

Impact of the Russian invasion of Ukraine on insurance markets

Please cite as: OECD (2022), *Impact of the Russian invasion of Ukraine on insurance markets*, Business and Finance Policy Papers, OECD Publishing, Paris, <https://doi.org/10.1787/731d1305-en>.

This note assesses the immediate impact of the Russian invasion of Ukraine on global insurance markets. It addresses the direct impacts of the war on the industry, such as losses arising in certain specialty lines and restrictions on the provision of insurance services, as well as indirect impacts, such as increased macroeconomic and financial market volatility, which in turn affect insurers.

© OECD 2022.

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 the Member countries of the OECD.

This document, as well as any data and 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.

Cover image: © Swillklitch/Getty Images.

Foreword

Russia's full-scale invasion of Ukraine in February 2022 has led to extensive loss of life, casualties, and damage to property and infrastructure. The invasion has led to sanctions being applied against Russia, including prohibitions on the supply of specific lines of insurance and reinsurance. Russia has taken countermeasures to address the impact of various sanctions and has in turn applied sanctions of its own against "unfriendly states".

This note discusses the impact of the war on insurance markets, in terms of the direct impacts on the industry, such as losses arising in certain specialty lines and restrictions on the provision of insurance services, as well as indirect impacts, for instance increased macroeconomic and financial market volatility, which in turn affects insurers.

This note was prepared by Timothy Bishop, under the supervision of Flore-Anne Messy, from the Consumer Finance, Insurance and Pensions Division of the OECD Directorate for Financial and Enterprise Affairs. It helped to support discussions at the OECD Insurance and Private Pensions Committee at its session on 22-23 June 2022. This note [DAF/AS/WD(2022)7/REV] was approved for declassification by the Committee and was prepared for publication by the OECD Secretariat.

1 Introduction

Russia's full-scale invasion of Ukraine in February 2022 has led to extensive loss of life and casualties and damage to property and infrastructure. It has led to sanctions being applied against Russia, including restrictions on financial transactions with designated persons and entities, restrictions on access to the global payment messaging network, and prohibitions on the supply of goods and services critical for its economy, including specific lines of insurance and reinsurance. Russia has taken countermeasures to address the impact of various sanctions and has in turn applied sanctions of its own against "unfriendly states".

Initial losses for the insurance sector are materialising or expected to materialise mainly in specialty insurance lines, notably in aviation insurance, but some impacts have been felt in marine insurance and losses are expected to materialise in property, trade credit, and political risk insurance. Losses in aviation and credit insurance stem from the imposition of sanctions and measures against Russia and related Russian responses. Damage to commercial property and infrastructure in Ukraine will generate losses, as many large companies will have purchased war or political violence coverage. The war is also increasing the level of cyber risk, with attacks already directed against Ukraine and Russia and other countries, which may generate losses depending on the existence of coverage and the applicability of various types of exclusions. Recognising that the situation is uncertain, preliminary rough estimates suggest an overall industry loss of USD 20.6 billion which, while large, is manageable for the sector, in line with the costs of a mid-sized natural catastrophe event.

Besides insured losses, other direct impacts include restrictions on insurer operations in Russia, such as the United Kingdom and European Union's prohibitions on the provision of insurance and reinsurance for Russian aircraft and spacecraft. These insurance sanctions are intended to disrupt Russia's economy and source of funds. Meanwhile, a number of insurers and reinsurers have voluntarily decided to reduce their exposure to Russia's insurance market, by not underwriting new business or, for those insurers with Russian subsidiaries, by reducing or selling their ownership stake. Western sanctions may also be impeding the fulfilment of insurance contracts, for instance by prohibiting claims payments to designated Russian entities. Russia has prohibited, until end 2022, Russian insurers from entering into any contracts with insurers, reinsurers, or brokers from "unfriendly states".

The indirect impacts of the crisis are also significant, arising from increased inflationary pressures, expectations of interest rate rises, and volatile financial markets, which will have diverse impacts on insurers. For example, inflation is expected to lead to higher-than-expected claims payments for property and casualty insurers, putting pressure on margins, and can also be expected to increase expenses for both life and non-life lines of insurance business. More volatile equity markets may impact insurer portfolio investments (due to the general downturn in these markets), and reduce investor risk appetite, affecting demand for unit-linked products. Any prolonged economic weakness or possible recession arising from inflation and more restrictive monetary policy will affect premium growth and could also impact the credit ratings of bonds included in investment portfolios. Furthermore, the war is increasing the level of risk aversion on the part of insurers, given heightened geopolitical risks.

2 Direct impacts on insurance markets

Insured losses

Property and business interruption insurance

According to the Kyiv School of Economics, the direct physical damage to residential and non-residential buildings and infrastructure caused by the war amounted, as of 22 August 2022, to USD 113.5 billion (Kyiv School of Economics, 2022^[1]). Over 131,000 residential buildings have been destroyed or damaged, with an estimated value of USD 47.8.3 billion, while damage to Ukrainian business recorded to date has reached USD 11.3 billion (Kyiv School of Economics, 2022^[2]). According to an estimate from 25 May 2022, overall economic losses, which include indirect losses such as war-related defence and social expenditures, the drop in economic activity and new investment, and labour outflows, were estimated to range from USD 564 to 600 billion (Kyiv School of Economics, 2022^[2]).

Insurance losses linked to Ukrainian residential property and SME assets are likely to be limited, due to the low rate of insurance penetration, lower insured values and, more importantly, the coverage exclusions for war-related damages and losses, which are broadly applied in standard property insurance policies. Property and life policies generally exclude losses or damages arising directly or indirectly from war, “war” being considered to be *“war, hostile or warlike action in time of peace or war, whether declared or not, including action in hindering, combating, or defending against an actual, impending or expected attack...by any government or sovereign power”* (Marsh, n.d.^[3]).

War risk coverage can be purchased as an endorsement or as part of a separate policy (Covington, 2022^[4]), for instance through political violence insurance. Political violence insurance covers risks linked to war and civil instability, including strikes, civil war, and revolution, and will cover property damage and can include business interruption and contingent business interruption (AXA, n.d.^[5]; SCOR, n.d.^[6]; HDI Global Specialty, n.d.^[7]). Political violence insurance is to be distinguished from political risk insurance, which covers risks typically linked to government policy action such as expropriation, forced divestment, capital controls, non-payment, and contract frustration (see (Marsh, n.d.^[8]); that said, political risk insurance may include political violence coverage within the policy (Marsh, n.d.^[8]).

According to Property Claims Services (PCS), war-related property damage and business interruption losses in Ukraine could eventually be a significant contributor to industry losses, after aviation, given the large number of large companies covered, the inclusion of business interruption, and high loss limits (Reinsurance News, 2022^[9]). PCS has a working estimate of USD 3 billion in losses, with losses likely to exceed USD 2 billion (Reinsurance News, 2022^[9]). Given the ongoing war, it may take time for losses to become known.

Furthermore, damage to energy infrastructure assets in Ukraine may generate losses. Potentially damaged energy infrastructure assets include nuclear facilities and onshore windfarms. PCS has estimated that

losses linked to energy infrastructure damage are likely to exceed USD 2 billion (Reinsurance News, 2022^[9]).

Marine insurance

The war has greatly increased the risks of physical damage to ships navigating in waters close to Ukraine, given the risk of a vessel being hit by a missile or striking a mine. At the outset of the war, the death of a seafarer off the coast of Odessa and the sinking of a Panama-flag cargo ship caused marine insurance premium rates to jump (Lloyd's List, 2022^[10]). As of 5 April, six vessels had been affected (Reuters, 2022^[11]).

