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Research Topic

Social Bonds and Covid-19 Bonds: A Financial Aid to a Medical Crisis

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Abstract

The coronavirus (covid-19) pandemic, as described by the IMF is historic. With rising death tolls over 300,000 individuals, it has often been compared to crises such as The Great Depression. Given the severity of the situation, authorities from supranationals to corporate organizations have launched a series of response activities in terms of funds to provide mainly financial aid to the healthcare community and individuals that may have been negatively affected by the virus, all with the goal of mitigating the health impact of the covid-19 pandemic. The study falls under that category by exploring a new set of debt instruments, 'covid-19 bonds'. With a survey conducted, the study was able to assess the feasibility of these covid-19 bonds, and the role they may play in ameliorating the current situation. The study found out that although the current situation seems disastrous, investors may not forfeit their primary objective: maximizing profits, to only achieve a societal, environmental or sustainable impact. The study also elaborates on the incentivization of covid-19 bonds, and through the survey finds out that incentives such as tax-exemption may even look more appealing to investors and in general, help. Nevertheless, one major controversy that arose during the course of the study is the issue of inflation and how the influx of bond (covid-19 bonds) investments can have a negative impact on the financial sector. The study opens the pathway for more and extensive research on the issue of covid-19 bonds, but more importantly asks: Given situations like these, should investors focus on maximizing profits or ameliorating the overall situation through their investments?

Chapter 1

Introduction

The COVID-19 disease, over the past few months, has affected millions of people worldwide forcing several nations including the United States, France, and Spain to initiate states of emergencies and lockdowns in attempts to contain and limit the spread of the highly contagious virus. According to the World Health Organization (WHO) Situation report - 120, the total number of global cases rose up to 4,731,458 cases just over the past couple of months (WHO, 2020). The virus, originally detected in Wuhan, China, according to the European Centre for Disease Control and Prevention (ECDC, 2020), may have adverse impacts on more than just the medical sector. The FTSE, Dow Jones Industrial Average, and the Nikkei have all seen huge falls since the outbreak began on 31 December (Jones, Palumbo, & Brown, 2020). As a result, the Dow and the FTSE saw their biggest quarterly drops in the first three months of the year since 1987 (Jones, Palumbo, & Brown, 2020). It is only logical that if there is an economic alt or shutdown, that there is a rise in unemployment. In the United States alone, more than 36 million people have filed for unemployment insurance claims (Chung, 2020). According to a study by the Becker Friedman Institute at the University of Chicago, 42% of the 36 million jobs lost are likely to be permanent (Barrero, Bloom, & Davis, 2020). In order to prevent further economic distress, the virus needs to be contained which will reopen the pathway for global economies to get up and running.

The aim of the study is to provide insight on one way how the financial sector might be able to step in the fight against the 2019 novel coronavirus; through COVID bonds. COVID bonds (as commonly referred to as) as its name implies, are bonds whose use of proceeds are geared towards health and healthcare providers with the aim to combat the COVID-19 disease. Kotula & Fromaget (2020) define COVID-19 bonds as a new development in the sustainable bond market which emerged in response to the spread of coronavirus around the world and the subsequent upheaval in healthcare systems and the wider economy. The first of its kind was issued by the Bank of China in February essentially aimed at preventing and alleviating unemployment stemming from the pandemic (Kotula & Fromaget, 2020). Furthermore, Kevin Ranney, director of sustainable financial solutions at Sustainalytics, as cited by Hube (2020), states that there's been a surge in the number of social bond issues in response to the pandemic. A $1bn four-year Covid-19 bond was issued by the Bank of America to fund lending to hospitals, nursing facilities and healthcare manufacturers, among others, as they try to tackle the pandemic (Gross & Temple-West, 2020). Generally speaking, COVID bonds fit in the category of social bonds. This is because the use of proceeds is for a social cause, precisely access to essential services (e.g. health, education and vocational training, healthcare, financing and financial services) as defined by the Social Bond Principle under the auspice of the International Market Association (ICMA, 2018). The largest dollar denominated social bond is a covid bond issued by the African Development Bank; a $3bn "Fight COVID-19" bond (Basar, 2020).

Social Bonds

Financial Bonds are financial instruments mainly used to raise capital for a business or an organization. In other words, they are debt securities with the promise to make periodic payments for a specified period of time (Mishkin, 2004, pp. 3–4). Conventional bonds are debt instruments mainly showcasing the liability of an issuer to pay interest in the future and to return a principal (par or nominal value) of the debt (Wiśniewski & Zieliński, 2019). Such a security is called a 'straight', 'plain vanilla' or 'bullet' bond, which signifies that there are no additional features attached to this liability (Choudhry, 2006, p. 3). So far, there is no recognized or standard definition for Social Bonds, however, for the purpose of this study, Social Bonds shall be regarded as, any type of bond instrument whereby obtained proceeds will be solely applied to fund or refinance, partially or fully, new and/or existing eligible Social Projects and which are aligned with the four core components of the Social Bond Principles as stated by the International Capital Markets Association (ICMA, 2018). The goal of the social bond market is to achieve the fundamental role that debt markets can play in financing projects that address global social challenges or problems. In other words, social bonds are bonds whose proceeds are used to raise funds for new and existing projects with positive social outcomes (ICMA, 2018).

Scope of the Study

The study shall discuss through research, how Social Bonds serve as a double edged 'tool' to tackle both medical and financial problems. The study will focus mainly on covid-19 bonds and the potential they have and how they can be used as a financial

tool or instrument to promote stability in the medical sector. The study shall further elaborate on the main challenges the Social Bond Market faces. This study shall be of enormous benefits to financial market participants mainly, investors, financial institutions such as banks as well as the general public interested in Social Finance. Thus the main objective of the study is to establish or re-establish the importance of Social bonds through covid-19 bonds, and the role they play in mitigating the current medical challenges notably the 2019 novel coronavirus, which is the key focal point of this study, and also to demonstrate how these bonds can serve as a source of capital to bond issuers. The study can also serve as a source or a point of reference to other researchers and authors passionate about social finance particularly in the medical field.

Organization of the Study

The study consists of five major chapters. The first chapter being the Introductory chapter refers to the background of the study, statement of the problem, objectives of the study, research questions, methodology, significance of the study, limitations. The second chapter discusses the review of related literature. Chapter three discusses the methodology used in the collection and the analysis of data. Chapter four discusses the findings of the study and the final chapter, chapter five concludes the study with; the summary of the findings, conclusions and recommendations.

Objectives of the Study

The thesis has dual objectives. The first one being a literature review of the covid financial funding necessity, investment tools available, bonds market, green bonds and followed by an explanatory description of the project objectives and methodology. To achieve the second goal, a survey is conducted, followed by a financial simulation that has been carefully designed with the aim to observe if the investment outperforms the non covid bonds. The thesis concludes by stating its limitations opening the line for further research.

Chapter 2

Literature Review

This chapter discusses the literature related to Covid bonds and Social Bonds. The literature surrounding social bonds have been nothing other than a growing one. Social bonds predominantly emerged in 2013 under the International Finance Corporation (IFC). However, it was not yet labeled as ‘social bond’ up until 2017. It was originally launched as the ‘Banking on Women’ bond in 2013, followed by the ‘Inclusive Business’ bond in 2014. The two programmes were then merged as one under the IFC social bond programme (Pellizzari & Lecuyer, 2018). On the other hand, the literature regarding Covid bonds or Covid-19 bonds is relatively small due to its recency. Therefore, the majority of the literature review shall be focused on social bonds in general, and how they apply to covid bonds.

