bank of Greece added that among the different resolution options, it favoured the resolution of FB Bank through the application of the Purchase & Assumption procedure in line with the MEFP of December 2012. It considered that that procedure offered an immediate and definite solution to the problems faced by FB Bank. The Commission considers that those financial stability elements support the necessity of measures FB4 and FB5.
- (216) As regards the amount of the intervention, the Bank of Greece in its decision 10/1/10.5.2013 stated that a transfer order of selected assets and liabilities was the preferred solution as it minimised the resolution cost. That decision was also in line with the MEFP of March 2012. Moreover, the Commission observes that the final amount of the funding gap was carefully assessed by the Greek authorities, which took into account the valuation report prepared by a statutory auditor. The contribution exactly covered the difference between the fair value of the transferred assets and the value of the liabilities. Moreover, the HFSF committed to cover the capital needs only up to 9 % of the transferred assets, as estimated by the Bank of Greece. The fact that only the Bank, among the two bidders, agreed to revise its offer supports the conclusion that the contribution was not excessive.
- (217) Furthermore, the equity of FB Bank was not transferred and was therefore left in the liquidated entity, that is to say FB Bank. Therefore, the shareholders will suffer a full loss and the contribution of the HFSF is not inflated by the cost of rescuing them.
- (218) As regards the remuneration of the aid, as previously indicated in recital 195, the HFSF will most probably not fully recover the amount of money contributed ⁽¹¹³⁾. It therefore clearly does not receive any remuneration and its contribution is similar to a grant. As indicated in point 44 of the Recapitalisation Communication, an insufficiently remunerated recapitalisation can only be accepted in the case of distressed banks which cannot pay any remuneration. The Commission considers that is the case for FB Bank. The absence of remuneration triggers the need for in-depth restructuring, in line with the Recapitalisation Communication.
- (219) In conclusion, measures FB4 and FB5 are necessary as rescue aid in both its amount and form to achieve the objectives of limiting the disturbance in the Greek banking system and economy as a whole.

6.2.3.2.3. Proportionality

- (220) The Commission notes that FB Bank no longer exists as it previously existed. The fact that the aid rescues the activities transferred from could in theory create distortions of competition. However, the Commission takes positive note of the small size of FB Bank and of the sale process in which competitors had the opportunity to bid for the selected assets and liabilities of FB Bank. Moreover, immediately after their transfer, the economic activities of FB Bank were fully integrated within the Bank and ceased to exist as a separate economic activity or competitor. The Commission therefore concludes that the aid does not create undue distortions of competition.

Conclusion on the compliance of measures FB4 and FB5

- (221) It is concluded that measures FB4 and FB5 are appropriate and necessary and, in light of the small size of FB Bank and its disappearance as a standalone competitor through its full integration into the Bank, are proportionate to the intended objective, in line with the 2008 Banking Communication and the Recapitalisation Communication.

6.2.4. Compliance of the aid measures with the Restructuring Communication

- (222) As regards the remuneration of measure FB4, the Commission noted in recital 218 that the HFSF will probably not fully recover the EUR 456,97 million injected for the resolution of FB Bank (measure FB4). The absence of remuneration triggers the need for in-depth restructuring, both in terms of viability measures and in terms of measures to limit distortions of competition.

⁽¹¹³⁾ Regarding measure FB4, the HFSF holds a claim of EUR 457 million towards the entity in liquidation. At 31 December 2013, the impairments booked on that claim amounted to EUR 377 million in the financial statements of the HFSF.

6.2.4.1. Long-term viability of FB Bank's activities through sale

- (223) Point 21 of the Restructuring Communication provides that where the credit institution in difficulty cannot credibly return to long term-viability, its orderly liquidation or its auctioning off should be considered. Member States may therefore encourage the exit of non-viable players while allowing for the exit process to take place within an appropriate time frame that preserves financial stability.
- (224) However, FB Bank was not viable on a standalone basis and was put into liquidation. In that respect, point 17 of the Restructuring Communication clarifies that 'the sale of an ailing bank to another financial institution can contribute to restoring long-term viability, if the purchaser is viable and capable of absorbing the transfer of the ailing bank and may help restoring market confidence'.
- (225) As stated in section 7.5.2, based on the Bank's restructuring plan, the Bank can be considered as a viable entity. Therefore, the fact that the activities of FB Bank have been transferred to the Bank allows their long-term viability to be restored. Moreover, the fact that FB Bank's activities were fully integrated ⁽¹¹⁴⁾ within the Bank and ceased to operate as a stand-alone competitor constitutes in-depth restructuring as required by the insufficient remuneration of the State aid.

6.2.4.2. Own contribution and burden-sharing

- (226) As explained in recital 216, the selected way of resolving FB Bank ensures the limitation of the restructuring costs to the minimum. First, the funding gap was carefully assessed by the Greek authorities, taking into account a report by independent auditors. Moreover, the HFSF committed to cover the capital needs of the buyer stemming from the transferred activities only up to the minimum amount required by law. In addition, the integration of the economic activities of FB Bank into a larger entity and the concomitant realisation of synergies, through the rationalisation of FB Bank's branch network, the consolidation of the IT infrastructure and the reduction of funding costs, help limit the restructuring costs to the minimum compared to a scenario where the State would have tried to restore FB Bank's viability on a standalone basis.
- (227) The equity and the subordinated debt were not transferred to the Bank but remained in FB Bank, the entity in liquidation. Hence, the Commission considers that sufficient burden-sharing by shareholders was achieved since the latter are entitled to proceeds from the liquidation only if the proceeds are sufficient to repay first the HFSF, which has a priority claim over other creditors. Therefore, given the scarcity of the liquidated assets, the shareholders are unlikely to get their investments back.

6.2.4.3. Measures to limit distortions of competition

- (228) Regarding measures to limit distortions of competition, point 30 of the Restructuring Communication provides that 'the Commission takes as a starting point for its assessment of the need for such measures, the size, scale and scope of the activities that the bank in question would have upon implementation of a credible restructuring plan [...]. The nature and form of such measures will depend on two criteria: first, the amount of the aid and the conditions and circumstances under which it was granted and, second, the characteristics of the market or markets on which the beneficiary bank will operate.'
- (229) The total aid received in form of capital amounts to EUR 606,97 million (measures FB1, FB4 and FB5), in addition to Greek government securities of EUR 60 million (measure FB2) and State guarantees of EUR 50 million (measure FB3). Measure FB1 corresponded to 3,25 % of the FB Bank's RWA as of 31 December 2008. Measure FB4, the financing of the funding gap from FB Bank to the Bank, corresponded to around 33,44 % of the RWA of FB Bank as of 31 March 2013. Measure FB5, by definition, corresponded to 9 % of the transferred RWA of FB Bank to the Bank. Such amounts of aid in combination with the absence of remuneration call for a significant reduction in the market presence of the beneficiary.
- (230) Regarding the market on which FB Bank operated, the Commission notes that FB Bank was a very small bank (less than 0,5 % share of Greek banks' total assets and a market share of less than 1 % for loans and deposits in Greece) and consequently the assets and liabilities of FB Bank which were transferred into the Bank were small when compared with the size of the Greek banking system.

⁽¹¹⁴⁾ Restructuring Plan submitted on 25 June 2014, p. 17.

- (231) Moreover, the activities of FB Bank were offered to competitors through an open auction. Following its sale, FB Bank ceased to exist as a stand-alone competitor as the transferred activities were fully integrated within the Bank.
- (232) It is concluded that given the small size of the transferred activities, the open sales process, and the full integration of FB Bank's activities into the Bank, there are no undue distortions of competition, despite the very large amount of aid and the absence of remuneration.

6.2.4.4. *Conclusion on the compliance with the Restructuring Communication*

- (233) On the basis of that analysis, it is concluded that the sale of selected assets and liabilities of FB Bank and their integration into the Bank ensure that FB Bank's activities return to long-term viability, that the aid is limited to the minimum necessary and that there are no undue distortions of competition, in line with the Restructuring Communication.

6.2.5. **Conclusion on the compatibility of aid related to FB Bank with the internal market**

- (234) All the aid measures listed in Table 10 are thus compatible with the internal market.

6.3. ASSESSMENT OF AID RELATED TO PROBANK

6.3.1. **Existence and the amount of aid**

- (235) The Commission first has to assess whether the measures constitute State aid within the meaning of Article 107(1) of the Treaty.

6.3.1.1. *Existence of aid in the measures granted in view of the resolution of Probank (measures PB1 and PB2)*

- (236) The HFSF is an entity set up and financed by Greece to support banks. Measures PB1 and PB2 therefore involve State resources. Measures PB1 and PB2 are also selective in nature, since they only benefit Probank's activities.
- (237) Moreover measures PB1 and PB2 provide Probank's activities with a clear advantage by keeping them alive. The transfer order in that case is a sale 'en bloc' as, while the equity will not be transferred, the key productive banking assets will be transferred (branches, deposits and loans).
- (238) Measures PB1 and PB2 do not comply with the MEIP. In fact, the HFSF has no prospect of making a profit on its contribution: in exchange for its contribution, it did not receive any claim against the Bank but only a claim against the entity under liquidation, that is to say Probank⁽¹¹⁵⁾. Therefore, the HFSF will probably not fully recover the money contributed.
- (239) That selective advantage which measures PB1 and PB2 provide distorts competition by keeping one banking activity alive, allowing it to operate on the market and to compete with other banks which are active in Greece or potentially interested in entering the Greek market. Hence, measures PB1 and PB2 have an effect on trade between Member States and potentially distort competition.
- (240) It is therefore concluded that the coverage by the HFSF of the funding gap from Probank to the Bank, for an amount of EUR 562,73 million and the commitment of the HFSF to cover the capital needs related to the transferred assets, which may amount to EUR [180 to 280] million, constitute State aid within the meaning of Article 107(1) of the Treaty.

Beneficiary of measures PB1 and PB2

- (241) Probank's activities are the beneficiary of measures PB1 and PB2, as the latter allowed the continuation of those activities within the Bank.
- (242) As to whether the sale of Probank's activities constitutes State aid to the Bank, in line with point 49 of the 2008 Banking Communication the Commission needs to assess whether certain requirements are met. It needs to examine in particular whether (i) the sale process was open and non-discriminatory; (ii) the sale took place on market terms; and (iii) the financial institution or the government maximised the sale price for the assets and liabilities involved.

⁽¹¹⁵⁾ See Article 9(15) of Law 4051/2012 and Article 13A(4) of Law 3746/2009.

- (243) The Bank acquired the assets and liabilities of Probank because it submitted the preferred offer in the framework of a non-discriminatory tender procedure open to other banks. The Bank of Greece decided to contact only the four largest banks operating in Greece, of which only the Bank and one other bank submitted offers. The Bank was the preferred bidder in terms of price and expected synergies.
- (244) The Bank of Greece only contacted four banks. The limited set of buyers contacted cannot exclude that the tender was open given the lack of other banks operating in Greece with sufficient size to absorb the tendered activities and with adequate capital at the time of resolution. In addition, until the resolution of Probank, no foreign credit and financial institution had submitted a valid binding proposal to acquire Probank despite the repeated postponement of the deadline. At the time of the resolution, the interest shown by foreign credit and financial institutions in engaging in banking activities in Greece was very limited. Moreover, the Bank of Greece had determined in advance the portfolio of the assets and liabilities to be transferred and the timetable which the offers had to meet in order to be valid. Therefore, the Commission concludes that the sale process was open and non-discriminatory.
- (245) The negative price (that is to say, taking into account the funding gap and the coverage of the aforementioned capital needs) for the assets and liabilities of Probank does not preclude that the sale price reflects the market value of the business ⁽¹¹⁶⁾. The Commission has no reason to consider that the offer made and the price paid did not reflect the market price of the business. Indeed, the fair value of the assets had been estimated by the Bank of Greece and verified by external auditors. As a result, the Commission considers that the sale took place on market terms. On the basis of the above, in line with point 49 of the 2008 Banking Communication, point 20 of the Restructuring Communication and the Commission's decisional practice ⁽¹¹⁷⁾, it is concluded that State aid to the Bank can be excluded.

6.3.1.2. Conclusion on the existence and total amount of aid received

- (246) On the basis of recitals 236 to 240, the Commission considers that measures PB1 and PB2 fulfil the conditions laid down in Article 107(1) of the Treaty and constitute State aid.
- (247) Therefore, it is concluded that the activities of Probank have received State aid in the form of capital support of EUR [742,7 to 842,7] million (measures PB1 and PB2), as summarised in Table 11.

Table 11

Overview of the total aid to Probank's activities

Aid beneficiary	Measure	Nature of aid	Amount of aid (in EUR million)
Probank's activities	PB1	Financing of funding gap from Probank to the Bank	562,7
	PB2	Commitment letter to cover the capital needs related to Probank's transferred assets to the Bank	[180 to 280]
Total capital aid granted			[742,7 to 842,7]
Total capital aid disbursed			[742,7 to 842,7]

6.3.2. Legal basis of the compatibility assessment

- (248) Article 107(3)(b) of the Treaty empowers the Commission to find that aid is compatible with the internal market if it is intended 'to remedy a serious disturbance in the economy of a Member State'.

⁽¹¹⁶⁾ See footnote 109.

⁽¹¹⁷⁾ See footnote 103.

- (249) As explained in recitals 206 and 207, the legal basis at present for the assessment of aid measures to Greek banks should be Article 107(3)(b) of the Treaty.
- (250) As explained in recital 208, in line with point 15 of the 2008 Banking Communication, in order for an aid to be compatible under Article 107(3)(b) of the Treaty it must comply with the general criteria for compatibility: appropriateness, necessity and proportionality.
- (251) The Recapitalisation Communication sets out further guidance on the level of remuneration required for State capital injections.
- (252) Finally, the Commission has explained in the Restructuring Communication how it will assess restructuring plans. In its assessment of the restructuring plan under the Restructuring Communication, the Commission will take into account all measures listed in Table 11.

6.3.3. Compliance of the aid measures under the 2008 Banking Communication and the Recapitalisation Communication

6.3.3.1. Appropriateness

- (253) As regards the appropriateness of measures PB1 and PB2, the Commission considers that the coverage of the funding gap and the commitment to cover the capital needs of the buyer related to the transferred assets are appropriate because they allowed a sale, safeguarded the depositors of Probank and thereby safeguarded financial stability. Those activities would not have been able to continue without the aid from the HFSF, as Probank had a negative equity at the time of the resolution. In the difficult market conditions which then prevailed, no bank would have acquired a portfolio of assets and liabilities with negative value that would have worsened its capital adequacy position. On 10 May 2013, the Bank of Greece appointed a commissioner in Probank, whose task was also to ensure that any necessary measures would be taken for the completion of the share capital increase of Probank. The fact that no private investor submitted a final binding proposal for the acquisition of Probank until the time of the resolution, despite the efforts of the commissioner appointed in Probank and the repeated extension of the deadline for the share capital increase of Probank, supports the finding that those activities would not have been able to continue without the aid received from the HFSF. The measures thereby ensured that financial stability in Greece was maintained. On that basis, the Commission finds that the measures are appropriate as rescue aid.

6.3.3.2. Necessity

- (254) According to the 2008 Banking Communication, the aid measure must, in its amount and form, be necessary to achieve the objective of the measure. It implies that a capital injection must be of the minimum amount necessary to reach that objective.
- (255) The MEFP of May 2013 provided that for those non-core banks⁽¹¹⁸⁾ which did not meet their capital requirement, the Bank of Greece, in coordination with the HFSF, would assess options to minimise the cost to taxpayers, including Purchase & Assumption procedures, while guaranteeing the security of depositors.
- (256) As the Bank of Greece stated in its decision of 26 July 2013⁽¹¹⁹⁾, the withdrawal of Probank's license without the application of resolution measures could have an impact on financial stability.
- (257) The Commission considers that those financial stability elements support the necessity of measures PB1 and PB2.
- (258) As regards the amount of the measure, the funding gap was carefully assessed by the Greek authorities, taking into account the valuation report prepared by a statutory auditor. The contribution exactly covered the difference between the fair value of the transferred assets and the value of the liabilities. The Bank of Greece in its decision 12/1/26.7.2013 stated that a transfer order of selected assets and liabilities was the preferred solution as it minimised the resolution cost. That decision is also in line with the Second Economic Adjustment Programme for Greece of July 2013. Moreover, the HFSF committed to cover the capital needs only up to 9 % of the transferred assets, as they were estimated by the Bank of Greece.

⁽¹¹⁸⁾ In its viability assessment carried out in 2012 the Bank of Greece identified the four largest banks in Greece to be suitable candidates for recapitalisation by the HFSF, while the other banks, the 'non-core' ones, were not deemed eligible for recapitalisation by the HFSF.

⁽¹¹⁹⁾ Decision 12/1/26.7.2013 of the Resolution Measures Committee of the Bank of Greece.

- (259) Furthermore, the equity was not transferred to the Bank and therefore will be left in the entity into liquidation. Therefore, the shareholders of Probank will suffer a full loss and the contribution of the HFSF is not inflated by the cost of rescuing them.
- (260) As regards the remuneration of the aid, as indicated previously in recital 238, the HFSF will most probably not fully recover the money contributed. It therefore clearly does not receive any remuneration and its contribution is similar to a grant. As indicated in point 44 of the Recapitalisation Communication, an insufficiently remunerated recapitalisation can only be accepted in the case of distressed banks which cannot pay any remuneration. The Commission considers that to be the case for Probank. The absence of remuneration triggers the need for in-depth restructuring, in line with the Recapitalisation Communication.
- (261) In conclusion, the measures are necessary as rescue aid in both its amount and form to achieve the objectives of limiting the disturbance in the Greek banking system and the economy as a whole.

6.3.3.3. *Proportionality*

- (262) Probank no longer exists as it previously existed. The fact that the aid rescues the activities transferred to the Bank could in theory create distortions of competition. However, the Commission notes the small size of Probank and the sale process, in which the competitors had the opportunity to bid for the selected assets and liabilities of Probank. Moreover, immediately after their transfer, the economic activities of Probank were fully integrated within the Bank and ceased to exist as a separate economic activity or competitor. The Commission therefore concludes that the aid does not create undue distortions of competition.

6.3.3.4. *Conclusion on the compliance of measures PB1 and PB2 with the Banking Communication and the Recapitalisation Communication*

- (263) It is concluded that measures PB1 and PB2 are appropriate and necessary and, in the light of the deep restructuring foreseen for the Bank, into which the economic activities of Probank have been transferred, are proportionate to the intended objective, in line with the 2008 Banking Communication and the Recapitalisation Communication.

6.3.4. **Compliance of the aid measures with the Restructuring Communication**

- (264) In recital 260 the Commission noted as regards the remuneration of measure PB1 that the HFSF will probably not fully recover the EUR 562,73 million injected for the resolution of Probank (measure PB1). The absence of remuneration triggers the need for in-depth restructuring, both in terms of viability measures and in terms of measures to limit distortions of competition.

6.3.4.1. *Long-term viability of Probank's activities through sale*

- (265) Point 21 of the Restructuring Communication provides that where the credit institution in difficulty cannot credibly return to long term-viability, its orderly liquidation or its auctioning off should be considered. Member States may therefore encourage the exit of non-viable players while allowing for the exit process to take place within an appropriate timeframe that preserves financial stability.
- (266) However, Probank was not viable on a standalone basis and was put into liquidation. In that respect, point 17 of the Restructuring Communication clarifies that 'the sale of an ailing bank to another financial institution can contribute to restoring long-term viability, if the purchaser is viable and capable of absorbing the transfer of the ailing bank and may help restoring market confidence'.
- (267) As stated in section 7.5.2, based on the Bank's restructuring plan, the Bank can be considered as a viable entity. Therefore, the fact that the activities of Probank have been transferred to the Bank allows their long-term viability to be restored. Moreover, the fact that Probank's activities were fully integrated ⁽¹²⁰⁾ within the Bank and ceased to operate as an independent entity constitutes in-depth restructuring as required by the insufficient remuneration of the State aid.

⁽¹²⁰⁾ Restructuring plan submitted on 25 June 2014, p. 15.

6.3.4.2. *Own contribution and burden-sharing*

- (268) As explained in recital 258, the selected way of resolving Probank ensures the limitation of the restructuring costs to the minimum. First, the funding gap was carefully assessed by the Greek authorities, taking into account a report by independent auditors. Moreover, the HFSF committed to cover the capital needs of the buyer stemming from the transferred assets only up to the minimum amount required by law. In addition, the integration of the economic activities of Probank into a larger entity and the concomitant realisation of synergies, in particular through the rationalisation of Probank's branch network, the consolidation of the IT infrastructure and the reduction of funding costs, contribute to the limitation of the restructuring costs to the minimum, compared to a scenario where the State would have tried to restore Probank's viability on a standalone basis.
- (269) The equity and the subordinated debt were not transferred to the Bank but remained in the entity in liquidation. Hence, the Commission considers that sufficient burden-sharing by shareholders was achieved since the latter are entitled to proceeds from the liquidation only if the proceeds are sufficient to repay first the HFSF, which has a priority claim over other creditors. Therefore, given the scarcity of the liquidated assets, the shareholders are unlikely to get their investments back.

6.3.4.3. *Measures to limit distortions of competition*

- (270) Regarding measures to limit distortions of competition, point 30 of the Restructuring Communication provides that 'the Commission takes as a starting point for its assessment of the need for such measures, the size, scale and scope of the activities that the bank in question would have upon implementation of a credible restructuring plan [...]. The nature and form of such measures will depend on two criteria: first, the amount of the aid and the conditions and circumstances under which it was granted and, second, the characteristics of the market or markets on which the beneficiary bank will operate.'
- (271) Regarding the amount of aid received, the total aid received in the form of capital amounted to EUR [742,7 to 842,7] million (measures PB1 and PB2). Measure PB1 corresponded to around 21,15 % of the RWA of Probank at 30 June 2013. Measure PB2, by definition, corresponded to [...] % of the assets transferred from Probank. Such amounts of aid in combination with the absence of remuneration call for a significant reduction in the market presence of the beneficiary.
- (272) Regarding the market on which Probank operated, the Commission notes that Probank was a very small bank (approximately 1 % of Greek banks' total assets and a market share of about 1 % for loans and less than 2 % for deposits) and consequently the assets and liabilities of Probank which were transferred into the Bank were small compared with the size of the Greek banking system.
- (273) Moreover, the activities of Probank were offered to competitors through an open auction. Following its sale, Probank ceased to exist as a stand-alone competitor as the transferred activities were fully integrated within the Bank.
- (274) It is concluded that given the small size of the transferred activities, the open sales process, and the full integration of Probank's activities into the Bank, there are no undue distortions of competition, despite the very large amount of aid and the absence of remuneration.

6.3.4.4. *Conclusion on the compliance with the Restructuring Communication*

- (275) On the basis of that analysis, the Commission concludes that the sale of the selected assets and liabilities of Probank and their integration into the Bank ensures Probank's activities return to long-term viability, that the aid is limited to the minimum necessary and that there are no undue distortions of competition, in line with the Restructuring Communication.

6.3.5. **Conclusion on the compatibility of aid related to Probank with the internal market**

- (276) All the aid measures listed in Table 11 are thus compatible with the internal market.

7. ASSESSMENT OF AID GRANTED TO THE BANK

7.1. EXISTENCE AND THE AMOUNT OF AID

(277) The Commission has to establish the existence of State aid within the meaning of Article 107(1) of the Treaty.

7.1.1. **Existence of aid in the measures granted under the Greek Bank Support Scheme (measures L1 and A)**

7.1.1.1. *State liquidity support granted under the guarantee and the government bond loan measures (measure L1)*

(278) The Commission has already established in the decisions approving and prolonging the Greek Banks Support Scheme ⁽¹²¹⁾ that liquidity support granted under the scheme constitutes aid. The outstanding amount of guarantees as of 15 April 2011 was EUR 12 873 million, and reached EUR 14 798 million as of 30 November 2013. At those dates, the outstanding loans of government bonds to the Bank amounted to EUR 787 million and EUR 847 million respectively. Future liquidity support granted under that scheme would also constitute aid.

7.1.1.2. *State recapitalisation granted under the Recapitalisation Scheme (measure A)*

(279) The Commission has already established in the Decision of 19 November 2008 on the Greek Banks Support Scheme that recapitalisations to be granted under the recapitalisation measure included under that scheme will constitute aid. The Bank has received EUR 1 350 million by means of preference shares, which represents 2,1 % of the Bank's RWA ⁽¹²²⁾.

(280) In 2010, Greece introduced several changes to the technical parameters of those preference shares whereby, if the preference shares are not redeemed within five years, the coupon then increases by 2 % each year. Given that the changes increase the remuneration of the State in the event that they would not be redeemed or converted after five years, the Commission concludes that the modifications of the technical parameters do not provide any advantage to the Bank and hence do not involve additional State aid.

7.1.2. **Existence of aid in the State-guaranteed ELA (measure L2)**

(281) The Commission clarified in point 51 of the 2008 Banking Communication that the provision of central banks' funds to financial institutions does not constitute aid if four cumulative conditions are met regarding the solvency of the financial institution, the collateralisation of the facility, the interest rate charged to the financial institution, and the absence of counter-guarantee from the State. Since the State-guaranteed ELA granted to the Bank does not comply with those four cumulative conditions, notably because it is State-guaranteed and it is granted in conjunction with other support measures, it cannot be concluded that the State-guaranteed ELA does not constitute State aid.

(282) The State-guaranteed ELA meets the conditions laid down in Article 107(1) of the Treaty. First, because that measure includes a State guarantee in favour of the Bank of Greece, any loss will be borne by the State. The measure therefore involves State resources. The State-guaranteed ELA enables banks to get funding at a time when they have no access to the wholesale funding market and to the standard Eurosystem refinancing operations. The State-guaranteed ELA therefore grants an advantage to the Bank. Since the State-guaranteed ELA is limited to the banking sector, the measure is selective. Because the State-guaranteed ELA allows the Bank to continue operating on the market and avoids it defaulting and having to exit the market, it distorts competition. Since the Bank is active in other Member States and since financial institutions from other Member States operate or would potentially be interested in operating in Greece, the advantage granted to the Bank affects trade between Member States.

(283) On the basis of the above, the Commission considers that the State-guaranteed ELA (measure L2) constitutes State aid. The amount of State-guaranteed ELA has varied over time. On 31 December 2012, it amounted to around EUR 30,9 billion.

⁽¹²¹⁾ See footnotes 1 and 3.

⁽¹²²⁾ See NBG Opening decision, recital 38.

7.1.3. Existence of aid in the measures granted through the HFSF (measures B1, B2 and B3)

7.1.3.1. First bridge recapitalisation (measure B1)

- (284) In section 5.1 of the NBG Opening Decision, the Commission has already concluded that the first bridge recapitalisation constitutes State aid. The capital received amounted to EUR 7 430 million.

7.1.3.2. Second bridge recapitalisation (measure B2)

- (285) Measure B2 was implemented with HFSF resources, which, as explained in recital 49 of the NBG Opening Decision, involved State resources.
- (286) As regards the existence of an advantage, measure B2 increased the Bank's capital ratio to a level that allowed it to continue functioning on the market and accessing Eurosystem funding. Furthermore, the remuneration of measure B2 consists of the accrued interests on EFSF notes and an additional 1 % fee. Because that remuneration is manifestly lower than the remuneration of similar capital instruments in the market, the Bank would have certainly been unable to raise that capital on such terms in the market. Therefore, measure B2 granted an advantage to the Bank from State resources. As the measure was made available only to the Bank, it was selective in nature.
- (287) The position of the Bank was strengthened as a result of measure B2 since the Bank was provided with the financial resources necessary to continue complying with the capital requirements, thus leading to distortions of competition. Since the Bank is active in banking markets in other Member States and since financial institutions from other Member States operate in Greece, notably in the insurance market, measure B2 also affects trade between Member States.

- (288) The Commission considers that measure B2 constitutes State aid. It was notified as aid by the national authorities. The capital received amounted to EUR 2 326 million.

7.1.3.3. The HFSF's participation in the Spring 2013 recapitalisation (measure B3)

- (289) The HFSF's participation in the Spring 2013 recapitalisation (measure B3) is the partial conversion of the first and second bridge recapitalisations (measures B1 and B2) into a permanent recapitalisation of EUR 8 677 million in ordinary shares. Since measure B3 is the conversion of aid already granted, it still involves State resources but it does not increase the nominal amount of aid. However, for a given nominal amount of aid, it increases the advantage to the Bank (and therefore the distortions of competition) since it is a permanent recapitalisation and not a temporary recapitalisation as in the case of measures B1 and B2.
- (290) Such support was not granted to all banks operating in Greece. As regards distortions of competition and effect on trade, the Commission notes for instance that the aid enabled the Bank to pursue its operations in other Member States, such as Romania or Bulgaria. A liquidation of the Bank would have led to the termination of its activities abroad, through the liquidation of those activities or the sale of those businesses. In addition, the insurance activities of the Bank in Greece compete with the activities of subsidiaries of insurance companies from other Member States. Therefore, the measure distorts competition and affects trade between Member States. The Commission considers that measure B3 therefore constitutes State aid.

7.1.3.4. Conclusion on measures B1, B2, and B3

- (291) Measures B1, B2, and B3 constitute State aid within the meaning of Article 107(1) of the Treaty. The amount of State aid included in measures B1, B2, and B3 is EUR 9 756 million. As indicated in section 7.1.3.3, only part of the first and second bridge recapitalisations (measures B1 and B2) was converted into a permanent recapitalisation of EUR 8 677 million (measure B3), while the balance was repaid to the HFSF six months after it was granted ⁽¹²³⁾.
- (292) Point 31 of the Restructuring Communication indicates that, besides the absolute amount of aid, the Commission has to take into account the aid 'in relation to the bank's risk-weighted assets'. Measures B1, B2, and B3 were granted over the course of a one-year period, from April 2012 ⁽¹²⁴⁾ until May 2013. During that period, the RWA of the Bank changed. The question therefore arises as to which level of RWA should be used, and particularly whether the State aid should be assessed by reference to the RWA that existed at the beginning of the period or at the end

⁽¹²³⁾ HFSF, Annual Financial Report for the year ended 31 December 2013, June 2014, p. 6.

⁽¹²⁴⁾ See footnote 56.

of the period. Measures B1, B2, and B3 aim at covering a capital need identified by the Bank of Greece in March 2012 (the stress test of 2012). In other words, the capital needs that those State support measures aim to address already existed in March 2012. The Commission therefore considers that the aid amount included in measures B1, B2, and B3 should be compared to the RWA of the Bank at 31 March 2012. It is also recalled that, after March 2012 and until the Spring 2013 recapitalisation, the Bank of Greece did not take into account acquisitions made by Greek banks to adjust their capital needs upwards or downwards. That factor further demonstrates that measures B1, B2, and B3 were aid measures related to the perimeter of the Bank as it existed at 31 March 2012.

- (293) The first and second bridge recapitalisations together amounted to EUR 9 756 million. That amount represents 15,3 % of the RWA of the Bank at 31 March 2012.
- (294) Since the Bank managed to attract private capital, the actual amount injected by the HFSF into the Bank amounted to only EUR 8 677 million, which represents 13,6 % of the RWA of the Bank at 31 March 2012.

7.1.4. Conclusion on the existence and total amount of aid received by the Bank

- (295) Measures A, B1, B2, B3, L1 and L2 constitute State aid within the meaning of Article 107(1) of the Treaty. Those measures are summarised in Table 12.

Table 12

Overview of the total aid received by the Bank

Ref.	Measure	Type of measure	Amount of aid	Aid/RWA
A	Preference Shares	Capital support	EUR 1 350 million	2,1 %
B1 B2	First bridge recapitalisation Second bridge recapitalisation	Capital support	EUR 7 430 million EUR 2 326 million	15,3 %
Total capital aid granted to the Bank			EUR 11 106 million	17,3 %
B3	Spring 2013 recapitalisation	Capital support	EUR 8 677 million	
Total capital aid granted to the Bank, excluding aid repaid within 6 months			EUR 10 027 million	15,6 %
Ref.	Measure	Type of measure	Nominal amount of aid	
L1	Liquidity support	Guarantee Bond loan	Guarantees: EUR 14,8 billion Bond loans: EUR 0,8 billion	As of 30 November 2013
L2	State-guaranteed ELA	Funding and Guarantee	EUR 30,9 billion	As of 31 December 2012
Total liquidity aid granted to the Bank			EUR 46,5 billion	

7.2. LEGAL BASIS FOR THE COMPATIBILITY ASSESSMENT

- (296) As concluded in recital 207, the legal basis for the assessment of the aid measures should be Article 107(3)(b) of the Treaty ⁽¹²⁵⁾.
- (297) During the financial crisis, the Commission has developed compatibility criteria for different types of aid measures. Principles for assessing aid measures were first laid down in the 2008 Banking Communication.
- (298) Guidance for recapitalisation measures can be found in the Recapitalisation Communication and the 2011 Prolongation Communication.
- (299) The Restructuring Communication defines the approach adopted by the Commission as regards the assessment of restructuring plans, in particular the need to return to viability, to ensure a proper contribution from the beneficiary and to limit distortions of competition.
- (300) That framework was complemented by the 2013 Banking Communication, which applies to aid measures notified or granted without prior approval after 31 July 2013.

7.2.1. Legal basis for the assessment of the compatibility of the liquidity support to the Bank (measure L1)

- (301) The liquidity support already received by the Bank has been definitively approved through the successive decisions authorising the measures under the Greek Banks Support Scheme and the Scheme's amendments and prolongations ⁽¹²⁶⁾. Any future liquidity support for the Bank will have to be granted under a scheme duly approved by the Commission. The terms of such aid will have to be authorised by the Commission before it is granted and therefore do not have to be further assessed in this decision.

7.2.2. Legal basis for the assessment of the compatibility of the preference shares (measure A)

- (302) The recapitalisation granted in 2009 in the form of preference shares (measure A), was granted under the recapitalisation measure of the Greek Banks Support Scheme, which was approved in 2008 under the 2008 Banking Communication. It therefore does not have to be reassessed under the 2008 Banking Communication and must be assessed under the Restructuring Communication only.

7.2.3. Legal basis for the assessment of the compatibility of the State-guaranteed ELA (measure L2)

- (303) The compatibility of the State-guaranteed ELA (measure L2) should be first assessed on the basis of the 2008 Banking Communication and the 2011 Prolongation Communication. Any State-guaranteed ELA granted after 31 July 2013 falls under the 2013 Banking Communication.

7.2.4. Legal basis for the assessment of the compatibility of the HFSF recapitalisations (measures B1, B2 and B3)

- (304) The compatibility of the HFSF recapitalisations (measures B1, B2 and B3), in particular as regards remuneration, should first be assessed on the basis of the 2008 Banking Communication, the Recapitalisation Communication and the 2011 Prolongation Communication. In the NBG Opening Decision the Commission expressed doubts as to the compatibility of measure B1 with those Communications. Since they were implemented before 1 August 2013, those measures do not fall under the 2013 Banking Communication. The compatibility of the HFSF recapitalisations (measures B1, B2 and B3) should also be assessed on the basis of the Restructuring Communication.

7.3. COMPLIANCE OF MEASURE L2 WITH THE 2008 BANKING COMMUNICATION, THE 2011 PROLONGATION COMMUNICATION AND THE 2013 BANKING COMMUNICATION

- (305) In order for an aid to be compatible under Article 107(3)(b) of the Treaty it must comply with the general criteria for compatibility: appropriateness, necessity and proportionality.