For large value assets such as ships and airplanes, insurance coverage for damage to the hull may be acquired. Marine hull insurance premiums are negotiated either for a certain period of time (e.g. one year) or on a voyage-by-voyage basis (Lloyd's List, 2022^[10]), or some combination (Kittende, n.d.^[12]). For marine hull insurance, war risks (war, piracy, or seizure of the vessel) are not covered in the main policy and must be purchased separately, unlike for marine cargo insurance where war risks are included as part of an all-risk policy (Allianz, 2019^[13]).

Typically, war risk insurance for marine hulls (and related machinery) is provided at a low flat rate, with exclusions applied for transit in listed areas as determined by the Lloyd's Market Association Marine Joint War Committee¹ (NSN Law Bulletin, 2022^[14]). Ship owners can purchase coverage for entry into these areas but must pay an additional premium (Lloyd's List, 2022^[10]), generally for a duration of a week (Allianz, 2019^[13]). The pricing is a percentage of hull value. For marine and aviation insurance, war risk coverage can be cancelled at short notice by insurers, and there may be provisions for automatic cancellation in the event of war between two or more of the five permanent members of the UN Security Council (France, China, Russia, United Kingdom, and US).

Prior to the outbreak of the war on 24 February, the Joint War Committee designated, on 15 February, Russian and Ukrainian waters in the Black Sea and the Sea of Azov as listed areas. Notices of cancellation of war coverage were issued by many insurers, requiring an additional premium to reinstate the coverage (CRC Group, 2022^[15]). The range of pricing for additional premiums for war coverage widened significantly, from the standard 0.025% of hull value to a range of 1 or 2% up to as much as 5% of vessel value (with a reported 10% in the riskiest areas), with some customers unable to secure cover (Lloyd's List, 2022^[10]; Reuters, 2022^[16]; Insurance Journal, 2022^[17]). As a comparison, in 2019, the charging of an additional premium of 0.8% in response to an Iranian seizure of a vessel was deemed to be excessively high (Lloyd's List, 2022^[10]). Since the outbreak of the war, premium rates for vessels going into other Russian waters have risen by at least 50% (Reuters, 2022^[18]).

Due to the designation of the Black Sea and Sea of Azov as listed areas, losses related to vessel damage are expected to be moderate (Claims Journal, 2022^[19]). However, losses may emerge in other marine lines, such as: (i) trapping and blocking losses, linked to the inability of vessels to move freely (Reinsurance News, 2022^[9]), and arising from claims for total constructive losses (CTLs) for vessels considered to be unrecoverable after an extended period of time (e.g. 6, 12 months) – CTLs are expected for around 12 to 15 stranded vessels in August, with additional CTLs expected for a dozen vessels by February 2023 (Lloyd's List, 2022^[20]); (ii) losses linked to ports and terminals, such as damage to property or equipment and interruptions in port operations (see e.g. (AXA XL, n.d.^[21]) (Reinsurance News, 2022^[22])); and (iii) cargo-related losses, including spoilage. According to PCS, losses in marine insurance, which may take time to surface, are estimated to be in the range of USD 2-5 billion, with trapping and blocking losses

¹ The [Joint War Committee](#) comprises underwriting representatives from the Lloyd's and International Underwriting Association of London (IUA) markets, representing the interests of those who write marine hull war business in the London market. It generally meets every quarter to review areas of high-risk for merchant vessels and at risk from war, terrorism, piracy, and related risks (Insurance Journal, 2022^[91]).

potentially reaching as high as USD 1 billion (Claims Journal, 2022^[19]). Cargo losses are expected to be small in relation to losses arising from blocking and trapping and from ports and terminals (Claims Journal, 2022^[19]).

Trade credit insurance and political risk insurance

Insurance losses are being generated by more than just actions related to the war itself. For instance, the application of a variety of measures, including sanctions and foreign exchange controls, is leading to losses in trade credit insurance and political risk insurance. As part of the imposition of martial law in Ukraine, the central bank of Ukraine issued, on 24 February, a Resolution on the banking system and foreign exchange market. Among other restrictions, the Resolution imposed a moratorium on cross-border foreign currency payments, except for (foreign) businesses that are supporting the government's war mobilisation objectives or that have special permission (National Bank of Ukraine, 2022^[23]).

Meanwhile, sanctions have been applied against certain designated persons and entities in Russia, and a number of Russia's banks have been excluded from the SWIFT payment messaging network. For its part, Russia has imposed controls on foreign exchange transactions, for instance banning the crediting of foreign currency funds in overseas accounts in relation to foreign trade contracts with non-residents, unless there is explicit approval (White & Case, 2022^[24]).

The payment transfer restrictions in Ukraine and Russia have increased the risk of payment defaults. Trade credit insurers,² who provide coverage for exporters against this type of risk, have been monitoring their exposures and are withdrawing from covering new business in Ukraine and Russia. Unlike other standard (non-war) insurance policies, there is more scope in trade credit insurance to cancel policies or reduce coverage at short notice (Reuters, 2022^[25]; Reinsurance News, 2022^[22]) ESG or reputational factors may also be accounting for a pullback in coverage in Russia (Reuters, 2022^[25]).

Trade credit insurance losses are expected. For instance, Allianz has announced that it has set aside around USD 100 million in reserves for expected claims in relation to the war, mostly in credit insurance (Financial Times, 2022^[26]). War exclusions may potentially limit the exposure of trade credit insurers to Ukraine, given the war being waged there, but not their exposure to Russia, where no war is being waged (Morningstar - DBRS, 2022^[27]).

Political risk insurance policies will also be a source of industry losses. Political risk insurance provides coverage for such events as (i) currency inconvertibility, arising from currency transfer restrictions, (ii) confiscation, expropriation, and nationalisation, (iii) contract frustration, and (iv) political violence (Risk & Insurance, 2022^[28]; Hamdani, Liebers and Zanjani, 2005^[29]; Bloomberg Law, 2022^[30]). Political risk insurance is offered by national and multinational agencies and private insurers. Multinational companies operating in Ukraine and Russia will have likely purchased political risk insurance (Risk & Insurance, 2022^[28]). Coverage can be short term (e.g. 30 days for trade contracts) or long term (e.g. several years, for infrastructure projects) (Milliman, 2017^[31]). Contrary to other types of policies or endorsements providing war risk coverage, political risk insurance does not permit insurers to cancel the policy or alter premiums during the policy period (Law 360 Insurance Authority, 2022^[32]).

The total insured limit for political risk insurance in Ukraine and Russia is roughly USD 2 billion.³ While eventual losses may be large, they are expected to be manageable (Reinsurance News, 2022^[22]) Political

² Euler Hermes (owned by Allianz), Atradius, and Coface are the major private trade credit insurance providers, and cover over 85% of the private trade credit insurance market.

³ The technical exposure to structured credit and political risk together is thought to be higher than the USD 2 billion on political risk exposure noted above, although it is difficult to gauge accurately since these are confidential classes of insurance (most political risk policies have a clause that requires that the existence of the policy remain confidential

risk insurance losses may arise from the war due to contract frustration (e.g. inability to deliver goods to Ukraine or Russia under export contracts), currency inconvertibility (e.g. Ukrainian and Russian foreign exchange controls), expropriation (e.g. for any physical assets seized by Ukraine or Russia), and divestiture (e.g. Western sanctions forcing divestiture from Russia) (Willis Towers Watson, 2022^[33]; McGuireWoods, 2022^[34]). Going forward, there may be a risk of expropriation in Russia, as the government may move to nationalise the assets of foreign businesses that have exited due to the sanctions (McGuireWoods, 2022^[34]).