The Current Crisis

As mentioned earlier, several people around have been affected by the deadly virus. The numbers of the confirmed cases have been increasing and as at May 19, 2020, the WHO reports a total number of 4,731,458 cases (WHO, 2020). Per region, the Americas have the highest number of cases with a total number of 2,082,945 cases followed by Europe with 1,909,592 cases. Countrywise, with 1,477,516 cases the United States is the most affected country the Covid-19 virus followed by Russia with 299,941

cases as at May 19, 2020 (WHO, 2020). Several nations around the globe have witnessed their economies shutdown in a bid to limit the spread of the virus and eventually contain it. However, shutting an economy down may have as much adverse effect on people as the virus may have; as discussed by Austin (2020). The current crisis the world faces is far more than just a health crisis but an economic one as well; as described by Mitchell (2020). According to Mark Zandi (chief economist of Moody's Analytics), as cited by Mitchell (2020), the current crisis is nothing compared to the Great Depression. According to Mr. Zandi, the closest that comes to comparison with the current crisis is the terrorist attacks of September 11, 2001, when airlines stopped flying temporarily. Days following the attacks, the United States economic output dropped significantly, reportedly by USD111 billion in current dollars, Moody's estimates. Surprisingly, in the roughly three weeks since the state-imposed closures due to the coronavirus outbreak, output has reportedly fallen by $350 billion. European economies have also been seriously affected as a result of national lockdowns. In the first quarter of this year, the European Union has seen a decline of 3.5% in its Gross Domestic Product (GDP) (Tidey, 2020). Spain's GDP declined by 5.2% compared to the previous quarter. This is considered as the worst quarter reading since the 1970s (Tidey, 2020). Spain stands as the third most affected country by the virus in Europe with 231,606 cases with Russia and the United Kingdom being the first and second respectively (WHO, 2020). The spanish stock market was equally affected with the IBEX-35 experiencing a sharp drop from 10,083 points on February 19, 2020 to 6,109 points on March 16, 2020 (Bloomberg, 2020). These figures show how seriously financial markets and economies have been affected by the virus. From this point

onwards, the most important question is how can we provide a solution to this crisis we are in? Particularly from a financial point of view?

The need for Covid-19 bonds

It is no doubt that the Healthcare system is at the frontlines when it comes to the fight against the 2019 novel coronavirus. Ranney (2020) explains that the consequences of the virus are two folds. The first one is of course on the health of individuals and on the healthcare system and the second one on the economy. The healthcare infrastructure of the countries with the most cases and casualties are currently overwhelmed (Ranney, 2020). Responding to this crisis requires the unprecedented intervention of the healthcare system but even more, the involvement of governments, central banks and capital markets (companies, investors), to foster financing activities that can help first to mitigate the effects of the pandemic, and secondly to assist businesses, especially SMEs, that are facing adverse economic impacts (Ranney, 2020). In a communique issued on March 19, 2020, the European Commission states that banks and other financial institutions have a key role to play when it comes to mitigating the negative impacts of the COVID-19 outbreak, and that is by keeping a steady flow of credit to the economy. Moreover, in the case the flow of credit is weakened, the economy is liable to experience a decrease in its economic output, as undertakings struggle to pay their suppliers and employees. Against this background, it is only appropriate that Member States take measures to incentivise credit institutions and other financial intermediaries to continue to play their role in continuing supporting economic activity in the EU (European Commission, 2020). Swedish asset owners have invested 3 billion Swedish kronor

approximately $319 million, in a social bond that supports emerging markets-based companies whose businesses have been hit by the coronavirus (Pielichata, 2020). The bond issued by the IFC, is composed of 2 billion kronor invested by Alecta Pensionsforsakring; 700 million kronor by the Folksam Group invested; and the investment of 300 million kronor in the bond by insurance company Lansforsakringar AB (Pielichata, 2020). The bond is focused on companies in rising markets, primarily involved in the production and delivery of medical equipment and pharmaceuticals. Its goal is to ensure that the supply chain is maintained as the virus continues to spread. The bond issued by the IFC is also part of the World Bank's $14 billion pledge to support countries and corporations hit by the outbreak of the virus (Pielichata, 2020). According to Tony Persson, head of the interest and strategy group at Alecta; “this type of investment in social bonds is beneficial both to our communities and our customers in the long term and through this bond investment, there is not only a contribution to counteract the negative effects of COVID-19, but also to create security for companies and their employees.” Mishra (2020) predicted that the Chinese GDP growth rate of the first quarter was expected to slow down by 3.5% in the worst case scenario. Surprisingly, according to the National Bureau of Statistics of China, the GDP growth rate of the first quarter was at -6.8% (Trading Economics, 2020). In response, Chinese companies are issuing what is known as 'virus control' bonds, to counter the virus' negative effects, which is perfectly in line with the core essence of social bonds: dedicating proceeds to social causes (BNP Paribas, 2020).

The covid-19 bond issued by the Bank of America is expected to fund not-for-profit hospitals treating COVID-19 patients, businesses producing or supplying

equipment designed to protect against the virus, as well as companies creating diagnostic tests or vaccines to halt the pandemic, in public deal documents (Wiltermuth, 2020).

Social Bonds Market

In the first four years of their existence, social and sustainable bonds reached almost $15.6 billion in issuance (Ross, 2016). Social bonds are highly similar to Green Bonds in their nature, the only difference being in the use of proceeds. The Spanish Instituto de Credito (ICO) delivered the first formal 'Social Bond' offering in January 2015, conforming to the Green Bond Principles and with a second opinion from Sustainalytics (Instituto de Crédito Oficial, 2015). The transaction was aimed to provide help and financial assistance to SMEs in economically depressed regions of Spain, which generate GDP per capita lower than the national average. In order to ensure employment opportunities, the loans offered by the bond were at favourable terms and rates to micro enterprises and SMEs. The one billion euro bond, with a three-year term, captured interest from a wide range of investors, with 24% of bonds distributed to Asia and the Middle East, followed by Spain, Germany and other European buyers (Ross, 2016).

Social bonds are part of the three dimensional guidelines namely the Green Bond Principles (GBP), the Social Bonds Principles (SBP) and the Sustainable Bonds Guidelines (SBG); under the supervision of the International Capital Market Association (ICMA). These principles have become the leading framework globally for issuance of green, social and sustainability bonds (ICMA, 2020). Previously, social bonds and sustainability bonds accounted for just 20% of the total ESG bond issuances, led on by

demand from investors and by the availability of eligible assets to be financed with these instruments (BBVA, 2020). However, 2020 saw the rise of this number to 40% of total issuances, with social bond issuances representing 25% of this ESG bond total. Traditionally, issuers of social bonds were mainly from the financial and public sector. In fact, the public sector is primarily responsible for this significant increase in activity, having issued $14 billion of the total $19 billion issued in 2020 (BBVA, 2020). Since 2014, social bonds annual issuance volume has grown 17 times (USD8.8 bn) as of 2017 and as at May 2018, issuances (excluding Sustainability and Green Bonds) rose to USD16.5 billion with the majority of issuances based on the social bond principles (ICMA, 2018). In 2018, the IFC was able to raise a total of $407 million through 13 bonds in 6 currencies (IFC, 2018).