⁽¹²⁵⁾ It is also noted that Greece granted the aid to the Bank under the Greek Banks Support Scheme which has been authorised by the Commission on the basis of Article 107(3)(b) of the Treaty as well as through the HFSF whose creation has also been approved by Commission decision.

⁽¹²⁶⁾ See footnotes 2 and 3.

- (306) Because Greek banks were shut out from wholesale markets and became entirely dependent on central bank financing, as indicated in recital 46, and since the Bank could not borrow a sufficient amount of funds through the standard refinancing operations, the Bank relied on State-guaranteed ELA to obtain sufficient liquidity thereby preventing it from defaulting. The Commission considers measure L2 to be an appropriate mechanism to remedy the serious disturbance which would have been caused by the default of the Bank.
- (307) Since the State-guaranteed ELA entails a relatively high cost of funding for the Bank, the Bank has a sufficient incentive to avoid relying on that source of funding for developing its activities. The Bank had to pay an interest rate of [...] bps higher than standard refinancing operations with the Eurosystem. In addition, the Bank had to pay a guarantee fee of [...] bps to the State. As a result, the total cost of State-guaranteed ELA for the Bank is much higher than the normal costs of ECB refinancing. In particular, the difference between the former and the latter is higher than the level of the guarantee fee requested by the 2011 Prolongation Communication. As a result, the total remuneration charged by the State can be considered as sufficient. As regards the amount of the State-guaranteed ELA, it is regularly reviewed by the Bank of Greece and the ECB based on the actual needs of the Bank. They closely monitor its use and ensure it is limited to the minimum necessary. Therefore measure L2 does not provide the Bank with excess liquidity which could be used to finance activities distorting competition. It is limited to the minimum amount necessary.
- (308) Such close scrutiny of the use of the State-guaranteed ELA and regular verification that its use is limited to the minimum also ensures that that liquidity is proportionate and does not lead to undue distortion of competition. The Commission also notes that Greece has given a commitment that the Bank will implement a restructuring plan reducing its reliance on central bank funding and that the Bank will comply with behavioural limitations, as analysed in section 7.6. This ensures that the reliance on liquidity support will end as soon as possible and that such aid is proportionate.
- (309) Measure L2 therefore complies with the 2008 Banking Communication and the 2011 Prolongation Communication. As the 2013 Banking Communication has not introduced further requirements as regards guarantees, measure L2 also complies with the 2013 Banking Communication.

7.4. COMPLIANCE OF MEASURES B1, B2 AND B3 WITH THE 2008 BANKING COMMUNICATION, THE RECAPITALISATION COMMUNICATION AND THE 2011 PROLONGATION COMMUNICATION

- (310) As indicated in recital 305, in order for an aid to be compatible under Article 107(3)(b) of the Treaty it must comply with the general criteria for compatibility ⁽¹²⁷⁾: appropriateness, necessity and proportionality.
- (311) The Recapitalisation Communication and the 2011 Prolongation Communication set out further guidance on the level of remuneration required for State capital injections.

7.4.1. Appropriateness of the measures

- (312) The Commission considers the HFSF recapitalisations (measures B1, B2 and B3) to be appropriate because they prevent the bankruptcy of the Bank. Without them, its activities could not have continued as the Bank had a negative equity at the end of 2012 ⁽¹²⁸⁾.
- (313) In that respect, the Commission noted in the NBG Opening Decision that the Bank is one of the largest banking institutions in Greece, both in terms of lending and collection of deposits. As such, the Bank is a systemically important bank for Greece. Consequently, a default of the Bank would have created a serious disturbance in the Greek economy. Under the then prevailing circumstances, financial institutions in Greece had difficulties in accessing funding. That lack of funding limited their ability to provide loans to the Greek economy. In that context, the disturbance to the economy would have been aggravated by the default of the Bank. Moreover, measures B1, B2 and B3 came about mainly because of the PSI programme, a highly extraordinary and unpredictable event, and not primarily as a result of mismanagement or excessive risk-taking by the Bank. The measures thereby deal principally with the results of the PSI programme and contribute to maintaining financial stability in Greece.

⁽¹²⁷⁾ See recital 41 of Commission Decision in Case NN 51/08 Guarantee scheme for banks in Denmark, (OJ C 273, 28.10.2008, p. 2).

⁽¹²⁸⁾ See 2013 financial statements, p. 42.

- (314) In the NBG Opening Decision, the Commission expressed doubts as to whether all steps possible had been taken immediately to avoid the Bank needing aid again in the future. As indicated in recitals 156, 157 and 158 of this Decision, Greece has given a commitment to implement a number of actions related to the corporate governance and commercial operations of the Bank. As described in section 2.4, the Bank has also started to restructure its activities, with cost reductions already implemented. Therefore the Commission's doubts have been allayed.
- (315) In the NBG Opening Decision, the Commission also expressed doubts as to whether sufficient safeguards existed in the event that the Bank came under State control, or in the event that private shareholders retained control while the majority of the ownership would be held by the State. The commitments described in recitals 156, 157 and 158 ensure the credit operations of the Bank will be run on a commercial basis and daily business will be protected from State interference. The relationship framework agreed between the HFSF and the Bank also ensures that the interests of the State as main shareholder are protected against excessive risk-taking by the management of the Bank.
- (316) Measures B1, B2 and B3 thereby ensure that financial stability in Greece is maintained. Significant actions have been taken to minimise future losses and to ensure that the activities of the Bank are not jeopardised by inappropriate governance. On that basis, the Commission finds that measures B1, B2 and B3 are appropriate.

7.4.2. Necessity– limitation of the aid to the minimum

- (317) According to the 2008 Banking Communication, the aid measure must, in its amount and form, be necessary to achieve the objective. It means that the capital injection must be of the minimum amount necessary to achieve the objective.
- (318) The amount of capital support was calculated by the Bank of Greece in the framework of the stress test of 2012 so as to ensure that the Bank's Core Tier 1 ratio remained above a certain level over the period 2012-14, as reflected in Table 3. Measures B1, B2 and B3 therefore do not provide the Bank with excess capital. As explained in recital 314, actions have been taken to reduce the risk that the Bank might need additional aid in the future.
- (319) As regards the remuneration of the first and second bridge recapitalisations (measures B1 and B2), the Commission recalls that they were granted in May and December 2012, and paid in kind in the form of EFSF notes. The HFSF has received as remuneration, from the date of disbursement of those EFSF notes to the date of the Spring 2013 recapitalisation, the accrued interests on the EFSF notes plus a 1 % fee ⁽¹²⁹⁾. As underlined in the NBG Opening Decision, that remuneration is lower than the 7 % to 9 % range defined in the Recapitalisation Communication. However, the period of low remuneration was limited to one year for measure B1 and five months for measure B2 (that is to say, until the conversion of the bridge recapitalisation into a standard recapitalisation in ordinary shares, namely measure B3). While the first and second bridge recapitalisations did not trigger the dilution of existing shareholders, the Spring 2013 recapitalisation, which was the partial conversion of the first and second bridge recapitalisations, heavily diluted the pre-existing shareholders, as their stake in the Bank's equity fell to 5,1 %. The abnormal situation which prevailed from the date of the first bridge recapitalisation was then terminated. The doubts raised in the NBG Opening Decision have therefore been allayed.
- (320) Furthermore, given the atypical source of the Bank's difficulties, where losses come mainly from a debt waiver in favour of the State (the PSI programme and the debt buy-back, which provide a significant advantage to the State, that is to say, a debt reduction) and from the consequences of a protracted recession in the domestic economy of the Bank, the Commission can accept such a temporary deviation from the standard remuneration requirements set in the Recapitalisation Communication ⁽¹³⁰⁾.
- (321) As regards measure B3, according to point 8 of the 2011 Prolongation Communication, capital injections should be subscribed at a sufficient discount to the share price adjusted for the dilution effect to give a reasonable assurance of an adequate remuneration for the State. While measure B3 did not provide for a significant discount to the share price as adjusted for the dilution effect, it was, in fact, impossible to achieve a significant discount to the theoretical ex-right price ⁽¹³¹⁾. Prior to the Spring 2013 recapitalisation, the capital of the Bank was negative

⁽¹²⁹⁾ See recital 104: the accrued interests count as additional contribution by the HFSF and therefore increased the amount of the payment received by the HFSF following the Spring 2013 recapitalisation.

⁽¹³⁰⁾ See also section 7.6.1.

⁽¹³¹⁾ The theoretical ex-right price ("TERP") is a generally accepted market methodology for quantifying the dilution effect of share capital increase.

and its market capitalisation was only a small fraction of the amount of the capital increase to be completed. In such circumstances, the question arises whether the existing shareholders should have been fully wiped out. The Commission notes that the issue price was set at a 50 % discount to the average market price over the fifty days preceding the determination of the issue price. The Commission also notes that the dilution of the pre-existing shareholders was huge since after that recapitalisation they held only 5,1 % of the shareholding of the Bank. Therefore, applying a further discount on the market price would only have had a limited impact on the remuneration of the HFSF. In view of the specific situation of the Greek banks explained in recital 320, and given the fact that the need for aid stems from a waiver of debt in favour of the State, the Commission considers that the issue price of the shares subscribed by the State was sufficiently low.

- (322) The HFSF also issued warrants and granted one warrant for each new share subscribed by a private investor participating in the Spring 2013 recapitalisation. The HFSF granted those warrants for no consideration. As explained in recital 112, each warrant incorporates the right to purchase 8,23 shares of the HFSF at specified intervals and strike prices. The exercise price is equal to the subscription price of the HFSF increased by an annual and cumulative margin (4 % for year one, 5 % for year two, 6 % for year three, 7 % for year four and then 8 % annualised for the last six months). The remuneration received by the HFSF on the shares it owns is de facto capped at those levels. That remuneration is lower than the 7 % to 9 % range defined in the Recapitalisation Communication. However, because those warrants were a key factor in the success of the rights issue and private placement launched by the Bank before the Spring 2013 recapitalisation, the Commission considers that those warrants enabled the Bank to reduce the amount of aid by EUR 1 079 million. Indeed due to the low capital ratio of the Bank prior to the recapitalisation and the high uncertainty at that time, the simulations which were then available showed that without the warrants private investors would not have achieved a sufficient return and would not have participated. For the reasons explained in recitals 313 and 320, because the HFSF would receive a minimal positive remuneration if the warrants were exercised and because it was an objective of the MEFP to attract some private investors to keep some banks under private management, and avoid situations where the whole banking sector would be controlled by the HFSF, the Commission can accept such a deviation from the standard remuneration requirements set out in the Recapitalisation Communication. That acceptance is also based on the fact that the HFSF law, as amended in March 2014, does not provide for any adjustment of the warrants in the event of a non-pre-emptive share capital increase, and that in the event of a rights issue, only the warrant strike price may be adjusted and the adjustment may take place only *ex post* and only up to the amount of the proceeds realised from the sale of pre-emption rights of the HFSF. Moreover, the commitment given by Greece that it would seek the approval of the Commission prior to any buy-back of the warrants issued by the HFSF will allow the Commission to ensure that potential future buy-backs do not further reduce the remuneration of the HFSF and increase the remuneration of the warrant holders.
- (323) As regards the fact that the HFSF shares are non-voting, the Commission recalls that the need for aid does not come mainly from excessive risk taking. In addition, it was an objective of the programme between the Greek government, the Union, the IMF and the ECB to keep some banks under private management. Moreover, the relationship framework and automatic reintroduction of voting rights in the event of non-implementation of the restructuring plan provide safeguards against future excessive risk taking by private managers. Finally, the PSI and the December 2012 buy-back are a kind of remuneration to the State, as the latter enjoyed a reduction of its debt towards the Bank by several billions euros. For all those reasons, the Commission can accept that the HFSF receives non-voting shares. The Commission therefore concludes that measure B3 was necessary.
- (324) In conclusion, measures B1, B2 and B3 are necessary as rescue aid in both their amount and form.

7.4.3. Proportionality— measures limiting negative spill-over effects

- (325) The Bank has received a very large amount of State aid. That situation may therefore lead to serious distortions of competition. However, Greece has given a commitment to implement a number of measures aiming at reducing negative spill-over effects. In particular, the commitments provide that the Bank's operations will continue to be run on a commercial basis, as explained in recitals 157 and 158. Greece has also committed to an acquisition ban, as well as to a number of divestments abroad and in non-banking activities in Greece, as set out in recital 159. Limits to distortions of competition will be further assessed in section 7.6.
- (326) A monitoring trustee has been appointed in the Bank to monitor the correct implementation of commitments on corporate governance and commercial operations. That will avoid any detrimental change in the Bank's commercial practice and thereby reduce the potential negative spill-over effects.

- (327) Finally, a new comprehensive restructuring plan was submitted on 25 June 2014 to the Commission. That restructuring plan will be assessed in section 7.6.
- (328) To conclude, the doubts raised in the NBG Opening Decision have been allayed. Measures B1, B2 and B3 are proportionate in the light of point 15 of the 2008 Banking Communication.

7.4.4. Conclusion on the compliance of the HFSF recapitalisations with the 2008 Banking Communication, the Recapitalisation Communication and the 2011 Prolongation Communication

- (329) It is thus concluded that the HFSF recapitalisations (measures B1, B2 and B3) are appropriate, necessary and proportionate, in the light of point 15 of the 2008 Banking Communication, of the Recapitalisation Communication and of the 2011 Prolongation Communication. Measures B1, B2 and B3 therefore comply with the 2008 Banking Communication, the Recapitalisation Communication and the 2011 Prolongation Communication.

7.5. COMPLIANCE OF THE ACQUISITIONS OF THREE COOPERATIVE BANKS, FB BANK AND PROBANK WITH THE RESTRUCTURING COMMUNICATION

- (330) Point 23 of the Restructuring Communication explains that acquisitions of undertakings by aided banks cannot be financed through State aid unless this is essential for restoring an undertaking's viability. Furthermore, points 40 and 41 of the Restructuring Communication state that banks must not use State aid for the acquisition of competing businesses, unless the acquisition is part of a consolidation process necessary to restore financial stability or to ensure effective competition. In addition, acquisitions may endanger or complicate the restoration of viability. The Commission must therefore assess whether the acquisitions made by the Bank can be reconciled with the Restructuring Communication.

7.5.1. Compliance of the acquisition of the selected liabilities of the three Cooperative Banks with the Restructuring Communication

7.5.1.1. Effect of the acquisition on the long-term viability of the Bank

- (331) The acquisition of the selected assets and liabilities of the three Cooperative Banks enhances the long-term viability of the Bank.
- (332) More precisely, at the time of the acquisition, the Greek banks had already observed significant deposit outflows between 2010 and mid-2012 and were excluded from the international funding markets. This is the reason why four of the five largest Greek banks submitted bids to acquire the deposits of the three Cooperative Banks. The integration of the deposits of the three Cooperative Banks into the Bank's balance sheet was beneficial for its liquidity profile. If the Bank had not acquired the deposits of the three Cooperative Banks, the Bank's net loans-to-deposits ratio would have been higher.
- (333) Furthermore, the Bank quickly integrated the acquired deposits without taking over any costly infrastructure or costly branch network. In addition, the Bank took over no loans; hence the acquisition did not increase its risks or its capital requirements.

7.5.1.2. Effect of the acquisition on the aid amount needed by the Bank

- (334) In line with point 23 of the Restructuring Communication, restructuring aid should not be used for the acquisition of other companies but merely to cover restructuring costs which are necessary to restore the viability of the Bank. In this case, although the acquisition has positive implications for the Bank's viability, it is not essential for its viability within the meaning of point 23 of the Restructuring Communication.
- (335) However, the purchase price was very low. The consideration paid by the Bank for the acquisition of the transferred liabilities of all three Cooperative Banks was determined at [...] % of the value of the transferred deposits and amounted to less than EUR [...] million, equivalent to approximately [0 to 0,02] % of the total assets of the Bank as of December 2011. That consideration can therefore be considered as very low.
- (336) It is concluded that the acquisition of the three Cooperative Banks did not undermine the limitation of the restructuring costs to the minimum necessary.

7.5.1.3. *Distortive effect of the acquisition on competition*

- (337) In line with points 39 and 40 of the Restructuring Communication, State aid should not be used to the detriment of non-aided companies for the acquisition of competing businesses. Point 41 of the Restructuring Communication also states that acquisitions may be authorised if they are part of a consolidation process necessary to restore financial stability or to ensure effective competition, that the acquisition process should be fair and that the acquisition should ensure the conditions of effective competition in the relevant market.
- (338) The Bank of Greece considered the three Cooperative Banks not to be viable and the adoption of the resolution measures to be necessary in order to maintain financial stability. The acquisition of the three Cooperative Banks can therefore be considered to be part of a consolidation process which is necessary to restore financial stability of the kind described in point 41 of the Restructuring Communication.
- (339) In addition, the purchase price was very low. No non-aided bidder submitted any valid bid to acquire the assets and liabilities of the three Cooperative Banks, and the sale process was open and non-discriminatory. The acquisition of the selected assets and liabilities of Achaia Bank by the Bank was also authorised ⁽¹³²⁾ by the Hellenic Competition Authority ⁽¹³³⁾. It can therefore be assumed that the outcome of the sale process does not endanger effective competition in Greece.
- (340) The acquisition therefore falls under the exemption in point 41 of the Restructuring Communication.

7.5.1.4. *Conclusion on the acquisition of the selected assets and liabilities of the three Cooperative Banks*

- (341) It is concluded that, in the light of the unique situation of Greek banks ⁽¹³⁴⁾ and the specificities of the acquisition of the three Cooperative Banks, that acquisition is in line with the requirements laid down in the Restructuring Communication.

7.5.2. **Compliance of the acquisition of FB Bank with the Restructuring Communication**

7.5.2.1. *Effect of the acquisition of FB Bank on the long-term viability of the Bank*

- (342) In terms of operating profitability, the acquisition of FB Bank will enhance the Bank's return to long-term viability as merging two banks in the same geographical market gives the opportunity to realise synergies. In particular, at the time of the acquisition, the Bank anticipated achieving synergies by rationalising the branch network, aligning product offering and credit policies, streamlining and consolidating the IT platform. In its final offer the Bank estimated that it would eliminate most of the operating expenses of FB Bank while it anticipated aligning the cost of transferred deposits with the Bank's interest rate policy, that is to say, by reducing the interest rate paid on FB Bank's deposits to the levels paid by the Bank on its deposits, while retaining the existing customers of FB Bank.
- (343) In terms of future loan losses, the Bank acquires the FB Bank loans at fair value, and not at book value. That factor limits the risk of future impairments.
- (344) In terms of liquidity position, the acquisition has a positive effect on the Bank since it acquired more deposits than net loans.
- (345) In terms of capital requirements, it is recalled that the Bank's offer was conditional on the HFSF covering the capital needs created by the acquisition of FB Bank's assets. The Bank eventually did not use that possibility since it succeeded in raising enough private capital from the market in May 2014.
- (346) The Commission therefore considers that the acquisition is positive for the restoration of the long-term viability of the Bank.

⁽¹³²⁾ Decision 542/VII/19.6.2012 of the Hellenic Competition Authority, published in the Greek Government Gazette (FEK B' 238/8.2.2013), available online at: http://www.epant.gr/img/x2/apofaseis/apofaseis696_1_1362562606.pdf

⁽¹³³⁾ The acquisitions of the transferred assets and liabilities of Lamia Bank and Lesvos-Limnos Bank were not notified to the Hellenic Competition Commission since the turnover of the transferred part of each Cooperative Bank did not exceed the threshold of EUR 15 million set by Article 6(1) of law 3959/2011 in combination with Article 10(3)(a) of the same law.

⁽¹³⁴⁾ See also section 7.5.1.

7.5.2.2. *Effect of the acquisitions on the aid amount needed by the Bank*

- (347) In line with point 23 of the Restructuring Communication, restructuring aid should not be used for the acquisition of other companies but merely to cover restructuring costs which are necessary to restore the viability of the Bank. In this case, although the acquisition has positive implications for the Bank's viability, it is not essential for its viability within the meaning of point 23 of the Restructuring Communication.
- (348) The Bank did not pay any consideration to purchase the selected assets and liabilities of FB Bank. Moreover, the Bank's offer was conditional on the HFSF covering the capital needs created by the acquisition of FB Bank's assets. Therefore the acquisition did not result in the acquirer needing further State aid. Regarding future potential capital needs created by the acquisition, it is observed that the assets were acquired at fair value, which limits the risk of future additional losses.
- (349) In conclusion, the Bank did not use aid to finance the acquisition of FB Bank and that acquisition does not contravene the principle that aid should be limited to the minimum necessary.

7.5.2.3. *Distortive effect of the acquisitions on competition*

- (350) In line with points 39 and 40 of the Restructuring Communication, State aid should not be used to the detriment of non-aided companies for the acquisition of competing businesses. Point 41 of the Restructuring Communication also states that acquisitions may be authorised if they are part of a consolidation process necessary to restore financial stability or to ensure effective competition, that the acquisition process should be fair and that the acquisition should ensure the conditions of effective competition in the relevant market.
- (351) As mentioned in recital 76, FB Bank was not a viable bank on a stand-alone basis. The MEFP of December 2012 provided for the resolution of the undercapitalised banks through a Purchase & Assumption procedure or, as a second-best option, through the creation of a bridge bank. As stated in recital 77, and in line with the MEFP, the Bank of Greece noted that the adoption of resolution measures was crucial to maintain depositors' confidence in the Greek banking system. The transaction can therefore be considered to be part of a consolidation process which is necessary to restore financial stability of the kind described in point 41 of the Restructuring Communication.
- (352) No non-aided bidder submitted any valid bid to acquire FB Bank, and the sale process was open and non-discriminatory. There was therefore no crowding-out of any non-aided bidder by the Bank. The acquisition of FB Bank was authorised by the Hellenic Competition Authority ⁽¹³⁵⁾. It can therefore be assumed that the outcome of the sale process does not endanger effective competition in Greece.
- (353) In view of those elements, it can be concluded that the acquisition of FB Bank falls under the exemption in point 41 of the Restructuring Communication.

7.5.2.4. *Conclusion on the acquisition of FB Bank*

- (354) It is concluded that, in the light of the specificities of the acquisition of FB Bank, that acquisition is in line with the requirements laid down in the Restructuring Communication.

7.5.3. **Compliance of the acquisition of Probank with the Restructuring Communication**

7.5.3.1. *Effect of the acquisition of Probank on the long-term viability of the Bank*

- (355) In terms of operating profitability, the acquisition of Probank will enhance the Bank's return to long-term viability as the Bank will achieve meaningful synergies. In particular, at the time of the acquisition the Bank anticipated its annual synergies reaching EUR [...] million by the end of 2015 ⁽¹³⁶⁾. The Bank expected to capture those synergies by rationalising the branch network and by reducing the personnel of the combined entity, by merging the corporate functions, consolidating the IT systems and centralised operations. Moreover, the Bank

⁽¹³⁵⁾ Decision 568/VII/15.7.2013 of the Hellenic Competition Authority as published in the Greek Government Gazette (FEK B' 2460/1.10.2013), available online at: http://www.epant.gr/img/x2/apofaseis/apofaseis707_1_1381133065.pdf

⁽¹³⁶⁾ See the Bank's presentation 'NBG-Probank, Creating Value' dated 24 April 2013, p. 8.

anticipated achieving a significant part of the synergies by aligning the cost of the transferred deposits with the Bank's interest rate policy, that is to say, by reducing the interest rates paid on Probank's deposits to the levels paid on the Bank's deposits.

- (356) Regarding the risk of future loan losses, the Bank acquired Probank's loans at fair value, and not at book value. This limits the risk of future impairments.
- (357) In terms of liquidity position, the acquisition has a positive effect on the Bank since it acquired more deposits than net loans. The acquisition therefore contributes to improving the loan-to-deposit ratio of the Bank.
- (358) In terms of capital requirements, it is recalled that the Bank's offer was conditional on the HFSF covering the capital needs created by the acquisition of Probank's assets. The Bank eventually did not use that possibility since it managed to raise enough private capital from the market in May 2014.
- (359) The Commission therefore considers that the acquisition is positive for the restoration of the long-term viability of the Bank.

7.5.3.2. Effect of the acquisitions on the aid amount needed by the Bank

- (360) In line with point 23 of the Restructuring Communication, restructuring aid should not be used for the acquisition of other companies but merely to cover restructuring costs which are necessary to restore the viability of the Bank. In this case, although the acquisition has positive implications for the viability of the Bank, it is not essential for its viability within the meaning of point 23 of the Restructuring Communication.
- (361) The Bank did not pay any consideration to purchase the selected assets and liabilities of Probank. Moreover, the Bank's offer was conditional on the HFSF covering the capital needs created by the acquisition of Probank's assets. Therefore the acquisition did not result in the acquirer needing further State aid. Regarding future potential capital needs created by the acquisition, it is observed that the assets were acquired at fair value, which limits the risk of future additional losses.
- (362) In conclusion, the Bank did not use aid to finance the acquisition of Probank and that acquisition does not contravene the principle that aid should be limited to the minimum necessary.

7.5.3.3. Distortive effect of the acquisition on competition

- (363) In line with points 39 and 40 of the Restructuring Communication, State aid should not be used to the detriment of non-aided companies for the acquisition of competing businesses. Point 41 of the Restructuring Communication also states that acquisitions may be authorised if they are part of a consolidation process necessary to restore financial stability or to ensure effective competition, that the acquisition process should be fair and that the acquisition should ensure the conditions of effective competition in the relevant market.
- (364) As mentioned in recital 86, Probank was not viable on a stand-alone basis. The MEFP of May 2013 provided for the resolution of the undercapitalised banks through a Purchase & Assumption procedure. As stated in recital 87, the Bank of Greece noted that the adoption of resolution measures was crucial to maintain depositors' confidence in the Greek banking system. The acquisition can therefore be considered to be part of a consolidation process which is necessary to restore financial stability of the kind described in point 41 of the Restructuring Communication.
- (365) No non-aided bidder submitted any valid bid to acquire Probank, and the sale process was open and non-discriminatory. There was therefore no crowding-out of any non-aided bidder by the Bank. The acquisition of Probank was also authorised by the Hellenic Competition Authority. It can therefore be assumed that the outcome of the sale process does not endanger effective competition in Greece.
- (366) In view of those elements, it can be concluded that the acquisition of Probank falls under the exemption in point 41 of the Restructuring Communication.

7.5.3.4. Conclusion on the acquisition of Probank

- (367) It is concluded that, in the light of the specificities of the acquisition of Probank, that acquisition is in line with the requirements laid down in the Restructuring Communication.

7.6. COMPLIANCE OF MEASURES A, B1, B2 AND B3 WITH THE RESTRUCTURING COMMUNICATION

7.6.1. Sources of difficulties and consequences on the assessment under the Restructuring Communication

- (368) As indicated in sections 2.1.1 and 2.1.2, the difficulties faced by the Bank mainly come from the Greek sovereign crisis and the deep recession in Greece and southern Europe. As regards the former factor, the Greek government lost access to financial markets and finally had to negotiate an agreement with its domestic and international creditors, the PSI programme, which resulted in a haircut of the claims held against the State by 53,3 %. In addition, 31,5 % of the claims was exchanged for new GGBs with lower interest rates and longer maturities. Those new GGBs were bought back by the State from the Greek banks in December 2012 at a price between 30,2 % and 40,1 % of their nominal value, thereby crystallising a further loss for the Greek banks. Beside the impact of the PSI programme and the debt buy-back on its capital position, the Bank also observed significant deposit outflows between 2010 and mid-2012, due to the risk that Greece would exit the euro area as a consequence of an unsustainable public debt and the economic recession.
- (369) Measures B1, B2 and B3 amount to EUR 9 756 million, which is less than the amount of the loss booked following the PSI programme (EUR 11 735 million). In such a case, and if the difficulties do not come primarily from excessive risk-taking behaviour, point 14 of the 2011 Prolongation Communication provides that the Commission will lighten its requirements.
- (370) The Commission acknowledges that part of the capital needs stem from the standard exposure of a financial institution to the sovereign risk of its domestic country. That fact was also pointed out in recitals 60 and 71 of the NBG Opening Decision. As a consequence, there is less need for the Bank to address moral hazard issues in its restructuring plan than for other aided financial institutions which had accumulated excessive risks. As the aid measures are less distortive, the measures taken to limit distortions of competition should therefore be proportionately softened. Since the PSI programme and the debt buy-back constitute a debt waiver in favour of the State, the remuneration of the State when recapitalising the Bank can be lower. The Commission, however, observes that the Bank's exposure to the Greek sovereign risk was larger than the exposure of some other large Greek banks. As a result, not all the losses on GGBs can be attributed to the standard exposure of a financial institution to the sovereign risk of its domestic country.
- (371) The second source of losses for the Bank is the losses on its loans to Greek households and corporations. The Commission considers that those losses are mainly due to the exceptionally deep and protracted GDP contraction of approximately 25 % over five years, and are not due to risky lending practices by the Bank. As a result, the aid granted to cover those losses does not create moral hazard, which is the case when the aid shelters a bank from the consequences of past risky behaviours. The aid is therefore less distortive ⁽¹³⁷⁾.
- (372) However, some of the capital needs and loan losses of the Bank come from some international subsidiaries. In 2012 for instance, activities in Romania and Bulgaria were loss-making. The foreign assets also constituted a drain on liquidity since the intra-group funding amounted to about EUR [...] billion at 31 December 2012.
- (373) In conclusion, a significant part of the losses and the need for aid fall under point 14 of the 2011 Prolongation Communication, which allows the Commission to lighten its requirements. Part of the need for aid stems from Greek loan losses due to the exceptionally deep and long recession and not from risky lending. Such aid does not create moral hazard and is therefore less distortive.
- (374) Finally, a limited part of the need for aid comes from the Bank's own risk-taking.
- (375) However, since the Greek economy has contracted by about 25 % since 2008, the Bank has to adapt its organisation, cost structure and its commercial network to that new environment, in order to restore sufficient profitability. Therefore notwithstanding the fact that most of the aid does not stem from excessive risk-taking, the Bank must restructure its operations in order to secure its long-term viability.

⁽¹³⁷⁾ See point 28 of the Restructuring Communication and see recital 320 of Commission Decision 2011/823/EU of 5 April 2011 on the measures C 11/09 (ex NN 53b/08, NN 2/10 and N 19/10) implemented by the Dutch State for ABN AMRO Group NV (created following the merger between Fortis Bank Nederland and ABN AMRO N) (OJ L 333, 15.12.2011, p. 1).

7.6.2. Viability

- (376) A restructuring plan must ensure that the financial institution is able to restore its long-term viability by the end of the restructuring period (section 2 of the Restructuring Communication). In the case at hand, the restructuring period is defined as the period between the adoption date of this Decision and 31 December 2018.
- (377) In line with points 9, 10 and 11 of the Restructuring Communication, Greece submitted a comprehensive and detailed restructuring plan which provides complete information on the Bank's business model. The plan also identifies the causes of the difficulties faced by the Bank, as well as the measures taken to tackle all viability issues which it faced. In particular, the restructuring plan describes the strategy chosen to preserve the Bank's operational efficiency and to tackle the high level of non-performing loans, its vulnerable liquidity and capital positions, and its foreign businesses, which relied on their parent company for their funding and capital.

7.6.2.1. Greek banking activities

- (378) As regards liquidity and the Bank's reliance on Eurosystem funding, the restructuring plan foresees a limited growth of the balance sheet in Greece while the deposit base should grow again. The reliance on emergency liquidity assistance, which has already fallen, will continue to decrease ⁽¹³⁸⁾ which will also help the Bank to reduce its cost of funding.
- (379) The loan-to-deposit ratio commitment mentioned in recital 153 ensures that the Bank's balance sheet structure will remain sustainable at the end of the restructuring period. The sale of securities and of other non-core activities will also strengthen the liquidity position of the Bank. Due to the still fragile environment of the Greek banking sector, the Commission can accept the request of the Greek authorities to be authorised to provide liquidity to the Bank under the guarantee and government bond loan measures of the Greek Banks Support Scheme.
- (380) To decrease its funding costs, Greece has also given a commitment that the Bank will continue reducing the interest rates it pays on deposits in Greece, as described in recital 153. Achieving such a decrease in the cost of deposits will be a key contribution to improving the pre-provisioning profitability of the Bank.
- (381) Since the start of the crisis the Bank has started to rationalise its commercial network in Greece, through a reduction in the number of branches and employees. By 31 December 2017, the total costs of the Bank will have further decreased. To that end, Greece has given a commitment that the Bank will reduce its branches and employees in Greece to [...] and [...] respectively as of 31 December 2017, with maximum total costs in Greece amounting to EUR [...] million. The expected cost-to-income ratio will be less than [...] % at the end of the restructuring period. The Commission considers that the restructuring plan will ensure the efficiency of the Bank in the new market environment.
- (382) One other key area is the handling of non-performing loans. The Bank plans to enhance its workout activity in order to minimise its losses. Under its new operating model, the Bank will manage non-performing loans through a dedicated unit, the priority of which will be to maximise the recoveries for the Bank and to reduce the non-performing loans through sustainable restructuring. Greece has also given a commitment that the Bank will comply with high standards as regards its credit policy in order to maximise the value for the Bank at each stage of the credit process, as described in recital 157.

7.6.2.2. Corporate governance

- (383) Another point of attention is the governance of the Bank given that the HFSF owns the majority of the Bank's shares following the 2014 share capital increase, but with restricted voting power. Additionally, some of the private shareholders also own warrants and thus would benefit from the full upside if the share price were to soar during the restructuring period. Because that situation could create moral hazard, a specific relationship framework has been agreed between the Bank and the HFSF since 2013. That agreement protects the day-to-day

⁽¹³⁸⁾ The Commission also observes that part of the liquidity needs of the Bank stems from the atypical form of the HFSF's participation in the first and second bridge recapitalisations as well as in the Spring 2013 recapitalisation. Indeed, as consideration for its participation, the HFSF transferred to the Bank EFSF notes instead of cash. The Bank holds a large amount of medium- and long-term EFSF notes, which increase its funding needs compared to a situation where the recapitalisation would have been paid in cash. That part of the liquidity needs does not reflect an inappropriate business model or balance sheet structure. It will automatically disappear when the EFSF notes mature.

business of the Bank from any interference from its main shareholders, while ensuring the HFSF can monitor the implementation of the restructuring plan and prevent excessive risk-taking by the Bank's management through appropriate consultation procedures. The Bank has also given a commitment to monitor closely its exposure to connected borrowers. The Commission notes positively the fact that the HFSF will automatically regain full voting rights if the Bank stops implementing its restructuring plan.

7.6.2.3. *International activities*

- (384) Some of the Bank's international activities have drained the Bank's capital, liquidity and profitability in the past, as explained in recital 372.
- (385) The restructuring plan foresees a shift towards a greater focus on its domestic market and Turkey. The Bank has already started to rationalise the foreign subsidiaries, to strengthen the loan underwriting process and to reduce the subsidiaries' funding gaps. Greece has given a commitment that the Bank will divest its [...] and its foreign subsidiaries in [...].
- (386) The total amount of assets outside Greece and Turkey will therefore shrink by [...] % from 31 December 2012 to 31 December 2017.
- (387) Greece has also given a commitment that the Bank will reduce its shareholding in its Turkish subsidiary Finansbank through [...]. [...] welcome since they will strengthen the capital position of the Bank. Regarding the fact that the Bank envisages retaining a majority shareholding in Finansbank, the Commission observes that Finansbank has been steadily profitable over recent years. The Commission also observes that the Bank envisages closely monitoring the costs of Finansbank and the risks taken by that subsidiary. The commitment that the Bank will not provide [...] to Finansbank ensures that Finansbank [...]. In view of those elements, the Commission considers that keeping a majority shareholding in Finansbank does not endanger the restoration of profitability.
- (388) Therefore it is concluded that the Bank will sufficiently restructure its foreign operations and reduce its exposure to the less viable ones.

