JITAL

Journal of International Trade, Logistics and Law

Volume 1 Number 2 I 2015

e-ISSN 2149-9748

JITAL

Journal of International Trade,Logistics and Law

Journal of International Trade, Logistics and Law

| *Published bi-annually* |
e-ISSN 2149-9748

Board of Governors*:*
Ömer Özkan, Murat Çemberci, Mustafa Emre Civelek, Nagehan Uca, Okşan Kibritçi

Editorial Board:
Murat Çemberci, Istanbul Commerce University, *Editor-in-Chief*
Mustafa Emre Civelek,Istanbul Commerce University, Turkey, *Editor*
Nagehan Uca, Istanbul Commerce University, Turkey, *Editor*
Edin Güçlü Sözer, Denizbank A.Ş., Turkey, *Editor*
Anna Konert,Lazarski University, Poland, *Member*
Grzegorz Zajac,University of Information Technology and Management,Poland, *Member*
Kei Murata,Shizuoka University, Japan, *Member*
Regina Garcimartin, University of Zaragoza, Spain, *Member*
Elzbieta Marciszewska, The Warsaw School of Economics, Poland, *Member*
Hüseyin İnce, Gebze Technical University, Turkey, *Member*
Uğur Uygur, Loyola University Chicago, U.S.A., *Member*
Colleen V. Tomanek, Harper College, U.S.A., *Member*
Cemal Zehir, Yıldız Technical University, Turkey, *Member*
Ercan Sarıdoğan, Istanbul University, Turkey, *Member*
Dominika Harasimiuk,Lazarski University, Poland, *Member*
Elzbieta Dynia, Rzeszow University, Poland, *Member*
Aristidis Bitzenis, University of Macedonia, Macedonia, *Member*
Izabela Oleksiewicz, Technical University in Rzeszow, Poland, *Member*
John Marangos, University of Macedonia, Macedonia, *Member*
Kutluk Kağan Sümer, Istanbul University, *Member*
María Jesús Guerrero Lebrón, Pablo de Olavide University, *Member*

***Advisory Committee*:**
Mahbube Seda Nardemir, Istanbul Commerce University, Turkey, *Coordinator*
Turgut Erkeskin, FIATA, Turkey, *Member*
Çetin Nuhoğlu, UND, Turkey, *Member*
Sibel Kulaksız, World Bank, U.S.A., *Member*
Ceren Özer, World Bank, U.S.A., *Member*
Ahmet Musul, EKOL Logistics, Turkey, *Member*
Hakan Bezginli, Ankara Logistics Base, Turkey, *Member*
Mustafa Çiper, ARKAS Logistics, Turkey, *Member*
Özgür Doğan, TOFAŞ, Turkey, *Member*
Emin Taha, TAHA Group, Turkey, *Member*

Journal of International Trade, Logistics and Law (e-ISSN 2149-9748) is a refereed, bi-annual, periodical journal containing original papers in English. Published since 2015, all research articles in the Journal are being reviewed by at least two referees after an initial editorial screening. The views expressed in the papers are under the responsibility of authors. The editors do not necessarily agree with the views expressed in the papers. All the copyright privileges of the papers accepted for the publication belong to Journal of International Trade, Logistics and Law.

Journal of International Trade, Logistics and Law belongs to Ömer Özkan, Murat Çemberci, Mustafa Emre Civvelek, Nagehan Uca, Okşan Kibritçi

Head Office: *Küçükyalı E-5 Kavşağı, İnönü Caddesi, No: 4 Küçükyalı, Maltepe*
Phone: +90 532 5770056 - ***Fax:*** +90 216 4899714
E-mail: editor@jital.org ***URL :*** http://www.jital.org

Journal of International Trade, Logistics and Law includes original scientific articles related to international trade, logistics and law in English and is published twice a year in June and December.

This issue published 3 months delayed in March 2016

Journal of International Trade, Logistics and Law

Volume : 1 Number : 2 December 2015

Contents

Journal of International Trade, Logistics and Law, Vol. 1, Num. 2, 2015, 51-66

WORK TIME OF A CREW IN EUROPEAN AND POLISH LAW

Piotr Kasprzyk, (PhD)

Civil Aviation Authority, Poland

Anna Konert, (PhD)

The Lazarski University, Poland

Magdalena Barbara Rycak, (PhD)

The Lazarski University, Poland

Abstract:

Employee fatigue increases over time, and contributes to situations that endanger health and even life. Under the determinants of health, the human working environment is mentioned, including the working time, schedule, shifts, rest periods as well as the work pace. The aim of the article is to analyze the existing provisions regarding working time in aviation and it has been restricted to civil aviation mobile personnel, which is understood here as crew members on board of a civil aircraft, employed in a Member State.

Keywords:

Working Time, Schedule, Shifts

1. Introduction

The length and organization of working times affect employees' health as well as determining the time remaining for personal life, relaxation, studies and participation in cultural life. Employee fatigue increases over time, and contributes to situations that endanger health and even life. Under the determinants of health, the human working environment is mentioned, including the working time, schedule, shifts, rest periods as well as the work pace. In the classification of health determinants by the Experts Committee of the World Health Organization, leisure, rest and recreation are mentioned as needs whose fulfillment significantly affects the health of the population.[1]

In the case of mobile/flying personnel, the rules regulating working and resting times of flight crews are linked to flight safety.

The personal scope of this study has been restricted to civil aviation mobile personnel, which is understood here as crew members on board of a civil aircraft, employed in a Member State[2].

---

[1] See: M. Gasińska, Czas pracy jako czynnik zdrowia i bezpieczeństwa pracowników – próba przybliżenia problemu, [w:] Czas pracy w przedsiębiorstwie. Wyniki badań nad rozkładami czasu pracy i zdrowiem pracowników (Work time as a factor of health and safety of employees – Problem presentaion, in: Working time in a company. Results of working time schedule and employees' health research, collective work edited by H. Strzemińska, Instytut Pracy i Spraw Socjalnych (Institute of Labour and Social Affairs), Warszawa 2002, p. 80-101.

[2] See clause 2 point 2 of the agreement appended to the Regulation 2000/79/WE of 27 November 2000 concerning the European Agreement on the Organization of Working Time of Mobile Workers in Civil Aviation concluded by the Association of European Airlines (AEA), the European Transport Workers' Federation (ETF), the European Cockpit Association (ECA), the European Regions Airline Association (ERA) and the International Air Carrier Association (IACA) (OJ EC L 302 of 01.12.2000, p. 57).

Employers organizing the work of mobile personnel face the difficult task of reconciling the need of ensuring the continuity of passenger services, including on long-haul flights, with the safety standards governed by EU regulations as well as working time standards regulated at national levels. What attracts early attention at the first reading of legal acts regulating the working time frames of flying personnel is the casuistry of these regulations, as well as their dispersion over multiple legal acts in different areas of law (i.e. administrative and labor law), making it difficult to interpret and understand the legal standards of the regulations. This is in conflict with the Latin rule *"de minimis non curat lex"*[3] and eradicates any academic legal interest in the issues related to the working time of flying personnel[4], which have not been studied comprehensively so far. Moreover, the large number of regulations relating to the time allocation of aircrew personnel, used both by the EU and national employers, is unlikely to stimulate the proper interpretation and application of the provisions. This paper aims principally at outlining the laws regulating the given topic, the scope of their regulation and their mutual links, as well as introducing the major concepts used by employers. A complex analysis of the whole body of laws regulating the working time of crew members in air transportation would require a monograph to be developed by specialists in both labor and aviation law as well as by practitioners organizing the work of aircrews. Another purpose of this publication is to arouse interest in the discussed field among researchers and to initiate extensive research on aircrew members' working times.

2. Aircrew working times and flight safety

According to scientific evidence, the fatigue of flight crew members seriously jeopardizes air safety and endangers passenger safety. Fatigue increases reaction time to stimulus, causes concentration problems as well as intellectual processing difficulties. The effects of fatigue can be compared to those caused by alcohol consumption. Analyses carried out by the US Federal Aviation Administration (FAA) show that the risk of an aircraft accident in a flight duty lasting more than 13 hours is five times higher than in a 9-hour long duty[5].

We do not need to look far to find specific cases illustrating the impact of fatigue on flight safety. Fatigue of the aircraft crew, resulting from a very short night stay, was considered to be a major contribution to serious incidents during a flight on the national route from Bydgoszcz to Warsaw in 2006.[6] As a result of a misunderstanding, the crew lost data from the board indicator instruments, and were under conditions without visibility. The commission investigating this incident recommended amending the working time provisions in force at the time in Poland, emphasizing the necessity to "pay due regard to physiological needs of the aircrew bodies as well as to flight safety requirements". As explained in the final report, flight crews' working hours at different times of day are very often different from those commonly acknowledged as most favorable from the point of view of work physiology and personal needs. Another inconvenience is the irregularity of hours and the duration of work performed onboard an aircraft, combined with the necessity to stay, also overnight, away from the homeport.

The need to take into account the results of the research when establishing new provisions on mobile crew working times, results not only from the recommendations of safety investigators, but is directly expressed in international and Union legislation.

[3] The principle means that law does not concern with trifles, as it cannot regulate all, even the smallest, legal issues. The law should limit its concern to major issues. (see M. Kurylowicz, Slownik terminów, zwrotów i sentencji prawniczych łacińskich oraz pochodzenia łacińskiego [Glossary of Latin terms, sayings and legal Latin phrases or of Latin origin], Zakamycze, Kraków 2002, p. 103).

[4] It was explained by COM that "duty time" per Regulation 3922/1991 corresponds to "Working Time" as per Directive 79/2000. Hence, both provisions do not conflict but complement each other. There is no annual ceiling of duty time foreseen in FTL because only short term fatigue is considered as impacting flight safety." Report of the Air Safety Committee Meeting on EU-OPS Brussels, 06 December 2007, 6.

[5] J. H. Goode, Are pilot at risk of accidents due to fatigue? Journal of Safety Research 2003; 34(3).

[6] The final report of the serious incident No 359/06, available on the website of the State Commission on Aircraft Accident Investigation http://pkbwl.mir.gov.pl/files/0/30518/2006_359_RK.pdf

3. International regulations on working times of mobile staff in civil aviation

The legal act regulating issues related to working hours in aviation at an international level is Annex 6 to the Convention on International Civil Aviation, signed in Chicago on 7 December 1944[7].
According to Art. 37 of the Convention, State Parties to the Convention need to cooperate in order to ensure the highest practicable level of harmonization of provisions, standards, rules of conduct and organization regarding aircraft, staff, air routes and support services. This is the standard in all cases where such harmonization can facilitate and improve air navigations. By virtue of the provisions of this Convention, the International Civil Aviation Organization (ICAO) was created, whose member countries have committed themselves to facilitate air navigations by the application of international standards and safety recommendations laid down by ICAO.[8] These standards and recommended practices are provided in the form of nineteen annexes to the Chicago Convention.

With regards to commercial air transport, the standards and recommendations provided in Annex 6 to the Convention (Operation of Aircraft, part I, international commercial air transport – aircraft) constitute an essential tool. It should be noted that the Convention on International Civil Aviation has been ratified by Poland on 20 November 1958, and, as indicated in the government's declaration on 20 August 2003[9], Poland is bound by Annex 6. Subsequent editions of part I of this Annex were repeatedly published in the Official Journal of the Civil Aviation Authority[10].

Part 9.6 of Annex 6, part I includes a recommendation for the purpose of fatigue management, which indicates that the State of the Operator should establish rules containing restrictions to be applied on flight times, flight duty periods and rest periods for crew members. It is underlined that such **provisions must be based on scientific principles** and knowledge, and, where possible, aimed at ensuring an appropriate level of vigilance among crew members when performing their duties onboard. The recommendation is repeated in point 4.2.11.2 of Annex 6, which requires the operator to establish flight and duty time restrictions, and to develop a rest scheme in compliance with the rules approved by the State of the Operator and included in the Operations Manual.

Basic definitions for duty, duty period, flight duty period, and flight time are provided in Chapter I (definitions) and are further detailed in Annex A, containing guidance material for the development of prescriptive fatigue management regulations". According to this material, flight time, flight duty period, duty period limitations and rest period requirements are established for the sole purpose of ensuring that the flight crew and the cabin crew members are performing at an adequate level of alertness for safe flight operations. According to point 4.2.1., a crew member is a person appointed by the operator to perform duties on board during the flight duty period. A licensed crew member who is charged with duties essential for the operation of an aircraft during a flight duty period is defined as a flight crew member. A crew member who performs duties for the interest of passenger safety as assigned by the operator or the pilot-in-command of the aircraft, but who does not act as a flight crew member, is a cabin crew member.

---

[7] Journal of Laws 59.35.212 with later amendments.
[8] Z. Galicki, Charakter prawny międzynarodowych wzorów i zaleceń metod ICAO (The legal character of international standards and recommendations on methods by ICAO), Warszawa 1971; M. Żylicz, *Prawo lotnicze międzynarodowe, europejskie i krajowe (International, European and national aviation legislation)*; Lexis Nexis, Warszawa 2011, p. .
[9] Government's declaration dated 20 August 2003 on the effective character of the Annexes to the Convention on International Civil Aviation, signed in Chicago on 7 December 1944, – Journal of Laws 03.146.1413
[10]1) Legal notice No 5 of the President of the Civil Aviation Authority on annexes to the Convention on International Civil Aviation, signed on 7 December 1944, – Journal of Laws Civil Aviation Authority of 06.2.13;
2) Legal notice No 13 of the President of the Civil Aviation Authority on annexes to the Convention on International Civil Aviation, signed on 7 December 1944, – Journal of Laws Civil Aviation Authority 2008.6.58;
3) Legal notice No 3 of the President of the Civil Aviation Authority on publication of the text of Annex 6 to Convention on International Civil Aviation, signed in Chicago on 7 December 1944 – Journal of Laws Civil Aviation Authority 09.5.128;
4) Legal notice No 14 of the President of the Civil Aviation Authority on publication of the text of Annex 6 to Convention on International Civil Aviation, signed in Chicago on 7 December 1944 – Journal of Laws Civil Aviation Authority 09.18.206.
5) Legal notice No 13 of the President of the Civil Aviation Authority on publication of the text of Annex 6 to Convention on International Civil Aviation, signed in Chicago on 7 December 1944 – Journal of Laws Civil Aviation Authority 14.51

It has been pointed out that, in establishing the provisions in question, two types of fatigue should be taken into account, which both need to be prevented:

1) transient fatigue – which is dispelled by a single sufficient period of rest or sleep;
2) cumulative fatigue – which can occur after incomplete recovery from transient fatigue over a period of time.

Being fully rested is not only the right of each crew member, but is also a duty. The operator should not require a flight crew member to operate an aeroplane if it is suspected that the flight crew member is fatigued to the extent that the safety of the flight may be adversely affected. A flight crew member, in turn, should not operate an aeroplane in such a case.

According to Point 2.3.1 of Annex A, the definition of a flight duty period (FDP) is intended to cover a continuous period of duty that includes a flight or series of flights for the flight or cabin crew member. It is meant to include all duties a crew member may be required to carry out from the moment he or she reports for duty, until he or she completes the flight or series of flights and the aeroplane finally comes to rest and the engines are shut down. This is the so called **flight duty period (FDP),** which is defined as the period from the moment when the flight crew member or the cabin crew member reports for duty including a flight or series of flights and until the flights end and engines are shut down, after the last flight, in which the person performed his or her duties as a member of the flight crew or of the cabin crew, has come to an end. Thus it includes the necessary pre-flight operations, the flight period, the approach and the nature of the operation.

A flight duty period does not include the period of travelling time from home to the point of reporting for duty. Time spent positioning at the behest of the operator is part of a flight duty period when this time immediately precedes a flight duty period. Thus, if there is an intervening rest period, the time spent positioning is not included in the flight duty period.

Positioning means the movement of a non-operating crew member from one place to another as a passenger (in the passenger cabin) at the behest of the operator. The term is synonymous to "deadheading". It is the case when the crew member is needed by the operator in an airport different from the one where he or she is at the given moment.

In addition, it is necessary to ensure rest periods, subsequent and/or prior to duty, during which flight or cabin crew members are free of all duties for the purpose of recovery from fatigue. It has been pointed out that rest periods should not include standby if the conditions of standby do not enable flight and cabin crew members do not have adequate opportunity to recover from fatigue. Standby, in turn, is a defined period of time during which a flight or cabin crew member is required by the operator to be available to receive an assignment for a specific duty without an intervening rest period.

The start time and end time of standby should be defined and notified sufficiently in advance. National regulation should precisely define the period of advance notice. Also the maximum length of any standby should be indicated.

The time spent being available should not be counted as a duty. It is when flight and cabin crew members are required to be available for contact over a brief period of time to receive instructions concerning a possible change of roster.