Covid-19 Bonds

Regarding the current pandemic, several bonds have been issued in response to the virus; some of which were mentioned earlier on. This section aims to reiterate them and also shed more light on other 'covid-19' bonds issued all with the purpose of alleviating the negative impact of the virus. Cassa Depositi e Prestiti (CDP), the Italian Development Bank, has issued a €1billion (USD1.09 billion) Covid-19 social response bond, the first covid-19 response bond of the country. The proceeds from the bond will be used to help small and medium-sized enterprises gain access to banking and financial services; and also financially support local authorities while providing equipment and technologies for the improvement and protection of public health (Basar, 2020). The bond comes off as a dual tranche bond priced €500 million 3-year with 1.50% gross

annual coupon and €500 million 7yr with 2.00% gross annual coupon. There was a strong response from the base of investors and the order book closed above the €1.9 billion mark. The Covid-19 Social Response Bond attracted high quality investors with a meaningful participation of socially-responsible investors (SRI) (BNP Paribas, 2020). Moreover, the Nordic Investment Bank (NIB) issued a EUR1 billion 3-year response bond on March 30, 2020. The proceeds of the bond shall be used for various projects such as: “lending to the public sector through the financing of temporary and permanent measures to increase capacity in healthcare services, the financing of a temporary increase in social security expenditures, including, but not limited to, unemployment, sickness, child- and elderly care benefits and the financing of government or government-related institutions’ expenditures aimed at supporting member country companies in temporary need of subsidization due to supply or demand side disruptions in their operations in order to protect viable companies.” (NIB, 2020). The bond equally aims to finance lending to the financial sector as well as the real economy sector (NIB, 2020). The Inter-American Development Bank (IDB), correspondingly responded to the pandemic by issuing a 5-year fixed rate USD2 billion bond with a coupon of 0.875%. The Aaa/AAA rated bond was issued on March 30, 2020 with its use of proceeds geared towards supporting countries’ preparedness to contain the spread of the virus and attenuate its impact, with the adequate resources to strengthen healthcare systems (IDB, 2020). The Bank of China Macau Branch, is the first chinese bond issuer to issue social bonds in international capital markets. The Bank of China Macau Branch issued a dual-currency senior Small and Medium Enterprises (SMEs) named “COVID-19 Impact Alleviation social bonds issuance”. The dual bond first consisted of a HKD4 billion

bond with a 1.95% coupon rate, maturing in 2022. Secondly, it consisted of a MOP1 billion with a 1.90% coupon rate also maturing in 2022. The proceeds of the bonds will be used to provide assistance to SMEs in Macau to help them access financial resources and lower financing costs in response to the recent outbreak of COVID-19 (Allen & Overy, 2020).

Finally, in Spain, MAPFRE, the Autonomous Community of Madrid, and BBVA issue the first spanish social bond against the coronavirus. The bond, issued by the Community of Madrid is a €52 million 3-year social bond whose proceeds will entirely be devoted to provide assistance to the regional health system, under the umbrella of its recently renewed Sustainable Financing Framework, which envisages earmarking funds from the General Budget to finance social and environmental projects (Furioc, 2020).

The Concept of Environmental Social and Governance (ESG)

The concept of environmental, social, and governance has been a subject for academic discussion for over 35 years (Eccles & Viviers, 2011). Environmental, social, and governance practices are now used as tools to evaluate companies and organizations and ESG information is now critical to shareholders and stakeholders and more importantly investors (Tarmuji, Maelah, & Tarmuji, 2016). The issue of sustainability has been a critical issue and investors over the years have recognized that the sustainability of their investments is of great importance (Briand, Urwin, & Chia, 2011). The aim of ESG is to take into consideration elements or dimensions of corporate or institutional performance mainly environmental, social and governance; not usually

revealed through financial reports (Bassen & Kovacs, 2008). Evaluating non-financial performance is important because financial reports lack the ability to capture and relate valuable information such as reputation, quality, brand equity, safety, workplace culture, strategies, know-how and a set of other significant assets to the management and shareholders (Tarmuji, Maelah, & Tarmuji, 2016). This therefore lays out a bigger and wider scope of corporate performance and provides an in-depth evaluation of a company's management (Galbreath, 2013).

ESG Bonds and Financial Sustainability

This section elaborates on the question of the financial sustainability of ESG bonds. ESG bond issuers are likely to be long-term traders holding them to maturity (Atkins, 2015; Schroders, 2015). In the case of green bonds, Albertini (2013) raises the question: "When does it pay to be Green?" rather than "Does it pay to be Green?" (Albertini, 2013). Long-term debt instruments increase the risk of default, of inflation risk and market volatility, since there is a reverse relationship between interest rates and bond prices and this is the reason why there are different types of incentives green bonds that come along with green bonds, to attract traders with a better risk/return tradeoff compared to their expectations from unsupported financial instruments (Petrova, 2016). Such incentives include tax privileges, insurance policies or guarantees and letters of comfort (Veys, 2010). As the demand for Green Bonds grows, the mixed opinions on how they perform compared to standard bonds also does (Petrova, 2016). Some economists argue that the pricing and yields (despite the lower liquidity in the green bond market) of both types of bonds are the same, whereas others claim that green bonds

deliver a lower yield (Schroders, 2015). The additional cost of verifying and identifying the Green Bond could be reasoned as well, whereas standard bonds do not bear that cost (Petrova, 2016). Nevertheless, as shown by empirical research, bond investors are willing to pay the additional cost for being socially and environmentally more responsible (Petrova, 2016). Mohr, Webb & Harris (2001) demonstrate that for a large group of market participants, the idea of social and environmental responsibility is of great importance.

Corporate social responsibility (CSR) and financial performance as shown by Wu & Shen (2013) have a positive relationship in terms of return on assets, return on equity and non/net interest income meanwhile the main driving factors that encouraged those responsible investments were mainly strategic choices, greenwashing and altruism (Wu & Shen, 2013). Numerous papers have suggested that the relationship is positive (Al Tuwaijri, Christensen, & Hughes, 2004; Hart & Ahuja, 1996; Judge & Douglas, 1998; Montabon, Sroufe, & Narisimhan, 2007; Russo & Fouts, 1997; Sroufe, 2003; Stanwick & Stanwick, 1999). On the other hand, non-performing loans had a negative relationship which depicts that issuers turn to Socially Responsible Investments (SRI) mainly out of strategic decisions (Wu & Shen, 2013). Interestingly, a couple of other studies and researches suggest otherwise, however, over a short period of time (Blacconiere & Patten, 1994; Jaggi & Freedman, 1992). Other studies established that the relationship between corporate environmental management and corporate financial performance cannot be proved due to the difficulties of measuring the environmental management consequences on profitability (Collison, Lorraine, & Power, 2004; King & Lenox, 2001; Murray, Sinclair, Power, & Gray, 2006). Despite the contradictions of

empirical research, there seems to be a positive relationship between corporate environmental management and corporate financial performance (Albertini, 2013).

Moreover, the Green Bond Market exposes the investor to different types of risks which varies depending on the type of Green Bond they chose to invest in (Norges Bank, 2014). Well designed Green Bonds do not only help investors avoid investing in projects harmful to the environment but also help them avoid the negative repercussions thereof and investors have increasingly become aware of financial risks related to the environment (Ehlers and Packer, 2016). Changes or modifications in environmental regulations could affect the financial performance of bonds and other securities. By putting such risks under consideration, long-term investors effectively account for their economic costs. Taking into account environmentally-related financial risks could be a way of directing a substantial amount of funds to greener investments (Ehlers and Packer, 2016).

Impact of Social Bonds

The International Finance Corporation (IFC) has been invested in making impacts through its social bonds. In the financial years, 2017 and 2018, the IFC had commitments of USD619 million and USD717 million respectively, summing to a total commitments of USD1,336 million. On the other hand, it made disbursements of USD323 million and USD615 million respectively for the 2017 and 2018 financial years making total disbursements to sum up to USD938 million (IFC, 2019). The IFC is committed to 38 new projects across 8 sectors including: Agribusiness, Education, Foods, Health, Information and Communication Technology services (ICT), Gender

finance, Housing finance, and Microfinance. Over the next four years, the IFC expects projects supported in the year 2018 to reach 1,313,414 farmers, support 137,441 students, supply ICT services to 42,780,000 people, provide 1,545,191 microloans, distribute 88,161 loans for women, and provide 37,391 housing loans (IFC, 2019). Extended to 2019, the IFC raised USD537.5 million through 12 social bonds in 7 currencies. 31 new projects were committed across 6 sectors excluding Housing Finance and Education unlike in the preceding years (IFC, 2020). The projects committed to by the IFC in the financial year 2019 are aligned with nine Sustainable Development Goals (SDGs) notably; SDG 1 No Poverty, SDG 2 Zero Hunger, SDG 3 Good Health and Wellbeing, SDG 5 Gender Equality, SDG 6 Clean water and sanitation, SDG 8 Decent work and economic growth, SDG 9 Industry Innovation and Infrastructure, SDG 10 Reduced Inequalities, and SDG 17 Partnerships for the Goals (IFC 2020).