7.6.2.4. *Conclusion on viability*

- (389) The restructuring plan shows that the Bank is able to withstand a reasonable amount of stress as, in the adverse scenario, the Bank remains profitable at the end of the restructuring period and keeps a sufficiently high Core Tier 1 ratio ⁽¹³⁹⁾.
- (390) The amount of additional capital which was raised in 2014, namely EUR 2 500 million, is sufficient to cope with the baseline scenario of the stress test of 2013. In the assessment of the capital needs under the baseline scenario, the Bank of Greece already introduced several adjustments which resulted in an increase of the estimated capital needs compared to the capital needs estimated by the Bank in its own baseline scenario. The baseline capital needs estimated by the Bank of Greece therefore assume a certain level of stress. To conclude that the Bank is viable, the Commission does not require that the Bank has enough capital upfront to cover the stressed scenario capital needs estimated by the Bank of Greece, as that estimated level represents a high level of stress.
- (391) In addition, it is positive that the Bank will not make additional investments in non-investment grade paper, which will help to preserve its capital and liquidity position.
- (392) The Commission can therefore conclude that the restructuring measures envisaged in the restructuring plan are sufficient to restore the viability of the Bank.

7.6.3. **Own contribution and burden-sharing**

- (393) As stated in section 3 of the Restructuring Communication, banks and their stakeholders need to contribute to the restructuring as much as possible in order to ensure that aid is limited to the minimum necessary. Thus banks should use their own resources to finance the restructuring, for instance by selling assets, while the

⁽¹³⁹⁾ The financial projections reported in the restructuring plan differ from the outcome of the stress test of 2013 performed by the Bank of Greece, since the latter was not based on the same set of assumptions and factored in additional adjustments made by the Bank of Greece.

stakeholders should absorb the losses of the bank where possible. The commitments made by Greece should ensure that own resources are used and that original shareholders and private investors, holding hybrid capital of the Bank, contribute to the restructuring.

7.6.3.1. Own contribution by the Bank: divestments and cost-cutting

- (394) The Bank has already divested some small businesses such as the insurance activities in Turkey and a majority stake in its real estate subsidiary.
- (395) The restructuring plan foresees the sale of a minority stake in Finansbank, as described in recital 387, which will enable the Bank to generate capital internally. The Bank will also sell [...] as well as its private equity subsidiary and other securities. Considering the deleveraging and the divestments already implemented and following the implementation of the commitments related to the deleveraging and divestments of foreign businesses, the Bank will have generated a significant amount of capital. The downsizing of the Bank's international assets will also significantly reduce the contingent risk that aid will be needed in the future. It therefore helps in reducing the amount of aid to the minimum.
- (396) In order to limit its capital needs, the Bank will not use [...], as described in recital 154. In addition, the commitments made by Greece provide that the Bank will not make costly acquisitions.
- (397) The Bank has also engaged in a far-reaching cost reduction programme, as indicated in section 2.4.2. Its costs will further decrease until 2017. Its workforce is being reduced and most of the salaries adjusted downwards.

7.6.3.2. Burden-sharing by historical shareholders and new capital raised on the market

- (398) The existing shareholders of the Bank were successively diluted by the rights issues completed in 2009 and 2010 ⁽¹⁴⁰⁾ and then by the HFSF recapitalisation (measure B3). The stake held by the shareholders of the Bank was reduced from 100 % prior to the Spring 2013 recapitalisation to only 5,1 % afterwards. In addition, no dividend has been paid to ordinary shareholders since 2007 or to US preference shareholders since 2009. Besides that burden-sharing by historical shareholders, the Bank has raised a significant amount of capital since the crisis started in late 2008, that is to say EUR 1 247 million in 2009, EUR 1 815 million in 2010, EUR 1 079 million in 2013 and EUR 2 500 million in 2014. That capital raised has contributed to reducing the amount of capital needs which had to be filled by State aid.

7.6.3.3. Burden-sharing by subordinated debt holders

- (399) The Bank's subordinated debt holders have contributed to the restructuring costs of the Bank. The Bank has performed several liability management exercises in order to generate capital, as described in recitals 149 and 150.
- (400) The still outstanding instruments are subject to the coupon ban mentioned in recital 159. Therefore, the Commission considers that an adequate burden-sharing from the bank's private hybrid investors is ensured and the requirements of the Restructuring Communication in that respect are met.

7.6.3.4. Conclusion on own contribution and burden-sharing

- (401) The Commission observes that in comparison with the total State recapitalisation received, the own contribution and burden-sharing in the form of sale of assets and downsizing is much lower than what the Commission would usually consider sufficient. For instance, the restructuring plan envisages no downsizing of the Greek banking activities and the retention of a majority stake in Finansbank. However, in view of the elements developed in section 7.6.1, under which the Commission can accept a lower own contribution and burden-sharing, the restructuring plan can be considered as providing for sufficient own contribution and burden-sharing measures.

7.6.4. Measures to limit distortions of competition

- (402) The Restructuring Communication requires a restructuring plan to propose measures limiting distortions of competition and ensuring a competitive banking sector. Moreover, those measures should also address moral hazard issues and ensure that State aid is not used to fund anti-competitive behaviour.

⁽¹⁴⁰⁾ See recital 147.

- (403) Point 31 of the Restructuring Communication states that when assessing the amount of aid and the resulting competition distortions, the Commission has to take into account both the absolute and relative amount of the State aid received as well as the degree of burden-sharing and the position of the financial institution on the market after the restructuring. In that respect, the Commission recalls that the Bank has received capital from the State equivalent to 17,3 % of its RWA ⁽¹⁴¹⁾. In addition, the Bank has obtained liquidity guarantees amounting to EUR 12 900 million as of 15 April 2011 and to EUR 14 798 million as of 31 December 2013. The Bank had also received loans of government bonds for EUR 847 million at that date, as well as State-guaranteed ELA amounting to EUR 30,9 billion at 31 December 2012. The need to implement measures to limit potential distortions of competition is thus justified in view of that large amount of aid. Additionally, the market share of the Bank in Greece is large, with market shares of 22 % for loans and 25 % for deposits at 31 December 2013 ⁽¹⁴²⁾.
- (404) The Commission recalls that the difficulties of the Bank come mainly from external shocks such as the Greek sovereign crisis and the protracted recession which has disrupted the Greek economy since 2008. This was also noted in recital 68 of the NBG Opening Decision. The need to address moral hazard issues is therefore reduced in consequence. As discussed in section 7.6.1, the distortive effect of the aid measures is lower in the light of those factors as is the need for measures to limit distortions of competition. For those reasons, the Commission can exceptionally accept that, in spite of the high aid amount, the restructuring plan does not envisage any downsizing of the balance sheet and loans in Greece.
- (405) However, the Commission notes that the State recapitalisations enabled the Bank to continue its banking activities in foreign markets.
- (406) In that respect, the Commission notes, in addition to the deleveraging and restructuring already implemented, the commitment to divest the foreign assets [...] by 30 June 2018 ⁽¹⁴³⁾. The aid will therefore not be used to distort competition on those foreign markets.
- (407) Greece has also committed that the Bank will not make acquisitions, ensuring that the Bank will not use the State aid received to acquire any new business. That commitment contributes to ensuring that the aid is strictly used to support the restoration of the viability of the Greek banking activities, and not, for instance, to grow in foreign markets.
- (408) The commitment to decrease the interest paid on Greek deposits from non-profitable high levels also ensures that the aid will not be used to finance deposit collection strategies which distort competition on the Greek market. Similarly, the commitment to implement strict guidelines as regards the pricing of new loans ⁽¹⁴⁴⁾, based on a proper credit risk assessment, will prevent the Bank from distorting competition on the Greek market with inappropriate pricing strategies on the loans to customers.
- (409) The commitment to divest [...] also ensures that the aid will not be used to grow on that market at the expense of non-aided competitors.
- (410) Taking into account the specific situation described in section 7.6.1 and the measures provided for in the restructuring plan, the Commission considers there are sufficient safeguards to limit distortions of competition.

7.6.5. Monitoring

- (411) In accordance with section 5 of the Restructuring Communication, regular reports are required to allow the Commission to verify that the restructuring plan is being implemented properly. As stated in the commitments ⁽¹⁴⁵⁾, Greece will ensure that the Monitoring Trustee, which was appointed by the Bank with the approval of the Commission, will monitor the commitments undertaken by Greece on the restructuring of activities in Greece and abroad and on corporate governance and commercial operations until the end of the restructuring period, namely, 31 December 2018. The Commission therefore finds that proper monitoring of the implementation of the restructuring plan is ensured.

⁽¹⁴¹⁾ When excluding the aid repaid within six months, the amount of aid is reduced to 15,6 % of the RWA of the Bank.

⁽¹⁴²⁾ NBG Annual report for year ended 2013.

⁽¹⁴³⁾ See seventh commitment in Chapter II of the Commitment list provided in the Annex.

⁽¹⁴⁴⁾ See fourth commitment in Chapter II of the Commitment list provided in the Annex.

⁽¹⁴⁵⁾ See eleventh commitment in Chapter III of the Commitment list provided in the Annex.

7.6.6. Conclusion on the compliance of measures A, B1, B2 and B3 with the Restructuring Communication

- (412) The Commission finds that the restructuring plan when taken together with the commitments in the Annex to this Decision ensures the restoration of long-term viability of the Bank, is sufficient with respect to burden-sharing and own contribution, and contains sufficient measures to limit distortions of competition. The restructuring plan and commitments submitted fulfil the criteria of the Restructuring Communication.

8. CONCLUSION

- (413) The Commission regrets that Greece has unlawfully implemented aid measures B1, B2, B3, FB4, FB5, PB1, and PB2, in breach of Article 108(3) of the Treaty, since they were implemented before their formal notification. However, those measures, as well as the other measures analysed in this Decision, can be considered compatible with the internal market,

HAS ADOPTED THIS DECISION:

Article 1

1. The following measures implemented or planned by Greece constitute State aid within the meaning of Article 107(1) of the Treaty:

- (a) the emergency liquidity assistance provided to National Bank of Greece S.A. ('NBG') by the Bank of Greece and guaranteed by Greece (measure L2);
- (b) the second bridge recapitalisation of EUR 2 326 million granted by the Hellenic Financial Stability Fund ('HFSF') to NBG in December 2012 (measure B2);
- (c) the recapitalisation of EUR 8 677 million granted by the HFSF to NBG in spring 2013 (measure B3);
- (d) the financing of the total funding gap of EUR 456,97 million by the HFSF related to the activities transferred from First Business Bank S.A. ('FB Bank') to NBG in June and October 2013 (measure FB4);
- (e) the commitment to cover the capital need of NBG related to the acquisition of assets transferred from FB Bank to NBG, in May 2013, for an amount of EUR 100 million (measure FB5);
- (f) the financing of the total funding gap of EUR 562,73 million by the HFSF related to the activities transferred from Probank S.A. to NBG, in August and December 2013 (measure PB1); and
- (g) the commitment to cover the capital need of NBG related to the acquisition of assets transferred from Probank to NBG, in July 2013, for an amount of EUR [180 to 280] million (measure PB2).

2. The financing by the HFSF of the total funding gap of EUR 325,8 million, in the framework of the transfer to NBG of selected assets and liabilities of Cooperative Bank of Lesbos-Limnos, Cooperative Bank of Achaia and Cooperative Bank of Lamia in March 2013, does not constitute State aid within the meaning of Article 107(1) of the Treaty.

3. In the light of the restructuring plan relating to the NBG Group, which includes National Bank of Greece and all its subsidiaries (Greek and non-Greek subsidiaries and branches, both banking and non-banking activities), submitted on 25 June 2014 and the commitments given by Greece on the same date, the following State aid is compatible with the internal market:

- (a) the capital injection of EUR 1 350 million granted by Greece to NBG in May 2009 and December 2011 in the form of preference shares under the Recapitalisation Scheme (measure A);
- (b) the emergency liquidity assistance provided to NBG by the Bank of Greece and guaranteed by Greece since July 2011, for an amount of EUR 30,9 billion at 31 December 2012 (measure L2);

- (c) the first bridge recapitalisation of EUR 7 430 million granted by the HFSF to NBG in May 2012 (measure B1);
- (d) the second bridge recapitalisation of EUR 2 326 million granted by the HFSF to NBG in December 2012 (measure B2);
- (e) the recapitalisation of EUR 8 677 million granted by the HFSF to NBG in spring 2013 (measure B3);
- (f) the capital injection of EUR 50 million granted by Greece to FB Bank in July 2009 (measure FB1);
- (g) the financing of the total funding gap of EUR 456,97 million by the HFSF related to the activities transferred from FB Bank to NBG, in June and October 2013 (measure FB4);
- (h) the commitment to cover the capital needs of NBG related to the acquisition of assets transferred from FB Bank to NBG, in May 2013, for an amount of EUR 100 million (measure FB5);
- (i) the financing of the total funding gap of EUR 562,7 million by the HFSF related to the activities transferred from Probank to NBG, in August and December 2013 (measure PB1); and
- (j) the commitment to cover the capital need of NBG related to the acquisition of assets transferred from Probank to NBG, in July 2013, for an amount of EUR [180 to 280] million (measure PB2).

Article 2

This Decision is addressed to the Hellenic Republic.

Done at Brussels, 23 July 2014.

For the Commission
Joaquín ALMUNIA
Vice-President

ANNEX



HELLENIC REPUBLIC
MINISTRY OF FINANCE
OFFICE SECRETARY GENERAL

Athens, June 2014

National Bank of Greece — Commitments by the Hellenic Republic

The Hellenic Republic shall ensure that **the Bank** is implementing the restructuring plan submitted on 24 June 2014. The restructuring plan is based on macroeconomic assumptions as provided by the European Commission (the 'Commission') in Appendix I as well as regulatory assumptions.

The Hellenic Republic hereby provides the following Commitments (the '**Commitments**') which are integral part of the restructuring plan. The Commitments include the commitments regarding to the implementation of the restructuring plan (the '**Restructuring Commitments**') and the **Commitments on Corporate Governance and Commercial Operations**.

The Commitments shall take effect upon the date of adoption of the Commission's decision approving the restructuring plan (the 'Decision').

The restructuring period shall end on 31 December 2018. The Commitments apply throughout the restructuring period unless the individual Commitment states otherwise.

This text shall be interpreted in the light of the Decision in the general framework of Union law, and by reference to Council Regulation (EC) No 659/99 ⁽¹⁾.

CHAPTER I. DEFINITIONS

For the purpose of the Commitments, the following terms shall mean:

- (1) **Bank:** National Bank of Greece S.A. and all its subsidiaries. Therefore, it includes the entire National Bank of Greece Group with all its Greek and non-Greek subsidiaries and branches, both banking and non-banking.
- (2) **Capital accretive bid in the banking sector:** a bid which results in an increase in the regulatory capital ratio of the Bank, taking into account all relevant elements, in particular the profit/loss booked on the transaction and the reduction of RWA resulting from the sale (if necessary corrected for the increase of RWA resulting from remaining financing links).
- (3) **Capital accretive bid in the [...]:** a bid which results in an increase in the regulatory capital ratio of the Bank. Any bid above the book value of [...] in the account of the Bank is automatically assumed to be capital accretive.
- (4) **Closing:** the date of transfer of the legal title of the Divestment Business to the Purchaser.
- (5) **Divestment Business:** all the businesses and assets that the Bank commits to sell.
- (6) **Effective Date:** the date of adoption of the Decision.
- (7) **End of restructuring period:** 31 December 2018.

⁽¹⁾ Council Regulation (EC) No 659/1999 of 22 March 1999 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union (OJ L 83, 27.3.1999, p. 1).

- (8) **Foreign assets or non-Greek assets:** assets related to the activities of customers outside Greece, independently of the country where the assets are booked. For instance, assets booked in Luxembourg but related to the activities of customers in Greece are not included in the scope of this definition. Conversely, assets booked in Luxembourg or Greece but related to the activities of customers in other SEE countries are considered as foreign assets and are included in the scope of this definition.
- (9) **Foreign businesses:** foreign banking and non-banking subsidiaries and branches of the Bank.
- (10) **Foreign subsidiaries:** all banking and non-banking subsidiaries of the Bank outside Greece.
- (11) **Greek banking activities:** the Bank's Greek banking activities independently from where the assets are booked.
- (12) **Greek non-banking activities:** the Bank's Greek non-banking activities independently from where the assets are booked.
- (13) **Greek subsidiaries:** all Greek banking and non-banking subsidiaries of the Bank.
- (14) **Monitoring Trustee:** one or more natural or legal person(s), independent from the Bank, approved by the Commission and appointed by the Bank; the Monitoring Trustee has the duty to monitor the Bank's compliance with the Commitments.
- (15) **Purchaser:** one or more natural or legal person(s) to acquire, in whole or in part, the Divestment Business.
- (16) **Sale:** the sale of 100 % of the shareholding held by the Bank, unless the individual Commitment states otherwise.

For the purpose of the Commitments, the singular of those terms shall include the plural (and vice versa), unless the Commitments provide otherwise.

CHAPTER II. RESTRUCTURING COMMITMENTS

- (1) **Number of branches in Greece:** The number of branches in Greece shall amount to [...] at the maximum on 31 December 2017.
- (2) **Number of employees in Greece:** The number of Full Time Equivalents (the 'FTEs') in Greece (Greek banking and non-banking activities) shall amount to [...] at the maximum on 31 December 2017.
- (3) **Total costs in Greece:** The total costs in Greece (Greek banking and non-banking activities) shall amount to EUR [...] million at the maximum on 31 December 2017 ⁽¹⁾.
- (4) **Costs of deposits in Greece:** In order to restore its pre-provisioning profitability on the Greek market, the Bank shall decrease the cost of funding through the decrease of cost of deposits collected in Greece (including savings, sight and term deposits, and other similar products offered to customers and which costs are borne by the Bank) [...].
- (5) **Ratio net loans to deposits in Greece:** For the Greek banking activities, the ratio net loans to deposits shall amount at the maximum to 115 % on 31 December 2017. [...]
- (6) **Support to operations in Turkey:** Until 30 June 2018, the Bank shall not provide additional [...].

The Bank shall not indirectly support Finansbank by any transfer of loans or any other assets to another entity of the Bank.

- (7) **Disposal of [...] of [...] foreign businesses and [...] of Finansbank by 30 June 2018:** The Bank shall sell (signing) by 30 June 2018 its foreign subsidiaries in [...] and its branch operating in [...] to reduce its international activities.

(7.1) [...]

⁽¹⁾ This amount does not include any TEKE/Skelos Exygiansis (bank resolution scheme) costs.

(7.2) [...]

(7.3) [...]

(8) **Sale of [...]:** [...]

(9) **Sale of securities:** The portfolio of listed securities, defined as follows, shall be divested by [...] while the portfolio of unlisted securities shall be divested by [...]: these portfolios include all equity investments larger than EUR [...] million, as well as all investments in subordinated bonds and hybrid bonds, excluding [...].

(10) **Disposal of private equity subsidiary:** The Bank shall divest NBG Private Equity Funds by [...]. [...]

(11) For any sale under these commitments, the Hellenic Republic commits that:

- a. The Purchaser shall be independent of and unconnected to the Bank;
- b. For the purpose of acquiring the Divestment Business, the Purchaser shall not be financed directly or indirectly by the Bank ⁽¹⁾;
- c. The Bank shall, for a period of 5 years after the closing of the sale, not acquire direct or indirect influence over the whole or part of the Divestment Business without a pre-approval from the Commission.

(12) **Investment policy:** Until 30 June 2017, the Bank shall not purchase non-investment grade securities.

This Commitment shall not apply to the following securities (the Exempted Securities):

- i. [...]
- ii. [...]
- iii. [...]
- iv. [...]
- v. [...]

(13) **Salary cap:** Until [...], the Bank will not pay to any employee or manager a total annual remuneration (wage, pension contribution, bonus) higher than [...]. In case of a capital injection from HFSF, the remuneration cap will be re-evaluated according to the European Banking Communication of 1 August 2013. [...]

CHAPTER III. COMMITMENTS ON CORPORATE GOVERNANCE AND COMMERCIAL OPERATIONS— PROLONGATION AND AMENDMENTS

- (1) The Bank shall continue to implement the Commitments on Corporate Governance and Commercial Operations, as submitted by the Hellenic Republic on 20 November 2012, with the subsequent amendments provided in Chapter III of the Commitments, until 30 June 2018. [...]
- (2) In case an individual Commitment does not apply at the Bank's level, the Bank shall not use the subsidiaries or activities not covered by that individual Commitment to circumvent the Commitment.

Section A. Setting up an efficient and adequate internal organisation

- (3) The Bank, excluding its foreign subsidiaries, shall abide at all times with the totality of the provisions of law 3016/2002 on Corporate Governance and law 2190/1920 on the Sociétés Anonymes and especially the provisions in connection to the functions of corporate bodies such as the shareholders' meeting and Board of Directors in order to secure a clear distribution of responsibilities and transparency. The powers of the shareholders' meeting shall be restricted to the tasks of a general meeting in line with company law, in particular as regards rights related to information. More extensive powers, which would allow improper influence on management, shall be rescinded. Responsibility for day-to-day operational management shall clearly rest with the executive Directors of the Bank.

⁽¹⁾ This does not apply to the sale of real estate, in which case the Bank can provide financing to the Purchaser, if this new lending is performed in line with prudent lending practice. For the purpose of verifying the compliance with the commitment on deleveraging of non-Greek assets, any new lending falling in the defining of non-Greek assets will be taken into account.

- (4) The Bank, excluding its foreign subsidiaries, shall comply at all times with the Hellenic Financial Stability Fund (the 'HFSF') Relationship Framework.
- (5) The Bank shall abide by the provisions of Governor's Act 2577/9.3.2006, as in force, in order to maintain, on an individual and a group basis, an effective organisational structure and an adequate Internal Control System including the three key pillars, namely the Internal Audit, Risk Management and Compliance functions and best international corporate governance practices.
- (6) The Bank shall have an efficient organisational structure, so as to ensure that the Internal Audit and the Risk Management departments are fully independent from commercial networks and report directly to the Board of Directors. An Audit Committee and a Risk Committee— created within the Board of Directors— shall assess all issues raised by those respective departments. An adequate Internal Audit Charter and Risk Management Charter shall specify the roles, responsibilities and resources of those departments. Those charters shall comply with international standards and secure a full independence to the departments. A Credit Policy shall provide guidance and instructions regarding the granting of loans, including the pricing of loans and the restructuring of loans.
- (7) The Bank shall make public to the competent authorities the list of shareholders holding at least 1 % of ordinary shares.

Section B. Commercial practices and risk monitoring

General principles

- (8) The Credit Policy shall specify that all customers shall be treated fairly through non-discriminatory procedures other than those related to credit risk and ability to pay. The Credit Policy defines the thresholds above which the granting of loans must be approved by higher levels of management. Similar thresholds shall be defined regarding the restructuring of loans and the handling of claims and litigations. The Credit Policy shall centralise in selected centres the decision-making process at national level, and provide clear safeguards to ensure a consistent implementation of its instructions within all the Greek banking activities.
- (9) For all the Greek banking activities, the Bank shall fully incorporate the Credit Policy rules in their loan origination and loan refinancing workflow and disbursement systems.

Specific provisions

- (10) The specific provisions listed in paragraphs (8) to (18) of Chapter III of the Commitments shall apply to the Greek banking activities, unless explicitly stated otherwise
- (11) The Credit Policy shall require that the pricing of loans and mortgages to comply with strict guidelines. Those guidelines shall include the obligation to respect strictly the credit policy's standard tables of interest rate bands (ranges) depending on the maturity of the loan, the credit risk assessment of the customer, the expected recoverability of pledged collateral (including the time frame to a potential liquidation), the overall relationship with the Bank (e.g. level and stability of deposits, fee structure and other cross-sales activities) and the funding cost of the Bank. Specific loan asset classes are generated (e.g. commercial loan, mortgage, secured/unsecured, etc.) and their pricing framework is tabulated to an appropriate Credit Policy table that shall be updated on a regular basis by the Credit Committee. Any exception must be duly authorised by the Credit Committee, or at lower level of authority when allowed by the Credit Policy. Tailor-made transactions such as syndicated loans or project finance shall respect the same principles, with due account being taken of the fact that they may not fit in standardised credit policy tables. Infringements of that pricing policy shall be reported to the Monitoring Trustee.
- (12) The Risk Management Department shall be responsible for the assessment of credit risk and the valuation of collateral. When assessing the loan quality, the Risk Management Department shall act independently, providing its written opinion so as to ensure that criteria used in the assessment are applied consistently over time and among customers and in respect of the Bank's credit policy.
- (13) Regarding loans to individuals and legal entities, for all the Greek banking activities, on the basis of the best international practices, the Bank shall apply strict individual and aggregated limits governing the maximum loan amount that can be granted to a single credit risk (if at all allowed under Greek and EU law). Those limits shall take into account the maturity of the loan and the quality of any collateral/security provided and shall be set against key benchmarks including against capital.

- (14) Granting loans ⁽¹⁾ to enable borrowers to purchase shares or hybrid instruments of the Bank and other banks ⁽²⁾ shall be prohibited, whoever are those borrowers ⁽³⁾. This provision shall apply and shall be monitored at the Bank's level.
- (15) All loan requests by non-connected borrowers greater than [...] % of the Bank's RWA] or any loan which keeps the exposure to one group (defined as a group of connected borrowers that represent a single credit risk) higher than [...] % of the Bank's RWA] shall be reported to the Monitoring Trustee, which may, if the conditions do not appear to be set at arm's-length or if no sufficient information has been provided to the Monitoring Trustee, postpone the granting of the credit line or the loan by [...] working days. In emergency cases, that period may be reduced to [...] working days provided sufficient information has been provided to the Monitoring Trustee. That period will enable the Monitoring Trustee to report the case to the Commission and the HFSF before any definitive decision is taken by the Bank.
- (16) The Credit Policy shall give clear instructions on the restructuring of loans. It clearly defines which loans are eligible, under which circumstances, and indicates the terms and conditions that can be proposed to eligible customers. For all the Greek banking activities, the Bank shall ensure that all restructurings aim at enhancing the future recoveries by the Bank, thus safeguarding the interest of the Bank. In no case the restructuring policy will jeopardise the future profitability of the Bank. For that purpose, the Bank's Risk Management Department shall be responsible for developing and deploying adequate restructuring effectiveness reporting mechanisms, for performing in-depth analyses of internal and/or external best practices, reporting its findings at least on a quarterly basis to the Credit Committee and the Board Risk Committee, suggesting actionable improvements to the processes and policies involved and oversee and reporting on their implementation to the Credit Committee and the Board Risk Committee.
- (17) For all the Greek banking activities, the Bank shall enact a claim and litigation policy aiming at maximising recovery and preventing any discrimination or preferential treatment in the management of litigations. The Bank shall ensure that all necessary actions are taken to maximise the recoveries for the Bank and protect its financial position in the long-term. Any breach in the implementation of that policy shall be reported to the Monitoring Trustee.
- (18) The Bank shall monitor credit risk through a well-developed set of alerts and reports, which enable the Risk Management Department to: (i) identify early signals of loan impairment and default events; (ii) assess recoverability of the loan portfolio (including but not limited to alternative repayment sources such as co-debtors and guarantors as well as collateral pledged or available but not pledged); (iii) assess the overall exposure of the Bank on an individual customer or on a portfolio basis; and (iv) propose corrective and improvement actions to the Board of Directors as necessary. The Monitoring Trustee shall be given access to that information.

Provisions applying to connected borrowers

- (19) All the provisions applying on connected borrowers shall apply at the Bank's level.
- (20) Within the Credit Policy, a specific section shall be devoted to the rules governing relations with connected borrowers. Connected borrowers include employees, shareholders, directors, managers, as well as their spouses, children and siblings and any legal entity directly or indirectly controlled by key-employees (i.e. employees involved in the decision-making process of the Credit Policy), shareholders, directors or managers or their spouses, children and siblings. By extension, any public institution or government-controlled organisation, any public company or government agency shall be considered as a connected borrower. Political parties shall also be treated as connected borrowers in the Credit Policy. Particular focus shall be on decisions regarding any restructuring and write downs of loans to current or former employees, directors, shareholders, managers and their relatives as well as policies followed in the appropriateness, valuation, registration of liens and foreclosure of loan collateral. The definition of connected borrowers has been further specified in a separate document.
- (21) The Risk Management Department shall be responsible for the mapping of all connected groups of borrowers that represent a single credit risk with a view to properly monitoring credit risk concentration.

⁽¹⁾ For the purpose of that Commitment, the term 'loans' shall be interpreted *large sensu*, as any kind of financing, e.g. credit facility, guarantee, etc.

⁽²⁾ For clarification, 'other banks' refer to any bank — financial institution in the world.

⁽³⁾ For clarification, all borrowers, including the Bank's private banking clients are covered by that Commitment.

- (22) Regarding loans to individuals and legal entities, the Bank, on the basis of the best international practices, applies strict individual and aggregated limits governing the maximum loan amount that can be granted to a single credit risk which relates to connected borrowers (if at all allowed under Greek and EU law).
- (23) The Bank shall monitor separately its exposure to connected borrowers including the public sector entities and political parties. The new production of loans ⁽¹⁾ to connected borrowers (annual % of Y – 1 stock ⁽²⁾) shall be no higher than the new production of the total loan portfolio in Greece (annual % of Y – 1 stock). That Commitment shall be complied with separately for each type of connected borrower (employees, shareholder, managers, public entities, political party). The credit assessment of the connected borrowers, as well as the pricing conditions and possible restructuring offered to them, shall not be more advantageous compared to conditions offered to similar but unconnected borrowers, in order to secure a level-playing field in the Greek economy. That obligation does not apply to existing general schemes benefiting employees, offering them subsidised loans. The Bank shall report every month about the evolution of that exposure, the amount of the new production and the recent requests greater than [...] % of the Bank's RWA] to be addressed at the Credit committee.
- (24) The credit criteria applied to employees/managers/shareholders shall be no less strict than those applied to other, non-connected borrowers. If the total credit exposure to a single employee/manager/shareholder exceeds an amount equal to a [...] fixed salary for secured loans and an amount equal to a [...] fixed salary for unsecured loans, the exposure shall be reported promptly to the Monitoring Trustee who may intervene and postpone the granting of the loan pursuant to the procedure described in paragraph (25) of Chapter III of the Commitments.
- (25) All loan requests by connected borrowers greater than [...] % of the Bank's RWA] or any loan which keeps the exposure to one group (defined as a group of connected borrowers that represent a single credit risk) higher than [...] % of the Bank's RWA] shall be reported to the Monitoring Trustee, which may, if the conditions do not appear to be set at arm's-length or if no sufficient information has been provided to the Monitoring Trustee, postpone the granting of the credit line or the loan by [...] working days. In emergency cases, that period may be reduced to [...] working days provided sufficient information has been provided to the Monitoring Trustee. That period will enable the Monitoring Trustee to report the case to the Commission and the HFSF before any definitive decision is taken by the Bank.
- (26) The restructuring of loans involving connected borrowers shall comply with the same requirements as for non-connected borrowers. Furthermore, established frameworks and policies to deal with troubled assets shall be assessed and improved, if necessary. However, it is expected that restructured loans of connected borrowers shall be reported separately, at least per loan asset class and connected borrower type.

Section C: Other restrictions

- (27) **Dividend, Coupon, Repurchase, Call and Buy Back ban:** Unless the Commission otherwise agrees to an exemption, the Hellenic Republic commits that:
- (a) The Bank shall not pay any coupons on hybrid capital instruments (or any other instruments for which the coupon payment is discretionary) or dividends on own funds instruments and subordinated debt instruments other than where there is a legal obligation to do so. [...] The Bank shall not release reserves to put itself in such a position. In case of doubt as to whether, for the purpose of the present Commitment, a legal obligation exists, the Bank shall submit the proposed coupon or dividend payment to the Commission for approval;
 - (b) The Bank shall not repurchase any of its own shares or exercise a call option in respect of those own funds instruments and subordinated debt instruments;
 - (c) The Bank shall not buy back hybrid capital instruments.
- (28) **Acquisition ban:** The Hellenic Republic commits that the Bank shall not acquire any stake in any undertaking, be it an asset or share transfer. That ban on acquisitions covers both undertaking which have the legal form of a company and any package of assets which forms a business ⁽³⁾.

⁽¹⁾ For clarification, the new production of loans covers also the rolling over of loans and the restructuring of existing loans.

⁽²⁾ For clarification, 'annual % of Y-1 stock' refers to the new production as a percentage of the stock at the end of the previous year. The amount of RWA is the one at the end of the year.

⁽³⁾ For clarification, for the purpose of that Commitment, the Bank's Private Equity/Venture Capital business shall be excluded from the scope of that Commitment. In that respect, the Bank shall make a formal request to the Commission, which shall include a business plan for that entity.

- (i) **Exemption requiring Commission's prior approval:** Notwithstanding that prohibition, the Bank may, after obtaining the Commission's approval, and, where appropriate, on a proposal of the HFSF, acquire businesses and undertakings if it is in exceptional circumstances necessary to restore financial stability or to ensure effective competition.
 - (ii) **Exemption not requiring Commission's prior approval:** The Bank may acquire stakes in undertakings provided that:
 - (a) The purchase price paid by the Bank for any acquisition is less than [...] % of the balance sheet size ⁽¹⁾ of the Bank at the Effective Date of the Commitments ⁽²⁾; and
 - (b) The cumulative purchase prices paid by the Bank for all such acquisitions starting with the Effective Date of the Commitments until the end of the restructuring period, is less than [...] % of the balance sheet size of the Bank at the Effective Date of the Commitments.
 - (iii) **Activities not falling under the acquisition ban:** The acquisition ban shall not cover acquisitions that take place in the ordinary course of the banking business in the management of existing claims towards ailing firms.
- (29) **Advertising ban:** The Hellenic Republic commits that the Bank shall refrain from advertising referring to state support and from employing any aggressive commercial strategies which would not take place without the support of the Hellenic Republic.

CHAPTER IV. MONITORING TRUSTEE

- (1) The Hellenic Republic commits that the Bank shall amend and extend the mandate of the Monitoring Trustee approved by the Commission and appointed by the Bank on 16 January 2013 until the end of the restructuring period. The Bank shall also broaden the scope of that mandate to incorporate the monitoring of (i) the restructuring plan and (ii) all Commitments set out in this catalogue.
- (2) Four weeks after the Effective Date of the Commitments, the Hellenic Republic shall submit to the Commission the full terms of the amended mandate, which shall include all provisions necessary to enable the Monitoring Trustee to fulfil its duties under those Commitments.
- (3) Additional provisions on the Monitoring Trustee are specified in a separate document.

The Secretary-General

Christina PAPAKONSTANTINO

⁽¹⁾ For clarification, for the purpose of that Commitment, the size of the balance sheet is equal to the Bank's total assets.

⁽²⁾ For clarification, in case the Commission's approval to lift the acquisition ban is obtained according to point i., paragraph (28), Chapter III of the Commitments, the balance sheet of the Bank at the Effective Date of the Commitments shall be calculated to include also the assets of the acquired entities or the acquired assets at the date of acquisition.