Moreover, it has been indicated that in formulating regulations or rules governing flight time limitations, the balance and division of various tasks to be performed among the flight or cabin crew members should be taken into account.

Duty rosters are lists provided by an operator of the times when a crew member is required to undertake duties. They should be prepared and published sufficiently in advance to provide flight and cabin crew members the opportunity to plan adequate rest.

The operator should nominate a home base for each flight and cabin crew member, from where the flight and cabin crew member will normally start and end a duty period or a series of duty periods.

Duty includes all tasks carried out at the behest of the operator, including pre-flight preparation, conduct of the flight, administrative actions, training, positioning, and standby when it is likely to induce fatigue.
According to the national legislation, the flight time, the duty period and the flight duty period must be limited. Flight time (block time) is the total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.

Flight time, as it is defined here, is synonymous with the terms "block to block" time or "chock to chock" times, which are in general usage. The material indicates the need to determine the maximum flight time:

1) in any flight duty period;
2) in any 7 consecutive days or in any 28 consecutive days;
3) in any 365 consecutive days.

A duty period starts when a flight or cabin crew member is required by an operator to report for a duty (reporting time) and ends when that person is free from all duties.

However, it has been proposed that the travelling time spent by a flight or cabin crew member, in transit between the place of rest and the place of reporting for duty, is not counted as duty, even though it is a factor contributing to fatigue.

It is necessary to specify the maximum duty hours within 7 and 28 consecutive days and the maximum flight duty period, with the latter differing between cabin and flight crew members. The maximum duty periods may be extended in unforeseen operational circumstances at the discretion of the pilot-in-command. An unforeseen circumstance is an unplanned event that is beyond the control of the operator, such atmospheric phenomena, equipment malfunction, or air traffic delay. In formulating the extent to which extensions may be permitted, the balance and division of various tasks to be performed among crew members, as well as the quality of available rest facilities, should be taken into account.

It is also necessary to determine the minimum resting periods preceding the flight duty period. Rest provisions should take into account the impact of time zone crossings and night operations.

In the provisions of Annex 6, the concept of the "State of the Operator" is used with reference to the entity obliged to take particular measures for increasing flight safety. As it is specified in Recommendation 4.10.8 in Chapter 4 of Annex 6 ICAO, the Operator should keep records of all his flights and cabin crew members, flight periods, flight duty periods, duty periods and rest periods, in the period defined by the State of the Operator. Thus, certain obligations will apply to operators, including employers. The terms of aircrew member employment are not determinant of the personal scope of the provisions in the Convention.

4. EU regulations on aircrew working times[11]

Since 2002, the transfer of powers to European Communities for legislating in the field of air safety has been proceeding. One of the main arguments for establishing laws in the field of air safety at the Community level was the recognition, derived from proportionality principles, that the implementation of ICAO norms and recommendations would be more effective and more advantageous, if the provisions are established at the level of the European Communities[12].

[11] See also V. Križan, Some aspects of working time of workers in transport in slovak and european labour law, available at: http://www.law.muni.cz/sborniky/dp08/files/pdf/mezinaro/krizan.pdf
[12] See the preamble to Regulation (EC) No 3922/1991 and 1592/2002.

Relevant EU provisions in the area of aircraft operations, including those regulating work and rest periods of crew members, were adopted under Regulation 1899/2006 of the European Parliament and the Council in 12 December 2006[13] amending Regulation 3922/91 on the harmonization of technical requirements and administrative procedures in the field of civil aviation[14].

Detailed rules on the duty periods of aircraft crew members were laid down in part Q of Annex III of Council Regulation 3922/91 in 16 December 1991, on the harmonization of technical requirements and administrative procedures in the field of civil aviation (so called EU-OPS)[15].

The Annex contains definitions of the concepts "duty", "duty period", "interval", "flight duty period" or "standby". Understanding these concepts allows a deeper analysis of other work time systems in aviation.

A **duty** is any task that a flight or cabin crew member is required to perform as an AOC certificate holder[16]. The certificate authorizes an individual to provide scheduled or non-scheduled commercial passenger and freight services as well as sanitary and medical transport services. Any operator wishing to provide public transport using aeroplanes must obtain it. Duties include all tasks to be carried out by crew member, insofar as they concern the activities of the provision of scheduled or non-scheduled commercial flight transport services.

A **duty period** is a period that starts when a flight or cabin crew member is required by an operator to report for or to commence a duty, and ends when that person is free from all duties[17]. A single day free of duty includes 2 local nights. Local night means a period of 8 hours between 10pm and 8am local time.
The duty period includes, among others:

1) the flight duty period (FDP) – is the period when a person performs his or her duties onboard an aircraft as crew member of this aircraft. It commences when a crew member is required to report for duty that includes a flight or a series of flights and which finishes when the aeroplane finally comes to rest at the end of the last flight[18].
2) the interval – is a period free from any duties, and is shorter than the rest period[19].
3) Standby – is a defined period of time during which a flight or cabin crew member is required by the operator to be available to receive an assignment for a flight, positioning or for another duty without an intervening rest period[20].
   a) airport standby – should be taken into account to calculate the total number of duty hours[21].
   b) standby outside an airport (i. e. standby in a hotel) – to an extent determined by the relevant authority[22].
4) Positioning – is considered as part of the duty period[23]. It is the period of time spent on transferring a non-operating crew member from place to place at the behest of the operator, excluding the travel time.

[13] Regulation (EC) No 1899/2006 of the European Parliament and Council of 12 December 2006 amending the Regulation (EEC) No 3922/92 on harmonization of technical requirements and administrative procedures in the field of civil aviation, EU Journal of Laws L 06.377.1
[14] Journal of Laws EC L 373 of 31.12.1991, with later amendments.
[15] The content of the Annex has been provided for in the Commission Regulation 859/2008 of 20 August 2008. (EU Journal of Laws L 254 of 20.09.2008, p. 1).
[16] OPS.1.1095 (1.4)
[17] OPS.1.1095 (1.5)
[18] OPS 1.1095 point 1.6
[19] OPS 1.1095, point 1.3
[20] OPS 1.1095 point 1.14
[21] OPS 1.1125 point 1.2
[22] OPS 1.1125 point 2.1
[23] OPS 1105 point 5.1.

5) Other activities carried out at the behest of the operator, related to the commercial provision of air transport services, i.e. medical exams, theoretical and practical training, flight simulators, participation in task forces etc.

In addition, part Q of Annex III EU-OPS provides limitations to the duty period[24]. An operator is obliged to ensure that the maximum duty periods for a flight crew or cabin crew member do not exceed:

a) 190 duty hours in any 28 consecutive days, distributed as evenly as possible over this entire period, Therefore, it should not happen that a crew member works 60 hours within 3 weeks and 10 hours in the fourth week. The hours must be spread evenly sto enable the crew member to recover sufficiently.
b) 60 duty hours in any 7 consecutive days.

The flight duty period is also limited[25], but the limitations do not apply to flights with only one pilot and medical service flight, to which the national law is applicable. Limitations relate to aeroplanes with a multi-member crew and limit the flight duty period to 13 hours. These 13 hours will be reduced by 30 minutes for each sector (flight stage – which means an uninterrupted flight from place A to place B without landing between them) as from the third one, with up to a maximum limitation of two hours.

The maximum daily flight duty period is also affected by whether or not it starts in the window of circadian low (WOCL). This is the time between 02:00am and 05:59am, in which the human body is "programmed" to sleep and psychophysical efficiency is at the lowest level[26].

Part Q of Annex III also provides for the possibility to extend the FDP by a maximum of 1 hour, with a maximum number of extensions of 2 in any 7 days.

The rosters planned by operators should be designed in a such a way as to end flights within the maximum flight duty period allowed. In order to meet this requirement, operators were obliged to take measures that change the roster or balance of duties in the crew, no later than at the moment when the actual operation exceeded the maximum FDP in 33% of flights covered by the roster within the season planned[27].

The so-called split duty period is allowed to be applied, if agreed by a competent authority (Point 6 OPS 1.1105). The split duty is applied in an operation based on an extended FDP, including an interval. Each operator can be obliged by the relevant authority to demonstrate that its extended FDP application ensures a balanced safety level.

It is also possible to extend the FDP for an increased number of flight crew members, in accordance with the principles set out by the authority[28]

The FDP includes the so-called **block time**, as it is defined in the English in part Q of Annex III (which can be understood as the time blocked). It the time from the moment an aeroplane first moves for the purpose of taking off until it finally stops at the scheduled end of the flight and all engines and propellers are shut down[29]. Therefore, it starts when an aeroplane is still on the ground. Block hours is the total time when an aeroplanes moves on the ground and in the air and its engines are running.

Operators have been obliged to ensure that the total block times, to which a particular member has been assigned as an operating crew member, do not exceed[30]:

a) 900 block hours in a calendar year;

[24] OPS 1.1100, point 1.1
[25] OPS 1.1105.
[26] *Ibid.*, p.1.
[27] OPS 1.1105, point 4.1
[28] OPS 1.1115 point 1.1.
[29] OPS 1.1095, point 1.2
[30] OPS 1.1100, point 1.2

b) 100 block hours within any 28 consecutive days.

According to OPS 1.1120 point 1, the limitations of flight duty, duty and rest periods can be modified in unforeseen circumstances[31], but they must be adopted by the pilot-in-command, after consulting other crew members.

However, in any circumstances, the maximum FDP cannot be extended by more than 2 hours, unless the number of flight crew members has been increased – in which case, the maximum FDP can be extended by a maximum of 3 hours[32]:

The **rest period,** laid down in OPS 1.1110, correlates with the duty period and the flight duty period. It is a continuous and defined period of time, during which flight or cabin crew members are free of all duties and airport standby (1.13 OPS 1.1095). Operators must ensure rest periods long enough to enable crew members to recover from the fatigue resulting from the preceding duty and adequate rest until the start of the next flight duty period (3.5 OPS 1.1090). The rest period is defined in terms of a minimum period, which means it can be longer than indicated. The minimum rest period, prior to the FDP commencing in the home port, must be equal to at least the length of the preceding duty period or 12 hours, depending on which is longer. When the FDP is supposed to commence outside the home port, the minimum rest period equals at least to the length of the preceding duty period or 10 hours, depending on which on is longer. If the minimum rest period is supposed to be outside the home port, the operator must ensure the possibility of 8 hours sleep.

A minimum rest period must be periodically extended up to a one-week rest period of 36 hours, including two local nights, in a way that ensures that the time between the end of the one-week rest period and the beginning of the next one never exceeds 168 hours.

The rest period can be shortened by the authority, with the application of the operator, who is obliged to demonstrate that he will ensure an adequate level of safety[33].

The operator has been obliged to ensure, that the impact of time zone crossing is compensated by additional rest, according to the provisions laid down by the authority (OPS 1.1110, point 1.3).

The operator should keep records for each single crew member[34]. The records must include: (1) block times; (2) time, length and end of each duty or flight duty (3) rest periods and days off the duty.

It should be noted that the legal standards included in EU-OPS are not working time standards but a legal administrative framework within navigation safety. As Raczkowski rightly points out, the employer as a carrier is obliged to follow them, but for the acts of infringement he will be held liable by virtue of the aviation law[35]. This

[31] OPS 1.1120, point 1 part Q Annex III states: taking into account the need of a thorough analysis of the assumed cases below, during a flight operation, which starts at the moment of reporting to work, flight duty period limitation, duty and rest periods described in this part can be modified in unforeseen circumstances. Such modifications must be acceptable by the pilot-in-command after consulting other crew members, they must be also in all circumstances complying with the conditions below.
[32] OPS 1.1120, point 1.1.
[33] OPS 1.1110, p. 1.4.1 i 1.4.2
[34] OPS 1.1135
[35] In the case that the operator allows flight duty hours exceeding „extended maximum FDP limits", administrative sanctions from the supervising authority come into play, applied on the base of Article 162 of the aviation law (a formal notice to remedy deficiencies on pain of suspension of the certificate). It is also possible that such situation leads to liability under Article 210 section 1 point 10 of the aviation law. With regard to the pilot-in-command, who allows knowingly that the extended FDP maximum limits are exceeded, the possibility of launching a legal procedure under Article 100 of the aviation law can be considered, on suspension or revocation of the license under Article 100 section 1 point 3 (comprises air safety when performing flight duties, to which he or she is entitled by the license).

excludes the possibility for lawyers to invoke these regulations and make request on this basis, i.e. overtime payments[36].

On 8 April 2008, Regulation 216/2008 on common rules in the field of civil aviation and EASA came into force[37]. This regulation has been complemented by regulations implemented by the European Commission, which regulates particular aspects of aviation activities. The main purpose of these provisions is to maintain a high and uniform standard across the EU safety level of civil aviation.

According to Article 8 Regulation 216/2008, operating aircraft should comply with the basic requirements defined in Annex IV. According to point 7.f of the Annex, no crew member should allow their task achievement or decision making to deteriorate to the extent that flight safety is endangered because of the effects of fatigue, fatigue accumulation, sleep deprivation, number of sectors flown, night hours, etc. Rest periods must provide sufficient time to enable crew members to overcome the effects of the previous duties and to be well rested by the start of the following flight duty period. In point 8 f of Annex IV, it has also been noted that, for the purpose of flight safety, a rostering system must be applied for a flight or a series of flights. It needs to address flight time, flight duty periods, duty and adapter rest periods. Limitations established for the rostering system must take into account all relevant factors contributing to fatigue, in particular such as the number of sectors flown, time zone crossing, sleep deprivation, disruption of circadian cycles, night hours, positioning, cumulative duty time for given periods of time, sharing of allocated tasks between crew members, and also the provision of augmented crews.

The guidelines contained in Annex IV to Regulation 216/2008 are the basic criterion applicable by the European Commission when implementing regulations, according to Article 8 point 5 of Regulation 216/2008. In regulations, detailed provisions on aircraft operations will be laid down, including limitations of flight time, duty and rest periods. It should be noted that according to Article 8 point 6 ref. 5, with regard to commercial transportation by aeroplane, the pending regulation to be implemented should be based on common technical requirements and administrative procedures laid down in Annex III to Regulation (EC) No 3922/91. Certainly, the provisions of Annex II to Regulation (EC) No. 3922/91 expire when the regulations are implemented under Article 8 section 5 of Regulation 216/2008[38].

In the preamble of Regulation 1899/2006, in the clause (13), it was indicated that **it is considered appropriate to carry out a scientific and medical assessment of the provisions concerning limitations of flight and duty time and rest requirements,** as well as, where necessary, provisions related to crew members, within 2 years of the implementation of this regulation. On that basis, on 30 August 2008, Moeubus Aviation prepared the report "Scientific and medical evaluation of Flight Time Limitations"[39].

Taking into account the results of this report, and based on existing solutions (part Q Annex III), new EU provisions are being drafted. Based on the opinion[40] prepared by the European Aviation Safety Agency (EASA), Regulation EC 83/2014 was approved in 29 January 2014.[41] This regulation contains newly implemented guidelines on the limitations on flight and duty periods as well as on rest period requirements in the commercial aviation transportation (CAT) by aeroplane. Regulation 83/2014 constitutes newly implemented measure, referred to in point 8 section 5 and article 22 section 2 of Regulation (EC) 216/2008, and therefore, part Q of Annex III to regulation

[36] M. Raczkowski, Working time institutions of civil aviation crew members [in:] Working time, red. L. Florek, Warsaw 2011, p. 242-243.
[37] Regulation of European Parliament and Council (EC) No 216/2008 of 20 February 2008 on common rules in the field of civil aviation and establishing European Aviation Safety Agency and repealing Council Regulation 91/670/EC, Regulation (EC) No 1592/2002 and Regulation 2004/36/EC – Journal of Laws.EU.L.08.79.1.
[38] Art. 69 section 3 Regulation 216/2008
[39] http://www.easa.europa.eu/system/files/dfu/FTL%20Study%20Final%20Report.pdf
[40] https://www.easa.europa.eu/document-library/opinions/opinion-042012.
[41] Regulation of the Commission (EU) 83/2014 of 29 January 2014 amending Regulation (EU) 965/2012 laying down the technical requirements and administrative procedures related to aircraft operations in accordance to the Regulation of the European Parliament and Council (EC) 216/2008.

(EC) 3922/91 must be deleted, according to Article 69 section 3 of Regulation (EC) 216/2008. However, Part Q of Annex III to Regulation (EC) 3922/91 continues to apply until the expiry of transitional periods provided for in Regulation 83/2014 and with regard to operations, for which no measures have been established.
It shall apply from 18 February 2016. By way of derogation, Member States may decide not to apply provisions ORO.FTL.205 subparagraph e) of Annex III to Regulation (EU) 965/2012, but continue to apply existing national provisions on resting during a flight until 17 February 2017.[42]

Regulation 83/2014 lays down common provisions in the fields which have been hitherto regulated by national law, according to Article 8 section 4 of Regulation of Council 3922/91 "EU-OPS". They include provisions governing the following aspects:

- split duty period,
- rest compensating the impact of time zone crossing,
- shortened rest periods,
- extended flight duty periods due to rest on board during the flight,
- standby and other modes of remaining in the airport.