Aviation insurance

The application of sanctions relating to the supply or transfer of aircraft has to date had the most significant direct impact in terms of losses. The application of EU sanctions prohibiting the leasing of airplanes to Russian airlines has had a major impact on the aviation insurance sector, which is expected to incur its largest loss event ever (Claims Journal, 2022^[19]). Under sanctions imposed by the EU at the end of February, the EU prohibited the sale, supply, transfer, or export of goods and technology related to aviation or the space industry to any person or entity in Russia or for use in Russia (see Article 3c in [Regulation \(EU\) 2022/328](#)). The provision of insurance or reinsurance for Russian aviation and spacecraft was also prohibited.

The measures required EU-based companies (or companies operating in the EU) leasing planes to Russian airlines to terminate their leasing contracts. Leasing firms seeking to repossess their planes had one month to cancel their contracts and recover their planes. When the war started, about 513 aircraft operated by Russian airlines worth USD 10 billion were leased from non-Russian firms (American Shipper, 2022^[35]). Among foreign providers, AerCap, the world's largest aircraft leasing company, and SMBC Aviation Capital, a leading aircraft lessor, had the largest exposure to Russia (Statista, 2022^[36]).

Following these sanctions, the aviation authorities of Bermuda and Ireland (where many leased aircraft are registered (Reinsurance News, 2022^[22])) decided to suspend or, in the case of Bermuda, revoke the certificates of airworthiness (CoA) of aircraft registered in their jurisdiction and leased to Russian airlines, citing concerns about their ability to verify airworthiness. Aircraft lacking a CoA cannot fly.

In order to ensure uninterrupted flights by its airlines, Russia passed a law in March that allowed foreign aircraft leased by Russian airlines to be registered in Russia (Simple Flying, 2022^[37]). The law does not force re-registration without the permission of the owner; rather, the onus is placed on the airline to re-register the aircraft (Reuters, 2022^[38]). The law allows, where a foreign lease has been terminated and there is a request for the plane to be returned prior to the specified date in the lease agreement, the airline to continue flying the plane; moreover, any decision on whether to return an aircraft must pass through a special government commission (Aerotime Hub, 2022^[39]). Russia still recognises the lessors' ownership of the aircraft (Insurance Journal, 2022^[40]) and has offered to provide compensation for leased aircraft that cannot be returned – and has even offered to purchase the planes outright (BNN Bloomberg, 2022^[41]). However, leasing companies are concerned that negotiating payments or a purchase that would result in the transfer of aircraft to Russia would breach sanctions (Insurance Journal, 2022^[42]) (Insurance Journal, 2022^[40]).

Registration of an aircraft is undertaken by the owner and, under international rules, an aircraft cannot be registered in more than one state. Registration of an aircraft in another jurisdiction without proper notice may void the aircraft's CoA and insurance policy (e.g. see (AOPA Pilot Protection, 2016^[43]; IAA, n.d.^[44])). Under aircraft leasing arrangements, the lessees (i.e. the airlines) must secure insurance for the aircraft (primary coverage), covering hull damages and liability losses, including theft; in addition, for the hull, war

for reasons of moral hazard; almost all structured credit policies have a similar clause and regular trade credit also has a customer confidentiality provision). The extent to which this structured and credit political risk exposure in Russia becomes a loss exposure will be a function of time and future actions of Russia, which are difficult to assess.

risk coverage needs to be secured. For the leasing company (lessor), contingent insurance (or contingency and repossession insurance) is purchased to cover circumstances where the airline's own policy falls short, and war coverage for such a policy is bought in addition (Ishka, 2022^[45]). Contingent insurance is generally purchased for the lessor's entire fleet of aircraft (Johnson, 2015^[46]).

Russian law has required that direct hull policies be written by domestic insurers (Pillsbury, 2022^[47]), and there has generally been a requirement within these contracts for 90% of the insured value to be reinsured in international insurance markets (CMS Law-Now, 2022^[48]) to ensure that the insurance is backed by a reinsurer with a strong credit rating (Kass, 2017^[49]). Furthermore, so-called "cut-through" provisions may apply in the direct insurance policy to allow the reinsurer to make a payment directly to the lessor, who would be named as an insured party on the contract alongside the lessee (airline). Given the sanctions, Russia has sought to ensure continuity in coverage of foreign-leased aircraft through insurance and reinsurance arrangements, under the same conditions as the original contract (Aerotime Hub, 2022^[39]).

Russia's decision to enable re-registration in Russia has led to the filing of claims by aircraft leasing companies (Insurance Journal, 2022^[40]). As of 20 April 2022, 360 aircraft had been re-registered, of which 171 belong to non-Russian lessors (IBA, 2022^[50]), although the Russian Government had earlier indicated that 800 aircraft had been re-registered (Tass, 2022^[51]). The largest claim has been made by AerCap, which has submitted a USD 3.5 billion claim for more than 100 airplanes (Reuters, 2022^[52]). AerCap is seeking first to make claims against the airlines' own insurance policies⁴ and, should these policies fail to pay out, to claim coverage under its own (contingent) insurance policy (The Telegraph, 2022^[53]).

PCS has estimated losses to be in the range of USD 7-13 billion, with a working estimate of

USD 10 billion. Losses may be mitigated if insurer actions to cancel policies prove to be effective and court decisions limit insured value of the planes (Reinsurance News, 2022^[54]). According to Credit Suisse analysts, there will be considerable debate regarding the primary insurance coverage of the planes in Russia, but the contingent coverage secured by lessors may reportedly prove effective (Air Cargo World, 2022^[55]) (Reinsurance News, 2022^[22]). Given the complexities, litigation is expected to be protracted.

Due to the war, aviation (hull) war insurance is no longer available for Ukraine, Belarus, and Russia and premium rates for such coverage for the rest of the world has reportedly doubled, as insurers seek to recoup losses (Reuters, 2022^[18]). The Ukraine Government has offered to provide insurance coverage for planes flying through its airspace (Reinsurance News, 2022^[22]).

Cyber insurance

Russia's war against Ukraine has heightened the risk of cyber attacks and could generate losses. Already, there have been attacks on Ukrainian critical infrastructure, government departments, banks, and telecommunications firms; also, government ministries and businesses in Russia have been the target of attacks. Furthermore, cyber attacks have occurred in neighbouring countries such as Belarus, Latvia, Lithuania, and Poland (CyberCube, 2022^[56]). The types of attacks witnessed to date include distributed denial of service attacks, data corruption and viper malware, and misinformation campaigns (CyberCube, 2022^[56]). Hackers are being recruited by both sides and others are joining independently.

According to some reports, there has been an increase in cyber incidents since the start of the war outside of the war region, for instance in the US (Carrier Management, 2022^[57]). However, wide-scale attacks have not yet been witnessed. Experts believe there is no credible threat of a global cyber warfare (Carrier Management, 2022^[58]). However, should a large-scale cyber attack be carried out across several countries, it could lead to claims totalling USD 20 billion or more (Insurance Journal, 2022^[59]). Businesses

⁴ Presumably through cut-through provisions.

having dealings with Ukraine and Russia are at higher risk of cyber attacks, as are (more generally), countries that have imposed sanctions on Russia.