Appendix I

MACROECONOMIC PROJECTIONS FOR GREEK DOMESTIC OPERATIONS

% annual growth (unless otherwise stated)	2012	2013	2014	2015	2016	2017	Cumulative growth rate 2013-17
Real GDP	- 6,4	- 4,2	0,6	2,9	3,7	3,5	6,4
Nominal loan growth Greece	- 6,4	- 4,2	0,6	2,9	3,7	3,5	6,4
GDP deflator	- 0,8	- 1,1	- 0,4	0,4	1,1	1,3	1,3
Property prices	- 11,7	- 10	- 5	0	2	3,5	
Nominal household disposable income	- 8,8	- 9,5	- 0,3	- 0,4	2,6	3,6	- 4,5
Private Sector deposits	- 7	1,3	1	3,4	5	5	16,6
Unemployment (%)	24,2	27	26	24	21	18,6	
ECB refinancing rate (%)	0,75	0,5	0,5	1	1,5	1,75	
NPL formation peak			2H2014				
Euribor 3 months (average, %)		0,24	0,43	0,75	1,25	1,80	
Access to capital markets — repos		YES-No Cap					
Access to capital market — covered/senior unsecured		YES — up to EUR 500 million each	YES — up to EUR 1 billion each	YES-No Cap			

ACTS ADOPTED BY BODIES CREATED BY INTERNATIONAL AGREEMENTS

Only the original UN/ECE texts have legal effect under international public law. The status and date of entry into force of this Regulation should be checked in the latest version of the UN/ECE status document TRANS/WP.29/343, available at:
<http://www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29fdocsts.html>

Regulation No 95 of the Economic Commission for Europe of the United Nations (UNECE) — Uniform provisions concerning the approval of vehicles with regard to the protection of the occupants in the event of a lateral collision [2015/1093]

Incorporating all valid text up to:

Supplement 4 to the 03 series of amendments — Date of entry into force: 10 June 2014

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1. SCOPE

This Regulation applies to the lateral collision behaviour of the structure of the passenger compartment of M₁ and N₁ ⁽¹⁾ categories of vehicles where the 'R' point of the lowest seat is not more than 700 mm from ground level when the vehicle is in the condition corresponding to the reference mass defined in paragraph 2.10 of this Regulation.

2. DEFINITIONS

For the purposes of this Regulation:

- 2.1. 'Approval of a vehicle' means the approval of a vehicle type with regard to the behaviour of the structure of the passenger compartment in a lateral collision;
- 2.2. 'Vehicle type' means a category of power-driven vehicles which do not differ in such essential respects as:
 - 2.2.1. The length, width and ground clearance of the vehicle, in so far as they have a negative effect on the performance prescribed in this Regulation;
 - 2.2.2. The structure, dimensions, lines and materials of the side walls of the passenger compartment in so far as they have a negative effect on the performance prescribed in this Regulation;
 - 2.2.3. The lines and inside dimensions of the passenger compartment and the type of protective systems, in so far as they have a negative effect on the performance prescribed in this Regulation;
 - 2.2.4. The sitting of the engine (front, rear or centre) and the orientation (transversal or longitudinal) of the engine, in so far as they have a negative effect on the result of the impact test of this Regulation;
 - 2.2.5. The unladen mass, in so far as there is a negative effect on the performance prescribed in this Regulation;
 - 2.2.6. The optional arrangements or interior fittings in so far as they have a negative effect on the performance prescribed in this Regulation;
 - 2.2.7. The type of front seat(s) and position of the 'R' point in so far as they have a negative effect on the performance prescribed in this Regulation;
 - 2.2.8. The locations of the REESS, in so far as they have a negative effect on the result of the impact test prescribed in this Regulation.
- 2.3. 'Passenger compartment' means the space for occupant accommodation, bounded by the roof, floor, side walls, doors, outside glazing and front bulkhead and the plane of the rear compartment bulkhead or the plane of the rear-seat back support.
 - 2.3.1. 'Passenger compartment with regard to occupant protection' means the space for occupant accommodation, bounded by the roof, floor, side walls, doors, outside glazing and front bulkhead and the plane of the rear compartment bulkhead or the plane of the rear-seat back support.
 - 2.3.2. 'Passenger compartment for electric safety assessment' means the space for occupant accommodation, bounded by the roof, floor, side walls, doors, outside glazing, front bulkhead and rear bulkhead, or rear gate, as well as by the electrical protection barriers and enclosures provided for protecting the occupants from direct contact with high voltage live parts.
- 2.4. 'R point' or 'seating reference point' means the reference point specified by the vehicle manufacturer which:
 - 2.4.1. Has co-ordinates determined in relation to the vehicle structure;

⁽¹⁾ As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.3, para. 2 — www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html

- 2.4.2. Corresponds to the theoretical position of the point of torso/thighs rotation (H point) for the lowest and most rearward normal driving position or position of use given by the vehicle manufacturer for each seating position specified by him.
- 2.5. 'H point' is as established by Annex 3 to this Regulation.
- 2.6. 'Capacity of the fuel tank' means the fuel-tank capacity as specified by the manufacturer of the vehicle.
- 2.7. 'Transverse plane' means a vertical plane perpendicular to the median longitudinal vertical plane of the vehicle.
- 2.8. 'Protective system' means devices intended to restrain and/or protect the occupants.
- 2.9. 'Type of protective system' means a category of protective devices which do not differ in such essential respects as their:
- Technology;
- Geometry;
- Constituent materials.
- 2.10. 'Reference mass' means the unladen mass of the vehicle increased by a mass of 100 kg (that is the mass of the side impact dummy and its instrumentation).
- 2.11. 'Unladen mass' means the mass of the vehicle in running order without driver, passengers or load, but with the fuel tank filled to 90 per cent of its capacity and the usual set of tools and spare wheel on board, where applicable.
- 2.12. 'Mobile deformable barrier' means the apparatus with which the test vehicle is impacted. It consists of a trolley and an impactor.
- 2.13. 'Impactor' means a crushable section mounted on the front of mobile deformable barrier.
- 2.14. 'Trolley' means a wheeled frame free to travel along its longitudinal axis at the point of impact. Its front supports the impactor.
- 2.15. 'High voltage' means the classification of an electric component or circuit, if its working voltage is > 60 V and $\leq 1\,500$ V direct current (DC) or > 30 V and $\leq 1\,000$ V alternating current (AC) root-mean-square (rms).
- 2.16. 'Rechargeable energy storage system (REESS)' means the rechargeable energy storage system which provides electrical energy for propulsion.
- 2.17. 'Electrical protection barrier' means the part providing protection against any direct contact to the high voltage live parts.
- 2.18. 'Electrical power train' means the electrical circuit which includes the traction motor(s), and may also include the REESS, the electrical energy conversion system, the electronic converters, the associated wiring harness and connectors, and the coupling system for charging the REESS.
- 2.19. 'Live parts' means conductive part(s) intended to be electrically energised in normal use.
- 2.20. 'Exposed conductive part' means the conductive part which can be touched under the provisions of the protection degree IPXXB and which becomes electrically energised under isolation failure conditions. This includes parts under a cover that can be removed without using tools.
- 2.21. 'Direct contact' means the contact of persons with high voltage live parts.

- 2.22. 'Indirect contact' means the contact of persons with exposed conductive parts.
- 2.23. 'Protection degree IPXXB' means protection from contact with high voltage live parts provided by either an electrical protection barrier or an enclosure and tested using a Jointed Test Finger (degree IPXXB) as described in paragraph 4 of Annex 9.
- 2.24. 'Working voltage' means the highest value of an electrical circuit voltage root-mean-square (rms), specified by the manufacturer, which may occur between any conductive parts in open circuit conditions or under normal operating conditions. If the electrical circuit is divided by galvanic isolation, the working voltage is defined for each divided circuit, respectively.
- 2.25. 'Coupling system for charging the rechargeable energy storage system (REESS)' means the electrical circuit used for charging the REESS from an external electrical power supply including the vehicle inlet.
- 2.26. 'Electrical chassis' means a set made of conductive parts electrically linked together, whose electrical potential is taken as reference.
- 2.27. 'Electrical circuit' means an assembly of connected high voltage live parts which is designed to be electrically energised in normal operation.
- 2.28. 'Electrical energy conversion system' means a system (e.g. fuel cell) that generates and provides electrical energy for electrical propulsion.
- 2.29. 'Electronic converter' means a device capable of controlling and/or converting electrical power for electrical propulsion.
- 2.30. 'Enclosure' means the part enclosing the internal units and providing protection against any direct contact.
- 2.31. 'High voltage bus' means the electrical circuit, including the coupling system for charging the REESS that operates on a high voltage.
- 2.32. 'Solid insulator' means the insulating coating of wiring harnesses, provided in order to cover and prevent the high voltage live parts from any direct contact. This includes covers for insulating the high voltage live parts of connectors and varnish or paint for the purpose of insulation.
- 2.33. 'Automatic disconnect' means a device that when triggered, galvanically separates the electrical energy sources from the rest of the high voltage circuit of the electrical power train.
- 2.34. 'Open type traction battery' means a type of battery requiring liquid and generating hydrogen gas released to the atmosphere.
- 2.35. 'Automatically activated door locking system' means a system that locks the doors automatically at a pre-set speed or under any other condition as defined by the manufacturer.

3. APPLICATION FOR APPROVAL

- 3.1. The application for approval of a vehicle type with regard to the protection of the occupants in the event of a lateral collision shall be submitted by the vehicle manufacturer or by his duly accredited representative.
- 3.2. It shall be accompanied by the under mentioned documents in triplicate and the following particulars:
 - 3.2.1. A detailed description of the vehicle type with respect to its structure, dimensions, lines and constituent materials;
 - 3.2.2. Photographs and/or diagrams and drawings of the vehicle showing the vehicle type in front, side and rear elevation and design details of the lateral part of the structure;

- 3.2.3. Particulars of the vehicle's mass as defined by paragraph 2.11 of this Regulation;
- 3.2.4. The lines and inside dimensions of the passenger compartment;
- 3.2.5. A description of the relevant side interior fittings and protective systems installed in the vehicle;
- 3.2.6. A general description of the electrical power source type, location and the electrical power train (e.g. hybrid, electric).
- 3.3. The applicant for approval shall be entitled to present any data and results of tests carried out which make it possible to establish that compliance with the requirements can be achieved on prototype vehicles with a sufficient degree of accuracy.
- 3.4. A vehicle which is representative of the type to be approved shall be submitted to the Technical Service responsible for conducting the approval tests.
- 3.4.1. A vehicle not comprising all the components proper to the type may be accepted for tests provided that it can be shown that the absence of the components omitted has no detrimental effect on the performance prescribed in the requirements of this Regulation.
- 3.4.2. It shall be the responsibility of the applicant for approval to show that the application of paragraph 3.4.1 above is in compliance with the requirements of this Regulation.
- 4. APPROVAL
- 4.1. If the vehicle type submitted for approval pursuant to this Regulation meets the requirements of paragraph 5 below, approval of that vehicle type shall be granted.
- 4.2. In case of doubt, account shall be taken, when verifying the conformity of the vehicle to the requirements of this Regulation, of any data or test results provided by the manufacturer which can be taken into consideration in validating the approval test carried out by the Technical Service.
- 4.3. An approval number shall be assigned to each type approved. Its first two digits (at present 03 corresponding to the 03 series of amendments) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party may not assign the same approval number to another vehicle type.
- 4.4. Notice of approval or of extension or of refusal of approval of a vehicle type pursuant to this Regulation shall be communicated by the Parties to the Agreement applying this Regulation by means of a form conforming to the model in Annex 1 to this Regulation and photographs and/or diagrams and drawings supplied by the applicant for approval, in a format not exceeding A4 (210 × 297 mm) or folded to that format and on an appropriate scale.
- 4.5. There shall be affixed to every vehicle conforming to a vehicle type approved under this Regulation, conspicuously and in a readily accessible place specified on the approval form, an international approval mark consisting of:
 - 4.5.1. A circle surrounding the letter 'E' followed by the distinguishing number of the country which has granted approval ⁽¹⁾;
 - 4.5.2. The number of this Regulation, followed by the letter 'R', a dash and the approval number, to the right of the circle prescribed in paragraph 4.5.1 above.

⁽¹⁾ The distinguishing numbers of the Contracting Parties to the 1958 Agreement are reproduced in Annex 3 to the Consolidated Resolution on the Construction of Vehicles (R.E.3), document ECE/TRANS/WP.29/78/Rev. 3, Annex 3 — www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html

- 4.6. If the vehicle conforms to a vehicle type approved, under one or more other Regulations annexed to the Agreement, in the country which has granted approval under this Regulation, the symbol prescribed in paragraph 4.5.1 above need not be repeated; in this case the Regulation and approval numbers and the additional symbols of all the Regulations under which approval has been granted in the country which has granted approval under this Regulation shall be placed in vertical columns to the right of the symbol prescribed in paragraph 4.5.1 above.
- 4.7. The approval mark shall be clearly legible and shall be indelible.
- 4.8. The approval mark shall be placed close to or on the vehicle data plate affixed by the manufacturer.
- 4.9. Annex 2 to this Regulation gives examples of approval marks.

5. SPECIFICATIONS AND TESTS

- 5.1. The vehicle shall undergo a test in accordance with Annex 4 to this Regulation.
 - 5.1.1. The test will be carried out on the driver's side unless asymmetric side structures, if any, are so different as to affect the performance in a side impact. In that case either of the alternatives in paragraph 5.1.1.1 or 5.1.1.2 below may be used by agreement between the manufacturer and Type Approval Authority.
 - 5.1.1.1. The manufacturer will provide the authority responsible for approval with information regarding the compatibility of performances in comparison with the driver's side when the test is being carried out on that side.
 - 5.1.1.2. The Type Approval Authority, if concerned as to the construction of the vehicle, will decide to have the test performed on the side opposite the driver, this being considered the least favourable.
 - 5.1.2. The Technical Service, after consultation with the manufacturer, may require the test to be carried out with the seat in a position other than the one indicated in paragraph 5.5.1 of Annex 4. This position shall be indicated in the test report ⁽¹⁾.
 - 5.1.3. The result of this test shall be considered satisfactory if the conditions set out in paragraphs 5.2 and 5.3 below are satisfied.
- 5.2. Performance criteria

Additionally, vehicles equipped with electric power train shall meet the requirements of paragraph 5.3.7 below. This can be met by a separate impact test at the request of the manufacturer and after validation by the Technical Service, provided that the electrical components do not influence the occupant protection performance of the vehicle type as defined in paragraphs 5.2.1 to 5.3.5 of this Regulation. In case of this condition the requirements of paragraph 5.3.7 shall be checked in accordance with the methods set out in Annex 4 to this Regulation, except paragraphs 6, 7 and Appendices 1 and 2. But the side-impact dummy shall be installed in the front seat on the impact side.

- 5.2.1. The performance criteria, as determined for the collision test in accordance with the Appendix 1 to Annex 4 to this Regulation shall meet the following conditions:
 - 5.2.1.1. The head performance criterion (HPC) shall be less than or equal to 1 000; when there is no head contact, then the HPC shall not be measured or calculated but recorded as 'No Head Contact.'

⁽¹⁾ Until 30 September 2000, for the purposes of the test requirements, the range of normal longitudinal adjustments shall be limited such that the H-point lies within the length of the door aperture.

5.2.1.2. The thorax performance criteria shall be:

- (a) Rib Deflection Criterion (RDC) less than or equal to 42 mm;
- (b) Soft Tissue Criterion (VC) less than or equal to 1,0 m/sec.

For a transitional period of 2 years after the date specified in paragraph 10.2 of this Regulation the $V * C$ value is not a pass/fail criterion for the approval testing, but this value has to be recorded in the test report and to be collected by the approval authorities. After this transitional period, the VC value of 1,0 m/sec shall apply as a pass/fail criterion unless the Contracting Parties applying this Regulation decide otherwise.

5.2.1.3. The pelvis performance criterion shall be:

Pubic Symphysis Peak Force (PSPF) less than or equal to 6 kN.

5.2.1.4. The abdomen performance criterion shall be:

Abdominal Peak Force (APF) less than or equal to 2,5 kN internal force (equivalent to external force of 4,5 kN).

5.3. Particular requirements

5.3.1. No door shall open during the test.

5.3.1.1. In the case of automatically activated door locking systems which are installed optionally and/or which can be de-activated by the driver, this requirement shall be verified by using one of the following two test procedures, at the choice of the manufacturer:

5.3.1.1.1. If testing in accordance with Annex 4, paragraph 5.2.2.1, the manufacturer shall in addition demonstrate to the satisfaction of the Technical Service (e.g. manufacturer's in-house data) that, in the absence of the system or when the system is de-activated, no door will open in case of the impact.

5.3.1.1.2. If testing in accordance with Annex 4, paragraph 5.2.2.2, the manufacturer shall in addition demonstrate that the inertial load requirements of paragraph 6.1.4 of the 03 series of amendments to Regulation No 11 are met for the unlocked side doors on the non-struck side.

5.3.2. After the impact, the side doors on the non-struck side shall be unlocked.

5.3.2.1. In the case of vehicles equipped with an automatically activated door locking system, the doors shall be locked before the moment of impact and be unlocked after the impact at least on the non-struck side.

5.3.2.2. In the case of automatically activated door locking systems which are installed optionally and/or which can be de-activated by the driver, this requirement shall be verified by using one of the following two test procedures, at the choice of the manufacturer:

5.3.2.2.1. If testing in accordance with Annex 4, paragraph 5.2.2.1, the manufacturer shall in addition demonstrate to the satisfaction of the Technical Service (e.g. manufacturer's in-house data) that, in the absence of the system or when the system is de-activated, the side doors on the non-struck side are unlocked after the impact.

5.3.2.2.2. If testing in accordance with paragraph Annex 4, paragraph 5.2.2.2 the manufacturer shall in addition demonstrate that when applying the inertial load of paragraph 6.1.4 of the 03 series of amendments to Regulation No 11, the unlocked side doors on the non-struck side remain unlocked.

- 5.3.3. After the impact, it shall be possible without the use of tools to:
- 5.3.3.1. Open a sufficient number of doors provided for normal entry and exit of passengers, and if necessary tilt the seat-backs or seats to allow evacuation of all occupants;
- 5.3.3.2. Release the dummy from the protective system;
- 5.3.3.3. Remove the dummy from the vehicle;
- 5.3.4. No interior device or component shall become detached in such a way as noticeably to increase the risk of injury from sharp projections or jagged edges;
- 5.3.5. Ruptures, resulting from permanent deformation are acceptable, provided these do not increase the risk of injury;
- 5.3.6. If there is continuous leakage of liquid from the fuel-feed installation after the collision, the rate of leakage shall not exceed 30 g/min; if the liquid from the fuel-feed system mixes with liquids from the other systems and the various liquids cannot easily be separated and identified, all the liquids collected shall be taken into account in evaluating the continuous leakage.
- 5.3.7. Following the test conducted in accordance with the procedure defined in Annex 4 to this Regulation, the electrical power train operating on high voltage, and the high voltage components and systems, which are galvanically connected to the high voltage bus of the electric power train, shall meet the following requirements:

5.3.7.1. Protection against electrical shock

After the impact at least one of the four criteria specified in paragraph 5.3.7.1.1 through paragraph 5.3.7.1.4.2 shall be met.

If the vehicle has an automatic disconnect function, or device(s) that galvanically divide the electric power train circuit during driving condition, at least one of the following criteria shall apply to the disconnected circuit or to each divided circuit individually after the disconnect function is activated.

However criteria defined in 5.3.7.1.4 shall not apply if more than a single potential of a part of the high voltage bus is not protected under the conditions of protection degree IPXXB.

If the test is performed under the condition that part(s) of the high voltage system are not energised, the protection against electrical shock shall be proved by either paragraph 5.3.7.1.3 or 5.3.7.1.4 below for the relevant part(s).

For the coupling system for charging the REESS, which is not energised during driving conditions, at least one of the four criteria specified in paragraphs 5.3.7.1.1 to 5.3.7.1.4 below shall be met.

5.3.7.1.1. Absence of high voltage

The voltages V_b , V_1 and V_2 of the high voltage buses shall be equal or less than 30 VAC or 60 VDC as specified in paragraph 2 of Annex 9.

5.3.7.1.2. Low electrical energy

The total energy (TE) on the high voltage buses shall be less than 2,0 joules when measured according to the test procedure as specified in paragraph 3 of Annex 9 with the formula (a). Alternatively the total energy (TE) may be calculated by the measured voltage V_b of the high voltage bus and the capacitance of the X-capacitors (C_x) specified by the manufacturer according to formula (b) of paragraph 3 of Annex 9.

The energy stored in the Y-capacitors (TE_{y1} , TE_{y2}) shall also be less than 2,0 joules. This shall be calculated by measuring the voltages V_1 and V_2 of the high voltage buses and the electrical chassis, and the capacitance of the Y-capacitors specified by the manufacturer according to formula (c) of paragraph 3 of Annex 9.

5.3.7.1.3. Physical protection

For protection against direct contact with high voltage live parts, the protection degree IPXXB shall be provided.

In addition, for protection against electrical shock which could arise from indirect contact, the resistance between all exposed conductive parts and the electrical chassis shall be lower than 0,1 ohm when there is current flow of at least 0,2 ampere.

This requirement is satisfied if the galvanic connection has been made by welding.

5.3.7.1.4. Isolation resistance

The criteria specified in the paragraphs 5.3.7.1.4.1 and 5.3.7.1.4.2 below shall be met.

The measurement shall be conducted in accordance with paragraph 5 of Annex 9.

5.3.7.1.4.1. Electrical power train consisting of separate DC- or AC-buses.

If the AC high voltage buses and the DC high voltage buses are galvanically isolated from each other, isolation resistance between the high voltage bus and the electrical chassis (R_i , as defined in paragraph 5 of Annex 9) shall have a minimum value of 100 Ω/V of the working voltage for DC buses, and a minimum value of 500 Ω/V of the working voltage for AC buses.

5.3.7.1.4.2. Electrical power train consisting of combined DC- and AC-buses

If the AC high voltage buses and the DC high voltage buses are galvanically connected isolation resistance between the high voltage bus and the electrical chassis (R_i , as defined in paragraph 5 of Annex 9) shall have a minimum value of 500 Ω/V of the working voltage.

However, if the protection degree IPXXB is satisfied for all AC high voltage buses or the AC voltage is equal or less than 30 V after the vehicle impact, the isolation resistance between the high voltage bus and the electrical chassis (R_i , as defined in paragraph 5 of Annex 9) shall have a minimum value of 100 Ω/V of the working voltage.

5.3.7.2. Electrolyte spillage

In the period from the impact until 30 minutes after no electrolyte from the REESS shall spill into the passenger compartment and no more than 7 per cent of electrolyte shall spill from the REESS except open type traction batteries outside the passenger compartment. For open type traction batteries no more than 7 per cent with a maximum of 5,0 litres shall spill outside the passenger compartment.

The manufacturer shall demonstrate compliance in accordance with paragraph 6 of Annex 9.

5.3.7.3. REESS retention

REESS located inside the passenger compartment shall remain in the location in which they are installed and REESS components shall remain inside REESS boundaries.

No part of any REESS that is located outside the passenger compartment for electric safety assessment shall enter the passenger compartment during or after the impact test.

The manufacturer shall demonstrate compliance in accordance with paragraph 7 of Annex 9.

6. MODIFICATION OF THE VEHICLE TYPE

6.1. Any modification affecting the structure, the number and type of seats, the interior trim or fittings, or the position of the vehicle controls or of mechanical parts which might affect the energy-absorption capacity of the side of the vehicle, shall be brought to the notice of the Type Approval Authority granting approval. The Type Approval Authority may then either:

6.1.1. Consider that the modifications made are unlikely to have an appreciable adverse effect and that in any case the vehicle still complies with the requirements; or

6.1.2. Require a further test report from the Technical Service responsible for conducting the tests;

6.1.2.1. Any modification of the vehicle affecting the general form of the structure of the vehicle or any variation in the reference mass greater than 8 per cent which in the judgement of the authority would have a marked influence on the results of the test shall require a repetition of the test as described in Annex 4.

6.1.2.2. If the Technical Service, after consultation with the vehicle manufacturer, considers that modifications to a vehicle type are insufficient to warrant a complete retest then a partial test may be used. This would be the case if the reference mass is not more than 8 per cent different from the original vehicle or the number of front seats is unchanged. Variations of seat type or interior fittings need not automatically entail a full retest. An example of the approach to this problem is given in Annex 8.

6.2. Confirmation or refusal of approval, specifying the alteration, shall be communicated by the procedure specified in paragraph 4.4 above to the Parties to the Agreement which apply this Regulation.

6.3. The Type Approval Authority issuing an extension of approval shall assign a series number to each communication form drawn up for such an extension.

7. CONFORMITY OF PRODUCTION

The conformity of production procedures shall comply with those set out in the Agreement, Appendix 2 (E/ECE/324-E/ECE/TRANS/505/Rev.2) with the following requirements.

7.1. Every vehicle approved under this Regulation shall be so manufactured as to conform to the type approved by meeting the requirements set out in paragraph 5 above.

7.2. The holder of the approval shall ensure that for each type of vehicle at least the tests concerning the taking of measurements are carried out.

7.3. The Type Approval Authority which has granted type approval may at any time verify the conformity control methods applied in each production facility. The normal frequency of these verifications shall be once every 2 years.

8. PENALTIES FOR NON-CONFORMITY OF PRODUCTION

8.1. The approval granted in respect of a vehicle type, pursuant to this Regulation, may be withdrawn if the requirement laid down in paragraph 7.1 above is not complied with, or if the vehicle or vehicles selected have failed to pass the checks prescribed in paragraph 7.2 above.

8.2. If a Contracting Party to the Agreement applying this Regulation withdraws an approval it has previously granted, it shall forthwith so notify the other Contracting Parties applying this Regulation by means of a communication form conforming to the model in Annex 1 to this Regulation.

9. PRODUCTION DEFINITELY DISCONTINUED

If the holder of the approval completely ceases to manufacture a type of vehicle approved in accordance with this Regulation, he shall so inform the Type Approval Authority which granted the approval. Upon receiving the relevant communication that Authority shall inform thereof the other Parties to the 1958 Agreement applying this Regulation by means of a communication form conforming to the model in Annex 1 to this Regulation.

10. TRANSITIONAL PROVISIONS

10.1. As from the official date of entry into force of supplement 1 to the 02 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approval under this Regulation as amended by Supplement 1 to the 02 series of amendments.

10.2. As from 12 months after the entry into force of the 02 series of amendments Contracting Parties applying this Regulation shall grant approvals only to those types of vehicles which comply with the requirements of this Regulation as amended by the 02 series of amendments.

10.3. As from 60 months after the entry into service of the 02 series of amendments Contracting Parties applying this Regulation may refuse first national registration (first entry into service) of vehicles which do not meet the requirements of this Regulation as amended by the 02 series of amendments.

10.4. As from 36 months after the entry into force of Supplement 1 to the 02 series of amendments Contracting Parties applying this Regulation shall grant approvals only to those types of vehicles which comply with the requirements of this Regulation as amended by Supplement 1 to the 02 series of amendments.

10.5. As from 84 months after the entry into force of Supplement 1 to the 02 series of amendments Contracting Parties applying this Regulation may refuse first national registration (first entry into service) of vehicles which do not meet the requirements of this regulation as amended by Supplement 1 to the 02 series of amendments.

10.6. As from the official date of entry into force of the 03 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approval under this Regulation as amended by the 03 series of amendments.

10.7. As from 24 months after the official date of entry into force of the 03 series of amendments, Contracting Parties applying this Regulation shall grant approvals only to those types of vehicles which comply with the requirements of this Regulation as amended by the 03 series of amendments.

However, in the case of vehicles having an electrical power train operating on high voltage, an additional period of 12 months is granted provided that the manufacturer demonstrates, to the satisfaction of the Technical Service, that the vehicle provides equivalent levels of safety to those required by this Regulation as amended by the 03 series of amendments.

10.8. Contracting Parties applying this Regulation shall not refuse to grant extensions of approvals issued to the preceding series of amendments to this Regulation, when this extension does not entail any change to the propulsion system of the vehicle.

However, as from 48 months after the official date of entry into force of the 03 series of amendments, extensions to approvals issued to the previous series of amendments shall not be granted after this date in respect of vehicles having an electrical power train operating on high voltage.

10.9. Where at the time of entry into force of the 03 series of amendments to this Regulation national requirements exist to address the safety provisions of vehicles having an electrical power train operating on high voltage, those Contracting Parties applying this Regulation may refuse national approval of such vehicles not meeting the national requirements, unless these vehicles are approved to the 03 series of amendments to this Regulation.

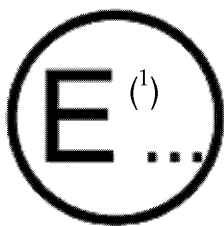
- 10.10. As from 48 months after the entry into force of the 03 series of amendments to this Regulation, Contracting Parties applying this Regulation may refuse national or regional type approval and may refuse first national or regional registration (first entry into service) of a vehicle having an electrical power train operating on high voltage which does not meet the requirements of the 03 series of amendments to this Regulation.
- 10.11. Approvals of the vehicles to the 02 series of amendments to this Regulation which are not affected by the 03 series of amendments shall remain valid and Contracting Parties applying the Regulation shall continue to accept them.
- 10.12. Until 18 months after the date of entry into force of the Supplement 3 to the 03 series of amendments to this Regulation, Contracting Parties applying this Regulation can continue to grant type approvals to the 03 series of amendments to this Regulation without taking into account the provisions of Supplement 3.
11. NAMES AND ADDRESSES OF TECHNICAL SERVICES RESPONSIBLE FOR CONDUCTING APPROVAL TESTS, AND OF TYPE APPROVAL AUTHORITIES

The Contracting Parties to the Agreement applying this Regulation shall communicate to the United Nations secretariat the names and addresses of the Technical Services responsible for conducting approval tests, and of the Type Approval Authority which grant approval and to which forms certifying approval or extension, or refusal or withdrawal of approval, issued in other countries, are to be sent.

ANNEX 1

COMMUNICATION

(maximum format: A4 (210 × 297 mm))



issued by: Name of administration

.....

.....

.....

Concerning ⁽²⁾: Approval granted

Approval extended

Approval refused

Approval withdrawn

Production definitively discontinued

of a vehicle type with regard to protection of occupants in the event of a lateral collision pursuant to Regulation No 95

Approval No Extension No

1. Trade name or mark of the power-driven vehicle:
2. Vehicle type:
3. Manufacturer's name and address:
4. If applicable, name and address of manufacturer's representative:
5. Vehicle submitted for approval on:
6. Side impact dummy utilised ES-1/ES-2 ⁽²⁾:
7. Location of the electric power source:
8. Technical Service responsible for conducting approval tests:
9. Date of test report:
10. Number of test report:
11. Approval granted/refused/extended/withdrawn ⁽²⁾:
12. Position of approval mark on the vehicle:
13. Place:
14. Date:
15. Signature:
16. The list of documents deposited with the Type Approval Authority which has granted approval is annexed to this communication and may be obtained on request.

⁽¹⁾ Distinguishing number of the country which has granted/extended/refused/withdrawn approval (see approval provisions in the Regulation).

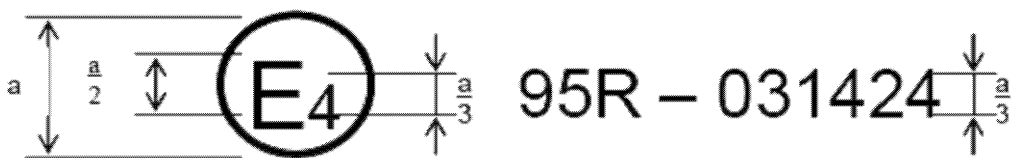
⁽²⁾ Strike out what does not apply.

ANNEX 2

ARRANGEMENTS OF THE APPROVAL MARK

MODEL A

(See paragraph 4.5 of this Regulation)

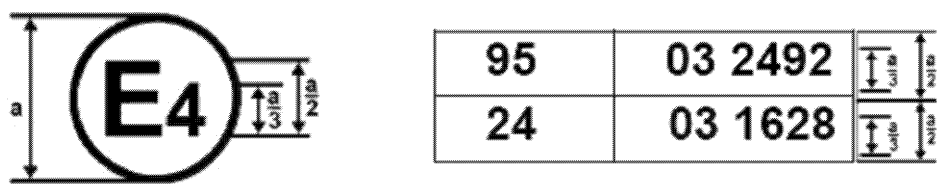


a = 8 mm min.

The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to the protection of the occupants in the event of a lateral collision, been approved in the Netherlands (E 4) pursuant to Regulation No 95 under approval number 031424. The approval number indicates that the approval was granted in accordance with the requirements of Regulation No 95 as amended by the 03 series of amendments.

MODEL B

(See paragraph 4.6 of this Regulation)



a = 8 mm min.

The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E 4) pursuant to Regulations Nos 95 and 24 ⁽¹⁾. The first two digits of the approval numbers indicate that, at the dates when the respective approvals were granted. Regulation No 95 incorporated the 03 series of amendments and Regulation No 24 incorporated the 03 series of amendments.

⁽¹⁾ The latter number is given only as an example.

ANNEX 3

Procedure for determining the 'H' point and the actual torso angle for seating positions in motor vehicles ⁽¹⁾

Appendix 1 — Description of the three dimensional 'H' point machine (3-D H machine) ⁽¹⁾

Appendix 2 — Three-dimensional reference system ⁽¹⁾

Appendix 3 — Reference data concerning seating positions ⁽¹⁾

⁽¹⁾ The procedure is described in Annex 1 to the Consolidated Resolution on the Construction of Vehicles (RE.3) (document ECE/TRANS/WP.29/78/Rev.3). www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html

ANNEX 4

COLLISION TEST PROCEDURE**1. INSTALLATIONS****1.1. Testing ground**

The test area shall be large enough to accommodate the mobile deformable barrier propulsion system and to permit after-impact displacement of the vehicle impacted and installation of the test equipment. The part in which vehicle impact and displacement occur shall be horizontal, flat and uncontaminated, and representative of a normal, dry, uncontaminated road surface.

2. TEST CONDITIONS**2.1. The vehicle to be tested shall be stationary.****2.2. The mobile deformable barrier shall have the characteristics set out in Annex 5 to this Regulation. Requirements for the examination are given in the appendices to Annex 5. The mobile deformable barrier shall be equipped with a suitable device to prevent a second impact on the struck vehicle.****2.3. The trajectory of the mobile deformable barrier longitudinal median vertical plane shall be perpendicular to the longitudinal median vertical plane of the impacted vehicle.****2.4. The longitudinal vertical median plane of the mobile deformable barrier shall be coincident within ± 25 mm with a transverse vertical plane passing through the R point of the front seat adjacent to the struck side of the tested vehicle. The horizontal median plane limited by the external lateral vertical planes of the front face shall be at the moment of impact within two planes determined before the test and situated 25 mm above and below the previously defined plane.****2.5. Instrumentation shall comply with ISO 6487:1987 unless otherwise specified in this Regulation.****2.6. The stabilised temperature of the test dummy at the time of the side impact test shall be 22 ± 4 °C.****3. TEST SPEED**

The mobile deformable barrier speed at the moment of impact shall be 50 ± 1 km/h. This speed shall be stabilised at least 0,5 m before impact. Accuracy of measurement: 1 per cent. However, if the test was performed at a higher impact speed and the vehicle met the requirements, the test shall be considered satisfactory.

