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# CORONA PANDEMIA TIMES: THE EXPORT CREDIT INSURANCE AS A TRADE FINANCE TOOL

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**Abstract:**
*It is expected that Great Lockdown caused by Covid-19 will cause the worst recession since the Great Depression, and far worse than the Global Financial Crisis of 2008. This paper aims to analyse the effectiveness of export credit insurance as a tool to mitigate the consequences of default in deferred international trade payments. A panel data analysis will be realized by using the data of 27 Berne Union member countries for 11 years in order to elaborate the effects of the export credit insurance commitments on exportation by taking into account other related economic factors such as export as a percentage of GDP, export volume, real effective exchange rate. The results of the analysis indicate that the export credit insurance schemes, mainly supposed to be provided by the public insurers, may mitigate the detrimental effects of Covid-19 on international trade.*

**Keywords:**
export credit insurance, default, international trade

## 1. Introduction

The new global economic environment has been figured out by Covid-19 rules. It seems that the current Coronavirus pandemic has forced a pause in many activities for at least three months. IMF reported that global growth in 2020 to fall to -3 percent under the assumption that the pandemic peaks in the second quarter of April for most countries in the world, and recedes in the second half of 2020. This makes the Great Lockdown the worst recession since the Great Depression, and far worse than the Global Financial Crisis of 2008 [1]. Hermes of Germany forecast at least 15 per cent decrease of GDP growth worldwide for de first half of 2020. For the second quarter, two alternative forecasts are reported; U-shaped recovery or an L-shaped protracted economic and financial crisis due to a 12-18 months' health crisis [2]. IMF also reports that while the decline in advanced economies is predicted as -6.1 percent, it is forecasted as -1.0 percent in 2020, and -2.2 percent in 2021, excluding China.

Since the first day of the acknowledgement of the situation, the border closures, travel bans, and other restrictions on the movement of goods, people, and capital together with the forced closure of businesses and the inability of workers to get to work caused substantial production disruptions. The first trade-related data came from China by Tradeshift [3] and reported that cross border and domestic trade activity fell by more than half during a single week in February. It is also stated that the number of transactions between Chinese businesses and international firms dropped by 50 per cent during the same period. It is also reported that due to severe distortions in the supply chains, Chinese trade activity drop 56 per cent on a week by week basis [4].

It is for sure that the developments in China will have great impacts on complex supply chains spanning the globe as China has been "the global and regional hub" for years and many economies export a significant amount of intermediate goods to the country, while others use inputs from China in their own production. It is predicted that impact of Covid-19 on global supply chains will force many companies to temporarily shut assembly and manufacturing plants in the U.S. and Europe as to contact with new suppliers is also out of concern. It is for sure

that the most vulnerable companies are those which rely heavily or solely on China's parts and materials producers as their activities has fallen sharply and is expected to remain depressed for months.
It is estimated that those disastrous developments will have paramount effects on trade finance activities. First of all, under the prevailing conditions the expected defaults on the existing export and import related payments will inevitably exacerbate the already hit international trade, as well as the financial environment in the recipient countries. Even at this early phase of the pandemic, there exists debate whether it is a "Force Majeure" event which is broadly defined as an event or effect that cannot be reasonably anticipated or controlled such as a natural disaster as defined in a contract and cause inability to meet the liabilities imposed under a contract [5].
Whenever the payments related to the international exchange of goods and services are planned to be made on deferred basis there should exist some form of financing. International trade finance products typically include intra-firm financing, inter-firm financing or more dedicated tools such as letters of credit, advance payment guarantees, performance bonds, and export credits insurance or guarantees (Chauffour and Farole, 2009).
Historically, there has been a presence of public Export Credit Agencies (ECA) in the short-term trade finance market. In fact for many of the developing countries including China, Korea and Turkey, ECA support to export has been continuing in the forms of lending and export credit insurance. However, over the last 15 years, in many of the developed countries, states have progressively stepped out from this market, to make it "marketable" under the rulings of OECD and EU. In those countries including US, the short-term trade finance by any means are provided by private banks, as government intervention via official trade finance schemes is considered as state aid (Korinek et al.,2010). However, the foreseen and unforeseen consequences of Covid-19 changed this market orientation approach in relation with export credit insurance. The European Commission has decided to temporarily remove all countries from the list of "marketable risk" countries which makes public short-term export credit insurance more widely available in light of the current crisis linked to the coronavirus outbreak. The amendment further expands on the flexibility with respect to the possibility by State insurers to provide insurance for short-term export-credit [6].
The radical shift in EU legislation addresses the possible effects of the export credit insurance scheme on resolving a part of the consequences of Covid-19 pandemia in the field of international trade finance. In this framework, this paper aims to analyze the effectiveness of export credit insurance as a tool to mitigate the consequences of default on international trade. In the following section, the literature review will be provided focusing on export credit insurance as a trade finance instrument and the effectiveness of export credit insurance for supporting the export by using. In the analysis section, a panel data analysis will be realized by using the data of 27 Berne Union member countries for 11 years in order to elaborate the effects of the export credit insurance commitments on exportation by taking into account other related economic factors such as export as a percentage of GDP, export volume, real effective exchange rate. After the effects of Covid-2019 on international trade have been fully understood, it thought that export credit insurance will gain further importance in order to prevent financial problems caused by trade distortions.

