Specific features of cargo insurance

Rossitsa Bakalova,
Nikola Vaptsarov Naval Academy, Varna 9002, BULGARIA
r.bakalova@nvna.eu

Abstract: *In any economic system, the transportation of goods is critical to the functioning of commerce and industry. In the world of international trade and transportation of goods, the risks associated with the transportation of goods are inevitable. Although technological logistics systems are developing at an extraordinary pace thus ensuring the efficiency and safety of transportation, factors such as natural disasters, technical problems, theft and damage can lead to serious losses for both carriers and cargo owners.*
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1. Introduction

One of the means to deal with these risks is to insure the cargo during its transportation. This not only offers security of commercial operations and minimization of financial losses in case of accidents or damage during transport, but also provides psychological peace of mind to all participants in the supply chain. This area of the insurance industry is dynamic and constantly changing, adapting to new technologies, legislative requirements and geopolitical conditions. However, the core principle of cargo insurance during transportation remains unchanged - to provide security and protection for traders and their goods, ensuring the smooth and trouble-free functioning of the global trade.

The study aims to study and analyze the main aspects of cargo insurance in transit. The presentation of the historical development of insurance, as well as an analysis of contemporary methods, products and services in the field, will provide a deep understanding of the importance and influence of insurance in this social and economic sphere. The analysis includes an overview of the main types of insurance that are used to cover risks during transportation, from traditional marine insurance to air and land cargo insurance. The specific risks associated with each of these forms of transport will also be analysed, as well as methods for risk assessment and risk management [1,4].

2. Types of cargo insurance coverage and types of risks during the transportation of goods

When it comes to transporting goods, regardless of the mode of transport – by land, air, sea or rail, it is essential to secure the right type of cargo insurance cover. Different modes of transport expose goods to different risks, and having the right insurance cover helps to provide the right protection and security when transporting goods.

A. Marine Insurance Coverage

Marine insurance cover is like a safety companion for goods traveling by sea. In view of the vastness of the oceans and unpredictable weather conditions, having marine insurance coverage provides protection against potential damage or loss.

As a general rule, marine insurance cover includes cover for damage or loss caused by loading/unloading incidents, weather-related incidents and other perils of the sea. It can also be extended to cover storage periods in ports and any land transit transportation associated with the sea voyage.

The unpredictability of the sea transport is associated with the possibility of storms, collisions or even piracy. Having marine insurance cover ensures that if a potential risk materialises, significant financial losses will be avoided. This makes marine insurance coverage mandatory when shipping goods by sea, especially over long distances. This type of insurance is essential for importers, exporters and manufacturers who deal with international ocean freight [2,3].

B.Air Insurance Coverage

Air insurance coverage is specifically intended for goods transported in the sky, protecting cargo from the unique risks associated with flights, such as changes in air pressure and rapid changes in temperature. It mainly covers damage or loss caused by accidents, turbulence or improper handling during loading and unloading. Depending on the covered risks included in the policy, cargo may be protected against damage caused during storage at the airport. The speed and efficiency of air transport for international shipments of goods, especially perishable goods or high-value products, contribute to indispensable air insurance coverage, reducing financial losses from unforeseen events during flights or cargo handling problems at airports .

C. Land Insurance Coverage

Land insurance coverage, also called commercial vehicle insurance, is coverage for goods transported by trucks or other vehicles on the road. Because of the diverse range of risks present on highways and roads, ground insurance coverage typically covers damage or loss caused by accidents, theft, or ambient conditions affecting the cargo. Specific policies may also cover damages incurred during the loading and unloading process. Road transit exposes goods to risks of accidents related to weather conditions as well, ensuring insurance security against the financial consequences of such unfortunate events.

D. Railroad Insurance Coverage

Railroad insurance coverage provides protection for cargo carried by rail, ensuring protection against loss or damage caused by accidents, collisions and other rail-specific incidents. The cover also includes insurance against theft or fire while the goods are on the train. Rail transit is preferred for its efficiency and lower environmental footprint, but does not negate rail insurance as a safeguard against possible damage and loss.

Types of risks during the transportation of goods: The transportation of goods is associated with various types of risks that may occur during transportation and lead to loss or damage for traders and transport companies, and for the prevention of which the necessary management measures are applied. Below are some of the main types of risks during cargo transportation that are covered by insurance law and can be caused by various circumstances, intentional or unforeseen, at individual stages and moments of transportation operations.