4. STATE OF THE VEHICLE**4.1. General specification**

The test vehicle shall be representative of the series production, shall include all the equipment normally fitted and shall be in normal running order. Some components may be omitted or replaced by equivalent masses where this omission or substitution clearly has no effect on the results of the test.

It shall be allowed by agreement between manufacturer and Technical Service to modify the fuel system so that an appropriate amount of fuel can be used to run the engine or the electrical energy conversion system.

4.2. Vehicle equipment specification

The test vehicle shall have all the optional arrangements or fittings likely to influence the results of the test.

- 4.3. Mass of the vehicle
- 4.3.1. The vehicle to be tested shall have the reference mass as defined in paragraph 2.10 of this Regulation. The mass of the vehicle shall be adjusted to ± 1 per cent of the reference mass.
- 4.3.2. The fuel tank shall be filled with water to a mass equal to 90 per cent of the mass of a full load of fuel as specified by the manufacturer with a tolerance of ± 1 per cent.
- This requirement does not apply to hydrogen fuel tanks.
- 4.3.3. All the other systems (brake, cooling, etc.) may be empty; in this case, the mass of the liquids shall be offset.
- 4.3.4. If the mass of the measuring apparatus on board of the vehicle exceeds the 25 kg allowed, it may be offset by reductions which have no noticeable effect on the results of the test.
- 4.3.5. The mass of the measuring apparatus shall not change each axle reference load by more than 5 per cent, each variation not exceeding 20 kg.
5. PREPARATION OF THE VEHICLE
- 5.1. The side windows at least on the struck side shall be closed.
- 5.2. The doors shall be closed, but not locked.
- 5.2.1. However, in the case of vehicles equipped with an automatically activated door locking system, it shall be ensured that all the side doors are locked before the test.
- 5.2.2. In the case of vehicles equipped with an automatically activated door locking system, which is installed optionally and/or which can be de-activated by the driver, one of the following two procedures shall be used at the choice of the manufacturer:
- 5.2.2.1. All the side doors shall be locked manually before the start of the test.
- 5.2.2.2. It shall be ensured that the side doors on the struck side are unlocked and the side doors on the non-struck side locked before the impact; the automatically activated door-locking system may be overridden for this test.
- 5.3. The transmission shall be placed in neutral and the parking brake disengaged.
- 5.4. The comfort adjustments of the seats, if any, shall be adjusted to the position specified by the vehicle manufacturer.
- 5.5. The seat containing the dummy, and its elements, if adjustable, shall be adjusted as follows:
- 5.5.1. The longitudinal adjustment device shall be placed with the locking device engaged in the position that is nearest to midway between the foremost and rearmost positions; if this position is between two notches, the rearmost notch shall be used.
- 5.5.2. The head restraint shall be adjusted such that its top surface is level with the centre of gravity of the dummy's head; if this is not possible, the head restraint shall be in the uppermost position.
- 5.5.3. Unless otherwise specified by the manufacturer, the seat-back shall be set such that the torso reference line of the three-dimensional H point machine is set at an angle of $25^\circ \pm 1^\circ$ towards the rear.

- 5.5.4. All other seat adjustments shall be at the mid-point of available travel; however, height adjustment shall be at the position corresponding to the fixed seat, if the vehicle type is available with adjustable and fixed seats. If locking positions are not available at the respective mid-points of travel, the positions immediately rearward, down, or outboard of the mid-points shall be used. For rotational adjustments (tilt), rearward will be the adjustment direction which moves the head of the dummy rearwards. If the dummy protrudes outside the normal passenger volume, e.g. head into roof lining, then 1 cm clearance will be provided using: secondary adjustments, seat-back angle, or fore-aft adjustment in that order.
- 5.6. Unless otherwise specified by the manufacturer, the other front seats shall, if possible, be adjusted to the same position as the seat containing the dummy.
- 5.7. If the steering wheel is adjustable, all adjustments are positioned to their mid-travel locations.
- 5.8. Tyres shall be inflated to the pressure specified by the vehicle manufacturer.
- 5.9. The test vehicle shall be set horizontal about its roll axis and maintained by supports in that position until the side impact dummy is in place and after all preparatory work is complete.
- 5.10. The vehicle shall be at its normal attitude corresponding to the conditions set out in paragraph 4.3 above. Vehicles with suspension enabling their ground clearance to be adjusted shall be tested under the normal conditions of use at 50 km/h as defined by the vehicle manufacturer. This shall be assured by means of additional supports, if necessary, but such supports shall have no influence on the crash behaviour of the test vehicle during the impact.
- 5.11. Electrical power train adjustment
 - 5.11.1. The REESS shall be at any state of charge, which allows the normal operation of the power train as recommended by the manufacturer.
 - 5.11.2. The electrical power train shall be energised with or without the operation of the original electrical energy sources (e.g. engine-generator, REESS or electric energy conversion system), however:
 - 5.11.2.1. By the agreement between Technical Service and manufacturer it shall be permissible to perform the test with all or parts of the electrical power train not being energised insofar as there is no negative influence on the test result. For parts of the electrical power train not energised, the protection against electrical shock shall be proved by either physical protection or isolation resistance and appropriate additional evidence.
 - 5.11.2.2. In the case where an automatic disconnect is provided, at the request of the manufacturer it shall be permissible to perform the test with the automatic disconnection being triggered. In this case it shall be demonstrated that the automatic disconnect would have operated during the impact test. This includes the automatic activation signal as well as the galvanic separation considering the conditions as seen during the impact.
- 6. SIDE IMPACT DUMMY AND ITS INSTALLATION
 - 6.1. The side impact dummy shall comply with the specifications given in Annex 6 and be installed in the front seat on the impact side according to the procedure given in Annex 7 to this Regulation.
 - 6.2. The safety-belts or other restraint systems, which are specified for the vehicle, shall be used. Belts should be of an approved type, conforming to Regulation No 16 or to other equivalent requirements and mounted on anchorages conforming to Regulation No 14 or to other equivalent requirements.
 - 6.3. The safety-belt or restraint system shall be adjusted to fit the dummy in accordance with the manufacturer's instructions; if there are no manufacturer's instructions, the height adjustment shall be set at middle position; if this position is not available, the position immediately below shall be used.

7. MEASUREMENTS TO BE MADE ON THE SIDE IMPACT DUMMY

7.1. The readings of the following measuring devices are to be recorded.

7.1.1. Measurements in the head of the dummy

The resultant triaxial acceleration referring to the head centre of gravity. The head channel instrumentation shall comply with ISO 6487:1987 with:

CFC: 1 000 Hz, and

CAC: 150 g

7.1.2. Measurements in the thorax of the dummy

The three thorax rib deflection channels shall comply with ISO 6487:1987

CFC: 1 000 Hz

CAC: 60 mm

7.1.3. Measurements in the pelvis of the dummy

The pelvis force channel shall comply with ISO 6487:1987

CFC: 1 000 Hz

CAC: 15 kN

7.1.4. Measurements in the abdomen of the dummy

The abdomen force channels shall comply with ISO 6487:1987

CFC: 1 000 Hz

CAC: 5 kN

Appendix 1

DETERMINATION OF PERFORMANCE DATA

The required results of the tests are specified in paragraph 5.2 of this Regulation.

1. HEAD PERFORMANCE CRITERION (HPC)

When head contact takes place, this performance criterion is calculated for the total duration between the initial contact and the last instant of the final contact.

HPC is the maximum value of the expression:

$$(t_2 - t_1) \left(\frac{1}{t_2 - t_1} \int_{t_1}^{t_2} a \, dt \right)^{2,5}$$

Where a is the resultant acceleration at the centre of gravity of the head in metres per second divided by 9,81 recorded versus time and filtered at channel frequency class 1 000 Hz; t_1 and t_2 are any two times between the initial contact and the last instant of the final contact.

2. THORAX PERFORMANCE CRITERIA

2.1. Chest deflection: the peak chest deflection is the maximum value of deflection on any rib as determined by the thorax displacement transducers, filtered at channel frequency class 180 Hz.

2.2. Viscous criterion: the peak viscous response is the maximum value of VC on any rib which is calculated from the instantaneous product of the relative thorax compression related to the half thorax and the velocity of compression derived by differentiation of the compression, filtered at channel frequency class 180 Hz. For the purposes of this calculation the standard width of the half thorax rib cage is 140 mm.

$$VC = \max \left(\frac{D}{0,14} \cdot \frac{dD}{dt} \right)$$

Where D (metres) = rib deflection

The calculation algorithm to be used is set out in Annex 4, Appendix 2.

3. ABDOMEN PROTECTION CRITERION

The peak abdominal force is the maximum value of the sum of the three forces measured by transducers mounted 39 mm below the surface on the crash side, CFC 600 Hz.

4. PELVIS PERFORMANCE CRITERION

The pubic symphysis peak force (PSPF) is the maximum force measured by a load cell at the pubic symphysis of the pelvis, filtered at channel frequency class 600 Hz.

Appendix 2

THE PROCEDURE FOR CALCULATING THE VISCOUS CRITERION FOR EUROSID 1

The Viscous Criterion, VC, is calculated as the instantaneous product of the compression and the rate of deflection of the rib. Both are derived from the measurement of rib deflection. The rib deflection response is filtered once at Channel Frequency Class 180. The compression at time (t) is calculated as the deflection from this filtered signal expressed as the proportion of the half width of the Eurosid 1 chest, measured at the metal ribs (0,14 metres):

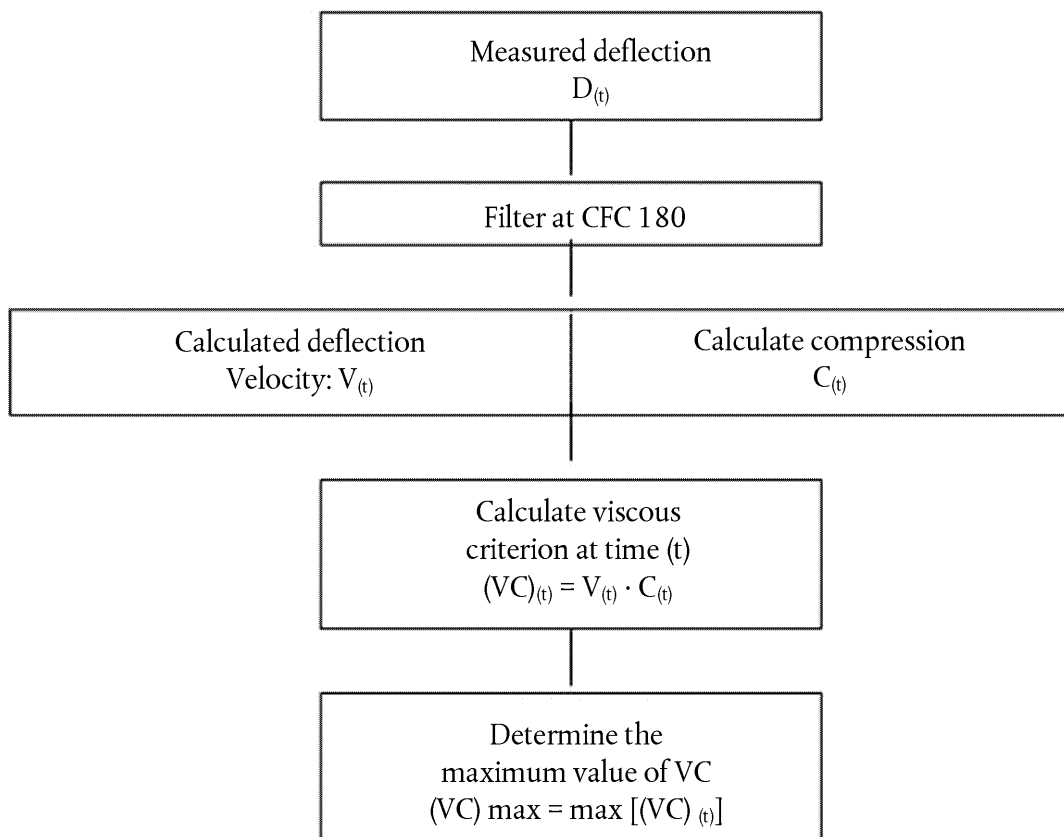
$$C_{(t)} = \frac{D_{(t)}}{0,14}$$

The rib deflection velocity at time (t) is calculated from the filtered deflection as:

$$V_{(t)} = \frac{8 [D_{(t+1)} - D_{(t-1)}] - [D_{(t+2)} - D_{(t-2)}]}{12\partial t}$$

where D(t) is the deflection at time (t) in metres and ∂t is the time interval in seconds between the measurements of deflection. The maximum value of ∂t shall be $1,25 \times 10^{-4}$ seconds.

This calculation procedure is shown diagrammatically below:



ANNEX 5

MOBILE DEFORMABLE BARRIER CHARACTERISTICS**1. CHARACTERISTICS OF THE MOBILE DEFORMABLE BARRIER**

- 1.1. The mobile deformable barrier (MDB) includes both an impactor and a trolley.
- 1.2. The total mass shall be 950 ± 20 kg.
- 1.3. The centre of gravity shall be situated in the longitudinal median vertical plane within 10 mm, $1\,000 \pm 30$ mm behind the front axle and 500 ± 30 mm above the ground.
- 1.4. The distance between the front face of the impactor and the centre of gravity of the barrier shall be $2\,000 \pm 30$ mm.
- 1.5. The ground clearance of the impactor shall be 300 ± 5 mm measured in static conditions from the lower edge of the lower front plate, before the impact.
- 1.6. The front and rear track width of the trolley shall be $1\,500 \pm 10$ mm.
- 1.7. The wheelbase of the trolley shall be $3\,000 \pm 10$ mm.

2. CHARACTERISTICS OF THE IMPACTOR

The impactor consists of six single blocks of aluminium honeycomb, which have been processed in order to give a progressively increasing level of force with increasing deflection (see paragraph 2.1 below). Front and rear aluminium plates are attached to the aluminium honeycomb blocks.

2.1. Honeycomb blocks**2.1.1. Geometrical characteristics**

2.1.1.1. The impactor consists of six joined zones whose forms and positioning are shown in Figures 1 and 2. The zones are defined as 500 ± 5 mm \times 250 ± 3 mm in Figures 1 and 2. The 500 mm should be in the W direction and the 250 mm in the L direction of the aluminium honeycomb construction (see Figure 3).

2.1.1.2. The impactor is divided into 2 rows. The lower row shall be 250 ± 3 mm high, and 500 ± 2 mm deep after pre-crush (see paragraph 2.1.2 below), and deeper than the upper row by 60 ± 2 mm.

2.1.1.3. The blocks must be centred on the six zones defined in Figure 1 and each block (including incomplete cells) should cover completely the area defined for each zone).

2.1.2. Pre-crush

2.1.2.1. The pre-crush shall be performed on the surface of the honeycomb to which the front sheets are attached.

2.1.2.2. Blocks 1, 2 and 3 should be crushed by 10 ± 2 mm on the top surface prior to testing to give a depth of 500 ± 2 mm (Figure 2).

2.1.2.3. Blocks 4, 5 and 6 should be crushed by 10 ± 2 mm on the top surface prior to testing to give a depth of 440 ± 2 mm.

2.1.3. Material characteristics

2.1.3.1. The cell dimensions shall be 19 mm ± 10 per cent for each block (see Figure 4).

- 2.1.3.2. The cells must be made of 3003 aluminium for the upper row.
- 2.1.3.3. The cells must be made of 5052 aluminium for the lower row.
- 2.1.3.4. The aluminium honeycomb blocks should be processed such that the force deflection-curve when statically crushed (according to the procedure defined in paragraph 2.1.4 below) is within the corridors defined for each of the six blocks in Appendix 1 to this annex. Moreover, the processed honeycomb material used in the honeycomb blocks to be used for constructing the barrier, should be cleaned in order to remove any residue that may have been produced during the processing of the raw honeycomb material.
- 2.1.3.5. The mass of the blocks in each batch shall not differ by more than 5 per cent of the mean block mass for that batch.
- 2.1.4. Static tests
 - 2.1.4.1. A sample taken from each batch of processed honeycomb core shall be tested according to the static test procedure described in paragraph 5 of this annex.
 - 2.1.4.2. The force-compression for each block tested shall lie within the force deflection corridors defined in Appendix 1. Static force-deflection corridors are defined for each block of the barrier.
- 2.1.5. Dynamic test
 - 2.1.5.1. The dynamic deformation characteristics, when impacted according to the protocol described in paragraph 6 of this annex.
 - 2.1.5.2. Deviation from the limits of the force-deflection corridors characterising the rigidity of the impactor — as defined in Appendix 2 of this annex — may be allowed provided that:
 - 2.1.5.2.1. The deviation occurs after the beginning of the impact and before the deformation of the impactor is equal to 150 mm;
 - 2.1.5.2.2. The deviation does not exceed 50 per cent of the nearest instantaneous prescribed limit of the corridor;
 - 2.1.5.2.3. Each deflection corresponding to each deviation does not exceed 35 mm of deflection, and the sum of these deflections does not exceed 70 mm (see Appendix 2 to this annex);
 - 2.1.5.2.4. The sum of energy derived from deviating outside the corridor does not exceed 5 per cent of the gross energy for that block.
 - 2.1.5.3. Blocks 1 and 3 are identical. Their rigidity is such that their force deflection curves fall between corridors of Figure 2a.
 - 2.1.5.4. Blocks 5 and 6 are identical. Their rigidity is such that their force deflection curves fall between corridors of Figure 2d.
 - 2.1.5.5. The rigidity of block 2 is such that its force deflection curves fall between corridors of Figure 2b.
 - 2.1.5.6. The rigidity of block 4 is such that its force deflection curves fall between corridors of Figure 2c.
 - 2.1.5.7. The force-deflection of the impactor as a whole shall fall between corridors of Figure 2e.
 - 2.1.5.8. The force-deflection curves shall be verified by a test detailed in Annex 5, paragraph 6, consisting of an impact of the barrier against a dynamometric wall at $35 \pm 0,5$ km/h.

- 2.1.5.9. The dissipated energy ⁽¹⁾ against blocks 1 and 3 during the test shall be equal to $9,5 \pm 2$ kJ for these blocks.
- 2.1.5.10. The dissipated energy against blocks 5 and 6 during the test shall be equal to $3,5 \pm 1$ kJ for these blocks.
- 2.1.5.11. The dissipated energy against block 4 shall be equal to 4 ± 1 kJ.
- 2.1.5.12. The dissipated energy against block 2 shall be equal to 15 ± 2 kJ.
- 2.1.5.13. The dissipated total energy during the impact shall be equal to 45 ± 3 kJ.
- 2.1.5.14. The maximum impactor deformation from the point of first contact, calculated from integration of the accelerometers according to paragraph 6.6.3 of this annex, shall be equal to 330 ± 20 mm.
- 2.1.5.15. The final residual static impactor deformation measured after the dynamic test at level B (Figure 2) shall be equal to 310 ± 20 mm.
- 2.2. Front plates
 - 2.2.1. Geometrical characteristics
 - 2.2.1.1. The front plates are $1\,500 \pm 1$ mm wide and 250 ± 1 mm high. The thickness is $0,5 \pm 0,06$ mm.
 - 2.2.1.2. When assembled the overall dimensions of the impactor (defined in Figure 2) shall be: $1\,500 \pm 2,5$ mm wide and $500 \pm 2,5$ mm high.
 - 2.2.1.3. The upper edge of the lower front plate and the lower edge of the upper front plate should be aligned within 4 mm.
 - 2.2.2. Material characteristics
 - 2.2.2.1. The front plates are manufactured from aluminium of series AlMg₂ to AlMg₃ with elongation ≥ 12 per cent, and a UTS ≥ 175 N/mm².
- 2.3. Back plate
 - 2.3.1. Geometric characteristics
 - 2.3.1.1. The geometric characteristics shall be according to Figures 5 and 6.
 - 2.3.2. Material characteristics
 - 2.3.2.1. The back plate shall consist of a 3 mm aluminium sheet. The back plate shall be manufactured from aluminium of series AlMg₂ to AlMg₃ with hardness between 50 and 65 HBS. This plate shall be perforated with holes for ventilation: the location, the diameter and pitch are shown in Figures 5 and 7.
- 2.4. Location of the honeycomb blocks
 - 2.4.1. The honeycomb blocks shall be centred on the perforated zone of the back plate (Figure 5).
- 2.5. Bonding
 - 2.5.1. For both the front and the back plates, a maximum of $0,5$ kg/m² shall be applied evenly directly over the surface of the front plate, giving a maximum film thickness of 0,5 mm. The adhesive to be used throughout should be a two-part polyurethane {such as Ciba Geigy XB5090/1 resin with XB5304 hardener} or equivalent.

⁽¹⁾ The amounts of energy indicated are the amounts of energy dissipated by the system when the extent to which the impactor is crushed is greatest.

- 2.5.2. For the back plate the minimum bonding strength shall be 0,6 MPa, (87 psi), tested according to paragraph 2.5.3.
- 2.5.3. Bonding strength tests:
- 2.5.3.1. Flatwise tensile testing is used to measure bond strength of adhesives according to ASTM C297-61.
- 2.5.3.2. The test piece should be 100 mm × 100 mm, and 15 mm deep, bonded to a sample of the ventilated back plate material. The honeycomb used should be representative of that in the impactor, i.e. chemically etched to an equivalent degree as that near to the back plate in the barrier but without pre-crushing.
- 2.6. Traceability
- 2.6.1. Impactors shall carry consecutive serial numbers which are stamped, etched or otherwise permanently attached, from which the batches for the individual blocks and the date of manufacture can be established
- 2.7. Impactor attachment
- 2.7.1. The fitting on the trolley must be according to Figure 8. The fitting will use six M8 bolts, and nothing shall be larger than the dimensions of the barrier in front of the wheels of the trolley. Appropriate spacers must be used between the lower back plate flange and the trolley face to avoid bowing of the back plate when the attachment bolts are tightened.
3. VENTILATION SYSTEM
- 3.1. The interface between the trolley and the ventilation system should be solid, rigid and flat. The ventilation device is part of the trolley and not of the impactor as supplied by the manufacturer. Geometrical characteristics of the ventilation device shall be according to Figure 9.
- 3.2. Ventilation device mounting procedure.
- 3.2.1. Mount the ventilation device to the front plate of the trolley;
- 3.2.2. Ensure that a 0,5 mm thick gauge cannot be inserted between the ventilation device and the trolley face at any point. If there is a gap greater than 0,5 mm, the ventilation frame will need to be replaced or adjusted to fit without a gap of > 0,5 mm.
- 3.2.3. Dismount the ventilation device from the front of the trolley;
- 3.2.4. Fix a 1,0 mm thick layer of cork to the front face of the trolley;
- 3.2.5. Re-mount the ventilation device to the front of the trolley and tighten to exclude air gaps.
4. CONFORMITY OF PRODUCTION
- The conformity of production procedures shall comply with those set out in the Agreement, Appendix 2 (E/CE/324-E/CE/TRANS/505/Rev.2), with the following requirements:
- 4.1. The manufacturer shall be responsible for the conformity of production procedures and for that purpose must in particular:
- 4.1.1. Ensure the existence of effective procedures so that the quality of the products can be inspected;
- 4.1.2. Have access to the testing equipment needed to inspect the conformity of each product;
- 4.1.3. Ensure that the test results are recorded and that the documents remain available for a time period of 10 years after the tests;

- 4.1.4. Demonstrate that the samples tested are a reliable measure of the performance of the batch (examples of sampling methods according to batch production are given below).
- 4.1.5. Analyse results of tests in order to verify and ensure the stability of the barrier characteristics, making allowance for variations of an industrial production, such as temperature, raw materials quality, time of immersion in chemical, chemical concentration, neutralisation, etc. and the control of the processed material in order to remove any residue from the processing.
- 4.1.6. Ensure that any set of samples or test pieces giving evidence of non-conformity gives rise to a further sampling and test. All the necessary steps must be taken to restore conformity of the corresponding production.
- 4.2. The manufacturer's level of certification must be at least ISO 9002 standard.
- 4.3. Minimum conditions for the control of production: the holder of an agreement will ensure the control of conformity following the methods hereunder described.
- 4.4. Examples of sampling according to batch
 - 4.4.1. If several examples of one block type are constructed from one original block of aluminium honeycomb and are all treated in the same treatment bath (parallel production), one of these examples could be chosen as the sample, provided care is taken to ensure that the treatment is evenly applied to all blocks. If not, it may be necessary to select more than one sample.
 - 4.4.2. If a limited number of similar blocks (say 3 to 20) are treated in the same bath (serial production), then the first and last block treated in a batch, all of which are constructed from the same original block of aluminium honeycomb, should be taken as representative samples. If the first sample complies with the requirements but the last does not, it may be necessary to take further samples from earlier in the production until a sample that does comply is found. Only the blocks between these samples should be considered to be approved.
 - 4.4.3. Once experience is gained with the consistency of production control, it may be possible to combine both sampling approaches, so that more than one groups of parallel production can be considered to be a batch provided samples from the first and last production groups comply.
- 5. STATIC TESTS
 - 5.1. One or more samples (according to the batch method) taken from each batch of processed honeycomb core shall be tested, according to the following test procedure:
 - 5.2. The sample size of the aluminium honeycomb for static tests shall be the size of a normal block of the impactor, that is to say 250 mm × 500 mm × 440 mm for top row and 250 mm × 500 mm × 500 mm for the bottom row.
 - 5.3. The samples should be compressed between two parallel loading plates which are at least 20 mm larger than the block cross section.
 - 5.4. The compression speed shall be 100 millimetres per minute, with a tolerance of 5 per cent.
 - 5.5. The data acquisition for static compression shall be sampled at a minimum of 5 Hz.
 - 5.6. The static test shall be continued until the block compression is at least 300 mm for blocks 4 to 6 and 350 mm for blocks 1 to 3.

6. DYNAMIC TESTS

For every 100 barrier faces produced, the manufacturer shall make one dynamic test against a dynamometric wall supported by a fixed rigid barrier, according to the method described below.

6.1. Installation

6.1.1. Testing ground

- 6.1.1.1. The test area shall be large enough to accommodate the run-up-track of the mobile deformable barrier, the rigid barrier and the technical equipment necessary for the test. The last part of the track, for at least 5 metres before the rigid barrier, shall be horizontal, flat and smooth.

6.1.2. Fixed rigid barrier and dynamometric wall

- 6.1.2.1. The rigid wall shall consist of a block of reinforced concrete not less than 3 metres wide and not less than 1,5 metres high. The thickness of the rigid wall shall be such that it weighs at least 70 tonnes.

- 6.1.2.2. The front face shall be vertical, perpendicular to the axis of the run-up-track and equipped with six load cell plates, each capable of measuring the total load on the appropriate block of the mobile deformable barrier impactor at the moment of impact. The load cell impact plate area centres shall align with those of the six impact zones of the mobile deformable barrier face. Their edges shall clear adjacent areas by 20 mm such that, within the tolerance of impact alignment of the MDB, the impact zones will not contact the adjacent impact plate areas. Cell mounting and plate surfaces shall be in accordance with the requirements set out in the annex to standard ISO 6487:1987.

- 6.1.2.3. Surface protection, comprising a plywood face (thickness: 12 ± 1 mm), is added to each load cell plate such that it shall not degrade the transducer responses.

- 6.1.2.4. The rigid wall shall be either anchored in the ground or placed on the ground with, if necessary, additional arresting devices to limit its deflection. A rigid wall (to which the load cells are attached) having different characteristics but giving results that are at least equally conclusive may be used.

6.2. Propulsion of the mobile deformable barrier

At the moment of impact the mobile deformable barrier shall no longer be subject to the action of any additional steering or propelling device. It shall reach the obstacle on a course perpendicular to the front surface of the dynamometric wall. Impact alignment shall be accurate to within 10 mm.

6.3. Measuring instruments

6.3.1. Speed

The impact speed shall be $35 \pm 0,5$ km/h the instrument used to record the speed on impact shall be accurate to within 0,1 per cent.

6.3.2. Loads

Measuring instruments shall meet the specifications set forth in ISO 6487:1987

CFC for all blocks: 60 Hz

CAC for blocks 1 and 3: 200 kN

CAC for blocks 4, 5 and 6: 100 kN

CAC for block 2: 200 kN

6.3.3. Acceleration

6.3.3.1. The acceleration in the longitudinal direction shall be measured at three separate positions on the trolley, one centrally and one at each side, at places not subject to bending.

6.3.3.2. The central accelerometer shall be located within 500 mm of the location of the centre of gravity of the MDB and shall lie in a vertical longitudinal plane which is within ± 10 mm of the centre of gravity of the MDB.

6.3.3.3. The side accelerometers shall be at the same height as each other ± 10 mm and at the same distance from the front surface of the MDB ± 20 mm

6.3.3.4. The instrumentation shall comply with ISO 6487:1987 with the following specifications:

CFC 1 000 Hz (before integration)

CAC 50 g

6.4. General specifications of barrier

6.4.1. The individual characteristics of each barrier shall comply with paragraph 1 of this annex and shall be recorded.

6.5. General specifications of the impactor

6.5.1. The suitability of an impactor as regards the dynamic test requirements shall be confirmed when the outputs from the six load cell plates each produce signals complying with the requirements indicated in this annex.

6.5.2. Impactors shall carry consecutive serial numbers which are stamped, etched or otherwise permanently attached, from which the batches for the individual blocks and the date of manufacture can be established.

6.6. Data processing procedure

6.6.1. Raw data: At time $T = T_0$, all offsets should be removed from the data. The method by which offsets are removed shall be recorded in the test report.

6.6.2. Filtering

6.6.2.1. The raw data will be filtered prior to processing/calculations.

6.6.2.2. Accelerometer data for integration will be filtered to CFC 180, ISO 6487:1987.

6.6.2.3. Accelerometer data for impulse calculations will be filtered to CFC 60, ISO 6487:1987.

6.6.2.4. Load cell data will be filtered to CFC 60, ISO 6487:1987.

6.6.3. Calculation of MDB face deflection

6.6.3.1. Accelerometer data from all three accelerometers individually (after filtering at CFC 180), will be integrated twice to obtain deflection of the barrier deformable element.

6.6.3.2. The initial conditions for deflection are:

6.6.3.2.1. Velocity = impact velocity (from speed measuring device).

6.6.3.2.2. Deflection = 0

6.6.3.3. The deflection at the left hand side, mid-line and right hand side of the mobile deformable barrier will be plotted with respect to time.

- 6.6.3.4. The maximum deflection calculated from each of the three accelerometers should be within 10 mm. If it is not the case, then the outlier should be removed and difference between the deflections calculated from the remaining two accelerometers checked to ensure that it is within 10 mm.
- 6.6.3.5. If the deflections as measured by the left hand side, right hand side and mid-line accelerometers are within 10 mm, then the mean acceleration of the three accelerometers should be used to calculate the deflection of the barrier face.
- 6.6.3.6. If the deflection from only two accelerometers meets the 10 mm requirement, then the mean acceleration from these two accelerometers should be used to calculate the deflection for the barrier face.
- 6.6.3.7. If the deflections calculated from all three accelerometers (left hand side, right hand side and mid-line) are NOT within the 10 mm requirement, then the raw data should be reviewed to determine the causes of such large variation. In this case the individual test house will determine which accelerometer data should be used to determine mobile deformable barrier deflection or whether none of the accelerometer readings can be used, in which case, the certification test must be repeated. A full explanation should be given in the test report.
- 6.6.3.8. The mean deflection-time data will be combined with the load cell wall force-time data to generate the force-deflection result for each block.
- 6.6.4. Calculation of energy

The absorbed energy for each block and for the whole MDB face should be calculated up to the point of peak deflection of the barrier.

$$E_n = \int_{t_0}^{t_1} F_n \cdot ds_{\text{mean}}$$

Where:

t_0 is the time of first contact,

t_1 is the time where the trolley comes to rest, i.e. where $u = 0$,

s is the deflection of the trolley deformable element calculated according to paragraph 6.6.3.

- 6.6.5. Verification of dynamic force data
- 6.6.5.1. Compare the total impulse, I , calculated from the integration of the total force over the period of contact, with the momentum change over that period ($M \cdot V$).
- 6.6.5.2. Compare the total energy change to the change in kinetic energy of the MDB, given by:

$$E_k = \frac{1}{2} M V_i^2$$

Where V_i is the impact velocity and M the whole mass of the MDB

If the momentum change ($M \cdot V$) is not equal to the total impulse (I) ± 5 per cent, or if the total energy absorbed (E_n) is not equal to the kinetic energy, $E_k \pm 5$ per cent, then the test data must be examined to determine the cause of this error.

Figure 1

Design of impactor ⁽¹⁾

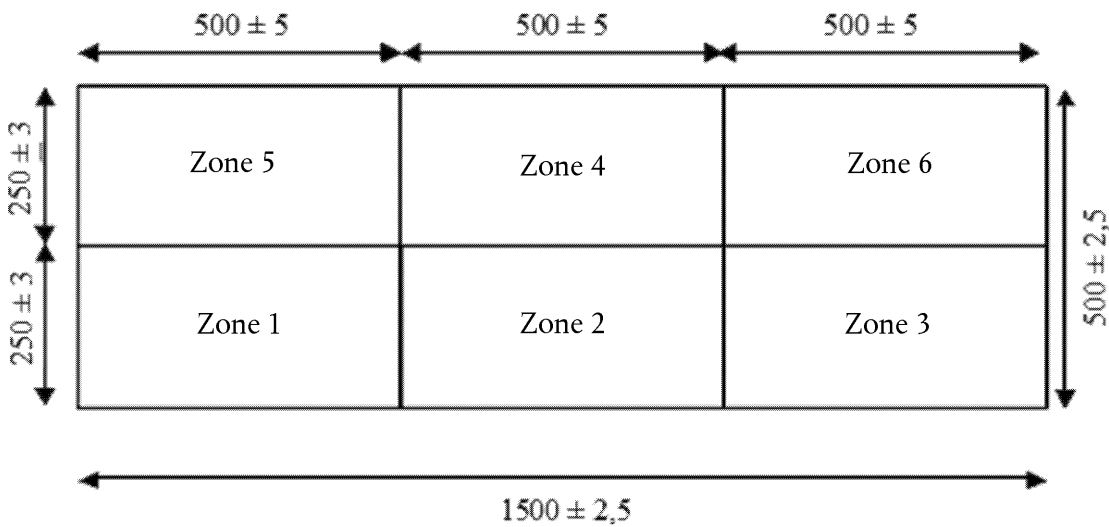
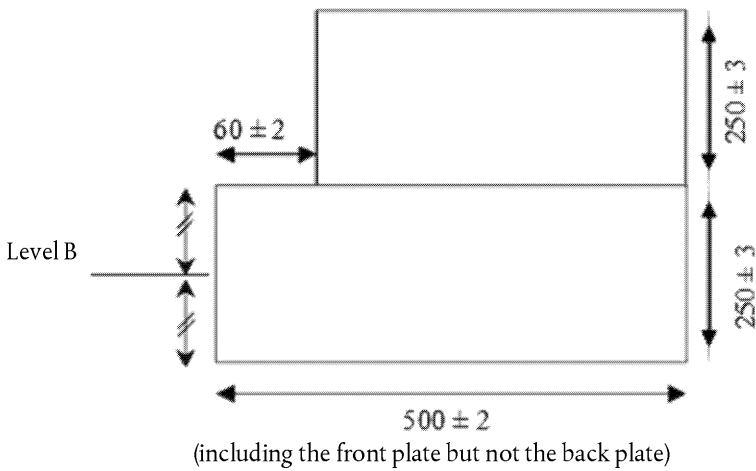


Figure 2

Impact Top



⁽¹⁾ All dimensions are in mm. The tolerances on the dimensions of the blocks allow for the difficulties of measuring cut aluminium honeycomb. The tolerance on the overall dimension of the impactor is less than that for the individual blocks since the honeycomb blocks can be adjusted, with overlap if necessary, to maintain a more closely defined impact face dimension.