## 2. Literature Review

The availability of financing foster world trade and it is reported that an estimated 80 to 90 percent of world trade relies on some form of credit, insurance or guarantee facilities provided by the financial institutions (Auboin, 2007). The effect of the trade credit on exports have been analyzed by some researchers and the results are contradictory (Ronci, 2005; Berman and Martin, 2009; Iacovone and Zavacka, 2009; Levchenko et al., 2010). The functionality of export credit insurance for promoting international trade was fully realized by the developed countries and it is rather new tool for the developing countries.
Export credit insurance (ECI) provides protection to the exporters against the risk of non-payment by a foreign buyer. It is a fact that for cross border trading transactions, the default risk is harder to manage as it is more costly to monitor risks and more difficult to enforce payment. ECI generally covers commercial risks and political risks as defined in the policy and the coverage can be set as 90 to 95 percent. The commercial risks covered are insolvency of the buyer, bankruptcy, or protracted defaults/slow payment cases and the political risks covered are both risks such as war, terrorism, riots, and revolution that cause non-payment and financial system risks of the importer's country such as inconvertibility, expropriation, and changes in import or export regulations. ECI is provided either on a single-buyer basis or on a portfolio multi-buyer basis for short-term (up to one year) and medium-term (one to five years) repayment periods. The contribution of the ECI to international trade is twofold; as non-payment risk is

reduced, exporters can increase export sales, establish market share in emerging and developing countries, and compete more vigorously in the global market. Also, the insured foreign accounts receivable makes the financial intermediaries more willing to provide financing with attractive financing terms [7]. In developed countries ECI policies are offered by many private commercial risk insurance companies. Those companies apply premiums rates as individually determined based on risk factors and may be reduced for established and experienced exporters. In the developing countries public insurance institutions dominate the market as they can provide cover for riskier emerging foreign markets where private insurers may not operate. The International Union of Credit and Investment Insurers (Berne Union) is an international not-for-profit trade association, representing the global export credit and investment insurance industry and it is founded by mainly European credit insurance companies in 1934. In 1994, Berne Union formed the Prague Club with support from EBRD, in order to support new and maturing export credit agencies and insurers setting up and developing export credit and investment insurance schemes [8]. It is worthy to mention that OECD rules restricts official export credit agencies from providing guarantees covering export risks to OECD core members with a maturity of less than two years. Nevertheless, to provide trade credit insurance for firms wishing to export towards countries suffering from nonmarketable levels of default risk, most OECD countries maintain export credit agencies (ECAs)—either in the form of ministerial departments, or publicly owned or supported insurance companies—commissioned to issue trade credits with a state-guarantee (Baltensperger and Herger, 2009).

Funatsu (1986) proposed a formal model of trade-promoting effect of credit insurance and reported that insurance cover of trade credits will result in a higher output level. The studies of Egger and Url (2006) and Moser, Nestmann and Wedow (2008) focused on Austrian and German public export credit guarantees respectively and showed that such insurance stimulate trade in the long run.

Mah (2006) analyzed the effect of export insurance subsidy of Japan on the export supply by using unit root tests and cointegration analysis. However, they reported that although Japan has been the heaviest user of the export insurance system, export insurance system has not contributed to promoting export supply in Japan. Baltensperger and Herger (2009) analyzed export credit insurances provided by OECD member ECAs reported that those instrument have escalatory effects on the exports to middle- and high-income countries, but not to low-income countries during 1999-2005 period.