The regulation presents several changes with respect to the previous provisions. Among others, is establishes a better protection against cumulative fatigue. This is due to the limit of 1000 flight hours in 12 consecutive months and an additional limit of 110 hours in 14 days, and a longer period of extended regenerative rest period twice per month. There is also better protection against transient fatigue due to the extension of the rest period during, shortening of the flight duty period[43] to 11 hours from 5:00pm to 5:00am, and shortening of the maximum FDP in a less advantageous time of day from 11 hours and 45 minutes to 11 hours and 15 minutes. Standby or other modes of remaining in the airport have been reduced to 16 hours, and there are provisions on shorter rest periods that ensure the possibility of 8 hours sleep.

Provisions of regulation 83/2014 do not exclude the possibility to ensure better protection on the basis of a national social and collective labor agreement with regard to work conditions, safety and hygiene, and also, apply without prejudice to relevant provisions. To take a greater account of specific national conditions or operating practices, Member States may grant and apply derogations from the regulation in question or, respectively, from related certification specifications, by applying rules which ensure a safety level which at least equals the safety level resulting from the provisions of this regulation[44].

5. EU regulations of the working times of mobile workers (directives)

The rules of working times for mobile workers in civil aviation were laid down at the Union level in the provision of the Directive of Council 2000/79/EC on 27 November 2000. This concerned the European Agreement on the Organization of Working Time of Mobile Workers in Civil Aviation, concluded by the Association of European Airlines (AEA), the European Transport Workers' Federation (ETF), the European Cockpit Association (ECA), the European Regions Airline Association (ERA) and the International Air Carrier Association (IACA).

On 22 March 2000, the Association of European Airlines (AEA), the European Transport Workers' Federation (ETF), the European Cockpit Association (ECA), the European Regions Airline Association (ERA) and the International Air Carrier Association (IACA) signed the European Agreement on the organization of working times for mobile workers in civil aviation. The right instrument for implementation of the Agreement is the directive.

[42] In Poland, by means of a decision of the President of the Civil Aviation Authority a deferred application of new provisions has been notified – see Communication of the President of the Civil Aviation Authority (ULC) of 1 September 2014, Journal of Laws ULC of 2014, position 61.
[43] Calculation of the maximum basic FDP is based on the table instead on, as before, on calculations.
[44] Point 5 of the preamble to Regulation 83/2014.

In point 11 of the preamble to Directive 2000/79/EC, it is stated that "In view of the highly integrated nature of the civil aviation sector and the conditions of competition prevailing in it, the objectives of this Regulation to protect workers' health and safety cannot be sufficiently achieved by the Member States and Community action is therefore required in accordance with the subsidiarity principle laid down in Article 5 of the Treaty".
The personal scope of Directive 2000/79/EC has been defined by reference to the definition of mobile staff in Art. 2 section 7 of Directive 93/104/EC. A mobile worker is defined as any worker employed as a member of the travelling or flying personnel in an undertaking that operates transport services for passengers or goods by road, air or inland waterway[45]. According to clause 2, section 2 of the Agreement, constituting the Annex to Directive 2000/79/EC, mobile staff in civil aviation means crew members on board a civil aircraft, employed by an undertaking established in a Member State.

The directive leaves Member States the freedom of defining, according to national legislation and practice, the concepts used in the Agreement, which have not been specifically prescribed, provided the definitions comply with the Agreement. Member States and/or social partners can maintain the minimum standards set out in the provisions of the directive and Agreement or they can introduce more favorable provisions[46].

By virtue of Art. 3 of Directive 2000/79/EC, Member States have to bring into force laws, regulations and administrative provisions necessary for the application of the Regulation, no later than by 1 December 2003.

In the Agreement, annexed to Directive 2000/79/EC, the following concepts have been defined: working time, flying staff in civil aviation and flight block-time.

According to clause 2, section 1 of Directive 2000/79/EC, working time means any period during which the worker is working, at the employer's disposal and carrying out his activity or duties, in accordance with national laws and/or practice. This definition agrees with the working time definition in Art. 2 section 1 of Directive 2003/88/EC of the European Parliament and Council, set in 4.11.2003, referring to some aspects of the organisation of working times[47]. This Directive was entered into force on 2.8.2004 and rendered the Directive 93/104/EC invalid. It incorporates many regulations set out in the previous directive; however, it introduces considerable amendments and supplements. Directive 2003/88/EC extends the personal scope of its implementation by encompassing all workers but seafarers (Art. 1 section 3 of the Directive). The Directive does not lay down any new obligations for Member States, but has solely consolidated existing solutions. The case law of the Court of Justice and their views maintained their validity, especially those views concerning the working time concept, expressed in the doctrine of the work law in Directive 93/104/EC.

Directive 2003/88/EC defines minimum daily and weekly rest periods, maximum weekly working times, intervals, night work, shift work and minimum holiday periods.

In both directives referred to above, the concept of work has been defined through the concept of remaining at the employer's disposal. This means, that in some situations (i.e. following the command to refrain from work during a stoppage) physical performance is not necessary for the recognition of this time as working time. The classification

[45] Point 9 of the preamble to Regulation 2000/79/EC.
[46] Points 12 and 15 of the preamble and Art. 2 section 1 of Regulation 2000/79/EC.
[47] EU Journal of Laws L 299 of 18.11.2003, p. 9.
Earlier, for several years, the Directive 93/104/EC has been in force, referring to some aspects of working time organization (EC Journal of Laws L 307 of 13.12.1993, p. 18), which has been amended by Directive 2000/34/EC of the European Parliament and Council of 22.6.2000, changing the abovementioned Regulation to cover sectors and activities excluded by this Regulation (EC Law of Journals L 195 of 1.8.2000, p. 41). Directive 2000/34/EC has stretched the personal scope of Regulation 93/104 by covering all employers. Regulation 93/104/WE did not apply to workers of the air, rail and road transport, sea, freshwaters and lake fisheries or activities of the education of doctors.

of a worker's presence at the workplace as working time may not depend on the worker's workload, but it is solely a derivative of a worker's obligation to remain available to the employer[48].

The availability period starts at the moment when the workers reports for duty at the workplace or other place designated for providing work, and ends with the full working day or, occasionally, later – at the moment of cessation of activities tasked by the employer (i.e. in the case of the requirement to work overtime). The distinctive feature of remaining at the employer's disposal is the restriction of personal freedom for the employee, the extent of which depends on the employee's scope of employment. The employee remains at the employer's disposal when he or she is performing his or her normal duties or following his or her superior's instructions, as well as when partaking in activities in the interest of the workplace, even without an order. An employee remains at the employer's disposal when he or she behaves in a way that is aligned with purpose of the employment, i.e. provides the work agreed between parties, or remains on standby, ready to work, and maintains contact with the employer, in anticipation of instructions and directives from the employer[49].

The place of work is of no relevance for the recognition of certain periods as "remaining at the employer's disposal", provided it has been formally designated by the employer or the worker's supervisors as a place for the execution of work. This can, for example, be a worksite, onboard aircraft, an apartment or temporary residence of the employer. To consider that an employee is present at the workplace, it is sufficient that the employer or the employee's supervisor are aware of that place and approve it, at least implicitly.

The concept of working times for flying staff includes the so called flight block-time. This is the time between an aircraft first moving from its parking place for the purpose of taking off, until it comes to rest in the designated parking position and all engines are stopped[50]. The concept of the flight block time is a narrower concept than the concept of working time.

In clause 8, section 2 of the Annex to Directive 2000/79/EC, a limitation on maximum working time down to 2000 in a year has been introduced, of which the flight block-time has been limited to 900 hours. Additionally, the flying personnel in the civil aviation industry should be provided at least seven local days off work in each calendar month in the place of living (which may include any rest periods required by law) and at least 96 local days in each calendar year[51]. Taking into account that the calendar year includes 52 weeks, and an average working week includes 40 hours, totaling 2080 hours per year, it would be difficult in practice to exceed the established annual limit of 2000 working hours. Also, the annual leave entitlement contributes to a decrease of the number of working hours per year[52].

According to clause 3, section 1 of the Annex to Directive 2000/79/EC, flying personnel in the civil aviation industry are entitled to paid annual leave for at least four weeks.

The concept of working time is firmly linked to the concept of rest period. According to Art. 2 point 2 of Directive 2003/88/EC, the rest period is any period that is not working time. Member States must ensure each employer sets a minimum daily rest period of 11 uninterrupted hours[53], and introduces a weekly rest period of 24 uninterrupted hours. To this rest period, 11 hours of daily rest should be added. Where justified by objective and technical conditions, or conditions concerning work organization, a minimum rest period of 24 hours is allowed to be applied[54].

[48] See the verdict of Court of Justice of 1 December 2005 case Dellas and others, C-14/2004.
[49] W. Masewicz, Working time as a legal concept, Państwo i Prawo 1997, book 3, pp. 87, 88.
[50] Clause 2 section 3 of the Agreement annexed to Directive 2000/79/EC.
[51] Clause 9 of the agreement annexed to Directive 2000/79/EC.
[52] See M. Raczkowski, Institution of working time of flying personnel of civil aviation in passenger transport, op. cit., p. 243.
[53] Art. 3 of Directive 2003/88/EC.
[54] Art. 5 of Directive 2003/88/EC.

Directive 2003/88/EC does not introduce the obligation to provide a rest period in each week. According to article 16a, it is possible to introduce the reference period of 14 days for calculating weekly rest, as specified in national legislation.

In Article 17, the Regulation makes provisions for exceptions regarding minimum rest periods for employees executing particular types of work. Derogations from minimum rest periods may be adopted by means of laws, regulations and administrative provisions, or by way of agreements between social partners, provided that equivalent rest periods are provided to interested workers. In exceptional cases, where for objective reasons it is impossible to provide equivalent rest periods, workers concerned must be afforded appropriate protection. Derogations may be adopted in the case of:

- activities where the worker's place of work and his place of residence are distant from one another, including offshore work, or where the worker's different places of work are distant from one another;
- activities involving the need for continuity of service or production, particularly dock or airport workers.

Directive 2003/88/EC does not define the overtime work concept, leaving the matter fully to the discretion of internal legal systems. Overtime work is described in Article 6b of the Directive, which specifies that an average weekly working time, including overtime work, may not exceed 48 hours.

It is assumed that the concept of duty period used in the provisions of part Q of Annex III (EU-OPS) refers to working time in Regulation 2000/79. The concepts are supposed to remain not in conflict with one another. Therefore, it is not necessary to set out a yearly FDP limit. The minimum is defined by administrative provisions (part Q of Annex III), as linked to safety and relating to the fatigue of aircraft crew members. Provisions for working time are seen in the context of yearly working time limits. Regulation 2000/79, clause (8), point 1 sets out that the working time should be looked at by taking into consideration any future Community legislation regarding flight and duty time limitations and rest requirements, and in conjunction with national legislation on this subject.

In regulation 1899/2006, clause (10) specifies that the provisions on flight and duty time limitations and rest requirements, as set out in Part Q of Annex III, takes into account the limits and minimum standards already established in Directive 2000/79/EC. The limits set out in that Directive should always be respected for mobile workers in the civil aviation industry. The provisions of Part Q of Annex III and other provisions approved pursuant to this Regulation should in no circumstances be broader and thereby provide workers with less protection.

6. Polish regulations on the working times of flying staff[55]

In Poland, at the national level, the main legal act regulating the working times of flying staff is the law of aviation law, date to 3 July 2002[56], which is referred here as the Aviation Law.

Civil aviation includes all kinds of aviation except state aviation, i.e. state aircrafts, their crews and state airports used exclusively for departures and landings of state aircrafts[57].

[55] See also : M. B. Rycak, Systemy i rozkłady czasu pracy, Przegląd Ubezpieczeń Społecznych i Gospodarczych nr 9 (54), wrzesień 2001 r.; M. B. Rycak, Czas pracy kierowców, Praca i Zabezpieczenie Społeczne z 2002 r., nr 12; M. B. Rycak, Wymiar i rozkład czasu pracy, Wolters Kluwer, Warszawa 2008; M. B. Rycak, Czas pracy w nowych krajach członkowskich Unii Europejskiej. Aspekty ekonomiczne, prawne i społeczne, pod. red. H. Strzemińskiej, IPiSS, Warszawa 2008; M. B. Rycak, Planowanie i rozliczanie czasu pracy, Warszawa 2009; M. B. Rycak, Concepción de los contratos laborales flexibles en la Unión Europea, Derecho Laboral y Seguridad Social Nr 1/2013; M. B. Rycak, The Impact of Working Time Regulation on the Quality of Life of Employees [w:] H. Strzemińska (red.) Working Time Trends and Prospects in the New Economy, Warszawa 2014; J. Kaleta , M.B. Rycak, Elastyczny czas pracy. Najnowsze zmiany w przepisach, Warsaw 2013; A.Konert, New progress and challenges in the air law – air crash victims families protection, Warsaw 2014; A.Konert, Odpowiedzialność za szkodę na ziemi wyrządzoną ruchem statku powietrznego, Wolters Kluwer, Warsaw 2014

[56] i.e. Journal of Laws of 2013 No 1393.

[57] Art. 1 section 1-3 of Aviation Law.

Provisions of the Aviation Law regulate the working times of aircraft crew members in air transportation by aircrat, and aircraft crew members in air transportation by helicopter and in the helicopter emergency medical service, in an employment relationship. Air transport is a flight or a series of flights, in which passengers, goods, baggage or mail are transported, for remuneration or hire[58].

According to Art. 94 section 2 of the Aviation Law, a flight crew member is a person who holds a valid license or certification and is recorded in the state flight crew members registry or other adequate registry. Although, the provisions do not introduce the requirement of the employment relationship, *de lege lata* should be assumed so that the working time provision is applied exclusively to employees. This is demonstrated by the term "employer", which is reserved for the employment relationship, used in the legislation in Art. 103 b section 2 and 3. According to Art. 3 Law of 26 June 1974 of the Labor Code,[59] an employer is an organizational unit, or it may not have any legal personality and can refer to a person if they employ workers. In addition, the Aviation Law refers to Art. 103d for the application of the provisions in the Labor Code in matters concerning working times of aircraft crew members, which are not regulated in the provisions of articles 103-103c of the Law. Such unregulated cases in reference to aircraft crew members in air transportation by aircraft include overtime work and its settlement, night work compensation and work during holidays.

According to Art. 103 of the Law, the working time of aircraft crew members in air transportation by aircraft cannot exceed 8 hours per day and 40 hours per week on average in a determined settling period, not exceeding 3 months[60].

In reference to aircraft crew members in long-haul flights[61] rosters can be used, in which it is allowed to prolong the working time by up to 18 hours per day. In such rosters, the working time may not exceed 40 hours per week on average in a determined settling period, not exceeding 3 months. Work within the extended daily working time and average 40 hours per week in a determined settling period does not constitute overtime work.

Section 4 Art. 103 provides that the Minister of Transport is authorized to determine, in agreement with the minister responsible for work issues, the detailed settlement of working time of aircraft crew members in air transportation by aircraft, in accordance with the regulation. The Regulation will take account the intervals in the work and rest periods of the personnel, as well as conditions relating to the performance of activities. On that basis, the Minister of Infrastructure has issued, on 28 April 2014, a regulation providing detailed settlement conditions for the working time of aircraft crew members in air transportation by aircraft[62], which will be referred to from this point as the Regulation. The Regulation has replaced the existing Regulation of 13 December 2002 on the working times and rest periods of aircraft crew members and air traffic controllers[63].

The Regulation of 13 December 2012 set out detailed rules for the working times of flight crew members in air transportation, general aviation, services providing aviation, the Duty of the Emergency Medical Service and Medical Transport, in the operation of flights on helicopters, as well as the working times of cabin crew members and part of the working time of air traffic controllers.

The Regulation of 28 April 2014, due to the restricted delegation in the revised Art. 103 section 4 of the Aviation Law, has exclusively covered the working time regulations for flight crew members in air transportation. The provisions of this regulation define the maximum period of flight duty in the case of flights with a single pilot and

---

58 Art. 2 point 13 of Aviation Law.

59 I.e. Journal of Laws of 1998 No 21, pos. 94 with amendments

60 Before the provision regulated also the working time of flight controllers. It has been amended with provisions on the amendment of law of 30 June 2011, the Aviation Law and several other laws Journal of Laws of 2011 No 170, pos.1015).

61 According to Art. 2 point 12 of the Aviation Law a long-haul is a single flight of a distance requiring a minimum of 8 hours flying time.

62 Journal of Laws of 2014, section 663.

emergency medical flights. They complement the OPS 1 requirements laid down in part Q of Annex III to regulation 3922/91, according to art. 8 section 4 of Regulation 3922/91.