Figure 3

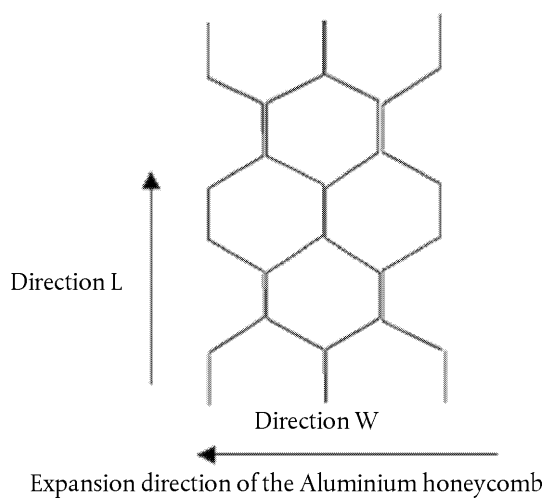
Aluminium honeycomb orientation

Figure 4

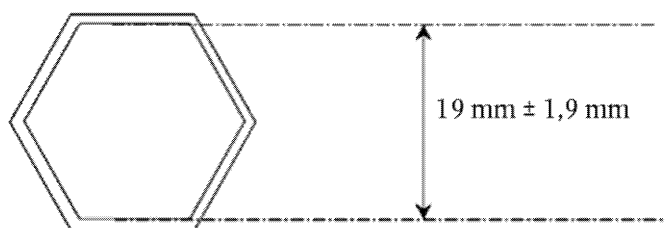
Dimension of aluminium honeycomb cells

Figure 5

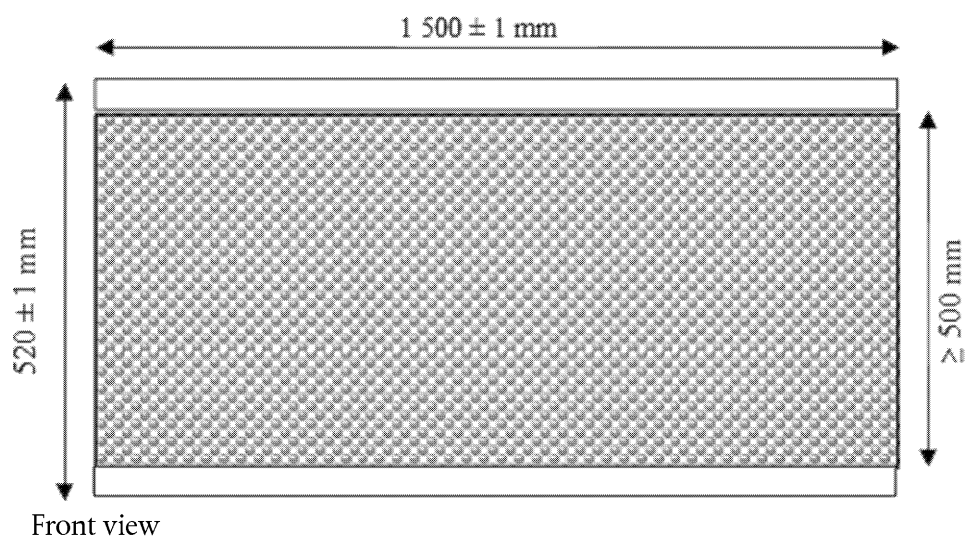
Design of the back plate

Figure 6

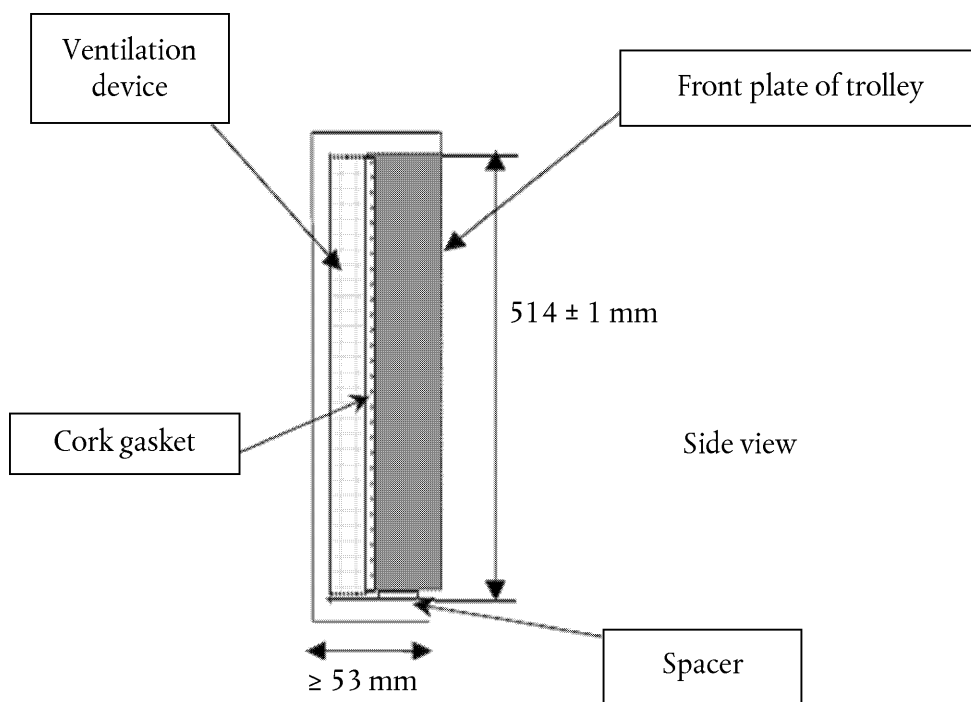
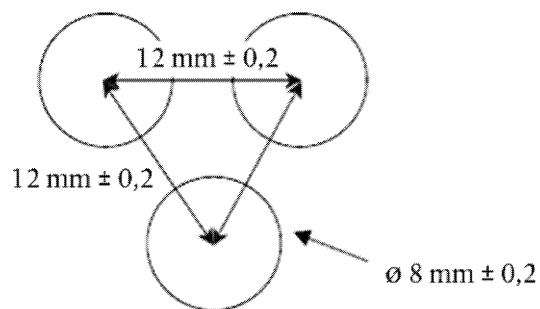
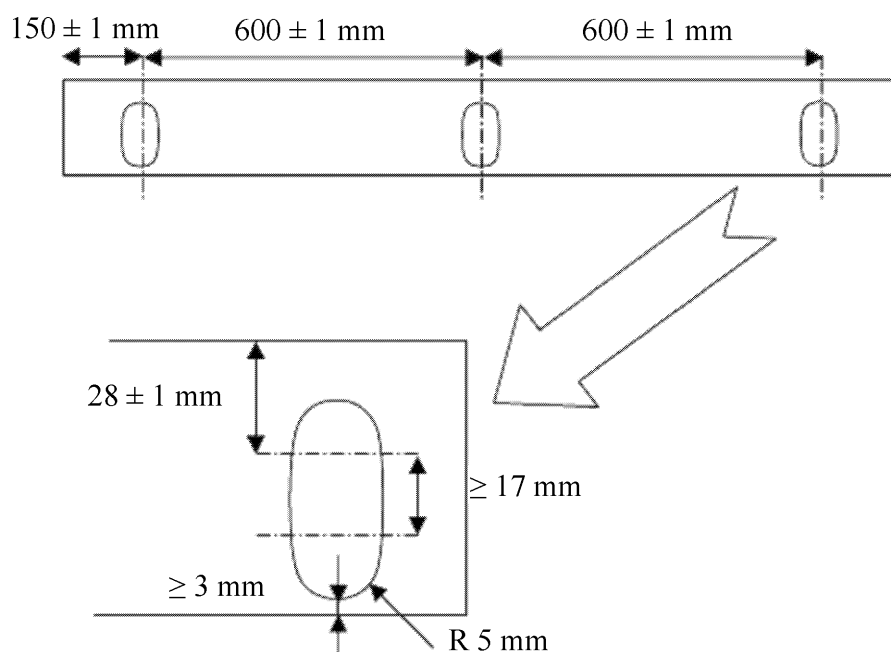
Attachment of backplate to ventilation device and trolley face plate

Figure 7

Staggered pitch for the back plate ventilation holes

Top and bottom back plate flanges



Note: The attachment holes in the bottom flange may be opened to slots, as shown below, for ease of attachment provided sufficient grip can be developed to avoid detachment during the whole impact test.

Figure 8

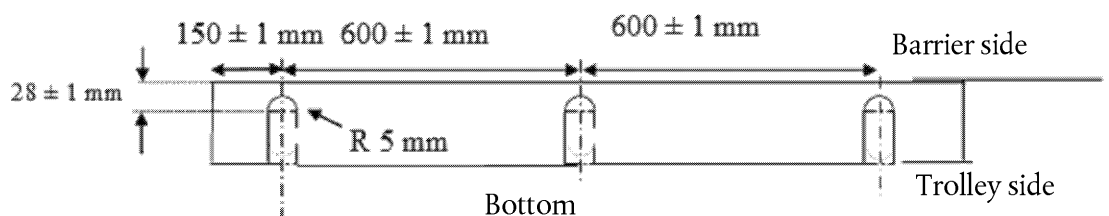
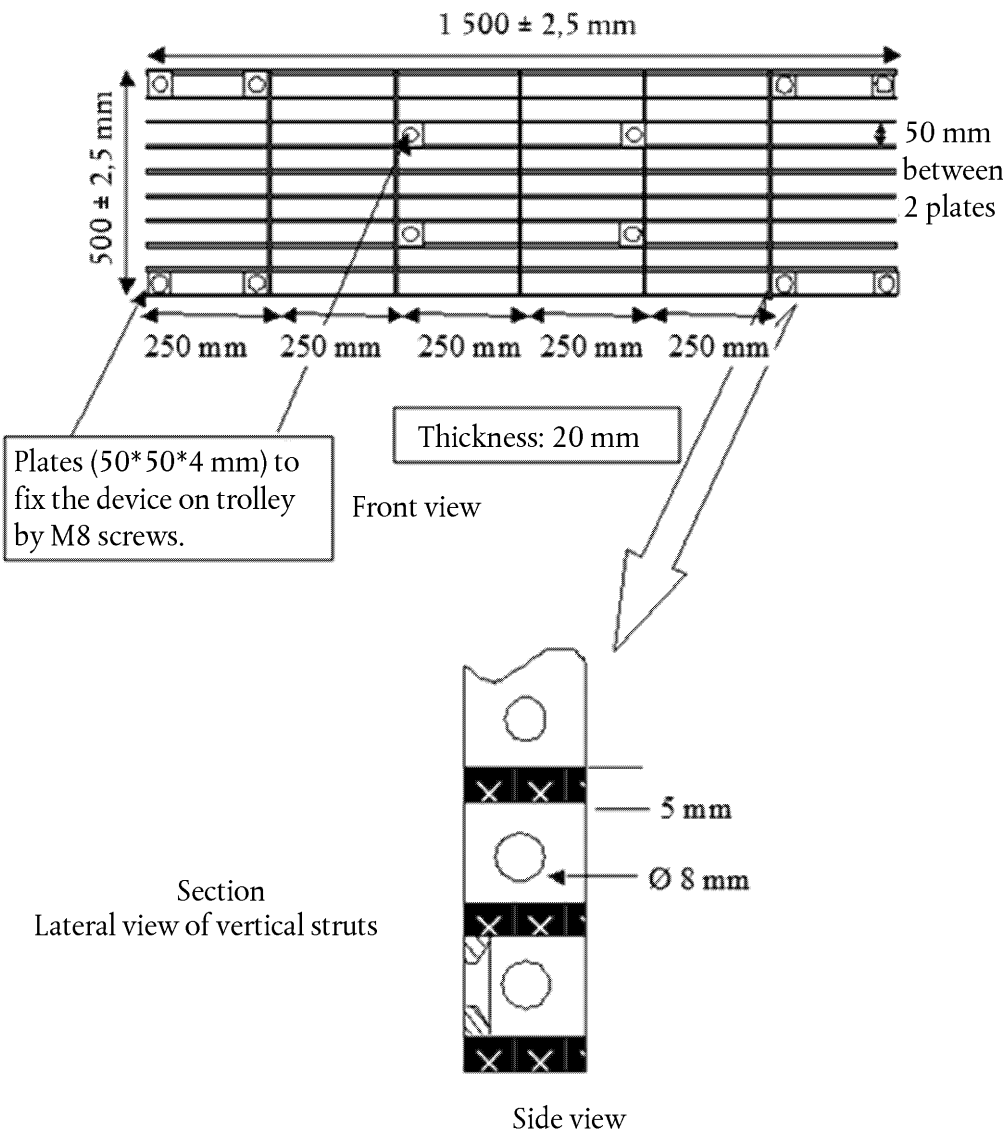


Figure 9

Ventilation frame

The ventilation device is a structure made of a plate that is 5 mm thick and 20 mm wide. Only the vertical plates are perforated with nine 8 mm holes in order to let air circulate horizontally.



Appendix 1

FORCE-DEFLECTION CURVES FOR STATIC TESTS

Figure 1a

Blocks 1 & 3

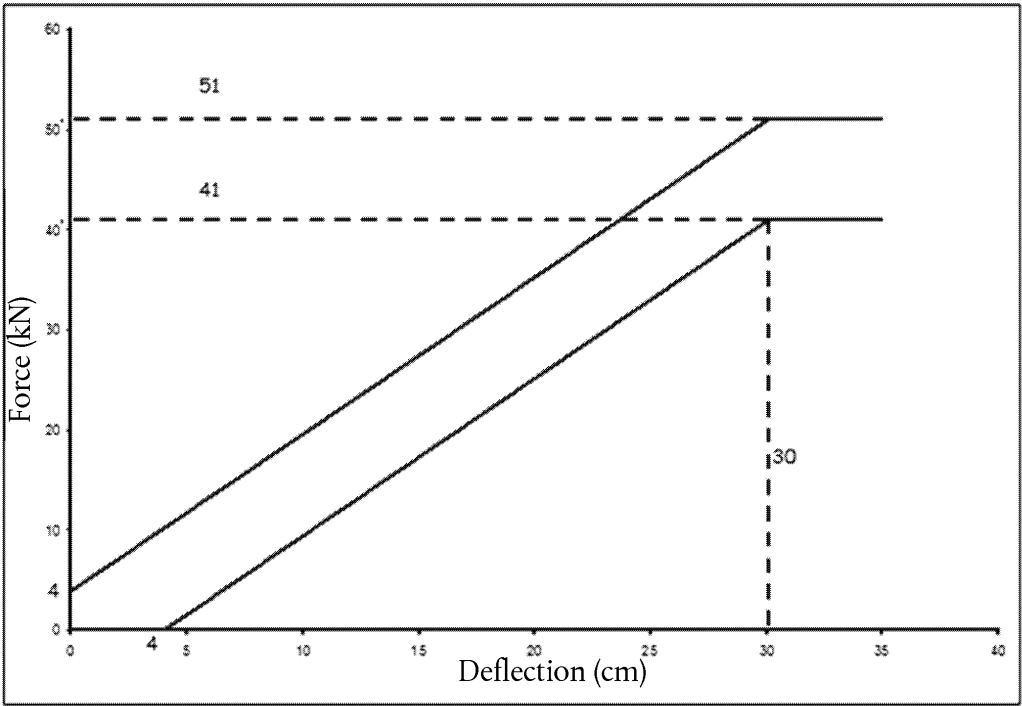


Figure 1b

Block 2

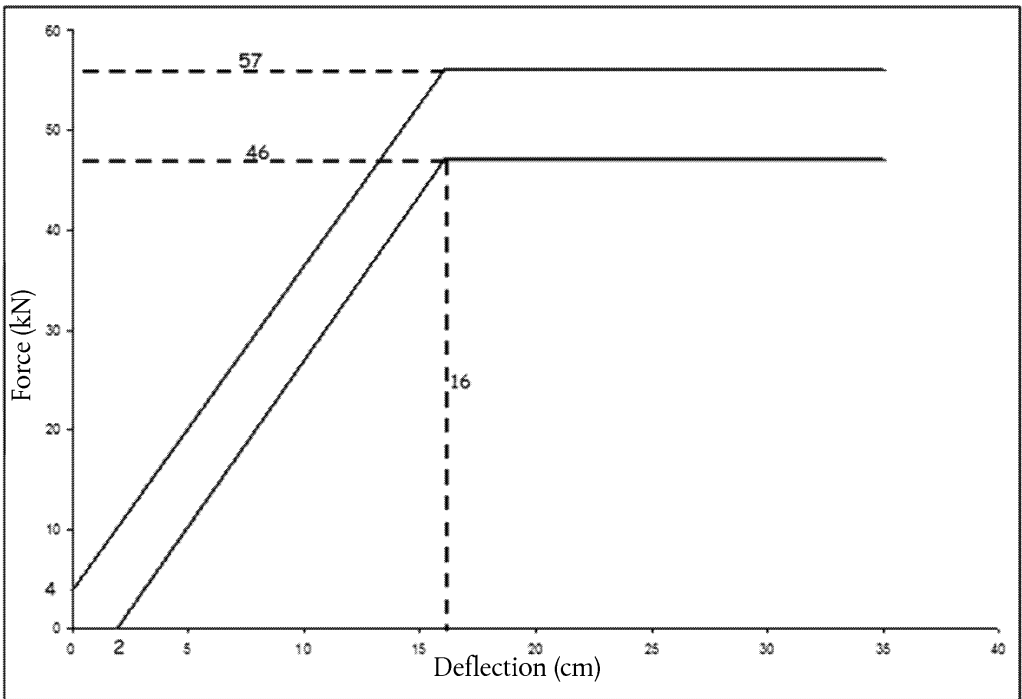


Figure 1c

Block 4

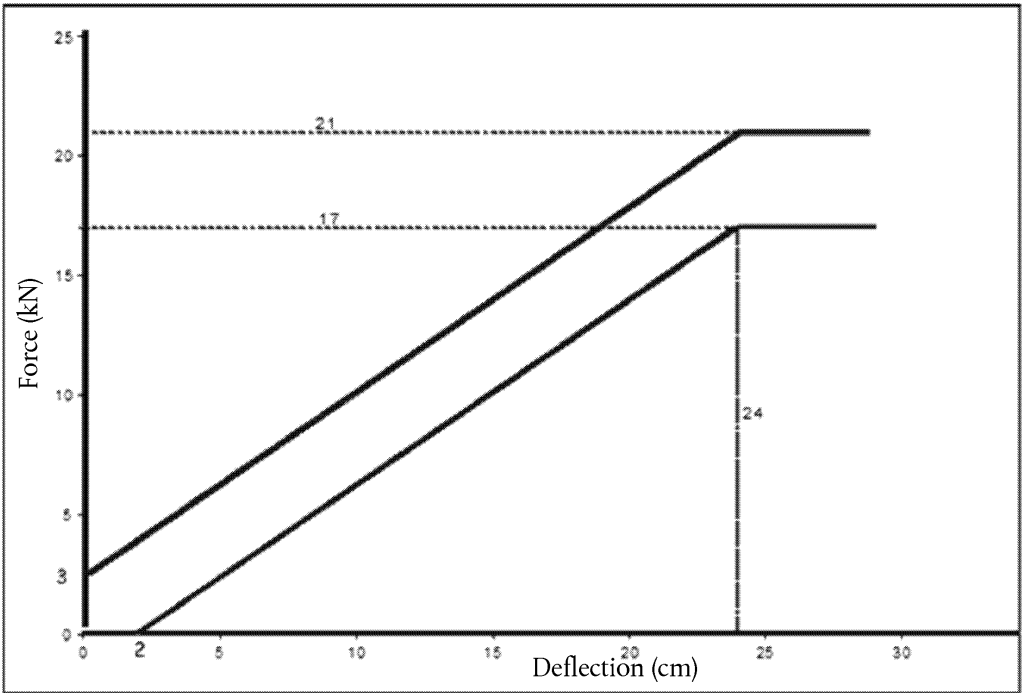
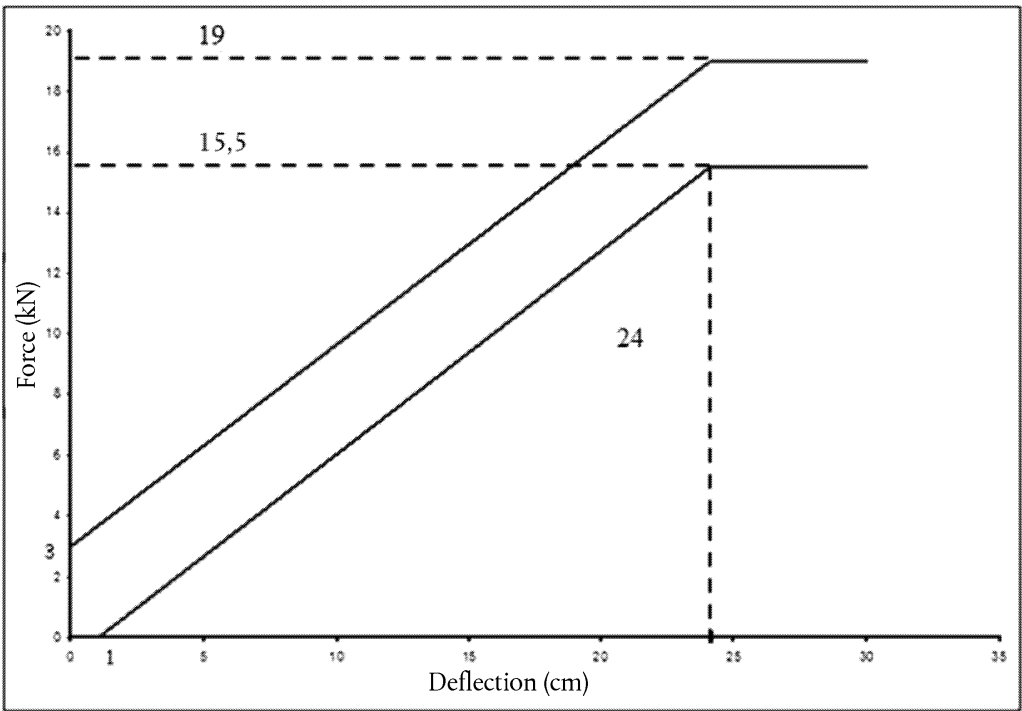


Figure 1d

Blocks 5 & 6



Appendix 2

FORCE-DEFLECTION CURVES FOR DYNAMIC TESTS

Figure 2a

Blocks 1 & 3

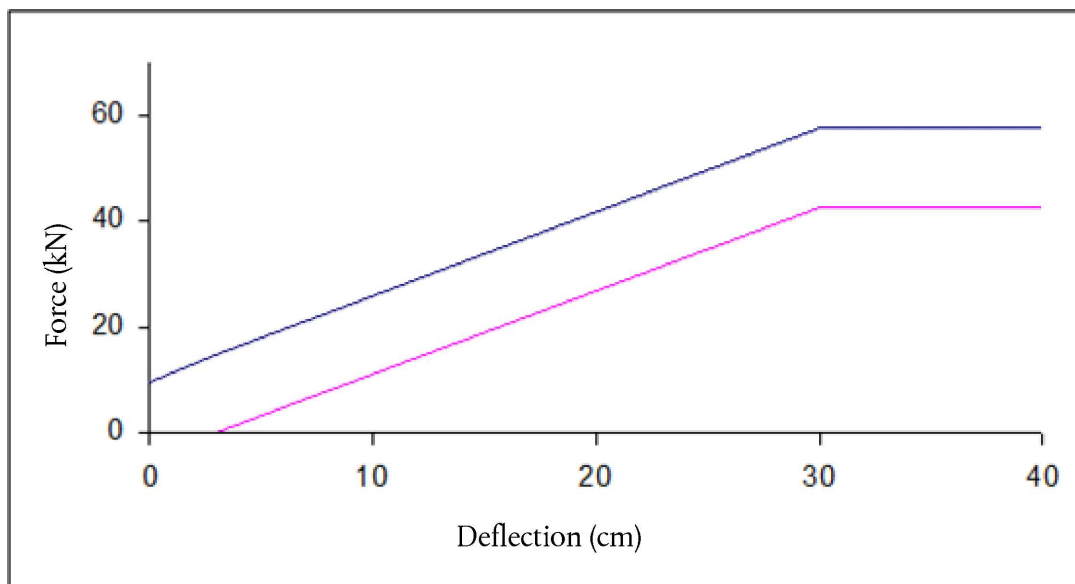


Figure 2b

Block 2

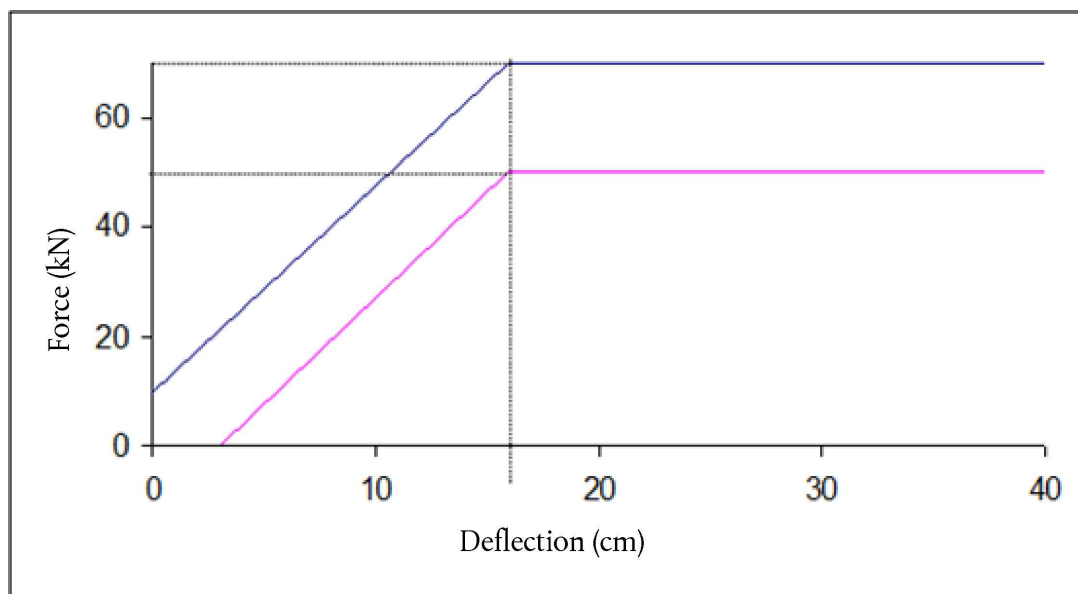


Figure 2c

Block 4

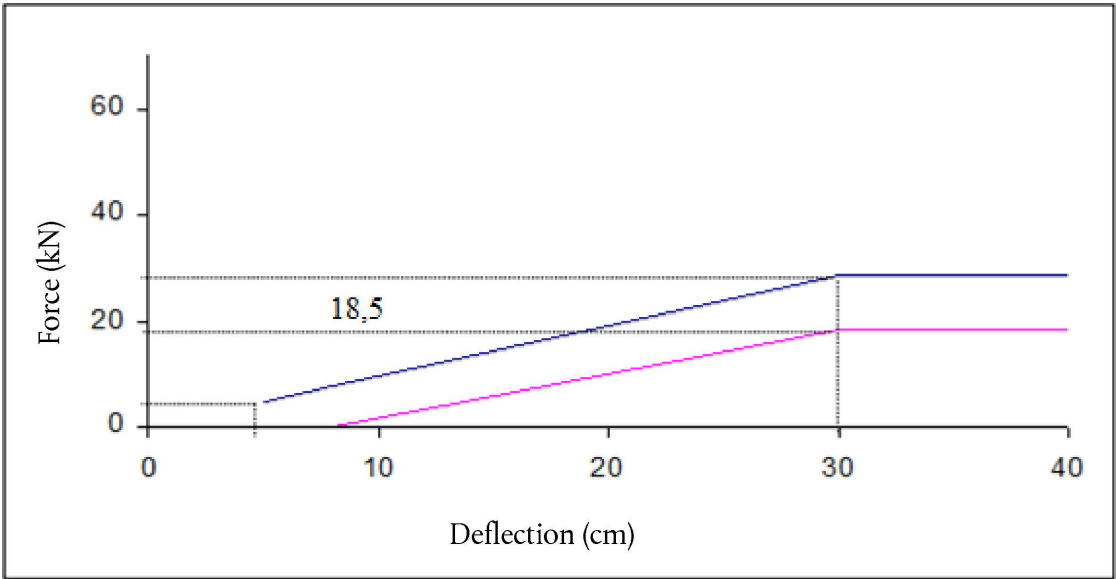


Figure 2d

Blocks 5 & 6

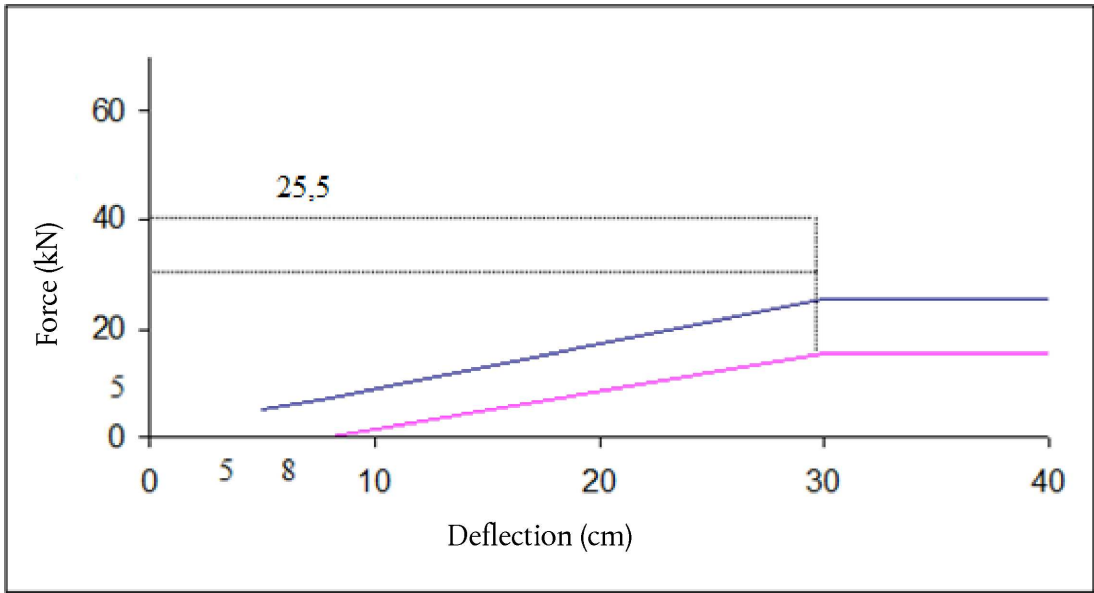
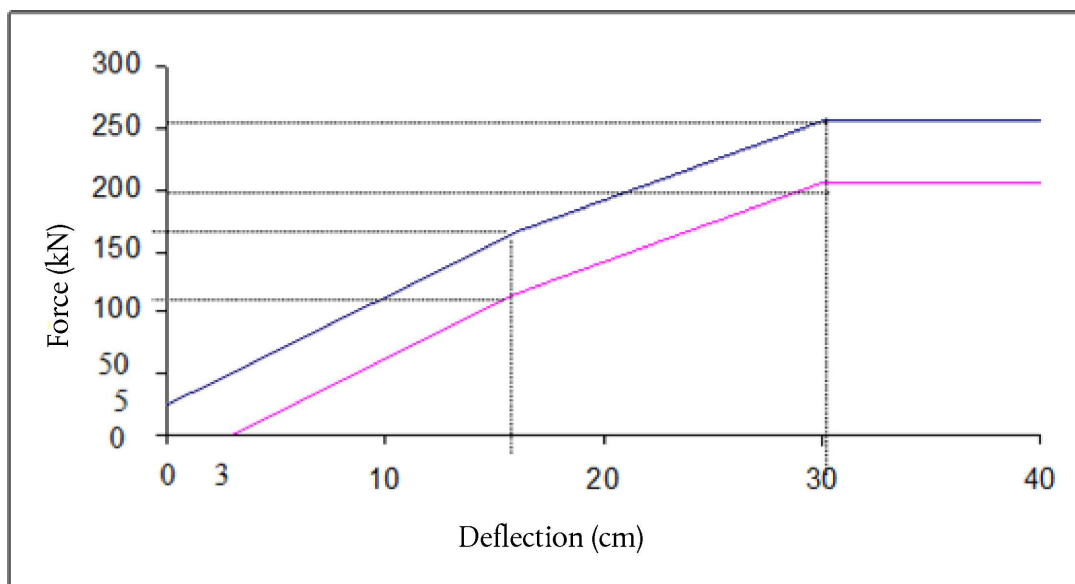


Figure 2e

Blocks total

Appendix 3

EXAMINATION OF THE MOBILE DEFORMABLE BARRIER**1. SCOPE**

This appendix contains a prescription for the examination of the mobile deformable barrier. The Type Approval Authority is responsible for the mobile deformable barrier meeting the specifications using a test against a dynamometric wall supported by a fixed rigid barrier.

2. INSTALLATION**2.1. Testing ground**

The test area shall be large enough to accommodate the run-up track of the mobile deformable barrier, the rigid barrier and the technical equipment necessary for the test. The last part of the track, for at least 5 m before the rigid barrier, shall be horizontal, flat and smooth.

2.2. Fixed rigid barrier and dynamometric wall

2.2.1. The rigid barrier shall consist of a block of reinforced concrete not less than 3 m wide in front and not less than 1,5 m high. The thickness of the rigid barrier shall be such that it weighs at least 70 tonnes. The front face shall be vertical, perpendicular to the axis of the run-up track and covered with load cells capable of measuring the total load on each block of the mobile deformable barrier impactor at the moment of impact. The impact plate area centres shall align with those of the chosen mobile deformable barrier; their edges shall clear adjacent areas by 20 mm. Cell mounting and plate surfaces shall be in accordance with the requirements set out in the annex to ISO 6487:1987. In cases where surface protection is added, it shall not degrade the transducer responses.

2.2.2. The rigid barrier shall be either anchored in the ground or placed on the ground with, if necessary, additional arresting devices to limit its displacement. A rigid barrier with load cells having different characteristics but giving results that are at least equally conclusive may be used.

3. PROPULSION OF THE MOBILE DEFORMABLE BARRIER

At the moment of impact the mobile deformable barrier shall no longer be subject to the action of any additional steering or propelling device. It shall reach the obstacle on a course perpendicular to the collision barrier. Impact alignment shall be accurate to within 10 mm.

4. MEASURING INSTRUMENTS**4.1. Speed**

The impact speed shall be $35 \pm 2 \pm 2$ km/h. The instrument used to record the speed on impact shall be accurate to within one per cent.

