INFRASTRUCTURE ANALYTICAL GRID FOR PORT INFRASTRUCTURE

Disclaimer: this is a working document drafted by the services of the European Commission for information purposes and it does not express an official position of the Commission on this issue, nor does it anticipate such a position. It is not intended to constitute a statement of the law and is without prejudice to the interpretation of the Treaty provisions on State aid by the Union Courts. In any case the services of the Directorate-General for Competition (DG COMP) are available to provide further guidance on the need for a formal notification. Such guidance may be given in the course of a pre-notification procedure.

I. PRINCIPLES FOR PORTS

- (1) This analytical grid covers the financing of the construction, replacement or upgrade, as well as the operation and use of infrastructure in inland ports and seaports, which for ease of reference, will be qualified throughout the text as "port infrastructure".
- (2) The construction, replacement or upgrade and maintenance of port infrastructure which is commercially exploited constitute an economic activity. Therefore public funding of such infrastructure is in principle subject to State aid rules.

II. INSTANCES IN WHICH THE EXISTENCE OF STATE AID IS EXCLUDED

(3) Please note that the following sections under Part II present a comprehensive, but not exhaustive, number of separate instances in which the existence of State aid may be excluded. These instances may apply to the owner/developer, operator or user levels, but also to these levels combined (e.g. integrated developer and operator).

1. No economic activity: infrastructure not meant to be commercially exploited

(4) The funding of infrastructure that is not meant to be commercially exploited is in principle excluded from the application of State aid rules. This concerns, for instance, infrastructure that is used for activities that the State normally performs in the exercise of its **public powers** (for example traffic control²; protection and resilience against extreme weather conditions, longshore drift, waves/tides, flooding and coastal erosion; police³; customs⁴; antipollution surveillance⁵; control and security of navigation⁶, including light houses) or that is not used

Please note that in Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, (OJ L 187, 26.6.2014, p. 1), as amended by Regulation (EU) No 2017/1084 amending Regulation (EU) No 651/2014 as regards aid for port and airport infrastructure, notification thresholds for aid for culture and heritage conservation and for aid for sport and multifunctional recreational infrastructures, and regional operating aid schemes for outermost regions and amending Regulation (EU) No 702/2014 as regards calculation of eligible costs, (OJ L 156, 20.06.2017, p.1.), the definition "port infrastructure" is narrower, as the Regulation will apply only for State aid, hence only for economic activities.

See Commission decision of 25 June 2014 in case SA. 38048 – Greece – *Upgrading of the Port of Patras*, OJ C 280, 22.08.2014, p. 20.

See Commission decision of 30 April 2015 in case SA.39637 – Germany - Extension of the cruise ship terminal in Wismar, OJ C 203, 19.06.2015, p. 3.

See Commission decision of 19 June 2013 in case SA. 35738 – Greece - Aid for the upgrading of Katakolo port, OJ C 204, 18.07.2013, p. 3.

Case C-343/95 Cali & Figli v Servizi ecologici porto di Genova EU:C:1997:160, paragraphs 22 and 23.

for offering goods or services on a market. Such activities are not of an economic nature and their funding consequently falls outside the scope of the State aid rules, as does, accordingly, the public funding of the related infrastructure⁷.

- (5) The maintenance, replacement, upgrade or construction of access infrastructures to ports (e.g. public roads, rail, locks, dredging of rivers, access routes and channels, etc.) which are available free of charge and on equal and non-discriminatory terms to all users is normally considered as a general measure, carried out by the State in the framework of its responsibility for planning and developing a maritime transport system. If an access infrastructure is located outside the area of a port and is accessible to the general public, the Commission services normally consider, unless specific features of the project point to a different conclusion, that it benefits society at large and that its public funding, therefore, does not constitute State aid. In such a case, both the costs of investments as well as of maintenance can be covered with public funds.
- (6) As an example, the Commission found that dredging in an estuary that would improve access to the river and benefit indistinctly all the operators located in the estuary and along a further inland waterway constituted a general measure for the benefit of the maritime community as a whole. Hence its public funding did not involve State aid.⁸
- (7) For an access infrastructure located within the area of a port, on the other hand, the Commission services normally consider that it specifically benefits the economic exploitation of that port and that its public funding, therefore, constitutes State aid, unless it is part of an access infrastructure crossing the port and which serves also other destinations than the port itself (such as a river crossing one port and leading also to other ports). An example of infrastructure that involved State aid was the construction of rail connections and electric power supply lines located directly on the area of a terminal within a port and exclusively used in the context of the economic exploitation of this terminal. Similarly, the construction of a road located directly within the area of a terminal and exclusively used in connection with the terminal's economic activity, was found to constitute dedicated infrastructure and its funding, therefore, constituted State aid. 10
- (8) If port infrastructure **is used for both economic and non-economic activities**, public funding for its construction will fall under the State aid rules only insofar as it covers the costs linked to the economic activities. In such cases, Member States have to ensure that the public funding provided for the non-economic activities **cannot be used to cross-subsidize the economic activities**. This can notably be ensured by limiting the public funding to the net