Damages during loading and unloading: This type of risk includes damages occurring during the process of loading and unloading the goods from and into the vehicle, which are due to improper handling of the goods, mechanical shocks or poor handling conditions of the cargo. For example, incorrect lifting or carrying of heavy goods can cause deformation or breakage of the load.

Loss of goods: This risk includes cases of loss of goods or goods fallen off during transport caused by a vehicle accident, incorrect marking and identification of goods. Loss of goods leads to supply chain disruption and financial losses.

Fire and explosion: This type of risk includes the danger of fire or explosion during the transportation of the goods, related to both technical problems of the vehicle and non-compliance with the storage conditions during transportation or chemical reactions of certain types of goods and cargo, endangering the life and health of people involved in transport.

Theft and vandalism: This type of risk includes the risk of theft, loss or vandalism both during the transportation of the goods and during their stay in certain places, for example in warehouses or in the means of transport themselves during transit through risk areas or high crime areas.

Damage during transportation: This type of risk includes damage as a result of the transportation of the cargo itself, such as possible deformations, breaks, leakage of liquids, damage to the packaging of the goods due to uneven distribution and sorting of the cargo or instability during transportation.

Loss of information or documentation: This risk includes the possibility of loss or destruction of important information or documentation related to transport processes due to data leakage, loss of transport documents and other documents to identify the goods. The loss of such information can in some cases also lead to legal problems.

Adverse weather conditions: This type of risk includes adverse weather conditions such as storm, snowfall or flooding, which may cause delays or damage to the cargo during transportation, as well as may lead to difficulties in the movement of vehicles.

Violation of legal and regulatory requirements: This type of risk includes violation of legal and regulatory requirements during the transportation of the goods, related to non-compliance with transport regulations or lack of necessary permits and licenses. Such violations lead to legal problems and penalties, as well as disruption of transport operations.

3. Insurance products and services for cargo in transit and types of risks during the transportation of goods coverages and exclusions for cargo insurance during transportation

Main types of cargo insurance during transportation

- All Risk Insurance: This is a general insurance coverage that provides insurance against all risks except those expressly excluded in the policy. This type of insurance offers broad coverage and is generally used to protect goods against any type of damage or loss during transit.
- Basic Risk Insurance: This type of insurance provides coverage only against certain basic risks that are specifically listed in the policy. These typically include fire, explosion, theft, and shipping damage. This type of insurance is more limited than All Risks insurance, but may be more suitable for certain situations or budget constraints.
- Natural Disaster Insurance: This type of insurance provides coverage for damage caused by natural disasters such as floods, earthquakes, hurricanes, and others. Because these events can cause serious damage to goods in transit, natural disaster insurance can be important to protect investments and prevent financial losses.
- Theft and Vandalism Insurance: This type of insurance provides coverage for losses caused by theft or vandalism during the transportation of the goods. As theft and vandalism can be serious threats to the safety of goods, insurance against these risks is essential for traders.
- Catastrophe and Accident Insurance: This type of insurance provides coverage for loss or damage caused by catastrophic events or accidents during transportation. It may include such situations as accidents, collapse of the vehicle or other unusual and unexpected events.
- Third Party Liability Insurance: This type of insurance provides coverage for damage caused to third parties during the transportation of the goods. This includes damage caused to property or to people who are not part of the carrier or owner of the goods, but suffered losses as a result of the transport activity.
- Delivery Interruption Insurance: This type of insurance provides coverage for loss or damage caused by interruption of delivery due to various reasons such as accidents, strikes, problems with the means of transport or other unexpected situations.
- Extra Expense Insurance: This type of insurance provides coverage for additional expenses that may occur during the transportation of the goods due to unexpected events such as accidents, crew illnesses or other factors that may lead to delays or supply interruptions.

Coverages and exclusions for cargo insurance during transportation

A. Coverages:

- Fire and Explosion: Generally, the insurance policy covers loss or damage to goods caused by fire or explosion during transportation.
- Theft and Vandalism: Covers losses caused by theft or vandalism during the transport mission.
- Damages during loading and unloading: This insurance can cover damages that occur during the handling of the goods during loading and unloading from/on the means of transport.
- Damage in transit: This insurance usually offers coverage for damage to goods during transit itself, including deformation, breakage or spillage.
- Natural Disasters: Some insurance policies may cover losses caused by natural disasters such as floods, earthquakes and hurricanes.