4.2. Loads

Measuring instruments shall meet the specifications set forth in ISO 6487:1987

CFC for all blocks = 60 Hz

CAC for blocks 1 and 3 = 120 kN

CAC for blocks 4, 5 and 6 = 60 kN

CAC for block 2 = 140 kN

4.3. Acceleration

The acceleration in the longitudinal direction shall be measured at a place not subject to bending. The instrumentation shall comply with ISO 6487:1987 with the following specifications:

CFC 1 000 Hz (before integration)

CFC 60 Hz (after integration)

CAC 50 g

5. GENERAL SPECIFICATION OF BARRIER

5.1. The individual characteristics of each barrier shall comply with paragraph 1 of Annex 5 and shall be recorded.

6. GENERAL SPECIFICATION OF THE IMPACTOR TYPE

6.1. The suitability of an impactor type shall be confirmed when the outputs from the six load cells each produce signals complying with the requirements indicated in Annex 5, paragraph 2.2 when recorded.

6.2. Impactors shall carry consecutive serial numbers including the date of manufacture.

ANNEX 6

TECHNICAL DESCRIPTION OF THE SIDE IMPACT DUMMY

1. GENERAL

- 1.1. The side impact dummy prescribed in this Regulation, including the instrumentation and calibration, is described in technical drawings and a user's manual ⁽¹⁾.
- 1.2. The dimensions and masses of the side impact dummy represent a 50th percentile adult male, without lower arms.
- 1.3. The side impact dummy consists of a metal and plastic skeleton covered by flesh-simulating rubber, plastic and foam.

2. CONSTRUCTION

- 2.1. For an overview of the side impact dummy see Figure 1 for a scheme and the parts breakdown in Table 1 of this annex.
- 2.2. Head
 - 2.2.1. The head is shown as part No 1 in Figure 1 of this annex.
 - 2.2.2. The head consists of an aluminium shell covered by a pliable vinyl skin. The interior of the shell is a cavity accommodating tri-axial accelerometers and ballast.
 - 2.2.3. At the head-neck interface a load cell replacement is built in. This part can be replaced with an upper neck load-cell.
- 2.3. Neck
 - 2.3.1. The neck is shown as part No 2 in Figure 1 of this annex.
 - 2.3.2. The neck consists of a head-neck interface piece, a neck-thorax interface piece and a central section that links the two interfaces to one another.
 - 2.3.3. The head-neck interface piece (part No 2a) and the neck-thorax interface piece (part No 2c) both consist of two aluminium disks linked together by means of a half spherical screw and eight rubber buffers.
 - 2.3.4. The cylindrical central section (part No 2b) is made of rubber. At both sides an aluminium disk of the interface pieces is moulded in the rubber part.
 - 2.3.5. The neck is mounted on the neck-bracket, shown as part No 2d in Figure 1 of this annex. This bracket can optionally be replaced with a lower neck load-cell.
 - 2.3.6. The angle between the two faces of the neck-bracket is 25°. Because the shoulder block is inclined 5° backwards, the resulting angle between the neck and torso is 20°.
- 2.4. Shoulder
 - 2.4.1. The shoulder is shown as part No 3 in Figure 1 of this annex.
 - 2.4.2. The shoulder consists of a shoulder box, two clavicles and a shoulder foam cap.

⁽¹⁾ The dummy is corresponding with the specification of the ES-2 dummy. The number of the table of contents of the technical drawing is: No E-AA-DRAWING-LIST-7-25-032 dated on 25 July 2003. The complete set of ES-2 technical drawings and the ES-2 User Manual are deposited with the United Nations Economic Commission for Europe (UNECE), Palais des Nations, Geneva, Switzerland and may be consulted on request at the secretariat.

- 2.4.3. The shoulder block (part No 3a) consists of an aluminium spacer block, an aluminium plate on top and an aluminium plate on the bottom of the spacer block. Both plates are covered with a polytetrafluoroethylene (PTFE)-coating.
- 2.4.4. The clavicles (part No 3b), made of cast polyurethane (PU)-resin, are designed to evolve over the spacer block. The clavicles are held back in their neutral position by two elastic cords (part No 3c) which are clamped to the rear of the shoulder box. The outer edge of both clavicles accommodates a design allowing for standard arm positions.
- 2.4.5. The shoulder cap (part No 3d) is made of low-density polyurethane foam and is attached to the shoulder block.
- 2.5. Thorax
- 2.5.1. The thorax is shown as part No 4 in Figure 1 of this annex.
- 2.5.2. The thorax consists of a rigid thoracic spine box and three identical rib modules.
- 2.5.3. The thoracic spine box (part No 4a) is made of steel. On the rear surface a steel spacer and curved, polyurethane (PU)-resin, back plate is mounted (part No 4b).
- 2.5.4. The top surface of the thoracic spine box is inclined 5° backwards.
- 2.5.5. At the lower side of the spine box a T12 load cell or load cell replacement (part No 4j) is mounted.
- 2.5.6. A rib module (part No 4c) consists of a steel rib bow covered by a flesh-simulating open-cell polyurethane (PU) foam (part No 4d), a linear guide system assembly (part No 4e) linking the rib and spine box together, a hydraulic damper (part No 4f) and a stiff damper spring (part No 4g).
- 2.5.7. The linear guide system (part No 4e) allows the sensitive rib side of the rib bow (part No 4d) to deflect with respect to the spine box (part No 4a) and the non-sensitive side. The guide system assembly is equipped with linear needle bearings.
- 2.5.8. A tuning spring is located in the guide system assembly (part No 4h).
- 2.5.9. A rib displacement transducer (part No 4i) can be installed on the spine box mounted part of guide system (part No 4e) and connected to the outer end of the guide system at the sensitive side of the rib.
- 2.6. Arms
- 2.6.1. The arms are shown as part No 5 in Figure 1 of this annex.
- 2.6.2. The arms have a plastic skeleton covered by a polyurethane (PU) flesh representation with a polyvinylchloride (PVC) skin. The flesh representation consists of a high density polyurethane (PU) moulding upper part and a polyurethane (PU) foam lower part.
- 2.6.3. The shoulder-arm joint allows for discrete arm positions at 0, 40 and 90° setting with respect to the torso axis.
- 2.6.4. The shoulder-arm joint allows for a flexion-extension rotation only.
- 2.7. Lumbar spine
- 2.7.1. The lumbar spine is shown as part No 6 in Figure 1 of this annex.
- 2.7.2. The lumbar spine consists of a solid rubber cylinder with two steel interface plates at each end, and a steel cable inside the cylinder.

2.8. Abdomen

2.8.1. The abdomen is shown as part No 7 in Figure 1 of this annex.

2.8.2. The abdomen consists of a rigid central part and a foam covering.

2.8.3. The central part of the abdomen is a metal casting (part No 7A). A cover plate is mounted on top of the casting.

2.8.4. The covering (part No 7b) is made of polyurethane (PU) foam. A curved slab of rubber filled with lead-pellets is integrated in the foam covering at both sides.

2.8.5. Between the foam covering and the rigid casting at each side of the abdomen, either three force transducers (part No 7c) or three non-measuring replacement units can be mounted.

2.9. Pelvis

2.9.1. The pelvis is shown as part No 8 in Figure 1 of this annex.

2.9.2. The pelvis consists of a sacrum block, two iliac wings, two hip joints assemblies and a flesh simulating foam covering.

2.9.3. The sacrum (part No 8a) consists of a mass tuned metal block and a metal plate mounted on top of this block. In the aft side of the block is a cavity to facilitate the application of instrumentation.

2.9.4. The iliac wings (part No 8b) are made of polyurethane (PU)-resin.

2.9.5. The hip joints assemblies (part No 8c) are made of steel parts. They consist of an upper femur bracket and a ball joint connected to an axle passing through the dummy's H-point.

2.9.6. The flesh system (part No 8d) is made of a polyvinylchloride (PVC) skin filled with polyurethane (PU) foam. At the H-point location the skin is replaced by open-cell polyurethane (PU) foam block (part No 8e), backed up with a steel plate fixed on the iliac wing by an axle support going through the ball joint.

2.9.7. The iliac wings are attached to the sacrum block at the aft side and linked together at the pubic symphysis location by a force transducer (part No 8f) or a replacement transducer.

2.10. Legs

2.11. The legs are shown as part No 9 in Figure 1 of this annex.

2.11.1. The legs consist of a metal skeleton covered by a flesh-stimulating polyurethane (PU) foam with a polyvinylchloride (PVC) skin.

2.11.2. A high-density polyurethane (PU) moulding with a polyvinylchloride (PVC) skin represents the thigh flesh of the upper legs.

2.11.3. The knee and ankle joint allow for a flexion/extension rotation only.

2.12. Suit

2.12.1. The suit is not shown in Figure 1 of this annex.

2.12.2. The suit is made of rubber and covers the shoulders, thorax, upper part of the arms, the abdomen and lumbar spine, the upper part of the pelvis.

Figure 1

Construction of side impact dummy

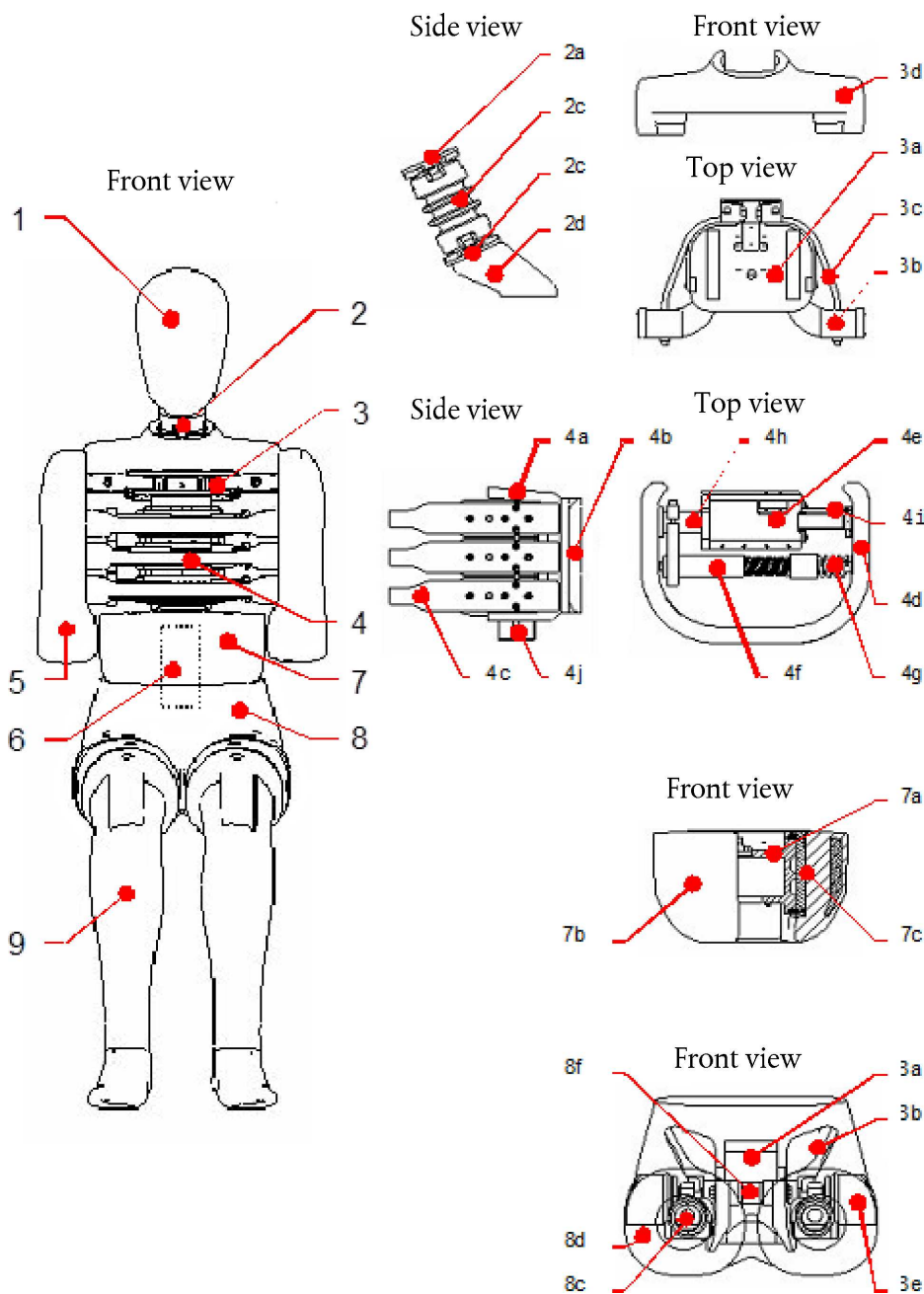


Table 1

Side Impact Dummy Components (See Figure 1)

Part	No	Description	Number	
1		Head	1	
2		Neck	1	
	2a	Head-neck interface		1

Part	No	Description	Number	
	2b	Central section		1
	2c	Neck-thorax interface		1
	2d	Neck-bracket		1
3		Shoulder	1	
	3a	Shoulder box		1
	3b	Clavicles		2
	3c	Elastic cord		2
	3d	Shoulder foam cap		1
4		Thorax	1	
	4a	Thoracic spine		1
	4b	Back plate (curved)		1
	4c	Rib module		3
	4d	Rib bow covered with flesh		3
	4e	Piston-cylinder assembly		3
	4f	Damper		3
	4g	Stiff damper spring		3
	4h	Tuning spring		3
	4i	Displacement transducer		3
	4j	T12 load cell or load cell replacement		1
5		Arm	2	
6		Lumbar spine	1	
7		Abdomen	1	
	7a	Central casting		1
	7b	Flesh covering		1
	7c	Force transducer		3
8		Pelvis	1	
	8a	Sacrum block		1
	8b	Iliac wings		2
	8c	Hip joint assembly		2

Part	No	Description	Number	
	8d	Flesh covering		1
	8e	H-point foam block		2
	8f	Force transducer or replacement		1
9		Leg	2	
10		Suit	1	

3. ASSEMBLY OF THE DUMMY

3.1. Head-neck

3.1.1. The required torque on the half-spherical screws for assembly of the neck is 10 Nm.

3.1.2. The head-upper neck load cell assembly is mounted to the head-neck interface plate of the neck by four screws.

3.1.3. The neck-thorax interface plate of the neck is mounted to the neck-bracket by four screws.

3.2. Neck-shoulder-thorax

3.2.1. The neck-bracket is mounted to the shoulder block by four screws.

3.2.2. The shoulder-block is mounted to the top-surface of the thoracic spine box by three screws.

3.3. Shoulder-arm

3.3.1. The arms are mounted to the shoulder clavicles by means of a screw and an axial bearing. The screw shall be tightened to obtain a 1-2 g holding force of the arm on its pivot.

3.4. Thorax-lumbar spine-abdomen

3.4.1. The mounting direction of rib modules in the thorax shall be adapted to the required impact side.

3.4.2. A lumbar spine adapter is mounted to the T12 load cell or load cell replacement at the lower part of the thoracic spine by two screws.

3.4.3. The lumbar spine adapter is mounted to the top of the lumbar spine with four screws.

3.4.4. The mounting flange of the central abdominal casting is clamped between the lumbar spine adapter and the lumbar spine top plate.

3.4.5. The location of the abdominal force transducers shall be adapted to the required impact side.

3.5. Lumbar spine-pelvis-legs

3.5.1. The lumbar spine is mounted to the sacrum block cover plate by three screws. In case of using the lower lumbar spine load cell four screws are used.

3.5.2. The lumbar spine bottom plate is mounted to the sacrum block of the pelvis by three screws.

3.5.3. The legs are mounted to the upper femur bracket of the pelvis hip joint assembly by a screw.

3.5.4. The knee and ankle links in the legs can be adjusted to obtain a 1-2 g holding force.

4. MAIN CHARACTERISTICS

4.1. Mass

4.1.1. The masses of the main dummy components are presented in table 2 of this annex.

Table 2

Dummy Component Masses

Component (body part)	Mass (kg)	Tolerance ± (kg)	Principle contents
Head	4,0	0,2	Complete head assembly including tri-axial accelerometer and upper neck load cell or replacement
Neck	1,0	0,05	Neck, not including neck bracket
Thorax	22,4	1,0	Neck bracket, shoulder cap, shoulders assembly, arm attachment bolts, spine box, torso back plate, rib modules, rib deflection transducers, torso back plate load cell or replacement, T12-load cell or replacement, abdomen central casting, abdominal force transducers, 2/3 of suit
Arm (each)	1,3	0,1	Upper arm, including arm positioning plate (each)
Abdomen and lumbar spine	5,0	0,25	Abdomen flesh covering and lumbar spine
Pelvis	12,0	0,6	Sacrum block, lumbar spine mounting plate, hip ball joints, upper femur brackets, iliac wings, pubic force transducer, pelvis flesh covering, 1/3 of suit
Leg (each)	12,7	0,6	Foot, lower and upper leg and flesh as far as junction with upper femur (each)
Total dummy	72,0	1,2	

4.2. Principal dimensions

4.2.1. The principal dimensions of the side impact dummy (including the suit), based on Figure 2 of this annex, are given in Table 3 of this annex.

The dimensions are measured without suit.

Figure 2

Measurements for principal dummy dimensions

(See Table 3)

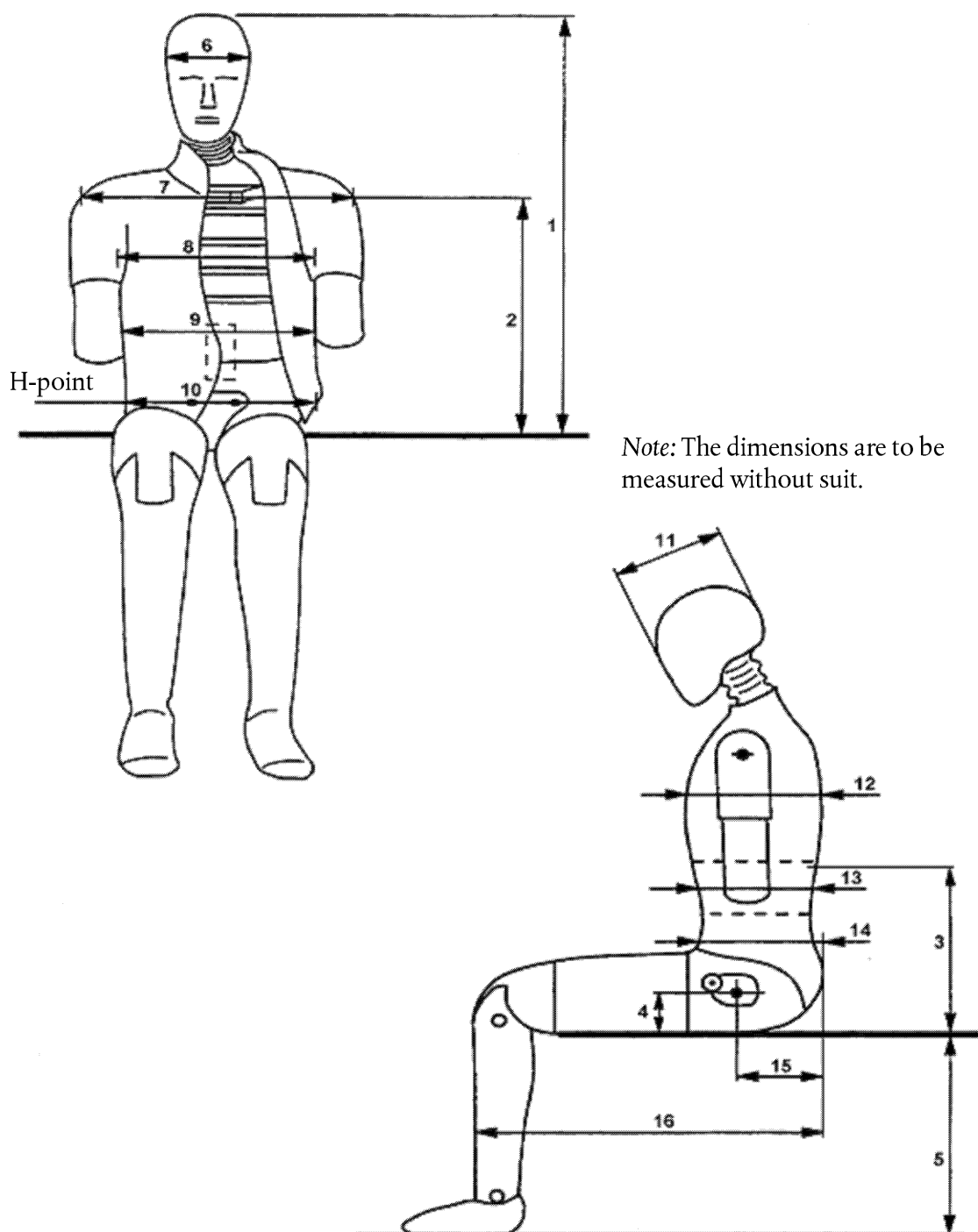


Table 3

Principal Dummy Dimensions

No	Parameter	Dimension (mm)
1	Sitting height	909 ± 9

No	Parameter	Dimension (mm)
2	Seat to shoulder joint	565 ± 7
3	Seat to lower face of thoracic spine box	351 ± 5
4	Seat to hip joint (centre of bolt)	100 ± 3
5	Sole to seat, sitting	442 ± 9
6	Head width	155 ± 3
7	Shoulder/arm width	470 ± 9
8	Thorax width	327 ± 5
9	Abdomen width	290 ± 5
10	Pelvis width	355 ± 5
11	Head depth	201 ± 5
12	Thorax depth	276 ± 5
13	Abdomen depth	199 ± 5
14	Pelvis depth	240 ± 5
15	Back of buttocks to hip joint (centre of bolt)	155 ± 5
16	Back of buttocks to front knee	606 ± 9

5. CERTIFICATION OF THE DUMMY

5.1. Impact side

5.1.1. Depending on the vehicle side to be impacted, dummy parts should be certified on the left hand side or right hand side.

5.1.2. The configurations of the dummy with regards to the mounting direction of the rib modules and the location of the abdominal force transducers shall be adapted to the required impact side.

5.2. Instrumentation

5.2.1. All instrumentation shall be calibrated in compliance with the requirements of the documentation specified in paragraph 1.1 of this annex.

5.2.2. All instrumentation channels shall comply with ISO 6487:2000 or SAE J211 (March 1995) data channel recording specification.

5.2.3. The minimum number of channels required to comply with this regulation is ten:

Head accelerations (3),

Thorax rib displacements (3),

Abdomen loads (3); and

Pubic symphysis load (1).

5.2.4. Additionally a number of optional instrumentation channels (38) are available:

Upper neck loads (6),

Lower neck loads (6),

Clavicle loads (3),

Torso back plate loads (4),

T1 accelerations (3),

T12 accelerations (3),

Rib accelerations (6, two on each rib),

T12 spine loads (4),

Lower lumbar loads (3),

Pelvis accelerations (3); and

Femur loads (6).

Additional four position indicator channels are optionally available:

Thorax rotations (2); and

Pelvis rotations (2)

5.3. Visual check

5.3.1. All dummy parts should be visually checked for damage and if necessary replaced before the certification test.

5.4. General test set-up

5.4.1. Figure 3 of this annex shows the test set-up for all certification tests on the side impact dummy.

5.4.2. The certification test set-up arrangements and testing procedures shall be in accordance with the specification and requirements of the documentation specified in paragraph 1.1.

5.4.3. The tests on the head, neck, thorax and lumbar spine are carried out on sub-assemblies of the dummy.

5.4.4. The tests on the shoulder, abdomen and pelvis are performed with the complete dummy (without suit, shoes and underwear). In these tests the dummy is seated on a flat surface with two sheets of less than or equal to 2 mm thick polytetrafluoroethylene (PTFE), placed between the dummy and the flat surface.

5.4.5. All parts to be certified should be kept in the test room for a period of at least four hours at a temperature between and including 18 and 22 °C and a relative humidity between and including 10 and 70 per cent prior to a test.

5.4.6. The time between two certification tests on the same part should be at least 30 minutes.

5.5. Head

5.5.1. The head sub assembly, including the upper neck load cell replacement, is certified in a drop test from 200 ± 1 mm onto a flat, rigid impact surface.

- 5.5.2. The angle between the impact surface and the mid-sagittal plane of the head is $35 \pm 1^\circ$ allowing an impact to the upper part of the head side (this can be realised with a sling harness or a head drop support bracket with a mass of $0,075 \pm 0,005$ kg).
- 5.5.3. The peak resultant head acceleration, filtered using ISO 6487:2000 CFC 1000, should be between and including 100 g and 150 g.
- 5.5.4. The head performance can be adjusted to meet the requirement by altering the friction characteristics of the skin-skull interface (e.g. by lubrication with talcum powder or polytetrafluoroethylene (PTFE) spray).
- 5.6. Neck
- 5.6.1. The head-neck interface of the neck is mounted to a special certification head-form with a mass of $3,9 \pm 0,05$ kg (see Figure 6), with the help of a 12 mm thick interface plate with a mass of $0,205 \pm 0,05$ kg.
- 5.6.2. The head-form and neck are mounted upside-down to the bottom of a neck- pendulum ⁽¹⁾ allowing a lateral motion of the system.
- 5.6.3. The neck-pendulum is equipped with a uni-axial accelerometer according to the neck pendulum specification (see Figure 5).
- 5.6.4. The neck-pendulum should be allowed to fall freely from a height chosen to achieve an impact velocity of $3,4 \pm 0,1$ m/s measured at the pendulum accelerometer location.
- 5.6.5. The neck-pendulum is decelerated from impact velocity to zero by an appropriate device ⁽²⁾, as described in the neck pendulum specification (see Figure 5), resulting in a velocity change — time history inside the corridor specified in Figure 7 and Table 4 of this annex. All channels have to be recorded according to the ISO 6487:2000 or SAE J211 (March 1995) data channel recording specification and filtered digitally using ISO 6487:2000 CFC 180 or SAE J211:1995 CFC 180. The pendulum deceleration has to be filtered using ISO 6487:2000 CFC 60 OR SAE J211:1995 CFC 60.

Table 4

Pendulum velocity change — time corridor for neck certification test

Upper boundary time (s)	Velocity (m/s)	Lower boundary time (s)	Velocity (m/s)
0,001	0,0	0	– 0,05
0,003	– 0,25	0,0025	– 0,375
0,014	– 3,2	0,0135	– 3,7
		0,017	– 3,7

- 5.6.6. The maximum head-form flexion angle relative to the pendulum (Angle dθA + dθC in Figure 6) should be between and including 49,0 and 59,0 degrees and should occur between and including 54,0 and 66,0 ms.
- 5.6.7. The maximum head-form centre of gravity displacements measured in angle dθA and dθB (see Figure 6) should be: Fore pendulum base angle dθA between and including 32,0 and 37,0° occurring between and including 53,0 and 63,0 ms and aft pendulum base angle dθB between and including $0,81 * (\text{angle } d\theta A) + 1,75$ and $0,81 * (\text{angle } d\theta A) + 4,25^\circ$ occurring between and including 54,0 and 64,0 ms.

⁽¹⁾ Neck pendulum corresponding with American Code of Federal Regulation 49 CFR. Chapter V Part 572.33 (10-1-00 Edition) (See also Figure 5).

⁽²⁾ The use of 3-inch honeycomb is recommended (see Figure 5).

- 5.6.8. The neck performance can be adjusted by replacing the eight circular section buffers with buffers of another shore hardness.
- 5.7. Shoulder
- 5.7.1. The length of the elastic cord should be adjusted so that a force between and including 27,5 and 32,5 N applied in a forward direction 4 ± 1 mm from the outer edge of the clavicle in the same plane as the clavicle movement, is required to move the clavicle forward.
- 5.7.2. The dummy is seated on a flat, horizontal, rigid surface with no back support. The thorax is positioned vertically and the arms should be set at an angle of $40 \pm 2^\circ$ forward to the vertical. The legs are positioned horizontally.
- 5.7.3. The impactor is a pendulum with a mass of $23,4 \pm 0,2$ kg and diameter of $152,4 \pm 0,25$ mm with an edge radius of 12,7 mm ⁽¹⁾. The impactor is suspended from rigid hinges by four wires with the centre line of the impactor at least 3,5 m below the rigid hinges (see Figure 4).
- 5.7.4. The impactor is equipped with an accelerometer sensitive in the direction of impact and located on the impactor axis.
- 5.7.5. The impactor should freely swing onto the shoulder of the dummy with an impact velocity of $4,3 \pm 0,1$ m/s.
- 5.7.6. The impact direction is perpendicular to the anterior-posterior axis of the dummy and the axis of the impactor coincides with the axis of the upper arm pivot.
- 5.7.7. The peak acceleration of the impactor, filtered using ISO 6487:2000 CFC 180, should be between and including 7,5 and 10,5 g.
- 5.8. Arms
- 5.8.1. No dynamic certification procedure is defined for the arms.
- 5.9. Thorax
- 5.9.1. Each rib module is certified separately.
- 5.9.2. The rib module is positioned vertically in a drop test rig and the rib cylinder is clamped rigidly onto the rig.
- 5.9.3. The impactor is a free fall mass of $7,78 \pm 0,01$ kg with a flat face and a diameter of 150 ± 2 mm.
- 5.9.4. The centre line of the impactor should be aligned with the centre line of the rib's guide system.
- 5.9.5. The impact severity is specified by the drop heights of 815, 204 and 459 mm. These drop heights result in velocities of approximately 4, 2 and 3 m/s respectively. Impact drop heights should be applied with an accuracy of 1 per cent.
- 5.9.6. The rib displacement should be measured, for instance using the rib's own displacement transducer.
- 5.9.7. The rib certification requirements are given in Table 5 of this annex.
- 5.9.8. The performance of the rib module can be adjusted by replacing the tuning spring inside the cylinder with one of a different stiffness.

⁽¹⁾ Pendulum corresponding with American Code of Federal Regulation 49 CFR Chapter V Part 572.36(a) (10-1-00 Edition) (See also Figure 4).

Table 5

Requirements for full rib module certification

Test sequence	Drop height (accuracy 1 %) (mm)	Minimum displacement (mm)	Maximum displacement (mm)
1	815	46,0	51,0
2	204	23,5	27,5
3	459	36,0	40,0

5.10. Lumbar spine

- 5.10.1. The lumbar spine is mounted to the special certification head-form with a mass of $3,9 \pm 0,05$ kg (see Figure 6), with the help of a 12 mm thick interface plate with a mass of $0,205 \pm 0,05$ kg.
- 5.10.2. The head-form and lumbar spine are mounted upside-down to the bottom of a neck-pendulum ⁽¹⁾ allowing a lateral motion of the system.
- 5.10.3. The neck-pendulum is equipped with an uni-axial accelerometer according to the neck-pendulum specification (see Figure 5).
- 5.10.4. The neck-pendulum should be allowed to fall freely from a height chosen to achieve an impact velocity of $6,05 \pm 0,1$ m/s measured at the pendulum accelerometer location.
- 5.10.5. The neck-pendulum is decelerated from impact velocity to zero by an appropriate device ⁽²⁾, as described in the neck pendulum specification (see Figure 5), resulting in a velocity change — time history inside the corridor specified in Figure 8 and Table 6 of this annex. All channels have to be recorded according to the ISO 6487-2000 or SAE J211 (March 1995) data channel recording specification and filtered digitally using ISO 6487:2000 CFC 180 or SAE J211:1995 CFC 180. The pendulum deceleration has to be filtered using ISO 6487:2000 CFC 60 or SAE J211:1995 CFC 60.

Table 6

Pendulum Velocity Change — Time Corridor for Lumbar Spine Certification Test

Upper boundary time [s]	Velocity [m/s]	Lower boundary time [s]	Velocity [m/s]
0,001	0,0	0	– 0,05
0,0037	– 0,2397	0,0027	– 0,425
0,027	– 5,8	0,0245	– 6,5
		0,03	– 6,5

- 5.10.6. The maximum head-form flexion angle relative to the pendulum (angle $d\theta_A + d\theta_C$ in Figure 6) should be between and including $45,0$ and $55,0^\circ$ and should occur between and including $39,0$ and $53,0$ ms.
- 5.10.7. The maximum head-form centre of gravity displacements measured in angle $d\theta_A$ and $d\theta_B$ (see Figure 6) should be: Fore pendulum base angle $d\theta_A$ between and including $31,0$ and $35,0^\circ$ occurring between and including $44,0$ and $52,0$ ms and aft pendulum base angle $d\theta_B$ between and including $0,8 * (\text{angle } d\theta_A) + 2,00$ and $0,8 * (\text{angle } d\theta_A) + 4,50^\circ$ occurring between and including $44,0$ and $52,0$ ms.

⁽¹⁾ Neck pendulum corresponding with American Code of Federal Regulation 49 CFR Chapter V Part 572.33 (10-1-00 Edition) (See also Figure 5).

⁽²⁾ The use of 6-inch honeycomb is recommended (see Figure 5).

5.10.8. The performance of the lumbar spine can be adjusted by changing tension in the spine cable.

5.11. Abdomen

5.11.1. The dummy is seated on a flat, horizontal, rigid surface with no back support. The thorax is positioned vertically, while the arms and legs are positioned horizontally.

5.11.2. The impactor is a pendulum with a mass of $23,4 \pm 0,2$ kg and diameter of $152,4 \pm 0,25$ mm with an edge radius of 12,7 mm ⁽¹⁾. The impactor is suspended from rigid hinges by eight wires with the centre line of the impactor at least 3,5 m below the rigid hinges (see Figure 4).

5.11.3. The impactor is equipped with an accelerometer sensitive in the direction of impact and located on the impactor axis.

5.11.4. The pendulum is equipped with a horizontal 'arm rest' impactor face of $1,0 \pm 0,01$ kg. The total mass of the impactor with the arm rest face is $24,4 \pm 0,21$ kg. The rigid 'arm rest' is 70 ± 1 mm high, 150 ± 1 mm wide and should be allowed to penetrate at least 60 mm into the abdomen. The centreline of the pendulum coincides with the centre of the 'arm rest'.

5.11.5. The impactor should freely swing onto the abdomen of the dummy with an impact velocity of $4,0 \pm 0,1$ m/s.

5.11.6. The impact direction is perpendicular to the anterior-posterior axis of the dummy and the axis of the impactor is aligned with the centre of the middle abdominal force transducer.

5.11.7. The peak force of the impactor, obtained from the impactor acceleration filtered using ISO 6487:2000 CFC 180 and multiplied by the impactor/armrest mass, should be between and including 4,0 and 4,8 kN, and occur between and including 10,6 and 13,0 ms.

5.11.8. The force-time histories measured by the three abdominal force transducers must be summed and filtered using ISO 6487:2000 CFC 600. The peak force of this sum should be between and including 2,2 and 2,7 kN, and occur between and including 10,0 and 12,3 ms.

5.12. Pelvis

5.12.1. The dummy is seated on a flat, horizontal, rigid surface with no back support. The thorax is positioned vertically while the arms and legs are positioned horizontally.

5.12.2. The impactor is a pendulum with a mass of $23,4 \pm 0,2$ kg and diameter of $152,4 \pm 0,25$ mm with an edge radius of 12,7 mm ⁽²⁾. The impactor is suspended from rigid hinges by eight wires with the centre line of the impactor at least 3,5 m below the rigid hinges (see Figure 4).

5.12.3. The impactor is equipped with an accelerometer sensitive in the direction of impact and located on the impactor axis.

5.12.4. The impactor should freely swing onto the pelvis of the dummy with an impact velocity of $4,3 \pm 0,1$ m/s.

5.12.5. The impact direction is perpendicular to the anterior-posterior axis of the dummy and the axis of the impactor is aligned with the centre of the H-point back plate.