See Commission decision of 15 December 2009 in case SA. C 39/2009 (ex N 385/2009) – Latvia - Public financing of a port infrastructure in Ventspils Port, OJ C 62, 13.03.2010, p. 7.

See Case C-288/11 P Mitteldeutsche Flughafen and Flughafen Leipzig-Halle v Commission, EU:C:2012:821, paragraph 42.

See Commission decision of 11 March 2014 in case SA. 35720 – United Kingdom – *Liverpool City Council Cruise Liner Terminal*, OJ C 120, 23.04.2014, p. 4, recitals 64-69.

See Commission decision of 30 April 2015 in case SA.39608 – Germany - *Sea port extension Wismar*, OJ C 203, 19.06.2015, p. 3, recital 31.

See Commission decision in case SA.39637 – Germany - Extension of the cruise ship terminal in Wismar, ft. 9.

cost (including the cost of capital) of the non-economic activities, to be identified on the basis of a **clear separation of accounts**.

2. No economic activity: ancillary economic activities linked to main non-economic activities

- (9) If the port infrastructure is used almost exclusively for a non-economic activity, its funding may fall outside the State aid rules in its entirety, provided the economic use remains purely ancillary, that is to say an activity which is directly related to and necessary for the operation of the port infrastructure, or intrinsically linked to its main non-economic use, and provided that the capacity allocated each year to such activity does not exceed 20% of the port infrastructure overall capacity¹¹.
- (10) However, as port infrastructure is mainly used for economic activities, this hypothesis may not arise often.

3. No potential effect on trade between Member States

- (11) The effect on trade between Member States for the purposes of Article 107(1) TFEU must be established on a case-by-case basis apart from cases covered by the *de minimis* Regulations.
- (12) Support granted under the *de minimis* Regulation is not regarded as State aid if no more than EUR 200 000 is granted to a single undertaking over a period of three years and the other conditions laid down in the *de minimis* Regulation are also respected¹².
- (13) There may be cases of support measures which have a **purely local impact** and consequently have no effect on trade between Member States. This is the case when the beneficiary supplies services to a limited area within a Member State, is unlikely to attract customers from other Member States, and it cannot be foreseen that the measure will have more than a marginal effect on the conditions of cross-border investments or establishment.
- (14) For example, the public funding of small ports that predominately serve local users and for which the impact on cross-border investment is marginal is unlikely to affect trade¹³. This typically includes ports that due to their geographical location are not connected to any

See in this respect paragraph 207 of the Commission Notice on the notion of Aid as referred to in Article 107(1) of the Treaty on the Functioning of the European Union ("NoA"), OJ C 262, 19.7.2016, p. 1.