The heightened risk of cyber attacks has raised (or re-emphasised) questions surrounding war-related exclusions in cyber policies, and whether they would be applicable if there is no clear state sponsor. The global NotPetya attacks from 2017 (initially targeting Ukraine and causing an estimated USD 10 billion in overall losses (Carrier Management, 2022^[58])) brought to the fore the issue of whether wide-scale cyber attacks, attributed at the time to Russia, could allow insurers to rely on war exclusions in their cyber policies. A recent US lower court decision (Merck case) suggested that, based on the facts of the case, traditional war exclusion language could not provide the basis for a denial of coverage. Given the uncertainties over exclusions, the Lloyd's Market Association has developed "illustrative" model clauses that provide options for the drafting of war, cyber war, and cyber operations exclusions (Lloyd's Market Association Bulletin, 2021^[60]; Marsh, 2022^[61]) although it is not clear whether these (relatively recent) model clauses have been widely applied.

Ultimately, coverage for cyber losses will depend on policy terms and conditions and, in particular, the war exclusions. A determining factor will be whether the cyber attacks can be attributed to a nation state, with the onus of proof with the insurer (CyberCube, 2022^[56]). Unless war exclusions apply, insurers and reinsurers with exposure to Ukraine's critical infrastructure sectors could face losses linked to the cyber attacks and related business interruption (CyberCube, 2022^[56]). However, limited take-up of affirmative cyber insurance coverage, relatively low insured limits, and efforts to address non-affirmative coverage in property insurance policies will likely mitigate overall losses. No estimates of cyber losses to date have yet appeared in the public domain.

Summary of insurance industry losses

Recognising that the situation is uncertain, preliminary estimates suggest that overall losses for the insurance and reinsurance industry as a result of the war could exceed USD 20 billion, according to Property Claims Services (PCS) (Reinsurance News, 2022^[9]). Table 1 summarises the preliminary estimates shared by PCS, by the lines of insurance. The ongoing war makes it difficult to assess damages, for instance to property and infrastructure. There is also a fair amount of uncertainty regarding the losses in some lines of business, for instance due to expected legal disputes. PCS estimates that ultimate industry losses could range from USD 13 billion up to USD 23 billion.

Table 1. Early estimates of insured losses from the conflict, by line of insurance (PCS)

Line of insurance	Estimated losses
Aviation	USD 10 billion
Marine	USD 5 billion
Property per risk	USD 3 billion
Energy	USD 2.5 billion
Personal and SME property	USD 100 million
Total (preliminary)	USD 20.6 billion
<i>Expected range of losses</i>	<i>USD 13.05 – 23 billion</i>

Note: Preliminary estimates from Property Claims Services (PCS), made public in April 2022.

Source: Reinsurance News (2022^[9]), "Ukraine conflict industry loss could exceed USD 20bn: PCS", <https://www.reinsurancene.ws/ukraine-conflict-insurance-industry-loss-pcs/>.

S&P Global has estimated that the war could result in losses that range from USD 16 billion (6 billion aviation, 10 billion other specialty) to USD 35 billion (15 billion aviation, 20 billion other specialty).

According to S&P Global, the top 21 global reinsurers are expected to absorb 50% of the losses (S&P Global, 2022^[62]). The losses to be experienced by the reinsurance industry are expected to be manageable, with no expected impact on solvency, except for a few outliers (S&P Global, 2022^[62]). By way of comparison, Fitch Ratings has noted that insurers and reinsurers proved to be resilient when faced with about USD 30 billion in non-life losses as a result of the pandemic and natural catastrophe losses of over USD 100 billion in 2021 (Insurance Journal, 2022^[64]).

Table 2. Global speciality business lines most exposed to the conflict (S&P)

Aviation (contingent war, all risks)
Trade credit
Political risk (contract frustration, agriculture, and commodities)
Cyber
Political violence
Marine hull war

Source: S&P Global (2022^[62]), "Russia-Ukraine Conflict Adds To A Bumpy Start To 2022 For Global Reinsurers", <https://www.spglobal.com/ratings/en/research/articles/220331-russia-ukraine-conflict-adds-to-a-bumpy-start-to-2022-for-global-reinsurers-12329001>.

Lloyd's of London, a major provider of speciality insurance, has indicated that the Ukraine war will be a "major claim" in 2022, with an expected loss of USD 1-4 billion, net of third-party reinsurance (Financial Times, 2022^[65]), and will not present any solvency challenges (Insurance Journal, 2022^[66]). Lloyd's aviation insurance exposure is expected to be a key driver of its losses (Insurance Journal, 2022^[66]). Fitch Ratings has noted that most aviation policies are underwritten through Lloyd's, and that 30-40% of direct insurance exposure is ceded to (external) reinsurers (Insurance Journal, 2022^[66]). Given the concentration of the aviation insurance sector, losses may fall more fully on some Lloyd's underwriters, who may suffer above-average losses (Fitch Ratings, 2022^[67]), particularly if compounded by other losses related to the war or other large claims.

Global insurance and reinsurance groups have been setting up reserves or recognising losses in light of the expected cost of claims from the war. For instance, in first quarter reporting announcements for 2022 by large reinsurers, Munich Re announced, for specialty lines, expected losses of roughly EUR 100 million; Swiss Re has set aside reserves of USD 283 million; Hannover Re has established a reserve of EUR 143 million, excluding aviation claims (S&P Global, 2022^[68]); and SCOR has established a reserve of EUR 85 million.

Impacts on business operations and investments in Russia

Sanctions and the provision of insurance

The application of sanctions by both the West and Russia has affected the ability of global insurers and reinsurers to provide insurance services in Russia or to Russian businesses or persons. As earlier noted, certain sectoral prohibitions have already been imposed; for example, the EU, UK, and Canada have prohibited the provision of insurance and reinsurance services in relation to aviation and space goods or technology to Russian companies or persons, or for use in Russia.⁵

⁵ See Article 3c in EU [Regulation \(EU\) 2022/328](#), UK [Regulation 29A](#) and [Regulation 28](#) of the Russia (Sanctions) (EU Exit) Regulations 2019, and sanctions [regulations](#) in Canada.

More recently, on 3 June 2022, the EU adopted restrictions on the importation of Russian oil, with a prohibition to be applied, within a wind-down period of six months, on the insurance and financing of the transport, particularly through maritime routes, of Russian oil to third countries (European Commission, 2022^[69]). The measures are intended to impede the ability of Russia to export oil to the rest of the world (European Commission, 2022^[69]; Financial Times, 2022^[70]). On 21 July 2022, the UK introduced an import ban on Russian oil, to take effect by end 2022, with a prohibition on the provision of insurance for the importation of such oil.⁶ It has announced that similar prohibitions would apply to natural gas thereafter. These measures are intended to hinder the ability of Russia to earn revenues from its energy supplies. Revenues from oil and natural gas exports represent 45% of Russia's federal budget (International Energy Agency, 2022^[71]), Russia has responded with a pledge to provide state guarantees for Russian oil exports (Insurance Day, 2022^[72]).

In addition, insurers may be prohibited from providing insurance and related functions (e.g. claims payment) as part of any transaction with a restricted Russian entity or person (Reuters, 2022^[73]; Marsh, n.d.^[3]) or in relation to any good or service whose provision to Russia has been banned (Pinsent Masons, 2022^[74]). The exclusion of certain Russian banks from SWIFT may also create challenges for certain insurance operations (e.g. collection of premiums from, or payment of claims to, Russian entities, if funds need to be transferred through sanctioned banks) (Davies & Davies, 2022^[75]; Simmons & Simmons, 2022^[76]).

