

# The mix of laws involved in the activity of the companies in the aerospace field

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**Abstract:** *The life of companies, including the aerospace companies, depends on the business cycle. The paper presents the trends of law in ascending and descending period of the business cycle. A point of the paper is the separation of military and civil law in aerospace, public and private law, national and corporate security systems. Also the laws to be apply in relation with public authorities, private organizations, citizens are approached. In the paper are included some keys for interpretation such as the hierarchy of social values. In modern times, the humans life, rights and property must be the main protected values. The paper shows the methods to be accepted for the analyse/analysis of law in aerospace field: logical analysis, hystorical method, comparative method, social research, experimental method. In the aerospace field each of them has some particularities. The classification of laws depending of economic impact in the aerospace field is an other section. There are presented implications on cost, income, receipts, payments, duration of the activities, other restrictions.*

**Key Words:** *law, business cycle, aerospace activities, economic impact, aerospace companies.*

## 1. INTRODUCTION

The evolution of a field of activity, an economic branch like aerospace, depends on companies acting in the field and the laws involved. The time for a field of activity may be outrun or delayed by the quality of the companies involved or by laws in force for that field of activity. Research and development are not possible in any area if the companies of that field lose money or if their work is not supported by legislation.

A thorough understanding of the legislation in force is a necessary condition of an efficient management, not only in order to develop the companies but also for limiting their activity. Usually at the national level law creates many problems to the employees occupying various management positions in companies.

More than other fields, the Aerospace has an “international” expansion. There are relevant national, confederative, international, bilateral rules, professional rules (self-regulation of activity) and corporative rules (rules of the companies approved and maintained on the national or international basis). The competition and national rules require these special rules to be at the highest standards. The paper is a legally and

managerial point of view about this mix of laws involved in the activity of the companies in the aerospace field.

## **2. THE TRENDS OF LAW IN ASCENDING AND DESCENDING PERIOD OF THE BUSINESS CYCLE**

The ascending and descending period of the business cycle involves changes in statutory laws of the companies. In many countries Governments change the fiscal and budgetary laws depending of the economic cycle. In some cases the changes are favorable to companies but in other cases the government interventions harm the economic running of the companies, impeding their progress. United States during the Great Depression of 1929/1933 and Romania during the 2008 crisis are examples of the assertions above. The companies that act in a field depending on general business cycle like aerospace have to adapt quickly their projects to every change of the economic business environment [1].

The time is an independent main factor of action with impact on advantages and costs of any kind of projects [4]. The speed of changes is important in a dynamic field like aerospace. The synchronizing of resources for permanent innovation will be the challenge of the future in the fields depending of the updates and renewal.

The changes in internal law of the companies help the process of decision making and increase the quality of this process. In case of decision making for changing the business cycle, we may assume that there is a risk, an uncertainty category of decision. The general steps that have to be done in all types of company are: consider the alternatives (opportunities), draw up a decision tree, compute probabilities of each state, evaluate the results according to the criterion of choice, make the decision [14].

A necessary step for the development of the aerospace companies in emergent countries (like Romania, Bulgaria) is to connect to the European model of business. Such a requirement was already formulated for the general model of economic growth [3]. Now, the convergence to European and international model of business has to be done quickly in every detail by the aerospace companies that are in a strong competition on international market. Two ideas in the theory of financial companies are applicable to aerospace: to separate the timing of cash flows from their risk and to determinate the certainty equivalent factors [8]. From these ideas for the development of the field on long term we may conclude the importance of share capital to finance the investments. The time is very important for the cash flow and for the stability of the companies. The share capital of the aerospace companies will be in the future a strong point of the company's credit worthiness.

The Aerospace activity may generate costs for the physical transfer of human and of goods in the international trade [9]. More that, transportation is the main source of the physical transfer costs. The accountants of trade companies divide the prices into two parts: the production cost and the transport cost. So the transportation cost becomes relevant in international trade.

One of the important tools to fight with the economic depression is to develop the trade and the specialization. the Aerospace is a part of the transport branch. For this reason it is normal to extend the application of general analysis for the role of transport developed in economic thinking. Transports are enough old in order to obtain summaries of the analysis of their social role. The main requirements for all types of transports, including the aerospace activities, will remain only two: to be faster and to be cheaper [15]. So, in each period of the business cycle, the aerospace has to reduce the transactional costs and to recover the price of the consumed resources.