5.12.6. The peak force of the impactor, obtained from the impactor acceleration filtered using ISO 6487:2000 CFC 180 and multiplied by the impactor mass, should be between and including 4,4 and 5,4 kN, and occur between and including 10,3 and 15,5 ms.

5.12.7. The pubic symphysis force, filtered using ISO 6487:2000 CFC 600, should be between and including 1,04 and 1,64 kN and occur between and including 9,9 and 15,9 ms.

⁽¹⁾ Pendulum corresponding with American Code of Federal Regulation 49 CFR Chapter V Part 572.36(a) (10-1-00 Edition) (See also Figure 4).

⁽²⁾ Pendulum corresponding with American Code of Federal Regulation 49 CFR Chapter V Part 572.36(a) (10-1-00 Edition) (See also Figure 4).

5.13. Legs

5.13.1. No dynamic certification procedure is defined for the legs

Figure 3

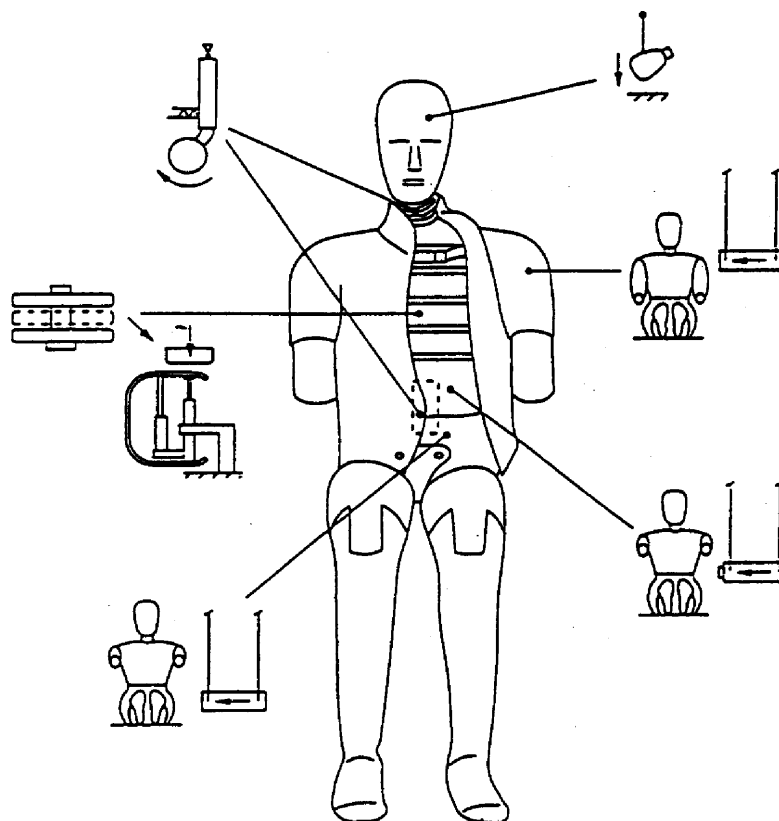
Overview of the side impact dummy certification test set-up

Figure 4

23,4 kg Pendulum impactor suspension

Left: Four wires suspension (cross wires removed)

Right: Eight wires suspension

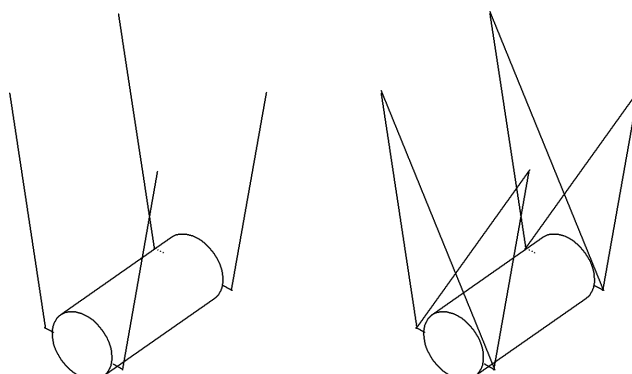


Figure 5

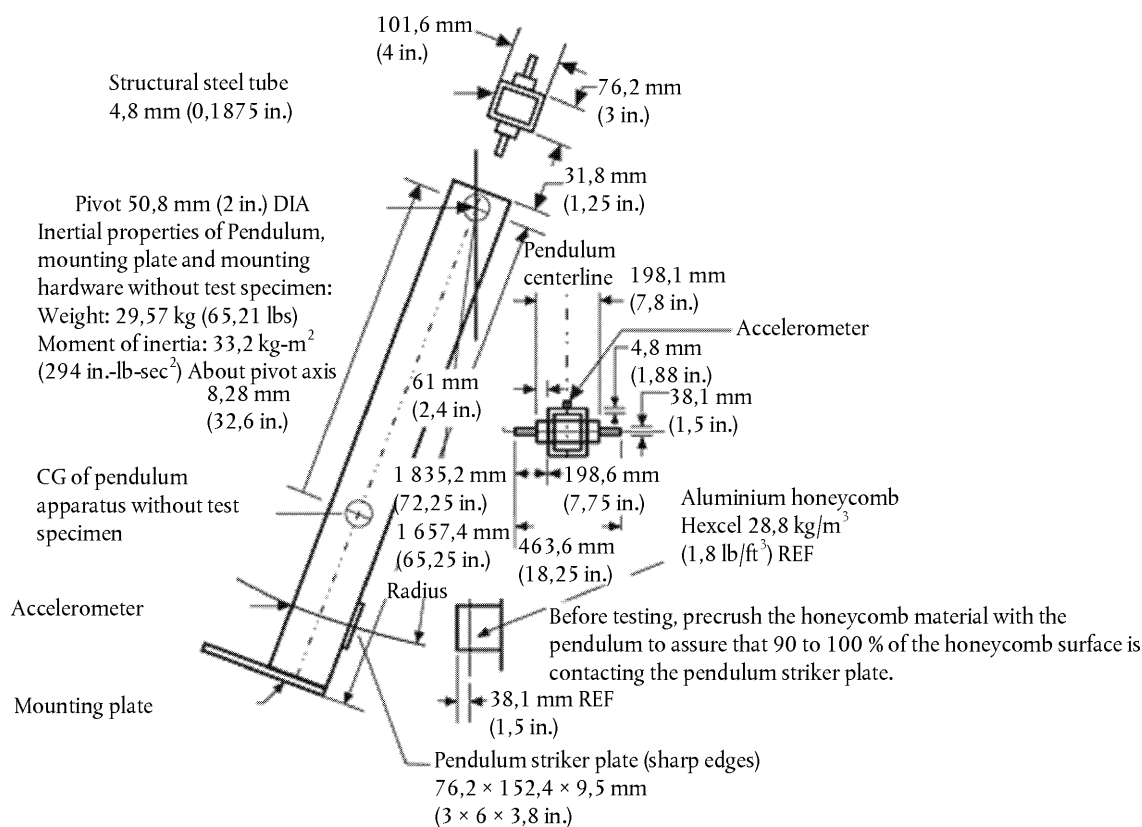
Pendulum deceleration-time corridor for neck certification test

Figure 6

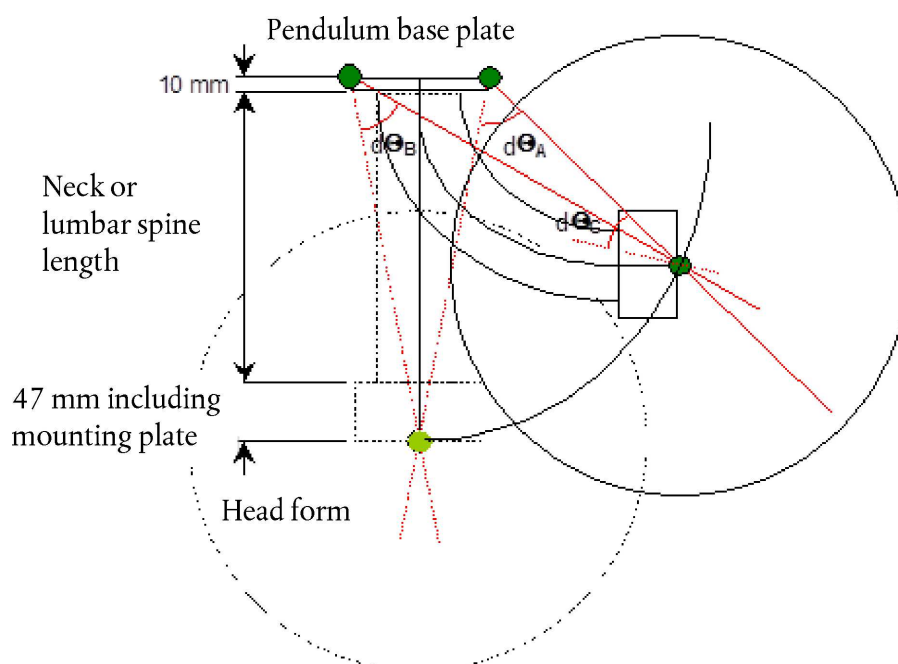
Pendulum deceleration-time corridor for lumbar spine certification test

Figure 7

Pendulum velocity change — time corridor for neck certification test

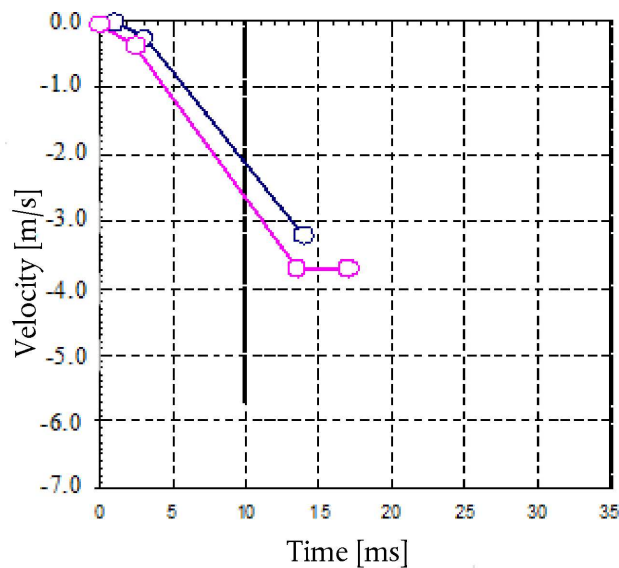
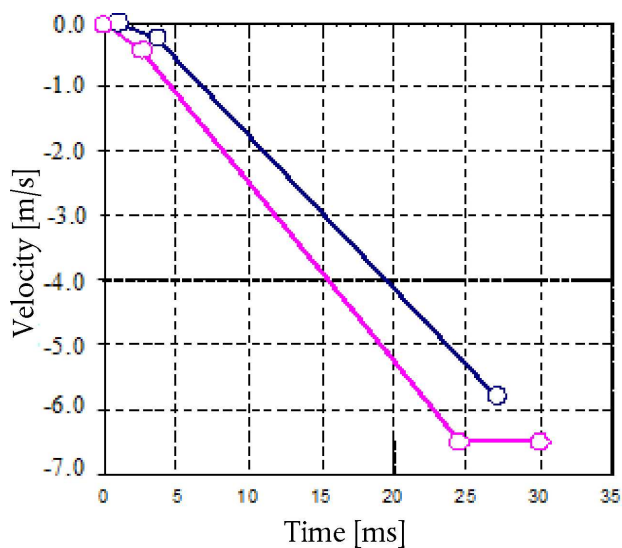


Figure 8

Pendulum velocity change — time corridor for lumbar spine certification test



ANNEX 7

INSTALLATION OF THE SIDE IMPACT DUMMY

1. GENERAL

- 1.1. The side impact dummy as described in Annex 6 to this Regulation is to be used according the following installation procedure.

2. INSTALLATION

- 2.1. Adjust the knee and ankle joints so that they just support the lower leg and the foot when extended horizontally (1 to 2 g — adjustment).
- 2.2. Check if the dummy is adapted to the desired impact direction.
- 2.3. The dummy shall be clothed in a form-fitting cotton stretch mid-calf length pant and may be clothed in a form-fitting cotton stretch shirt with short sleeves.
- 2.4. Each foot shall be equipped with a shoe.
- 2.5. Place the dummy in the outboard front seat of the impacted side as described in the side impact test procedure specification.
- 2.6. The plane of symmetry of the dummy shall coincide with the vertical median plane of the specified seating position.
- 2.7. The pelvis of the dummy shall be positioned such that a lateral line passing through the dummy H-points is perpendicular to the longitudinal centre plane of the seat. The line through the dummy H-points shall be horizontal with a maximum inclination of $\pm 2^\circ$ ⁽¹⁾.

The correct position of the dummy pelvis can be checked relative to the H-point of the H-point Manikin by using the M₃ holes in the H-point back plates at each side of the ES-2 pelvis. The M₃ holes are indicated with 'Hm'. The 'Hm' position should be in a circle with a radius of 10 mm round the H-point of the H-point Manikin.

The correct position of the dummy pelvis

- 2.8. The upper torso shall be bent forward and then laid back firmly against the seat back (see note 1). The shoulders of the dummy shall be set fully rearward.
- 2.9. Irrespective of the seating position of the dummy, the angle between the upper arm and the torso arm reference line on each side shall be $40^\circ \pm 5^\circ$. The torso arm reference line is defined as the intersection of the plane tangential to the front surface of the ribs and the longitudinal vertical plane of the dummy containing the arm.
- 2.10. For the driver's seating position, without inducing pelvis or torso movement, place the right foot of the dummy on the non-depressed accelerator pedal with the heel resting as far forward as possible on the floor-pan. Set the left foot perpendicular to the lower leg with the heel resting on the floor-pan in the same lateral line as the right heel. Set the knees of the dummy such that their outside surfaces are 150 ± 10 mm from the plane of symmetry of the dummy. If possible within these constraints place the thighs of the dummy in contact with the seat cushion.
- 2.11. For other seating positions, without inducing pelvis or torso movement, place the heels of the dummy as far forward as possible on the floor-pan without compressing the seat cushion more than the compression due to the weight of the leg. Set the knees of the dummy such that their outside surfaces are 150 ± 10 mm from the plane of symmetry of the dummy.

⁽¹⁾ The dummy can be equipped with tilt sensors in the thorax and the pelvis. These instruments can help to obtain the desired position.

ANNEX 8

PARTIAL TEST**1. PURPOSE**

The purpose of these tests is to verify whether the modified vehicle presents at least the same (or better) energy absorption characteristics than the vehicle type approved under this Regulation.

2. PROCEDURES AND INSTALLATIONS**2.1. Reference tests**

2.1.1. Using the initial padding materials tested during the approval of the vehicle, mounted in a new lateral structure of the vehicle to be approved, two dynamic tests, utilising two different impactors shall be carried out (Figure 1).

2.1.1.1. The head form impactor, defined in paragraph 3.1.1 below, shall hit at 24,1 km/h, in the area impacted for the Eurosid head during the approval of the vehicle. Test result shall be recorded, and the HPC calculated. However, this test shall not be carried out when, during the tests described in Annex 4 of this Regulation: where there has been no head contact, or when the head contacted the window glazing only, provided that the window glazing is not laminated glass.

2.1.1.2. The body block impactor, defined in paragraph 3.2.1 below, shall hit at 24,1 km/h in the lateral area impacted by the Eurosid shoulder, arm and thorax, during the approval of the vehicle. Test result shall be recorded, and the HPC calculated.

2.2. Approval test

2.2.1. Using the new padding materials, seat, etc. presented for the approval extension, and mounted in a new lateral structure of the vehicle, tests specified in paragraphs 2.1.1.1 and 2.1.1.2 above, shall be repeated, the new results recorded, and their HPC calculated.

2.2.1.1. If the HPC calculated from the results of both approval tests are lower than the HPC obtained during the reference tests (carried out using the original type approved padding materials or seats), the extension shall be granted.

2.2.1.2. If the new HPC are greater than the HPC obtained during the reference tests, a new full scale test (using the proposed padding/seats/etc.) shall be carried out.

3. TEST EQUIPMENT**3.1. Head form impactor (Figure 2)**

3.1.1. This apparatus consists of a fully guided linear impactor, rigid, with a mass of 6,8 kg. Its impact surface is hemispherical with a diameter of 165 mm.

3.1.2. The head form shall be fitted with two accelerometers and a speed-measuring device, all capable of measuring values in the impact direction.

3.2. Body block impactor (Figure 3)

3.2.1. This apparatus consists of a fully guided linear impactor, rigid, with a mass of 30 kg. Its dimensions and transversal section is presented in Figure 3.

3.2.2. The body block shall be fitted with two accelerometers and a speed-measuring device, all capable of measuring values in the impact direction.

ANNEX 9

TEST PROCEDURES FOR THE PROTECTION OF THE OCCUPANTS OF VEHICLES OPERATING ON ELECTRICAL POWER HIGH VOLTAGE AND ELECTROLYTE SPILLAGE

This annex describes test procedures to demonstrate compliance to the electrical safety requirements of paragraph 5.3.7. For example, megohmmeter or oscilloscope measurements are an appropriate alternative to the procedure described below for measuring isolation resistance. In this case it may be necessary to deactivate the on-board isolation resistance monitoring system.

Before the vehicle impact test conducted, the high voltage bus voltage (V_b) (see Figure 1) shall be measured and recorded to confirm that it is within the operating voltage of the vehicle as specified by the vehicle manufacturer.

1. TEST SETUP AND EQUIPMENT

If a high voltage disconnect function is used, measurements are to be taken from both sides of the device performing the disconnect function.

However, if the high voltage disconnect is integral to the REESS or the energy conversion system and the high-voltage bus of the REESS or the energy conversion system is protected according to protection degree IPXXB following the impact test, measurements may only be taken between the device performing the disconnect function and the electrical loads.

The voltmeter used in this test shall measure DC values and have an internal resistance of at least 10 M Ω .

2. THE FOLLOWING INSTRUCTIONS MAY BE USED IF VOLTAGE IS MEASURED.

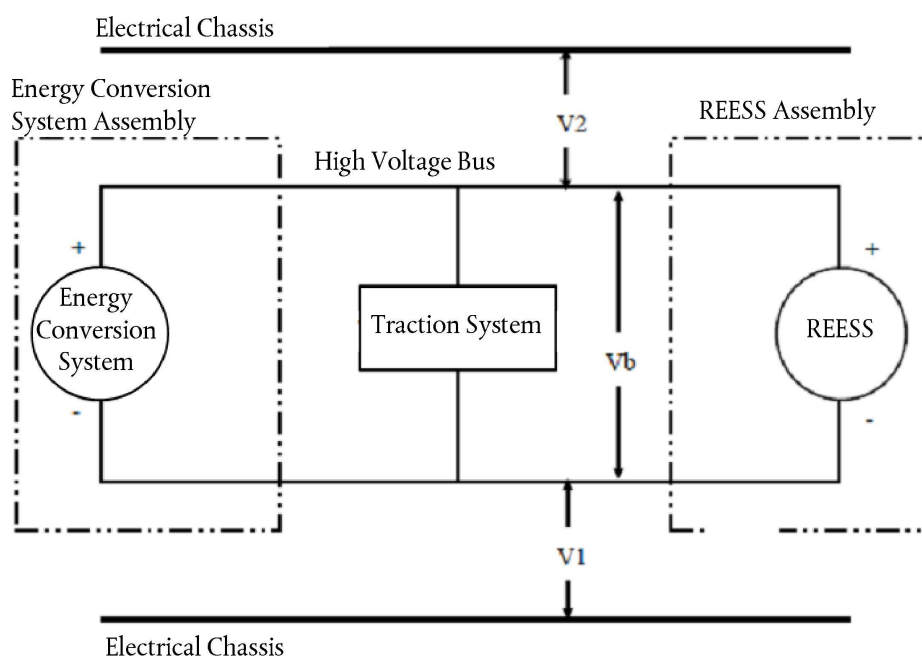
After the impact test, determine the high voltage bus voltages (V_b , V_1 , V_2) (see Figure 1).

The voltage measurement shall be made not earlier than 5 seconds, but, not later than 60 seconds after the impact.

This procedure is not applicable if the test is performed under the condition where the electric power train is not energised.

Figure 1

Measurement of V_b , V_1 , V_2



3. ASSESSMENT PROCEDURE FOR LOW ELECTRICAL ENERGY

Prior to the impact a switch S_1 and a known discharge resistor R_e is connected in parallel to the relevant capacitance (see Figure 2).

Not earlier than 5 seconds and not later than 60 seconds after the impact the switch S_1 shall be closed while the voltage V_b and the current I_e are measured and recorded. The product of the voltage V_b and the current I_e shall be integrated over the period of time, starting from the moment when the switch S_1 is closed (t_c) until the voltage V_b falls below the high voltage threshold of 60 V DC (t_h). The resulting integration equals the total energy (TE) in joules.

$$(a) TE = \int_{t_c}^{t_h} V_b \times I_e dt$$

When V_b is measured at a point in time between 5 seconds and 60 seconds after the impact and the capacitance of the X-capacitors (C_x) is specified by the manufacturer, total energy (TE) shall be calculated according to the following formula:

$$(b) TE = 0,5 \times C_x \times (V_b^2 - 3\,600)$$

When V_1 , V_2 (see Figure 1) are measured at a point in time between 5 seconds and 60 seconds after the impact and the capacitances of the Y-capacitors (C_{y1} , C_{y2}) are specified by the manufacturer, total energy (TE_{y1} , TE_{y2}) shall be calculated according to the following formulas:

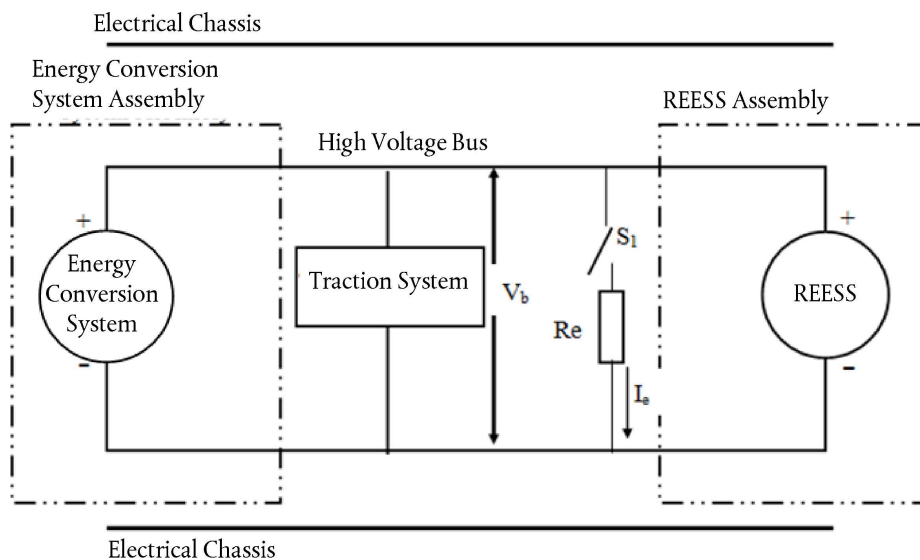
$$(c) TE_{y1} = 0,5 \times C_{y1} \times (V_1^2 - 3\,600)$$

$$TE_{y2} = 0,5 \times C_{y2} \times (V_2^2 - 3\,600)$$

This procedure is not applicable if the test is performed under the condition where the electric power train is not energised.

Figure 2

E.g. measurement of high voltage bus energy stored in X-capacitors



4. PHYSICAL PROTECTION

Following the vehicle impact test any parts surrounding the high voltage components shall be, without the use of tools, opened, disassembled or removed. All remaining surrounding parts shall be considered part of the physical protection.

The jointed test finger described in the figure of the appendix to this annex shall be inserted into any gaps or openings of the physical protection with a test force of $10\text{ N} \pm 10\text{ per cent}$ for electrical safety assessment. If partial or full penetration into the physical protection by the jointed test finger occurs, the jointed test finger shall be placed in every position as specified below.

Starting from the straight position, both joints of the test finger shall be rotated progressively through an angle of up to 90° with respect to the axis of the adjoining section of the finger and shall be placed in every possible position.

Internal electrical protection barriers are considered part of the enclosure.

If appropriate a low-voltage supply (of not less than 40 V and not more than 50 V) in series with a suitable lamp should be connected, between the jointed test finger and high voltage live parts inside the electrical protection barrier or enclosure.

4.1. Acceptance conditions

The requirements of paragraph 5.3.7.1.3 shall be considered to be met if the jointed test finger described in the figure of the appendix to this annex is unable to contact high voltage live parts.

If necessary a mirror or a fiberscope may be used in order to inspect whether the Jointed Test Finger touches the high voltage buses.

If this requirement is verified by a signal circuit between the jointed test finger and high voltage live parts, the lamp shall not light.

5. ISOLATION RESISTANCE

The isolation resistance between the high voltage bus and the electrical chassis may be demonstrated either by measurement or by a combination of measurement and calculation.

The following instructions should be used if the isolation resistance is demonstrated by measurement.

Measure and record the voltage (V_b) between the negative and the positive side of the high voltage bus (see Figure 1);

Measure and record the voltage (V_1) between the negative side of the high voltage bus and the electrical chassis (see Figure 1);

Measure and record the voltage (V_2) between the positive side of the high voltage bus and the electrical chassis (see Figure 1);

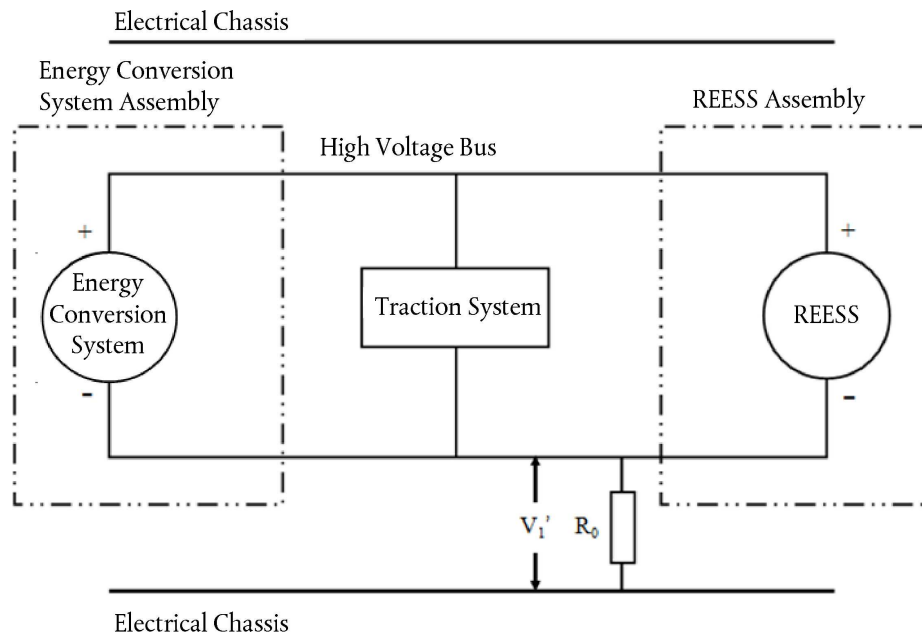
If V_1 is greater than or equal to V_2 , insert a standard known resistance (R_o) between the negative side of the high voltage bus and the electrical chassis. With R_o installed, measure the voltage (V_1') between the negative side of the high voltage bus and the vehicle electrical chassis (see Figure 3). Calculate the isolation resistance (R_i) according to the formula shown below.

$$R_i = R_o * (V_b / V_1' - V_b / V_1) \text{ or } R_i = R_o * V_b * (1 / V_1' - 1 / V_1)$$

Divide the result R_i , which is the electrical isolation resistance value in ohm (Ω), by the working voltage of the high voltage bus in volt (V).

$$R_i (\Omega/V) = R_i (\Omega) / \text{Working voltage (V)}$$

Figure 3

Measurement of V_1' 

If V_2 is greater than V_1 , insert a standard known resistance (R_o) between the positive side of the high voltage bus and the electrical chassis. With R_o installed, measure the voltage (V_2') between the positive side of the high voltage bus and the electrical chassis (see Figure 4).

Calculate the isolation resistance (R_i) according to the formula shown below.

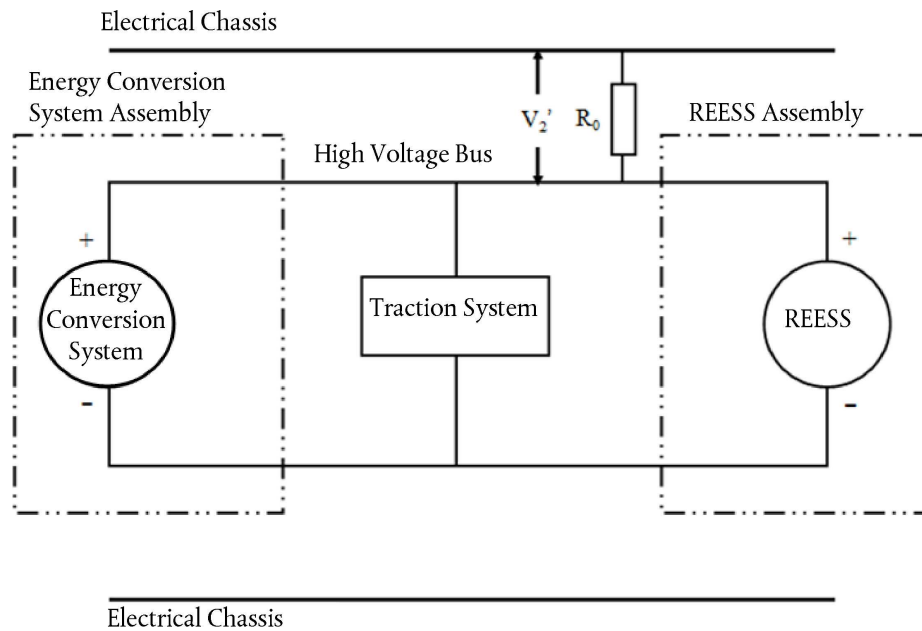
$$R_i = R_o * (V_b / V_2' - V_b / V_2) \text{ or } R_i = R_o * V_b * (1 / V_2' - 1 / V_2)$$

Divide the result R_i , which is the electrical isolation resistance value in ohm (Ω), by the working voltage of the high voltage bus in volt (V).

$$R_i (\Omega/V) = R_i (\Omega) / \text{Working voltage (V)}$$

$$R_i = R_o * (V_b / V_2' - V_b / V_2) \text{ or } R_i = R_o * V_b * (1 / V_2' - 1 / V_2)$$

Figure 4

Measurement of V_2' 

Note: The standard known resistance R_0 (in Ω) should be the value of the minimum required isolation resistance (in Ω/V) multiplied by the working voltage (in V) of the vehicle plus/minus 20 per cent. R_0 is not required to be precisely this value since the equations are valid for any R_0 ; however, a R_0 value in this range should provide a good resolution for the voltage measurements.

6. ELECTROLYTE SPILLAGE

Appropriate coating shall be applied, if necessary, to the physical protection in order to confirm any electrolyte leakage from the REESS after the impact test.

Unless the manufacturer provides means to differentiate between the leakage of different liquids, all liquid leakage shall be considered as the electrolyte.

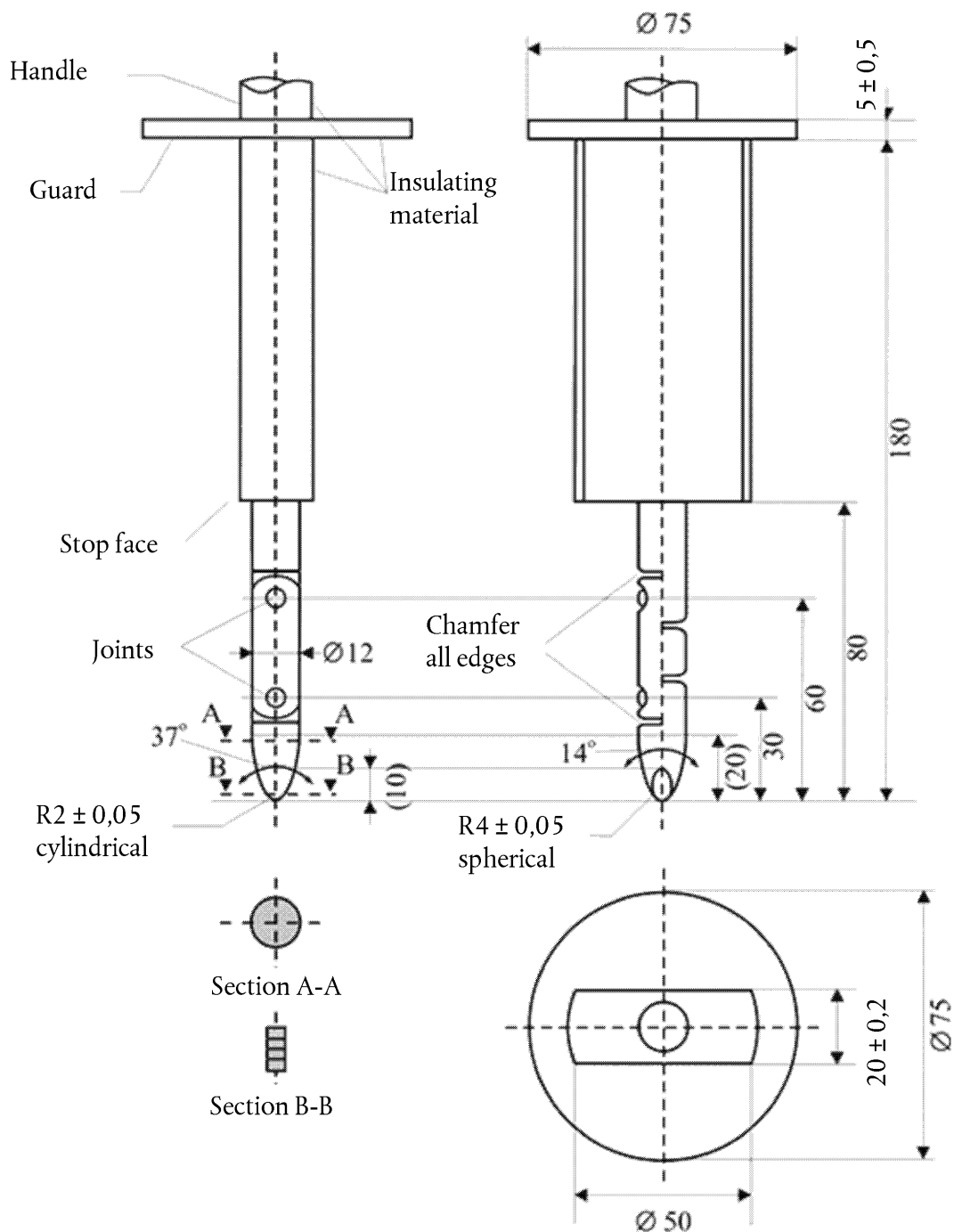
7. REESS RETENTION COMPLIANCE SHALL BE DETERMINED BY VISUAL INSPECTION.

Appendix

JOINTED TEST FINGER (DEGREE IPXXB)

Figure

Jointed test finger



Material: metal, except where otherwise specified

Linear dimensions in millimetres

Tolerances on dimensions without specific tolerance:

- (a) On angles: $0/-10^{\circ}$
- (b) On linear dimensions:
 - (i) Up to 25 mm: $0/-0,05$ mm
 - (ii) Over 25 mm: $\pm 0,2$ mm

Both joints shall permit movement in the same plane and the same direction through an angle of 90° with a 0 to $+10^{\circ}$ tolerance.