Socially Responsible Investments

Social responsibility in business and investments are complex issues. Social responsibility is related to ethical behaviour and our moral agency that assumes that we take responsibility for our actions (Hellsten & Mallin, 2006). Given the current situation, it is evident that several companies and organizations have taken the burden to issue debt which no matter how attractive it looks remains a liability in order to give hope and promote sustainability amid the increasing number of deaths covid-19 imposes. Socially Responsible Investment (SRI) is a contemporary concept that approaches investment using financial and non-financial criteria to assess what assets to purchase and why, as defined by Guay, Doh, and Sinclair (2004).The Social Investment Forum (SIF), a

national nonprofit organization promoting the concept of socially responsible investing, in 2005, describes socially responsible investing as an investment process puts into perspective the social and environmental consequences of investments, both positive and negative, within the context of diligent financial analysis. In SRI, investors analyze the company's internal operating behavior and environment (such as employment policies and benefits) and its external practices and policies (such as effects on the environment and indigenous people), not excluding its core products (such as tobacco or defense equipment) to ascertain whether they should become shareholders of the firm or not (Guay, Doh, & Sinclair, 2004). SRIs often called ethical investments or sustainable investments, unlike conventional types of investments, apply a set of investment screens to select stocks or securities from an investment universe based on Social, Environmental or Ethical (SEE) criteria (Renneboog, ter Horst, & Zhang, 2007).

Principles of Responsible Investments

The Principles for Responsible Investment (PRI), supported by the United Nations, is a network of investors collaborating to push principles favourable to financial, environmental, social, and governmental sectors into practice. The origin of the PRI essentially dates back to 2005 when the United Nations (UN) Secretary-General Kofi Annan (at the time) invited some of the world's largest institutional investors to join a meeting to develop the Principles for Responsible Investment. Eventually, a 20-person group of investors from institutions in 12 countries was created and was assisted by a 70-person group of experts from the investment industry, intergovernmental organisations and civil society. The Principles were launched in April

2006 at the New York Stock Exchange and since then, the number of signatories has grown from 100 to over 2,300 (PRI, 2020). There are six important Principles of Responsible Investments which are voluntary in nature and aspirational, with the primary purpose to guide and to provide assistance to financial market participants to ensure the incorporation of ESG issues into investment practices (PRI, 2020). The Principles of Responsible Investments are as follows:

“Principle 1: We will incorporate ESG issues into investment analysis and decision-making processes.

Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices.

Principle 3: We will seek appropriate disclosure on ESG issues by the entities in which we invest.

Principle 4: We will promote acceptance and implementation of the Principles within the investment industry.

Principle 5: We will work together to enhance our effectiveness in implementing the Principles.

Principle 6: We will each report on our activities and progress towards implementing the Principles.” (PRI, 2020).

Relating it to the current crisis, the connection between PRIs and covid bonds cannot be overstated. The presence of the environmental, social and governance concept makes the PRI very fundamental and supportive guidelines to social bonds and therefore to covid bonds.

Challenges of Social bonds

Social bonds, very similar to Green bonds may face the same challenge as Green bond: Greenwashing. According to Aggarwal & Kadyan in 2014, Greenwashing implicates deceit and manipulation by organizations and institutions about environmental claims in order to portray an eco-friendly image by investing more resources on marketing its products as green instead of actually reducing the adverse impact it has on the environment. Greenwashing as defined by the Greenwashing index is: “when a company or organization spends more time and money claiming to be green rather than actually implementing business practices that minimize their environmental impact” (Greenwashing Index, 2016). This perfectly sums up what greenwashing is all about and how dangerous it is to the emerging Green Bond Market. In other words, the challenge that companies may advertise more about their ‘corporate social responsibility’ rather than doing them may equally be present in the social bonds market. Previously, from the early 90s, the business world was faced with two distinct ideologies; profitability and Corporate Social Responsibility (CSR). The former was and still is the motto for ‘For-profit’ organizations with maximizing shareholder value being the focus of those organizations and CSR was not so much of a business strategy incorporated in companies business models, but rather mere social and environmental actions carried out to depict a good brand image. Interestingly, several authors and researchers have established the positive effect CSR has on financial profitability which explains why companies invest so much in CSR rather than actually focusing on the good impact their actions could have socially and environmentally. Not surprisingly, due to the alarming environmental problems and challenges we are facing, there has been a

lot of pressure from the media and from environmental organizations as well, for the incorporation of CSR and environmentally friendly operations into the business models and strategies of companies.

Chapter 3

Methodology

Research Design

Variables & hypothesis

The existing variables in the study are covid-19 bonds, financial aid, and medical crisis. Pertaining to this study, the independent variables are covid-19 bonds meanwhile the words financial aid and medical crisis represent the dependent variables. The main hypothesis of the study is that covid-19 bonds are financial tools that can be used to provide financial assistance to the current medical crisis.

Research Instruments

The study generally adopts a survey research method. Survey research is defined as “the collection of information from a sample of individuals through their responses to questions” (Check & Schutt, 2012, p. 160). Surveys are usually used to describe and explore human behavior, surveys are therefore frequently used in social and psychological research (Singleton & Straits, 2009). Moreover, Herbert Mc. Closky (1969) defined survey “as any procedure in which data are systematically collected from a population or a sample thereof through some form or direct solicitation, such as face to face interviews, telephone interviews or mail questionnaires”. Surveys usually involve

the use of questionnaires. Questionnaires are the most extensively used methods of data collection in educational and evaluation research (Radhakrishna, 2007). They help gather information on knowledge, attitudes, opinions, behaviors, facts, and other information. (Radhakrishna, 2007). Nevertheless, it is noteworthy to point out that they do not provide answers to “why”. In other words, quantitative research might demonstrate trends and patterns across data sets or study groups, but not the motivation behind them. To bridge these gaps, qualitative studies like focus groups, interviews, or open-ended survey questions are effective. (Goertzen, 2017). In that regard, the study equally employed some qualitative research methods such as open-ended survey questions to further understand how green bonds can be at hand from the respondents’ points of view.

Population and Sample

The data was primarily obtained from respondents through online surveys. The goal of the surveys was to identify the confidence level of respondents towards covid-19 bonds and the social bonds market in order to determine and ascertain how effective they can be in providing financial aid to the healthcare sector. The study concentrates on a large population, generally, working individuals but specifically, individuals knowledgeable about bonds, particularly social bonds. Convenience sampling method was used as the sampling collection method. A total of 167 responses were obtained from the sampled population.

Analysis of Findings

The study uses a mix of quantitative analysis and qualitative analysis. The latter has been conducted to check on the need, and impact of social bond investment. The quantitative analysis has been conducted by designing a financial comparison to reveal the major benefits of those covid bonds with respect to the market. Data from the surveys were analyzed by the researcher by linking the findings of the study to the main research questions of the study. To provide authenticity, the findings of the research were compared with existing literature to either validate or reject the findings of the study. Data was mainly represented through the use of graphs, charts and tables to ease the presentation of the data as well as its understanding. Data from open ended questions were sorted and then were categorized in order to create a range of categories under which similar responses of survey participants could be grouped.

Chapter 4

Research Findings

This chapter outlines and highlights the key findings of the study made through its survey and provides meaning and logic to these findings. The chapter is divided into two parts. The first part focuses on presenting the key findings of the research while the second part provides an in-depth discussion and analysis of the findings and results. Through the survey, the study was able to find out the opinions of the sampled population on Covid-19 bonds and the role they can play in providing assistance to the healthcare community amid the 2019 novel coronavirus pandemic. With the Covid-19 disease affecting millions of people and killing thousands globally (WHO, 2020), it is only imperative that solutions are brought to light regardless of the sectors in order to alleviate or ameliorate the situation. The study through this section answers its fundamental research question which is: Can Covid-19 bonds alleviate the current pandemic by providing financial aid to the healthcare sector?