Also in the regulation of 28 April 2014, the times and rules for the provision of intervals in aviation operations have been defined[64], as well as rules for daily and weekly rest provisions and ordering and settling duties.

Some provisions of the Regulation are not coherent with those in the Aviation Law, as regarding working times. There is no doubt that the concept of flight duty time is not identical to the concept of working time, which is a wider concept and includes more periods than just the one of flight duty. In Annex No. 1 to the abovementioned Regulation, flight duty periods of a crew member were defined in a tabular form, depending on the moment of reporting for a flight and the number of sectors, which varies between 8 and 10 hours[65]. In the basic working time defined in Art. 103 of the Aviation Law, the daily maximum standard working time equals to 8 hours. The working time referred to in Art. 103 section 2 of the Aviation Law allows the working time to be extended up to 18 hours, which is permitted only in long-haul flights.

The provisions of the Regulation, in a different way than the provisions of the Labor Code, govern the duty of crew members. According to § 2 point 5 of the Regulation, a duty means the readiness referred to in point 1.14 OPS 1.1095 in Part Q of Annex III to the Regulation 3922/91. This is a defined time period, during which the operator requires the crew member to be ready to accept a flight assignment, to position for the purpose of transfer to another duty position, or to take upon other duties without interruption of the rest period.

A duty can be undertaken in the airport, or in another place designated by the employer, or can be performed on-call[66]. The limits of the duty period are subject to the time of notice[67] and equal to 12 or 18 hours[68].

Standby in the airport is included in full in the total number of duty hours (OPS 1.1125 point 1.2). When a crew member takes upon flight duty immediately from the standby in the airport, 50% of the standby time counts as flight duty period but not as a sector[69].

The period of a duty performed at another place designated by the employer outside the airport or the on-call time count as working time on a 25% duty period basis. If flight duties are taken upon at another place designated by the employer, 25% of the on-call time counts as the flight duty period[70].

---

[64] According to § 2 point 10 of the regulation the flight duty period means the flight duty period referred to in point 1.6 OPS 1.1095 in Part Q of Annex III to Regulation 3922/91, which means it is the period when a person works onboard aircraft as aircraft crew member. The FDP starts at the moment when the operator requires the crew member to report for a flight or a series of flights; this period ends at the end of the last flight where he/she is an operating crew member.

[65]

Moment of reporting for a flight (local time of the airport of departure)	Maximum numer of sectors and the flight duty hours			
	1-4 sectors	5 sectors	6 sectors	7 sectors and more
06^{00}-06^{59}	9 hours	8 1/4 hours	8 hours	8 hours
07^{00}-13^{59}	10 hours	9 1/4 hours	8 1/4 hours	8 hours
14^{00}-17^{59}	9 hours	8 1/4 hours	8 hours	8 hours
18^{00}-21^{59}	8 1/2 hours	8 hours	8 hours	8 hours
22^{00}-05^{59}	8 hours	8 hours	8 hours	8 hours

[66] § 14 section1 of the regulation.

[67] A period, defined by the employer, from the moment of notifying the crew member who is on standby about the need to report for duty until the moment of reporting for duty (§ 2 point 2 of the regulation).

[68] Annex 2 to the regulation.

[69] § 15 section 1 of the regulation.

[70] § 16 sections 1 and 2 of the regulation.

The regulation of rules for counting on-call periods is an example of the fulfillment of duties set out in Annex III, Part Q of the Regulation 3922/91.

7. Summary

The analysis of the legal regulations for the working times of flying staff demonstrates the casuistry of provisions and their strict correlation with the specific character and practice of the activities of air carriers. However, significant difficulties in application and interpretation of these regulations are caused not by the size of the regulations, but by the fact that the provisions belong to different fields of law. It may seem that the rules of a "social" character (EU directives, Labor Code, Art. 103 of the Aviation Law) can be separated from those of an "administrative" character (EU regulations, implementing regulation). The position to separate working time provisions as social rules of labor law from provisions concerning duty period as rules related to flight safety, has been also expressed in the literature[71].

On the other hand, however, they concern the same issue, which is the question of the flying staff remaining at the employer's disposal. For example, if one refers to the basic concepts of "working time" and "duty time", they differ in the way of maximum quantity calculation. In the working time regulations, daily standards are as fixed as the settling period. The average weekly standards are defined as the average and are in balance within the defined settling period. Meanwhile, in the duty period regulations, there is no fixed determination of a week or month. A week (7 days) or a month (28 days) remains flexible (it shifts and includes any 7 or 28 subsequent days) and within these periods, limits of 60 and 190 hours apply. The way "operating" provisions set out limits for the allowed duty period is specific to provisions aimed at ensuring safety. Thus, they achieve a similar aim to the working time regulations in the Labor Code, by restricting the allowed number of working hours. However, since these provisions are applicable for the purpose of air safety, they limit the allowed number of working hours in a particular way (by using the concept of duty period), while imposing a balanced distribution of working times.

[71] M. Raczkowski, *op. cit.*

Journal of International Trade, Logistics and Law, Vol. 1, Num. 2, 2015, 67-74

RECOMMENDATIONS FOR FOREIGN TRADE COMPANIES ESTABLISHED IN TURKEY ON MAKING CHARTER PARTY MARINE BILLS OF LADING IN ACCORDANCE WITH LETTER OF CREDIT-L/C METHOD

Ömer Özkan, Ph.D.

Istanbul Commerce University, Turkey

Oğuzhan Özçelik, (PhD Candidate)

Kırklareli University, Turkey

Abstract:

This study discusses how charter party marine bills of lading should be made in accordance with the letter of credit-L/C method. In an L/C, in order that the obligation of payment of the applicant (issuing) bank and of the confirming bank, if any, against the beneficiary can continue, exporting companies are required to prepare documents in accordance with the UCP 600, ISBP 745 and terms of documentary letter of credit and present them properly (complying presentation).

In order to prepare appropriate documents, it is essential for the exporting companies to act according to the three important criteria (letter of credit requirements, UCP 600 and ISPB 745) prevailing in this regard. Since competence of complying presentation requires a certain level of expertise, the exporting companies established in Turkey have experienced difficulties in terms of how to prepare documents and could not get benefit from payment obligation undertaking of the applicant bank and of the confirming bank, if any, due to the presentation of discrepant documents, getting export prices late, and payment of extra fees/commissions. Due to trade property, importing company's demands and the conditions required by the legislation of the country where the exporting company is established, exporting companies are required to prepare many types of documents.

In this study, the common mistakes that exporting companies in Turkey made in preparation of the charter party and the other types of B/Ls are analyzed, the basic and critical features of the charter party B/Ls, in particular, are considered and different and common parts compared to other bill of ladings are evaluated and how they can be organized properly according to letter of credit payment is shown.

Keywords:

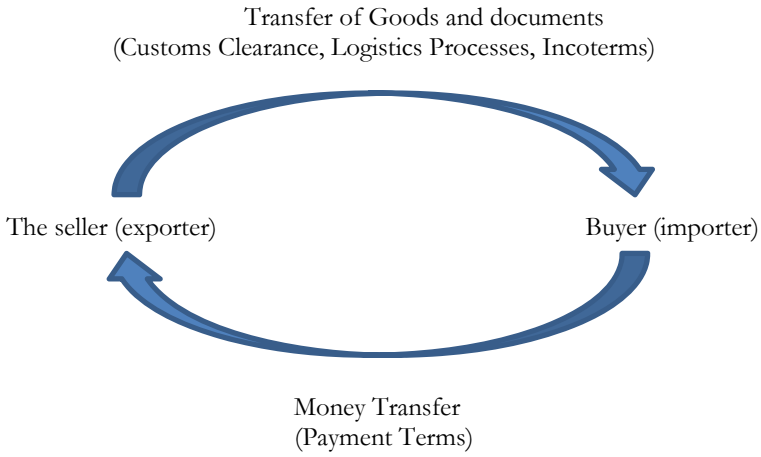
Letters of credit, Charter Party, Bill of Lading (B/L), Discrepancy, Complying presentation

1. Introduction

Foreign Trade has been carried out when one of buyer or seller parties have been in a different country. While the goods [1] and documents [2] are transferred from the vendor to the buyer, money transfer is expected to take place from buyer to vendor. In respect of the transfer of the goods, it should be decided how the type of delivery of the goods, subject to trade (Incoterms), and accordingly its logistics and customs clearance would be. The transfer of document and money must be treated differently from domestic trade in just the same way as the transfer of goods. An agreement should be reached between the parties detailing many operational factors such as the method of payment and the determination of the diversity, quality and quantity of documents. How a document will be transferred from the vendor to the buyer changes according to the method of payment. For example, the transfer of document regarding the methods of payment against documents (documentary collection) and L/C[3] will be performed through the banks whereas remaining payment methods are performed through the buying and selling companies. The below Flow chart summarizes and illustrates foreign trade operations.

[1] In this study, goods and objects were used in the same meaning.
[2] Document is the plural of the word "documentary " and used in the meaning of documents used in foreign trade.
[3] Letter of credit (L/C) and documentary credit (D/C) were used in the same meaning.

Foreign Trade Flow Chart:



Exporting companies are obliged to fulfil two basic necessities as the preparation of goods and documents in foreign trade flow. Although invoice and export customs declaration are sufficient in order to export goods in Turkey, any foreign trade operation performed with only these two documents has not been in existence. The main reason for this is that suppliers have requested exporters to prepare some extra trade-related documents. There are many reasons for this claim in question. Some of these are:

- The documents related to the goods to be imported, and required by the legislation of the country where importer firms are located (CE certificate, halal certificate, certificate of origin, etc.)
- The documents prepared for the purposes of providing exemption from import customs duties in the country where the importing will be performed (A.TR etc.)
- Fully importer company's requests originated or flow chart originated documents (loading notice, shipment advice, inspection certificate, packing list etc.)
- The mode of transport related documents (Marine Bill of lading[4], CMR[5], airway bill of lading, etc.) or documents related to the foreign trade flow chart (invoice, customs declaration, etc.)

Exporting companies have prepared some of the documents by themselves, that partly mentioned above and they have some of them prepared to the institutions and organizations that they purchased the service, due to the nature of the work. For example, while exporting, companies prepare some documents on their own, and these documents include invoice, packing list, shipment notice etcetera. They also have carrier companies executing transport service, and these companies prepare the transport documents such as B/L, CMR, Air Way B/L. Similarly, superintendence report has been prepared by the enterprise that performs this task. Whether exporting companies prepare some of the necessary documents themselves or they have an enterprise from which they purchased any service, and the latter prepares the other part of documents, undoubtedly, exporting companies are responsible for the correct preparation of all documents ultimately, relevant to foreign trade. In case the method of payment is a letter of credit-L/C, the preparation of documents in compliance with both conditions of L/C, UCP 600[6] and ISBP 745[7] issued by ICC, that is to say, preparation without discrepancy (complying presentation), is extremely important so that the obligation of payment of the applicant bank and of the confirming bank, if any, against the beneficiary (exporting company) could continue.

[4] The English equivalent of marine bill of lading is bill of lading so, B/L abbreviation will be used in the rest of the study
[5] It is the transport document prepared for international highway transportation of goods.
[6] Uniform Customs and Practice for Documentary Credits, UCP 600, (ICC Publication No. 600 are rules that apply to any letter of credit-L/C)
[7] International Standard Banking Practice – ISBP- (ICC Publication No. 745 is a comprehensive guide to handling and examining trade documents under documentary credits)

As noted above, exporting companies in Turkey have had issues regarding the proper presentation of documents, and have presented discrepant documents approximately in the ratio of 70 percent (Gul, 2010:50). According to the records of a public bank, exporting companies presented discrepant documents in approximately 72 out of every 100 operations between the years of 2006 and 2015. One of the main reasons why this study is needed arose at this point. In spite of the fact that exporting companies are required to prepare many documents, this study emphasizes how charter party B/Ls should be made in compliance with letter of credit-L/C method; common and different sides of the document in question with marine bills of lading and the issue was tried to be explained with examples. With the intent of determining the mistakes that exporting companies have made during the presentation of the document(s), a survey was conducted to the letter of credit services of 10 commercial bank stationaries in Turkey, at which letter of credit transactions have been performed. In this way, the issues on which, exporting companies have mostly experienced contradiction in terms were identified, and the subject-related detailed explanations were given at the further stages of the study.

The issues such as the contradictions in terms (incomprehensibility) that were experienced by beneficiary companies in Turkey in respect to preparation of other documents; mistakes they often make, and how other documents should be prepared so as to be presented properly were considered as the topic of other studies.

2. Parties to a Letter of Credit-L/C and the Review of Documents

2.1. Parties to a letter of credit –L/C

Although letter of credit –L/C is a way of payment preferred in international trade, any legal status blocking its use on domestic trade in Turkey hasn't been in existence. There isn't any legal status blocking its use in domestic trade in Turkey. Even although rare, it has sometimes been preferred in domestic trades[8]. Before buyer and seller deciding letter of credit–L/C, they are expected to constitute seller and buyer agreements between themselves especially in large amount trades. Not allowing to constitute seller and buyer agreement as supplementary or integral part in the text of the letter of credit (letter of credit opening) can't change the truth of that the texts of letter of credit have been constituted of the agreements in question, since the texts of letter of credit include a lot of elements such as, unit price, type of delivery, latest date of shipment, the documents needed to be prepared.

Letter of credit –L/C method is applied essentially in case exporting companies feel doubt against importer companies on making payment or as required by the laws of the country[9]. In the payment method in question, after accrediting while Importer Company is connected irrevocably to letter of credits until the exportation date of letter of credits according to article 3 of UCP 600[10], exporting company is free whether to use or not the letter of credit accredited in favour of itself.

Since the party giving instructions to the bank to issue a documentary credit is an importer company, Importer Company is called "applicant". The concept of applicant is used in banking technique and international trade in particular for the party giving instructions, and varies depending on the type of payment. For example, for the inception of operations in documents against payment, the party giving instruction of collection[11] against documents is the exporter, the applicant party in this type of payment is the exporter, not importer.

Since the issue of a documentary credit constitutes a matter in favour of exporter, exporting company is called "beneficiary". Beneficiary can be defined as obliged company for proper presentation (complying presentation) so that obligation of payment of applicant bank and if any, of confirming bank against beneficiary company can continue in letter of credit-L/C method and also for fulfilment of presentation (honour), in other words, fulfilment of payment.

---

[8] It has been derived from data of operating public bank in Turkey

[9] Algeria has obliged only letter of credit-L/C method regarding foreign trade

[10] UCP 600 Art. 3: "… if a letter of credit is not defined as irrevocable, the letter of credit in question is irrevocable…"

[11] Uniform Rules for Collections ICC issue no.522 Art.3/a/i.

Applicant/issuing bank is the bank preparing the text of credit opening with the instruction of supervisor and transmitting it to any of advising bank, confirming bank or nominated bank through SWIFT[12] system. It is also the bank which conducts the examination of documents[13]. As per article 7 of UCP 600, provided that the stipulated documents stated in the L/C are presented to the issuing bank, the issuing bank must honour the presentation.

As well as confirming bank might be advising bank, that is to say, beneficiary's bank, it may also be another bank established in a third country. It is mostly seen in practice that confirming bank is exporter's bank. The main reason for this is that a bank with which the beneficiary was in business relationship before, is under the obligation to pay, and because of that it places trust to beneficiary. Just as the confirming bank, applicant bank is obliged to honour complying presentation as well[14]. However, majority of commercial banks that act as confirming bank in Turkey, do not pay beneficiary unless complying presentation was credited by accounts of confirming bank through the applicant banks[15]. In order that a confirming bank could add a confirmation to the letter of credit, content of text of letter of credit should be approved by the confirming bank and credit line[16] should be existed between the applicant bank and the confirming bank.

Article 12 of UCP 600 clarifies the nominated bank in the following way: "as long as the nominated bank is not the confirming bank, it is not obliged to honour complying presentation, but it enters into obligation provided it notifies to beneficiary that it will honour or purchase the document (negotiation)". In other words, the most important point that separates the nominated bank from the confirming bank or the applicant bank in regard to obligation to pay; the nominated bank should specify first its acceptance of this role to the beneficiary in an explicit way, and only by then it undertakes to honour and negotiate under the L/C terms and upon the timely presentation of credit conform documents. It has been observed that the nominated bank and negotiation bank are the same banks for its overall Turkey's application[17]. As well as the concept of negotiation bank hasn't been included in UCP 600, negotiation has been defined in article 2 of UCP 600. According to article 2 of UCP 600, it was declared that "negotiation means that purchasing policies and/or documents under complying presentation (taken over by another bank from the nominated bank of policies) on business day of the nominated bank needed to be paid or previously paying advance to beneficiary by the nominated bank or approving to be paid". The definition of negotiation made by UCP 600 implies that actually nominated bank and negotiation bank can be used in the same meaning.