Commission Regulation (EU) No 1407/2013 of 18 December 2013 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to *de minimis* aid, OJ L 352, 24.12.2013, p. 1

See Commission decision of 29 April 2015 in case SA.39403 (2014/N) – Netherlands – *Investment aid for Lauwersoog port*, OJ C 259, 7.8.2015, p. 3. In that decision, the Commission considered that the Lauwersoog port was mainly used by small fishing vessels registered in that Member State which choose that port mainly in view of its geographical proximity to the relevant fishing grounds. The investment would not lead to a significant increase in the port's capacities and, in particular, would not increase its capacity to cater for larger ships. Thus, the investment in the fishing port was targeted at a local market in the sense that it would not provide incentives to fishermen from other Member States to use the Port of Lauwersoog rather than fishing ports in other Member States. The parts of the project aimed at recreational activities were also clearly targeted at a local market (the marina only has 60 moorings) and, as such, would not have any effect on cross-border trade. See also Commission decisions of 24 November 2015 in case SA.42219 (2015/N) – Germany – Refurbishment of the Schuhmacher-quay in the port of Maasholm, OJ C 426, 18.12.2015, p. 1, and of 20 July 2016 in case SA.44692 – Germany – *Investment for the Port of Wyk on Föhr*, OJ C 302, 19.08.2016, p. 1.

other Member State (i.e. small lake or river ports). The absence of effect on trade can be assessed on the basis of data showing that there is only limited use of the port infrastructure from outside the Member State and that the impact on cross-border investments of the measure under consideration is no more than marginal.

4. No potential effect on competition for service providers operating the publicly-financed infrastructure: legal monopoly

(15) A distortion of competition is generally found to exist when the State grants a financial advantage to an undertaking in a liberalised sector, such as typically the ports sector, and where there is, or could be, competition. The fact that the authorities assign a public service to an in-house provider (even if they were free to entrust that service to third parties) does not as such exclude a possible distortion of competition. However, a possible distortion of competition is excluded if certain conditions are met¹⁴.

5. No economic advantage at the level of the owner/developer

- (16) If it is proven that the State acted under the same terms and conditions as a private investor in a comparable situation when providing the necessary funding for the development of port infrastructure, then State aid is not involved. This can be assessed on the basis of: (i) significant *pari passu* investments of private operators, i.e. on the same terms and conditions (and therefore with the same level of risks and rewards) as the public authorities who are in a comparable situation¹⁵; and/or (ii) a (ex ante) sound business plan (preferably validated by external experts) demonstrating that the investment provides an adequate return for the investor(s), in line with the normal market return that would be reasonably expected by commercial port operators on similar projects taking into account the level of risk and future expectations¹⁶. Note, however, that the existence of consecutive State interventions concerning the same port infrastructure project might invalidate the conclusion that a similar measure would also have been undertaken by a market economy investor.¹⁷
- (17) The financing of port infrastructure often requires substantial capital investments that can only be recovered in the very long term and would therefore in such circumstances typically not be undertaken on the basis of purely economic considerations. In such cases, Member States would have to provide a convincing explanation why the criteria for the application of the MEOP are complied with.

See paragraph 188 of the NoA.

For more details, see paragraphs 86 to 88 of the NoA.

For more information see in this respect chapter 4.2 and in particular paragraphs 101 to 105 of the NoA.

See in this respect also paragraph 81 of the NoA.

6. No economic advantage at the level of the operator/concessionaire

6.1. Selection of operator/concessionaire through a tender or fees that are otherwise in compliance with the Market Economy Operator Principle

- (18) Operators who make use of the aided infrastructure to provide services to end-users receive an advantage if the use of the infrastructure provides them with an economic benefit that they would not have obtained under normal market conditions. This normally applies if what they pay for the right to exploit the infrastructure is less than what they would pay for a comparable infrastructure under normal market conditions.
- (19) If the operation of port infrastructure is assigned for a positive price to an operator/concessionaire on the basis of a competitive, transparent, non-discriminatory and unconditional tender¹⁸ in line with the principles of the TFEU on public procurement¹⁹, an advantage can be excluded at the level of the operator²⁰, as it can be presumed that the fee it pays for the right to exploit the port infrastructure is in line with market conditions.
- (20) If the operator/concessionaire has not been selected through a tender in line with the above conditions, it may also be possible to establish that the fees paid by the operator/concessionaire are in line with normal market conditions through (i) benchmarking with comparable situations²¹, or (ii) on the basis of a generally-accepted standard assessment methodology²².