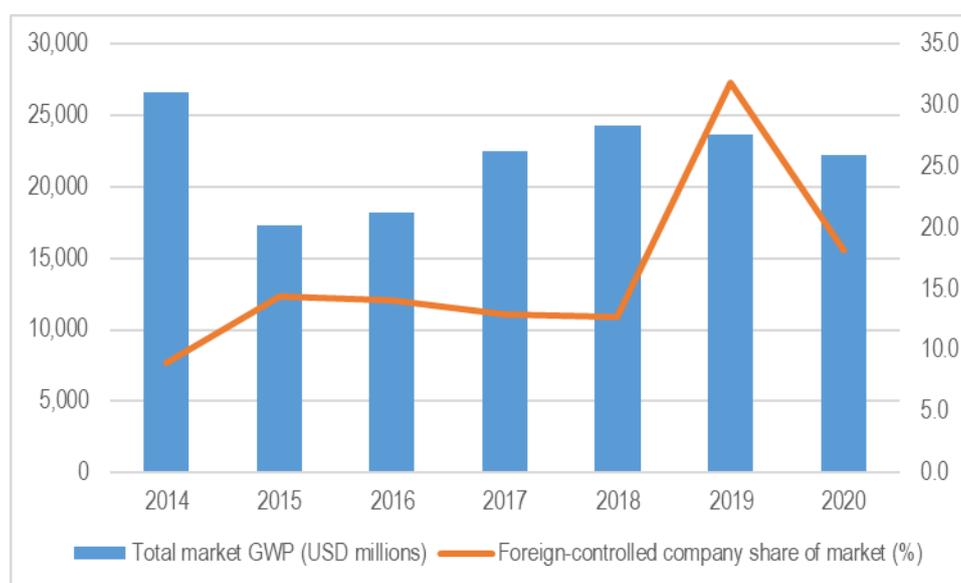
In March, Russia implemented retaliatory measures, with a prohibition until end-2022 on Russian insurers entering into any contracts with insurance and reinsurance companies and insurance brokers from "unfriendly states" (US, UK, Australia, Canada, Japan, Switzerland, EU countries, and other states) (Gibson Dunn, 2022^[77]; S&P Global, 2022^[78]). These measures also apply to reinsurers and brokers based in friendly states but controlled by firms based in unfriendly states (S&P Global, 2022^[78]).

Suspension of new business and withdrawal from the market

Foreign insurer operations in Russia generally represent a small portion of their global businesses. At the same time, foreign-owned insurers in Russia have held a non-negligible share of the Russian insurance market (see Figure 1). With a retention ratio of roughly 91% (for 2020), risks are generally retained within Russia (OECD, n.d.^[79]) According to Fitch Ratings, global reinsurers reduced much of their coverage of Russia following its annexation of Crimea in 2014. It is estimated that global reinsurer coverage of Russian risks amounts to less than 2% of global written premiums (Fitch Ratings, 2022^[80]).

⁶ See [Articles 46Z4](#) and [46Z8](#) of the Russia (Sanctions) (EU Exit) Regulations 2019.

Figure 1. Market share of foreign-controlled undertakings in Russia



Source: OECD Global Insurance Statistics, <https://stats.oecd.org/Index.aspx?DatasetCode=INSIND>.

A number of insurers and reinsurers have decided to stop writing new business in Russia or renew existing policies. Those with Russian subsidiaries may be reducing their control or have decided to leave the market altogether. Firms seeking to exit have transferred (or intend to transfer) ownership to local management or have found a Russian buyer. For instance, Allianz sold a majority stake of its Russian subsidiary to Interholding, the owner of Russia's Zetta Insurance, leaving it with a 49.9% minority stake and incurring a loss of USD 400 million (Allianz, 2022^[81]). Insurance brokers are also reducing or eliminating their footprint in Russia.

Meanwhile, Ukraine has called on insurance regulators in Austria, Bulgaria, and Latvia to encourage certain insurance groups based in their country⁷ with subsidiaries in Ukraine but also with operations in Russia and Belarus to exit from these latter two countries, so as to reduce the reputational risks of their Ukrainian subsidiaries (National Bank of Ukraine, 2022^[82]).

Portfolio investments

Portfolio investment exposure to Russia appears to be limited. For instance, according to S&P, US insurer investment exposures to Russia are very limited, and tend to be mainly in Russian sovereign debt (S&P Global, 2022^[83]; Insurance Day, 2022^[84]). Similarly, EU insurers reportedly have very limited investment exposures to Russia (Fitch Ratings, 2022^[80]). In their first quarter reporting, insurers have been reporting impairments to their Russian and Ukrainian bond holdings, leading to a charge to earnings.

⁷ The National Bank of Ukraine has targeted Euroins Insurance Group, Eleving Group, UNIQA Insurance Group AG, and Vienna Insurance Group. (National Bank of Ukraine, 2022^[82])

3 Indirect impacts: Broader ramifications on insurance markets

Inflation and growth

The war in Ukraine and related sanctions against Russia have had, given Russia's role as a leading global oil and gas exporter, a significant impact on energy markets, which is feeding through to the price of oil and gas. High energy prices will add to inflationary pressures, already on the rise due to continued supply chain problems as a result of COVID-19, labour market constraints, and other factors.

Inflationary pressures could negatively impact property and casualty insurers should claims costs rise, for instance in property and auto insurance, given possibly higher costs for labour, building materials, replacement parts, etc. (see (Fitch Ratings, 2022^[80])). Unless insurers are able to recoup these higher costs through increased premium rates, the profitability of these insurers may be affected (Morningstar - DBRS, 2022^[85]). If inflation proves to be persistent, reserve deficiencies could emerge in long-tail⁸ insurance lines (Fitch Ratings, 2022^[80]).

Moreover, inflationary pressures are having an impact – or may have an impact – on asset prices and economic growth, as monetary authorities raise interest rates to curb inflation and consumers pare back purchases given reduced real disposable incomes.⁹ Higher interest rates will have implications for valuations in insurer bond portfolios, though the net effect on insurers' financial position may be positive given their asset-liability profile. Insurers with large equity market exposures will have been negatively affected by falling equity prices in recent months. Any reduction in economic growth could negatively impact the credit quality of insurer bond holdings in the medium term (Morningstar - DBRS, 2022^[85]). Meanwhile, any slowdown of economic growth in real terms could constrain real premium growth, given the linkage between GDP and premium growth, particularly in the non-life sector (see (EIOPA Financial Stability Report, 2014^[86])).

⁸ Long-tail insurance lines are those lines where claims may be made or settled a long time in the future, after the policy period (e.g. liability lines) (see for instance the definition for "long-tailed business" in the glossary of the Society of Actuaries' Actuarial Toolkit (Society of Actuaries, n.d.^[95])). The rate of inflation will have an impact on the payment.

⁹ See *OECD Economic Outlook* (Edition 2022/1) (OECD, 2022^[96]) for a discussion of recent macroeconomic developments, including the increase in inflationary pressures arising from the Russian invasion of Ukraine, its impact on incomes and economic growth, and the tightening of monetary and financial market conditions.

Market volatility and investor risk appetite

The financial market volatility witnessed in recent months, owing to the efforts of monetary authorities to combat rising inflation through higher interest rates, lower growth prospects, and the war and its fallout, could reduce investor risk appetite. This could negatively impact the demand for unit-linked products offered by life insurers, where investment risk is borne by the policyholder. In most EU countries, these products represent the largest line of life business (EIOPA, 2021, p. 10^[87]); therefore, any reduced demand for such products will affect premium growth and earnings of European life insurers.