The definition of "account bank" can be made for reimbursing bank. Opening account, one another of all banks issuing the letter of credit one another, located in different continents and geographies might not be possible or practical. Depending on the request of the bank that accredits while payment for this reason, it is expected to use an account correspondent, and this bank that is an account correspondent is called as reimbursing bank (Kütükçü, 2013:559). While reimbursing bank has not any obligation on complying honour, provided it makes a payment commitment under the scope of article 9 of URR 725[18], and sends a SWIFT message with this content, in this case, it becomes obliged for honouring the payment request(s)/claim(s).

2.2. Document Examination

The document presented by beneficiary that needed for complying presentation in letter of credit transactions should not be contradicted with the conditions included in the text of credit opening, UCP 600 and ISBP 745. Ex-officio review of the document presented and determination of whether it is discrepant or not are performed by applicant bank or if any, confirming bank, and, if any, the nominated bank informing beneficiary obviously on entering into payment obligation. Apart from that, the beneficiary's bank, whose task is only to advise (advising bank), examines the document depending on the instruction of beneficiary.

[12] Society For Worldwide Interbank Financial Communication is a communication network that has been used only by banks and financial institutions throughout the world.
[13] UCP 600 Article 7.
[14] UCP 600 Article 8.
[15] It was obtained from the results of the survey that was conducted to the letter of credit services of 10 commercial banks stationary in Turkey, having operations of letter of credit.
[16] It is some kind of special corresponding bank's agreement or relationship.
[17] It was obtained from the results of the survey that was conducted to the letter of credit services of 10 commercial banks stationary in Turkey, having operations of letter of credit
[18] Uniform rules of International Chamber of Commerce for reimbursings, regarding letters of credit (ICC issue no. 725).

While the rules regarding how document will be reviewed have been explained in UCP 600, the detailed explanations on the issues causing hesitations frequently have been given in ISBP 745. ISBP 745 is much more specific, and more satisfactory in many respects than ISBP 681, which is its previous version. Despite the fact that the article 14 of UCP 600 has included the general expressions on how documents need to be made under the heading of "Standard for Review of Documents"; both UCP 600 and ISBP 745 include detailed applicant provisions on how the documents such as, invoice, insurance policy, transport documents, etc., will be constituted. For example, while on one hand, the article 22 of UCP 600 includes the basic provisions on which parties and how will sign charter party B/L, and how the documents will be prepared, on the other hand, ISBP 745 refers to both the article 22 of UCP 600 and also includes the detailed explanations to overcome the problems encountered in practice, in the G articles related to charter party B/L. In addition, for a proper preparation of charter party B/L, only article G of ISPB 681 and article 22 of UCP 600 would not be sufficient, also the other articles of both issues prepared mutually in respect to preparations of document will be needed to be taken into account (for example, UCP 600/article 14). In the light of the above mentioned explanations, a review in respect of compliance of charter party B/L included in the documents presented while accrediting will be fulfilled in respect to article 22 of UCP 600 primarily, all G articles of ISBP 745 and specific to other applicant articles prepared mutually on preparation of document and letter of credit.

3. Preparation Of Complying Charter Party B/Ls Through Examples

3.1. General Properties of Charter Party Bill of Lading

The charter agreements whether voyage charter or charter party, drawn up between the person chartering ship (charterer) and owner of ship (owner) handles affrighting in sea trade (Ülgener, 2010:29). Bill of lading is a valuable paper representing directly item and prepared as written by captain or captain's agency with qualification of carrier or representative of carrier (Ülgener, 2010:497). As well as marine bill of ladings have been made under various names such as, liner B/L, port to port B/L, multimodal B/L, marine B/L, ocean B/L; a bill of lading made in scope of a charter agreement is called as charter party B/L.

As well as charter party B/Ls have a special importance in letter of credit-L/C method, their approvement while accrediting is only possible by permission of text of credit opening, in other words, applicant bank. According to Özalp's opinion, the main reason for this is that charter party B/Ls have been yielded from an agreement constituted from the articles decided between charterer and owner and this agreement in question has priority in case of dispute of parties. For example, in the case of non-payment of freight ship, owner can seize the property. Due to the fact that importer, applicant bank, if any, bank in charge and confirming bank are unaware of the details of this agreement, an article of the agreement may work against buyer. Kütükçü summarized this situation as follows: as well as the terms of charter party agreement constituted between owner and charterer might be complex, its probability of including terms opposed to buyer or seller increases risks. The articles of the agreement in question might include terms opposed to all parties of letter of credit comprising banks on any issue including transfer of property of good. This case causes banks not to accept charter party B/Ls unless they take part in terms of the letter of credit.

3.2. Comparison of Charter Party Bill of Lading and Other Marine Bills of Lading in the Framework of UCP 600 and ISBP 745

It is an important issue for complying presentation to determine if a bill of lading is charter party bill of lading or marine bill of lading. Because charter party B/Ls structurally differ from other marine bills of credit. That's why it was mentioned in different articles of UCP 600 and ISBP that how charter party B/Ls and other marine bills of lading would be prepared properly. As mentioned before, how charter party B/Ls should be prepared, has explained in the articles G of UCP 600/22 and ISBP/745.

First of all, as in the case of other marine bills of lading, the rule of no matter how it is called is valid for charter party B/Ls[19].Even if the name of the document presented while accrediting is Port to Port B/L, Multimodal B/L, Marine B/L, Ocean B/L etc.; taking part of the expressions such as "to be used with charter parties" on bill of lading is sufficient for the document to be evaluated as charter party B/L.

[19] UCP 600 Art. 22/a and ISBP 745 Art G2 ve G3.

Herein another significant distinguishing point is that the names of the bills of lading referred to as Gencon B/L or Tanker B/L etc. is not sufficient to evaluate the document in scope of charter party B/L. This issue has been detailed in article G/3 of ISBP 745 as follows: "No matter how referred to, unless a transport document including a code or form name generally associated with charter party bills of lading, includes another symptom/registration or reference associated with for example, "Congenbill" or "Tanker B/L" charter party; it is not a charter party oriented symptom/registration or reference just due to this reason". In summary, in order that bill of lading could be evaluated in the scope of charter party B/L; it should have number references such as, "freight payable as per charter party" or "charter party contact no:123…" or it should include such expressions like "to be used with charter parties".

One of the significant differences of charter party B/Ls from other bills of lading is that these bills of lading in question has been signed by owner or charterer and their agents. That is to say, regarding the bill of lading including a record or symptom indicating that it is liable to a charter party according to article 22 of UCP 600, no matter under which name the bill of lading in question is made; it can be signed by captain or an agent, of which name is expressed, on behalf of captain; owner or an agent, of which name is expressed, on behalf of owner; charterer or an agent, of which name is expressed, on behalf of charterer. For example, provided the document has been prepared by the agent of owner, X Transportation Ltd, it should add annotation just below the signature in the document, as "signed by X Transportation as agent for the owner" etc. indicating who and which title signed the document. Whereas all of other marine bills of lading could be signed only by captain or an agent, of which name is expressed, on behalf of captain; carrier or an agent, of which name is expressed, on behalf of carrier.

Charter party B/Ls can be grouped basically as received bill of lading and shipped bill of lading just like other marine bills of lading. Received bills of lading are the ones indicating generally with printed expressions that goods were received to load in cases of that the ship to be loaded has not landed to port or not convenient for loading and the ones, on which necessarily board notation should be written after loading. Shipped bills of lading are the ones indicating generally with printed expressions that goods have been loaded (shipped on board) and not require any additional loading record. Thus, all bills of lading should have a content proving that goods have been loaded on ship.

Differing from other marine bills of lading, charter party B/Ls aren't required to include carrier's company information according to article 22 of UCP 600 and article G of ISBP 745. One of the main reasons is that in the event of damage to load during the journey when marine bills of lading other than charter party B/L are matters, since Carrier Company's name is lack of on bill of lading, it is impossible to detect the party responsible for damage. Whereas, regarding charter party B/Ls, the content of charter party agreement constituted between owner and charterer allows detection and discrimination of responsible for damages occurred during journey, loading and unloading.

The most basic and critical aspects in the preparation of Charter Party B/Ls are given above, and some common mistakes which are made in the process of preparing both charter part B/Ls and other types of B/Ls are presented in the table below in the light of the data gathered from surveys which are conducted with 10 commercial banks that have resident and credit transactions in Turkey.

Table: The mistakes that have been frequently made by companies established in Turkey in preparation of Charter Party B/L and other types of B/Ls, the problems originated from these mistakes and suggestions for correction.

Letter of Credit's Requirement	Mistake Made On Charter Party B/L Presented	Trouble It Causes and Correction Suggestion
46 A: + Full set[20] charter party bill of lading consigned to xxx	Bill of lading's Consignee Section: Although requirement of bill of lading obliges B/L to be prepared "to the name" with statement of "consigned to", it was prepared "to the order of xxx". (This is a type of mistake which concerns the charter party B/Ls and other types of B/Ls as well.)	While it is possible to endorse the back of the document when prepared as payable to order, instead, endorsing the back of the document prepared as to the name is not suitable. It must be exactly the same with letter of credit's requirement.
46 A: + Full set charter party bill of lading consigned to order and blank endorsed	Bill of lading's Consignee Section Although it was written to the order, back of it wasn't endorsed. (This is a type of mistake which concerns the charter party B/Ls and other types of B/Ls as well.)	Exporter being in good's contractor status should prove that it transferred its right on good by blank endorsed. If ıt wasn't endorsed, importer company would suffer problems in terms of proof of ownership when clearing goods from customs.
46 A: +Full set charter party bill of lading……freight payable as per charter party contract.	Because of that the type of delivery is exworks or group including F, phrase of "freight collect" was written on document, or due to type of delivery is group including C or D, phrase of "freight prepaid" was written on document. (This type of mistake is particularly associated with charter party B/Ls.).	Whether freight has been paid or not, specifying that on the document will contradict with letter of credit's requirement. Without specifying any phrase regarding freight, the phrase of "freight payable as per charter party contract" should be included just as in letter of credit's requirement
46 A: + Full set charter party bill of lading… + Full set insurance document….	The date of issuing of insurance policy was later than the date of shipping of goods included in B/L. (This is a type of mistake which concerns the charter party B/Ls and other types of B/Ls as well.)	Due to the fact that insurance policy requires to secure the risks that could happen during journey of goods, date of insurance policy should be not later than shipping of goods included in B/L (it means insurance policy will be functional after shipment of goods)

Conclusion

Bills of lading are in the transport documents that have been prepared by the organizations providing services to exporting companies. The carrier companies that took over transportation in Turkey make bills of lading according to the flow of work, as mostly unaware of the rules of CP 600 and ISBP 745.This situation leads to presentation of reserved document and accordingly, late received or missing export proceeds. In addition, in the cases, the bills of lading made while accrediting, are required to be made again, it was seen that most company established in Turkey considered that as additional service and they requested extra fees from exporters for making new document. In order that the bills of lading in question could be prepared properly, exporting companies are required to prepare the instructions constituted with in the related articles of letter of credit's requirement, UCP 600 and ISBP 745, intended for carrier companies.

In this study, it was mentioned on how beneficiary should prepare charter party B/L in scope of complying presentation and mistakes frequently made in specific to Turkey. The following issues has been considered to be subjects of another studies; how other documents are required to be prepared according to the method of letter of credit-L/C and their critical properties; the risks that exporting companies confronts due to presentation of reserved document; reserve costs that they have to suffer; additional costs such as, swift and the documents review fees, the amount of interest losses due to late received export proceeds.

[20] The concept of full set means comple set and indicates that all originals of document should be presented. Full Set does not include the copies of a document.

References

Collected DOCDEX Decisions 1997-2003 (2004), ICC Product No. 665E
Collected DOCDEX Decisions 2004-2008 (2008), ICC Product No. 696E
Collected DOCDEX Decisions 2009-2012 (2012), ICC Product No. 739E
Collyer, G. (2011). The Guide to Documentary Credits. Kent: Institute of Financial Services
Comentary on UCP 600 (2007), ICC Product No. 680E
International Standard Banking Practice (ICC issue no.745)
ICC Banking Commissions Opinions 2009-2011 (2012), ICC Product No. 732E
Kütükçü, Y. (2013). "UCP 600 ve ISBP 745'e Göre Akreditif Metni ve Belgeler", Ankara: International Chamber of Commerce
Özalp, A. (2012). "Akreditif ve Standby L/C Rezerv Konuları", İstanbul: Turkmen Bookstore
Reisoğlu, S. (2009). "Türk Hukukunda ve Bankacılık Uygulamasında Akreditif". Ankara
Rodrigo, T. (2011). UCP 500 To 600: A Forward Movement: Elaw Journal: Murdoch University Electronic Journal of Law, Volume 18, Number 2.
Uniform Rules For Collections (ICC issue no. 522)
Uniform Customs and Practice for Documentary Credits, UCP 600, (ICC Publication No. 600)
Uniform Rules for Bank-to-Bank Reimbursements Under Documentary Credits (ICC issue no. 725)
Ülgener, M.F. (2010). Çarter Sözleşmeleri. İstanbul: Der Issues

Journal of International Trade, Logistics and Law, Vol. 1, Num. 2, 2015, 75-84

ANGEL INVESTMENT AND KOSOVO'S EARLY-STAGE MARKET: A PROMISING OPPORTUNITY?

***Medina Braha*,** (PhD Candidate)

University of Prishtina, Kosovo Republic

Abstract

The purpose of this paper is to analyze whether Angel Investment (AI) may serve as a suitable tool for the early-stage market of Kosovo. The activity of the Business Angel (BA) has experienced significant development lately, and moreover, supplementary attention by policymakers all over Europe and beyond. As a result, the BA community in Europe has published the Start-up Investor Manifesto in May 2014 aiming to adopt policies and actions towards the rise of entrepreneurship and innovation through the creation of 1.5 million new jobs in Europe by 2017. In addition, the Manifesto foresees enlargement of cross-border activity of BAs, including the emerging markets lying outside EU borders. Based on its increasing capacity and attention paid to, and on the fact that over 98% of registered Kosovar businesses are micro enterprises, AI may appear an appropriate instrument in advancing country's early-stage market. Therefore, this paper intends to answer this interrogation by simultaneously studying the scientific arguments as well as best practices regarding AI both in developed and emerging markets. Accordingly it aims to provide a model on how the AI market could be developed in Kosovo.

Key Words:

Business Angel Investment, Early-Stage Market, Entrepreneurship, Funding

1. Introduction

This paper investigates how Angel Investing (AI) could potentially benefit the early-stage market of Kosovo. The analysis is made based on four sources of knowledge with regard to the activity of the Business Angel (BA), namely based on review of scientific works, study of up-to-date BA best practices (primarily from BAs operating in USA and EU), other review of other researches made from organizations such as EBAN, OECD and the World Bank, and the author's own knowledge built from personal research as well as direct observation of and communication with BAs during the two-year period that she has been part of EBAN. As a result, this study considers the opportunity to identify and propose a model for enhancing BA activity in Kosovo.

The first part of this work provides a brief introduction on what AI is and shortly describes how BAs function and get organized. Section two talks about the AI market and explains difficulties associated with the visibility of this market in its entirety. The role of AI investing, the early-stage market of Kosovo, and the importance of the former for the latter are discussed in the third section of this paper. Finally, the last part consists of conclusive remarks and recommendations on how Kosovo could develop and potentially benefit from its AI market.

2. Angel Investing

Angel investing is an activity which has been performed for decades, and perhaps even centuries. Despite the fact it started to be conducted long time ago, primarily in USA and Europe, AI is a very young and unexplored research field. BAs are typically people with high net worth and significant business experience, who invest their individual funds as well as their business and managerial experiences in early-stage enterprises (Scheela et al., 2012). They tend to generally focus on those looked-for investments which are too large to be ensured by family or friends and too little to be enough attractive for Venture Capital providers or any other formal financing institution. "A business angel is an individual investor (qualified as defined by some national regulations) that invests directly (or through their personal holding) their own money predominantly in seed or start-up companies with no family relationships. Business angels make their own (final) investment decisions and are financially independent." (EBAN Online Glossary, 2016).

BAs take high-risk investment and require fast-growing enterprises and, as other investors, their investments too are organized in portfolios. Nevertheless, their main characteristic is that they invest much more than their funds. Once having selected a deal, a BA provides mentorship to the entrepreneur based on the former's business experiences and successes. Thus, know-how is provided as well. In addition, the entrepreneur gets introduced with BA's network which is, generally, both of high volume and quality. Therefore, for a new entrepreneur this social capital often appears to be more valuable than cash itself (OECD, 2011). BAs are also known to intensively share knowledge among each-other in order to enhance their decision-making quality, and hence, select more promising entrepreneurs to invest in their ideas as well as mentor more effectively the selected enterprises (Smith et al., 2010). In other words, BAs seem rather having a sharing approach.