Findings

Firstly, the survey sought to know and understand the views of respondents in light of the present crisis. Out of the 167 respondents, 12.57% of the respondents described the pandemic as ‘Horrible’. Respondents were given the choice to describe with a word or two, how they perceive the pandemic. Seventeen (17) respondents accounting for 10.18% of the respondents perceive the pandemic to be ‘bad for mental health’. Moreover, respondents that perceived the pandemic as dangerous due to its

‘alarming deaths’ only constituted 9.58% (16 respondents) of the total percentage. The remaining 14 categories represent 67.66% of the other respondents and their responses amongst which some perceived the pandemic to be bad, unprecedented, economically bad and financially bad (see Table 1 for more). Furthermore, the survey seeked to find out if respondents considered Covid-19 bonds as a safe way to assist the healthcare sector financially. Amongst the responses obtained, the majority of the respondents precisely 80 (47.90%), affirmed Covid-19 bonds to be a safe way to financially provide assistance to the medical sector. However, 49 respondents, more than half the number, do not believe that these new debt instruments could be used for such a purpose. While these views were the strongest, only 22.57% of respondents (38) were not sure whether or not covid-19 bonds were a safe way of financially assisting the healthcare system (see Figure 1 for more). Having established the fact that covid-19 bonds were a safe way (or not) to help the healthcare community, the next question in the survey envisaged to determine the crucial importance of covid-19 bonds given the current situation. The question was directed towards the essence of covid-19 bonds as if they were a necessity to ameliorate the situation. Responses to this survey question were quite surprising as the majority of respondents believed that the bonds are of necessity in order to ameliorate the present situation (See Figure 2 for more).

Moving over, the next survey question sought about the incentivization of covid-19 bonds. Given the fact, bonds like other financial instruments are liable to tax and other regulations, the study sought to understand the respondents’ perspective on the incentivization of not only covid-19 bonds but social bonds as well. Not surprisingly, the highest number of responses (133), representing 79.64%, supported the ideology of

incentivizing covid-19 bonds and social bonds. 8.38% of the respondents rejected this ideology and 11.98% of the respondents were not sure about the incentivization of covid-19 bonds or what it meant (see Figure 3 for more). Furthermore, the survey also sought to capture how the financial market could be affected (if that was the case) in the event of excessive investments or disbursements of covid-19. Given the current situation, with deaths soaring on one hand and the unemployment rate on the other, it is only understandable that investors want to put the economy back on track by first ameliorating the situation via covid-19 bonds. Nevertheless, the question of whether excessive investments in that regard would be good or bad remains unanswered and the study through this question sought to know the respondents' point of view on this very matter. In order to capture with more accuracy the answers of respondents, a scale from strongly agree to strongly disagree was used. 22.57% of the respondents strongly or firmly agreed that excessive investments through covid-19 bonds could hurt the financial environment especially in the short term, while 35.33% just agreed to this fact. 19.16% were not sure, while 13.77% and 8.98% of the respondents respectively believed and strongly believed otherwise (see Table 2 for more).

The following question of the survey concentrated on the expected returns of a covid-19 bond/social bond with respect and comparison to conventional bonds. The debate in the literature about this topic is still a dense one and the survey through this question sought to know how respondents thought of covid-19 bonds and their expectations (High or Low) compared to the returns of conventional bonds. Given the fact that conventional bonds were in existence long before the development of new financial debt products such as Green bonds, Social bonds, Sustainable bonds and even

more particularly Covid-19 bonds, it would be fair to think that respondents would lower their expectations when it comes to the returns of these products. However, to the study's very surprise, respondents did not lower only their expectations in face of this question, but even expected higher returns than conventional bonds with a response frequency of 122 accounting for 73.05% of total responses. Just a handful of respondents (12) expected a lower return while 33 respondents (19.76%) were unsure about how much returns to expect or what it meant (see Figure 5 for more). Finally, the last question of the survey sought to understand the respondents' motivation for investing in covid-19 bonds. When describing their motives, the respondents had motives ranging from ending the pandemic and impacting the society, to the company values of the issuing entity and the maturity of the bond. Afterwards categorising the results, the most frequent answer was 'Returns'. Respondents with this motive at the back of their minds when investing in covid-19 or social bonds ranked first with a frequency of 42 accounting for 16.47% of the total responses. Subsequently, 'Ending the pandemic' was the second most frequent answer with a frequency of 33 representing 12.94% (approximately 13%) of the responses. Moreover, respondents that wanted to 'Impact the society' represented 10.20% of the responses and respondents that had no motive ('I don't know') represented 8.24% of the total responses. The just mentioned motives represent the most important motives of the respondents when it comes to investing in covid-19 bonds/social bonds, however, other notable responses of the minority of the respondents were motives such as 'Sustainability' (7.45%), 'Safe Investment' (5.88%), 'Growth' (5.49%), investing in a 'Meaningful cause' (5.49%), 'Diversification' (4.31%), and 'Giving back to society' (3.92%). The lowest motive for investing in covid-19 bonds

was the ‘Maturity of the bond’ with a percentage of 2.75% of the total responses (see Table 3 for more).

Analysis of Findings

The above section was responsible for presenting data results/findings of the study obtained through the survey conducted. Herein this section, the above data shall be analysed in a bid to provide meaning, uncover patterns and trends, similarities and differences, as well as unlikely relationships amongst variables. The survey conducted, uncovered several non-expected results and unusual patterns. These unexpected findings make the study all the more meaningful and exploratory. It is noteworthy to point out that data deemed irrelevant and meaningless were left out of this section and chapter therefore, in order to have more room for discussion of data useful to this study.

As mentioned in the preceding section, one objective of the survey was to determine the safety of Covid-19 bonds and social bonds. According to the findings of the survey, the majority find Covid-19 bonds as a safeway to provide assistance to the healthcare community while also generating returns to the bond holders. In a general context, there is no definitive answer to bonds being a safe investment. Rather, a definitive answer would be: it depends. Bonds are generally considered safe investments when the interest rates are up and when the market is less volatile (Caplinger, 2020). However, given the current situation, interest rates are down (Chan, 2020), which stimulated volatility in the market. Given all these facts, it would be safe to assume that Covid-19 bonds are not a safe way to provide financial aid. Nevertheless, it is very worthy to note that ESG bonds are not correlated to the financial markets (Nash, 2020).

To support this fact, Figure 5 (S&P Dow Jones Indices, 2020) shows how uncorrelated the SP Green bond index is to the SP 500 index. Moreover, the study through the survey sought to find out if there is really a need for Covid-19 bonds or in other words if they are a necessity to mitigate the negative health and socio-economic impacts of the novel coronavirus. Per the survey, the majority of the respondents answered 'Yes' agreeing to the fact that Covid-19 is a necessity during these times. The findings of the survey conforms with the article written by Neighmond (2020). The article outlines the main challenges hospitals are facing. The high influx of patients suffering from Covid-19, forced hospitals to convert beds, buy equipment and increase staffing time especially when revenues are down (Neighmond, 2020). According to the article, Harbor-UCLA, a public hospital, plans to triple the number of Intensive Care Unit (ICU) beds in order to extend treatment to critically ill patients. It normally has 450 beds including 44 ICU beds. When summed up, converting a regular ward bed into an ICU bed costs up to $45,000 for equipment alone (Neighmond, 2020). Furthermore, the survey also considered getting the opinions of respondents towards the incentivization of social and covid-19 bonds. Not surprisingly, the majority of respondents supported the ideology of making incentives for social bonds. This is because incentives generally make bonds more attractive to investors especially when the incentives make the bond tax exempt for instance. So far, only green bonds are tax exempt in countries like the United States (CBI, 2014). It would be unfair to keep all our focus on the society and the potential impact Covid-19 bonds and social bonds could have, and lose track of the potential financial repercussions. In that regard, the study through the survey sought to know about the potential harm that could be done to the financial sector in the short term, in

the case of excessive investments. This is particularly important from an economic point of view. This is because, from an economic perspective, excess demand leads to inflation (Pettinger, 2019). Considering a scenario where an economy experiences an influx in covid-19 bonds or bonds in general, it would imply that there can be excess funds in circulation. This scenario can be associated with the demand-pull type of inflation where demand is essentially in excess which will eventually lead to a rise in the prices of bonds in a bid to adjust to the demand therefore leading to inflation (Amadeo, 2020).