Broader insurer aversion to political risk

Russia's aggression against Ukraine and related response measures, including sanctions, have highlighted the relevance of political risks, which can be expected to increase going forward given the worsening macroeconomic environment and expected food shortages. Given global constraints on the supply of wheat (Russia and Ukraine supply 30% or more of grain products to at least 50 countries (Marsh, n.d.^[88])), and commodity price rises, inflation in emerging markets and developing countries could accelerate and create political instability. The threat of upheaval could lead to a reduction in insurers' risk appetite for the coverage of political risks (Moneta, 2022^[89]). Broader geopolitical and country risk concerns, including in relation to certain countries, could also contribute to increased risk aversion. Higher risk aversion could affect insurance offerings and pricing, and make it more difficult to finance projects and investments (Marsh, n.d.^[88]), particularly in developing countries that may need this investment the most.

References

- Aerotime Hub (2022), *Russia to allow airlines to pay for aircraft leases in roubles throughout 2022*, <https://www.aerotime.aero/articles/30442-russia-to-order-airlines-to-pay-aircraft-leases-in-roubles>. [39]
- Air Cargo World (2022), *Aircraft insurers brace for deluge of Russia claims, with Lloyds on hot seat*, <https://aircargoworld.com/news/carriers/aircraft-insurers-brace-for-deluge-of-russia-claims-with-lloyds-on-hot-seat/>. [55]
- Allianz (2022), *Allianz to sell majority stake in Russian operations to Interholding*, https://www.allianz.com/en/press/news/financials/stakes_investments/220603_Allianz-to-sell-majority-stake-in-Russian-operations.html. [81]
- Allianz (2019), *War (insurance) - What is it good for?*, <https://www.agcs.allianz.com/news-and-insights/expert-risk-articles/war-insurance.html>. [13]
- American Shipper (2022), *Russian takeover of foreign-owned aircraft portends higher lease rates*, <https://www.freightwaves.com/news/russian-takeover-of-foreign-owned-aircraft-portends-higher-lease-rates>. [35]
- AOPA Pilot Protection (2016), *Aircraft registration “dos” and “do nots”*, <https://pilot-protection-services.aopa.org/news/2016/december/01/aircraft-registration-dos-and-do-nots>. [43]
- AXA (n.d.), *Political Violence Insurance*, <https://axaxl.com/insurance/products/political-violence-insurance>. [5]
- AXA XL (n.d.), *Ports and Terminals Insurance*, <https://axaxl.com/insurance/products/ports-and-terminals-insurance>. [21]
- Bloomberg Law (2022), *Russia-Ukraine crisis raises political risk insurance profile*, <https://news.bloomberglaw.com/us-law-week/russia-ukraine-crisis-raises-political-risk-insurance-profile>. [30]
- BNN Bloomberg (2022), *Russia Seizing Foreign Jets Triggers Surge in Insurance Claims*, <https://www.bnnbloomberg.ca/russia-seizing-foreign-jets-triggers-surge-in-insurance-claims-1.1741948>. [41]
- Carrier Management (2022), *Experts Confirm Cyber Incidents Up Since War in Ukraine Started, Insurance Underwriters Adapting*, <https://www.carriermanagement.com/features/2022/03/16/233922.htm>. [57]
- Carrier Management (2022), *War in Ukraine Renews Questions Around Likelihood, Insurability of* [58]

- Cyber War, <https://www.carriermanagement.com/features/2022/03/17/233988.htm>.
- Claims Journal (2022), *Viewpoint: PCS Says Insured Losses From Conflict in Ukraine Reach \$20 Billion*, <https://www.claimsjournal.com/news/international/2022/04/21/310020.htm>. [19]
- CMS Law-Now (2022), *Impact of Russian sanctions on the aviation industry*, <https://www.cms-lawnow.com/ealerts/2022/03/impact-of-russian-sanctions-on-the-aviation-industry>. [48]
- Covington (2022), *Does your insurance cover losses caused by the Ukraine crisis?*, <https://www.cov.com/en/news-and-insights/insights/2022/05/does-your-insurance-cover-losses-caused-by-the-ukraine-crisis>. [4]
- CRC Group (2022), *Russia's invasion of Ukraine has consequences for shipping clients*, <https://www.crcgroup.com/Tools-Intel/post/russia-s-invasion-of-ukraine-has-consequences-for-shipping-clients>. [15]
- CyberCube (2022), *War in Ukraine creates fundamental shift in the cyber threat landscape*, <https://www.cybcube.com/news/stress-test-threat-russian-cyber-attacks>. [56]
- Davies & Davies (2022), *Russian sanctions and the insurance industry*, <https://davies-group.com/knowledge/russian-sanctions-and-the-insurance-industry/>. [75]
- EIOPA (2021), *European Insurance Overview*, <https://www.eiopa.europa.eu/sites/default/files/publications/reports/eiopa-21-591-european-insurance-overview-report.pdf>. [87]
- EIOPA Financial Stability Report (2014), *Insurance and the Macroeconomic Environment*, EIOPA, https://www.eiopa.europa.eu/sites/default/files/financial_stability/insurance_and_the_macroec_onomic_environment.pdf. [86]
- European Commission (2022), *Russia's war on Ukraine: EU adopts sixth package of sanctions against Russia*, https://ec.europa.eu/commission/presscorner/detail/en/IP_22_2802. [69]
- Financial Times (2022), *Allianz gears up for €500mn hit to exit Russia*, <https://www.ft.com/content/4b01e406-2637-4a31-8558-56f0b8832fcc>. [26]
- Financial Times (2022), *Lloyd's of London predicts Ukraine war will represent 'major claim*, <https://www.ft.com/content/a5446afa-a53e-44c6-97f3-95a88524a91b>. [65]
- Financial Times (2022), *UK and EU hit Russian oil cargoes with insurance ban*, <https://www.ft.com/content/10372dd3-be3c-42b9-982b-241a38efcc88>. [70]
- Fitch Ratings (2022), *Insurers Face Substantial Losses from Planes Grounded in Russia*, <https://www.fitchratings.com/research/insurance/insurers-face-substantial-losses-from-planes-grounded-in-russia-21-03-2022>. [67]
- Fitch Ratings (2022), *Market Volatility Is Ukraine War's Main Risk for European Insurers*, <https://www.fitchratings.com/research/insurance/market-volatility-is-ukraine-wars-main-risk-for-european-insurers-17-03-2022>. [80]
- Gibson Dunn (2022), *Russia Responds to International Sanctions – An Overview of Russian Countersanctions and Further Measures against So-Called “Unfriendly States”*, <https://www.gibsondunn.com/russia-responds-to-international-sanctions-an-overview-of-russian-countersanctions-and-further-measures-against-so-called-unfriendly-> [77]

[states/#_ednref11](#).