### 3. MILITARY AND CIVIL LAW IN AEROSPACE

Usually in the aerospace activity civil law or peace law are in force. Every kind of development, including for aerospace, means first of all peace and allocation of available resources for research or for renewing processes.

In the same time, aerospace may pass quickly from peace law to war law or from civil law to military law.

People and goods move the fastest possible using air transportation from all economic resources, only the IT has faster tools, but only for informations, not for people.

In many cases can define the war by “*armed conflict* between two or more groups, social classes or countries for achieving economic and political interests”. In this interpretation, the war law is equal to military law. Practice shows that also psychological war (tension, harassment between two countries) or cold war (state of tension between certain countries) are possible.

In international law of war there are many general norms that are unapplicable in a concrete case.

For example, the fourth point of the Atlantic Charter says: they (signaturs) will endeavor, with due respect for their existing obligations, to further the enjoyment by all states, great or small, victor or vanquished, of access, on equal terms, to the trade and to the raw materials of the world which are needed for their economic prosperity. [16], [17]. This is a general law. It is possible that the fair market access be denied on the basis of several special laws.

Even if some of the international laws of war were approved before the establishment of the aviation, some of them are still applicable today.

For example, the Hague Convention Annex [14], [22] may explain the rights and obligations of belligerents in any conflict.

In modern war the rules of “cultural peace” or “peace of civilization” are in accordance with *The Treaty on the Protection of Artistic and Scientific Institutions and Historic Monuments* [23].

Written with the assistance of international experts and lawyers, the Banner of Peace was praised by many notable figures during its signing including Albert Einstein, George Bernard Shaw, and H.G. Wells.

The Pact states, “educational, artistic, and scientific institutions... shall be protected and respected by the belligerents... without any discrimination as to the state allegiance of any particular institution or mission... these missions may display a distinctive flag (the Banner of Peace)... which will entitle them to special protection and respect...”

Thus any result of cultural activity around the world can fly the Banner of Peace to declare itself neutral, independent of combatant forces, and protected by international treaty.

The model of air power in war and the theory of air power developed by Alexander de Seversky (as a result of a series of other studies) was an element of the geopolitical thinking in XXth Century [10].

This model can demonstrate the close connection between the laws of war and peace, on the one hand, and the development of the aerospace activities on the other hand.

After the mid-twentieth century, when this theory was developed, the aerospace branch has grown faster than the rest of society, and the air force strength has become increasingly important, both in peacetime and war.

#### 4. PUBLIC AND PRIVATE LAW IN THE ACTIVITY OF AEROSPACE COMPANIES

For aerospace companies acting in EU countries, the public law in their field of activity means: international law, EU law, national law. Private law means rules of professional organizations and internal law. Public or private law enforcement is variable in different functions of the aerospace companies.

Special public law regulates some *basic activities for aviation*. The main business problems for basic activities regulated by public law are: airlines wishing to establish dedicated airport terminals, issues of public contract law and of status of airport areas, relations with airport authorities, compliance with environmental regulations (noise, night operations and pollution of watercourses adjacent to airport areas etc.), safety and security measures of the companies, the application of bilateral and multilateral interstate agreements on takeoff/landing rights and embarkation/disembarkation rights of passengers in third countries. In the UE there are special regulations on air transport like flight/airport slots, slots transfer, AOC, operating licence.

*The commercial function* of the aerospace company has both private and public regulations. The agreements and contracts for transport services, selling an aviation subsidiary, engines and equipment, maintenance, the use of airport facilities and the recovery of airport charges are usually regulated by private law. The relation for registration of aircraft with the civil aviation authorities and relations with air transport police are regulated by the public law.

*Financing* is an important function of modern company. The most components of financing function are regulated by the private law: acquisition, sale, merger, restructuring and refinancing of airlines, joint ventures, leasing operations, sales, lease-back operations, sale of leasing portfolios and securitisation of lease portfolios, financing for the purchase of aircraft on behalf of both lenders and borrowers, financing of export credits, financing of guaranteed receivables, domestic and cross-border financing and sale of aircraft-backed loans portfolios. In the same time, public companies or public authorities have as components of financing function regulated by the public law: the application of competition law to restructuring and concentration of the operations of airlines, selection of the best privatisation structure and the preparation of the privatisation process (if is necessary). The taxes to be paid are regulated by public law. The accounting for aerospace companies with dual-function (managerial and tax calculation) is governed by private laws.