By using data set on worldwide exports insured by a world's leading private trade credit insurer in the period from 1992 to 2006 and applying various trade models, Van der Veer (2010) consistently find a positive and statistically significant effect of private export credit insurance on exports. Felbermayr and Yalcin (2013) used sectoral data on export credit guarantees issued by the German government and they found a robust export-increasing effect of guarantees which is larger for especially export markets with poor financial institutions and in sectors that rely more on external finance. Polat and Yeşilyaprak (2017) estimated different panel gravity regressions for 212 countries and 16 years and revealed that increasing export insurance provided by Turkish official export credit agency of Turkey (Turk Eximbank) positively affects Turkish export. They also reported that one percent increase in export insurance leads to 3 per cent to 17 per cent increase in Turkish exports. Koksal (2018) analyzed the effect of export credit ınsurance covered by export credit agencies on the developing countries' export figures and GDP. The countries subject to the analysis are Turkey and Indonesia, Malaysia, Thailand also known as IMT Countries. The results revealed that for countries Malaysia and Thailand, there is a cointegration relationship among the variables GDP, export value and export credit insurances. However, for countries Turkey and Indonesia there is no cointegration relationship.

## 3. Short Term Export Credit Insurance

The International Union of Credit and Investment Insurers (Berne Union) has 85 public, private and multilateral organizations including most active national export credit agencies, as well as the largest commercial credit and political risk insurance providers, who collectively account for the vast majority of export credit insurance activity globally. This capacity lets Berne Union to hold the most comprehensive data set on the business of export credit and investment insurance including risk exposure, commitments, claims, recoveries, premium income and reinsurance, by provider, business line, country, sector and by obligor type [9].

In the first half of 2019, Berne Union members reported a declining volume of new commitments alongside an overall 21 per cent increase in claims paid, as compared to the same period last year. This development explained by

the challenging trade environment, characterized by uncertainty fuelled by exacerbated by negative trade policy and deteriorating macro-economic conditions. Insurers of short-term trade credit (ST) reported USD 1.7 trillion aggregate credit limits issued at the end of June – no real change since the end of 2018, reflecting a lack of growth in underlying trade volumes9.

Figure 1 shows the short term turnover covered by public and private during the period 2014-2018. As of the end of 2018, the short term coverage reached to 2.2 billion USD in 2018 representing 11,8 per cent of total world exportation and 12,8 per cent of the exportation of the member countries. Referring to the OECD restriction about official guarantees with a maturity of less than two years, the share of the private insurers has been increasing gradually. The private insurers' share in short term export credit turnover cover increased to 60 per cent. The graphs in Figure 1 and 2 are self-produced by using Berne Union data.

**Figure 1 - Short Term Export Credit Turnover Cover 2014-2018**

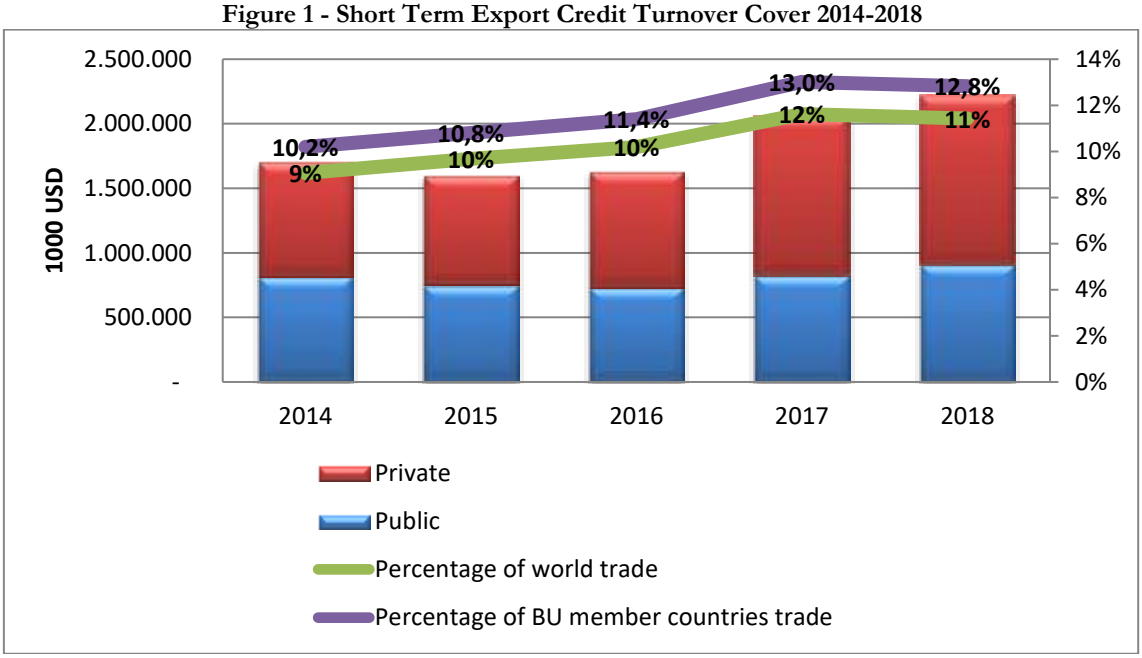
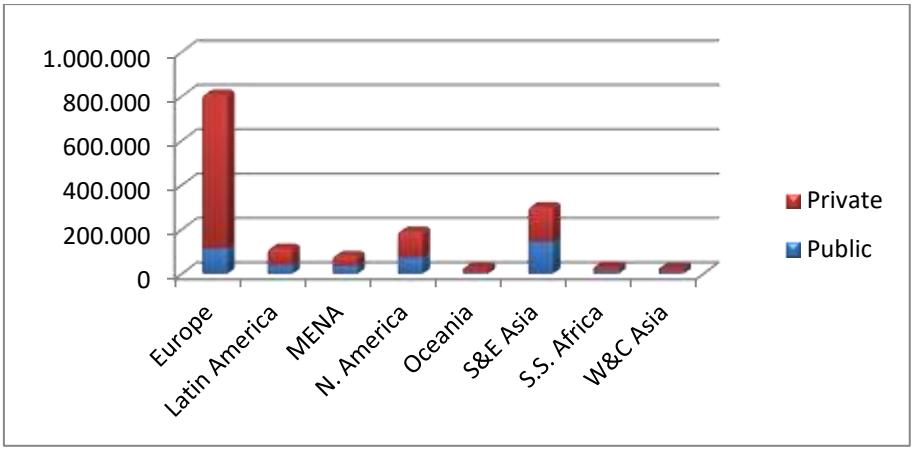