Besides investing individually, group investing among BAs has gained increased popularity lately. However, according to Mason and Harrison (2013) scholars seem to ignore this alteration trend of how BAs get organized. The structure of such groups can start from an informal cluster (containing just a few privately assembled BAs), up to a formally structured network, known as Business Angels Network (BAN). BANs are an excellent form of synergy in the AI market, since they assemble funds, knowledge, skills, experiences and networks as well as reduce their members' investment risk. Moreover, BANs are more easily accessible for entrepreneurs and their power increases compared to individual BA with regard to both greater investment efficiency and economical and political influence

Although such integration into BA groups has resulted in drop of investments up to £50,000 (crowdfunding is expected to fill this gap anyway), they keep on assembling additional capital (Mason and Harrison, 2013). An increasing in popularity joint-investing method used more intensively by BAs recently is the co-investment fund. As an investment mechanism a co-investment fund is mainly a product of a public-private partnership between BAs and public money managers, i.e. State/Government, with the intention of jointly funding early stage ventures (EBAN, 2014a; 2015a). Especially governments of developed economies are paying more and more attention to this form of investment and are deciding to co-invest with BAs since such investment aims to increase the funds available to high-potential entrepreneurial ideas.

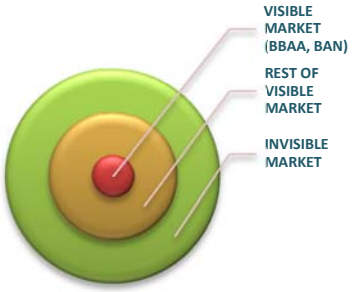
3. Angel Investment Market

Lack of data is one of the main challenges experienced when conducting research in the field of AI for two main reasons. Firstly, BAs have traditionally kept confidential their investment activity. They are individual investors who usually deal personally with their angel activity, from finding potential deals and through the whole process until the exit stage. A second reason of the data absence is the non-standardization of definitions. Angel investment, business angel, investor, informal investor all are often used interchangeably, complicating data analyzing between different studies (OECD, 2011).

Estimations indicate there are around 75000 BAs in Europe (for comparison it is estimated that there are around 250000 BAs in U.S.) who invest about €4 billion in total a year (OECD, 2011). Regarding the number of BANs, EBAN (2014d) reported an average increase of 17% over the past 10 years to 431 BANs in Europe in 2013, with estimated investments – by the approximately 28000 BAN members – of €5554 million. Most of the BA activity within the EU is concentrated in UK, France, Germany, and The Netherlands (EBAN, 2014a: 2015a). Overall, the BA activity is continuing to experience expansion in the traditional markets as well as evolving trends in emerging ones.

According to Harrison and Mason (2010), the invisible part of AI market is by far the major part of it. To what extent the market is more or less visible is in itself unknown and differs per country. As a consequence, this raises the need for more consistent scientific research in AI. However, attempts for progress in this regard are notable, accompanied by appearance of real data research compared to research based solely on market surveys. Finally, an intensive use of other research reports such as those produced by EBAN, OECD, and The World Bank is of great value.

Figure 1. Visibility of the Angel Market



Source: Harrison and Mason (2010)

Table 1 illustrates the visible and estimated market of BAs for USA, Europe, UK, and Canada as well as their respective VC market. In line with Harrison and Mason's (2010) arguments, data presented in this table illustrates the enormousness of estimated AI invisible market. According to this data, the largest visible AI market, that of UK, is merely 12% whereas all other markets score less than 10% in this estimation. Such magnitude of discrepancy may have numerous implications with respect to unused potential of AI market both in terms of research possibilities as well as share of practical knowledge and successes. In addition, there is always a risk of overseeing many important issues when carrying out such estimations. The present techniques of estimating the whole market size fluctuate immensely and are "more art than science" (OECD, 2011).

Table 1. Angel Investment and Venture Capital Markets

	Visible AI market as share of total market in 2009 (USD million)	Estimated AI market in 2009 (USD million)	Total VC* market in 2009 (USD million)
U.S.	469 (3%)	17700	18 275
Europe	383 (7%)	5557	5 309
UK	74 (12%)	624	1087
Canada	34 (9%)	388	393

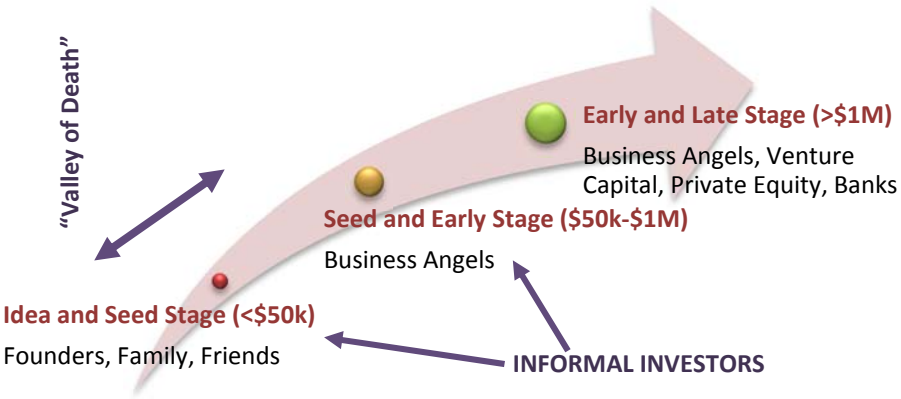
*Includes all stages *(seed, start-up, early, expansion*, and *later*) of VC investments.
Source: OECD (2011). Financing High Growth Firms: The Role of Angel Investors

4. Angel Investing's Potential for Kosovo's Early-stage Market

Role of Angel Investing

The crucial importance of BAs for an ecosystem lies in that they narrow the capital gap between formal investment (bank, VC etc.) and informal investment (savings, family and friends etc.), especially when taking into account that this gap was widened during the latest financial crisis. The World Bank (2013) defines this gap in funding between what family and friends are able to provide and what VCs and private equity firms are willing to invest, to be between $50000 and $1 million. This gap is also known as the Valley of Death in the sense that many businesses cease to exists exactly due to lack of funds falling in this range. Similarly, OECD (2011) classifies BAs in the group of informal investors together with founders, family and friends, whereas Venture Capital Funds are regarded as formal investors.

Figure 2. Financing Gap



Source: Adapted from OECD (2011) Financing High Growth Firms: The Role of Angel Investors and The World Bank (2013). Creating Your Own Angel Investor Group: A Guide for Emerging and Frontier Markets.

In addition to softening the Valley of Death, BAs invest in higher-risk projects and wider range of innovations compared to VCs (OECD, 2011; The World Bank, 2013). Furthermore, BAs appear to be less vulnerable to business cycles and the total AI market in USA and Europe is estimated to be larger than that of VCs (OECD, 2011). AI results in also contributing to employment. Research in U.S. indicates that start-ups funded by BAs generated around 4.1 jobs per deal or about 274800 new jobs in 2012 (Sohl, 2012). It is important to highlight that, especially in emerging markets, Diaspora community plays a significant role. "Diaspora communities are a source of pride and financial resources for many emerging economies and an important population for angel groups to consider when seeking members" (The World Bank, 2013, p.33).

It should, however, be noted that BAs also require relatively high standards in return for their funds from entrepreneurs who pitch them. In broad lines, in compensation to their investment, BAs expect practically executed business models, skilled entrepreneurs able to build an effective team, satisfying return on their investment through high-growth ventures, and – a very important aspect often neglected by entrepreneurs – successful exits. Exists usually include management buyout (MBO) or selling their shares to other BAs or VC companies. Only occasionally exits end up in Initial Public Offering (IPO). According to Mason and Stark (2004), BAs pay more attention to the investor-entrepreneur fit than VC fund managers do. Correspondingly, Sudek (2006) identifies BAs' top criteria in taking an investment decision as being the lead entrepreneur's enthusiasm, quality of management team, trustworthiness of entrepreneur, and exit possibilities.

Social capital is a distinctive feature of BAs and one of the main benefits entrepreneurs receive from this type of funding. Besides being valued by entrepreneurs as being sometimes even more important than the funding itself (OECD, 2011), research on French enterprises suggests that entrepreneurs may be affected by BAs even when they have no contractual agreement yet due to the trust they have in BAs' accumulated explicit and tacit knowledge and experience (Certhoux and Perrin, 2013). Further, Festel and Kratzer (2012), by focusing their investigation on the high-tech industry, based on BAs' very active being in such industry, argue that BA investment model appears to have growing start-up activity potential, above all at research establishments and universities. Overall, Kerr et al. (2010), based on their research of 87 high-tech and low-tech American companies, conclude that BA's package of input to the start-up appears vital for the survival and overall success of that enterprises. Furthermore, BAs themselves claim they enormously enjoy this way of investing – offering more to the entrepreneurs in addition to their funds – and like contributing to their ecosystem (Rose, 2014). Additionally, AI is also considered to be more sustainable. Kerr et al. (2010), find that U.S. angel-funded start-ups experience greater probability in surviving and having a faster growth; their performance improvement reaches an average increase of 30-50%. On the whole, the results suggest that the bundle of inputs angel investors provide has large and significant impact on the success and

survival of start-ups. Accordingly, the overall influence of BAs has seen increasing trends, from an expansion of AI activity to more attention received by media which was almost inexistent a decade ago. Moreover, the total amount of capital provided by BAs has constantly exceeded the total amount invested by VCs, namely it is estimated they invest about $190 billion annually in early-stage ventures in 29 countries (Megginson, 2004).

A recent empirical research of AI impact on ecosystem is done by Moreno (2014) in cooperation with EBAN. The study analyzes AI effects on four variables – assets, employment, EBITDA, and revenues. The impact of AI on ecosystem resulted beyond expectations. On average assets grew 156.5%, employment more than tripled, and revenues had a consistent increase of 150%. Regarding EBITDA, the sample start-ups did not achieve break-even within the analyzed time period. These results might to some extend be associated with the necessary period of at least 5 years following which BAs are generally able to exit investments. Therefore, observation of an extensive period is needed in order to be able to state when EBITDA will reach positive figures. Moreno (2014) suggests that EU public policies should incentivize enterprises funded by AI and advocates that the benefits emerging by angel-funded enterprises pay off efforts to encourage AI.

Table 2. Impact of Angel Investing (Cumulative Growth) 3 Years after Initial Investment

	Observations	**Employment**	**Revenue**	**Assets**	**EBITDA**
Final Sample	1665	231%	150%	157%	-64%
Industry					
IT	617	214%	429%	237%	87%
Manufacturing	162	169%	114%	70%	-130%
Wholesale and Retail Trade	131	239%	158%	163%	-49%
Scientific R&D	127	158%	137%	83%	-61%
Media	119	521%	228%	125%	-393%

Source: Moreno (2014) The Economic Impact of Angel Investment Unveiled.

In fact, the interaction between BAs and the ecosystem is reciprocal in the sense that both benefit from each other's pluses. For instance, from the perspective of support to the American rural entrepreneurial community, Henderson (2002) suggests that rural support networks use various assistances within their ecosystem such as BANs, incubators and any other kind of technical-aid-delivering organization. Furthermore, Berger and Udell (1998) argue that VCs tend to invest more in enterprises which have already received BA funding previously to applying for a VC funding.

Alongside having experienced significant development lately, AI has also won supplementary attention by policymakers all over Europe (Lerner, 1998; OECD, 2011; CSES, 2012; The World Bank 2013). Tax incentives available in many countries such as Belgium, France, Germany, The Netherlands, and UK have been functional for many years and are continuously getting sophisticated (EBAN, 2014b; 2015b). Co-investment funds have also started to become a more regular investment mechanism in many European countries. Besides, financial support to BAs in covering (some) operational costs has emerged as another governmental stimulus. As a result, the BA community in Europe published the Startup Investor Manifesto in May 2014, aiming to support policies and actions towards the rise of entrepreneurship and innovation through the creation of 1.5 million new jobs by 2017. The Manifesto foresees also enlargement of BA cross-border activities, including emerging markets lying outside EU. Public support was initially from a supply-side perspective, then evolved to funding BANs, and later, after BANs progressed as commercially-oriented organizations, government support advanced to co-investment funds (Mason, 2009).

AI has not received attention only in its traditional, primarily developed, markets; it has currently rather become quite popular in many emerging markets both in number and amount of investment as well as in creation of BANs. Estonia is such an example where its single functioning BAN (EstBAN) exceeded significantly all other European BANs in performance and was the driving force of reaching an annual average investment of roughly €1.9M per BAN (EBAN, 2014d). BAs in emerging economies believe that both policymakers and investors are able to significantly advance the investment climate and are interested to organize in BA groups so as to benefit from knowledge and experience sharing (Scheela et al., 2012). Patricof and Sunderland (2005) claim that start-ups are usually the rapidly growing potential ventures of emerging markets and, taking into account the high risk they bear, they are most likely left over to BAs since VCs and other investment organizations (even in advanced U.S. market) prefer some successful background before providing funding to a particular company. With regard to assistance BAs think governments could provide Scheela et al. (2012) identify four directions – entrepreneur education, promotion, and financing; more reliable public information; more advanced financial and legal institutions; and improved public governance chiefly by low corruption and political stability. On the other hand, Patricof and Sunderland (2005) identify capitalization, commitment from companies, investment activities, linking with diaspora, linking with pure commercial markets, investment skills, and technical assistance as necessary actions to be taken in order to develop an equity or equity-like capital pool available to high-growth enterprises of emerging markets.

Kosovo's Market

The market of Kosovo is characterized with a business structure vastly dominated by SMEs. Based on the number of registered businesses in Kosova Business Registration Agency in 2013, the percentage of micro, small and medium business is 98.39%, 1.36% and 0.2%, respectively. Table 3 shows in more detail the structure of Kosovar businesses.

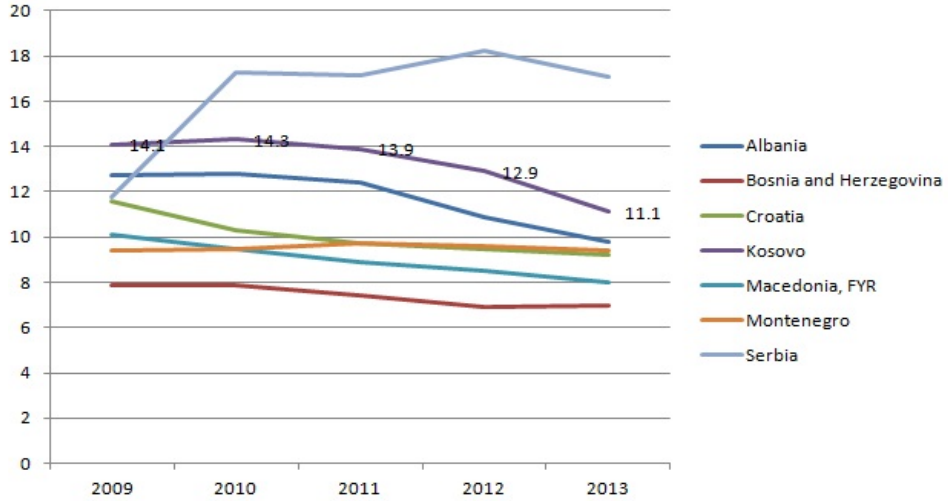
Table 3. Number of Businesses in Kosovo (2013)

Category	Micro	Small	Medium	Large	Total
Range of Employees	**1-9**	**10-49**	**50-249**	**Above 250**	
Enterprises	126277	1743	261	60	128341
% of Total Enterprises	98.39%	1.36%	0.20%	0.05%	100%
Employees	214427	27685	24378	57034	323524
% of Total Employees	66.28%	8.56%	7.54%	17.63%	100%
Average	2	16	93	951	

Source: Kosova Business Registration Agency

These businesses face many financing difficulties, including, as shown in Figure 3, the second highest lending interest rate in the region (The World Banka, 2016), and in the majority of cases the collateral is many times higher than the loan amount. The Central Bank of Kosovo (2014) reports also high existing interest rates in Kosovo's financing market, i.e. a lending interest rate of 12.1% for 2013.

Figure 4. Regional Lending Interest Rates (%)



Source: Data Obtained from World Bank Online Database "Indicator: Lending Interest Rate" (2016) and Figure is Processed in ExcelSheet

In addition, the impression exists that banks operating in Kosovo are moving towards high-paid individuals and larger firms as part of their continuous efforts to reduce risk. As a consequence, these strategies of banks are deepening even further the funding shortage for SMEs aiming to develop their activity in Kosovo. It is important to highlight here that Kosovo is still underdeveloped what implies it is challenged by numerous issues associated with its situation such as corruption, ineffective governance, poor law enforcement, inadequately educated entrepreneurs and so on. Finally, the number of financial institutions is relatively limited. Table 4 presents the types and number of financial institutions operating in Kosovo. Even in a small economy such as Kosovo's more variety in finance sources might be expected to contribute towards enriching the market and fueling the entrepreneurship activity and, as such, the current structure of the financial industry could be considered to have an array of areas in need for advancement.