6.2. The operation of the infrastructure entrusted as a service of general economic interest (SGEI) in line with the Altmark criteria

(21) The existence of an economic advantage at the level of the operator (concessionaire) may be excluded, if: (i) the infrastructure project is necessary for the provision of port services that can be considered as genuine services of general economic interest (SGEI) for which the public service obligations have been clearly defined²³; (ii) the parameters of compensation have been established in advance in an objective and transparent manner; (iii) there is no compensation paid beyond the net costs of providing the public service and a reasonable profit; and (iv) the SGEI has been either assigned through a public procurement procedure that ensures the provision of the service at the least cost to the community or the compensation does not exceed what an efficient company would require²⁴.

Provided that the appropriate selection criteria as set out in paragraphs 95 and 96 of the NoA have been used.

See paragraphs 101 to 105 of the NoA.

¹⁸ As described in paragraphs 91-94 of the NoA.

See Commission decision of 1 October 2010 in case SA.38478 - Hungary – Development of the Győr-Gőnyű Public Port, OJ C 418, 21.11.2014, paragraph 43.

See paragraphs 97 to 100 of the NoA.

For example if a port is the only one on an island. Freight transport services can be considered as SGEI only if they are indeed vital for the accessibility and social and economic development of a region (for instance, remote islands).

See Case C-280/00 *Altmark Trans and Regierungspräsidium Magdeburg* EU:C:2003:415 and the Communication from the Commission on the application of the European Union State aid rules to compensation granted for the provision of services of general economic, OJ C 8, 11.1.2012, p. 4.

6.3. SGEI de minimis Regulation²⁵

(22) Public funding granted for the provision of a SGEI not exceeding EUR 500 000 over three years is not regarded as State aid, provided the other conditions of the SGEI *de minimis* Regulation are also fulfilled.

7. No economic advantage at the level of the user

(23) If the operator of port infrastructure has received State aid or if its resources constitute State resources, it is in a position to grant an economic advantage to the user(s), such as shipping companies.

7.1. Fees set through a tender

(24) Where the fees for the use of port infrastructure have been set through a competitive, transparent, non-discriminatory and unconditional tender²⁶ in line with the principles of the TFEU in public procurement²⁷, an advantage can be excluded at the level of the user, as it can be presumed that they are in line with market conditions.

7.2. Fees set in line with market conditions by means other than tender

- (25) However, in the absence of a tender, the question of whether a transaction is in line with market conditions can be assessed in the light of the terms and conditions under which the use of similar infrastructure is granted by private investors in comparable situations (benchmarking).
- (26) In the case where this comparison is not possible, it can be established that a transaction is in line with market conditions on the basis of a generally accepted, standard assessment methodology. An advantage can be excluded for public funding of open port infrastructure not dedicated to any specific user(s), where their users incrementally contribute, from an ex ante view point, to the profitability of the project/operator²⁸.

III. INSTANCES IN WHICH THERE IS NO NEED TO NOTIFY FOR STATE AID CLEARANCE, BUT OTHER REQUIREMENTS COULD APPLY

(27) State aid to may be considered to be compatible with the internal market and can be granted without notification in the following instances:

²⁵ Commission Regulation No 360/2012 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to *de minimis* aid granted to undertakings providing services of general economic interest, OJ L 114, 26.4.2012, p. 8.

As described in paragraphs 91-94 of the NoA.

²⁷ Provided that the appropriate selection criteria set out in paragraphs 95 and 96 of the NoA have been used.

See paragraph 228 of the NoA.

1. General Block Exemption Regulation (GBER)²⁹

The measure may be exempted from notification if it is granted in compliance with the conditions of the GBER. In particular, **Article 56b** of the GBER can apply, allowing investment aid of up to (i) 100% of eligible costs for maritime port projects with eligible costs up to EUR 20 million, 80% of eligible costs for maritime port projects with eligible costs between EUR 20 million and EUR 50 million and 60% of eligible costs for maritime port projects with eligible costs between EUR 50 million and EUR 130 million. **Article 56c** of the GBER can also apply, allowing investment aid of up to 100% of eligible costs for inland ports projects. For aid not exceeding EUR 5 million for maritime ports (EUR 2 million for inland ports), the maximum amount of aid may be set at 80% of eligible costs, as an alternative. The provisions of Chapter 1 of the GBER in addition to the specific provisions in Article 56b or 56c GBER must be complied with.