The survey uncovered from respondents with comparison to conventional or standard bonds, the expected returns they would prefer if they were to invest in covid-19 bonds and social bonds. The majority of the respondents opted for the option with ‘Higher Interest’. This implies that respondents as investors are expecting even higher returns than conventional bonds. The literature surrounding the performance of social bonds or better even, ESG bonds to conventional bonds is still emerging. Several studies have opened the discussion about the possible presence of a ‘greenium’ factor when a bond issuer issues regular bonds and ESG bonds, green bonds in particular. There are still lots of unanswered questions about the ‘greenium’ factor. One factor why it is extremely difficult to make significant observations about ‘greeniums’ according to Yong (2020), is because companies do not issue non-green bond alternatives to green bonds. This literally makes it impossible to really observe the behaviour of the greenium factor. The closest analysts do is to observe and compare green and non-green or conventional bonds issued by the same issuer. In that case, the credit risk is the same for both bonds since they are issued under the same company (Yong, 2020). “The key factor

is selective - investor demand.” (Yong, 2020). In his article, Yong refers to investors’ appetite as the driving factor. In other words, a ‘greenium’ can only exist if there is more money chasing green bonds than the volume of issuances. As described in his article, an example of how the greeniums may work is an issuer launching a USD 500 million 5-year green bond. Fortunately for him, he receives more primary market bids for his green bond than an equivalent non-green bond. This therefore leads to a ‘greenium’ in coupon pricing. Moreover, in the secondary market, there may be more demand than supply from green bond holders willing to sell at the non-green bond’s current market price. Hence, the price for the green bonds rises above that of the non-green bond until holders are willing to sell. This example could be used to explain the dynamics of the greenium factor however, more research certainly needs to be done in order to establish a theory or a fact when it comes to the ‘greenium’ factor. In contrast, Figure 6 shows the SP500 bond index against that of the SP500 Green bond index. The SP500 bond index currently trades at higher yields (2.61%) than the SP500 Green bond index (1.48%) (S&P500, 2020). In a nutshell therefore, as much as ESG bonds are hyped to outperform the conventional bonds, current data suggests that conventional bonds are more profitable than ESG bonds.

At last, the study sought to find out the motivation or the factors respondents put into consideration when investing in Covid-19 bonds/social bonds assuming they were investors. As mentioned in the Findings section, the majority of respondents were investing in covid-19 bonds and social bonds for several reasons but achieving ‘Returns’ was the most frequent answer. These results sound contradicting to the goal of ESG debt instruments which are fundamentally and essentially created with the aim and purpose of

providing funds for projects deemed green, social, or sustainable by the Green Bond Principles (GBP), the Social Bond Principles (SBP), and the Sustainable Bonds Guidelines (SBG) respectively (ICMA, 2018). Though the findings may be contradictory, it sounds biased, to write off the above findings as non consistent with the essential objectives of these new debt instruments. The reason is due to two main factors. The first one is the purpose of the Green, Social and Sustainable bonds. In a book published in 2016, Keohane mentions that investors while investing in green bonds, do not forfeit yield or returns. This simply implies that the returns of the bond from an investment and a responsible investment point of view, are just as important as the impact the bond has on the environment/society and vice-versa. In other words, there is no particular line of order and there is no need for one, to determine which aspect of the bond comes first i.e. returns or impact, given the fact that both can be achieved. On that note, the second reason why it would be biased to dismiss the findings in question is because, in the second place, the respondents considered stopping covid-19 as the factor they would consider when investing in covid-19 bonds which is represents the ultimate reason why the bonds were dubbed ‘covid-19 bonds’.

Chapter 5

Summary, Conclusions, and Recommendations

Providing assistance through financial aid especially to healthcare is one of the ways to mitigating and alleviating the negative effects of the coronavirus pandemic. This is supported and backed up by the findings of the study where the majority of the respondents believe covid-19 bonds are a sure way of doing that. Several supranationals have launched different funding plans and mechanisms in response to the pandemic. The virus which as at May 19, 2020, is responsible for 315,471 deaths (WHO, 2020) remains an unequivocal threat to humanity. Despite the continuous rise in the number of cases, the effects of the 2019 novel coronavirus overlaps to the economic and financial sector. Several countries worldwide are still in a state of emergency in a bid to contain the spread of the virus. The study focused on a not so different 'new breed' of fixed-income security dubbed 'covid-19' bonds, to explore how these debt instruments can provide financial assistance to healthcare and communities affected by the pandemic. Covid-19 bonds are particularly needed due to their capacity to provide capital and also returns to bond holders. Covid-19 bonds mainly fall under social bonds, also a newly developed debt security alongside Green and Sustainable bonds. These bonds, under the auspices of the International Capital Market Association (ICMA) provide investors with the opportunity to not only invest in responsible causes, but also to diversify their various investment portfolios.

The study through a survey was able to gather data regarding covid-19 bonds and the role they can play in mitigating the negative impacts on the economy. The study through a survey was able to establish the fact that covid-19 bonds and social bonds are a safe way to provide financial aid to the healthcare community with the majority of respondents agreeing to this fact. Moreover, the study through the survey found out that bond incentives are tools to attract more investors which in turn will benefit the society. Another important fact established through the survey is the harmful effect excessive investments could have on the financial sector. This particular point was in line with the demand-pull inflation which suggests that excess demand will only lead to inflation as the demand will force suppliers to make adjustments to prices. The majority of respondents when asked, how much returns they expect in comparison with conventional bonds, prefer higher yield bonds. However, the study found out that currently, conventional bonds are more profitable than ESG bonds, as a comparison in the Yield to Maturity between the SP500 bond index and the SP500 green bond index found out that the former is currently trading at a higher yield, therefore higher interests and higher profits.

Limitations & Recommendations

One fundamental limitation of this study was the time required to get the findings. Information and data is very capital and a study of this calibre requires adequate time to get quality data and information. Regarding information, the study is only limited to the responses given by the respondents and of course, an external major

limitation is the coronavirus outbreak which poses as a serious impediment to the development of this study and in the collection of data.

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Appendices

Table 1

Description of the current pandemic

Horrible	21	12.57%
Bad for mental health	17	10.18%
Alarming Deaths	16	9.58%
Nothing to say	14	8.38%
Hoping for the best	13	7.78%
Stuck at home	12	7.19%
Bad	12	7.19%
Unprecedented	12	7.19%
Economically bad	11	6.59%
High unemployment	9	5.39%
Financially bad	7	4.19%
Sign from God	7	4.19%
Lucky to be alive	6	3.59%
Government's fault	5	2.99%
Dangerous times	5	2.99%

Note: The table above shows how the respondents described the current pandemic. The responses were categorised and displayed in a tabular form to ease understanding.

Table 2

Covid-19 bonds and the possibility of harming the financial market in the case of excessive investments

Responses	**Frequency**	**Percentage**
Strongly Agree	38	22.75%
Agree	59	35.33%
Neither Agree nor Disagree	32	19.16%
Disagree	23	13.77%
Strongly Disagree	15	8.98%

Note: The data shown above is obtained from respondents which displays their opinions on the excessive disbursements of social bonds/covid-19 bonds should that be the case.