- Hamdani, K., E. Liebers and G. Zanjani (2005), *An overview of political risk insurance*, [29]
<https://www.bis.org/publ/cgfs22fedny3.pdf>.
- HDI Global Specialty (n.d.), *Political Violence*, <https://www.hdi-specialty.com/int/en/insurance-solutions/political-risks>. [7]
- IAA (n.d.), *Changes to registered owned that must be notified*, <https://www.iaa.ie/commercial-aviation/aircraft-registration-2/change-to-registered-ownership-which-must-be-notified-1>. [44]
- IBA (2022), *How many aircraft are being illegally re-registered by Russian airlines?*, [50]
<https://www.iba.aero/insight/how-many-aircraft-are-being-illegally-re-registered-by-russian-airlines/>.
- Ince (2022), *Ukraine/Russia crisis: potential implications for shipping contracts*, [93]
<https://www.incegd.com/index.php/en/news-insights/maritime-ukrainerussia-crisis-potential-implications-shipping-contracts>.
- Insurance Day (2022), *Medvedev pledges state cover for Russian oil exports*, [72]
<https://insuranceday.maritimeintelligence.informa.com/ID1140864/Medvedev-pledges-state-cover-for-Russian-oil-exports>.
- Insurance Day (2022), *Ukraine market losses could top \$20bn: Swiss Re*, [63]
[https://insuranceday.maritimeintelligence.informa.com/ID1140624/Ukraine-market-losses-could-top-\\$20bn-Swiss-Re](https://insuranceday.maritimeintelligence.informa.com/ID1140624/Ukraine-market-losses-could-top-$20bn-Swiss-Re).
- Insurance Day (2022), *US insurers' indirect exposures to Russia may be significant*, [84]
<https://insuranceday.maritimeintelligence.informa.com/ID1140046/US-insurers-indirect-exposures-to-Russia-may-be-significant>.
- Insurance Journal (2022), *Analysis – Cyber insurers face large Ukraine war-related claims despite exclusions*, [59]
<https://www.insurancejournal.com/news/international/2022/03/31/660531.htm>.
- Insurance Journal (2022), *Aviation re/insurers face claims as high as \$10B from planes grounded in Russia*, [64]
<https://www.insurancejournal.com/news/international/2022/03/22/659163.htm>.
- Insurance Journal (2022), *Cost of Insurance for Merchant Ships Sailing to Black Sea Ports Spirals Out of Control*, [17]
<https://www.insurancejournal.com/news/international/2022/04/11/662371.htm>.
- Insurance Journal (2022), *Lloyd's Expects 'Major Claim' From Russia-Ukraine War, Reports 'Strong' Profit in 2021*, [66]
<https://www.insurancejournal.com/news/international/2022/03/24/659516.htm>.
- Insurance Journal (2022), *London's marine insurers widen high-risk shipping areas as Ukraine conflict escalates*, [91]
<https://www.insurancejournal.com/news/international/2022/03/09/657451.htm>.
- Insurance Journal (2022), *Russia Offers to Compensate Foreign Lessors of Commandeered Jets*, [42]
<https://www.insurancejournal.com/news/international/2022/03/23/659346.htm>.
- Insurance Journal (2022), *Russia's Seizure of Foreign Jets Triggers Wave of Insurance Claims From Leasing Firms*, [40]

- <https://www.insurancejournal.com/news/international/2022/03/24/659484.htm>.
- International Energy Agency (2022), *Energy Fact Sheet: Why does Russian oil and gas matter?*, [71]
<https://www.iea.org/articles/energy-fact-sheet-why-does-russian-oil-and-gas-matter>.
- ishka (2022), *Aviation insurance and the fallout from sanctions on Russia*, [45]
<https://www.ishkaglobal.com/News/Article/6652/Aviation-insurance-and-the-fallout-from-sanctions-on-Russia>.
- Johnson, B. (2015), *Contingent Aircraft Insurance: The Exceptions Clause*, [46]
<https://airleasereviewblog.com/2015/10/01/contingent-aircraft-insurance-the-exceptions-clause/>.
- Kass, G. (2017), *Legal Issues in Aircraft Leasing*, [49]
<https://www.vedderprice.com/-/media/files/microsites/airline-economics-growth-frontiers-korea-2017/legal-issues-in-aircraft-leasing.pdf>.
- Kittende, F. (n.d.), *Marine Insurance Notes*, [12]
https://www.academia.edu/35156419/MARINE_INSURANCE_NOTES.
- Kyiv School of Economics (2022), *Direct damage caused to Ukraine's infrastructure during the war has reached over \$105.5 billion*, [2]
<https://kse.ua/about-the-school/news/direct-damage-caused-to-ukraine-s-infrastructure-during-the-war-has-reached-over-105-5-billion/>.
- Kyiv School of Economics (2022), *Make Russia pay*, [1]
<https://kse.ua/russia-will-pay/>.
- Law 360 Insurance Authority (2022), *Willis Says Insurers Adding Exclusions For Ukraine War*, [32]
<https://www.law360.com/insurance-authority/articles/1483046/willis-says-insurers-adding-exclusions-for-ukraine-war>.
- Lloyd's List (2022), *Dozen ships alongside in Ukraine could be declared total losses*, [20]
<https://lloydslist.maritimeintelligence.informa.com/LL1141112/Dozen-ships-alongside-in-Ukraine-could-be-declared-total-losses>.
- Lloyd's List (2022), *Underwriters said to be refusing cover for Ukraine war risks*, [10]
<https://lloydslist.maritimeintelligence.informa.com/LL1140066/Underwriters-said-to-be-refusing-cover-for-Ukraine-war-risks>.
- Lloyd's Market Association Bulletin (2021), *Cyber war and cyber operation exclusion clauses*, [60]
https://www.lmalloyds.com/LMA/News/LMA_bulletins/LMA_Bulletins/LMA21-042-PD.aspx.
- Marsh (2022), *A cyber continuum: New 'cyber war' exclusion language raises concerns*, [61]
<https://www.marsh.com/us/services/cyber-risk/insights/new-cyber-war-exclusion-language-raises-concerns.html>.
- Marsh (n.d.), *Food and energy inflation will drive increased political risk*, [88]
<https://www.marsh.com/us/services/political-risk/insights/food-and-energy-inflation-will-drive-increased-political-risk.html>.
- Marsh (n.d.), *Ukraine crisis: Property insurance considerations*, [3]
<https://www.marsh.com/us/risks/geopolitical-risk-russia-ukraine-conflict/insights/ukraine-crisis-property-insurance-considerations.html>.
- Marsh (n.d.), *What's Covered? Distinguishing Among Political Risk, Political Violence, and Terrorism Insurance*, [8]
<https://www.marsh.com/uk/services/terrorism-risk/insights/distinguishing->

[among-political-risk-violence-terrorism-insurance.html](#).