2. Service of general economic interest: SGEI Decision³⁰

(29) If the construction, replacement or upgrade of a port is necessary for the provision of an SGEI, it may be considered as part of the SGEI mission. If the compensation of such an SGEI concerns ports with an average annual traffic of fewer than 300 000 passengers, it may be covered by the SGEI Decision, provided that the criteria of that Decision are met: in particular, definition and entrustment of the SGEI, parameters of compensation31 established ex ante in a transparent manner, amount of compensation not exceeding the costs for the provision of the SGEI and a reasonable profit, claw back mechanism ensuring the absence of overcompensation.

IV. INSTANCES IN WHICH NOTIFYING FOR STATE AID CLEARANCE IS NECESSARY

(30) If the measure constitutes State aid and the measure does not meet the conditions allowing an exemption from notification, State aid clearance following a notification to the Commission is required.

Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty,(OJ L 187, 26.6.2014, p. 1), as amended by Regulation (EU) No 2017/1084 amending Regulation (EU) No 651/2014 as regards aid for port and airport

infrastructure, notification thresholds for aid for culture and heritage conservation and for aid for sport and multifunctional recreational infrastructures, and regional operating aid schemes for outermost regions and amending Regulation (EU) No 702/2014 as regards calculation of eligible costs, OJ L 156, 20.06.2017, p.1.

Commission Decision 2012/21/EU of 20 December 2011 on the application of Article 106(2) of the Treaty on the Functioning of the European Union to State aid in the form of public service compensation granted to certain undertakings entrusted with the operation of services of general economic interest, OJ L 7, 11.01.2012, p. 3.

Initial support for investment on necessary infrastructure may be averaged as (annual) compensation over the entrustment period (normally 10 years, unless a longer period is justified by the amortisation of investments) as SGEI compensation.

1. State aid for port infrastructure directly under Article 107(3)(c) TFEU

That provision constitutes the legal basis for declaring aid to facilitate the development of certain economic activities or of certain economic areas compatible with the internal market. In accordance with the Commission's practice, a measure should comply with the following conditions³³: (i) presence of a clearly defined objective of common interest; (ii) necessity, proportionality and incentive effect of the aid; (iii) effects on competition and on trade between Member States limited to an extent not being contrary to the common interest; and (iv) the aid complies with the transparency principles.

2. Service of General Economic Interest: SGEI Framework³⁴

(32) The compatibility of State aid for port infrastructure which is necessary for the provision of an SGEI in ports with more than 300 000 passengers per year may be assessed on the basis of the SGEI Framework. Under the SGEI Framework, which is based on Article 106(2) TFEU, an aid measure should comply with the following main conditions: (i) entrustment of a clearly defined and genuine SGEI, (ii) compliance with Directive 2006/111/EC³⁵, (iii) compliance with EU public procurement rules, (iv) absence of discrimination, (v) a mechanism to avoid any overcompensation and (vi) transparency.

References:

• Commission Notice on the notion of State aid as referred to in Article 107(1) of the Treaty on the Functioning of the European Union, OJ C 262, 19.7.2016, p. 1.

Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, OJ L 187, 26.6.2014, p. 1.

 Commission Regulation (EU) 2017/1084 of 14 June 2017 amending Regulation (EU) No 651/2014 as regards aid for port and airport infrastructure, notification thresholds for aid for culture and heritage conservation and for aid for sport and multifunctional recreational

The compatibility of aid for sea ports as well as inland ports can be assessed under Article 107(3)(c) TFEU. As a matter of fact, the Commission has assessed aid to inland ports under Article 93 TFEU with similar compatibility criteria as under Article 107(3)(c) TFEU.

See for instance Commission decisions of 25 June 2014 in case SA. 38048 – Greece – Upgrading of the Port of Patras, OJ C 280, 22.08.2014, p. 20, 19 June 2013 in case SA. 35738 – Greece - Aid for the upgrading of Katakolo port, OJ C 204, 18.07.2013, p. 3, 15 December 2009 in case SA. C 39/2009 (ex N 385/2009) – Latvia - Public financing of a port infrastructure in Ventspils Port, OJ C 62, 13.03.2010, p. 7

European Union framework for State aid in the form of public service compensation, OJ C 8, 11.1.2012, p. 15.