Table 3

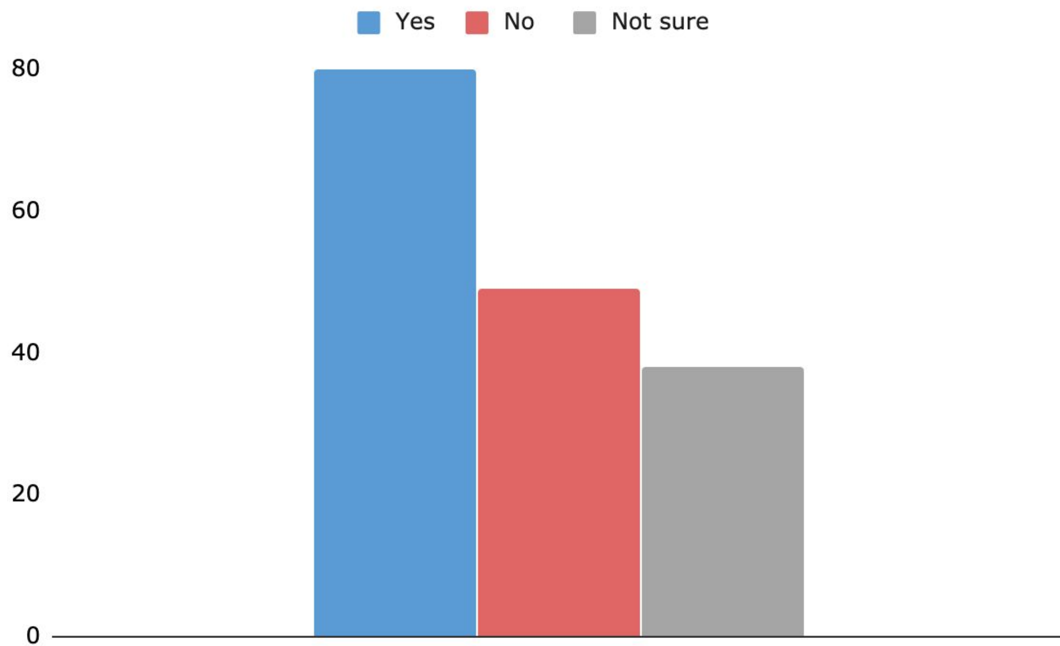
Factors considered when investing in Covid-19 bonds/social bonds

Category	Frequency	Percentage
Returns	42	16.47%
Ending the pandemic	33	12.94%
Impact on society	26	10.20%
I don't know	21	8.24%
Sustainability	19	7.45%
Good Quality	17	6.67%
Safe Investment	15	5.88%
Growth	14	5.49%
Meaningful Cause	14	5.49%
Diversification	11	4.31%
Everything	10	3.92%
Giving back to society	10	3.92%
Company Values	8	3.14%
Price	8	3.14%
Maturity of bond	7	2.75%

Note: The table above shows the different factors respondents put in perspective and abide by if or when investing in covid-19 and or social bonds.

Figure 1

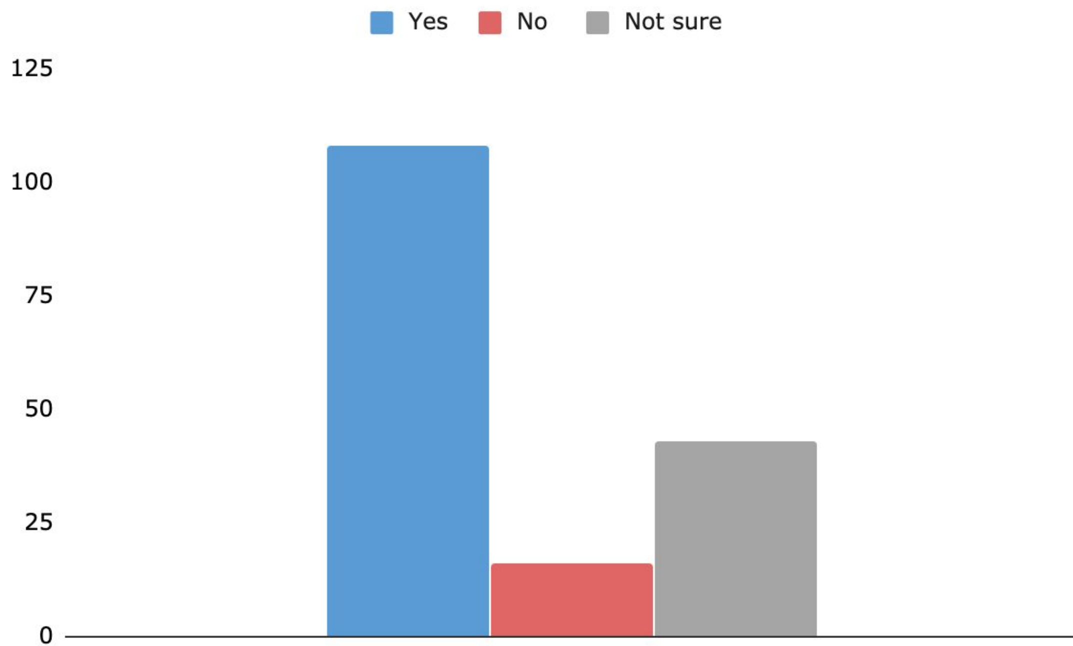
Covid-19 bonds as a safe way to help the healthcare sector



Note: This graph represents the number of respondents that perceive Covid-19 bonds as a safe way to provide assistance to the healthcare sector.

Figure 2

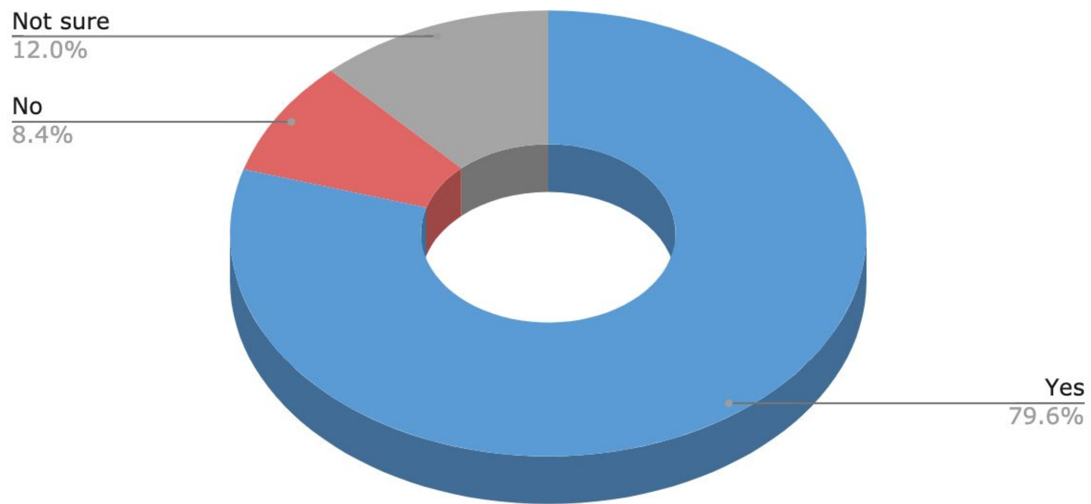
Covid-19 bonds as a necessity to ameliorate the current situation



Note: The chart above displays the responses of the survey participants on the question of Covid-19 bonds as a necessity to ameliorate the current pandemic.