*Liability and insurance* are usual regulated by private agreements. But the public law regulates: the general rules for insurance (the authorization of the insurance companies and market surveillance in the insurance field). The current insurance function involves a lot of activities regulated by the public law: disputes relating to aviation accidents, defending compensation claims, actions relating to the loss of aircraft and subrogation actions, managing the consequences of major aviation accidents, particularly in accident investigations, coordination of multi-jurisdictional litigation. In the same time the disputes relating to ground-handling and damage caused to aircraft by third parties may be regulated by private agreements or by public institutions (Court of Justice) [24], [25]. There are strong private rules for drafting of insurance contracts and the management of disputes relating to the implementation of guarantees. Another field privately regulated is the implementation of aviation insurance policies and audits.

One of the public-private interactings in aerospace is *the transparency of financial relations between the state and public undertakings*. Taking into account the strategic

importance of transport by air, Governments try to help companies (mainly public undertakings and big companies) acting in these branch. In the EU system of law several rules are in force referring to: national, regional or local monopoly, special grant or exclusive rights from public institution to public undertakings, separate accounts between states and public undertakings, the rules of fair competition on market, equal treatment for all economic activities. Moreover the correctly reflected of separate accounts is supported by clearly bookkeeping of costs and revenues associated and details of the methods by which costs and revenues are assigned and allocated to different activities [26]. In the United States, in accordance with the strong system for freedom of trade, the concept of “prime contractor” is used for the companies that have special contracts with the public authorities.

## **5. NATIONAL AND CORPORATE SECURITY SYSTEMS**

National law in terms of security systems means first of all EU regulations or EU Directives. Each EU regulation or EU directive generates in EU countries laws or decisions of Governments.

The importance of the security systems is clear for all the Europeans. But for companies the resources to be allocated for this are important. In an aerospace company the security systems are generally named “support department”. The accounting has already taken the step towards understanding the role of the management support, costs controlling, productivity measurement and critical investment for service [12].

In time, the fight for commercial advantages pass from low wages to size of turnover and to specialization. Many years ago managers have found new sources of advantages in the market [2]. These sources of advantages are different in each branch. For the aerospace activity the definition of technical efficiency (the ability to produce the maximum output of acceptable quality with the minimum of inputs) [5] is not applicable. The word “*acceptable*” is not in accordance with the concept of higher security in aerospace activities.

National rules, representing formal regulation, are adopted in accordance with international and regional agreements.

In the same time, in the field of security systems are in force the self-regulation of the branch, the industry practices and quasi-regulation of the branch. Managers talk about a “contract” between business and society Formal law has to describe limits for activity of companies referring to social and environmental externalities that business can create [13]. But the security systems can not be part of externalities. The development of the branch is not possible without high security systems. So the self-regulation will be ahead the public institution with proposal for security systems.

Even that the companies want to have high security standards, it is possible that, to reduce the costs or the investments, some of them not to complied with the national or community standards. EU law regulated the operating ban within the Community for air carriers included in the official list [2]. On the list are included only the air carriers that do not meet relevant safety requirements. The Regulation set a procedure for updating the list and to inform the passengers.

The law in EU developed the international agreements in the field of civil aviation security [18], [19], [20] with the basis for a common interpretation of them, first of all of Chicago Convention on International Civil Aviation [21]. Member State of the EU should be allowed, on the basis of a risk assesment, to apply more stringent measures than laid down in european law. In accordance with these rules, EU countries should draw up a national civil aviation security programme. The security planning is more detailed. Each

airport operator, air carrier and entity implementing aviation security standards should draw up, apply and maintain a security programme in order to comply with national and European rules [29].

## 6. THE ANALYSE OF LAW IN AEROSPACE FIELD

Logical analyse has an important field represented by the hierarchy of laws. Aerospace is a “special” field for the science of law. In the top of importance there are law regarding the main values to be protected. In modern law, including the aerospace law, the main values to be protected are: human life, fortune, cultural values, animal life, human rights (like freedom). These values are protected in accordance with international agreements. As a rule, these agreements are part of public international law, not specially referring to aerospace activity. In the same time the constitution of every country may subscribe general norms that indicate the value to be protected on the “national” land.