Table 4. Financial Institutions in Kosovo (2013)

Type of Financial Institutions	Number of Financial Institutions
Commercial Banks	9
Insurance Companies	13
Pensional Funds	2
Financial Accelerators	39
Microfinance Institutions	17

Source: Central Bank of Kosovo Annual Report (2014)

Based on the abovementioned, this paper argues there is space for creating and developing alternative financial instruments accompanied by the need of advancing further the entrepreneurship culture in the country. An effective operating AI market is advocated to have potentials of contributing in that respect. The following section suggests some strategies on how Kosovo could develop a functioning model for its early-stage market with regard to angel funding.

5. Recommendations and Conclusive Remarks

Based on its role, increasing capacity and attention paid to, and on Kosovo market's conditions, this study suggests that AI might be an appropriate instrument to advance the country's early-stage market. This paper proposes a three-

dimensional model on how the AI market could be developed in Kosovo which, to the author's knowledge, is the first of its kind for the Kosovo early-stage market.

Firstly, governmental support is considered of significant importance (Lerner, 1998; Mason, 2009; OECD, 2011; CSES, 2012; Scheela et al., 2012; The World Bank 2013; EBAN, 2014b; EBAN, 2015b). In addition to recognizing the immense need for overall governance improvement and for recovery of earlier mentioned defects such as corruption and poor law enforcement, a two-way assistance through fiscal incentives on AI and co-investment funds with BAs is suggested. The fiscal incentives are expected to attract foreign BAs, especially now that they have started to expand their activity cross-borderly (EBAN, 2014c). Based on the important role Diaspora community can play in the AI market (Patricof and Sunderland, 2005; The World Bank, 2013), fiscal incentives are expected to also attract investments from Kosovo Diaspora which is considerable in size and may get motivated to start acting as BA in its motherland. On the other hand, co-investment funds aim to increase the funds available to high-potential entrepreneurial ideas (EBAN, 2014a; EBAN, 2015a). Further, such funds is expected to contribute towards a better management of public money – an issue of a particular concern in the case of Kosovo – since the co-investment fund is driven by a business approach rather than serving as a subsidy. The investment decisions are made by BAs or a fund manager appointed and supervised by BAs, limiting the possibilities of fund allocation based on corruption and nepotism.

The second dimension of the model advocates use of the entrepreneurial ecosystem by BAs. The bilateral collaboration between BAs and ecosystems is illustrated earlier in this study (for example. Berger and Udell, 1998; Henderson, 2002; Mason, 2009; Festel and Kratzer, 2012; Moreno, 2014, Ross, 2014). Based on that logic, numerous BA-ecosystem interrelations could potentially appear beneficial for Kosovo's market too. Economic development agencies, business plan competitions, incubators and accelerators, other formal and informal investors, all represent potential co-workers within the AI activity. Even governmental grants can indirectly be used by BAs. On one hand, BAs can encourage their portfolio companies to apply for grants. On the other, they can facilitate the deal selection process through targeting companies which have previously won grants since winning a grant may be considered an indicator of successful operation of a certain enterprise.

Thirdly, this work claims there is a need for promoting the angel activity to successful local business people and investors in order to encourage them to enter into AI. Pretty much consistent with Patricof and Sunderland's (2005) proposed program for assisting entrepreneurship in developing countries, here too actions such as technical assistance, Diaspora input, and business community professional development are considered a necessary step towards a better-functioning Kosovo ecosystem. The AI concept is very new in Kosovo's market, and hence, awareness campaigns are considered to be necessary in this stage. Awareness campaigns may include seminars, conferences and workshops delivered to the business community. Compliant with earlier works (Smith et al., 2010) presented here highlighting the sharing approach BAs possess, the European BA community is fairly cooperative, from EBAN as an institution to individual BAs. Generally, this community's mission, among others, is to support emerging markets by sharing best practices. This support is provided by means of attending organized events as panel members, key speakers, jury members (in investor-pitching events) and so on. Actually, the European and the American BA communities are paying increased attention to those markets nowadays (Scheela et al., 2012). Particularly EBAN sustains through technical facilities such as statutes for BANs, establishment of professional standards, and research and network opportunities.

Finally, this paper is considered a starting point in the scientific analysis of AI in Kosovo. There is space for additional models and theories in this topic. Therefore, future research work is expected to contribute further towards building a functional AI market in the country.

References

Berger, A. N., & Udell, G. F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. Journal of Banking & Finance, 22(6), 613-673.

Central Bank of Kosovo (2014). Annual Report 2013. Retrieved from http://www.bqk-kos.org/repository/docs/2014/CBK%20AR%202013-english.pdf
Certhoux, G., & Perrin, A. (2013). Business Angels' practices in the screening stage: A study of knowledge transfer to the entrepreneur. 13rd EURAM Conference.
CSES (Centre for Strategy & Evaluation Services) (2012). Evaluation of EU Member States' Business Angel Markets and Policies. Final Report. Framework Service Contract for the Procurement of Studies and other Supporting Services on Commission Impact Assessments and Evaluations. Interim, final and ex-post evaluations of policies, programmes and other activities
EBAN (2013). Activity Report. Retrieved from http://www.eban.org/wp-content/uploads/2014/05/Activity-Report-2013.pdf
EBAN (2014a). Compendium of Co-investment Funds with Business Angels. Retrieved from http://www.eban.org/compendium-of-co-investment-funds-with-business-angels-2014/#.VuNpxtJ97IU
EBAN (2014b). Compendium of Tax Outlook in Europe: A Business Angels Perspective. Retrieved from http://www.eban.org/wp-content/uploads/2015/05/Compendium-fiscal-2014-v1.pdf
EBAN (2014c). Startup Investors Manifesto. Retrieved from http://www.eban.org/wp-content/uploads/2014/09/15.-Startup-Investors-Manifesto.pdf
EBAN (2014d). Statistics Compendium. Retrieved from http://www.eban.org/wp-content/uploads/2014/09/13.-Statistics-Compendium-2014.pdf
EBAN (2015a), Compendium of Co-investment Funds with Business Angels. Retrieved from http://www.eban.org/2015-compendium-of-co-investment-funds-with-business-angels/#.VnPs8rZ97IU
EBAN (2015b). Compendium of Tax Outlook in Europe: A Business Angels Perspective. Retrieved from http://www.eban.org/2015-compendium-of-fiscal-incentives/#.VnP5kLZ97IU
EBAN (2015c). Guidebook on "Fostering Business Angel Activities in Support of SME Growth". Retrieved from http://www.eban.org/fostering-business-angel-activities-in-support-of-sme-growth/#.VnPs97Z97IU
EBAN (2016). "Online Glossary". Retrieved March, 10, 2016 from http://www.eban.org/glossary-page/
European Investment Fund (2014). European Small Business Finance Outlook. Working Paper 2014/24.
Festel, G., & Kratzer, J. (2012). The founding Angels Investment Model-case Studies from the Field of Nanotechnology. Journal of Business Chemistry, 9(1), 19-29.
Harrison, R.T. and Mason, C.M. (2010). Annual Report on the Business Angel Market in the United Kingdom: 2008/09. Department of Business, Innovation and Skills, HM Revenue & Customs et al.
Henderson, J. (2002). Building the rural economy with high-growth entrepreneurs. Economic Review-Federal Reserve Bank of Kansas City,87(3), 45.
Kerr W.R., Lerner J., Schoar A. (2010). The Consequences of Entrepreneurial Finance: A Regression Discontinuity Analysis. Harvard Business School, Working Paper 10-086.
Lerner, J. (1998). "Angel" financing and public policy: An overview. Journal of Banking & Finance, 22(6), 773-783.
Mason, C. M. (2009). Public policy support for the informal venture capital market in Europe a critical review. International small business Journal,27(5), 536-556.
Mason, C. M., & Harrison, R. T. (1997). Business angel networks and the development of the informal venture capital market in the UK: is there still a role for the public sector. Small Business Economics, 9(2), 111-123.
Mason, C. M., & Harrison, R. T. (2008). Measuring business angel investment activity in the United Kingdom: a review of potential data sources. Venture Capital, 10(4), 309-330.
Mason, C. M., Botelho, T., & Harrison, R. (2013). The transformation of the business angel market: evidence from Scotland. Available at SSRN 2306653.
Mason, C., & Stark, M. (2004). What do investors look for in a business plan? A comparison of the investment criteria of bankers, venture capitalists and business angels. International Small Business Journal, 22(3), 227-248.
Maxwell, A. L., Jeffrey, S. A., & Lévesque, M. (2011). Business angel early stage decision making. Journal of Business Venturing, 26(2), 212-225.
McKaskill T. (2009). An Introduction to Angel Investing: A Guide to Investing in Early Stage Entrepreneurial Ventures. Breakthrough Publications, Australia.
Megginson, W. L. (2004). Toward a global model of venture capital?. Journal of Applied Corporate Finance, 16(1), 89-107.

Moreno, L. (2014). The economic impact of angel investment unveiled. Presented at EBAN Annual Congress on the 19th May 2014 in Dublin. Retrieved February, 05, 2016, from http://www.eban.org/research-the-economic-impact-of-angel-investment/

OECD (2011). Financing High Growth Firms: The Role of Angel Investors. OECD Publishing.

Patricof, A. J., & Sunderland, J. E. (2005). Venture capital for development. Transforming the Development Landscape: The Role of the Private Sector, 74-84.

Rose, D. S. (2014). Angel investing: The gust guide to making money and having fun investing in startups. John Wiley & Sons.

San José, A., Roure, J., & Aernoudt, R. (2005). Business angel academies: unleashing the potential for business angel investment. Venture capital, 7(2), 149-165.

Scheela W., Isidro E., Jittrapanun T., Trang N.T.T., Gunawan J., (2012), Business Angel Investing in Emerging Economies: Policy Implications for Southeast Asia. Submitted to: Kauffman Foundation's International Research and Policy Roundtable, Liverpool UK.

Smith, D. J., Mason, C. M., & Harrison, R. T. (2010). Angel investment decision making as a learning process. Research Paper.

Sohl, J. (2012). The Angel Investment Market in 2012: A Moderating Recovery Continues. Center for Venture Research, 25.

Sudek, R. (2006). Angel investment criteria. Journal of Small Business Strategy, 17(2), 89.

Swedish Agency for Growth Policy Analysis (2013). Business Angel, Co-investment Funds and Policy Portfolios. Report 209/055

The World Bank (2013). Creating Your Own Angel Investor Group: A Guide for Emerging and Frontier Markets. World Bank. License: Creative Commons Attribution CC BY 3.0

The World Bank (2016). "Indicator: Lending Interest Rate". Retrieved January, 25, 2016, from http://data.worldbank.org/indicator/FR.INR.LEND

Journal of International Trade, Logistics and Law, Vol. 1, Num 2, 2015, 85-92

VALIDITY OF LINDER HYPOTHESIS IN BRIC COUNTRIES

Rana Atabay, (PhD)

Istanbul Medipol University, Turkey

Abstract:
In this study, the theory of similarity in preferences (Linder hypothesis) has been introduced and trade in BRIC countries has been examined whether the trade between these countries was valid for this hypothesis. Using the data for the period 1996 – 2010, the study applies to panel data analysis in order to provide evidence regarding the empirical validity of the Linder hypothesis for BRIC countries' international trade. Empirical findings show that the trade between BRIC countries is in support of Linder hypothesis.

Keywords:
BRIC countries, Linder Hypothesis, panel data analysis

JEL Classification: F11, F14, F15

1. Introduction
In the study, it is mainly investigated that the trade between BRIC countries was valid for Linder hypothesis. According to this hypothesis, countries with similar standards of living will consume similar types of goods. The high-income countries, with large amounts of capital per worker, will therefore have similar tastes and largely trade with other high-income countries and poor countries will consume similar types of goods and trade largely with other poor countries. BRIC (Brazil, Russia, India, and China) countries to have specific importance in world trade, it refers to the emerging markets which are expected to become the world's strongest economies in the next 40 years. The abbreviation was first used by the Chairman of Goldman Sachs Asset Management, Jim O'Neill, in his 2001 research report. In another 2003 report by the economists Dominic Wilson and Roopa Purushotaman, BRIC countries were expected to catch up with the G6 (France, Germany, Italy, Japan, the UK and the USA) countries in less than 40 years, and would later on become the leading force for growing demand and spending power. Given the human capital and natural resources in BRIC countries, this growth seems unavoidable. One of the reasons why they have such big potential is that India and China with their crowded population provide a high amount of output for the world economy despite their low per capita income. Another reason is that these countries have the potential for economic growth (Cooper, 2006; 2). These four countries are known to have apparent differences, which is one of the reasons why they have such potential. "The diversity among the BRIC countries, the balance between their abundant resources and foreign dependence as well as their geographic trends pave the way for their integration into the world economy." (O'Neill, Wilson, Purushotaman, Stupnytska, 2005; 3). However, there is still an uncertainty as to whether these countries will remain only an abbreviation or become integration. The differences among their economic performances, demographic structures and geopolitical interests raise questions about their performances as a group as well as individuals.

As of 2010, South Africa officially became a member nation of BRIC and the group was renamed as BRICS. This paper estimates the gravity model for BRIC countries over the period of 15 years, from 1996 through 2010. This model is a variation of the one used by Choi (2002) to analyze the validity of Linder hypothesis for these countries. The Linder hypothesis claims that the countries with similar demand structures, measured by income per capita, trade more extensively between each other with the rest of the world.

Section II provides a literature review. Section III presents the modified gravity model similar to Choi (2002); discusses the data sources and gives a summary of the sample statistics. Section IV presents the empirical results. Section V summarize the paper's results and discuss their implications.

2. Literature Review

Linder presents a different explanation for the direction of trade in differentiated manufactures. He argues that producers in each country manufacture goods to satisfy the needs of the consumers in that country. Since not all consumers are alike and some prefer goods with different characteristics, international trade provides a means to obtain these other goods and benefit from a wider variety of goods (Marrewijk; 2004, 344).

While Linder did not specify a formal model of his hypothesis, empirical tests of this theory have typically modeled some measure of trade intensity against the following variables: a measure of the size of each trading partner's economy; a measure of relative prices between a given country and its trading partners; a measure of the difference in per capita incomes between a given country and its trading partners; and, relevant time-invariant factors such as distance (Mcpherson et al; 2001).

There have been a number of studies focusing on the empirical investigation of Linder hypothesis. Hanink (1988, 1990) used gravity models to show that international trade caused by market homogeneity. Greytak and Tuchinda (1990) examine the empirical validity of Linder's demand side model and found strong support for the Linder hypothesis using interstate U.S. data. Francois and Kaplan (1996) found that general income levels rise, the relative volume of trade in manufactured consumer goods should rise, and the total volume of trade should rise, independent of changes in the intercountry difference between income levels, in their 36-country study of intra-industry trade. Tang (2003) found support that the developed APEC countries with similar per capita incomes tend to trade more with each other over the period 1985-1999 using a modified gravity model. Mcpherson and et al (2001) provided new information on the Linder hypothesis by focusing on developing countries and found support that five East African countries trade more intensively with others who have similar per capita income levels. Rauh's paper (2010) results reaffirmed the Linder hypothesis for Germany's international trade with other European countries and the results suggested that EU membership hugely increases Germany's imports and exports.

3. Emergence of BRIC's and Their Role in the World Economy

BRIC refers to the emerging markets which are expected to become the world's strongest economies in the next 40 years. The abbreviation was first used by the Chairman of Goldman Sachs Asset Management, Jim O'Neill, in his 2001 research report. In another 2003 report by the economists Dominic Wilson and Roopa Purushotaman, BRIC countries were expected to catch up with the G6 (France, Germany, Italy, Japan, the UK and the USA) countries in less than 40 years, and would later on become the leading force for growing demand and spending power. Given the human capital and natural resources in BRIC countries, this growth seems unavoidable.

Even though Goldman Sachs did not use any certain criteria in evaluating the performances of these four countries, the countries were recognized as "important developing countries" with a potential to become "a major force in the world economy" in 40-50 years after 2001 (Wilson and Purushotaman, 2003). One of the reasons why they have such big potential is that India and China with their crowded population provide a high amount of output for the world economy despite their low per capita income. Another reason is that these countries have the potential for economic growth (Cooper, 2006; 2). These four countries are known to have apparent differences, which is one of the reasons why they have such potential. "The diversity among the BRIC countries, the balance between their abundant resources and foreign dependence as well as their geographic trends pave the way for their integration into the world economy." (O'Neill, Wilson, Purushotaman, Stupnytska, 2005; 3).