4. Regulatory and legal context, International conventions and agreements. Innovations in in-transit cargo insurance

Normative requirements for cargo insurance during transport

Regulatory requirements for cargo insurance during transportation may vary depending on the jurisdiction in which the transportation takes place, as well as the type of transportation and the characteristics of the goods. However, there are some general regulatory requirements and standards that may apply in many countries.

- Minimum carrier liability coverage: In many jurisdictions, legislation requires that carriers must have a minimum level of insurance coverage for their liability to shippers. This is important to ensure that customers are compensated in the event of loss or damage to goods in transit.
- Specific requirements for certain types of transport: For certain types of transport, such as the international transport of dangerous goods (ADR), specific insurance coverage may be required in accordance with international conventions and national legislation.
- Financial Licensing Requirements: Insurance companies that offer in-transit cargo insurance are generally subject to financial licensing requirements and regulations from regulatory authorities. This may include capital and solvency requirements, as well as compliance with certain standards for the insurance business.
- Information and documentation compliance: In order to comply with regulatory requirements, insurance companies must generally provide information and documentation about the insurance coverage they offer, as well as comply with their obligations to provide fair and accurate information to their customers.

These are some of the general regulatory requirements for in-transit cargo insurance that may apply in many countries. However, it is important to check with your local legislator or insurance expert to understand the specific requirements that apply to your business and region.

International conventions and agreements

In the insurance of cargo during transport, international conventions and agreements play an important role in regulating the rights and responsibilities of the parties involved in the transport, as well as in determining the general standards for insurance coverage. Some of the most important international conventions and agreements in this area include:

- The International Convention for the Carriage of Goods by Road (CMR): The CMR is an international treaty that regulates the rights and responsibilities of carriers and consignors during the international carriage of goods by road. It includes provisions for the insurance of goods and sets a minimum level of liability for carriers.
- The International Convention for the Carriage of Goods by Rail (COTIF): COTIF is an international convention that regulates the carriage of goods by rail in some European countries. It includes provisions for the insurance of goods and defines the rights and responsibilities of carriers and consignees.
- The International Convention for the Carriage of Cargo by Air (Montreal Convention): This convention regulates the carriage of goods by air and includes provisions for cargo insurance and the liability of airlines for loss or damage to goods.

The International Convention for the Protection of Goods (ISC): This convention aims to ensure the protection of goods during transport and includes provisions for the insurance of goods against various risks that may arise during carriage.

These international conventions and agreements aim to standardize the rules and procedures for the carriage of goods and to ensure the protection of the interests of carriers, shippers and insurers. These may include various provisions regarding the insurance of the goods and the rights and responsibilities of the parties in the event of loss or damage.

Innovations in in-transit cargo insurance

1. Technological innovations and technological platforms

Technological innovations and platforms are playing an ever-increasing role in insuring cargo in transit, providing more efficient and innovative solutions for insurers and customers alike. Some of the major technological innovations and platforms in this area include:

o Digitization of insurance processes: Digitization of insurance processes enables faster and more efficient issuance of insurance policies, claims processing and insurance portfolio management. This includes the use of electronic documents, online quoting and coverage platforms, and automated claims management systems.

o Use of sensors and IoT (Internet of Things): Sensors and IoT devices can be used to continuously monitor and control cargo conditions during transport, such as temperature, humidity, vibration and shock. This helps insurers assess risks more accurately and provide more personalized insurance solutions.

o Blockchain technologies for data management: Blockchain technologies provide a secure and transparent way to manage data and transactions at any point in the supply chain. They can be used to ensure the authenticity of documents such as insurance policies and contracts, and to automate claims settlement processes.

o Artificial intelligence and machine self-learning: Artificial intelligence and machine self-learning can be used to analyze large volumes of data and predict risks. They can help insurance companies better understand their customers' behavior, offer personalized insurance products and optimize pricing and coverage.

o Mobile applications and online platforms for customer service: Mobile applications and online platforms provide a convenient way of communication between insurance companies and their customers. They allow customers to quickly access information about their insurance, submit claims and get help from customer service teams.

These technological innovations and platforms not only streamline the processes of insurance companies, but also improve transparency, efficiency and customer satisfaction in insuring cargo in transit.