Figure 3

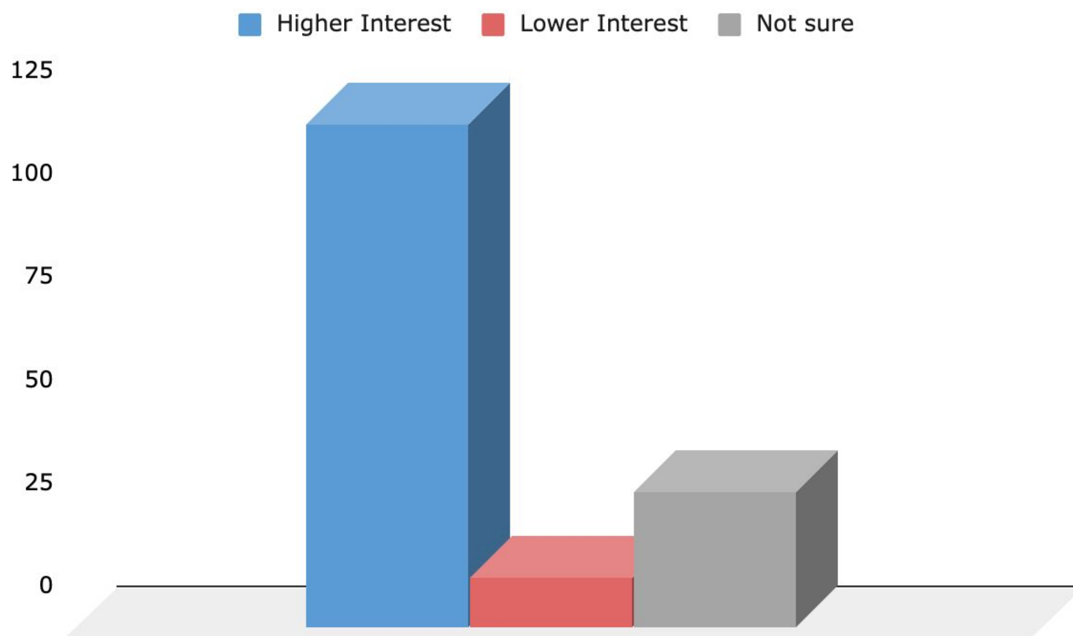
Consideration of financial incentives on Covid-19 bonds



Note: The pie-chart above depicts the responses of respondents (via percentages) on their opinion on the incentivization of bonds, particularly covid-19 bonds.

Figure 4

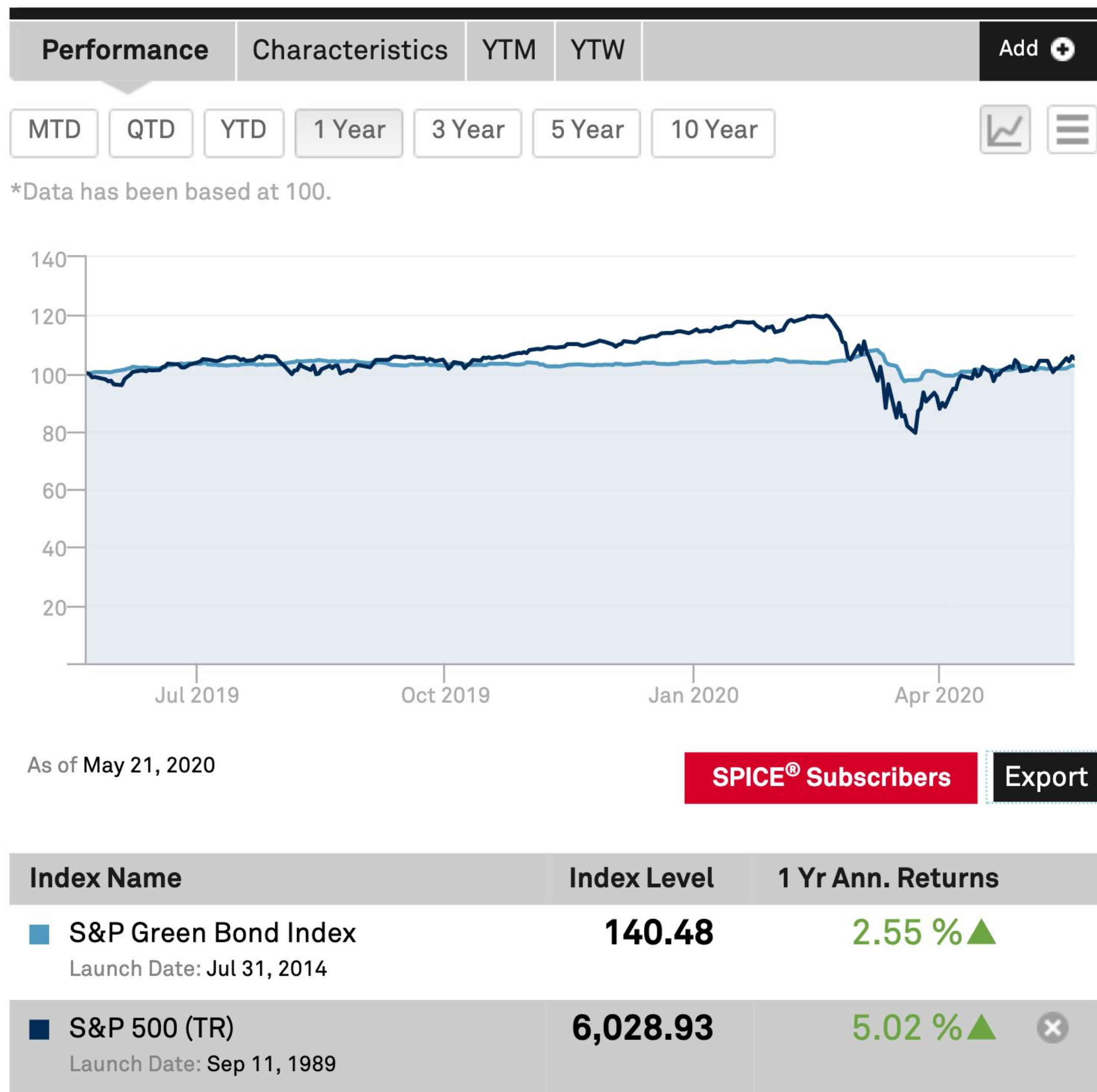
Expected returns (interest) from covid-19 bonds with respect to conventional bonds



Note: The column chart displayed above refers to respondents' opinions on returns expected from investing in covid-19 bonds compared to simply investing in conventional bonds.

Figure 5

S&P 500 Green Bond Index vs S&P 500 Equity Stocks Index



Note: The figure above shows the performance of the S&P 500 Green Bond Index against that of the S&P 500 Equity Stocks Index.

Figure 6

Yield of SP500 Bond Index vs yield of SP500 Green Bond Index

Index Name	YTM	1 Yr Ann. Returns
S&P 500 Bond Index Launch Date: Jul 08, 2015	2.61%	10.67 % ▲
S&P Green Bond Index Launch Date: Jul 31, 2014	1.48%	2.55 % ▲

Note: The figure shown above compares the Yield To Maturity (YTM) of the SP500 bond index to that of the SP500 green bond index.

Research Survey

Geneva Business School

The purpose of this survey is to assess how COVID-19 bonds can be used as financial aid to the healthcare community during the pandemic. The questionnaire consists of a couple of questions and all responses will be kept anonymous. Kindly answer to the best of your knowledge.

COVID-19 bonds, Social bonds, and Social Impact

1. In one word or two, describe the current pandemic

   ____

2. Would you consider COVID-19 bonds a safe way to help the healthcare sector?

   Mark only one oval.

   - Yes
   - No
   - Not Sure

3. Given the current situation, would you consider COVID-19 bonds a necessity to ameliorate the situation?

   Mark only one oval.

   - Yes
   - No
   - Not Sure

4. Would you consider incentives on your COVID-19 bonds?

Mark only one oval.

- ⬭ Yes
- ⬭ No
- ⬭ Not Sure

5. On a scale from 1-5, could excessive investments through COVID-19 bonds harm the financial sector short term wise?

Mark only one oval.

	1	2	3	4	5	
Strongly Agree	⬭	⬭	⬭	⬭	⬭	Strongly Disagree

6. How much interest would you prefer when investing in social bonds with respect to the regular bonds?

Mark only one oval.

- ⬭ Higher Interest
- ⬭ Lower Interest
- ⬭ Not sure

7. As an investor, what factors would you consider when investing in social and COVID-19 bonds?