- McGuireWoods (2022), *Russia and the insurance angle — Tapping political risk and other insurance coverages*, <https://www.mcguirewoods.com/client-resources/Alerts/2022/3/russia-and-the-insurance-angle>. [34]
- Milliman (2017), *Political risk insurance: A primer*, <https://us.milliman.com/en/insight/2017/political-risk-insurance-a-primer/>. [31]
- Moneta, L. (2022), *Spillover effects of the Ukraine crisis: How to approach political risk insurance in times of brinkmanship*, <https://www.berneunion.org/Articles/Details/664/Spillover-effects-of-the-Ukraine-crisis-How-to-approach-political-risk-insurance>. [89]
- Morningstar - DBRS (2022), *Prolonged Economic Sanctions – A Risky Scenario for European Insurers*, <https://www.dbrsmorningstar.com/research/393787/prolonged-economic-sanctions-a-risky-scenario-for-european-insurers>. [85]
- Morningstar - DBRS (2022), *Trade credit insurers face prospect of elevated Russian claims as war in Ukraine persists*, <https://www.dbrsmorningstar.com/research/394716/trade-credit-insurers-face-prospect-of-elevated-russian-claims-as-war-in-ukraine-persists>. [27]
- National Bank of Ukraine (2022), *How Ukraine’s Banking System and FX Market Will Work from 24 February 2022 Under Martial Law Throughout Ukraine*, <https://bank.gov.ua/en/news/all/pro-robotu-bankivskoyi-sistemi-ta-valyutnogo-rinku-z-24-lyutogo-2022-roku-za-umovi-voyennogo-stanu-po-vsiv-teritoriyi-ukrayini>. [23]
- National Bank of Ukraine (2022), *NBU Calls On European Regulators to Support International Insurance Groups’ Exit from Russian and Belarusian Markets*, <https://bank.gov.ua/en/news/all/natsionalniy-bank-zaklikav-yevropeyskih-regulyatoriv-pidtrimati-vihid-mijnarodnih-strahovih-grup-iz-rinkiv--rf-ta-rb>. [82]
- NSN Law Bulletin (2022), *Additional premium under the hull war and strike insurance policy*, <https://www.nsnlawbulletin.com/post/additional-premium-under-the-hull-war-and-strike-insurance-policy>. [14]
- OECD (2022), *Economic Outlook, Edition 2022/1*, <https://doi.org/10.1787/16097408>. [96]
- OECD (n.d.), *OECD Insurance Statistics*, <https://stats.oecd.org/Index.aspx?DatasetCode=INSIND>. [79]
- Pillsbury (2022), *No Way Home: Coverage Implications of Russia’s Seizure of Foreign-Owned Aircraft*, <https://www.policyholderpulse.com/insurance-russia-seizure-foreign-owned-aircraft/>. [47]
- Pinsent Masons (2022), *Russian sanctions: the impact of UK, EU and US sanctions for UK and EU businesses*, <https://www.pinsentmasons.com/out-law/guides/russian-sanctions-guide-eu-businesses>. [74]
- Reinsurance News (2022), *Russian sanctions threaten historic aviation insurance loss: analysts*, <https://www.reinsurancene.ws/russian-sanctions-threaten-historic-aviation-insurance-loss-analysts/>. [22]
- Reinsurance News (2022), *S&P sees worst-case Russia insured loss of \$35bn+ across aviation, specialty*, <https://www.reinsurancene.ws/sp-sees-worst-case-russia-insured-loss-of-35bn-across-aviation-specialty/>. [54]

- Reinsurance News (2022), *Ukraine conflict industry loss could exceed \$20bn: PCS*, [9]
<https://www.reinsurancene.ws/ukraine-conflict-insurance-industry-loss-pcs/>.
- Reuters (2022), *AIG looks at cutting insurance for Russia, Ukraine*, [73]
<https://www.reuters.com/business/finance/exclusive-aig-looks-cutting-insurance-russia-ukraine-sources-2022-04-08/>.
- Reuters (2022), *Analysis: Aircraft lessors gird to battle insurers over Russia jet default*, [52]
<https://www.reuters.com/business/aerospace-defense/aircraft-lessors-gird-battle-insurers-over-russia-jet-default-2022-05-10/>.
- Reuters (2022), *Foreign ship sinks in Mariupol after missile attacks, says flag registry*, [11]
<https://www.reuters.com/world/europe/foreign-merchant-ship-hit-by-missile-mariupol-ukrainian-official-2022-04-05/>.
- Reuters (2022), *Insurance costs of shipping through Black Sea soar*, [16]
<https://www.reuters.com/business/insurance-costs-shipping-through-black-sea-soar-2022-02-25/>.
- Reuters (2022), *Insurance rates jump for Ukraine war-exposed business*, [18]
<https://www.reuters.com/markets/financials/insurance-rates-jump-ukraine-war-exposed-business-sources-say-2022-05-30/>.
- Reuters (2022), *Russian law creates new hurdle for foreign plane lessors*, [38]
<https://www.reuters.com/world/putin-signs-law-registering-leased-planes-airlines-property-tass-2022-03-14/>.
- Reuters (2022), *Trade credit insurers pull back from Russia, Ukraine after invasion*, [25]
<https://www.reuters.com/markets/europe/trade-credit-insurers-pull-back-russia-ukraine-after-invasion-2022-03-04/>.
- Risk & Insurance (2022), *How the current war in Ukraine is supercharging the always pressing need for political risk insurance*, [28]
<https://riskandinsurance.com/how-the-current-war-in-ukraine-is-supercharging-the-always-pressing-need-for-political-risk-insurance/>.
- S&P Global (2022), *Russia bans reinsurance with 'unfriendly states'; Generali's €683M exposure*, [78]
<https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/russia-bans-reinsurance-with-unfriendly-states-generalis-8364-683m-exposure-69369666>.
- S&P Global (2022), *Russia-Ukraine Conflict Adds To A Bumpy Start To 2022 For Global Reinsurers*, [62]
<https://www.spglobal.com/ratings/en/research/articles/220331-russia-ukraine-conflict-adds-to-a-bumpy-start-to-2022-for-global-reinsurers-12329001>.
- S&P Global (2022), *Swiss Re indicated that it has set aside reserves of USD 283 million*, [68]
<https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/hannover-re-s-8364-143m-russia-ukraine-war-reserve-excludes-aviation-claims-70143175>.
- S&P Global (2022), *US insurers have little investment exposure to Russia*, [83]
<https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/us-insurers-have-little-investment-exposure-to-russia-69422913>.
- SCOR (n.d.), *Terrorism and Political Violence*, [6]
<https://www.scor.com/en/terrorism-and-political-violence>.

- Simmons & Simmons (2022), *Sanctions against Russia*, <https://www.simmons-simmons.com/en/publications/ckzztnjy61ypp0a99yp0e1mfq/sanctions-against-russia>. [76]
- Simple Flying (2022), *Will Dual Registration Laws Prevent Leased Aircraft Being Re-Registered In Russia?*. [37]
- Society of Actuaries (n.d.), *Actuarial Toolkit - Glossary*, <https://actuarialtoolkit.soa.org/tool/glossary/long-tailed-business>. [95]
- Statista (2022), *Leading aircraft lessors with the most exposure to the Russian market as of February 2022, by number of aircraft*, <https://www.statista.com/statistics/1293260/aircraft-lessors-exposed-russian-market/>. [36]
- Tass (2022), *Minister reveals how many planes were transferred to Russian aeronautical register*, <https://tass.com/economy/1425735>. [51]
- The Maritime Executive (2022), *EU and UK cooperate on insurance ban for Russian oil cargoes*. [92]
- The Maritime Executive (2022), *EU and UK Cooperate on Insurance Ban for Russian Oil Cargoes*, <https://www.maritime-executive.com/article/eu-and-uk-cooperate-on-insurance-ban-for-russian-oil-cargoes>. [90]
- The Telegraph (2022), *Lloyd's of London ready for £8bn dogfight over planes 'stolen' by Putin*, <https://www.telegraph.co.uk/business/2022/05/02/lloyds-london-ready-8bn-dogfight-planes-stolen-putin/>. [53]
- UK Government (2022), *Press Release: UK to phase out Russian oil imports*, <https://www.gov.uk/government/news/uk-to-phase-out-russian-oil-imports>. [94]
- White & Case (2022), *Russia Adopts Countermeasures*, <https://www.whitecase.com/publications/alert/russia-adopts-countermeasures>. [24]
- Willis Towers Watson (2022), *Political risk insurance and Ukraine – pouring oil on troubled waters*, <http://tpts://www.wtwco.com/en-GB/Insights/2022/04/political-risk-insurance-and-ukraine-pouring-oil-on-troubled-waters>. [33]