2. New approaches to risk assessment and risk management

New approaches to risk assessment and management in in-transit cargo insurance focus on using advanced technology, data and analytics to protect insurance companies from unforeseen losses and improve the precision and efficiency of the risk management processes [5].

• Use of Big Data and analytics: The collection and analysis of large volumes of data (Big Data) from various sources, such as sensors, social media, weather data and historical risk data, allow insurance companies to make a more accurate risk assessment and offer customized insurance solutions.

• Use of predictive models: Predictive models based on machine learning and statistical analysis can predict the probability of occurrence of various risks during the transportation of goods. These models can help insurance companies identify potential problems and take proactive measures to reduce risk.

• Use of sensors and IoT devices: The integration of sensors and IoT devices in the transport infrastructure and on vehicles enables continuous monitoring and control of transport conditions such as temperature, humidity and vibration. This allows insurance companies to react quickly to potential risks and take action to reduce them.

• Improved risk modeling: Advanced risk modeling models allow insurance companies to more accurately estimate the potential loss and damage that may occur as a result of various risks during transportation. This helps them determine the appropriate amount of insurance coverage and manage risk more effectively.

• Advanced risk assessment methods: New risk assessment methods, such as scenario analyses, stress tests and dynamic risk management models, enable insurance companies to deal with the complex and dynamic risks associated with the transportation of goods. These new approaches to risk assessment and management in in-transit cargo insurance allow insurance companies to be more flexible, innovative and efficient in meeting the challenges of the market today.

3. Development of multimodal insurance products

The development of multimodal insurance products in insuring cargo in transit represents a significant innovation in the insurance industry. These products offer comprehensive cover for the risks associated with the carriage of goods by various modes of transport and routes, enabling insurers and customers to deal with the complexities of international trade and logistics. Here are some of the main aspects of the development of multimodal insurance products:

• Integration of coverages for different modes of transport: Multimodal insurance products enable customers to obtain cover for the risks associated with the transportation of goods by air, land, water and rail. This provides comprehensive insurance cover for the entire transport route and reduces the risk of unforeseen loss or damage.

• Appropriate insurance services for the entire supply chain: Multimodal insurance products focus not only on the coverage of goods transportation, but also include insurance services for the entire supply chain, including warehouses, transit points and processing centers. This ensures greater security and protection of the goods throughout the transport process.

• Flexibility and customization: Multimodal insurance products offer flexible and customized solutions that meet the specific needs and risks of customers. They allow insurers to choose different types of coverage, limits and services depending on the characteristics of their shipments and business models.

• Integrated technology solutions: Multimodal insurance products use advanced technologies such as IoT devices, digital platforms and analytics tools to provide better risk monitoring, management and analysis. This allows insurers to offer more efficient and innovative solutions to their customers.

• Partnerships and collaborations: The development of multimodal insurance products often involves collaborations and partnerships between insurance companies, carriers, logistics operators and other actors in the transport chain. This allows all parties to share the risk and work together to reduce loss and damage during the carriage of goods. In conclusion, multimodal insurance products represent an innovative approach to freight risk management that provides comprehensive and customized insurance coverage for customers and improves the efficiency and security of transportation operations.

5. Conclusion

Cargo insurance during transportation is an indispensable part of the effective and efficient development of business and the protection of the personal interests of participants in global trade and logistics. Transporting goods by various modes of transport presents a significant risk of loss and damage, which is why having the right insurance cover is essential. Different modes of transportation expose cargo to a variety of risks, including collisions, theft, fires, natural disasters, and more. Insurance coverage is designed to provide financial protection in the event of such mishaps while ensuring business continuity.

The main types of cargo insurance in transit include marine insurance, air insurance, land insurance and rail insurance. Each of these insurances offers different levels of coverage tailored to the specific risks associated with the type of transport and route. With the development of technology and new approaches to risk management, insurance companies are offering innovative solutions for insuring cargo in transit. Technological innovations such as IoT devices, Big Data analytics and predictive models help in more accurate risk assessment and better management of insurance products.

Also, the development of multimodal insurance products provides complex solutions to cover risks during transport, which is of particular importance for companies that use different modes of transport to deliver their goods.

In conclusion, in-transit cargo insurance is vital to ensuring the security and continuity of the global supply chain. With the right insurance coverage, businesses can protect themselves from unforeseen losses and continue their business operations successfully, while insurance companies provide the most appropriate innovative and customized solutions to ensure protection, ensuring peace of mind for their customers.

6. Literature

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