Directive 2006/111/EC on the transparency of financial relations between Member States and public undertakings as well as on financial transparency within certain undertakings, OJ L 318, 17.11.2006, p. 17.

- infrastructures, and regional operating aid schemes for outermost regions and amending Regulation (EU) No 702/2014 as regards the calculation of eligible costs, OJ L 156, 20.6.2017.
- <u>Commission Decision 2012/21/EU</u> of 20 December 2011 on the application of Article 106(2) of the Treaty on the Functioning of the European Union to State aid in the form of public service compensation granted to certain undertakings entrusted with the operation of services of general economic interest, OJ L 7, 11.01.2012, p. 3.
- Communication from the Commission on the application of the European Union State aid rules to compensation granted for the provision of services of general economic interest, OJ C 8, 11.1.2012, p. 4.
- Commission Regulation (EU) No 1407/2013 of 18 December 2013 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to *de minimis* aid, OJ L 352, 24.12.2013, p. 1.
- Commission Regulation (EU) No 360/2012 of 25 April 2012 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to *de minimis* aid granted to undertakings providing services of general economic interest, OJ L 114, 26.4.2012, p. 8.

Indicative list of Commission decisions taken under State aid rules concerning port infrastructure:

- C 39/2009 (ex N 385/2009) Latvia Public financing of port infrastructure in Ventspils Port:
 http://ec.europa.eu/competition/state_aid/cases/234343/234343 1276398 146 2.pdf
- SA. 38302 Italy Investment aid to the Port of Salerno:
 http://ec.europa.eu/competition/state_aid/cases/251758/251758_1536127_128_2.pdf
- SA. 38478 Hungary Development of the Győr-Gőnyű Public Port:
 http://ec.europa.eu/competition/state aid/cases/253617/253617 1593938 102 2.pdf
- SA 38048 Greece Upgrading of the Port of Patras:
 http://ec.europa.eu/competition/state_aid/cases/252397/252397 1563559 76 2.pdf
- SA. 36953 Spain Investment aid to the Port of Bahía de Cádiz: http://ec.europa.eu/competition/state_aid/cases/249217/249217_1481221_99_2.pdf
- SA. 36621 Italy Investment aid to the Port of Capo d'Orlando:
 http://ec.europa.eu/competition/state-aid/cases/248535/248535 1511225 165 2.pdf
- SA. 36223 Spain Investment aid to the Port of Santa Cruz of Tenerife: http://ec.europa.eu/competition/state_aid/cases/248020/248020_1453836_60_2.pdf
- SA. 35720 UK Liverpool City Council Cruise Liner Terminal:
 http://ec.europa.eu/competition/state_aid/cases/251566/251566_1529732_82_2.pdf
- SA. 35738 Greece Aid for the upgrading of Katakolo port:
 http://ec.europa.eu/competition/state_aid/cases/246700/246700_1444527_188_2.pdf
- SA. 34940 Italy Port of Augusta:
 http://ec.europa.eu/competition/state aid/cases/246189/246189
 1407362
 2.pdf
- SA. 30742 Lithuania Construction of infrastructure for the Passenger and Cargo Ferries Terminal in Klaipeda:
 http://ec.europa.eu/competition/state-aid/cases/235848/235848 1304328 127 3.pdf

- N 44/2010 Latvia Public financing of port infrastructure in Krievu Sala:
 http://ec.europa.eu/competition/state aid/cases/235848/235848 1304328 127 3.pdf
- SA. 37402 Hungary The intermodal development of the Freeport of Budapest:
 http://ec.europa.eu/competition/state_aid/cases/250036/250036 1534981 92 2.pdf
- SA. 39403 Netherlands Investment aid for Lauwersoog port:
 http://ec.europa.eu/competition/state-aid/cases/256021/256021-1668108-140-2.pdf
- SA.42219 Germany Refurbishment of the Schuhmacher-quay in the port of Maasholm:
 http://ec.europa.eu/competition/state-aid/cases/260772/260772 1706942 87 2.pdf
- SA.43250 Portugal Cruise Ship terminal Porto de Leixões:
 http://ec.europa.eu/competition/state_aid/cases/260880/260880_1725199_114_2.pdf