Each of the BRIC countries has different characteristics. Brazil, the largest country in Latin America, possesses rich natural resources which will create the country's future economic impact. Numerous countries, including China, make major investments in Brazil to take advantage of its natural resources. Russia, too, is rich in natural resources and has a strong workforce, especially in the fields of science and engineering. India and China have a significant amount of human capital, and the economies of these countries have been developing very fast (Hitt, Li, Worthington, 2005).

Due to the favorable markets of the BRIC countries, firms in these countries have more bargaining power when setting up partnerships with multinational companies which seek to enter developing markets. BRIC firms not only get more information and resources compared to their foreign partners, but they are also likely to have relatively further capabilities especially in China and India. These countries can make use of their information and resources more quickly than their foreign partners. In addition, as they have more information and resources than their foreign partners, BRIC firms make use of the capabilities of less mature emerging markets. As a result, BRIC companies, compared to other emerging markets, have further advantages than multinational corporations (Hitt, Li, Worthington, 2005). Domestic policies and economies of the BRIC countries are also similar. While all are federal states, India has parliamentary democracy and Brazil has the presidential system. China is the Marxist People's Republic whereas Russia rules with an authoritarian democracy. Each of the four of the economies has a political structure that has formed over the centuries, and they are all home to different cultural and religious traditions (Armijo, 2007; 8). The heterogeneous structure created by such differences is one of the reasons why they are so successful.

The importance of the BRIC countries results from their economic size. These are the largest economies outside the OECD and no other developing economy has an annual GDP of over $1 trillion. The three countries, except Russia, have shown greater growth than most countries in the world during the 2008 crisis. As shown in Table 3.1, China has become the world's largest exporter and the BRIC countries have increased trade among themselves. In 2010, Chinese-Indian trade exceeded 60 billion USD. In 2008, China became the largest market among East Asia's rapidly industrializing countries. At the same time, it was the biggest producer of carbon dioxide with 6.5 million tones, which make up 22% of carbon dioxide emissions in the world. Russia and India rank the third and the fourth.

Table 3.1 Total Trade Volume between BRICs – 1996-2010, (000$)

	1996-2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
BRA-CHN	1.173.547.758	3.230.511	4.074.972	6.681.162	9.152.222	12.189.516	16.391.711	23.366.568	36.443.061	36.101.975	56.379.045
BRA-IND	224.948.004	828,198	1.226.920	1.039.440	1.208.622	2.340.844	2.412.844	3.122.782	4.665.945	5.605.938	7.734.723
BRA-RUS	401.940.026	1.566.919	1.680.250	2.055.381	2.466.082	3.639.565	4.385.982	5.450.706	7.984.849	4.280.668	6.062.751
CHN-BRA	1.339.220.073	3.698.157	4.469.402	7.985.547	12.346.965	14.819.733	20.289.600	29.740.543	48.670.899	42.399.500	62.560.099
CHN-IND	940.262.580	3.594.926	4.945.035	7.594.602	13.614.037	18.700.493	24.858.745	38.668.535	51.844.266	43.380.848	61.760.271
CHN-RUS	4.574.186.812	10.669.266	11.927.432	15.757.995	21.225.527	29.101.226	33.386.814	48.218.473	56.908.611	38.796.723	55.526.067
IND-BRA	211.660.554	501,494	700,461	700,928	1.203.496	1.852.974	2.452.518	2.777.501	4.409.879	4.679.202	6.890.546
IND-CHN	1.145.905.166	2.750.091	4.151.453	6.182.287	10.149.771	17.350.853	23.468.231	34.067.749	41.679.950	40.983.423	58.689.107
IND-RUS	576.226.349	1.318.180	1.316.853	1.481.224	1.846.241	2.742.637	2.746.567	3.608.591	5.542.070	4.402.043	4.984.776
RUS-BRA	486.080.862	1.114.310	1.534.073	1.735.775	1.738.110	2.951.369	3.713.000	5.237.590	6.711.368	4.593.000	5.799.156
RUS-CHN	1.053.264.478	7.242.513	9.238.075	11.566.269	14.851.298	20.312.327	28.668.000	39.573.250	55.916.050	39.528.880	58.813.800
RUS-IND	658.397.390	1.665.952	2.127.472	3.320.090	3.153.291	3.098.398	3.893.000	4.342.640	6.945.062	7.461.454	7.548.989

Source: COMTRADE Database

BRIC countries have a distinctive macroeconomic performance in the world economy. These four economies hold 40% of the total foreign exchange reserves in the world and are among the ten countries with the largest foreign exchange reserves. China has foreign exchange reserves worth 2.4 trillion USD and is the second largest net creditor after Japan. When Russia began its market reforms in 1992, it did not have any foreign exchange reserves. However, today Russia holds 420 billion USD in its reserves. One sixth of foreign exchange reserves of the BRIC countries is enough to create a fund as large as the IMF (The Economist, 15th April 2010). Their foreign assets protected these countries against the 2008 global financial crisis and turned them into financial powers. While Western countries were struggling to cover their budget deficits and increasing debts, many investment banks recommended BRIC countries thanks to their stable public debt levels.

To better understand the current position of the BRIC countries today, I believe the projected figures in the Goldman Sachs report of 2001 should be compared to current figures. According to the projections in the 2001 report, in case BRIC countries continued with their strong growth at the same speed, these countries would hold a larger share of the world's economy. The best-case scenario suggested that these countries would account for 8% of the world's GDP. However, according to World Bank, this figure turned out to be 17% in 2010. China was estimated to reach Germany's economic size, yet in February 2011 Chine surpassed Japan and almost doubled the German economy. Brazil was estimated to reach Italy's economic size. In 2010, Brazilian economy passed Italian economy and became the 7th largest in the world (Table 3.2). In addition, despite their 2001 GDP worth 2.6 trillion USD, BRIC economies created a GDP worth over 11 trillion USD in 2010.

Table 3.2 GDP Ranking of BRIC and G7Countries

2000		**2010**	
Country	**Ranking**	**Ranking**	**Country**
USA	1	1	USA
Japan	2	2	China
Germany	3	3	Japan
UK	4	4	Germany
France	5	5	France
China	6	6	UK
Italy	7	7	Brazil
Canada	8	8	Italy
Brazil	9	9	India
Mexico	10	10	Canada
Spain	11	11	Russia

Source: World Bank World Development Indicators GDP data

In the past 50 years, the world economy has developed significantly. In the next 50 years, it is expected to continue to change as the BRIC's share in the world GDP increases. When we compare BRIC economies with G6 economies, we can estimate that BRIC economies will reach half the size of G6 economies by 2025, and only the USA and Japan will remain among the largest 6 economies of the world by 2050. It was also estimated that the BRIC countries would play a more significant role in determining world's economic policies and that they would become a part of a

group like G7 or G8. However, this did not happen. The foreign affairs ministers of the four countries began political talks in New York in 2006 and the first BRIC Summit was held in Yekaterinburg, Russia in 2009. In the second summit in 2010, the countries reached a consensus on the inclusion of South Africa to the BRIC. In the 2011 summit, a series of decisions were agreed upon that would make these countries less dependent on the dollar.

The population of the BRIC countries has more than doubled in the past 50 years. This increase is expected to slow down in the next few decades, except for India. Despite expectations for an increase in the elderly population in developed countries, this increase is estimated to be get in the BRIC countries. By 2060, the average age will have increased from 40 to 44 in developed economies, and from 32 to 45 in the BRIC countries (Wilson, Burgi, Carlson, 2011). An aging and shrinking labor market is expected to slow down the growth rate in the BRIC countries, which were responsible for over half of global growth in the past decade. In the Goldman Sachs report "The BRICS 10 Years on: Halfway Through the Great Transformation" dated December 7, 2011, it is stated that global growth will reach a peak with a 4.3% increase in this decade and go down to 3.9% in 2020. The report points out that the long-term economic growth rate of the BRIC countries has probably reached its peak. It also states that a decline in the growth speed of the working age population in these countries will lead to a smaller labor supply. This situation will limit the potential growth rate for the BRIC countries. According to the report, even though the BRIC countries will join the USA and Japan as the world's largest economies by 2050, it is expected that their contribution to the world's economic growth will decline.

4. Empiricial Analysis: Methodology and Data

The gravity model is frequently used in empirical studies on economic integration. The model is successfully applied also to capital flows between countries, migration and tourism. The model is based Newton's "Law of Universal Gravitation". Newton's gravity model says that attraction between two bodies is inversely proportional to their masses and reversely proportional to the distance between them. According to the bilateral trade gravity model, in its most basic form, trade between two countries is inversely proportional to their GDPs and reversely proportional to the distance between them (Frankel, 1997; 50). According to the basic gravity model, the volume of trade between two countries is also a function of several variables including population, geographic distance, common language, common border, cultural proximity and common regional trade agreement (Amin, Hamid and Saad, 2009;20).

Following the literature, the study applies a gravity equation with panel data. In the study, it is mainly investigated the trade between BRIC countries was valid for Linder hypothesis. In order to analyze the validity of Linder hypothesis for these countries, I adopt a modified gravity model similar to Choi (2002) but add some variables such as population and crisis.

$$\boldsymbol{RATIO_{ijt} = \beta_0 + \beta_1 LINDER_{ijt} + \beta_2 PGPDSUM_{ijt} + \beta_3 DIST_{ijt} + \beta_4 POP_{it} + \beta_5 CRISIS_{it} + \varepsilon_{ijt}}$$

where the dependent variable is the RATIOijt for the ratio of export volume from country i to j to the sum of these two countries' GDP's at the time period t. The independent variables are; LINDERijt is the ratio of the difference in per capita GDP to the sum of exporting and importing country's per capita GDPs at the time period t; PGDPSUMijt is the sum of per capita GDP of both countries at the time period t; DISTijt is the distance between two countries i and j; POPit is the total population and CRISISit is the dummy variable showing the crisis years, 1997 and 2008; finally ε_{ijt} is the residual.

In this study, annual data for the period 1996-2010 from four BRIC countries were used. GDP and population data were collected from World Bank World Development Indicators, foreign trade data from United Nations Commodity Trade Statistics Database (COMTRADE), and the distance data from the website http://www.daftlogic.com/projects-google-maps-distance-calculator.htm. Distances were calculated according to the "great circle" method in kilometers. The empirical study deals with 4 BRIC countries over the period 1996-2010 with 60 observations totally.

Table 4.1 Descriptive Statistics

Variables	Abbr.	Definition	Source
Ratio	RATIO	A trade ratio defined as export from country *i* (exporting country) to country *j* (importing country) divided by the sum of country *i*'s GDP and country *j* 's GDP at period *t*.	COMTRADE Database & World bank World Development Indicators
Linder hypothesis	LINDER	Calculates the per capita income similarity between countries	World bank World Development Indicators
Sum of per capita GDP	PGDPSUM	Calculates the sum of per capita GDP of both countries at the time period *t*.	World bank World Development Indicators
Distance	DIST	The distance between countries	http://www.daftlogic.com/projects-google-maps-distance-calculator.htm
Population	POP	Total population of countries	World bank World Development Indicators
Crisis years	CRISIS	Shows the crisis years affected these countries; 1997 and 2008	Author's choice

5. Empirical Results

The results obtained in the empirical analysis are in line with the earlier studies in the literature reviewed. All the coefficients are consistent with predictions. Panel regression results show that the trade between BRIC countries is in support of Linder hypothesis.

All the variables are not stationary in level, but stationary in the first differences for the model. To determine which panel regression model to be chosen, Chow and Breush Pagan (BP) test results have been given in Table 5.1. While H0 hypothesis is pooled regression and H1 hypothesis is FEM in Chow test, in BP test H0 hypothesis is pooled regression and H1 is REM.

Table 5.1 Panel Regression Estimation Method Selection Test Results

Test	p value	Decision
Chow(F test)	0.124	Ho accepted
BP(χ^2 test)	0.193	Ho accepted

As a result of both tests, the pooled regression has been approved for use. In this case, not only the need Hausman test and pooled model estimation was analyzed using the EGLS (Cross-section weights) algorithm.

According to Table 5.2, panel regression results show that the trade between BRIC countries is in support of Linder hypothesis. LINDER, DIST and CRISIS variables are negative and statistically significant. The finding of a negative and statistically significant effect of LINDER variable provides evidence in favor of the Linder hypothesis. The finding of a negative and statistically significant effect of DIST variable confirms the literature. The more distant the two countries are, the less they trade. The finding of a negative and statistically significant effect of CRISIS dummy variable reduces the trade volume between countries. PGDPSUM and POP variables are positive and statistically significant. The finding of a positive and statistically significant effect of PGDPSUM variable means that the richer countries tend to trade more. The finding of a positive and statistically significant effect of POP variable means that the more crowded countries tend to trade more.

Table 5.2 Panel Regression Results

Variables	Coefficient
DLINDER	-0.005208 ** (0.001222)
DPGDPSUM	1.03E-07 ** (1.21E-08)
DDIST	-1.58E-07 ** (4.39E-08)
DPOP	2.72E-12 ** (1.01E-12)
CRISIS (dummy)	-0.000412 ** (0.000160)
R-squared	0.439475
Prob (F-statistic)	0.000006
Observations	60

Note: Estimated standard errors appear in parentheses.
****** Indicate the significance at the 1% level..

6. Conclusion

Trade between BRIC countries is growing in each year and these countries have a potential to become the largest economies in the world. In this study, trade in BRIC countries has been examined whether the trade between these countries was valid for Linder hypothesis by using modified gravity model. Previous researches have found similar results. This study used an extensive dataset and a modified gravity model. It was found that countries with a smaller difference of per capita GDP tend to trade more. It was also found that richer and more crowded countries trade more. Different from other studies, CRISIS dummy variable added and found that in crisis years which affected these countries, trade volume between them is reduced.

References

Amin, R., Mohd, Z.H. and Norma MD. S., 2009. Economic Integration Among ASEAN Countries: Evidence from Gravity Model. EADN Working Paper, No.40, February.

Armijo, L.E., 2007. The BRICs Countries (Brazil, Russia, India, and China) As Analytical Category: Mirage or Insight?. Asian Perspective, 31(4), pp.7-42.

Choi, C., 2002. Linder Hypotesis Revisited. Applied Economic Letters, 9, pp.601-605.

Cooper, J., 2006. Russia as a BRIC: Only A Dream?. University of Birmingham European Research Institute, European Research Working Paper Series, 13, July.

Francois, J. F. and Kaplan S., 1996. Aggregate Demand Shifts, Income Distribution, and the Linder Hypothesis. The Review of Economics and Statistics, 78(2), pp.244-250.

Frankel, J. A., 1997. Regional Trading Blocs in the World Economic System. Institute for International Economics Publ., October.

Greytag, D. and Tuchinda U., 1990. The Composition of Consumption and Trade Intensities: An Alternative Test to Linder Hypothesis. Weltwirtschaftliches Archiv, 126(1), pp.50-57.

Hanink, D. M., 1988. An Extended Linder Model of International Trade. Economic Geography, 64(4), pp.322-334.

Hanink, D. M., 1990. Linder, Again. Weltwirtschaftliches Archiv, 126(2), June, pp.257-267.

Hitt, M.A., Li H. and Worthington W.J., 2005. Emerging markets as learning laboratories: Learning behaviors of local firms and foreign entrants in different institutional contests. Management and Organization Review, 1, pp.353-380.

Marrewijk, C. V., 2004. International Trade & The World Economy. Oxford University Press: NY.

McPherson, M. A., Redfearn M.R. and Tieslau M. A., 2001. International Trade and Developing Countries: An Empirical Investigation of the Linder Hypothesis. Applied Economics, 33, pp.649-657.
O'Neill, J., Wilson D., Purushothaman R. and Stupnytska A., 2005. How Solid are the BRICs. Global Economics Paper No.1341, Goldman Sachs, December.
Rauh, A., 2010. Empirical Analysis of the Linder Hypothesis: The Case of Germany's Trade within Europe. The American Economist, 55(2), Fall, pp.136-141.
Tang, D., 2003. Economic Integration Among the Asia-Pasific Economic Cooperation Countries: Linder Effect on Developed and Developing Countries (1985-1999). The International Trade Journal, 17(1), 19-49.
"The trillon-dolar club", 2010. The Economist, [online]15 April. Available at: http://www.economist.com/node/15912964
[Accessed 25 July 2011].
Thursby, J. G. and Thursby M.C., 1987. Bilateral Trade Flows, the Linder Hypothesis, and Exchange Risk. The Review of Economics and Statistics, 69(3), August, pp.488-495.
Wilson, D., Burgi, C. and Carlson, S., 2011. Population Growth and Ageing in the BRICs. Goldman Sachs Global Economics, Commodities and Strategy Research, 11(05), pp.1-4.
Wilson, D. and Purushothaman R., 2003. Dreaming with BRICs: The Path to 2050. Global Economics Paper No. 99, Goldman Sachs, October 1.