

7. Insurance market for space activities

Although launching satellites appears to be a routine operation to the general public, there are still major risks involved. A branch of the insurance sector specifically covers the commercial space sector's operations. The main risks covered still tend to be a failure at launch or mechanical troubles for telecommunications satellites (with different types of satellite insurance coverage) (Table 7.1). If losses occur, they tend to happen 83% of the time in the very first phases of the space systems' lifetime, either because of a malfunction of the rocket during launch or because of a satellite's breakdown during the first month of operations (Figure 7.2). The space insurance industry generates around USD 750 to USD 800 million a year. After several rocket failures in 1998 and 2001, in recent years space insurers have seen their profits rise and have lowered premium rates. Premium rates paid by satellite operators depend mainly on the reliability over time of the launch vehicles and satellite platforms they use. There are still relatively few satellites insured compared to the mass sent to orbit every year, some 40 per year out of the hundred launched every year (Figure 7.3). In 2010, out of the almost 1 000 operational satellites in orbit, about 175 commercial satellites are insured for a total value of some USD 170 billion (XL Capital, 2010). Approximately 36 commercial launches carrying 23 GEO satellites and 25 LEO satellites could be insured each year through 2013. Five operators have nearly 50% of the in-orbit fleet, and 48 operators split the remainder. In addition to insuring commercial satellites, two new segments for space insur-

ance could develop over the next decade: space tourism via suborbital trips, and commercial flights of goods and provisions to the international space station. The insurance market traditionally thrives on volume. So as long as these potential future activities remain niche markets, premiums rates and possible exclusions will remain high (Pagnanelli Risk Solutions, 2009).

Methodological notes

Data are provided by insurers in constant USD.

Sources

Pagnanelli Risk Solutions (2009), "Space Activities and Relevant Insurance Implications", *Risk Management*, No. 45, May.

XL Capital (2010), *Insurance Products: Space*, Bermudas, www.xlinsurance.com.

Further reading

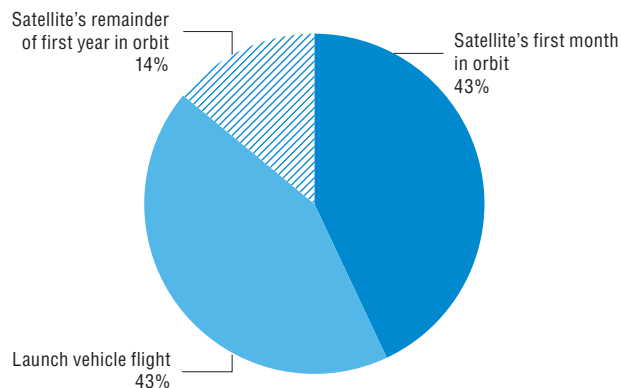
OECD work on insurance, www.oecd.org/insurance.

7.1 Types of satellite insurance coverage

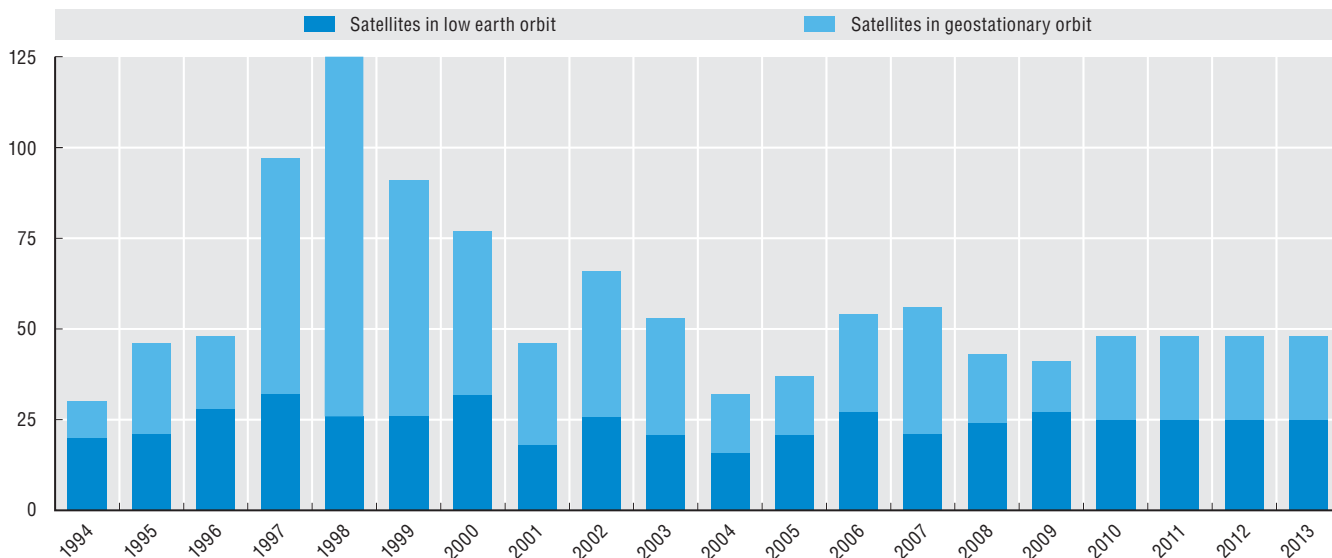
Launch – physical damage	Coverage for the spacecraft, launch system and any additional costs from intentional ignition of the launch vehicle until spacecraft separation.
Launch – post-separation	Included as an additional coverage to launch, provides for the full deployment and operation of the satellite from separation from launch vehicle until satellite reaches its intended orbital position through in-orbit testing.
In-orbit operations	Protects against the risk of a complete or partial failure of the satellite while operating in space.
Transponder coverage	Provides protection against the loss of one or more transponders being used on an operating satellite.
Satellite incentive coverage	Protects satellite manufacturers against loss of incentive payments due to lack of guaranteed performance of a satellite.
Launch risk guarantee	Provides for the full (or partial) cost for another launch if the satellite fails to reach its intended orbit, is destroyed, or if its functions are impaired resulting from a launch vehicle malfunction.

7.2 Occurrence of satellite's failures during first year of operations

Based on the number of insured satellites during the 2000-09 period



7.3 Estimates on the number of satellites insured (1994-2013)





From:
The Space Economy at a Glance 2011

Access the complete publication at:
<https://doi.org/10.1787/9789264111790-en>

Please cite this chapter as:

OECD (2011), "Insurance market for space activities", in *The Space Economy at a Glance 2011*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264113565-12-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.