Figure 2 provides the regional share of short term export credit insurance commitments as of the end of 2018. It can be easily seen that the export credit insurance mainly utilized by European counterparties. In fact, the general operational and legal rules applied to short term credit insurance are sourced by mainly European institutions, such as OECD and Berne Union with the participation of non-European countries.

**Figure 2 - Regional Share of Short Term Export Credit Insurance Commitments 2018**




## 4. The Analysis

A panel data analysis will be conducted by using the data of 27 Berne Union member countries for 11 years in order to elaborate the effects of the export credit insurance commitments on exportation by taking into account other related economic factors such as export as a percentage of GDP, export volume, real effective exchange rate. The export credit insurance commitment data is provided by Berne Union directly and the other economic factor data is provided by World Bank database.

In panel data, the selected data is observed at several points in time and it is more used whether explanatory variable(s) which are not observable but correlated with the observed explanatory variables. If such omitted variables are constant over time, panel data estimators allow to consistently estimating the effect of the observed explanatory variables. There exist two basic models for the analysis of panel data, the fixed effects model and the random effects model.

For the analysis of the explanatory power of the selected economic factors on predicting the export short term commitment the following 4 factors linear regression model for individual i = 1, ..., N which is observed at several time periods t = 1, ..., T is produced:

$$y_{it} = \propto + \beta Exp_{i,t} + \gamma Exp\ \%of\ GDP_{i,t} + \delta GDP_{i,t} + \theta REER_{i,t} + c_{i,t} + u_{i,t}$$

In the formulation, y is the dependent variable which is short export credit insurance commitments, α is the intercept, β, γ, δ and θ are dimensional column vector of parameters for the independent variables of annual export volume, exportation as a per cent of GDP respectively, c is an individual-specific effect and u is an idiosyncratic error term.

The summary statistics for the dependent variable and four independent variables are given in Table-1 where all variables are in logarithmic form. The annual short export credit insurance commitments, export volume and annual GDP are given in billion USD$.

**Table-1 Summary Statistics**

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| **Ln Short term Exp.Insur.Comm.- bio $** | 270 | 9.88 | 0.82 | 7.44 | 12.05 |
| **Ln exp** | 270 | 26.56 | 0.94 | 24.80 | 28.62 |
| **ln Exp per cent of GDP** | 270 | 3.68 | 0.58 | 2.39 | 5.40 |
| **Ln GDP- bio $** | 270 | 27.16 | 1.70 | 20.99 | 30.68 |

| | | | | | |
|---|---|---|---|---|---|
| **ln Real Eff.Exc.Rate** | 270 | 4.59 | 0.10 | 4.24 | 5.05 |

In the random effects model, the individual-specific effect is defined as a random variable that is uncorrelated with the explanatory variables and it is uncorrelated with the explanatory variables of all past, current and future time periods of the same individual. In the fixed effects model, the individual-specific effect is a random variable that is allowed to be correlated with the explanatory variables. In this paper, both the fixed effects and the random effects models were estimated for panel data analysis.