For aerospace the hierarchy of norms has in the top the international agreements, the regional agreements or confederative (regional) law (EU by example), bilateral agreements, national rules. The international agreements adopted by the members countries before EU foundation were incorporated in the confederative system of law.

To analyze special international agreement it is possible to utilise an hystoric method. An exemple is the modernization of the Rome Convention. The two Convention succed to ensure adequate compensation for persons who suffer damage caused by foreign aircrewing. In the same time, the two Conventions had to limit in a reasonable manner the extent of liabilities incurred for such damage, in order not to hinder the development of international air transport [30].

Comparative method is recomanded to analyse the law in aerospace in every country and in every system of law. The comparative analyse is possible to refer to forms (kind of act), procedure and the material text. A special interest is the application of the EU Directives and Regulations in the legislation of every EU country. In Romania, for example, the national rules in accordance with the EU legislation for aerospace are adopted by specialised public institutions. In such conditions, the problems like rate of enactment of a law, the important EU rules and coordination of normes are resolved for aerospace activities.

Social research about elements involved by a law is very important for the development of the branch. In many forecastings (plannings) of the economic growth, the aerospace activities will increase more than the average amount. Maybe aerospace has the highest increase in the following years, but only if the law that rules the field is based on social research.

Experimental method is less recomanded in aerospace activity. The branch needs much stability and very much security. Only for internal standards of aerospace companies it is possible that experimental method to be accepted and only if these standards are on a higher level than national or international one.

## 7. THE CLASSIFICATION OF LAWS DEPENDING OF ECONOMIC IMPACT IN AEROSPACE

Aerospace is a field highly dependent of people trust. The impact of September 11 2001 on aviation shows the importance of trust and security for this branch. The decline of passenger traffic, domestic market, financial performance and employment of airline companies due to

September 11 2001 [11] involved the public authorities (that pay compensation for financial loose) to help the branch to improve the security standards.

For these reason normes about trust are the first group of law with economic impact on transport by plane.

In the new trend of economic analyse, the impact of the aerospace activities on society is represented by 3 groups of factors: direct, indirect and induced [1]. As a rule, the investments and public policy in transport (particularly in transport by plane) produced in EU some results with respect the highest standards of security and a free economic competition of companies: small reduction of prices for clients, higher quality of service, many possibility for people to move, change the lifestyle and consumption, increasing the mobility of people computed by distance per day, increase of Gross Brut Product and involvement of research [6].

For the management of aerospace companies the accuracy of forecasting is important. Usually there is a great limitation of time and money in forecasting of companies [7]. The speed of new technologies and the investments to be done to implement these technologies. For these reason the predictibility of law refering the business in aerospace will reduce a part of the risk of the branch.

In EU the change of law for aerospace was just now “prevented” by a strategy or by a “White Paper”.

The flow of lawmaking in EU (EU Directive, EU Regulation, national law, national administrative acts) did not generated special problems to adapt the business cycle of the aerospace companies.

The tax regulations (change of VAT level for inputs) and fees of state companies that act in the branch may generate problems for computation the business evolution.

A special group of law in aerospace regards the international area of the market, including the mobility of the labor force and goods or services as inputs. The sector of aerospace has a particularly international character that determine the international area of operating the companies.

An international labor market has to correspond to an international area of services. For the EU member states rules for mutual acceptance of personnel licences are in force. The EU law regulates the procedures for mutual acceptances of licences issued by Member States to civil aviation cockpit personnel [27].

## **8. CONCLUSIONS**

The Aerospace field may pass quickly from the peace law to war law or from civil law to the military law. People and goods move the fastest possible by the air transportation.

One of the public-private interacting in aerospace is the transparency of the financial relations between the state and the public undertakings.

In aerospace one of the new sources of advantage is represented by the security systems.

For the aerospace activity the definition of technical efficiency (the ability to produce the maximum output of acceptable quality with the minimum of inputs) is not applicable.

In the top of importance there are law regarding the main values to be protected.

In the new trend of the economic analyse, the impact of the aerospace activities over the society is represented by 3 groups of factors: direct, indirect and induced.

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