| **Variables** | **Fixed Effects** | **Random Effects** |
|---|---|---|
| **Exp-bio $** | 1.19 *** (0.18) | 0.88 *** (0.05) |
| **Exp per cent of GDP** | -0.63 * (0.31) | 0.15 (0.14) |
| **GSP bio $** | 0.83 *** (0.27) | 0.09 *** (0.02) |
| **Real Eff.Exc.Rate** | -1.79 *** (0.46) | -0.74 ** (0.29) |
| **c** | -34.05 *** (5.86) | -13.31 *** (2.13) |
| **F** | 29.35 *** | |
| **Wald Chi$^2$** | | 318.61 *** |

* denotes 10 per cent, ** denotes 5 per cent and ***denotes 1 per cent significance level. The values in the parenthesis show the Huber/White standard error.

**Table-2. Panel Data Analysis Results**

In order to measure overall statistical significance, F-test for fixed effects model, and Wald Chi2 test for the random effects model is conducted. The results for both models are significant even at the 1 per cent statistical significance level. The fixed effects model and the random effects model are compared and as a result, the fixed effects model is preferred according to Hausman test. However, the results of both models are given in Table-2 for comparison. According to t-test results, all independent variables are statistically significant at 1 per cent significance level, except for Exp per cent of GDP, which is statistically significant at 10 per cent significance level. Besides, according to the results of the analysis, while Exp-bio $ and GSP bio $ have positive impact, Exp per cent of GDP and Real Eff.Exc.Rate have negative impact on short export credit insurance commitmens.

## 5. The Conclusion

The new global economic environment has been figured out by Covid-19 rules. It seems that the current Coronavirus pandemic has forced a pause in many activities for at least three months. IMF reported that global growth in 2020 to fall to -3 percent under the assumption that the pandemic peaks in the second quarter of April for most countries in the world, and recedes in the second half of 2020. This makes the Great Lockdown the worst recession since the Great Depression, and far worse than the Global Financial Crisis of 2008.It is estimated that those disastrous developments will have paramount effects on trade finance activities. First of all, under the prevailing conditions the expected defaults on the existing export and import related payments will inevitably exacerbate the already hit international trade, as well as the financial environment in the recipient countries. Whenever the payments related to the international exchange of goods and services are planned to be made on deferred basis there should exist some form of financing. Historically, there has been a presence of public Export Credit Agencies (ECA) in the short-term trade finance market. In fact for many of the developing countries including China, Korea and Turkey, ECA support to export has been continuing in the forms of lending and export credit insurance. However, over the last 15 years, in many of the developed countries, states have progressively stepped out from this market, to make it "marketable" under the rulings of OECD and EU. In this framework, right after the announcements of controls for Covid-19, The European Commission has decided to temporarily remove all countries from the list of "marketable risk" countries which makes public short-term export credit insurance more widely available in light of the current crisis linked to the coronavirus outbreak.

The radical shift in EU legislation addresses the possible effects of the export credit insurance scheme on resolving a part of the consequences of Covid-19 pandemia in the field of international trade finance. Some research using different statistical methods have shown the positive and statistically significant effect of private export credit insurance on exports.

In this framework, a panel data analysis is conducted by using the data of 27 Berne Union member countries for 11 years in order to elaborate the effects of the export credit insurance commitments on exportation by taking into account other related economic factors such as export as a percentage of GDP, export volume, real effective exchange rate. The export credit insurance commitment data is provided by Berne Union directly and the other economic factor data is are provided by World Bank database. The accepted model is formed by using natural logarithmic values of all the variables under fixed effects approach. The results reports strong evidence of explanatory power of the variables on short term export credit insurance.

The results of the analysis indicate that the export credit insurance schemes, mainly supposed to be provided by the public insurers, may mitigate the detrimental effects of Covid-19 on international trade. Otherwise, the risk of default of the buyers may create pressure on the exporters all over the world to realize transactions in the near future.

## Endnotes

- https://blogs.imf.org/2020/04/14/the-great-lockdown-worst-economic-downturn-since-the-great-depression/
- https://www.eulerhermes.com/en_BE/news/latest-news/othr-coronavirus-can-lead-to-sharp-recession.html
- Tradeshift is one of the few Western technology companies with a license to operate in China. As the world's largest business commerce network, Tradeshift's platform connects over 1.5 million companies, spread across 190 countries. 150 of Tradeshift's customers belong to the group of the world's 500 largest companies, and around $500bn in transactions crosses its platform every year.
- https://via.ritzau.dk/pressemeddelelse/ca-tradeshift?publisherId=90456&releaseId=13589397
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